GW - 001

REPORTS

River Terrace Voluntary
Corrective Measures
Bioventing System
Annual Report
(Jan. – Dec. 2008)

Submitted 3/2009

Chavez, Carl J, EMNRD

From:

Monzeglio, Hope, NMENV

Sent:

Wednesday, July 08, 2009 10:30 AM

To:

Schmaltz, Randy

Cc:

Cobrain, Dave, NMENV; Kieling, John, NMENV; Chavez, Carl J, EMNRD; Hains, Allen;

Martinez, Cynthia, NMENV

Subject:

Attachments:

River Terrace dewatering modification GRCB App dewatering mod 7_9_09.pdf

Randy

This will go out in the mail tomorrow.

Hope

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

Phone: (505) 476-6045; Main No.: (505)-476-6000

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Websites:

New Mexico Environment Department

Hazardous Waste Bureau



BILL RICHARDSON Governor

DIANE DENISH 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



RON CURRY Secretary

JON GOLDSTEIN Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 9, 2009

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

RE: APPROVAL

RIVER TERRACE VOLUNTARY CORRECTIVE MEASURES BIOVENTING SYSTEM DEWATERING MODIFICATION WESTERN REFINING SOUTHWEST, INC., BLOOMFIELD REFINERY

EPA ID# NMD089416416

GRCB-09-002

Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) has reviewed Western Refining Southwest, Inc., Bloomfield Refinery's (Western) letter, dated July 1, 2009 regarding the *River Terrace Voluntary Corrective Measures Bioventing System Dewatering Modification*. NMED hereby approves the installation of the groundwater collection gallery.

Mr. Schmaltz July 9, 2009 Page 2 of 2

If you have any questions regarding this letter, please contact Hope Monzeglio of my staff at (505) 476-6045.

Sincerely,

John E. Kieling

Program Manager

Permits Management Program

Hazardous Waste Bureau

cc:

D. Cobrain, NMED HWB

H. Monzeglio, NMED HWB

C. Chavez, OCD

A. Hains, Western El Paso

File: GRCB 2009 and Reading

GRCB-09-002

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BLOOMFIELD REFINERY

2009 APR 9 AM 11 36

April 8, 2009

Certified Mail: 7007 0220 0004 0187 0688

7007 0220 0004 0187 0695

Hope Monzeglio New Mexico Environmental Department Hazardous Waste Bureau 2905 Rodeo Park Drive East Bldg 1 Santa Fe, NM 87505 Brad Jones New Mexico Oil Conservation Division Environmental Bureau 1220 South St. Francis Dr Santa Fe, NM 87505

RE: Corrective Measures Study and Corrective Measures Implementation (Site Investigation and Abatement Plan) 2008 Groundwater Remediation and Monitoring Annual Report Western Refining Southwest, Inc. - Bloomfield Refinery EPA ID# NMD089416416 GW – 001

Dear Hope and Brad:

Western Refining Southwest Inc. - Bloomfield Refinery submits the 2008 Annual Groundwater Report as required by NMED and OCD directives. This report summarizes all groundwater monitoring activities that occurred in 2008.

If you have questions or would like to discuss any aspect of the report, please contact me at (505) 632-4171.

Stincerely,

James R. Schmaltz Environmental Manager

Western Refining Southwest, Inc. - Bloomfield Refinery

cc: Laurie King, EPA Region VI Brandon Powell, NM OCD Aztec District Office Carl Chavez – NMOCD Santa Fe – w/o enclosure Allen Hains, Western Refining – El Paso



BLOOMFIELD REFINERY



2009 MAR 19 PM 12 04

Hope Monzeglio New Mexico Environmental Department Hazardous Waste Bureau 2905 Rodeo Park Drive East Bldg 1 Santa Fe, NM 87505

Certified Mail: # 7007 0220 0004 0187 0633

March 17, 2009

RE: Western Refining Southwest, Inc. - Bloomfield Refinery EPA ID# NMD089416416 GW - 001

Dear Ms. Monzeglio,

Bloomfield Refinery personnel will begin collecting semi-annual groundwater samples the week of April 6, 2009.

Refinery personnel will follow guidelines from the Facility-Wide Groundwater Monitoring Plan (Revised May 2008).

MW #1, MW #6, MW #8, MW #12, MW #13, MW #20, MW #30, MW #33, MW #35, MW #37, and MW #38 will be sampled for the target VOC's (target list – EPA Method 8260), TPH-GRO/DRO (EPA Method 8015B). Samples will also be collected from CW 0+60, CW 25+95, and analyzed for VOC's (target list - EPA Method 8260), TPH-DRO(EPA Method 8015B). Each observation well will be sampled and analyzed for VOC's (target list - EPA Method 8260), TPH-DRO/GRO (EPA Method 8015B). East Outfall #2 and East Outfall #3 will be sampled and analyzed for VOC's (target list – EPA Method 8260), dissolved metals and total metals (target list – EPA Method 6010/7470)), carbon dioxide/alkalinity (SM 2320B), and anions (EPA Method 300.0). In addition, samples will be collected from Seep # 1, #6, #7, #8, and #9, if sufficient water is present and analyzed for VOC's (target list – EPA Method 8260), SVOCs (EPA Method 8270), TDS, carbon dioxide/alkalinity (SM 2320B), and anions (EPA Method 300.0).

All wells within the facility will be monitored for groundwater elevation.

If any representatives from NMED would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel.

If you need additional information, please contact me at (505) 632-4161.

Sincerely

Cindy Hurtado

Environmental Coordinator

Western Refining Southwest, Inc. - Bloomfield Refinery

Cc: Randy Schmaltz – Environmental Manager – Bloomfield Refinery Brad Jones – Oil Conservation Division – Santa Fe Carl Chavez – Oil Conservation Division – Santa Fe **BLOOMFIELD REFINERY**

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February 23, 2009

2009 FEB 24 PM 1 23

Certified Mail: 7007 0220 0004 0187 0497

7007 0220 0004 0187 0503

Hope Monzeglio New Mexico Environmental Department Hazardous Waste Bureau 2905 Rodeo Park Drive East Bldg 1 Santa Fe. NM 87505 Brad Jones New Mexico Oil Conservation Division Environmental Bureau 1220 South St. Francis Dr Santa Fe, NM 87505

Re: River Terrace Voluntary Corrective Measures Bioventing System Annual Report January 2008 through December 2008

Dear Hope and Brad,

Western Refining - Bloomfield Refinery submits the River Terrace Voluntary Corrective Measures Bioventing System Annual Report as requested by NMED. This report summarizes data gathered throughout 2008.

After reviewing three years of operation of the bioventing system, Bloomfield Refinery would like to propose a reduction in monitoring the wells on the eastern portion of the River Terrace (TP #3, TP #7, TP #9, TP #10, TP #11, TP #12, and TP #13) to an annual event instead of quarterly. Data review indicates that those wells do not contain contaminant concentrations over WQCC standards. As detailed in the enclosed report, there have never been any exceedences of organic WQCC standards since the initial baseline sampling conducted in August 2005 at these locations. There have been only a few very minor exceedences of the action level for lead, which are most likely attributable to turbid water samples and not dissolved metals concentrations, and all of these occurred during the 2nd and 3rd quarters of 2007 with no exceedences since.

If you have questions or would like to discuss any aspect of the report, please contact me at (505) 632-4171.

Sincerely,

James R. Schmaltz Environmental Manager Bloomfield Refinery

Cc: Laurie King, USEPA – Region VI

Brandon Powell - NMOCD Aztec District Office Carl Chavez - NMOCD Santa Fe - w/o enclosure

Allen Hains - Western Refining - El Paso

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Section 1.0 Executive Summary

Executive Summary

On-going sampling at the River Terrace area is conducted in accordance with the approved Bioventing System Monitoring Plan, dated October 28, 2006, and in accordance with an NMED comment letter dated June 13, 2007.

A facility plot plan and river terrace project plot plan are provided in Section 8.0

The bioventing system was installed to provide oxygen to the subsurface to support aerobic biodegradation of petroleum hydrocarbons that were identified in soil along the western portion of the river terrace. The project includes a dewatering system to provide an increased vadose zone for bioremedial activity and also provides direct ground water remediation via "pump and treat".

Quarterly analysis of the groundwater and soil gas of the TP, DW, and MW wells provide periodic progress information of the bioventing system. Performance monitoring offers periodic feedback of remediation operation and GAC filter capability.

Field data collected throughout 2008 indicate the bioventing system is continuing to enhance bioremedial activity within the river terrace area. Soil gas concentrations collected in the field show that the bioventing system provides sufficient oxygen supply to oxygenate the subsurface, supporting aerobic biodegradation of hydrocarbons. These results suggest that as treatment progresses, petroleum hydrocarbon concentrations will diminish.

Section 2.0 Introduction

INTRODUCTION

Owner:

Western Refining

123 W. Mills Ave., Suite 200

El Paso, TX 79901

LIT aso, IX 199

Operator: Western Refini

Western Refining Southwest, Inc.

P.O. Box 159

Bloomfield, New Mexico 87413

Western Refining Southwest, Inc.

#50 Rd 4990

Bloomfield, New Mexico 87413

(physical address)

(postal address)

(parent corporation)

Facility Name:

Bloomfield Refinery

#50 Rd 4990

Bloomfield, New Mexico 87413

(physical address)

Facility Status

Corrective Action/Compliance

US EPA ID

NMD089416416

SIC Code

2911

Purpose of Monitoring:

River Terrace Corrective Measures – Assess and

Provide Periodic Progress Information

Type of Monitoring:

Periodic Groundwater and Soil Vapor Monitoring

BACKGROUND INFORMATION

SITE LOCATION AND DESCRIPTION

The Bloomfield Refinery is a crude oil refining facility with a crude capacity of 18,000 barrels per day. It is located approximately 1 mile south of Bloomfield, New Mexico, in San Juan County, latitude N36 41' 87", longitude W107 58' 70". It is further located approximately ½ mile east of State Route 550 on Count Road 4990 (a.k.a. Sullivan Road).

The refinery is located on a bluff 120 feet above the south side of the San Juan River. The top of the bluff is relatively flat and is at an elevation of 5,540 feet above sea level. The geological units that comprise the site include, in order of increasing depth, San Juan River Alluvium, Quaternary apron deposits, Aeolian sand and silt, Jackson Lake Terrace, and the Tertiary Nacimiento Formation. An unnamed arroyo flows toward the San Juan River on the southern and western edges of the site. East of the site, a well-defined arroyo cuts a small canyon from the bluff to the San Juan River. Hammond Ditch lies on the bluff between the limit of the Jackson Lake Terrace and the refinery.

Refinery offices are on the western end of the facility, along with warehouse space, maintenance areas, and a storage yard containing used material (e.g., pipes, valves). Petroleum processing units, located in the northwest portion of the refinery, include the crude unit, fluidized cracking unit, catalytic polymerization unit, and hydrodesulfurization unit. The API Separator and the aeration lagoons are located in the north central section of the refinery.

In the central portion of the site, aboveground storage tanks (AST's) occupy a large percentage of refinery property. South of the refinery and across Sullivan Road are terminals for loading product and off-loading crude, as well as gas storage and hazardous waste storage.

Western Refining merged with San Juan Refining Company (SJRC) May 31, 2007. The refinery is operated by Western Refining Southwest, Inc. The historical and current activities conducted at the refinery are petroleum processing, crude and product storage, crude unloading and product loading, waste management (closed and existing facilities), and offices and non-petroleum material storage

Sheet piling was installed along with a bentonite slurry wall adjacent to the San Juan River, at the River Terrace, in order to intercept a small hydrocarbon seep that had been detected in the area.

2004

MW #48 & MW #49 and 8 temporary piezometers were installed to launch a River Terrace Investigation. Several temporary piezometers were drilled on the north side of Hammond Ditch to chart the top of the Naciemento Formation.

2005

The North Boundary Barrier Wall installation was completed March 2005. In April, five more temporary piezometers were installed at the River Terrace. Dewatering Wells #1 and #2 and thirteen bioventing wells were drilled in August at the River Terrace. Construction of the River Terrace Bioventing Project was initiated in August. The system was put on-line in January 2006.

2006

System monitoring began in January abiding by the guidelines from the River Terrace Voluntary Corrective Measures Monitoring Plan approved by OCD and NMED. The In-Situ Respiration test was conducted in May 2006. Quarterly performance monitoring was carried out in March, June, September, and December of 2006.

2007

The dewatering pumps failed and were replaced in February. Breakthrough in the lead GAC (V-612) was detected in April at which time it was taken out of service and V-611 became the lead GAC. V-612 was replaced and back in service in June as the lag filter. Quarterly performance monitoring for the Bioventing System occurred in February, June, August, and October. The In-Situ Respiration Test was conducted in September 2007.

2008

The blower bearings were replaced in February. The dewatering pump at MW #48 failed and was replaced in August. Blower piping was upgraded in October. Quarterly performance monitoring for the Bioventing System occurred in March, May, July, and November.

Section 3.0 Scope of Activities

Scope of Activities

Bloomfield Refinery initiated and constructed the River Terrace Bioventing Project to provide oxygen to the subsurface and support aerobic biodegradation of petroleum hydrocarbons existing in the soil at the River Terrace. The system was put on-line in January 2006 at which time the Voluntary Corrective Measure Bioventing Monitoring Plan was followed.

The NMED letter from June 13, 2007 (Direction to Modify Future Monitoring as reported in the River Terrace Voluntary Corrective Measures Bioventing System Annual Report January 2006 through December 2006) revised the monitoring plan to include additional metals analysis and incorporate quarterly sampling of TP-7. These revisions have been implemented since the second quarter sampling event of 2007 and throughout 2008.

Performance Monitoring

On-going performance monitoring activities continued on a quarterly basis to assess the progress of the remediation system in reducing fuel hydrocarbons. Laboratory analysis of groundwater, treated groundwater, and soil gas are included in the on-going performance monitoring program. In addition, certain field parameter data were collected using portable gauges and gas meters.

Section 5.0 of this report summarizes the field parameters and analytical data obtained during routine performance monitoring during 2006, 2007, and 2008.

Pressure Readings

Pressure readings were collected from each of the TP wells, MW #49, and DW #1 using a hand-held Magnahelic gauge connected to the sample port at the top of each well. Injection pressure and flow rates were also collected from all bioventing wells (BV wells).

This data is available in Section 5.0 Tab 1 and Tab 4 in this report.

Groundwater

First quarter groundwater samples were collected from each of the TP Wells, DW #1, and MW #49 during the week of March 10, 2008. TP-7 was sampled after a 24 hour recharge time. Groundwater samples were analyzed for BTEX and MTBE (EPA Method 8021B), GRO and DRO (EPA Method 8015B), and Total Lead (EPA Method 6010C). DW #1 was also analyzed for Mercury (EPA Method 7470). Field measurements included temperature, pH, conductivity, DO, and ORP.

Second quarter sampling occurred during the week of May 12, 2008. TP-7 was sampled after a 24 hour recharge time. Annual analysis of chromium and barium (EPA Method 6010B) was performed during the second quarter event. Lead

analysis (EPA Method 6010B) was performed on all of the TP Wells, MW #49, and DW#1. DW #1 samples were also analyzed for mercury (EPA Method 7470). In addition, groundwater samples were analyzed for BTEX and MTBE (EPA Method 8021B), GRO and DRO (EPA Method 8015B). Field measurements included temperature, pH, conductivity, DO, and ORP.

Third quarter monitoring occurred during the week of July 14, 2008 and fourth quarter monitoring was conducted during the week of November 10, 2008. During those sampling events, all TP Wells, MW #49, and DW #1 groundwater samples were analyzed for BTEX and MTBE (EPA Method 8021B), GRO and DRO (EPA Method 8015B), and lead analysis (EPA Method 6010B). DW #1 samples were also analyzed for mercury (EPA Method 7470). Field measurements included temperature, pH, conductivity, DO, and ORP. TP-7 was sampled after a 24 hour recharge time.

A summary of the groundwater monitoring results can be found in Section 5.0 Tab 2 and Tab 3.

Soil Gas

First quarter samples were collected from each of the TP Wells, DW #1, and MW #49 during the week of March 10, 2008. Soil gas analysis included BTEX (8021B) and GRO (8015B). Field measurements of vapor-phase organics (using a PID) and oxygen and carbon dioxide concentrations (using a multi-gas meter) were taken. The second quarter monitoring event utilized the same collection sites, and the same methods and parameters. Second quarter samples were collected the week of May 12, 2008. Third quarter monitoring was conducted during the week of July 14, 2008 and fourth quarter monitoring was carried out during the week of November 10, 2008.

A summary of the soil gas monitoring results can be found in Section 5.0 Tab 1.

GAC Filter Monitoring

Extracted groundwater from the dewatering wells is treated prior to discharge to the raw water ponds, located within the east portion of the refinery. Extracted groundwater is pumped through two GAC filters positioned in series for removal of dissolved-phase hydrocarbons.

GAC filter sampling includes influent samples from a sample port located upstream of the GAC filters, and effluent samples collected from ports located after each of the lead and lag GAC filters. Monitoring the performance of the GAC filters is necessary to estimate GAC filter change-out frequency.

GAC filter influent samples (GAC Inf) and effluent samples collected downstream of the lag GAC filter (GAC 1 Eff – V612) were collected quarterly. Effluent samples from the lead GAC filter (GAC 2 Eff – V-611) were obtained monthly.

Samples were analyzed for BTEX by EPA Method 8021B, GRO and DRO by EPA Method 8015B.

Efforts have been made to optimize the dewatering system without damaging the pumps by adjusting pump speed to match pump outflow with water table inflow. Fluctuations in the flow of the San Juan River influence the water table at the River Terrace, and therefore adversely affect the attempts at optimizing the dewatering system. Pumps have been operated at a low flow rate in order to preserve the integrity of the pump during low river flows. Although the low flow rate keeps the pumps in service, the water table isn't significantly reduced during high river flow rates. Options to optimize pump rates are being explored.

Routine maintenance occurred throughout 2008. The blower bearings were replaced in February. The dewatering pump at MW #48 failed and was replaced in August. Blower piping was upgraded in October.

A summary of the GAC filter performance monitoring results is presented in Section 5.0 Tab 5 of this report.

Field Data Collection

All water/product levels were measured to an accuracy of 0.01 foot using a Geotech Interface Probe. After determining water levels, purge volumes were calculated.

Soil gas purging and sampling were done before groundwater purging and sampling. After sufficient purging (three well volumes), soil gas samples were collected using the vacuum pump. Field measurements of vapor-phase organics (using a PID meter), oxygen, and carbon dioxide concentrations (using a multigas meter) were recorded using portable field instruments.

Prior to soil gas purging, the YSI 550A Dissolved Oxygen Probe was used to determine dissolved oxygen (DO) levels. At least three well volumes were purged from each well prior to groundwater sampling. Electrical conductance (E.C.), pH, temperature, and oxidation reduction potential were monitored during purging using an Ultrameter 6P. The wells were considered satisfactorily purged when the pH, E.C., and temperature values did not vary by more than 10 percent for at least three measurements.

Field data and analytical results can be found in Section 5.0 – Tabs 1, 2, 3, 4 and 5.

All purged water was collected and disposed of through the refinery wastewater system.

Section 4.0 Regulatory Criteria / Groundwater Cleanup Standards

Metals	(mg/l)
Antimony	0.006 ²
Arsenic	0.01 2
Barium	1.0
Beryllium	0.004 2
Cadmium	0.005 ²
Chromium	0.05
Cobalt	0.05
Copper	1.0
Cyanide	0.2
Lead	0.05
Mercury	0.002
Nickel	0.200
Selenium	0.05
Silver	0.05
Uranium	0.03
Vanadium	0.18 ³
Zinc	10.0

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

- 2 Federal Maximum Contaminant Level
- 3 USEPA Region VI Human Health Medium-Specific Screening Level 2008

Semivolatiles	(ug/l)	
1,2,4-Trichlorobenzene	70 ²	
1,2-Dichlorobenzene	49 ³	
1,3-Dichlorobenzene	14 ³	
1,4-Dichlorobenzene	0.47 ³	
2,4,5-Trichlorophenol	3,700 ³	
2,4,6-Trichlorophenol	6.1 ³	
2,4-Dichlorophenol	110 ³	
2,4-Dimethylphenol	730 ³	
2,4-Dinitrophenol	73 ³	
2,4-Dinitrotoluene	73 ³	
2,6-Dinitrotoluene	37 ³	
2-Chloronaphthalene	490 ³	
2-Chlorophenol	30 ³	
2-Methylnaphthalene	Ne	
2-Methylphenol	1,800 ³	
2-Nitroaniline	110 ³	
2-Nitrophenol	Ne	
3,3'-Dichlorobenzidine	Ne	
3+4-Methylphenol	180 ³	
3-Nitroaniline	Ne	
4,6-Dinitro-2-methylphenol	Ne	
4-Bromophenyl phenyl ether	Ne	
4-Chloro-3-methylphenol	Ne	
4-Chloroaniline	150 ³	
4-Chlorophenyl phenyl ether	Ne	
4-Nitroaniline	Ne	
4-Nitrophenol	290 ³	
Acenaphthene	370 ³	
Acenaphthylene	Ne	
Groundwater Standards are WOCC 20NMAC 6		

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

- 2 Federal Maximum Contaminant Level
- 3 USEPA Region VI Human Health Medium-Specific Screening Level 2008

Semivolatiles	(ug/l)
Aniline	12 ³
Anthracene	1,800 3
Azobenzene	0.61 ³
Benz(a)anthracene	0.029 ³
Benzo(a)pyrene	0.2 2
Benzo(b)fluoranthene	0.029 ³
Benzo(g,h,i)perylene	Ne
Benzo(k)fluoranthene	0.29 ³
Benzoic acid	150,000 ³
Benzyl alcohol	11,000 3
Bis(2-chloroethoxy)methane	Ne
Bis(2-chloroethyl)ether	0.0098 3
Bis(2-chloroisopropyl)ether	Ne
Bis(2-ethylhexyl)phthalate	4.8 ³
Butyl benzyl phthalate	7,300 ³
Carbazole	3.4 ³
Chrysene	2.9 ³
Dibenz(a,h)anthracene	0.0029 ³
Dibenzofuran	12 ³
Diethyl phthalate	29,000 ³
Dimethyl phthalate	370,000 ³
Di-n-butyl phthalate	Ne
Di-n-octyl phthalate	Ne
Fluoranthene	1,500 ³
Fluorene	240 ³
Hexachlorobenzene	1.0 ²
Hexachlorobutadiene	O.86 ³
Hexachlorocyclopentadiene	50 ²
Hexachloroethane	4.8 ³

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

- 2 Federal Maximum Contaminant Level
- 3 USEPA Region VI Human Health Medium-Specific Screening Level 2008

Semivolatiles	(ug/l)
Indeno(1,2,3-cd)pyrene	0.029 ³
Isophorone	71 3
Naphthalene	30
Nitrobenzene	3.4 ³
N-Nitrosodimethylamine	0.00042 ³
N-Nitrosodi-n-propylamine	0.0096 ³
N-Nitrosodiphenylamine	14 ³
Pentachlorophenol	1 ²
Phenanthrene	Ne
Phenol	Ne
Pyrene	180 ³
Pyridine	37 ³

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

- 2 Federal Maximum Contaminant Level
- 3 USEPA Region VI Human Health Medium-Specific Screening Level 2008

Volatiles	(ug/l)
1,1,1,2-Tetrachloroethane	0.43 3
1,1,1-Trichloroethane	60
1,1,2,2-Tetrachloroethane	10
1,1,2-Trichloroethane	10
1,1-Dichloroethane	25
1,1-Dichloroethene	5
1,1-Dichloropropene	Ne
1,2,3-Trichlorobenzene	Ne
1,2,3-Trichloropropane	0.034 ³
1,2,4-Trichlorobenzene	70.0 ²
1,2,4-Trimethylbenzene	15.0 ³
1,2-Dibromo-3-chloropropane	0.2 ²
1,2-Dibromoethane (EDB)	0.1
1,2-Dichlorobenzene	600.0 ²
1,2-Dichloroethane (EDC)	10
1,2-Dichloropropane	5.0 ²
1,3,5-Trimethylbenzene	Ne
1,3-Dichlorobenzene	Ne
. 1,3-Dichloropropane	120 ³
1,4-Dichlorobenzene	75.0 ²
1-Methylnaphthalene	Ne
2,2-Dichloropropane	Ne
2-Butanone	710.0 ³
2-Chlorotoluene	. 120.0 ³
2-Hexanone	Ne
2-Methylnaphthalene	Ne ·
4-Chlorotoluene	Ne
4-Isopropyltoluene	Ne
4-Methyl-2-pentanone	Ne

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

- 2 Federal Maximum Contaminant Level
- 3 USEPA Region VI Human Health Medium-Specific Screening Level 2008

Volatiles	(ug/l)
Acetone	5,500 ³
Benzene	5 ²
Bromobenzene	23.0 ³
Bromodichloromethane	0.18 ³
Bromoform	8.5 ³
Bromomethane	8.7 ³
Carbon disulfide	1,000 ³
Carbon Tetrachloride	5.0 ³
Chlorobenzene	100.0 ²
Chloroethane	Ne
Chloroform	100
Chloromethane	190 ³
cis-1,2-DCE	70 ²
cis-1,3-Dichloropropene	0.4 3
Dibromochloromethane	0.13 ³
Dibromomethane	Ne
Dichlorodifluoromethane	390 ³
Ethylbenzene	700 ²
Hexachlorobutadiene	0.86 ³
Isopropylbenzene	Ne
Methyl tert-butyl ether (MTBE)	11 ³
Methylene Chloride	4.3 ³
Naphthalene	Ne
n-Butylbenzene	61 ³
n-Propylbenzene	61 ³
sec-Butylbenzene	61 ³
Styrene	100 2
tert-Butylbenzene	61 ³
Tetrachloroethene (PCE)	5 ²

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

- 2 Federal Maximum Contaminant Level
- 3 USEPA Region VI Human Health Medium-Specific Screening Level 2008

Volatiles	(ug/l)
Toluene	750
trans-1,2-DCE	100 ²
trans-1,3-Dichloropropene	0.4 3
Trichloroethene (TCE)	5 ²
Trichlorofluoromethane	1,300 ³
Vinyl chloride	11
Xylenes, Total	620

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

- 2 Federal Maximum Contaminant Level
- 3 USEPA Region VI Human Health Medium-Specific Screening Level 2008

General Chemistry	(mg/l)
Alkalinity, Total (As CaCO3)	Ne
Bicarbonate	Ne
Calcium	Ne
Carbonate	Ne
Chloride	250
Iron	1
Magnesium	Ne
Manganese	0.2
Nitrogen, Nitrate (As N)	10
Nitrogen, Nitrite (As N)	Ne
Nitrate (As N)+Nitrite (As N)	10
Potassium	Ne
Sodium	Ne
Sulfate	600

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

- 2 Federal Maximum Contaminant Level
- 3 USEPA Region VI Human Health Medium-Specific Screening Level 2008

(1)

(2)

- 20.6.2.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection D of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "methods for chemical analysis of water and waste of the U.S. environmental protection agency," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered concentrations of the contaminants.
- A. Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

(3)	Cadmium (Cd)	.0.01 mg/l
(4)	Chromium (Cr)	.0.05 mg/l
(5)	Cyanide (CN)	
(6)	Fluoride (F)	
(7)	Lead (Pb)	
(8)	Total Mercury (Hg)	
(9)	Nitrate (NO ₃ as N)	
(10)	Selenium (Se)	.0.05 mg/l
(11)	Silver (Ag)	0.05 mg/l
(12)	Uranium (U)	0.03 mg/l
(13)	Radioactivity: Combined Radium-226 & Radium-228	30 pCi/l
(14)	Benzene	0.01 mg/l
(15)	Polychlorinated biphenyls (PCB's)	0.001 mg/l
(16)	Toluene	0.75 mg/l
(17)	Carbon Tetrachloride	
(18)	1,2-dichloroethane (EDC)	0.01 mg/l
(19)	1,1-dichloroethylene (1,1-DCE)	
(20)	1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
(21)	1,1,2-trichloroethylene (TCE)	0.1 mg/l
(22)	ethylbenzene	0.75 mg/l
(23)	total xylenes	0.62 mg/l
(24)	methylene chloride	0.1 mg/l
(25)	chloroform	0.1 mg/l
(26)	1,1-dichloroethane	0.025 mg/l
(27)	ethylene dibromide (EDB)	0.0001 mg/l
(28)	1,1,1-trichloroethane	
(29)	1,1,2-trichloroethane	
(30)	1,1,2,2-tetrachloroethane	0.01 mg/l
(31)	vinyl chloride	
(32)	PAHs: total naphthalene plus monomethylnaphthalenes	
(33)	benzo-a-pyrene	0.0007 mg/l
В.	Other Standards for Domestic Water Supply	
(1)	Chloride (CI)	
(2)	Copper (Cu)	
(3)	Iron (Fe)	
(4)	Manganese (Mn)	
(6)	Phenols	
(7)	Sulfate (SO ₄)	600.0 mg/l
(8)	Total Dissolved Solids (TDS)	
(9)	Zinc (Zn)	
(10)	pH	petween 6 and 9
C.	Standards for Irrigation Use - Ground water shall meet the st	andards of Subsection A, B, and C of

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this section unless otherwise provided.

(1)	Aluminum (Al)	5.0 mg/l
	Boron (B)	
(3)	Cobalt (Co)	0.05 mg/l
	Molybdenum (Mo)	
	Nickel (Ni)	_

[2-18-77, 1-29-82, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04] [Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04



NEW MEXICO ENVIRONMENT DEPARTMENT TPH SCREENING GUIDELINES October 2006

In some instances, it may be practical to assess areas of soil contamination that are the result of releases of petroleum products such as jet fuel and diesel, using total petroleum hydrocarbon (TPH) analyses. TPH results may be used to delineate the extent of petroleum-related contamination at these sites and ascertain if the residual level of petroleum products in soil represents an unacceptable risk to future users of the site. Petroleum hydrocarbons represent complex mixtures of compounds, some of which are regulated constituents and some compounds that are not regulated. In addition, the amount and types of the constituent compounds in a petroleum hydrocarbon release differ widely depending on what type of product was spilled and how the spill has weathered. This variability makes it difficult to determine the toxicity of weathered petroleum products in soil solely from TPH results; however, these results can be used to approximate risk in some cases, depending upon the nature of the petroleum product, the release scenario, how well the site has been characterized, and anticipated potential future land uses. In some cases, site clean up cannot be based solely on results of TPH sampling. The New Mexico Environment Department (NMED) will make these determinations on a case by case basis. If NMED determines that additional data are necessary, these TPH guidelines must be used in conjunction with the screening guidelines for individual petroleum-related contaminants in Table 3 and other contaminants, as applicable.

The screening levels for each petroleum carbon range from the Massachusetts Department of Environmental Protection (MADEP) Volatile Petroleum Hydrocarbons/Extractable Petroleum Hydrocarbons (VPH/EPH) approach and the percent composition table below were used to generate screening levels corresponding to total TPH. Except for waste oil, the information in the compositional assumptions table was obtained from the Massachusetts Department of Environmental Protection guidance document *Implementation of the MADEP VPH/EPH Approach* (October 31, 2002). TPH toxicity was based only on the weighted sum of the toxicity of the hydrocarbon fractions listed in Table 1.

Table 1. TPH Compositional Assumptions in Soil

Petroleum Product	C11-C22 Aromatics	C9-C18 Aliphatics	C19-C36 Aliphatics
Diesel #2/ new crankcase oil	60%	40%	0%
#3 and #6 Fuel Oil	70%	30%	0%
Kerosene and jet fuel	30%	70%	0%
Mineral oil dielectric fluid	20%	40%	40%
Unknown oil ^a	100%	0%	0%
Waste Oil ^b	0%	0%	100%

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

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

A TPH screening guideline was calculated for each of the types of petroleum product based on the assumed composition from Table 1 for petroleum products and the direct soil standards incorporating ceiling concentrations given in the MADEP VPH/EPH Excel spreadsheet for each of the carbon fractions. Groundwater concentrations are based on the weighted sum of the noncarcinogenic toxicity of the petroleum fractions.

Method 1 from the MADEP VPH/EPH document was applied, which represents generic cleanup standards for soil and groundwater. Method 1 applies if contamination exists in only soil and groundwater. The MADEP VPH/EPH further divides groundwater into standards. Standard GW-1 applies when groundwater may be used for drinking water purposes. GW-1 standards are based upon ingestion and use of groundwater as a potable water supply. The TPH screening guidelines for sites with potable groundwater are presented in Table 2a.

Table 2a. TPH Screening Guidelines for Potable Groundwater (GW-1)

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

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

The second standard is GW-2, which is applicable for sites where the depth to groundwater is less than 15 feet from the ground surface and within 30 feet of an occupied structure. The structure may be either residential or industrial. GW-2 standards are based upon "inhalation exposures that could occur to occupants of the building impacted by volatile compounds, which partition from the groundwater" (MADEP 2001). The GW-2 screening guidelines ONLY apply for the evaluation of inhalation exposures. If potential ingestion or contact with contaminated soil and/or

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

groundwater could occur, then the screening guidelines provided in Table 2.a should be applied. Table 2.b lists the TPH screening guidelines for the inhalation scenario.

Table 2b. TPH Screening Guidelines - Vapor Migration and Inhalation of Groundwater (GW-2)

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

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

Mineral oil based hydraulic fluids can be evaluated for petroleum fraction toxicity using the screening guidelines from Tables 2a and 2b specified for waste oil, because this type of hydraulic fluid is composed of approximately the same range of carbon fractions as waste oil. However, these hydraulic fluids often contain proprietary additives that may be significantly more toxic than the oil itself; these additives must be considered on a site- and product-specific basis (see ATSDR hydraulic fluids profile reference). Use of alternate screening guideline values requires prior written approval from the New Mexico Environment Department. TPH screening guidelines in Tables 2a and 2b must be used in conjunction with the screening levels for petroleum-related contaminants given in Table 3 because the TPH screening levels are NOT designed to be protective of exposure to these individual petroleum-related contaminants. Table 3 petroleum-related contaminants screening levels are based on the NMED Technical Background Document for Development of Soil Screening Levels, Rev 4.0 (June 2006).

The list of petroleum-related contaminants does not include polyaromatic hydrocarbons (PAHs) with individual screening levels that would exceed the total TPH screening levels (acenaphthene, anthracene, flouranthene, flourene, and pyrene). In addition, these TPH screening guidelines are based solely on human health, not ecological risk considerations, protection of surface water, or

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

potential indoor air impacts from soil vapors. Potential soil vapor impacts to structures or utilities are not addressed by these guidelines. Site-specific investigations for potential soil vapor impacts to structures or utilities must be done to assure that screenings are consistently protective of human health, welfare or use of the property. NMED believes that use of these screening guidelines will allow more efficient screenings of petroleum release sites at sites while protecting human health and the environment. Copies of the references cited below are available on the MADEP website at http://www.state.ma.us/dep/bwsc/vph_eph.htm and the NMED website at http://www.nmenv.state.nm.us/HWB/guidance.html.

Revised Table 3. Petroleum-Related Contaminants Screening Guidelines

	Values fo Exposur		NMED DAF ^a 20 GW	
Petroleum-Related Contaminants	NMED Residential SSL (mg/kg)	NMED Industrial SSL (mg/kg)	Protection (mg/kg in soil)	NMED DAF ^b 1 GW Protection (mg/kg in soil)
Benzene	1.03E+01	2.58E+01	2.01E-02	1.00E-03
Toluene	2.52E+02	2.52E+02	2.17E+01	1.08E+00
Ethylbenzene	1.28E+02	1.28E+02	2.02E+01	1.01E+00
Xylenes ^c	8.20E+01	8.20E+01	2.06E+00	1.03E-01
Naphthalene	7.95E+01	3.00E+02	3.94E-01	1.97E-02
2-Methyl naphthalened	5.00E+02	1.00E+03	e	e
Benzo(a)anthracene	6.21E+00	2.34E+01	1.09E+01	5.43E-01
Benzo(b)fluoranthene	6.21E+00	2.34E+01	3.35E+01	1.68E+00
Benzo(k)fluoranthene	6.21E+01	2.34E+02	3.35E+02	1.68E+01
Benzo(a)pyrene	6.21E-01	2.34E+00	2.78E+00	1.39E-01
Chrysene	6.15E+02	2.31E+03	3.48E+02	1.74E+01
Dibenz(a,h)anthracene	6.21E-01	2.34E+00	1.04E+01	5.18E-01
Indeno(1,2,3-c,d)pyrene	6.21E+00	2.34E+01	9.46E+01	4.73E+00

^{*} DAF - Dilution Attenuation Factor

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1997. Toxicological Profile for Hydraulic fluids.

Massachusetts Department of Environmental Protection, Bureau of Waste Site Cleanup and Office of Research and Standards. 1994. "Background Documentation for the Development of the MCP Numerical Standards."

Massachusetts Department of Environmental Protection, Bureau of Waste Site Cleanup and Office of Research and Standards. 2002. "Characterizing Risks Posed by Petroleum





^b For contaminated soil in contact with groundwater.

[°] Based upon total xylenes

^d No NMED value available, value taken from Massachusetts Contingency Plan, 310 CMR 40.0985, 4/3/06.

^e No NMED value available and leachability-based value for DAF =1 or 20 not established in the Massachusetts Contingency Plan, 310 CMR 40.0985, 4/3/06.

Contaminated Sites: Implementation of the MADEP VPH/EPH Approach," Policy, October 31, 2002.

Massachusetts Department of Environmental Protection, Bureau of Waste Site Cleanup and Office of Research and Standards. 2003. "Updated Petroleum Hydrocarbon Fraction Toxicity Values for the VPH/EPH/APH Methodology." November 2003.

New Mexico Environment Department, Hazardous Waste Bureau and Groundwater Quality Bureau Voluntary Remediation Program. 2006. "Technical Background Document for Development of Soil Screening Levels." June 2006. Revision 4.0.

Section 5.0 Monitoring Results

Title	Tab Number
Soil Gas Monitoring	1
Groundwater Monitoring	2
Groundwater Metals Analysis	3
Bioventing Wells Pressure Reading	4
GAC Analysis	5



Soil Gas Monitoring

90 90	Week of Week of Week of 13.4 7.37 0.01 5.4 20.9 0.00 <0.10	13.4 7.37 0.01 5.4 20.9 0.00 <0.10 <0.10 <0.10 <0.10 <5.		6.3 48 15. 11.0 90.	(ug/L) (ug/L) <0.50 0.19	zene 3/L) 70 16	Oxyg	PID (PPM)	333	2E	Volume (L) With 8.0 8.0 8.0 8.0 5.3	
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Week of 6/1807 13.7 7.5 0.10 112.0 20.1 0.10 <0.10	Week of 6/18/07 13.7 7.5 0.10 112.0 20.1 0.10 <0.10	13.7 7.5 0.10 112.0 20.1 0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10	Week of 6/18/07 13.7 7.5 0.10 112.0 20.1 0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 1.4 Week of 6/18/07 16.2 8.86 0.10 8.8 20.6 0.10 <0.10	12.0 95.0 390.0 1300.0 390.0 1300.0 1200.0 7.4 170.0 8000.0 170.0 920.0 210.0 3100.0 320.0 2800.0 47.0 410.0 34.0 310.0 34.0 310.0 5 1.1 18.0 <5.0		6.10 6.10 6.10 6.10 6.10 6.10 6.10 6.10	20.9 20.9 20.9 19.0 19.0 19.0 18.9 20.9 20.9 20.9 20.9	10.6 10.6 10.4 328.0 51.0 301.0 1981.0 146.0 1534.0 1401.0 19.5 71.7 30.3				
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WANGERS 6.8 5.5.3 0.00 328.0 5.0.9 0.40 4.50 6.0.10 6.0 11.0 6.0 11.0 6.0 11.0 6.0 11.0 6.0 11.0 6.0 11.0 6.0 11.0 6.0 11.0 6.0 11.0 6.0 11.0 6.0 11.0 6.0 11.0 6.0 11.0 12.0<	OW/Eack of 10 Cost (10 cost) 6.8 3.63 0.00 328.0 20.9 0.40 4.50 Cq.10 Week of 10 Cost (10 cost) 5.29 0.00 51.0 19.3 0.70 6.10 <0.10 Week of 10 Cost (11 doctor) 11.4 6.24 0.00 3275.0 17.9 4.20 5.30 <0.10 Week of 10 Cost (11 doctor) 11.4 6.24 0.00 3275.0 17.9 4.20 5.30 <0.10 Week of 10 Cost (11 doctor) 11.4 6.24 0.00 3275.0 17.9 0.40 <0.10 5.00 Week of 11 doctor) 11.2 6.27 0.01 11.4 6.10 <0.10 8.20 Week of 11 doctor) 11.5 6.28 0.01 11.5 11.0 6.10 6.10 6.10 6.10 Week of 12 doctor) 6.20 0.05 11.45.0 12.0 0.10 2.00 0.10 6.10 6.10 6.10 6.10 6.10 6.10 6.10	6.8 5.53 0.00 328.0 20.9 0.40 4.50 6.10 6.01 6.0 11.0 1.4.4 6.23 0.00 51.0 19.3 0.70 6.10 6.10 9.0 12.0 1.0.3 6.24 0.00 3275.0 17.9 4.20 23.00 6.10 5.0 12.0 1.0.3 6.67 0.00 301.0 198.0 0.40 6.10 8.20 1.0 1.0 1.0.4 7.73 0.01 1981.0 20.4 0.30 6.10 8.20 1.0 1.00 1.0.4 7.73 0.01 1981.0 20.4 0.30 6.10 8.20 1.00 1.00 1.0.4 7.74 0.02 1465.0 20.8 0.00 22.0 20.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Wasseld (sign) 6.88 3.83 0.00 328.0 2.09 6.10 6.10 6.01 6.0 1.10 85.0 Wasseld (sign) 8.8 5.38 0.00 51.0 13.3 0.70 6.10 6.10 50.0 12.0 85.0 Wasseld (sign) 11.4 6.24 0.00 3275.0 17.9 420 23.00 40.10 75.0 390.0 1300.0 Wasseld (sign) 10.3 5.67 0.00 301.0 13.0 6.10 6.10 52.0 40.10 75.0 390.0 1300.0 Wasseld (sign) 10.2 0.01 11.6 2.04 0.00 6.10 5.00 6.10 7.	42 1.4 1	0			20.4	0.00	3.97		
Viside of the coloring	Winest of 17.2 3.57 0.00 10.4 20.9 0.00 0.40 4.50 OMTRODE 6.8 3.63 0.00 328.0 20.9 0.40 4.50 -0.10 OMTRODE 6.8 3.63 0.00 3128.0 20.9 6.10 -0.10 Weeked of 11.4 6.24 0.00 3275.0 17.9 4.20 23.00 -0.10 Week of 11.4 6.24 0.00 3275.0 17.9 4.20 23.00 -0.10 Week of 11.4 6.24 0.00 3275.0 17.9 4.20 -0.10 -0.10 Week of 11.4 6.24 0.00 3275.0 17.9 4.20 -0.10 -0.10 Week of 11.2 7.79 0.11 1981.0 0.20 -0.10	6.8 1.6.4 20.9 0.00 0.40 6.40 6.40 6.40 6.40 6.40 6.40 6.40 6.40 6.40 6.40 6.40 6.40 6.40 6.40 6.40 6.40 6.40 6.01 <th< td=""><td>Weeker of States 7.2 3.97 0.00 10.4 2.05 0.00 0.40 4.01 6.04 1.10 9.00 Weeker of States 3.62 3.02 2.05 0.40 4.50 6.01 6.01 1.10 9.0 Weeker of States 3.62 0.00 5.10 18.3 0.70 6.10 6.01 9.0 1.20 9.0 Weeker of States 0.00 3275.0 17.9 4.20 6.10 6.01 9.0 1.20 9.0 Weeker of States 0.00 3275.0 17.9 4.20 6.01 6.01 6.01 7.0 1.20 1.20 Weeker of States 0.01 3275.0 17.9 4.20 6.01 6.01 6.01 6.01 7.0 1.20 1.20 Weeker of States 0.01 18.2 0.04 0.04 6.01 6.01 1.00 1.20 1.20 1.20 1.20 1.20 1.20 1.0 1.0 1.0 1.20</td><td>6.3 48</td><td></td><td>0.16</td><td></td><td>20.4</td><td>0.00</td><td>5.37</td><td></td><td>Week of 7/14/08</td></th<>	Weeker of States 7.2 3.97 0.00 10.4 2.05 0.00 0.40 4.01 6.04 1.10 9.00 Weeker of States 3.62 3.02 2.05 0.40 4.50 6.01 6.01 1.10 9.0 Weeker of States 3.62 0.00 5.10 18.3 0.70 6.10 6.01 9.0 1.20 9.0 Weeker of States 0.00 3275.0 17.9 4.20 6.10 6.01 9.0 1.20 9.0 Weeker of States 0.00 3275.0 17.9 4.20 6.01 6.01 6.01 7.0 1.20 1.20 Weeker of States 0.01 3275.0 17.9 4.20 6.01 6.01 6.01 6.01 7.0 1.20 1.20 Weeker of States 0.01 18.2 0.04 0.04 6.01 6.01 1.00 1.20 1.20 1.20 1.20 1.20 1.20 1.0 1.0 1.0 1.20	6.3 48		0.16		20.4	0.00	5.37		Week of 7/14/08
With Red State 6.37 0.00 10.6 0.00 0.16 0.16 0.00 0.16	Week of vices 5.5 5.7 0.00 10.6 20.9 0.00 0.16 0.19 Vives of Victors 7.2 3.57 0.00 10.4 20.9 0.00 0.40 0.10 Vives of Victors 7.2 3.57 0.00 110.4 20.9 0.00 0.40 4.50 0.10 Vives of Victors 8.8 3.63 0.00 3128.0 10.3 0.70 6.10 0.40 0.40 0.40 Vives of Victors 11.4 6.24 0.00 301.0 19.0 0.40 4.50 0.41 Vives of Victors 11.4 6.24 0.00 301.0 19.0 0.40 4.50 0.41 Vives of Victors 11.2 7.72 0.01 19.0 0.40 0.40 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.41 0.	5.3 5.37 0.00 10.6 20.9 0.00 0.16 0.19 0.22 6.3 7.2 3.57 0.00 10.4 20.3 0.00 0.40 0.40 0.01 0.02 1.4 6.8 3.63 0.00 32.80 20.9 0.40 4.50 0.01 6.0 11.0 1.6 5.29 0.00 31.26 11.9 4.20 2.01 9.0 11.0 1.1.4 6.24 0.00 31.00 11.9 4.20 2.01 9.0 11.0 1.1.4 6.24 0.00 31.00 11.9 0.40 4.00 2.00 11.0 1.1.5 7.72 0.00 31.0 11.9 0.40 6.10 8.00 11.0 11.0 1.1.5 7.72 0.02 11.6 20.4 0.0 2.0 1.00 11.0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1	Virtues of size 5.37 0.00 10.6 20.9 0.00 0.16 0.19 0.19 0.22 6.3 4.0 Virtues of Size 3.5 3.5 0.00 10.4 20.9 0.00 0.40 0.10 0.42 1.4 15.0 Virtues of Size 3.5 0.00 3.20 20.9 0.00 6.10 0.02 11.0	31.0	l		9 00			4.85		Week of 11/10/08
Vindent of the color 6.0.0 20.4 20.5 0.00 0.16 0.15 0.15 0.10 0.15 0.10 0.15 0.10 0.15 0.10 0.15 0.10 0.15 0.10	1,000 1,00	8.0 4.85 0.00 20.4 20.9 0.00 770 <0.50 8.0 31.0 5.3 5.37 0.00 10.6 20.9 0.00 0.16 0.19 0.2 6.3 7.2 3.57 0.00 10.4 20.9 0.00 0.40 <0.10		Xylene (ug/L)	Toluene (ug/E)	Benzene (ug/L)	Oxygen	PID (PPM)		Depth to	12.5	用型表的
0.00 0.00 0.70 0.70 0.30 0.30 0.10 0.10 0.10 0.00 0.00 0.0	0.00 0.40 0.70 0.70 0.30 0.30 0.10 0.10 0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.40 0.70 0.70 0.70 0.30 0.30 0.10 0.10 0.10 0.10 0.10 0.1	0.00 0.40 0.70 0.70 0.30 0.30 0.10 0.10 0.10 0.10 0.00 0.0	Berizene Tölüene	Benzene (ug/L)	le l	(CARDENIA)	Oxygen		(PPM):=	(tt) Freesure (PDM) (tt) (inches of Water) (PDM) 0.00 20.4	Depth to Pressure Property P.

NR = Not Required

NM = Not Measured

Soil Gas Monitoring

Sample		DATE	Purge Depth	MOTILE Depth to	Jiiilg Pressure	PID	Oxygen	Carbon Dioxide	Benzene	Toluene	Ethylben	Xylene	GRO	
Location	Activities			Water (ff)	(Inches of Water)	(PPM)	(%)	(%)	(ug/L)	(ug/L)	(ng/L)	and the	(ug/L)	
	4th Quarter 2008	Week of 11/10/08	10.0	6.8	00.00	0.5	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0	
	3rd Quarter 2008	Week of 7/14/08	13.1	7.15	0.00	0.8	20.9	0.00	<0.10	<0.10	<0.10	0.55	5.6	
	2nd Quarter 2008	Week of 5/12/08	11.0	5.86	0.00	8.0	20.9	0.00	<0.10	<0.10	0.15	0.52	<5.0	
	1st Quarter 2008	Week of 03/10/08	9.0	5.17	0.00	2.1	20.9	00:00	<0.10	<0.10	<0.10	0.42	<5.0	
	4th Quarter 2007	Week of 10/29/07	12.7	6.94	0.00	0.4	19.2	0.30	<0.10	<0.10	<0.10	<0.1	<5.0	
1	3rd Quarter 2007	Week of 8/20/07	13.9	7.62	00.00	16.0	19.6	0.10	<0.10	<0.10	<0.10	1.3	19.0	
:# - d.	2nd Quarter 2007	Week of 6/18/07	12.8	7.02	0.00	19.0	20.5	0.10	<0.10	<0.10	<0.10	1.0	7.6	
1	1st Quarter 2007	Week of 2/26/07	13.7	7.52	0.00	5.2	20.4	0.10	<0.10	<0.10	0.11	1.2	13.0	
	4th Quarter 2006	Week of 12/04/6	14.0	7.77	0.00	1.3	19.7	0.50	<0.10	<0.10	<0.10	<0.3	<5.0	
	3rd Quarter 2006	Week of 9/11/06	13.5	7.41	0.00	9.9	20.9	0.10	<0.10	<0.10	<0.10	<0.1	<5.0	
	2nd Quarter 2006	Week of 6/17/06	13.2	7.23	0.00	2.9	20.9	1.00	<0.10	<0.10	<0.10	<0.3	<5.0	
	1st Quarter 2006	Week of 3/06/06	15.0	8.09	0.00	179.8	18.6	09:0	0.55	2.20	0.53	23.0	1300.0	
	Pre-Dewater	Week of 1/09/06	11.8	6.44	0.00	ž	17.80	0:00	<0.05	<0.05	<0.05	0.093	<5.0	
			2											
	4th Quarter 2008	Week of 11/10/08	7.8	4.54	0.30	9.98	20.9	0.00	<0.50	<0.50	12.0	45.0	190.0	
	3rd Quarter 2008	Week of 7/14/08	8.7	4.76	0.40	2.3	18.7	1.40	<0.10	0.12	0.45	2.9	9.8	
	2nd Quarter 2008	Week of 5/12/08	6.3	3.43	0.00	2.5	20.9	0.00	0.11	<0.10	1.6	8.8	31.0	
	1st Quarter 2008	Week of 03/10/08	5.7	3.15	00:00	115.0	20.9	0.00	<0.10	<0.10	2.6	12.0	55.0	
	4th Quarter 2007	Week of 10/29/07	8.7	4.78	0.00	54.1	19.3	0.30	<0.10	<0.10	9.80	46.0	180.0	
,	3rd Quarter 2007	Week of 8/20/07	12.7	6.97	0.00	9890.0	16.9	2.60	<0.10	<0.10	<0.10	910.0	13000.0	
;# - d.	2nd Quarter 2007	Week of 6/18/07	12.1	6.62	0.00	1100.0	18.6	1.90	<5.00	<5.00	<5.00	1500.0	9000.0	
l.	1st Quarter 2007	Week of 2/26/07	10.2	5.59	0.00	1268.0	19.8	0.60	<5.00	9.80	23.00	1000.0	6100.0	
	4th Quarter 2006	Week of 12/04/6	11.0	5.95	0.00	1805.0	19.3	0.90	6.10	15.00	14.00	1400.0	8900.0	
	3rd Quarter 2006	Week of 9/11/06	5.6	5:32	0.00	137.0	18.6	1.40	<2.5	<2.5	79.00	380.0	1200.0	
	2nd Quarter 2006	Week of 6/17/06	9.6	5.24	0.00	953.0	18.6	1.40	<10	15.00	11.00	130.0	1800.0	
	1st Quarter 2006	Week of 3/06/06	14.0	7.81	0.01	1534.0	19.7	0.10	69.00	310.00	55.00	2000.0	34000.0	
	Pre-Dewater	Week of 1/09/06	8.6	4.70	0.00	103.5	16.0	1.10	0.13	54.00	0.25	38.0	150.0	
			u az	Levinos to N - GN		penisceM toN = MN	parit							

NR = Not Required





Soil Gas Monitoring

NR = Not Required

NM = Not Measured

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Soil Gas Monitoring

Sample		JOH GAS	Purge	Penthito	Pressure	- DID	Oxygen	Carbon Dioxide	Benzene	Toluene	Ethylben	Xylene	GRO
Location	Activities		Volume (L)	Water (ft)	(Inches of Water)	(PPM)	(%)		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ng/L)
	4th Quarter 2008	Week of 11/10/08	10.2	5.35	4.10	1.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	
	3rd Quarter 2008	Week of 7/14/08	10.8	5.88	6.50	2.0	20.9	0.00	<0.10	0.12	0.1	2.0	
	2nd Quarter 2008	Week of 5/12/08	8.1	4.44	0.00	6.0	20.9	0.00	<0.10	<0.10	0.48	2.0	
	1st Quarter 2008	Week of 03/10/08	7.5	4.13	0.00	19.1	20.9	0.00	<0.10	<0.10	0.23	1.2	
	4th Quarter 2007	Week of 10/29/07	10.6	5.81	3.00	3.7	19.7	0.10	<0.10	<0.10	0.11	0.57	
8	3rd Quarter 2007	Week of 8/20/07	12.2	6.67	0.00	91.0	19.7	0.10	<0.10	<0.10	<0.10	0.78	l
# - d.	2nd Quarter 2007	Week of 6/18/07	11.3	6.22	0.00	59.0	20.1	0.10	<0.10	<0.10	<0.10	<0.30]
L	1st Quarter 2007	Week of 2/26/07	15.6	8.57	0.05	1775.0	20.4	0:30	<5.00	9.50	130.00	1400.0	l
	4th Quarter 2006	Week of 12/04/6	15.0	8.21	0.02	555.0	20.5	0.40	<5.00	7.40	50.00	710.0]
	3rd Quarter 2006	Week of 9/11/06	11.3	6.21	0.01	11.2	20.9	0.00	<0.10	<0.10	0.13	0.43	
	2nd Quarter 2006	Week of 6/17/06	13.7	7.5	0.01	1641.0	20.9	0.10	<2.00	6.60	2.20	460.0]
	1st Quarter 2006	Week of 3/06/06	16.0	8.92	0.05	1534.0	20.7	0.10	8.80	220.00	13.00	1900.0	
	Pre-Dewater	Week of 1/09/06	10.3	5.61	0.00	1589.0	4.6	8.90	6.90	31.00	2.90	300.0	
100		100/00									A. A		<u></u>
_	4th Quarter 2008	11/10/08	10.4	5.29	0.00	3.2	20.9	0.00	<0.10	<0.10	0.21	1.00	
	3rd Quarter 2008	Week of 7/14/08	9.9	5.4	0.00	0.2	20.9	0.00	<0.10	0.13	<0.10	<0.30	
	2nd Quarter 2008	Week of 5/12/08	7.4	4.03	0.00	4.4	20.9	0.00	<0.10	<0.10	0.55	2.1	1
	1st Quarter 2008	Week of 03/10/08	0.9	3.32	0.00	2.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	
	4th Quarter 2007	Week of 10/29/07	0.6	4.94	0.00	8.2	19.7	0.10	<0.10	<0.10	0.56	4.0	
6	3rd Quarter 2007	Week of 8/20/07	9.4	5.18	00:00	48.0	19.9	0.00	<0.10	<0.10	<0.10	2.8	
6# ⁻ d.	2nd Quarter 2007	Week of 6/18/07	8.6	4.73	0.00	24.0	20.6	0.10	<0.10	<0.10	<0.10	0.93	
L	1st Quarter 2007	Week of 2/26/07	9.2	5.07	0.00	95.1	20.6	0.20	<0.10	0.15	4.30	41.0	
	4th Quarter 2006	Week of 12/04/6	10.0	5.39	0.00	9.6	20.9	0.10	<0.10	<0.10	0.16	3.5	
	3rd Quarter 2006	Week of 9/11/06	10.0	5.48	0.00	18.3	20.3	0:30	<0.10	0.21	0.18	2.5	
	2nd Quarter 2006	Week of 6/17/06	9.6	5.26	0.00	13.9	20.9	0.00	<0.10	<0.10	0.10	0.62	
	1st Quarter 2006	Week of 3/06/06	10.0	5.21	0.00	7.7	20.6	0.10	<0.05	0.09	90.0	0.53	
	Pre-Dewater	Week of 1/09/06	11.3	5.08	0.00	8.5	17.2	0.20	<0.05	0.05	0.18	0.35	
			- an	bezimzed toN = GM		bornscoM toN - MN	harirad						

NR = Not Required





Soil Gas Monitoring

DATE	Purge Depth to Pre Volume (L) Water (ft): (Inches	Pressure nes of Water)	OIA)	Oxygen = (%) ==	Carbon Dioxide	Benzene: (ug/L)	Toluene (ug/L)	Ethylben (ug/L)	Xylene (ug/L)	GRO (ug/L)
5.23	1		0.3	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
Week of 7/14/08 8.9 4.88		0.00	3.2	20.9	0.00	<0.10	<0.10	<0.10	0.75	7.6
5/12/08 6.9 3.78	ا۲	0.00	2.8	20.9	0.00	<0.10	<0.10	0.27	0.82	<5.0
Week of 5.0 2.83	ا۲	0.00	2.4	20.9	0.00	<0.10	<0.10	0.16	0.82	<5.0
Week of 10/29/07 8.7 4.74	٠	0.00	0.5	19.4	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
Week of 8/20/07 9.7 5.32	,	0.00	42.0	19.7	0.00	<0.10	<0.10	<0.10	1.0	16.0
Week of 8.5 4.62	ر	0.00	38.0	20.6	0.00	<0.10	<0.10	<0.10	1.0	11.0
Week of 9.5 5.23	٦	0.00	3.3	20.4	0.10	<0.10	<0.10	<0.10	0.94	6.0
Week of 12/04/6 10.0 5.57	٦	0.00	18.0	14.4	0.70	<0.10	<0.10	0.20	2.7	22.0
Week of 9.6 5.26	١	0.00	4.7	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
Week of 6/17/06 9.6 5.23	٦	0.00	6.7	20.9	0.00	0.11	0.16	<0.10	0.57	14.0
3/06/06 11.0 5.86	٦	0.00	21.9	17.1	1.10	0.07	0.62	0.05	6.1	25.0
1/09/06 9.3 5.08		0.00	0.0	17.8	0.00	<0.05	<0.05	<0.05	0.28	<5.0
Week of			6 T 1							
11/10/08 6.1 4.64		0.00	0.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
7/14/08 10.0 5.47	_	0.00	2.2	20.9	0.00	<0.10	<0.10	<0.10	0.74	8.0
5/12/08 7.6 4.15		0.00	1.7	20.9	0.00	<0.10	<0.10	0.20	0.64	<5.0
Week of 03/10/08 6.0 3.43	,	0.00	0.0	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
Week of 10/29/07 9.5 5.18		0.00	9.0	19.4	0.00	<0.10	<0.10	<0.10	<0.3	<5.0
Week of 10.5 5.75		0.00	81.0	14.9	6.20	<0.10	<0.10	<0.10	1.4	39.0
Week of 9.5 5.17	_	0.00	45.0	20.6	0.00	<0.10	<0.10	<0.10	0.74	7.2
Week of 10.4 5.69		0.00	5.9	19.0	1.00	<0.10	<0.10	0.11	1.4	11.0
12/04/6 10.0 6.00		0.00	. 2.8	14.4	0.70	<0.10	<0.10	<0.10	<0.1	<5.0
Week of 9/11/06 10.3 5.69	_	0.00	2.8	19.1	1.40	<0.10	<0.10	0.24	1.5	9.0
Week of 6/17/06 10.3 5.61	-	0.00	2.6	18.8	1.40	<0.10	<0.10	<0.10	<0.3	<5.0
3/06/06 11.0 6.31		0.00	13.2	20.0	0.40	90.0	0.32	0.053	3.3	13.0
Week of 10.2 5.55	_	0.00	0.0	17.5	0.30	<0.05	<0.05	<0.05	0.14	<5.0

NR = Not Required

Soil Gas Monitoring

0,000 0,02 2,03 0,000 cq,10 c	260 18 12 No. 10075	DATE	Purge Depth Volume (L) Water	3 €	Pressure r (Inches of Water)	(Mag)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylben (ug/L)	Xylene (ug/L)	GRO (ug/L)
0.00 3.6 20.9 0.00 <0.10 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.70 <0.7	Week of 11/10/08 12.3	12.3		5.09	00.0	0.2	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
0.00 2.8 20.9 0.00 < 0.00 1.6 20.9 0.00 0.01 0.01 0.00 1.6 20.9 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.01 0.01 0.01 0.00 0.00 18.1 0.00 <ld>0.01 <ld>0.01 <ld>0.01 <ld>0.01 0.00 6.7 20.9 0.00 <ld>0.01 <ld>0.01 <ld>0.01 0.00 0.1 0.00 0.01 <ld>0.00 <ld>0.01 <ld>0.01 0.00 0.1 0.00 0.01 0.01 <ld>0.01</ld></ld></ld></ld></ld></ld></ld></ld></ld></ld></ld>	Week of 7/14/08 13.1	13.1		7.18	0.00	3.6	20.9	0.00	<0.10	<0.10	<0.10	0.77	8.2
0.00 1.6 20.9 0.00 <a.0.10< th=""> <a.0.10< td="" th<=""><td>Week of 5/12/08 10.7</td><td>10.7</td><td></td><td>5.85</td><td>0.00</td><td>2.8</td><td>20.9</td><td>0.00</td><td><0.10</td><td><0.10</td><td>0.17</td><td>0.56</td><td>. <5.0</td></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<></a.0.10<>	Week of 5/12/08 10.7	10.7		5.85	0.00	2.8	20.9	0.00	<0.10	<0.10	0.17	0.56	. <5.0
0.00 0.7 19.4 0.00 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.1	Week of 03/10/08 9.0	9.0		5.11	0.00	1.6	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
0.00 19.0 19.8 0.00 <0.10 <0.10 <0.10 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.0 1.0 0.0 <	Week of 10/29/07 12.7	12.7		6.92	0.00	0.7	19.4	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
0.00 28.0 20.6 0.10 <0.10 <0.10 <0.10 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 1.10	Week of 8/20/07 13.4			7.36	0.00	19.0	19.8	0.00	<0.10	<0.10	<0.10	1.0	14.0
0.00 18.10 20.4 0.20 <0.10 1.10 1.10 11.0 0.00 30.3 18.5 1.80 <0.20	Week of 6/18/07 12.5		-	6.82	0.00	26.0	20.6	0.10	<0.10	<0.10	<0.10	0.56	6.0
0000 30.3 18.5 1.60 <0.20 <0.20 0.28 24.0 0.00 5.7 20.9 0.00 <0.10	Week of 13.5	13.5		7.4	0.00	18.10	20.4	0.20	<0.10	<0.10	1.10	11.0	61.0
0.00 6.7 20.9 0.00 <0.10 0.10 0.01 c.01 0.02 0.03 0.01 c.01 0.01 c.01 0.02 0.01 0.01 0.01 0.01 0.01 0.02 0.01 0.02 0.01 0.02 0.02 0.02 0.02 0.03 <th< td=""><td>14.0</td><td></td><td> '` </td><td>79.7</td><td>0.00</td><td>30.3</td><td>18.5</td><td>1.60</td><td><0.20</td><td><0.20</td><td>0.28</td><td>24.0</td><td>120.0</td></th<>	14.0		'`	79.7	0.00	30.3	18.5	1.60	<0.20	<0.20	0.28	24.0	120.0
0,000 6.7 20.9 0,000 0,12 0,19 <0,10 0,52 0,000 10.1 18.7 1,40 0,05 0,21 0.06 2.3 0,000 0,00 10.1 18.7 1,40 0,05 0,00 2.3 0,000 0,2 17.8 0,00 <0,10	Week of 9/11/06 13.6 7.		7.	7.48	0.00	5.7		0.00	<0.10	<0.10	0.10	<0.3	<5.0
0.00 10.1 18.7 1.40 0.00 0.21 0.00 2.3 0.00 0.2 17.8 0.00 <0.05	Week of 6/17/06 13.6 7.		7.	7.44	0.00	6.7	20.9	0.00	0.12	0.19	<0.10	0.52	17.0
0.00 0.2 17.8 0.00 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.0	3/06/06 15.0 7.94	<u>-</u> -	7.9	4	0.00	10.1	18.7	1.40	0.05	0.21	0.06	2.3	9.0
0.00 0.2 20.9 0.00 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.0	Week of 13.5 7.38		7.38		0.00	0.2	17.8	0.00	<0.05	<0.05	<0.05	0.3	<5.0
0,00 3.2 20.9 0,00 <0.10	Week of 11/10/08 45.0				00.0		0.00	000	20.40	<0.10	<0.10	<0.30	<5.0
0.00 1.5 20.9 0.00 <0.10 <0.10 0.17 0.54 0.00 1.1 20.9 0.00 <0.10	10.9		5.97		0.00	3.2	20.9	00.0	<0.10	<0.10	<0.10	1.40	11.0
0.00 1.1 20.9 0.00 <0.10 <0.10 <0.10 <0.10 <0.10 <0.30 0.00 0.7 19.4 0.10 <0.10	Week of 8.6 4.69		4.69			1.5	20.9	0.00	<0.10	<0.10	0.17	0.54	<5.0
0.00 0.7 19.4 0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.1	Week of 7.0 3.92		3.9	~	0.00	1.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
0.00 128.0 19.8 0.00 <0.10 <0.10 <0.10 1.3 0.00 97.0 20.6 0.00 <0.10	Week of 10/29/07 10.0 5.8		5.8		0.00	7.0	19.4	0.10	<0.10	<0.10	<0.10	<0.30	<5.0
0.00 97.0 20.6 0.00 <0.10 <0.10 <0.10 0.00 0.50 0.50 0.50 0.50 0.50 0.20 0.20 0.20 0.20 0.20 0.20 0.20 0.20 0.29 0.29 0.29 0.29 0.29 0.29 0.29 0.24 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.05	Week of 8/20/07 11.0 6.1		Ġ.		0.00	128.0	19.8	0.00	<0.10	<0.10	<0.10	1.3	30.0
0.00 4.10 20.2 0.20 <0.10 <0.10 0.20 2.9 0.00 13.8 18.5 1.10 <0.10	Week of 6/18/07 10.3 5.63		5.6	33	0.00	97.0	20.6	0.00	<0.10	<0.10	<0.10	09.0	5.8
0.00 13.8 18.5 1.10 <0.10 <0.10 0.18 2.4 0.00 1.8 18.6 6.90 <0.10	Week of 2/26/07 11.3 6.		6.	6.16	0.00	4.10	20.2	0.20	<0.10	<0.10	0.20	2.9	24.0
0.00 1.8 18.6 6.90 <0.10 <0.10 <0.10 <0.30 0.00 19.5 18.1 1.00 0.11 0.48 0.11 2.4 0.00 12.6 19.1 1.00 0.05 0.17 0.09 1.6 0.00 0.1 17.8 0.00 <0.05	12/04/6 11.9 6.		69	6.51	0.00	13.8	18.5	1.10	<0.10	<0.10	0.18	2.4	18.0
0.00 19.5 18.1 1.00 0.11 0.48 0.11 2.4 0.00 12.6 19.1 1.00 0.05 0.17 0.09 1.6 0.00 0.1 17.8 0.00 <0.05	Week of 9/11/06 11.6 6		9	6.33	0.00	1.8	18.6	6.90	<0.10	<0.10	<0.10	<0.30	<5.0
0.00 12.6 19.1 1.00 0.05 0.17 0.09 1.6 0.00 0.1 17.8 0.00 <0.05	11.6		9	6.35	0.00	19.5	18.1	1.00	0.11	0.48	0.11	2.4	27.0
0.00 0.1 17.8 0.00 <0.05 <0.05 <0.05 <0.05	Week of 3/06/06 12.0 6		9	6.78	0.00	12.6	19.1	1.00	0.05	0.17	60.0	1.6	8.6
	Week of 11.4 6		۳	6.24	0.00	0.1	17.8	0.00	<0.05	<0.05	<0.05	<0.05	<5.0

NR = Not Required

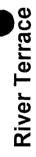




Soil Gas Monitoring

Sample	Sampling	DATE I	Purge	Depth to	Pressure	JII 🖈 🛬	Oxygen	Carbon Dioxide	Benzene	Toluene	Ethylben	Xylene	GRO
Location		15 mg/s	(A)	21:44	(Inches of Water)	(PPM)	(%)	12.3	(ng/L)	(ng/L)	(ug/L)	(ug/L)	(ug/L)
	4th Quarter 2008	Week of 11/10/08	162.0	5.72	0.00	0.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2008	Week of 7/14/08	8.96	5.89	0.00	0.2	20.7	09.0	<0.10	0.11	<0.10	<0.30	<5.0
	2nd Quarter 2008	Week of 5/12/08	76.7	4.66	0.00	6.0	20.9	0.00	<0.10	<0.10	0.12	0.42	<5.0
	1st Quarter 2008	Week of 03/10/08	68.0	4.11	0.00	2.0	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2007	Week of 10/29/07	95.0	5.8	0.00	0.7	19.3	0.20	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2007	Week of 8/20/07	110.0	6.71	0.00	27.0	18.6	1.10	<0.10	<0.10	<0.10	0.48	9.0
# MC	2nd Quarter 2007	Week of 6/18/07	95.6	5.81	0.00	9.0	18.6	1.80	<0.10	<0.10	<0.10	0.32	<5.0
)	1st Quarter 2007	Week of 2/26/07	100.5	6.11	0.00	1.00	19.8	0.50	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2006	Week of 12/04/6	92.0	5.58	0.00	1.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2006	Week of 9/11/06	105.0	6.39	0.00	7.8	18.8	1.30	<0.10	<0.10	<0.10	<0.30	<5.0
	2nd Quarter 2006	Week of 6/17/06	150.0	6.49	0.00	5.8	16.6	4.40	<0.10	<0.10	<0.10	0.33	8.6
	1st Quarter 2006	Week of 3/06/06	130.0	7.91	0.00	25.4	9.8	8.70	<0.05	0.61	0.17	5.2	61.0
	Pre-Dewater	Week of							0	,,,	2	,	25.0
		1/09/06	113.0	6.9	0.00	0.0	12.7	7.40	60.0	0.14	0.59	1.2	35.0
	4th Quarter 2008	Week of 11/10/08	0.09	8.72	0.00	0.1	20.9	09.0	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2008	Week of 7/14/08	66.2	9.03	0.00	0.2	18.1	2.60	<0.10	0.11	<0.10	<0.30	<5.0
	2nd Quarter 2008	Week of 5/12/08	56.2	99'2	0.00	1.0	20.9	0.00	<0.10	<0.10	<0.10	<0.10	<5.0
	1st Quarter 2008	Week of 03/10/08	50.0	6.9	0.00	2.0	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2007	Week of 10/29/07	63.0	8.62	0.00	1.1	18.2	1.60	<0.10	<0.10	<0.10	<0.30	<5.0
6	3rd Quarter 2007	Week of 8/20/07	68.0	9.3	0.00	22.0	15.7	5.00	<0.10	<0.10	<0.10	0.39	<5.0
ν# MI	2nd Quarter 2007	Week of 6/18/07	61.6	8.41	0.00	64.0	17.4	3.00	<0.10	<0.10	<0.10	<0.30	11.0
N	1st Quarter 2007	Week of 2/26/07	64.4	8.79	0.00	1.60	19.8	0.60	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2006	Week of 12/04/6	0.79	9.16	0.00	2.1	19.0	1.00	<0.10	<0.10	<0.10	0.46	<5.0
	3rd Quarter 2006	Week of 9/11/06	68.0	9:38	0.00	3.5	17.7	2.80	<0.10	<0.10	<0.10	<0.30	<5.0
	2nd Quarter 2006	Week of 6/17/06	73.0	86.6	0.00	16.1	16.8	2.70	<0.10	<0.10	<0.10	1.4	35.0
	1st Quarter 2006	Week of 3/06/06	74.0	10.07	0.00	20.3	19.2	1.00	<0.05	1.00	0.06	8.9	28.0
	Pre-Dewater	Week of 1/09/06	71.1	69.6	0.00	0.0	17.1	1.00	<0.05	<0.05	0.08	0.34	<5.0
} }			N - QN	Position of the Position		May A for Mark	70						

NR = Not Required



od 8015B≅	eening Table 2a		GRO: (mg/L)	51.00	59.00	54.00	62.00	64.00	80.00	70.00	160.00	95.00	98.00	40.00	72.00	66.00		5.80	19.00	19.00	18.00	22.00	28.00	47.00	94.00	41.00	77.00	42.00	27.00	84.00
EPA Method 8015B	TPH Screening Guidelines Table 2	1.72	DRO (mg/L)	17.00	1.60	2.00	2.40	1.80	3.30	2:10	3.00	3:30	3.50	4.30	3.80	1.90		7.50	1.40	1.30	1.70	1.40	1.00	<1.00	2.10	1.50	1.30	4.90	9:90	4.10
			MTBE (mg/L)	<0.63	<0.12	<0.12	<0.12	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.62	<0.12	<0.05		<0.025	<0.05	<0.05	<0.05	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.12	<0.12	<0.05
218	MOCE 20NMAC	0.62	Xylene (mg/L)	16.00	17.00	13.00	20.00	18.00	20.00	19.00	32.00	20.00	20.00	18.00	30.00	* 23.00		0.93	3.40	4.00	4.20	3.70	4.80	15.00	19.00	12.00	15.00	(4.00	5.00	25.00
EPA Method 8021B	MCL	0.7	Ethylben (mg/L)	2.70	3.30	3.00	3.40	3,80	4.20	4.00	6.30	3.20	3.80	3.30	4.10	3.80		0.73	3,00	2.20	2.30	2.40	200	3.80	4.30	2.40	2.80	2:80	0.51	4.20
	WGCC 20NIMAC	0.75	Toluene (mg/L)	<0.25	<0.05	<0.05	<0.05	<0.001	<0.10	<0.10	<0.10	<0.10	<0.10	<0.25	<0.05	0.05		<0.01	<0.02	<0.02	<0.02	<0.10	<0.10	0.32	<0.10	<0.10	0.27	2.40	4.70	-8.70
	MOL	0.005	Benzene (mg/L)	1,20	1.80	2.50	2.10	1.60	7.20	1.80	2.00	1.60	3.20	2.60	<1.50	1.40		0.31	0.80	1.10	1.20	1.50	- 0.64	1.40	4.30	170	3.30	3.60	6.20	01.9
			ORP (mV)	241	123	262	210	223	237	185	134	96	-50	-15	186	NR		174	162	118	171	217	217	191	171	111	-13	-216	184	Ν.
			р. (mg/L)	0.56	6.94	1.40	4.55	0.49	4.19	0.31	0.65	W	0.71	95.0	0.83	NR		3.58	3.48	0.44	1.89	0.85	1.78	0.70	1,45	2.14	0.65	0.94	9.48	N.
			TEMP (°F)	61.1	9.89	58.6	49.4	63.4	74.4	62.9	50.3	57.3	72.8	67.3	52.0	70.6		59.9	66.4	2.99	51.3	62.4	71.0	67.5	51.4	53.5	67.4	62.8	53.2	65.2
			Hd	6.81	96'9	6.83	96.9	6.78	6.93	6.93	6.82	6.99	7.00	96'9	7.04	6.92		6.89	6.98	6.85	7.00	96.9	6.97	6.87	6.82	6.92	7.03	6.93	7.08	6.85
			(muhos/cm)	3050	4037	3572	3533	4123	4661	4907	3825	3631	3053	2372	2233	2034		2619	3363	2664	2748	3507	3771	2576	3783	3548	2531	3586	1802	2225
	rements		Total Well Depth (ff below TOC)	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38		9.92	9.92	9.92	9.92	9.92	9.92	9.92	9.92	9.92	9.92	9.92	9.92	9.92
	Field Measuremen		Depth to Product # (ft below, TOC)	NPP	ddN	NPP	NPP	NPP	ddN	NPP	MPP	NPP	ddN	NPP	NPP	NPP		МРР	NPP	ddN	NPP	MPP	NPP	ddN	NPP	ddN	NPP	MPP	ddN	NPP
	¥	İ	Depth to Water (ft below TOC)	4.85	5.37	3.97	3.63	5.29	6.24	5.67	7.79	7.42	5.68	6.80	8.04	5.35		6.72	7.06	5.52	5.30	6.86	7.73	7.50	8.86	9.03	7.37	8.27	9.83	6.84
			DATE	Week of 11/10/08	Week of 7/14/08	Week of 5/12/08	Week of 03/10/08	Week of 10/29/07	Week of 8/20/07	Week of 6/18/07	Week of 2/26/07	Week of .12/04/06	Week of 9/11/06	Week of 6/17/06	Week of 3/06/06	Week of 8/15/05		Week of 11/10/08	Week of 7/14/08	Week of 5/12/08	Week of 03/10/08	Week of 10/29/07	Week of 8/20/07	Week of 6/18/07	Week of 2/26/07	Week of 12/04/06	Week of 9/11/06	Week of 6/17/06	Week of 3/06/06	Week of 8/15/05
			Sampling Event	4th Quarter 2008	3rd Quarter 2008	2nd Quarter 2008	1st Quarter 2008	4th Quarter 2007	3rd Quarter 2007	2nd Quarter 2007	1st Quarter 2007	4th Quarter 2006	3rd Quarter 2006	2nd Quarter 2006	1st Quarter 2006	Baseline		4th Quarter 2008	3rd Quarter 2008	2nd Quarter 2008	1st Quarter 2008	4th Quarter 2007	3rd Quarter 2007	2nd Quarter 2007	1st Quarter 2007	4th Quarter 2006	3rd Quarter 2006	2nd Quarter 2006	1st Quarter 2006	Baseline
			Sample Location							r# dT					·		The American							Z# d1						

©EPA Method 8015B	* TPH Screening Guidelines Table 2a		GRO (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		38.00	50.00	46.00	52.00	56.00	69.00	78.00	85.00	50.00	110.00	34.00	59.00	56.00
PEPA M	C. TPH	1.72	DRO (mg/L)	<1.00	۲۰ د۲.00	×1.00	<1.00	<1.00	×1.00	<1.00	×1.00	41.00	v.1.00	×1.00	<1.00	<1.00		8,50	1.10	c1.0	41.00	1.20	4.00	41.00	41.00	41.00	41.00	<3.00	41.00	1.20
- American			MTBE (mg/L)	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		<0.025	<0.05	<0.05	<0.050	<0.0025	<0.25	<0.25	<0.025	<0.120	<0.025	<0.025	<0.05	<0.05
101B	WOCC 20NMAC	0.62	Xylene (mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.003	<0.003	<0.003	<0.003	0.0012		+12:00	18:00	13:00	17.00	17,00	22.00	21.00	18.00	10.00	16.00	16:00	*,20.00	21.00
EED A Mothod 8021B	MCL	0.7	Ethylben (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005		2.40	1.90	1.10	1.60	2.60	3.00	3.50	1.30	1.20	3.10	1.60	0.28	3.50
	WOCC	0.75	Toluene (mg/ <u>L)</u>	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005		0.01	<0.02	<0.02	<0.020	<0.001	<0.10	<0.10	<0.01	<0.050	<0.01	<0.001	<0.02	<0.005
	MCL	0.005	Benzene (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005		0.02	<0.02	0.05	<0.020	<0.001	0.30	0.34	<0.01	-0.07	<0.01	0.05	0:20	. 0.35
			ORP (mV)	216	240	122	223	254	246	211	248	242	233	179	256	NR		129	159	54	216	229	129	148	219	229	149	39	-51	Z.
			D.O. (mg/L)	1.75	1.56	3.95	2.87	3.40	2.67	3.12	1.65	1.32	0.33	96.0	0.21	X.		1.23	1.49	1.32	2.34	0.23	0.17	08.0	0.79	1.36	0.29	0.05	0.52	N.
			TEMP (°F)	60.1	64.5	55.7	48.5	62.3	66.2	8.09	47.0	54.8	68.0	62.1	47.9	68.4		61.8	69.8	56.8	47.4	66.5	8.69	63.9	49.6	56.0	71.0	65.3	54.1	68.7
			Нd	06'9	6.9	6.86	6.89	6.87	6.97	6.85	6.83	7.06	6.99	6.93	6.94	6.85		6.83	6.95	6.87	6.82	7.04	6.88	6.87	6.87	6.99	7.09	6.94	7.03	6.90
			E.C. (unihos/cm)	1096	867	775	602	806	815	560	839	673	779	856	1050	1295		981	852	702	656	857	911	884	1027	1377	879	989	747	923
	rements	S1121121	Total Well Depth (ft below, TOC)	12.35	12.35	12.35	12.35	12.35	12.35	12.35	12.35	12.35	12.35	12.35	12.35	12.35		8.84	8.84	8.84	8.84	8.84	8.84	8.84	8.84	8.84	8.84	8.84	8.84	8.84
	Field Measurements	ald illicadu	Depth to Product (ff below TOC)	G d N	qqN	ЧЬР	NPP	APP	APP	NPP	NPP	APP	ddN	ddN	MPP	PP		a dV	ddN	ddN	NPP	ddN	ddN	ddN	MPP	ddN	NPP	ddN	NPP	ddN
oring	ü		Depth to Water (ft below TOC)	6.80	7.15	5.86	5.17	6.94	7.62	7.02	7.52	77.7	7.41	7.23	8.09	6.61	_	4.54	4.76	3.43	3.15	4.78	6.97	6.62	5.59	5.95	5.32	5.24	7.81	5.91
Monit			DATE	Week of 11/10/08	Week of 7/14/08	Week of 5/12/08	Week of 03/10/08	Week of 10/29/07	Week of 8/20/07	Week of 6/18/07	Week of 2/26/07	Week of 12/04/06	. Week of 9/11/06	Week of 6/17/06	Week of 3/06/06	Week of 8/15/05	1 1 1 1 1 1 1	11/10/08	Week of 7/14/08	Week of 5/12/08	Week of 03/10/08	Week of 10/29/07	Week of 8/20/07	Week of 6/18/07	Week of 2/26/07	Week of 12/04/06	Week of 9/11/06	Week of 6/17/06	Week of 3/06/06	Week of 8/15/05
Ground Water Monitoring			Sampling	4th Quarter 2008	3rd Quarter 2008	2nd Quarter 2008	1st Quarter 2008	4th Quarter 2007	3rd Quarter 2007	2nd Quarter 2007	1st Quarter 2007	4th Quarter 2006	3rd Quarter 2006	2nd Quarter 2006	1st Quarter 2006	Baseline		4th Quarter 2008	3rd Quarter 2008	2nd Quarter 2008	1st Quarter 2008	4th Quarter 2007	3rd Quarter 2007	2nd Quarter 2007	1st Quarter 2007	4th Quarter 2006	3rd Quarter 2006	2nd Quarter 2006	1st Quarter 2006	Baseline
ב			Sample		1	l	L	I		£# 91			·	I	L	1					1	1	<u> </u>	\$# d.	l	1		1	1	





Ground Water Monitoring

Field Measurements

TPH Screening Guidelines Table 2a EPA Method 8015B

EPA Method 8021B

WOCC MCL:

MCL

	'GRO (mg/L)	3.40	8.60	1.20	1.90	0.07	0.19	0.11	0.28	0.48	5.30	1.90	2.70	26.00		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NR	R.	NR.	X X	X.	<0.05
1.72	DRO (mg/L)	3.10	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	×1.00	<1.00	<1.00	<1.00	<1.00	1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	N.	χ χ	Ϋ́	χ Ω	ŭ	<1.00
	MTBE (mg/L)	<0.013	<0.012	<0.0025	0.0029	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.025	<0.025	<0.025	<0.05		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	NR	R.	Z.	S.	S.	<0.0025
0.62	Xylene (mg/L)	1.20	2.70	0.07	0.30	<0.002	<0.002	<0.002	<0.002	<0.003	0.05	0.35	0.75	7.50		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	NR	N.	ĸ	N.	χ.	0.0049
0.7	Ethylben (mg/L)	0.430	0.800	0.180	0.260	<0.001	<0.001	<0.001	<0.001	<0.001	0.41	4.40	0.18	2.80		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NR R	NR R	AR.	χ.	Α.	0.00065
-0.75	Toluene (mg/L)	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.01	1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NR	NR	R	NR.	R.	<0.0005
900:0	Benzene (mg/L)	0.029	<0.005	0:020	0.024	<0.001	<0.001	<0.001	<0.001	0.01	0.03	<0.001	<0.001	0.28		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	N.R.	N.	ೱ	Z.	R.	<0.000\$
	ORP (mV)	199	70	181	176	177	145	220	253	. 226	45	94	153	NR R		221	229	179	244	253	245	222	N R	NR.	ĸ	N.	R.	S.
	D.O. (mg/L.)	0.58	0.53	7.70	1.62	0.53	0.38	1.19	0.72	1.03	0.76	0.38	0.63	A.		1.64	0.74	1.29	4.67	1.10	1.01	0.39	N.	N.	χ.	X.	Ä	X.
	TEMP (%)	61.0	66.3	58.0	49.9	63.3	69.0	62.2	47.5	54.8	69.4	66.5	52.3	68.2		58.1	68.0	55.1	45.8	59.7	67.6	59.2	X X	N R	Ä	œ Z	Ä	89
	H d	70.7	7.00	6.87	6.93	6.93	6.89	6.89	6.83	6.95	7.02	6.98	7.35	6.94		7.04	6.93	68.9	6.97	6.89	7.09	6.83	N.	N.	R.	Ä.	R.	68.9
	E.C. (umbos/cm)	1293	726	997	1093	1502	1317	1361	1857	1826	2698	1216	602	1128		751	778	1850	2022	1066	2267	2795	N R	NR	Ν.	N.	NR	1740
	Total Well Depth (ft below TOC)	9.94	9.94	9.94	9.94	9.94	9.94	9.94	9.94	9.94	9.94	9.94	9.94	9.94		9.72	9.72	9.72	9.72	9.72	9.72	9.72	NR	NR	N R	NR	NR	9.72
	Depth to Product (ff below TOC)	NPP	ddN	ddN	ddN	NPP	NPP	NPP	NPP	NPP	NPP	NPP	NPP	NPP	a dispersion of the little	NPP	NPP	NPP	NPP	NPP	NPP	NPP	NR	N.	NR	NR	NR	NPP
•	Depth to Water (ft below TOC)	5.40	5.67	4.33	4.02	5.70	7.65	7.32	6.39	6.61	6.17	6.18	8.61	5.78	A STATE OF THE STA	5.35	5.43	4.17	3.63	5.42	6.20	5.40	N.	Z.	NR	NR	NR	5.72
	DATE	Week of 11/10/08	Week of 7/14/08	Week of 5/12/08	Week of 03/10/08	Week of 10/29/07	Week of 8/20/07	Week of 6/18/07	Week of 2/26/07	Week of 12/04/06	Week of 9/11/06	Week of 6/17/06	Week of 3/06/06	Week of 8/15/05		Week of 11/10/08	Week of 7/14/08	Week of 5/12/08	Week of 03/10/08	Week of 10/29/07	Week of 8/20/07	Week of 6/18/07	Week of 2/26/07	Week of 12/04/06	Week of 9/11/06	Week of 6/17/06	Week of 3/06/06	Week of 8/15/05
	Sampling February	4th Quarter 2008	3rd Quarter 2008	2nd Quarter 2008	1st Quarter 2008	4th Quarter 2007	3rd Quarter 2007	2nd Quarter 2007	1st Quarter 2007	4th Quarter 2006	3rd Quarter 2006	2nd Quarter 2006	1st Quarter 2006	Baseline		4th Quarter 2008	3rd Quarter 2008	2nd Quarter 2008	1st Quarter 2008	4th Quarter 2007	3rd Quarter 2007	2nd Quarter 2007	1st Quarter 2007	4th Quarter 2006	3rd Quarter 2006	2nd Quarter 2006	1st Quarter 2006	Baseline
	Sample						· · · · · · · · · · · · · · · · · · ·	9# d.I.													,	(# 러.						

Field Measurements											100 March 1980	EP.	EPA Method 8021B	021B		EPA Method 8015B	od 8015B
Charles Char			ij	eld Measu							22/9/2018/82	WQCC ZONMAC		WOCC		TPH Sc Guideline	reening s Table 2a =
A. M. B. M. B											0.005	0.75	0.7	0.62		1.72	
Worker of State State of State GGA A 170 State GGA G 124 G 1014 G 10			Depth to Water (ft below TOC)	Depth to Product (fi below TOC)	Total Well Depth (ff below TOC)	15 Tel 15	Hd	TEMP (PE)	D:O. (mg/L)	ORP (mV)	Benzene (mg/L)	Toluene (mg/L)	Ethylben (mg/L)		100	DRO (mg/L)	GRO (mg/L)
WANNESTOR SERSI NAPP 6777 GEST	2008	Week of 11/10/08		MPP		1810	96.9	60.4	4.70	230	<0.005	<0.005	0.27	0.92	<0.013	8.60	9.60
Weeker 4.44 NPP 91.72 186.3 6.81 1.95 1.19 0.00	2008	Week of 7/14/08	5.88	NPP	9.72	1627	6.86	68.9	0.49	264	<0.01	<0.01	0.34	2.40	<0.025	1.30	14.00
OFFINITION 6.57 18.77 6.50 6.50 1.65	- 2008	Week of 5/12/08	4,44	AAN	9.72	1863	6.91	56.6	1.39	175	<0.01	<0.01	0.39	2.40	<0.025	1.10	19.00
Workey of the Sate Sate of the Sate Cate of the Sat	2008	Week of 03/10/08	4.13	APP	9.72	1877	6.90	49.0	1.69	214	<0.01	<0.01	0.37	1.80	<0.025	1.40	15.00
Weeker III. 6.57 NAPP 9.72 3.084 6.83 7.44 0.36 4.05 6.01 6.01 6.01 6.01 6.01 6.01 6.01 6.01 6.01 7.00 6.00 7.00	r 2007	Week of 10/29/07	5.81	ddN	9.72	2555	6.88	64.1	7.0	185	<0.01	<0.01	0.38	1.50	<0.025	1.60	14.00
With Red 6.22 NPP 9.72 2704 6.82 6.83 1.27 1.60 0.01 0.01 0.02 9.60 0.02 1.00 0.02 2.10 0.02 0.02 2.10 0.02	r 2007	Week of 8/20/07	6.67	ddN	9.72	3084	6.89	74.4	0.36	245	<0.01	<0.01	0.48	3.70		1.70	31.00
Windle of State 8.57 NPP 9.12 2.864 6.85 5.26 2.45 2.00 1.00	er 2007	Week of 6/18/07	6.22	ddN	9.72	2704	6.92	663	1.21	160	<0.01	<0.01	0.29	1.78.60.33		1.20	35.00
Wilster of State NPP 9,72 29,77 7,04 67,15 15,6 15,6 40,00	er 2007	. Week of 2/25/07	8.57	ddN	9.72	2964	6.95	50.5	2.45	208	<0.01	<0.01	1.30	13.00		2.10	70.00
WYMEN CLIST TAS 7.01 6.75 0.01 6.75 6.01 6.02 6.010 6.81 6.90	er 2006	Week of 12/04/06	8.21	qqN	9.72	1855	7.04	57.3	1.56		0.04	<0.010	1.30	12:00	***************************************	1.40	79.00
Windley Call 7.50 NPP 9.72 20.32 7.01 67.6 0.48 14.3 0.026 c0.00 0.64 6.50 4.02 6.00 6.00 6.00 4.00 6.00 7.00	ter 2006	Week of 9/11/06	6.21	ddN	9.72	2977	7.03	74.6	0.43	107	<0.01	<0.010	0.58	1.60		5.60	57.00
Wheeled S 6.51 RPD 9.72 1613 7.24 NR NR 17.10 40.06 4	rter 2006	Week of 6/17/06	7.50	ddN	9.72	2032	7.01	9.79	0.48		0.26	<0.100	0.64	6.30		6.80	19.00
WYMENS OF SEAST 6.81 172.4 NR NR <td>ırter 2006</td> <td>Week of 3/06/06</td> <td>8.92</td> <td>MPP</td> <td>9.72</td> <td>1613</td> <td>7.03</td> <td>52.6</td> <td>0.61</td> <td>228</td> <td>0.35</td> <td><0.10</td> <td>1.10</td> <td>10:00</td> <td><0.025</td> <td></td> <td>37.00</td>	ırter 2006	Week of 3/06/06	8.92	MPP	9.72	1613	7.03	52.6	0.61	228	0.35	<0.10	1.10	10:00	<0.025		37.00
Week of Veets 5.40 NPP 10.37 2074 6.87 67.9 3.72 119 <0.001 <0.001 <0.002 <0.0025 <1.00 11/10/08 5.40 NPP 10.37 17/12 6.96 61.6 0.78 216 <0.001	eline	Week of 8/15/05	6.61	NPP	9.72	1934	6.94	72.4	N.	N.	1.10	<0.05	3.20	25:00	<0.25	7.80	84.00
Vivelet of Victor 5.23 NPP 10.37 2074 6.87 67.9 3.72 119 <0.001 <0.001 <0.002 <0.0025 <1.00 Vivelet of Vivelet of Vivelet of Vivelet of Vivelet of Vivelet of State 6.40 6.16 0.78 216 <0.001						the second second											
Vicesk of State 5.40 NPP 10.97 1712 6.95 61.6 0.78 216 <0.001 <0.001 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002	rter 2008	Week of 11/10/08	5.23	MPP	10.97	2074	6.87	67.9	3.72	119	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
Wilesk of Long A.D. Holesk of Long NAPP 1471 6.89 45.3 1.98 147 <a.0.001< th=""> <a.0.001< th=""> <a.0.002< th=""> <a.< td=""><td>rter 2008</td><td>Week of 7/14/08</td><td>5.40</td><td>NPP</td><td>10.97</td><td>1712</td><td>6.95</td><td>61.6</td><td>82.0</td><td>216</td><td><0.001</td><td><0.001</td><td><0.001</td><td><0.002</td><td><0.0025</td><td><1.00</td><td><0.05</td></a.<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.002<></a.0.001<></a.0.001<>	rter 2008	Week of 7/14/08	5.40	NPP	10.97	1712	6.95	61.6	82.0	216	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
Week of Name and State (a) 4.5.3 4.5.3 1.66 245 c.0.001 c.0.001 c.0.002	arter 2008	Week of 5/12/08	4.03	ddN	10.97	1471	6.87	51.8	1.98	147	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
Week of Neek of Neek of NP 4.94 NPP 10.97 875 6.98 61.7 0.41 218 <0.001 <0.001 <0.001 <0.001 <0.002 <0.0025 <1.00 Week of Neek of Ne	ırter 2008	Week of 03/10/08	3.32	NPP	10.97	1559	6.89	45.3	1.66	245	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
Week of Vision 5.18 NPP 1342 7.11 67.5 1.15 136 6.001 6.001 6.0001	rter 2007	Week of 10/29/07	4.94	NPP	10.97	875	6.98	61.7	0.41	218	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
Week of Full Story 5.36 6.90 58.5 0.31 224 <0.001 <0.001 <0.001 <0.002 <0.0025 <1.00 Week of Story S.07 NPP 10.97 2149 7.06 51.9 1.37 254 <0.001	rter 2007	Week of 8/20/07	5.18	ddN	10.97	1342	7.11	67.5	1.15	136	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
Week of 1/20507 5.07 NPP 10.97 2379 6.85 46.1 0.85 173 <0.001 <0.001 <0.001 <0.001 <0.001 <0.0025 <1.00 1/Week of 1/Week of 9/1/Vo6 5.39 NPP 10.97 2149 7.06 51.9 1.37 254 <0.001	arter 2007	Week of 6/18/07	4.73	NPP	10.97	2035	06'9	58.5	0.31	224	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
Week of 91106 5.39 NPP 10.97 2149 7.06 51.9 1.37 254 <0.001 <0.001 <0.001 <0.003 <0.0025 <1.00 Week of 91106 5.26 NPP 10.97 1883 7.02 60.6 0.39 169 <0.001	rter 2007	Week of 2/26/07	5.07	ddN	10.97	2379	6.85	46.1	0.85	173	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
Week of StA8 NPP 10.97 1809 7.04 64.8 1.09 219 <0.001 <0.001 <0.003 <0.0025 <1.00 9/1/06 5.26 NPP 10.97 1883 7.02 60.6 0.39 169 <0.001	rter 2006	Week of 12/04/06	5.39	ddN	10.97	2149	7.06	51.9	1.37	254	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
Week of State 5.26 NPP 10.97 1883 7.02 60.6 0.39 169 <0.001 <0.001 <0.003 <0.0025 <1.00 Week of 306/06 5.21 NPP 10.97 1944 7.02 47.8 0.75 214 <0.001	rter 2006	Week of 9/11/06	5.48	ddN	10.97	1809	7.04	64.8	1.09	219	<0.001	<0.001	0.001	<0.003	<0.0025	<1.00	0.72
Week of 3/06/06 5.21 NPP 10.97 1944 7.02 47.8 0.75 214 <0.001 <0.001 <0.003 <0.0025 <1.00 Week of 8/15/05 5.12 NPP 10.97 1968 6.92 62.8 NR NR <0.005	rter 2006	Week of 6/17/06	5.26	NPP	10.97	1883	7.02	9'09	0.39	169	<0.001	<0.001	0.001	<0.003	<0.0025	<1.00	<0.05
Week of NPP 10.97 1968 6.92 62.8 NR NR <0.005 <0.001 <0.003 0.02 0.027 <1.00	ter 2006	Week of 3/06/06	5.21	NPP	10.97	1944	7.02	47.8	0.75	214	<0.001	<0.001	<0.003	<0.003	<0.0025	<1.00	0.09
	eline	Week of 8/15/05	5.12	NPP	10.97	1968	6.92	62.8	N.	N.	<0.005	<0.001	<0.003	0.02	0.027	<1.00	1.10





od 8015B eening	Table 2a		GRO (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
EPA Method 8015B	Guidelines Table 2a	1.72	DRO (mg/L)	<1.00	41.00	41.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	×1.00	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	×1.00
			MTBE (mg/L)	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
21B Wacc	20NMAC	0.62	Xylene (mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.003	<0.003	<0.003	<0.003	0.0025	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.003	<0.003	<0.003	<0.003	0.0028
EPA Method 8021B	· MCL	0.7	Ethylben (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005
Macc	20NMAC	0.75	Toluene (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005
	- ACF	0.005	Benzene (mg/៤)∍	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005
; }			(ww) asso	198	212	107	213	253	230	213	233	269	247	168	224	N.	203	229	148	239	242	226	217	262	257	269	177	243	χ.
			D:O. (mg/L)	1.48	1.13	0.77	2.52	2.28	1.16	7.32	3.87	1.44	0.45	1.52	1.72	NR	0.89	0.50	0.78	3.21	0.59	1.49	1.69	1.45	0.97	0.36	1.11	0.24	N.
			TEMP (PE	50.7	66.5	53.7	43.5	51.3	61.8	57.2	41.1	44.9	62.6	59.8	42.8	71.2	58.4	64.7	52.9	42.5	56.6	69.4	62.5	44.2	52.8	67.7	62.6	45.4	68.2
			Hd	7.06	7.11	6.88	6.94	6.90	6.98	6.86	6.85	7.00	6.97	7.01	66.9	6.94	6.95	7.03	6.87	6.94	6.93	7.02	6.84	6.87	7.07	7.06	6.98	6.92	6.93
			E.C (umhos/cm)	343	405	479	279	307	368	268	426	387	395	325	355	377	745	850	640	611	541	596	378	540	738	632	551	851	794
,	rements		Total Well Depth (ft below TOC)	9.95	9.95	9.95	9.95	9.95	9.95	9.95	9.95	9.95	9.95	9.95	9.95	9.95	9.98	9.98	9:98	9.98	86.6	9.98	9:98	9.98	9.98	9.98	9.98	9.98	9.98
	Field Measurements		Depth to Product (ft below TOC)	NPP	NPP	NPP	NPP	NPP	NPP	NPP	ddN	NPP	ddN	NPP	ddN	NPP	ddN	NPP	ddN	NPP	ddN	MPP	ddN	ddN	ddN	NPP	ddN	ddN	МРР
	Ē		Depth to Water (ft below TOC)	4.64	4.88	3.78	2.83	4.74	5.32	4.62	5.23	5.57	5.26	5.23	5.86	5.10	5.09	5.47	4.15	3.43	5.18	5.75	5.17	5.69	6.00	5.69	5.61	6.31	5.67
			DATE	Week of 11/10/08	Week of 7/14/08	Week of 5/12/08	Week of 03/10/08	Week of 10/29/07	Week of 8/20/07	Week of 6/18/07	Week of 2/26/07	Week of 12/04/06	Week of 9/11/06	Week of 6/17/06	Week of 3/06/06	Week of 8/15/05	Week of 11/10/08	Week of 7/14/08	Week of 5/12/08	Week of 03/10/08	Week of 10/29/07	Week of 8/20/07	Week of 6/18/07	Week of 2/26/07	Week of 12/04/06	Week of 9/11/06	Week of 6/17/06	Week of 3/06/06	Week of 8/15/05
			Sampling	4th Quarter 2008	3rd Quarter 2008	2nd Quarter 2008	1st Quarter 2008	4th Quarter 2007	3rd Quarter 2007	2nd Quarter 2007	1st Quarter 2007	4th Quarter 2006	3rd Quarter 2006	2nd Quarter 2006	1st Quarter 2006	Baseline	4th Quarter 2008	3rd Quarter 2008	2nd Quarter 2008	1st Quarter 2008	4th Quarter 2007	3rd Quarter 2007	2nd Quarter 2007	1st Quarter 2007	4th Quarter 2006	3rd Quarter 2006	2nd Quarter 2006	1st Quarter 2006	Baseline
			Sample						0	l# d.	L											ļ	.↓# d.	L					

Columbia C	Ground Water Moniconnig	MOMEO	SILI SI	证	Field Measurements	rements	,					MCL	WQCC 20NMAG	EPA Method 80	8021B WGCC 20NMAC		EPA Method 8015B TPH Screening Guidelines Table 24	EPA Method 8015B. TPH Screening Guidelines Table 2a
1,059 6.87 5.33 1.10 2.70 6.67 7.00					•							W/61	0.75	0.7	0.62		1.72	
1,10,10,10,10,10,10,10,10,10,10,10,10,10	Sampling DATE Cepth to Water Product To Event (it below TOC) (if the low TOC)	Depth to Water Product Product (ft below TOC) (ft below TOC)	Depth to Product (ft below TOC)	Depth to To		Total Well Depth (ft below TOC)		PH.	TEMP (°F)	Service Committee of the Committee of th	RP (mV)	Benzene -(mg/L)>	Toluene (mg/L)	Ethylben (mg/L)	Xylene (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)
556 6.87 58.9 0.48 250 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.002 <0.0025 <1.100 771 6.88 53.3 0.77 142 <0.001	4th Quarter 2008 Week of 11/10/08 6.83 NPP	6.83		NPP		11.79	1059	6.87	53.8	1.10	279	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
771 6.85 53.9 0.77 142 <0.001 <0.001 <0.001 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002	3rd Quarter 2008 Week of 7.18 NPP	7.18		ddN		11.79	526	6.97	58.9	0.46	250	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
1197 6.86 47.9 17.5 284 < 0.001 < 0.001 < 0.002 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025 < 0.0025	2nd Quarter 2008 VVeek of 5/12/08 5.85 NPP	5.85		APP		11.79	771	6.85	53.9	0.77	142	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
1745 6.85 6.43 0.56 271 0.001 0.001 0.001 0.002 0.0025 0.100 1750 6.81 6.87 2.04 2.22 0.001 0.001 0.001 0.002 0.0025 0.100 1750 6.81 6.82 2.04 2.02 0.001 0.001 0.002 0.0025 0.100 1855 6.92 6.92 2.28 3.11 2.22 0.001 0.001 0.001 0.002 0.0025 0.100 1734 6.88 6.00 0.91 2.27 0.001 0.001 0.001 0.002 0.0025 0.100 1734 6.88 6.41 NR NR 0.001 0.001 0.001 0.0025 0.100 1734 6.88 6.41 NR NR 0.001 0.001 0.001 0.0025 0.0025 1734 6.88 6.41 NR NR 0.001 0.001 0.001 0.0025 0.0025 1735 6.89 6.45 1.21 2.28 0.001 0.001 0.001 0.0025 0.0025 1734 6.88 6.41 NR NR 0.001 0.001 0.0025 0.0025 0.0025 1735 6.89 6.45 2.40 0.001 0.001 0.001 0.0025 0.0025 0.0025 1734 6.88 6.41 NR NR 0.001 0.001 0.001 0.0025 0.0025 0.0025 1735 6.89 6.45 2.40 0.001 0.001 0.001 0.0025 0.0025 0.0025 1735 6.89 6.45 2.40 0.001 0.001 0.001 0.0025 0.0025 0.0025 1735 6.89 6.80 0.74 2.37 0.001 0.001 0.001 0.0025 0.0025 0.0025 1735 6.80 6.80 0.74 2.37 0.001 0.001 0.001 0.0025 0.0025 0.0025 1735 6.80 6.80 0.54 2.51 0.001 0.001 0.001 0.0025 0.0025 0.0025 1736 6.80 0.54 2.55 0.001 0.001 0.001 0.0025 0.0025 0.0025 1735 6.80 0.54 2.44 0.001 0.001 0.001 0.0025 0.0025 0.0025 1736 0.50 0.50 0.001 0.001 0.001 0.0025 0.0025 0.0025 1736 0.50 0.50 0.50 0.001 0.001 0.0025 0.0025 0.0025 1736 0.50 0.50 0.50 0.001 0.001 0.0025 0.0025 0.0025 1736 0.50 0.50 0.50 0.001 0.001 0.0025 0.0025 0.0025 1737 0.50 0.	5.11 NPP	5.11 NPP	QAN			11.79	1197	98.9		1.75	264	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
1750 6.81 56.7 1.6 228 <0.001 <0.001 <0.002 <0.0025 <1.00 <1.00 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.000 <1.00	6.92 NPP	6.92 NPP	ad Z		`	11.79	1745	e e		0.56	1.72	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
1750 6.81 56.7 2.04 24.2 < 0.001 0.001 0.001 0.002 0.0025 0.1002 0.10	6.36 NPP	6.36 NPP	- Adv			11.79	2189	6.97	57.1	1.6	238	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
855 6.92 48.2 1.73 205 <0.001 <0.001 <0.002 <0.0025 <1.00 1875 6.98 62.8 3.11 252 <0.001	6.82 NPP	6.82 NPP	A d d		+	11.79	1750	6.81	56.7	2.04	242	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
1875 6.98 62.8 3.11 252 6.001 6.001 6.001 6.001 6.003 6.002 6.100 6.	1st Quarter 2007 Week of 7.40 NPP 11.79	7.40 NPP	GDN		11.	62	952	6.92		1.73	205	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
1471 7.00 55.9 0.26 157 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	4th Quarter 2006 Week of 12/04/06 7.67 NPP 11	7.67 NPP	NPP		11	11.79	855	6.99	52.8	3.11	252	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
1134 6.91 48.0 0.19 242 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	3rd Quarter 2006 Week of 9/11/06 7.48 NPP 11.79	7.48 NPP	NPP		11.7	79	1875	6.98	0.09	0.91	237	<0.001	<0.001	<0.001	<0.003	0.0081	<1.00	<0.05
1234 6.88 6.81 48.0 0.19 242 <0.0001 <0.0005 0.00025 0.0025 <1.000 <1.00 2143 6.88 64.1 NR <0.0005	2nd Quarter 2006 Week of 6/17/06 7.44 NPP 11.79	7.44 NPP	MPP		11.	62	1171	7.00		0.26	157	<0.001	<0.001	<0.001	<0.003	0.0049	<1.00	<0.05
2143 6.88 64.1 NR NR COOD COO	1st Quarter 2006 Week of 3/06/06 7.94 NPP 11.79	7.94 NPP	MPP		11.7	6	1234	6.91	48.0	0.19	242	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
422 6.96 57.2 1.21 228 <0.001 <0.001 <0.002 <0.0025 <1.00 584 7.02 56.7 1.21 228 <0.001	Baseline Week of 7.43 NPP 11.79	7.43 NPP	43 NPP		11.7	6	2143	6.88	64.1	R R	NR	<0.0005	<0.0005	0.00055	0.0042	0.0028	1.00	<0.05
422 6.96 57.2 1.21 228 <0.001 <0.001 <0.001 <0.002 <0.0025 <1.00 584 7.02 56.7 0.53 240 <0.001		Week of																
564 7,02 56.7 0.53 240 <0.001 <0.001 <0.002 <0.0025 <1.00 500 6.88 52.8 0.77 122 <0.001	5.72 NPP	5.72 NPP	MPP		16.	16.09	422	96.9	57.2	1.21	228	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
500 6.88 52.8 0.77 122 <0.001 <0.001 <0.002 <0.0025 <1.00 478 6.89 45.6 4.58 257 <0.001	5.97 NPP	5.97 NPP	MPP		16	16.09	584	7.02	56.7	0.53	240	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
478 6.89 45.6 4.58 257 <0.001 <0.001 <0.001 <0.002 <0.0025 <1.00 342 6.99 58.6 0.74 237 <0.001	2nd Quarter 2008 Week of 5/12/08 4.69 NPP 16.	4.69 NPP	NPP		16.	16.09	500	6.88	52.8	7.70	122	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
342 6.99 58.6 0.74 237 <0.001 <0.001 <0.002 <0.0025 <1.00 472 7.04 58.3 1.29 220 <0.001	3.92 NPP	3.92 NPP	МРР		16	16.09	478	68.9	45.6	4.58	257	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
472 7.04 58.3 1.29 220 <0.001 <0.001 <0.002 <0.0025 <1.00 563 6.86 56.3 1.43 207 <0.001	5.80 NPP	5.80 NPP	ddN		16	16.09	342	6.99		0.74	237	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
563 6.86 56.3 1.43 207 <0.001 <0.001 <0.002 <0.0025 <1.00 449 6.97 46.7 1.86 236 <0.001	3rd Quarter 2007 Week of 8/20/07 6.17 NPP 16	6.17 NPP	NPP		1	16.09	472	7.04		1.29	220	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
449 6.97 46.7 1.86 236 <0.001 <0.001 <0.001 <0.002 <0.0025 <1.00 515 7.08 53.9 0.97 251 <0.001	2nd Quarter 2007 Week of 6/18/07 5.63 NPP 16	5.63 NPP	NPP		16	16.09	563	6.86	56.3	1.43	207	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
515 7.08 53.9 0.97 251 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.0025 <1.00 554 6.98 63.9 0.54 244 <0.001	1st Quarter 2007 Week of 2/26/07 6.16 NPP 16.09	6.16 NPP	qqN		16.	60	449	6.97	46.7	1.86	236	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
554 6.98 63.9 0.54 244 <0.001 <0.001 <0.001 <0.001 <0.002 <1.00 526 7.02 58.6 0.28 240 <0.001	6.51 NPP	6.51 NPP	51 NPP		16.	16.09	515	7.08	53.9	76.0	251	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
526 7.02 58.6 0.28 240 <0.001 <0.001 <0.001 <0.001 <0.002 <1.00 508 6.90 46.3 0.28 242 <0.001	6.33 NPP	6.33 NPP	NPP		-	16.09	554	6.98	63.9	0.54	244	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
508 6.90 46.3 0.28 242 <0.001 <0.001 <0.001 <0.003 <0.0025 <1.00 1226 6.97 58.4 NR NR <0.0005	2nd Quarter 2006 Week of 6.35 NPP	6.35		APP		16.09	526	7.02	58.6	0.28	240	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
1226 6.97 58.4 NR NR <0.0005 <0.0005 0.0037 <0.0025 <1.00	6.78 NPP	6.78 NPP	ddN			16.09	508	6.90	46.3	0.28	242	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
	Baseline Week of 8/15/05 6.27 NPP 16	6.27 NPP	MPP		Ψ	16.09	1226	6.97	58.4	R.	A.	<0.0005	<0.0005	<0.0005	0.0037	<0.0025	<1.00	<0.05









Segment Average Control (Tribolova) COS) Tribolova Cost Tribolova C				Recording to the state of the s	1 6	rements			- 1-100/2004 名配子 - 2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	7.7.7.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2		MCL 0.005	EP/ WGCC ZONMAC 0:75	MCL MCL	od 80	EPA Method 8021B WQCC O MCL 20NMAC 0.77 0.652	od 8021B WGCC IL 20NIMAC 77 0162	od 8021B EPA Method 8015B WQCC TPH Screening. L 20NMAC Guidelines Table 2a 7 0.62 1772
The Quarter 2008 Windows 5,72 NPP 156.2 2443 6.35 6.56 6.59 Jud Quarter 2008 Windows 5,72 NPP 156.2 2443 6.35 6.55 6.59 Jud Quarter 2008 Windows 4.11 NPP 156.2 226.4 6.73 4.45 1.58 Jud Quarter 2007 Windows 4.11 NPP 156.2 226.4 6.73 4.45 1.58 Jud Quarter 2007 Windows 6.71 NPP 156.2 226.4 6.75 6.65 0.59 Jud Quarter 2007 Windows 6.71 NPP 156.2 226.4 6.75 6.65 0.20 Jud Quarter 2007 Windows 6.71 NPP 156.2 226.4 6.75 6.65 0.20 Jud Quarter 2007 Windows 6.11 NPP 156.2 226.4 6.75 6.65 0.20 Jud Quarter 2007 Windows 6.11 NPP 156.2 226.4 6.75 6.65 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.2 226.4 6.85 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.2 226.4 6.85 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.2 226.4 6.85 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.4 6.85 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.4 6.85 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.4 6.85 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.4 6.85 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.4 6.85 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.5 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.5 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.5 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.5 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.5 0.20 6.25 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.5 0.20 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.5 0.20 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.5 0.20 0.20 Jud Quarter 2008 Windows 6.38 NPP 156.4 226.5 0.20 0.20	Sample .ocation	A 40 M 15	DATE	Depth to Water (ft.below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ff below TOC)	E.C. (umhos/cm)		20 March 1997	'0.0. (mg/L)		NOSWII	(mg/L)	MALE MARKET STOP	Benzene (mg/L):	Benzene Toluene: (mg/L) (mg/L)	Benzene Töluene: Ethylben (mg/L): (mg/L) (mg/L)	Benzene Töluene: Ettiylben: Xylene (mg/L); (mg/L) (mg/L)
Standarder 2006 Tytuko Saga NAPP 15.6.2 244.3 6.5.3 6.5.6 0.5.9 15.0.0 And Quarter 2006 Tytuko Saga NAPP 15.6.2 256.8 6.5.7 6.4.7 2.9.8 20.4. Standarder 2006 Syzee Saga Saga NAPP 15.6.2 256.8 6.5.7 6.5.8 2.9.4 And Quarter 2007 Tytuko Saga NAPP 15.6.2 12.9.8 7.0.6 6.5.8 6.2.9 6.2.5 2.9.4 And Quarter 2007 Tytuko Saga NAPP 15.6.2 254.8 6.7.8 6.7.8 6.2.8 2.9.4 And Quarter 2007 Tytuko Saga NAPP 15.6.2 27.8 27.9 2.9.4 And Quarter 2006 Tytuko Saga NAPP 15.6.2 27.9 27.9 2.9.4 And Quarter 2006 Tytuko Saga NAPP 15.6.2 27.9 27.9 2.9.4 And Quarter 2008 Tytuko Saga NAPP 15.6.2 27.9 27.9 2.9.4 And Quarter 2008 Tytuko Saga NAPP 15.6.2 27.9 27.9 2.9.4 And Quarter 2008 Tytuko Saga NAPP 15.6.2 27.9 27.9 2.9.4 And Quarter 2008 Tytuko Saga NAPP 16.48 27.2 27.9 2.9.4 And Quarter 2008 Tytuko Saga NAPP 16.48 27.9 2.9.4 And Quarter 2008 Tytuko Saga NAPP 16.48 27.9 2.9.4 And Quarter 2008 Tytuko Saga NAPP 16.48 27.9 2.9.4 And Quarter 2008 Tytuko Saga NAPP 16.48 27.9 2.9.4 And Quarter 2007 Tytuko Saga NAPP 16.48 27.9 27.0 2.9.5 And Quarter 2008 Tytuko Saga NAPP 16.48 27.9 27.0 2.9.5 And Quarter 2008 Tytuko Saga NAPP 16.48 27.9 27.0 2.9.5 And Quarter 2008 Tytuko Saga NAPP 16.48 27.9 27.0 2.9.5 And Quarter 2008 Tytuko Saga NAPP 16.48 27.9 27.0 2.9.5 And Quarter 2008 Tytuko Saga NAPP 16.48 27.9 27.0 2.9.5 And Quarter 2008 Syga NAPP 16.48 27.9 27.0 2.9.5 And Quarter 2008 Tytuko Saga NAPP 16.48 27.9 27.0 2.9.5 And Quarter 2006 Syga NAPP 16.48 27.9 27.0 26.9 27.0 2.9.5 And Quarter 2006 Syga NAPP 16.48 27.9 27.0 27.0 27.0 27.0 27.0 And Quarter 2006 Syga NAPP 1		4th Quarter 2008	Week of 11/10/08	5.72	NPP	15.62	2462	6.76		2.06	159		<0.001	<0.001 <0.001		<0.001	<0.001 <0.001	<0.001 <0.001 <0.002
Total Quanter 2008 Wireles of Alice Action Action		3rd Quarter 2008	Week of 7/14/08	5.89	NPP	15.62	2443	6.93	65.5	0.59	160	v	0.001	0.001 <0.001		<0.001	<0.001 <0.001	<0.001 <0.001 <0.002
15 Counter 2006 Ovicine Counter 2007 O		2nd Quarter 2008	Week of 5/12/08	4.66	ddN	15.62	2568	6.87	54.7	2.98	204	. 0.	001	001 <0.001		<0.001	<0.001 <0.001	<0.001 <0.001 <0.002
Auth Quarter 2007 Weeker of the Color		1st Quarter 2008	Week of 03/10/08	4.11	NPP	15.62	2804	6.73	44.5	1.58	239	<0.0	101	101 <0.001	-	<0.001	<0.001 <0.001	<0.001 <0.001 <0.002
3rd Quarter 2007 Week of Week of State (State 1) NPP 16.62 1928 7.05 66.7 0.27 145 2nd Quarter 2007 Week of State (State 1) NPP 16.62 2548 6.75 58.6 4.89 257 17.04 6.27 27.04		4th Quarter 2007	Week of 10/29/07	5.80	ddN	15.62	1990	6.88		0.62	294	<0.0(11	100.001		<0.001	<0.001 <0.001	<0.001 <0.001 0.01
11 Clarater 2007 Week of New York of N		3rd Quarter 2007	Week of 8/20/07	6.71	NPP	15.62	1928	7.05	65.7	0.27	155	×0.00	-	1 <0.001		<0.001	<0.001 <0.001	<0.001 <0.001 0.01
131 Quarter 2007 Week of 6.11 NPP 15.62 2756 6.88 48.1 0.65 235 4th Quarter 2006 Week of 6.39 NPP 15.62 2769 7.01 5.27 1.24 281 31d Quarter 2006 Week of 6.49 NPP 15.62 2759 7.01 5.27 1.24 281 15 Quarter 2006 Week of 6.49 NPP 15.62 2753 6.56 58.0 0.42 143 15 Quarter 2006 Week of 7.91 NPP 15.62 2753 6.56 58.0 0.42 143 15 Quarter 2006 Week of 7.91 NPP 15.62 2759 6.95 50.2 0.75 6.44 15 Quarter 2006 Week of 7.91 NPP 15.62 2718 6.95 50.2 0.75 6.44 31d Quarter 2008 Week of 7.96 NPP 16.48 2280 6.96 6.11 0.59 148 31d Quarter 2007 Week of 7.95 NPP 16.48 2740 6.95 6.95 6.13 0.39 285 4th Quarter 2007 Week of 8.72 NPP 16.48 2740 6.95 6.95 6.95 0.75 246 4th Quarter 2007 Week of 8.72 NPP 16.48 2740 6.95 6.95 6.95 0.75 246 4th Quarter 2007 Week of 8.73 NPP 16.48 2740 6.95 6.95 6.95 0.75 285 4th Quarter 2007 Week of 8.73 NPP 16.48 2750 6.95 6.95 6.95 0.75 285 4th Quarter 2007 Week of 8.73 NPP 16.48 2750 6.95 6.95 6.95 0.75 285 4th Quarter 2007 Week of 8.73 NPP 16.48 2750 6.95 6.95 6.95 0.75 285 4th Quarter 2006 Week of 8.73 NPP 16.48 2750 6.95 6.95 0.75 2750 4th Quarter 2006 Week of 9.16 NPP 16.48 2750 6.95 6.95 0.75 2750 4th Quarter 2006 Week of 9.16 NPP 16.48 2750 6.95 0.75 0.75 2750 4th Quarter 2006 Week of 9.16 NPP 16.48 2750 0.75 0.75 0.75 0.75 4th Quarter 2006 Week of 9.16 NPP 16.48 2750 0.70 5.75 0.75 0.75 0.75 4th Quarter 2006 Week of 9.16 NPP 16.48 2750 0.70 5.75 0.75 0.75 0.75 4th Quarter 2006 Week of 9.16 NPP 16.48 2750 0.70 5.75 0.75 0.75 0.75 4th Quarter 2006 Week of 9.16 NPP 16.48 2750 0.70 0.70 0.75	# MC	2nd Quarter 2007	Week of 6/18/07	5.81	NPP	15.62	2548	6.75	58.6	4.59	257	<0.00	_	1 <0.001		<0.001	<0.001 <0.001	<0.001 <0.001 0.0026
Attrition]	1st Quarter 2007	Week of 2/26/07	6.11	MPP	15.62	3126	6.88	48.1	0.65	235	<0.001		<0.001		<0.001	<0.001 <0.001	<0.001 <0.001 <0.002
3rd Quarter 2006 Wieek of Meek of Supervision		4th Quarter 2006	Week of 12/04/06	5.58	ddN	15.62	2789	7.01	52.7	1.24	281	<0.001	-	<0.001	<0.001 <0.001		<0.001	<0.001 <0.003
2nd Quarter 2006 Wheek of Mode		3rd Quarter 2006	Week of 9/11/06	6.39	MPP	15.62	2067	7.04	66.2	0.30	258	<0.005		<0.005	<0.005 <0.005		<0.005	<0.005 <0.015
151 Quarter 2006 Week of 7.91 NPP 15.62 2118 6.95 50.2 0.75 5.64 NR Neek of 51/506 6.43 NPP 15.62 1226 6.97 58.4 NR NR Neek of 6.43 NPP 15.62 1418 2230 6.98 61.1 0.59 148 211 211/2028 2		2nd Quarter 2006	Week of 6/17/06	6.49	NPP	15.62	2329	96.9	58.0	0.42	143	<0.001		<0.001	<0.001 0.016		0.016	0.016 0.12
Baseline Week of strings 6.43 NPP 15.62 1226 6.97 58.4 NR NR 4th Quarter 2008 Week of 110008 8.72 NPP 16.48 2413 7.02 60.0 1.16 237 3rd Quarter 2008 Week of 110008 8.72 NPP 16.48 2283 6.92 5.28 2.61 148 2nd Quarter 2008 Week of 12000 8.95 NPP 16.48 2831 6.95 6.23 2.61 148 2nd Quarter 2007 Week of 110/2907 8.62 NPP 16.48 2740 6.95 6.23 0.39 175 246 4th Quarter 2007 Week of 12000 8.62 NPP 16.48 2246 6.86 6.39 0.52 192 3rd Quarter 2007 Week of 12000 8.41 NPP 16.48 2356 7.07 56.2 0.78 255 4th Quarter 2006 Week of 120406 8.16 NPP 16.48 2356 7.07 56.2		1st Quarter 2006	Week of 3/06/06	7.91	ddN	15.62	2118	6.95	50.2	0.75	-64	<0.005		<0.005	<0.005 0.041		0.041	0.041 0.23
4th Quarter 2008 Week of 1,110,008 8.72 NPP 16.48 2413 7.02 60.0 1.16 237 3rd Quarter 2008 Week of 7,144,08 9.03 NPP 16.48 2280 6.98 61.1 0.59 148 2nd Quarter 2008 Week of 7 7.66 NPP 16.48 2831 6.92 52.8 2.61 187 4th Quarter 2008 Week of 7 8.62 NPP 16.48 2740 6.95 62.3 0.39 265 3rd Quarter 2007 Week of 7 9.30 NPP 16.48 2740 6.95 62.3 0.39 265 3rd Quarter 2007 Week of 7 9.30 NPP 16.48 2740 6.95 67.5 192 3rd Quarter 2007 Week of 151907 8.79 NPP 16.48 2568 6.90 48.4 0.73 265 4th Quarter 2006 Week of 151907 8.79 NPP 16.48 70.7 57.9 0.78 234 3r		Baseline	Week of 8/15/05	6.43	ddN	15,62	1226	6.97	58.4	A.	χ. X.	<0.001		<0.001	<0.001 <0.001		<0.001	<0.001 0.0031
4th Quarter 2008 Week of Veek												A. A.						
3rd Quarter 2008 Week of Visions (Meek of Visions) NPP 16.48 2280 6.98 61.1 0.59 148 2nd Quarter 2008 Wild Week of Visions (Meek of Visions) 7.66 NPP 16.48 2831 6.92 52.8 2.61 187 4th Quarter 2008 Wild Week of Visions (Meek of Visions) 8.62 NPP 16.48 2740 6.95 6.23 0.52 192 2nd Quarter 2007 Week of Visions (Week of Visions) 8.41 NPP 16.48 2740 6.95 6.95 0.49 217 2nd Quarter 2007 Week of Visions (Week of Visions) 8.73 NPP 16.48 2568 6.90 48.4 0.73 265 4th Quarter 2006 Week of Visions 9.16 NPP 16.48 2356 7.07 56.2 0.78 295 4th Quarter 2006 9.11/col 9.38 NPP 16.48 701 7.01 57.9 0.78 295 2nd Quarter 2006 9.11/col 9.38 NPP 16.48		4th Quarter 2008	Week of 11/10/08	8.72	NPP	16.48	2413	7.02	0.09	1.16	237	<0.001		<0.001	<0.001 <0.001		<0.001	<0.001 <0.002
2nd Quarter 2008 Week of Veek		3rd Quarter 2008	Week of 7/14/08	9.03	МРР	16.48	2280	6.98	61.1	0.59	148	<0.001		<0.001	<0.001 <0.001		<0.001	<0.001 <0.002
1st Quarter 2008 Week of 10/29/07 6.95 NPP 16.48 3947 6.75 47.3 1.75 246 4th Quarter 2007 Week of 10/29/07 8.62 NPP 16.48 2740 6.95 62.3 0.39 265 3rd Quarter 2007 Week of 10/18/07 8.41 NPP 16.48 2740 6.95 67.5 0.49 217 4th Quarter 2007 Week of 12/20/07 8.73 NPP 16.48 2568 6.90 48.4 0.73 265 4th Quarter 2007 Week of 12/20/05 9.16 NPP 16.48 2356 7.07 56.2 0.78 295 4th Quarter 2006 Week of 12/20/06 9.16 NPP 16.48 701 7.01 57.9 6.75 0.78 234 2nd Quarter 2006 Week of 6/17/206 9.38 NPP 16.48 701 7.01 57.9 6.75 0.78 181 3nd Quarter 2006 Week of 6/17/206 10.07 NPP 16.48 701		2nd Quarter 2008	Week of 5/12/08	7.66	NPP	16.48	2831	6.92	52.8	2.61	187	0.0018	1	<0.001	<0.001 <0.001		<0.001	<0.001 <0.002
4th Quarter 2007 Week of Vocation 10/29/07 8.62 NPP 16.48 2740 6.95 62.3 0.39 265 3rd Quarter 2007 Week of 18/07 9.30 NPP 16.48 924 6.86 63.9 0.52 192 2nd Quarter 2007 Week of 18/07 8.79 NPP 16.48 2568 6.90 48.4 0.73 265 4th Quarter 2007 Week of 12/04/05 9.16 NPP 16.48 2356 7.07 56.2 0.78 295 3rd Quarter 2006 Week of 6/17/06 9.38 NPP 16.48 701 7.01 57.9 6.4.4 0.89 234 2nd Quarter 2006 Week of 6/17/06 9.38 NPP 16.48 701 7.01 57.9 0.26 181 3nd Quarter 2006 Week of 6/17/06 9.98 NPP 16.48 701 7.01 57.9 0.26 181 Baseline Week of 8/15/05 10.07 NPP 16.48 201 7.07 5		1st Quarter 2008	Week of 03/10/08	6.95	MPP	16.48	3947	6.75		1.75	246	<0.001	- 1	<0.001	<0.001 <0.001		<0.001	<0.001 <0.002
3rd Quarter 2007 Week of Signor 9,30 NPP 16,48 924 6,86 63.9 0,52 192 2nd Quarter 2007 Week of 12,00/106 8,41 NPP 16,48 2568 6,90 48,4 0,73 265 4th Quarter 2007 Week of 12,00/106 9,16 NPP 16,48 2356 7,07 56,2 0,78 295 3rd Quarter 2006 Week of 6,17,006 9,38 NPP 16,48 701 7,01 57,9 0,26 181 2nd Quarter 2006 6,17,006 9,38 NPP 16,48 701 7,01 57,9 0,26 181 2nd Quarter 2006 6,17,006 9,38 NPP 16,48 701 7,01 57,9 0,26 181 3nd Quarter 2006 6,17,006 9,98 NPP 16,48 701 7,07 51,9 0,33 190 Baseline 815,005 10,07 NPP 16,48 2393 6,96 59,8 NR		4th Quarter 2007	Week of 10/29/07	8.62	ddN	16.48	2740	6.95	62.3	0.39	265	<0.001		<0.001	<0.001 <0.001		<0.001	<0.001 <0.002
2nd Quarter 2007 Week of 151807 8.41 NPP 16.48 1217 6.95 57.5 0.49 217 1st Quarter 2007 Week of 12/04/05 8.79 NPP 16.48 2356 6.90 48.4 0.73 265 4th Quarter 2006 Week of 12/04/05 9.16 NPP 16.48 2356 7.07 56.2 0.78 295 2nd Quarter 2006 Week of 6/17/06 9.38 NPP 16.48 701 7.01 57.9 0.26 181 1st Quarter 2006 Week of 6/17/06 9.98 NPP 16.48 701 7.01 57.9 0.26 181 1st Quarter 2006 Week of 7/106 9.98 NPP 16.48 701 7.07 51.9 0.33 190 Baseline Week of 8/15/05 10.07 NPP 16.48 2393 6.96 59.8 NR NR	6	3rd Quarter 2007	Week of 8/20/07	9.30	NPP	16.48	924	6.86	63.9	0.52	192	<0.001		<0.001	<0.001 <0.001	· · · · · ·	<0.001	<0.001 <0.002
1st Quarter 2007 Week of Veek of 2126/07 8.79 NPP 16.48 2568 6.90 48.4 0.73 265 4th Quarter 2006 1 Week of 2126/07 9.16 NPP 16.48 2356 7.07 56.2 0.78 295 3rd Quarter 2006 Week of 617/06 9.38 NPP 16.48 701 7.01 57.9 0.26 181 2nd Quarter 2006 617/06 9.98 NPP 16.48 701 7.01 57.9 0.26 181 1st Quarter 2006 Week of 617/06 9.98 NPP 16.48 961 7.07 51.9 0.33 190 Baseline Week of 815/05 9.57 NPP 16.48 2393 6.96 59.8 NR NR	₩ M	2nd Quarter 2007	Week of 6/18/07	8.41	ddN	16.48	1217	6.95		0.49	217	<0.001		<0.001	<0.001 <0.001		<0.001	<0.001 <0.002
Week of 12/04/05 9.16 NPP 16.48 2356 7.07 56.2 0.78 295 12/04/05 9.38 NPP 16.48 1736 7.04 64.4 0.89 234 Week of 6/17/06 9.98 NPP 16.48 701 7.01 57.9 0.26 181 Week of 3/05/06 10.07 NPP 16.48 961 7.07 51.9 0.33 190 Week of 815/05 9.57 NPP 16.48 2393 6.96 59.8 NR NR	Wi	1st Quarter 2007	Week of 2/26/07	8.79	MPP	16.48	2568	6.90	48.4	0.73	265	<0.001		<0.001	<0.001 <0.001		<0.001	<0.001 <0.002
Week of Solutions 9.38 NPP 16.48 1736 7.04 64.4 0.89 234 Week of Solutions 9.98 NPP 16.48 701 7.01 57.9 0.26 181 Week of 306006 10.07 NPP 16.48 961 7.07 51.9 0.33 190 Week of Week of 815005 9.57 NPP 16.48 2393 6.96 59.8 NR NR		4th Quarter 2006	Week of 12/04/06	9.16	APN .	16.48	2356	70.7	56.2	0.78	295	<0.001		<0.001	<0.001 <0.001		<0.001	<0.001 <0.003
Week of 617/06 9.98 NPP 16.48 701 7.01 57.9 0.26 181 Week of Week of 815/05 40.07 NPP 16.48 961 7.07 51.9 0.33 190 Week of 815/05 9.57 NPP 16.48 2393 6.96 59.8 NR NR		3rd Quarter 2006	Week of 9/11/06	9.38	d N	16.48	1736	7.04	64.4	0.89	234	<0.001		<0.001	<0.001 - <0.001		<0.001	<0.001 <0.003
Week of Vision NP 16.48 961 7.07 51.9 0.33 190 Week of Week of R150S 9.57 NPP 16.48 2393 6.96 59.8 NR NR		2nd Quarter 2006	Week of 6/17/06	86.6	ddN	16.48	701	7.01	67.9	0.26	181	<0.001		<0.001	<0.001 <0.001		<0.001	<0.001 <0.003
Week of 8/15/05 9.57 NPP 16.48 2393 6.96 59.8 NR NR		1st Quarter 2006	Week of 3/06/06	10.07	ddN	16.48	961	7.07		0.33	190	<0.001		<0.001	<0.001 <0.001		<0.001	<0.001 0.0061
		Baseline	Week of 8/15/05	9.57	ddN	16.48	2393	6.96	59.8	×		0.093		<0.002	<0.002 0.015		0.015	0.015 0.0041

Groundwater Monitoring

	ater Wonitoring		WQCC 20N	MAC 6.2.3103	40 CFR	141.62 (MCL)
	Total Metals		1.00	0.05	0.015	0.002
Sample	Sampling	DATE	Ba	Cr⊪	Lead	Mercury
Location	Event	Week of	(mg/L)	(mg/L)	(mg/L)	(mg/L)
ļ	4th Quarter 2008	11/10/08	NR	NR	0.042	NR NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.085	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.044	<0.006	0.045	NR
#	1st Quarter 2008	Week of 03/10/08	NR	NR	0.093	NR
TP #1	4th Quarter 2007	Week of 10/29/07	NR	NR	0.044	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.074	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.14	<0.006	0.240	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
	4th Quarter 2008	Week of 11/10/08	NR	NR	0.012	NR
ľ	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.035	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.13	<0.006	0.020	NR NR NR NR
TP #2	1st Quarter 2008	Week of 03/10/08	NR	NR	0.019	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	0.007	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.019	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.29	<0.006	0.067	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
windse. "Arthrifis	4th Quarter 2008	Week of 11/10/08	. NR	NR	<0.005	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.005	NR
Ì	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.089	<0.006	<0.005	NR
#3	1st Quarter 2008	Week of 03/10/08	NR	NR	<0.005	NR ·
F	4th Quarter 2007	Week of 10/29/07	NR	. NR	<0.005	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.010	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.2	0.008	0.007	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR

NA = Not Analyzed
NR = Not Required

Groundwater Monitoring

	Total Metals		manufacture (see a graph of the print)	MAC 6.2.3103	40 CFR	141.62 (MCL)
es and the second of the secon		en internation for the responsible for the second of	1.00	0.05	0.015	0.002
Sample Location	Sampling Event	DATE	Ba (mg/L)	Cr (mg/L)	Lead (mg/L)	Mercury (mg/L)
	4th Quarter - 2008	Week of 11/10/08	NR	NR	0.029	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.043	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.31	<0.006	0.039	NR
TP #5	1st Quarter 2008	Week of 03/10/08	NR	NR	0.051	NR
₽	4th Quarter 2007	Week of 10/29/07	NR	NR	0.032	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.044	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.21	<0.006	0.09	· NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
e engaz - entrepre - autority - 200- per sind sind sind file file file	4th Quarter 2008	Week of 11/10/08	NR	NR	0.018	NR
ĺ	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.051	NR NR NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.15	<0.006	0.022	NR
TP #6	1st Quarter 2008	Week of 03/10/08	NR	NR	0:028	NR
₽	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.009	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.38	<0.006	0.03	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
	4th Quarter 2008	Week of 11/10/08	NR	NR	<0.005	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	<0.005	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.032	<0.006	0.007	. NR
/ #	1st Quarter 2008	Week of 03/10/08	NR	NR	<0.005	NR
<u> </u>	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.006	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.075	<0.006	<0.005	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR

NA = Not Analyzed NR = Not Required

Groundwater Monitoring

'. ''	Tatal Bastala		WQCC 20N	MAC 6.2.3103	40 CFR	141.62 (MCL)
	Total Metals		1.00	0.05	0.015	0.002
Sample Location	Sampling Event	DATE	Ba (mg/L)	Cr/ (mg/L)	Lead (mg/L)	Mercury (mg/L)
	4th Quarter 2008	Week of 11/10/08	NR	NR	0.017	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.066	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.07	<0.006	<0.005	NR
TP #8	1st Quarter 2008	Week of 03/10/08	NR	NR	0.043	NR
₽ [4th Quarter 2007	Week of 10/29/07	NR	NR	0.30	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.027	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.44	<0.006	0.054	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
	4th Quarter 2008	Week of 11/10/08	NR	NR	0.008	NR
j	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.007	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.11	<0.006	0.013	NR
TP #9	1st Quarter 2008	Week of 03/10/08	NR	NR	0.009	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.013	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.91	0.018	0.020	NR
·	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
	4th Quarter 2008	Week of	NR	NR	0.006	NR
ŀ	3rd Quarter 2008	11/10/08 Week of	NR	NR	<0.005	NR
	2nd Quarter 2008	7/14/08 Week of	0.11	<0.006	<0.005	NR
5	(Annual) 1st Quarter 2008	5/12/08 Week of	NR	NR	<0.005	NR
TP #10	4th Quarter 2007	03/10/08 Week of	NR	NR.	<0.005	NR
	3rd Quarter 2007	10/29/07 Week of 8/20/07	NR	NR	0.006	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.41	0.024	0.009	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR

NA = Not Analyzed

Groundwater Monitoring

	Total Matala		WQCC 20N	MAC 6.2.3103	40 CFR /	141.62 (MCL)
	Total Metals		1.00	0.05	0.015	0.002
Sample Location	Sampling Event	DATE	Ba (mg/L)	Cr (mg/L)	Lead (mg/L)	Mercury (mg/L)
	4th Quarter 2008	Week of 11/10/08	NR	NR	0.006	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.008	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.068	<0.006	<0.005	NR
# 11	1st Quarter 2008	Week of 03/10/08	NR	NR	<0.005	NR
TP #11	4th Quarter 2007	Week of 10/29/07	NR	NR	0.006	NR .
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.010	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.33	0.013	0.015	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
	4th Quarter 2008	Week of 11/10/08	NR	NR	<0.005	
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.005	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.043	<0.006	<0.005	NR NR NR NR NR
TP #12	1st Quarter 2008	Week of 03/10/08	NR	NR	0.006	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	0.010	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.021	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.21	0.010	0.016	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
	4th Quarter 2008	Week of	NR	NR	0.007	NR
	3rd Quarter 2008	11/10/08 Week of	NR	NR	<0.005	NR
	2nd Quarter 2008	7/14/08 Week of	0.22	<0.006	<0.005	NR .
13	(Annual) 1st Quarter 2008	5/12/08 Week of 03/10/08	NR	NR	<0.005	NR
TP #13	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	NR
:	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.012	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.42	0.019	0.011	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR

NA = Not Analyzed

NR = Not Required

Groundwater Monitoring

3	Total Metals		WQCC 20N	MAC 6.2.3103	40 CFR	141.62 (MCL)	
			1.00	0.05	0.015	0.002	
Sample Location	Sampling Event	DATE	Ba (mg/L)	Cr (mg/L)	Lead (mg/L)	Mercury (mg/L)	
	4th Quarter 2008	Week of 11/10/08	NR	NR	<0.005	NA	
	3rd Quarter 2008	Week of 7/14/08	NR	NR	<0.005	<0.001	
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.12	<0.006	<0.005	<0.001	
DW #1	1st Quarter 2008	Week of 03/10/08	NR	NR	<0.005	<0.0002	
MO [4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	<0.0002	ļ ļ
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.009	<0.0002	EPA Method 6010 &
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.93	<0.03	<0.025	<0.0002	nog
	1st Quarter 2007	Week of 2/26/07	NR	<0.006	<0.005	0.002	01.09
	4th Quarter 2008	Week of 11/10/08	NR	NR	0.007	NR	& /4/U
	3rd Quarter 2008	Week of 7/14/08	NR	NR	<0.005	NR	U
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.066	<0.006	<0.005	NR	
MW #49	1st Quarter 2008	Week of 03/10/08	NR	NR	<0.005	NR	
MM	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	NR	
	3rd Quarter 2007	Week of 8/20/07	NR	NR	<0.005	NR	
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.064	<0:006	<0.005	NR	
	1st Quarter 2007	Week of 2/26/07	NR	<0.006	<0.005	NR	

NA = Not Analyzed NR = Not Required

BV Air Pre	ssure 2008				
Sample Location	Sampling Activities	Date	Time	Velocity (scfm)	Pressure (psi)
	4th Quarter	11/11/2008	955	5.0	2.0
- 1	3rd Quarter	7/16/2008	1035	5.0	1.7
BV	2nd Quarter	5/13/2008	1310	12.0	3.0
	1st Quarter	3/11/2008	1256	12.8	3.1
	4th Quarter	11/11/2008	957	5.0	1.5
2	3rd Quarter	7/16/2008	1036	10.0	1.7
BV	2nd Quarter	5/13/2008	1312	12.0	3.0
	1st Quarter	3/11/2008	1255	8.0	3.1
1	4th Quarter	11/11/2008	1005	14.0	1.7
, B	3rd Quarter	7/16/2008	1039	6.0	1.5
BV	2nd Quarter	5/13/2008	1313	18.0	3.0
	1st Quarter	3/11/2008	1254	18.0	3.1
BV - 4	4th Quarter	11/11/2008	1003	6.0	1.0
	3rd Quarter	7/16/2008	1038	5.0	1.7
	2nd Quarter	5/13/2008	1317	6.0	3.0
	1st Quarter	3/11/2008	1253	12.0	3.1
	4th Quarter	11/11/2008	1017	16.0	2.0
5	3rd Quarter	7/16/2008	1047	10.0	1.7
BV	2nd Quarter	5/13/2008	1320	14.0	3.0
	1st Quarter	3/11/2008	1245	16.0	3.1
:	4th Quarter	11/11/2008	1000	11.0	1.5
9 - /	3rd Quarter	7/16/2008	1037	6.0	1.7
BV	2nd Quarter	5/13/2008	1323	4.0	3.0
	1st Quarter	3/11/2008	1252	4.0	3.1
	4th Quarter	11/11/2008	1013	8.0	1.5
1-7	3rd Quarter	7/16/2008	1046	5.0	1.7
BV	2nd Quarter	5/13/2008	1324	6.0	3.0
	1st Quarter	3/11/2008	1248	11.0	3.1

BV Air Pressure 2008

Sample Location	Sampling Activities	Date	Time	Velocity , (scfm)	Pressure (psi)
- 	4th Quarter	11/11/2008	1015	10.0	2.0
8 - 7	3rd Quarter	7/16/2008	1045	6.0	1.7
BV	2nd Quarter	5/13/2008	1302	6.0	3.0
	1st Quarter	3/11/2008	1246	12.0	3.1
	4th Quarter	11/11/2008	1011	5.0	1.5
6 -	3rd Quarter	7/16/2008	1041	6.0	1.7
BV	2nd Quarter	5/13/2008	1300	8.0	3.0
	1st Quarter	3/11/2008	1249	8.0	3.1
_	4th Quarter	11/11/2008	1014	5.0	2.0
- 10	3rd Quarter	7/16/2008	1044	5.0	1.7
BV	2nd Quarter	5/13/2008	1327	6.0	3.0
	1st Quarter	3/11/2008	1247	8.0	3.1
	4th Quarter	11/11/2008	1012	14.0	1.5
BV - 11	3rd Quarter	7/16/2008	1040	6.0	1.7
BV	2nd Quarter	5/13/2008	1330 -	8.0	3.0
	1st Quarter	3/11/2008	1251	8.0	3.1
	4th Quarter	11/11/2008	1009	7.0	1.5
- 12	3rd Quarter	7/16/2008	1043	9.0	1.7
BV	2nd Quarter	5/13/2008	1332	6.0	3.0
	1st Quarter	3/11/2008	1248	8.0	3.1
-	4th Quarter	11/11/2008	1007	5.0	1.5
- 13	3rd Quarter	7/16/2008	1042	5.0	1.7
BV	2nd Quarter	5/13/2008	1335	12.0	3.0
	1st Quarter	3/11/2008	1250	14.0	3.1

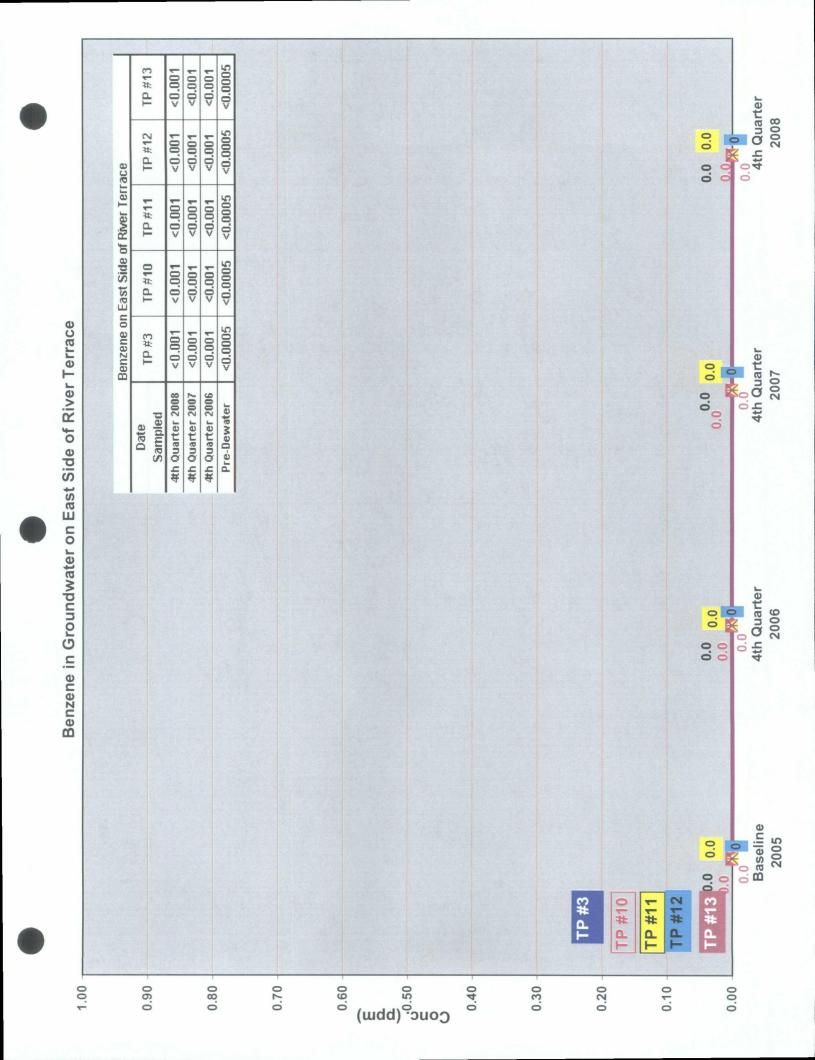
GAC F	ilter Mor	nitoring		EPA Metho	d 8021B		EPA Meth	od 8015B
An	2008 nual Rep	oort	MCL 0.005	WQCC 20NMAC 6.2.3103 0.75	MCL 0.70	WQCG 20NMAC 6.2:3103 0.62	TPH Sc Guideline 1.72	reening s Table 2a
Sample Location	Sampling Event	N DATE	Benzene (mg/L)	Toluene (mg/L)	Ethylben (mg/L)	Xylene (mg/L)	DRO (mg/L)	GRO (mg/L)
<u> </u>	4th Quarter	10/15/08	<0.00091	<0.01	0.580	4.80	4.4	16.00
Z	3rd Quarter	07/02/08	0.012	<0.01	0.540	7-30	<1.0	20.00
GAC INLET	2nd Quarter	04/15/08	0.050	<0.01	0.380	1.900	<1.0	8.40
<u>ග</u> ී	1st Quarter	03/06/08	0.070	<0.01	0.430	1.00	<1.0	7.00
		12/02/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
.		11/04/08	NS	NS	NS	NS	NS	NS
ilte	4th Quarter	10/15/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.10
ŧ		09/09/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
Š		08/05/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
11)	3rd Quarter	07/02/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
چ		06/09/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
ter		05/05/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
Ē	2nd Quarter	04/15/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
Lead Filter (V-611) North Filter	1st Quarter	03/06/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
-		02/04/08	NS	NS	NS	NS	NS	NS
		01/04/08	NS	NS	NS	NS	NS	NS
EFF South	4th Quarter	10/15/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.10
C 1 EF 12) So Filter	3rd Quarter	07/02/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
GAC 1 EFF (V-612) South Filter	2nd Quarter	04/15/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
ج ق	1st Quarter	03/06/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05

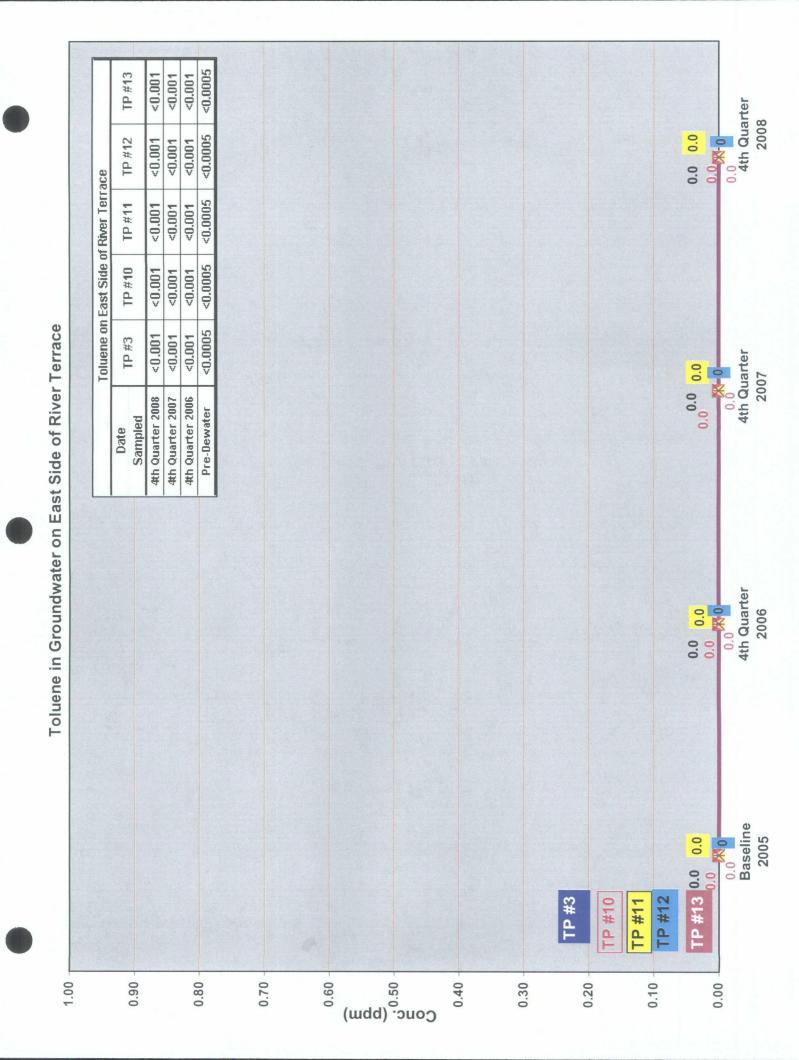
NS = Sample Inadvertently not Collected this Sampling Event

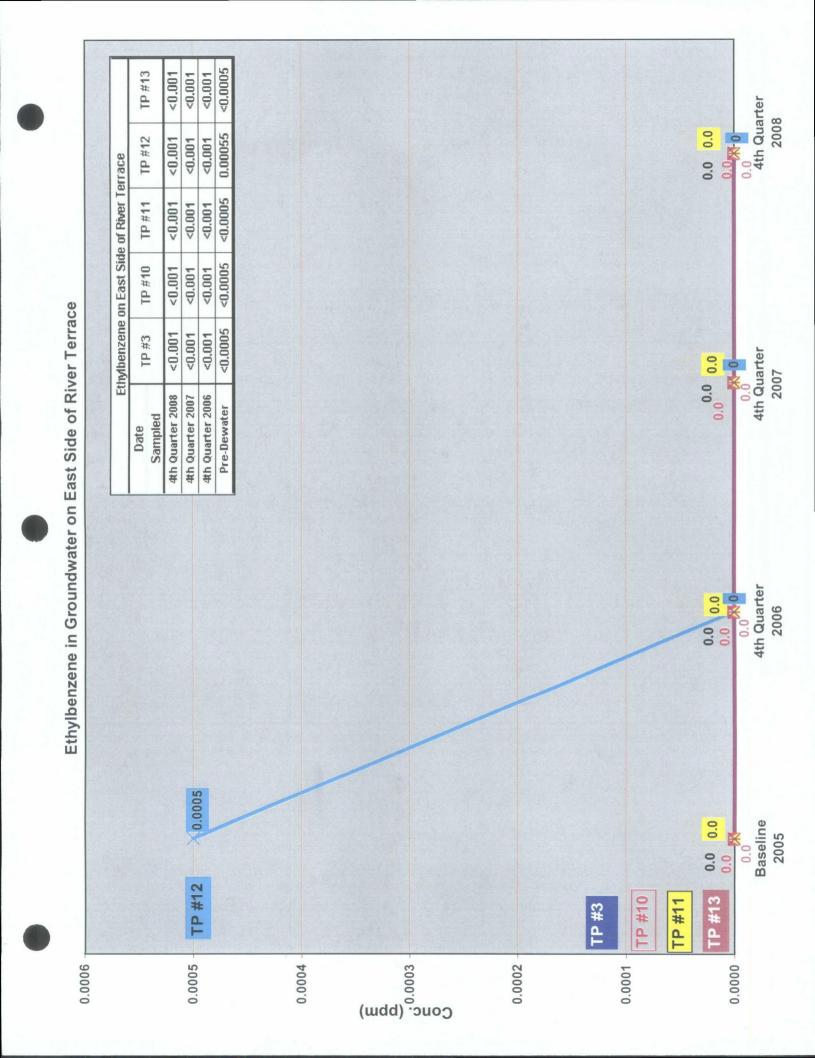
^{1.} MDL (Method Detection Limit)

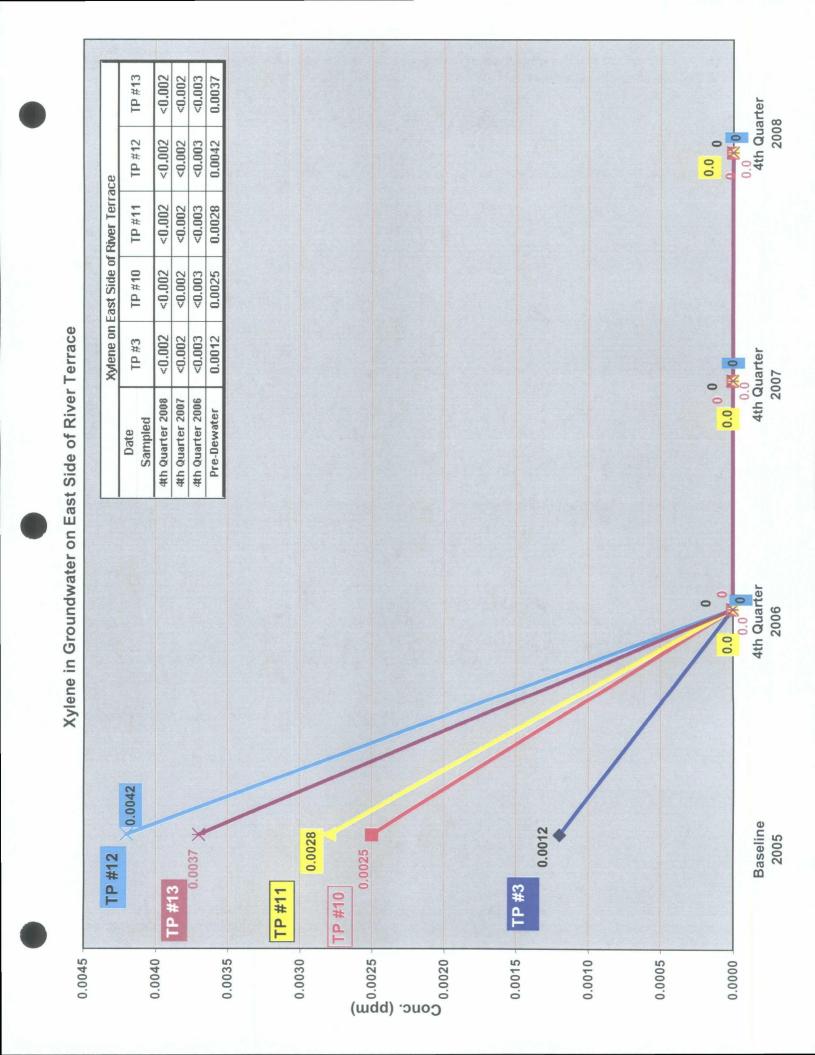
Section 6.0 BTEX Concentration VS Time Charts

I itle	lab Number
BTEX Concentration East Side	6
BTEX Concentration West Side	7
BTEX Concentration Remaining Wells	8

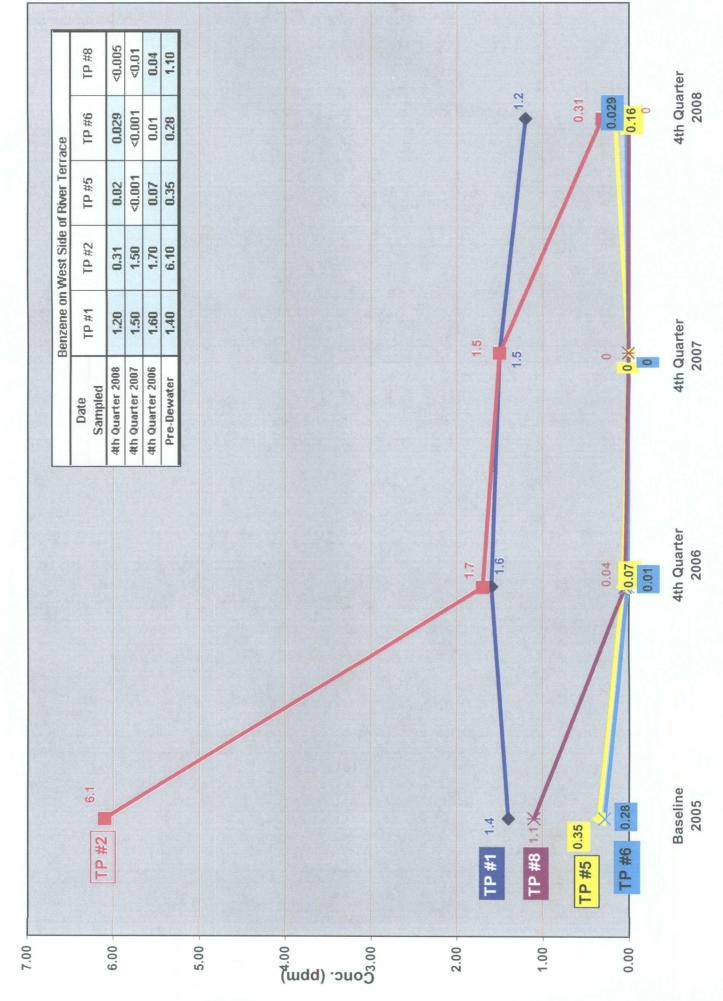




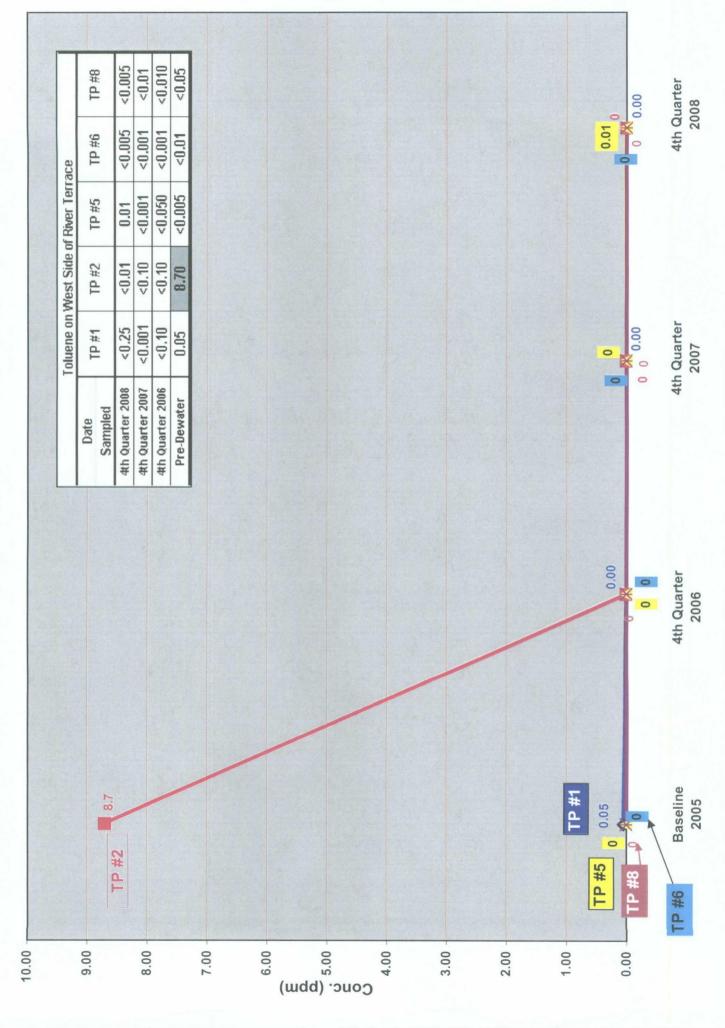




Benzene in Groundwater on West Side of River Terrace

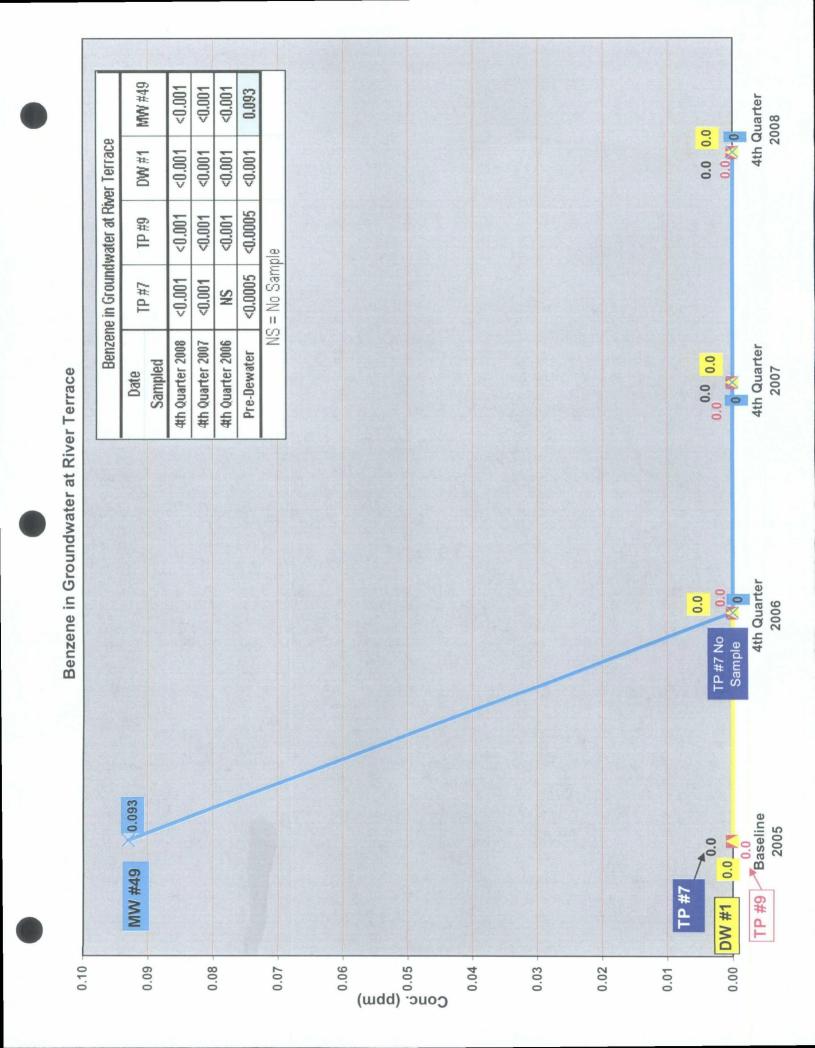


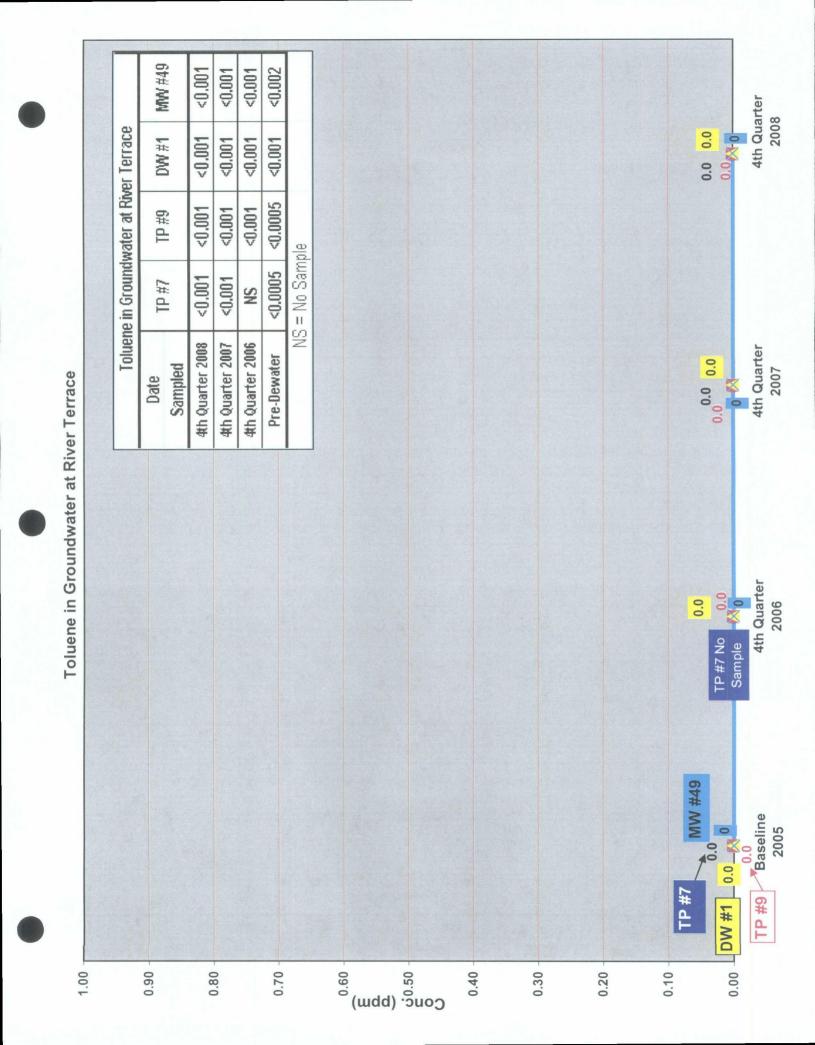
Toluene in Groundwater on West Side of River Terrace

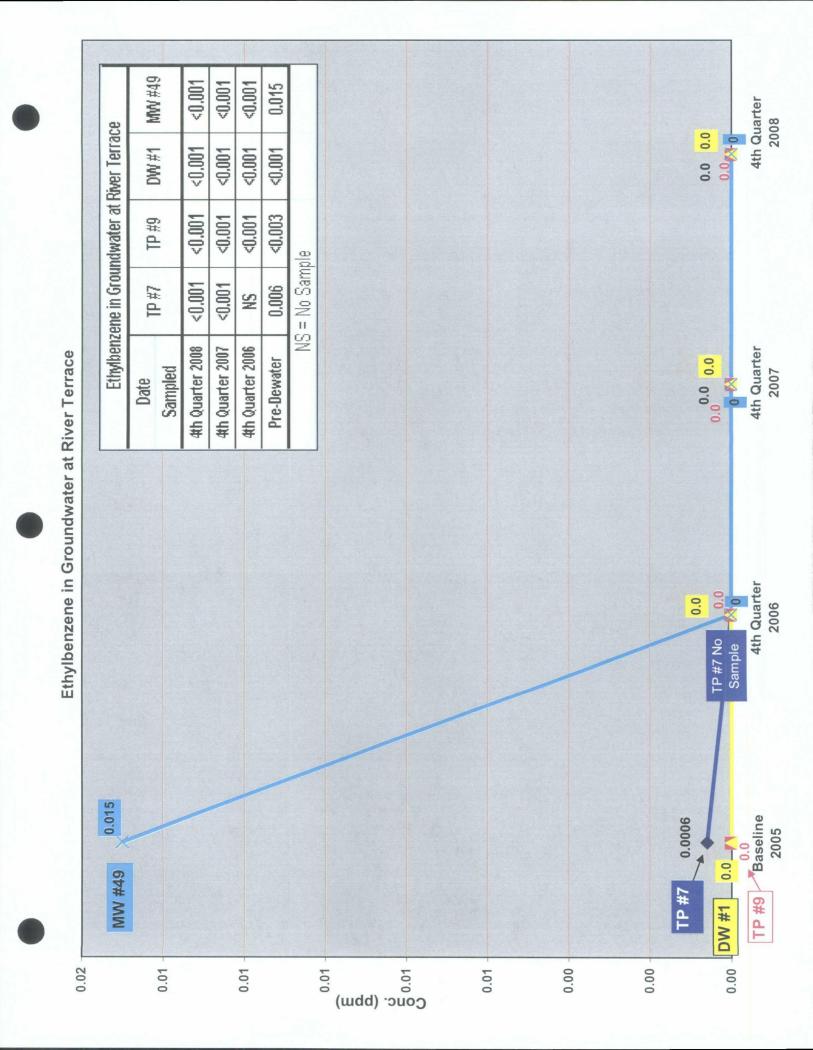


0.73 4th Quarter 2008 2.70 0.43 Ethylbenzene in Groundwater on West Side of River Terrace 3.80 4th Quarter 0.38 2007 2.6 TP #8 0.27 1.30 0.430 9# d1 <0.001 2.80 Ethylbenzene on West Side of River Terrace TP #5 1.20 2.40 TP #2 2.40 2.40 4.20 3.20 4th Quarter 2006 TP #1 3.80 3.80 4th Quarter 2006 4th Quarter 2008 4th Quarter 2007 Pre-Dewater Sampled Date 3.2× 3.80 3.5 2.8 TP #2 4.2 TP #1 TP #8 TP #5 9# dl Baseline 2005 Conc. (ppm) 0.00 4.50 4.00 3.50 3.00 1.50 1.00 0.50

0.92 1.50 12.00 25.00 1P #8 4th Quarter 2008 0.0 12.0 <0.002 16.0 9# dl 7.50 1.20 Xylene on West Side of River Terrace TP #5 10.0 17.0 12.0 21.0 TP #2 12.0 25.0 6.0 3.7 Xylene in Groundwater on West Side of River Terrace TP #1 18.0 20.0 16.0 4th Quarter 2007 18.0 17.0 4th Quarter 2008 4th Quarter 2006 4th Quarter 2007 Pre-Dewater Sampled Date 12.0 20.0 10.0 4th Quarter 2006 TP #8 25.0 Baseline 2005 21.0 23.0 25.0 TP #5 TP #2 TP#1 **JH** 4L 30.0 25.0 20.0 Conc. (ppm) 10.0 2.0 0.0







MW #49 <0.002 <0.003 <0.002 0.004 4th Quarter 2008 Xylene in Groundwater at River Terrace <0.002 <0.003 0.0 0 DW#1 0,003 0.01 <0.002 <0.002 <0.003 TP#9 0.02 NS = No Sample <0.002 <0.002 0.005 TP #7 £ 4th Quarter 2008 4th Quarter 2006 4th Quarter 2007 0 S 4th Quarter Pre-Dewater Sampled 0.01 Date 2007 Xylene in Groundwater at River Terrace 0.0 4th Quarter 2006 0 TP #7 No Sample Baseline 2005 0.015 900000 TP #9 0.020 0.003 MW #49 TP #7 **DW #1** 0.02 0.03 0.02 0.00 0.01 0.01 Conc. (ppm)

Section 7.0 Summary

Summary

Construction of the River Terrace Bioventing Project was initiated in August 2005. The system was put on-line in January 2006. On-going sampling at the River Terrace is conducted in accordance with the approved Bioventing System Monitoring Plan, dated October 28, 2006, and in accordance with an NMED comment letter dated June 13, 2007. These revisions were implemented during the second quarter sampling event of 2007 and continued throughout 2008.

Data Collection

First quarter groundwater samples were collected from each of the TP Wells, DW #1, and MW #49 during the week of March 10, 2008. TP-7 was sampled after a 24 hour recharge time. Groundwater samples were analyzed for BTEX and MTBE (EPA Method 8021B), GRO and DRO (EPA Method 8015B), and Total Lead (EPA Method 6010). DW #1 was also analyzed for Mercury (EPA Method 7470). Field measurements included temperature, pH, conductivity, DO, and ORP.

Second quarter sampling occurred during the week of May 12, 2008. TP-7 was sampled after a 24 hour recharge time. Annual analysis of chromium and barium (EPA Method 6010) was conducted in the second quarter event. Lead analysis (EPA Method 6010) was performed on all of the TP Wells, MW #49, and DW#1. DW #1 samples were also analyzed for mercury (EPA Method 7470). In addition, groundwater samples were analyzed for BTEX and MTBE (EPA Method 8021B), GRO and DRO (EPA Method 8015B). Field measurements included temperature, pH, conductivity, DO, and ORP.

Third quarter monitoring occurred during the week of July 14, 2008 and fourth quarter monitoring was conducted during the week of November 10, 2008. During each sampling event, all TP Wells, MW #49, and DW #1 groundwater samples were analyzed for BTEX and MTBE (EPA Method 8021B), GRO and DRO (EPA Method 8015B), and total lead analysis (EPA Method 6010B). Samples collected during the fourth quarter sampling event were inadvertently not analyzed for mercury due to laboratory error. Mercury analysis will be included in on-going monitoring events. Field measurements included temperature, pH, conductivity, DO, and ORP. TP-7 was sampled after a 24 hour recharge time.

GAC filter influent samples (GAC Inf) and effluent samples collected downstream of the lag GAC filter (GAC 1 Eff – V-612) were collected quarterly. Effluent samples from the lead GAC filter (GAC 2 Eff – V-611) were obtained every month except for the months of January, February, and November. Refinery personnel have established an on-going monthly checklist to ensure that sample

events are not inadvertently missed. Samples were analyzed for BTEX by EPA Method 8021B, GRO and DRO by EPA Method 8015B.

Analysis and Conclusions

Since August 2005, BTEX concentrations in groundwater show a decreasing trend over time at wells within the western portion of the River Terrace (TP-1, 2, 5, 6 and 8). BTEX concentration vs time graphs located in Section 6.0 demonstrate this decreasing trend over the last three years. Analytical results of the groundwater monitoring continue to indicate that the contaminants of concern are primarily benzene, ethylbenzene, and xylene for these wells.

Fluctuation in groundwater concentration at wells within the western portion of the River Terrace were most likely caused by fluctuating groundwater levels due to dewatering system operations and change in river flow, thus causing a flushing effect of the soil.

Analytical results of samples collected from the wells on the eastern portion of the River Terrace (TP-3, 10, 11, 12, and 13) continue to be below method detection limits. BTEX concentration vs time graphs in Section 6.0 illustrate that non-detect results have consistently occurred in the eastern portion of the River Terrace since 2006. BTEX results are still below WQCC Standards at wells located on the eastern most side of the bioventing area (TP #7, TP #9, DW #1). During the second quarter sampling event, MW #49 registered a very low concentration of benzene (0.0018 mg/L) which was below regulatory standards. Subsequent benzene results at MW #49 were non-detect (<0.001 mg/L).

Annual analysis of barium and chromium total metals has occurred since second quarter 2007 for all River Terrace wells. The detected concentrations of barium and chromium have repeatedly been below New Mexico water quality standards of 1.00 mg/L and 0.05 mg/L, respectively.

Quarterly monitoring of total lead at the River Terrace shows concentrations ranging between 0.3 mg/L down to <0.005 mg/L, with the highest concentration detected at TP-8 during the October 2007 sampling event. TP-8 is located on the refinery-side of the river terrace slurry wall, and therefore is unlikely to impact the San Juan River.

Mercury was detected one time at DW-1 during the February 2007 sampling event. Mercury was not detected in any subsequent sampling events.

Field data indicates the bioventing system is continuing to enhance bioremedial activity within the river terrace area around TP-#1, TP-#2, TP-#5, TP-#6, and TP-#8. Soil gas concentrations collected in the field indicate that the bioventing system is providing enough oxygen to sustain optimal microbial activity (e.g., vapor-phase oxygen concentrations at or above 5 percent).

GAC Analysis

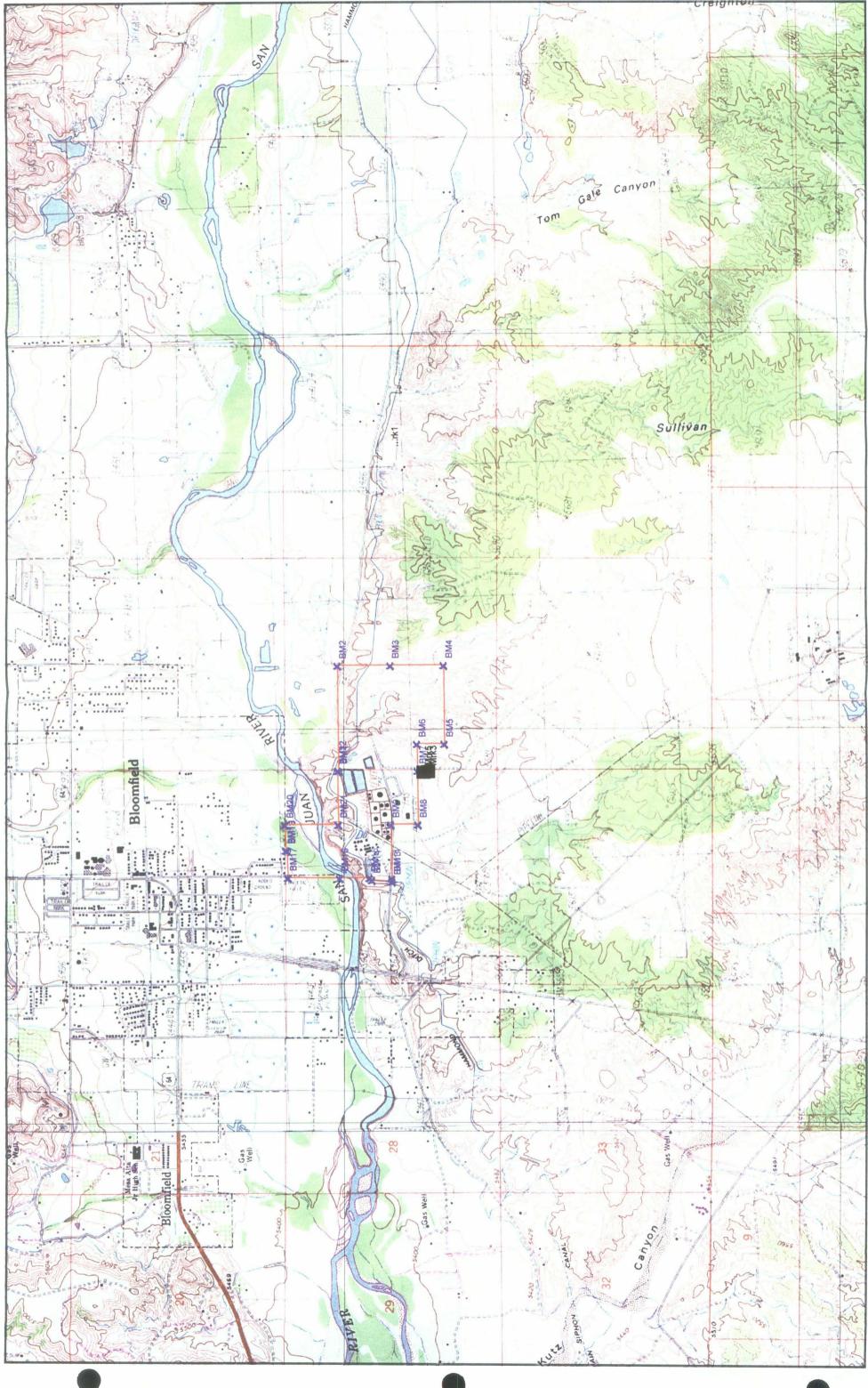
Break through in the GAC did not occur in 2008. Efforts have been made to optimize the dewatering system without damaging the pumps by adjusting pump speed to match pump outflow with water table inflow. Flow rate through the GAC has been affected by these efforts. Options to optimize pump rates and improve dewatering efficiency are being explored.

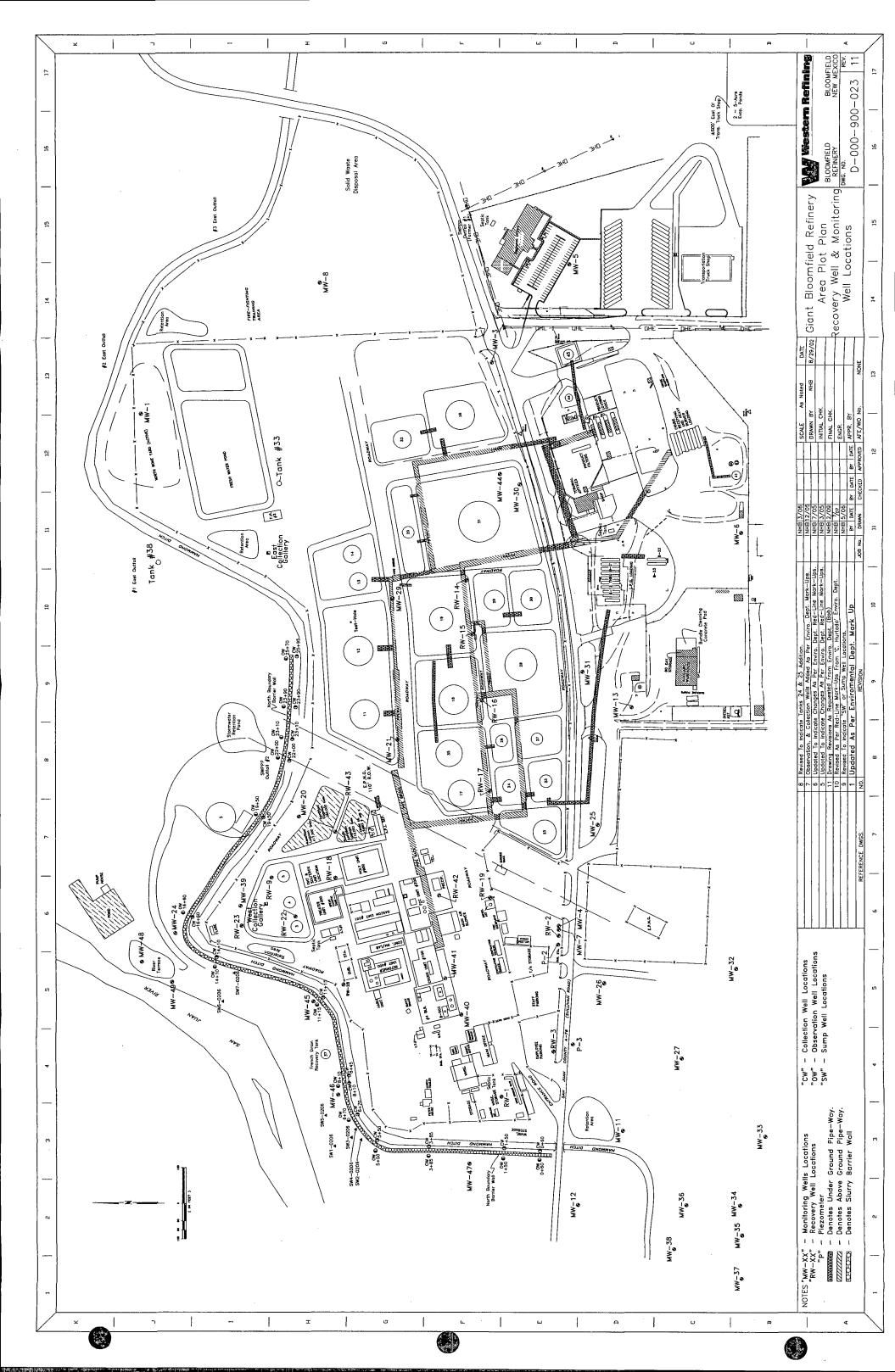
Refinery personnel will continue to analyze GAC 2 EFF (V-611) for BTEX, GRO, and DRO on a monthly basis. GAC INF and GAC 1 EFF (V-612) will be analyzed quarterly for BTEX, GRO, and DRO.

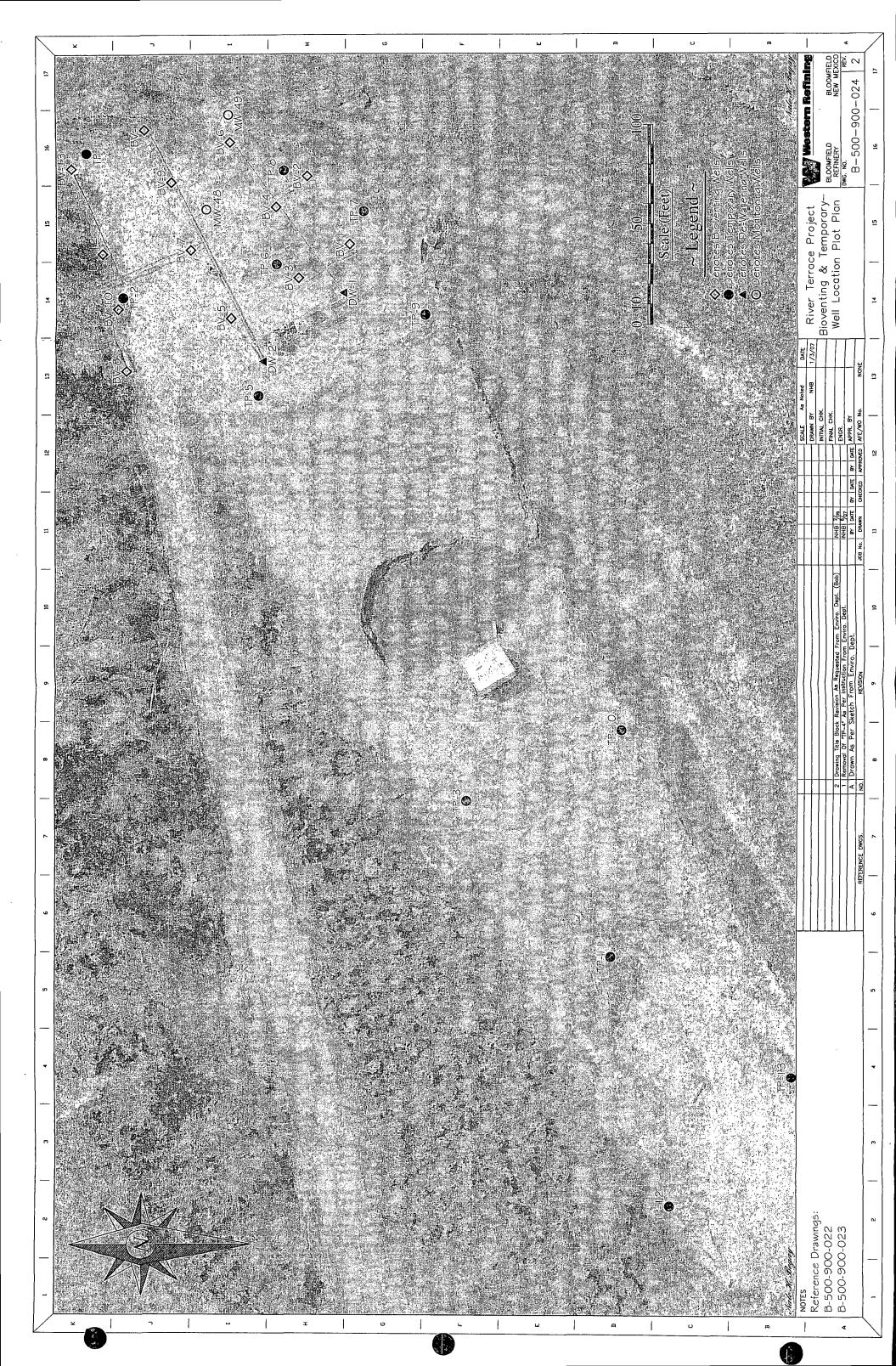
Section 8.0 Maps

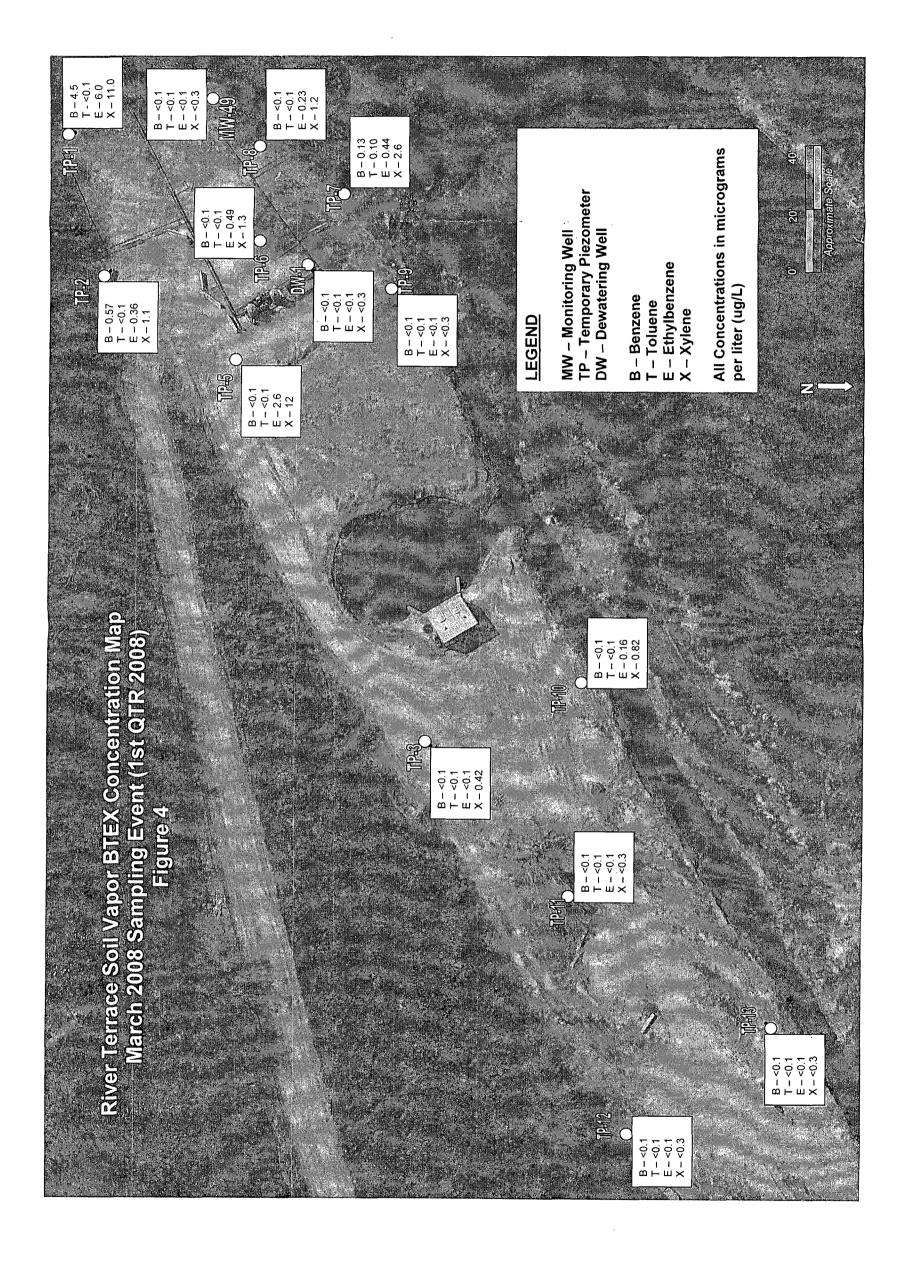
<u>Title</u>	Figure
Vicinity Map	Figure 1
Facility Site Plan	Figure 2
River Terrace Bioventing Project Plot Plan	Figure 3
Soil Vapor 1st QTR BTEX Concentration Map	Figure 4
Soil Vapor 2nd QTR BTEX Concentration Map	Figure 5
Soil Vapor 3rd QTR BTEX Concentration Map	Figure 6
Soil Vapor 4th QTR BTEX Concentration Map	Figure 7
Groundwater 1st QTR BTEX Concentration Map	Figure 8
Groundwater 2nd QTR BTEX Concentration Map	Figure 9
Groundwater 3rd QTR BTEX Concentration Map	Figure 10
Groundwater 4th QTR BTEX Concentration Map	Figure 11

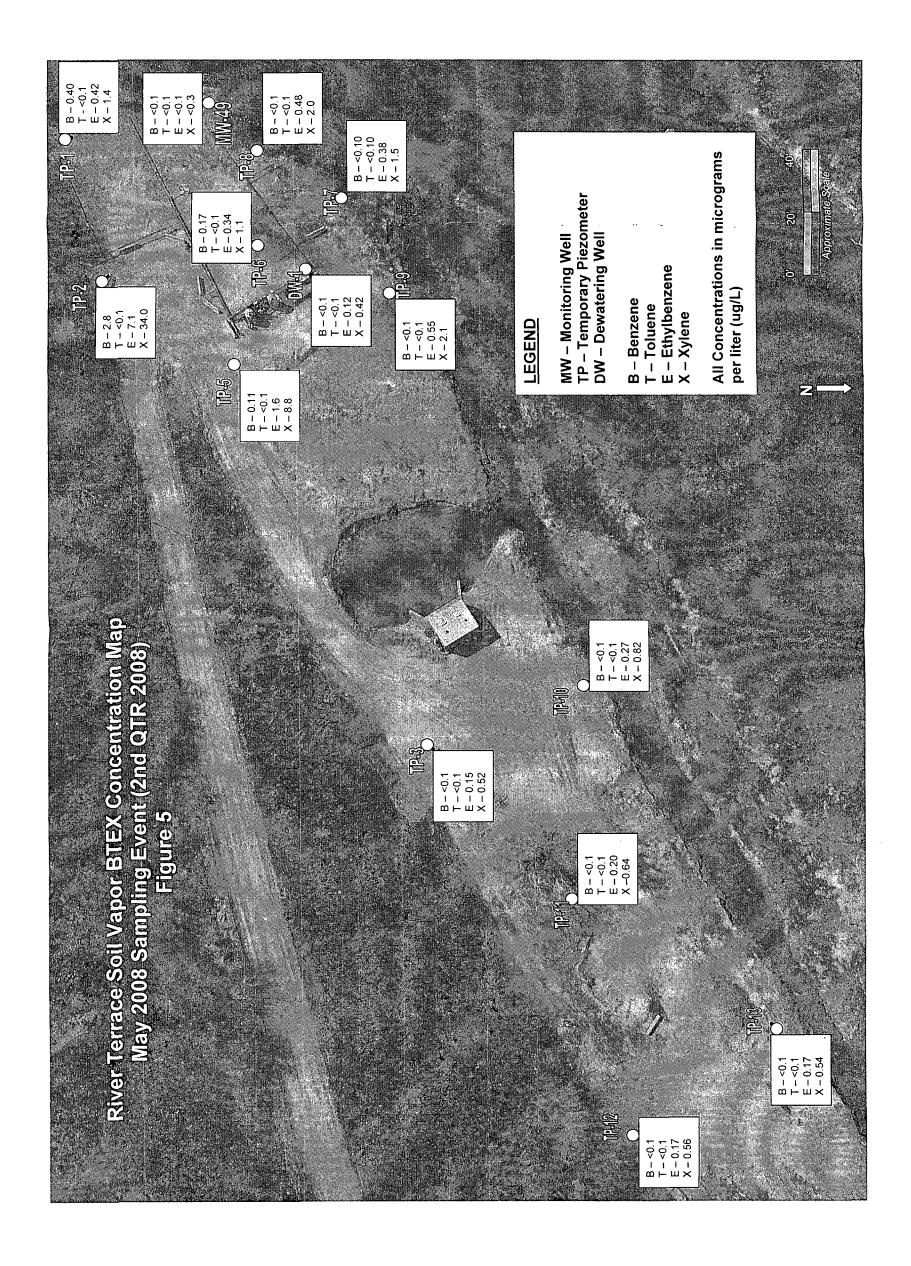


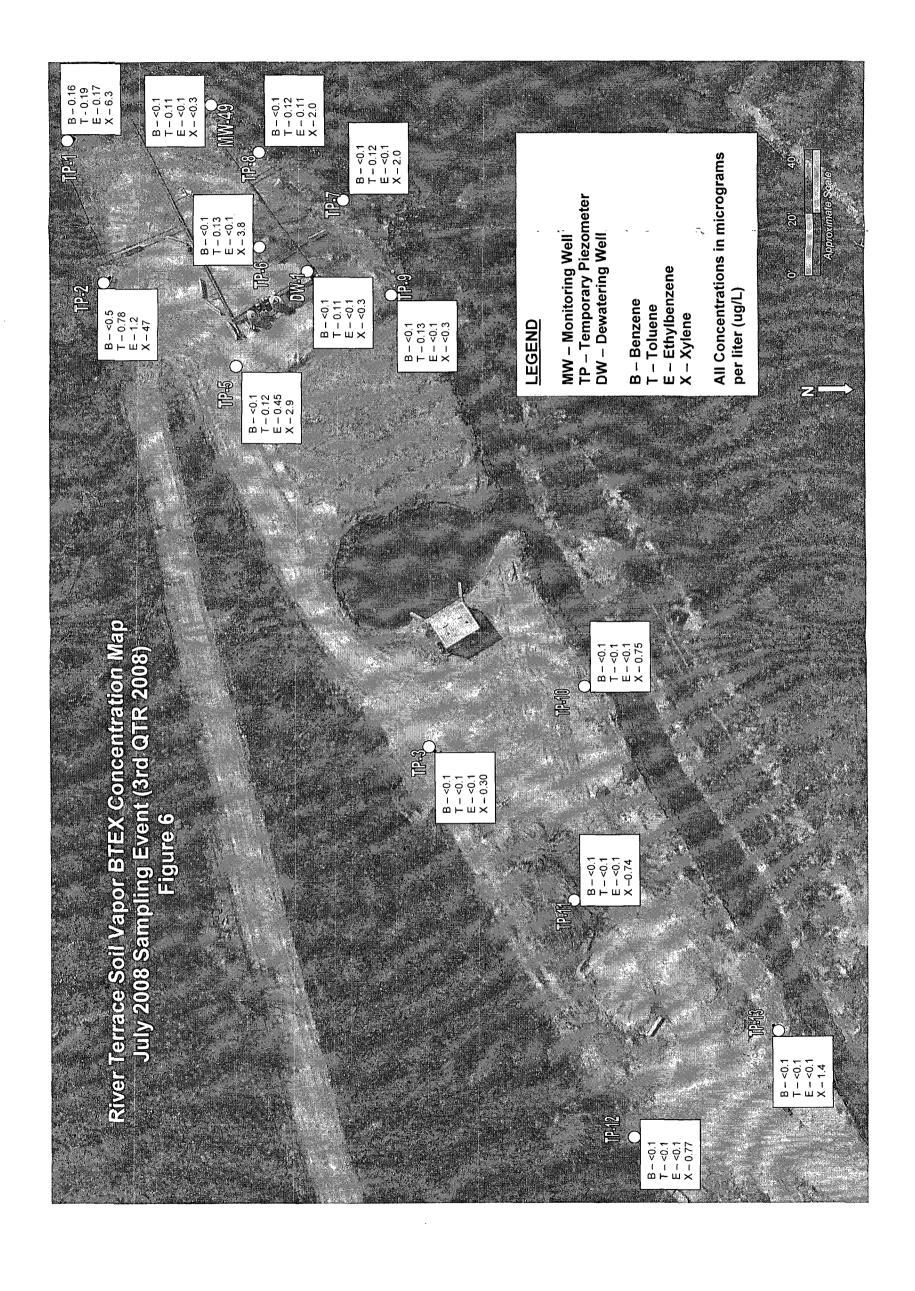


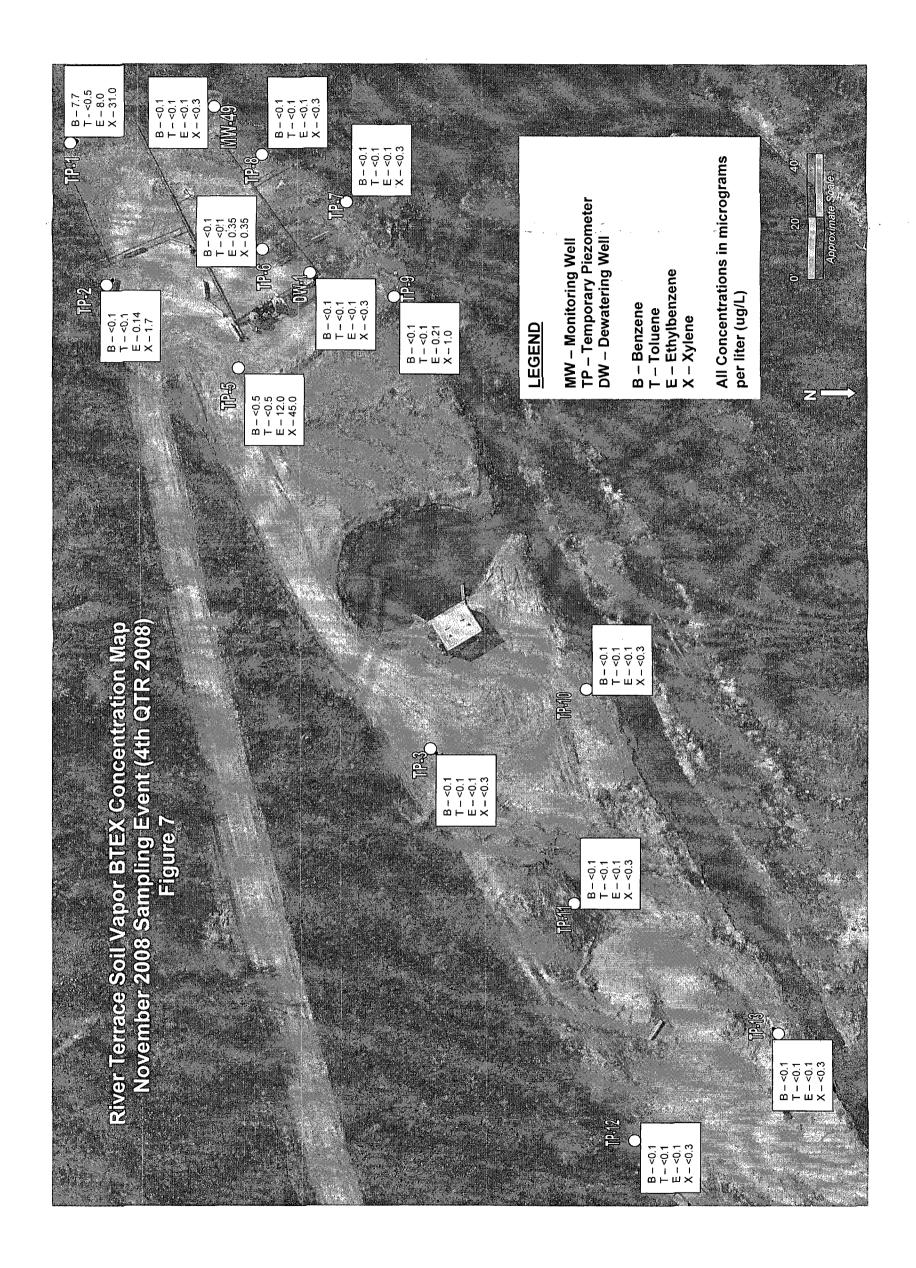


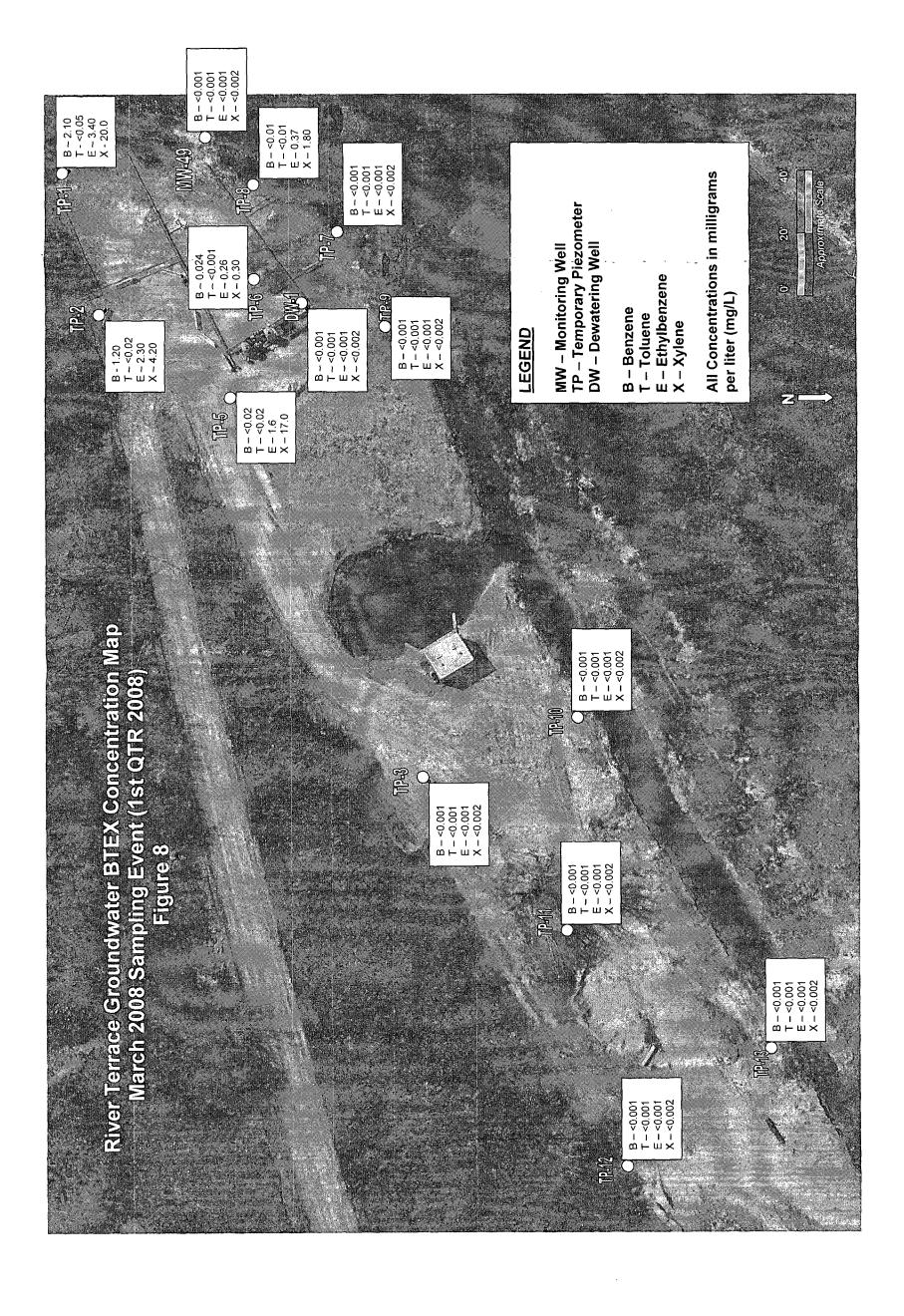


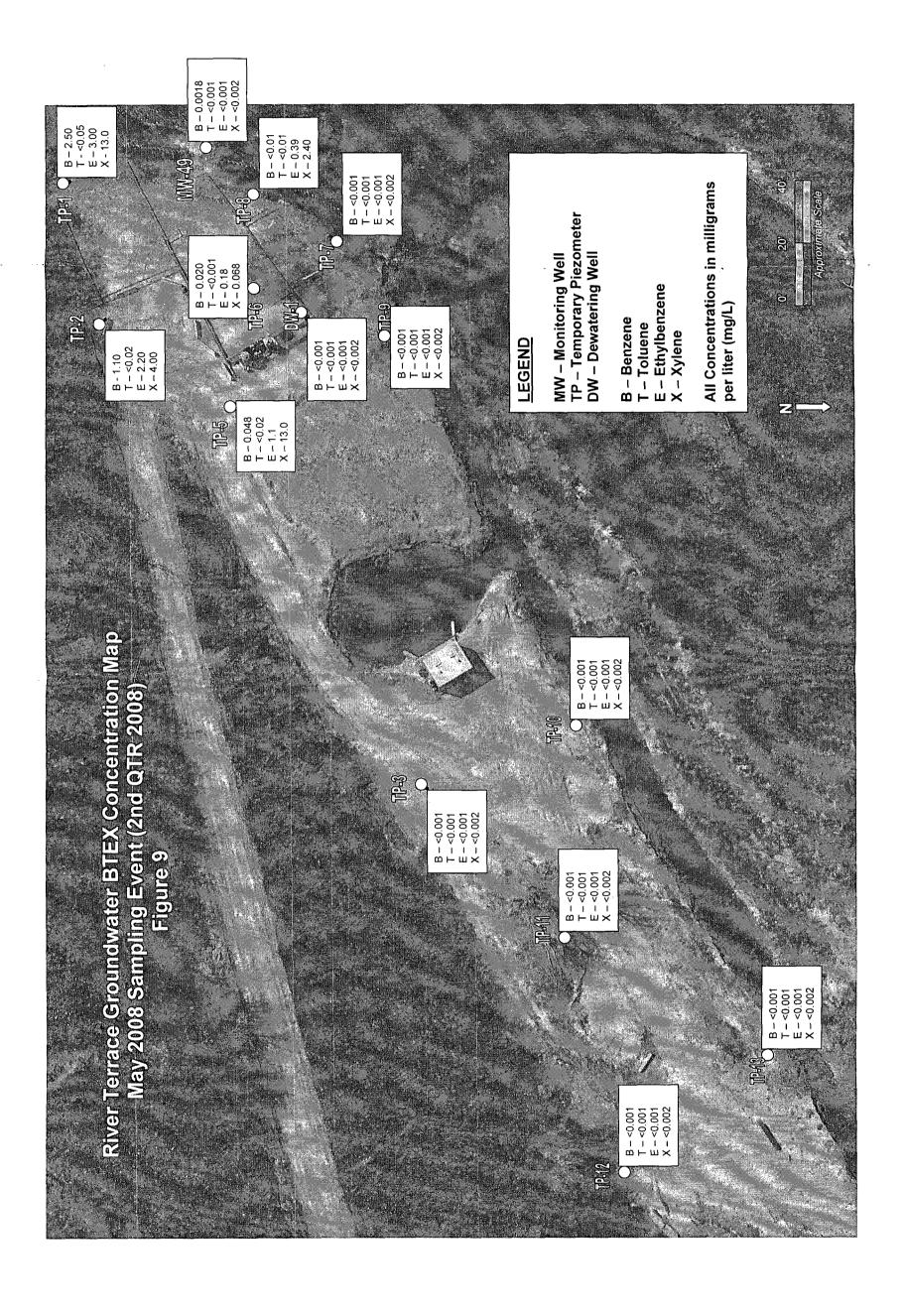


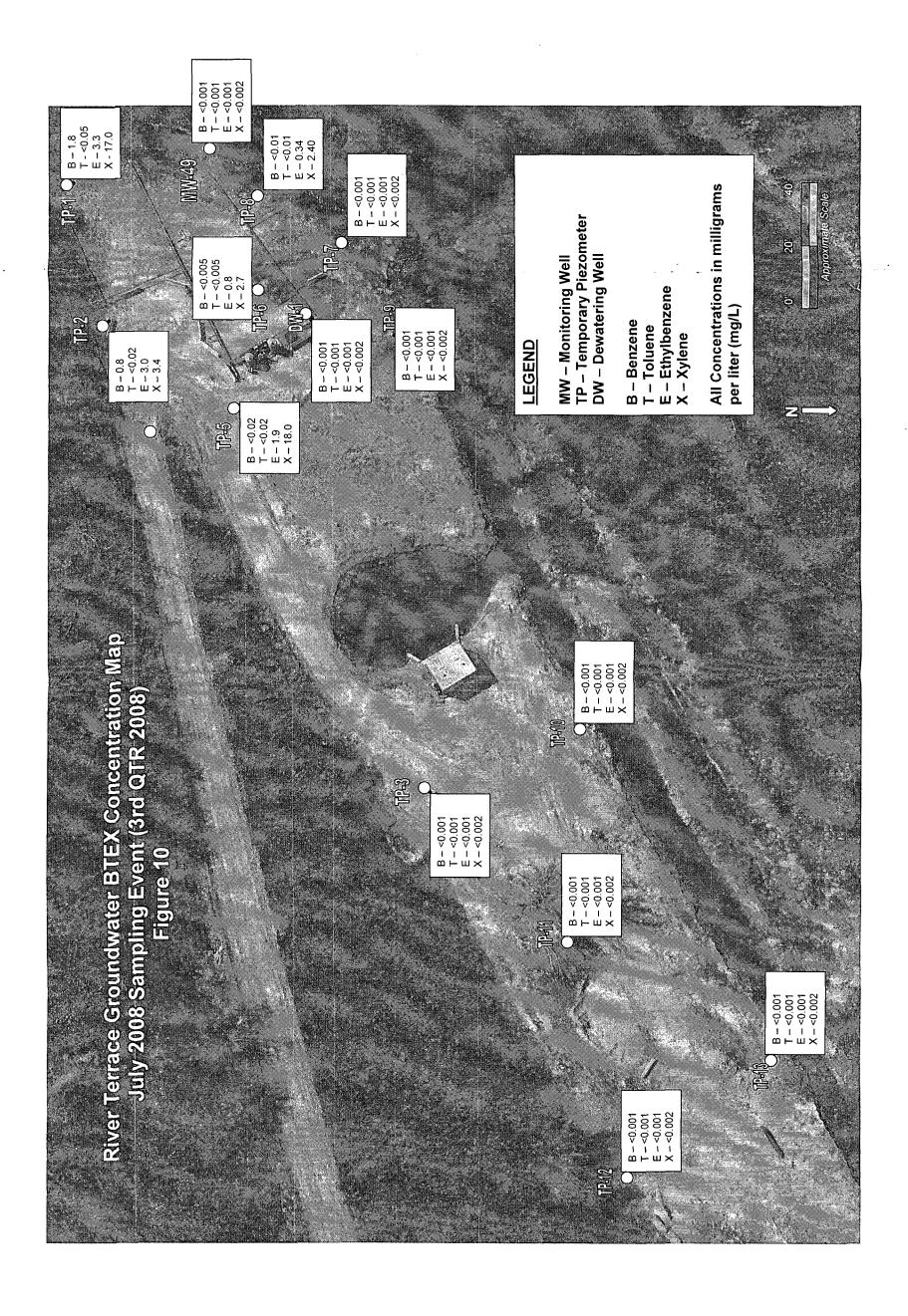


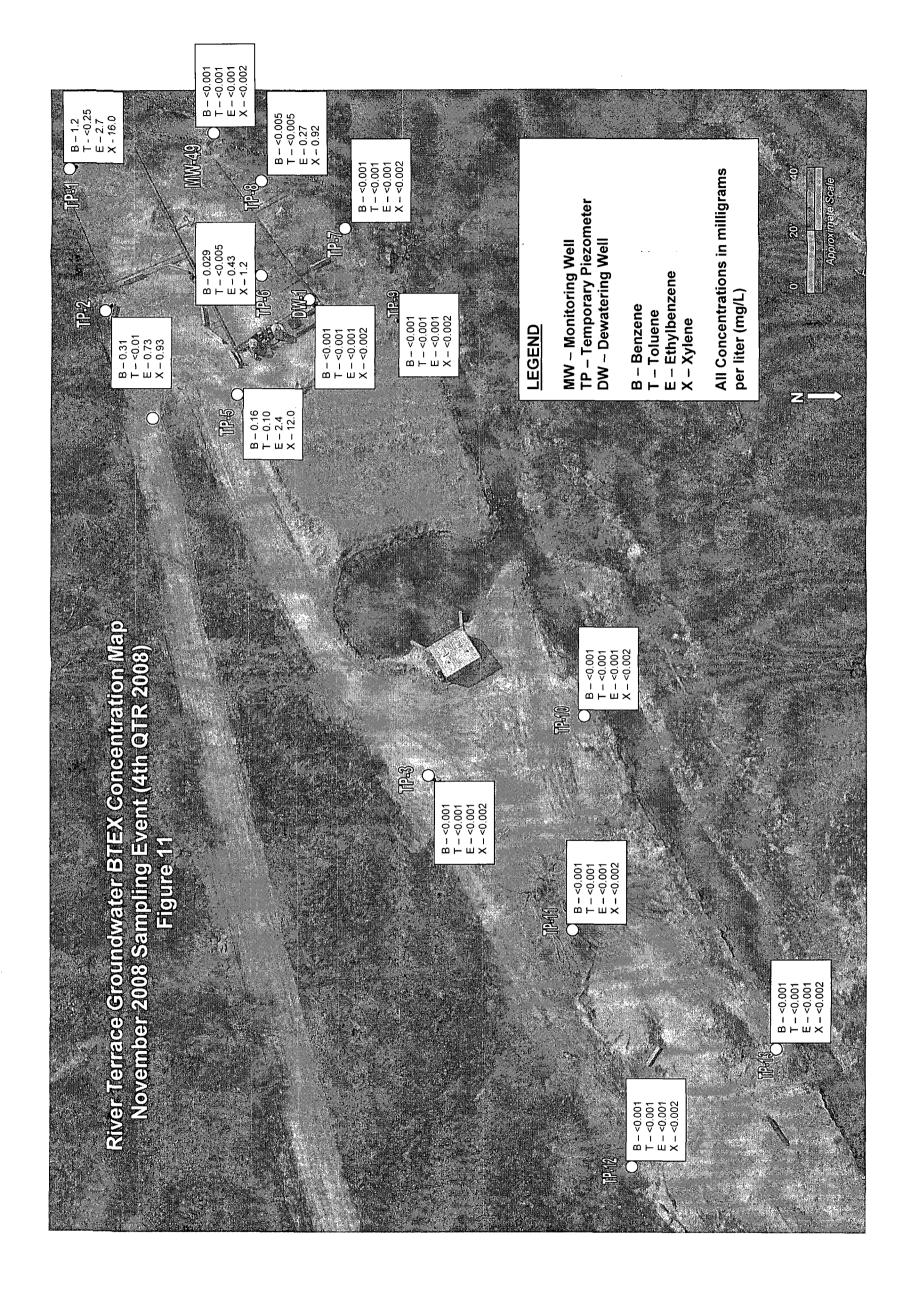












Section 9.0 Field Methods

Field Methods

Soil Gas Sampling

Sampling Procedure

All water/product levels are determined to an accuracy of 0.01 foot using a Geotech Interface Meter. Injection pressure and injection flow rates are collected from all bioventing wells in which air is being injected. Soil gas samples are taken before groundwater purging and sampling.

Each well is equipped with an air-tight well cap for sample extraction through a sample port at the top of the well casing. Each well has dedicated flexible Teflon Food Grade tubing which extends through both sides of the sample port with one side continuing down into the well casing to approximately 1 foot above the water table. The other end (topside) protrudes from the cap and is available as a connector.

Before purging, pressure is measured by attaching a hand-held Magnahelic Pressure Gauge to the topside tubing.

A portable vacuum pump is used for purging and sample collection. The topside tubing is connected to the suction of the vacuum pump and three purge volumes are withdrawn from the well prior to sample collection. After sufficient purging, a Tedlar bag is attached to the tubing at the discharge end of the pump for sample collection. All samples are properly labeled and placed in a cooler for delivery to the off-site laboratory or for field measurements of vapor-phase organics

Well Purging Technique

A vacuum pump is used to remove stagnant air from the soil gas sampling assembly. Approximately three well volumes are purged from the well before sampling. Purged volumes are determined by using the following equation: Conversion Factor X Depth to Water X 28L/ft3 X Three

The conversion factor is determined by the diameter of the well casing.

Casing	ng Conversion Factor	
6"	0.196L/ft	
4" .	0.0873L/ft	
2"	0.0.0218L/ft	
1"	0.0.005545L/ft	

Soil Gas Sampling and Sample Handling Procedure

Equipment and supplies needed for collecting representative soil gas samples include:

- Interface Probe
- Vacuum Pump
- 1 Liter Tedlar Bags
- PID Meter
- RKI Eagle Meter
- Cooler to store Tedlar Bags

- Sharpie Permanent Marker
- Field Paperwork/Logsheet
- Trash container (plastic garbage bag)

Tedlar bags and tubing dedicated for each well are used for field measurements. New Tedlar bags are used for BTEX and GRO collection and analysis. After sufficient purging, samples are collected using the vacuum pump. Field measurements of vapor-phase organics, oxygen, and carbon dioxide concentrations are recorded using portable field instruments. BTEX and GRO samples are labeled immediately with location, date, time, analysis, and sampler and then put in a trash bag and placed in a cooler. The field logsheet is reviewed to verify all entries. Samples are then shipped to the laboratory. To prevent cross-contamination, procedures include dedicated tubing for each of the wells sampled as well as a five minute purge time of the vacuum pump in ambient air.

Instrument Calibration

The RKI Eagle is a portable gas detection system with sensors for oxygen, carbon dioxide, and methane. Calibration of the instrument is conducted at the beginning of each day of sampling.

The meter is turned on and allowed to warm up. Fill the dedicated Tedlar bags with known calibration gas. One bag is used for the carbon dioxide calibration and the other bag contains the oxygen and methane calibration gasses. Press and hold the AIR/▲ button until a tone sounds. The Eagle automatically sets the toxics circuits to zero and the oxygen circuit to 20.9%.

Press and hold the SHIFT /▼ button, then press the DISP/ADJ button. The calibration menu is displayed. Use the AIR/▲ and SHIFT/▼ buttons to place the prompt next to the SINGLE CALIBRATION menu option. Press the POWER/ENTER button to display the Single Calibration menu. Use the AIR/▲ or SHIFT/▼ button to place the prompt next to the channel to calibrate. Press the POWER/ENTER button. Connect the tubing from the Tedlar bag to the Eagle's probe. If necessary, use the AIR/▲ (increase) and SHIFT/▼ (decrease) buttons to adjust the reading to match the concentration listed on the calibration cylinder. Press the POWER/ENTER button to set the span value. Repeat the steps for any other channels you want to calibrate.

The MiniRae 2000 Portable VOC Monitor (PID) is calibrated at the beginning of each day of sampling. Turn on the monitor and wait for the **Ready** message display. Press and hold both (N/-) and (MODE) keys for three seconds to enter programming mode. The first menu item "Calibrate/select Gas?" will be displayed. Press (N/-) to scroll to Fresh Air Cal? And press (Y/-) to select that menu item. Clean ambient air can be used for the "fresh air" calibration. Press (Y/-) to begin the zeroing process.

After zeroing is complete, press (N/-) to scroll to the next menu item. When **Span Cal?** is displayed press (Y/-) to select that menu item. Connect the monitor to a known calibration gas cylinder (isobutylene) after the display shows **Apply gas**

now! The monitor will then perform the calibration. When calibration is completed, turn off the flow of gas, disconnect the cylinder, and exit the programming mode by pressing the **(MODE)** key once.

Groundwater Sampling

Groundwater Elevation

All water/product levels are determined to an accuracy of 0.01 foot using a Geotech Interface Meter. The technician records separate phase hydrocarbon, depth to water, and total well depth using this probe.

Water Quality/Groundwater Sampling

Prior to purging, a YSI 550A Dissolved Oxygen Probe is used to determine dissolved oxygen (DO) levels. Water quality parameters are measured using an Ultrameter 6P by the Myron L Company. Electrical conductance, oxidation-reduction potential (ORP), pH, and temperature are monitored during purging.

Well Purging Technique

At least three well volumes are purged from the well. Purge volumes are determined using the following equation:

Well Depth – Casing Height – Depth to Liquid X Conversion Factor X Three.

The conversion factor is determined by the diameter of the well casing.

Casing	Conversion Factor
6"	1.50 gal/ft
5"	1.02 gal/ft
4"	0.74 gal/ft
3"	0.367 gal/ft
2"	0.163 gal/ft

Well Sampling and Sample Handling Procedure

Equipment and supplies needed for collecting representative groundwater samples include:

- Interface Probe
- Ultrameter 6P
- YSI 550A Dissolved Oxygen Instrument
- Distilled Water
- Disposable Latex Gloves
- Disposable Bailers
- String/Twine
- Cooler with Ice
- Bottle kits with Preservatives (provided by the contract laboratory)
- Glass Filters and Syringes Jar (usually 4 oz.)
- Sharpie Permanent Marker
- Field Paperwork/Log sheet
- Two 5-gallon buckets

- Trash container (plastic garbage bag)
- Ziploc Bags
- Paper towels

Typically disposable bailers are used for purging and sampling. Each bailer holds one liter of liquid. Three well volumes can be calculated by counting the number of times a well is bailed.

All purged water is poured into a 55-gallon drum designated for sampling events.

After sufficient purging, samples are collected with the bailer and poured into the appropriate sample containers. Two people are usually utilized for sampling. Sampling takes place over a bucket to insure that spills are contained

Samples are labeled immediately with location, date, time, analysis, preservative, and sampler. Then they are put in a Ziploc bag and placed in a cooler holding sufficient ice to keep them cool. The field log sheet is reviewed to verify all entries.

Purge and Decontamination Water Disposal

The Ultrameter 6P, YSI 550A DO Probe, and the interface probe are rinsed with distilled water after every well. The rinse procedure takes place over a bucket to insure that spills are contained.

All rinse and purge water is contained and then disposed of through the refinery wastewater system.

Instrument Calibration

Calibration of the YSI 550A Dissolved Oxygen Instrument occurs at the beginning of each day of sampling. The probe is powered on and allowed to stabilize, which usually takes 15 minutes. Enter the calibration menu. The LCD will prompt you to enter the local altitude in hundreds of feet. When the proper altitude appears on the LCD, press the **ENTER** key.

The LCD will then prompt you to enter the salinity of the water you are about to analyze. After entering the correct salinity, the instrument will return to normal operation.

The Ultrameter 6P instrument calibration occurs at the beginning of each day of sampling. For Conductivity and TDS calibration, the cell is rinsed three times with a 3000 umhos/cm NaCl Standard. The cell cup is refilled with the standard. Either the **COND** or the **TDS** button is pressed and then the **CAL** button is pushed. Press the up or down arrow until the display agrees with the standard. The **CAL** button is pressed to accept the value.

The Ultrameter 6P has an electronic ORP calibration which is automatically calibrated with the 7 pH. The pH sensor well is rinsed three times with 7.0 buffer solution and then refilled again with that buffer. The **pH** button is pressed then the **CAL** button. The up or down arrow is adjusted until the display agrees with

the buffer value. The **CAL** button is pushed to accept that value. Repeat the calibration steps using an acid buffer solution and then again with a base buffer solution.

Section 10.0 Chemical Analytical Program

Hall Environmental Analysis Laboratory

QUALITY ASSURANCE PLAN

Effective Date: January 31st 2009

Revision 9.0

www.hallenvironmental.com

Control Number: 0000082

Approved By:

Nancy McDuffie

Laboratory Manager

Date

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Full list of approved analytes, methods, analytical techniques and fields of testing Reserved, available upon request

Appendix D ADHS Accreditation

Full list of approved analytes, methods, analytical techniques and fields of testing

Reserved, available upon request

Appendix E NMED-DWB Certification

Reserved, available upon request

Appendix F Terms and Definitions

Reserved, available upon request

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Reserved, available upon request

Appendix H HEAL Forms

Analyst Ethics and Data Integrity Agreement

IDOC Certificate **ADOCP Certificate**

Training Forms

Reserved, available upon request

3.0 Introduction

Purpose of Document

The purpose of this Quality Assurance Plan is to formally document the quality assurance policies and procedures of Hall Environmental Analysis Laboratory, Inc. (HEAL), for the benefit of its employees, clients, and accrediting organizations. HEAL continually implements all aspects of this plan as an essential and integral part of laboratory operations in order to ensure that high quality data is produced in an efficient and effective manner.

Objectives

The objective of HEAL is to achieve and maintain excellence in environmental testing. This is accomplished by developing, incorporating and documenting the procedures and policies specified by each of our accrediting authorities and outlined in this plan. A laboratory staff that is analytically competent, well qualified, and highly trained carries out these activities. An experienced management team, knowledgeable in their area of expertise, monitors them. Finally, a comprehensive quality assurance program governs laboratory practices and ensures that the analytical results are valid, defensible, reproducible, reconstructable and of the highest quality.

HEAL establishes and thoroughly documents its activities to ensure that all data generated and processed will be scientifically valid and of known and documented quality. Routine laboratory activities are detailed in method specific standard operating procedures (SOP). All data reported meets the applicable requirements for the specific method that is referenced, ORELAP, TCEQ, EPA, client specific requirements and/or State Bureaus. In the event that these requirements are ever in contention with each other, it is HEAL's policy to always follow the most prudent requirement available. For specific method requirements refer to HEAL's Standard Operating Procedures (SOP's), EPA methods, Standard Methods 20th edition, ASTM methods or state specific methods.

HEAL management ensures that this document is correct in terms of required accuracy, data reproducibility, and that the procedures contain proper quality control measures. HEAL management additionally ensures that all equipment is reliable, well maintained and appropriately calibrated. The procedures and practices of the laboratory are geared towards not only strictly following our regulatory requirements but also allowing the flexibility to conform to client specific specifications. Meticulous records are maintained for all samples and their respective analyses so that results are well documented and defensible in a court of law.

The HEAL Quality Assurance/Quality Control Officer (QA/QCO) and upper management are responsible for supervising and administering this quality assurance program, and ensuring each individual is responsible for its proper implementation. All HEAL management remains committed to the encouragement of excellence in analytical testing and will continue to provide the necessary resources and environment conducive to its achievement.

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Policies

Understanding that quality cannot be mandated, it is the policy of this laboratory to provide an environment that encourages all staff members to take pride in the quality of their work. In addition to furnishing proper equipment and supplies, HEAL stresses the importance of continued training and professional development. Further, HEAL recognizes the time required for data interpretation. Therefore, no analyst should feel pressure to sacrifice data quality for data quantity. Each staff member must perform with the highest level of integrity and professional competence, always being alert to problems that could compromise the quality of their technical work.

Management and senior personnel supervise analysts closely in all operations. Under no circumstance is the willful act or fraudulent manipulation of analytical data condoned. Such acts must be reported immediately to HEAL management. Reported acts will be assessed on an individual basis and resulting actions could result in dismissal. The laboratory staff is encouraged to speak with lab managers or senior management if they feel that there are any undo commercial, financial, or other pressures, which might adversely affect the quality of their work; or in the event that they suspect that data quality has been compromised in any way. HEALs Quality Assurance/Quality Control Officer is available if any analyst and/or manager wishes to anonymously report any suspected or known breaches in data integrity.

All proprietary rights and client information at HEAL (including national security concerns) are considered confidential. No information will be given out without the express verbal or written permission of the client. All reports generated will be held in the strictest of confidence.

This is a controlled document. Each copy is assigned a unique tracking number and when released to a client or accrediting agency the QA/QCO keeps the tracking number on file. This document is reviewed on an annual basis to ensure that it is valid and representative of current practices at HEAL.

4.0 Organization and Responsibility

Company

HEAL is accredited in accordance with the 2003 NELAC standard (see NELAC accredited analysis list in the appendix), through ORELAP and TCEQ and by the Arizona Department of Health Services. Additionally, HEAL is qualified as defined under the State of New Mexico Water Quality Control Commission regulations and the New Mexico State Drinking Water Bureau. HEAL is a locally owned small business that was established in 1991. HEAL is a full service environmental analysis laboratory with analytical capabilities that include both organic and inorganic methodologies and has performed analyses of soil, water, air as well as various other matrices for many sites in the region. HEAL's client base includes local, state and federal agencies, private consultants, commercial industries as well as individual homeowners. HEAL has performed as a subcontractor to the state of New Mexico and to the New Mexico Department of Transportation. HEAL has been acclaimed by its customers as producing quality results and as being adaptive to client-specific needs.

The laboratory is divided into an organic section, and an inorganic section. Each section has a designated manager/technical director. The technical directors report directly to the laboratory manager, who oversees all operations.

Certifications

ORELAP - NELAC Oregon Primary accrediting authority.

TCEQ – NELAC Texas Secondary accrediting authority.

The Arizona Department of Health Services

The New Mexico Drinking Water Bureau

See appendix B-E for copies of current licenses and licensed parameters, or refer to our current list of certifications online at www.hallenvironmental.com.

Personnel

HEAL management ensures the competence of all who operate equipment, perform environmental tests, evaluate results, and sign test reports. Personnel performing specific tasks shall be qualified on the basis of appropriate education, training, experience and /or demonstrated skills.

All personnel shall be responsible for complying with HEALs quality assurance/quality control requirements that pertain to their technical function. Each technical staff member must have a combination of experience and education to adequately demonstrate specific knowledge of their

particular function and a general knowledge of laboratory operations, test methods, quality assurance/quality control procedures and records management.

All employees training certificates and diplomas are kept on file with demonstrations of capability for each method they perform. An Organizational Chart can be found in Appendix A.

Laboratory Director

The Laboratory Director is responsible for overall technical direction and business leadership of HEAL. The Laboratory Manager, the Project Manager and Quality Assurance/Quality Control Officer report directly to the Laboratory Director. Someone with a minimum of 7 years of directly related experience and a bachelor's degree in a scientific or engineering discipline should fill this position.

Laboratory Manager/Lead Technical Director

The Laboratory Manager shall exercise day—to-day supervision of laboratory operations for the appropriate fields of accreditation and reporting of results. The Laboratory Manager shall be experienced in the fields of accreditation for which the laboratory is approved or seeking accreditation. The Laboratory Manager shall certify that personnel with appropriate educational and/or technical background perform all tests for which HEAL is accredited. Such certification shall be documented.

The Laboratory Manager shall monitor standards of performance in quality control and quality assurance and monitor the validity of the analyses performed and data generated at HEAL to assure reliable data.

The Laboratory Manager is responsible for the daily operations of the laboratory. The Laboratory Manager is the lead technical director of the laboratory and in conjunction with the section technical directors is responsible for coordinating activities within the laboratory with the overall goal of efficiently producing high quality data with in a reasonable time frame.

In events where employee scheduling or current workload is such that new work cannot be incorporated, with out missing hold times, the Laboratory Manager has authority to modify employee scheduling, re-schedule projects or, when appropriate, allocate the work to approved subcontracting laboratories.

Additionally, the laboratory manager reviews and approves new analytical procedures and methods, and performs a final review of most analytical results. The Laboratory Manager provides technical support to both customers and HEAL staff.

The Laboratory Manager also observes the performance of supervisors to ensure good laboratory practices and proper techniques are being taught and utilized, assisting in overall quality control implementation, and strategic planning for the future of the company. Other duties include assisting in establishing laboratory policies which lead to the fulfillment of requirements for various certification programs, assuring that all Quality

Assurance and Quality Control documents are reviewed and approved, and assisting in conducting Quality Assurance Audits.

The laboratory manager addresses questions or complaints that cannot be answered by the section managers.

The Laboratory Manager shall have a bachelor's degree in a chemical, environmental, biological sciences, physical sciences or engineering field, and at least five years of experience in the environmental analysis of representative inorganic and organic analytes for which the laboratory seeks or maintains accreditation.

Quality Assurance Quality Control Officer

The Quality Assurance/Quality Control Officer (QA/QCO) serves as the focal point for QA/QC and shall be responsible for the oversight and/or review of quality control data. The QA/QCO functions independently from laboratory operations and shall be empowered to halt unsatisfactory work and/or prevent the reporting of results generated from an out-of-control measurement system. The QA/QCO shall objectively evaluate data and perform assessments without any outside/managerial influence. The QA/QCO shall have direct access to the highest level of management at which decisions are made on laboratory policy and/or resources. The QA/QCO shall notify laboratory management of deficiencies in the quality system in periodic, independent reports.

The QA/QCO shall have general knowledge of the analytical test methods, for which data review is performed, have documented training and/or experience in QA/QC procedures and in the laboratory's quality system. The QA/QCO will have a minimum of a BS in a scientific or related field and a minimum of three years of related experience.

The QA/QCO shall schedule and conduct internal audits as per the Internal Audit SOP at least annually, monitor and trend Corrective Action Reports as per the Data Validation SOP, periodically review control charts for out of control conditions and initiate any appropriate corrective actions.

The QA/QCO shall oversee the analysis of proficiency testing in accordance with our standards and monitor any corrective actions issued as a result of this testing.

The QA/QCO reviews all standard operating procedures and statements of work in order to assure their accuracy and compliance to method and regulatory requirements.

The QA/QCO shall be responsible for maintaining and updating this quality manual.

Business/Project Manager

The role of the business/project manager is to act as a liaison between HEAL and our clients. The project manager reviews reports, updates clients on the status of projects inhouse, prepares quotations for new work, and is responsible for HEALs marketing effort.

All new work is assessed by the project manager and reviewed with the other managers so as to not exceed the laboratories capacity. In events where employee scheduling or current workload is such that new work cannot be incorporated with out missing hold times, the Project Manager has authority to re-schedule projects.

It is also the duty of the project manager to work with the Laboratory Manager and QA/QCO to insure that before new work is undertaken the resources required and accreditations requested are available to meet the client's specific needs.

Additionally, the Project Manager can initiate the review of the need for new analytical procedures and methods, and performs a final review of some analytical results. The Project Manager provides technical support to customers. Someone with a minimum of 2 years of directly related experience and a bachelor's degree in a scientific or engineering discipline should fill this position.

Section Manager/Technical Directors

The Section Manager/Technical Directors are full-time members of the staff at HEAL who exercise day-to-day supervision of laboratory operations for the appropriate fields of accreditation and reporting of results for their department within HEAL. A Technical Director's duties shall include, but not be limited to, monitoring standards of performance in quality control and quality assurance; monitoring the validity of the analyses performed and the data generated in their sections to ensure reliable data, overseeing training and supervising departmental staff, schedule incoming work for their sections and monitor laboratory personnel to ensure that proper procedures and techniques are being utilized. They supervise and implement new Quality Control procedures as directed by the QA/QCO, update and maintain quality control records including, but not limited to, training forms, IDOCs, ADOCPs, MDLs and evaluate laboratory personnel in their Quality Control activities. In addition technical directors are responsible for upholding the spirit and intent of HEAL's data integrity procedures.

They are the technical director of the associated section and review analytical data to acknowledge that data meets all criteria set forth for good Quality Assurance practices. Someone with a minimum of 2 years of experience in the environmental analysis of representative analytes for which HEAL seeks or maintains accreditation and a bachelor's degree in a scientific or related discipline should fill this position.

Health and Safety / Chemical Hygiene Officer

Refer to the most recent version of the Health and Safety and Chemical Hygiene Plans for the rolls, responsibilities and basic requirements of the Health and Safety Officer (H&SO) and the Chemical Hygiene Officer (CHO). These jobs can be executed by the same employee.

Chemist I, II and III

Chemists are responsible for the analysis of various sample matrices including, but not limited to, solid, aqueous, and air as well as the generation of high quality data in accordance with the HEAL SOPs and QA/QC guidelines in a reasonable time as prescribed by standard turnaround schedules or as directed by the Section Manager or Laboratory Manager.

Chemists are responsible for making sure all data generated is entered in the database in the correct manner and the raw data is reviewed, signed and delivered to the appropriate peer for review. A Chemist reports daily to the section manager and will inform them as to material needs of the section specifically pertaining to the analyses performed by the chemist. Additional duties may include preparation of samples for analysis, maintenance of lab instruments or equipment, cleaning and providing technical assistance to lower level laboratory staff.

The senior chemist in the section may be asked to perform supervisory duties as related to operational aspects of the section. The chemist may perform all duties of a lab technician.

The position of Chemist is a full or part time hourly position and is divided into three levels, Chemist I. II. and III. All employees hired into a Chemist position at HEAL must begin as a Chemist I and remain there at a minimum of three months regardless of their education and experience. Chemist I must have a minimum of an AA in a related field or equivalent experience (equivalent experience means years of related experience can be substituted for the education requirement). A Chemist I is responsible for analysis, instrument operation and data reduction. Chemist II must have a minimum of an AA in a related field or equivalent experience and must have documented and demonstrated aptitude to perform all functions of a Chemist II. A Chemist II is responsible for the full analysis of their test methods, routine instrument maintenance, purchase of consumables as dictated by their Technical Director, advanced data reduction and basic data review. Chemist II may also assist Chemist III in method development and as dictated by their Technical Director may be responsible for the review and/or revision of their method specific SOPs. Chemist III must have Bachelors degree or equivalent experience and must have documented and demonstrated aptitude to perform all functions of a Chemist III. Chemist III are responsible for all tasks completed by a Chemist I and II as well as advanced data review, non-routine instrument maintenance, assisting their technical director in basic supervisory duties and method development.

Laboratory Technician

A laboratory technician is responsible for providing support in the form of sample preparation, basic analysis, general laboratory maintenance, glassware washing, chemical inventories and sample kit preparation. This position can be filled by someone without the education and experience necessary to obtain a position as a chemist.

Sample Control Manager

The sample control manager is responsible for receiving samples and reviewing the sample login information after it has been entered into the computer. The sample control manager also checks the samples against the chain-of-custody for any sample and/or labeling discrepancies prior to distribution.

The sample control manager is responsible for sending out samples to the sub-contractors along with the review and shipping of field sampling bottle kits. The sample control manager acts as a liaison between the laboratory and field sampling crew to ensure that the appropriate analytical test is assigned. If a discrepancy is noted the sample control manager or sample custodian will contact the customer to resolve any questions or problems. The sample control manager is an integral part the customer service team.

This position should be filled by someone with a high school diploma and a minimum of 2 years of related experience and can also be filled by a senior manager.

Sample Custodians

Sample Custodians work directly under the Sample Control Manager. They are responsible for sample intake into the laboratory and into the LIMS. Sample Custodians take orders from our clients and prepare appropriate bottle kits to meet the client's needs. Sample Custodians work directly with the clients in properly labeling and identifying samples as well as properly filling out legal COCs. When necessary, Sample Custodians contact clients to resolve any questions or problems associated with their samples. Sample Custodians are responsible for distributing samples throughout the laboratory and are responsible for notifying analysts of special circumstances such as short holding times or improper sample preservation upon receipt.

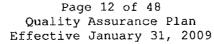
Delegations in the Absence of Key Personnel

Planned absences shall be preceded by notification to the Laboratory Manager. The appropriate staff members shall be informed of the absence. In the case of unplanned absences, the organizational superior shall either assume the responsibilities and duties or delegate the responsibilities and duties to another appropriately qualified employee.

In the event that the Laboratory Manager is absent for a period of time exceeding fifteen consecutive calendar days, another full-time staff member meeting the basic qualifications and competent to temporarily perform this function will be designated. If this absence exceeds thirty-five consecutive calendar days, HEAL will notify ORELAP in writing of the absence and the pertinent qualifications of the temporary laboratory manager.

Laboratory Personnel Qualification and Training

All personnel joining HEAL shall undergo orientation and training. During this period the new personnel shall be introduced to the organization and their responsibilities, as well as









the policies and procedures of the company. They shall also undergo on the job training and shall work with trained staff. They will be shown required tasks and be observed while performing them.

When utilizing staff undergoing training, appropriate supervision shall be dictated and overseen by the appropriate section technical director. Prior to analyzing client samples, a new employee, or an employee new to a procedure, must meet the following basic requirements. The SOP and Method for the analysis must be read and signed by the employee indicating that they read, understood and intend to comply with the requirements The employee must undergo documented training. of the documents. conducted by a senior analyst familiar with the procedure and overseen by the section Technical Director. This training is documented by any means deemed appropriate by the trainer and section Technical Director, and kept on file in the employees file located in the QA/QCO's office. The employee must perform a successful Initial Demonstration of Proficiency (IDOC). See Appendix H for the training documents and checklists utilized at HEAL to ensure that all of these requirements are met. Once all of the above requirements are met it is incumbent upon the section Technical Director to determine at which point the employee can begin to perform the test unsupervised. A Certification to Complete Work Unsupervised (see Appendix H) is them filled out by the employee and technical director.

All IDOCs shall be documented through the use of the certification form which can be found in Appendix H. IDOCs are performed by analyzing four Laboratory Control Spikes (LCSs). Using the results of the LCSs the mean recovery is calculated in the appropriate reporting units and the standard deviations of the population sample (n-1) (in the same units) as well as the relative percent difference for each parameter of interest. When it is not possible or pertinent to determine mean and standard deviations HEAL assesses performance against establish and documented criteria dictated in the method SOP. The mean and standard deviation are compared to the corresponding acceptance criteria for precision and accuracy in the test method (if applicable) or in laboratory-generated acceptance criteria. In the event that the HEAL SOP or test method fail to establish the pass/fail criteria the default limits of +/- 20% for calculated recovery and <20% relative percent difference based on the standard deviation will be utilized. If all parameters meet the acceptance criteria, the IDOC is successfully completed. If any one of the parameters do not meet the acceptance criteria, the performance is unacceptable for that parameter and the analyst must either locate and correct the source of the problem and repeat the test for all parameters of interest or repeat the test for all parameters that failed to meet Repeat failure, however, confirms a general problem with the measurement system. If this occurs the source of the problem must be identified and the test repeated for all parameters of interest.

New employees that do not have prior analysis experience will not be allowed to perform analysis until they have demonstrated attention to detail with minimal errors in the assigned tasks. To ensure a sustained level of quality performance among staff members, continuing demonstration of capability shall be performed at least once a year. These are as an Annual Documentation of Continued Proficiency (ADOCP).

At least once per year an ADOCP must be completed by: the acceptable performance of a blind sample (this is typically done using a PT sample but can be a single blind sample to the analyst), by performing another IDOC, or by summarizing the data of four consecutive

laboratory control samples with acceptable levels of precision and accuracy (these limits are those currently listed in the LIMS for an LCS using the indicated test method.) ADOCPs are documented using a standard form and are kept on file in each analysts employee folder.

Each new employee shall be provided with data integrity training as a formal part of their new employee orientation. Each new employee will sign an ethics and data integrity agreement to ensure that they understand that data quality is our main objective. Every HEAL employee recognizes that although turn around time is important, quality is put above any pressure to complete the task expediently. Analysts are not compensated for passing QC parameters nor are incentives given for the quantity of work produced. Data Integrity and Ethics training are performed on an annual basis in order to remind all employees of HEAL's policy on data quality. Employes are required to understand that any infractions of the laboratory data integrity procedures will result in a detailed investigation that could lead to very serious consequences including immediate termination, debarment or civil/criminal prosecution.

Training for each member of HEALs technical staff is further established and maintained through documentation that each employee has read, understood, and is using the latest version of this Quality Assurance Manual. Training courses or workshops on specific equipment, analytical techniques or laboratory procedures are documented through attendance sheets, certificates of attendance, training forms, or quizzes. This training documentation is located in either analyst specific employee folders in the QA/QCO Office or in the current years group training folder, also located in the QA/QCO Office. On the front of all methods, SOPs and procedures for HEAL there is a signoff sheet that is signed by all pertinent employees, indicating that they have read, understood and agreed to perform the most recent version of the document.

5.0 Receipt and Handling of Samples

Sampling

Procedures

HEAL does not provide field sampling for any projects. Sample kits are prepared and provided for clients upon request. The sample kits contain the appropriate sampling containers (with a preservative when necessary), labels, blue ice, a cooler, chain-of-custody forms, plastic bags, bubble wrap, and any special sampling instructions. Sample kits are reviewed prior to shipment for accuracy and completeness.

Containers

Containers which are sent out for sampling are purchased by HEAL from a commercial source. Glass containers are certified "EPA Cleaned" QA level 1. Plastic containers are certified clean when required. These containers are received with a Certificate of Analysis verifying that the containers have been cleaned according to the EPA wash procedure. Containers are used once and discarded. If the samples are collected and stored in inappropriate containers the laboratory may not be able to accurately quantify the amount of the desired components. In this case re-sampling may be required.

Preservation

If sampling for an analyte(s) requires preservation, the sample custodians fortify the containers prior to shipment to the field, or provide the preservative for the sampler to add in the field. The required preservative is introduced into the vials in uniform amounts and done so rapidly to minimize the risk of contamination. Vials that contain a preservative are labeled appropriately. If the samples are stored with inappropriate preservatives the laboratory may not be able to accurately quantify the amount of the desired components. In this case re-sampling may be required.

Refer to the current Login SOP and/or the current price book for detailed sample receipt and handling procedures, appropriate preservation and holding time requirements.

Sample Custody

Chain-of-Custody Form

A Chain-of-Custody (CoC) form is used to provide a record of sample chronology from the field to receipt at the laboratory. HEALs CoC contains the client's name, address, phone and fax numbers, the project name and number, the project manager's name, and the field sampler's name. It also identifies the date and time of sample collection, sample matrix, field sample ID number, number/volume of sample containers, sample temperature upon receipt, and any sample preservative information.

There is also a space to record the HEAL ID number assigned to samples after they are received. Next to the sample information is a space for the client to indicate the desired analyses to be performed. There is a section for the client to indicate the data package level as well as any accreditation requirements. Finally, there is a section to track the actual custody of the samples. The custody section contains lines for signatures, dates and times when samples are relinquished and received. The CoC form also includes a space to record special sample related instructions, sampling anomalies, time constraints, and any sample disposal considerations.

It is paramount that all CoCs arrive at HEAL complete and accurate so that the samples can be processed and allocated for testing in a timely and efficient manor. A sample chain-of-custody form can be found in Appendix G or on line at www.hallenvironmental.com.

Receiving Samples

Samples are received by authorized HEAL personnel. Upon arrival, the CoC is compared to the respective samples. After the samples and CoC have been determined to be complete and accurate, the sampler signs over the CoC. The HEAL staff member in turn signs the chain-of-custody, also noting the current date, time and sample temperature. This relinquishes custody of the samples from the sampler and delegates sample custody to HEAL. The third (pink) copy of the CoC form is given to the person who has relinquished custody of the samples.

Logging in Samples and Storage

Standard Operating Procedures have been established for the receiving and tracking of all samples (refer to the current HEAL Login SOP). These procedures ensure that samples are received and properly logged into the laboratory, and that all associated documentation, including chain of custody forms, are complete and consistent with the samples received. Each sample set is given a unique HEAL tracking ID number. Individual sample locations within a defined sample set are given a unique sample ID suffix-number. Labels with the HEAL numbers, and tests requested, are generated and placed on their respective containers. The pH of preserved, non-volatile samples is checked and noted if out of compliance. Due to the nature of the samples, the pHs of volatiles samples are checked after analysis. Samples are reviewed prior to being distributed for analysis.

Samples are distributed for analysis based upon the requested tests. In the event that sample volume is limited and different departments at HEAL are required to share the

sample, volatile work takes precedence and will always be analyzed first before the sample is sent to any other department for analysis.

Each project (sample set) is entered into the Laboratory Information Management System (LIMS) with a unique ID that will be identified on every container. The ID tag includes the Lab ID, Client ID, date and time of collection, and the analysis/analyses to be performed. The LIMS continually updates throughout the lab. Therefore, at any time, an analyst or manager may inquire about a project and/or samples status. For more information about the login procedures, refer to the Sample Login SOP.

Disposal of Samples

Samples are held at HEAL for a minimum of thirty days and then transferred to the HEAL warehouse for disposal. Analytical results are used to characterize their respective sample contamination level(s) so that the proper disposal can be performed. These wastes will be disposed of according to their hazard as well as their type and level of contamination. Refer to the Hall Environmental Analysis Laboratory Chemical Hygiene Plan and current Sample Disposal SOP for details regarding waste disposal.

Waste drums are provided by an outside agency. These drums are removed by the outside agency and disposed of in a proper manner.

The wastes that are determined to be non-hazardous are disposed of as non-hazardous waste in accordance with the Chemical Hygiene Plan and Sample Disposal SOP.

6.0 Analytical Procedures

All analytical methods used at HEAL incorporate necessary and sufficient Quality Assurance and Quality Control practices. A Standard Operating Procedure (SOP) is used for each method to provide the necessary criteria to yield acceptable results. These procedures are reviewed at least annually and revised as necessary and are attached as a pdf file in the Laboratory Information Management System (LIMS) for easy access by each analyst. The sample is often consumed or altered during the analytical process. Therefore, it is important that each step in the analytical process be correctly followed in order to yield valid data.

When unforeseen problems arise, the analyst, technical director, and, when necessary, laboratory manager meet to discuss the factors involved. The analytical requirements are evaluated and a suitable corrective action or resolution is established. The client is notified in the case narrative with the final report or before, if the validity of their result is in question.

List of Procedures Used

Typically, the procedures used by HEAL are EPA approved methodologies or 20th edition Standard Methods. However, proprietary methods for client specific samples, are sometimes used. The following tables list EPA and Standard Methods Method numbers with their corresponding analytes and/or instrument classification.

Methods Utilized at HEAL

Methodology	Title of Method				
120.1	"Conductance(Specific Conductance, uohms at 25 ° C)"				
180.1	"Turbidity (Nephelometric)"				
200.2	"Sample Preparation Procedure For Spectrochemical Determination of Total Recoverable Elements"				
200.7	"Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry"				
245.1	"Mercury (Manual Cold Vapor Technique)"				
300.0	"Determination of Inorganic Anions by Ion Chromatography"				
413.2	"Oil and Grease"				
418.1	"Petroleum Hydrocarbons (Spectrophotometric, Infrared)"				
420.3	"Phenolics (Spectrophotometric, MBTH With Distillation)"				
504.1	"EDB, DBCP and 123TCP in Water by Microextraction and Gas Chromatography"				

"Analysis of Organohalide Pesticides and Commercial Polychlorinated Biphenyl (PCB) Products in Water by Microextraction and Gas Chromatography"				
"Determination of Chlorinated Acids in Water by Gas Chromatography with an Electron Capture Detector"				
"Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry"				
"Measurement of N-Methylcarbomoyloximes and N-Methylcarbamates in Water by Direct Aqueous Injection HPLC with Post Column Dervivatization"				
"Determination of Glyphosate in Drinking Water by Direct-Aqueous Injection HPLC, Post-Column Derivatization, and Fluorescence Detection"				
"Determination of Haloacetic Acids and Dalapon in Drinking Water by Ion- Exchange Liquid-Solid Extraction and Gas Chromatography with an Electron Capture Detector"				
"Toxicity Characteristic Leaching Procedure"				
"Toxicity Characteristic Leaching Procedure"				
"Acid Digestion of Waters for Total Recoverable or Dissolved Metals for Analysis by FLAA or ICP Spectroscopy"				
"Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP Spectroscopy"				
"Acid Digestion of Sediment, Sludge, and Soils"				
"Separatory Funnel Liquid-Liquid Extraction"				
"Soxhlet Extraction"				
"Pressurized Fluid Extraction(PFE)"				
"Sulfuric Acid/Permanganate Cleanup"				
"Purge-and-Trap for Aqueous Samples"				
"Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples"				
"Inductively Coupled Plasma-Atomic Emission Spectrometry"				
"Mercury in Liquid Waste (Manual Cold-Vapor Technique)"				
"Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)"				
"Aromatic and Halogenated Volatiles By Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors"				
"Nonhalogenated Volatile Organics by Gas Chromatography" (Gasoline Range and Diesel Range Organics)				

8015AZ	"C10-C32 Hydrocarbons in Soil-8015AZ"			
8081A	"Organochlorine Pesticides by Gas Chromatography"			
8082	'Polychlorinated Biphenyls (PCBs) by Gas Chromatography"			
8260B	Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry GC/MS)"			
8270C	Semivolatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS)"			
8310	"Polynuclear Aromatic Hydrocarbons"			
9045C	"Soil and Waste pH"			
9056	"Determination of Inorganic Anions by Ion Chromatography"			
9060	"Total Organic Carbon"			
9067	'Phenolics (Spectrophotometric, MBTH With Distillation)"			
9095	Paint Filter			
Walkley/Black	FOC/TOC WB			
SM2320 B	"Alkalinity"			
SM2540 B	"Total Solids Dried at 103-105° C"			
SM2540 C	"Total Dissolved Solids Dried at 180° C"			
SM2540 D	"Total Suspended Solids Dried at 103-105° C"			
SM 3500 Fe+2	Ferrous Iron			
SM4500-H+B	"pH Value"			
SM4500-NH3 C	"4500-NH3" Ammonia			
SM4500-Norg C	"4500-Norg" Total Kjeldahl Nitrogen (TKN)			
SM4500-P B	"4500-P" Total Phosphorous			
SM4500-S2 F	"4500-S2" Sulfide			
SM5310 B	"5310" Total Organic Carbon (TOC)			

Criteria for Standard Operating Procedures

HEAL has Standard Operating Procedures (SOPs) for each of the test methods listed above. These SOPs are based upon the listed methods and detail the specific procedure and equipment utilized as well as the quality requirements necessary to prove the integrity of the data. SOPs are reviewed or revised every twelve months or sooner if necessary. The review/revision is documented in the Master SOP Logbook filed in the QA/QC Office. All SOPs are available in the LIMS linked under the specific test method. Administrative SOPs, which are not linked in the LIMS are available on desktops throughout the laboratory in the link to administrative SOPs folder.

Each HEAL test method SOP shall include or reference the following topics where applicable:

Identification of the test method;

Applicable matrix or matrices;

Limits of detection and quantitation;

Scope and application, including parameters to be analyzed;

Summary of the test method;

Definitions:

Interferences;

Safety;

Equipment and supplies;

Reagents and standards;

Sample collection, preservation, shipment and storage;

Quality control parameters;

Calibration and standardization;

Procedure:

Data analysis and calculations;

Method performance;

Pollution prevention:

Data assessment and acceptance criteria for quality control measures:

Corrective actions for out-of-control data;

Contingencies for handling out-of-control or unacceptable data;

Waste management;

References; and

Any tables, diagrams, flowcharts and validation data.

7.0 Calibration

All equipment and instrumentation used at HEAL are operated, maintained and calibrated according to manufacturers guidelines, as well as criteria set forth in applicable analytical methodology. Personnel who have been properly trained in their procedures perform operation and calibration. Brief descriptions of the calibration processes for our major laboratory equipment and instruments are found below.

Thermometers

The thermometers in the laboratory are used to measure the temperatures of the refrigerators/freezers, ovens, water baths, hot blocks, ambient laboratory conditions, TCLP Extractions, digestion blocks and samples at the time of log-in. All NIST traceable thermometers are either removed from use upon their documented expiration date or they are checked annually with a NIST certified thermometer and a correction factor is noted on each thermometer log. See the most current Login SOP for detailed procedures on this calibration procedure.

Dickson Data Loggers are used to record sample and standard storage refrigerators over the weekend when the appropriate staff is not available to record the temperatures. These data loggers are shipped back to the manufacturer once a year to be re calibrated.

Refrigerators/Freezers

Each laboratory refrigerator or freezer contains a thermometer capable of measuring to a minimum precision of 1°C. The thermometers are kept with the bulb immersed in liquid. Each workday, the temperatures of the refrigerators are recorded in a designated logbook to insure that the refrigerators are within the required designated range. Samples are stored separately from the standards to reduce the risk of contamination.

See the current catastrophic Failure SOP for the procedure regarding how to handle failed refrigerators or freezers.

Ovens

The ovens contain thermometers graduated by 1° C. The ovens are calibrated quarterly against NIST thermometers and checked daily as required and in which ever way is dictated by or appropriate for the method in use.

Analytical and Table Top Balances

The table top balances are capable of weighing to a minimum precision of 0.01 grams. The analytical balances are capable of weighing to a minimum precision of 0.0001 grams. Records are kept of daily calibration checks for the balances in use. Working weights are used in these checks. The balances are annually certified by an outside source and the certifications are on file with the QA/QCO.

Balances, unless otherwise indicated by method specific SOPs, will be checked daily with at least two weights that will bracket the working range of the balance-for-the-day. Daily balance checks will be done using working weights that are calibrated annually against Class S weights. Class S weights are calibrated as required by an external provider. The Class S weights are used once a year or more frequently if required, to assign values to the Working Weights. During the daily balance checks the working weights are compared to their assigned values and must pass within 5% of their assigned value in order to validate the calibration of the balance. The assigned values for the working weights, as well as the daily checks, are recorded in the balance logbook for each balance.

Instrument Calibration

An instrument calibration is the relationship between the known concentrations of a set of calibration standards introduced into an analytical instrument and the measured response they produce. Calibration curve standards are a prepared series of aliquots at various known concentrations levels from a primary source reference standard. Specific mathematical types of calibration techniques are outlined in SW-846 8000B. The entire initial calibration must be performed prior to sample analyses.

The lowest standard in the calibration curve must be at or below the required reporting limit.

Refer to the current SOP to determine the minimum requirement for calibration points.

Most compounds tend to be linear and a linear approach should be favored when linearity is suggested by the calibration data. Non-linear calibration should be considered only when a linear approach cannot be applied. It is not acceptable to use an alternate calibration procedure when a compound fails to perform in the usual manner. When this occurs it is indicative of instrument issues or operator error.

If a non-linear calibration curve fit is employed, a minimum of six calibration levels must be used for second-order (quadratic) curves.

When more than 5 levels of standards are analyzed in anticipation of using second-order calibration curves, all calibration points MUST be used regardless of the calibration option employed. The highest or lowest calibration point may be excluded for the purpose of narrowing the calibration range, and meeting the requirements for a specific calibration option. Otherwise, unjustified exclusion of calibration data is expressly forbidden.

Analytical methods vary in QC acceptance criteria. HEAL follows the method specific guidelines for QC acceptance. The specific acceptance criteria are outlined in the analytical methods and its corresponding SOP.

pH Meter

The pH meter measures to a precision of 0.01 pH units. The pH calibration logbook contains the calibration before each use, or each day, if used more than once per day. It is calibrated using a minimum of 3 certified buffers. Also available with the pH meter is a magnetic stirrer with a temperature sensor. See the current pH SOP (SM4500 H+ B) for specific details regarding calibration of the pH probe.

Other Analytical Instrumentation and Equipment

The conductivity probe is calibrated as needed and checked daily when in use.

Eppendorf (or equivalent brands) pipettes are checked gravimetrically prior to use.

Standards

All of the source reference standards used are ordered from a reliable commercial vendor. A Certificate of Analysis (CoA), which verifies the quality of the standard, accompanies the standards from the vendor. The Certificates of Analysis are dated and stored on file by the Technical Directors or their designee. These standards are traceable to the National Institute of Standards (NIST). When salts are purchased and used as standards the certificate of purity must be obtained from the vendor and filed with the CoAs.

All standard solutions, calibration curve preparations, and all other quality control solutions are labeled in a manner that can be traced back to the original source reference standard. All source reference standards are entered into the LIMS with an appropriate description of the standard. Dilutions of the source reference standard (or any mixes of the source standards) are fully tracked in the LIMS. Standards are labeled with the date opened for use, and an expiration date.

As part of the quality assurance procedures at HEAL, analysts strictly adhere to manufacture recommendations for storage times/expiration dates and policies of analytical standards and quality control solutions.

Reagents

HEAL ensures that the reagents used are of acceptable quality for their intended purpose. This is accomplished by ordering high quality reagents and adhering to good laboratory

practices so as to minimize contamination or chemical degradation. All reagents must meet any specifications noted in the analytical method. Refer to the current Purchase of Consumables SOP for details on how this is accomplished and documented.

Upon receipt, all reagents are assigned a separate ID number, and logged into the LIMS. All reagents shall be labeled with the date received into the laboratory and again with the date opened for use. Recommended shelf life shall be documented and controlled. Dilutions or solutions prepared shall be clearly labeled, dated, and initialed. These solutions are traceable back to their primary reagents.

All gases used with an instrument shall meet specifications of the manufacturer. All safety requirements that relate to maximum and/or minimum allowed pressure, fitting types, and leak test frequency, shall be followed. When a new tank of gas is placed in use, it shall be checked for leaks and the date put in use will be written in the instrument maintenance logbook.

HEAL continuously monitors the quality of the reagent water and provides the necessary indicators for maintenance of the purification systems in order to assure that the quality of laboratory reagent water meets established criteria for all analytical methods.

Reagent blank samples are also analyzed to ensure that no contamination is present at detectable levels. The frequency of reagent blank analysis is typically the same as calibration verification samples. Refrigerator storage blanks are stored in the volatiles refrigerator for a period of one week and analyzed and replaced once a week.

8.0 Maintenance

Maintenance logbooks are kept for each major instrument and all support equipment in order to document all repair and maintenance. In the front of the logbook, the following information is included:

Unique name of the item or equipment
Manufacturer
Type of Instrument
Model Number
Serial Number
Date received and date placed into service
Location of Instrument
Condition of instrument upon receipt

For routine maintenance, the following information shall be included in the log:

Maintenance Date Maintenance Description Maintenance Performed by Initials

A manufacturer service agreement (or equivalent) covers most major instrumentation to assure prompt and reliable response to maintenance needs beyond HEAL instrument operator capabilities.

Refer to the current Maintenance and Troubleshooting SOP for each section in the laboratory for further information.



9.0 Data Integrity

For HEAL's policy on ethics and data integrity see section 3.0 of this document. Upon being hired and annually there after, all employees at HEAL undergo documented data integrity training. All new employees sign an Ethics and Data Integrity Agreement, documenting their understanding of the high standards of integrity required at HEAL and outlining their responsibilities in regards to ethics and data integrity. See Appendix H for a copy of this agreement.

In instances of ethical concern analysts are required to report the known or suspected concern to their Technical Director, the Laboratory Manager or the QA/QCO. This will be done in a confidential and receptive environment, allowing all employees to privately discuss ethical issues or report items of ethical concern.

Once reported and documented the ethical concern will be immediately elevated to the Laboratory Manager and the need for an investigation, analyst remediation or termination will be determined on a case by case basis.

All reported instances of ethical concern will be thoroughly documented and handled in a manner sufficient to rectify any breaches in data integrity with an emphasis on preventing similar incidences from happening in the future.

9.0 Quality Control

Internal Quality Control Checks

HEAL utilizes various internal quality control checks, including duplicates, matrix spikes, matrix spike duplicates, method blanks, laboratory control spikes, laboratory control spike duplicates, surrogates, internal standards, calibration standards, quality control charts, proficiency tests and calculated measurement uncertainty.

Refer to the current method SOP to determine the frequency and requirements of all quality controls. In the event that the frequency of analysis is not indicated in the method specific SOP, duplicate samples, laboratory control spikes (LCS), Method Blanks (MB) and matrix spikes and matrix spike duplicates (MS/MSD) are analyzed for every batch of twenty samples.

When sample volume is limited on a test that requires an MS/MSD an LCSD shall be analyzed to demonstrate precision and accuracy and when possible a sample duplicate will be analyzed.

Duplicates, are identical tests repeated for the same sample or matrix spike in order to determine the precision of the test method. A Relative Percent Difference (RPD) is calculated as a measure of this precision. Unless indicated in the SOP, the default acceptance limit is </= 30%.

Matrix Spikes and Matrix Spike Duplicates are spiked samples (MS/MSD) that are evaluated with a known added quantity of a target compound. This is to help determine the accuracy of the analyses and to determine the matrix affects on analyte recovery. A percent recovery is calculated to assess the quality of the accuracy. In the event that the acceptance criteria is not outlined in the SOP a default limits of 70-130% will be utilized. When an MSD is employed an RPD is calculated and when not indicated in the SOP shall be acceptable at </= 30%.

When appropriate for the method, a Method Blank should be analyzed with each batch of samples processed to assess contamination levels in the laboratory. MBs consist of all the reagents measured and treated as they are with samples, except without the samples. This enables the laboratory to ensure clean reagents and procedures. Guidelines should be in place for accepting or rejecting data based on the level of contamination in the blank. In the event that these guidelines are not dictated by the SOP or in client specific work plans, the MB should be less than the MDL reported for the analyte being reported.

A Laboratory Control Spike and Laboratory Control Spike Duplicate (LCS/LCSD) are reagent blanks, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. It is generally used to establish intra-laboratory or analyst-specific precision and bias or to assess the performance of all or a portion of the measurement system. Guidelines are outline in each

SOP for the frequency and pass fail requirements for LCS and LCSDs. These limits can be set utilizing control charts as discussed below.

Surrogates are utilized when dictated by method and are substances with properties that mimic the analytes of interest. The surrogate is an analyte that is unlikely to be found in environmental samples. Refer to the appropriate Method and SOP for guidelines on pass/fail requirements for surrogates.

Internal Standards are utilized when dictated by the method and are known amounts of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical method. Refer to the appropriate Method and SOP for guidelines on pass/fail requirements for Internal Standards.

Proficiency Test (PT) Samples are samples provided by an unbiased third party. They are typically analyzed twice a year, or at any other interval defined in the method SOP. They contain a pre-determined concentration of the target compound, which is unknown to HEAL. HEAL's management and all analyst shall ensure that all PT samples are handled in the same manner as real environmental samples utilizing the same staff, methods, procedures, equipment, facilities and frequency of analysis as used for routine analysis of that analyte. When analyzing a PT, HEAL shall employ the same calibration, laboratory quality control and acceptance criteria, sequence of analytical steps, number of replicates and other procedures as used when analyzing routine samples.

With regards to analyzing PT Samples HEAL shall not send any PT sample, or portion of a PT sample, to another laboratory for any analysis for which we seeks accreditation, or are accredited. HEAL shall not knowingly receive any PT sample or portion of a PT sample from another laboratory for any analysis for which the sending laboratory seeks accreditation, or is accredited. Laboratory management or staff will not communicate with any individual at another laboratory concerning the PT sample. Laboratory management or staff shall not attempt to obtain the assigned value of any PT sample from the PT Provider.

Calibration standards are standards run to calibrate. Once the calibration is established the same standards can be analyzed as Continuing Calibration Verifications (CCV), used to confirm the consistency of the instrumentation. Calibration standards can be utilized at the beginning and end of each batch, or more frequently as required. Typically Continuing Calibration Blanks (CCB) are run in conjunction with CCVs. Refer to the current method SOP for frequency and pass/fail requirements of CCVs and CCBs.

Control Limits are limits of acceptable ranges of the values of quality control checks. If a value falls outside the appropriate range, immediate evaluation and assessment of the procedure is required. Data generated with laboratory control samples that fall outside of the established control limits are judged to be generated during an "out-of-control" situation. These data are considered suspect and shall be repeated or reported with qualifiers.

Control limits should be established and updated according to the requirements of the method being utilized. When the method does not specify, and control limits are to be generated or updated for a test, the following guidelines shall be utilized.

Control Limits should be updated periodically and at least annually. The Limits should be generated utilizing the most recent 20-40 data values and Control Charts should be printed when these limits are updated in the LIMS. The data values used shall not reuse values that were included in the previous Control Limit update. The data values shall also be reviewed by the LIMS for any Grubbs Outliers, and if identified, the outliers must be removed prior to generating new limits. Once new Control Limits have been established and updated in the LIMS, the printed Control Chart shall be reviewed by the appropriate technical director and primary analyst performing the analysis for possible trends and compared to the previous Control Charts. The technical director initials the control charts, indicating that they have reviewed and determined the updated Limits to be accurate and appropriate. These initialed charts are then filed in the QA/QCO office.

Calculated Measurement Uncertainty is calculated annually using LCSs in order to determine the laboratory specific uncertainty associated with each test method. These uncertainty values are available to our clients upon request and are utilized as a trending tool internally to determine the effectiveness of new variables introduced into the procedure over time.

Precision, Accuracy, Detection Levels

Precision

The laboratory uses sample duplicates, laboratory control spike duplicates and matrix spike duplicates to assess precision in terms of relative percent difference (RPD). HEAL requires the RPD to fall within the 99% confidence interval of established control charts or an RPD of less than 30% if control charts are not available. RPD's greater than these limits are considered out-of-control and require an appropriate response.

RPD = 2 x (Sample Result – Duplicate Result) X 100 (Sample Result + Duplicate Result)

Accuracy

The accuracy of an analysis refers to the difference between the calculated value and the actual value of a measurement. The accuracy of a laboratory result is evaluated by comparing the measured amount of QC reference material recovered from a sample and the known amount added. Control limits can be established for each analytical method and sample matrix. Recoveries are assessed to determine the method efficiency and/or the matrix effect.

Analytical accuracy is expressed as the percent recovery (%R) of an analyte or parameter. A known amount of analyte is added to an environmental sample before

the sample is prepared and subsequently analyzed. The equation used to calculate percent recovery is:

%Recovery = {(concentration* recovered)/(concentration* added)} X 100

*or amount

HEAL requires that the Percent Recovery to fall within the 99 % confidence interval of established control limits. A value that falls outside of the confidence interval requires a warning and process evaluation. The confidence intervals are calculated by determining the mean and sample standard deviation. If control limits are not available, the range of 70 to 130% is used unless the specific method dictates otherwise. Percent Recoveries outside of this range mandate additional action such as analyses by Method of Standard Additions, additional sample preparation(s) where applicable, method changes, out-of-control action or data qualification.

Detection Limit

Current practices at HEAL define the Detection Limit (DL) as the smallest amount that can be detected above the baseline noise in a procedure within a stated confidence level.

HEAL presently utilizes an Instrument Detection Limit (IDL), a Method Detection Limit (MDL), and a Practical Quantitation Limit (PQL). The relationship between these levels is approximately

IDL: MDL: PQL = 1:5:5.

The IDL is a measure of the sensitivity of an analytical instrument. The IDL is the amount which, when injected, produces a detectable signal in 99% of the analyses at that concentration. An IDL can be considered the minimum level of analyte concentration that is detectable above random baseline noise.

The MDL is a measure of the sensitivity of an analytical method. An MDL determination (as required in 40CFR part 136 Appendix B) consists of replicate spiked samples carried through all necessary preparation steps. The spike concentration is three times the standard deviation of three replicates of spikes. At least seven replicates are spiked and analyzed and their standard deviation (s) calculated. Routine variability is critical in passing the 10 times rule and is best achieved by running the MDLs over different days and when possible over several calibration events. The method detection limit (MDL) can be calculated using the standard deviation according to the formula:

MDL = s * t (99%)

Where t (99%) is the student's t value for the 99% confidence interval. It depends on the number of trials used in calculating the sample standard deviation, so choose the appropriate value according to the number of trials.

Number of Trials	t(99%)
6	3.36
7	3.14
8	3.00
9	2.90

The calculated MDL must not be less than 10 times the spiked amount or the study must be performed again with a lower concentration.

The PQL is significant because different laboratories can produce different MDLs although they may employ the same analytical procedures, instruments and sample matrices. The PQL is about two to five times the MDL and represents a practical, and routinely achievable, reporting level with a good certainty that the reported value is reliable. It is often determined by regulatory limits. The reported PQL for a sample is dependent on the dilution factor utilized during sample analysis.

Quality Control Parameter Calculations

Mean

The sample mean is also known as the arithmetic average. It can be calculated by adding all of the appropriate values together, and dividing this sum by the number of values.

Average =
$$(\Sigma x_1) / n$$

 x_l = the value x in the l^{th} trial n = the number of trials

Standard Deviation

The sample standard deviation, represented by s, is a measure of dispersion. The dispersion is considered to be the difference between the average and each of the values x_i . The variance, s^2 , can be calculated by summing the squares of the differences and dividing by the number of differences. The sample standard deviation, s, can be found by taking the square root of the variance.

Standard deviation = s = $\left[\sum (x_1 - average)^2 / (n-1)\right]^{\frac{1}{2}}$

Percent Recovery (MS, MSD, LCS and LCSD)

Percent Recovery = (Spike Sample Result – Sample Result) X100 (Spike Added)

Confidence Intervals

Confidence intervals are calculated by the LIMS using the average (x), the sample standard deviation (s), and the Student's t distribution (s-dist), which depends on the number of values used to calculate the average and sample standard deviation.

The formula is:

confidence interval = $x \pm s * s$ -dist

Student's t Distribution

#values	410	15	√20 ∵ €	.25 🙌	√31;•	41 🔭 -	(6,1 🔆 🐃	121,45	> 121
95 %	2.262	2.145	2.093	2.064	2.042	2.021	2.000	1.980	1.960
99%	3.250	2.977	2.861	2.797	2.750	2.704	2.660	2.617	2.576

Unless there is insufficient data, at least 20 values will always be used in calculating the confidence intervals.

RPD (Relative Percent Difference)

Analytical precision is expressed as a percentage of the difference between the results of duplicate samples for a given analyst. Relative percent difference (RPD) is calculated as follows:

RPD = 2 x (Sample Result – Duplicate Result) X 100 (Sample Result + Duplicate Result)

Uncertainty Measurements

Uncertainty, as defined by ISO, is the parameter associated with the result of a measurement that characterizes the dispersion of the values that could reasonably be attributed to the measurement. Ultimately uncertainty measurements are used to state how good a test result is and to allow the end user of data to properly interpret their reported data. All procedures allow for some uncertainty. For most analyses the components and estimates of uncertainty are reduced by following well established test methods. To further reduce uncertainty, results are generally not reported below the lowest calibration point (PQL) or above the highest calibration point (UQL).

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Understanding that there are many influence quantities affecting a measurement result, so many in fact that it is impossible to identify all of them, HEAL calculates measurement uncertainty at least annually using LCSs. These estimations of measurement uncertainty are kept on file in the method folders in the QA/QC office.

Measurement Uncertainty contributors are those that may be determined statistically. These shall be generated by estimating the overall uncertainty in the entire analytical process by measuring the dispersion of values obtained from laboratory control samples over time. At least 20 of the most recent LCS data points are gathered. The standard deviation (s) is calculated using these LCSs data points. Since it can be assumed that the possible estimated values of the spikes are approximately normally distributed with approximate standard deviation (s), the unknown value of the spike is believed to lie in 95% confidence interval, corresponding to an uncertainty range of +/- 2(s).

Calculate standard deviation (s) and 95% confidence interval according to the following formulae:

$$s = \sqrt{\frac{\sum (x - \overline{x})^2}{(n-1)}}$$

Where: s = standard deviation

x = number in series

 \bar{x} = calculated mean of series n = number of samples taken

95% confidence = $2 \times s$

Example: Assuming that after gathering 20 of the most recent LCS results for Bromide, we have calculated the standard deviations of the values and achieved a result of 0.0326, our measurement uncertainty for Bromide (at 95% confidence = $2 \times s$) is 0.0652.

Calibration Calculations

1. Response Factor or Calibration Factor:

$$RF = ((A_x)(C_{is}))/((A_{is})(C_x))$$

 $CF=(A_x)/(C_x)$

a. Average RF or CF

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$$RF_{AVE} = \Sigma RF_i / n$$

- b. Standard Deviation $s = SQRT \{ [\Sigma (RF_i - RF_{AVE})^2] / (n-1) \}$
- c. Relative Standard Deviation

Where:

 $A_x = Area of the compound$

 C_x = Concentration of the compound

Ais = Area of the internal standard

Cis = Concentration of the internal standard

n = number of pairs of data

RF_i = Response Factor (or other determined value)

RF_{AVE} = Average of all the response factors

 Σ = the sum of all the individual values

2. Linear Regression

a. Slope (m)

$$\mathbf{m} = (\mathbf{n} \Sigma \mathbf{x}_i \mathbf{y}_i - (\mathbf{n} \Sigma \mathbf{x}_i)^* (\mathbf{n} \Sigma \mathbf{y}_i)) / (\mathbf{n} \Sigma \mathbf{x}_i^2 - (\Sigma \mathbf{x}_i)^2)$$

b. Intercept (b)

$$b = y_{AVE} - m^*(x_{AVE})$$

c. Correlation Coefficient (cc)

$$\begin{array}{l} \text{CC (r) =} \{ \ \Sigma((x_i \!\!-\! x_{ave})^*(y_i \!\!-\! y_{ave})) \ \} \ / \ \{ \ SQRT((\Sigma(x_i \!\!-\! x_{ave})^2)^*(\Sigma(y_i \!\!-\! y_{ave})^2)) \ \} \\ \text{Or} \\ \text{CC (r) =} [(\Sigma w \ ^* \Sigma wxy) - (\Sigma wx \ ^* \Sigma wy)] \ / \ (\text{sqrt(([(\Sigma w \ ^* \Sigma wx^2) - (\Sigma wx \ ^* \Sigma wx)] ^* [(\Sigma w \ ^* \Sigma wy^2) - (\Sigma wy \ ^* \Sigma wy)])))] \\ \end{array}$$

d. Coefficient of Determination

$$COD(r^2) = CC*CC$$

Where:

y = Response (Area) Ratio A_x/A_{is}

x = Concentration Ratio C_x/C_{is}

m = slope

b = intercept

n = number of replicate x,y pairs

 x_i = individual values for independent variable

y_i = individual values for dependent variable

 Σ = the sum of all the individual values

 x_{ave} = average of the x values

 y_{ave} = average of the y values

w = weighting factor, for equal weighting w=1

3. Quadratic Regression

$$y = ax^2 + bx + c$$

a. Coefficient of Determination

COD (r²) =(
$$\Sigma(y_i-y_{ave})^2 - \{[(n-1)/(n-p)] * [\Sigma(y_i-Y_i)^2]\}$$
) / $\Sigma(y_i-y_{ave})^2$

Where:

y = Response (Area) Ratio A_x/A_{is}

 $x = Concentration Ratio C_x/C_{is}$

 $a = x^2$ coefficient

b = x coefficient

c = intercept

y_i = individual values for each dependent variable

 x_i = individual values for each independent variable

 y_{ave} = average of the y values

n = number of pairs of data

p = number of parameters in the polynomial equation (I.e., 3 for third order, 2 for second order)

 $Yi = ((2*a*(C_x/C_{is})^2)-b^2+b+(4*a*c))/(4a)$

b. Coefficients (a,b,c) of a Quadratic Regression

$$a = S_{(x2y)}S_{(xx)} - S_{(xy)}S_{(xx2)} / S_{(xx)}S_{(x2x2)} - [S_{(xx2)}]^2$$

$$b = S_{(xy)}S_{(x2x2)} - S_{(x2y)}S_{(xx2)} / S_{(xx)}S_{(x2x2)} - [S_{(xx2)}]^2$$

$$c = [(\Sigma yw)/n] - b^*[(\Sigma xw)/n] - a^*[\Sigma (x^2w)/n]$$

Where:

 $\begin{array}{l} n = number \ of \ replicate \ x,y \ pairs \\ x = x \ values \\ y = y \ values \\ w = S^{-2} \ / \ (\Sigma S^{-2}/n) \\ S_{(xx)} = (\Sigma x^2 w) \ - \ [(\Sigma x w)^2 \ / \ n] \\ S_{(xy)} = (\Sigma x^2 w) \ - \ [(\Sigma x w)^* (\Sigma y w) \ / \ n] \\ S_{(x2y)} = (\Sigma x^3 w) \ - \ [(\Sigma x w)^* (\Sigma x^2 w) \ / \ n] \\ S_{(x2y)} = (\Sigma x^2 y w) \ - \ [(\Sigma x^2 w)^* (\Sigma y w) \ / \ n] \\ S_{(x2x2)} = (\Sigma x^4 w) \ - \ [(\Sigma x^2 w)^2 \ / \ n] \\ Or \ If \ unweighted \ calibration, \ w=1 \\ S(xx) = (Sx2) \ - \ [(Sx)^2 \ / \ n] \\ S(xy) = (Sxy) \ - \ [(Sx)^* (Sy) \ / \ n] \\ S(x2y) = (Sx3) \ - \ [(Sx)^* (Sy) \ / \ n] \\ S(x2y) = (Sx2y) \ - \ [(Sx2)^* (Sy) \ / \ n] \\ S(x2x2) = (Sx4) \ - \ [(Sx2)^* (Sy) \ / \ n] \\ S(x2x2) = (Sx4) \ - \ [(Sx2)^* (Sy) \ / \ n] \end{array}$

11.0 Data Reduction, Validation, Reporting, and Record Keeping

All data reported must be of the highest possible accuracy and quality. During the processes of data reduction, validation, and report generation, all work is thoroughly checked to insure that error is minimized.

Data Reduction

The analyst who generated the data usually performs the data reduction. The calculations include evaluation of surrogate recoveries (where applicable), and other miscellaneous calculations related to the sample quantitation.

If the results are computer generated, then the formulas must be confirmed by hand calculations, at minimum, one per batch.

See the current Data Validation SOP for details regarding data reduction.

Validation

A senior analyst, most often the section supervisor, validates the data. All data undergoes peer review. If an error is detected it is brought to the analyst attention to rectify and further checks ensure that all data for that batch is sound. Previous and/or common mistakes are stringently monitored throughout the validation process. Data is reported using appropriate significant figure criteria. In most cases, two significant digits are utilized, but three significant digits can be used in QC calculations. Significant digits are not rounded until after the last step of a sample calculation. All final reports undergo a review by the laboratory manager, or the project manager or their designee, to provide a logical review of all results before they are released to the client.

If data is to be manually transferred from one medium to another, the transcribed data is checked by a peer. This includes data typing, computer data entry, chromatographic data transfer, data table inclusion to a cover letter, or when data results are combined with other data fields.

All hand written data from run logs, analytical standard logbooks, hand entered data logbooks, or on instrument generated chromatograms, are systematically archived should the need for future retrieval arise.

See the current Data Validation SOP for detail regarding data validation.

Reports and Records

All records at HEAL are retained and maintained through the procedures outlined in the most recent version of the Records Control SOP.

The reports are compiled by the Laboratory Information Management System (LIMS). Most data is transferred directly from the instruments to the LIMS. After being processed by the analyst and reviewed by a data reviewer, final reports are approved and signed by the senior laboratory management. A comparative analysis of the data is performed at this point. For example, if TKN and NH3 are analyzed on the same sample the NH3 result should never be greater than the TKN result. Lab results and reports are released only to appropriately designated individuals. Release of the data can be by fax, email, electronic deliverables, or mailed hard copy.

When a project is completed, the project file folder is stored with a hard copy of the report, relevant supporting data, and the quality assurance/control worksheets. These folders are kept on file and are arranged by project number. Additionally, all electronic data is backed up daily on the HEAL main server. The backup includes raw data, chromatograms and report documents. Hard copies of chromatograms are stored separately according to the instrument and the analysis date. All records and analytical data reports are retained in a secure location as permanent records for a minimum period of five years (unless specified otherwise in a client contract). Access to archived information shall be documented with an access log. Access to archived electronic reports and data will be protected by a project manager password. In the event that HEAL transfers ownership or terminates business practices, complete records will be maintained or transferred according to the client's instructions.

After issuance, the original report shall remain unchanged. If a correction to the report is necessary, then an additional document shall be issued. This document shall have a title of "Addendum to Test Report or Correction to Original Report", or equivalent. Demonstration of original report integrity comes in two forms. First, the report date is included on each page of the final report. Second, each page is numbered in sequential order, making the addition or omission of any data page(s) readily detectable.

12.0 Corrective Action

Refer to the most recent version of the Data Validation SOP for the procedure utilized in filling out a Corrective Action Report.

The limits that have been defined for data acceptability also form the basis for corrective action initiation. Initiation of corrective action occurs when the data generated from continuing calibration standard, sample surrogate recovery, laboratory control spike, matrix spike or sample duplicates exceed acceptance criteria. If corrective action is necessary, the analyst or the section supervisor will coordinate to take the following steps to determine and correct the measurement system deficiency:

Check all calculations and data measurements systems (Calibrations, reagents, instrument performance checks etc.).

Assure that proper procedures were followed.

Unforeseen problems that arise during sample preparation and/or sample analysis that lead to treating a sample differently from documented procedures shall be documented with a corrective action report. The section supervisor and laboratory manager shall be made aware of the problem at the time of the occurrence. See the appropriate SOP regarding departures from documented procedures.

Continuing calibration standards below acceptance criteria can not be used for reporting analytical data unless method specific criteria states otherwise.

Continuing calibration standards above acceptance criteria can be used to report data so long as the failure is isolated to a single standard and the corresponding samples are non-detect for the failing analyte.

Samples with non-compliant surrogate recoveries should be reanalyzed unless deemed unnecessary by the supervisor for matrix, historical data, or other analysis related anomalies.

Laboratory and Matrix Spike acceptance criteria vary significantly depending on method and matrix. Analysts and supervisors meet and discuss appropriate corrective action measures as spike failures occur.

Sample duplicates with RPD values outside control limits require supervisor evaluation and possible reanalysis.

A second mechanism for initiation of corrective action is that resulting from Quality Assurance performance audits, system audits, inter and intra-laboratory comparison studies. Corrective Actions initiated through this mechanism will be monitored and coordinated by the laboratory QA/QCO.

All corrective action forms are entered in the LIMS and included with the raw data for peer review, signed by the technical director of the section and included in the case narrative to

the client whose samples were affected. All Corrective action forms in the LIMS are reviewed by the QA/QCO.

13.0 Quality Assurance Audits, Reports and Complaints

Internal/External Systems' Audits, Performance Evaluations, and Complaints

Several procedures are used to assess the effectiveness of the quality control system. One of these methods includes internal performance evaluations, which are conducted by the use of control samples, replicate measurements and control charts. Another method is external performance audits, which are conducted by the use of inter-laboratory checks, such as participation in laboratory evaluation programs and performance evaluation samples available from a NELAC accredited Proficiency Standard Vendor.

Proficiency samples will be obtained twice per year from an appropriate vendor for all tests and matrices for which we are accredited and for which there are PTs available. HEAL participates in soil, waste water, drinking water and underground storage tank PT studies. Copies of results are available upon request. HEAL's management and all analyst shall ensure that all PT samples are handled in the same manner as real environmental samples utilizing the same staff, methods, procedures, equipment, facilities and frequency of analysis as used for routine analysis of that analyte. When analyzing a PT, HEAL shall employ the same calibration, laboratory quality control and acceptance criteria, sequence of analytical steps, number of replicates and other procedures as used when analyzing routine samples.

With regards to analyzing PT Samples HEAL shall not send any PT sample, or portion of a PT sample, to another laboratory for any analysis for which we seeks accreditation, or are accredited. HEAL shall not knowingly receive any PT sample or portion of a PT sample from another laboratory for any analysis for which the sending laboratory seeks accreditation, or is accredited. Laboratory management or staff will not communicate with any individual at another laboratory concerning the PT sample. Laboratory management or staff shall no attempt to obtain the assigned value of any PT sample from the PT Provider.

Internal Audits are performed annually by the QA/QCO in accordance with the current Internal Audit SOP. They are performed using the guidelines outlined below:

The system audit consists of a qualitative inspection of the QA system in the laboratory and an assessment of the adequacy of the physical facilities for sampling, calibration, and measurement. This audit includes a careful evaluation and review of laboratory quality control procedures. Including but not limited to:

- 1. Review of staff qualifications, demonstration of capability, and personnel training programs
- 2. Storage and handling of reagents, standards and samples
- 3. Standard preparation logbook and LIMS procedures
- 4. Extraction logbooks
- 5. Raw data logbooks
- 6. Analytical logbooks or batch printouts and instrument maintenance logbooks
- 7. Data review procedures

- 8. Corrective action procedures
- 9. Review of data packages is performed regularly by the lab manager/QA Officer.

The QA/QCO will conduct these audits on an annual basis.

Management Reviews

HEAL management shall periodically, and at least annually conduct a review of the laboratory's quality system and environmental testing activities to ensure their continuing suitability and effectiveness, and to introduce necessary changes or improvements. The review shall take account of:

- 1. the suitability and implementation of policies and procedures
- 2. reports from managerial and supervisory personnel
- 3. the outcome of recent internal audits
- 4. corrective and preventive actions
- 5. assessments by external bodies
- 6. the results of interlaboratory comparisons or proficiency tests
- 7. changes in volume and type of work
- 8. client feed back
- 9. complaints
- 10. other relevant factors, such as laboratory health and safety, QC activities, resources and staff training.

Findings from management reviews and the actions that arise from them shall be recorded and any corrective actions that arise shall be completed in an appropriate and agreed upon timescale.

Complaints

Complaints from clients are documented and given to the laboratory manager. The lab manager shall review the information and contact the client. If doubt is raised concerning the laboratories policies or procedures, then an audit of the section or sections may be performed. All records of complaints and subsequent actions shall be maintained in the client compliant logbook for 5 years unless otherwise stated.

Internal and External Reports

The QA/QCO is responsible for preparation and submission of quality assurance reports to the appropriate management personnel as problems and issues arise. These reports include the assessment of measurement systems, data precision and accuracy, and the results of performance and system audits. Additionally, they also include significant QA problems, corrective actions, and recommended resolution measures. Reports of these Quality Assurance Audits describe the particular activities audited, procedures utilized in

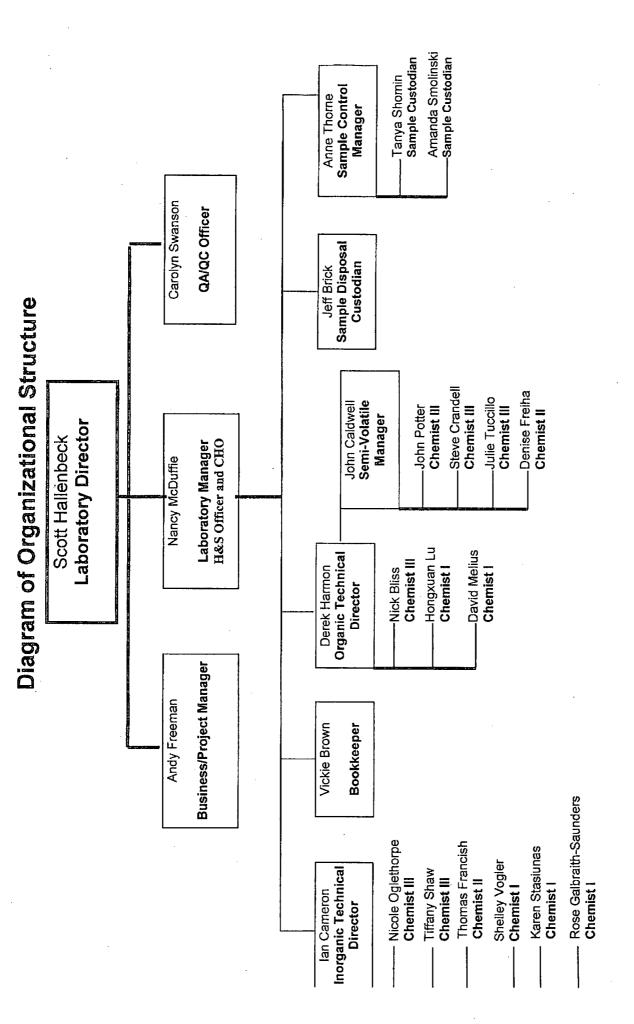
the examination and evaluation of laboratory records, and data validation procedures. Finally, there are procedures for evaluating the performance of Quality Control and Quality Assurance activities, and laboratory deficiencies and the implementation of corrective actions with the review requirements.

14.0 Analytical Protocols Utilized at Hall Environmental Analysis Laboratory, Inc.

- 1. <u>Standard Methods for the Examination of Water and Wastewater:</u> AOHA, AWWA, and WPCG, 20th Edition, 1999.
- 2. <u>Methods for Chemical Analysis of Water and Wastes</u>, USEPA, EPA-600/4-79-020, March 1979 and as amended December, 1982 (EPA-600/4-82-055)
- 3. <u>Test Methods for Evaluating Solid Waste: Physical/Chemical Methods</u>, USEPA SW-846, 3rd Edition, Updates I, II, IIA, IIB, III, December, 1996.
- 4. <u>Methods of Soil Analysis</u>: Parts 1 & 2, 2nd Edition, Agronomy Society of America, Monograph 9
- 5. <u>Diagnosis & Improvement of Saline & Alkali Soils</u>, Agriculture Handbook No. 60, USDA, 1954
- 6. <u>Handbook on Reference Methods for Soil Testing.</u> The Council on Soil Testing & Plant Analysis, 1980 and 1992
- 7. <u>Field and Laboratory Methods Applicable to Overburdens and Mine Soils, USEPA, EPA-600/2-78-054. March 1978</u>
- 8. <u>Laboratory Procedures for Analyses of Oilfield Waste.</u> Department of Natural Resources, Office of Conservation, Injection and Mining Division, Louisiana, August 1988
- 9. <u>Soil Testing Methods Used at Colorado State University for the Evaluation of Fertility, Salinity and Trace Element Toxicity,</u> Technical Bulletin LT B88-2 January, 1988
- 10. <u>Manual of Operating Procedures for the Analysis of Selected Soil, Water, Plant Tissue and Wastes Chemical and physical Parameter.</u> Soil, Water, and Plant Analysis Laboratory, Dept. of Soil and Water Science, The University of Arizona, August 1989
- 11. <u>Sampling Procedures and Chemical Methods in Use at the U.S. Salinity Laboratory for Characterizing Salt-Affected Soils and Water.</u> USDA Salinity Laboratory.
- 12. <u>Procedures for Collecting Soil Samples and Methods of Analysis for Soil Survey.</u> USDA Soil Conservation Service, SSIR No. 1.
- 13. <u>Soil Survey Laboratory Methods Manual.</u> Soil Survey Laboratory Staff. Soil Survey Investigations Report No. 42, version 2.0, August 1992.
- 14. <u>Methods for the Determination of Metals in Environmental Samples</u>, USEPA, EPA-600/4-91-010, June 1991
- 15. The Merck Index, Eleventh Edition, Merck & Co., Inc. 1989.

- 16. Handbook of Chemistry and Physics, 62nd Edition, CRC Press, Inc. 1981-1982.
- 17. Analytical Chemistry of PCB's. Erickson, Mitchell D., CRC Press, Inc. 1992.
- 18. <u>Environmental Perspective on the Emerging Oil Shale Industry</u>, EPA Oil & Shale Research Group.
- 19. Polycyclic Aromatic Hydrocarbons in Water Systems, CRC Press, Inc.
- 20. <u>Quality Systems for Analytical Services, Revision 2.2</u>, U.S. Department of Energy, October 2006.

Appendix A Personnel Chart / Organizational Structure



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OREGON

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM



NELAP Recognized

Hall Environmental Analysis Laboratory, Inc.

NM100001

4901 Hawkins Rd. NE, Suite D Albuquerque, NM 87109

IS GRANTED APPROVAL BY ORELAP UNDER THE 2003 NELAC STANDARDS, TO PERFORM ANALYSES ON ENVIRONMENTAL SAMPLES IN MATRICES AS LISTED BELOW:

	Drinking	Non Potable	Solids and	
Air	Water	Water	Chem. Waste	Tissue
The state of the s	Chemistry	Chemistry	Chemistry	

AND AS RECORDED IN THE LIST OF APPROVED ANALYTES, METHODS, ANALYTIC TECHNIQUES, AND FIELDS OF TESTING ISSUED CONCURRENTLY WITH THIS CERTIFICATE AND REVISED AS NECESSARY.

ACCREDITED STATUS DEPENDS ON SUCCESSFUL ONGOING PARTICIPATION IN THE PROGRAM AND CONTINUED COMPLIANCE WITH THE STANDARDS.

CUSTOMERS ARE URGED TO VERIFY THE LABORATORY'S CURRENT ACCREDITATION STATUS IN OREGON.

Irene E. Ronning, Ph.D.
ORELAP Administrator
3150 NW 229th Ave, Suite 100
Hillsboro, OR 97124

ISSUE DATE:

3/1/2008

Certificate No:

EXPIRATION DATE: 2/28/2009

NM100001-009

PAS GROEFS CRISS



Oregon

Environmental Laboratory Accreditation Program

Public Health Laboratory 3150 NW 229th Ave. Suite 100 Hillsboro, OR, OR 97124 NELAP Recognized (503) 693-4122

FAX (503) 693-5602



Department of Agriculture, Laboratory Division Department of Environmental Quality, Laboratory Division Department of Human Services, Public Health Laboratory

ORELAP Fields of Accreditation

ORELAPID: NM100001 EPACode: NM00035

Certificate:

NM100001-009

Hall Environmental Analysis Laboratory, Inc.

4901 Hawkins Rd. NE, Suite D Albuquerque, NM, 87109

Issue Date: 3/1/2008

Expiration Date: 2/28/2009

As of 03/01/2008 this list supercedes all previous lists for this certificate number. Customers: Please verify the current accreditation standing with ORELAP.

MATRIX. Drinkii	ng Water		
Reference		Code	Description
EPA 200.7 5		10014003	ICP - metals
Analyte Code	<u>Analyte</u>		
1000	Aluminum		
1015	Barium		·
1020	Beryllium		
1025	Boron		
1030	Cadmium		
1035	Calcium		
1040	Chromium		,
1055	Copper		
1070	iron		
1075	Lead		
1085	Magnesium		•
1090	Manganese		
1100	Molybdenum		
1105	Nickel		
1125	Potassium		
1150	Silver		
1155	Sodium		
1175	Tin		
1180	Titanium		
1185	Vanadium		
1190	Zinc	•	<u> </u>
EPA 245.1 3	_	10036609	Mercury by Cold Vapor Atomic Absorption
Analyte Code	<u>Analyte</u>		
1095	Mercury		
EPA 300.0		10053006	Ion chromatography - anions.
Analyte Code	<u>Analyte</u>	•	
1575	Chloride		
1730	Fluoride		
1810	Nitrate as N		
1835	Nitrite		
2000	Sulfate		·
EPA 300.0 2.1		10053200	Inorganic Anions in water by Ion Chromatography
Analyte Code	<u>Analyte</u>		
1870	Orthophosphate	e as P	

ORELAP Fields of Accreditation

ORELAPID: NM100001

EPACode: NM00035

Certificate:

NM100001-009

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EPA 5030B 2	10153409	Purge and trap for aqueous samples
Analyte Code	<u>Analyte</u>	
125	Extraction/Preparation	
PA 504.1	10083008	EDB/DBCP/TCP micro-extraction, GC/ECD
Analyte Code	<u>Analyte</u>	
4570	1,2-Dibromo-3-chloropropane (DBCP)	
4585	1,2-Dibromoethane (EDB, Ethylene di	ibromide)
EPA 524.2 4.1	10088809	Volatile Organic Compounds GC/MS Capillary Column
Analyte Code	<u>Analyte</u>	
5105	1,1,1,2-Tetrachloroethane	
5160	1,1,1-Trichloroethane	
5110	1,1,2,2-Tetrachioroethane	
5165	1,1,2-Trichloroethane	
4630	1,1-Dichloroethane	
4640	1,1-Dichloroethylene	
4670	1,1-Dichloropropene	
5150	1,2,3-Trichlorobenzene	
5180	1,2,3-Trichloropropane	
5155	1,2,4-Trichlorobenzene	
5210	1,2,4-Trimethylbenzene	
4610	1,2-Dichlorobenzene	
4635	1,2-Dichloroethane	
4655	1,2-Dichloropropane	
5215	1,3,5-Trimethylbenzene	
4615	1,3-Dichlorobenzene	
4660	1,3-Dichloropropane	
4620	1,4-Dichlorobenzene	
4535	2-Chlorotoluene	
4540	4-Chlorotoluene	
4375	Benzene	
4385	Bromobenzene	
4390	Bromochloromethane	
4395	Bromodichloromethane	
4400	Bromoform	
4950	Bromomethane (Methyl bromide)	
4455	Carbon tetrachloride	
4475	Chlorobenzene	
4485	Chloroethane	
4505	Chloroform	
105	Chloromethane	
4645	cis-1,2-Dichloroethylene	
4680	cis-1,3-Dichloropropene	·
4575	Dibromochloromethane	
4575 4595	Dibromomethane	•
4650	Dichloromethane (DCM, Methylene ch	niorida)
4765	Ethylbenzene	nonus/
4835	Hexachlorobutadiene	
4900		
5000 5000	Isopropylbenzene Mothyl tort butyl other (MTRE)	
4435	Methyl tert-butyl ether (MTBE)	
5090	n-Butylbenzene n-Propylbenzene	

ORELAPID: NM100001 EPACode: NM00035

NM100001-009

Certificate:

...

Hall Environmental Analysis Laboratory, Inc.

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Expiration Date: 2/28/2009

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4440	sec-Butylbenzene		
5100	Styrene		
4445	tert-Butylbenzene	•	
5115	Tetrachloroethylene (Perchi	oroethylene)	•
5140	Toluene		
4700	trans-1,2-Dicloroethylene		
4685	trans-1,3-Dichloropropylene		
5170	Trichloroethene (Trichloroet	hylene)	
51.75	Trichlorofluoromethane		
5235	Vinyl chloride		
5260	Xylene (total)		
SM 2540 C 20th ED	200500	04 Total Dissolved Solids	3
Analyte Code	<u>Analyte</u>		
1955	Residue-filterable (TDS)		
SM 4500-H+ B 20th E	D 201048	07 pH by Probe	
Analyte Code	<u>Analyte</u>		
1900	рН		
SM 5310 B 20th ED	201374	00 Total Organic Carbon	by Combustion Infra-red Method
Analyte Code	<u>Analyte</u>		
2040	Total Organic Carbon		





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ference	otable Water Code	Description
PA 300.0	10053006	Ion chromatography - anions.
Analyte Code	Analyte	
1540	Bromide	
1575	Chloride	
1730	Fluoride	
1810	Nitrate as N	•
1840		
	Nitrite as N	
1870	Orthophosphate as P	
2000	Sulfate	And Direction of water for Tatal Decoupolities or Director of Martin
PA 3005A 1	10133207	Acid Digestion of waters for Total Recoverable or Dissolved Metals
Analyte Code	Analyte	
125	Extraction/Preparation	
PA 3510C 3	10138202	Separatory Funnel Liquid-liquid extraction
Analyte Code	<u>Analyte</u>	
125	Extraction/Preparation	
PA 5030B 2	10153409	Purge and trap for aqueous samples
Analyte Code	<u>Analyte</u>	
125	Extraction/Preparation	
PA 6010B 2	10155609	ICP - AES
Analyte Code	<u>Analyte</u>	
1000	Aluminum	
1005	Antimony	
1010	Arsenic	
1015	Barium	
1020	Beryllium	
1025	Boron	
1030	Cadmium	
1035	Calcium	
1040	Chromium	
1050	Cobalt	
1070	Iron	•
1075	Lead	
1085	Magnesium	
1090	Manganese	
1100	Molybdenum	
1105	Nickel	•
1125	Potassium	
1140	Selenium	
1150	Silver	
1155	Sodium	
1165	Thallium	
1175	Tin	
1180	Titanium	
3035	Uranium	
1185	Vanadium	
1190	Zinc	·
PA 7470A 1	10165807	Mercury in Liquid Waste by by Cold Vapor Atomic Absorption
Analyte Code	Analyte	moreary in Enquire trease by by Colic Vapor Atomic Absorption
Charle Cong	<u> Minalikto</u>	

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EPA 8015B 2	10173601	Non-halogenated organics using GC/FID
Analyte Code	<u>Analyte</u>	
9369	Diesel range organics (DRO)	
9408	Gasoline range organics (GRO)	,
102	Motor Oil	
EPA 8021B 2	10174808	Aromatic and Halogenated Volatiles by GC with PID and/or ECD Purge 8
Analyte Code	<u>Analyte</u>	
5210	1,2,4-Trimethylbenzene	
5215	1,3,5-Trimethylbenzene	
4375	Benzene	
4765	Ethylbenzene	
5240	m+p-xylene	
5000	Methyl tert-butyl ether (MTBE)	
5250	o-Xylene	
5140	Toluene	
5260	Xylene (total)	
EPA 8081A 1	10178606	Organochlorine Pesticides by GC/ECD
Analyte Code	<u>Analyte</u>	
7355	4,4'-DDD	
7360	4,4'-DDE	
7365	4,4'-DDT	
7025	Aldrin	
7110	alpha-BHC (alpha-Hexachiorocycle	ohexane)
7115	beta-BHC (beta-Hexachlorocycloh	exane)
7105	delta-BHC	
7470	Dieldrin	
7510	Endosulfan I	
7515	Endosulfan II	!
7520	Endosulfan sulfate	
7540	Endrin	
7530	Endrin aldehyde	·
7120	gamma-BHC (Lindane, gamma-He	exachlorocyclohexanE)
7685	Heptachlor	
7690	Heptachlor epoxide	
7810	Methoxychlor	
EPA 8082	10179007	Polychlorinated Biphenyls (PCBs) by GC/ECD
Analyte Code	<u>Analyte</u>	
8880	Aroclor-1016 (PCB-1016)	
8885	Aroclor-1221 (PCB-1221)	
8890	Aroclor-1232 (PCB-1232)	
8895	Aroclor-1242 (PCB-1242)	
8900	Aroclor-1248 (PCB-1248)	
8905	Aroclor-1254 (PCB-1254)	
8910	Aroctor-1260 (PCB-1260)	
PA 8260B 2	10184802	Volatile Organic Compounds by purge and trap GC/MS
Analyte Code	<u>Analyte</u>	·
5105	1,1,1,2-Tetrachloroethane	1
5160	1,1,1-Trichloroethane	
5110	1,1,2,2-Tetrachioroethane	
5165	1,1,2-Trichloroethane	
4630	1,1-Dichloroethane	





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	•
4640	1,1-Dichtoroethylene
4670	1,1-Dichloropropene
5150	1,2,3-Trichlorobenzene
5180	1,2,3-Trichloropropane
5155	1,2,4-Trichlorobenzene
5210	1,2,4-Trimethylbenzene
4570	1,2-Dibromo-3-chloropropane (DBCP)
4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
4610	1,2-Dichlorobenzene
4635	1,2-Dichloroethane
4655	1,2-Dichloropropane
5215	1,3,5-Trimethylbenzene
4615	1,3-Dichlorobenzene
4660	1,3-Dichloropropane
4620	1,4-Dichlorobenzene
6380	1-Methylnaphthalene
4665	2,2-Dichloropropane
4410	2-Butanone (Methyl ethyl ketone, MEK)
4535	2-Chlorotoluene
4860	2-Hexanone
6385	2-Methỳlnaphthalene
4540	4-Chlorotoluene
4995	4-Methyl-2-pentanone (MIBK)
4315	Acetone
4375	Benzene
4385	Bromobenzene
4390	Bromochloromethane
4395	Bromodichloromethane
4400	Bromoform
4950	Bromomethane (Methyl bromide)
4450	Carbon disulfide
4455	Carbon tetrachloride
4475	Chlorobenzene
4485	Chloroethane
4505	Chloroform
105	Chloromethane
4645	cis-1,2-Dichloroethylene
4680	cis-1,3-Dichloropropene
4575	Dibromochloromethane
4595	Dibromomethane
4625	Dichlorodifluoromethane
4650	Dichloromethane (DCM, Methylene chloride)
4765	Ethylbenzene
4835	Hexachlorobutadiene
4900	Isopropylbenzene
5240	m+p-xylene
5000	Methyl tert-butyl ether (MTBE)
5005	Naphthalene
4435	n-Butylbenzene
5090	n-Propylbenzene
5250	o-Xylene

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4910	p-Isopropyltoluene
4440	sec-Butylbenzene
5100	Styrene
4445	tert-Butylbenzene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
4700	trans-1,2-Dicloroethylene
4685	trans-1,3-Dichloropropylene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane
5235	Vinyl chloride
5260	Xylene (total)

5235	Vinyl chloride	
5260	Xylene (total)	
EPA 8270C 3	10185805	SemiVolitile Organic compounds by GC/MS
Analyte Code	<u>Analyte</u>	
5155	1,2,4-Trichlorobenzene	
4610	1,2-Dichlorobenzene	·
4615	1,3-Dichlorobenzene	
4620	1,4-Dichlorobenzene	
6835	2,4,5-Trichlorophenol	
6840	2,4,6-Trichlorophenol	•
6000	2,4-Dichlorophenol	
6130	2,4-Dimethylphenol	
6175	2,4-Dinitrophenol	
6185	2,4-Dinitrotoluene (2,4-DNT)	•
6190	2,6-Dinitrotoluene (2,6-DNT)	
5795	2-Chloronaphthalene	
5800	2-Chlorophenol	
6385	2-Methylnaphthalene	
6400	2-Methylphenol (o-Cresol)	
6460	2-Nitroaniline	
6490	2-Nitrophenol	
6412	3 & 4 Methylphenol	
5945	3,3'-Dichlorobenzidine	
6465	3-Nitroaniline	
6140	4,6-Dinitro-2-methylphenol	
5660	4-Bromophenyl phenyl ether	
5700	4-Chloro-3-methylphenol	
5745	4-Chloroaniline	
5825	4-Chlorophenyl phenylether	
6470	4-Nitroaniline	
6500	4-Nitrophenol	
5500	Acenaphthene	
5505	Acenaphthylene	
5545	Aniline	
5555	Anthracene	
123	Azobenzene	
55 75	Benzo[a]anthracene	
5580	Benzo[a]pyrene	
5585	Benzo[b]fluoranthene	
5590	Benzo[g,h,i]perylene	
5600	Benzo[k]fluoranthene	





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482	Benzofluoranthene
5610	Benzoic acid
5630	Benzyl alcohol
5765	bis(2-Chloroethyl)ether
5770	bis(2-Chloroethyloxymethane)
5780	bis(2-Chloroisopropyl)ether
6255	bis(2-Ethylhexyl)phthalate (DEHP)
5670	Butyl benzyl phthalate
5680	Carbazole
5855	Chrysene
5895	Dibenz[a,h]anthracene
5905	Dibenzofuran
6070	Diethyl phthalate
6135	Dimethyl phthalate
5925	Di-n-butyl phthalate
6200	Di-n-octyl phthalate
6265	Fluoranthene
6270	Fluorene
6275	Hexachlorobenzene
4835	Hexachlorobutadiene
6285	Hexachlorocyclopentadiene
4840	Hexachloroethane
6315	Indeno[1,2,3-cd]pyrene
6320	Isophorone
5005	Naphthalene
5015	Nitrobenzene
6535	n-Nitrosodiphenylamine
6540	n-Nitrosodipropylamine
6605	Pentachlorophenol
6615	Phenanthrene
6625	Phenol
6665	Pyrene
5095	Pyridine
EPA 8310	10187607

307	Polynuciea	r Aromatic H	lydrocarbons by	y HPLC/UV-VIS

Analyte Code	<u>Analyte</u>
6380	1-Methylnaphthalene
5500	Acenaphthene
5505	Acenaphthylene
5555	Anthracene
5575	Benzo[a]anthracene
5580	Benzo[a]pyrene
5585	Benzo[b]fluoranthene
5590	Benzo[g,h,i]perylene
5600	Benzo[k]fluoranthene
5855	Chrysene
5895	Dibenz[a,h]anthracene
6265	Fluoranthene
6270	Fluorene
6315	Indeno[1,2,3-cd]pyrene
5005	Naphthalene
6615	Phenanthrene

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6665	Pyrene			
SM 2540 C 20th ED		20050004	Total Dissolved Solids	
Analyte Code	<u>Analyte</u>			
1955	Residue-filterable	(TDS)	·	4
SM 4500-H+ B 20th B	D	20104807	pH by Probe	
Analyte Code	<u>Analyte</u>			
1900	На			





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Reference	Code	Description
EPA 3050A	10135407	Acid Digestion of Sediments, Sludges, and soils
Analyte Code	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 3540C 3	10140202	Soxhlet Extraction
Analyte Code	Analyte	
125	Extraction/Preparation	
EPA 3545	10140804	Pressurized Fluid Extraction (PFE)
Analyte Code	Analyte	
125	Extraction/Preparation	
EPA 5035	10154004	Closed-System Purge-and-Trap and Extraction for Volatile Organics in S
Analyte Code	Analyte	blood by some digo and hap and Exhauston for Volume organico in o
125	Extraction/Preparation	
EPA 6010B 2	10155609	ICP - AES
		ICF - ALG
Analyte Code	Analyte Aluminum	
1000	Aluminum	
1005	Antimony	
1010	Arsenic	
1015	Barium	
1020	Beryllium	
1025	Boron	
1030	Cadmium	
1035	Calcium	
1040	Chromium	
1050	Cobalt	
1055	Copper	
1070	Iron	
1075	Lead	
1085	Magnesium	
1090	Manganese	
1100	Molybdenum	•
1105	Nickel	
1125	Potassium	
1140	Selenium	
1150	Silver	
1155	Sodium	
1165	Thallium	
1175	Tin	
1180	Titanium	
3035	Uranium	
1185	Vanadium	
1190	Zinc 10166208	Mercury in Solid Waste by Cold Vapor Atomic Absorption
EPA 7471A 1		mercury in Solid waste by Gold vapor Atomic Absorption
Analyte Code	<u>Analyte</u>	
1095	Mercury 40472604	Non-halogenated organics using GC/FID
EPA 8015B 2	10173601	Non-halogenated organics using GC/FID
Analyte Code	Analyte	
9369	Diesel range organics (DRO)	
9408	Gasoline range organics (GRO)	
102	Motor Oil	

ORELAPID: NM100001 EPACode: NM00035

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5155

5210

4570

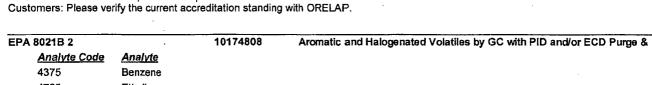
1,2,4-Trichlorobenzene

1,2,4-Trimethylbenzene

1,2-Dibromo-3-chloropropane (DBCP)

Expiration Date: 2/28/2009

As of 03/01/2008 this list supercedes all previous lists for this certificate number.



EPA 8021B 2	Aromatic and Halogenated Volatiles by GC with PID and/or ECD Purge &
Analyte Code	<u>Analyte</u>
4375	Benzene
4765	Ethylbenzene
5240	m+p-xylene
5000	Methyl tert-butyl ether (MTBE)
5250	o-Xylene
5140	Toluene
5260	Xylene (total)
EPA 8081A 1	10178606 Organochlorine Pesticides by GC/ECD
Analyte Code	<u>Analyte</u>
73 55	4,4'-DDD
7360	4,4'-DDE
7365	4,4'-DDT
7025	Aldrin
7110	alpha-BHC (alpha-Hexachlorocyclohexane)
7115	beta-BHC (beta-Hexachlorocyclohexane)
7105	delta-BHC
7470	Dieldrin
7510	Endosulfan I
7515	Endosulfan II
7520	Endosulfan sulfate
7540	Endrin
7530	Endrin aldehyde
7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)
7685	Heptachlor
7690	Heptachlor epoxide
7810	Methoxychlor
EPA 8082	10179007 Polychlorinated Biphenyls (PCBs) by GC/ECD
Analyte Code	<u>Analyte</u>
8880	Aroclor-1016 (PCB-1016)
8885	Aroclor-1221 (PCB-1221)
8890	Aroclor-1232 (PCB-1232)
8895	Aroclor-1242 (PCB-1242)
8900	Aroclor-1248 (PCB-1248)
8905	Aroclor-1254 (PCB-1254)
8910	Aroclor-1260 (PCB-1260)
EPA 8260B 2	10184802 Volatile Organic Compounds by purge and trap GC/MS
Analyte Code	Analyte
5105	1,1,1,2-Tetrachloroethane
5160	1,1,1-Trichloroethane
5110	1,1,2,2-Tetrachloroethane
5165	1,1,2-Trichloroethane
4630	1,1-Dichloroethane
4640	1,1-Dichloroethylene
4670	1,1-Dichloropropene
5150	1,2,3-Trichlorobenzene
5180	1,2,3-Trichloropropane

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4585		1,2-Dibromoethane (EDB, Ethylene dibromide)
4610		1,2-Dichlorobenzene
4635	3 15	1,2-Dichloroethane
4655		1,2-Dichloropropane
5215		1,3,5-Trimethylbenzene
4615		1,3-Dichlorobenzene
4660		1,3-Dichloropropane
4620		1,4-Dichlorobenzene
6380		1-Methylnaphthalene
4665		2,2-Dichloropropane
4410		2-Butanone (Methyl ethyl ketone, MEK)
4535		2-Chlorotoluene
4860		2-Hexanone
6385		2-Methylnaphthalene
4540		4-Chlorotoluene
4995		4-Methyl-2-pentanone (MIBK)
4315		Acetone
4375		Benzene
4385		Bromobenzene
4390		Bromochloromethane
4395		Bromodichloromethane
4400		Bromoform
4950		Bromomethane (Methyl bromide)
4450		Carbon disulfide
4455		Carbon tetrachloride
4475		Chlorobenzene
4485		Chloroethane
4505		Chloroform
105		Chloromethane
4645		cis-1,2-Dichloroethylene
4680		cis-1,3-Dichloropropene
4575		Dibromochloromethane
4595		Dibromomethane
4625		Dichlorodifluoromethane
4650		Dichloromethane (DCM, Methylene chloride)
4765		Ethylbenzene
4835		Hexachlorobutadiene
4900		Isopropylbenzene
5240		m+p-xylene
5000		Methyl tert-butyl ether (MTBE)
5005		Naphthalene
4435		·
		n-Butylbenzene
5090		n-Propylbenzene
5250		o-Xylene
4910		p-Isopropyltoluene
4440		sec-Butylbenzene
5100		Styrene
4445		tert-Butylbenzene
5115		Tetrachloroethylene (Perchloroethylene)
5140		Toluene

trans-1,2-Dicloroethylene

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5670

Butyi benzyi phthalate

Expiration Date: 2/28/2009

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Customers: Please verify the current accreditation standing with ORELAP.

4685	trans-1,3-Dichloropropylene		
5170	Trichloroethene (Trichloroethylene)		
5175	Trichlorofluoromethane		
5235	Vinyl chloride		
5260	Xylene (total)		
EPA 8270C 3	10185805	SemiVolitile Organic compounds by GC/MS	
Analyte Code	Analyte	on the state of game compounds by control	
5155	1,2,4-Trichlorobenzene		
4610	1,2-Dichlorobenzene		
4615	1,3-Dichlorobenzene		
4620	1,4-Dichlorobenzene		
6835	2,4,5-Trichlorophenol		
6840	2,4,6-Trichlorophenol		
6000	2,4-Dichlorophenol		
6130	2,4-Dimethylphenol		
6175	2,4-Dinitrophenol		
6185	2,4-Dinitrotoluene (2,4-DNT)		
6190	2,6-Dinitrotoluene (2,6-DNT)		
5795	2-Chloronaphthalene		
5800	2-Chlorophenol		
6385	2-Methylnaphthalene		
6400	2-Methylphenol (o-Cresol)		
6460	2-Nitroaniline		
6490	2-Nitrophenol		•
6412	3 & 4 Methylphenol		
5945	3,3'-Dichlorobenzidine	·	
6465	3-Nitroaniline		
6140	4,6-Dinitro-2-methylphenol		
5660	4-Bromophenyl phenyl ether		
5700	4-Chloro-3-methylphenol		
5745	4-Chloroaniline		
5825	4-Chlorophenyl phenylether		
6470	4-Nitroaniline		
6500	4-Nitrophenol		
5500	Acenaphthene	i	
5505	Acenaphthylene		•
5545	Aniline		
5555	Anthracene		
123	Azobenzene		
5575	Benzo[a]anthracene	•	
5580	Benzo[a]pyrene		
5585	Benzo[b]fluoranthene		
5590	Benzo[g,h,i]perylene		
5600	Benzo[k]fluoranthene		
5610	Benzoic acid		
5630	Benzyl alcohol		
5760	bis(2-Chloroethoxy)methane		
5765	bis(2-Chloroethyl)ether		
5780	bis(2-Chloroisopropyl)ether		
6255	bis(2-Ethylhexyl)phthalate (DEHP)		
E070	Destroit because it in hither laster		

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5680	Carbazole
5855	Chrysene
5895	Dibenz[a,h]anthracene
5905	Dibenzofuran
6070	Diethyl phthalate
5135	Dimethyl phthalate
5925	Di-n-butyl phthalate
6200	Di-n-octyl phthalate
6265	Fluoranthene
5270	Fluorene
5275	Hexachlorobenzene
4835	Hexachlorobutadiene
3285	Hexachlorocyclopentadiene
4840	Hexachioroethane
6315	Indeno[1,2,3-cd]pyrene
6320	isophorone
5005	Naphthalene
5015	Nitrobenzene
6530	n-Nitrosodimethylamine
6535	n-Nitrosodiphenylamine
6540	n-Nitrosodipropylamine
6605	Pentachlorophenol
6615	Phenanthrene
6625	Phenol

Pyridine EPA 8310 10187607

Pyrene

6665

5095

6665

Polynuclear Aromatic Hydrocarbons by HPLC/UV-VIS

Analyte Code	<u>Analyte</u>
6380	1-Methylnaphthalene
6385	2-Methylnaphthalene
5500	Acenaphthene
5505	Acenaphthylene
55 5 5	Anthracene
5575	Benzo[a]anthracene
5580	Benzo[a]pyrene
5585	Benzo[b]fluoranthene
5590	Benzo[g,h,i]perylene
5600	Benzo[k]fluoranthene
5855	Chrysene
5895	Dibenz[a,h]anthracene
6265	Fluoranthene
6270	Fluorene
6315	Indeno[1,2,3-cd]pyrene
5005	Naphthalene
6615	Phenanthrene

Pyrene



State of New Mexico ENVIRONMENT DEPARTMENT

Field Operations Division
Drinking Water Bureau
525 Camino de Los Marquez
Santa Fe, New Mexico 87501
Telephone (505) 476-8620
Fax (505) 476-8658



March 11, 2008

Hall Environmental Analysis Laboratory Inc. 4901 Hawkins Rd. NE, Suite D Albuquerque, NM 87109

Dear Mr. Freeman

The Drinking Water Bureau of the New Mexico Environment Department (NMED-DWB) has received and reviewed your Nelap certification /accreditation information from the state of Oregon, The documentation is acceptable and your New Mexico certification is now valid through February 29, 2009.

This certification is to perform drinking water analysis in compliance with the Federal Safe Drinking Water Act, pursuant 40CFR Part 141, and the New Mexico Environment Department Drinking Water Regulations for the Primary Regulated contaminants, including Contaminants in as listed in your Oregon Scope Accreditation.

You must advise NMED-DWB of any change in your accreditation by the State of Oregon and continue to provide this office with performance evaluation results. You are also required to provide evidence of renewal of accreditation by the state of Oregon to continue certification past February 29, 2009.

Laboratories certified by the New Mexico can be purged from the list if there is no evidence that they are performing drinking water compliance samples analysis for public water supply systems in New Mexico.

IF you have any questions or require additional information, please contact me at 505-476-8635.

Sincerely,

Joe Chavez

Section 11.0 Chemical Analytical Reports

Title	Tab Number
Groundwater First Quarter 2008	9
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Groundwater Fourth Quarter 2008	12
Soil Gas First Quarter 2008	13
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Soil Gas Fourth Quarter 2008	16
GAC Analysis – January to December 2008	17



COVER LETTER

Monday, March 24, 2008

Cindy Hurtado San Juan Refining #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 1st Qtr 2008

Dear Cindy Hurtado:

Order No.: 0803092

Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 3/12/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425

AZ license # AZ0682

ORELAP Lab # NM100001



Date: 24-Mar-08

CLIENT:

San Juan Refining

Project:

River Terrace 1st Qtr 2008

Lab Order:

0803092

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803092-01A	TP-2	R27765	EPA Method 8021B: Volatiles	3/10/2008 12:05:00 PM
0803092-01A	TP-2	R27765	EPA Method 8021B: Volatiles	3/10/2008 12:05:00 PM
0803092-01A	TP-2	R27765	EPA Method 8021B: Volatiles	3/10/2008 12:05:00 PM
0803092-01A	TP-2	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 12:05:00 PM
0803092-01A	TP-2	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 12:05:00 PM
0803092-01A	TP-2	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 12:05:00 PM
0803092-01A	TP-2	15357	EPA Method 8015B: Diesel Range	3/10/2008 12:05:00 PM
0803092-01B	TP-2	15361	EPA 6010B: Total Recoverable Metals	3/10/2008 12:05:00 PM
0803092-02A	TP-1	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 12:25:00 PM
0803092-02A	TP-1	15357	EPA Method 8015B: Diesel Range	3/10/2008 12:25:00 PM
0803092-02A	TP-1	R27765	EPA Method 8021B: Volatiles	3/10/2008 12:25:00 PM
0803092-02A	TP-1	R27765	EPA Method 8021B: Volatiles	3/10/2008 12:25:00 PM
0803092-02A	TP-1	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 12:25:00 PM
0803092-02B	TP-1	15361	EPA 6010B: Total Recoverable Metals	3/10/2008 12:25:00 PM
0803092-03A	TP-6	R27765	EPA Method 8021B: Volatiles	3/10/2008 2:00:00 PM
0803092-03A	TP-6	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 2:00:00 PM
0803092-03A	TP-6	R27784	EPA Method 8021B: Volatiles	3/10/2008 2:00:00 PM
0803092-03A	TP-6	15357	EPA Method 8015B: Diesel Range	3/10/2008 2:00:00 PM
0803092-03B	TP-6	15361	EPA 6010B: Total Recoverable Metals	3/10/2008 2:00:00 PM
0803092-04A	TP-8	15357	EPA Method 8015B: Diesel Range	3/10/2008 2:20:00 PM
0803092-04A	TP-8	R27765	EPA Method 8021B: Volatiles	3/10/2008 2:20:00 PM
0803092-04A	TP-8	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 2:20:00 PM
0803092-04A	TP-8	R27784	EPA Method 8021B: Volatiles	3/10/2008 2:20:00 PM
0803092-04B	TP-8	15361	EPA 6010B: Total Recoverable Metals	3/10/2008 2:20:00 PM
0803092-05A	Trip Blank	R27784	EPA Method 8015B: Gasoline Range	
0803092-05A	Trip Blank	R27765	EPA Method 8021B: Volatiles	
0803092-05A	Trip Blank	R27765	EPA Method 8015B: Gasoline Range	
0803092-05A	Trip Blank	R27784	EPA Method 8021B: Volatiles	

Date: 24-Mar-08

CLIENT:

San Juan Refining

Project:

River Terrace 1st Qtr 2008

Lab Order:

0803092

CASE NARRATIVE

Analytical Comments for METHOD 8015GRO_W, SAMPLE 0803092-04A: Elevated surrogate due to matrix interference.

Date: 24-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803092

Project:

River Terrace 1st Qtr 2008

Lab ID:

0803092-01

Client Sample ID: TP-2

Collection Date: 3/10/2008 12:05:00 PM

Date Received: 3/12/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE	<u> </u>		· · · · · · · · · · · · · · · · · · ·		Analyst: SCC
Diesel Range Organics (DRO)	1.7	1.0	mg/L	1	3/12/2008 4:39:23 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	. 1	3/12/2008 4:39:23 PM
Surr: DNOP	127	58-140	%REC	1	3/12/2008 4:39:23 PM
EPA METHOD 8015B: GASÖLINE RAI	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	18	1.0	mg/L	20	3/18/2008 7:17:24 PM
Surr: BFB	114	79.2-121	%REC	20	3/18/2008 7:17:24 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50	μg/L	20	3/18/2008 7:17:24 PM
Benzene	1200	20	μg/L	20	3/18/2008 7:17:24 PM
Toluene	ND	20	μg/L	20	3/18/2008 7:17:24 PM
Ethylbenzene	2300	100	μg/L	100	3/18/2008 11:36:37 AM
Xylenes, Total	4200	200	μg/L	100	3/18/2008 11:36:37 AM
Surr: 4-Bromofluorobenzene	100	68.9-122	%REC	20	3/18/2008 7:17:24 PM
EPA 6010B: TOTAL RECOVERABLE I	METALS				Analyst: NMO
Lead	0.019	0.0050	mg/L	1	3/24/2008 9:15:39 AM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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



Date: 24-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803092

River Terrace 1st Qtr 2008

Project: Lab ID:

0803092-02

Client Sample ID: TP-1

Collection Date: 3/10/2008 12:25:00 PM

Date Received: 3/12/2008

Matrix: AQUEOUS

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE				Analyst: SCC
Diesel Range Organics (DRO)	2.4	1.0	mg/L	1	3/12/2008 5:14:25 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1.	3/12/2008 5:14:25 PM
Surr: DNOP	106	58-140	%REC	1	3/12/2008 5:14:25 PM
EPA METHOD 8015B: GASOLINE R	ANGE	٠,			Analyst: NSB
Gasoline Range Organics (GRO)	62	2.5	mg/L	50	3/18/2008 1:39:53 PM
Surr: BFB	112	79.2-121	%REC	50	3/18/2008 1:39:53 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	120	μg/L	50	3/18/2008 1:39:53 PM
Benzene	2100	50	μg/L	50	3/18/2008 1:39:53 PM
Toluene	ND	50	μg/L	50	3/18/2008 1:39:53 PM
Ethylbenzène	3400	50	μg/L	50	3/18/2008 1:39:53 PM
Xylenes, Total	20000	400	μg/L	200	3/18/2008 1:09:44 PM
Surr: 4-Bromofluorobenzene	100	68.9-122	%REC	50	3/18/2008 1:39:53 PM
EPA 6010B: TOTAL RECOVERABLE	E METALS				Analyst: NMO
Lead	0.093	0.0050	mg/L	1	3/24/2008 9:19:39 AM

Spike recovery outside accepted recovery limits

MCL Maximum Contaminant Level

Reporting Limit

Value exceeds Maximum Contaminant Level

E. Value above quantitation range

Analyte detected below quantitation limits

Not Detected at the Reporting Limit ND

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Η

Date: 24-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803092

River Terrace 1st Qtr 2008

Project: Lab ID:

0803092-03

Client Sample ID: TP-6

Collection Date: 3/10/2008 2:00:00 PM

Date Received: 3/12/2008

Matrix: AQUEOUS

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE .				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/12/2008 5:49:24 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/12/2008 5:49:24 PM
Surr: DNOP	. 123	58-140	%REC	1	3/12/2008 5:49:24 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	1.9	0.050	mg/L	1	3/18/2008 2:40:18 PM
Surr: BFB	124	79.2-121	S %REC	1	3/18/2008 2:40:18 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	2.9	2.5	μg/L .	1	3/18/2008 2:40:18 PM
Benzene	24	1.0	μg/L	1	3/18/2008 2:40:18.PM
Toluene	ND	1.0	μg/L	1	3/18/2008 2:40:18 PM
Ethylbenzene	260	10	μg/L	10	3/19/2008 1:28:52 PM
Xylenes, Total	300	20	μg/L	10	3/19/2008 1:28:52 PM
Sunt: 4-Bromofluorobenzene	97.8	68.9-122	%REC	10	3/19/2008 1:28:52 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: NMO
Lead	0.028	0.0050	mg/L	1	3/24/2008 9:23:35 AM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 24-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803092

Client Sample ID: TP-8

Collection Date: 3/10/2008 2:20:00 PM

Project:

River Terrace 1st Qtr 2008

Date Received: 3/12/2008

Lab ID:

0803092-04

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE.				Analyst: SCC
Diesel Range Organics (DRO)	1.4	1.0	mg/L	1	3/12/2008 6:24:23 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/12/2008 6:24:23 PM
Surr: DNOP	114	58-140	%REC	1	3/12/2008 6:24:23 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	15	0.50	mg/L	10	3/18/2008 3:13:06 PM
Surr: BFB	116	79.2-121	%REC	10	3/18/2008 3:13:06 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25	μg/L	10	3/19/2008 2:01:37 PM
Benzene	ND	10	μg/L	10	3/19/2008 2:01:37 PM
Toluene	ND	10	μg/L	10	3/19/2008 2:01:37 PM
Ethylbenzene	370	10	μg/L	10	3/19/2008 2:01:37 PM
Xylenes, Total	1800	20	μg/L	10	3/19/2008 2:01:37 PM
Surr: 4-Bromofluorobenzene	112	68.9-122	%REC	10	3/19/2008 2:01:37 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: NMO
Lead	0.043	0.0050	mg/L	1	3/24/2008 9:26:19 AM



Value exceeds Maximum Contaminant Level

Spike recovery outside accepted recovery limits

Reporting Limit

E Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Date: 24-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803092

Project:

River Terrace 1st Qtr 2008

Lab ID:

0803092-05

Client Sample ID: Trip Blank

Collection Date:

Date Received: 3/12/2008

Matrix: TRIP BLANK

Analyses	Result	PQL Q	ual Units	DF.	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE	7/5			Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/19/2008 3:04:08 PM
Surr: BFB	. 109	79.2-121	%REC	1	3/19/2008 3:04:08 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/19/2008 3:04:08 PM
Benzene	ND	1.0	μg/L	1	3/19/2008 3:04:08 PM
Toluene	ND	1.0	μg/L	1	3/19/2008 3:04:08 PM
Ethylbenzene	ND	1.0	μg/L	1	3/19/2008 3:04:08 PM
Xylenes, Total	ND	2.0	μg/L	1	3/19/2008 3:04:08 PM
Surr: 4-Bromofluorobenzene	96.5	68.9-122	%REC	1	3/19/2008 3:04:08 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 24-Mar-08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project:

River Terrace 1st Qtr 2008

Work Order:

0803092

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD RP	DLimit Qual
Method: EPA Method 8015B: D	iesel Range							
Sample ID: MB-15357		MBLK			Batch I	D: 15357	Analysis Date:	3/12/2008 2:54:22 P
Diesel Range Organics (DRO)	ND	mg/L	1.0					
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Surr: DNOP	1.080	mg/L	0	108	58	140		
Sample ID: LCS-15357		LCS			Batch I	D: 15357	Analysis Date:	3/12/2008 3:29:23 P
Diesel Range Organics (DRO)	5.748	mg/L	1.0	115	74	157		
Surr: DNOP	0.6257	mg/L	0	125	58	140		
Sample ID: LCSD-15357		LCSD			Batch I	D: 15357	Analysis Date:	3/12/2008 4:04:23 F
Diesel Range Organics (DRO)	5.630	mg/L	1.0	113	74	157	2.08 2	23
Surr: DNOP	0.6096	mg/L	0	122	58	140		0
Method: EPA Method 8015B: G	iasoline Ran	-				_		
Sample ID: 5ML RB		MBLK			Batch I	D: R27765	Analysis Date:	3/18/2008 9:00:31 A
Gasoline Range Organics (GRO)	ND	mg/L	0.050	*				,
Surr: BFB	20.75	mg/L	0	104	79.2	121	·	
Sample ID: 2.5UG GRO LCS		LCS			Batch I	D: R27765	Analysis Date:	3/18/2008 8:48:09 F
Gasoline Range Organics (GRO)	0.4530	mg/L	0.050	90.6	80	115		
Surr: BFB	21.78	mg/L	0	109	79.2	121		
Method: EPA Method 8021B: V	olatiles							
ample ID: 5ML RB		MBLK			Batch I	D: R27765	Analysis Date:	3/18/2008 9:00:31 A
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					
Surr: 4-Bromofluorobenzene	17.95	μg/L	0	89.8	68.9	122		,
Sample ID: 100NG BTEX LCS		LCS			Batch I	D: R27765	Analysis Date:	3/18/2008 10:48:50 F
Methyl tert-butyl ether (MTBE)	19.58	μg/L	2.5	97.9	51.2	138	-	
Benzene	21.01	μg/L	1.0	105	85.9	113		
Toluene	21.55	μg/L	1.0	108	86.4	113		
Ethylbenzene	21.70	μg/L	1.0	108	83.5	118		
Xylenes, Total	64.57	μg/L	2.0	107	83.4	122		
Surr: 4-Bromofluorobenzene	20.58	μg/L	0	103	68.9	122		
Method: EPA 6010B: Total Rec	overable Me	tals						·
Sample ID: 0803092-04B MSD		MSD			Batch I	D: 15361	Analysis Date:	3/24/2008 9:41:29 A
Lead	0.5362	mg/L	0.0050	98.7	75	125	-	20
Sample ID: MB-15361	0.0002	MBLK	0.0000	56.7	Batch I		Analysis Date:	3/24/2008 8:11:13 A
Lead	ND	mg/L	0.0050					
Sample ID: LCS-15361		LCS			Batch I	D: 15361	Analysis Date:	3/24/2008 8:14:16 A
Lead	0.4891	mg/L	0.0050	97.8	80	120		
Sample ID: 0803092-04B MS		MS			Batch I	D: 15361	Analysis Date:	3/24/2008 9:28:22 A
Lead	0.5359	mg/L	0.0050	98.7	75	125		
Qualifiers:								
E Value above quantitation range	;		Н	Holding t	imes for prepar	ation or analysi	s exceeded	·
J Analyte detected below quantit			ND		ted at the Repo		-	
R RPD outside accepted recovery			S		-	ccepted recover	. limita	Page 1

Sample Receipt Checklist

Client Name SJR			Date Receive	ed:	3/12/2008	
Work Order Number 0803092			Received by	y: ARS	ACT	
	$\mathcal{A}(\mathcal{A})$	210	Sample ID I	abels checked b		
Checklist completed by: Signature		Date	JO 0		Initials	
Matrix	Carrier name	<u>UPS</u>				
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present	· ¬	
Custody seals intact on shipping container/coo	ler?	Yes 🗸	No 🗌	Not Present		
Custody seals intact on sample bottles?		Yes 🗌	No 🗌		<u>√</u>	
Chain of custody present?		Yes 🗹	No 🗌			
Chain of custody signed when relinquished and	d 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 🗌			
Nater - VOA vials have zero headspace?	No VOA vials subi	mitted	Yes 🗹	No 🗌		
Nater - Preservation labels on bottle and cap r	natch?	Yes 🗹	No 🗌	N/A		
Nater - pH acceptable upon receipt?		Yes 🗹	No 🗌	N/A		
Container/Temp Blank temperature?	•	4°	<6° C Acceptal	ole		
COMMENTS:			If given sufficier	t time to cool.	•	
=======================================						==
Client contacted	Date contacted:		Per	son contacted		
Contacted by:	Regarding	-				
Comments:						
			· · · · · · · · · · · · · · · · · · ·			
						
Corrective Action						

	•			2				(N no	 . Y)	edspe	 ∍H 10 8	eelddu8 riv	₫											
	HALL ENVIRONMENTAL	ANALYSIS LABORATORY	430 Frawkiis Ive, Jaice D Albianerane New Mexico 87109	Tel. 505.345.3975 Fax 505.345.4107	WWW. I tallottyll of a local control of a local con	ANALYSIS REQUEST				\ bCB. '' NO ⁵ '	J or PV etals ON , IO icides	3310 (PNA 8 M6 Mions (F, C 8081 Pest 8250 (Sen	3 3 4 4 8	X		*		×		X				
٠							۱۸۶	nO əni	loseð	1PH (6 (1.8 (1.4)	+ 38T 108 bo 14 bor 36 bor	3LEX + W BLEX + W TEX + W BLEX + W			×		X		×				Remarks:	
	90	Std 🗖 Level 4 🗗	Uther:	Project Name:	River Terrace (3) QIR 2008	Project #:		Project Manager:		Sampler, 24 XX	Sample Temperature: 1/2 1/2 At 3/12	Number/Volume HEAL No.	77	×	4-104 12 2	×	460	1-506 X 3	4-10A- HEL 1-	1-500 X 4			Redeived By 'Signature) Provised By 'Signature)	Received by: (Signature)
		CHAIN.OF. CUSTODY BECORD		Client: SAU JUAN REfiniNg	[WESTERN REFINING]	Address: 井50 CR 4990	Bloomfield, NM 07413			-632-4/61	1132-2311	Matrix Sample I.D. No.	Hr. 72-2		1-2		TP6		TP-8		Trin Blank 3113		Relinflyshed By: (Signature)	Kelinquisned by: (signature)
		CHAIN.OF.		Client: SAU Ju	(western	Address: #50	Bloom F.			Phone #: 505-632-	Fax#: 505-632	Date	3/m/09 1208	1	3-10-08 1255	\	Mode /		220pm		•		Note: Time:	



COVER LETTER

Thursday, March 27, 2008

Cindy Hurtado San Juan Refining #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 1st Qtr 2008

Dear Cindy Hurtado:

Order No.: 0803094

Hall Environmental Analysis Laboratory, Inc. received 10 sample(s) on 3/12/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001



Date: 27-Mar-08

CLIENT:

San Juan Refining

Project:

River Terrace 1st Qtr 2008

Lab Order:

0803094

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803094-01A	TP-7	R27721	EPA Method 8021B: Volatiles	3/11/2008 9:35:00 AM
0803094-01A	TP-7	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 9:35:00 AM
.0803094-01A	TP-7	15357	EPA Method 8015B: Diesel Range	3/11/2008 9:35:00 AM
0803094-01B	TP-7	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 9:35:00 AM
0803094-02A	TP-9	15357	EPA Method 8015B: Diesel Range	3/11/2008 10:05:00 AM
0803094-02A	TP-9	R27721	EPA Method 8021B: Volatiles	3/11/2008 10:05:00 AM
0803094-02A	TP-9	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 10:05:00 AM
0803094-02B	TP-9	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 10:05:00 AM
0803094-03A	TP-9 FD	R27721	EPA Method 8021B: Volatiles	3/11/2008 10:15:00 AM
0803094-03A	TP-9 FD	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 10:15:00 AM
0803094-03A	TP-9 FD	15357	EPA Method 8015B: Diesel Range	3/11/2008 10:15:00 AM
0803094-03B	TP-9 FD	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 10:15:00 AM
0803094-04A	TP-5	15357	EPA Method 8015B: Diesel Range	3/11/2008 10:35:00 AM
0803094-04A	TP-5	R27721	EPA Method 8021B: Volatiles	3/11/2008 10:35:00 AM
0803094-04A	TP-5	R27721	EPA Method 8021B: Volatiles	3/11/2008 10:35:00 AM
0803094-04A	TP-5	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 10:35:00 AM
0803094-04A	TP-5	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 10:35:00 AM
0803094-04B	TP-5	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 10:35:00 AM
0803094-05A	DW-#1	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 11:15:00 AM
0803094-05A	DW-#1	R27721	EPA Method 8021B: Volatiles	3/11/2008 11:15:00 AM
0803094-05A	DW-#1	15357	EPA Method 8015B: Diesel Range	3/11/2008 11:15:00 AM
0803094-05B	DW-#1	15373	EPA Method 7470: Mercury	3/11/2008 11:15:00 AM
0803094-05B	DW-#1	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 11:15:00 AM
0803094-06A	MW-#49	15357	EPA Method 8015B: Diesel Range	3/11/2008 11:40:00 AM
0803094-06A	MW-#49	R27721	EPA Method 8021B: Volatiles	3/11/2008 11:40:00 AM
0803094-06A	MW-#49	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 11:40:00 AM
0803094-06B	MW-#49	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 11:40:00 AM
0803094-07A	TP-10	R27721 ·	EPA Method 8015B: Gasoline Range	3/11/2008 1:20:00 PM
0803094-07A	TP-10	15357	EPA Method 8015B: Diesel Range	3/11/2008 1:20:00 PM
0803094-07A	TP-10	R27721	EPA Method 8021B: Volatiles	3/11/2008 1:20:00 PM
0803094-07B	TP-10.	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 1:20:00 PM
0803094-08A	TP-3	R27721	EPA Method 8021B: Volatiles	3/11/2008 1:40:00 PM
0803094-08A	TP-3	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 1:40:00 PM
0803094-08A	TP-3	15357	EPA Method 8015B: Diesel Range	3/11/2008 1:40:00 PM
0803094-08B	TP-3	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 1:40:00 PM
0803094-09A	Field Blank	15357	EPA Method 8015B: Diesel Range	3/11/2008 2:00:00 PM
0803094-09A	Field Blank	R27721	EPA Method 8021B: Volatiles	3/11/2008 2:00:00 PM
0803094-09A	Field Blank	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 2:00:00 PM

CLIENT:

San Juan Refining

Project:

River Terrace 1st Qtr 2008

Lab Order:

0803094

Work Order Sample Summary

Lab Sample ID

Client Sample ID

Batch ID

Test Name

Collection Date

0803094-10A

Trip Blank

R27721

EPA Method 8015B: Gasoline Range

0803094-10A

Trip Blank

R27721

EPA Method 8021B: Volatiles

Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803094

Project:

River Terrace 1st Qtr 2008

Lab ID:

0803094-01

Client Sample ID: TP-7

Collection Date: 3/11/2008 9:35:00 AM

Date Received: 3/12/2008

Analyses	Result	PQL	Qual Units	\mathbf{DF}	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/12/2008 6:59:23 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/12/2008 6:59:23 PM
Surr: DNOP	104	58-140	%REC	1	3/12/2008 6:59:23 PM
EPA METHOD 8015B: GASOLINE RA	ANGE	•			Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/15/2008 6:33:08 AM
Surr. BFB	120	79.2-121	%REC	1	3/15/2008 6:33:08 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/15/2008 6:33:08 AM
Benzene	ND	1.0	μg/L	1	3/15/2008 6:33:08 AM
Toluene	ND	1.0	μg/L	1	3/15/2008 6:33:08 AM
Ethylbenzene	ND	1.0	μg/L	1	3/15/2008 6:33:08 AM
Xylenes, Total	ND	2.0	μg/L	1	3/15/2008 6:33:08 AM
Surr: 4-Bromofluorobenzene	106	68.9-122	%REC	1 .	3/15/2008 6:33:08 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: NMO
Lead	ND	0.0050	mg/L	1	3/24/2008 8:17:09 AM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803094

Project:

River Terrace 1st Qtr 2008

Lab ID:

0803094-02

Client Sample ID: TP-9

Collection Date: 3/11/2008 10:05:00 AM

Date Received: 3/12/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	BE .				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/12/2008 7:34:19 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/12/2008 7:34:19 PM
Surr: DNOP	114	58-140	%REC	1	3/12/2008 7:34:19 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/15/2008 7:03:10 AM
Surr: BFB	119	79.2-121	%REC	1	3/15/2008 7:03:10 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/15/2008 7:03:10 AM
Benzene	ND	1.0	μg/L	1	3/15/2008 7:03:10 AM
Toluene	ND	1.0	μg/L	1	3/15/2008 7:03:10 AM
Ethylbenzene	ND	1.0	μg/L	1	3/15/2008 7:03:10 AM
Xylenes, Total	ND	2.0	μg/L	1	3/15/2008 7:03:10 AM
Surr: 4-Bromofluorobenzene	104	68.9-122	%REC	1	3/15/2008 7:03:10 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: NMO
Lead	0.0087	0.0050	mg/L	1	3/24/2008 8:24:02 AM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803094

Project:

River Terrace 1st Qtr 2008

Lab ID:

0803094-03

Client Sample ID: TP-9 FD

Collection Date: 3/11/2008 10:15:00 AM

Date Received: 3/12/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	. 1	3/12/2008 8:09:24 PM
Motor Oil Range Organics (MRO)	ND	. 5.0	mg/L	1	3/12/2008 8:09:24 PM
Surr: DNOP	120	58-140	%REC	1	3/12/2008 8:09:24 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	, ND	0.050	mg/L	1 -	3/15/2008 7:33:26 AM
Surr: BFB	111	79.2-121	%REC	1	3/15/2008 7:33:26 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/15/2008 7:33:26 AM
Benzene	ND	1.0	μg/L	1 ,	3/15/2008 7:33:26 AM
Toluene	ND	1.0	μg/L	1	3/15/2008 7:33:26 AM
Ethylbenzene	ND	1.0	μg/L	1	3/15/2008 7:33:26 AM
Xylenes, Total	ND	2.0	μg/L	1	3/15/2008 7:33:26 AM
Surr: 4-Bromofluorobenzene	96.3	68.9-122	%REC	1	3/15/2008 7:33:26 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: NMO
Lead	0.0063	0.0050	mg/L	1	3/24/2008 8:28:01 AM



Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803094

Project: R

River Terrace 1st Qtr 2008

Lab ID:

0803094-04

Client Sample ID: TP-5

Collection Date: 3/11/2008 10:35:00 AM

Date Received: 3/12/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	3E				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/12/2008 9:18:42 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/12/2008 9:18:42 PM
Surr: DNOP	110	58-140	%REC	1	3/12/2008 9:18:42 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	52	1.0	mg/L	20	3/15/2008 8:33:48 AM
Surr: BFB	116	79.2-121	%REC	20	3/15/2008 8:33:48 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50	μg/L	20	3/15/2008 8:33:48 AM
Benzene	ND	20	μg/L	20	3/15/2008 8:33:48 AM
Toluene	ND	20	μg/L	20	3/15/2008 8:33:48 AM
Ethylbenzene	1600	20	μg/L	20	3/15/2008 8:33:48 AM
Xylenes, Total	17000	500	μg/L	250	3/15/2008 8:03:36 AM
Surr: 4-Bromofluorobenzene	109	68.9-122	%REC	20	3/15/2008 8:33:48 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: NMO
Lead	0.051	0.0050	mg/L	1	3/24/2008 8:32:03 AM

Qualifiers:

RL Reporting Limit

Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803094

Project:

River Terrace 1st Qtr 2008

Lab ID:

0803094-05

Client Sample ID: DW-#1

Collection Date: 3/11/2008 11:15:00 AM

Date Received: 3/12/2008

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE		· · · · · · · · · · · · · · · · · · ·			Analyst: SCC
Diesel Range Organics (DRO)	ND	. 1.0	mg/L	1	3/12/2008 9:53:21 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/12/2008 9:53:21 PM
Surr: DNOP	105	58-140	%REC	1	3/12/2008 9:53:21 PM
EPA METHOD 8015B: GASOLINE RANG	E				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/15/2008 11:04:09 AM
Surr: BFB	116	79.2-121	%REC	1	3/15/2008 11:04:09 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	· ND	2.5	μg/L	1	3/15/2008 11:04:09 AM
Benzene	ND	1.0	μg/L	1	3/15/2008 11:04:09 AM
Toluene	ND	1.0	μg/L	1	3/15/2008 11:04:09 AM
Ethylbenzene	ND	1.0	μg/L	.1	3/15/2008 11:04:09 AM
Xylenes, Total	ND	2.0	μg/L	1	3/15/2008 11:04:09 AM
Surr: 4-Bromofluorobenzene	103	68.9-122	%REC	1	3/15/2008 11:04:09 AM
EPA METHOD 7470: MERCURY					Analyst: SNV
Mercury	ND	0.00020	mg/L	1	3/14/2008 4:51:21 PM
EPA 6010B: TOTAL RECOVERABLE ME	TALS				Analyst: NMO
Lead	ND	0.0050	mg/L	1	3/24/2008 8:34:49 AM



Value exceeds Maximum Contaminant Level



Е Value above quantitation range

Analyte detected below quantitation limits

Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Reporting Limit

Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803094

Project:

River Terrace 1st Qtr 2008

Lab ID:

0803094-06

Client Sample ID: MW-#49

Collection Date: 3/11/2008 11:40:00 AM

Date Received: 3/12/2008

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	3E				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/12/2008 10:28:04 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/12/2008 10:28:04 PM
Surr: DNOP	111	58-140	%REG	1	3/12/2008 10:28:04 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	0.090	0.050	mg/L	1	3/15/2008 11:34:36 AM
Surr: BFB	121	79.2-121	S %REG	1	3/15/2008 11:34:36 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/15/2008 11:34:36 AM
Benzene	ND	1.0	μg/L	1	3/15/2008 11:34:36 AM
Toluene	ND	1.0	μg/L	1	3/15/2008 11:34:36 AM
Ethylbenzene	ND	1.0	μg/L	1	3/15/2008 11:34:36 AM
Xylenes, Total	ND	2.0	μg/L	1	3/15/2008 11:34:36 AM
Surr: 4-Bromofluorobenzene	104	68.9-122	%RE0	1	3/15/2008 11:34:36 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: NMO
Lead	ND	0.0050	mg/L	1	3/24/2008 8:38:36 AM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803094

River Terrace 1st Qtr 2008

Project: Lab ID:

0803094-07

Client Sample ID: TP-10

Collection Date: 3/11/2008 1:20:00 PM

Date Received: 3/12/2008

Analyses	Result	PQL	Qual U	nits	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg	g/L	1	3/12/2008 11:03:31 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg	g/L	1	3/12/2008 11:03:31 PM
Surr: DNOP	118	58-140	%F	REC	1 .	3/12/2008 11:03:31 PM
EPA METHOD 8015B: GASOLINE RAN	IGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg	g/L	1	3/15/2008 12:05:03 PM
Surr: BFB	. 115	79.2-121	%F	REC	1	3/15/2008 12:05:03 PM
	•					:
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg	ı/L	1	3/15/2008 12:05:03 PM
Benzene	ND	1.0	μg	ı/L	1	3/15/2008 12:05:03 PM
Toluene	ND	1.0	μg	ı/L	1	3/15/2008 12:05:03 PM
Ethylbenzene	ND	1.0	`. μg.	ı/L	1	3/15/2008 12:05:03 PM
Xylenes, Total	ND	2.0	μg	ı/L	1	3/15/2008 12:05:03 PM
Surr: 4-Bromofluorobenzene	102	68.9-122	%F	REC	1 .	3/15/2008 12:05:03 PM
EPA 6010B: TOTAL RECOVERABLE N	IETALS					Analyst: NMO
Lead	ND	0.0050	mg	g/L	1	3/24/2008 8:42:26 AM



- Value exceeds Maximum Contaminant Level
- Ε Value above quantitation range
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
 - Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit





Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803094

River Terrace 1st Qtr 2008

Project: Lab ID:

0803094-08

Client Sample ID: TP-3

Collection Date: 3/11/2008 1:40:00 PM

Date Received: 3/12/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE .	", *			Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/12/2008 11:38:10 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/12/2008 11:38:10 PM
Surr: DNOP	112	58-140	%REC	1	3/12/2008 11:38:10 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/15/2008 12:35:27 PM
Surr: BFB	118	79.2-121	%REC	1	3/15/2008 12:35:27 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/15/2008 12:35:27 PM
Benzene	ND	1.0	μg/L	1	3/15/2008 12:35:27 PM
Toluene	ND	1.0	μg/L	1	3/15/2008 12:35:27 PM
Ethylbenzene	ND	1.0	μg/L	1	3/15/2008 12:35:27 PM
Xylenes, Total	ND	2.0	μg/L	1	3/15/2008 12:35:27 PM
Surr: 4-Bromofluorobenzene	104	68.9-122	%REC	1	3/15/2008 12:35:27 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: NMO
Lead	ND	0.0050	mg/L	1	3/24/2008 8:45:19 AM



- Value exceeds Maximum Contaminant Level
- Е Value above quantitation range
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803094

Project:

River Terrace 1st Qtr 2008

Lab ID:

0803094-09

Client Sample ID: Field Blank

Collection Date: 3/11/2008 2:00:00 PM

Date Received: 3/12/2008

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E				Analyst: SCC
Diesel Range Organics (DRO)	. ND	1.0	mg/L	1 .	3/13/2008 12:12:35 AM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/13/2008 12:12:35 AM
Surr: DNOP	111	58-140	%REC	1	3/13/2008 12:12:35 AM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/15/2008 1:05:45 PM
Surr: BFB	118	79.2-121	%REC	1	3/15/2008 1:05:45 PM
EPA METHOD 8021B: VOLATILES			•		Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/15/2008 1:05:45 PM
Benzene	ND	1.0	μg/L	1	3/15/2008 1:05:45 PM
Toluene	ND	1.0	μg/L	1	3/15/2008 1:05:45 PM
Ethylbenzene	ND	1.0	μg/L	· 1	3/15/2008 1:05:45 PM
Xylenes, Total	ND	2.0	μg/L	1	3/15/2008 1:05:45 PM
Surr: 4-Bromofluorobenzene	104	68.9-122	%REC	. 1	3/15/2008 1:05:45 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

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Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803094

Project:

River Terrace 1st Qtr 2008

Lab ID:

0803094-10

Client Sample ID: Trip Blank

Collection Date:

Date Received: 3/12/2008

Matrix: TRIP BLANK

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE		and the second s	***************************************	Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/15/2008.1:36:00 PM
Surr: BFB	117	79.2-121	%REC	. 1	3/15/2008 1:36:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/15/2008 1:36:00 PM
Benzene	ND	1.0	μg/L	1	3/15/2008 1:36:00 PM
Toluene	ND	1.0	μg/L	1	3/15/2008 1:36:00 PM
Ethylbenzene	ND	1.0	μg/L	1	3/15/2008 1:36:00 PM
Xylenes, Total	ND	2.0	μg/L	1	3/15/2008 1:36:00 PM
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1	3/15/2008 1:36:00 PM
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1	3/15/2008 1:36:00 PM
Surr: 4-Bromofluorobenzene	103	68.9-122	%REC	1	3/15/2008 1:36:00 PM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Page 10 of 10

Date: 27-Mar-08.

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project:

River Terrace 1st Qtr 2008

Work Order:

0803094

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit Qual
Method: EPA Method 8015B: D	iesel Range							
Sample ID: MB-15357		MBLK			Batch II	D: 15357	Analysis Date	e: 3/12/2008 2:54:22 PM
Diesel Range Organics (DRO)	ND	mg/L	1.0					
Notor Oil Range Organics (MRO)	ND	mg/L	5.0					
Surr: DNOP	1.080	mg/L	0	108	58	140		
Sample ID: LCS-15357		LCS			Batch II	D: 15357	Analysis Date	e: 3/12/2008 3:29:23 PM
Diesel Range Organics (DRO)	5.748	mg/L	1.0	. 115	74	157		
Surr: DNOP	0.6257	mg/L	0	125	58	140		
Sample ID: LCSD-15357		LCSD			Batch II	D: 15357	Analysis Dat	e: 3/12/2008 4:04:23 PM
Diesel Range Organics (DRO)	5.630	mg/L	1.0	113	74	157	2.08	23
Surr: DNOP	0.6096	mg/L	0	122	58	140	0	0
Method: EPA Method 8015B: G	asoline Rar	nae						
Sample ID: 0803094-07A MSD		MSD			Batch II): R27721	Analysis Date	e: 3/16/2008 9:21:41 PM
Gasoline Range Organics (GRO)	0.2832	mg/L	0.050	92.5	80	115	6.43	8.39
Surr: BFB	27.32	mg/L	0	137	79.2	121	. 0	0 S
Sample ID: 5ML RB		MBLK			Batch II	D: R27721	Analysis Dat	e: 3/14/2008 9:09:49 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050				,	
Surr: BFB _{1,9}	19.40	mg/L	0	97.0	79.2	121		•
		LCS			Batch II	D: R27721	Analysis Dat	e: 3/15/2008 12:53:29 AM
Sample ID: 100NG BIEX LCS		mg/L	0.050	99.4	80	115		
•	0.3042	mg/L						
•	0.3042 22.99	mg/L mg/L	0	115	79.2	121		· · · · · · · · · · · · · · · · · · ·
Gasoline Range Organics (GRO) Surr: BFB		Ü	0	115	79.2 Batch II	•	Analysis Dat	e: 3/16/2008 8:51:21 PM
Gample ID: 100NG BTEX LCS Gasoline Range Organics (GRO) Surr: BFB Gample ID: 0803094-07A MS Gasoline Range Organics (GRO)		mg/L	0.050	115 98.7		•	Analysis Dat	e: 3/16/2008 8:51:21 PM



E Value above quantitation range

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

Page 1

Date: 27-Mar-08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project:

River Terrace 1st Qtr 2008

Work Order:

0803094

							·		0003034
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit Q	ıal
Method: EPA Method 8021B: V	olatiles	MSD			Datab	ID. D07704	Anabasia D	0/46/000	0.0.04.44.50
Sample ID: 0803094-07A MSD					Batch		Analysis D		8 9:21:41 PM
Methyl tert-butyl ether (MTBE)	19.35	µg/L	2.5	96.8	51.2	138	0.799	28	
Benzene	20.37	μg/L	1.0	102	85.9	113	3.24	27	
Toluene	20.50	μg/L 	1.0	102	86.4	113	4.05	19	
Ethylbenzene	20.64	µg/L	1.0	102	83.5	118	4.48	10	
Xylenes, Total	62.01	μg/L	2.0	102	83.4	122	5.32	. 13	
1,2,4-Trimethylbenzene	19.48	μg/L	1.0	96.4	83.5	115	9.00	21	
1,3,5-Trimethylbenzene	19.76	μg/L	1.0	98.4	85.2	113	7.57	10	
Surr: 4-Bromofluorobenzene	24.58	μg/L	0	123	68.9	122	0	0 S	;
Sample ID: 5ML RB		MBLK			Batch	ID: R27721	Analysis D	ate: 3/14/200	8 9:09:49 AN
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		4				
1,2,4-Trimethylbenzene	ND	μg/L	1.0						
1,3,5-Trimethylbenzene	ND	μg/L	1.0						
Surr: 4-Bromofluorobenzene	16.91	µg/L	0	84.5	68.9	122			
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R27721	Analysis Da	ate: 3/15/2008	12:53:29 AM
Methyl tert-butyl ether (MTBE)	20.45	μg/L	2.5	102	51.2	138			
enzene	20.93	µg/L	1.0	105	85.9	113	*		
Toluene	21.34	μg/L	1.0	107	86.4	113			
Ethylbenzene	21.66	μg/L	1.0	108	83.5	118			
Xylenes, Total	64.75	µg/L	2.0	108	83.4	122			
1,2,4-Trimethylbenzene	21.60	µg/L	1.0	108	83.5	115			
1,3,5-Trimethylbenzene	21.90	µg/L	1.0	109	85.2	113			
Surr: 4-Bromofluorobenzene	20.47	μg/L	0	102	68.9	122			
Sample ID: 0803094-07A MS		MS			Batch I	D: R27721	Analysis Da	ite: 3/16/2008	8:51:21 PM
Methyl tert-butyl ether (MTBE)	19.20	μg/L	2.5	96.0	51.2	138			
Benzene	21.04	μg/L	1.0	105	85.9	113			
Toluene	21.35	μg/L	1.0	106	86.4	113			
Ethylbenzene	21.58	μg/L	1.0	107	83.5	118			
Xylenes, Total	65.40	μg/L	2.0	108	83.4	122			
1,2,4-Trimethylbenzene	21.32	μg/L	1.0	106	83.5	115			
1,3,5-Trimethylbenzene	21.31	μg/L	1.0	106	85.2	113			
Surr: 4-Bromofluorobenzene	22.94	μg/L	0	115	68.9	122			

0 00		
	Dualifiers	

E Value above quantitation range

R RPD outside accepted recovery limits

S Spike recovery outside accepted recovery limits

Page 2

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Date: 27-Mar-08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project: River Terrace 1st Qtr 2008

Work Order:

0803094

Analyte	Result	Units	PQL	%Rec	LowLimit HighLimit	%RPD RPDLimit Qual
Method: EPA Method 7470: Me	ercury					
Sample ID: 0803094-05B MSD		MSD			Batch ID: 15373	Analysis Date: 3/14/2008 4:56:45 P
Mercury	0.005201	mg/L	0.00020	102	75 125	1.75 20
Sample ID: MB-15373		MBLK			Batch ID: 15373	Analysis Date: 3/14/2008 4:06:23 P
Mercury	ND	mg/L	0.00020			
Sample ID: LCS-15373		LCS			Batch ID: 15373	Analysis Date: 3/14/2008 4:08:07 P
Mercury	0.004789	mg/L	0.00020	94.2	80 120	:
Sample ID: 0803094-05B MS		MS			Batch ID: 15373	Analysis Date: 3/14/2008 4:54:58 P
Mercury	0.005111	mg/L	0.00020	100	75 125	
Method: EPA 6010B: Total Rec	overable Met	als				
Sample ID: MB-15361		MBLK			Batch ID: 15361	Analysis Date: 3/24/2008 8:11:13 A
Lead	ND	mg/L	0.0050			•
Sample ID: LCS-15361		LCS			Batch ID: 15361	Analysis Date: 3/24/2008 8:14:16 A
Lead	0.4891	mg/L	0.0050	97.8	80 120	



E Value above quantitation range

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



Sample Receipt Checklist

Client Name SJR		Date Received:		3/12/2008	
Work Order Number 0803094	g J		RS		-
Checklist completed by: Signature	3 12 Date	Sample ID labels che		Initials	
Matrix Carrier	name <u>UPS</u>				
Shipping container/cooler in good condition?	Yes 🗹	No . Not Pre	sent 🗌		
Custody seals intact on shipping container/cooler?	Yes 🗹	No 🗌 Not Pre	sent 🗌	Not Shipped	
Custody seals intact on sample bottles?	Yes	No □ N/A	V		
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 vial	,		ю 🗆		
Nater - Preservation labels on bottle and cap match?	Yes 🗹	No 🗌 N/A			
Nater - pH acceptable upon receipt?	Yes 🗹	No □ N/A			
Container/Temp Blank temperature?	3°	<6° C Acceptable			
COMMENTS:		If given sufficient time to o	cool.		
	=====				===
Client contacted Date contacted	d:	Person contact	cted		
Contacted by: Regarding					 _
Comments:					
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Corrective Action					

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	Project Manager:	ne On sel)	(Z8
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COVER LETTER

Thursday, March 27, 2008

Cindy Hurtado San Juan Refining #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 1st Qtr 2008

Dear Cindy Hurtado:

Order No.: 0803116

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 3/13/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425

AZ license # AZ0682

ORELAP Lab # NM100001



Date: 27-Mar-08

CLIENT:

San Juan Refining

Project:

River Terrace 1st Qtr 2008

Lab Order:

0803116

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803116-01A	TP-11	R27765	EPA Method 8015B: Gasoline Range	3/12/2008 10:50:00 AM
0803116-01A	TP-11	R27765	EPA Method 8021B: Volatiles	3/12/2008 10:50:00 AM
0803116-01A	TP-11	15387	EPA Method 8015B: Diesel Range	3/12/2008 10:50:00 AM
0803116-01B	TP-11	15367	EPA 6010B: Total Recoverable Metals	3/12/2008 10:50:00 AM
0803116-02A	TP-13	R27765	EPA Method 8015B: Gasoline Range	3/12/2008 11:10:00 AM
0803116-02A	TP-13	R27765	EPA Method 8021B: Volatiles	3/12/2008 11:10:00 AM
0803116-02A	TP-13	15387	EPA Method 8015B: Diesel Range	3/12/2008 11:10:00 AM
0803116-02B	TP-13	15367	EPA 6010B: Total Recoverable Metals	3/12/2008 11:10:00 AM
0803116-03A	TP-12	R27765	EPA Method 8015B: Gasoline Range	3/12/2008 11:25:00 AM
0803116-03A	TP-12	R27765	EPA Method 8021B: Volatiles	3/12/2008 11:25:00 AM
0803116-03A	TP-12	15387	EPA Method 8015B: Diesel Range	3/12/2008 11:25:00 AM
0803116-03B	TP-12	15367	EPA 6010B: Total Recoverable Metals	3/12/2008 11:25:00 AM
0803116-04A	Trip Blank	R27765	EPA Method 8015B: Gasoline Range	
0803116-04A	Trip Blank	R27765	EPA Method 8021B: Volatiles	

Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803116

Project:

River Terrace 1st Qtr 2008

Lab ID:

0803116-01

Client Sample ID: TP-11

Collection Date: 3/12/2008 10:50:00 AM

Date Received: 3/13/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/17/2008 6:26:04 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/17/2008 6:26:04 PM
Surr: DNOP	105	58-140	%REC	1	3/17/2008 6:26:04 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/18/2008 4:13:32 PM
Surr: BFB	106	79.2-121	%REC	1	3/18/2008 4:13:32 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/18/2008 4:13:32 PM
Benzene	ND	1.0	μg/L	1	3/18/2008 4:13:32 PM
Toluene	ND	1.0	μg/L	1	3/18/2008 4:13:32 PM
Ethylbenzene	ND	1.0	μg/L	1	3/18/2008 4:13:32 PM
Xylenes, Total	ND	2.0	μg/L	1	3/18/2008 4:13:32 PM
Surr: 4-Bromofluorobenzene	93.2	68.9-122	%REC	1	3/18/2008 4:13:32 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Lead	ND	0.0050	mg/L	1	3/15/2008 10:43:18 AM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803116

Project: River Terrace 1st Qtr 2008

Lab ID:

0803116-02

Client Sample ID: TP-13

Collection Date: 3/12/2008 11:10:00 AM

Date Received: 3/13/2008

Analyses	Result	PQL Q	ial Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/17/2008 7:00:45 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/17/2008 7:00:45 PM
Surr: DNOP	105	58-140	%REC	. 1	3/17/2008 7:00:45 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/18/2008 4:43:42 PM
Surr: BFB	104	79.2-121	%REC	1 .	3/18/2008 4:43:42 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/18/2008 4:43:42 PM
Benzene	ND	1.0	μg/L	1	3/18/2008 4:43:42 PM
Toluene	ND	1.0	μg/L	1	3/18/2008 4:43:42 PM
Ethylbenzene	ND	1.0	μg/L	1	3/18/2008 4:43:42 PM
Xylenes, Total	ND	2.0	μg/L	1	3/18/2008 4:43:42 PM
Sdrr: 4-Bromofluorobenzene	90.7	68.9-122	%REC	1	3/18/2008 4:43:42 PM
, EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Lead	ND ND	0.0050	mg/L	1	3/15/2008 10:46:21 AM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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



Date: 27-Mar-08

CLIENT:

San Juan Refining

Lab Order: Project: 0803116

00031

River Terrace 1st Qtr 2008

Lab ID:

0803116-03

Client Sample ID: TP-12

Collection Date: 3/12/2008 11:25:00 AM

Date Received: 3/13/2008

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/17/2008 8:10:05 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/17/2008 8:10:05 PM
Surr: DNOP	105	58-140	%REC	1	3/17/2008 8:10:05 PM
EPA METHOD 8015B: GASOLINE R.	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/18/2008 5:13:57 PM
Surr. BFB	106	79.2-121	%REC	1	3/18/2008 5:13:57 PM
EPA METHOD 8021B: VOLATILES		•	ř		Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/18/2008 5:13:57 PM
Benzene	ND	1.0	μg/L	1	3/18/2008 5:13:57 PM
Toluene	ND	1.0	μg/L	1	3/18/2008 5:13:57 PM
Ethylbenzene	ND	1.0	μg/L	1	3/18/2008 5:13:57 PM
Xylenes, Total	ND	2.0	μg/L	1	3/18/2008 5:13:57 PM
Surr: 4-Bromofluorobenzene	91.0	68.9-122	%REC	1	3/18/2008 5:13:57 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Lead	0.0062	0.0050	mg/L	1	3/15/2008 10:49:30 AM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 27-Mar-08

CLIENT: Lab Order:

San Juan Refining

Project:

0803116

River Terrace 1st Qtr 2008

Lab ID:

0803116-04

Client Sample ID: Trip Blank

Collection Date:

Date Received: 3/13/2008

Matrix: TRIP BLANK

Analyses	Result	PQL Q	ıal Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAI	NGE			, , , , , , , , , , , , , , , , , , ,	Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/18/2008 6:44:34 PM
Surr: BFB	105	79.2-121	%REC	1	3/18/2008 6:44:34 PM
EPA METHOD 8021B: VOLATILES				٠	Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/18/2008 6:44:34 PM
Benzene	ND	1.0	µg/L	1	3/18/2008 6:44:34 PM
Toluene	ND	1.0	µg/L	1	3/18/2008 6:44:34 PM
Ethylbenzene	ND	1.0	µg/L	1 ·	3/18/2008 6:44:34 PM
Xylenes, Total	ND	2.0	μg/L	1	3/18/2008 6:44:34 PM
Surr: 4-Bromofluorobenzene	91.1	68.9-122	%REC	1	3/18/2008 6:44:34 PM

- Value exceeds Maximum Contaminant Level
- Value above quantitation range Ε
- Analyte detected below quantitation limits J
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 27-Mar-08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project:

River Terrace 1st Qtr 2008

Work Order:

0803116

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD R	PDLimit Qual
Method: EPA Method 8015B: D	iesel Range							
Sample ID: MB-15387		MBLK			Batch	ID: 15387	Analysis Date	3/17/2008 1:48:26 PM
Diesel Range Organics (DRO)	ND	mg/L	1.0					•
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Surr: DNOP	1.140	mg/L	0	114	58	140		
Sample ID: LCS-15387		LCS			Batch	ID: 15387	Analysis Date:	3/17/2008 2:23:07 PM
Diesel Range Organics (DRO)	5.118	mg/L	1.0	102	74	157		
Surr: DNOP	0.5576	mg/L	O ^r	112	58	140		
Sample ID: LCSD-15387		LCSD			Batch	ID: 15387	Analysis Date:	3/17/2008 2:57:56 PM
Diesel Range Organics (DRO)	5.623	mg/L	1.0	112	74	157	9.39	23
Surr: DNOP	0.5868	mg/L	0	117	58	140	0	0
Method: EPA Method 8015B: G	asoline Rar	ige						
Sample ID: 5ML RB		MBLK			Batch	ID: R27765	Analysis Date:	3/18/2008 9:00:31 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	20.75	mg/L	0	104	79.2	121		
Sample ID: 2.5UG GRO LCS		LCS			Batch	ID: R27765	Analysis Date:	3/18/2008 8:48:09 PM
Gasoline Range Organics (GRO)	0.4530	mg/L	0.050	90.6	80	115		
Surr: BFB	21.78	mg/L	0	109	79.2	121		
· 4.								



Value above quantitation range

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

Page 1

Date: 27-Mar-08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project:

River Terrace 1st Qtr 2008

Work Order:

0803116

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit Qual
Method: EPA Method 8021B: V	olatilos							
Method: EPA Method 8021B: V Sample ID: 0803116-03A MSD	Olathes	MSD			Batch	ID: R27765	Analysis Da	te: 3/18/2008 10:18:47 PN
Methyl tert-butyl ether (MTBE)	19.83	μg/L	2.5	95.8	51.2	138	1.25	28
Benzene	21.35	μg/L	1.0	106	85.9	113	0.960	27
Toluene	21.76	μg/L	1.0	109	86.4	113	3.47	19
Ethylbenzene	21.73	µg/L	1.0	107	83.5	118	2.97	10
Xylenes, Total	64.91	µg/L	2.0	107	83.4	122	2.41	13
Surr: 4-Bromofluorobenzene	20.01	µg/L	Ö	100	68.9	122	0	0
Sample ID: 5ML RB		MBLK			Batch	ID: R27765	Analysis Da	te: 3/18/2008 9:00:31 AN
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					
Surr: 4-Bromofluorobenzene	17.95	µg/L	0	89.8	68.9	122		
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R27765	Analysis Da	te: 3/18/2008 10:48:50 PN
Methyl tert-butyl ether (MTBE)	19.58	μg/L	2.5	97.9	51.2	138		
Benzene	21.01	μg/L	1.0	105	85.9	113		
Toluene	21.55	μg/L	1.0	108	86.4	113		
Ethylbenzene*	21.70	µg/L	1.0	108	83.5	118		
Xylenes, Total	64.57	µg/L	2.0	107	83.4	122		
Surr: 4-Bromofluorobenzene	20.58	μg/L	0	103	68.9	122		
Sample ID: 0803116-03A MS		MS			Batch	ID: R27765	Analysis Da	te: 3/18/2008 9:48:39 PN
Methyl tert-butyl ether (MTBE)	19.58	µg/L	2.5	94.6	51.2	138		
Benzene	21.55	μg/L	1.0	107	85.9	113		
Toluene	22.52	µg/L	1.0	113	86.4	113		
Ethylbenzene	22.38	μg/L	1.0	110	83.5	118		•
Xylenes, Total	66.49	μg/L	2.0	110	83.4	122		
Surr: 4-Bromofluorobenzene	19.99	μg/L	0	99.9	68.9	122		
Method: EPA 6010B: Total Rec	overable Me	etals						
Sample ID: 0803116-03B MSD		MSD			Batch	ID: 15367	Analysis Da	te: 3/15/2008 10:56:10 AN
Lead	0.4575	mg/L	0.0050	90.3	75	125	1.77	20
Sample ID: 0803116-03B MS		MS			Batch	ID: 15367	Analysis Da	te: 3/15/2008 10:52:34 AN
Lead	0.4494	mg/L	0.0050	88.7	75	125		
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E Value above quantitation range

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



Sample Receipt Checklist

Client Name SJR				Dat	te Received	:		3/13/2008	
Work Order Number 0803116				R	Received by:	ARS			
Checklist completed by:	9	7	3 13 0 Date	8 	ample ID lab	oels checked	by	Initials	
Matrix	Carrier name	Grev	<u>yhound</u>						
Shipping container/cooler in good condition?		Yes	\checkmark	N	lo 🗌	Not Present			
Custody seals intact on shipping container/cool	er?	Yes	\checkmark	N	lo 🗌	Not Present		Not Shipped	
Custody seals intact on sample bottles?		Yes		N	lo 🗌	N/A	V		
Chain of custody present?		Yes	✓	N	lo 🗌				
Chain of custody signed when relinquished and	received?	Yes	V	N	lo 🗌				
Chain of custody agrees with sample labels?		Yes	✓	N	lo 🗌				
Samples in proper container/bottle?		Yes	V	N	lo 🗌				
Sample containers intact?		Yes	V	N	lo 🗌				
Sufficient sample volume for indicated test?		Yes	$\overline{\checkmark}$	· N	lo 🗀				
All samples received within holding time?		Yes	✓	Ň	lo 🗌				
Water - VOA vials have zero headspace?	No VOA vials subn	nitted		Yes	S	No 🗌			
Water - Preservation labels on bottle and cap m	atch?	Yes	\checkmark	N	lo 🗌	N/A			
Water - pH acceptable upon receipt?		Yes	✓	N	lo 🗌	N/A			
Container/Temp Blank temperature?			3°	<6° C	Acceptable)			
COMMENTS:				If give	en sufficient	time to cool.			
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Client contacted	Date contacted:				Perso	n contacted		·	
Contacted by:	Regarding							·	
Comments:									
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COVER LETTER

Thursday, May 29, 2008

Cindy Hurtado San Juan Refining #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 2nd QTR 2008

Dear Cindy Hurtado:

Order No.: 0805219

Hall Environmental Analysis Laboratory, Inc. received 16 sample(s) on 5/15/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Busines Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682

ORELAP Lab # NM100001



Date: 29-May-08

CLIENT:

San Juan Refining

Project:

River Terrace 2nd QTR 2008

Lab Order: 0805219

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0805219-01A	MW #49	R28629	EPA Method 8021B: Volatiles	5/14/2008 10:20:00 AM
0805219-01A	MW #49	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 10:20:00 AM
0805219-01A	MW #49	15958	EPA Method 8015B: Diesel Range	5/14/2008 10:20:00 AM
0805219-01B	MW #49	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 10:20:00 AM
0805219-02A	TP-8	15958	EPA Method 8015B: Diesel Range	5/14/2008 10:35:00 AM
0805219-02A	TP-8	R28629	EPA Method 8021B: Volatiles	5/14/2008 10:35:00 AM
0805219-02A	TP-8	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 10:35:00 AM
0805219-02A	TP-8	R28636	EPA Method 8021B: Volatiles	5/14/2008 10:35:00 AM
0805219-02B	TP-8	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 10:35:00 AM
0805219-03A	TP-7	15958	EPA Method 8015B: Diesel Range	5/14/2008 10:50:00 AM
0805219-03A	TP-7	R28629	EPA Method 8021B: Volatiles	5/14/2008 10:50:00 AM
0805219-03A	TP-7	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 10:50:00 AM
0805219-03B	TP-7	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 10:50:00 AM
0805219-04A	TP-6	15958	EPA Method 8015B: Diesel Range	5/14/2008 11:10:00 AM
0805219-04A	TP-6	R28629	EPA Method 8021B: Volatiles	5/14/2008 11:10:00 AM
0805219-04A	TP-6	R28629	EPA Method 8021B: Volatiles	5/14/2008 11:10:00 AM
0805219-04A	TP-6	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 11:10:00 AM
0805219-04A	TP-6	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 11:10:00 AM
0805219-04B	TP-6	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 11:10:00 AM
0805219-05A	DW #1	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 11:45:00 AM
0805219-05A	DW #1	15958	EPA Method 8015B: Diesel Range	5/14/2008 11:45:00 AM
0805219-05A	DW #1	R28629	EPA Method 8021B: Volatiles	5/14/2008 11:45:00 AM
0805219-05B	DW #1	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 11:45:00 AM
0805219-05B	DW #1	16019	EPA Method 7470: Mercury	5/14/2008 11:45:00 AM
0805219-05B	DW #1	16019	EPA Method 7470: Mercury	5/14/2008 11:45:00 AM
0805219-06A	TP-9	15958	EPA Method 8015B: Diesel Range	5/14/2008 12:00:00 PM
0805219-06A	TP-9	R28629	EPA Method 8021B: Volatiles	5/14/2008 12:00:00 PM
0805219-06A	TP-9	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 12:00:00 PM
0805219-06B	TP-9	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 12:00:00 PM
0805219-07A	TP-1	R28636	EPA Method 8021B: Volatiles	5/14/2008 1:20:00 PM
0805219-07A	TP-1	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 1:20:00 PM
0805219-07A	TP-1	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 1:20:00 PM
0805219-07A	TP-1	R28629	EPA Method 8021B: Volatiles	5/14/2008 1:20:00 PM
0805219-07A	TP-1	15958	EPA Method 8015B: Diesel Range	5/14/2008 1:20:00 PM
0805219-07A	ŢP-1	R28629	EPA Method 8021B: Volatiles	5/14/2008 1:20:00 PM
0805219-07B	TP-1	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 1:20:00 PM
0805219-08A	TP-1FD	R28629	EPA Method 8021B: Volatiles	5/14/2008 1:25:00 PM
0805219-08A	TP-1FD	15958	EPA Method 8015B: Diesel Range	5/14/2008 1:25:00 PM



CLIENT:

San Juan Refining

Project:

River Terrace 2nd QTR 2008

Lab Order:

0805219

Work Order Sample Summary

		State of the second second		The state of the s
Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0805219-08A	TP-1FD	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 1:25:00 PM
0805219-08A	TP-IFD	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 1:25:00 PM
0805219-08A	TP-1FD	R28636	EPA Method 8021B: Volatiles	5/14/2008 1:25:00 PM
0805219-08A	TP-1FD	R28629	EPA Method 8021B: Volatiles	5/14/2008 1:25:00 PM
0805219-08B	TP-1FD	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 1:25:00 PM
0805219-09A	TP-2	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 1:40:00 PM
0805219-09A	TP-2	15958	EPA Method 8015B: Diesel Range	5/14/2008 1:40:00 PM
0805219-09A	TP-2	R28629	EPA Method 8021B: Volatiles	5/14/2008 1:40:00 PM
0805219-09A	TP-2	R28629	EPA Method 8021B: Volatiles	5/14/2008 1:40:00 PM
0805219-09A	TP-2	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 1:40:00 PM
0805219-09B	TP-2	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 1:40:00 PM
0805219-10A	TP-5	R28629	EPA Method 8021B: Volatiles	5/14/2008 2:00:00 PM
0805219-10A	TP-5	R28629	EPA Method 8021B: Volatiles	5/14/2008 2:00:00 PM
0805219-10A	TP-5	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 2:00:00 PM
0805219-10A	TP-5	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 2:00:00 PM
0805219-10A	TP-5	15958	EPA Method 8015B: Diesel Range	5/14/2008 2:00:00 PM
0805219-10B	TP-5	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 2:00:00 PM
0805219-11A	TP-12	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 2:10:00 PM
0805219-11A	TP-12	15958	EPA Method 8015B: Diesel Range	5/14/2008 2:10:00 PM
0805219-11A	TP-12	R28629	EPA Method 8021B: Volatiles	5/14/2008 2:10:00 PM
0805219-11B	TP-12	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 2:10:00 PM
0805219-12A	TP-13	15958	EPA Method 8015B: Diesel Range	5/14/2008 2:30:00 PM
0805219-12A	TP-13	R28629	EPA Method 8021B: Volatiles	5/14/2008 2:30:00 PM
0805219-12A	TP-13	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 2:30:00 PM
0805219-12B	TP-13	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 2:30:00 PM
0805219-13A	TP-11	15958	EPA Method 8015B: Diesel Range	5/14/2008 2:50:00 PM
0805219-13A	TP-11	R28629	EPA Method 8021B: Volatiles	5/14/2008 2:50:00 PM
0805219-13A	TP-11	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 2:50:00 PM
0805219-13B	TP-11	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 2:50:00 PM
0805219-14A	FIELD BLANK	15958	EPA Method 8015B: Diesel Range	5/14/2008 2:40:00 PM
0805219-14A	FIELD BLANK	R28629	EPA Method 8021B: Volatiles	5/14/2008 2:40:00 PM
0805219-14A	FIELD BLANK	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 2:40:00 PM
0805219-15A	TP-10	15958	EPA Method 8015B: Diesel Range	5/14/2008 3:00:00 PM
0805219-15A	TP-10	R28629	EPA Method 8021B: Volatiles	5/14/2008 3:00:00 PM
0805219-15A	TP-10	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 3:00:00 PM
0805219-15B	TP-10	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 3:00:00 PM
0805219-16A	TP-3	15958	EPA Method 8015B: Diesel Range	5/14/2008 3:15:00 PM
0805219-16A	TP-3	R28629	EPA Method 8021B: Volatiles	5/14/2008 3:15:00 PM
0805219-16A	TP-3	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 3:15:00 PM
0805219-16B	TP-3	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 3:15:00 PM

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

River Terrace 2nd QTR 2008

Project: Lab ID:

0805219-01

Client Sample ID: MW #49

Collection Date: 5/14/2008 10:20:00 AM

Date Received: 5/15/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE .			***************************************	Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	5/16/2008 1:36:15 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 1:36:15 PM
Surr: DNOP	116	58-140	%REC	1	5/16/2008 1:36:15 PM
EPA METHOD 8015B: GASOLINE RA	ANGE		•		Analyst: NSB
Gasoline Range Organics (GRO)	0.25	0.050	mg/L	1	5/21/2008 12:43:27 PM
Surr: BFB	110	79.2-121	%REC	1	5/21/2008 12:43:27 PM
EPA METHOD 8021B: VOLATILES	•				Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	5/21/2008 12:43:27 PM
Benzene	1.8	1.0	μg/L	1	5/21/2008 12:43:27 PM
Toluene	ND	1.0	μg/L	1	5/21/2008 12:43:27 PM
Ethylbenzene	ND	1.0	μg/L	1	5/21/2008 12:43:27 PM
Xylenes, Total	ND	2.0	μg/L	1	5/21/2008 12:43:27 PM
Surr.: 4-Bromofluorobenzene	104	68.9-122	%REC	1	5/21/2008 12:43:27 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Barium	0.066	0.020	mg/L	1	5/23/2008 11:44:01 AM
Chromium	ND	0.0060	mg/L	1	5/23/2008 11:44:01 AM
Lead	ND	0.0050	mg/L	1	5/23/2008 11:44:01 AM



- Value exceeds Maximum Contaminant Level
- Value above quantitation range Ε
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit



Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

Project:

River Terrace 2nd QTR 2008

Lab ID:

0805219-02

Client Sample ID: TP-8

Collection Date: 5/14/2008 10:35:00 AM

Date Received: 5/15/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	e e e e e e e e e e e e e e e e e e e				Analyst: SCC
Diesel Range Organics (DRO)	1.1	1.0	mg/L	1	5/16/2008 2:10:22 PM
Motor Oil Range Organics (MRO)	NĎ	5.0	mg/L	1	5/16/2008 2:10:22 PM
Surr: DNOP	118	58-140	%REC	1	5/16/2008 2:10:22 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	19	0.50	mg/L	10	5/21/2008 1:16:02 PM
Surr: BFB	110	79.2-121	%REC	10	5/21/2008 1:16:02 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25	μg/L	10	5/21/2008 1:16:02 PM
Benzene	ND	10	μg/L	10	5/21/2008 1:16:02 PM
Toluene	ND	10	μg/L	10	5/21/2008 1:16:02 PM
Ethylpenzene	390	10	μg/L	10	5/21/2008 1:16:02 PM
Xylenes, Total	2400	100	μg/L	50	5/22/2008 1:45:43 PM
Surr: 4-Bromofluorobenzene	108	68.9-122	%REC	10	5/21/2008 1:16:02 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Barium	0.070	0.020	mg/L	1	5/23/2008 11:47:50 AM
Chromium	ND	0.0060	mg/L	1	5/23/2008 11:47:50 AM
Lead	0.036	0.0050	mg/L	1	5/23/2008 11:47:50 AM



Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

0803219

River Terrace 2nd QTR 2008

Project: Lab ID:

0805219-03

Client Sample ID: TP-7

Collection Date: 5/14/2008 10:50:00 AM

Date Received: 5/15/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	3E			سندارس سيستنفظ التا	Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	5/16/2008 2:44:29 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 2:44:29 PM
Surr: DNOP	120	58-140	%REC	1	5/16/2008 2:44:29 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	5/21/2008 1:46:09 PM
Surr: BFB	99.3	79.2-121	%REC	1	5/21/2008 1:46:09 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	5/21/2008 1:46:09 PM
Benzene	ND	1.0	μg/L	1	5/21/2008 1:46:09 PM
Toluene	ND	1.0	μg/L	1	5/21/2008 1:46:09 PM
Ethylbenzene	ND	1.0	μg/L	1	5/21/2008 1:46:09 PM
Xylenes, Total	ND	2.0	μg/L	1	5/21/2008 1:46:09 PM
Surr: 4-Bromofluorobenzene	97.3	68.9-122	%REC	1	5/21/2008 1:46:09 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Barium	0.032	0.020	mg/L	. 1	5/23/2008 11:51:39 AM
Chromium	ND	0.0060	mg/L	1	5/23/2008 11:51:39 AM
Lead	0.0067	0.0050	mg/L	1	5/23/2008 11:51:39 AM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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







Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

Project:

River Terrace 2nd QTR 2008

Lab ID:

0805219-04

Client Sample ID: TP-6

Collection Date: 5/14/2008 11:10:00 AM

Date Received: 5/15/2008

Analyses	Result	PQL	Qual U	nits	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	3E					Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	m	ıg/L	1	5/16/2008 3:18:36 PM
Motor Oil Range Organics (MRO)	ND	5.0	m	ıg/L	1	5/16/2008 3:18:36 PM
Surr: DNOP	117	58-140	%	REC	1	5/16/2008 3:18:36 PM
EPA METHOD 8015B: GASOLINE R.	ANGE					Analyst: NSB
Gasoline Range Organics (GRO)	1.2	0.050	m	ıg/L	1	5/21/2008 2:49:04 PM
Surr: BFB	112	79.2-121	%	REC	. 1	5/21/2008 2:49:04 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg	g/L	1	5/21/2008 2:49:04 PM
Benzene	20	1.0	μg	g/L	1	5/21/2008 2:49:04 PM
Toluene	ND	1.0	μς	g/L	1	5/21/2008 2:49:04 PM
Ethylbenzene	180	5.0	μς	g/L	5	5/21/2008 2:18:50 PM
Xylenes, Total	68	2.0	μο	g/L	1	5/21/2008 2:49:04 PM
Surr. 4-Bromofluorobenzene	109	68.9-122	%	REC	1	5/21/2008 2:49:04 PM
EPA 6010B: TOTAL RECOVERABLE	E METALS			•		Analyst: TES
Barium	0.15	0.020	m	ıg/L	1	5/23/2008 11:57:17 AM
Chromium	ND	0.0060	m	g/L	1	5/23/2008 11:57:17 AM
Lead	0.022	0.0050	m	g/L	1	5/23/2008 11:57:17 AM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Not Detected at the Reporting Limit ND
 - Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

River Terrace 2nd QTR 2008

Project: Lab ID:

0805219-05

Client Sample ID: DW #1

Collection Date: 5/14/2008 11:45:00 AM

Date Received: 5/15/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE					Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	5/16/2008 3:52:42 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 3:52:42 PM
Surr: DNOP	110	58-140	%REC	1	5/16/2008 3:52:42 PM
EPA METHOD 8015B: GASOLINE RANG	E				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	. 1	5/21/2008 3:49:22 PM
Surr: BFB	96.1	79.2-121	%REC	1	5/21/2008 3:49:22 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	5/21/2008 3:49:22 PM
Benzene	ND	1.0	µg/L	1	5/21/2008 3:49:22 PM
Toluene	ND	1.0	μg/L	1	5/21/2008 3:49:22 PM
Ethylbenzene	ND	1.0	μg/L	1	5/21/2008 3:49:22 PM
Xylenes, Total	ND ·	2.0	μg/L	1	5/21/2008 3:49:22 PM
Surr: 4-Bromofluorobenzene	91.0	68.9-122	%REC	1	5/21/2008 3:49:22 PM
EPA METHOD 7470: MERCURY	•				Analyst: SNV
Mercury	ND	0.0010	mg/L	5	5/23/2008 3:35:49 PM
EPA 6010B: TOTAL RECOVERABLE ME	TALS				Analyst: TES
Barium	0.12	0.020	mg/L	1	5/23/2008 12:00:13 PM
Chromium	ND	0.0060	mg/L	1	5/23/2008 12:00:13 PM
Lead	ND	0.0050	mg/L	1	5/23/2008 12:00:13 PM

Oua	litī	ers:

- Value exceeds Maximum Contaminant Level
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit ND
 - Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit



Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

Project:

River Terrace 2nd QTR 2008

Lab ID:

0805219-06

Client Sample ID: TP-9

Concenion Duter 2

Collection Date: 5/14/2008 12:00:00 PM

Date Received: 5/15/2008

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE	· · · · · · · · · · · · · · · · · · ·			Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	5/16/2008 4:26:50 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 4:26:50 PM
Surr: DNOP	112	58-140	%REC	, 1	5/16/2008 4:26:50 PM
EPA METHOD 8015B: GASOLINE R.	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	5/21/2008 4:19:38 PM
Surr: BFB	101	79.2-121	%REC	1	5/21/2008 4:19:38 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	5/21/2008 4:19:38 PM
Benzene	ND	1.0	µg/L	1	5/21/2008 4:19:38 PM
Toluene	ND	1.0	μg/L	1	5/21/2008 4:19:38 PM
Ethylbenzene	ND	1.0	μg/L	1	5/21/2008 4:19:38 PM
Xylenes, Total	ND	2.0	μg/L	1	5/21/2008 4:19:38 PM
Surr: 4-Bromofluorobenzene	97.3	68.9-122	%REC	1	5/21/2008 4:19:38 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Barium	0.11	0.020	mg/L	1	5/23/2008 12:04:00 PM
Chromium	ND	0.0060	mg/L	1	5/23/2008 12:04:00 PM
Lead	0.013	0.0050	mg/L	1	5/23/2008 12:04:00 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

Project:

River Terrace 2nd QTR 2008

Lab ID:

0805219-07

Client Sample ID: TP-1

Collection Date: 5/14/2008 1:20:00 PM

Date Received: 5/15/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE					Analyst: SCC
Diesel Range Organics (DRO)	. 2.0	1.0	mg/L	1	5/16/2008 5:00:57 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 5:00:57 PM
Surr: DNOP	118	58-140	%REC	1	-5/16/2008 5:00:57 PM
EPA METHOD 8015B: GASOLINE RAN	GE				Analyst: NSB
Gasoline Range Organics (GRO)	54	2.5	mg/L	50	5/21/2008 6:50:14 PM
Surr: BFB	110	79.2-121	%REC	50	5/21/2008 6:50:14 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	120	μg/L	50	5/22/2008 2:15:47 PM
Benzene	2500	50	μg/L	50	5/22/2008 2:15:47 PM
Toluene	.ND	50	μg/L	50	5/22/2008 2:15:47 PM
Ethylbenzene	3000	50	μg/L	50	5/22/2008 2:15:47 PM
Xylenes, Total	13000	400	μg/L	200	5/21/2008 6:20:09 PM
Surr: 4-Bromofluorobenzene	105	68.9-122	%REC	50	5/22/2008 2:15:47 PM
EPA 6010B: TOTAL RECOVERABLE M	IETALS				Analyst: TES
Barium	0.044	0.020	mg/L	1	5/23/2008 12:07:48 PM
Chromium	ND	0.0060	mg/L	1	5/23/2008 12:07:48 PM
Lead	0.045	0.0050	mg/L	. 1	5/23/2008 12:07:48 PM

0-1:0	
Qualifiers	:

Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order: Project:

0805219

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River Terrace 2nd QTR 2008

Lab ID:

0805219-08

Client Sample ID: TP-1FD

Collection Date: 5/14/2008 1:25:00 PM

Date Received: 5/15/2008

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE				Analyst: SCC
Diesel Range Organics (DRO)	2.1	1.0	mg/L	1	5/16/2008 6:09:39 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 6:09:39 PM
Surr: DNOP	122	58-140	%REC	1	5/16/2008 6:09:39 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	55	2.5	mg/L	50	5/21/2008 8:20:41 PM
Surr: BFB	109	79.2-121	%REC	50	5/21/2008 8:20:41 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	120	μg/L	50	5/21/2008 8:20:41 PM
Benzene	2300	50	μg/L	50	5/21/2008 8:20:41 PM
Toluene	ND	50	μg/L	50	5/21/2008 8:20:41 PM
Ethylbenzene	2800	50	µg/L	50	5/21/2008 8:20:41 PM
Xylenes, Total	13000	400	μg/L	200	5/21/2008 7:50:26 PM
Surr: 4-Bromofluorobenzene	108	68.9-122	%REC	50	5/21/2008 8:20:41 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Barium	0.041	0.020	mg/L	1	5/23/2008 12:24:39 PM
Chromium	ND	0.0060	mg/L	1	5/23/2008 12:24:39 PM
Lead	0.049	0.0050	mg/L	1	5/23/2008 12:24:39 PM



Value exceeds Maximum Contaminant Level

E Value above quantitation range

J Analyte detected below quantitation limits

ID 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

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

Project:

River Terrace 2nd QTR 2008

Lab ID:

0805219-09

Client Sample ID: TP-2

Collection Date: 5/14/2008 1:40:00 PM

Date Received: 5/15/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE					· · · · · · · · · · · · · · · · · · ·	Analyst: SCC
Diesel Range Organics (DRO)	1.3	1.0		mg/L	1	5/16/2008 6:44:00 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 6:44:00 PM
Surr: DNOP	117	58-140		%REC	1	5/16/2008 6:44:00 PM
EPA METHOD 8015B: GASOLINE RANG	E					Analyst: NSB
Gasoline Range Organics (GRO)	19	1.0		mg/L	20	5/21/2008 11:21:19 PM
Surr: BFB	102	79.2-121		%REC	20	5/21/2008 11:21:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		μg/L	20	5/21/2008 11:21:19 PM
Benzene	1100	100		μg/L	100	5/21/2008 10:51:17 PM
Toluene	ND	20		μg/L	20	5/21/2008 11:21:19 PM
Ethylbenzene	2200	100		µg/L	100	5/21/2008 10:51:17 PM
Xylenes, Total	4000	200		μg/L	100	5/21/2008 10:51:17 PM
Surr: 4-Bromofluorobenzene	102	68.9-122		%REC	100	5/21/2008 10:51:17 PM
EPA 6010B: TOTAL RECOVERABLE ME	TALS					Analyst: TES
Barium	0.13	0.020		mg/L	1	5/23/2008 12:31:00 PM
Chromium	ND	0.0060		mg/L	1	5/23/2008 12:31:00 PM
Lead	0.020	0.0050		mg/L	1 -	5/23/2008 12:31:00 PM



Value exceeds Maximum Contaminant Level



Е Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits

Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Reporting Limit

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

Project:

River Terrace 2nd QTR 2008

Lab ID:

0805219-10

Client Sample ID: TP-5

Collection Date: 5/14/2008 2:00:00 PM

Date Received: 5/15/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE				et the Boule,	Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	5/16/2008 7:18:21 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 7:18:21 PM
Surr: DNOP	114	58-140	%REC	1	5/16/2008 7:18:21 PM
EPA METHOD 8015B: GASOLINE RAN	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	46	1.0	mg/L	20	5/22/2008 12:51:45 AM
Surr: BFB	105	79.2-121	%REC	20	5/22/2008 12:51:45 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50	μg/L	20	5/22/2008 12:51:45 AM
Benzene	48	20	μg/L	20	5/22/2008 12:51:45 AM
Toluene	ND	20	μg/L	20	5/22/2008 12:51:45 AM
Ethylbenzene	1100	20	μg/L	20	5/22/2008 12:51:45 AM
Xylenes, Total	13000	500	μg/L	250	5/22/2008 12:21:34 AM
Surr: 4-Bromofluorobenzene	106	68.9-122	%REC	20	5/22/2008 12:51:45 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Barium	0.31	0.020	mg/L	1	5/23/2008 12:34:46 PM
Chromium	ND	0.0060	mg/L	1	5/23/2008 12:34:46 PM
Lead	0.039	0.0050	mg/L	1	5/23/2008 12:34:46 PM



Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

River Terrace 2nd QTR 2008

Project: Lab ID:

0805219-11

Client Sample ID: TP-12

Collection Date: 5/14/2008 2:10:00 PM

Date Received: 5/15/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE .			-	Analyst: SCC
Diesel Range Organics (DRO)	. ND	1.0	mg/L	1	5/16/2008 7:52:41 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 7:52:41 PM
Surr: DNOP	107	58-140	%REC	1	5/16/2008 7:52:41 PM
EPA METHOD 8015B: GASOLINE RA	ANGE		•		Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	5/21/2008 4:49:47 PM
Surr: BFB	100	79.2-121	%REC	1	5/21/2008 4:49:47 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	5/21/2008 4:49:47 PM
Benzene	ND	1.0	μg/L	1	5/21/2008 4:49:47 PM
Toluene	ND	1.0	μg/L	1 .	5/21/2008 4:49:47 PM
Ethylbenzene	ND	1.0	μg/L	1	5/21/2008 4:49:47 PM
Xylenes, Total	ND	2.0	μg/L	1	5/21/2008 4:49:47 PM
Surr: 4-Bromofluorobenzene	95.1	68.9-122	%REC	1	5/21/2008 4:49:47 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Barium	0.043	0.020	mg/L	1	5/23/2008 12:37:31 PM
Chromium	ND	0.0060	mg/L	1	5/23/2008 12:37:31 PM
Lead	ND	0.0050	mg/L	1	5/23/2008 12:37:31 PM



- Value exceeds Maximum Contaminant Level
- Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit



Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

Project:

River Terrace 2nd QTR 2008

Lab ID:

0805219-12

Client Sample ID: TP-13

Collection Date: 5/14/2008 2:30:00 PM

Date Received: 5/15/2008

Analyses	Result	PQL C	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG					Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	5/16/2008 8:27:04 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 8:27:04 PM
Surr: DNOP	113	58-140	%REC	1	5/16/2008 8:27:04 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	5/21/2008 9:21:08 PM
Surr: BFB	101	79.2-121	%REC	1	5/21/2008 9:21:08 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	5/21/2008 9:21:08 PM
Benzene	ND	1.0	μg/L	1	5/21/2008 9:21:08 PM
Toluene	ND	1.0	µg/L	1	5/21/2008 9:21:08 PM
Ethylbenzene	ND	1.0	μg/L	1	5/21/2008 9:21:08 PM
Xylenes, Total	ND	2.0	μg/L	1	5/21/2008 9:21:08 PM
Surr: 4-Bromofluorobenzene	96.3	68.9-122	%REC	1	5/21/2008 9:21:08 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Barium	0.22	0.020	mg/L	1	5/23/2008 12:40:26 PM
Chromium	ND	0.0060	mg/L	1	5/23/2008 12:40:26 PM
Lead	0.012	0.0050	mg/L	1	5/23/2008 12:40:26 PM



Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

0003219

River Terrace 2nd QTR 2008

Project: Lab ID:

0805219-13

Client Sample ID: TP-11

Collection Date: 5/14/2008 2:50:00 PM

Date Received: 5/15/2008

Matrix: AQUEOUS

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ,				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	5/16/2008 9:01:25 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 9:01:25 PM
Surr: DNOP	. 113	58-140	%REC	1	5/16/2008 9:01:25 PM
EPA METHOD 8015B: GASOLINE R.	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	· 1	5/22/2008 1:52:00 AM
Surr: BFB	100	79.2-121	%REC	1	5/22/2008 1:52:00 AM
EPA METHOD 8021B: VOLATILES				•	Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	5/22/2008 1:52:00 AM
Benzene	ND	1.0	μg/L	1	5/22/2008 1:52:00 AM
Toluene	ND	1.0	μg/L	1	5/22/2008 1:52:00 AM
Ethylbenzene	ND	1.0	μg/L	1	5/22/2008 1:52:00 AM
Xylenes, Total	ND	2.0	µg/L	1	5/22/2008 1:52:00 AM
Surr: 4-Bromofluorobenzene	96.8	68.9-122	%REC	1	5/22/2008 1:52:00 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Barium	0.068	0.020	mg/L	1	5/23/2008 12:43:25 PM
Chromium	ND	0.0060	mg/L	1	5/23/2008 12:43:25 PM
Lead	.ND	0.0050	mg/L	1	5/23/2008 12:43:25 PM

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Page 13 of 16

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

Project:

River Terrace 2nd QTR 2008

Lab ID:

0805219-14

Client Sample ID: FIELD BLANK

Collection Date: 5/14/2008 2:40:00 PM

Date Received: 5/15/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGI					Analyst: SCC
Diesel Range Organics (DRO)	. ND	1.0	mg/L	1	5/16/2008 9:35:47 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 9:35:47 PM
Surr: DNOP	114	58-140	%REC	1	5/16/2008 9:35:47 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	5/22/2008 2:22:05 AM
Surr: BFB	97.2	79.2-121	%REC	1	5/22/2008 2:22:05 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	5/22/2008 2:22:05 AM
Benzene	ND	1.0	μg/L	1	5/22/2008 2:22:05 AM
Toluene	ND	1.0	µg/L	1	5/22/2008 2:22:05 AM
Ethylbenzene	ND	1.0	μg/L	1	5/22/2008 2:22:05 AM
Xylenes, Total	ND	2.0	µg/L	1	5/22/2008 2:22:05 AM
Surr: 4-Bromofluorobenzene	92.8	68.9-122	%REC	1	5/22/2008 2:22:05 AM

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value above quantitation range

Analyte detected below quantitation limits J

Not Detected at the Reporting Limit ND

Spike recovery outside accepted recovery limits

В Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Reporting Limit

Page 14 of 16

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

Project:

River Terrace 2nd QTR 2008

Lab ID:

0805219-15

Client Sample ID: TP-10

Collection Date: 5/14/2008 3:00:00 PM

Date Received: 5/15/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF .	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	BE				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	5/16/2008 10:10:12 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 10:10:12 PM
Surr: DNOP	110	58-140	%REC	1	5/16/2008 10:10:12 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	5/22/2008 2:52:05 AM
Surr: BFB	93.9	79.2-121	%REC	1	5/22/2008 2:52:05 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	5/22/2008 2:52:05 AM
Benzene	ND	1.0	μg/L	1	5/22/2008 2:52:05 AM
Toluene	ND	1.0	μg/L	1	5/22/2008 2:52:05 AM
Ethylbenzene	ND	1.0	μg/L	1 ·	5/22/2008 2:52:05 AM
Xylenes, Total	ND	2.0	μg/L	1	5/22/2008 2:52:05 AM
Surr: 4-Bromofluorobenzene	89.0	68.9-122	%REC	1	5/22/2008 2:52:05 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Barium	0.11	0.020	mg/L	1	5/23/2008 12:46:23 PM
Chromium	ND	0.0060	mg/L	1	5/23/2008 12:46:23 PM
Lead	ND	0.0050	mg/L	1	5/23/2008 12:46:23 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805219

Project:

River Terrace 2nd QTR 2008

Lab ID:

0805219-16

Client Sample ID: TP-3

Collection Date: 5/14/2008 3:15:00 PM

Date Received: 5/15/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGI	=	· · · · · · · · · · · · · · · · · · ·			Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	5/16/2008 10:44:33 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/16/2008 10:44:33 PM
Surr: DNOP	113	58-140	%REC	1	5/16/2008 10:44:33 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	5/22/2008 3:22:02 AM
Surr: BFB	97.6	79.2-121	%REC	1	5/22/2008 3:22:02 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	5/22/2008 3:22:02 AM
Benzene	ND	1.0	μg/L	1	5/22/2008 3:22:02 AM
Toluene	ND	1.0	μg/L	1	5/22/2008 3:22:02 AM
Ethylbenzene	ND	1.0	μg/L	1	5/22/2008 3:22:02 AM
Xylenes, Total	ND	2.0	μg/L	1	5/22/2008 3:22:02 AM
Surr: 4-Bromofluorobenzene	93.2	68.9-122	%REC	1	5/22/2008 3:22:02 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Barium	0.089	0.020	mg/L	1	5/23/2008 12:49:18 PM
Chromium	ND	0.0060	mg/L	1	5/23/2008 12:49:18 PM
Lead	ND	0.0050	mg/L	1	5/23/2008 12:49:18 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Page 16 of 16

Date: 29-May-08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project:

River Terrace 2nd QTR 2008

Work Order:

0805219

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit Qual
Method: EPA Method 8015B: D	iesel Range							
Sample ID: MB-15958	•	MBLK			Batch	ID: 15958	Analysis Da	te: 5/16/2008 11:53:58 AM
Diesel Range Organics (DRO)	ND	mg/L	1.0					
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					,
Surr: DNOP	1.108	mg/L	0	111	58	140		
Sample ID: LCS-15958		LCS			Batch	ID: 15958	Analysis Da	te: 5/16/2008 12:28:04 PM
Diesel Range Organics (DRO)	5.874	mg/L	1.0	117	74	157		,
Surr: DNOP	0.5700	mg/L	0	114	58	140		
Sample ID: LCSD-15958		LCSD			Batch	ID: 15958	Analysis Da	te: 5/16/2008 1:02:08 PM
Diesel Range Organics (DRO)	5.809	mg/L	1.0	116	74	157	1.11	23
Surr: DNOP	0.5842	mg/L	0	117	58	140	0	0
Method: EPA Method 8015B: G	asoline Rar	ae						
Sample ID: 0805219-13A MSD		MSD			Batch	ID: R28629	Analysis Da	te: 5/22/2008 4:24:52 AM
Gasoline Range Organics (GRO)	0.4418	mg/L	0.050	88.4	80	115	1.62	8.39
Surr: BFB	20.96	mg/L	0	105	79.2	121	0	0
Sample ID: 5ML RB	•	MBLK			Batch	ID: R28629	Analysis Da	te: 5/21/2008 8:42:30 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	20.05	mg/L	0	100	79.2	121		
Sample ID: 2.5UG GRO LCS		LCS			Batch	ID: R28629	Analysis Da	te: 5/22/2008 4:55:02 AM
Gasoline Range Organics (GRO)	0.5146	mg/L	0.050	103	80	115		
Surr: BFB	21.21	mg/L	0	106	79.2	121		•
Sample ID: 0805219-13A MS		MS			Batch	ID: R28629	Analysis Da	te: 5/22/2008 3:52:02 AM
Basoline Range Organics (GRO)	0.4490	mg/L	0.050	89.8	80	115		
J								

Ona	lifiers	::

E Value above quantitation range

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



Date: 29-May-08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project:

River Terrace 2nd QTR 2008

Work Order:

0805219

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLim	it Qual
Method: EPA Method 8021B: V	olatiles								
Sample ID: 0805219-16A MSD		MSD			Batch	ID: R28629	Analysis Da	te: 5/2	2/2008 6:55:22 AN
Methyl tert-butyl ether (MTBE)	22.34	μg/L	2.5	112	51.2	138	0.548	28	
Benzene	19.32	μg/L	1.0	96.6	85.9	113	0.0621	27	
Toluene	19.08	μg/L	1.0	95.4	86.4	113	0.866	19	
Ethylbenzene	18.94	μg/L	1.0	94.7	83.5	118	0.873	10	
Xylenes, Total	57.03	μg/L	2.0	95.1	83.4	122	1.46	13	
Surr: 4-Bromofluorobenzene	21.08	µg/L	0	105	68.9	122	0 .	0	
Sample ID: 5ML RB		MBLK			Batch	ID: R28629	Analysis Da	te: 5/2	1/2008 8:42:30 AN
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						
Surr: 4-Bromofluorobenzene	19.28	µg/L	0	96.4	68.9	122			
Sample ID: 5ML RB		MBLK			Batch	ID: R28636	Analysis Da	te: 5/2	2/2008 9:15:49 AN
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						
Surr: 4-Bromofluorobenzene	18.11	μg/L	0	90.6	68.9	122			
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R28629	Analysis Da	te: 5/2	2/2008 7:25:24 AN
Methyl tert-butyl ether (MTBE)	21.70	μg/L	2.5	108	51.2	138			
Benzene	19.62	μg/L	1.0	98.1	85.9	113			
Toluene	19.65	μg/L	1.0	98.2	86.4	113			
Ethylbenzene	19.70	μg/L	1.0	98.5	83.5	118			
Xylenes, Total	59.25	μg/L	2.0	98.7	83.4	122			
Surr: 4-Bromofluorobenzene	20.29	μg/L	0	101	68.9	122			
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R28636	Analysis Da	te: 5/2	3/2008 5:52:02 AN
Methyl tert-butyl ether (MTBE)	24.41	μg/L	2.5	122	51.2	138			
Benzene	19.73	μg/L	1.0	98.7	85.9	113		*	
Toluene	19.73	μg/L	1.0	98.6	86.4	113			
Ethylbenzene	19.95	μg/L	1.0	99.4	83.5	118			
Xylenes, Total	60.33	μg/L	2.0	101	83.4	122			
Surr: 4-Bromofluorobenzene	21.43	μg/L	0	107	68.9	122			
Sample ID: 0805219-16A MS		MS			Batch	ID: R28629	Analysis Dat	te: 5/2	2/2008 6:25:15 AN
Methyl tert-butyl ether (MTBE)	22.22	μg/L	2.5	111	51.2	138		*	
Benzene	19.31	μg/L	1.0	96.5	85.9	113			
Toluene	19.25	μg/L	1.0	96.2	86.4	113			
Ethylbenzene	19.11	μg/L	1.0	95.5	83.5	118			
Xylenes, Total	57.87	µg/L	2.0	96.5	83.4	122			
Surr: 4-Bromofluorobenzene	17.93	μg/L	0	89.7	68.9	122			



E Value above quantitation range

Page 2

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

Date: 29-May-08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project:

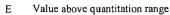
River Terrace 2nd QTR 2008

Work Order:

080521

								VOIGET: 0003213
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD RF	PDLimit Qual
Method: EPA Method 7470: Me	ercury					4, ,		
Sample ID: 0805219-05BMSD		MSD .			Batch II	D: 16019	Analysis Date:	5/23/2008 3:39:26 PM
Mercury	0.005735	mg/L	0.0010	111	75	125	7.21	20
Sample ID: MB-16019		MBLK			Batch II	D: 16019	Analysis Date:	5/23/2008 2:47:12 PM
Mercury	ND	mg/L	0.00020					•
Sample ID: LCS-16019		LCS			Batch II	D: 16019	Analysis Date:	5/23/2008 2:48:56 PM
Mercury	0.005009	mg/L	0.00020	100	80	120		
Sample ID: 0805219-05BMS		MS			Batch II	D: 16019	Analysis Date:	5/23/2008 3:37:38 PM
Mercury	0.005336	mg/L	0.0010	104	75	125		
Method: EPA 6010B: Total Rec	coverable Met	tals						
Sample ID: 0805219-16BMSD		MSD			Batch II	D: 16013	Analysis Date:	5/23/2008 12:55:08 PM
Barium	0.5591	mg/L	0.010	94.0	75	125	1.40	20
Chromium	0.4829	mg/L	0.0060	96.6	75	125	3.32	20
Lead .	0.4644	mg/L	0.0050	92.9	75	125	2.26	20
Sample ID: MB-16013		MBLK			Batch II	D: 16013	Analysis Date:	5/23/2008 11:34:12 AM
Barium	ND	mg/L	0.010					
Chromium	ND	mg/L	0.0060				•	
Lead .	ND	mg/L	0.0050					
Sample ID: LCS-16013		LCS			Batch II	D: 16013	Analysis Date:	5/23/2008 11:37:05 AM
Barium	0.4867	mg/L	0.010	97.3	80	120		4
Chromium	0.5038	mg/L	0.0060	101	80	120		
Lead	0.4858	mg/L	0.0050	97.2	80	120		
Sample ID: 0805219-16BMS		MS			Batch II	D: 16013	Analysis Date:	5/23/2008 12:52:12 PM
Barium	0.5670	mg/L	0.010	95.6	75	125		
Chromium	0.4992	mg/L	0.0060	99.8	75	125		
Lead	0.4750	mg/L	0.0050	95.0	75	125	•	

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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



lient Name SJR	ample Receipt Che	cklist Date Received:		5/15/2008
/ork Order Number 0805219		Received by:	TLS	37 1372000
		Sample ID lab		
hecklist completed by: CMUCI Showin	5)15)	OB Consider to lab	cia ciicorcu i	Initials
latrix: Carrie	r name <u>UPS</u>			
hipping container/cooler in good condition?	Yes 🗹	No 🗆	Not Present	
ustody seals intact on shipping container/cooler?	Yes 🗹	No 🗌	Not Present	□ Not Shipped □
ustody seals intact on sample bottles?	Yes	No 🗌	N/A	V
hain of custody present?	Yes 🔽	No \square		
hain of custody signed when relinquished and received?	Yes 🗹	No 🗌		
hain of custody agrees with sample labels?	Yes 🗹	No 🗌		
amples in proper container/bottle?	Yes 🗹	No 🗌		
ample containers intact?	Yes 🗹	No 🗌		
ufficient sample volume for indicated test?	Yes 🗹	No 🗌		
Il samples received within holding time?	Yes 🗹	No 🗌		
Vater - VOA vials have zero headspace? No VOA v	ials submitted	Yes 🗸	No 🗌	
later - Preservation labels on bottle and cap match?	Yes 🗹	No 🗌	N/A	•
/ater - pH acceptable upon receipt?	Yes 🗹	No 🗌	N/A	
ontainer/Temp Blank temperature?		<6° C Acceptable		
OMMENTS:	· I I	f given sufficient ti	me to cool.	
	======			
lient contacted Date contact	ted:	Person	n contacted	
contacted by: Regarding:				
omments: Allet ting on sa	nole TP-6	W 11:10	as per	CH. M 5/15
	1	- 4	,	·
Corrective Action				

IATNEMNOGIVE	ANALYSIS LABORATORY	www.hallenvironmental.com	Albuquerque, NM 87109	Fax 505-345-4107	lysis/Request					3 / Sə	bioi (AC	Fest Pest (VO (Sen (Sen (Sen (Sen (Sen (Sen (Sen (Sen	808 		*		*		 		X				X			
	ANALYS	www.hallenvi	4901 Hawkins NE - Albu	Tel. 505-345-3975 Fa	· · · · · · · · · · · · · · · · · · ·				1) 1) B (C	8015 618. 604.	pou pou	H Methor H (Methor) Hoeth Hethor) Methor Hoethor Methor Hoetho	9T 9T 03	X		✓		X				X		✓		S:		
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Turn-Around Time:	Standard	Project Name	Kiler	Project #:	1	Project Manager:			Sampler:	On Ice:	Sample remperature:	Container Type and #		4-VOA	500 m (14-V6A	500 ml	H-10-H	500 ml	4-16A	500 ml	A311-4	1200ml	4-VOA	500 ml	())
Chain-of-Custody Record	Client: Western Refining (Blufd)		CR 4990	JM 87413	(32-4/6)	ĭ		K Level 4 (Full Validation)				Sample Request ID		65 A WW	1	728		不开	1	TR6		12W#/		6-21		Relinguished by:	Relinquished by:	
ain-of-C	estern ?	٠	Address #50	Bloomfield	505-	-ax#: 505				Туре)		Time		1030A		1035/1	\	Masol	/	4110 8	\	1146/18	1	Z		Time: R		
S S	Client:		Address	Bloo	Phone #:	email or F	QA/QC Package:	□ Standard	□ Other	□ EDD (Type)		Date		あ汗め												Date:	Date:	

	YSIS LABORATORY	al.com	e, NM 87109	505-345-4107	uest 💮 💮			U;	יטר א כ	ξ <u>Ι</u> . ΄	OB (VO	728 13		×		X		×		X		X		メ			
	HALL ENVIR	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	. 505-345-3975	🏅 🛬 Anal	(*€	98'*0	()	1.811 1.405 (0628 (HA ^C (HA ^C	bo bo bo land	onteM) F onteM) 8 onteM) 3 onteM) 3 onteM) 0 onteM) 6 onteM) 7	TP I EDG 831			X		X		X		メ						
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			22 OTR 2008						oN 🖃	ラー・デー・ディー・ディー・ディー・ディー・ディー・ディー・ディー・ディー・ディー	HEAL No.	0805219	7	7	8	8	6	σ	(10, 11)	0)			()	19	5/15/08 953 P		
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Turn-Around	Standard	Project Name	River Terrace	Project #:		Project Manager:		(;; c c: c: c: c: c: c: c: c: c: c: c: c: c:	On Ice:	Sample Temp	Container Tvne and #		4-VOA	500 ml	4-VOA	500 ml	4-VOA	500 m (4-16A	520 m	H-10A	500 m/	4-VOA	500 ml			7
Chain-of-Custody Record	Client: Western Refiging (Blufld)		de 4990	51413 MN ,	. 13	-632-3911	: : : !	Level 4 (Full Validation)		and the second s	Sample Request ID		TP.1		TP-1 FD	/	19.2		16-5		TP-12		TP-13		Refinguished by:	Relinquished by:	
iain-of-(Postern R		# 50	Blamfield	Phone #: 505 - 0	email or Fax#: 505-632-	tckage:	ard	Type)	,	Time		سمري		125pm	1	140pr	- /	2pm	./	Stope		230pm		र्व	Time:	
ີ່ວັ	Olient: [L		Address:#	Ble	Phone #:	email or	AA/QC Package:	☐ Standard	□ EDD (Type)		Date		90/11:												Jate: 4-08	ate:	

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY 4901 Hawkins NE, Suite D Albuquerque, New Mexico 87109 Tel. 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com	Minons (F, CI, NO ₂ , NO ₂ , PO ₄ , SO ₄) Minons (F, CI, NO ₂ , NO ₂ , PO ₄ , SO ₄) Min Bubbles or Headspace (Y or N)	3 3 3 4		
HALL ANAL 4901 HE 4901 HE Albuquer Tel. 505. www.hall	310 (PNA or PAH)	3	× ×	Remarks:
Od/OC Package: Std □ Level 4 中 Other: Project Name: River Terrace 2 = QTR 2008 Project #:	Project Manager: Sampler: Cully + F3 b Sample Temperature: L Number/Volume		4-VOR X X 15 4-VOR X 15 4-VOR X 16 1-500-4 X 16	Received By: (Signature) 5 15 000 15 23
CHAIN-OF-CUSTODY RECORD Client: Lestern Repining (BIMP(d))	Sloom Pie (d, N M 874/3 Phone #: 505-632-4/6/ Fax #: 505-632-35// Date Time Matrix Sample I.D. No.	5-14-08 28 1/20 11/1 1240 1/20 1/2014 Blank	4	Date: Time: Relinquished By: (Signature) Date: Time: Relinquished By: (Signature)



COVER LETTER

Thursday, August 07, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 3rd QTR 2008

Dear Cindy Hurtado:

Order No.: 0807203

Hall Environmental Analysis Laboratory, Inc. received 11 sample(s) on 7/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682

ORELAP Lab # NM100001



Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.

Project: River Terrace 3rd QTR 2008

Lab Order: 0807203

Work Order Sample Summary

I at Cample ID	Client Counts ID	Dodah ID	Track No.	Callestian Data
Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0807203-01A	TP-#2	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 10:45:00 AM
0807203-01A	TP-#2	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 10:45:00 AM
0807203-01A	TP-#2	R29463	EPA Method 8021B: Volatiles	7/15/2008 10:45:00 AM
0807203-01A	TP-#2	R29463	EPA Method 8021B: Volatiles	7/15/2008 10:45:00 AM
0807203-01A	TP-#2	16510	EPA Method 8015B: Diesel Range	7/15/2008 10:45:00 AM
0807203-01B	TP-#2	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 10:45:00 AM
0807203-02A	TP-#1	16510	EPA Method 8015B: Diesel Range	7/15/2008 11:00:00 AM
0807203-02A	TP-#1	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 11:00:00 AM
0807203-02A	TP-#1	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 11:00:00 AM
0807203-02A	TP-#1	R29463	EPA Method 8021B: Volatiles	7/15/2008 11:00:00 AM
0807203-02A	TP-#1	R29463	EPA Method 8021B: Volatiles	7/15/2008 11:00:00 AM
0807203-02B	TP-#1	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 11:00:00 AM
0807203-03A	TP-#6	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 11:20:00 AM
0807203-03A	TP-#6	R29463	EPA Method 8021B: Volatiles	7/15/2008 11:20:00 AM
0807203-03A	TP-#6	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 11:20:00 AM
0807203-03A	TP-#6	16510	EPA Method 8015B: Diesel Range	7/15/2008 11:20:00 AM
0807203-03A	TP-#6	R29463	EPA Method 8021B: Volatiles	7/15/2008 11:20:00 AM
0807203-03B	TP-#6	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 11:20:00 AM
0807203-04A	TP-#8	16510	EPA Method 8015B: Diesel Range	7/15/2008 12:45:00 PM
0807203-04A	TP-#8	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 12:45:00 PM
0807203-04A	TP-#8	R29463	EPA Method 8021B: Volatiles	7/15/2008 12:45:00 PM
0807203-04A	TP-#8	R29486	EPA Method 8021B: Volatiles	7/15/2008 12:45:00 PM
0807203-04B	TP-#8	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 12:45:00 PM
0807203-05A	TP-#7	16510	EPA Method 8015B: Diesel Range	7/15/2008 1:00:00 PM
0807203-05A	TP-#7	R29388	EPA Method 8021B: Volatiles	7/15/2008 1:00:00 PM
0807203-05A	TP-#7	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 1:00:00 PM
0807203-05A	TP-#7	R29463	EPA Method 8021B: Volatiles	7/15/2008 1:00:00 PM
0807203-05B	TP-#7	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 1:00:00 PM
0807203-06A	TP-#9	16510	EPA Method 8015B: Diesel Range	7/15/2008 1:15:00 PM
0807203-06A	TP-#9	R29463	EPA Method 8021B: Volatiles	7/15/2008 1:15:00 PM
0807203-06A	TP-#9	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 1:15:00 PM
0807203-06B	TP-#9	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 1:15:00 PM
0807203-07A	TP-#5	16510	EPA Method 8015B: Diesel Range	7/15/2008 1:45:00 PM
0807203-07A	TP-#5	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 1:45:00 PM
0807203-07A	TP-#5	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 1:45:00 PM
0807203-07A	TP-#5	R29463	EPA Method 8021B: Volatiles	7/15/2008 1:45:00 PM
0807203-07A	TP-#5	R29463	EPA Method 8021B: Volatiles	7/15/2008 1:45:00 PM
0807203-07B	TP-#5	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 1:45:00 PM

CLIENT:

Western Refining Southwest, Inc.

Project:

River Terrace 3rd QTR 2008

Lab Order:

0807203

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0807203-08A	TP-#5FD	R29463	EPA Method 8021B: Volatiles	7/15/2008 1:50:00 PM
0807203-08A	TP-#5FD	R29463	EPA Method 8021B: Volatiles	7/15/2008 1:50:00 PM
0807203-08A	TP-#5FD	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 1:50:00 PM
0807203-08A	TP-#5FD	16510	EPA Method 8015B: Diesel Range	7/15/2008 1:50:00 PM
0807203-08A	TP-#5FD	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 1:50:00 PM
0807203-09A	MW-#49	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 2:15:00 PM
0807203-09A	MW-#49	R29463	EPA Method 8021B: Volatiles	7/15/2008 2:15:00 PM
0807203-09A	MW-#49	R29486	EPA Method 8021B: Volatiles	7/15/2008 2:15:00 PM
0807203-09A	MW-#49	16510	EPA Method 8015B: Diesel Range	7/15/2008 2:15:00 PM
0807203-09B	MW-#49	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 2:15:00 PM
0807203-10A	DW#1	R29463	EPA Method 8021B: Volatiles	7/15/2008 2:45:00 PM
0807203-10A	DW#1	16510	EPA Method 8015B: Diesel Range	7/15/2008 2:45:00 PM
0807203-10A	DW#1	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 2:45:00 PM
0807203-10B	DW#1	16532	EPA Method 7470: Mercury	7/15/2008 2:45:00 PM
0807203-10B	DW#1	16532	EPA Method 7470: Mercury	7/15/2008 2:45:00 PM
0807203-10B	DW#1	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 2:45:00 PM
0807203-11A	Field Blank	R29463	EPA Method 8021B: Volatiles	7/15/2008 2:50:00 PM
0807203-11A	Field Blank	16510	EPA Method 8015B: Diesel Range	7/15/2008 2:50:00 PM
0807203-11A	Field Blank	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 2:50:00 PM

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Project:

River Terrace 3rd QTR 2008

Lab Order:

0807203

CASE NARRATIVE

[&]quot;S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807203

Project:

River Terrace 3rd QTR 2008

Lab ID:

0807203-01

Client Sample ID: TP-#2

Collection Date: 7/15/2008 10:45:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE	 				Analyst: SCC
Diesel Range Organics (DRO)	1.4	1.0		mg/L	1	7/17/2008 3:34:17 PM
Motor Oil Range Organics (MRO)	ND	5.0	,	mg/L	1	7/17/2008 3:34:17 PM
Surr: DNOP	122	58-140		%REC	1	7/17/2008 3:34:17 PM
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: BDH
Gasoline Range Organics (GRO)	19	1.0		mg/L	20	7/17/2008 10:05:28 PM
Surr: BFB	135	79.2-121	S	%REC	20	7/17/2008 10:05:28 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	20	7/24/2008 2:38:52 PM
Benzene	800	20		µg/L	20	7/24/2008 2:38:52 PM
Toluene	ND	20		μg/L	20	7/24/2008 2:38:52 PM
Ethylbenzene	3000	100		μg/L	100	7/24/2008 2:05:55 PM
Xylenes, Total	3400	40		μg/L	20	7/24/2008 2:38:52 PM
Surr: 4-Bromofluorobenzene	114	68.9-122		%REC	20	7/24/2008 2:38:52 PM
EPA 6010B: TOTAL RECOVERABLE	METALS					Analyst: TES
Lead	0.035	0.0050		mg/L	1	8/1/2008 2:45:59 PM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807203

River Terrace 3rd QTR 2008

Project: Lab ID:

0807203-02

Client Sample ID: TP-#1

Collection Date: 7/15/2008 11:00:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE .				Analyst: SCC
Diesel Range Organics (DRO)	1.6	1.0	mg/L	1	7/17/2008 4:09:15 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	7/17/2008 4:09:15 PM
Surr: DNOP	110	58-140	%REC	1	7/17/2008 4:09:15 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: BDH
Gasoline Range Organics (GRO)	59	2.5	mg/L	50	7/18/2008 2:05:38 AM
Surr. BFB	118	79.2-121	%REC	50	7/18/2008 2:05:38 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	120	μg/L	50	7/24/2008 4:09:11 PM
Benzene	1800	50	μg/L	50	7/24/2008 4:09:11 PM
Toluene	ND	50	μg/L	50	7/24/2008 4:09:11 PM
Ethylbenzene	3300	50	µg/L	50	7/24/2008 4:09:11 PM
Xylenes, Total	17000	500	µg/L	250	7/24/2008 3:39:09 PM
Surr: 4-Bromofluorobenzene	107	68.9-122	%REC	50	7/24/2008 4:09:11 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Lead	0.085	0.0050	mg/L	1	8/1/2008 2:49:47 PM

Qua	Ì	ifi	ie	r	s	:
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- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807203

Project: Lab ID: River Terrace 3rd QTR 2008 0807203-03

Client Sample ID: TP-#6

Collection Date: 7/15/2008 11:20:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	3E					Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/17/2008 4:44:12 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 4:44:12 PM
Surr: DNOP	121	58-140		%REC	1	7/17/2008 4:44:12 PM
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: BDH
Gasoline Range Organics (GRO)	8.6	0.25		mg/L	5	7/18/2008 3:08:10 AM
Surr: BFB	149	79.2-121	s	%REC	5	7/18/2008 3:08:10 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	12		μg/L	5	7/24/2008 5:44:36 PM
Benzene	ND	5.0		µg/L	5	7/24/2008 5:44:36 PM
Toluene	ND	5.0		µg/L	5	7/24/2008 5:44:36 PM
Ethylbenzene	800	50		μg/L	50	7/24/2008 5:12:00 PM
Xylenes, Total	2700	100		µg/L	50	7/24/2008 5:12:00 PM
Surr: 4-Bromofluorobenzene	112	68.9-122		%REC	50	7/24/2008 5:12:00 PM
EPA 6010B: TOTAL RECOVERABLE	METALS					Analyst: TES
Lead	0.051	0.0050		mg/L	1	8/1/2008 2:53:37 PM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807203

Project:

River Terrace 3rd QTR 2008

Lab ID:

0807203-04

Client Sample ID: TP-#8

Collection Date: 7/15/2008 12:45:00 PM

Date Received: 7/16/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units		DF	Date Analyzed
EPA METHOD 8015B: DIESEL RAN	GE	 		·····			Analyst: SCC
Diesel Range Organics (DRO)	1.3	1.0		mg/L		1	7/17/2008 5:18:54 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L		1	7/17/2008 5:18:54 PM
Surr: DNOP	119	58-140		%REC		1	7/17/2008 5:18:54 PM
EPA METHOD 8015B: GASOLINE R	ANGE						Analyst: BDH
Gasoline Range Organics (GRO)	· 14	0.50		mg/L		10	7/18/2008 4:41:00 AM
Surr: BFB	147	79.2-121	S	%REC		10	7/18/2008 4:41:00 AM
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25		μg/L		10	7/24/2008 6:47:28 PM
Benzene	1 ND	10		μg/L	•	10	7/24/2008 6:47:28 PM
Toluene	ND	10		µg/L		10 -	7/24/2008 6:47:28 PM
Ethylbenzene	340	10		µg/L		10	7/24/2008 6:47:28 PM
Xylenes, Total	2400	100		μg/L		50	7/25/2008 11:13:35 AM
Surr: 4-Bromofluorobenzene	108	68.9-122		%REC		50	7/25/2008 11:13:35 AM
EPA 6010B: TOTAL RECOVERABLI	E METALS						Analyst: TES
Lead	0.066	0.0050		mg/L		1	8/1/2008 2:56:25 PM



Value exceeds Maximum Contaminant Level

RL Reporting Limit



E Value above quantitation range

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

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807203

0007203

Project:

River Terrace 3rd QTR 2008

Lab ID:

0807203-05

Client Sample ID: TP-#7

Collection Date: 7/15/2008 1:00:00 PM

Date Received: 7/16/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG)E				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	7/17/2008 5:53:53 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1 .	7/17/2008 5:53:53 PM
Surr: DNOP	125	58-140	%REC	1	7/17/2008 5:53:53 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/18/2008 5:11:06 AM
Surr: BFB	88.9	79.2-121	%REC	1	7/18/2008 5:11:06 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	µg/L	1	7/24/2008 7:47:40 PM
Benzene	ND	1.0	μg/L	1	7/24/2008 7:47:40 PM
Toluene	ND	1.0	μg/L	1	7/24/2008 7:47:40 PM
Ethylbenzene	ND	. 1.0	µg/L	1	7/24/2008 7:47:40 PM
Xylenes, Total	ND	2.0	μg/L	1	7/24/2008 7:47:40 PM
Surr: 4-Bromofluorobenzene	97.6	68.9-122	%REC	1	7/24/2008 7:47:40 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Lead	ND	0.0050	mg/L	1	8/1/2008 3:00:11 PM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807203

River Terrace 3rd QTR 2008

Project:
Lab ID:

0807203-06

Client Sample ID: TP-#9

Collection Date: 7/15/2008 1:15:00 PM

Date Received: 7/16/2008

Analyses	Result	PQL Q	ial Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE			······································	Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	7/17/2008 6:28:37 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	7/17/2008 6:28:37 PM
Surr: DNOP	116	58-140	%REC	1	7/17/2008 6:28:37 PM
EPA METHOD 8015B: GASOLINE R.	ANGE				Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/18/2008 5:41:06 AM
Surr: BFB	89.0	79.2-121	%REC	1	7/18/2008 5:41:06 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1 .	7/24/2008 9:47:49 PM
Benzene	ND	1.0	μg/L	1	7/24/2008 9:47:49 PM
Toluene	ND	1.0	μg/L	1	7/24/2008 9:47:49 PM
Ethylbenzene	ND	1.0	μg/L	1	7/24/2008 9:47:49 PM
Xylenes, Total	ND	2.0	μg/L	1	7/24/2008 9:47:49 PM
Surr: 4-Bromofluorobenzene	87.2	68.9-122	%REC	1	7/24/2008 9:47:49 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Lead	0.0076	0.0050	mg/L	1	8/1/2008 3:02:55 PM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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



Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807203

Project:

River Terrace 3rd QTR 2008

Lab ID:

0807203-07

Client Sample ID: TP-#5

Collection Date: 7/15/2008 1:45:00 PM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	3E					Analyst: SCC
Diesel Range Organics (DRO)	1.1	1.0		mg/L	1	7/17/2008 7:03:02 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 7:03:02 PM
Surr: DNOP	123	58-140		%REC	1	7/17/2008 7:03:02 PM
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: BDH
Gasoline Range Organics (GRO)	50	1.0		mg/L	20	7/18/2008 6:41:14 AM
Surr: BFB	133	79.2-121	S	%REC	20	7/18/2008 6:41:14 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		μg/L	20	7/24/2008 10:48:00 PM
Benzene	ND	20		μg/L	20	7/24/2008 10:48:00 PM
Toluene	ND	20		μg/L	20	7/24/2008 10:48:00 PM
Ethylbenzene	1900	20		μg/L	20	7/24/2008 10:48:00 PM
Xylenes, Total	18000	500		μg/L	250	7/24/2008 10:17:52 PM
Surr: 4-Bromofluorobenzene	121	68.9-122		%REC	20	7/24/2008 10:48:00 PM
EPA 6010B: TOTAL RECOVERABLE	METALS					Analyst: TES
Lead	0.043	0.0050		mg/L	1	8/1/2008 3:06:39 PM





- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807203

Project:

River Terrace 3rd QTR 2008

Lab ID:

0807203-08

Client Sample ID: TP-#5FD

Collection Date: 7/15/2008 1:50:00 PM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E					Analyst: SCC
Diesel Range Organics (DRO)	1.1	1.0		mg/L	1	7/17/2008 8:11:45 PM
Motor Oil Range Organics (MRO)	· ND	5.0		mg/L	1	7/17/2008 8:11:45 PM
Surr: DNOP	122	58-140		%REC	1	7/17/2008 8:11:45 PM
EPA METHOD 8015B: GASOLINE RA	NGE					Analyst: BDH
Gasoline Range Organics (GRO)	53	1.0		mg/L	20	7/18/2008 11:41:14 AM
Surr: BFB	131	79.2-121	S	%REC	20	7/18/2008 11:41:14 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	20	7/25/2008 12:18:30 AM
Benzene	ND	. 20		µg/L	20	7/25/2008 12:18:30 AM
Toluene	ND	20		μg/L	20	7/25/2008 12:18:30 AM
Ethylbenzene	2000	20		µg/L	20	7/25/2008 12:18:30 AM
Xylenes, Total	19000	500		µg/L	250	7/24/2008 11:48:20 PM
Surr: 4-Bromofluorobenzene	116	68.9-122		%REC	20	7/25/2008 12:18:30 AM

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807203

Project:

River Terrace 3rd QTR 2008

Lab ID:

0807203-09

Client Sample ID: MW-#49

Collection Date: 7/15/2008 2:15:00 PM

Date Received: 7/16/2008

Neceived. //10/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	7/17/2008 8:46:10 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	7/17/2008 8:46:10 PM
Surr: DNOP	112	58-140	%REC	1	7/17/2008 8:46:10 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: BDH
Gasoline Range Organics (GRO)	0.24	0.050	mg/L ·	1	7/18/2008 12:41:11 PM
Surr: BFB	95.4	79.2-121	%REC	1	7/18/2008 12:41:11 PM
EPA METHOD 8021B: VOLATILES				*	Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	µg/L	1	7/25/2008 12:13:46 PM
Benzene	ND	1.0	μg/L	1	7/25/2008 12:13:46 PM
Toluene	ND	1.0	µg/L	1	7/25/2008 12:13:46 PM
Ethylbenzene	ND	1.0	μg/L	1	7/25/2008 12:13:46 PM
Xylenes, Total	ND	2.0	μg/L	1	7/25/2008 12:13:46 PM
Surr: 4-Bromofluorobenzene	97.6	68.9-122	%REC	1	7/25/2008 12:13:46 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Lead	ND	0.0050	mg/L	1	8/1/2008 3:11:02 PM



Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Date: 07-Aug-08.

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807203

Project: River Terrace 3rd QTR 2008

Lab ID:

0807203-10

Client Sample ID: DW#1

Collection Date: 7/15/2008 2:45:00 PM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E .			****	Analyst: SCC
Diesel Range Organics (DRO)	· ND	1.0	mg/L	1	7/17/2008 9:20:14 PM
Motor Oil Range Organics (MRO)	· ND	5.0	mg/L	1	7/17/2008 9:20:14 PM
Surr: DNOP	127	58-140	%REC	1	7/17/2008 9:20:14 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/18/2008 1:11:23 PM
Surr: BFB	95.8	79.2-121	%REC	1	7/18/2008 1:11:23 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	7/25/2008 1:48:31 AM
Benzene	· ND	1.0	μg/L	1	7/25/2008 1:48:31 AM
Toluene	ND	1.0	μg/L	1	7/25/2008 1:48:31 AM
Ethylbenzene	ND	1.0	μg/L	1	7/25/2008 1:48:31 AM
Xylenes, Total	ND	2.0	μg/L	1	7/25/2008 1:48:31 AM
Surr: 4-Bromofluorobenzene	97.2	68.9-122	%REC	1	7/25/2008 1:48:31 AM
EPA METHOD 7470: MERCURY					Analyst: SNV
Mercury	ND	0.0010	mg/L	5	7/21/2008 3:37:04 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: TES
Lead	ND	0.0050	mg/L	1	8/1/2008 3:23:07 PM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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







Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807203

Project:

River Terrace 3rd QTR 2008

Lab ID:

0807203-11

Client Sample ID: Field Blank

Collection Date: 7/15/2008 2:50:00 PM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	ìΕ				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	7/17/2008 9:54:21 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	7/17/2008 9:54:21 PM
Surr: DNOP	130	58-140	%REC	1	7/17/2008 9:54:21 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/18/2008 1:41:42 PM
Surr: BFB	86.7	79.2-121	%REC	1	7/18/2008 1:41:42 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	7/25/2008 2:18:38 AM
Benzene	ND	1.0	µg/L	1	7/25/2008 2:18:38 AM
Toluene	ND	1.0	μg/L	1	7/25/2008 2:18:38 AM
Ethylbenzene	ND	1.0	µg/L	1	7/25/2008 2:18:38 AM
Xylenes, Total	ND	2.0	μg/L	1	7/25/2008 2:18:38 AM
Surr: 4-Bromofluorobenzene	84.5	68.9-122	%REC	1	7/25/2008 2:18:38 AM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 07-Aug-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

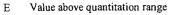
Project: River Terrace 3rd QTR 2008

Work Order:

0807203[|]

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPD	Limit Qual
Method: EPA Method 8015B: D	iesel Range								
Sample ID: MB-16510		MBLK			Batch	ID: 16510	Analysis D	ate:	7/17/2008 1:50:17 PM
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0		•				
Surr: DNOP	1.149	mg/L	0	115	58	140			
Sample ID: LCS-16510		LCS			Batch	ID: 16510	Analysis D	ate:	7/17/2008 2:24:53 PM
Diesel Range Organics (DRO)	5.062	mg/L	1.0	101	74	157			
Surr: DNOP	0.5529	mg/L	0	111	58	140			
Sample ID: LCSD-16510		LCSD			Batch	ID: 16510	Analysis D	ate:	7/17/2008 2:59:34 PM
Diesel Range Organics (DRO)	4.790	mg/L	1.0	95.8	74	157	5.52	23	
Surr: DNOP	0.5344	mg/L	.0	107	58	140	0 .	0	
Method: EPA Method 8015B: G	asoline Rar	iae							
Sample ID: 0807203-06A MSD		MSD			Batch	ID: R29388	Analysis D	ate:	7/18/2008 9:41:10 AM
	0.4612	mg/L	0.050	86.4	80	115	1.44	8.39	9
Gasoline Range Organics (GRO)	O. 1012						•	_	
Gasoline Range Organics (GRO) Surr: BFB	19.61	mg/L	0	98.1	79.2	121	. 0	0	
Surr: BFB		Ü	0	98.1	79.2 Batch		Analysis D	_	7/17/2008 8:40:27 AM
Surr: BFB Sample ID: 5ML RB		mg/L	0.050	98.1			•	_	7/17/2008 8:40:27 AM
Surr: BFB Sample ID: 5ML RB	19.61	mg/L <i>MBLK</i>		98.1 92.6			•	_	7/17/2008 8:40:27 AM
Surr: BFB Sample ID: 5ML RB Gasoline Range Organics (GRO) Surr: BFB	19.61 ND	mg/L <i>MBLK</i> mg/L	0.050		Batch	ID: R29388	•	ate:	7/17/2008 8:40:27 AM
Sample ID: 5ML RB Gasoline Range Organics (GRO)	19.61 ND	mg/L MBLK mg/L mg/L	0.050		Batch 79.2	ID: R29388	Analysis D	ate:	
Surr: BFB Sample ID: 5ML RB Gasoline Range Organics (GRO) Surr: BFB Sample ID: 2.5UG GRO LCS	19.61 ND 18.53	mg/L MBLK mg/L mg/L LCS	0.050	92.6	Batch 79.2 Batch	121 ID: R29388	Analysis D	ate:	
Surr: BFB Sample ID: 5ML RB Gasoline Range Organics (GRO) Surr: BFB Sample ID: 2.5UG GRO LCS Gasoline Range Organics (GRO) Surr: BFB	19.61 ND 18.53	mg/L MBLK mg/L mg/L LCS mg/L	0.050 0	92.6 93.2	Batch 79.2 Batch 80	121 ID: R29388 115 121	Analysis D	eate:	
Surr: BFB Sample ID: 5ML RB Gasoline Range Organics (GRO) Surr: BFB Sample ID: 2.5UG GRO LCS Gasoline Range Organics (GRO)	19.61 ND 18.53	mg/L MBLK mg/L mg/L LCS mg/L mg/L	0.050 0	92.6 93.2	79.2 Batch 80 79.2	121 ID: R29388 115 121	Analysis D	eate:	7/17/2008 11:35:31 PM





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



Date: 07-Aug-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

ject:

River Terrace 3rd QTR 2008

Work Order:

0807203

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLin	nit Qual
Method: EPA Method 8021B: V	olatiles								
Sample ID: 0807203-10A MSD		MSD			Batch		Analysis D		25/2008 5:54:21 AN
Methyl tert-butyl ether (MTBE)	19.34	μg/L	2.5	96.7	51.2	138	2.50	28	
Benzene	20.93	µg/L	1.0	105	85.9	113	0.239	27	
Toluene	21.10	μg/L	1.0	106	86.4	113	0.370	19	
Ethylbenzene	21.34	μg/L	1.0	106	83.5	118	0.536	10	
Xylenes, Total	63.77	µg/L	2.0	104	83.4	122	0.899	13	
Surr: 4-Bromofluorobenzene	20.83	µg/L	0	104	68.9	122	0	0	
Sample ID: 5ML RB		MBLK			Batch	D: R29388	Analysis D	ate: 7/	17/2008 8:40:27 AN
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						
Surr: 4-Bromofluorobenzene	19.36	μg/L	0	96.8	68.9	122			
Sample ID: 5ML RB		MBLK			Batch	ID: R29463	Analysis D	ate: 7/	24/2008 8:29:26 AN
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						
Xvlenes, Total	ND	μg/L	2.0						
urr: 4-Bromofluorobenzene	20.67	μg/L	0	103	68.9	122			
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R29388	Analysis D	ate: 7/1	8/2008 12:05:29 AN
Methyl tert-butyl ether (MTBE)	14.81	μg/L	2.5	74.0	51.2	138			
Benzene	19.36	μg/L	1.0	96.8	85.9	113			
Toluene	20.09	μg/L	1.0	100	86.4	113			
Ethylbenzene	20.02	μg/L	1.0	100	83.5	118			
Xylenes, Total	60.00	μg/L	2.0	100	83.4	122			
Surr: 4-Bromofluorobenzene	19.43	μg/L	0	97.2	68.9	122			
Sample ID: 0807203-10A MS		MS			Batch		Analysis D	ate: 7/	25/2008 5:24:18 AM
Methyl tert-butyl ether (MTBE)	19.83	μg/L	2.5	99.1	51.2	138	•		
Benzene	20.88	μg/L μg/L	1.0	104	85.9	113			
Toluene	21.03	μg/L	1.0	105	86.4	113			
Ethylbenzene	21.03	μg/L	1.0	106	83.5	118			
Xylenes, Total	64.35	μg/L μg/L	2.0	105	83.4	122			
Surr: 4-Bromofluorobenzene	18.37	μg/L μg/L	0	91.9	68.9	122			

1	difiers:
60	

Value above quantitation range

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

Page 2

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project: River Terrace 3rd QTR 2008

Work Order:

Date: 07-Aug-08

rder:	0807203

Analyte	Result	Units	PQL	%Rec	LowLimit HighLimit	%RPD RPD	Limit Qual
Method: EPA Method 7470: Me	ercury						
Sample ID: 0807203-10BMSD		MSD			Batch ID: 1653	2 Analysis Date:	7/21/2008 3:40:41 PM
Mercury	0.005109	mg/L	0.0010	102	75 125	4.38 20)
Sample ID: MB-16532		MBLK			Batch ID: 1653	2 Analysis Date:	7/21/2008 3:22:33 PM
Mercury	, ND	mg/L	0.00020				
Sample ID: LCS-16532		LCS			Batch ID: 1653	2 Analysis Date:	7/21/2008 3:24:24 PM
Mercury	0.004761	mg/L	0.00020	95.2	80 120		
Sample ID: 0807203-10BMS		MS			Batch ID: 1653	2 Analysis Date:	7/21/2008 3:38:53 PM
Mercury	0.004890	mg/L	0.0010	97.8	75 125	·	
Method: EPA 6010B: Total Rec	coverable Met	tals					
Sample ID: 0807203-03BMSD		MSD .			Batch ID: 1664	9 Analysis Date:	8/1/2008 3:29:40 PM
Lead	0.5208	mg/L	0.0050	93.9	75 125	2.92 20)
Sample ID: MB-16649		MBLK			Batch ID: 1664	9 Analysis Date:	8/1/2008 2:40:13 PM
Lead	ND	mg/L	0.0050		•		
Sample ID: LCS-16649		LCS			Batch ID: 1664	9 Analysis Date:	8/1/2008 2:43:12 PM
Lead	0.4883	mg/L	0.0050	97.7	80 120		
Sample ID: 0807203-03BMS		MS			Batch ID: 1664	9 Analysis Date:	8/1/2008 3:26:54 PM
Lead -	0.5363	mg/L	0.0050	97.0	75 125		





- E Value above quantitation range
- 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



•	Sample Receipt Ch	necklist	
Client Name WESTERN REFINING SOUT Work Order Number 0807203 Checklist completed by: Signature	7 bate	Date Received: Received by: TLS Sample ID labels checked by	7/16/2008
Matrix:	Carrier name <u>UPS</u>		
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 receive	d? 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 V	OA 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?	5°	<6° C Acceptable	
COMMENTS:		If given sufficient time to cool.	
Client contacted Date of	ontacted:	Person contacted	
Contacted by: Regard	ding:		
Comments:		·	
Corrective Action			

	ANAL	Ψ	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107		(les	əiD\s	(G.S.) (C.S.) (C.S.)	8210 1.81 1.40 1.40 (A0 (A0 (A0	208 bo bo bo bo bo bo bo bo bo bo bo bo bo	H (Methor H (Met	TPI TPI TPI TPI TPI TPI TPI TPI TPI TPI	×	×	X	X	×	×		×		×		X	s: / of 2			
E .lst			46	F							TM + X3 TM + X3		×		×		ير		X		Z		X		Remarks:	-		A vilility
Turn-Around Time:	☐ Standard ☐ Rush		Riverternace and 2008	Project #:		Project Manager:		Agg. 4 C	On Ice: (Ces	emp	Container Preservative HEAL No.		4-16A HCC 1	1-25dm HNO3	4-10A ACC 2	-253N HNB3 2	HCC	1-25ml HN03 3		1-250mg HNU3 4		7	もこと	d KW3	Received by: 7/10/03	Becaused the	Jeceweu Øy.	1
Chain-of-Custody Record			Address: #50 CR 4990	87413	hone #: 505-632-4161	673-5811	:ebi	ird Level 4 (Full Validation)	□ Curer Sall EDD (Type)		Date Time Sample Request ID C		-15-08 loyen TP-#2- 4	/	UAM 7P-#1		4 TP-#6		1245A TP-#8 4		1 pm TP-#7 4-		1 15a- TP-#9		Time: Relinquished by:	Time: Bolingijohod hu	Date: Reimquished by:	1 Environmental may be enhanted to Hall Environmental may be enhanted

	·· i	>							(N 10	人):	Air Bubbles									-			
THE PARTY OF THE P	HALL ENVIRONMENTAL	. ' .	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	505-345-3975 Fax 505-345-4107	Análysis Request 🔭 📻			() () () () () () () () () ()	0.4.0 (HA° 0.6.0 (A° (A°	5 bc 8 bc or P y, nc sebis	EDB (Methorship (M		×			X		×				2062	
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	183. 184.			46	F							BTEX + MT	i i			X				X	-		Remarks:	
				<u> </u>	<u> </u>								X		X			\bigcirc		$\stackrel{\sim}{\dashv}$	+		<u>~</u>	
				3rd OR 2008						/ □ No	'n	HEAL No.	T	t	8	9	6	10	10)]		•	80/01/12 80/01/12	
		□ Rush		Errace			ıger:		L. Mar	Sex Sex	perature:	Preservative Type	HC!	HNO3	HCL	4.4	HNO3	ACC/	HND3	Acc			Received by:	Redeived by: [
	Turn-Around Time:	1 Standard	Project Name	l L	Project #:		Project Manager:		Sampler	On Ice:	Sample Temperature:	Container Type and #	4-164	1-250	4-VOA	4-VOA	1-25an	4-104	1-250mg	4-104				
	Chain-of-Custody Record	R. Civing (BIMP)		UR 4990	NW 874/3	1914-629	5-6-32-3911		trul Validation)			Sample Request ID	TP-#5	/	TR#5 FIX	Mu)#49	, ,	DW#1	/	Field Blank			Relinguished by:	Relinquished ty:
	lain-of-	Client: Urslern	-	Address: #50	Bloom Pield	505	B	ackage:	lard	(Type)		Time	1450	/	150pm	alsan	. \	245p		250pm			Time:	Time:
-	さ	Client:		Address:	Black	Phone #:	email or Fax#:		☐ Standard	□ EDD (Type)		Date	7-15-08										Date:	Date:



COVER LETTER

Thursday, August 07, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 3rd QTR 2008

Dear Cindy Hurtado:

Order No.: 0807232

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 7/17/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682

ORELAP Lab # NM100001



Date: 07-Aug-08

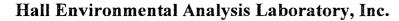
CLIENT: Western Refining Southwest, Inc.

Project: River Terrace 3rd QTR 2008

Lab Order: 0807232

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0807232-01A	TP-13	R29434	EPA Method 8021B: Volatiles	7/16/2008 8:45:00 AM
0807232-01A	TP-13	R29434	EPA Method 8015B: Gasoline Range	7/16/2008 8:45:00 AM
0807232-01A	TP-13	16516	EPA Method 8015B: Diesel Range	7/16/2008 8:45:00 AM
0807232-01B	TP-13	16603	EPA 6010B: Total Recoverable Metals	7/16/2008 8:45:00 AM
0807232-02A	TP-12	16516	EPA Method 8015B: Diesel Range	7/16/2008 9:05:00 AM
0807232-02A	TP-12	R29434	EPA Method 8021B: Volatiles	7/16/2008 9:05:00 AM
0807232-02A	TP-12	R29434	EPA Method 8015B: Gasoline Range	7/16/2008 9:05:00 AM
0807232-02B	TP-12	16603	EPA 6010B: Total Recoverable Metals	7/16/2008 9:05:00 AM
0807232-03A	TP-11	R29434	EPA Method 8015B: Gasoline Range	7/16/2008 9:20:00 AM
0807232-03A	TP-11	16516	EPA Method 8015B: Diesel Range	7/16/2008 9:20:00 AM
0807232-03A	TP-11	R29434	EPA Method 8021B: Volatiles	7/16/2008 9:20:00 AM
0807232-03B	TP-11	16603	EPA 6010B: Total Recoverable Metals	7/16/2008 9:20:00 AM
0807232-04A	TP-10	R29434	EPA Method 8021B: Volatiles	7/16/2008 9:30:00 AM
0807232-04A	TP-10	R29434	EPA Method 8015B: Gasoline Range	7/16/2008 9:30:00 AM
0807232-04A	TP-10	16516	EPA Method 8015B: Diesel Range	7/16/2008 9:30:00 AM
0807232-04B	TP-10	16603	EPA 6010B: Total Recoverable Metals	7/16/2008 9:30:00 AM
0807232-05A	TP-3	16516	EPA Method 8015B: Diesel Range	7/16/2008 9:40:00 AM
0807232-05A	TP-3	R29434	EPA Method 8021B: Volatiles	7/16/2008 9:40:00 AM
0807232-05A	TP-3	R29434	EPA Method 8015B: Gasoline Range	7/16/2008 9:40:00 AM
0807232-05B	TP-3	16603	EPA 6010B: Total Recoverable Metals	7/16/2008 9:40:00 AM
0807232-06A	Field Blank	R29434	EPA Method 8015B: Gasoline Range	7/16/2008 9:45:00 AM
0807232-06A	Field Blank	16516	EPA Method 8015B: Diesel Range	7/16/2008 9:45:00 AM
0807232-06A	Field Blank	R29434	EPA Method 8021B: Volatiles	7/16/2008 9:45:00 AM



Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

Client Sample ID: TP-13

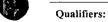
River Terrace 3rd QTR 2008

Collection Date: 7/16/2008 8:45:00 AM Date Received: 7/17/2008

Project: Lab ID:

0807232-01

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE .			••	Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	7/18/2008 12:39:27 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	7/18/2008 12:39:27 PM
Surr: DNOP	118	58-140	%REC	1	7/18/2008 12:39:27 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/22/2008 11:14:35 PM
Surr: BFB	81.3	79.2-121	%REC	1	7/22/2008 11:14:35 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	7/22/2008 11:14:35 PM
Benzene	ND	1.0	μg/L	1	7/22/2008 11:14:35 PM
Toluene	ND	1.0	μg/L	1	7/22/2008 11:14:35 PM
Ethylbenzene	ND	1.0	μg/L	1	7/22/2008 11:14:35 PM
Xylenes, Total	ND	2.0	μg/L	1	7/22/2008 11:14:35 PM
Surr: 4-Bromofluorobenzene	84.4	68.9-122	%REC	1	7/22/2008 11:14:35 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: NMO
Lead	ND	0.0050	mg/L	1	7/30/2008 2:54:07 PM



- Value exceeds Maximum Contaminant Level
- Ε Value above quantitation range
- Analyte detected below quantitation limits J
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - RL Reporting Limit

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

Project:

Lab ID:

0807232

0807232-02

Client Sample ID: TP-12

Collection Date: 7/16/2008 9:05:00 AM

River Terrace 3rd QTR 2008

Date Received: 7/17/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	7/18/2008 1:13:50 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	7/18/2008 1:13:50 PM
Surr: DNOP	119	58-140	%REC	1	7/18/2008 1:13:50 PM
EPA METHOD 8015B: GASOLINE R.	ANGE			4	Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/22/2008 11:44:34 PM
Surr. BFB	94.3	79.2-121	%REC	1	7/22/2008 11:44:34 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	7/22/2008 11:44:34 PM
Benzene	ND	1.0	μg/L	1	7/22/2008 11:44:34 PM
Toluene	ND	1.0	μg/L	1	7/22/2008 11:44:34 PM
Ethylbenzene	ND	1.0	μg/L	1	7/22/2008 11:44:34 PM
Xylenes, Total	ND	2.0	μg/L	1	7/22/2008 11:44:34 PM
Surr: 4-Bromofluorobenzene	104	68.9-122	%REC	1	7/22/2008 11:44:34 PM
EPA 6010B: TOTAL RECOVERABLE	E METALS				Analyst: NMO
Lead	0.0050	0.0050	mg/L	1	7/30/2008 2:56:55 PM



- Value exceeds Maximum Contaminant Level
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order: Project:

Lab ID:

0807232

0807232-03

River Terrace 3rd QTR 2008

Collection Date: 7/16/2008 9:20:00 AM

Date Received: 7/17/2008

Client Sample ID: TP-11

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGI	=				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	7/18/2008 1:48:17 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	7/18/2008 1:48:17 PM
Surr: DNOP	120	58-140	%REC	· 1	7/18/2008 1:48:17 PM
EPA METHOD 8015B: GASOLINE RAI	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/23/2008 12:14:42 AM
Surr: BFB	89.6	79.2-121	%REC	1	7/23/2008 12:14:42 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	7/23/2008 12:14:42 AM
Benzene	NĐ	1.0	μg/L	1	7/23/2008 12:14:42 AM
Toluene	ND	1.0	μg/L	1	7/23/2008 12:14:42 AM
Ethylbenzene	ND	1.0	μg/L	1	7/23/2008 12:14:42 AM
Xylenes, Total	ND	2.0	μg/L	1	7/23/2008 12:14:42 AM
Surr: 4-Bromofluorobenzene	96.1	68.9-122	%REC	1	7/23/2008 12:14:42 AM
EPA 6010B: TOTAL RECOVERABLE I	VIETALS				Analyst: NMC
Lead	0.0079	0.0050	mg/L	1	7/30/2008 2:59:41 PM



Value exceeds Maximum Contaminant Level

E Value above quantitation range

Analyte detected below quantitation limits J

ND Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits

Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807232

Client Sample ID: TP-10

Collection Date: 7/16/2008 9:30:00 AM

Project:

River Terrace 3rd QTR 2008

Date Received: 7/17/2008

Lab ID:

0807232-04

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	3E			t	Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	7/18/2008 2:22:44 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	7/18/2008 2:22:44 PM
Surr: DNOP	118	58-140	%REC	1	7/18/2008 2:22:44 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/23/2008 12:44:46 AM
Surr: BFB	91.1	79.2-121	%REC	1	7/23/2008 12:44:46 AM
EPA METHOD 8021B: VOLATILES			•		Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	7/23/2008 12:44:46 AM
Benzene	ND	1.0	μg/L	\1	7/23/2008 12:44:46 AM
Toluene	ND	1.0	μg/L	1	7/23/2008 12:44:46 AM
Ethylbenzene	ND	1.0	μg/L	1	7/23/2008 12:44:46 AM
Xylenes, Total	ND	2.0	μg/L	1	7/23/2008 12:44:46 AM
Surr: 4-Bromofluorobenzene	98.4	68.9-122	%REC	1	7/23/2008 12:44:46 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: NMO
Lead	ND	0.0050	mg/L	1	7/30/2008 3:02:26 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit



Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807232

River Terrace 3rd QTR 2008

Project: Lab ID:

0807232-05

Client Sample ID: TP-3

Collection Date: 7/16/2008 9:40:00 AM

Date Received: 7/17/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE	17,			Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	7/18/2008 2:57:22 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	7/18/2008 2:57:22 PM
Surr: DNOP	. 119	58-140	%REC	1	7/18/2008 2:57:22 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/23/2008 1:14:49 AM
Surr: BFB	89.0	79.2-121	%REC	1	7/23/2008 1:14:49 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	7/23/2008 1:14:49 AM
Benzene	ND	1.0	μg/L	1	7/23/2008 1:14:49 AM
Toluene	ND	1.0	μg/L	1	7/23/2008 1:14:49 AM
Ethylbenzene	ND	1.0	μg/L	1	7/23/2008 1:14:49 AM
Xylenes, Total	ND	2.0	μg/L	1	7/23/2008 1:14:49 AM
Surr: 4-Bromofluorobenzene	95.3	68.9-122	%REC	1	7/23/2008 1:14:49 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: NMO
Lead	0.0052	0.0050	mg/L	1	7/30/2008 3:05:05 PM





- Value exceeds Maximum Contaminant Level
- Ε Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Η
- MCL Maximum Contaminant Level
 - RL Reporting Limit

Date: 07-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807232

Collection Date: 7/16/2008 9:45:00 AM

Client Sample ID: Field Blank

Project:

River Terrace 3rd QTR 2008

Date Received: 7/17/2008

Lab ID:

0807232-06

Result	PQL Q	ual Units	DF	Date Analyzed
E				Analyst: SCC
ND	1.0	mg/L	1	7/18/2008 3:32:04 PM
ND	5.0	mg/L	1	7/18/2008 3:32:04 PM
116	58-140	%REC	1	7/18/2008 3:32:04 PM
NGE				Analyst: NSB
ND	0.050	mg/L	1	7/23/2008 1:46:14 AM
89.8	79.2-121	%REC	. 1	7/23/2008 1:46:14 AM
				Analyst: NSB
ND	2.5	μg/L	<u>.</u> 1	7/23/2008 1:46:14 AM
ND	1.0	μg/L	1	7/23/2008 1:46:14 AM
ND	1.0	μg/L	1	7/23/2008 1:46:14 AM
ND	1.0	μg/L	· 1	7/23/2008 1:46:14 AM
ND	2.0	μg/L	1	7/23/2008 1:46:14 AM
96.7	68.9-122	%REC	1	7/23/2008 1:46:14 AM
	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND 1.0 ND 5.0 116 58-140 NGE ND 0.050 89.8 79.2-121 ND 2.5 ND 1.0 ND 1.0 ND 1.0 ND 1.0 ND 2.0	E ND 1.0 mg/L ND 5.0 mg/L 116 58-140 %REC NGE ND 0.050 mg/L 89.8 79.2-121 %REC ND 2.5 μg/L ND 1.0 μg/L ND 1.0 μg/L ND 1.0 μg/L ND 1.0 μg/L ND 1.0 μg/L ND 1.0 μg/L ND 1.0 μg/L ND 1.0 μg/L	E ND 1.0 mg/L 1 ND 5.0 mg/L 1 116 58-140 %REC 1 NGE ND 0.050 mg/L 1 89.8 79.2-121 %REC 1 ND 1.0 μg/L 1 ND 1.0 μg/L 1 ND 1.0 μg/L 1 ND 1.0 μg/L 1 ND 1.0 μg/L 1 ND 1.0 μg/L 1 ND 1.0 μg/L 1 ND 1.0 μg/L 1 ND 1.0 μg/L 1



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 07-Aug-08

QA/QC SUMMARY REPORT

lient: oject: Western Refining Southwest, Inc.

River Terrace 3rd QTR 2008

Work Order:

0807232

· ·	•							
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD F	RPDLimit Qual
Method: EPA Method 8015B: D	iesel Range							
Sample ID: MB-16516		MBLK			Batch	ID: 16516	Analysis Date	e: 7/18/2008 10:56:35 AN
Diesel Range Organics (DRO)	ND	mg/L	1.0					
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Surr: DNOP	1.117	mg/L	0	112	58	140		
Sample ID: LCS-16516		LCS	•		Batch	ID: 16516	Analysis Date	e: 7/18/2008 11:30:42 AM
Diesel Range Organics (DRO)	5.690	mg/L	1.0	114	74	157		
Surr: DNOP	0.5546	mg/L	0	111	58	140		
Sample ID: LCSD-16516		LCSD			Batch	ID: 16516	Analysis Date	e: 7/18/2008 12:05:04 PM
Diesel Range Organics (DRO)	5.588	mg/L	1.0	112	74	157	1.81	23
Surr: DNOP	0.5674	mg/L	0	113	58	140	0	0
Method: EPA Method 8015B: G	asoline Ran	nge.						
Sample ID: 0807232-05A MSD	asomie Nai	MSD			Batch	ID: R29434	Analysis Date	e: 7/23/2008 4:16:06 AN
Gasoline Range Organics (GRO)	0.4614	mg/L	0.050	92.3	80	115	2.02	8.39
Surr: BFB	18.88	mg/L	0	94.4	79.2	121	0	0
Sample ID: 5ML RB		MBLK			Batch	ID: R29434	Analysis Date	e: 7/22/2008 9:50:43 AN
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	16.53	mg/L	. 0	82.6	79.2	121		
Sample ID: 2.5UG GRO LCS		LCS			Batch	ID: R29434	Analysis Date	e: 7/22/2008 9:44:42 PN
soline Range Organics (GRO)	0.4964	mg/L	0.050	99.3	80	115		
	19.76	mg/L	0	98.8	79.2	121		
Surr: BFB		•			Batch	ID: D00404	Analysis Date	e: 7/23/2008 3:46:06 AM
Surr: BFB Sample ID: 0807232-05A MS		MS			Daton	ID: R29434	Analysis Date	2: 7/23/2006 3:46:06 AW
	0.4708	<i>MS</i> mg/L	0.050	94.2	80	115	Alialysis Date	3. 7/23/2006 3:46:06 AW



- E Value above quantitation range
- 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

Page 1

Date: 07-Aug-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project: River Terrace 3rd QTR 2008

Work Order:

0807232

Project: River Terrac	ce 3rd Q1R							ork O	ruer:	0807232
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDL	mit Qu	al
Method: EPA Method 8021B: \	/olatiles				Datab	ID. D 20404	A 1 1 - D	4	7/00/000	0.40.47.444
Sample ID: 0807232-02A MSD		MSD			Batch		Analysis Da		//23/2008	3 2:46:17 AM
Methyl tert-butyl ether (MTBE)	21.01	μg/L	2.5	104	51.2	138	1.83	28		
Benzene	20.18	μg/L	1.0	101	85.9	113	0.596	27		
Toluene	20.36	μg/L	1.0	102	86.4	113	0.700	19		
Ethylbenzene	20.33	μg/L	1.0	102	83.5	118	1.76	10		
Xylenes, Total	60.93	µg/L	2.0	102	83.4	122	0.239	13		
Surr: 4-Bromofluorobenzene	20.06	μg/L	0	100	68.9	122	0	0		
Sample ID: 5ML RB		MBLK			Batch	ID: R29434	Analysis Da	ate:	7/22/2008	3 9:50:43 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							
Surr: 4-Bromofluorobenzene	17.31	μg/L	0	86.5	68.9	122				
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R29434	Analysis Da	ate:	7/22/2008	8:44:51 PM
Methyl tert-butyl ether (MTBE)	21.50	μg/Ł	2.5	108	51.2	138				
Benzene	20.25	μg/L	1.0	101	85.9	113				
Toluene '	20.36	μg/L	1.0	102	86.4	113				
Ethylbenzene	20.85	μg/L	1.0	104	83.5	118				
Kylenes, Total	62.03	μg/L	2.0	103	83.4	122			•	6
Surr: 4-Bromofluorobenzene	20.59	μg/L	0	103	68.9	122				4
Sample ID: 0807232-02A MS		MS			Batch	ID: R29434	Analysis Da	ate:	7/23/2008	3 2:16:14 AM
Methyl tert-butyl ether (MTBE)	20.63	μg/L	2.5	102	51.2	138				
Benzene	20.06	μg/L	1.0	100	85.9	113	*			
Toluene	20.22	μg/L	1.0	101	86.4	113				
Ethylbenzene	19.98	μg/L	1.0	99.9	83.5	118				
Xylenes, Total	61.08	μg/L	2.0	102	83.4	122				
Surr: 4-Bromofluorobenzene	20.02	μg/L	0	100	68.9	122				
<u>-</u>			, , , , , , , , , , , , , , , , , , , ,							
Method: EPA 6010B: Total Red Sample ID: 0807232-05BMSD	coverable Me	etals MSD			Batch	ID: 16603	Analysis D	ata:	7/30/2008	3 3:10:41 PM
·	0.4764		0.0050	04.2		125	0.0562	20	170072000	J 0.10.41 1 W
Lead	0.4764	mg/L	0.0050	94.2	75 Batch				פחחכוחכו	12:15:10 DM
Sample ID: MB-16603		MBLK			Daton	ID: 16603	Analysis Da	ate. 7	13012006	12:15:10 PM
Lead	ND	mg/L	0.0050							
Sample ID: MB-16603		MBLK			Batch	ID: 16603	Analysis D	ate:	7/30/2008	3 2:48:28 PM
Lead	ND	mg/L	0.0050							
Sample ID: LCS-16603		LCS			Batch	ID: 16603	Analysis D	ate: 7	/30/2008	12:17:40 PM
Lead	0.4723	mg/L	0.0050	94.5	80	120				
Sample ID: LCS-16603		LCS			Batch		Analysis D	ate:	7/30/2008	3 2:51:22 PM
•	0 4742		0.0050		80	120	•			
Lead Sample ID: 0807232-05BMS	0.4742	mg/L	0.0050	94.8			Analysis D	ato:	7/20/2004	2.07.E4 D##
ASSESSED BY DEDICATED BY AND ASSESSED BY ASSESSED BY AND ASSESSED BY ASSESSED BY AND ASSESSED BY ASSES		MS			Batch	ID: 16603	Analysis D	alt.	113012008	3:07:51 PM
Lead	0.4761	mg/L	0.0050	94.2	75	125				



E Value above quantitation range

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

Page 2

Sam	ple Receipt Ch	necklist			
Client Name WESTERN REFINING SOUT		Date Receive	d:	7/17/2008	
Work Order Number 0807232		Received by	: ARS	1	
Checklist completed by:	T Date	Sample ID la	abels checked by:	Initials	
Matrix: Carrier nar	ne <u>UPS</u>				
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 s	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?	5°	<6° C Acceptab			
COMMENTS:		If given sufficien	t time to cool.		
					===:
Client contacted Date contacted:		Pers	son contacted		
Contacted by: Regarding:					
Comments:					
			- /212		
Corrective Action					
			····		

Air Bubbles (Y or N) ANALYSIS LABORATORY HALL ENVIRONMENTAL 4901 Hawkins NE - Albuquerque, NM 87109 X × Fax 505-345-4107 (AOV-ima2) 07S8 www.hallenvironmental.com (AOV) 809S8 8081 Pesticides / 8082 PCB's Anions (F,CI,NO3,NO2,PO4,SO4) (HA9 10 AN9) 01E8 Tel. 505-345-3975 EDC (Method 8260) (f.408 bodfeM) 80E Remarks: + 38TM (1208) & BIMT HTBE + + X3T8 × × 200 1807232 14 α \mathcal{A} a N 7 **=** HEAL No. 9 の 内 内 W 4/14 K Sample Temperature: 🐔 🖘 □ Rush Preservative River Larmace \$0 MA HNOS dived by: HOL 1- 路到mi HNU3 4-104 -11AIC HCC 28.47" 4 N 03 Type 75 万万 子と 1-1997 HN03 Turn-Around Time: Rede Project Manager: Sampler: (May Project Name: Standard 4.10A 10000 Type and # 4-VOA 4-104 Container 4-104 1.58 4-104 Project #: Client: Western Refining (Bluf 1) W Sample Request ID Chain-of-Custody Record ELevel 4 (Full Validation) Boom Pield, NM 8741 Black 505-672-4161 email or Fax#: <u>くっち</u>-632-39// 0634 76-12 Relinquished by: 5 170-11 トリス 18-B Relinquished 4 Address: #50 CR 905 A 945A ¥026 8454 40801 940A Time 930 A QA/QC Package: □ EDD (Type) Time: □ Standard Phone #: □ Other 7-16-08 4-16-08 Date

海海港

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 analysis of report.





COVER LETTER

Wednesday, December 17, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 4rd QTR 2008

Dear Cindy Hurtado:

Order No.: 0811148

Hall Environmental Analysis Laboratory, Inc. received 9 sample(s) on 11/12/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 17-Dec-08

CLIENT: Western Refining Southwest, Inc.

Project: River Terrace 4rd QTR 2008

Lab Order: 0811148

	granden and the second and the secon			
Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0811148-01A	TP-8	R31186	EPA Method 8021B: Volatiles	11/11/2008 10:50:00 AM
0811148-01A	TP-8	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 10:50:00 AM
0811148-01A	TP-8	R31186	EPA Method 8021B: Volatiles	11/11/2008 10:50:00 AM
0811148-01A	TP-8	R31218	EPA Method 8015B: Gasoline Range	11/11/2008 10:50:00 AM
0811148-01A	TP-8	R31251	EPA Method 8021B: Volatiles	11/11/2008 10:50:00 AM
0811148-01A	TP-8	R31252	EPA Method 8021B: Volatiles	11/11/2008 10:50:00 AM
0811148-01A	TP-8	17619	EPA Method 8015B: Diesel Range	11/11/2008 10:50:00 AM
0811148-01B	TP-8	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 10:50:00 AM
0811148-02A	TP-6	R31252	EPA Method 8021B: Volatiles	11/11/2008 11:05:00 AM
0811148-02A	TP-6	17619	EPA Method 8015B: Diesel Range	11/11/2008 11:05:00 AM
0811148-02A	TP-6	R31186	EPA Method 8021B: Volatiles	11/11/2008 11:05:00 AM
0811148-02A	TP-6	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 11:05:00 AM
0811148-02A	TP-6	R31186	EPA Method 8021B: Volatiles	11/11/2008 11:05:00 AM
0811 ¹ 148-02A	TP-6	R31218	EPA Method 8015B: Gasoline Range	11/11/2008 11:05:00 AM
0811148-02A	TP-6	R31251	EPA Method 8021B: Volatiles	11/11/2008 11:05:00 AM
0811148-02B	TP-6	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 11:05:00 AM
0811148-03A	TP-1	R31186	EPA Method 8021B: Volatiles	11/11/2008 12:50:00 PM
0811148-03A	TP-1	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 12:50:00 PM
0811148-03A	TP-1	R31251	EPA Method 8021B: Volatiles	11/11/2008 12:50:00 PM
0811148-03A	TP-1	17619	EPA Method 8015B: Diesel Range	11/11/2008 12:50:00 PM
0811148-03B	TP-1	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 12:50:00 PM
0811148-04A	TP-2	17619	EPA Method 8015B: Diesel Range	11/11/2008 1:20:00 PM
0811148-04A	TP-2	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:20:00 PM
0811148-04A	TP-2	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 1:20:00 PM
0811148-04A	TP-2	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:20:00 PM
0811148-04A	TP-2	R31218	EPA Method 8015B: Gasoline Range	11/11/2008 1:20:00 PM
0811148-04A	TP-2	R31251	EPA Method 8021B: Volatiles	11/11/2008 1:20:00 PM
0811148-04A	TP-2	R31252	EPA Method 8021B: Volatiles	11/11/2008 1:20:00 PM
0811148-04B	TP-2	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 1:20:00 PM
0811148-05A	TP-2 FD	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:23:00 PM
0811148-05A	TP-2 FD	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 1:23:00 PM
0811148-05A	TP-2 FD	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:23:00 PM
0811148-05A	TP-2 FD	R31218	EPA Method 8015B: Gasoline Range	11/11/2008 1:23:00 PM
0811148-05A	TP-2 FD	R31251	EPA Method 8021B: Volatiles	11/11/2008 1:23:00 PM
0811148-05A	TP-2 FD	R31252	EPA Method 8021B: Volatiles	11/11/2008 1:23:00 PM
0811148-05A	TP-2 FD	17619	EPA Method 8015B: Diesel Range	11/11/2008 1:23:00 PM
0811148-05B	TP-2 FD	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 1:23:00 PM
0811148-06A	TP-5	R31251	EPA Method 8021B: Volatiles	11/11/2008 1:35:00 PM

CLIENT:

Western Refining Southwest, Inc.

Project:

River Terrace 4rd QTR 2008

Lab Order:

0811148

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0811148-06A	TP-5	17619	EPA Method 8015B: Diesel Range	11/11/2008 1:35:00 PM
0811148-06A	TP-5	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:35:00 PM
0811148-06A	TP-5	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 1:35:00 PM
0811148-06A	TP-5	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:35:00 PM
0811148-06A	TP-5	R31218	EPA Method 8015B: Gasoline Range	11/11/2008 1:35:00 PM
0811148-06A	TP-5	R31251	EPA Method 8021B: Volatiles	11/11/2008 1:35:00 PM
0811148-06A	TP-5	R31252	EPA Method 8021B: Volatiles	11/11/2008 1:35:00 PM
0811148-06B	TP-5	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 1:35:00 PM
0811148-07A	TP-9	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:50:00 PM
0811148-07A	TP-9	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 1:50:00 PM
0811148-07A	TP-9	R31251	EPA Method 8021B: Volatiles	11/11/2008 1:50:00 PM
0811148-07A	TP-9	17619	EPA Method 8015B: Diesel Range	11/11/2008 1:50:00 PM
0811148-07B	TP-9	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 1:50:00 PM
0811148-08A	DW-#1	17619	EPA Method 8015B: Diesel Range	11/11/2008 2:30:00 PM
0811148-08A	DW-#1	R31186	EPA Method 8021B: Volatiles	11/11/2008 2:30:00 PM
0811148-08A	DW-#1	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 2:30:00 PM
0811148-08A	DW-#1	R31251	EPA Method 8021B: Volatiles	11/11/2008 2:30:00 PM
0811148-08B	DW-#1	17670	EPA Method 7470: Mercury	11/11/2008 2:30:00 PM
0811148-08B	DW-#1	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 2:30:00 PM
0811148-09A	TRIP BLANK	R31251	EPA Method 8021B: Volatiles	
0811148-09A	TRIP BLANK	R31186	EPA Method 8021B: Volatiles	
0811148-09A	TRIP BLANK	R31186	EPA Method 8015B: Gasoline Range	

Date: 17-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

Client Sample ID: TP-8

0811148

Collection Date: 11/11/2008 10:50:00 AM

Project:

River Terrace 4rd QTR 2008

Date Received: 11/12/2008

Lab ID:

0811148-01

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units .	\cdot DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	3E				Analyst: SCC
Diesel Range Organics (DRO)	8.6	1.0	mg/L	1	11/13/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	11/13/2008
Surr: DNOP	132	58-140	%REC	1	11/13/2008
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: DAM
Gasoline Range Organics (GRO)	9.6	0.25	mg/L	5	11/17/2008 3:07:10 PM
Surr: BFB	83.3	59.9-122	%REC	5	11/17/2008 3:07:10 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	13	μg/L	5	11/17/2008 3:07:10 PM
Benzene	ND	5.0	μg/L	5	11/17/2008 3:07:10 PM
Toluene	. ND	5.0	μg/L	5	11/17/2008 3:07:10 PM
Ethylbenzene	270	5.0	μg/L	. 5	11/17/2008 3:07:10 PM
Xylenes, Total	920	10	μg/L	5	11/17/2008 3:07:10 PM
Surr: 4-Bromofluorobenzene	109	65.9-130	%REC	5	11/17/2008 3:07:10 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: SNV
Lead	0.017	0.0050	mg/L	1	12/4/2008 11:45:15 AM

Qualifiers:

Value exceeds Maximum Contaminant Level

Е Estimated value

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits

Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Reporting Limit

Date: 17-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811148

Project:

River Terrace 4rd QTR 2008

Lab ID:

0811148-02

Client Sample ID: TP-6

Collection Date: 11/11/2008 11:05:00 AM

Date Received: 11/12/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	ìΕ				Analyst: SCC
Diesel Range Organics (DRO)	3.1	1.0	mg/L	1	11/13/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	11/13/2008
Surr: DNOP	129	58-140	%REC	1	11/13/2008
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: DAM
Gasolinė Range Organics (GRO)	3.4	0.25	mg/L	5	11/17/2008 3:40:17 PM
Surr: BFB	87.1	59.9-122	%REC	5	11/17/2008 3:40:17 PM
EPA METHOD 8021B: VOLATILES		gu.			Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	13	μg/L	- 5	11/17/2008 3:40:17 PM
Benzene	29	5.0	μg/L	5	11/17/2008 3:40:17 PM
Toluene	ND	5.0	μg/L	5	11/17/2008 3:40:17 PM
Ethylbenzene	430	5.0	μg/L	5	11/17/2008 3:40:17 PM
Xylenes, Total	1200	100	μg/L	50	11/14/2008 11:35:17 PM
Surr: 4-Bromofluorobenzene	117	65.9-130	%REC	5	11/17/2008 3:40:17 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: SNV
Lead	0.018	0.0050	mg/L	1	12/4/2008 11:49:19 AM



Value exceeds Maximum Contaminant Level

Ε Estimated value

Analyte detected below quantitation limits

Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits

Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Date: 17-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: TP-1

Lab Order:

0811148

Collection Date: 11/11/2008 12:50:00 PM

Project:

River Terrace 4rd QTR 2008

Date Received: 11/12/2008

Lab ID:

0811148-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	· DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGI					Analyst: SCC
Diesel Range Organics (DRO)	17	1.0	mg/L	1	11/13/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	11/13/2008
Surr: DNOP	132	58-140	%REC	1	11/13/2008
EPA METHOD 8015B: GASOLINE RAI	NGE			•	Analyst: DAM
Gasoline Range Organics (GRO)	51	13	mg/L	250	11/15/2008 12:05:42 AM
Surr: BFB	83.8	59.9-122	%REC	250	11/15/2008 12:05:42 AM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	630	μg/L	250	11/15/2008 12:05:42 AM
Benzene	1200	250	μg/L	250	11/15/2008 12:05:42 AM
Toluene ·	ND	250	μg/L	250	11/15/2008 12:05:42 AM
Ethylbenzene	2700	250	μg/L	250	11/15/2008 12:05:42 AM
Xylenes, Total	16000	500	µg/L	250	.11/15/2008 12:05:42 AM
Surr: 4-Bromofluorobenzene	107	65.9-130	%REC	250	11/15/2008 12:05:42 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: SNV
Lead	0.042	0.0050	mg/L	1	12/4/2008 12:01:13 PM

- 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 .

Page 3 of 9

Date: 17-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811148

Project:

River Terrace 4rd QTR 2008

Lab ID:

0811148-04

Client Sample ID: TP-2

Collection Date: 11/11/2008 1:20:00 PM

Date Received: 11/12/2008

Matrix: AQUEOUS

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE				Analyst: SCC
Diesel Range Organics (DRO)	7.5	1.0	mg/Ľ	1	11/13/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	11/13/2008
Surr: DNOP	135	58-140	%REC	1	11/13/2008
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: DAM
Gasoline Range Organics (GRO)	5.8	0.50	mg/L	10	11/17/2008 4:13:22 PM
Surr: BFB	83.5	59.9-122	%REC	10	11/17/2008 4:13:22 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	25	μg/L	10	11/17/2008 4:13:22 PM
Benzene	310	10	μg/L	10	11/17/2008 4:13:22 PM
Toluene	ND	10	μg/L	10	11/17/2008 4:13:22 PM
Ethylbenzene	730	10	µg/L	10	11/17/2008 4:13:22 PM
Xylenes, Total	930	20	μg/L	10	11/17/2008 4:13:22 PM
Surr: 4-Bromofluorobenzene	109	65.9-130	%REC	10	11/17/2008 4:13:22 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: SNV
Lead	0.012	0.0050	mg/L	1	12/4/2008 12:05:13 PM



Value exceeds Maximum Contaminant Level

Reporting Limit

E Estimated value

Analyte detected below quantitation limits

Not Detected at the Reporting Limit ND

Spike recovery outside accepted recovery limits

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Date: 17-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811148

0811148-05

Project: Lab ID:

River Terrace 4rd QTR 2008

Client Sample ID: TP-2 FD

Collection Date: 11/11/2008 1:23:00 PM

Date Received: 11/12/2008

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	BE		**************************************		Analyst: SCC
Diesel Range Organics (DRO)	7.2	1.0	mg/L	1	11/13/2008
Motor Oil Range Organics (MRO)	, ND	5.0	mg/L	1	11/13/2008
Surr: DNOP	132	58-140	%REC	1	11/13/2008
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: DAM
Gasoline Range Organics (GRO)	4.4	0.50	mg/L	10	11/17/2008 4:46:17 PM
Surr: BFB	85.2	59.9-122	%REC	10	11/17/2008 4:46:17 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	25	μg/L	10	11/17/2008 4:46:17 PM
Benzene	280	10	μg/L	10	11/17/2008 4:46:17 PM
Toluene	· ND	10	μg/L	10	11/17/2008 4:46:17 PM
Ethylbenzene	530	10	μg/L	10	11/17/2008 4:46:17 PM
Xylenes, Total	580	20	μg/L	10	11/17/2008 4:46:17 PM
Surr: 4-Bromofluorobenzene	107	65.9-130	%REC	10	11/17/2008 4:46:17 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: SNV
Lead	0.012	0.0050	mg/L	1 .	12/4/2008 12:09:15 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 17-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811148

Project:

River Terrace 4rd QTR 2008

Lab ID:

0811148-06

Client Sample ID: TP-5

Collection Date: 11/11/2008 1:35:00 PM

Date Received: 11/12/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E	 			Analyst: SCC
Diesel Range Organics (DRO)	8.5	1.0	mg/L	1	11/13/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	11/13/2008
Surr: DNOP	139	58-140	%REC	1	11/13/2008
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: DAM
Gasoline Range Organics (GRO)	38	2.5	mg/L	50	11/17/2008 5:19:15 PM
Surr: BFB	82.5	59.9-122	%REC	50	11/17/2008 5:19:15 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	25	μg/L	10	11/20/2008 11:41:35 PM
Benzene	16	10	μg/L	10	11/20/2008 11:41:35 PM
Toluene	10	10	μg/L	10	11/20/2008 11:41:35 PM
Ethylbenzene	2400	50	μg/L	50	11/17/2008 5:19:15 PM
Xylenes, Total	12000	500	μg/L	250	11/15/2008 1:36:33 AM
Surr: 4-Bromofluorobenzene	108	65.9-130	%REC	50	11/17/2008 5:19:15 PM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: SNV
Lead	0.029	0.0050	mg/L	1	12/4/2008 12:14:50 PM



Value exceeds Maximum Contaminant Level

Е Estimated value

J Analyte detected below quantitation limits

Not Detected at the Reporting Limit ND

Spike recovery outside accepted recovery limits

Analyte detected in the associated Method Blank

Η Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Reporting Limit

Date: 17-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811148

ab Older. 001114

Project: Lab ID: River Terrace 4rd QTR 2008

0811148-07

Client Sample ID: TP-9

Collection Date: 11/11/2008 1:50:00 PM

Date Received: 11/12/2008

Matrix: AQUEOUS

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE			-	<u></u>	Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	11/14/2008
Surr: DNOP	137	58-140	%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RAM	NGE .			•	Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	11/15/2008 2:06:59 AM
Surr: BFB	80.2	59.9-122	%REC	1	11/15/2008 2:06:59 AM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	11/15/2008 2:06:59 AM
Benzene	ND	1.0	µg/L	1	11/15/2008 2:06:59 AM
. Toluene	ND	1.0	μg/L	1	11/15/2008 2:06:59 AM
Ethylbenzene	ND	1.0	μg/L	1	11/15/2008 2:06:59 AM
Xylenes, Total	ND	2.0	µg/L	1	11/15/2008 2:06:59 AM
Surr: 4-Bromofluorobenzene	. 94.4	65.9-130	%REC	1	11/15/2008 2:06:59 AM
EPA 6010B: TOTAL RECOVERABLE	/IETALS				Analyst: SNV
Lead	0.0080	0.0050	mg/L	1	12/4/2008 12:17:43 PM

Qua	lif	iers:
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- 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

Page 7 of 9

Date: 17-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811148

Project:

River Terrace 4rd QTR 2008

Lab ID:

0811148-08

Client Sample ID: DW-#1

Collection Date: 11/11/2008 2:30:00 PM

Date Received: 11/12/2008

Analyses	Result	PQL	Qual U	nits	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E				·····	Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	m	g/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0	m	g/L	1	11/14/2008
Surr: DNOP	137	58-140	%	REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RA	NGE					Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	m	g/L	1	11/15/2008 2:37:06 AM
Surr: BFB	81.6	59.9-122	%	REC	. 1	11/15/2008 2:37:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5	μο	g/L	1	11/15/2008 2:37:06 AM
Benzene	ND	1.0	μο	g/L	1	11/15/2008 2:37:06 AM
Toluene	· ND	1.0	μς	g/L	1	11/15/2008 2:37:06 AM
Ethylbenzene	ND	1.0	μο	g/L	1	11/15/2008 2:37:06 AM
Xylenes, Total	ND	2.0	μg	g/L	1	11/15/2008 2:37:06 AM
Surr: 4-Bromofluorobenzene	96.7	65.9-130	%	REC	1	11/15/2008 2:37:06 AM
EPA 6010B: TOTAL RECOVERABLE	METALS					Analyst: SNV
Lead	ND	0.0050	m	g/L	1	12/4/2008 12:21:40 PM



Value exceeds Maximum Contaminant Level

Ε Estimated value

Analyte detected below quantitation limits

Not Detected at the Reporting Limit ND

Spike recovery outside accepted recovery limits

Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

Maximum Contaminant Level

Reporting Limit

Date: 17-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811148

Project:

River Terrace 4rd QTR 2008

Lab ID:

0811148-09

Client Sample ID: TRIP BLANK

Collection Date:

Date Received: 11/12/2008

Matrix: TRIP BLANK

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAI	NGE -				Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	11/15/2008 6:09:56 AM
Surr: BFB	79.8	59.9-122	%REC	1	11/15/2008 6:09:56 AM
EPA METHOD 8021B: VOLATILES		•			Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	11/15/2008 6:09:56 AM
Benzene	ND	1.0	μ g/L	1	11/15/2008 6:09:56 AM
Toluene	ND	1.0	μg/L	1	11/15/2008 6:09:56 AM
Ethylbenzene	ND	1.0	μg/L	. 1	11/15/2008 6:09:56 AM
Xylenes, Total	, ND	2.0	μg/L	· 1	11/15/2008 6:09:56 AM
Surr: 4-Bromofluorobenzene	93.5	65.9-130	%REC	1	11/15/2008 6:09:56 AM
			and the second s		

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

DATES REPORT

Hall Environmental Analysis Laboratory, Inc.

Lab Order: 0811148

Client: Western Refining Southwest, Inc.

Project: River Terrace 4rd QTR 2008

Sample ID	Client Sample TD	Collection Date	Matrix	Sample ID Client Sample ID Collection Date Matrix Test Name Instrument Run ID OC Batch ID Prep Date Analysis Date	Instrument Run ID OC Batch ID Prep Date	OC Batch ID	Prep Date	Analysis Date
and Lucia					A DESTRUCTION OF THE ADMINISTRATION OF THE A	Elizabeth and the Control of the Con	and the second s	THE RESIDENCE OF THE PROPERTY OF THE PERSON
0811148-01A	0811148-01A TP-8 11/11/2008 10:50:00 AM	11/11/2008 10:50:00 AM	Aqueous		TD(17A) 2_0811131 17619	17619	11/13/2008	11/13/2008
		•		EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186	٠	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186		11/14/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A.	R31186		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/14/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/17/2008
0811148-01B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-02A	7P-6	11/11/2008 11:05:00 AM		EPA Method 8015B: Diesel Range	TD(17A) 2_081113,	17619	11/13/2008	11/13/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186 ·		11/14/2008

11/17/2008

R31218

ZEUS_081117A

EPA Method 8015B: Gasoline Range

12

EPA Method 8021B: Volatiles EPA Method 8021B: Volatiles

EPA Method 8021B: Volatiles

R31252 R31186

R31251

ZEUS_081114B ZEUS_081117B ZEUS_081117A

11/14/2008 11/17/2008 11/17/2008

12/4/2008 11/13/2008 11/15/2008 11/15/2008 11/15/2008 11/13/2008 11/17/2008 11/14/2008 12/4/2008 11/13/2008 11/30/2008 11/30/2008 11/13/2008 R31218 R31186 17619 R31186 R31186 R31251 17744 17619 17744 D(17A) 2_081113, D(17A) 2_081113, ZEUS_081114A ZEUS_081114A ZEUS_081114B ZEUS_081117A ZEUS_081114A ISIS 081204A ISIS_081204A EPA 6010B: Total Recoverable Metals EPA 6010B: Total Recoverable Metals EPA Method 8015B: Gasoline Range EPA Method 8015B: Gasoline Range EPA Method 8015B: Diesel Range EPA Method 8015B: Diesel Range EPA Method 8021B: Volatiles EPA Method 8021B: Volatiles EPA Method 8021B: Volatiles 11/11/2008 12:50:00 PM 11/11/2008 1:20:00 PM TP-2 TP-1 0811148-02B 0811148-03A 0811148-03B 0811148-04A

11/15/2008 11/15/2008

R31186 R31186

ZEUS_081114A

EPA Method 8015B: Gasoline Range

EPA Method 8021B: Volatiles

ZEUS_081114A

DATES REPORT

Hall Environmental Analysis Laboratory, Inc.

0811148 Lab Order: Client:

Western Refining Southwest, Inc.

River Terrace 4rd QTR 2008 Project:

r roject.	מאל און אין האינוסן ואוען	Z 11 Z 2009					-	
Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Instrument Run ID	QC Batch ID	Prep Date	Analysis Date
0811148-04A	TP-2	11/11/2008 1:20:00 PM	Aqueous	EPA Method 8021B: Volatiles	ZEUS_081117A	R31186	and the second s	11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		(11/17/2008
0811148-04B		٠.		EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-05A	TP-2 FD	11/11/2008 1:23:00 PM		EPA Method 8015B. Diesel Range	TD(17A) 2_081113,	17619	11/13/2008	11/13/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B. Volatiles	ZEUS_081117A	R31186		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/17/2008
0811148-05B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-06A	TP-5	11/11/2008 1:35:00 PM		EPA Method 8015B: Diesel Range	TD(17A) 2_081113,	17619	11/13/2008	11/13/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218	3	11/17/2008
				EPA Method 8021B; Volatiles	ZEUS_081117B	R31252		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081120A	R31251		11/20/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31186		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186	٠	11/15/2008
				EPA Method 8021B. Volatiles	ZEUS_081114B	R31251		11/15/2008
0811148-06B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-07A	TP-9	11/11/2008 1:50:00 PM		EPA Method 8015B. Diesel Range	TD(17A) 2_081114,	17619	11/13/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/15/2008
•				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/15/2008

11/15/2008

R31186

ZEUS_081114A

EPA Method 8021B: Volatiles

DATES REPORT

Hall Environmental Analysis Laboratory, Inc.

Lab Order: 0811148

Client: Western Refining Southwest, Inc.

Project: River Terrace 4rd QTR 2008

Sample ID	Client Sample ID	Collection Date	Matrix	Sample ID Client Sample ID Collection Date Matrix Test Name Instrument Run ID QC Batch ID Prep Date Analysis Date	Instrument Run ID QC Batch ID Prep Date	QC Batch ID	Prep Date	Analysis Date
0811148-07B	0811148-07B TP-9 11/11/2008 1:50:00 PM		Aqueous	Aqueous EPA 6010B: Total Recoverable Metals ISIS_081204A 17744 11/30/2008 12/4/2008	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-08A	DW-#1	11/11/2008 2:30:00 PM	•	EPA Method 8015B: Diesel Range	'ID(17A) 2_081114,	17619	11/13/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B. Volatiles	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/15/2008
0811148-08B				EPA 6010B. Total Recoverable Metals	ISIS_081204A	j <i>7</i> 744	11/30/2008	12/4/2008
0811148-09A	TRIP BLANK		Trip Blank	EPA Method 8015B; Gasoline Range	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186		11/15/2008

Page 3 of 3

Date: 17-Dec-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

River Terrace 4rd QTR 2008

Work Order:

0811148

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: D	iesel Range								
Sample ID: MB-17619		MBLK			Batch II	D: 17619	Analysis Da	ate:	11/13/200
Diesel Ränge Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND .	mg/L	5.0			*			
Surr: DNOP	1.284	mg/L	0	128	58	140			
Sample ID: LCS-17619		LCS			Batch II	D: 17619	Analysis Da	ate:	11/13/2008
Diesel Range Organics (DRO)	6.135	mg/L	1.0	123	74	157			
Surr: DNOP	0.6477	mg/L	0	130	58 -	140			
Sample ID: LCSD-17619		LCSD			Batch II	D: 17619	Analysis Da	ate:	11/13/2008
Diesel Range Organics (DRO)	6.155	mg/L	1.0	123	74	157	0.314	23	•
Surr; DNOP	0.6626	mg/L	0	133	58	140	0	. 0	
Gasoline Range Organics (GRO) Surr: BFB	0.4078 16.61	mg/L mg/L	0.050 0	81.6 83.0	80 59.9	115 122	2.66 0	8.39 0	
Sample ID: 0811148-07A MSD Gasoline Range Organics (GRO)	0.4078	ma/L	0.050	81.6	80	115	2.66	8.39	
	16.61	-	0	83,0			•	=	
Sample ID: 5ML RB	•	MBLK			Batch II	D: R31218	Analysis D	ate: 13/1/	7/2008 9:27:00 AN
Gasoline Range Organics (GRO)	ND	mg/L 	0.050			400			
Surr: BFB	19.62	mg/L	0	98.1	59.9	122		_4 4414	uning 0.45 50 55
Sample ID: 5ML RB		MBLK			Batch II	D: R31186	Analysis D	ate: 11/14	/2008 9:10:56 AN
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	16.35	mg/L	0	81.8	59.9	122			i
Sample ID: 2.5UG GRO LCS	•	LCS			Batch II		Analysis D	ate: 11/15/	2008 12:43:57 PN
	0.4030	mg/L	0.050	80.6	80	115			
Gasoline Range Organics (GRO)			0	83.5	59.9	122			
Surn: BFB	16.70	mg/L	U				Analysis D	ate: 11/17	7/2008 7:51:29 PN
Surn: BFB	16.70	mg/L LCS	U		Batch I	D: R31218	Allalysis D	ato. 11/17	12000 1.31.2311
Surr. BFB Sample ID: 2.5UG GRO LCS	16.70 0.4146		0.050	82.9	Batch II 80	D: R31218 115	Allalysis D	uto. 11717	72000 7.31.29 F
Surr. BFB Sample ID: 2.5UG GRO LCS		LCS		82.9 83.0			Analysis D		
Surr. BFB Sample ID: 2.5UG GRO LCS Gasoline Range Organics (GRO) Surr. BFB	0.4146	LCS mg/L	0.050		80	115 122	Analysis D		5/2008 3:07:38 A
Sample ID: 2.5UG GRO LCS Gasoline Range Organics (GRO)	0.4146	LCS mg/L mg/L	0.050		80 59.9	115 122	· .		

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



Date: 17-Dec-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

River Terrace 4rd QTR 2008

Work Order:

0811148

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD RF	DLimit Qual
Method: EPA Method 8021B: \	/olatiles							
Sample ID: 0811148-07A MSD		MSD	•		Batch I	D: R31251	Analysis Date:	11/15/2008 3:38:06 AN
Benzene	6.602	μg/L	1.0	97.1	85.9	113	0.815	27
Toluene	47.62	μg/L	1.0	99.2	86.4	113	1.41	19
Ethylbenzene	10.37	μg/L	1.0	92.6	83.5	118	0.692	10
Xylenes, Total	53.24	μg/L	2.0	95.1	83.4	122	1.05	13
Surr: 4-Bromofluorobenzene	20.76	μg/L	0	104	65.9	130	0	0
Sample ID: 5ML RB		MBLK			Batch I	D: R31251	Analysis Date:	11/14/2008 9:10:56 AM
Methyl tert-butyl ether (MTBE)	ND	μ g/ 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					
Surr: 4-Bromofluorobenzene	19.30	µg/L	0 ·	96.5	65.9	130		
Sample ID: 5ML RB	•	MBLK			Batch I	D: R31251	Analysis Date:	11/14/2008 9:10:56 AN
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					
Surr: 4-Bromofluorobenzene	19.30	μg/L	0	96.5	65.9	130		
mple ID: b 10		MBLK			Batch I	D: R31252	Analysis Date:	11/17/2008 2:03:31 PN
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					
Surr: 4-Bromofluorobenzene	18.73	µg/L	0	93.6	65.9	130		
Sample ID: 100NG BTEX LCS		LCS			Batch II	D: R31251	Analysis Date:	11/14/2008 6:28:37 PM
Methyl tert-butyl ether (MTBE)	24.90	µg/L	2.5	125	51.2	138	Ÿ	
Benzene	22.03	μg/L	1.0	110	85.9	113		
Toluene	22.64	µg/L	1.0	113	86.4	113		S
Ethylbenzene	22.93	µg/L	1.0	115	83.5	118		
Xylenes, Total	68.94	µg/L	2.0	115	83.4	122		
Surr: 4-Bromofluorobenzene	21.29	µg/L	0	106	65.9	130		
Sample ID: 100NG BTEX LCS		LCS			Batch II	D: R31252	Analysis Date:	11/17/2008 7:21:05 PM
Methyl tert-butyl ether (MTBE)	19.40	μg/L	2.5	97.0	51.2	138		
Benzene	21.66	μg/L	1.0	108	85.9	113		
Toluene	21.98	μg/L	1.0	110	86.4	113		
Ethylbenzene .	21.95	μg/L	1.0	110	83.5	118		
Xylenes, Total	66.17	μg/L	2.0	110	83.4	122		
Surr: 4-Bromofluorobenzene	20.53	μg/L	0 .	103	65.9	130		
Sample ID: 0811148-07A MS		MS		•	Batch II	D: R31251	Analysis Date:	11/15/2008 3:07:38 AN
Benzene	6.656	μg/ L	1.0	97.9	85.9	113		
		μg/L	1.0	101	86.4	113		

Analyte detected below quantitation limits

RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits

Page 2

Date: 17-Dec-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

River Terrace 4rd QTR 2008

Work Order:

0811148

Analyte	Result	Units	PQL	%Rec	LowLimit HighLir	mit %RPD	RPDLimit Qual
Method: EPA Method 8021B: \	/olatiles						
Sample ID: 0811148-07A MS		MS			Batch ID: R3	1251 Analysis Da	ate: 11/15/2008 3:07:38 AM
Ethylbenzene	10.44	μg/L	1.0	93.2	83.5 118		
Xylenes, Total	53.80	μg/L	2.0	96.1	83.4 · 122		
Surr: 4-Bromofluorobenzene	21.02	μg/L	0 .	105	65.9 130		
Method: EPA 6010B: Total Red	coverable Me	etals				•	
Sample ID: MB-17744		MBLK			Batch ID: 1	7744 Analysis D	ate: 12/4/2008 11:34:21 AM
Lead	ND	mg/L	0.0050		·	•	
Sample ID: LCS-17744		LCS			Batch ID: 1	7744 Analysis D	ate: 12/4/2008 11:39:05 AM
Lead	0.4707	mg/L	0.0050	94.1	80 120		



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





Sample Receipt Checklist

Samp	ve iveceibi cu	ICCKIISE		•
Client Name WESTERN REFINING SOUT		Date Receiv	ed:	11/12/2008
Work Order Number 0811148		Received b	y: TLS	An
Checklist completed by:	Date	2 Sample ID	labels checked by:	Initials
Matrix: Carrier nam	ie <u>UPS</u>		·	
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 su	ubmitted	Yes 🗸	No 🗌	
Nater - Preservation labels on bottle and cap match?	Yes 🗹	No 🗌	N/A	
Water - pH acceptable upon receipt?	Yes 🗹	No 🗌	N/A	
Container/Temp Blank temperature?	2°	<6° C Accepta		
COMMENTS:		If given sufficie	nt time to cool.	
	•			
Client contacted Date contacted:		Po	rson contacted	
Contacted by: Regarding:				
Comments:				
		<u> </u>		
Corrective Action				

· INTRINCTIONS INTO	ANALYSIS LABORATORY		is NE - Albuquerque, NM 87109	Fax	Analysis Request			, _z O	(HA), ₆ (tals: 1, NC 1, NC 1, NC 1, NC	Me Copy Move Move	8310 (PN 8310 (PN RCRA 8 8 8081 Pes 8270 (Se 8270 (Se 75 Pc)		×		×		*		×		×		×				This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the ical report.
			4901 Hawkins NE	Tel. 505-345-3975		(ʎju	o seo	9) H (9T - 881	1 80 3E +	JTI/	N + X3T8 N + X3T8 B9M H9T	X	•	×		X		メ		×		×		Remarks:			possibility. Any sub-cont
Turn-Around Time:	© Standard □ Rush	Project Name:	River Terrace 4th OTP. 2008	Project #:		Project Manager:			Sampler: Ingles Ingles	SampleTempérature:		Container Preservative HEAL No. Type and # Type	3-104 HCL 1			1-500ml HND3 2	<u> </u>		3-VOA HCC 4	1-5000 HNC3 Y	34VOR HCL S	1-Sound HNOS	3VOA Hec 4	50NH D	ä	4 O 80 C 1 1 V	Received by:	
Chain-of-Custody Record	Client: Western Refining		Mailing Address: # 50 CR 4990	Bloomfield NM 87413		email or Fax#: 505-632-3911	QA/QC Package: Standard A (Full Validation)	3	Other	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		Date Time Matrix Sample Request ID	1/14 08 10018 WARE 1P-8	\	1105a TP-6		1-d1 case		120pm 70-2		1232 TP-2 FY	\	135 TP-5		+	1	Date: Time: Relinquished by:	If negative, samples submitted to Hall Environmental may be subcontracted to other accredited laborated

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	HALL ENVIRONMENTAL	ANALYSIS LABORATORY																							
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,				4901 Hawkins NE	Tel. 505-345-3975								TPH Metho	X		X								.s.	
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Turn-Around	\		Project Name:	RiverT	Project #:		Project Mana			Sampler:	:eo uo	Sample Tem	Container Type and #	3-VOA	1500ml	3-VOA	1-530m	2					-	Received by:	ンテスをひつり
Charletody Doorg		Western Ketining (BINFID)		Mailing Address: #50 (12 4990	1 `	19/4-62	505-632-3911		(Full Validation)				Matrix Sample Request ID	120 TP-9		- M€		th Oblan Cilled						Relinquished by:	₹ noneinhinal
	5	Jester		Address:	RIMA	1 '	1 1	ackage;	lard		(Type)_		Time	B	1	23pm	1							Time:	
ز) Jient	M		Mailing ∤		Phone #:	email or Fax#:	QA/QC Package:	□ Standard	□ Other	□ EDD (Type)		Date -	11/11/16		11/11/08	-							n v B	

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.



COVER LETTER

Tuesday, December 16, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990

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

Bloomfield, NM 87413

RE: River Terrace 4rd QTR 2008

Dear Cindy Hurtado:

Order No.: 0811178

Hall Environmental Analysis Laboratory, Inc. received 8 sample(s) on 11/13/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 16-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Project:

River Terrace 4rd QTR 2008

Lab Order:

0811178

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0811178-01A	TP-7	R31218	EPA Method 8021B: Volatiles	11/12/2008 9:55:00 AM
.0811178-01A	TP-7	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 9:55:00 AM
0811178-01A	TP-7	R31252	EPA Method 8021B: Volatiles	11/12/2008 9:55:00 AM
0811178-01A	TP-7	17633	EPA Method 8015B: Diesel Range	11/12/2008 9:55:00 AM
0811178-01B	TP-7	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 9:55:00 AM
0811178-02A	MW#49	R31252	EPA Method 8021B: Volatiles	11/12/2008 10:15:00 AM
0811178-02A	MW#49	17633	EPA Method 8015B: Diesel Range	11/12/2008 10:15:00 AM
0811178-02A	MW#49	R31218	EPA Method 8021B: Volatiles	11/12/2008 10:15:00 AM
0811178-02A	MW#49	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 10:15:00 AM
0811178-02B	MW#49	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 10:15:00 AM
0811178-03A	TP-10	R31218	EPA Method 8021B: Volatiles	11/12/2008 10:40:00 AM
0811178-03A	TP-10	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 10:40:00 AM
0811178-03A	TP-10	R31252	EPA Method 8021B: Volatiles	11/12/2008 10:40:00 AM
0811178-03A	TP-10	17633	EPA Method 8015B: Diesel Range	11/12/2008 10:40:00 AM
0811178-03B	TP-10	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 10:40:00 AM
0811178-04A	TP-13	R31252	EPA Method 8021B: Volatiles	11/12/2008 11:00:00 AM
0811178-04A	TP-13	17633	EPA Method 8015B: Diesel Range	11/12/2008 11:00:00 AM
0811178-04A	TP-13	R31218	EPA Method 8021B: Volatiles	11/12/2008 11:00:00 AM
0811178-04A	TP-13	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 11:00:00 AM
0811178-04B	TP-13	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 11:00:00 AM
0811178-05A	FIELD BLANK	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 11:15:00 AM
0811178-05A	FIELD BLANK	R31252	EPA Method 8021B: Volatiles	11/12/2008 11:15:00 AM
0811178-05A	FIELD BLANK	R31218	EPA Method 8021B: Volatiles	11/12/2008 11:15:00 AM
0811178-06A	TP-12	17633	EPA Method 8015B: Diesel Range	11/12/2008 1:10:00 PM
0811178-06A	TP-12	R31218	EPA Method 8021B: Volatiles	11/12/2008 1:10:00 PM
0811178-06A	TP-12	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 1:10:00 PM
0811178-06A	TP-12	R31252	EPA Method 8021B: Volatiles	11/12/2008 1:10:00 PM
0811178-06B	TP-12	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 1:10:00 PM
0811178-07A	TP-11	17633	EPA Method 8015B: Diesel Range	11/12/2008 1:30:00 PM
0811178-07A	TP-11	R31252	EPA Method 8021B: Volatiles	11/12/2008 1:30:00 PM
0811178-07A	TP-11	R31218	EPA Method 8021B: Volatiles	11/12/2008 1:30:00 PM
0811178-07A	TP-11	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 1:30:00 PM
0811178-07B	TP-11	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 1:30:00 PM
0811178-08A	TP-3	17633	EPA Method 8015B: Diesel Range	11/12/2008 1:50:00 PM
0811178-08A	TP-3	R31218	EPA Method 8021B: Volatiles	11/12/2008 1:50:00 PM
0811178-08A	TP-3	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 1:50:00 PM
0811178-08A	TP-3	R31252	EPA Method 8021B: Volatiles	11/12/2008 1:50:00 PM
0811178-08B	TP-3	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 1:50:00 PM

CLIENT:

Western Refining Southwest, Inc.

Project:

River Terrace 4rd QTR 2008

Lab Order:

0811178

Work Order Sample Summary

Lab Sample ID

Client Sample ID

Batch ID

Test Name

Collection Date

0811178-08B

TP-3

17670

EPA Method 7470: Mercury

11/12/2008 1:50:00 PM

Date: 16-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811178

Direct

River Terrace 4rd QTR 2008

Project: Lab ID:

0811178-01

Client Sample ID: TP-7

Collection Date: 11/12/2008 9:55:00 AM

Date Received: 11/13/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE .				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1 .	11/14/2008
Motor Oil Range Organics (MRO)	ND ND	5.0	mg/L	1	11/14/2008
Surr. DNOP	133	58-140	%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	11/18/2008 12:55:14 AM
Surr: BFB	81.3	59.9-122	%REC	1	11/18/2008 12:55:14 AM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	11/18/2008 12:55:14 AM
Benzene	ND	1.0	μg/L	1	11/18/2008 12:55:14 AM
Toluene	ND	1.0	μg/L	1	11/18/2008 12:55:14 AM
Ethylbenzene	ND	1.0	μg/L	1	11/18/2008 12:55:14 AM
Xylenes, Total	ND	2.0	μg/L	1	11/18/2008 12:55:14 AM
Surr: 4-Bromofluorobenzene	96.3	65.9-130	%REC	1 .	11/18/2008 12:55:14 AM
EPA 6010B: TOTAL RECOVERABLE	METALS			ż	Analyst: SNV
Lead	ND	0.0050	mg/L	1	12/4/2008 12:25:36 PM



- * 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

Date: 16-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811178

Project:

River Terrace 4rd QTR 2008

Lab ID:

0811178-02

Client Sample ID: MW#49

Collection Date: 11/12/2008 10:15:00 AM

Date Received: 11/13/2008

Matrix: AQUEOUS

Analyses	Result	PQL Qu	ial Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE .				Analyst: SCC
Diesel Range Organics (DRO)	· ND	1.0	mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	. 5.0	mg/L	1	11/14/2008
Surr: DNOP	128	58-140	%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1.	11/18/2008 1:25:34 AM
Surr: BFB	84.0	59.9-122	%REC	1	11/18/2008 1:25:34 AM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5	μ g/L	1	11/18/2008 1:25:34 AM
Benzene	ND	1.0	µg/L	1	11/18/2008 1:25:34 AM
Toluene	ND	1.0	μg/L	1	11/18/2008 1:25:34 AM
Ethylbenzene	ND	1.0	μg/L	1	11/18/2008 1:25:34 AM
Xylenes, Total	ND	2.0	μ g/L	1	11/18/2008 1:25:34 AM
Surr: 4-Bromofluorobenzene	93.9	65.9-130	%REC	1	11/18/2008 1:25:34 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: SNV
Lead	0.0068	0.0050	mg/L	1	12/4/2008 12:34:33 PM

- * 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

Page 2 of 8

Date: 16-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811178

Project:

River Terrace 4rd QTR 2008

Lab ID:

0811178-03

Client Sample ID: TP-10

Collection Date: 11/12/2008 10:40:00 AM

Date Received: 11/13/2008

Analyses	Result	PQL Q	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE					Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	11/14/2008
Surr: DNOP	131	58-140	%REC	. 1	11/14/2008
EPA METHOD 8015B: GASOLINE RAI	NGE ·		•		Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1 .	11/18/2008 1:55:51 AM
Surr: BFB	82.4	59.9-122	%REC	1	11/18/2008 1:55:51 AM
					•
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND .	2.5	μg/L	1	11/18/2008 1:55:51 AM
Benzene	ND.	1.0	μg/L	1	11/18/2008 1:55:51 AM
Toluene	ND .	1.0	μg/L	1	11/18/2008 1:55:51 AM
Ethylbenzene	ND	1.0	μg/L	1	11/18/2008 1:55:51 AM
Xylenes, Total	ND ND	2.0	μg/L	1	11/18/2008 1:55:51 AM
Surr: 4-Bromofluorobenzene	99.9	65.9-130	%REC	1	11/18/2008 1:55:51 AM
EPA 6010B: TOTAL RECOVERABLE I	WETALS			•	Analyst: SNV
Lead	0.0059	0.0050	mg/L	1	12/4/2008 12:51:27 PM

Qualif	iers
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- Value exceeds Maximum Contaminant Level
- Е Estimated value
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 16-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811178

0011

River Terrace 4rd QTR 2008

Project: Lab ID:

0811178-04

Client Sample ID: TP-13

Collection Date: 11/12/2008 11:00:00 AM

Date Received: 11/13/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	BE .				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	· ND	5.0	mg/L	1	11/14/2008
Surr: DNOP	127	58-140	%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	11/18/2008 2:26:16 AM
Surr: BFB	78.8	59.9-122	%REC	1	11/18/2008 2:26:16 AM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	11/18/2008 2:26:16 AM
Benzene	ND	1.0	µg/L	1	11/18/2008 2:26:16 AM
Toluene	ND	1.0	μg/L	1	11/18/2008 2:26:16 AM
Ethylbenzene	ND	1.0	μg/L	1	11/18/2008 2:26:16 AM
Xylenes, Total	ND	2.0	μg/L	. 1	11/18/2008 2:26:16 AM
Surr: 4-Bromofluorobenzene	93.1	65.9-130	%REC	1	11/18/2008 2:26:16 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: SNV
Lead	0.0073	0.0050	mg/L	1	12/4/2008 12:54:19 PM

Qualifiers:

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

Date: 16-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811178

Project:

River Terrace 4rd QTR 2008

Lab ID:

0811178-05

Client Sample ID: FIELD BLANK

Collection Date: 11/12/2008 11:15:00 AM

Date Received: 11/13/2008

Matrix: TRIP BLANK

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: DAM
Gasoline Range Organics (GRO)	, ND	0.050	. mg/L	1	11/18/2008 2:56:38 AM
Surr: BFB	78.5	59.9-122	%REC	1	11/18/2008 2:56:38 AM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	11/18/2008 2:56:38 AM
Benzene	ND	1.0	μg/L	1	11/18/2008 2:56:38 AM
Toluene	ND	1.0	μg/L	1	11/18/2008 2:56:38 AM
Ethylbenzene	ND	1.0	μg/L	1	11/18/2008 2:56:38 AM
Xylenes, Total	ND	2.0	μg/L	1	11/18/2008 2:56:38 AM
Surr: 4-Bromofluorobenzene	90.8	65.9-130	%REC	1	11/18/2008 2:56:38 AM

- 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

Date: 16-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811178

River Terrace 4rd QTR 2008

Project: Lab ID:

0811178-06

Client Sample ID: TP-12

Collection Date: 11/12/2008 1:10:00 PM

Date Received: 11/13/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE .		· · · · · · · · · · · · · · · · · · ·		Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	11/14/2008
Surr: DNOP	135	58-140	%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RA	ANGE		•		Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	11/18/2008 3:26:56 AM
Surr: BFB	78.7	59.9-122	%REC	1	11/18/2008 3:26:56 AM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	11/18/2008 3:26:56 AM
Benzene	ND	- 1.0	µg/L	1	11/18/2008 3:26:56 AM
Toluene	ND	1.0	μg/L	1	11/18/2008 3:26:56 AM
Ethylbenzene	ND	1.0	μg/L	1	11/18/2008 3:26:56 AM
Xylenes, Total	ND	2.0	μg/L	1	11/18/2008 3:26:56 AM
Surr: 4-Bromofluorobenzene	92.3	65.9-130	%REC	1	11/18/2008 3:26:56 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				Analyst: SNV
Lead	ND	0.0050	mg/L	1	12/4/2008 1:00:14 PM



- * 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

Date: 16-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811178

Project:

River Terrace 4rd QTR 2008

Lab ID:

0811178-07

Client Sample ID: TP-11

Collection Date: 11/12/2008 1:30:00 PM

Date Received: 11/13/2008

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE	=	**** * *** * ***			Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	. 1 '	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	11/14/2008
Surr: DNOP	135	58-140	%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RAI	NGE		•		Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	11/18/2008 3:57:21 AM
Surr: BFB	79.2	59.9-122	%REC	1	11/18/2008 3:57:21 AM
EPA METHOD 8021B: VOLATILES	•				Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	11/18/2008 3:57:21 AM
Benzene	ND	1.0	μg/L	1	11/18/2008 3:57:21 AM
Toluene	ND	1.0	μg/L	1	11/18/2008 3:57:21 AM
Ethylbenzene	ND	1.0	μg/L	1	11/18/2008 3:57:21 AM
Xylenes, Total	ND	2.0	μg/L	1	11/18/2008 3:57:21 AM
Surr: 4-Bromofluorobenzene	92.5	65.9-130	%REC	1	11/18/2008 3:57:21 AM
1.	•				
EPA 6010B: TOTAL RECOVERABLE I	VIETALS				Analyst: SNV
Lead	0.0058	0.0050	mg/L	1	12/4/2008 1:03:08 PM

- 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

Date: 16-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811178

Project:

River Terrace 4rd QTR 2008

Lab ID:

0811178-08

Client Sample ID: TP-3

Collection Date: 11/12/2008 1:50:00 PM

Date Received: 11/13/2008

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	. 1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	11/14/2008
Surr: DNOP	131	58-140	%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RA	NGE	,			Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	11/18/2008 4:27:53 AM
Surr: BFB	80.0	59.9-122	%REC	1	11/18/2008 4:27:53 AM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	11/18/2008 4:27:53 AM
Benzene	ND	1.0	µg/L	1	11/18/2008 4:27:53 AM
Toluene	ND	1.0	µg/L	1	11/18/2008 4:27:53 AM
Ethylbenzene	ND	1.0	μg/L	1	11/18/2008 4:27:53 AM
Xylenes, Total	ND	2.0	μg/L	1	11/18/2008 4:27:53 AM
Surr: 4-Bromofluorobenzene	94.2	65.9-130	%REC	1	11/18/2008 4:27:53 AM
EPA 6010B: TOTAL RECOVERABLE	METALS	•			Analyst: SNV
Lead	ND	0.0050	mg/L	1	12/4/2008 1:06:00 PM



Value exceeds Maximum Contaminant Level

Ε Estimated value

Analyte detected below quantitation limits

Not Detected at the Reporting Limit ND

Spike recovery outside accepted recovery limits

Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Reporting Limit

DATES REPORT

0811178 Lab Order:

Western Refining Southwest, Inc. Client:

River Terrace 4rd QTR 2008 Project:

	the material of the property o			(a reserving of the entering of the entering which are noted to be a few for the entering of the entering of the	A STATE OF THE STA	Special Biomerican Committee	AND THE PERSON OF STREET	A STANDARD OF THE PARTY OF THE
Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Instrument Run ID	QC Batch ID	Prep Date	Analysis Date
0811178-01A	TP-7	M	Aqueous	EPA Method 8015B: Diesel Range	TD(17A) 2_081114	17633	11/14/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31218		11/18/2008
	-			EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/18/2008
0811178-01B	:			EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811178-02A	MW#49	11/12/2008 10:15:00 AM		EPA Method 8015B: Diesel Range	ID(17A) 2_081114,	17633	11/14/2008	11/14/2008
			·	EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31218		11/18/2008
0811178-02B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811178-03A	TP-10	11/12/2008 10:40:00 AM		EPA Method 8015B: Diesel Range	ID(17A) 2_081114	17633	11/14/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31218	•	11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/18/2008
0811178-03B	· · · · · · · · · · · · · · · · · · ·			EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811178-04A	TP-13	11/12/2008 11:00:00 AM		EPA Method 8015B: Diesel Range	TD(17A) 2_081114,	17633	11/14/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31218 ·		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/18/2008
0811178-04B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811178-05A	FIELD BLANK	11/12/2008 11:15:00 AM	Trip Blank	EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008
			٠	EPA Method 8021B: Volatiles	ZEUS_081117A	R31218		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/18/2008
0811178-06A	TP-12	11/12/2008 1:10:00 PM	Aqueous	· EPA Method 8015B: Diesel Range	'ID(17A) 2_081114,	17633	11/14/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008

11





DATES REPORT

Hall Environmental Analysis Laboratory, Inc.

Lab Order: 0811178

Client: Western Refining Southwest, Inc.

Project: River Terrace 4rd QTR 2008

,		,						
Sample ID	Client Sample ID	Sample ID Client Sample ID Collection Date	Matrix		Instrument Run ID QC Batch ID Prep Date	QC Batch ID	Prep Date	Analysis Date
	TP-12	11/12/2008 1:10:00 PM	Aqueous	Aqueous EPA Method 8021B: Volatiles	ZEUS_081117A R31218	R31218	H	11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/18/2008
0811178-06B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811178-07A	TP-11	11/12/2008 1:30:00 PM		EPA Method 8015B: Diesel Range	'ID(17A) 2_081114,	17633	11/14/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31218		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/18/2008
0811178-07B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811178-08A	TP-3	11/12/2008 1:50:00 PM		EPA Method 8015B: Diesel Range	'ID(17A) 2_081114,	17633	11/14/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008
12				EPA Method 8021B: Volatiles	ZEUS_081117A	R31218		11/18/2008
				EPA Method 8021B. Volatiles	ZEUS_081117B	R31252		11/18/2008
0811178-08B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008

Date: 16-Dec-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

River Terrace 4rd QTR 2008

Work Order:

0811178

-								•
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD RF	PDLimit Qual
Method: EPA Method 8015B: D	iesel Range		-					•
Sample ID: MB-17633		MBLK			Batch	1D: 17633	Analysis Date:	11/14/2008
Diesel Range Organics (DRO)	ND	mg/L	1.0					
Motor Oil Range Organics (MRO)	ND	mg/L	5.0				•	*
Surr: DNOP	1.260	mg/L	0	126	58	140		
Sample ID: LCS-17633		LCS			Batch	ID: 17633	Analysis Date:	11/14/2008
Diesel Range Organics (DRO)	6.405	mg/L	1.0	128	74	157		
Surr: DNOP	0.6584	mg/L	0	132	58	140		
Sample ID: LCSD-17633		LCSD			Batch	ID: 17633	Analysis Date:	11/14/2008
Diesel Range Organics (DRO)	6.604	mg/L	1.0	132	74	157	3.06	23
Surr: DNOP	0.6703	mg/L	0 .	134	58	140	0	0
Method: EPA Method 8015B: G	asoline Ran	iae						
Sample ID: 5ML RB		MBLK			Batch	ID: R31218	Analysis Date:	11/17/2008 9:27:00 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	19.62	mg/L	0	98.1	59.9	122		
Sample ID: 2.5UG GRO LCS		LCS			Batch	ID: R31218	Analysis Date:	11/17/2008 7:51:29 PM
Gasoline Range Organics (GRO)	0.4146	mg/L	0.050	82.9	80	115	4	
Surr: BFB	16.60	mg/L	0	83.0	59.9	122		
Method: EPA Method 8021B: V	olatiles	•						
Sample ID: b 10		MBLK			Batch	ID: R31252	Analysis Date:	11/17/2008 2:03:31 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					
Kylenes, Total	ND	μg/L	2.0					
Surr: 4-Bromofluorobenzene	18.73	μg/L	0	93.6	65.9	130		
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R31252	Analysis Date:	11/17/2008 7:21:05 PM
Methyl tert-butyl ether (MTBE)	19.40	µg/L	2.5	97.0	51.2	138	•	
Benzene	21.66	μg/L	1.0	108	85.9	113		•
Foluene	21.98	μg/L	1.0	110	86.4	113		
Ethylbenzene	21.95	µg/L	1.0	110	83.5	118		
Xylenes, Total	66.17	μg/L	2.0	110	83.4	122		
Surr: 4-Bromofluorobenzene	20.53	μg/L	0	103	65.9	130		
Viethod: EPA 6010B: Total Rec	overable Me	etals	-					
Sample ID: MB-17744		MBLK			Batch	ID: 17744	Analysis Date:	12/4/2008 11:34:21 AM
Lead	ND	mg/L	0.0050				,	
Sample ID: LCS-17744	110	LCS	0.0000		Batch	ID: 17744	Analysis Date:	12/4/2008 11:39:05 AN
Lead	0.4707	mg/L	0.0050	94.1	80	120	, waiyoto Date.	12/7/2000 11.03.00 AIV

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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

Page 1

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT	. ,		•	Date Received	:		11/13/2008	
Work Order Number 0811178				Received by:	TLS		_	
Checklist completed by: Signature			200 Date	Sample ID lat	pels checked	_	nitials	
Matrix:	Carrier name <u>L</u>	JPS		,				
Shipping container/cooler in good condition?	Y	es/	V	No 🗌	Not Present			
Custody seals intact on shipping container/cooler	? Y	'es	V	No 🗌	Not Present		Not Shipped	
Custody seals intact on sample bottles?	Y	'es		No 🗌	N/A	✓		
Chain of custody present?	Y	es '	✓	No 🗌		٠		
Chain of custody signed when relinquished and re	eceived? Y	'es	✓	No 🗌				
Chain of custody agrees with sample labels?	Y	'es	✓	No 🗌				
Samples in proper container/bottle?	·	'es	✓	No 🗌				
Sample containers intact?	Y	'es	✓	No 🗌				
Sufficient sample volume for indicated test?	Υ	'es	✓	No 🗌				
All samples received within holding time?	Υ	'es	✓	No 🗌				
Water - VOA vials have zero headspace?	No VOA vials submitt	ed	·	Yes 🗹	No 🗌			
Water - Preservation labels on bottle and cap ma	tch? Y	'es	V	No 🗌	N/A			
Water - pH acceptable upon receipt?	Y	'es	✓	No 🗆	N/A □			
Container/Temp Blank temperature?		4	•	6° C Acceptable				
COMMENTS:			lf	given sufficient	time to cool.			
						===		
Client contacted	Date contacted:			Perso	n contacted			
Contacted by: F	Regarding:							
Comments:								
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Corrective Action								
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I ATNAMNOGIVNA I I AL			s NE - Albuquerque, NM 87109	Fax	Analysis Request				ON 808	a 1, €O 1, √ 8. 1, √ 8.	etali OL,N,IC Cide OA)	EDB (Methanger) (Methanger) (F, Methanger) (F, Methanger) (F, Methanger) (Sembler) (Se		X		\(\times \)		>		*		,				nis serves as notice of this possibility. Any sub-contracted data will be clearly notated on the
¥			4901 Hawkins NE	Tel. 505-345-3975		(ʎĮu	o se	e) () B	9۱0 L +	TBE	BTEX + M TPH Metho TPH (Metho	L		×		XX		×		X	X		Remarks:		ossibility. Any sub-cont
	□ Rush		e 4 CTR 2008						K	- INo		Preservative HEAL No. Type		HN03 /	7	2 20		HN03 3	HCL 4	41NO2 4	HCL F	Hcc 4		Date Time S US I CO	Date Time	
Turn-Around Time:	(P-Standard	Project Name:	River Terna	Project #:		Project Manager:		Ĩ	Sampler [74] / RM	On Ice; /√Dyes	Sample Temperature:	Container Pres	4.64 H			7		Some			B-VOA H	4-VOA F	3	. (Réceived by	ntracted to other accredite
Chain-of-Custody Record	Client: Western Refining (Blafle)		CR 4990	N 8741.3	-63%-	632-351/	\ 	(Full Validation)				Matrix Sample Request ID	120 TR7		HOD MWITHOUT		7-7-7		TP-13		Field Blank	21-97 601		Relinquished by:		samples submitted to Hall Environmental may be subcontracted to other accredited laborato
Chain	Client: West		Mailing Address: #50	Blowfield	Phone #: 50		QA/QC Package:	☐ Standard	□ Other	☐ EDD (Type)		Date Time	11/2/08 985A		DIZA		Portur		The second secon		251	 110m		Date: Time:	Date: Time:	lf new

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		ANALYSIS LABORATORY	www.hallenvironmental.com	Albuquerque, NM 87109	ž.	ysis Request	(†(O,국) anoinA														
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	_	Client:		Mailing Address: #5% (12 499)	1	Phone #:	email or Fax#:	QA/QC Package:	☐ Standard	☐ Cirier ☐ EDD (Type)		Date	M 12/09		A A	-	_								Date:	
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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.



COVER LETTER

Friday, March 21, 2008

Cindy Hurtado San Juan Refining #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 1st Qtr-2008-VS

Dear Cindy Hurtado:

Order No.: 0803096

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 3/12/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425

AZ license # AZ0682

ORELAP Lab # NM100001



Date: 21-Mar-08

CLIENT:

San Juan Refining

Project:

River Terrace 1st Qtr-2008-VS

Lab Order:

0803096

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803096-01A	TP-2	R27684	EPA Method 8015B: Gasoline Range	3/10/2008 11:55:00 AM
0803096-01A	TP-2	R27684	EPA Method 8021B: Volatiles	3/10/2008 11:55:00 AM
0803096-02A	TP-1	R27684	EPA Method 8015B: Gasoline Range	3/10/2008 12:15:00 PM
0803096-02A	TP-1	R27684	EPA Method 8021B: Volatiles	3/10/2008 12:15:00 PM
0803096-03A	TP-6	R27684	EPA Method 8015B: Gasoline Range	3/10/2008 1:50:00 PM
0803096-03A	TP-6	R27684	EPA Method 8021B: Volatiles	3/10/2008 1:50:00 PM
0803096-04A	TP-8	R27700	EPA Method 8015B: Gasoline Range	3/10/2008 2:15:00 PM
0803096-04A	TP-8	R27700	EPA Method 8021B: Volatiles	3/10/2008 2:15:00 PM
0803096-04A	TP-8	R27684	EPA Method 8015B: Gasoline Range	3/10/2008 2:15:00 PM
0803096-04A	TP-8	R27684	EPA Method 8021B: Volatiles	3/10/2008 2:15:00 PM
0803096-05A	TP-7	R27684	EPA Method 8015B: Gasoline Range	3/10/2008 2:30:00 PM
0803096-05A	TP-7	R27684	EPA Method 8021B: Volatiles	3/10/2008 2:30:00 PM
0803096-06A	Soil Vapor Field Bla	R27684	EPA Method 8015B: Gasoline Range	3/10/2008 12:00:00 PM
0803096-06A	Soil Vapor Field Bla	R27684	EPA Method 8021B: Volatiles	3/10/2008 12:00:00 PM

Date: 21-Mar-08

CLIENT:

San Juan Refining

Project:

River Terrace 1st Qtr-2008-VS

Lab Order:

0803096

CASE NARRATIVE

Analytical Comments for METHOD 8015GRO_A, SAMPLE 0803096-05A DUP: Elevated surrogate due to matrix interference. Analytical Comments for METHOD 8015GRO_A, SAMPLE 0803096-02A: Elevated surrogate due to matrix interference. Analytical Comments for METHOD 8015GRO_A, SAMPLE 0803096-05A: Elevated surrogate due to matrix interference.

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803096

Project:

River Terrace 1st Qtr-2008-VS

Lab ID:

0803096-01

Client Sample ID: TP-2

Collection Date: 3/10/2008 11:55:00 AM

Date Received: 3/12/2008

Analyses	Result	PQL	Qual V	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: NSB
Gasoline Range Organics (GRO)	18	5.0		ug/L	1	3/12/2008 11:36:12 AM
Surr: BFB	128	76.8-150	Q	%REC	1	3/12/2008 11:36:12 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.57	0.10	ŀ	ug/L	1	3/12/2008 11:36:12 AM
Toluene	ND	0.10		µg/L	1	3/12/2008 11:36:12 AM
Ethylbenzene	0.36	0.10	ļ	μg/L	1	3/12/2008 11:36:12 AM
Xylenes, Total	1.1	0.30	ļ.	ug/L	1	3/12/2008 11:36:12 AM
Surr: 4-Bromofluorobenzene	99,4	70.2-105	Q	%REC	1	3/12/2008 11:36:12 AM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 21-Mar-08

CLIENT:

Project:

Lab ID:

San Juan Refining

Lab Order:

0803096

River Terrace 1st Qtr-2008-VS

0803096-02

Client Sample ID: TP-1

Collection Date: 3/10/2008 12:15:00 PM

Date Received: 3/12/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE					Analyst: NSB
Gasoline Range Organics (GRO)	90	5.0		μg/L	1	3/12/2008 12:07:00 PM
Surr: BFB	157	76.8-150	S	%REC	1	3/12/2008 12:07:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	4.5	0.10		μg/L	1	3/12/2008 12:07:00 PM
Toluene	ND	0.10		μg/L	1	3/12/2008 12:07:00 PM
Ethylbenzene	6.0	0.10		μg/L	1	3/12/2008 12:07:00 PM
Xylenes, Total	11	0.30		μg/L	1	3/12/2008 12:07:00 PM
Surr: 4-Bromofluorobenzene	108	70.2-105	S	%REC	1	3/12/2008 12:07:00 PM

- Value exceeds Maximum Contaminant Level
- Ē Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803096

River Terrace 1st Qtr-2008-VS

Project: Lab ID:

0803096-03

Client Sample ID: TP-6

Collection Date: 3/10/2008 1:50:00 PM

Date Received: 3/12/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE		.		Analyst: NSB
Gasoline Range Organics (GRO)	9.8	5.0	μg/L	. 1	3/12/2008 12:37:41 PM
Surr: BFB	117	76.8-150	%REC	1	3/12/2008 12:37:41 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	3/12/2008 12:37:41 PM
Toluene	ND	0.10	μg/L	1	3/12/2008 12:37:41 PM
Ethylbenzene	0.49	0.10	μg/L	· 1	3/12/2008 12:37:41 PM
Xylenes, Total	1.3	0.30	μg/L	1	3/12/2008 12:37:41 PM
Surr: 4-Bromofluorobenzene	91.3	70.2-105	%REC	1	3/12/2008 12:37:41 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803096

Project:

River Terrace 1st Qtr-2008-VS

Lab ID:

0803096-04

Client Sample ID: TP-8

Collection Date: 3/10/2008 2:15:00 PM

Date Received: 3/12/2008

Matrix: AIR

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
PA METHOD 8015B: GASOLINE RA	NGE		· · · · · · · · · · · · · · · · · · ·		Analyst: NSB
Gasoline Range Organics (GRO)	5.0	5.0	μg/L	1	3/12/2008 1:51:35 PM
Surr: BFB	115	76.8-150	%REC	1	3/12/2008 1:51:35 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	3/12/2008 1:51:35 PM
Toluene	ND	0.10	μg/L	1	3/12/2008 1:51:35 PM
Ethylbenzene	0.23	0.10	μg/L	1	3/12/2008 1:51:35 PM
Xylenes, Total	1.2	0.30	μg/L	1	3/12/2008 1:51:35 PM
Surr: 4-Bromofluorobenzene	98.2	70.2-105	%REC	1	3/12/2008 1:51:35 PM

Value exceeds Maximum Contaminant Level

Spike recovery outside accepted recovery limits

- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - RL Reporting Limit

ing Limit Page 4 of 6

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803096

Project:

River Terrace 1st Qtr-2008-VS

Lab ID:

0803096-05

Client Sample ID: TP-7

Collection Date: 3/10/2008 2:30:00 PM

Date Received: 3/12/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE R	ANGE					Analyst: NSB
Gasoline Range Organics (GRO)	47	5.0		µg/L	1 ,	3/12/2008 2:22:21 PM
Surr: BFB	163	76.8-150	S	%REC	1	3/12/2008 2:22:21 PM
EPA METHOD 8021B: VOLATILES	,					Analyst: NSB
Benzene	0.13	0.10		µg/L	1	3/12/2008 2:22:21 PM
Toluene	0.10	0.10		µg/L	1	3/12/2008 2:22:21 PM
Ethylbenzene	0.44	0.10		µg/L	1	3/12/2008 2:22:21 PM
Xylenes, Total	2.6	0.30		µg/L	1	3/12/2008 2:22:21 PM
Surr: 4-Bromofluorobenzene	106	70.2-105	S	%REC	1	3/12/2008 2:22:21 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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



CLIENT:

San Juan Refining

Lab Order:

0803096

Project:

River Terrace 1st Qtr-2008-VS

Lab ID:

0803096-06

Client Sample ID: Soil Vapor Field Blank

Collection Date: 3/10/2008 12:00:00 PM

Date Received: 3/12/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE		alignation and the Market Market State of the	· · · · · · · · · · · · · · · · · · ·	Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	3/12/2008 3:22:57 PM
Surr: BFB	109	76.8-150	%REC	1	3/12/2008 3:22:57 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	3/12/2008 3:22:57 PM
Toluene	ND	0.10	μg/L	1	3/12/2008 3:22:57 PM
Ethylbenzene	ND	0.10	μg/L	1	3/12/2008 3:22:57 PM
Xylenes, Total	ND	0.30	μg/L	1	3/12/2008 3:22:57 PM
Surr: 4-Bromofluorobenzene	98.0	70.2-105	%REC	1	3/12/2008 3:22:57 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project:

River Terrace 1st Qtr-2008-VS

Work Order:

0803096

Analyte	Result	Units	PQL	%Rec	LowLimit F	 lighLimit	%RPD RP	'DLimit Qual
				,,,,,,,				- Coor
Method: EPA Method 8015B: G	iasoline Rar	•			•			
Sample ID: 0803096-05A DUP		DUP	•	•	Batch ID:	R27684	Analysis Date:	3/12/2008 2:52:36 PN
Gasoline Range Organics (GRO)	48.60	μg/L	5.0					
Surr: BFB	3314	μg/L	0	166	76.8	150		S
Method: EPA Method 8015B: G	asoline Rar	nge						
Sample ID: 5ML RB		MBLK			Batch ID:	R27684	Analysis Date:	3/12/2008 9:03:18 AN
Gasoline Range Organics (GRO)	NĎ	mg/L	0.050					
Surr. BFB	20.44	mg/L	0	102	79.2	121		
Sample ID: 2.5UG GRO LCS		LCS			Batch ID:	R27684	Analysis Date:	3/12/2008 5:54:50 PN
Gasoline Range Organics (GRO)	0.4880	mg/L	0.050	97.6	80	115		
Surr: BFB	22.09	mg/L	0	110	79.2	121		
Method: EPA Method 8021B: V	olatiles							
Sample ID: 0803096-05A DUP		DUP			Batch ID:	R27684	Analysis Date:	3/12/2008 2:52:36 PM
Benzene	0.1274	µg/L	0.10					
Toluene	0.1022	μg/L	0.10					•
Ethylbenzene	0.4356	μg/L	0.10					
Xylenes, Total	ND	μg/L	0.30					
Surr: 4-Bromofluorobenzene	2.136	µg/L	0	107	70.2	105		S
Method: EPA Method 8021B: V	olatiles							
Sample ID: b 5		MBLK			Batch ID:	R27684	Analysis Date:	3/12/2008 11:05:24 AM
Benzene	ND	μg/L	1.0					
Toluene	ND	μg/L	1.0					
Ethylbenzene	ND	μg/L	1.0					
Xylenes, Total	ND	µg/L	2.0					
Surr: 4-Bromofluorobenzene	17.90	μg/L	. 0	89.5	68.9	122		
Sample ID: 100NG BTEX LCS		LCS			Batch ID:	R27684	Analysis Date:	3/12/2008 4:54:11 PM
Benzene	19.41	µg/L	1.0	97.0	85.9	113		
Toluene	19.60	µg/L	1.0	98.0	86.4	113		
Ethylbenzene	20.04	μg/L	1.0	100	83.5	118		
Xylenes, Total	58.09	µg/L	2.0	95.6	83.4	122		
Surr: 4-Bromofluorobenzene	20.40	μg/L	0	102	68.9	122		



- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits



QA/QC SUMMARY REPORT

Elient:

San Juan Refining

Project:

River Terrace 1st Otr-2008-VS

Work Order:

0803096

Analyte	Result	Units	PQL	%Rec	LowLimit H	lighLimit	%RPD	RPDL	imit Qual
Method: EPA Method 8015B: G	asoline Rar								
Sample ID: 0803097-03A DUP		DUP			Batch ID	: R27700	Analysis Date	e :	3/13/2008 3:21:28 PM
Gasoline Range Organics (GRO)	ND	μg/L	5.0	,			0	27.8	
Surr: BFB	2164	µg/L	0	108	76.8	150	0	0	
Method: EPA Method 8015B: G	asoline Rar	ige							
Sample ID: 5ML RB		MBLK			Batch ID	: R27700	Analysis Date	9:	3/13/2008 9:42:09 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	20.68	mg/L	0	103	79.2	121			
Sample ID: 2.5UG GRO LCS		LCS			Batch ID	: R27700	Analysis Date	e:	3/13/2008 7:24:36 PM
Gasoline Range Organics (GRO)	0.4880	mg/L	0.050	97.6	80	115			
Surr: BFB	22.39	mg/L	0	112	79.2	121			
Method: EPA Method 8021B: V	olatiles			•					
Sample ID: 0803097-03A DUP		DUP			Batch ID	: R27700	Analysis Date	9 :	3/13/2008 3:21:28 PM
Benzene	ND	μg/L	0.10				0	25	
Toluene	ND	μg/L	0.10				0	25	
Ethylbenzene	ND	μg/L	0.10				0	25	
Xylenes, Total	ND	μg/L	0.30				0	25	
Surr: 4-Bromofluorobenzene	1.982	µg/L	0	99.1	70.2	105	0	0	
ethod: EPA Method 8021B: V	olatiles								
Sample ID: 5ML RB		MBLK			Batch ID	R27700	Analysis Date	ə :	3/13/2008 9:42:09 AM
Benzene	ND	μg/L	1.0						
Toluene	ND	μg/L	1.0						
Ethylbenzene	ND	μg/L	1.0				•		•
Xylenes, Total	ND	μg/L	2.0		100				
Surr: 4-Bromofluorobenzene	19.08	μg/L	0	95.4	68.9	122			
Sample ID: 100NG BTEX LCS		LCS		•	Batch ID	: R27700	Analysis Date	e:	3/13/2008 6:24:20 PM
Benzene	19.57	μg/L	1.0	97.8	85.9	113			
Toluene	19.99	μg/L	1.0	100	86.4	113			
Ethylbenzene	20.09	μg/L	1.0	100	83.5	118			
Xylenes, Total	58.66	μg/L	2.0	97.1	83.4	122			
Surr: 4-Bromofluorobenzene	20.42	μg/L	0	102	68.9	122	•		



- E Value above quantitation range
- 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

Page 2

Sample Receipt Checklist

Client Name SJR			Date Receive	d:	3/12/2008
Work Order Number 0803096			Received by	r: ARS	
Checklist completed by: Signature	73	3)12 Date	Sample ID la	abels checked b	oy //
Matrix Carrier name	<u>UPS</u>				
Shipping container/cooler in good condition?	Yes	✓	No 🗌	Not Present	
Custody seals intact on shipping container/cooler?	Yes	\checkmark	No 🗌	Not Present	☐ Not Shipped ☐
Custody seals intact on sample bottles?	Yes		No 🗆	N/A	\checkmark
Chain of custody present?	Yes	\checkmark	No 🗆		
Chain of custody signed when relinquished and received?	Yes	\checkmark	No 🗌		
Chain of custody agrees with sample labels?	Yes	V	No 🗌		
Samples in proper container/bottle?	Yes	√	No 🗌	•	
Sample containers intact?	Yes	V	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 subm	itted	✓	Yes	No 🗆	
	Yes		No 🗆	N/A	
Water - pH acceptable upon receipt?	Yes		No 🗆	N/A 🗹	
Container/Temp Blank temperature?			<6° C Acceptab	ole	
COMMENTS:			If given sufficien	t time to cool.	
		<u> </u>			
Client contacted: Date contacted:			Pers	son contacted	
Contacted by: Regarding	-				
Comments: Devict Collection time	. (Na	(N 00	Carant	10 101010
Comments: Aw CH Cafection time	~	071	Cac Za-E	corees p	M- 9/2/18
		<u>,</u>			
·		 -			
			·		· · · · · · · · · · · · · · · · · · ·
Corrective Action					

HALL ENVIRONMENTAL ANALYSIS LABORATORY 4901 Hawkins NE, Suite D	Albuquerque, New Mexico 87109 Tel. 505.345.3975 Fax 505.345.4107	VVVVV. Transtitus Cimitation. Com	ANALYSIS REQUEST		(808S) (*) 20 ⁴)	\ bCB.e '' NO ⁵ ' b 'H) '1) '1)	14 bor 50 bor 60	EDB (Met) EDB (Met) EDC (Met) B310 (PN) RCRA 8 M Anions (F, 1808) 82608 (V 82608 (V 8270 (Ser											
OA / DC Package: Std	Project Name:	River TerrAce (ID) 2008	Project #:	(4)	nO ənilose	5) H9T	+ 38T	Number/Volume HgCl ₂ HNO ₃ CACACA RESET	1-Tedline	(X) X C C C C C C C C		X	\(\times\)	9				Received By: (Signature) Received By: (Signature)	
CHAIN-OF-CUSTODY RECORD	Client: SAN JUAN REFINING	(WESTERN RECINING)	Address: #50 CR 4990	Bloomfield NM 87413		Phone #: 505-632 - 4/6/	Fax# 505-632-39//	Date Matrix Sample I.D. No.	3/10/08 155A VAPOR 17-2	1289 172-1	150pm TP-6	25pm TP-8	23pm TP-7	1200 (50:1 VABOR 1-				2008 25 on Relinquished By: (Signature) Date: Time: Relinquished By: (Signature)	



COVER LETTER

Friday, March 21, 2008

Cindy Hurtado San Juan Refining #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: River Terrace 1st Qtr-2008-VS

Dear Cindy Hurtado:

Order No.: 0803097

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 3/12/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Treeman, Business Manager Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682

ORELAP Lab # NM100001



Date: 21-Mar-08

CLIENT:

San Juan Refining

Project:

River Terrace 1st Qtr-2008-VS

Lab Order:

0803097

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803097-01A	TP-9	R27700	EPA Method 8015B: Gasoline Range	3/11/2008 9:55:00 AM
0803097-01A	TP-9	R27700	EPA Method 8021B: Volatiles	3/11/2008 9:55:00 AM
0803097-02A	TP-5	R27700	EPA Method 8015B: Gasoline Range	3/11/2008 10:25:00 AM
0803097-02A	TP-5	R27700	EPA Method 8021B: Volatiles	3/11/2008 10:25:00 AM
0803097-03A	DW-1	R27700	EPA Method 8015B: Gasoline Range	3/11/2008 10:55:00 AM
0803097-03A	DW-1	R27700	EPA Method 8021B: Volatiles	3/11/2008 10:55:00 AM
0803097-04A	MW-#49	R27700	EPA Method 8015B: Gasoline Range	3/11/2008 11:25:00 AM
0803097-04A	MW-#49	R27700	EPA Method 8021B: Volatiles	3/11/2008 11:25:00 AM
0803097-05A	TP-10	R27700	EPA Method 8015B: Gasoline Range	3/11/2008 1:10:00 PM
0803097-05A	TP-10	R27700	EPA Method 8021B: Volatiles	3/11/2008 1:10:00 PM
0803097-06A	TP-3	R27700	EPA Method 8015B: Gasoline Range	3/11/2008 1:30:00 PM
0803097-06A	TP-3	R27700	EPA Method 8021B: Volatiles	3/11/2008 1:30:00 PM

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803097

Project:

River Terrace 1st Qtr-2008-VS

Lab ID:

0803097-01

Client Sample ID: TP-9

Collection Date: 3/11/2008 9:55:00 AM

Date Received: 3/12/2008

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE R	ANGE	•	·		Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	3/13/2008 1:19:24 PM
Surr: BFB	111	76.8-150	%REC	1	3/13/2008 1:19:24 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	3/13/2008 1:19:24 PM
Toluene	ND	0.10	μg/L	1	3/13/2008 1:19:24 PM
Ethylbenzene	ND	0.10	µg/L	1	3/13/2008 1:19:24 PM
Xylenes, Total	ND	0.30	μg/L	1	3/13/2008 1:19:24 PM
Surr: 4-Bromofluorobenzene	98.0	70.2-105	%REC	1	3/13/2008 1:19:24 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Η
- MCL Maximum Contaminant Level
 - Reporting Limit

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803097

River Terrace 1st Qtr-2008-VS

Project: Lab ID:

0803097-02

Client Sample ID: TP-5

Collection Date: 3/11/2008 10:25:00 AM

Date Received: 3/12/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE R	ANGE					Analyst: NSB
Gasoline Range Organics (GRO)	55	5.0		μg/L	1	3/13/2008 1:50:08 PM
Surr: BFB	115	76.8-150		%REC	1	3/13/2008 1:50:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		μg/L	1	3/13/2008 1:50:08 PM
Toluene	ND	0.10		μg/L	1	3/13/2008 1:50:08 PM
Ethylbenzene	2.6	0.10		μg/L	1	3/13/2008 1:50:08 PM
Xylenes, Total	12	0.30		µg/L	1	3/13/2008 1:50:08 PM
Surr: 4-Bromofluorobenzene	109	70.2-105	S	%REC	1	3/13/2008 1:50:08 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803097

River Terrace 1st Qtr-2008-VS

Project: Lab ID:

0803097-03

Client Sample ID: DW-1

Collection Date: 3/11/2008 10:55:00 AM

Date Received: 3/12/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	3/13/2008 2:51:07 PM
Surr: BFB	109	76.8-150	%REC	1	3/13/2008 2:51:07 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	3/13/2008 2:51:07 PM
Toluene	ND	0.10	µg/L	1	3/13/2008 2:51:07 PM
Ethylbenzene	ND	0.10	μg/L	1	3/13/2008 2:51:07 PM
Xylenes, Total	ND	0.30	μg/L	1	3/13/2008 2:51:07 PM
Surr: 4-Bromofluorobenzene	98.9	70.2-105	%REC	1	3/13/2008 2:51:07 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

Project:

0803097

River Terrace 1st Qtr-2008-VS

Lab ID:

0803097-04

Client Sample ID: MW-#49

Collection Date: 3/11/2008 11:25:00 AM

Date Received: 3/12/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE	· · · · · · · · · · · · · · · · · · ·			Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	3/13/2008 4:53:23 PM
Surr: BFB	107	76.8-150	%REC	1	3/13/2008 4:53:23 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	3/13/2008 4:53:23 PM
Toluene	ND	0.10	µg/L	1	3/13/2008 4:53:23 PM
Ethylbenzene	ND	0.10	μg/L	1	3/13/2008 4:53:23 PM
Xylenes, Total	ND	0.30	μg/L	1	3/13/2008 4:53:23 PM
Surr: 4-Bromofluorobenzene	97.5	70.2-105	%REC	1	3/13/2008 4:53:23 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803097

080309

River Terrace 1st Qtr-2008-VS

Project: Lab ID:

0803097-05

Client Sample ID: TP-10

Collection Date: 3/11/2008 1:10:00 PM

Date Received: 3/12/2008

Analyses	Result	PQL	Qual U	nits	DF	Date Analyzed
PA METHOD 8015B: GASOLINE RA	· · · · · · · · · · · · · · · · · · ·	Analyst: NSB				
Gasoline Range Organics (GRO)	ND	5.0	μο	g/L	1	3/13/2008 5:23:56 PM
Surr: BFB	111	76.8-150	. %	REC	1	3/13/2008 5:23:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10	μς	g/L	1	3/13/2008 5:23:56 PM
Toluene	ND	0.10	μο	g/L	1	3/13/2008 5:23:56 PM
Ethylbenzene	0.16	0.10	μο	g/L	1	3/13/2008 5:23:56 PM
Xylenes, Total	0.82	0.30	μο	g/L	1	3/13/2008 5:23:56 PM
Surr: 4-Bromofluorobenzene	101	70.2-105	%	REC	1	3/13/2008 5:23:56 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803097

River Terrace 1st Qtr-2008-VS

Project: Lab ID:

0803097-06

Client Sample ID: TP-3

Collection Date: 3/11/2008 1:30:00 PM

Date Received: 3/12/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAI	NGE .				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	µg/L	1	3/13/2008 5:54:10 PM
Surr: BFB	111	76.8-150	%REC	1	3/13/2008 5:54:10 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene :	ND	0.10	μg/L	1	3/13/2008 5:54:10 PM
Toluene	ND	0.10	μg/L	1	3/13/2008 5:54:10 PM
Ethylbenzene	ИD	0.10	µg/L	1	3/13/2008 5:54:10 PM
Xylenes, Total	0.42	0.30	μg/L	1	3/13/2008 5:54:10 PM
Surr: 4-Bromofluorobenzene	100	70.2-105	%REC	1	3/13/2008 5:54:10 PM

- Value exceeds Maximum Contaminant Level
- Ε Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Η
- MCL Maximum Contaminant Level
- Reporting Limit

QA/QC SUMMARY REPORT

lient:

San Juan Refining

roject:

River Terrace 1st Qtr-2008-VS

Work Order:

0803097

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDL	imit Qual
Method: EPA Method 8015B: G	asoline Ran	_							
Sample ID: 0803097-03A DUP		DUP			Batch I	ID: R27700	Analysis Dat	te:	3/13/2008 3:21:28 PM
Gasoline Range Organics (GRO)	ND	μg/L	5.0				0	27.8	
Surr: BFB	2164	µg/L	0	108	76.8	150	0	0	
Method: EPA Method 8015B: G	asoline Ran	J							
Sample ID: 5ML RB	·	MBLK			Batch I	D: R27700	Analysis Dat	te:	3/13/2008 9:42:09 Al
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	20.68	mg/L	0	103	79.2	121			
Sample ID: 2.5UG GRO LCS		LCS			Batch I	D: R27700	Analysis Dat	:e: :	3/13/2008 7:24:36 PM
Gasoline Range Organics (GRO)	0.4880	mg/L	0.050	97.6	80	115			
Surr: BFB	22.39	mg/L	0	112	79.2	121			
Method: EPA Method 8021B: V	olatiles								
Sample ID: 0803097-03A DUP		DUP			Batch I	D: R27700	Analysis Dat	e: :	3/13/2008 3:21:28 PM
Benzene	, ND	μg/L	0.10				0	25	
Toluene	ND	μg/L	0.10				0	25	
Ethylbenzene	ND	μg/L	0.10				0	25	
Xylenes, Total	ND	µg/L	0.30				0	25	
Surr: 4-Bromofluorobenzene	1.982	μg/L	0	99.1	70.2	105	0	0	
ethod: EPA Method 8021B: V	olatiles								
ample ID: 5ML RB		MBLK			Batch I	D: R27700	Analysis Dat	e: :	3/13/2008 9:42:09 AM
Benzene	ND	μg/L	1.0						
Toluene	ND	μg/L	1.0						
Ethylbenzene	ND	μg/L	1.0						
Xylenes, Total	ND	μg/L	2.0						
Surr: 4-Bromofluorobenzene	19.08	μg/L	0	95.4	68.9	122			
Sample ID: 100NG BTEX LCS		LCS			Batch I	D: R27700	Analysis Dat	e: 3	3/13/2008 6:24:20 PN
Benzene	19.57	μg/L	1.0	97.8	85.9	113			
Toluene	19.99	μg/L	1.0	100	. 86.4	113			
Ethylbenzene	20.09	μg/L	1.0	100	83.5	118			
Xylenes, Total	58.66	μg/L	2.0	97.1	83.4	122			
Surr: 4-Bromofluorobenzene	20.42	μg/L	0	102	68.9	122			•



E Value above quantitation range

R RPD outside accepted recovery limits

S Spike recovery outside accepted recovery limits

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Sample Receipt Checklist

Client Name SJR				Date Receive	ed:	3/12/2008	
Work Order Number 0803097			1	Received by	y: ARS	by A	
Checklist completed by:	h &		3 12 Date	08		Initials	
Matrix	Carrier name	<u>UPS</u>					
Shipping container/cooler in good condition	?	Yes	\checkmark	No 🗔	Not Present		
Custody seals intact on shipping container/or	cooler?	Yes	\checkmark	No 🗌	Not Present	☐ Not Shipped	
Custody seals intact on sample bottles?		Yes		No 🗌	N/A		
Chain of custody present?		Yes	\checkmark	No 🗀			
Chain of custody signed when relinquished	and received?	Yes	\checkmark	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	V	No 🗌 🗀			
All samples received within holding time?		Yes	V	No 🗌			
Water - VOA vials have zero headspace?	No VOA vials subn	nitted	✓	Yes \square	No 🗆		
Water - Preservation labels on bottle and ca	ip match?	Yes		No 🗌	N/A 🗹		
Water - pH acceptable upon receipt?		Yes		No 🗌 .	N/A 🗹		
Container/Temp Blank temperature?				<6° C Acceptal	ole		
COMMENTS:				If given sufficien	t time to cool.	·	
		==	===				
				•			
Client contacted	Date contacted:		_	Per	son contacted		
Contacted by:	Regarding				······································		
Comments: Quilit	esthetien to	me	son	Loc a	are Con	re 4/3/	2/08
	 			• • • • • • • • • • • • • • • • • • • •			
							
Corrective Action					•		
OUTECHIVE ACTION				,		· · · · · · · · · · · · · · · · · · ·	

	HALL ENVIRONMENTAL ANALYSIS LABORATORY	4901 Hawkins NE, Suite D	Tel. 505.345.3975 Fax 505.345.4107	WWW. Feller WI Officials Con	ANALYSIS REQUEST		ιλιι	(*09	od (*Od	88.1) (H) (H) (H) (H)	14 807 P.4 bod 50 00 80 00 P.4 q 10 y Q 10 y	Metho Meth Weth (PNA 8 Meth 5 (F, C	8310 RCRA Anions 8081 1808	>	<u> </u>	×		×	\times_\t					.9
QA / QC Package:	Std 🗖 Level 4 🗗	Other:	Project Name:	Distribused	+						cure:	Preservative	HEALNO.	1-Tolar	2	X	7	.77	.s	:			(-	Received By: (Signature) Received By: (Signature)
	SUAIN OF CLISTORY DECORD		Clientisan ILAN RefiniNg	(Western Refining)	Address: #F.S. A.D. 1000	#30 Ch 4170	Bloomfield, NM 87413			Phone #: 505-632-4161	Fax# 505-632-39//		Date Time Matrix Sample I.D. No.	3/11/08 455A VAPOR TP-9	1 pass 1 72.5	1 DW-1	1156- MWH49							Julob Athme: Relinquished By: (Signature) Date: Time: Relinquished By (Signature)



COVER LETTER

Friday, March 21, 2008

Cindy Hurtado San Juan Refining #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 1st Qtr-2008-VS

Dear Cindy Hurtado:

Order No.: 0803117

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 3/13/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Feeman, Business Manager Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682

ORELAP Lab # NM100001



Date: 21-Mar-08

CLIENT:

San Juan Refining

Project:

River Terrace 1st Qtr-2008-VS

Lab Order:

0803117

Work Order Sample Summary

	•			
Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803117-01A	TP-11	R27719	EPA Method 8015B: Gasoline Range	3/12/2008 10:45:00 AM
0803117-01A	TP-11	R27719	EPA Method 8021B: Volatiles	3/12/2008 10:45:00 AM
0803117-02A	TP-13	R27719	EPA Method 8015B: Gasoline Range	3/12/2008 11:00:00 AM
0803117-02A	TP-13	R27719	EPA Method 8021B: Volatiles	3/12/2008 11:00:00 AM
0803117-03A	TP-13 FD	R27719	EPA Method 8015B: Gasoline Range	3/12/2008 11:05:00 AM
0803117-03A	TP-13 FD	R27719	EPA Method 8021B: Volatiles	3/12/2008 11:05:00 AM
0803117-04A	TP-12	R27719	EPA Method 8015B: Gasoline Range	3/12/2008 11:20:00 AM
0803117-04A	TP-12	R27719	EPA Method 8021B: Volatiles	3/12/2008 11:20:00 AM

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803117

Project:

River Terrace 1st Qtr-2008-VS

Lab ID:

0803117-01

Client Sample ID: TP-11

Collection Date: 3/12/2008 10:45:00 AM

Date Received: 3/13/2008

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	3/14/2008 11:43:00 AM
Surr; BFB	103	76.8-150	%REC	1	3/14/2008 11:43:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	3/14/2008 11:43:00 AM
Toluene	ND	0.10	μg/L	1	3/14/2008 11:43:00 AM
Ethylbenzene	ND	0.10	μg/L	1	3/14/2008 11:43:00 AM
Xylenes, Total	ND	0.30	μg/L	1	3/14/2008 11:43:00 AM
Surr: 4-Bromofluorobenzene	90.7	70.2-105	%REC	1	3/14/2008 11:43:00 AM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order: Project:

Lab ID:

0803117

0803117-02

River Terrace 1st Qtr-2008-VS

Collection Date: 3/12/2008 11:00:00 AM

Date Received: 3/13/2008

Client Sample ID: TP-13

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	. ND	5.0	μg/L	1	3/14/2008 12:44:36 PM
Surr: BFB	107	76.8-150	%REC	1	3/14/2008 12:44:36 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	3/14/2008 12:44:36 PM
Toluene	ND	0.10	μg/L	1	3/14/2008 12:44:36 PM
Ethylbenzene	ND	0.10	μg/L	1	3/14/2008 12:44:36 PM
Xylenes, Total	ND	0.30	μg/L	1	3/14/2008 12:44:36 PM
Surr: 4-Bromofluorobenzene	95.5	70.2-105	%REC	1	3/14/2008 12:44:36 PM

- Value exceeds Maximum Contaminant Level
- Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Η
- MCL Maximum Contaminant Level
 - Reporting Limit

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803117

Client Sample ID: TP-13 FD

River Terrace 1st Qtr-2008-VS

Collection Date: 3/12/2008 11:05:00 AM

Project: Lab ID:

0803117-03

Date Received: 3/13/2008

Matrix: AIR

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAI		Analyst: NSB			
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	3/14/2008 1:50:58 PM
Surr: BFB	109	76.8-150	%REC	1	3/14/2008 1:50:58 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	3/14/2008 1:50:58 PM
Toluene	ND	0.10	μg/L	1	3/14/2008 1:50:58 PM
Ethylbenzene	ND	0.10	μg/L	1	3/14/2008 1:50:58 PM
Xylenes, Total	ND	0.30	µg/L	1	3/14/2008 1:50:58 PM
Surr: 4-Bromofluorobenzene	96.5	70.2-105	%REC	1	3/14/2008 1:50:58 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - Reporting Limit

Page 3 of 4

Date: 21-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803117

River Terrace 1st Qtr-2008-VS

Project: Lab ID:

0803117-04

Client Sample ID: TP-12

Collection Date: 3/12/2008 11:20:00 AM

Date Received: 3/13/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE			- TOTAL CONTRACTOR OF THE STATE	Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	3/14/2008 2:22:33 PM
Surr. BFB	110	76.8-150	%REC	1	3/14/2008 2:22:33 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	, 1	3/14/2008 2:22:33 PM
Toluene	ND	0.10	μg/L	1.	3/14/2008 2:22:33 PM
Ethylbenzene	ND ND	0.10	μg/L	1	3/14/2008 2:22:33 PM
Xylenes, Total	ND	0.30	μg/L	1	3/14/2008 2:22:33 PM
Surr: 4-Bromofluorobenzene	98.6	70.2-105	%REC	1	3/14/2008 2:22:33 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 21-Mar-08

QA/QC SUMMARY REPORT

ient:

San Juan Refining

Project:

River Terrace 1st Otr-2008-VS

Work Order:

0803117

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD R	PDLimit Qual
Method: EPA Method 8015B: G	asoline Ran	•						
Sample ID: 0803117-01A DUP		DUP			Batch I	D: R27719	Analysis Date:	: 3/14/2008 12:13:40 PM
Gasoline Range Organics (GRO)	ND	μg/L	5.0				0	27.8
Surr: BFB	2079	µg/L	0	104	76.8	150	0	0
Method: EPA Method 8015B: G	asoline Ran	_					*	
Sample ID: 5ML RB		MBLK			Batch I	D: R27719	Analysis Date:	3/14/2008 9:08:04 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	21.38	mg/L	0	107	79.2	121		
Sample ID: 2.5UG GRO LCS		LCS			Batch I	D: R27719	Analysis Date:	3/14/2008 4:07:37 PM
Gasoline Range Organics (GRO)	0.4820	mg/L	0.050	96.4	80	115		•
Surr: BFB	22.49	mg/L	0	112	79.2	121		
Method: EPA Method 8021B: V	olatiles							
Sample ID: 0803117-01A DUP		DUP			Batch I	D: R27719	Analysis Date:	.3/14/2008 12:13:40 PM
Benzene	ND	μg/L	0.10				0	25
Toluene	ND	μg/L	0.10				0	25
Ethylbenzene	ND	μg/L	0.10				0	25
Xylenes, Total	ND	μg/L	0.30				0	25
Surr: 4-Bromofluorobenzene	1.849	μg/L	0	92.4	70.2	105	0	0
thod: EPA Method 8021B: Ve	olatiles							
Sample ID: 5ML RB	•	MBLK			Batch I	D: R27719	Analysis Date:	3/14/2008 9:08:04 AM
Benzene	ND	μg/L	1.0					·
Toluene	ND	μg/L	1.0					
Ethylbenzene	ND	μg/L	1.0	*				
Xylenes, Total	ND	μg/L	2.0					
Surr: 4-Bromofluorobenzene	19.43	μg/L	0	97.1	68.9	122		
Sample ID: 100NG BTEX LCS		LCS			Batch I	D: R27719	Analysis Date:	3/14/2008 3:05:49 PM
Benzene	19.30	μg/L	1.0	96.5	85.9	113		
Toluene	19.57	μg/L	1.0	96.5	86.4	113		
Ethylbenzene	20.10	μg/L	1.0	101	83.5	118		
Xylenes, Total	58.66	μg/L	2.0	97.1	83.4	122		
Surr: 4-Bromofluorobenzene	20.26	μg/L	0	101	68.9	122		



E Value above quantitation range

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

Page 1

Sample Receipt Checklist

Client Name SJR		Date Received:		3/13/2008	*
Work Order Number 0803117	1 1	Received by:	ARS	Åe.	
Checklist completed by:	3/13/ Date	Sample ID labe	is checked by	Initials	
Matrix Carrier n	ame <u>Greyhound</u>				
Shipping container/cooler in good condition?	Yes 🗹	No 🗌 N	lot Present		
Custody seals intact on shipping container/cooler?	Yes 🗹	No 🗌 N	lot Present	Not Shipped	
Custody seals intact on sample bottles?	Yes	No 🗌 N	I/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	s submitted	Yes	No 🗌		
Water - Preservation labels on bottle and cap match?	Yes 🗌	No 🗌	N/A 🗹		
Water - pH acceptable upon receipt?	Yes 🗌	No 🗌	N/A 🗹		
Container/Temp Blank temperature?		<6° C Acceptable			
COMMENTS:		If given sufficient tir	ne to cool.		
			•		
Client contacted Date contacted	l:	Person	contacted		
Contacted by: Regarding					
Comments:					
	<u> </u>				
-					
Corrective Action					

VTAL	5			Service of the Servic				(N)	- X)	Air Bubbles									1
HALL ENVIRONMENTAL	MACH SIS LADORAL OR I	4901 Hawkins NE - Albuquerque, NM 87109		Analysis Request	(√)(A)	o ssi	ы (се ев	92r (1.81 (1.40 (1.40 (09S (HA)08\	BE - 480 od 4-70 od 82 od 60 pol Pol Pol Pol Pol Pol Pol Pol Pol Pol P	TH + Wethord HTT HMethord HAN HMETHORD HAN HMETHORD HAN HMETHORD HAN HAN HAN HAN HAN HAN HAN HAN	×		X	×				Remarks:	iiiiity. Any tank constructed data till be also also also as the second desired
Turn-Around Time:	Project Name:	Riverteriace STAM-2008-VS	Project #:		Project Manager:		An I Onle	Sampler -	Sample Temperature: 🗳 🦰	Container Preservative HEAL No. Type AMA Type	1-Tedlar	2	3	7				Received by: 3 3 3 8 23	
Client Cham-of-Custody Record	Wishin Refina	16/	Sloom Field, NM 87413	122-41	email or Fax#: 505-632-3911		Level 4 (Full Validation)			Time Sample Request ID	1048A TP-11	11AM TP-13	1105AN 1P-13 FD	1120A TP-12				Sy Remodulished by: Macl 0	selumes
Client	(M)	Address: #	8	Phone #: S	email or Fax#:	QA/QC Package:	☐ Standard	☐ EDD (Type)		Date T	3/12/08 10	/// //	1105	TE I				7/2/08/3057 Date: Time:	



COVER LETTER

Thursday, May 29, 2008

Cindy Hurtado San Juan Refining #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 2nd QTR 2008

Dear Cindy Hurtado:

Order No.: 0805194

Hall Environmental Analysis Laboratory, Inc. received 14 sample(s) on 5/14/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682

ORELAP Lab # NM100001



Date: 29-May-08

CLIENT:

San Juan Refining

Project:

River Terrace 2nd QTR 2008

Lab Order:

0805194

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0805194-01A	TP-1	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 11:00:00 AM
0805194-01A	TP-1	R28548	EPA Method 8021B: Volatiles	5/13/2008 11:00:00 AM
0805194-02A	TP-2	R28548	EPA Method 8021B: Volatiles	5/13/2008 10:25:00 AM
0805194-02A	TP-2	R28548	EPA Method 8021B: Volatiles	5/13/2008 10:25:00 AM
0805194-02A	TP-2	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 10:25:00 AM
0805194-02A	TP-2	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 10:25:00 AM
0805194-03A	TP-3	R28548	EPA Method 8021B: Volatiles	5/13/2008 1:20:00 PM
0805194-03A	TP-3	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 1:20:00 PM
0805194-03A	TP-3	R28548	EPA Method 8021B: Volatiles	5/13/2008 1:20:00 PM
0805194-03A	TP-3	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 1:20:00 PM
0805194-04A	TP-5	R28548	EPA Method 8021B: Volatiles	5/13/2008 10:35:00 AM
0805194-04A	TP-5	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 10:35:00 AM
0805194-05A	TP-6	R28548	EPA Method 8021B: Volatiles	5/13/2008 11:05:00 AM
0805194-05A	TP-6	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 11:05:00 AM
0805194-06A	TP-7	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 10:45:00 AM
0805194-06A	TP-7	R28548	EPA Method 8021B: Volatiles	5/13/2008 10:45:00 AM
0805194-07A	TP-8	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 10:55:00 AM
0805194-07A	TP-8	R28564	EPA Method 8021B: Volatiles	5/13/2008 10:55:00 AM
0805194-08A	TP-9	R28564	EPA Method 8021B: Volatiles	5/13/2008 10:40:00 AM
0805194-08A	TP-9	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 10:40:00 AM
0805194-09A	TP-10	R28564	EPA Method 8021B: Volatiles	5/13/2008 12:40:00 PM
0805194-09A	TP-10	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 12:40:00 PM
0805194-10A	TP-11	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 12:45:00 PM
0805194-10A	TP-11	R28564	EPA Method 8021B: Volatiles	5/13/2008 12:45:00 PM
0805194-11A	TP-12	R28564	EPA Method 8021B: Volatiles	5/13/2008 1:00:00 PM
0805194-11A	TP-12	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 1:00:00 PM
0805194-12A	TP-13	R28564	EPA Method 8021B: Volatiles	5/13/2008 1:10:00 PM
0805194-12A	TP-13	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 1:10:00 PM
0805194-13A	MW-49	R28564	EPA Method 8021B: Volatiles	5/13/2008 1:45:00 PM
0805194-13A	MW-49	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 1:45:00 PM
0805194-14A	DW-1	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 1:40:00 PM
0805194-14A	DW-1	R28564	EPA Method 8021B: Volatiles	5/13/2008 1:40:00 PM

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805194

0805194-01

Client Sample ID: TP-1

Collection Date: 5/13/2008 11:00:00 AM

Project: Lab ID:

River Terrace 2nd QTR 2008

Date Received: 5/14/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAI	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	15	5.0	μg/L	1	5/15/2008 12:28:13 PM
Surr: BFB	109	76.8-150	%REC	1	5/15/2008 12:28:13 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	0.40	0.10	μg/L	1	5/15/2008 12:28:13 PM
Toluene	ND	0.10	μg/L	1	5/15/2008 12:28:13 PM
Ethylbenzene	0.42	0.10	μg/L	1	5/15/2008 12:28:13 PM
Xylenes, Total	1.4	0.30	μg/L	1	5/15/2008 12:28:13 PM
Surr: 4-Bromofluorobenzene	88.8	70.2-105	%REC	1	5/15/2008 12:28:13 PM

- Value exceeds Maximum Contaminant Level
- Value above quantitation range Ε
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Ή Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805194

River Terrace 2nd QTR 2008

Project: Lab ID:

0805194-02

Client Sample ID: TP-2

Collection Date: 5/13/2008 10:25:00 AM

Date Received: 5/14/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	310	50	μg/L	10	5/15/2008 3:02:42 PM
Surr: BFB	107	76.8-150	%REC	10	5/15/2008 3:02:42 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	2.8	1.0	μg/L	10	5/15/2008 3:02:42 PM
Toluene	ND	1.0	μg/L	10	5/15/2008 3:02:42 PM
Ethylbenzene	7.1	1.0	μg/L	10	5/15/2008 3:02:42 PM
Xylenes, Total	34	0.30	μg/L	10	5/15/2008 3:02:42 PM
Surr: 4-Bromofluorobenzene	94.4	70.2-105	%REC	10	5/15/2008 3:02:42 PM

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805194

Client Sample ID: TP-3

Collection Date: 5/13/2008 1:20:00 PM

Project: Lab ID: River Terrace 2nd QTR 2008

Date Received: 5/14/2008

0805194-03

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAN	GE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	5/15/2008 1:30:31 PM
Surr: BFB	107	76.8-150	%REC	1	5/15/2008 1:30:31 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	5/15/2008 1:30:31 PM
Toluene	ND	0.10	μg/L	1	5/15/2008 1:30:31 PM
Ethylbenzene	0.15	0.10	μg/L	1	5/15/2008 1:30:31 PM
Xylenes, Total	0.52	0.30	μg/L	1	5/15/2008 1:30:31 PM
Surr: 4-Bromofluorobenzene	92.6	70.2-105	%REC	1	5/15/2008 1:30:31 PM

- Value exceeds Maximum Contaminant Level
- Ε Value above quantitation range
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - RL Reporting Limit

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

Project:

0805194

Client Sample ID: TP-5

C 1 C 11

River Terrace 2nd QTR 2008

Collection Date: 5/13/2008 10:35:00 AM

Date Received: 5/14/2008

Lab ID: 0805194-04 **Matrix:** AIR

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	31	5.0	μg/L	1	5/15/2008 2:01:34 PM
Surr: BFB	110	76.8-150	%REC	1	5/15/2008 2:01:34 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	0.11	0.10	μg/L	1	5/15/2008 2:01:34 PM
Toluene	ND	0.10	μg/L	1	5/15/2008 2:01:34 PM
Ethylbenzene	1.6	0.10	μg/L	1	5/15/2008 2:01:34 PM
Xylenes, Total	8.8	0.30	μg/L	1	5/15/2008 2:01:34 PM
Surr: 4-Bromofluorobenzene	99.5	70.2-105	%REC	1	5/15/2008 2:01:34 PM

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805194

Client Sample ID: TP-6

Collection Date: 5/13/2008 11:05:00 AM

Project:

River Terrace 2nd QTR 2008

Date Received: 5/14/2008

Lab ID:

0805194-05

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	7.6	5.0	μg/L	1	5/15/2008 3:33:16 PM
Surr: BFB	110	76.8-150	%REC	1	5/15/2008 3:33:16 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	0.17	0.10	μg/L	1	5/15/2008 3:33:16 PM
Toluene	ND	0.10	μg/L	1	5/15/2008 3:33:16 PM
Ethylbenzene	0.34	0.10	μg/L	1	5/15/2008 3:33:16 PM
Xylenes, Total	1.1	0.30	μg/L	1	5/15/2008 3:33:16 PM
Surr: 4-Bromofluorobenzene	94.1	70.2-105	%REC	1	5/15/2008 3:33:16 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Not Detected at the Reporting Limit ND
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805194

River Terrace 2nd QTR 2008

Project: Lab ID:

0805194-06

Client Sample ID: TP-7

Collection Date: 5/13/2008 10:45:00 AM

Date Received: 5/14/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE			** ***** ***	Analyst: NSB
Gasoline Range Organics (GRO)	6.2	5.0	μg/L	1	5/15/2008 4:03:59 PM
Surr: BFB	110	76.8-150	%REC	1	5/15/2008 4:03:59 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	5/15/2008 4:03:59 PM
Toluene	ND	0.10	µg/L	1	5/15/2008 4:03:59 PM
Ethylbenzene	0.38	0.10	μg/L	1	5/15/2008 4:03:59 PM
Xylenes, Total	1.5	0.30	µg/L	1	5/15/2008 4:03:59 PM
Surr: 4-Bromofluorobenzene	97.2	70.2-105	%REC	1	5/15/2008 4:03:59 PM

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805194

Project:

River Terrace 2nd QTR 2008

Lab ID:

0805194-07

Client Sample ID: TP-8

Collection Date: 5/13/2008 10:55:00 AM

Date Received: 5/14/2008

Matrix: AIR

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE			······································	Analyst: NSB
Gasoline Range Organics (GRO)	22	5.0	μg/L	· 1	5/16/2008 11:20:56 AM
Surr: BFB	126	76.8-150	%REC	1	5/16/2008 11:20:56 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	5/16/2008 11:20:56 AM
Toluene	ND	0.10	μg/L	1	5/16/2008 11:20:56 AM
Ethylbenzene	0.48	0.10	μg/L	1	5/16/2008 11:20:56 AM
Xylenes, Total	2.0	0.30	μg/L	1	5/16/2008 11:20:56 AM
Surr: 4-Bromofluorobenzene	95.7	70.2-105	%REC	1	5/16/2008 11:20:56 AM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Page 7 of 14

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805194

River Terrace 2nd QTR 2008

Project: Lab ID:

0805194-08

Client Sample ID: TP-9

Collection Date: 5/13/2008 10:40:00 AM

Date Received: 5/14/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE R	ANGE	· · · · · · · · · · · · · · · · · · ·			Analyst: NSB
Gasoline Range Organics (GRO)	8.8	5.0	µg/L	1	5/16/2008 11:52:11 AM
Surr: BFB	102	76.8-150	%REC	1	5/16/2008 11:52:11 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	5/16/2008 11:52:11 AM
Toluene	ND	0.10	μg/L	1	5/16/2008 11:52:11 AM
Ethylbenzene	0.55	0.10	μg/L	1	5/16/2008 11:52:11 AM
Xylenes, Total	2.1	0.30	μg/L	1	5/16/2008 11:52:11 AM
Surr: 4-Bromofluorobenzene	90.6	70.2-105	%REC	1	5/16/2008 11:52:11 AM

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805194

0805194-09

Client Sample ID: TP-10

Collection Date: 5/13/2008 12:40:00 PM

Project: Lab ID: River Terrace 2nd QTR 2008

Date Received: 5/14/2008

Analyses	Result	PQL Qu	ual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAN	GE			· · · · · · · · · · · · · · · · · · ·	Analyst: NSB
Gasoline Range Organics (GRO)	ND	´ 5.0	µg/L	1	5/16/2008 12:22:48 PM
Surr: BFB	105	76.8-150	%REC	1	5/16/2008 12:22:48 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	5/16/2008 12:22:48 PM
Toluene	ND	0.10	μg/L	1	5/16/2008 12:22:48 PM
Ethylbenzene	0.27	0.10	µg/L	1	5/16/2008 12:22:48 PM
Xylenes, Total	0.82	0.30	µg/L	1	5/16/2008 12:22:48 PM
Surr: 4-Bromofluorobenzene	88.9	70.2-105	%REC	1	5/16/2008 12:22:48 PM



- Value exceeds Maximum Contaminant Level
- Ε Value above quantitation range
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - Reporting Limit RL

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805194

River Terrace 2nd QTR 2008

Project: Lab ID:

0805194-10

Client Sample ID: TP-11

Collection Date: 5/13/2008 12:45:00 PM

Date Received: 5/14/2008

Analyses	Result	PQL	Qual Units	DF ·	Date Analyzed
EPA METHOD 8015B: GASOLINE R.	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	5/16/2008 12:53:09 PM
Surr: BFB	. 107	76.8-150	%REC	1	5/16/2008 12:53:09 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	5/16/2008 12:53:09 PM
Toluene	ND	0.10	μg/L	1	5/16/2008 12:53:09 PM
Ethylbenzene	0.20	. 0.10	μg/L	1	5/16/2008 12:53:09 PM
Xylenes, Total	0.64	0.30	μg/L	1	5/16/2008 12:53:09 PM
Surr: 4-Bromofluorobenzene	92.3	70.2-105	%REC	1	5/16/2008 12:53:09 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 29-May-08

Collection Date: 5/13/2008 1:00:00 PM

CLIENT:

San Juan Refining

Lab Order:

0805194

0805194-11

Client Sample ID: TP-12

Project: Lab ID: River Terrace 2nd QTR 2008

Date Received: 5/14/2008

Analyses	Result	PQL Q	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAN	IGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	5/16/2008 1:23:29 PM
Surr: BFB	107	76.8-150	%REC	1	5/16/2008 1:23:29 PM
EPA METHOD 8021B: VOLATILES	•				Analyst: NSB
Benzene	ND	0.10	μg/L	1	5/16/2008 1:23:29 PM
Toluene	ND	0.10	μg/L	1	5/16/2008 1:23:29 PM
Ethylbenzene	0.17	0.10	µg/L	1	5/16/2008 1:23:29 PM
Xylenes, Total	0.56	0.30	µg/L	1	5/16/2008 1:23:29 PM
Surr: 4-Bromofluorobenzene	91.4	70.2-105	%REC	1	5/16/2008 1:23:29 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - RL Reporting Limit

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805194

Project:

River Terrace 2nd QTR 2008

Lab ID:

0805194-12

Client Sample ID: TP-13

Collection Date: 5/13/2008 1:10:00 PM

Date Received: 5/14/2008

Matrix: AIR

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	5/16/2008 1:53:57 PM
Surr: BFB	107	76.8-150	%REC	1	5/16/2008 1:53:57 PM
EPA METHOD 8021B: VOLATILES		•			Analyst: NSB
Benzene	ND	0.10	μg/L	1	5/16/2008 1:53:57 PM
Toluene	ND	0.10	μg/L	1	5/16/2008 1:53:57 PM
Ethylbenzene	0.17	0.10	μg/L	1	5/16/2008 1:53:57 PM
Xylenes, Total	0.54	0.30	μg/L	1	5/16/2008 1:53:57 PM
Surr: 4-Bromofluorobenzene	93.3	70.2-105	%REC	1	5/16/2008 1:53:57 PM

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Page 12 of 14

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805194

River Terrace 2nd QTR 2008

Project: Lab ID:

0805194-13

Client Sample ID: MW-49

Collection Date: 5/13/2008 1:45:00 PM

Date Received: 5/14/2008

Matrix: AIR

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANG	ξE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	µg/L	1	5/16/2008 2:26:06 PM
Surr: BFB	104	76.8-150	%REC	1	5/16/2008 2:26:06 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	µg/L	1	5/16/2008 2:26:06 PM
Toluene	ND	0.10	µg/L	1	5/16/2008 2:26:06 PM
Ethylbenzene	ND	0.10	µg/L	1	5/16/2008 2:26:06 PM
Xylenes, Total	ND	0.30	μg/L	1	5/16/2008 2:26:06 PM
Surr: 4-Bromofluorobenzene	90.9	70.2-105	%REC	1	5/16/2008 2:26:06 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - RL Reporting Limit

Page 13 of 14

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805194

River Terrace 2nd QTR 2008

Project: Lab ID:

0805194-14

Client Sample ID: DW-1

Collection Date: 5/13/2008 1:40:00 PM

Date Received: 5/14/2008

Matrix: AIR

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	5/16/2008 3:01:27 PM
Surr: BFB	109	76.8-150	%REC	1	5/16/2008 3:01:27 PM
EPA METHOD 8021B: VOLATILES					Analyst: NS B
Benzene	ND	0.10	μg/L	1	5/16/2008 3:01:27 PM
Toluene	ND	0.10	μg/L	1	5/16/2008 3:01:27 PM
Ethylbenzene	0.12	0.10	μg/L	1	5/16/2008 3:01:27 PM
Xylenes, Total	0.42	0.30	µg/L	1	5/16/2008 3:01:27 PM
Surr: 4-Bromofluorobenzene	93.8	70.2-105	%REC	1	5/16/2008 3:01:27 PM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Page 14 of 14

Date: 29-May-08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

roject: River Terrace 2nd QTR 2008

Work Order:

0805194

roject: River Terrac	e zhu Qi K	. 2008				<u> </u>	W	ork Order: 0805194
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit Qual
Method: EPA Method 8015B: G	asoline Rar	-						
Sample ID: 0805194-06A DUP		DUP			Batch	ID: R28548	Analysis Dat	e: 5/15/2008 4:34:38 PN
Gasoline Range Organics (GRO)	5.800	µg/L	5.0				6.67	27.8
Surr: BFB	2200	µg/L	0	110	76.8	150	0	0
Method: EPA Method 8015B: G	asoline Rar	nge						
Sample ID: b4		MBLK			Batch	ID: R28548	Analysis Dat	e: 5/15/2008 10:14:12 Af
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	20.48	mg/L	0	102	79.2	121		•
Sample ID: 2.5UG GRO LCS		LCS			Batch	ID: R28548	Analysis Dat	e: 5/15/2008 5:35:42 PM
Gasoline Range Organics (GRO)	0.5200	mg/L	0.050	104	80	115		
Surr: BFB	21.95	mg/L	0	110	79.2	121		
Method: EPA Method 8021B: V	olatiles							
Sample ID: 0805194-06A DUP		DUP			Batch	ID: R28548	Analysis Dat	e: 5/15/2008 4:34:38 PN
Benzene	ND	μg/L	0.10				0	25
Toluene	ND	μg/L	0.10				0	25
Ethylbenzene	0.3772	μg/L	0.10				1.32	25
Xylenes, Total	1.433	μg/L	0				2.21	25
Surr: 4-Bromofluorobenzene	1.949	μg/L	0	97.5	70.2	105	0	0
Method: EPA Method 8021B: V	olatiles							
ample ID: b 4		MBLK			Batch	ID: R28548	Analysis Dat	e: 5/15/2008 10:14:12 AM
Benzene	ND	μg/L	1.0					
Toluene	ND	μg/L	1.0					
Ethylbenzene	ND	μg/L	1.0					
Xylenes, Total	ND	μg/L	2.0					
1,2,4-Trimethylbenzene	ND	μg/L	1.0					
1,3,5-Trimethylbenzene	ND	μg/L	1.0					
Surr: 4-Bromofluorobenzene	17.52	μg/L	0	87.6	68.9	122		
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R28548	Analysis Date	e: 5/15/2008 5:05:16 PN
Benzene	18.54	μg/L	1.0	92.7	85.9	113		
Toluene	18.72	μg/L	1.0	93.6	86.4	113		
Ethylbenzene	19.14	μg/L	1.0	95.7	83.5	118		
Xylenes, Total	56.12	μg/L	2.0	92.9	83.4	122		
1,2,4-Trimethylbenzene	19.67	μg/L	1.0	98.3	83.5	115		
1,3,5-Trimethylbenzene	18.79	μg/L	1.0	93.9	85.2	113		
Surr: 4-Bromofluorobenzene	19.06	µg/L	0	95.3	68.9	122		



E Value above quantitation range

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

Date: 29-May-08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project:

River Terrace 2nd QTR 2008

Work Order:

080519Z

Analyte	Result	Units	PQL	%Rec	LowLimit I	HighLimit	%RPD	RPD	Limit Qual
Method: EPA Method 8015B: G	asoline Ran	_					· · · · · · · · · · · · · · · · · · ·		
Sample ID: 0805194-13A DUP		DUP			Batch ID	R28564	Analysis D	ate:	5/16/2008 3:32:17 PM
Gasoline Range Organics (GRO)	ND	μg/L	5.0				0	27.8	B [.]
Surr: BFB	2148	μg/L	0	107	76.8	150	0	0	
Method: EPA Method 8015B: G	asoline Ran	nge							
Sample ID: 5ML RB	. *	MBLK			Batch ID	R28564	Analysis D	ate:	5/16/2008 8:47:45 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	19.94	mg/L	0	99.7	79.2	121			
Sample ID: 2.5UG GRO LCS		LCS			Batch IE	: R28564	Analysis D	ate:	5/16/2008 4:02:52 PM
Gasoline Range Organics (GRO)	0.5060	mg/L	0.050	101	80	115			
Surr: BFB	22.18	mg/L	0	111	79.2	121			
Method: EPA Method 8021B: V	olatiles								
Sample ID: 0805194-13A DUP	Old Circles	DUP			Batch ID): R28564	Analysis D	ate:	5/16/2008 3:32:17 PM
Benzene	ND	μg/L	0.10				. 0	25	
Toluene	ND ·	μg/L	0.10				0	25	
Ethylbenzene	ND ·	μg/L	0.10				0	25	
Xylenes, Total	ND	μġ/L	0.30				0	25	•
Surr: 4-Bromofluorobenzene	1.878	μg/L	0	93.9	70.2	105	0	0	
Method: EPA Method 8021B: V	olatiles								
Sample ID: 5ML RB		MBLK			Batch ID	R28564	Analysis D	ate:	5/16/2008 8:47:45 A
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						
Surr: 4-Bromofluorobenzene	17.74	μg/L	0	88.7	68.9	122			
Sample ID: 100NG BTEX LCS		LCS			Batch ID	R28564	Analysis D	ate:	5/15/2008 5:05:16 PM
Benzene	18.54	μg/L	1.0	92.7	85.9	113			
Toluene	18.72	μg/L	1.0	93.6	86.4	113			
Ethylbenzene	19.14	μg/L	1.0	95.7	83.5	118			
Xylenes, Total	56.12	μg/L	2.0	92.9	83.4	122			
1,2,4-Trimethylbenzene	19.67	μg/L	1.0	98.3	83.5	115			
1,3,5-Trimethylbenzene	18.79	μg/L	1.0	93.9	85.2	113			
Surr: 4-Bromofluorobenzene	19.06	µg/L	0	95.3	68.9	122			

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Oua	

- E Value above quantitation range
- 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





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Perso	n contacted		
	Perso	Person contacted	Person contacted

MMENTAL SORATORY Jule D Exico 87109 Fax 505.345.4107 Bl. com	(V no Y) eadspace (Y or N)		
HALL ENVIRONMENTAL ANALYSIS LABORATORY 4901 Hawkins NE, Suite D Albuquerque, New Mexico 87109 Tel. 505.345.3975 Fax 505.345. www.hallenvironmental.com	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄) 8081 Pesticides / PCB's (8082) 8250B (VOA) 8270 (Semi-VOA)		
HALL FANALY ANALY 4901 Har Albuquerr Tel. 505.3 www.halle	TPH (Method 418.1) EDB (Method 504.1) EDC (Method 8021) 8310 (PNA or PAH) RCRA 8 Metals		
	BTEX + MTBE + TPH (Gasoline Only) TPH Method 8015B (Gas/Diecel)	anks:	
OA/OC Package: Std Level 4 4 Other: Project Name: River Terrace 2 nd CTR2008 Project #:	Project Manager: Sample Temperature: Number/Volume HgCl ₂ HNO ₃ CX CS C4 L	2000 3000	Arceived By: (Signature)
LEINING (BIMF)	ield, NM 87413 632-4/6/ 633-39// Matrix Sample 1.D. No.	The triangle of triangle of the triangle of the triangle of the triangle of tr	5-13-08 21:30 \ Cofery Knaken. Date: Time: Relinquished By: (Signature)

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	QA / QC Package. Std ☐ Level 4 🔀 Other:	Project Name:	River Terrace 2nd Offe 2008	Project #:		Project Manager:		Sampler: $\langle \mathcal{B}_{\sigma} \rangle$	Sample Temperature:	Preservative	Number/Volume HgCl ₂ HNO ₃ HEAL No.	1-tedlar 3	r	0		12	(5	Ь .				-	Received By: (Signature) 5/14/05	Received By: (Signature)
•	CHAIN-OF-CUSTODY RECORD	Client: Western Refining (BINSIA)		CR 4990	Sie (D. N. 874/3			-632-4/6/	505-637-3911		Matrix Sample I.D. No.	10:40 VAPOR TP- ?	1 To-10	1-0-1	E) - 0T		94-MM	1 Dw-1					Relinquished By: (Signature)	Relinquished By: (Signature)
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	3	Client:		Address:			:	Phone #	Fax #:		Date	5-13-08											Date: 5-13-08	Date:



COVER LETTER

Thursday, May 29, 2008

Cindy Hurtado San Juan Refining #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 2nd Qtr-2008

Dear Cindy Hurtado:

Order No.: 0805240

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 5/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682

ORELAP Lab # NM100001



Date: 29-May-08

CLIENT:

San Juan Refining

Project:

River Terrace 2nd Qtr-2008

Lab Order:

0805240

Work Order Sample Summary

			,	
Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0805240-01A	TP-2 Dup	R28611	EPA Method 8015B: Gasoline Range	5/15/2008 12:05:00 PM
0805240-01A	TP-2 Dup	R28611	EPA Method 8021B: Volatiles	5/15/2008 12:05:00 PM
0805240-02A	Field Blank	R28611	EPA Method 8015B: Gasoline Range	5/15/2008 12:40:00 PM
0805240-02A	Field Blank	R28611	EPA Method 8021B: Volatiles	5/15/2008 12:40:00 PM

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805240

Client Sample ID: TP-2 Dup

Collection Date: 5/15/2008 12:05:00 PM

Project:

River Terrace 2nd Qtr-2008

Date Received: 5/16/2008

Lab ID:

0805240-01

Analyses	Result	PQL Q	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAI	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	120	5.0	μg/L	1	5/20/2008 11:58:33 AM
Surr: BFB	97.7	76.8-150	%REC	1	5/20/2008 11:58:33 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	0.32	0.10	μg/L	1	5/20/2008 11:58:33 AM
Toluene	0.23	0.10	μg/L	1	5/20/2008 11:58:33 AM
Ethylbenzene	0.16	0.10	μg/L	1	5/20/2008 11:58:33 AM
Xylenes, Total	4.5	0.30	μg/L	1	5/20/2008 11:58:33 AM
Surr: 4-Bromofluorobenzene	83.7	70.2-105	%REC	1	5/20/2008 11:58:33 AM

- Value exceeds Maximum Contaminant Level
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 29-May-08

CLIENT:

San Juan Refining

Lab Order:

0805240

. 00

River Terrace 2nd Qtr-2008

Project: Lab ID:

0805240-02

Client Sample ID: Field Blank

Collection Date: 5/15/2008 12:40:00 PM

11011 Date: 3/13/2000 12.40

Date Received: 5/16/2008

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE R	ANGE	· 			Analyst: NSB
Gasoline Range Organics (GRO)	8.6	5.0	μg/L	1	5/20/2008 12:59:58 PM
Surr: BFB	102	76.8-150	%REC	1	5/20/2008 12:59:58 PM
EPA METHOD 8021B: VOLATILES			•		Analyst: NSB
Benzene	ND	0.10	µg/L	1	5/20/2008 12:59:58 PM
Toluene	ND	0.10	μg/L	1	5/20/2008 12:59:58 PM
Ethylbenzene	ND	0.10	µg/L	1	5/20/2008 12:59:58 PM
Xylenes, Total	0.94	0.30	μg/Ĺ	1	5/20/2008 12:59:58 PM
Surr: 4-Bromofluorobenzene	83.6	70.2-105	%REC	1	5/20/2008 12:59:58 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 29-May-08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

roject:

River Terrace 2nd Qtr-2008

Work Order:

0805240

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit Qual
Method: EPA Method 8015B: G	asoline Rar	nge						
Sample ID: 0805240-01A DUP		DUP			Batch I	D: R28611	Analysis Da	te: 5/20/2008 12:29:20 PM
Gasoline Range Organics (GRO)	109.2	µg/L	5.0				12.7	27.8
Surr: BFB	2159	µg/L	0	108	76.8	150	0	0
Method: EPA Method 8015B: G	asoline Rar	ige				,		
Sample ID: 5ML RB		MBLK			Batch i	D: R28611	Analysis Dat	te: 5/20/2008 8:24:10 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	20.50	mg/L	0	103	79.2	121		
Sample ID: 2.5UG GRO LCS		LCS			Batch I	D: R28611	Analysis Dat	te: 5/20/2008 10:25:57 AM
Gasoline Range Organics (GRO)	0.4920	mg/L	0.050	98.4	80	115		
Surr: BFB	22.67	mg/L	0	113	79.2	121		
Method: EPA Method 8021B: Ve	olatiles							•
Sample ID: 0805240-01A DUP		DUP			Batch I	D: R28611	Analysis Da	te: 5/20/2008 12:29:20 PM
Benzene	0.2854	μg/L	0.10				9.86	25
Toluene	0.2076	μg/L	0.10				11.6	25
Ethylbenzene	0.1432	μg/L	0.10				9.95	25
Xylenes, Total	4.169	μg/L	0.30				7.41	25
Surr: 4-Bromofluorobenzene	1.878	μg/L	0	93.9	70.2	105	0	0
Method: EPA Method 8021B: Ve	olatiles							
mple ID: 5ML RB		MBLK			Batch I	D: R28611	Analysis Dat	te: 5/20/2008 8:24:10 AM
Benzene	ND	μg/L	1.0					
Toluene	ND	μg/L	1.0					
Ethylbenzene	ND	μg/L	1.0					
Xylenes, Total	ND	μg/L	2.0					
Surr: 4-Bromofluorobenzene	17.54	μg/L	0	87.7	68.9	122		
Sample ID: 100NG BTEX LCS		LCS			Batch I	D: R28611	Analysis Dat	te: 5/20/2008 10:56:15 AM
Benzene	19.05	μg/L	1.0	95.3	85.9	113		
Toluene	19.05	μg/L	1.0	95.3	86.4	113		
Ethylbenzene	19.35	μg/L	1.0	96.7	83.5	118		
Xylenes, Total	56.95	µg/L	2.0	94.3	83.4	122		
Surr: 4-Bromofluorobenzene	18.71	µg/L	0	93.6	68.9	122		



E Value above quantitation range

R RPD outside accepted recovery limits

S Spike recovery outside accepted recovery limits

Page 1

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Sample Receipt Checklist

Client Name SJR				Date Receive	d:		5/16/2008	
Work Order Number 0805240				Received by	: ARS		1	<u>.</u> *
				Sample ID la	abels checked	by:	1921	
Checklist completed by:	<u> </u>) 6 (08		•	Initials	
		I	,					
Matrix:	Carrier name	<u>UPS</u>			•	٠		
Shipping container/cooler in good condition?		Yes	✓	No 🗌	Not Present			
Custody seals intact on shipping container/cooler?		Yes	\checkmark	No 🗌	Not Present		Not Shipped	
Custody seals intact on sample bottles?		Yes		No 🗌	N/A	\checkmark		
Chain of custody present?		Yes	✓	No 🗌				
Chain of custody signed when relinquished and receiv	ed?	Yes	✓	No 🗌				
Chain of custody agrees with sample labels?		Yes	✓	No 🗌				
Samples in proper container/bottle?		Yes	✓	No 🗌				
Sample containers intact?		Yes	\checkmark	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 subm	itted	✓	Yes	No 🗌			
Water - Preservation labels on bottle and cap match?		Yes		No 🗆	N/A 🗹			
Water - pH acceptable upon receipt?		Yes		No 🗌	N/A 🗹			
Container/Temp Blank temperature?			<	<6° C Acceptab	le			
COMMENTS:			II	f given sufficient	t time to cool.			
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Client contacted Date	contacted:			Pers	on contacted		· · · · · · · · · · · · · · · · · · ·	
Contacted by: Rega	rding:							
Comments:								
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Corrective Action	-	-						
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COVER LETTER

Monday, July 28, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 3rd Qtr-2008-VS

Dear Cindy Hurtado:

Order No.: 0807199

Hall Environmental Analysis Laboratory, Inc. received 11 sample(s) on 7/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy reeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425

AZ license # AZ0682

ORELAP Lab # NM100001



Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.

Project: River Terrace 3rd Qtr-2008-VS

Lab Order: 0807199

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0807199-01A	TP-#2	R29415	EPA Method 8021B: Volatiles	7/15/2008 7:45:00 AM
0807199-01A	TP-#2	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 7:45:00 AM
0807199-01A	TP-#2	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 7:45:00 AM
0807199-01A	TP-#2	R29415	EPA Method 8021B: Volatiles	7/15/2008 7:45:00 AM
0807199-02A	TP-#1	R29415	EPA Method 8021B: Volatiles	7/15/2008 8:00:00 AM
0807199-02A	TP-#1	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 8:00:00 AM
0807199-03A	TP-#6	R29415	EPA Method 8021B: Volatiles	7/15/2008 8:15:00 AM
0807199-03A	TP-#6	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 8:15:00 AM
0807199-04A	TP-#8	R29415	EPA Method 8021B: Volatiles	7/15/2008 8:25:00 AM
0807199-04A	TP-#8	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 8:25:00 AM
0807199-05A	TP-#8FD	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 8:30:00 AM
0807199-05A	TP-#8FD	R29415	EPA Method 8021B: Volatiles	7/15/2008 8:30:00 AM
0807199-06A	TP-#7	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 8:45:00 AM
0807199-06A	TP-#7	R29415	EPA Method 8021B: Volatiles	7/15/2008 8:45:00 AM
0807199-07A	TP-#9	R29415	EPA Method 8021B: Volatiles	7/15/2008 9:05:00 AM
0807199-07A	TP-#9	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 9:05:00 AM
0807199-08A	TP-#5	R29415	EPA Method 8021B: Volatiles	7/15/2008 9:25:00 AM
0807199-08A	TP-#5	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 9:25:00 AM
0807199-09A	DW-#1	R29433	EPA Method 8021B: Volatiles	7/15/2008 9:40:00 AM
0807199-09A	DW-#1	R29433	EPA Method 8015B: Gasoline Range	7/15/2008 9:40:00 AM
0807199-10A	MW-#49	R29433	EPA Method 8021B: Volatiles	7/15/2008 9:50:00 AM
0807199-10A	MW-#49	R29433	EPA Method 8015B: Gasoline Range	7/15/2008 9:50:00 AM
0807199-11A	Field Blank-Batt	R29433	EPA Method 8015B: Gasoline Range	7/15/2008 10:35:00 AM
0807199-11A	Field Blank-Batt	R29433	EPA Method 8021B: Volatiles	7/15/2008 10:35:00 AM

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Project:

River Terrace 3rd Qtr-2008-VS

Lab Order:

0807199

CASE NARRATIVE

[&]quot;S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807199

Project:

River Terrace 3rd Qtr-2008-VS

Lab ID:

0807199-01

Client Sample ID: TP-#2

Collection Date: 7/15/2008 7:45:00 AM

Date Received: 7/16/2008

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE	•				Analyst: NSB
Gasoline Range Organics (GRO)	410	25		μg/L	5	7/21/2008 11:20:19 AM
Surr: BFB	172	76.8-150	S	%REC	5	7/21/2008 11:20:19 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.50		μg/L	5	7/21/2008 11:20:19 AM
Toluene	0.78	0.50		μg/L	5	7/21/2008 11:20:19 AM
Ethylbenzene	1.2	0.50		μg/L	5	7/21/2008 11:20:19 AM
Xylenes, Total	47	1.5		μg/L	5	7/21/2008 11:20:19 AM
Surr: 4-Bromofluorobenzene	116	70.2-105	s	%REC	5	7/21/2008 11:20:19 AM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- Analyte detected below quantitation limits J
- ND Not Detected at the Reporting Limit
 - Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded
- Maximum Contaminant Level MCL
- Reporting Limit

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807199

Jiuci. 00071

Project:

River Terrace 3rd Qtr-2008-VS

Lab ID:

0807199-02

Client Sample ID: TP-#1

Collection Date: 7/15/2008 8:00:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAI	NGE					Analyst: NSB
Gasoline Range Organics (GRO)	48	5.0		µg/L	1	7/21/2008 10:49:44 AM
Surr: BFB	180	76.8-150	S	%REC	1	7/21/2008 10:49:44 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.16	0.10		μg/L	1	7/21/2008 10:49:44 AM
Toluene	0.19	0.10		μg/L	1	7/21/2008 10:49:44 AM
Ethylbenzene	0.17	0.10		μg/L	1	7/21/2008 10:49:44 AM
Xylenes, Total	6.3	0.30		µg/L	1	7/21/2008 10:49:44 AM
Surr: 4-Bromofluorobenzene	118	70.2-105	S	%REC	1	7/21/2008 10:49:44 AM

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 28-Jul-08

CLIENT:

Project:

Lab ID:

Western Refining Southwest, Inc.

Lab Order:

0807199

River Terrace 3rd Qtr-2008-VS

0807199-03

Client Sample ID: TP-#6

Collection Date: 7/15/2008 8:15:00 AM

Date Received: 7/16/2008

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: NSB
Gasoline Range Organics (GRO)	26	5.0		μg/L	1	7/21/2008 12:21:27 PM
Surr: BFB	143	76.8-150		%REC	1	7/21/2008.12:21:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	7/21/2008 12:21:27 PM
Toluene	0.13	0.10		µg/L	. 1	7/21/2008 12:21:27 PM
Ethylbenzene	ND	0.10		µg/L	1	7/21/2008 12:21:27 PM
Xylenes, Total	3.8	0.30		µg/L	1	7/21/2008 12:21:27 PM
Surr: 4-Bromofluorobenzene	112	70.2-105	S	%REC	1	7/21/2008 12:21:27 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Page 3 of 11

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807199

Project:

River Terrace 3rd Qtr-2008-VS

Lab ID:

0807199-04

Client Sample ID: TP-#8

Collection Date: 7/15/2008 8:25:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE			3550 L.V. 451 T		Analyst: NSB
Gasoline Range Organics (GRO)	17	5.0		μg/L	1	7/21/2008 12:51:47 PM
Surr: BFB	124	76.8-150		%REC	1	7/21/2008 12:51:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		μg/L	1	7/21/2008 12:51:47 PM
Toluene	0.12	0.10		μg/L	1	7/21/2008 12:51:47 PM
Ethylbenzene	0.11	0.10		μg/L	1	7/21/2008 12:51:47 PM
Xylenes, Total	2.0	0.30		µg/L	1	7/21/2008 12:51:47 PM
Surr: 4-Bromofluorobenzene	113	70.2-105	S	%REC	1	7/21/2008 12:51:47 PM



^{*} Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807199

000719

River Terrace 3rd Qtr-2008-VS

Project: Lab ID:

0807199-05

Client Sample ID: TP-#8FD

Collection Date: 7/15/2008 8:30:00 AM

Date Received: 7/16/2008

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE					Analyst: NSB
Gasoline Range Organics (GRO)	19	5.0		µg/L	1	7/21/2008 1:22:33 PM
Surr: BFB	. 126	76.8-150		%REC	1	7/21/2008 1:22:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		μg/L	1	7/21/2008 1:22:33 PM
Toluene	0.11	0.10		μg/L	1	7/21/2008 1:22:33 PM
Ethylbenzene	0.15	0.10		µg/L	1	7/21/2008 1:22:33 PM
Xylenes, Total	2.3	0.30		μg/L	1	7/21/2008 1:22:33 PM
Surr: 4-Bromofluorobenzene	. 112	70.2-105	s	%REC	1	7/21/2008 1:22:33 PM

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Page 5 of 11

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807199

Project:

River Terrace 3rd Qtr-2008-VS

Lab ID:

0807199-06

Client Sample ID: TP-#7

Collection Date: 7/15/2008 8:45:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: NSB
Gasoline Range Organics (GRO)	17	5.0		μg/L	1.	7/21/2008 1:52:58 PM
Surr: BFB	129	76.8-150		%REC	1	7/21/2008 1:52:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		μg/L	1	7/21/2008 1:52:58 PM
Toluene	0.12	0.10		μg/L	1	7/21/2008 1:52:58 PM
Ethylbenzene	ND	0.10		μg/L	1	7/21/2008 1:52:58 PM
Xylenes, Total	2.0	0.30		μg/L	1	7/21/2008 1:52:58 PM
Surr: 4-Bromofluorobenzene	112	70.2-105	S	%REC	1	7/21/2008 1:52:58 PM

- Value exceeds Maximum Contaminant Level
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807199

080/19

River Terrace 3rd Qtr-2008-VS

Project: Lab ID:

0807199-07

Client Sample ID: TP-#9

Collection Date: 7/15/2008 9:05:00 AM

D : D : 1 7/16/0000

Date Received: 7/16/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	, ND	5.0	μg/L	1	7/21/2008 2:23:31 PM
Surr: BFB	109	76.8-150	%REC	1	7/21/2008 2:23:31 PM
EPA METHOD 8021B: VOLATILES		•			Analyst: NSB
Benzene	ND	0.10	µg/L	1	7/21/2008 2:23:31 PM
Toluene	0.13	0.10	µg/L	1	7/21/2008 2:23:31 PM
Ethylbenzene	ND	0.10	μg/L	1	7/21/2008 2:23:31 PM
Xylenes, Total	ND	0.30	μg/L	1	7/21/2008 2:23:31 PM
Surr: 4-Bromofluorobenzene	106	70.2-105	S %REC	1	7/21/2008 2:23:31 PM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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



Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807199

Project:

River Terrace 3rd Qtr-2008-VS

Lab ID:

0807199-08

Client Sample ID: TP-#5

Collection Date: 7/15/2008 9:25:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: NSB
Gasoline Range Organics (GRO)	9.8	5.0		μg/L	1	7/21/2008 2:54:22 PM
Surr: BFB	112	76.8-150		%REC	. 1	7/21/2008 2:54:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		μg/L	1	7/21/2008 2:54:22 PM
Toluene	0.12	0.10		μg/L	1	7/21/2008 2:54:22 PM
Ethylbenzene	0.45	0.10		μg/L	1	7/21/2008 2:54:22 PM
Xylenes, Total	2.9	0.30		µg/L	1	7/21/2008 2:54:22 PM
Surr: 4-Bromofluorobenzene	110	70.2-105	S	%REC	1	7/21/2008 2:54:22 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807199

Project:

River Terrace 3rd Qtr-2008-VS

Lab ID:

0807199-09

Client Sample ID: DW-#1

Collection Date: 7/15/2008 9:40:00 AM

Date Received: 7/16/2008

Matrix: AIR

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE		·		Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	7/22/2008 10:53:29 AM
Surr: BFB	106	76.8-150	%REC	1	7/22/2008 10:53:29 AM
EPA METHOD 8021B: VOLATILES				•	Analyst: NSB
Benzene	ND	0.10.	μg/L	1	7/22/2008 10:53:29 AM
Toluene	0.11	0.10	μg/L	1	7/22/2008 10:53:29 AM
Ethylbenzene	ND	0.10	μg/L	1	7/22/2008 10:53:29 AM
Xylenes, Total	ND	0.30	μg/L	1	7/22/2008 10:53:29 AM
Surr: 4-Bromofluorobenzene	101	70.2-105	%REC	1	7/22/2008 10:53:29 AM

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Page 9 of 11

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807199

Project:

River Terrace 3rd Qtr-2008-VS

Lab ID:

0807199-10

Client Sample ID: MW-#49

Collection Date: 7/15/2008 9:50:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	7/22/2008 11:23:46 AM
Surr: BFB	106	76.8-150	%REC	1	7/22/2008 11:23:46 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.10	μg/L	1	7/22/2008 11:23:46 AM
Toluene	0.11	0.10	μg/L	1	7/22/2008 11:23:46 AM
Ethylbenzene	ND	0.10	µg/L	1	7/22/2008 11:23:46 AM
Xylenes, Total	ND	0.30	μg/L	1	7/22/2008 11:23:46 AM
Surr: 4-Bromofluorobenzene	99.6	70.2-105	%REC	. 4	7/22/2008 11:23:46 AM

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: -28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807199

Project:

River Terrace 3rd Qtr-2008-VS

Lab ID:

0807199-11

Client Sample ID: Field Blank-Batt

Collection Date: 7/15/2008 10:35:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE R.	ANGE		 		Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	7/22/2008 11:54:07 AM
Surr: BFB	107	76.8-150	%REC	. 1	7/22/2008 11:54:07 AM
EPA METHOD 8021B: VOLATILES	•				Analyst: NSB
Benzene	ND	0.10	μg/L	1	7/22/2008 11:54:07 AM
Toluene	ND	0.10	μg/L	1	7/22/2008 11:54:07 AM
Ethylbenzene	ND	0.10	μg/L	· 1	7/22/2008 11:54:07 AM
Xylenes, Total	0.33	0.30	μg/L	1	7/22/2008 11:54:07 AM
Surr: 4-Bromofluorobenzene	105	70.2-105	%REC	1	7/22/2008 11:54:07 AM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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



Date: 28-Jul-08

QA/QC SUMMARY REPORT

Client: roject: Western Refining Southwest, Inc.

River Terrace 3rd Qtr-2008-VS

Work Order:

0807199

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLi	mit Qual
Method: EPA Method 8015B: G	asoline Ran	ige							
Sample ID: 0807199-01A DUP		DUP			Batch I	D: R29415	Analysis D	ate: 7/	21/2008 11:50:39 AN
Gasoline Range Organics (GRO)	436.0	µg/L	25				7.13	27.8	
Surr: BFB	17970	µg/L	0	180	76.8	150	0	0	S
Method: EPA Method 8015B: G	asoline Ran	ige							• •
Sample ID: 5ML RB		MBLK			Batch I	D: R29415	Analysis D	ate: 7	7/21/2008 9:40:18 AN
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	19.79	mg/L	0	98.9	79.2	121			
Sample ID: 2.5UG GRO LCS		LCS			Batch I	D: R29415	Analysis D	ate: 7	7/21/2008 3:25:39 PN
Gasoline Range Organics (GRO)	0.4900	mg/L	0.050	98.0	80	115			
Surr: BFB	22.57	mg/L	0	113	79.2	121			
Method: EPA Method 8021B: V	olatiles								
Sample ID: 0807199-01A DUP		DUP			Batch I	D: R29415	Analysis D	ate: 7/	21/2008 11:50:39 AM
Benzene	ND	μg/L	0.50				0	25	
Toluene	0.8150	μg/L	0.50				3.75	25	
Ethylbenzene	1.428	μg/L	0.50				13.6	25	
Xylenes, Total _{,.}	49.22	μg/L	1.5				4.39	25	
Surr: 4-Bromofluorobenzene	11.79	µg/L	0	118	70.2	105	0	0	<u> </u>
Method: EPA Method 8021B: V	olatiles								
imple ID: 5ML RB		MBLK			Batch I	D: R29415	Analysis D	ate: 7	7/21/2008 9:40:18 AM
Benzene	ND	μg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	μg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	18.95	μg/L	0	94.8	68.9	122			٠
Sample ID: 100NG BTEX LCS		LCS			Batch I	D: R29415	Analysis Da	ate: 7	7/21/2008 4:57:00 PM
Benzene	21.43	μg/L	1.0	107	85.9	113			
Toluene	22.10	μg/L	1.0	110	86.4	113			
Ethylbenzene	22.33	μg/L	1.0	112	83.5	118			
Xylenes, Total	63.63	μg/L	2.0	104	83.4	122			
Surr: 4-Bromofluorobenzene	21.47	μg/L	0	107	68.9	122			



E Value above quantitation range

Page 1

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

Date: 28-Jul-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

River Terrace 3rd Qtr-2008-VS

Work Order:

080719

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit Qual
Method: EPA Method 8015B: G	iasoline Rar	nge						
Sample ID: 0807199-09A DUP		DUP			Batch I	ID: R29433	Analysis Dat	e: 7/22/2008 1:02:22 PM
Gasoline Range Organics (GRO)	ND	μg/L	5.0				0	27.8
Surr: BFB	2122	µg/L	0	106	76.8	150	0	0
Method: EPA Method 8015B: G	asoline Rar	nge						
Sample ID: 5ML RB		MBLK			Batch I	ID: R29433	Analysis Dat	e: 7/22/2008 10:17:39 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	20.27	mg/L	0	101	79.2	121		
Sample ID: 2.5UG GRO LCS		LCS			Batch I	ID: R29433	Analysis Dat	e: 7/22/2008 4:07:37 PM
Gasoline Range Organics (GRO)	0.4840	mg/L	0.050	96.8	80	115		
Surr: BFB	22.39	mg/L	0	112	79.2	121	_	
Method: EPA Method 8021B: V	olatiles			-				
Sample ID: 0807199-09A DUP		DUP			Batch I	ID: R29433	Analysis Dat	e: 7/22/2008 1:02:22 PM
Benzene	ND	ug/L	0.10				0	25
Toluene	0.1070	μg/L	0.10				7.03	25
Ethylbenzene	ND	μg/L	0.10				0	25
Xylenes, Total	ND	μg/L	0.30				0	25
Surr: 4-Bromofluorobenzene	2.030	μg/L	0	102	70.2	105	0	0
Method: EPA Method 8021B: V	olatiles							
Sample ID: 5ML RB		MBLK			Batch I	ID: R29433	Analysis Dat	e: 7/22/2008 10:17:39 AN
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					
Surr: 4-Bromofluorobenzene	19.24	µg/L	0	96.2	68.9	122		
Sample ID: 100NG BTEX LCS		LCS			Batch I	ID: R29433	Analysis Dat	e: 7/22/2008 5:39:27 PM
Benzene	21.25	µg/L	1.0	106	85.9	113		
Toluene	22.13	μg/L	1.0	111	86.4	113		
Ethylbenzene	22.05	μg/L	1.0	110	83.5	118		
Xylenes, Total	63.21	μg/L	2.0	105	83.4	122		•
Surr: 4-Bromofluorobenzene	21.94	μg/L	0	110	68.9	122		

Δ	12 Ct
1 71112	lifiers:

E Value above quantitation range

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



Sample	e Receipt Ch	ecklist			
Client Name WESTERN REFINING SOUT		Date Received:		7/16/2008	
Work Order Number 0807199		Received by: TL		TS	
Checklist completed by: Signature	T) G	08		Initials	
Matrix: Carrier name	<u>UPS</u>				
Shipping container/cooler in good condition?	Yes 🗹	No Not Pres	ent 🗌		
Custody seals intact on shipping container/cooler?	Yes 🗹	No Not Pres	ent \square	Not Shipped	
Custody seals intact on sample bottles?	Yes	No 🗌 N/A	V		
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 sub	omitted 🗹	Yes No			
Water - Preservation labels on bottle and cap match?	Yes 🗌	No N/A			
Water - pH acceptable upon receipt?	Yes 🗌	No ☐ N/A	✓		
Container/Temp Blank temperature?		<6° C Acceptable			
COMMENTS:		If given sufficient time to co	Ю.		
Client contacted Date contacted:		Person contac	ted		
Contacted by: Regarding:					
Comments:					
		· .			
Corrective Action		······································			
			_		
		······································		·····	

INTERNACTIONS IN THE PROPERTY OF THE PROPERTY	Ρ,	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analiysisi Request	(Vin	OS'*(Sas Dq _{,s}	(1) (1) (1) (1) (1)	1 8015 1 8016 1 418 1 404 1 403 1 1,003 1 1,00	TTM ontro onto ont	BTEX + TPH (Me BY STO (P) BY STO	X	X	X	X	X	X	XXX	XXX	×	× ×	×	Remarks:			serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analysis port.	
Turn-Around Time:	M Standard □ Rush	Project Name:	River Terrace Fore 2008-VS			Project Manager:			Sampler: Bos & () Lon	On Ice: ☐ Yes: 「☐ No Sample Temperature:		Container Preservative HEAL No. Type and # Type 790 49	1-Ted/ak	2	3	h	S	9	+	8	6	01		Received by: 7/16/07	anycol	Received by: (ccredited laboratories This	
Chain-of-Custody Record		- Bloom Field Refun,	1 4990	Bloomfield NM 87413	_	-632-3911		K Level 4 (Full Validation)				Sample Request ID	TP-#3	TP-#/	TP-#6	TP-#8	TP-#8FD	7p-#7	10- #q	TP-#5	Dw # (Mw#49	Field Blank-Batt	Relinguished by:	(may thusach	Relinquished by:	If necessary, samples submitted to Hall Environmental may be subcontracted to other a	
Chain-of-	Client: Western R.	-Bloom	Address: #50 Pol 4990	Bloomfile	Phone #: 505-632.416	email or Fax#: 505-632	OA/QC Package:	□ Standard	□ Other	□ EDD (Type)		Date Time	7-15-08 748A	_	815An	825A	\$30A	845A	985A	9254	940A	4524	10364	Date: Time:	ည	Date: Time:	If necessary, sample	



COVER LETTER

Tuesday, August 05, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990

Bloomfield, NM 87413

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

RE: River Terrace 3rd Qtr-2008-VS

Dear Cindy Hurtado:

Order No.: 0807198

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 7/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682

ORELAP Lab # NM100001



Date: 05-Aug-08

CLIENT: Western Refining Southwest, Inc.

Project: River Terrace 3rd Qtr-2008-VS

Lab Order: 0807198

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0807198-01A	TP-13	R29385	EPA Method 8015B: Gasoline Range	7/15/2008 9:30:00 AM
0807198-01A	TP-13	R29385	EPA Method 8021B: Volatiles	7/15/2008 9:30:00 AM
0807198-02A	TP-12	R29385	EPA Method 8015B: Gasoline Range	7/15/2008 9:45:00 AM
0807198-02A	TP-12	R29385	EPA Method 8021B: Volatiles	7/15/2008 9:45:00 AM
0807198-03A	TP-11	R29385	EPA Method 8015B: Gasoline Range	7/15/2008 10:00:00 AM
0807198-03A	TP-11	R29385	EPA Method 8021B: Volatiles	7/15/2008 10:00:00 AM
0807198-04A	TP-10	R29385	EPA Method 8015B: Gasoline Range	7/15/2008 10:15:00 AM
0807198-04A	TP-10	R29385	EPA Method 8021B: Volatiles	7/15/2008 10:15:00 AM
0807198-05A	TP-3	R29385	EPA Method 8015B: Gasoline Range	7/15/2008 10:30:00 AM
0807198-05A	TP-3	R29385	EPA Method 8021B: Volatiles	7/15/2008 10:30:00 AM
0807198-06A	Field Blank-Electric	R29385	EPA Method 8015B: Gasoline Range	7/15/2008 10:40:00 AM
0807198-06A	Field Blank-Electric	R29385	EPA Method 8021B: Volatiles	7/15/2008 10:40:00 AM

Date: 05-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Project:

River Terrace 3rd Qtr-2008-VS

Lab Order:

0807198

CASE NARRATIVE

[&]quot;S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Date: 05-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807198

Project:

River Terrace 3rd Qtr-2008-VS

Lab ID:

0807198-01

Client Sample ID: TP-13

Collection Date: 7/15/2008 9:30:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: BDH
Gasoline Range Organics (GRO)	11	5.0	μg/L	1	7/17/2008 12:11:59 PM
Surr: BFB	115	76.8-150	%REC	1	7/17/2008 12:11:59 PM
EPA METHOD 8021B: VOLATILES					Analyst: BDH
Benzene	ND	0.10	μg/L	1	7/17/2008 12:11:59 PM
Toluene	ND	0.10	μg/L	1	7/17/2008 12:11:59 PM
Ethylbenzené	ND	0.10	μg/L	1 -	7/17/2008 12:11:59 PM
Xylenes, Total	1.4	0.30	μg/L	1	7/17/2008 12:11:59 PM
Surr: 4-Bromofluorobenzene	104	70.2-105	%REC	1	7/17/2008 12:11:59 PM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 05-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order: Project:

Lab ID:

0807198

0807198-02

River Terrace 3rd Qtr-2008-VS

Collection Date: 7/15/2008 9:45:00 AM

Date Received: 7/16/2008

Client Sample ID: TP-12

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE			:		Analyst: BDH
Gasoline Range Organics (GRO)	8.2	5.0		µg/L	1	7/17/2008 1:12:54 PM
Surr. BFB	115	76.8-150		%REC	1	7/17/2008 1:12:54 PM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	0.10		μg/L	1	7/17/2008 1:12:54 PM
Toluene	ND	0.10		μg/L	1	7/17/2008 1:12:54 PM
Ethylbenzene	ND	0.10		μg/L	1	7/17/2008 1:12:54 PM
Xylenes, Total	0.77	0.30		µg/L	1	7/17/2008 1:12:54 PM
Surr: 4-Bromofluorobenzene	106	70.2-105	S	%REC	1	.7/17/2008 1:12:54 PM

- Value exceeds Maximum Contaminant Level
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - Reporting Limit RL

Date: 05-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807198

000/190

Project: Lab ID: River Terrace 3rd Qtr-2008-VS

0807198-03

Client Sample ID: TP-11

Collection Date: 7/15/2008 10:00:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: BDH
Gasoline Range Organics (GRO)	8.0	5.0		μg/L	1	7/17/2008 2:16:51 PM
Surr: BFB	113	76.8-150		%REC	1	7/17/2008 2:16:51 PM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	0.10		µg/L	1	7/17/2008 2:16:51 PM
Toluene	ND	0.10		µg/L	1	7/17/2008 2:16:51 PM
Ethylbenzene	ND	0.10		μg/L	1	7/17/2008 2:16:51 PM
Xylenes, Total	0.74	0.30		μg/L	1	7/17/2008 2:16:51 PM
Surr: 4-Bromofluorobenzene	106	70.2-105	S	%REC	1	7/17/2008 2:16:51 PM

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 05-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807198

Project:

River Terrace 3rd Qtr-2008-VS

Lab ID:

0807198-04

Client Sample ID: TP-10

Collection Date: 7/15/2008 10:15:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE					Analyst: BDH
Gasoline Range Organics (GRO)	7.6	5.0		µg/L	1	7/17/2008 2:47:26 PM
Surr: BFB	118	76.8-150		%REC	1	7/17/2008 2:47:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	0.10		µg/L	1	7/17/2008 2:47:26 PM
Toluene	ND	0.10		μg/L	1	7/17/2008 2:47:26 PM
Ethylbenzene	ND	0.10		µg/L	1	7/17/2008 2:47:26 PM
Xylenes, Total	0.75	0.30		µg/L	1	7/17/2008 2:47:26 PM
Surr: 4-Bromofluorobenzene	111	70.2-105	s	%REC	1	7/17/2008 2:47:26 PM



^{*} Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Date: 05-Aug-08

CLIENT:

Project:

Western Refining Southwest, Inc.

Lab Order:

0807198

River Terrace 3rd Qtr-2008-VS

Lab ID: 0807198-05

Client Sample ID: TP-3

Collection Date: 7/15/2008 10:30:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: BDH
Gasoline Range Organics (GRO)	5.6	5.0		µg/L	1	7/17/2008 3:18:16 PM
Surr: BFB	116	76.8-150		%REC	, 1	7/17/2008 3:18:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	0.10		µg/L	1	7/17/2008 3:18:16 PM
Toluene	- ND	0.10		µg/L	1	7/17/2008 3:18:16 PM
Ethylbenzene	ND	0.10		µg/L	1	7/17/2008 3:18:16 PM
Xylenes, Total	0.55	0.30		μg/L	1	7/17/2008 3:18:16 PM
Surr: 4-Bromofluorobenzene	109	70.2-105	S	%REC	1	7/17/2008 3:18:16 PM

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 05-Aug-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

Project:

Lab ID:

0807198

River Terrace 3rd Qtr-2008-VS

0807198-06

Client Sample ID: Field Blank-Electric

Collection Date: 7/15/2008 10:40:00 AM

Date Received: 7/16/2008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAN	NGE			 	Analyst: BDH
Gasoline Range Organics (GRO)	ND	5.0	µg/L	1	7/17/2008 3:49:04 PM
Surr: BFB	109	76.8-150	%REC	1	7/17/2008 3:49:04 PM
EPA METHOD 8021B: VOLATILES					Analyst: BDH
Benzene	ND	0.10	μg/L	1	7/17/2008 3:49:04 PM
Toluene	ND	0.10	µg/L	1	7/17/2008 3:49:04 PM
Ethylbenzene	ND	0.10	μg/L	1	7/17/2008 3:49:04 PM
Xylenes, Total	ND	0.30	μg/L	1	7/17/2008 3:49:04 PM
Surr: 4-Bromofluorobenzene	103	70.2-105	%REC	1	7/17/2008 3:49:04 PM

- Value exceeds Maximum Contaminant Level
- Е Value above quantitation range
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Date: 05-Aug-08.

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

River Terrace 3rd Qtr-2008-VS

Work Order:

0807198

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPD	Limit Qual	
Method: EPA Method 8015B: G	asoline Rar	nge								
Sample ID: 0807198-01A DUP		DUP			Batch I	D: R29385	Analysis D	Date:	7/17/2008 1:46:	20 PM
Gasoline Range Organics (GRO)	10.80	µg/L	5.0				1.83	27.	8	
Surr: BFB	2481	μg/L	. 0	124	76.8	150	0	0		
Method: EPA Method 8015B: G	asoline Rar	ıge								
Sample ID: 5ML RB		MBLK			Batch I	D: R29385	Analysis D)ate:	7/17/2008 10:04:	41 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						•	
Surr: BFB	20.10	mg/L	0	100	79.2	121		1		
Sample ID: 2.5UG GRO LCS		LCS			Batch I	D: R29385	Analysis D)ate:	7/17/2008 7:21:	51 PM
Gasoline Range Organics (GRO)	0.4720	mg/L	0.050	94.4	80	115				
Surr: BFB	22.59	mg/L	0	113	79.2	121				
Method: EPA Method 8021B: V	olatiles									
Sample ID: 0807198-01A DUP		DUP ·			Batch I	D: R29385	Analysis E	Date:	7/17/2008 1:46:	20 PM
Benzene	ND	µg/L	0.10				0	25		
Toluene	ND	.µg/L	0.10	,			0	25	i	
Ethylbenzene	ND	µg/L	0.10				0	25	i .	
Xylenes, Total	1.452	µg/L	0.30				2.21	25		
Surr: 4-Bromofluorobenzene	2.220	μg/L	0	111	70.2	105	0	0	S	
Method: EPA Method 8021B: V	olatiles									4
Sample ID: 5ML RB		MBLK			Batch I	D: R29385	Analysis D	Date:	7/17/2008 10:04:	41 AI
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							
Surr: 4-Bromofluorobenzene	19.13	μg/L	0	95.7	68.9	122				
Sample ID: 100NG BTEX LCS		LCS			Batch	D: R29385	Analysis D	Date:	7/17/2008 6:21:	:09 PM
Benzene	20.70	µg/L	1.0	104	85.9	113				
Toluene	20.82	μg/L	1.0	102	86.4	113				
Ethylbenzene	21.82	µg/L	1.0	107	83.5	118				
Xylenes, Total	61.97	µg/L	2.0	102	83.4	122	•			
Surr: 4-Bromofluorobenzene	22.30	μg/L	0	111	68.9	122				



E Value above quantitation range

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



Sa	ample Receipt Che	cklist	
Client Name WESTERN REFINING SOUT		Date Received:	7/16/2008
Work Order Number 0807198 Checklist completed by: Signature	7/16/	Received by: TI Sample ID labels chec	
Matrix: Carrier	name <u>UPS</u>		
Shipping container/cooler in good condition?	Yes 🗹	No Not Pres	sent
Custody seals intact on shipping container/cooler?	Yes 🗹	No Not Pres	sent 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 via	els submitted	Yes No	
Water - Preservation labels on bottle and cap match?	Yes	No ☐ N/A	\checkmark
Water - pH acceptable upon receipt?	Yes 🗌	No ☐ N/A	V
Container/Temp Blank temperature? COMMENTS:		<6° C Acceptable f given sufficient time to co	ool.
	od:	Person contac	ted
Contacted by: Regarding:			•
Comments:			
Corrective Action			

	ANALYSIS LABORATORY	w	4901 Hawkins NE - Albuquerque, NM 87109	505-345-3975 Fax 505-345-4107	Analysis Requesi				(1:4) (06) (H) (NO) (H)	6 504 b 28 b 38 d 30 d 30 d 30 d 30 d 30 d 30 d 30 d 30	ootte O AV O CIO, ¬¬ Seticipite O AOV.	Bubb 608 (Me 10 (Pr 10 (Pr 10 (Me	831 834 855 856 856 856									-			serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analysis report.
			4901 Ha	Tel. 50		(ʎju		<u>و</u> ۱ (e	НЧТ	. + ∃8	HTE	EX +	IT8	<u> </u>	X	$ \chi $	X	X	X				Remarks:		bility. Any sub-c
Turn-Around Time:	Standard 🗆 Rush	Project Name:	River Terrace 3rd OTR JOB			Project Manager:	COS		Bob ≠ (indy	On Ice: TYes / IN0		Container Preservative HEAL No.	0807198	-Tedlar	1 2 X	X 3 X	X		7				80/21/1 137	Hepeived by:	ecredited laboratories This
Chain-of-Custody Record	Refining		CR 4990	LEFO NIM BRYIZ Pr	14-569-	25-632-3911	\	Litevel 4 (Full Validation)	38		2526	Sample Request ID		TP-13	TP-12	172-11	TP-10	- 78-3	m field Blad-Electric					Relinquished by:	If necessity, samples submitted to Hall Environmental may be subcontracted to others
Chain-o	Client: Western		Address:#50	June 1	Phone #: 505	-ax#:	QA/QC Package:	□ Standard	□ Other	□ EDD (Type)		Date Time	8	7-15-08 9304	<u> </u>	10AM	1015 A	10304	1040 Am				ά	Date: Time:	If necessary, sam,



COVER LETTER

Friday, December 05, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 4th QTR 2008 Soil Vapor

Dear Cindy Hurtado:

Order No.: 0811150

Hall Environmental Analysis Laboratory, Inc. received 9 sample(s) on 11/12/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682

ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



Date: 05-Dec-08

CLIENT: Western Refining Southwest, Inc.

Project: River Terrace 4th QTR 2008 Soil Vapor

Lab Order: 0811150

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0811150-01A	TP-7	R31165	EPA Method 8021B: Volatiles	11/11/2008 10:20:00 AM
0811150-01A	TP-7	R31165	EPA Method 8015B: Gasoline Range	11/11/2008 10:20:00 AM
0811150-02A	TP-8	R31165	EPA Method 8015B: Gasoline Range	11/11/2008 10:40:00 AM
0811150-02A	TP-8	R31165	EPA Method 8021B: Volatiles	11/11/2008 10:40:00 AM
0811150-03A	TP-6	R31312	EPA Method 8015B: Gasoline Range	11/11/2008 11:00:00 AM
0811150-03A	TP-6	R31312	EPA Method 8021B: Volatiles	11/11/2008 11:00:00 AM
0811150-03A	TP-6	R31262	EPA Method 8021B: Volatiles	11/11/2008 11:00:00 AM
0811150-03A	TP-6	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 11:00:00 AM
0811150-03A	TP-6	R31165	EPA Method 8021B: Volatiles	11/11/2008 11:00:00 AM
0811150-03A	TP-6	R31165	EPA Method 8015B: Gasoline Range	11/11/2008 11:00:00 AM
0811150-04A	TP-1	R31262	EPA Method 8021B: Volatiles	11/11/2008 12:45:00 PM
0811150-04A	TP-1	R31264	EPA Method 8021B: Volatiles	11/11/2008 12:45:00 PM
0811150-04A	TP-I	R31264	EPA Method 8015B: Gasoline Range	11/11/2008 12:45:00 PM
0811·150-04A	TP-1	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 12:45:00 PM
0811150-05A	TP-2	R31312	EPA Method 8015B: Gasoline Range	11/11/2008 1:15:00 PM
0811150-05A	TP-2	R31264	EPA Method 8015B: Gasoline Range	11/11/2008 1:15:00 PM
0811150-05A	TP-2	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 1:15:00 PM
0811150-05A	TP-2	R31262	EPA Method 8021B: Volatiles	11/11/2008 1:15:00 PM
0811150-05A	TP-2	R31312	EPA Method 8021B: Volatiles	11/11/2008 1:15:00 PM
0811150-05A	TP-2	R31264	EPA Method 8021B: Volatiles	11/11/2008 1:15:00 PM
0811150-06A	TP-2FD	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 1:16:00 PM
0811150-06A	TP-2FD	R31262	EPA Method 8021B: Volatiles	11/11/2008 1:16:00 PM
0811150-06A	TP-2FD	R31264	EPA Method 8021B: Volatiles	11/11/2008 1:16:00 PM
0811150-06A	TP-2FD	R31264	EPA Method 8015B: Gasoline Range	11/11/2008 1:16:00 PM
0811150-07A	TP-5	R31264	EPA Method 8021B: Volatiles	11/11/2008 1:30:00 PM
0811150-07A	TP-5	R31264	EPA Method 8015B: Gasoline Range	11/11/2008 1:30:00 PM
0811150-07A	TP-5	R31262	EPA Method 8021B: Volatiles	11/11/2008 1:30:00 PM
0811150-07A	TP-5	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 1:30:00 PM
0811150-08A	TP-9	R31262	EPA Method 8021B: Volatiles	11/11/2008 1:45:00 PM
0811150-08A	TP-9	R31312	EPA Method 8015B: Gasoline Range	11/11/2008 1:45:00 PM
0811150-08A	TP-9	R31312	EPA Method 8021B: Volatiles	11/11/2008 1:45:00 PM
0811150-08A	TP-9	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 1:45:00 PM
0811150-09A	DW-#1	R31312	EPA Method 8021B: Volatiles	11/11/2008 2:15:00 PM
0811150-09A	DW-#1	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 2:15:00 PM
0811150-09A	DW-#1	R31262	EPA Method 8021B: Volatiles	11/11/2008 2:15:00 PM
0811150-09A	DW-#1	R31312	EPA Method 8015B: Gasoline Range	11/11/2008 2:15:00 PM
			i i	•

Date: 05-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Project:

River Terrace 4th QTR 2008 Soil Vapor

Lab Order:

0811150

CASE NARRATIVE

See Corrective Action: [1959] 8021 BTEX AIR Sample numbers 0811150-04a and 07a. MP-Xylene was over-range of calibration curve. Xylenes are being reported as estimates due to lack of hold time.

Date: 05-Dec-08

CLIENT:

Project:

Lab ID:

Western Refining Southwest, Inc.

Lab Order:

0811150

0811150-01

River Terrace 4th QTR 2008 Soil Vapor

Client Sample ID: TP-7

Collection Date: 11/11/2008 10:20:00 AM

Date Received: 11/12/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: DAM
Gasoline Range Organics (GRO)	6.4	5.0	μg/L	1 .	11/13/2008 2:57:09 PM
Surr: BFB	120	76.8-150	%REC	. 1	11/13/2008 2:57:09 PM
EPA METHOD 8021B: VOLATILES		•			Analyst: DAM
Benzene	ND	0.10	μg/L	. 1	11/13/2008 2:57:09 PM
Toluene	ND	0.10	μg/L	1	11/13/2008 2:57:09 PM
Ethylbenzene	ND	0.10	μg/L	1	11/13/2008 2:57:09 PM
Xylenes, Total	· ND	0.30	μg/L	1	11/13/2008 2:57:09 PM
Surr: 4-Bromofluorobenzene	76.1	70.2-105	%REC	. 1	11/13/2008 2:57:09 PM

- 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

Date: 05-Dec-08

CLIENT:

Project:

Lab ID:

Western Refining Southwest, Inc.

Lab Order:

River Terrace 4th QTR 2008 Soil Vapor

0811150-02

Client Sample ID: TP-8

Collection Date: 11/11/2008 10:40:00 AM

Date Received: 11/12/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAI	NGE				Analyst: DAM
Gasoline Range Organics (GRO)	7.0	5.0	μg/L	1	11/13/2008 3:58:16 PM
Surr: BFB	120	76.8-150	%REC	1	11/13/2008 3:58:16 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	0.10	μg/L	1	11/13/2008 3:58:16 PM
Toluene	ND	0.10	μ g/L	1	11/13/2008 3:58:16 PM
Ethylbenzene	ND	0.10	μg/L	1	11/13/2008 3:58:16 PM
Xylenes, Total	ND	0.30	μg/L	1	11/13/2008 3:58:16 PM
Surr: 4-Bromofluorobenzene	. 79.7	70.2-105	%REC	1	11/13/2008 3:58:16 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Date: 05-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: TP-6

Lab Order:

0811150

Collection Date: 11/11/2008 11:00:00 AM

Project:

River Terrace 4th QTR 2008 Soil Vapor

Date Received: 11/12/2008

Lab ID:

0811150-03

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAN	GE				Analyst: DAM
Gasoline Range Organics (GRO)	9.2	5.0	μg/L	1	11/21/2008 12:11:55 PM
Surr: BFB	113	76.8-150	%REC	1	11/21/2008 12:11:55 PM
EPA METHOD 8021B: VOLATILES	•				Analyst: DAM
Benzene	ND	0.10	μg/L	1	11/21/2008 12:11:55 PM
Toluene	ND	0.10	μg/L	1	11/21/2008 12:11:55 PM
Ethylbenzene	0.41	0.10	μg/L	1	11/21/2008 12:11:55 PM
Xylenes, Total	0.35	0.30	μg/L	1	11/21/2008 12:11:55 PM
Surr: 4-Bromofluorobenzene	91.4	70.2-105	%REC	1	11/21/2008 12:11:55 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 05-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: TP-1

Lab Order:

0811150

Collection Date: 11/11/2008 12:45:00 PM

Project:

River Terrace 4th QTR 2008 Soil Vapor

Date Received: 11/12/2008

Lab ID:

0811150-04

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAI	NGE	•			Analyst: DAM
Gasoline Range Organics (GRO)	210	25	μg/L	5	11/18/2008 12:57:39 PM
Surr: BFB	120	76.8-150	%REC	5	11/18/2008 12:57:39 PM
EPA METHOD 8021B: VOLATILES		•			Analyst: DAM
Benzene	7.7	0.50	μg/L	5	11/18/2008 12:57:39 PM
Toluene	ND	0.50	μg/L	5	11/18/2008 12:57:39 PM
Ethylbenzene	8.0	0.50	µg/L	5	11/18/2008 12:57:39 PM
Xylenes, Total	31	1.5	E µg/L	5	11/18/2008 12:57:39 PM
Surr: 4-Bromofluorobenzene	73.7	70.2-105	%REC	5	11/18/2008 12:57:39 PM

- 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

Date: 05-Dec-08

CLIENT: Lab Order:

Project:

Lab ID:

Western Refining Southwest, Inc.

0811150-05

0811150

River Terrace 4th QTR 2008 Soil Vapor

Collection Date: 11/11/2008 1:15:00 PM

Client Sample ID: TP-2

Date Received: 11/12/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE R	ANGE					Analyst: DAM
Gasoline Range Organics (GRO)	78	5.0		μg/L	1	11/21/2008 12:42:48 PM
Surr: BFB	152	76.8-150	·S	%REC	1	11/21/2008 12:42:48 PM
EPA METHOD 8021B: VOLATILES	* - n				•	Analyst: DAM
Benzene	ND	0.10		. µg/L	1	11/21/2008 12:42:48 PM
Toluene	ND	0.10		µg/L	1	11/21/2008 12:42:48 PM
Ethylbenzene	0.14	0.10		µg/L	1	11/21/2008 12:42:48 PM
Xylenes, Total	1.7	0.30		µg/L	1	11/21/2008 12:42:48 PM
Surr: 4-Bromofluorobenzene	89.6	70.2-105		%REC	1	11/21/2008 12:42:48 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit NĐ
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 05-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: TP-2FD

Lab Order:

0811150

Collection Date: 11/11/2008 1:16:00 PM

Project:

Lab ID:

River Terrace 4th QTR 2008 Soil Vapor

Date Received: 11/12/2008

0811150-06

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE					Analyst: DAM
Gasoline Range Organics (GRO)	71	5.0		μg/L	1	11/18/2008 1:59:23 PM
Surr: BFB	159	76.8-150	S	%REC	1	11/18/2008 1:59:23 PM
EPA METHOD 8021B: VOLATILES		•		•		Analyst: DAM
Benzene	ND	0.10		μg/L	1	11/18/2008 1:59:23 PM
Toluene	ND	0.10		µg/L	1	.11/18/2008 1:59:23 PM
Ethylbenzene	0.11	0.10		μg/L	1	11/18/2008 1:59:23 PM
Xylenes, Total	1.1	0.30		µg/L	1	11/18/2008 1:59:23 PM
Surr: 4-Bromofluorobenzene	70.6	70.2-105		%REC	1	11/18/2008 1:59:23 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 05-Dec-08

CLIENT: Lab Order: Western Refining Southwest, Inc.

0811150

1011150

Client Sample ID: TP-5
Collection Date: 11/11

Collection Date: 11/11/2008 1:30:00 PM

Project:

River Terrace 4th QTR 2008 Soil Vapor

Date Received: 11/12/2008

Lab ID:

0811150-07

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE					Analyst: DAM
Gasoline Range Organics (GRO)	190	25		μg/L	5	11/18/2008 2:30:08 PM
Surr: BFB	120	76.8-150		%REC	5	11/18/2008 2:30:08 PM
	• •					.,•
EPA METHOD 8021B: VOLATILES						-Analyst: DAM
Benzene	ND	0.50		μg/L	. 5	11/18/2008 2:30:08 PM
Toluene	ND	0.50		µg/L	5	11/18/2008 2:30:08 PM
Ethylbenzene	. 12	0.50		µg/L	5	11/18/2008 2:30:08 PM
Xylenes, Total	45	1.5	E	µg/L	5	11/18/2008 2:30:08 PM
Surr: 4-Bromofluorobenzene	73.2	70.2-105		%REC	5	11/18/2008 2:30:08 PM

- 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

Date: 05-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

River Terrace 4th QTR 2008 Soil Vapor

Project: Lab ID:

0811150-08

Client Sample ID: TP-9

Collection Date: 11/11/2008 1:45:00 PM

Date Received: 11/12/2008

Matrix: AIR

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: DAM
Gasoline Range Organics (GRO)	10	5.0	μg/L	1	11/21/2008 1:14:00 PM
Surr: BFB	109	76.8-150	%REC	1	11/21/2008 1:14:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	, ND	0.10	μg/L	1	11/21/2008 1:14:00 PM
Toluene	ND	0.10	μg/L	. 1	11/21/2008 1:14:00 PM
Ethylbenzene	0.21	0.10	μg/L	1	11/21/2008 1:14:00 PM
Xylenes, Total	1.0	0.30	μg/L	1	11/21/2008 1:14:00 PM
Surr: 4-Bromofluorobenzene	92.1	70.2-105	%REC	1	11/21/2008 1:14:00 PM

- Value exceeds Maximum Contaminant Level
- Estimated value
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
 - Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 05-Dec-08

CLIENT:

Western Refining Southwest, Inc.

.. ebiein 1001ming 50

Lab Order: 0811150

River Terrace 4th QTR 2008 Soil Vapor

Project: Lab ID:

0811150-09

Client Sample ID: DW-#1

Collection Date: 11/11/2008 2:15:00 PM

Date Received: 11/12/2008

Matrix: AIR

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0	µg/L	1	11/21/2008 1:45:10 PM
Surr: BFB	112	76.8-150	%REC	1	11/21/2008 1:45:10 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	0.10	μg/L	1	11/21/2008 1:45:10 PM
Toluene	ND	-0.10	μg/L	1	11/21/2008 1:45:10 PM
Ethylbenzene	ND	0.10	µg/L	1	11/21/2008 1:45:10 PM
Xylenes, Total	, ND	0.30	μg/L	1	11/21/2008 1:45:10 PM
Surr: 4-Bromofluorobenzene	91.3	70.2-105	%REC	1	11/21/2008 1:45:10 PM

- 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

DATES REPORT Western Refining Southwest, Inc. River Terrace 4th QTR 2008 Soil 0811150 Lab Order: Client: Project:

	rrojeci:	Miver Terrace 4111 QTR 2008 SOII						
TP-7 11/11/2008 10-20.00 AM Air EFA Method 8012B: Orducine Range R31165 TP-8 11/11/2008 10-30.00 AM EPA Method 8012B: Orducine Range R31165 TP-6 11/11/2008 11-00.00 AM EPA Method 8012B: Orducine Range R31165 TP-6 11/11/2008 11-00.00 AM EPA Method 8012B: Orducine Range R31165 TP-1 EPA Method 8012B: Orducine Range R31162 EPA Method 8012B: Orducine Range R31162 EPA Method 8021B: Volatiles R31165 EPA Method 8021B: Volatiles R31165 EPA Method 8021B: Volatiles R31166 EPA Method 8021B: Volatiles R31262 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles <th>Sample ID</th> <th>Client Sample ID</th> <th>on Date</th> <th>Matrix</th> <th>Test Name</th> <th>QC Batch ID</th> <th>Prep Date</th> <th>Analysis Date</th>	Sample ID	Client Sample ID	on Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
TP-8 11/11/2008 10:40:00 AM EPA Method 80.21B: Volatiles R31165 TP-6 11/11/2008 11:30:00 AM EPA Method 80.15B. Gasoline Range R31165 TP-6 11/11/2008 11:30:00 AM EPA Method 80.15B. Gasoline Range R31165 TP-1 EPA Method 80.15B. Gasoline Range R31312 TP-1 EPA Method 80.15B. Volatiles R31165 TP-2 EPA Method 80.15B. Volatiles R31165 TP-3 EPA Method 80.15B. Volatiles R31165 TP-3 EPA Method 80.15B. Volatiles R31165 TP-3 EPA Method 80.15B. Volatiles R31262 EPA Method 80.15B. Volatiles R31264 EPA Method 80.15B. Volatiles R31264 <td< td=""><td>0811150-01A</td><td>TP-7</td><td>11/11/2008 10:20:00 AM</td><td>Air</td><td>EPA Method 8015B: Gasoline Range</td><td>R31165</td><td></td><td>11/13/2008</td></td<>	0811150-01A	TP-7	11/11/2008 10:20:00 AM	Air	EPA Method 8015B: Gasoline Range	R31165		11/13/2008
TP-8 I1/11/2008 11/2008					EPA Method 8021B: Volatiles	R31165		11/13/2008
TP-6 11/11/2008 11:00 0AM EPA Method 801Bs. Gasoline Range R31165 EPA Method 801Bs. Gasoline Range R31162 EPA Method 801Bs. Gasoline Range R31312 EPA Method 801Bs. Gasoline Range R31312 EPA Method 801Bs. Volatiles R31165 EPA Method 801Bs. Volatiles R31166 EPA Method 801Bs. Volatiles R31166 EPA Method 801Bs. Gasoline Range R31364 EPA Method 801Bs. Volatiles R31364 EPA Method 801Bs	0811150-02A	8-dL	11/11/2008 10:40:00 AM		EPA Method 8015B: Gasoline Range	R31165		11/13/2008
TP-6 II/I I I 2008 I I 150 00 AM EPA Method 80 158. Gasoline Range R3156. 1					EPA Method 8021B: Volatiles	R31165		11/13/2008
EPA Method 801 5B. Gasoline Range R31262	0811150-03A	TP-6	11/11/2008 11:00:00 AM		EPA Method 8015B: Gasoline Range	R31165		11/13/2008
EPA Method 8021B: Volatiles R31312 EPA Method 8021B: Volatiles R31312 EPA Method 8021B: Volatiles R31262 EPA Method 8021B: Volatiles R31262 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R3126					EPA Method 8015B: Gasoline Range	R31262		11/17/2008
TP-1					EPA Method 8015B: Gasoline Range	R31312		11/21/2008
TP-1					EPA Method 8021B: Volatiles	R31312		11/21/2008
TP-1 11/11/2008 12:45:00 PM EPA Method 8021B: Volatiless R31262 EPA Method 8015B: Gasoline Range R31264 TP-2 EPA Method 8015B: Volatiles R31264 TP-2 EPA Method 8021B: Volatiles R31264 TP-2 EPA Method 8012B: Volatiles R31264 TP-2 EPA Method 8012B: Volatiles R31264 EPA Method 8012B: Gasoline Range R313264 EPA Method 8012B: Gasoline Range R313264 EPA Method 8012B: Volatiles R3132 EPA Method 8012B: Volatiles R31264 EPA Method 8012B: Gasoline Range R31264 EPA Method 8012B: Gasoline Range R31264 EPA Method 8012B: Volatiles					EPA Method 8021B: Volatiles	R31262		11/17/2008
TP-I 11/11/2008 12:45:00 PM EPA Method 801B: Gasoline Range R31262 PA Method 802B: Volatiles R31264 R31264 TP-2 EPA Method 802B: Volatiles R31264 TP-3 11/11/2008 1:15:00 PM EPA Method 801B: Osacline Range R31264 EPA Method 801B: Gasoline Range R31264 R31264 EPA Method 801B: Gasoline Range R31264 R31262 EPA Method 801B: Volatiles R31312 R31312 EPA Method 802B: Volatiles R31364 R31264 EPA Method 801B: Volatiles R31264 R31264 EPA Method 801B: Volatiles					EPA Method 8021B: Volatiles	R31165		11/13/2008
TP-2 11/11/2008 1.15:00 PM EPA Method 801B: Volatiles R31264 TP-2 11/11/2008 1.15:00 PM EPA Method 8021B: Volatiles R31264 TP-2 11/11/2008 1.15:00 PM EPA Method 801B: Volatiles R31264 EPA Method 801B: Olasoline Range R31262 R31312 EPA Method 801B: Volatiles R31312 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R31262 TP-2FD 11/11/2008 1.16:00 PM EPA Method 8021B: Volatiles R31262 EPA Method 801B: Gasoline Range R31264 R31264 EPA Method 8021B: Volatiles R31264	0811150-04A	TP-1	11/11/2008 12:45:00 PM		EPA Method 8015B: Gasoline Range	R31262		11/17/2008
TP-2 EPA Method 8021B: Volatiles R31262 TP-2 11/11/2008 1:15:00 PM EPA Method 8012B: Casoline Range R31264 EPA Method 8015B: Gasoline Range R31264 R31262 EPA Method 8015B: Gasoline Range R31312 EPA Method 8015B: Osoline Range R31312 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R31262 EPA Method 8015B: Gasoline Range R31262 EPA Method 8015B: Volatiles R31264 EPA Method 8015B: Volatiles R31262 EPA Method 8015B: Volatiles R31264 EPA Method 8015B: Volatiles R31264 EPA Method 8015B: Volatiles R31264					EPA Method 8015B: Gasoline Range	R31264		11/18/2008
TP-2 EPA Method 801B: Volatiles R31264 TP-2 11/11/2008 1:15:00 PM EPA Method 801B: Gasoline Range R31262 EPA Method 801B: Gasoline Range R31312 R31312 EPA Method 802B: Volatiles R31312 EPA Method 802B: Volatiles R31312 EPA Method 802B: Volatiles R31264 EPA Method 802B: Volatiles R31262 EPA Method 801B: Gasoline Range R31262 EPA Method 801B: Volatiles R31262 EPA Method 801B: Volatiles R31262 EPA Method 802B: Volatiles R31262					EPA Method 8021B: Volatiles	R31262		11/17/2008
TP-2 11/11/2008 1:15:00 PM EPA Method 8015B: Gasoline Range R31264 EPA Method 8015B: Gasoline Range R31312 EPA Method 8015B: Osoline Range R31312 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R31264 TP-2FD 11/11/2008 1:16:00 PM EPA Method 8021B: Volatiles R31262 TP-AM Method 8015B: Gasoline Range R31264 R31264 EPA Method 8015B: Volatiles R31264 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R31264					EPA Method 8021B: Volatiles	R31264		11/18/2008
EPA Method 8015B: Gasoline Range R31262 EPA Method 8015B: Gasoline Range R31312 EPA Method 801B: Volatiles R31264 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R31262 TP-2FD 11/11/2008 1:16:00 PM EPA Method 8015B: Gasoline Range R31262 EPA Method 8015B: Gasoline Range R31264 EPA Method 801B: Volatiles R31264 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R31264	0811150-05A	TP-2	11/11/2008 1:15:00 PM		EPA Method 8015B; Gasoline Range	R31264		11/18/2008
EPA Method 8021B: Oolatiles R31312 EPA Method 8021B: Volatiles R31312 EPA Method 8021B: Volatiles R31264 TP-2FD 11/11/2008 1:16:00 PM EPA Method 8021B: Volatiles R31262 TP-AMETHOD 8021B: Volatiles R31262 R31264 EPA Method 8021B: Volatiles R31264 R31264 EPA Method 8021B: Volatiles R31262 R31264 EPA Method 8021B: Volatiles R31262 R31264 EPA Method 8021B: Gasoline Range R31264 R31264					EPA Method 8015B: Gasoline Range	R31262		11/17/2008
EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R31264 TP-2FD 11/11/2008 1:16:00 PM EPA Method 8021B: Volatiles R31262 EPA Method 8015B: Gasoline Range R31264 R31264 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R31262 EPA Method 8021B: Casoline Range R31262 EPA Method 8021B: Casoline Range R31262					EPA Method 8015B: Gasoline Range	R31312		11/21/2008
TP-2FD 11/11/2008 1.16:00 PM EPA Method 8021B: Volatiles R31262 TP-2FD 11/11/2008 1.16:00 PM EPA Method 8015B: Gasoline Range R31262 EPA Method 8015B: Olatiles R31264 R31264 EPA Method 8021B: Volatiles R31262 EPA Method 8015B: Gasoline Range R31262 EPA Method 8015B: Gasoline Range R31262					EPA Method 8021B: Volatiles	R31312		11/21/2008
TP-2FD 11/11/2008 1:16:00 PM EPA Method 8021B: Volatiles R31262 EPA Method 8015B: Gasoline Range R31264 EPA Method 8021B: Volatiles R31264 EPA Method 8021B: Volatiles R31262 EPA Method 8021B: Volatiles R31262 TP-5 11/11/2008 1:30:00 PM EPA Method 8015B: Gasoline Range R31262					EPA Method 8021B: Volatiles	R31264		11/18/2008
TP-2FD 11/11/2008 1:16:00 PM EPA Method 8015B: Gasoline Range R31262 EPA Method 8015B: Gasoline Range R31264 EPA Method 8021B: Volatiles R31262 EPA Method 8021B: Volatiles R31264 TP-5 11/11/2008 1:30:00 PM EPA Method 8015B: Gasoline Range R31262					EPA Method 8021B: Volatiles	R31262		11/17/2008
EPA Method 8015B: Gasoline Range R31264 EPA Method 8021B: Volatiles R31262 EPA Method 8021B: Volatiles R31264 TP-5 11/11/2008 1:30:00 PM EPA Method 8015B: Gasoline Range R31262	0811150-06A	TP-2FD	11/11/2008 1:16:00 PM		EPA Method 8015B: Gasoline Range	R31262		11/17/2008
EPA Method 8021B: Volatiles R31262 EPA Method 8021B: Volatiles R31264 TP-5 11/11/2008 1:30:00 PM EPA Method 8015B: Gasoline Range R31262					EPA Method 8015B: Gasoline Range	R31264		11/18/2008
EPA Method 8021B: Volatiles R31264 TP-5 11/11/2008 1:30:00 PM EPA Method 8015B: Gasoline Range R31262					EPA Method 8021B: Volatiles	R31262		11/17/2008
TP-5 TP-5 EPA Method 8015B: Gasoline Range R31262					EPA Method 8021B: Volatiles	R31264		11/18/2008
	0811150-07A	TP-5	11/11/2008 1:30:00 PM		EPA Method 8015B: Gasoline Range	R31262		11/17/2008

Lab Order:	0811150	,			Tavada Sat va		
Chent: Project:	Western Refining Southwest, Inc. River Terrace 4th QTR 2008 Soil				DALESK	LIONI	
Sample ID	Sample ID Client Sample ID Collection D		Matrix	ate Matrix Test Name	QC Batch ID Prep Date Analysis Date	Prep Date	Analysis Date
0811150-07A	TP-5	11/11/2008 1:30:00 PM	Air	EPA Method 8015B: Gasoline Range	R31264		11/18/2008
				EPA Method 8021B: Volatiles	R31262		11/17/2008
				EPA Method 8021B: Volatiles	R31264		11/18/2008
0811150-08A	TP-9	11/11/2008 1:45:00 PM		EPA Method 8015B: Gasoline Range	R31262		11/17/2008
				EPA Method 8015B: Gasoline Range	R31312		11/21/2008
		-		EPA Method 8021B: Volatiles	R31262		11/17/2008
		,		EPA Method 8021B: Volatiles	R31312		11/21/2008
0811150-09A	DW-#1	11/11/2008 2:15:00 PM		EPA Method 8015B. Gasoline Range	R31312		11/21/2008
				EPA Method 8015B: Gasoline Range	R31262		11/17/2008
				EPA Method 8021B: Volatiles	R31262		11/17/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008



Date: 05-Dec-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

roject:

River Terrace 4th QTR 2008 Soil Vapor

Work Order:

0811150

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD R	PDLimit Qual
Method: EPA Method 8015B: G Sample ID: 0811150-01A DUP	asoline Rar	ige DUP			Batch ID): R31165	Analysis Date:	11/13/2008 3:27:43 PM
•	0.400				Daterrit	7. 1(31103	•	
Gasoline Range Organics (GRO)	6.400	μg/L "	5.0	446	70.0	150		27.8
Surr. BFB	2367	μg/L	0	118	76.8	150	0	0
Method: EPA Method 8015B: G	asoline Ran	ige						
Sample ID:. b 1		MBLK			Batch ID): R31165	Analysis Date:	11/13/2008 10:19:06 AI
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	22.67	mg/L	0	113	59.9	122		
Sample ID: 2.5UG GRO LCS		LCS			Batch IE): R31165	Analysis Date:	11/13/2008 5:29:55 PI
Gasoline Range Organics (GRO)	0.4820	mg/L	0.050	89.2	80	115		
Surr: BFB	25.09	mg/L	0	125	59.9	122		S
Method: EPA Method 8021B: V	alatilaa							
Sample ID: 0811150-01A DUP	olaules	DUP			Batch ID): R31165	Analysis Date:	11/13/2008 3:27:43 PI
					Datente	, K31103	•	
Benzene	ND	μg/L	0.10				0	25
Toluene	ND	µg/L	0.10		•		0	25
Ethylbenzene	ND	µg/L	0.10				0	25
Xylenes, Total	ND 1.400	μg/L	· 0.30	75.0	70.2	105	0 0	25 0
Surr: 4-Bromofluorobenzene	1.499	μg/L	<u> </u>	/5.0	70.2	105	<u> </u>	0
Method: EPA Method 8021B: V	olatiles							
ample ID: b1		MBLK			Batch IE): R31165	Analysis Date:	11/13/2008 10:19:06 AM
Benzene	ND	μg/L	1.0					
Toluene	ND	μg/L	1.0					
Ethylbenzene	ND	μg/L	1.0					
Xylenes, Total	ND	μg/L	2.0					
Surr: 4-Bromofluorobenzene	14.73	μg/L	0	73.7	65.9	130		
Sample ID: 100NG BTEX LCS		LCS			Batch IE): R31165	Analysis Date:	11/13/2008 6:00:46 PI
Benzene	23.02	μg/L	1.0	115	85.9	113		S
Toluene	22.99	μg/L	1.0	115	86.4	113		S
Ethylbenzene	23.65	μg/L	1.0	118	83.5	118		S
Xylenes, Total	72.99	μg/L	2.0	122	83.4	122		
Surr: 4-Bromofluorobenzene	16.59	μg/L	0	82.9	65.9	130		

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ma	111	G.	re

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

Page 1

Date: 05-Dec-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

River Terrace 4th QTR 2008 Soil Vapor

Work Order:

0811150

							Corder: 0811150
Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD RF	PDLimit Qual
asoline Ran	ige i						
	MBLK			Batch I	D: R31262	Analysis Date:	11/17/2008 11:38:55 AM
ND	mg/L	0.050					
22.38	mg/L	0	112	59.9	122		
	LCS	*		Batch I	D: R31262	Analysis Date:	11/17/2008 4:54:15 PM
0.5060	mg/L	0.050	101	80	115	•	
24.36	mg/L	0	122	59.9	122		
olatiles							
	MBLK			Batch I	D: R31262	Analysis Date:	11/17/2008 9:35:21 AM
ND	ua/L	1.0			•	•	
ND		1.0		· .	•		
ND							
	• -		69.3	65.9	130		
						Analysis Date:	11/17/2008 4:23:34 PM
19 45		1.0	97.3	85.9	113	•	
						* - *	
14.90		0	74.5	65.9	130		
asoline Ran	_			D-1-1-1	D. D0400 4	A construction Physics	44/40/0000 40:04 44 4
				Batch	D: R31264	Analysis Date:	11/18/2008 10:21:14 AM
ND ,	mg/L	0.050					•
22.35	mg/L	0	112	59.9	122		
	LCS			Batch I	D: R31264	Analysis Date:	11/18/2008 4:01:57 PM
0.4760	mg/L	0.050	88.8	80	115		
23.36	mg/L	0	117	59.9	122		
olatiles							
	MBLK			Batch I	D: R31264	Analysis Date:	11/18/2008 10:21:14 AM
ND	µg/L	1.0					
ND	μg/L	1.0					
ND	µg/L	1.0					
ND	µg/L	2.0					
13.03	µg/L	0	65.2	65.9	130		S
•	LCS			Batch I	D: R31264	Analysis Date:	11/18/2008 3:31:15 PM
18.47	μg/L	1.0	92.4	85.9	113		*
		1.0		86.4			
		1.0					
		2.0					
55.12	µg/L	2.0	91.9	83.4	122		
	ND 22.38 0.5060 24.36 olatiles ND ND ND ND 13.86 19.45 19.31 19.47 58.11 14.90 asoline Ran ND 22.35 0.4760 23.36 olatiles ND ND ND ND ND ND ND ND ND ND ND ND ND N	ASOline Range MBLK ND mg/L 22.38 mg/L LCS 0.5060 mg/L 24.36 mg/L Olatiles MBLK ND µg/L ND µg/L ND µg/L 13.86 µg/L LCS 19.45 µg/L 19.31 µg/L 19.47 µg/L 58.11 µg/L 14.90 µg/L 22.35 mg/L LCS 0.4760 mg/L 23.36 mg/L Olatiles MBLK ND µg/L Dlatiles MBLK ND µg/L 13.86 µg/L LCS 19.47 µg/L 14.90 µg/L 14.90 µg/L LCS 14.90 µg/L LCS 15.47 µg/L 15.01 µg/L 16.01 µg/L 17.01 µg/L 18.47 µg/L 18.33 µg/L	ASOline Range MBLK ND mg/L 0.050 22.38 mg/L 0 LCS 0.5060 mg/L 0.050 24.36 mg/L 0 Olatiles MBLK ND µg/L 1.0 ND µg/L 1.0 ND µg/L 1.0 ND µg/L 0 LCS 19.45 µg/L 0 LCS 19.45 µg/L 1.0 19.31 µg/L 1.0 19.31 µg/L 1.0 19.47 µg/L 1.0 58.11 µg/L 2.0 14.90 µg/L 0 asoline Range MBLK ND mg/L 0.050 22.35 mg/L 0 LCS 0.4760 mg/L 0.050 23.36 mg/L 0 Olatiles MBLK ND µg/L 1.0 ND µg/L 1.0 ND µg/L 0.050 10.4760 mg/L 0.050 23.36 mg/L 0 LCS 0.4760 mg/L 0.050 23.36 mg/L 0 LCS 0.4760 mg/L 1.0 ND µg/L 1.0	MBLK ND mg/L 0.050 22.38 mg/L 0 112 LCS 0.5060 mg/L 0.050 101 24.36 mg/L 0 122 122 122 122 123 124 124 125	MBLK Batch ND mg/L 0.050 22.38 mg/L 0 112 59.9 LCS Batch 10.5060 mg/L 0.050 101 80 24.36 mg/L 0 122 59.9 124.36 mg/L 0 122 59.9 124.36 mg/L 0 122 59.9 125.	ASOLINE Range MBLK ND MB/L 22.38 mg/L LCS 0.5060 mg/L 24.36 mg/L 0.050 0.5060 mg/L 24.36 mg/L 0.050 0.101 0.050 0.5060 MBLK Batch ID: R31262 0.5060 ND µg/L 1.0 P31262 Batch ID: R31262 19.45 µg/L 19.45 µg/L 10.0 97.3 85.9 113 19.31 µg/L 10.0 96.5 86.4 113 19.47 µg/L 10.0 96.5 83.5 118 58.11 µg/L 20.0 96.8 83.4 122 14.90 µg/L 10.0 74.5 65.9 130 asoline Range MBLK Batch ID: R31264 ND mg/L 0.050 22.35 mg/L 0.050 22.35 mg/L 0.050 22.35 mg/L 0.050 23.36 mg/L 0.050 88.8 80 115 23.36 mg/L 0.050 88.8 80 115 23.36 mg/L 0.050 88.8 80 115 CS Batch ID: R31264 ND µg/L 1.0 ND µg/L ND µg/L ND ND µg/L ND ND µg/L ND ND ND ND ND ND ND ND ND N	ND mg/L 0.050 22.38 mg/L 0 112 59.9 122

Qualifiers:	
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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



Date: 05-Dec-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

roject:

River Terrace 4th QTR 2008 Soil Vapor

Work Order:

0811150

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit Qual
Method: EPA Method 8015B: G	asoline Ran	ıge		,				
Sample ID: 0811179-03A DUP		DUP			Batch	ID: R31312	Analysis Da	ate: 11/21/2008 3:49:53 PN
Gasoline Range Organics (GRO)	ND	μg/L	5.0				0	27.8
Surr: BFB	2355	μg/L	0.	118	76.8	150	0	0
Method: EPA Method 8015B: G	asoline Ran	ige						
Sample ID: b1		MBLK			Batch	ID: R31312	Analysis Da	ate: 11/21/2008 9:37:41 AN
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	21.20	mg/L	0	106	59.9	122		
Sample ID: 2.5UG GRO LCS		LCS			Batch	ID: R31312	Analysis Da	ate: 11/21/2008 4:52:09 PM
Gasoline Range Organics (GRO)	0.4020	mg/L	0.050	80.4	80	115		
Surr: BFB	23.53	mg/L	0	118	59.9	122		
Method: EPA Method 8021B: V	olatiles	•						
Sample ID: 0811179-03A DUP		DUP			Batch	ID: R31312	Analysis Da	ate: 11/21/2008 3:49:53 PN
Benzene	ND	μg/L	0.10				0	25
Toluene	ND	μg/L	0.10				0	25
Ethylbenzene	ND	μg/L	0.10				0	25.
Xylenes, Total	ND	μg/L	0.30			•	0	25
Surr: 4-Bromofluorobenzene	1.924	µg/L	0	96.2	70.2	105	0	. 0
Method: EPA Method 8021B: V	olatiles							
ample ID: b1		MBLK			Batch	ID: R31312	Analysis Da	ate: 11/21/2008 9:37:41 AN
enzene	ND	μg/L	1.0					
Toluene	ND	µg/L	1.0	•				•
Ethylbenzene	ND	μg/L	1.0					
Xylenes, Total	ND	µg/L	2.0					
Surr: 4-Bromofluorobenzene	17.22	µg/L	0	86.1	65.9	130		
Sample ID: 100NG BTEX LCS		LCS			Batch I	ID: R31312	Analysis Da	ite: 11/21/2008 5:23:25 PM
Benzene	19.31	μg/L	1.0	96.5	85.9	113		,
Toluene	19.29	μg/L	1.0	96.4	86.4	113		
Ethylbenzene	19.64	µg/L	1.0	98.2	83.5	118		
Xylenes, Total	58.56	μg/L	2.0	97.6	83.4	122		•
Surr: 4-Bromofluorobenzene	19.69	μg/L	0	98.5	65.9	130		

. *	ualifiers:

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

Page 3

Sample Receipt Checklist

00	imple receipt of	COMISE			
Client Name WESTERN REFINING SOUT	·	Date Receiv	red.	11/12/2008	•
Vork Order Number 0811150		Received b	by: TLS	~~?·	
	1	Sample ID	labels checked by		
Checklist completed by: Signature	Date	2/01	_	Initials	
\mathcal{C}					
Matrix: Carrier	name <u>UPS</u>				
hipping container/cooler in good condition?	Yes 🗸	No 🗌	Not Present		
ustody seals intact on shipping container/cooler?	Yes 🗹 .	No 🗌	Not Present	Not Shipped	
sustody seals intact on sample bottles?	Yes	No 🗆	N/A	V .	
hain of custody present?	Yes 🗹	No 🗌		•	
hain of custody signed when relinquished and received?	Yes 🗹	No 🗌			
hain of custody agrees with sample labels?	Yes 🗹	No 🗌			
amples in proper container/bottle?	Yes 🗹	No 🗌			
ample containers intact?	Yes 🗹	No 🗌			
ufficient sample volume for indicated test?	Yes 🗸	No 🗌			
Il samples received within holding time?	Yes 🗹	No 🗌			
/ater - VOA vials have zero headspace? No VOA via	ıls submitted 🗹	Yes	No 🗌		
ater - Preservation labels on bottle and cap match?	Yes 🗌	No 🗌	N/A		
ater - pH acceptable upon receipt?	Yes 🗌	No 🗌	N/A 🗹		
ontainer/Temp Blank temperature?		<6° C Accepta			
OMMENTS:		If given sufficie	ent time to cool.		
				•	
			٠		
lient contacted Date contacte	vd.	Do	rson contacted		•
	·u.		ason contacted	·	
ontacted by: Regarding:					
omments:					
· · · · · · · · · · · · · · · · · · ·					
Corrective Action					

	HALL ENVIRONMENTAL ANALYSIS LABORATORY	www.hallenvironmental.com	NE - Albuquerque, NM 87109	345-3975 Fax 505-345-4107	Analysis Reguest				(H 808	Se Se Se Se Se Se Se Se	or etal N,IC obide (Ao	ANG 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	EDB (I RCRA Anions 8260B 8270 (
		W	4901 Hawkins NE -	Tel. 505-345		(ʎļu	998 0	5) F	-197) 8: (1.	2 + 3 8 + 5	oq o	+ MT	X3T8 X3T8 M H9T I) H9T		×	X	X	X	X	X	X	X			Remarks:		
1 Time:	d 🗆 Rush	:	中			ager:		V	Fre	ा ∀es ा No	прегатшre	Preservative)	2	3	7.7	5	()		8				Date Time	11 13 13 100 to	
Turn-Around	☑ Standard	Project Name:	Riverternace	Project #:		Project Mana			Sampler:	On Ice:	Sample Temperature:	 Container	Type and #	1-Ted AR					_						Received by:	Received by:	2
Cham-of-Custody Record	Client: Western Refluing (Bluf 1)		Mailing Address: #50 CP 4990	eld, NM 874/3	505-632-4161	email or Fax#: 505-632-39//		Level 4 (Full Validation)					Matrix Sample Request ID	VAPOR 1P.7	8-11	TP-6	1-01	6	16.2 FD	1P-5	7P-9	-#14A			Reinquished by:	Relinquished by:	
Charle	t Wester		ng Address:	Bloomfield		or Fax#: 5	QA/QC Package:	□ Standard	her	EDD (Type)		i	Time	DOZOA		-IA	1345	١١٢هم	- lea	1302	145	215			Time:	Time:	
	Clien		Mailir		Phone #:	email	QA/Q	\text{S} \\ \pi	□ Other			í	Date	1/11/08									-		Date:	Dafe:	

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.

el , (



COVER LETTER

Wednesday, November 26, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

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

RE: River Terrace 4th QTR 2008 Soil Vapor

Dear Cindy Hurtado:

Order No.: 0811179

Hall Environmental Analysis Laboratory, Inc. received 7 sample(s) on 11/13/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 26-Nov-08

CLIENT: Western Refining Southwest, Inc.

Project: River Terrace 4th QTR 2008 Soil Vapor

Lab Order: 0811179

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0811179-01A	MW #49	R31312	EPA Method 8021B: Volatiles	11/12/2008 10:00:00 AM
0811179-01A	MW #49	R31312	EPA Method 8015B: Gasoline Range	11/12/2008 10:00:00 AM
0811179-02A	TP-10	R31312	EPA Method 8021B: Volatiles	11/12/2008 10:30:00 AM
0811179-02A	TP-10	R31312	EPA Method 8015B: Gasoline Range	11/12/2008 10:30:00 AM
0811179-03A	TP-13	R31312	EPA Method 8021B: Volatiles	11/12/2008 10:50:00 AM
- 0811179-03A	TP-13	R31312	EPA Method 8015B: Gasoline Range	11/12/2008 10:50:00 AM
0811179-04A	TP-12	R31312	EPA Method 8021B: Volatiles	11/12/2008 1:00:00 PM
0811179-04A	TP-12	R31312	EPA Method 8015B: Gasoline Range	11/12/2008 1:00:00 PM
0811179-05A	TP-11	R31347	EPA Method 8021B: Volatiles	11/12/2008 1:20:00 PM
0811179-05A	TP-11	R31347	EPA Method 8015B: Gasoline Range	11/12/2008 1:20:00 PM
0811179-06A	TP-3	R31347	EPA Method 8021B: Volatiles	11/12/2008 1:40:00 PM
0811179-06A	TP-3	R31347	EPA Method 8015B: Gasoline Range	11/12/2008 1:40:00 PM
0811179-07A	FIELD BLANK	R31347	EPA Method 8021B: Volatiles	11/12/2008 1:45:00 PM
0811179-07A	FIELD BLANK	R31347	EPA Method 8015B: Gasoline Range	11/12/2008 1:45:00 PM

Date: 26-Nov-08

CLIENT: Lab Order:

Project:

Lab ID:

Western Refining Southwest, Inc.

0811179

0811179-01

River Terrace 4th QTR 2008 Soil Vapor

Client Sample ID: MW #49 Collection Date: 11/12/2008 10:00:00 AM

Date Received: 11/13/2008

Matrix: AIR

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE			· 	Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0	µg/L	1	11/21/2008 2:16:19 PM
Surr: BFB	· 110	76.8-150	%REC	1	11/21/2008 2:16:19 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	0.10	μg/L	1	11/21/2008 2:16:19 PM
Toluene	ND	0.10	µg/L	1	11/21/2008 2:16:19 PM
Ethylbenzene	ND	0.10	µg/L	1	11/21/2008 2:16:19 PM
Xylenes, Total	ND	0.30	µg/L	1	11/21/2008 2:16:19 PM
Surr: 4-Bromofluorobenzene	87.2	70.2-105	%REC	1	11/21/2008 2:16:19 PM

- Value exceeds Maximum Contaminant Level
- Е Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - Reporting Limit

Date: 26-Nov-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811179

Client Sample ID: TP-10

Collection Date: 11/12/2008 10:30:00 AM

Project:

River Terrace 4th QTR 2008 Soil Vapor

Date Received: 11/13/2008

Lab ID:

0811179-02

Matrix: AIR

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE	· · · · ·			Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	11/21/2008 2:47:25 PM
Surr: BFB	113	76.8-150	%REC	· 1	11/21/2008 2:47:25 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	0.10	μg/L	1	11/21/2008 2:47:25 PM
Toluene	ND	0.10	μg/L	1	11/21/2008 2:47:25 PM
Ethylbenzene	ND	0.10	μg/L	1	11/21/2008 2:47:25 PM
Xylenes, Total	ND	0.30	μg/L	1	11/21/2008 2:47:25 PM
Surr: 4-Bromofluorobenzene	90.8	70.2-105	%REC	1	11/21/2008 2:47:25 PM

Qualifiers:

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

Page 2 of 7

Date: 26-Nov-08

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: TP-13

Lab Order:

0811179

Collection Date: 11/12/2008 10:50:00 AM

Project:

River Terrace 4th QTR 2008 Soil Vapor

Date Received: 11/13/2008

Lab ID:

0811179-03

Matrix: AIR

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE			······································	Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	11/21/2008 3:18:43 PM
Surr: BFB	102	76.8-150	%REC	1,	11/21/2008 3:18:43 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Ben; ene	ND	0.10	μg/L	1	11/21/2008 3:18:43 PM
Toluene	ND	0.10	µg/L	1	11/21/2008 3:18:43 PM
Ethylbenzene	ND	0.10	μg/L	1	11/21/2008 3:18:43 PM
Xylones, Total	ND	0.30	μg/L	1	11/21/2008 3:18:43 PM
Surr: 4-Bromofluorobenzene	81.4	70.2-105	%REC	1	11/21/2008 3:18:43 PM

- 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

Date: 26-Nov-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811179

Client Sample ID: TP-12

Collection Date: 11/12/2008 1:00:00 PM

Project: Lab ID: River Terrace 4th QTR 2008 Soil Vapor

Date Received: 11/13/2008

0811179-04

Matrix: AIR

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0	µg/L	1	11/21/2008 4:21:04 PM
Surr: BFB	95.7	76.8-150	%REC	1	11/21/2008 4:21:04 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene .	ND	0.10	μg/L	1	11/21/2008 4:21:04 PM
Toluene	ND	0.10	μg/L	1	11/21/2008 4:21:04 PM
Ethylbenzene	ND	0.10	μg/L	1	11/21/2008 4:21:04 PM
Xylenes, Total	ND .	0.30	μg/L	1	11/21/2008 4:21:04 PM
Surr: 4-Bromofluorobenzene	73.3	70.2-105	%REC	1	11/21/2008 4:21:04 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Ε Estimated value
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - Reporting Limit

Page 4 of 7

Date: 26-Nov-08

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: TP-11

Lab Order:

0811179

Collection Date: 11/12/2008 1:20:00 PM

Project:

Date Received: 11/13/2008

Lab ID:

River Terrace 4th QTR 2008 Soil Vapor

0811179-05

Matrix: AIR

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	11/24/2008 1:33:01 PM
Surr: BFB	107	76.8-150	%REC	1	11/24/2008 1:33:01 PM
EPA METHOD 8021B: VOLATILES	•				Analyst: DAM
Benzene	ND	0.10	μg/L	1	11/24/2008 1:33:01 PM
Toluene	ND	0.10	μg/L	1	11/24/2008 1:33:01 PM
Ethylbenzene	ND	0.10	μg/L	1	11/24/2008 1:33:01 PM
Xylenes, Total	ND	0.30	μg/L	1	11/24/2008 1:33:01 PM
Surr: 4-Bromofluorobenzene	91.0	70.2-105	%REC	1	11/24/2008 1:33:01 PM

- Value exceeds Maximum Contaminant Level
- Ε Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Η
- MCL Maximum Contaminant Level
 - Reporting Limit

Page 5 of 7

Date: 26-Nov-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0811179

Client Sample ID: TP-3

Collection Date: 11/12/2008 1:40:00 PM

Project:

River Terrace 4th QTR 2008 Soil Vapor

Date Received: 11/13/2008

Lab ID:

0811179-06

Matrix: AIR

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: DAM
Gasoline Range Organics (GRO)	5.2	5.0	μg/Ŀ	. 1	11/24/2008 2:04:12 PM
Surr: BFB	113	76.8-150	%REC	1.	11/24/2008 2:04:12 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	0.10	µg/L	1	11/24/2008 2:04:12 PM
Toluene	ND	0.10	μg/L	1	11/24/2008 2:04:12 PM
Ethylbenzene	ND	0.10	μg/L	. 1	11/24/2008 2:04:12 PM
Xylenes, Total	ND	0.30	μg/L	1	11/24/2008 2:04:12 PM
Surr: 4-Bromofluorobenzene	93.0	70.2-105	%REC	1	11/24/2008 2:04:12 PM

- Value exceeds Maximum Contaminant Level
- Ε Estimated value
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Η Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Page 6 of 7

Date: 26-Nov-08

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: FIELD BLANK

Lab Order:

0811179

Collection Date: 11/12/2008 1:45:00 PM

Project:

River Terrace 4th QTR 2008 Soil Vapor

Date Received: 11/13/2008

Lab ID:

0811179-07

Matrix: AIR

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE			 	Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0	μg/L	1	11/24/2008 2:35:16 PM
Surr: BFB	106	76.8-150	%REC	1	11/24/2008 2:35:16 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	0.10	μg/L	1	11/24/2008 2:35:16 PM
Toluene	ND	0.10	μg/L	1	11/24/2008 2:35:16 PM
Ethylbenzene	ND	0.10	μg/L	1	11/24/2008 2:35:16 PM
Xylenes, Total	ND	0.30	μg/L	1	11/24/2008 2:35:16 PM
Surr: 4-Bromofluorobenzene	89.3	70.2-105	%REC	1	11/24/2008 2:35:16 PM



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

Lab Order:	0811179			ſ			
Client:	Western Refining Southwest, Inc.	ithwest, Inc.			DATES REPORT	EPORT	
Project:	River Terrace 4th QTR 2008 Soil						
Sample ID	· Client Sample ID Collection Date		Matrix	Test Name	QC Batch ID Prep Date	Prep Date	Analysis Date
0811179-01A	MW #49	11/12/2008 10:00:00 AM	Air	EPA Method 8015B: Gasoline Range	R31312	,	11/21/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008
0811179-02A	TP-10	11/12/2008 10:30:00 AM		EPA Method 8015B: Gasoline Range	R31312		11/21/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008
0811179-03A	TP-13	11/12/2008 10:50:00 AM		EPA Method 8015B: Gasoline Range	R31312		11/21/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008
0811179-04A	TP-12	11/12/2008 1:00:00 PM		EPA Method 8015B: Gasoline Range	R31312		11/21/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008
0811179-05A	TP-11	11/12/2008 1:20:00 PM		EPA Method 8015B: Gasoline Range	R31347		11/24/2008
				EPA Method 8021B: Volatiles	R31347		11/24/2008
0811179-06A	TP-3	11/12/2008 1:40:00 PM		EPA Method 8015B. Gasoline Range	R31347		11/24/2008
				EPA Method 8021B: Volatiles	R31347		11/24/2008
0811179-07A	FIELD BLANK	11/12/2008 1:45:00 PM		EPA Method 8015B: Gasoline Range	R31347		11/24/2008

11/24/2008

R31347

EPA Method 8021B: Volatiles

Date: 26-Nov-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

River Terrace 4th QTR 2008 Soil Vapor

Work Order:

0811179

Analyte	Result	Units	PQL	%Rec	LowLimit H	HighLimit	%RPD F	RPDLimit	Qual
Method: EPA Method 8015B: G	asoline Ran	ge							
Sample ID: 0811179-03A DUP		DUP			Batch ID	R31312	Analysis Date	: 11/21/	2008 3:49:53 PM
Gasoline Range Organics (GRO)	ND	μg/L	5.0				0	27.8	
Surr: BFB	2355	µg/L	0	118	76.8	150	0	0	_
Method: EPA Method 8015B: G	asoline Ran	ge							
Sample ID: b 1		MBLK			Batch ID	R31312	Analysis Date	: 11/21/	2008 9:37:41 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	21.20	mg/L	0	106	59.9	122			
Sample ID: 2.5UG GRO LCS		LCS			Batch ID	R31312	Analysis Date	: 11/21/	2008 4:52:09 PN
Gasoline Range Organics (GRO)	0.4020	mg/L	0.050	80.4	80	115			
Surr: BFB	23.53	mg/L	0	118	59.9	122			
Method: EPA Method 8021B: V	olatiles								
Sample ID: 0811179-03A DUP		DUP			Batch ID	: R31312	Analysis Date	: 11/21/	2008 3:49:53 PM
Benzene	ND	μg/L	0.10				0	25	
Toluene	ND	μg/L	0.10				. 0	25	
Ethylbenzene	ND	μg/L	0.10				0	25	
Xylenes, Total	ND	μg/L	0.30				0	25	
Surr: 4-Bromofluorobenzene	1.924	μg/L	0	96.2	70.2	105	0	0	
Method: EPA Method 8021B: V	olatiles								•
Sample ID: b 1		MBLK			Batch ID	R31312	Analysis Date	: 11/21/2	2008 9:37:41 AM
nzene	ND	μg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	μg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	17.22	μg/L	0	86.1	65.9	130			
Sample ID: 100NG BTEX LCS		LCS			Batch ID	R31312	Analysis Date	: 11/21/2	2008 5:23:25 PM
Benzene	19.31	µg/L	1.0	96.5	85.9	113			
Toluene	19.29	µg/L	1.0	96.4	86.4	113			
Ethylbenzene	19.64	μg/L	1.0	98.2	83.5	118			
Xylenes, Total	58.56	µg/L	2.0	97.6	83.4	122			
Surr: 4-Bromofluorobenzene	19.69	µg/L	0	98.5	65.9	130			

ualifiers:		ualifiers:
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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

Page 1

Date: 26-Nov-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

River Terrace 4th QTR 2008 Soil Vapor

Work Order:

0811179

Analyte	Result	Units	PQL	%Rec	LowLimit F	lighLimit	%RPD	RPDLimit Qual
Method: EPA Method 8015B: G	iasoline Rar	•	÷					
Sample ID: 0811179-06A DUP		DUP		•	Batch ID	: R31347	Analysis Da	ate: 11/24/2008 3:06:16 PM
Gasoline Range Organics (GRO)	5.200	μg/L	5.0				0	27.8
Surr: BFB	2303	μg/L	0 .	115	76.8	150	0	0
Method: EPA Method 8015B: G	iasoline Rar	nge						
Sample ID: b1		MBLK			Batch ID	R31347	Analysis Da	ite: 11/24/2008 10:27:20 AN
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	21.64	mg/L	0	108	59.9	122		
Sample ID: 2.5UG GRO LCS		LCS			Batch ID	: R31347	Analysis Da	ate: 11/24/2008 4:39:48 PN
Gasoline Range Organics (GRO)	0.4400	mg/L	0.050	81.6	80	115	•	
Surr: BFB	23.04	mg/L	0	115	59.9	122		
Method: EPA Method 8021B: V	olatiles							
Sample ID: 0811179-06A DUP		DUP			Batch ID	R31347	Analysis Da	ate: 11/24/2008 3:06:16 PN
Benzene	ND	μg/L	0.10				0	25
Toluene	ND	μg/L	0.10				0	25
Ethylbenzene	ND	μg/L	0.10		•		0	25
Xylenes, Total	ND	µg/L	0.30		•		0	25
Surr: 4-Bromofluorobenzene	1.887	µg/L	0	94.3	70.2	105	0	0
Method: EPA Method 8021B: V	olatiles							
Sample ID: b1		MBLK			Batch ID	: R31347	Analysis Da	ate: 11/24/2008 10:27:20 AN
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					
Surr: 4-Bromofluorobenzene	19.31	µg/L	0	96.6	65.9	130		
Sample ID: 100NG BTEX LCS		LCS			Batch ID	: R31347	Analysis Da	ate: 11/24/2008 5:10:58 PM
Benzene	20.65	μg/L	1.0	103	85.9°	113		
Toluene	20.62	μg/L	1.0	103	86.4	113		
Ethylbenzene	20.73	μg/L	1.0	104	83.5	118		
Xylenes, Total	61.93	µg/L	2.0	103	83.4	122		•
Surr: 4-Bromofluorobenzene	19.99	µg/L	0	99.9	65.9	130	,	

Qual	lifi	er	s:
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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





Sample Receipt Checklist

Client Name WESTERN REFINING SOUT		Date Received:	11/13/2008
Work Order Number 0811179		Received by: TLS	
Checklist completed by:	11 /13	Sample ID labels checked by:	Initials
Matrix:	Carrier name <u>UPS</u>		
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 red	eived? 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 No	
Vater - Preservation labels on bottle and cap mate	h? Yes \square	No □ N/A 🗹	
Water - pH acceptable upon receipt?	Yes	No ☐ N/A 🗹	
Container/Temp Blank temperature?		<6° C Acceptable	
COMMENTS:		If given sufficient time to cool.	
			·
Client contested D	ate contacted:	Person contacted	
Client contacted Da	ate contacted.	Person contacted	
Contacted by: Re	egarding:		·
Comments:	,		
	•		·
Corrective Action			

	ANALYSIS LABORATORY	www.hallenvironmental.com	s NE - Albuquerque, NM 87109	Fax	Analysis Request			(H 2 ₂ ON,	Aq 10 slst SON,I Sebi \ AOV-	AM9) 0 AM9) 0 BM 8 A8 D,7) and Ditestic OV) 80 Semi-	PCFR Projection											3	-	If new samples submitted to Hall Environmental may be subcontracted to other accredited laborator is serves as notice of this possibility. Any sub-contracted data will be clearly notated on the second report.
To the			4901 Hawkins NE	Tel. 505-345-3975		(ʎlu		H9T)) 83 (1.8	9E +	+ M T TM + X: Hoothoo	378 H9T H9T	× ×	× ×	X	X	×	X	X			Remarks:			ossibility. Any sub-contra
Time:	□ Rush	Soil Haper	"Bath					M	☐ Yes ☐ No perature:	Preservative HEAL No:	08/11/175	/	(ا		h = h	7	()	7			Date Time R	.		dited laborato
Turn-Around Tir	☑ Standard	Project Name:	RiverTerra	Project #:		Project Manager:		Sampler: (24)	On Ice: Tamper Sample Temper	Container Pr	i ype aild #	1-Tedlar)								Received by:	Received by	<u> </u>	intracted to other accre
Chain-of-Custody Record	Client: Western Refiving (Bluff)		CR 4990	NM 87413	Phone #: 505-632-416/	05-632-3911	(Full Validation)			Matrix Sample Request ID		VAPOR MW#49		TP-13	TP-12	11. 41	TP-3	Field Blank			Relinquished by:	Relinquished by:		amples submitted to Hall Environmental may be subco
Chain-	Client: Wester		Mailing Address: #50	Bloomfin	Phone #: 505	email or Fax#: 505-632-	QA/QC Package:	□ Other	□ EDD (Type) _	Date Time	•	Mapol golzyn	10304	10Sat	8	120p.K	1400	1454			Date: Time: F			If ned



COVER LETTER

Monday, December 08, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

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

RE: GAC Monthly Dec 2, 2008

Dear Cindy Hurtado:

Order No.: 0812051

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 12/3/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 08-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Project:

GAC Monthly Dec 2, 2008

Lab Order:

0812051

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0812051-01A	GAC Lead	R31504	EPA Method 8015B: Gasoline Range	12/2/2008 9:15:00 AM
0812051-01A	GAC Lead	R31504	EPA Method 8021B: Volatiles	12/2/2008 9:15:00 AM
0812051-01A	GAC Lead	17780	EPA Method 8015B: Diesel Range	12/2/2008 9:15:00 AM

Date: 08-Dec-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0812051

0012031

GAC Monthly Dec 2, 2008

Project: Lab ID:

0812051-01

Client Sample ID: GAC Lead

Collection Date: 12/2/2008 9:15:00 AM

Date Received: 12/3/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE		·• , <u></u> .			Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	. 1	12/4/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	12/4/2008
Surr: DNOP	126	58-140	%REC	1	12/4/2008
EPA METHOD 8015B: GASOLINE RAI	NGE				Analýst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	12/5/2008 9:18:47 PM
Surr: BFB	89.3	59.9-122	%REC	1	12/5/2008 9:18:47 PM
EPA METHOD 8021B: VOLATILES	e.				Analyst: DAM
Benzene	ND	1.0	μg/L	1	12/5/2008 9:18:47 PM
Toluene	ND	1.0	µg/L	1	12/5/2008 9:18:47 PM
Ethylbenzene	ND	1.0	μg/L	1	12/5/2008 9:18:47 PM
Xylenes, Total	ND	2.0	μg/L	· 1	12/5/2008 9:18:47 PM
Surr: 4-Bromofluorobenzene	92.4	65.9-130	%REC	1	12/5/2008 9:18:47 PM

- 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

DATES REPORT

Hall Environmental Analysis Laboratory, Inc.

0812051 Lab Order: Western Refining Southwest, Inc.

GAC Monthly Dec 2, 2008 Client:

Project:	GAC MORRING Dec 2, 2000	2, 2000		A DE LA RECOLLA CONTRACTOR CONTRA	the second secon	The section of the se	A COLUMN TO THE PERSON OF THE
Sample ID	Sounds ID Client Sample ID	Collection Date	Matrix	Sample ID Client Sample ID Collection Date Matrix Test Name QC Batch ID Prep Date Analysis Date	QC Batch ID	QC Batch ID Prep Date Analysis Date	Analysis Date
08120£1 01 A		12/2/2008 9:15:00 AM	Agueons	EPA Method 8015B: Diesel Range	17780	12/4/2008	12/4/2008
W10-1007180	OUC Tragg		4	EPA Method 8015B: Gasoline Range	R31504		12/5/2008
				FPA Method 802.1B: Volatiles	R31504		12/5/2008

Date: 08-Dec-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Soject:

GAC Monthly Dec 2, 2008

Work Order:

0812051

Analyte	Result	Units	PQL	%Rec	LowLimit F	HighLimit	%RPD	RPDI	_imit Qual
Method: EPA Method 8015B: D	iesel Range								
Sample ID: MB-17780		MBLK			Batch ID	17780	Analysis Da	ate:	12/4/2008
Diesel Range Organics (DRO)	ND	mg/L	1.0				*		
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	1.207	mg/L	0	121	58	140			
Sample ID: LCS-17780		LCS			Batch ID	17780	Analysis Da	ate:	12/4/2008
Diesel Range Organics (DRO)	5.948	mg/L	1.0	119	74	157			
Surr: DNOP	0.6252	mg/L	. 0	125	58	140			
Sample ID: LCSD-17780		LCSD			Batch ID	17780	Analysis Da	ate:	12/4/2008
Diesel Range Organics (DRO)	6.288	mg/L	1.0	126	74	157	5.55	23	
Surr: DNOP	0.6326	mg/L	0	127	58	140	.0	0	
Method: EPA Method 8015B: G	asoline Ran	ge							
Sample ID: 5ML RB		MBLK			Batch ID	: R31504	Analysis Da	ate:	12/5/2008 9:39:15 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	15.96	mg/L	0	79.8	59.9	122			
Sample ID: 2.5UG GRO LCS	•	LCS			Batch ID	: R31504	Analysis Da	ate:	12/6/2008 4:23:42 AM
Gasoline Range Organics (GRO)	0.5210	mg/L	0.050	104	80	115			**
Surr: BFB	18.69	mg/L	0	93.5	59.9	122			
Sample ID: 2.5UG GRO LCSD		LCSD			Batch ID	R31504	Analysis Da	ate:	12/6/2008 4:54:05 AM
Casoline Range Organics (GRO)	0.5006	mg/L	0.050	100	80	115	3.99	8.39)
Surr: BFB	19.11	mg/L	0	95.6	59.9	122	0	0	
Sample ID: 0812051-01A DUP		DUP			Batch ID	R31504	Analysis Da	ate:	12/5/2008 9:49:13 PM
Gasoline Range Organics (GRO)	ND	mg/L	0.050				0	20	
Surr: BFB	18.24	mg/L	0	91.2	59.9	122	0 .	0	



E Estimated value

S Spike recovery outside accepted recovery limits

Page 1

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

Date: 08-Dec-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

GAC Monthly Dec 2, 2008

Work Order:

0812051

Analyte	Result	Units	PQL	%Rec	LowLimit HighLimit	%RPD RF	PDLimit Qual
Method: EPA Method 8021B: V	/olatiles						
Sample ID: 0812051-01A MSD		MSD		•	Batch ID: R31504	Analysis Date:	12/5/2008 10:49:55 PM
Benzene	21.27	μg/L	1.0	106	85.9 113	1.02	27
Toluene	21.00	μg/L	1.0	105	86.4 113	1.01	19
Ethylbenzene	21.03	μg/L	1.0	104	83.5 118	1.39	10
Kylenes, Total	63.53	μg/L	2.0	105	83.4 122	0.640	13
Surr: 4-Bromofluorobenzene	19.62	μg/L	0	98.1	65.9 130	0	0
Sample ID: 5ML RB		MBLK			Batch ID: R31504	Analysis Date:	12/5/2008 9:39:15 AM
Benzene	ND	μg/L	1.0				• .
Toluene	ND	μg/L	1.0		•		
Ethylbenzene	ND .	μg/L	1.0				
Kylenes, Total	ND	μg/L	2.0		•		
Surr: 4-Bromofluorobenzene	15.42	μg/L	0	77.1	65.9 130		
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R31504	Analysis Date:	12/6/2008 9:58:05 AM
Benzene	21.14	μg/L	1.0	106	85.9 113	•	
Toluene	21.26	μg/L	1.0	106	86.4 113		
Ethylbenzene	20.98	μg/L	1.0 -	105	83.5 118		
Kylenes, Total	63:01	· µg/L	2.0	105	83.4 122		
Surr: 4-Bromofluorobenzene	20.92	µg/L.	0	105	65.9 130		
Sample ID: 0812051-01A MS		MS			Batch ID: R31504	Analysis Date:	12/5/2008 10:19:34 PM
Benzene	21.06	μg/L	1.0	105	85.9 113		
Foluene	20.79	µg/L	1.0	104	86.4 113		
Ethylbenzene	21.33	µg/L	1.0	106	83.5 118		`
Kylenes, Total	63.94	µg/L	2.0	106	83.4 122		
Surr: 4-Bromofluorobenzene	21.47	μg/L	0	107	65.9 130		

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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



Sample Receipt Checklist

Client Name WESTERN REFINING SOUT		Date Receiv	red:	12/3/2008	
Work Order Number 0812051		Received h	by: TLS	. CHINAS	
	10/2	Sample ID	labels checked by:	Initials	
hecklist completed by:	Date	100	_	HILLIAIS	
Matrix: Carrier n	name <u>UPS</u>				
	<u>51-5</u>				
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 🗌			1
chain of custody signed when relinquished and received?	Yes 🗸	No 🗌	•		
chain of custody agrees with sample labels?	Yes 🗹	No 🗌			
amples in proper container/bottle?	Yes 🗹	No 🗌			
Sample containers intact?	Yes 🗹	No 🗌			
ufficient sample volume for indicated test?	Yes 🗹	No 🗌			
Il samples received within holding time?	Yes 🗸	No 🗌			
Vater - VOA vials have zero headspace? No VOA vials	s submitted	Yes 🗹	No 🗔		
Vater - Preservation labels on bottle and cap match?	Yes	No 🗌	N/A		
/ater - pH acceptable upon receipt?	Yes	No 🗌	N/A		
ontainer/Temp Blank temperature?	4°	<6° C Accepta			
OMMENTS:		If given sufficie	nt time to cool.		
=======================================					==
•					
lient contacted Date contacted	1	Pe	rson contacted		
ontacted by: Regarding:					
omments:				,	
	. '				
	· · · · · · · · · · · · · · · · · · ·				
					,
Corrective Action					

HALL ENVIRONMENTAL ANALYSIS LABORATORY 4901 Hawkins NE, Suite D		ANALYSIS REGUESI:		(lase)	oss9) id ' ₁ ,0q',	12B (CB)	+ ### ################################	BTEX + Methory TPH (Methory Methory Me	× ×						Remarks:	
QA/QC Package: Std ☐ Level 4 🗗 Other:	Project Name: GAC MONTHY DEC. 2, 2008	Project #:		Project Manager:		Sampler Bob	Sample Temperature:	Number/Volume HgCl ₂ HNO ₃ HCl OS12OSI							३ ००९ ५०३५५	Received By: (Signature)
CHAIN-OF-CUSTODY RECORD	Client: Western Resining (ALCIA)	Address: #50 CP 4890	Bloomfield, NM 87413			1-632-4161	Fax#: 505-632-39//	Date Time Matrix Sample I.D. No.	12-2-08 9:15 H20 GAC-LEad						Time:	Date: Time: Relinquished By: (Signature)

The same



COVER LETTER

Monday, November 03, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

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

RE: GAC 4th QTR 10/15/08

Dear Cindy Hurtado:

Order No.: 0810330

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 10/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 03-Nov-08

CLIENT:

Western Refining Southwest, Inc.

Project:

GAC 4th QTR 10/15/08

Lab Order: 0810330

Work Order Sample Summary

	•		•	
Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0810330-01A	GAC Lead	R30911	EPA Method 8021B: Volatiles	10/15/2008 8:15:00 AM
0810330-01A	GAC Lead	R30911	EPA Method 8015B: Gasoline Range	10/15/2008 8:15:00 AM
0810330-01A	GAC Lead	17380	EPA Method 8015B: Diesel Range	10/15/2008 8:15:00 AM
0810330-02A	GAC-Lag	R30911	EPA Method 8021B: Volatiles	10/15/2008 8:20:00 AM
0810330-02A	GAC-Lag	R30911	EPA Method 8015B: Gasoline Range	10/15/2008 8:20:00 AM
0810330-02A	GAC-Lag	17380	EPA Method 8015B: Diesel Range	10/15/2008 8:20:00 AM
0810330-03A	GAC-Inlet	R30911	EPA Method 8021B: Volatiles	10/15/2008 8:25:00 AM
0810330-03A	GAC-Inlet	R30911	EPA Method 8021B: Volatiles	10/15/2008 8:25:00 AM
0810330-03A	GAC-Inlet	R30911	EPA Method 8015B: Gasoline Range	10/15/2008 8:25:00 AM
0810330-03A	GAC-Inlet	R30911	EPA Method 8015B: Gasoline Range	10/15/2008 8:25:00 AM
0810330-03A	GAC-Inlet	17380	EPA Method 8015B: Diesel Range	10/15/2008 8:25:00 AM

Date: 03-Nov-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0810330

Project:

GAC 4th QTR 10/15/08

Lab ID:

0810330-01

Client Sample ID: GAC Lead

Collection Date: 10/15/2008 8:15:00 AM

Date Received: 10/16/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E .				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	10/16/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1 .	10/16/2008
Surr: DNOP	128	58-140	%REC	1	10/16/2008
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.10	mg/L	1	10/28/2008 1:10:54 PM
Surr. BFB	79.5	59.9-122	%REC	1	10/28/2008 1:10:54 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	1.0	μg/L	1	10/28/2008 1:10:54 PM
Toluene	. ND	1.0	μg/L	1	10/28/2008 1:10:54 PM
Ethylbenzene	ND	1.0	μg/L	1	10/28/2008 1:10:54 PM
Xylenes, Total	ND	2.0	μg/L	. 1	10/28/2008 1:10:54 PM
Surr: 4-Bromofluorobenzene	70.6	65.9-130	%REC	. 1	10/28/2008 1:10:54 PM



- 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

Date: 03-Nov-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0810330

GAC 4th QTR 10/15/08

Project: Lab ID:

0810330-02

Client Sample ID: GAC-Lag

Collection Date: 10/15/2008 8:20:00 AM

Date Received: 10/16/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE				,	Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	10/16/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	10/16/2008
Surr: DNOP	131	58-140	%REC	1	10/16/2008
EPA METHOD 8015B: GASOLINE RAN	NGE			•	Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.10	mg/L	1 .	10/28/2008 1:41:23 PM
Surr. BFB	79.6	59.9-122	%REC	1	10/28/2008 1:41:23 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	1.0	μg/L	1	10/28/2008 1:41:23 PM
Toluene	ND	1.0	μg/L	1	10/28/2008 1:41:23 PM
Ethylbenzene	ND	. 1.0	μg/L	1 .	10/28/2008 1:41:23 PM
Xylenes, Total	ND	2.0	μg/L	1	10/28/2008 1:41:23 PM
Surr: 4-Bromofluorobenzene	72.5	65.9-130	%REC	· · 1	10/28/2008 1:41:23 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Η
- MCL Maximum Contaminant Level
- Reporting Limit



Date: 20-Jan-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0810330

Project:

GAC 4th QTR 10/15/08

Lab ID:

0810330-03

Client Sample ID: GAC-Inlet

Collection Date: 10/15/2008 8:25:00 AM

Date Received: 10/16/2008

Matrix: AQUEOUS

Analyses		Result Qual	MDL	PQL	Units	DF	Date Analyzed
CAS# EP	A METHOD 8015B: DIESEL RAN	IGE					Analyst: SCC
TPH-Diesel	Diesel Range Organics (DRO)	4.4	0.97	1.0	mg/L	1	10/16/2008
TPH-Motor Oil	Motor Oil Range Organics (MRO)	ND	5.0	5.0	mg/L	1	10/16/2008
117-84-0	Surr: DNOP	133	0	58-140	%REC	1	10/16/2008
CAS# EP	PA METHOD 8015B: GASOLINE F	RANGE					Analyst: DAM
ГРН-Gasoline	Gasoline Range Organics (GRO)	16	0.29	1.0	mg/L	10	10/28/2008 2:44:46 PM
60-00-4	Surr: BFB	84.9	0	59.9-122	%REC	10	10/28/2008 2:44:46 PM
CAS# EP	A METHOD 8021B: VOLATILES						Analyst: DAM
1-43-2	Benzene	ND	0.91	10	μg/L	10	10/28/2008 2:44:46 PM
08-88-3	Toluene	ND	2.1	10	µg/L	10	10/28/2008 2:44:46 PM
00-41-4	Ethylbenzene	580	0.54	10	μg/L	10	10/28/2008 2:44:46 PM
330-20-7	Xylenes, Total	4800	28	200	μg/L	100	10/28/2008 2:11:40 PM
160-00-4	Surr: 4-Bromofluorobenzene	79.6	0	65.9-130	%REC	100	10/28/2008 2:11:40 PM



ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

DATES REPORT

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc. 0810330 Lab Order: Client:

Project:	GAC 4th QTR 10/15/08	/15/08					
Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0810330-01A	GAC Lead	10/15/2008 8:15:00 AM	Aqueous	EPA Method 8015B: Diesel Range	17380	10/16/2008	10/16/2008
				EPA Method 8015B: Gasoline Range	R30911		10/28/2008
				EPA Method 8021B: Volatiles	R30911		10/28/2008
0810330-02A	GAC-Lag	10/15/2008 8:20:00 AM		EPA Method 8015B: Diesel Range	17380	10/16/2008	10/16/2008
				EPA Method 8015B: Gasoline Range	R30911		10/28/2008
				EPA Method 8021B: Volatiles	R30911		10/28/2008
0810330-03A	GAC-Inlet	10/15/2008 8:25:00 AM		EPA Method 8015B: Diesel Range	17380	10/16/2008	10/16/2008
				EPA Method 8015B: Gasoline Range	R30911		10/28/2008
				EPA Method 8015B: Gasoline Range	R30911		10/28/2008
				EPA Method 8021B: Volatiles	R30911		10/28/2008

10/28/2008

R30911

EPA Method 8021B: Volatiles

Date: 03-Nov-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

roject:

GAC 4th QTR 10/15/08

Work Order:

0810330

Analyte	Result	Units	PQL	%Rec	LowLimit I	HighLimit	%RPD	RPDLimi	t Qual
Method: EPA Method 8015B: Di	iesel Range								
Sample ID: MB-17380		MBLK			Batch ID): 17380	Analysis Da	ate:	10/16/200
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	1.225	mg/L	0	123	58	140			
Sample ID: LCS-17380		LCS			Batch ID): 17380	Analysis Da	ite:	10/16/200
Diesel Range Organics (DRO)	6.587	mg/L	1.0	132	74	157			
Surr: DNOP	0.6551	mg/L	0	131	58	140			•
Sample ID: LCSD-17380		LCSD			Batch ID): 17380	Analysis Da	ate:	10/16/200
Diesel Range Organics (DRO)	6.460	mg/L	1.0	129	74	157	1.95	23	
Surr: DNOP	0.6345	mg/L	0	127	58	140	. 0	0 -	
Method: EPA Method 8015B: G	asoline Ran	ae							
Sample ID: 0810330-01A MSD		MSD			Batch ID): R30911	Analysis Da	ate: 10/28	3/2008 6:47:51 PN
Gasoline Range Organics (GRO)	0.4272	mg/L	0.10	74.7	80	115	1.70	8.39	s
Surr: BFB	16.37	mg/L	0	81.9	59.9	122	0	0	
Sample ID: 5ML RB		MBLK			Batch ID	: R30911	Analysis Da	ate: 10/28	3/2008 8:37:17 AN
Gasoline Range Organics (GRO)	ND	mg/L	0.10						
Surr: BFB	15.95	mg/L	0	79.8	59.9	122			
Sample ID: 2.5UG GRO LCS		LCS			Batch ID	R30911	Analysis Da	ate: 10/28	3/2008 7:18:24 PN
asoline Range Organics (GRO)	0.4568	mg/L	0.10	80.7	80	115			
Surr: BFB	17.12	mg/L	0	85.6	59.9	122			
Sample ID: 0810330-01A MS		MS			Batch ID	: R30911	Analysis Da	ite: 10/28	3/2008 6:17:21 PM
Gasoline Range Organics (GRO)	0.4200	mg/L	0.10	73.3	80	115			S .
Surr: BFB	16.11	mg/L	0	80.6	59.9	122			
Method: EPA Method 8021B: Vo	alatilos						- 		
Sample ID: 100NG BTEX LCS	Jiatiles	LCS			Batch ID	R30911	Analysis Da	ite: 10/28	3/2008 7:48:54 PM
Benzene	18.05	μg/L	1.0	90.3	85.9	113	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Toluene	17.91	μg/L	1.0	89.5	86.4	113			
Ethylbenzene	17.56	μg/L	1.0	87.8	83.5	118			
Xylenes, Total	52.18	μg/L	2.0	87.0	83.4	122			
Surr: 4-Bromofluorobenzene	16.52	μg/L	0	82.6	65.9	130			

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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

Page 1

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT		J. P. C. 1. C.	Date Received	l:	10/16/2008	
Work Order Number 0810330			Received by:	AT		
		6011		bels checked by	AT	
Checklist completed by Signature		10/10 Date	108		Initials	
Costing name	, LIDC		·		•	
Matrix: Carrier name	<u>UPS</u>					
Shipping container/cooler in good condition?	Yes	\checkmark	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 subm	itted		Yes 🗹	No 🗌		
Water - Preservation labels on bottle and cap match?	Yes		No 🗌	N/A		
Water - pH acceptable upon receipt?	Yes		No 🗌	N/A 🗹		
Container/Temp Blank temperature?		2° <	<6° C Acceptabl	'e		
COMMENTS:		ł	f given sufficient	time to cool.		
						====
				*		
				•		
Client contacted Date contacted:			Pers	on contacted		<u> </u>
Contacted by: Regarding:						
Comments:						
						•
				F		
						
Corrective Action						
	-					
						· · · · · · · · · · · · · · · · · · ·

		ANALYSIS LABORATORY	www.hallenvironmental.com	Albuquerque, NM 87109	Fax 505-345-4107	nalysis Request. 🦾 🐎 🔭			1 280	N, _E OI 8 \ se (AC	Λ,ΙϽ cide (Ας	RCRA 8 M Aniona (F, 8081 Pesti 8260B (VC 8270 (Sem								
			J.WWW	4901 Hawkins NE	Tel. 505-345-3975		(ʎju	0 885)) Ha	T + 3 1910 1917 1917	S pod	BTEX + Methory PH (Methory PH	人 人	X						Remarks:
- The state of the	ound Time:	ndard 🗆 Rush	Name:	C 4Th OTE act. 15, 2008			Project Manager:		1	Tayles In No	Sample Temperature;	iner Preservative Type ON 10330	12#	1	5. 1					by: Date Time 1 10/16/13/1329 by: Date Time
	stody Record Turn-Around	-GINING (BIMPH) Estandard	Project Name:	CR 4990 GAC	N M 874/3 Project #:	3-4/61	3811	A Charles A Char	Marcevel 4 (ruii validatioii)	Onlice	Sample	Sample Request ID Type and #	GAC-Lead 4-10A	GAC- LA9						Hred by: Received by: Associated by:
The state of the s	Charl-of-Custody Record	Client Western Refining (BMfb)		Mailing Address: #50	Bloom field,	63	email or Fax#. 505-633-	ige:	□ Standard □ Other	□ EDD (Type)		Date Time Matrix	0-15-08 8:15 Has		_					Date: Time: Relinquished by Date: Time: Relinquished by

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.



COVER LETTER

Monday, October 06, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

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

RE: GAC Monthly Sept 9, 2008

Dear Cindy Hurtado:

Order No.: 0809181

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 9/10/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 06-Oct-08

CLIENT: Western Refining Southwest, Inc.

Project: GAC Monthly Sept 9, 2008

Lab Order: 0809181

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0809181-01A	GAC Lead	R30349	EPA Method 8021B: Volatiles	9/9/2008 9:30:00 AM
0809181-01A	GAC Lead	R30349	EPA Method 8015B: Gasoline Range	9/9/2008 9:30:00 AM
0809181-01A	GAC Lead	17076	EPA Method 8015B: Diesel Range	9/9/2008 9:30:00 AM

Date: 06-Oct-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0809181

Project:

GAC Monthly Sept 9, 2008

Lab ID:

0809181-01

Client Sample ID: GAC Lead

Collection Date: 9/9/2008 9:30:00 AM

Date Received: 9/10/2008

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE					Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	9/16/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	9/16/2008
Surr: DNOP	131	58-140	%REC	1	9/16/2008
EPA METHOD 8015B: GASOLINE RAN	GE			·	Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	. 1	9/23/2008 1:02:41 PM
Surr: BFB	84.4	59.9-122	%REC	1	9/23/2008 1:02:41 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	1.0	μg/L	1	9/23/2008 1:02:41 PM
Toluene	ND	1.0	μg/L	1	9/23/2008 1:02:41 PM
Ethylbenzene	ND	1.0	μg/L	1	9/23/2008 1:02:41 PM
Xylenes, Total	ND	2.0	μg/L	1	9/23/2008 1:02:41 PM
Surr: 4-Bromofluorobenzene	84.1	65.9-130	%REC	1	9/23/2008 1:02:41 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

DATES REPORT

0809181 Lab Order:

Western Refining Southwest, Inc.

GAC Monthly Sept 9, 2008 Client: Project:

Section of the second sections	seable on an increase the street is a compared of the street of the first test on the compared of the compared		Section Section 2	THE REPORT OF THE PROPERTY OF	から かんかい 一本 いたかい できる はなないない	· 中 · · · · · · · · · · · · · · · · · ·	The state of the s
ample ID	Client Sample ID	Collection Date	Matrix	Matrix Test Name	QC Batch ID Prep Date Analysis Date	Prep Date	Analysis Date
809181-01A	GAC Lead	9/9/2008 9:30:00 AM	Aqueous	EPA Method 8015B. Diesel Range	17076	9/16/2008	9/16/2008
-				EPA Method 8015B: Gasoline Range	R30349		9/23/2008
				EPA Method 8021B: Volatiles	R30349		9/23/2008

Date: 06-Oct-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

GAC Monthly Sept 9, 2008

Work Order:

0809181

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD RI	PDLimit Qual
Method: EPA Method 8015B: D	iesel Range							
Sample ID: MB-17076		MBLK			Batch II	D: 17076	Analysis Date:	9/16/200
Diesel Range Organics (DRO)	ND	mg/L	1.0					•
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					•
Surr: DNOP	1.303	mg/L	0	130	58	140		
Sample ID: LCS-17076		LCS			Batch II	D: 17076	Analysis Date:	9/16/200
Diesel Range Organics (DRO)	5.731	mg/L	1.0	115	74	157		
Motor Oil Range Organics (MRO)	ND	mg/L	5.0				•	
Surr: DNOP	0.6642	mg/L	0 -	133	58	140		
Sample ID: LCSD-17076		LCSD			Batch II	D: 17076	Analysis Date:	9/16/200
Diesel Range Organics (DRO)	5.941	mg/Ľ	1.0	119	74	157		
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Surr: DNOP	0.6857	mg/L	0	137	58	140		
Method: EPA Method 8015B: G	asoline Ran	ge		_				
Sample ID: 0809181-01A MSD	,	MSD			Batch II	D: R30349	Analysis Date:	9/23/2008 4:08:22 PM
Gasoline Range Organics (GRO)	0.4576	mg/L	0.050	91.5	80	115	0.658 8	3.39
Surr: BFB	18.85	mg/L	0	94.3	59.9	122	0	0
Sample ID: 5ML RB		MBLK			Batch ID): R30349	Analysis Date:	9/23/2008 9:31:50 AM
Gasoline Range Organics (GRO)	ND ·	mg/L	0.050					
Surr: BFB	17.46	mg/L	0	87.3	59.9	122		
imple ID: LCS-GRO 2.5UG		LCS			Batch ID): R30349	Analysis Date:	9/23/2008 8:12:11 PM
Gasoline Range Organics (GRO)	0.4430	mg/L	0.050	88.6	80	115		
Surr: BFB	17.34	mg/L	0	86.7	59.9	122	•	
Sample ID: 0809181-01A MS		MS			Batch ID): R30349	Analysis Date:	9/23/2008 3:37:46 PN
Gasoline Range Organics (GRO)	0.4546	mg/L	0.050	90.9	80	115		•
Surr: BFB	18.27	mg/L	0	91.3	59.9	122		



Value above quantitation range

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

Page 1

Date: 06-Oct-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

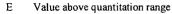
Project:

GAC Monthly Sept 9, 2008

Work Order:

Analyte	Result	Units	PQL	%Rec	LowLimit H	lighLimit	%RPD F	RPDLimit Qual
Method: EPA Method 8021B: V	/olatiles							
Sample ID: 0809181-01A MSD		MSD			Batch ID	R30349	Analysis Date	9/23/2008 4:08:22 PM
Benzene	6.054	µg/L	1.0	108	85.9	113	0.0991	27
Toluene	42.40	μg/L	1.0	106	86.4	113	0.440	19
Ethylbenzene	8.976	μg/L	1.0	112	83.5	118	0.290	10
Xylenes, Total	52.30	μg/L	2.0	114	83.4	122	0.272	13
Surr: 4-Bromofluorobenzene	19.12	µg/L	0	95,6	65.9	130	0	0
Sample ID: 5ML RB	•	MBLK			Batch ID	R30349	Analysis Date	9/23/2008 9:31:50 AM
Benzene	ND	µg/L	1.0		*			
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Kylenes, Total	ND	µg/L	2.0					
Surr: 4-Bromofluorobenzene	17.71	µg/L	0	88.5	65.9	130		
Sample ID: LCS-BTEX 100NG	·	LCS			Batch ID	R30349	Analysis Date	9/23/2008 8:42:42 PM
Benzene	18.28	μg/L	1.0	91.4	85.9	113		•
Toluene	17.89	μg/L	1.0	89.5	86.4	113		
Ethylbenzene	18.40	μg/L	1.0	92.0	83.5	118		
Kylenes, Total	55.93	μg/L	2.0	93.2	83.4	122		
Surr: 4-Bromofluorobenzene	17.65	μg/L `	0	88.3	65.9	130		
Sample ID: 0809181-01A MS		MS .			Batch ID	R30349	Analysis Date	9/23/2008 3:37:46 PM
Benzene	6.060	μg/L	1.0	108	85.9	113		
Toluene	42.21	μg/L	1.0	106	86.4	113		
Ethylbenzene	8.950	μg/L	1.0	112	83.5	118		
(ylenes, Total	52.16	μg/L	2.0	113	83.4	122	•	
Surr: 4-Bromofluorobenzene	18.19	μg/L	0	91.0	65.9	130	*	

 R



RPD outside accepted recovery limits

Analyte detected below quantitation limits

Η Holding times for preparation or analysis exceeded ND

Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits



Sample Receipt Checklist

	oumpio no	ocipi o	i Colling C			
Client Name WESTERN REFINING SOUT			Date Receive	ed:	9/10/2008	•
Work Order Number 0809181		,	Received by	y: ARS	111	
Checklist completed by:		alic	Sample ID I	abels checked by:	Initials)
Signature		Date	100		n made	
Matrix:	Carrier name <u>UF</u>	90				
watti.	·	<u> </u>				
Shipping container/cooler in good condition?	Ye	s 🗹	No 🗀	Not Present		
Custody seals intact on shipping container/cooler?	Ye	s 🗹	No 🗌	Not Present	Not Shipped	
Custody seals intact on sample bottles?	Ye	s 🗌	No 🗆	N/A ✓		
Chain of custody present?	Ye	s 🗹	No 🗌			
Chain of custody signed when relinquished and receive	ed? Ye	s 🗸	No 🗌			
Chain of custody agrees with sample labels?	Ye	s 🗹	No 🗌			
Samples in proper container/bottle?	Ye	s 🗹	No 🗌			
Sample containers intact?	Ye	s 🗹	No 🗆			
Sufficient sample volume for indicated test?	Ye	s 🗹	No 🗌			
All samples received within holding time?	Ye	s 🗹	No 🗌			
Water - VOA vials have zero headspace? No V	/OA vials submitte	d 🗌	Yes 🗹	No 🗌		
Water - Preservation labels on bottle and cap match?	Ye	s 🗌	No 🗌	N/A		
Water - pH acceptable upon receipt?	Ye	s 🗌	No 🗌	N/A		
Container/Temp Blank temperature?		3°	<6° C Acceptat			
COMMENTS:			If given sufficien	it time to cool.		
						====
Client contested Date o	ontacted:		Dom	son contacted		
Client contacted Date c	ontacted.		FEI:	son contacted		
Contacted by: Regard	ding:					
Comments:						
Corrective Action						
,						

	www.hallenvironmental.com			nd anilosed) (lesaid\se	7) 3' NO ⁵ 3' NO ⁵ 3' 1) 121) 128 (6 128 (6	od 80° hod 50° hod 50° hod 80° CI, NO ticides OA)	TPH Meth TPH (Met EDG (Met 8310 (PN Anions (F, 8081 Pes 8260B (V 8260B (V	×							Remarks:	
QA / QC Package: Std ☐ Level 4 🗗 Other:	GAC MONTHLY Sept. 9, 2008	Project #:		Project Manager:	Sampler 75 /	Sample Temperature: $eta_{f i}$	Number/Volume HgCl ₂ HNO ₃ HSAL No.	4-10A HCI							Redelived by (Signature)	Received By: (Signature)
CHAIN-OF-CUSTODY RECORD	Western Detinery Somt Ia	Address: #50 CR 4990	Bloomfield, NM 87413		Phone #: 505-632-4/6/	Fax#: 505-632-3911	Date Matrix Sample I.D. No.	9406 9:30 Hac CAC Lead)						GG-08 2:50 Let Art Maker	Date: Time: Relinquished By: (Signature)



COVER LETTER

Monday, October 06, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

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

RE: GAC Monthly Sept 9, 2008

Dear Cindy Hurtado:

Order No.: 0809181

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 9/10/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 06-Oct-08

CLIENT:

Western Refining Southwest, Inc.

Project:

GAC Monthly Sept 9, 2008

Lab Order:

0809181

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0809181-01A	GAC Lead	R30349	EPA Method 8021B: Volatiles	9/9/2008 9:30:00 AM
0809181-01A	GAC Lead	R30349	EPA Method 8015B: Gasoline Range	9/9/2008 9:30:00 AM
0809181-01A	GAC Lead	17076	EPA Method 8015B: Diesel Range	9/9/2008 9:30:00 AM

Date: 06-Oct-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0809181

GAC Monthly Sept 9, 2008

Project: Lab ID:

0809181-01

Client Sample ID: GAC Lead

Collection Date: 9/9/2008 9:30:00 AM

Date Received: 9/10/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE		*				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/16/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/16/2008
Surr: DNOP	131	58-140		%REC	1	9/16/2008
EPA METHOD 8015B: GASOLINE RAN	IGE				•	Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	. 1	9/23/2008 1:02:41 PM
Surr: BFB	84.4	59.9-122		%REC	1	9/23/2008 1:02:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	9/23/2008 1:02:41 PM
Toluene	ND	1.0		μg/L	1	9/23/2008 1:02:41 PM
Ethylbenzene	ND	1.0		μg/L	1	9/23/2008 1:02:41 PM
Xylenes, Total	ND	2.0		μg/L	1	9/23/2008 1:02:41 PM
Surr: 4-Bromofluorobenzene	84.1	65.9-130		%REC	1	9/23/2008 1:02:41 PM



- Value exceeds Maximum Contaminant Level
- Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

DATES REPORT

0809181 Lab Order: Client:

Western Refining Southwest, Inc. GAC Monthly Sept 9, 2008

Project:	GAC Monthly Sept 9, 2008				·		
Sample ID	Sample ID Client Sample ID Collection Da	ıte	Matrix	Matrix Test Name Anal	QC Batch ID	QC Batch ID Prep Date Analysis Date	Analysis Date
0809181-01A	GAC Lead	9/9/2008 9:30:00 AM	Aqueous	EPA Method 8015B: Diesel Range	17076	8/16/2008	9/16/2008
				EPA Method 8015B: Gasoline Range	R30349		9/23/2008
				EPA Method 8021B: Volatiles	R30349		9/23/2008

Date: 06-Oct-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

GAC Monthly Sept 9, 2008

Work Order:

0809181

Analyte	Result	Units	PQL	%Rec	LowLimit I	HighLimit	%RPD RI	PDLimit Qual
Method: EPA Method 8015B: D	iesel Range							•
Sample ID: MB-17076		MBLK			Batch ID	17076	Analysis Date:	9/16/200
Diesel Range Organics (DRO)	ND	mg/L	1.0					•
Motor Oil Range Organics (MRO)	ND	mg/L	5.0			*		
Surr DNOP	1.303	mg/L	0	130	58	140		
Sample ID: LCS-17076		LCS			Batch ID): 17076	Analysis Date:	9/16/200
Diesel Range Organics (DRO)	5.731	mg/L	1.0	115	74	157	•	
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Surr: DNOP	0.6642	mg/L	0	133	58	140		
Sample ID: LCSD-17076		LCSD			Batch ID): 17076	Analysis Date:	9/16/200
Diesel Range Organics (DRO)	5.941	mg/L	1.0	119	74	157		
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Surr: DNOP	0.6857	mg/L	0	137	58	140		
Method: EPA Method 8015B: G	asoline Ran	ine						
Sample ID: 0809181-01A MSD		MSD			Batch (C): R30349	Analysis Date:	9/23/2008 4:08:22 PN
Gasoline Range Organics (GRO)	0.4576	mg/L	0.050	91.5	80	115	0.658 8	3.39
Surr: BFB	18.85	mg/L	0	94.3	59.9	122	0	0
Sample ID: 5ML RB		MBLK			Batch ID	R30349	Analysis Date:	9/23/2008 9:31:50 AN
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	17.46	mg/L	0	87.3	59.9	122		
imple ID: LCS-GRO 2.5UG		LCS			Batch ID): R30349	Analysis Date:	9/23/2008 8:12:11 PN
Gasoline Range Organics (GRO)	0.4430	mg/L	0.050	88.6	80	115		
Surr: BFB	17.34	mg/L	0	86.7	59.9	122		
Sample ID: 0809181-01A MS		MS			Batch ID): R30349	Analysis Date:	9/23/2008 3:37:46 PN
Gasoline Range Organics (GRO)	0.4546	mg/L	0.050	90.9	80	115	-	
Surr: BFB	18.27	mg/L	0	91.3	59.9	122		



Value above quantitation range

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

Page 1

Date: 06-Oct-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

GAC Monthly Sept 9, 2008

Work Order:

080918

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD F	RPDLimit Qual
Method: EPA Method 8021B: V	olatiles							
Sample ID: 0809181-01A MSD		MSD			Batch II	R30349	Analysis Date	e: 9/23/2008 4:08:22 PM
Benzene	6.054	μg/L	1.0	108	85.9	113	0.0991	27
Toluene	42.40	μg/L	1.0	106	86.4	113	0.440	19
Ethylbenzene	8.976	μg/L	1.0	112	83.5	118	0.290	10
Xylenes, Total	52.30	μg/L	2.0	114	83.4	122	0.272	13
Surr. 4-Bromofluorobenzene	19.12	μg/L	0	95.6	65.9	130	0	0 -
Sample ID: 5ML RB		MBLK			Batch II	R30349	Analysis Date	e: 9/23/2008 9:31:50 AM
Benzene	ND	μg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	ND	µg/L	2.0					
Surr: 4-Bromofluorobenzene	17.71	µg/L	0	88.5	65.9	130		
Sample ID: LCS-BTEX 100NG		LCS			Batch II): R30349	Analysis Date	e: 9/23/2008 8:42:42 PM
Benzene	18.28	μg/L	1.0	91.4	85.9	113		•
Toluene	17.89	µg/L	1.0	89.5	86.4	113		
Ethylbenzene	18.40	µg/L	1.0	92.0	83.5	118		
Xylenes, Total	55.93	µg/L	2.0	93.2	83.4	122		
Surr: 4-Bromofluorobenzene	17.65	μg/L	0	88.3	65.9	130		•
Sample ID: 0809181-01A MS		MS			Batch IE): R30349	Analysis Date	e: 9/23/2008 3:37:46 PM
Benzene	6.060	μg/L	1.0	108	85.9	113		4
Toluene	42.21	μg/L	. 1.0	106	86.4	113		
Ethylbenzene	8.950	μg/L	1.0	112	83.5	118		
Xylenes, Total	52.16	μg/L	2.0	113	83.4	122		
Surr: 4-Bromofluorobenzene	18.19	μg/L	0	91.0	65.9	130	н	



E Value above quantitation range

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



Sample Receipt Checklist

Client Name WESTERN REFINING SOUT				Date F	Received	l :		9/10/2008	
Work Order Number 0809181 Checklist completed by: Signature			O Date		eived by:	ARS bels checked	by:	Initials	
Matrix:	Carrier name	UPS							
Shipping container/cooler in good condition?		Yes	\checkmark	No [Not Present			
Custody seals intact on shipping container/co	oler?	Yes	✓	No [Not Present		Not Shipped	
Custody seals intact on sample bottles?		Yes		No [N/A	✓		
Chain of custody present?		Yes	\checkmark	No [
Chain of custody signed when relinquished ar	nd received?	Yes	\checkmark	No [
Chain of custody agrees with sample labels?		Yes	\checkmark	No [\exists				
Samples in proper container/bottle?		Yes	✓ -	No [
Sample containers intact?		Yes	\checkmark	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 subm	nitted		Yes 🤄	7	No 🗆]		
Water - Preservation labels on bottle and cap	match?	Yes		No [N/A	}		
Water - pH acceptable upon receipt?		Yes		No [N/A]		
Container/Temp Blank temperature?			3°	<6° C A	-				
COMMENTS:				If given s	sufficient	time to cool.			
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Client contacted	Date contacted:				Perso	on contacted			
Contacted by:	Regarding:								,,,,,,
Comments:									
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Corrective Action									
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	7 K	Tel. 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com											•			-							<u> </u>		
	HALL ENVIRONMENTAL ANALYSIS LABORATORY 4901 Hawkins NE, Suite D Albuquerque New Mexico 87109	05.3					_																		
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,	Chain-of-custody record	Client: Western Refinery (Blaft)		Address: #50 CR 4990	Bloom Pix (8) NM 87413			Phone #:	Fax #:		Date	996												Date.	Date:
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COVER LETTER

Thursday, September 04, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

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

RE: GAC Aug 5, 2008

Dear Cindy Hurtado:

Order No.: 0808082

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 8/6/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001



Date: 04-Sep-08

CLIENT:

Western Refining Southwest, Inc.

Project:

GAC Aug 5, 2008

Lab Order:

0808082

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0808082-01A	GAC Lead	R29664	EPA Method 8021B: Volatiles	8/5/2008 8:40:00 AM
0808082-01A	GAC Lead	R29730	EPA Method 8015B: Gasoline Range	8/5/2008 8:40:00 AM
0808082-01A	GAC Lead	R29730	EPA Method 8021B: Volatiles	8/5/2008 8:40:00 AM
0808082-01A	GAC Lead	R29726	EPA Method 8021B: Volatiles	8/5/2008 8:40:00 AM
0808082-01A	GAC Lead	R29726	EPA Method 8015B: Gasoline Range	8/5/2008 8:40:00 AM
0808082-01A	GAC Lead	16727	EPA Method 8015B: Diesel Range	8/5/2008 8:40:00 AM

Date: 04-Sep-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0808082

Project:

GAC Aug 5, 2008

Lab ID:

0808082-01

Client Sample ID: GAC Lead

Collection Date: 8/5/2008 8:40:00 AM

Date Received: 8/6/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1 .	8/11/2008 7:59:14 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	8/11/2008 7:59:14 PM
Surr: DNOP	108	58-140	%REC	. 1	8/11/2008 7:59:14 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	8/13/2008 11:03:29 AM
Surr: BFB	99.3	79.2-121	%REC	1	8/13/2008 11:03:29 AM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	1.0	μg/L	1	8/13/2008 11:03:29 AM
Toluene	ND	1.0	μg/L	1	8/13/2008 11:03:29 AM
Éthylbenzene	, ND	1.0	μg/L	1	8/13/2008 11:03:29 AM
Xylenes, Total	ND	2.0	μg/L	1	8/13/2008 11:03:29 AM
Surr: 4-Bromofluorobenzene	104	68.9-122	%REC	1	8/13/2008 11:03:29 AM



- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 04-Sep-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

GAC Aug 5, 2008

Work Order:

0808082

Analyte	Result	Units	PQL	%Rec	LowLimit H	HighLimit	%RPD RI	PDLimit Qual
Method: EPA Method 8015B: Di Sample ID: MB-16727	iesel Range	MBLK	:		Batch ID	: 16727	Analysis Date:	8/11/2008 3:21:20 PM
Diesel Range Organics (DRO)	ND	mg/L	1.0			. ,,,,,,	, manyone Buite.	57 172000 0.21.20 1 101
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Surr: DNOP	1.048	mg/L	0	105	58	140		
Sample ID: LCS-16727		LCS	-		Batch ID		Analysis Date:	8/11/2008 3:56:17 PM
Diesel Range Organics (DRO)	5.997	mg/L	1.0	120	74	157	-	
Surr: DNOP	0.5053	mg/L	0	101	58	140		
Sample ID: LCSD-16727		LCSD			Batch ID	16727	Analysis Date:	8/11/2008 4:31:13 PM
Diesel Range Organics (DRO)	5.243	mg/L	1.0	105	74	157	13.4	23
Surr: DNOP	0.5074	mg/L	0	101	58	140	0	0
Method: EPA Method 8015B: G	asoline Ran	ne	-					
Sample ID: 5ML RB	asonne ran	MBLK			Batch ID	R29664	Analysis Date:	8/7/2008 11:03:01 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050				·	
Surr: BFB	19.19	mg/L	0	96.0	79.2	121		
Sample ID: 5ML RB		MBLK			Batch ID		Analysis Date:	8/12/2008 8:24:03 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050			,		
Surr. BFB ,	20.93	mg/L	0	105	79.2	121		
Sample ID: B		MBLK			Batch ID	: R29726	Analysis Date:	8/12/2008 10:25:03 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050					6
Surr: BFB	19.52	mg/L	0	97.6	79.2	121		
Sample ID: LCS GRO 2.5		LCS			Batch ID	R29664	Analysis Date:	8/7/2008 5:21:42 PM
Gasoline Range Organics (GRO)	0.5214	mg/L	0.050	104	80	115		
Surr: BFB	20.63	mg/L	0	103	79.2	.121		
Sample ID: GRO-LCS		LCS			Batch ID	R29726	Analysis Date:	8/11/2008 2:52:32 PM
Gasoline Range Organics (GRO)	0.4682	mg/L	0.050	93.6	80	115	•	
Surr: BFB	19.56	mg/L	0	97.8	79.2	121		
Sample ID: GRO-LCS	•	LCS			Batch ID	R29730	Analysis Date:	8/13/2008 1:08:24 PM
Gasoline Range Organics (GRO)	0.4454	mg/L	0.050	89.1	80	115		
Surr: BFB	19.51	mg/L	0	97.5	79.2	121		
Sample ID: GRO-LCSD		LCSD			Batch ID	R29726	Analysis Date:	8/11/2008 3:22:42 PM
Gasoline Range Organics (GRO)	0.5110	mg/L	0.050	102	80	115	8.74	3.39 R
Surr: BFB	19.64	mg/L	0	98.2	79.2	121	0	0

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E Value above quantitation range

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



Date: 04-Sep-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

roject:

GAC Aug 5, 2008

Work Order:

0808082

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD F	RPDLimit Qual
Method: EPA Method 8021B:	Volatiles			-				
Sample ID: 5ML RB		MBLK			Batch I	D: R29664	Analysis Date	e: 8/7/2008 11:03:01 AN
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					
Surr: 4-Bromofluorobenzene	20.30	μg/L	0	102	68.9	122		•
Sample ID: 5ML RB		MBLK			Batch I	D: R29726	Analysis Date	: 8/11/2008 10:19:21 AN
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					
Surr: 4-Bromofluorobenzene	24.30	µg/L	0	121	68.9	122		
Sample ID: 5ML RB		MBLK			Batch I	D: R29730	Analysis Date	: 8/12/2008 8:24:03 AN
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					
Surr: 4-Bromofluorobenzene	22.25	μ g/L	0	111	68.9	122		
Sample ID: LCS-BTEX	·	LCS			Batch I	D: R29726	Analysis Date	: 8/11/2008 8:24:07 PM
enzene	20.03	μg/L	1.0	98.5	85.9	113		
roluene	20.08	μg/L	1.0	100	86.4	113		
Ethylbenzene	20.47	μg/L	1.0	102	83.5	118		
Xylenes, Total	60.92	μg/L	2.0	102	83.4	122		
Surr: 4-Bromofluorobenzene	21.69	μg/L	0	108	68.9	122		
Sample ID: BTEX-LCS		LCS			Batch I	D: R29730	Analysis Date	: 8/13/2008 1:38:26 PM
Benzene	19.57	μg/L	1.0	97.8	85.9	113		
Toluene	19.97	μg/L	1.0	99.8	86.4	113		
Ethylbenzene	20.00	μg/L	1.0	100	83.5	118		
Xylenes, Total	59.39	μg/L	2.0	99.0	83.4	122		
Surr: 4-Bromofluorobenzene	21.30	μg/L	0	107	68.9	122		
Sample ID: LCSD-BTEX		LCSD			Batch II	D: R29726	Analysis Date	: 8/11/2008 8:54:16 PM
Benzene	19.48	μg/L	1.0	95.7	85.9	113	2.81	27
Toluene	19.54	μg/L	1.0	97.7	86.4	113	2.70	19
Ethylbenzene	19.91	μg/L	1.0	99.0	83.5	118	2.75	10
Xylenes, Total	58.99	μg/L	2.0	98.3	83.4	122	3.23	13
Surr: 4-Bromofluorobenzene	19.97	μg/L	0	99.8	68.9	122	0	0

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Viii -	Jualifiers:
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E Value above quantitation range

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

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT	-		Date Receive	ed:	8/6/2008	
Work Order Number 0808082 Checklist completed by: Signature		S L	Received b	y: TLS labels checked by:	Initials	
Matrix:	Carrier name	e <u>UPS</u>				
Shipping container/cooler in good condition?		Yes 🔽	No 🗀	Not Present		
Custody seals intact on shipping container/c	ooler?	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 a	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 🗌			
Nater - VOA vials have zero headspace?	No VOA vials su	bmitted	Yes. 🗹	No 🗔		
Water - Preservation labels on bottle and cap	p match?	Yes	No 🗌	N/A		
Nater - pH acceptable upon receipt?		Yes	No 🗀	N/A 🗹		
Container/Temp Blank temperature?	•	3°	<6° C Accepta	ble		
COMMENTS:			If given sufficie	nt time to cool.		
		•	,			
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Client contacted	Date contacted:		Per	rson contacted		
Contacted by:	Regarding:					
Comments:				•		
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HALL ENVIRONMENTAL ANALYSIS LABORATORY 4901 Hawkins NE, Suite D	Albuquerque, New Mexico 8/109 Tel. 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com	\$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$	ANALYSIS REQUEST				/ bcB.	l, NO ₃	AM9) 9M8, 2,7) s 7,999 jts99	0168 ARJA onion 1808 0328								
		6		الأر	nO əni	loseð	1PH (6 8.1) (1.8	09 po	+ MI Netho Meth	X3T8 1PH (1 1PH (1 1 BQ3	メメ						Remarks:	
QA/QC Package: Std 🔼 Level 4 🗗 Other:	Project Name:	(5AC Aug, 5, 2008			Project Manager:		Samples 7	Sample Temperature:	Preservative	Number/Volume HgCl ₂ HNO ₃ / NSO SO X	4-10A HC/						Received By: (Signature) 8/6/03 Drouge Domy 934	By. (Signature)
CHAIN-OF-CUSTODY RECORD	Client: Western Refining (Blufle) Project Name:		Address 共50 CR 4990	Bloom field, NM 87413			Phone #: 505-632-4161	505-632-3911		Matrix Sample I.D. No.	Had GAC Lead						Reinquished By: (Signature)	Relinquished By: (Signature)
CHAIN-OF-	Client: Wester		Address:#50	Bloomf			Phone #: 505 -	Fax #: 505-		. Date	8-5-08 8:40						Time:	Time:



COVER LETTER

Monday, July 28, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990

Bloomfield, NM 87413

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

RE: GAC 3rd QTR 2008

Dear Cindy Hurtado:

Order No.: 0807063

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/3/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682

ORELAP Lab # NM100001



Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Project:

GAC 3rd QTR 2008

Lab Order:

0807063

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0807063-01A	GAC Lead	16425	EPA Method 8015B: Diesel Range	7/2/2008 7:55:00 AM
0807063-01A	GAC Lead	R29210	EPA Method 8015B: Gasoline Range	7/2/2008 7:55:00 AM
0807063-01A	GAC Lead	R29210	EPA Method 8021B: Volatiles	7/2/2008 7:55:00 AM
0807063-02A	GAC Lag	16425	EPA Method 8015B: Diesel Range	7/2/2008 8:00:00 AM
0807063-02A	GAC Lag	R29210	EPA Method 8015B: Gasoline Range	7/2/2008 8:00:00 AM
0807063-02A	GAC Lag	R29210	EPA Method 8021B: Volatiles	7/2/2008 8:00:00 AM
0807063-03A	GAC Inlet	16425	EPA Method 8015B: Diesel Range	7/2/2008 8:05:00 AM
0807063-03A	GAC Inlet	R29225	EPA Method 8021B: Volatiles	7/2/2008 8:05:00 AM
0807063-03A	GAC Inlet	R29210	EPA Method 8015B: Gasoline Range	7/2/2008 8:05:00 AM
0807063-03A	GAC Inlet	R29210	EPA Method 8021B: Volatiles	7/2/2008 8:05:00 AM

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Project:

GAC 3rd QTR 2008

Lab Order:

0807063

CASE NARRATIVE

Analytical Comments for METHOD 8015GRO_W, SAMPLE 0807063-03A: Elevated surrogate due to matrix interference.

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807063

GAC 3rd QTR 2008

Project: Lab ID:

0807063-01

Client Sample ID: GAC Lead

Collection Date: 7/2/2008 7:55:00 AM

Date Received: 7/3/2008.

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E				Analyst: SCC
Diesel Range Organics (DRO)	. ND	1.0	mg/L	1	7/8/2008 9:59:47 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	7/8/2008 9:59:47 PM
Surr: DNOP	123	58-140	%REC	1	7/8/2008 9:59:47 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/5/2008 3:57:09 PM
Surr: BFB	95.1	79.2-121	%REC	1	7/5/2008 3:57:09 PM
EPA METHOD 8021B: VOLATILES			•		Analyst: NSB
Benzene	ND	1.0	μg/ኒ	1	7/5/2008 3:57:09 PM
Toluene	ND	1.0	μg/L	1	7/5/2008 3:57:09 PM
Ethylbenzene	ND	1.0	μg/ L	1 .	7/5/2008 3:57:09 PM
Xylenes, Total	ND	2.0	μg/L	1	7/5/2008 3:57:09 PM
Surr: 4-Bromofluorobenzene	101	68.9-122	%REC	1	7/5/2008 3:57:09 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Page 1 of 3

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807063

Project:

GAC 3rd QTR 2008

Lab ID:

0807063-02

Client Sample ID: GAC Lag

Collection Date: 7/2/2008 8:00:00 AM

Date Received: 7/3/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E			· · · · · · · ·	Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	7/8/2008 10:35:26 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	· 1	7/8/2008 10:35:26 PM
Surr: DNOP	120	58-140	%REC	1	7/8/2008 10:35:26 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/5/2008 4:27:15 PM
Surr: BFB	88.1	79.2-121	%REC	1	7/5/2008 4:27:15 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	1.0	μg/L	1	7/5/2008 4:27:15 PM
Toluene	ND	1.0	μg/L	1	7/5/2008 4:27:15 PM
Ethylbenzene	ND	1.0	μg/L	1	7/5/2008 4:27:15 PM
Xylenes, Total	ND	2.0	μg/L	1	7/5/2008 4:27:15 PM
Surr: 4-Bromofluorobenzene	94.7	68.9-122	%REC	1	7/5/2008 4:27:15 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Page 2 of 3

Date: 28-Jul-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0807063

Client Sample ID: GAC Inlet

Collection Date: 7/2/2008 8:05:00 AM

Project:

GAC 3rd QTR 2008

Date Received: 7/3/2008

Lab ID: 0807063-03 Matrix: AQUEOUS

Analyses	Result	PQL	Qual U	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGI	E					Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	n	ng/L	1	7/8/2008 11:11:05 PM
Motor Oil Range Organics (MRO)	ND	5.0	n	ng/L	1	7/8/2008 11:11:05 PM
Surr: DNOP	133	58-140	9,	%REC	1	7/8/2008 11:11:05 PM
EPA METHOD 8015B: GASOLINE RA	NGE					Analyst: NSB
Gasoline Range Organics (GRO)	20	0.50	n	ng/L	10	7/5/2008 4:59:58 PM
Surr: BFB	140	79.2-121	S %	%REC	10	7/5/2008 4:59:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	12	10	۲	ıg/L	10	7/5/2008 4:59:58 PM
Toluene	ND	10	۲	ıg/L	. 10	7/5/2008 4:59:58 PM
Ethylbenzene	540	. 10	μ	ıg/L	10	7/5/2008 4:59:58 PM
Xylenes, Total	7300	200	μ	ıg/L	100	7/7/2008 11:26:50 AM
Surr: 4-Bromofluorobenzene	118	68.9-122	9,	%REC	10	7/5/2008 4:59:58 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value above quantitation range
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - Reporting Limit RL

Page 3 of 3

Date: 28-Jul-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

GAC 3rd QTR 2008

Work Order:

0807063

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPD	Limit Qual
Method: EPA Method 8015B: D	iesel Range								
Sample ID: MB-16425		MBLK			Batch II): 16425	Analysis D	ate:	7/8/2008 11:53:45
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	1.228	mg/L	0	123	58	140			
Sample ID: LCS-16425		LCS			Batch II): 16425	Analysis D	ate:	7/8/2008 12:29:26 F
Diesel Range Organics (DRO)	4.951	mg/L	1.0	99.0	74	157			
Surr: DNOP	0.5924	mg/L	0	118	58	140			
Sample ID: LCSD-16425		LCSD			Batch II): 16425	Analysis D	ate:	7/8/2008 1:03:59 F
Diesel Range Organics (DRO)	4.797	mg/L	1.0	95.9	74	157	3.16	23	
Surr: DNOP	0.5519	mg/L	0	110	58	140	0	0	
Method: EPA Method 8015B: G	asoline Ran	ge							
Sample ID: 0807063-02A MSD		MSD			Batch II): R29210	Analysis D	ate:	7/5/2008 10:03:24 F
Gasoline Range Organics (GRO)	0.4768	mg/L	0.050	95.4	80	115	5.47	8.39	9
Surr: BFB	19.52	mg/L	0	97.6	79.2	121	0	0	
Sample ID: 5ML RB		MBLK			Batch II): R29210	Analysis D	ate:	7/5/2008 10:23:35
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	18.06	mg/L	0	90.3	79.2	121			
Sample ID: 2.5UG GRO LCS		LCS			Batch II): R29210	Analysis D	ate:	7/5/2008 9:03:13 F
Gasoline Range Organics (GRO)	0.5200	mg/L	0.050	104	80	115			
Surr: BFB	20.54	mg/L	0	103	79.2	121			
Sample ID: 0807063-02A MS		MS			Batch ID	E R29210	Analysis D	ate:	7/5/2008 9:33:14 F
Gasoline Range Organics (GRO)	0.5036	mg/L	0.050	101	80	115			
'		-							



Value above quantitation range

Analyte detected below quantitation limits

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

Page 1

Date: 28-Jul-08

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

GAC 3rd QTR 2008

Work Order:

0807063

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD R	PDLimit Qual
Method: EPA Method 8021B: Vo	olatiles							
Sample ID: 0807063-01A MSD		MSD			Batch	ID: R29210	Analysis Date:	7/6/2008 12:03:29 AM
Benzene	21.07	μg/L	1.0	105	85.9	113	1.64	27
Toluene	21.31	μg/L	1.0	107	86.4	113	3.57	19
Ethylbenzene	21.93	μg/L	1.0	108	83.5	118	3.46	10
Xylenes, Total	64.64	µg/L	2.0	107	83.4	122	3.71	13
Surr: 4-Bromofluorobenzene	19.70	μg/L	0	98.5	68.9	122	0	0
Sample ID: 5ML RB		MBLK			Batch	ID: R29210	Analysis Date:	7/5/2008 10:23:35 AM
Benzene	ND	μg/L	1.0				•	
Toluene	ND	μg/L	1.0					
Ethylbenzene	ND	μg/L	1.0					
Xylenes, Total	ND	μg/L	2:0					
Surr: 4-Bromofluorobenzene	19.36	µg/L	0	96.8	68.9	122		
Sample ID: 5ML RB-II		MBLK			Batch	ID: R29210	Analysis Date:	7/6/2008 9:09:16 AM
Benzene	ND	μg/L	1.0					
Toluene	ND	μg/L	1.0					
Ethylbenzene	ND	μg/L	1.0					
Xylenes, Total	ND	μg/L	2.0					
Surr: 4-Bromofluorobenzene	19.72	μg/L	0	98.6	68.9	122		
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R29210	Analysis Date:	7/6/2008 12:33:26 AM
Benzene	21.12	μg/L	1.0	106	85.9	· 113	•	
Toluene	21.40	μg/L	1.0	107	86.4	113		
Ethylbenzene	21.60	μg/L	1.0	108	83.5	118		
Xylenes, Total	64.42	μg/L	2.0	107	83.4	122		
Surr: 4-Bromofluorobenzene	20.51	μg/L	0	103	68.9	122		
Sample ID: 100NG BTEX LCS-II		LCS	-		Batch		Analysis Date:	7/6/2008 2:43:40 PM
Benzene	21.17	μg/L	1.0	106	85.9	113	•	
Toluene	21.45	μg/L μg/L	1.0	107	86.4	113		
Ethylbenzene	21.95	μg/L	1.0	110	83.5	118		
Xylenes, Total	65.27	μg/L μg/L	2.0	109	83.4	122		
Surr: 4-Bromofluorobenzene	20.90	μg/L	0	105	68.9	122		
Sample ID: 0807063-01A MS		MS	-		Batch		Analysis Date:	7/5/2008 11:33:31 PM
Benzene	21.41	μg/L	1.0	106	85.9	113		
Toluene	22.09	μg/L μg/L	1.0	110	86.4	113		
Ethylbenzene	22.70	μg/L μg/L	1.0	112	83.5	118		
Xylenes, Total	67.09	μg/L μg/L	2.0	111	83.4	122		
Surr: 4-Bromofluorobenzene	20.71	μg/L μg/L	- 0	104	68.9	122		

Qualifiers:

E Value above quantitation range

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



	Sample Receipt 0	Checklist			
Client Name WESTERN REFINING SOUT		Date Received:		7/3/2008	
Work Order Number 0807063		Received by:	TLS		
Checklist completed by: Signature Shom	arrier name UPS	Sample ID lab	els checked by:	Initials	
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 VC	OA 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? COMMENTS:	6°	<6° C Acceptable If given sufficient ti	me to cool.		
=======================================		=====			===
Client contacted Date cor	ntacted:	Persor	contacted	·	
Contacted by: Regarding	ng:				
Comments:					
				<u> </u>	
Corrective Action					

	LABORATORY		60		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1			(N	10 X)	ealddug ijA											· **	report.
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Turn-Around Time:	r Standard □ Rush	Project Name:	GAC " GTR 2008	Project #:		Project Manager:		130P	On Ice: Pres I No Sample Temperature:	Container Preservative HEAL No. Type and # Type	4-10A HC/	4-10A HCI >	VOA /	-						Received by: 7/3/c/	Refeived by:	boontracted to other accredited laboratories. This serves as notice of this possibility.
Chain-of-Custody Record	Clenting to NR. (BuRId)		Address: #50 (P. 4990)	Bloomfield, NM B7413	632-	-633-	QA/QC Package:	□ Other	□ EDD (Type)	Date Time Sample Request ID	7-2-08 7:55 (ARC Lead		۲. ۲							Date: Time: Relinquished by: 7-2-08 8:25 Cotaffinalen	Date: Time: Relinquished by:	I necessary samples submitted to Hall Environmental may be subcontracted to other



COVER LETTER

Tuesday, June 24, 2008

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

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

RE: GAC June 2008

Dear Cindy Hurtado:

Order No.: 0806140

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/10/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682

ORELAP Lab # NM100001



Date: 24-Jun-08

CLIENT: Western Refining Southwest, Inc.

Project: GAC June 2008

Lab Order: 0806140

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0806140-01A	GAC-Lead	R28951	EPA Method 8015B: Gasoline Range	6/9/2008 1:00:00 PM
0806140-01A	GAC-Lead	R28923	EPA Method 8021B: Volatiles	6/9/2008 1:00:00 PM
0806140-01A	GAC-Lead	R28923	EPA Method 8015B: Gasoline Range	6/9/2008 1:00:00 PM
0806140-01A	GAC-Lead	16174	EPA Method 8015B: Diesel Range	6/9/2008 1:00:00 PM

Date: 24-Jun-08

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0806140

Project:

GAC June 2008

Lab ID:

0806140-01

Client Sample ID: GAC-Lead

Collection Date: 6/9/2008 1:00:00 PM

Date Received: 6/10/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/12/2008 4:23:29 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	6/12/2008 4:23:29 PM
Surr: DNOP	93.3	58-140	%REC	1	6/12/2008 4:23:29 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	6/16/2008 1:46:57 PM
Surr: BFB	91.3	79.2-121	%REC	1	6/16/2008 1:46:57 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	1.0	μg/L	1	6/13/2008 7:23:18 PM
Toluene	ND	1.0	μg/L	1	6/13/2008 7:23:18 PM
Ethylbenzene	ND	1.0	μg/L	1	6/13/2008 7:23:18 PM
Xylenes, Total	ND	2.0	μg/L	1	6/13/2008 7:23:18 PM
Surr: 4-Bromofluorobenzene	76.0	68.9-122	%REC	1	6/13/2008 7:23:18 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - RL Reporting Limit

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

GAC June 2008

Work Order:

Date: 24-Jun-08

0806140

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPD	Limit Qual
Method: EPA Method 8015B: D	iesel Range								
Sample ID: MB-16174		MBLK			Batch I	D: 16174	Analysis D	ate:	6/12/2008 9:01:23 AM
Diesel Range Organics (DRO)	ND	mg/L	1.0		•				
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	0.9672	mg/L	0	96.7	58	140			
Sample ID: LCS-16174		LCS			Batch I	D: 16174	Analysis D	ate:	6/12/2008 9:35:29 AM
Diesel Range Organics (DRO)	4.450	mg/L	1.0	89.0	74	157			
Surr: DNOP	0.5076	mg/L	0	102	58	140			
Sample ID: LCSD-16174		LCSD			Batch I	D: 16174	Analysis D	Date:	6/12/2008 10:09:39 AM
Diesel Range Organics (DRO)	4.331	mg/L	1.0	86.6	74	157	2.72	23	
Surr: DNOP	0.5068	mg/L	0	101	58	140	0	0	
Method: EPA Method 8015B: G	acolina Dan								
Sample ID: 5ML RB	asonne ivan	MBLK			Batch I	D: R28923	Analysis E	Date:	6/13/2008 8:45:18 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050		•				
Surr: BFB	17.04	mg/L	0	85.2	79.2	121			•
Sample ID: 2.5UG GRO LCS		LCS	-	00.2	Batch I		Analysis D	Date:	6/13/2008 8:53:31 PM
Gasoline Range Organics (GRO)	0.4958	mg/L	0.050	99.2	80	115	•		
Surr: BFB	19.25	mg/L	0	96.3	79.2	121			
Sample ID: 12.5UG GRO LCSD		LCSD			Batch		Analysis E	Date:	6/13/2008 9:23:36 PM
Gasoline Range Organics (GRO)	0.4924	mg/L	0.050	98.5	80	115	0.688	8.3	9
Surr: BFB	19.20	mg/L	0	96.0	79.2	121	0	0	
Sample ID: 0806158-07A DUP		DUP	-		Batch		Analysis [-	6/14/2008 3:57:14 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050				0	20	ſ
Casomic Nange Organics (GNO)	שוו	mg/L	0.000			•	U	20	



- E Value above quantitation range
- 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

Date: 24-Jun-08

QA/QC SUMMARY REPORT

ient:

Western Refining Southwest, Inc.

roject:

GAC June 2008

Work Order:

0806140

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDL	imit C	Qual
Method: EPA Method 8021B: V	olatiles					. <u></u>				
Sample ID: 0806140-01A MSD		MSD	•		Batch	ID: R28923	Analysis D	ate:	6/13/20	08 8:23:27 PN
Benzene	20.84	μg/L	1.0	104	85.9	113	1.89	27		
Toluene	21.24	μg/Ľ	1.0	106	86.4	113	1.74	19		
Ethylbenzene	21.84	μg/L	1.0	108	83.5	118	2.00	10		
Xylenes, Total	65.24	μg/L	2.0	108	83.4	122	1.33	13		
Surr: 4-Bromofluorobenzene	20.21	μg/L	0	101	68.9	122	0	0		
Sample ID: 5ML RB		MBLK			Batch	ID: R28923	Analysis D	ate:	6/13/20	08 8:45:18 AN
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							
Surr: 4-Bromofluorobenzene	16.82	µg/L	0	84.1	68.9	122				
Sample ID: 5ML RB		MBLK			Batch	ID: R28951	Analysis D	ate:	6/16/20	08 9:02:24 AN
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							
2,4-Trimethylbenzene	ND	μg/L	1.0							
5,5-Trimethylbenzene,	ND	µg/L	1.0							
Surr: 4-Bromofluorobenzene	16.79	μg/L	0	84.0	68.9	122				
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R28923	Analysis D	ate: 6	/13/200	8 10:23:32 PN
Benzene	20.54	μg/L	1.0	103	85.9	113				
Toluene	21.46	µg/L	1.0	107	86.4	113				
Ethylbenzene	21.38	µg/L	1.0	107	83.5	118				
Xylenes, Total	64.43	μg/L	2.0	107	83.4	122				
Surr: 4-Bromofluorobenzene	20.10	μg/L	0	101	68.9	122				
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R28951	Analysis D	ate:	6/17/20	08 4:50:16 AN
Methyl tert-butyl ether (MTBE)	19.58	µg/L	2.5	97.9	51.2	138				
Benzene	21.01	µg/L	1.0	105	85.9	113				
Toluene	21.59	μg/L	1.0	108	86.4	113				
Ethylbenzene	21.53	μg/L	1.0	108	83.5	118				
Xylenes, Total	65.34	µg/L	2.0	109	83.4	122				
1,2,4-Trimethylbenzene	22.25	μg/L	1.0	111	83.5	115				
1,3,5-Trimethylbenzene	21.07	μg/L	1.0	105	85.2	113				
Surr: 4-Bromofluorobenzene	17.57	µg/L	0	87.9	68.9	122				
Sample ID: 0806140-01A MS		MS			Batch	ID: R28923	Analysis D	ate:	6/13/20	08 7:53:22 PN
Benzene	20.45	μg/L	1.0	102	85.9	113				
Toluene	20.88	μg/L.	1.0	104	86.4	113				
Ethylbenzene	21.41	μg/L	1.0	106	83.5	118				
Xylenes, Total	64.38	μg/L	2.0	107	83.4	122				
Surr: 4-Bromofluorobenzene	17.79	μg/L	0	89.0	68.9	122				



E Value above quantitation range

S Spike recovery outside accepted recovery limits

Page 2

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

Sample Receipt Checklist

Client Name SJR			Date Receive	ed:	6/10/2008	
Work Order Number 0806140 Checklist completed by: Signature		0/1C	Received b	y: ARS labels checked by:	Initials	
Matrix: Carrier	name <u>UPS</u>	į				
Shipping container/cooler in good condition?	Yes	V	No 🗌	Not Present]	
Custody seals intact on shipping container/cooler?	Yes	V	No 🗌	Not Present	Not Shipped	
Custody seals intact on sample bottles?	Yes		No 🗌	N/A ✓	•	
Chain of custody present?	Yes	V	No 🗔			
Chain of custody signed when relinquished and received?	Yes	✓	No 🗌			
Chain of custody agrees with sample labels?	Yes	V	No 🗌			
Samples in proper container/bottle?	Yes	\checkmark	No 🗌			
Sample containers intact?	Yes	V	No 🗌			
Sufficient sample volume for indicated test?	Yes	Y	No 🗌			
All samples received within holding time?	Yes	V	No 🗌			
Water - VOA vials have zero headspace? No VOA via	ls submitted		Yes 🗹	No 🗌		
Water - Preservation labels on bottle and cap match?	Yes		No 🗌	N/A		
Water - pH acceptable upon receipt?	Yes		No 🗌	N/A 🗹		
Container/Temp Blank temperature?		6°	<6° C Acceptal			
COMMENTS:			If given sufficier	nt time to cool.		
	at .		· .			
Client contacted Date contacte	ed:		Per	son contacted	· · · · · · · · · · · · · · · · · · ·	
Contacted by: Regarding:						
Comments:						
Corrective Action						
					·	

16 28 16 16 16 16 16 16 16 16 16 16 16 16 16												Remarks:		
QA/QC Packog Std □ Level 4 🗷	Project Name: (FAC JUNE 2008 Project #:		Project Manager:	Sampler	9	9							4	Received By: (Signature) Received By: (Signature)
	rn Refining (Blasid)	TRIOCAFIELD, NM 874/3		Phone #: 505-632-416/		Date Time Matrix Sample I.D. No.	6-9-08 1:00 HD GAC Lead							Date: Time: Relinquished By: (Signature) Date: Time: Relinquished By: (Signature)



COVER LETTER

Wednesday, May 14, 2008

Cindy Hurtado San Juan Refining #50 CR 4990 Bloomfield, NM 87413

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

RE: GAC May 2008

Dear Cindy Hurtado:

Order No.: 0805078

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 5/6/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or \leq sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001



Date: 14-May-08

CLIENT:

San Juan Refining

Project:

GAC May 2008

Lab Order:

0805078

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0805078-01A	GAC-Lead	15876	EPA Method 8015B: Diesel Range	5/5/2008 11:10:00 AM
0805078-01A	GAC-Lead	R28413	EPA Method 8015B: Gasoline Range	5/5/2008 11:10:00 AM
0805078-01A	GAC-Lead	R28413	EPA Method 8021B: Volatiles	5/5/2008 11:10:00 AM

Date: 14-May-08

CLIENT:

San Juan Refining

Lab Order:

0805078

Project:

GAC May 2008

Lab ID:

0805078-01

Client Sample ID: GAC-Lead

Collection Date: 5/5/2008 11:10:00 AM

Date Received: 5/6/2008

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	5/9/2008 2:06:25 PM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	5/9/2008 2:06:25 PM
Surr: DNOP	104	58-140	%REC	1	5/9/2008 2:06:25 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	5/6/2008 11:27:50 PM
Surr: BFB	94.3	79.2-121	%REC	1	5/6/2008 11:27:50 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	1.0	μg/L	1	5/6/2008 11:27:50 PM
Toluene	ND	1.0	μg/L	1	5/6/2008 11:27:50 PM
Ethylbenzene	ND	1.0	μg/L	1	5/6/2008 11:27:50 PM
Xylenes, Total	ND	2.0	μg/L	1	5/6/2008 11:27:50 PM
Surr: 4-Bromofluorobenzene	78.3	68.9-122	%REC	1	5/6/2008 11:27:50 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 14-May: 08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project:

GAC May 2008

Work Order:

0805078

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDI	_imit	Qual
Method: EPA Method 8015B: Di Sample ID: MB-15876	esel Range	MBLK			Batch I	D. 15876	Analysis D	ate:	5/9/200)8 12:24:06 PN
Diesel Range Organics (DRO)	ND	mg/L	1.0							
Motor Oil Range Organics (MRO)	ND	mg/L	5.0		•					
Surr: DNOP	1.202	mg/L	0	120	58	140				
Sample ID: LCS-15876		LCS			Batch I	D: 15876	Analysis D	ate:	5/9/20	08 12:58:12 PN
Diesel Range Organics (DRO)	6.239	mg/L	1.0	125	74	157				
Surr: DNOP	0.5759	mg/L	0	115	58	140				
Sample ID: LCSD-15876		LCSD			Batch I	D: 15876	Analysis D	ate:	5/9/2	008 1:32:19 PN
Diesel Range Organics (DRO)	6.346	mg/L	1.0	127	74	157	1.70	23		
Surr: DNOP	0.6089	mg/L	0	122	58	140	0	0		
Method: EPA Method 8015B: G	asoline Rar	nae								
Sample ID: 0805078-01A MSD		MSD			Batch I	D: R28413	Analysis D	ate:	5/7/20	08 12:28:08 AM
Gasoline Range Organics (GRO)	0.4792	mg/L	0.050	95.8	80	115	0.796	8.39)	
Surr: BFB	19.87	mg/L	0	99.4	79.2	121	0 .	0		
Sample ID: 5ML RB		MBLK			Batch I	D: R28413	Analysis D	ate:	5/6/2	008 8:45:47 AN
Gasoline Range Organics (GRO)	ND	mg/L	0.050							
Surr: BFB	20.77	mg/L	0	104	79:2	121				
Sample ID: 2.5UG GRO LCS		LCS			Batch I	D: R28413	Analysis D	ate:	5/7/20	08 12:58:17 AN
Gasoline Range Organics (GRO)	0.4874	mg/L	0.050	97.5	80	115				
Surr: BFB	21.79	mg/L	0	109	79.2	121				(
Sample ID: 0805078-01A MS		MS			Batch I	D: R28413	Analysis D	ate:	5/6/20	08 11:57:56 PM
Gasoline Range Organics (GRO)	0.4754	mg/L	0.050	95.1	80	115				
Surr: BFB	20.35	mg/L	0	102	79.2	121				
Method: EPA Method 8021B: Vo	olatiles									
Sample ID: 5ML RB		MBLK			Batch I	D: R28413	Analysis D	ate:	5/6/2	008 8:45:47 AN
Benzene	ND	μg/L	1.0							
Toluene	ND	μg/L	1.0							
Ethylbenzene	ND	μg/L	1.0							
Kylenes, Total	ND	μg/L	2.0							
Surr: 4-Bromofluorobenzene	17.57	µg/L	0	87.8	68.9	122				
Sample ID: 100NG BTEX LCS		LCS			Batch I	D: R28413	Analysis D	ate:	5/6/2	008 5:23:36 PM
Benzene	20.42	μg/L	1.0	102	85.9	113				
Toluene	20.69	μg/L	1.0	103	86.4	113				
Ethylbenzene	20.34	μg/L	1.0	102	83.5	118				
Kylenes, Total	60.61	μg/L	2.0	101	83.4	122				
Surr: 4-Bromofluorobenzene	16.75	μg/L	0	83.7	68.9	122				

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E Value above quantitation range

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



	Sample F	Rece	ipt Che	cklist				
Client Name SJR				Date Receive	d:		5/6/2008	
Work Order Number 0805078				Received by	: ARS			
Checklist completed by: Signature	nomin			Sample ID I	abeis checked	by:	nistals	
Matrix:	Carrier name	<u>UPS</u>						
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	Y		
Chain of custody present?		Yes	✓	No 🗌				
Chain of custody signed when relinquished and re	ceived?	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 submi	tted		Yes 🗹	No 🗌			
Water - Preservation labels on bottle and cap mai	ch?	Yes		No 🗌	N/A			
Water - pH acceptable upon receipt?		Yes		No \square	N/A 🗹			
Container/Temp Blank temperature?			5°	<6° C Acceptal	ole			
COMMENTS:				If given sufficier	it time to cool.			ř.
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Client contacted [Pate contacted:			Рег	son contacted			
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Comments:								
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Corrective Action								

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COVER LETTER

Tuesday, April 22, 2008

Cindy Hurtado San Juan Refining #50 CR 4990 Bloomfield, NM 87413

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

RE: GAC 2nd QTR-2008

Dear Cindy Hurtado:

Order No.: 0804186

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 4/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001



Date: 22-Apr-08

CLIENT:

San Juan Refining

Project:

GAC 2nd QTR-2008

Lab Order:

0804186

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0804186-01A	GAC Inlet	15671	EPA Method 8015B: Diesel Range	4/15/2008 11:20:00 AM
0804186-01A	GAC Inlet	R28165	EPA Method 8021B: Volatiles	4/15/2008 11:20:00 AM
0804186-01A	GAC Inlet	R28164	EPA Method 8015B: Gasoline Range	4/15/2008 11:20:00 AM
0804186-02A	GAC Lead	15671	EPA Method 8015B: Diesel Range	4/15/2008 11:10:00 AM
0804186-02A	GAC Lead	R28165	EPA Method 8021B: Volatiles	4/15/2008 11:10:00 AM
0804186-02A	GAC Lead	R28164	EPA Method 8015B: Gasoline Range	4/15/2008 11:10:00 AM
0804186-03A	GAC LAG	15671	EPA Method 8015B: Diesel Range	4/15/2008 11:00:00 AM
0804186-03A	GAC LAG	R28165	EPA Method 8021B: Volatiles	4/15/2008 11:00:00 AM
0804186-03A	GAC LAG	R28164	EPA Method 8015B: Gasoline Range	4/15/2008 11:00:00 AM

Date: 22-Apr-08

CLIENT:

San Juan Refining

Lab Order:

0804186

Project:

GAC 2nd QTR-2008

Lab ID:

0804186-01

Client Sample ID: GAC Inlet

Collection Date: 4/15/2008 11:20:00 AM

Date Received: 4/16/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE .				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	4/19/2008 6:22:46 AM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	4/19/2008 6:22:46 AM
Surr: DNOP	99.6	58-140	%REC	1	4/19/2008 6:22:46 AM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	8.4	0.50	mg/L	10	4/19/2008 6:28:25 PM
Surr: BFB	103	79.2-121	%REC	10	4/19/2008 6:28:25 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25	μg/L	10	4/19/2008 6:28:25 PM
Benzene	55	10	μg/L	10	4/19/2008 6:28:25 PM
Toluene	ND	10	μg/L	10	4/19/2008 6:28:25 PM
Ethylbenzene	380	10	μg/L	10	4/19/2008 6:28:25 PM
Xylenes, Total	1900	20	μg/L	10	4/19/2008 6:28:25 PM
Surr: 4-Bromofluorobenzene	89.0	68.9-122	%REC	10	4/19/2008 6:28:25 PM

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 22-Apr-08

CLIENT:

San Juan Refining

Lab Order:

0804186

Project:

GAC 2nd QTR-2008

Lab ID:

0804186-02

Client Sample ID: GAC Lead

Collection Date: 4/15/2008 11:10:00 AM

Date Received: 4/16/2008

Matrix: AQUEOUS

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE	=				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	4/19/2008 6:56:00 AM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	. 1	4/19/2008 6:56:00 AM
Surr: DNOP	110	58-140	%REC	1	4/19/2008 6:56:00 AM
EPA METHOD 8015B: GASOLINE RAI	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	4/19/2008 7:28:31 PM
Surr: BFB	107	79.2-121	%REC	1	4/19/2008 7:28:31 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	4/19/2008 7:28:31 PM
Benzene	ND	1.0	μg/L	1	4/19/2008 7:28:31 PM
Toluene	ND	1.0	µg/L	1	4/19/2008 7:28:31 PM
Ethylbenzene	ND	1.0	μg/L	1	4/19/2008 7:28:31 PM
Xylenes, Total	ND .	2.0	μg/L	1	4/19/2008 7:28:31 PM
Surr: 4-Bromofluorobenzene	90.8	68.9-122	%REC	1	4/19/2008 7:28:31 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Date: 22-Apr-08

CLIENT:

San Juan Refining

Lab Order:

0804186

Project:

GAC 2nd QTR-2008

Lab ID:

0804186-03

Client Sample ID: GAC LAG

Collection Date: 4/15/2008 11:00:00 AM

Date Received: 4/16/2008

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	iΕ				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	4/19/2008 7:29:14 AM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	4/19/2008 7:29:14 AM
Surr: DNOP	107	58-140	%REC	1	4/19/2008 7:29:14 AM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND ·	0.050	mg/L	1	4/19/2008 7:58:35 PM
Surr: BFB	98.4	79.2-121	%REC	1	4/19/2008 7:58:35 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	4/19/2008 7:58:35 PM
Benzene	ND ·	1.0	μg/L	1	4/19/2008 7:58:35 PM
Toluene	ND	1.0	μg/L	1	4/19/2008 7:58:35 PM
Ethylbenzene	ND	1.0	μg/L	1	4/19/2008 7:58:35 PM
Xylenes, Total	ND	2.0	μg/L	1	4/19/2008 7:58:35 PM
Surr: 4-Bromofluorobenzene	82.2	68.9-122	%REC	1	4/19/2008 7:58:35 PM



^{*} Value exceeds Maximum Contaminant Level

E Value above quantitation range

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

Date: 22-Apr-08

QA/QC SUMMARY REPORT

Client:

San Juan Refining

Project:

GAC 2nd QTR-2008

Work Order:

080418

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD R	PDLimit Qual
Method: EPA Method 8015B: D	iesel Range							
Sample ID: MB-15671	,	MBLK			Batch I	D: 15671	Analysis Date:	4/17/2008 10:07:09 AM
Diesel Range Organics (DRO)	ND	mg/L	1.0					
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
'Surr: DNOP	1.196	mg/L	0 .	120	58	140		
Sample ID: LCS-15671		LCS			Batch I	D: 15671	Analysis Date:	4/17/2008 10:41:35 AN
Diesel Range Organics (DRO)	6.379	mg/L	1.0	128	74	157		
Surr: DNOP	0.5661	mg/L	0	113	58	140		
Sample ID: LCSD-15671		LCSD			Batch I	D: 15671	Analysis Date:	4/17/2008 11:11:51 AM
Diesel Range Organics (DRO)	6.888	mg/L	1.0	138	74	157	7.67	23
Surr: DNOP	0.6145	mg/L	0	123	58	140	. 0	0
Method: EPA Method 8015B: G	asolina Ran	ne .						
Sample ID: 5ML RB	asomic Ran	MBLK			Batch I	D: R28164	Analysis Date:	4/18/2008 8:42:39 AN
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	21.04	mg/L	0	105	79.2	121		
Sample ID: 2.5UG GRO LCS		LCS			Batch I	D: R28164	Analysis Date:	4/19/2008 9:28:50 PM
Gasoline Range Organics (GRO)	0.5020	mg/L	0.050	100	80	115		
Surr: BFB	20.77	mg/L	0	104	79.2	121		
Method: EPA Method 8021B: V	olatiles							. 4
Sample ID: 5ML RB		MBLK			Batch I	D: R28165	Analysis Date:	4/18/2008 8:42:39 A
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	10					
Xylenes, Total	ND -	μg/L	2.0					
Surr: 4-Bromofluorobenzene	18.17	μg/L	0	90.9	68.9	122		
Sample ID: 100NG BTEX LCS		LCS			Batch I	D: R28165	Analysis Date	4/18/2008 3:51:21 PM
Methyl tert-butyl ether (MTBE)	21.84	μg/L	2.5	109	51.2	138	•	
Benzene	20.58	μg/L	1.0	103	85.9	113		
Toluene	20.34	μg/L	1.0	102	86.4	113		
Ethylbenzene	20.42	μg/L	1.0	102	83.5	118		
Xylenes, Total	61.03	μg/L	2.0	102	83.4	122		
Surr: 4-Bromofluorobenzene	17.93	μg/L	0	89.7	68.9	122		

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E Value above quantitation range

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

Page 1

•	Sample Re	ceip	ot Check	alst				
Client Name SJR	·		C	Date Receive	ed:		4/16/2008	
Work Order Number 0804186				Received by	y: ARS			•
				Sample ID I	abels checked	-	13	
Checklist completed by: My 310m1		4-1	0-08		-		Initials	
Matrix:	Carrier name <u>UF</u>	<u>'S</u>						
Shipping container/cooler in good condition?	Ye	s 🗹		No 🗌	Not Present			
Custody seals intact on shipping container/cooler?	Ye	s 🗸	•	No 🗌	Not Present		Not Shipped	
Custody seals intact on sample bottles?	Ye	s [No 🗌	N/A	✓		
Chain of custody present?	Ye	s 🗸	•	No 🗌		•		
Chain of custody signed when relinquished and rece	eived? Ye	s 🗸	•	No 🗌				
Chain of custody agrees with sample labels?	Ye	s 🗸	•	No 🗌				
Samples in proper container/bottle?	Ye	s 🗸	•	No 🗌				
Sample containers intact?	Ye	s 🗸	•	No 🗌				
Sufficient sample volume for indicated test?	Ye	s 🗹	•	No 🗌				
All samples received within holding time?	Ye	s 🗹	2	No 🗌				
Water - VOA vials have zero headspace?	lo VOA vials submitte	d [] Y	'es 🗸	No 🗌			
Water - Preservation labels on bottle and cap match	ı? Ye	s		No 🗌	N/A 🗹			
Water - pH acceptable upon receipt?	Ye	s []	No 🗌	N/A 🗸			
Container/Temp Blank temperature?		2°		C Acceptal				
COMMENTS:			If g	iven sufficier	nt time to cool.			
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Client contacted Date	te contacted:			Per	son contacted			
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Contacted by:	garding:				<u> </u>			
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Chair of Custody Record	14	Western Refining	#	なと		Fax#	acka(ard		(Typı						-							<u> </u>			If necession, samples submitted to Hall Environmental may be subcontracted to other a
2 5	Client: SAN JUAN REGINING	7	Address: #50 CR	Florn Field	Phone #:	email or Fax#: 565- 6 32 -	QA/QC Package:	□ Other	□ EDD (Type)	1	Date	4-15-08	_										Date: 15-08		If ne
	Clie		Add	, ,	Pho	ema	QA/C		Ш		Ŏ	7-15											Date:		



COVER LETTER

Monday, March 17, 2008

Cindy Hurtado San Juan Refining #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: GAC-1st Qtr-2008

Dear Cindy Hurtado:

Order No.: 0803059

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 3/7/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie. Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001



Date: 17-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803059

GAC-1st Qtr-2008

Project: Lab ID:

0803059-01

Client Sample ID: GAC Inlet

Collection Date: 3/6/2008 10:30:00 AM

Date Received: 3/7/2008

Matrix: AQUEOUS

Analyses	Result	PQL Qu	ial Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E .			<u> </u>	Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/12/2008 9:40:40 AM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/12/2008 9:40:40 AM
Surr: DNOP	109	58-140	%REC	. 1	3/12/2008 9:40:40 AM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	7.0	0.50	mg/L	10	3/10/2008 2:19:18 PM
Surr: BFB	121	79.2-121	%REC	10	3/10/2008 2:19:18 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25	μg/L	10	3/10/2008 2:19:18 PM
Benzene	70	10	μg/L	10	3/10/2008 2:19:18 PM
Toluene	ND	10	µg/L	10	3/10/2008 2:19:18 PM
Ethylbenzene	430	10	μg/L	10	3/10/2008 2:19:18 PM
Xylenes, Total	1000	20	µg/L	10	3/10/2008 2:19:18 PM
Surr: 4-Bromofluorobenzene	99.3	68.9-122	%REC	10 .	3/10/2008 2:19:18 PM

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Page 1 of 3

Date: 17-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803059

Project:

GAC-1st Qtr-2008

Lab ID:

0803059-02

Client Sample ID: GAC Lead

Collection Date: 3/6/2008 10:40:00 AM

Date Received: 3/7/2008

Matrix: AQUEOUS

Analyses	Result	PQL Q	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE					Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/12/2008 10:15:38 AM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/12/2008 10:15:38 AM
Surr: DNOP	115	58-140	%REC	1	3/12/2008 10:15:38 AM
EPA METHOD 8015B: GASOLINE RAN	GE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/10/2008 3:19:43 PM
Surr: BFB	108	79.2-121	%REC	1	3/10/2008 3:19:43 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/10/2008 3:19:43 PM
Benzene	ND	1.0	μg/L	1 .	3/10/2008 3:19:43 PM
Toluene	ND	1.0	μg/L	1	3/10/2008 3:19:43 PM
Ethylbenzene	ND	1.0	μg/L	1	3/10/2008 3:19:43 PM
Xylenes, Total	ND	2.0	μg/L	1	3/10/2008 3:19:43 PM
Surr: 4-Bromofluorobenzene	86.9	68.9-122	%REC	1	3/10/2008 3:19:43 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Page 2 of 3

Date: 17-Mar-08

CLIENT:

San Juan Refining

Lab Order:

0803059

GAC-1st Qtr-2008

Project: Lab ID:

0803059-03

Client Sample ID: GAC LAG

Collection Date: 3/6/2008 10:50:00 AM

Date Received: 3/7/2008

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGI	=				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/12/2008 10:50:22 AM
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/12/2008 10:50:22 AM
Surr: DNOP	. 103	58-140	%REC	1	3/12/2008 10:50:22 AM
EPA METHOD 8015B: GASOLINE RAI	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/10/2008 3:49:57 PM
Surr: BFB	105	79.2-121	%REC	· 1	3/10/2008 3:49:57 PM
EPA METHOD 8021B: VOLATILES		·			Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1	3/10/2008 3:49:57 PM
Benzene	ND	1.0	μg/L	1	3/10/2008 3:49:57 PM
Toluene	ND	1.0	μg/L	1	3/10/2008 3:49:57 PM
Ethylbenzene	. ND	1.0	μg/L	1 ,	3/10/2008 3:49:57 PM
Xylenes, Total	ND	2.0	μg/L	1	3/10/2008 3:49:57 PM
Surr: 4-Bromofluorobenzene	83.8	68.9-122	%REC	1	3/10/2008 3:49:57 PM



- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

Page 3 of 3

Date: 17-Mar-08

QA/QC SUMMARY REPORT

Client: Project: San Juan Refining

GAC-1st Qtr-2008

Work Order:

0803059

Project: GAC-1st Qu	-2008						wor	k Order: 0803059
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD R	PDLimit Qual
Method: EPA Method 8015B: D	iesel Range							
Sample ID: MB-15344		MBLK			Batch	ID: 15344	Analysis Date:	3/12/2008 7:55:47 AN
Diesel Range Organics (DRO)	ND	mg/L	1.0		•		•	
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Sample ID: LCS-15344		LCS			Batch	ID: 15344	Analysis Date:	3/12/2008 8:30:48 AM
Diesel Range Organics (DRO)	4.930	mg/L	1.0	98.6	74	157		
Sample ID: LCSD-15344		LCSD			Batch	ID: 15344	Analysis Date:	3/12/2008 9:05:44 AN
Diesel Range Organics (DRO)	5.189	mg/L	1.0	104	74	157	5.12	23
Method: EPA Method 8015B: G	asoline Ran	ige						
Sample ID: 5ML RB		MBLK			Batch	ID: R27639	Analysis Date:	3/10/2008 8:11:16 A
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Sample ID: 2.5UG GRO LCS		LCS			Batch	ID: R27639	Analysis Date:	3/10/2008 8:52:01 PI
Gasoline Range Organics (GRO)	0.4614	mg/L	0.050	92.3	80	115	•	
Sample ID: 2.5UG GRO LCSD		LCSD			Batch	ID: R27639	Analysis Date:	3/10/2008 9:22:09 Pt
Gasoline Range Organics (GRO)	0.4836	mg/L	0.050	96.7	80	115	4.70	3.39
Method: EPA Method 8021B: V	olatiles							
Sample ID: ₃5ML RB		MBLK			Batch	ID: R27639	Analysis Date:	3/10/2008 8:11:16 AM
Methyl tert-butyl ether (MTBE)	ND	μg/L	2.5				٠	
Benzene	ND	μg/L	1.0	*.				
vluene .	ND	μg/L	1.0					
hylbenzene	ND	μg/L	1.0					
(ylenes, Total	ND	μg/L	2.0					
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R27639	Analysis Date:	3/10/2008 10:52:31 PN
Nethyl tert-butyl ether (MTBE)	17.26	μg/L	2.5	86.3	51.2	138		
Benzene	17.66	μg/L	1.0	88.3	85.9	113		
oluene	17.95	μg/L	1.0	89.8	86.4	113		•
Ethylbenzene	17.72	µg/L	1.0	0.88	83.5	118		
(ylenes, Total	53.24	μg/L	2.0	88.7	83.4	122		
Sample ID: 100NG BTEX LCSD		LCSD			Batch	ID: R27639	Analysis Date:	3/10/2008 11:22:45 PM
Methyl tert-butyl ether (MTBE)	17.13	μg/L	2.5	85.6	51.2	138	0.744	28
Benzene - ·	17.98	μg/L 	1.0	89.9	.85.9	113	1.80	27
oluene	18.01	μg/L	1.0	90.1	86.4	113	0.356	19
Ethylbenzene Kulanaa Tatal	17.95	μg/L	1.0	89.2	83.5	118	1.32	10
(ylenes, Total	54.33	μg/L	2.0	90.5	83.4	122	2.02	13

Qua	lifiers:	

E Value above quantitation range

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

Page 1

Sample Receipt Checklist

Client Name SJR	1	•	Date Receive	ed:	3/7/2008
Work Order Number 0803059			Received b	y: TLS	
	\mathcal{A}		Sample ID	labels checked by:	
Checklist completed by:		Date Date	109	· -	Initials
		1		•	• •
Matrix:	Carrier name	<u>UPS</u>			
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present	
Custody seals intact on shipping container/coole	er?	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 subr	mitted \square	Yes 🗹	No 🗌	
Water - Preservation labels on bottle and cap m	atch?	Yes \square	No 🗌	N/A 🗹	
Water - pH acceptable upon receipt?		Yes \square	No 🗀	N/A 🗹	
Container/Temp Blank temperature?		5°	<6° C Accepta		
COMMENTS:			If given sufficier	nt time to cool.	
Olivert producted	Data as at a tank		Do	son contacted	
Client contacted	Date contacted:			Son contacted	
Contacted by:	Regarding:				
Comments:	en	_			
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Corrective Action	·				
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Turn-Around Time:	Standard	Project Name:	16AC-1	Project #:		Project Manager:		Sampler:	On Ice: Vovês	Container Type and #	401-9		/)
Chain-of-Custody Record	11 Korms		obsh,	14. NM 87413	632-4161	505-632-3911	Level 4 (Full Validation)			Sample Request ID	GAC INIET	GAC Lead	GAC LAG							Dollar inhod h.r.	Cudy Austado	Heinquished by:
ain-of-	Client: SAN TURA		K2 CSH	9100m F.P.	-505		ickage: ard		Гуре)	Time	10304	+10h0/	TOSOT							Times	2pm	
<u>-</u> 5	Client:	A	Address: 450		Phone #:	email or Fax#:	QA/QC Package:	□ Other	□ EDD (Type)	Date	80/10/6	/									206/08	Date: