

GW - 1

REPORTS

YEAR(S):

2007 - Present



May 11, 2007

2007 MAY 14 AM 10:21

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Santa Fe, New Mexico 87505

**RE: 2006 Groundwater Remediation and Monitoring Annual Report
Giant Refining Company, Bloomfield Refinery
EPA ID# NMD089416416
GW - 001**

Dear Wayne and Hope:

Giant Refining Company, Bloomfield Refinery submits the maps depicting August 2006 groundwater elevation, flow direction, and product thickness as well as April 2006 and August 2006 dissolved phase constituent maps. Please place these in the appropriate sleeves in Section 10.0 of the 2006 Groundwater Remediation and Monitoring Annual Report.

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

Sincerely,

Cindy Hurtado
Environmental Coordinator
San Juan Refining Company
Giant - Bloomfield Refinery

cc: Robert Wilkinson, EPA Region VI
Brandon Powell, NMOCD Aztec District Office
Ed Riege, Environmental Superintendent - Giant Refinery

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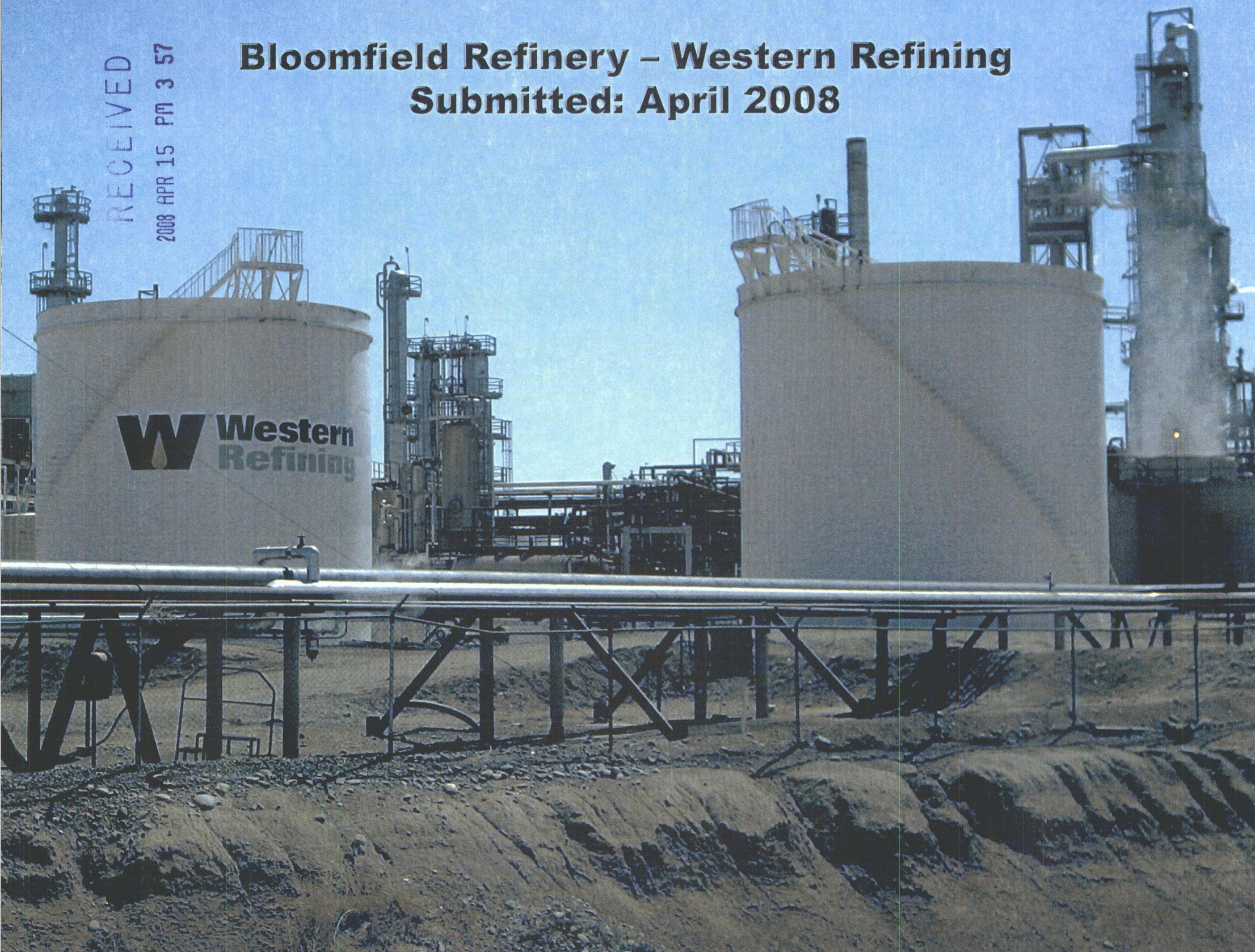
2007 GROUNDWATER REMEDIATION AND MONITORING ANNUAL REPORT

Bloomfield Refinery – Western Refining
Submitted: April 2008

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2008 APR 15 PM 3 57

W Western
Refining



April 11, 2008

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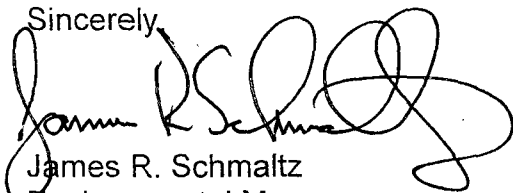
**RE: Corrective Measures Study and Corrective Measures
Implementation (Site Investigation and Abatement Plan)
2007 Groundwater Remediation and Monitoring Annual Report
Bloomfield Refinery – Western Refining
EPA ID# NMD089416416
GW – 001**

Dear Wayne and Hope:

Bloomfield Refinery – Western Refining submits the 2007 Annual Groundwater Report as required by NMED and OCD directives. This report summarizes all groundwater monitoring activities that occurred in 2007.

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 – Western Refining

cc: Laurie King, EPA Region VI
Brandon Powell, NMOCD Aztec District Office
Allen Hains, Western Refining – El Paso

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Section 1.0 Executive Summary

Executive Summary

Bloomfield Refinery
#50 Road 4990
Bloomfield, New Mexico
87413

US EPA ID: NMD089416416

Semi-annual (April) and annual (August) groundwater sampling were performed to monitor potential impacts to groundwater quality associated with historic refinery operations. Semi-annual samples were collected from all wells with the exception of wells that contain separate phase hydrocarbon or wells that were dry or did not contain enough water to pull a sample. The annual sampling event followed guidelines from the *Facility-wide Groundwater Monitoring Plan* dated July 2007. Future sampling events will follow the *Facility-wide Groundwater Monitoring Plan* dated December 2007.

Review of the SVOC analytical results indicate that the few contaminants that do show up in the EPA Method 8270 test can also be detected with EPA Method 8260B.

The San Juan River was sampled on a quarterly basis throughout 2007. Analytical results indicate that impacted groundwater from the refinery has not impacted the river. Semi-annual sampling will continue through 2008 following the *Facility-wide Groundwater Monitoring Plan* dated December 2007.

Tank #33 effluent was sampled on a quarterly basis in 2007. Quarterly sampling will continue.

Construction of the North Boundary Barrier Wall and Collection System were completed in late April 2005. The primary purpose of the north boundary wall is to mitigate flow of hydrocarbon-impacted groundwater to the San Juan River bluff. The collection system includes a series of collection wells and observation wells located along the refinery-side and river-side of the barrier wall, respectively. The collection wells are used to monitor and hydraulically control groundwater mounding along the refinery-side of the barrier wall. The observation wells are used to monitor the effectiveness in mitigating groundwater migration to the river bluff.

Monitoring results along the barrier wall in 2007 show groundwater levels have reached a steady state. The presence of separate phase hydrocarbon in collection wells and observation wells has decreased. Areas where seepage of

fuel hydrocarbon impacted water was present has been reduced or eliminated. The data suggests the barrier has been effective.

Fluids monitoring along the barrier wall will continue by following direction from the *Approval with Direction Evaluation of Interim Measures* letter from NMED dated March 25, 2008

Section 2.0 Introduction

INTRODUCTION

2007 Groundwater Remediation and Monitoring Annual Report

Owner: San Juan Refining Company (parent corporation)
23733 North Scottsdale Road
Scottsdale, Arizona 85255

Operator: Giant Refining Company (postal address)
P.O. Box 159
Bloomfield, New Mexico 87413

Giant Refining Company (physical address)
#50 Rd 4990
Bloomfield, New Mexico 87413

Facility Name: Bloomfield Refinery (physical address)
#50 Rd 4990
Bloomfield, New Mexico 87413

Facility Status Corrective Action/Compliance

US EPA ID NMD089416416

SIC Code 2911

Submittal Date: April 2008

Purpose of Groundwater Monitoring: To evaluate present contamination

Type of Groundwater Monitoring: Semi-annual, Annual, and Investigative

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 County 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 is located in the northwestern portion of the site. 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.

The Refinery owner is San Juan Refining Company (SJRC) and is operated by Giant Refining Company. 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

HISTORY OF FACILITY MODIFICATIONS AND IMPROVEMENTS

Previous Owner's Activities

Local entrepreneur, Kimball Campbell, constructed the crude topping unit that eventually became the GRC facility in the late 1950s. O.L. Garretson bought the facility in the early 1960s, renamed it Plateau, Inc. and sold it in 1964 to Suburban Propane of New Jersey.

Operationally, the facility has steadily evolved through a series of improvements, modifications and expansions. Suburban upgraded the facility in 1966, increasing the Crude Unit throughput to 4,100 bpcd and adding 1,850 bpcd Reformer and Naphtha Hydrotreater. In 1975, the Crude Unit was expanded to 8,400 bpcd.

In 1979, the Crude Unit was expanded again to 16,800 bpcd (later demonstrated to have a hydraulic capacity in excess of 18,000 bpcd). A Fluidized Catalytic Cracker (FCC) with a nominal capacity of 6,000 bpcd, an Unsaturated Gas Plant and a Treater Unit were also added at that time. The capacity of the Reformer / Hydrotreater was increased to 2,250 bpcd. The FCC was upgraded in 1982 to conform to State and Federal air quality standards.

Bloomfield Refining Activities

Bloomfield Refining Company (BRC) acquired the facility from Suburban Propane (Plateau) on October 31, 1984. BRC made many improvements to facility operations and equipment. These improvements are summarized below.

1986

Relocated the spent caustic tank onto a concrete pad with retaining walls.

1987

Upgraded the Reformer and increased its capacity to 3,600 bpcd, modified the Laboratory and Treater Unit and increased tank storage capacity.

Cleaned up the North and South bone yards.

Decommissioned and dismantled old tanks 6 and 7.



Relocated the API recoverd oil tanks 8 & 9 to concrete pads with concrete retaining walls.

Established a systematic inspection, maintenance and repair program for tanks.

1988

Added a 2,000 bpcd Catalytic Polymerization Unit. Removed the facility's two underground storage tanks and replaced them with aboveground storage tanks.

Completed installation of cathodic protection system for the tank farm and underground piping.

Rebuilt the process area sewer system and added curbed, concrete paving to the unpaved process areas.

1989

Increased Reformer throughput to 4,000 bpcd.

Activated the groundwater hydrocarbon recovery system.



Constructed the first double-lined Evaporation Pond as part of discharge plan improvements.

1990

Constructed the second double-lined Evaporation Pond as part of discharge plan improvements.

Constructed a drum storage shed and converted to bulk chemical usage where possible in order to minimize the use of drummed chemicals.

1991

Revamped the burner fuel sales rack with concrete paving and curbing.

Submitted the permit application for a Class 1 disposal well.

Upgraded the groundwater hydrocarbon recovery system.



1992

Submitted an air quality permit application proposing the installation of a Diesel Hydrodesulfurization (HDS) Unit and a Sulfur Recovery Unit (SRU) to comply with new EPA low-sulfur diesel regulations and to decrease air emissions.

1993

Began a program under a consent agreement with the US EPA to conduct interim measures (IM), a RCRA facility investigation (RFI) and a corrective measures study (CMS) addressing groundwater contamination.

Replaced portions of the underground cooling water piping.

Added concrete paving around the API Separator.

Added process units: HDS Unit (2,000 bpcd) and SRU.

Improved (eliminated) storm water runoff to the North.

1994

Completed the Class 1 injection well.

Retrofitted the Aeration Lagoons with two additional liners.

Installed a floating cover for the API Separator.

Closed the clay-lined evaporation ponds and spray evaporation area.

Giant Activities

In 1995, San Juan Refining Company, a wholly owned subsidiary of Giant Industries Arizona, Inc., purchased the Bloomfield Refinery from BRC.

1995

Improved the diking South of the Refinery to further reduce storm water runoff.

Began implementation of additional corrective measures for groundwater cleanup as determined from the CMS.

1998

Converted the former evaporation ponds on the East side of the Refinery to raw water storage ponds.

1999

Sheet piling and a bentonite slurry wall was installed adjacent to the San Juan River, North of the process units, in order to intercept a small hydrocarbon seep that had been detected in the area.

2001

A program was initiated to inoculate the Aeration Lagoons with sludge-consuming micro-organisms.

2002

A concrete liner was installed on the Hammond Ditch. At that time, Giant constructed the Hammond Ditch French Drain Recovery System to address contamination under the ditch.

2003

Several monitoring wells were converted into recovery wells to further enhance the continuing ground water remediation efforts. MW #45, #46 & #47 were installed to replace unreliable seeps. East Outfall #1 Recovery System was set up to return impacted water back to the refinery.

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 Nacimiento Formation. Initiated the development of a slurry wall that will be constructed on the north side of Hammond Ditch to prevent the spread of hydrocarbons to the San Juan River. Construction will begin in 2005.

Lined containments were constructed in the draws north of Hammond Ditch in order to prevent migration of contaminated groundwater toward the San Juan River.

Sewer lines were replaced in the Treater and FCC.

2005

The North Boundary Barrier Wall installation was completed March 2005. Fourteen observation wells were installed on the north side of the slurry wall and fifteen collection wells were installed on the south side of the slurry wall in April 2005.

As a matter of preventive maintenance, the lined containments in the draws north of the slurry wall were upgraded periodically.

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

The River Terrace Bioventing System was put on-line in January 2006. Monitoring data from that project is submitted in a separate report to the regulatory agencies.

During the week of February 13, 2006 seven sump wells were installed along the bluff north of the barrier wall. These wells were drilled in accordance with the North Barrier Wall Work Plan which was submitted to OCD February 7, 2006. Fluids extraction from the observation and collection wells, the north draws, and the sump wells continued throughout 2006.

As a matter of preventive maintenance, the lined containments in the draws north of the slurry wall were upgraded periodically.

2007

On May 31, 2007, Giant Industries, Inc. became a wholly-owned subsidiary of Western Refining, Inc. of El Paso, Texas.

Construction of the Ammonia Refrigeration Unit (ARU) was completed and the system put on line by March 2007. This unit is used to recover propane from hydrogen streams.

Construction of the Benzene Stripper was completed and the system put in service by October 2007. This unit is used to strip benzene from process waste water.

Discharge piping was installed at RW #1 to increase the recovery capacity of the well.

As a matter of preventive maintenance, the lined containments in the draws north of the slurry wall (seeps 1-9) were upgraded periodically.

Section 3.0 Scope of Activities

Scope of Activities

North Boundary Barrier Wall

Installation of the North Boundary Barrier Wall and Collection System was completed by late April 2005. A bi-weekly fluid measurement scheme was established on August 23, 2005 and continued throughout 2007 monitoring all observation and collection wells as well as MW #11, MW #12, MW #20, MW #21, MW #39, MW #45, MW #46, and MW #47. Measured depth to groundwater data from January 2007 through December 2007 is located in Appendix B, Section 15.0, Tabs 1 -12.

Using a vacuum truck, fluids have been removed from the collection and observation wells on a 3 times per week basis throughout 2007.

Semi-Annual sample collection began during the first week of April 2007.

Samples were analyzed for benzene, toluene, ethylbenzene, xylene (BTEX), and MTBE using EPA Method 8021B as well as Diesel Range Organics (DRO) using EPA Method 8015B. Field measurements of pH, temperature, and E.C. were also taken.

Annual sampling occurred the week of August 20, 2007. Samples were analyzed for BTEX, MTBE, and DRO using EPA Methods 8021B and 8015B respectively. Field measurements of pH, temperature, and E.C. were also recorded.

During both sampling events, groundwater samples were taken from all observation wells and two collection wells (CW-0+60 and CW25+95) with the exception of wells that contain separate phase hydrocarbon or wells that were dry or did not contain enough water to collect a sample.

Analytical results and field measurements for the sampling events are summarized in Appendix B, Section 15.0, Tabs 13, 14, and 15.

There are nine catchment basins located along the bluff north of MW #45 and MW #46 on the south side of the San Juan River. These basins have been referred to as seeps, outfalls, and catchments. For the purpose of clearing up any confusion, these areas will be referred to as Seeps 1-9 as identified on Figure 10 of Section 10.0 of this report.

A bi-weekly visual inspection of Seeps 1-9 occurred throughout 2007. Beginning in October 2007, monthly samples were taken from Seeps 1, 6, 7, 8, and 9 and analyzed for BTEX using EPA Method 8021B. Results and conclusions from those sampling events can be found in the *Evaluation of Interim Measures* report presented to NMED and OCD in January 2008.

Fluids in the sump wells were extracted on a weekly basis using a vacuum truck starting in May 2006 and throughout 2007.

Groundwater Monitoring

The facility-wide semi-annual monitoring event occurred during the first week of April 2007. Groundwater samples were collected from all monitoring wells and

recovery wells with the exception of wells that contain separate phase hydrocarbon or wells that were dry or did not contain enough water to catch a sample. East Outfall #2 and East Outfall #3 were sampled. Outfall #1 flows into Tank #38 and subsequently to Tank #33. Tank #33 discharge is sampled for BTEX (EPA Method 8021B) on a quarterly basis. Analytical results for Tank #33 can be found in Section 9.0, Tab 7.0. Wells that are included in the *River Terrace Voluntary Corrective Measures Work Plan* were not incorporated into the semi-annual sampling event as that project is following a quarterly sampling schedule and is documented in a semi-annual and annual report.

Monitoring wells, recovery wells, Outfall #2, and Outfall #3 were sampled and analyzed for BTEX and MTBE using EPA Method 8021B. Semi-annual results are summarized in Section 9.0, Tabs 3, 4, 5, 6, and 7. Field measurements (E.C., pH, and Temperature) can be found in Section 9.0, Tab 2.

Annual sampling started the week of August 20, 2007. Although the *Facility-wide Groundwater Monitoring Plan* submitted to NMED and OCD July 31, 2007 had not been approved yet, Bloomfield Refinery personnel agreed to perform sampling and chemical analysis in accordance with the plan. During previous sampling events, MW #29, MW #31, and MW #44 were not required to be sampled and were inadvertently not sampled during the 2007 annual event. Similarly, TPH analysis (DRO/GRO) by EPA Method 8015B was not required previously and inadvertently overlooked during the 2007 annual sampling event.

The following wells were sampled; MW #1, MW #8, MW #11, MW #12, MW #13, MW #26, MW #27, MW #30, MW #32, MW #33, MW #34, MW #35, MW #37, MW #38, RW #1, RW #9, RW #15, O/F #2, and O/F #3. The samples were analyzed for VOCs by using EPA Method 8260B, SVOCs by EPA Method 8270, Total RCRA 8 Metals using EPA Methods 6010B/7470, WQCC Dissolved Metals using EPA Method 6010B, Cations, Anions, and Carbon Dioxide using EPA Methods 300.0, 160.1, 120.1, and 310.1.

MW #3, MW #5, and MW #6 were dry and no samples were taken. MW #4, MW #20, MW #21, MW #40, RW #23, RW #28, RW #42, and RW #43 contained separate phase hydrocarbon and were not sampled.

Results are summarized in Section 9.0, Tabs 3, 4, 5, 6, and 7.

Groundwater measurements were recorded during both sampling events. Results are in Section 9.0, Tab 1.

San Juan River

The San Juan River was sampled on a quarterly basis throughout 2007. Samples were analyzed for BTEX/MTBE (EPA Method 8021B), TPH (EPA Method 8015B), SVOCs (EPA Method 8270), Total RCRA 8 Metals (EPA Methods 6010B/7470), WQCC Dissolved Metals (EPA Method 6010B), Cations, Anions, and Carbon Dioxide using EPA Methods 300.0, 160.1, 120.1, and 310.1.

Analysis is summarized in Section 9.0, Tab 8.

Field Data Collection

All facility monitoring wells, recovery wells, observation and collection wells were measured for groundwater elevation in April and August. Measurement of water and product levels was taken 48 hours after any extraction of fluids from the wells. Recovery well pumps were shut off and removed 48 hours prior to water elevation measurements.

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

At least three well volumes were purged from each well prior to sampling. Electrical conductance, pH, and temperature 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 well elevations can be found in `Section 9.0, Tabs1 and 2.

All purged water was collected in a fifty-five gallon drum and disposed of through the refinery wastewater system.

**Section 4.0 Regulatory Criteria / Groundwater Cleanup Standards/
State of New Mexico Soil Screening Levels**

TABLE OF NEW MEXICO AND THE U. S. EPA'S GROUNDWATER STANDARDS

PARAMETER	NEW MEXICO (ppm)	EPA MCL (ppm)	EPA MCLG (ppm)	EPA HA (ppm)
General Properties				
non-aqueous phase liquid (NAPL)	NP			
petroleum				
floating product	NP			
undesirable odor (a)	NP			
pH (units) (a)	6 - 9	6.5 - 8.5		
total dissolved solids (TDS) (a)	1000	500		
turbidity		tt		
Biological Contaminants				
giardia lamblia	tt	Zero		
legionella	tt	Zero		
total coliform	<5%+	Zero		
viruses	tt	Zero		
Inorganic Contaminants				
aluminum	5.0 (i)	0.05 - 0.2 (a)		
ammonia				30
antimony		0.006	0.006	
arsenic	0.1	0.05	0.05	
asbestos-fibers/liter (longer than 10 um)		7 million	7 million	
barium	1.0	2	2	
beryllium		0.004	0.004	
boron	0.75 (i)			0.06
bromate		0.01 (p)	Zero (p)	
cadmium	0.01	0.005	0.005	
chlorate				0.01

PARAMETER	NEW MEXICO (ppm)	EPA MCL (ppm)	EPA MCLG (ppm)	EPA HA (ppm)
chloride (a)	250	250		0.01
chlorine				1
chlorine dioxide				0.08
chlorite		1.0 (p)	0.08 (p)	
chromium	0.05	0.1	0.1	
cobalt (i)	0.05			
copper		1.3 (al)	1.3	
cyanide	0.2	0.2	0.2	
fluoride	1.6	4.0		
fluoride (a)		2		
iron (a)	1.0	0.3		
lead	0.05	0.015 (al)	Zero	
manganese (a)	0.2	0.05		
mercury	0.002	0.002	0.002	
molybdenum	1.0 (i)			0.05
nickel	0.2 (i)	0.1	0.1	
nitrate - N	10	10	10	
nitrite - N		1	1	
nitrate + nitrite (as N)		10	10	
selenium	0.05	0.05	0.05	
silver	0.05	0.05	0.05	
silver (a)		0.1		
sodium				20
strontium				17
sulfate	600 (a)	250 (a) / 400 (p)	400	
thallium		0.002	0.0005	
vanadium				0.02
zinc (a)	10.0	5		
Radioactive Contaminants				
Gross alpha (pCi/L) *		15	Zero	
Gross beta & photon emitters (mrem/yr) **		4	Zero	

PARAMETER	NEW MEXICO (ppm)	EPA MCL (ppm)	EPA MCLG (ppm)	EPA HA (ppm)
radium 226 (pCi/L)		20 (p)	Zero	
radium 228 (pCi/L)		20 (p)	Zero	
radium 226 + 228 (pCi/L)	30	5	Zero	
radon 222 (pCi/L)		300 (p)	Zero	
uranium	5	0.02 (p)	Zero	
Benzenes				
benzene	0.01	0.005	Zero	
Alkyl Benzenes				
methylbenzene (toluene)	0.75	1 (p) / 0.04 (a)	1	
ethylbenzene	0.75	0.7 (p) / 0.03 (a)	0.7	
dimethyl benzene isomers (xylenes)	0.62	10 (p) / 0.02 (a)	10	
vinylbenzene (styrene)		0.1	0.1	
trimethyl benzene isomers				
propyl benzene isomers				
butyl benzene isomers				
Chlorinated Benzenes				
chlorobenzene	tox	0.1	0.1	
o-dichlorobenzene	tox	0.6	0.6	
m-dichlorobenzene	tox			
p-dichlorobenzene	tox	0.075 (p) / 0.005 (a)	0.075	
1,2,4-trichlorobenzene		0.07	0.07	
1,3,5-trichlorobenzene				0.04
1,2,4,5-tetrachlorobenzene	tox			
pentachlorobenzene	tox			
hexachlorobenzene	tox	0.001	Zero	
Toluenes				
o-chlorotoluene				0.1
p-chlorotoluene				0.1
2,4-dinitrotoluene (2,4-DNT)	tox			

PARAMETER	NEW MEXICO (ppm)	EPA MCL (ppm)	EPA MCLG (ppm)	EPA HA (ppm)
2,4,6-trinitrotoluene (TNT)				0.002
isopropyltoluene				
Nitrogenated Benzenes				
aminobenzene (aniline)				
nitrobenzene	tox			
1,3-dinitrobenzene				0.001
Phenols (hydroxybenzenes)	0.005 (a)			
phenol (carbolic acid)	tox			4
2-chlorophenol				0.04
2,4-dichlorophenol	tox			0.02
2,4-dinitro-o-cresol	tox			
2,4-dimethylphenol				
2-methylphenol				
4-methylphenol				
2-nitrophenol				
dinitrophenols	tox			
2,4,5-trichlorophenol	tox			
2,4,6-trichlorophenol	tox			
2,4,6-trichlorophenol	tox			
pentachlorophenol	tox	0.001 (p) / 0.03 (a)	Zero	
p-cresol				
Polycyclics				
acenaphthene				
anthracene	tox			
benz(a)anthracene		0.0001 (p)	Zero	
benzo(a)pyrene	0.0007	0.0002	Zero	
benzo(b)fluoranthene		0.0002 (p)	Zero	
benzo(k)fluoranthene	tox	0.0002 (p)	Zero	
chrysene		0.0002 (p)	Zero	
dibenz(a)anthracene		0.0003 (p)	Zero	
diphenylhydrazine	tox			

PARAMETER	NEW MEXICO (ppm)	EPA MCL (ppm)	EPA MCLG (ppm)	EPA HA (ppm)
fluoranthene	tox			
fluorene	tox			
indeno(1,2,3-c,d)pyrene		0.0004 (p)	Zero	
naphthalene	tox			0.3
naphthalenes ****	0.03			
phenanthrene	tox			
polychlorinated biphenyls (PCBs)	0.001			
PCBs as decachlorobiphenyl		0.0005	Zero	
pyrene	tox			
Methanes				
chloromethane (methyl chloride)	tox			0.003
dichloromethane (methylene chloride)	0.1	0.005	Zero	
trichloromethane (chloroform)	0.1		Zero (p)	
tetrachloromethane (carbon tetrachloride)	0.01	0.005	Zero	
bromomethane (methyl bromide)	tox			0.01
bromochloromethane				0.09
bromodichloromethane	tox		Zero (p)	
chlorodibromomethane			Zero (p)	0.1
tribromomethane (bromoform)	tox		Zero (p)	
trihalomethanes (THMs) ***		0.1/0.08 (p)	Zero	
fluorotrichloromethane (Freon 11)	tox			2
dichlorodifluoromethane (Freon 12)	tox			1
Ethanes				
1,2-dibromoethane (ethylene dibromide, EDB)	0.0001	0.00005	Zero	
1,1-dichloroethane	0.025			
1,2-dichloroethane (ethylene dichloride, EDC)	0.01	0.005	Zero	
1,1,1-trichloroethane (TCA)	0.06	0.2	0.2	
1,1,2-trichloroethane	0.01	0.005	0.003	
1,1,1,2-tetrachloroethane				0.07

PARAMETER	NEW MEXICO (ppm)	EPA MCL (ppm)	EPA MCLG (ppm)	EPA HA (ppm)
1,1,2,2-tetrachloroethane	0.01			
hexachloroethane	tox			
Ethenes (Ethylenes)				
chloroethane (vinyl chloride)	0.001	0.002	Zero	
1,1-dichloroethene	0.005	0.007	0.007	
cis-1,2-dichloroethene	tox	0.07	0.07	
trans-1,2-dichloroethene	tox	0.1	0.1	
trichloroethene (TCE)	0.1	0.005	Zero	
tetrachloroethene (perchloroethylene, PCE)	0.02	0.005	Zero	
Propanes & Propenes				
1,2-dichloropropane (propylene dichloride, PDC)		0.005	Zero	
1,2,3-trichloropropane				0.04
1,2-dibromo-3-chloropropane (DBCP)		0.0002	Zero	
dichloropropenes	tox			
1,3-dichloropropene	tox			0.01
Aldehydes, Ethers, Furans, & Ketones				
acetone				
bis (2-chloroethyl) ether	tox			
bis (2-chloroisopropyl) ether	tox			0.3
bis (chloromethyl) ether	tox			
dibenzofuran				
p-dioxane (diethylene dioxide)				0.568
formaldehyde (methanal)				1
isophorone	tox			0.1
methyl ethyl ketone (MEK, 2-butanone)				0.1
methyl tertiary butyl ether (MTBE)	0.1 (a)			0.04
tetrahydrofuran				

PARAMETER	NEW MEXICO (ppm)	EPA MCL (ppm)	EPA MCLG (ppm)	EPA HA (ppm)
Nitrosamines				
N-nitrosodiethylamine	tox			
N-nitrosodimethylamine (NDMA)	tox			
N-nitrosodibutylamine	tox			
N-nitrosodiphenylamine	tox			
N-nitrosopyrrolidine	tox			
Phthalate Esters				
dibutyl phthalate	tox			
di-2-ethylhexyl phthalate	tox	0.006	Zero	
diethyl phthalate	tox			
dimethyl phthalate	tox			
Explosives				
dinitrophenols	tox			
2,4-dinitrotoluene (2,4-DNT)	tox			
hexahydro-1,3,5-trinitro-s-triazine (RDX)				0.002
HMX				0.4
nitroglycerin (glycerol trinitrate)				0.005
nitroguanidine				0.7
2,4,6-trinitrotoluene (TNT)				0.002
Other Organics				
acrolein	tox			
acrylamide		tt	Zero	
acrylonitrile	tox			0.004
benzidine	tox			
chloral hydrate		tt (p)	0.04 (p)	
chloramine				0.3

PARAMETER	NEW MEXICO (ppm)	EPA MCL (ppm)	EPA MCLG (ppm)	EPA HA (ppm)
dibromoacetonitrile				0.02
dichloroacetic acid				0.003
dichloroacetonitrile				0.006
dichlorobenzidine	tox			
di(2-ethylhexyl)adipate		0.4	0.4	
diisopropyl methylphosphonate				0.6
epichlorohydrin (1-chlor-2,3-epoxypropane)		ti	Zero	
ethylene glycol (1,2-ethanediol)				7
Haloacetic Acids ****		0.06 (p)		
dichloroacetic acid			Zero (p)	
trichloroacetic acid			0.3 (p)	
hexachlorobutadiene	tox			0.001
hexachlorocyclopentadiene	tox	0.05 (p) / 0.008 (a)	0.05	
n-hexane				4.0
Other Pesticides				
acifluorfen				0.1
alachlor		0.002	Zero	
aldicarb		0.003 (p)	0.001	
aldicarb sulfone		0.002 (p)	0.001	
aldicarb sulfoxide		0.004 (p)	0.001	
aldrin	tox			0.001
ametryn				0.06
ammonium sulfamate				2
arsenal (imazapyr)				
atrazine		0.003	0.003	
baygon				0.003
bentazon				0.02
bromacil				0.09
butylate				0.35
carbaryl				0.7
carbofuran		0.04	0.04	

PARAMETER	NEW MEXICO (ppm)	EPA MCL (ppm)	EPA MCLG (ppm)	EPA HA (ppm)
carboxin				0.7
chloramben				0.1
chlordane	tox	0.002	Zero	
chlorothalonil				0.5
chlorpyrifos				0.02
cyanazine				0.01
2,4-D (2,4-dichlorophenoxyacetic acid)		0.07	0.07	
dacthal				4
dalapon		0.2	0.2	
DDT (dichloro diphenyl trichloroethane)	tox			
4,4'-DDD				
4,4'-DDE				
diazinon				0.0006
dicamba				0.2
dieldrin	tox			0.002
dimethrin				2
dinoseb		0.007	0.007	
dioxin		0.00000005	Zero	
diphenamid				0.2
diquat		0.02	0.02	
disulfoton				0.0003
diuron				0.01
endosulfan	tox			
endothall		0.1	0.1	
endrin	tox	0.002	0.002	
ethylene thiourea				0.001
fenamiphos				0.002
fluometuron				0.09
fonofos				0.01
glyphosate		0.7	0.7	
heptachlor	tox	0.0004	Zero	
heptachlor epoxide		0.0002	Zero	
hexazinone				0.2
lindane (gamma-BHC)	tox	0.0002	0.0002	

PARAMETER	NEW MEXICO (ppm)	EPA MCL (ppm)	EPA MCLG (ppm)	EPA HA (ppm)
alpha-BHC	tox			
beta-BHC	tox			
delta-BHC				
malathion				0.2
maleic hydrazide				4
methomyl				0.2
methoxychlor		0.04	0.04	
methyl chlorophenoxyacetic acid (MCPA)				0.011
methyl parathion				0.002
metolachlor				0.1
metribuzin				0.2
oxamyl (vydate)		0.2	0.2	
paraquat				0.03
picloram		0.5	0.5	
prometon				0.1
pronamide				0.05
propachlor				0.09
propazine				0.01
propham				0.1
simazine		0.004	0.004	
2,4,5-T (2,4,5-trichlorophenoxyacetic acid)				0.07
tebuthiuron				0.5
terbacil				0.09
terbufos				0.0009
toxaphene	tox	0.003	Zero	
2,4,5-TP (silvex)		0.05	0.05	
trifluralin				0.005

Abbreviations

- al Action Level that, if exceeded, requires water treatment
- BHC benzene hexachloride, also called hexachlorocyclohexane
- DDD 1,1'-(2,2-dichloroethylidene) -bis/4-chlorobenzene

DDE 1,1'-(2,2-dichloroetheneylidene)-bis/4-chlorobenzene

HA Health Advisory

HMN octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine

MCL Maximum Contaminant Level

MCLG Maximum Contaminant Level Goal

mg/L milligrams per liter

mrem/yr millirem per year

mrem ede/yr dose committed over a 50-year period to a "reference man" from an annual intake rate of 2 liters drinking water per day

MTBE methyl tertiary butyl ether, a synonym for 2-methoxy-2-methyl propane (the standard includes other ether-based gasoline additives)

NP the contaminant shall Not be Present

pCi/L picocuries per liter

tox a numerical standard has not been established, but the contaminant is listed in a narrative standard of "toxic pollutant" defined in WQCC regulations

2,4,5-TP 2,4,5-trichlorophenoxpropionic acid

u Treatment Technique that public water system operators must adhere to instead of a numerical standard

um micrometer

U.S. EPA United States Environmental Protection Agency

WQCC New Mexico Water Quality Control Commission

Footnotes

* The proposed standard excludes radon 222, radium 226 and uranium activity

** This standard excludes radium 228 activity. Units for the existing standard are mrem/yr.

U.S. EPA has proposed to change the units to mrem ede/yr.

*** The "THMs" standard applies to the sum of chloroform, dichlorobromomethane, dibromochloromethane, and bromoform.

**** This standard applies to the sum of naphthalene and monomethylnaphthalene isomers.

***** This standard applies to the sum of mono-, di-, and trichloroacetic acids, and mono- and dibromoacetic acids.

Use and Applicability of Standards

All New Mexico standards are adopted by the WQCC except for the MTBE and petroleum (floating product and undesirable odor) standards, which are adopted by the New Mexico Environmental Improvement Board.

U.S. EPA's MCLGs are set at levels that would result in no known or anticipated adverse health effects with an adequate margin of safety. MCLGs do not take treatment costs into consideration and are not enforceable. Health-based proposed MCLs and final enforceable MCLs are set as close to MCLGs as feasible with use of best technology, treatment techniques and other means.

U.S. EPA's HAs serve as informal technical guidance to assist Federal, State and Local officials responsible for protecting public health when emergency spills or contamination situations occur. They are not to be construed as legally enforceable Federal standards and are subject to change as new information becomes available. All HAs listed are for lifetime exposures except for p-dioxane (10 day) and n-hexane (7 year).

APPENDIX A

Appendix A

State of New Mexico Soil Screening Levels

Table A-1 provides State of New Mexico Soil Screening Levels (SSLs), as developed by the New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB) and the Ground Water Quality Bureau Voluntary Remediation Program for 208 chemicals most commonly associated with environmental releases within the state. These NMED SSLs are derived using default exposure parameter values (as presented in Table A-2) and chemical- and State of New Mexico-specific physical parameters (as presented in Table B-1 of Appendix B). These default values are assumed to be appropriately conservative in the face of uncertainty and are likely to be protective for the majority of site conditions relevant to soil exposures within New Mexico.

However, the NMED SSLs are not necessarily protective of all known human exposure pathways, reasonable land uses or ecological threats. Thus, before applying NMED SSLs at a site, it is extremely important to compare the conceptual site model (CSM) with the assumptions upon which the NMED SSLs are predicated to ensure that the site conditions and exposure pathways match those used to develop the NMED SSLs. If this comparison indicates that the site at issue is more complex than the corresponding SSL scenarios, or that there are significant exposure pathways not accounted for by the NMED SSLs, then the NMED SSLs are insufficient for use in a defensible assessment of the site. A more detailed site-specific approach will be necessary to evaluate the additional pathways or site conditions.

Table A-1

Column 1:	The first column in Table A-1 presents the names of the chemicals for which NMED has developed SSLs.
Column 2:	The second column presents NMED SSLs predicated on residential soil exposures.
Column 3, 5, 7, and 10:	These columns present indicator categories for the NMED SSL residential, industrial, construction, and tap water basis, whether predicated on carcinogenic effects (ca), noncarcinogenic effects (nc), soil saturation limits (sat) or a non-risk based "max" determination. NMED SSLs predicated on a carcinogenic endpoint reflect age-adjusted child-to-adult exposures. NMED SSLs predicated on a noncarcinogenic endpoint reflect child-only exposures. Detected concentrations above the "sat" value may indicate the presence of nonaqueous phase liquid (NAPL). For certain inorganic and semivolatile organic compounds (SVOCs) that exhibit relatively low toxicity, a non risk-based maximum concentration of 10^5 mg/kg is given when the risk-based SSL exceeds that level. These are noted as "max" in the tables.
Columns 4 and 6:	The fourth and sixth columns present NMED SSLs analogous to Column 1, with the exception that these values correspond to Industrial/Occupational and Construction worker (adult-only) exposures, respectively.
Columns 5 and 7:	The fifth and seventh columns present endpoint bases analogous to Column 3

for the Industrial/Occupational and Construction worker receptor populations, respectively. Unlike the Residential population, noncarcinogenic endpoint notes for these receptor populations are predicated on adult-only exposures.

Column 8: The eighth column notes which chemicals are considered VOCs (for inhalation considerations). Those chemicals not considered VOCs are evaluated within the SSLs relative to inhalation of particulate emissions.

Column 9: Presents the tap water SSL for the residential scenario.

Columns 11 and 12: The ninth column presents NMED SSLs for the migration to groundwater pathway developed using a default dilution attenuation factor (DAF) of 1, which assumes no effective dilution or attenuation. These values can be considered at sites where little or no dilution or attenuation of soil leachate concentrations is expected (e.g., shallow water tables, karst topography). Column 10 presents NMED SSLs for the migration to groundwater pathway developed using a DAF of 20 to account for natural processes that reduce contaminant concentrations in the subsurface.

As noted above, separate NMED SSLs are presented for use in evaluating three discrete potential receptor populations: Residential, Industrial/Occupational, and Construction. Each NMED SSL considers incidental ingestion of soil, inhalation of volatiles (limited to those chemicals noted as volatile organic compounds [VOCs] within Table A-1) or particulate emissions from impacted soil, and dermal contact with soil.

Generally, if a contaminant is detected at a level in soil exceeding the most relevant NMED SSL, and the site-specific CSM is in general agreement with the underlying assumptions upon which the NMED SSLs are predicated, this result indicates the potential for adverse human health effects to occur. Conversely, if no contaminants are detected above the most relevant NMED SSL, this tends to indicate to the user that environmental conditions may not necessitate remedial action of the surface soil or the vadose zone.

A detection above an NMED SSL does not indicate that unacceptable exposures are, in fact, occurring. The NMED SSLs are predicated on relatively conservative exposure assumptions and an exceedance only tends to indicate the potential for adverse effects. The NMED SSLs do not account for additive exposures, whether for carcinogenic or noncarcinogenic endpoints. Section 5 of Part A addresses a methodology by which an environmental manager may determine whether further site-evaluation is warranted, however, this methodology does not replace the need for defensible risk assessment where indicated.

The NMED SSLs address a basic subset of exposures fundamental to the widest array of environmentally-impacted sites within the State of New Mexico. The NMED SSLs cannot address all relevant exposure pathways associated with all sites. The utility of the NMED SSLs depends heavily upon the understanding of site conditions as accurately reflected in the CSM and nature and extent of contamination determinations. Consideration of the NMED SSLs does not preclude the need for site-specific risk assessment in all instances.

Table A-1: NMED Soil Screening Levels

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
Acenaphthene	3.73E+03	nc	3.35E+04	nc	1.41E+04	nc	x	3.65E+02	nc	2.75E+00	5.49E+01
Acetaldehyde	1.06E+02	nc	3.84E+02	nc	3.45E+02	nc	x	1.72E+01	ca		
Acetone	2.81E+04	nc	1.00E+05	max	9.85E+04	nc	x	5.48E+03	nc	9.55E-01	1.91E+01
Acrylonitrile	4.27E+00	ca	1.26E+01	ca	5.75E+01	nc	x	3.81E-01	ca	6.68E-05	1.34E-03
Acetophenone	1.48E+03	sat	1.48E+03	sat	1.48E+03	sat	x	6.08E+02	nc	1.48E-01	2.95E+00
Acrolein	2.06E-01	nc	7.52E-01	nc	6.75E-01	nc	x	4.16E-02	nc	8.55E-06	1.71E-04
Aldrin	2.84E-01	ca	1.12E+00	ca	6.99E+00	nc		3.87E-02	ca	1.42E-01	2.84E+00
Aluminum	7.78E+04	nc	1.00E+05	max	1.44E+04	nc		3.65E+04	nc	5.48E+04	1.10E+06
Anthracene	2.20E+04	nc	1.00E+05	max	8.60E+04	nc	x	1.83E+03	nc	8.11E+01	1.62E+03
Antimony	3.13E+01	nc	4.54E+02	nc	1.24E+02	nc		1.46E+01	nc	6.81E-01	1.32E+01
Arsenic	3.90E+00	ca	1.77E+01	ca	8.52E+01	nc		4.42E-01	ca	1.45E-02	2.90E-01
Barium	1.56E+04	nc	1.00E+05	max	6.02E+04	nc		7.30E+03	nc	3.01E+02	6.03E+03
Benzene	1.03E+01	ca	2.58E+01	ca	1.74E+02	nc	x	3.49E+00	ca	1.00E-03	2.01E-02
Benzidine	2.11E-02	ca	8.33E-02	ca	7.09E-01	ca		2.89E-03	ca	1.24E-05	2.47E-04
Benzo(a)anthracene	6.21E+00	ca	2.34E+01	ca	2.12E+02	ca		9.09E-01	ca	5.43E-01	1.09E+01
Benzo(a)pyrene	6.21E-01	ca	2.34E+00	ca	2.12E+01	ca		9.09E-02	ca	1.39E-01	2.78E+00
Benzo(b)fluoranthene	6.21E+00	ca	2.34E+01	ca	2.12E+02	ca		9.09E-01	ca	1.68E+00	3.35E+01
Benzo(k)fluoranthene	6.21E+01	ca	2.34E+02	ca	2.12E+03	ca		9.09E+00	ca	1.68E+01	3.35E+02
Beryllium	1.56E+02	nc	2.25E+03	nc	5.62E+01	nc		7.30E+01	nc	5.77E+01	1.15E+03
a-BHC (HCH)	9.02E-01	ca	3.99E+00	ca	3.00E+01	ca		1.05E-01	ca	2.13E-04	4.25E-03
b-BHC (HCH)	3.16E+00	ca	1.40E+01	ca	5.39E+01	nc		3.69E-01	ca	7.61E-04	1.52E-02
g-BHC	4.37E+00	ca	1.93E+01	ca	8.09E+01	nc		5.10E-01	ca	9.08E-04	1.82E-02
1,1-Biphenyl	3.08E+03	nc	2.73E+04	nc	1.17E+04	nc	x	3.04E+02	nc	3.61E+00	7.22E+01
Bis(2-chloroethyl) ether	2.44E+00	ca	7.45E+00	ca	1.05E+02	ca	x	9.65E-02	ca	2.77E-05	5.55E-04
Bis(2-chloroisopropyl) ether	3.87E+01	ca	1.19E+02	ca	4.53E+02	sat	x	2.71E+00	ca	7.21E-04	1.44E-02
Bis(2-ethylhexyl) phthalate	3.47E+02	ca	1.37E+03	ca	4.66E+03	nc		4.74E+01	ca	1.07E+03	2.15E+04
Bis(chloromethyl) ether	4.72E-03	ca	1.23E-02	ca	2.32E-01	ca	x	5.09E-04	ca	8.95E-08	1.79E-06
Boron	1.56E+04	nc	1.00E+05	max	3.09E+04	nc		7.30E+03	nc	2.40E+01	4.80E+02
Bromobenzene	3.70E+01	nc	1.37E+02	nc	1.21E+02	nc	x	2.06E+01	nc	1.07E-02	2.14E-01
Bromodichloromethane	1.44E+01	ca	3.72E+01	ca	7.17E+02	ca	x	1.78E+00	ca	5.90E-04	1.18E-02

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
Bromomethane	8.51E+00	nc	3.28E+01	nc	2.82E+01	nc	x	8.66E+00	nc	1.87E-03	3.74E-02
1,3-Butadiene	9.93E-01	ca	2.38E+00	ca	4.59E+00	nc	x	1.26E+00	ca		
2-Butanone (MEK)	3.18E+04	nc	4.87E+04	sat	4.87E+04	sat	x	7.06E+03	nc	1.27E+00	2.55E+01
tert-Butyl methyl ether (MTBE)	3.88E+02	ca	9.84E+02	ca	1.96E+04	ca	x	6.14E+01	ca		
n-Butylbenzene	6.21E+01	sat	6.21E+01	sat	6.21E+01	sat	x	6.08E+01	nc	2.70E-01	5.40E+00
sec-Butylbenzene	6.06E+01	sat	6.06E+01	sat	6.06E+01	sat	x	6.08E+01	nc	2.17E-01	4.33E+00
tert-Butylbenzene	1.06E+02	sat	1.06E+02	sat	1.06E+02	sat	x	6.08E+01	nc	2.15E-01	4.30E+00
Cadmium	3.90E+01	nc	5.64E+02	nc	1.54E+02	nc		1.83E+01	nc	1.37E+00	2.75E+01
Carbon disulfide	4.60E+02	sat	4.60E+02	sat	4.60E+02	sat	x	1.04E+03	nc	3.95E-01	7.89E+00
Carbon tetrachloride	3.47E+00	ca	8.64E+00	ca	1.80E+02	ca	x	1.69E+00	ca	9.74E-04	1.95E-02
Chlordane	1.62E+01	ca	7.19E+01	ca	1.30E+02	nc		1.90E+00	ca	3.42E-01	6.83E+00
2-Chloroacetophenone	4.25E-02	nc	1.62E-01	nc	1.41E-01	nc	x	5.22E-02	nc	4.37E-05	8.75E-04
2-Chloro-1,3-butadiene	6.32E+00	nc	2.30E+01	nc	2.06E+01	nc	x	1.43E+01	nc	5.66E-03	1.13E-01
1-Chloro-1,1-difluoroethane	2.11E+02	sat	2.11E+02	sat	2.11E+02	sat	x	8.66E+04	nc	6.28E+01	1.26E+03
Chlorobenzene	1.94E+02	nc	2.45E+02	sat	2.45E+02	sat	x	1.06E+02	nc	5.50E-02	1.10E+00
1-Chlorobutane	1.22E+02	nc	2.99E+02	sat	2.99E+02	sat	x	2.43E+02	nc	9.63E-02	1.93E+00
Chlorodifluoromethane	2.11E+02	sat	2.11E+02	sat	2.11E+02	sat	x	9.75E+04	nc	7.07E+01	1.41E+03
Chloroethane	6.33E+01	ca	1.54E+02	ca	1.42E+03	sat	x	3.81E+01	ca	9.41E-03	1.88E-01
Chloroform	4.00E+00	ca	9.59E+00	ca	2.16E+02	ca	x	1.65E+00	ca	4.12E-04	8.25E-03
Chloromethane	2.18E+01	ca	5.34E+01	ca	2.84E+02	nc	x	1.49E+01	ca	5.02E-03	1.00E-01
b-Chloronaphthalene	3.99E+03	nc	2.78E+04	nc	1.47E+04	nc	x	4.87E+02	nc	1.25E+00	2.51E+01
o-Chloronitrobenzene	1.49E+00	nc	5.48E+00	nc	4.88E+00	nc	x	1.45E-01	nc	3.94E-05	7.88E-04
p-Chloronitrobenzene	1.05E+01	nc	4.23E+01	nc	3.51E+01	nc	x	1.20E+00	nc	3.25E-04	6.51E-03
2-Chlorophenol	1.66E+02	nc	8.85E+02	nc	5.86E+02	nc	x	3.04E+01	nc	2.36E-02	4.72E-01
2-Chloropropane	2.83E+02	nc	7.05E+02	nc	7.05E+02	sat	x	1.76E+02	nc	4.60E-02	9.19E-01
o-Chlorotoluene	2.02E+02	sat	2.02E+02	sat	2.02E+02	sat	x	1.22E+02	nc	5.22E-02	1.04E+00
Chromium III	1.00E+05	max	1.00E+05	max	1.00E+05	max		5.48E+04	nc	9.86E+07	1.97E+09
Chromium VI	2.34E+02	nc	3.40E+03	nc	2.61E+01	ca		1.10E+02	nc	2.10E+00	4.20E+01
Chrysene	6.15E+02	ca	2.31E+03	ca	2.12E+04	ca	x	2.91E+01	ca	1.74E+01	3.48E+02
Cobalt	1.52E+03	nc	2.05E+04	nc	6.10E+01	nc		7.30E+02	nc	3.31E+01	6.61E+02
Copper	3.13E+03	nc	4.54E+04	nc	1.24E+04	nc		1.46E+03	nc	5.15E+01	1.03E+03
Crotonaldehyde	7.01E-02	ca	1.70E-01	ca	3.73E+00	ca	x	5.82E-02	ca	1.49E-04	2.99E-03

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
Cumene (isopropylbenzene)	2.71E+02	nc	3.89E+02	sal	3.89E+02	sal	x	6.78E+02	nc	4.10E+00	8.21E+01
Cyanide	1.22E+03	nc	1.37E+04	nc	4.76E+03	nc		7.30E+02	nc	7.35E+00	1.47E+02
Cyanogen	1.71E+03	sal	1.71E+03	sal	1.71E+03	sal	x	1.46E+03	nc	2.91E-01	5.82E+00
Cyanogen bromide	2.02E+03	sal	2.02E+03	sal	2.02E+03	sal	x	3.29E+03	nc	7.76E-01	1.55E+01
Cyanogen chloride	2.02E+03	sal	2.02E+03	sal	2.02E+03	sal	x	1.83E+03	nc	4.31E-01	8.62E+00
DDD	2.44E+01	ca	1.11E+02	ca	8.07E+02	ca		2.77E+00	ca	4.15E+00	8.30E+01
DDE	1.72E+01	ca	7.81E+01	ca	5.70E+02	ca		1.95E+00	ca	1.31E+01	2.62E+02
DDT	1.72E+01	ca	7.81E+01	ca	1.38E+02	nc		1.95E+00	ca	7.70E+00	1.54E+02
Dibenz(a,h)anthracene	6.21E-01	ca	2.34E+00	ca	2.12E+01	ca		9.09E-02	ca	5.18E-01	1.04E+01
Dibenzofuran	1.42E+02	nc	1.62E+03	nc	5.52E+02	nc	x	1.22E+01	nc	1.44E-01	2.87E+00
1,2-Dibromo-3-chloropropane	1.84E+00	nc	9.68E+00	nc	6.48E+00	nc	x	3.47E-01	nc	1.49E-04	2.98E-03
Dibromochloromethane	1.48E+01	ca	3.95E+01	ca	7.16E+02	ca	x	1.32E+00	ca	3.58E-04	7.16E-03
1,2-Dibromoethane	5.04E-01	ca	1.31E+00	ca	2.48E+01	ca	x	5.53E-02	ca	1.20E-05	2.40E-04
1,4-Dichloro-2-butene	1.22E-01	ca	3.23E-01	ca	5.97E+00	ca	x	1.19E-02	ca	2.93E-06	5.87E-05
1,2-Dichlorobenzene	3.74E+01	sal	3.74E+01	sal	3.74E+01	sal	x	4.96E+01	nc	1.19E-02	2.37E-01
1,3-Dichlorobenzene	3.26E+01	nc	3.74E+01	sal	3.74E+01	sal	x	1.83E+01	nc	4.36E-03	8.73E-02
1,4-Dichlorobenzene	3.95E+01	ca	1.03E+02	ca	1.96E+03	ca	x	4.95E+00	ca	5.49E-03	1.10E-01
3,3-Dichlorobenzidine	1.08E+01	ca	4.26E+01	ca	3.63E+02	ca		1.47E+00	ca	1.86E-03	3.71E-02
Dichlorodifluoromethane	1.61E+02	nc	2.11E+02	sal	2.11E+02	sal	x	3.95E+02	nc	2.86E-01	5.72E+00
1,1-Dichloroethane	1.40E+03	nc	1.42E+03	sal	1.42E+03	sal	x	1.22E+03	nc	3.39E-01	6.79E+00
1,2-Dichloroethane	6.04E+00	ca	1.52E+01	ca	6.42E+01	nc	x	1.22E+00	ca	2.85E-04	5.71E-03
cis-1,2-Dichloroethene	7.65E+01	nc	3.00E+02	nc	2.54E+02	nc	x	6.08E+01	nc	1.49E-02	2.99E-01
trans-1,2-Dichloroethene	1.12E+02	nc	4.29E+02	nc	3.70E+02	nc	x	1.22E+02	nc	3.33E-02	6.67E-01
1,1-Dichloroethene	2.06E+02	nc	7.77E+02	nc	6.78E+02	nc	x	3.39E+02	nc	1.34E-01	2.68E+00
2,4-Dichlorophenol	1.83E+02	nc	2.05E+03	nc	6.99E+02	nc		1.10E+02	nc	4.31E-02	8.63E-01
1,2-Dichloropropane	6.00E+00	ca	1.49E+01	ca	3.33E+01	nc	x	1.63E+00	ca	4.10E-04	8.19E-03
1,3-Dichloropropene	1.20E+01	ca	3.17E+01	ca	8.98E+01	nc	x	3.90E+00	ca	1.16E-03	2.31E-02
Dicyclopentadiene	2.21E+01	nc	8.26E+01	nc	7.28E+01	nc	x	1.39E+01	nc	1.50E-02	3.00E-01
Dieldrin	3.04E-01	ca	1.20E+00	ca	1.02E+01	ca		4.15E-02	ca	1.34E-03	2.68E-02
Diethyl phthalate	4.89E+04	nc	1.00E+05	max	1.00E+05	max		2.92E+04	nc	1.77E+01	3.54E+02
Dimethyl phthalate	1.00E+05	max	1.00E+05	max	1.00E+05	max		3.65E+05	nc	8.36E+01	1.67E+03
Di-n-butyl phthalate	6.11E+03	nc	6.84E+04	nc	2.33E+04	nc		3.65E+03	nc	1.86E+02	3.72E+03

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
2,4-Dimethylphenol	1.22E+03	nc	1.37E+04	nc	4.66E+03	nc		7.30E+02	nc	3.55E-01	7.11E+00
4,6-Dinitro-o-cresol	6.11E+00	nc	6.84E+01	nc	2.33E+01	nc		3.65E+00	nc	3.93E-03	7.85E-02
2,4-Dinitrophenol	1.22E+02	nc	1.37E+03	nc	4.66E+02	nc		7.30E+01	nc	5.25E-02	1.05E+00
2,4-Dinitrotoluene	1.22E+02	nc	1.37E+03	nc	4.66E+02	nc		7.30E+01	nc	2.31E-02	4.62E-01
1,2-Diphenylhydrazine	6.08E+00	ca	2.39E+01	ca	2.04E+02	ca		8.30E-01	ca	4.48E-03	8.95E-02
Endosulfan	3.67E+02	nc	4.10E+03	nc	1.40E+03	nc		2.19E+02	nc	7.41E-01	1.48E+01
Endrin	1.83E+01	nc	2.05E+02	nc	6.99E+01	nc		1.10E+01	nc	2.04E-01	4.08E+00
Epichlorohydrin	1.66E+01	nc	6.56E+01	nc	5.54E+01	nc	X	2.03E+00	nc	3.62E-04	7.25E-03
Ethyl acetate	2.10E+04	sat	2.10E+04	sat	2.10E+04	sat	X	5.48E+03	nc	1.44E+00	2.87E+01
Ethyl acrylate	2.79E+00	ca	6.75E+00	ca	5.22E+01	sat	X	2.30E+00	ca	5.86E-03	1.17E-01
Ethyl chloride	6.33E+01	ca	1.54E+02	ca	1.42E+03	sat	X	3.81E+01	ca	9.41E-03	1.88E-01
Ethyl ether	1.94E+03	sat	1.94E+03	sat	1.94E+03	sat	X	1.22E+03	nc	2.37E-01	4.73E+00
Ethyl methacrylate	5.27E+01	sat	5.27E+01	sat	5.27E+01	sat	X	5.48E+02	nc	1.41E+00	2.81E+01
Ethylbenzene	1.28E+02	sat	1.28E+02	sat	1.28E+02	sat	X	1.34E+03	nc	1.01E+00	2.02E+01
Ethylene oxide	2.65E+00	ca	8.07E+00	ca	1.15E+02	ca	X	2.41E-01	ca	4.27E-05	8.54E-04
Fluoranthene	2.29E+03	nc	2.44E+04	nc	8.73E+03	nc		1.46E+03	nc	2.35E+02	4.69E+03
Fluorene	2.66E+03	nc	2.65E+04	nc	1.02E+04	nc	X	2.43E+02	nc	2.93E+00	5.85E+01
Fluoride	3.67E+03	nc	4.10E+04	nc	1.43E+04	nc		2.19E+03	nc	3.29E+02	6.58E+03
Furan	5.53E+00	nc	2.12E+01	nc	1.83E+01	nc	X	6.08E+00	nc	1.32E-03	2.63E-02
Heptachlor	1.08E+00	ca	4.26E+00	ca	3.63E+01	ca		1.47E-01	ca	3.12E-01	6.24E+00
Hexachlorobenzene	3.04E+00	ca	1.20E+01	ca	1.02E+02	ca		4.15E-01	ca	3.43E-02	6.86E-01
Hexachloro-1,3-butadiene	1.22E+01	nc	1.37E+02	nc	4.66E+01	nc		7.30E+00	nc	5.90E-01	1.18E+01
Hexachlorocyclopentadiene	3.66E+02	nc	4.10E+03	nc	4.31E+02	nc		2.19E+02	nc	6.58E+01	1.32E+03
Hexachloroethane	6.11E+01	nc	6.84E+02	nc	2.33E+02	nc		3.65E+01	nc	1.04E-01	2.09E+00
n-Hexane	3.80E+01	sat	3.80E+01	sat	3.80E+01	sat	X	4.16E+02	nc	8.64E-01	1.73E+01
HMX	3.06E+03	nc	3.42E+04	nc	1.17E+04	nc		1.83E+03	nc	5.39E+00	1.08E+02
Hydrogen cyanide	2.24E+01	nc	8.22E+01	nc	7.33E+01	nc	X	6.20E+00	nc	1.24E-03	2.47E-02
Indeno(1,2,3-c,d)pyrene	6.21E+00	ca	2.34E+01	ca	2.12E+02	ca		9.09E-01	ca	4.73E+00	9.46E+01
Iron	2.35E+04	nc	1.00E+05	max	9.29E+04	nc		1.10E+04	nc	2.77E+02	5.54E+03
Isobutanol	1.38E+04	nc	2.26E+04	sat	2.26E+04	sat	X	1.83E+03	nc	4.86E-01	9.72E+00
Isophorone	5.12E+03	ca	2.02E+04	ca	4.66E+04	nc		6.99E+02	ca	1.70E-01	3.40E+00
Lead	4.00E+02	IEUBK	8.00E+02	IEUBK	8.00E+02	IEUBK					

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
Lead (tetraethyl-)	6.11E+03	nc	6.84E+02	nc	2.38E+02	nc		3.65E+03	nc	6.33E-07	1.27E-05
Maleic hydrazide	1.61E+03	sat	1.61E+03	sat	1.61E+03	sat	x	3.04E+03	nc	8.12E-01	1.62E+01
Manganese	3.59E+03	nc	4.84E+04	nc	1.50E+02	nc		1.72E+03	nc	1.12E+02	2.24E+03
Mercury (elemental)	1.00E+05	max	1.00E+05	max	9.27E+02	nc				1.05E-01	2.09E-03
Mercury (methyl)	6.11E+00	nc	6.84E+01	nc	2.38E+01	nc		3.65E+00	nc	8.26E-04	1.65E-02
Methacrylonitrile	3.84E+00	nc	2.20E+01	nc	1.37E+01	nc	x	1.04E+00	nc	1.83E-04	3.65E-03
Methomyl	8.44E+01	nc	3.17E+02	nc	2.78E+02	nc	x	1.52E+02	nc	5.74E-02	1.15E+00
Methyl acetate	3.76E+04	nc	1.00E+05	max	1.00E+05	max	x	6.08E+03	nc	1.08E+00	2.15E+01
Methyl acrylate	9.28E+01	nc	1.57E+02	sat	1.57E+02	sat	x	1.83E+02	nc	4.64E-01	9.29E+00
Methyl isobutyl ketone	5.51E+03	nc	7.01E+03	sat	7.01E+03	sat	x	1.99E+03	nc	7.35E-01	1.47E+01
Methyl methacrylate	2.92E+03	sat	2.92E+03	sat	2.92E+03	sat	x	1.42E+03	nc	2.76E-01	5.52E+00
Methyl styrene (alpha)	2.17E+02	sat	2.17E+02	sat	2.17E+02	sat	x	4.26E+02	nc	3.08E-01	6.17E+00
Methyl styrene (mixture)	1.39E+02	nc	2.17E+02	sat	2.17E+02	sat	x	5.48E+01	nc	3.96E-02	7.93E-01
Methylcyclohexane	7.89E+01	sat	7.89E+01	sat	7.89E+01	sat	x	5.23E+03	nc	2.88E+01	5.77E+02
Methylene bromide	1.79E+02	nc	7.85E+02	nc	6.09E+02	nc	x	6.08E+01	nc	2.72E-02	5.44E-01
Methylene chloride	1.82E+02	ca	4.90E+02	ca	2.63E+03	sat	x	4.22E+01	ca	8.51E-03	1.70E-01
Molybdenum	3.91E+02	nc	5.68E+03	nc	1.55E+03	nc		1.83E+02	nc	3.70E+00	7.40E+01
Naphthalene	7.95E+01	nc	3.00E+02	nc	2.92E+02	nc	x	6.20E+00	nc	1.97E-02	3.94E-01
Nickel	1.58E+03	nc	2.27E+04	nc	6.19E+03	nc		7.30E+02	nc	4.77E+01	9.53E+02
Nitrate	1.00E+05	max	1.00E+05	max	1.00E+05	max		5.84E+04	nc	1.67E+01	3.35E+02
Nitrite	7.82E+03	nc	1.00E+05	max	3.10E+04	nc		3.65E+03	nc	7.63E-01	1.53E+01
Nitrobenzene	2.28E+01	nc	1.47E+02	nc	8.28E+01	nc	x	3.40E+00	nc	9.18E-04	1.84E-02
Nitroglycerin	3.47E+02	ca	1.37E+03	ca	1.17E+04	ca		4.74E+01	ca	2.80E-02	5.61E-01
N-Nitrosodiethylamine	3.24E-02	ca	1.28E-01	ca	1.09E+00	ca		4.42E-03	ca	8.73E-06	1.75E-04
N-Nitrosodimethylamine	9.54E-02	ca	3.76E-01	ca	1.86E+00	nc		1.30E-02	ca	1.17E-05	2.34E-04
N-Nitrosodiphenylamine	2.69E-01	ca	7.28E-01	ca	1.24E+01	ca	x	1.99E-02	ca	1.12E-05	2.24E-04
N-Nitrosodipropylamine	9.93E+02	ca	3.91E+03	ca	4.66E+03	nc		1.35E+02	ca	2.86E-01	5.71E+00
N-Nitrosopyrrolidine	2.32E+00	ca	9.12E+00	ca	7.77E+01	ca		3.16E-01	ca	1.30E-04	2.60E-03
m-Nitrotoluene	5.69E+02	sat	5.69E+02	sat	5.69E+02	sat	x	1.22E+02	nc	3.30E-02	6.59E-01
o-Nitrotoluene	1.08E+01	ca	3.23E+01	ca	4.73E+02	ca	x	4.81E-01	ca	1.30E-04	2.61E-03
p-Nitrotoluene	1.46E+02	ca	4.37E+02	ca	1.55E+03	nc	x	6.51E+00	ca	1.76E-03	3.53E-02
Pentachlorobenzene	4.89E+01	nc	5.47E+02	nc	1.86E+02	nc		2.92E+01	nc	9.37E-02	1.87E+00

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
Pentachlorophenol	2.98E+01	ca	1.00E+02	ca	1.02E+03	ca		5.53E+00	ca	5.87E-03	1.17E-01
Phenanthrene	1.83E+03	nc	2.05E+04	nc	6.99E+03	nc		1.10E+03	nc	2.32E+01	4.64E+02
Phenol	1.83E+04	nc	1.00E+05	max	6.99E+04	nc		1.10E+04	nc	2.37E+00	4.74E+01
Polychlorinated biphenyls											
Aroclor 1016	3.93E+00	nc	4.13E+01	nc	1.50E+01	nc		2.56E+00	nc	1.73E-01	3.45E+00
Aroclor 1221	1.12E+00	nc	8.26E+00	ca	4.28E+00	nc		3.32E-01	ca	2.24E-02	4.47E-01
Aroclor 1232	1.12E+00	nc	8.26E+00	ca	4.28E+00	nc		3.32E-01	ca	2.24E-02	4.47E-01
Aroclor 1242	1.12E+00	nc	8.26E+00	ca	4.28E+00	nc		3.32E-01	ca	2.24E-02	4.47E-01
Aroclor 1248	1.12E+00	nc	8.26E+00	ca	4.28E+00	nc		3.32E-01	ca	2.64E-01	5.28E+00
Aroclor 1254	1.12E+00	nc	8.26E+00	ca	4.28E+00	nc		3.32E-01	ca	2.64E-01	5.28E+00
Aroclor 1260	1.12E+00	nc	8.26E+00	ca	4.28E+00	nc		3.32E-01	ca	2.64E-01	5.28E+00
n-Propylbenzene	6.21E+01	sat	6.21E+01	sat	6.21E+01	sat	x	6.08E+01	nc	2.70E-01	5.40E+00
Propylene oxide	2.22E+01	ca	9.33E+01	ca	7.92E+02	nc	x	2.18E+00	ca	4.60E-04	9.20E-03
Pyrene	2.29E+03	nc	3.09E+04	nc	9.01E+03	nc	x	1.83E+02	nc	1.86E+01	3.73E+02
RDX	4.42E+01	ca	1.74E+02	ca	6.99E+02	nc		6.03E+00	ca	1.68E-03	3.36E-02
Selenium	3.91E+02	nc	5.68E+03	nc	1.55E+03	nc		1.83E+02	nc	9.52E-01	1.90E+01
Silver	3.91E+02	nc	5.68E+03	nc	1.55E+03	nc		1.83E+02	nc	1.57E+00	3.13E+01
Strontium	4.69E+04	nc	1.00E+05	max	1.00E+05	max		2.19E+04	nc	7.73E+02	1.55E+04
Styrene	1.00E+02	sat	1.00E+02	sat	1.00E+02	sat	x	1.62E+03	nc	5.23E-01	1.05E+01
1,2,4,5-Tetrachlorobenzene	1.83E+01	nc	2.05E+02	nc	6.99E+01	nc		1.10E+01	nc	2.14E-02	4.29E-01
1,1,1,2-Tetrachloroethane	4.32E+01	ca	1.14E+02	ca	2.11E+03	ca	x	4.27E+00	ca	1.25E-03	2.50E-02
1,1,2,2-Tetrachloroethane	5.55E+00	ca	1.46E+01	ca	2.71E+02	ca	x	5.46E-01	ca	1.60E-04	3.21E-03
Tetrachloroethene	1.25E+01	ca	3.16E+01	ca	1.34E+02	sat	x	4.32E+00	ca	2.87E-03	5.74E-02
Thallium	5.16E+00	nc	7.49E+01	nc	2.04E+01	nc		2.41E+00	nc	1.72E-01	3.43E+00
Toluene	2.52E+02	sat	2.52E+02	sat	2.52E+02	sat	x	2.27E+03	nc	1.08E+00	2.17E+01
Toxaphene	4.42E+00	ca	1.74E+01	ca	1.48E+02	ca		6.03E-01	ca	2.33E-01	4.65E+00
Tribromomethane	6.21E+02	ca	2.46E+03	ca	4.44E+03	nc		2.44E+01	ca	1.73E-01	3.47E+00
1,1,2-Trichloro-1,2,2-trifluoroethane	3.28E+03	sat	3.28E+03	sat	3.28E+03	sat	x	5.92E+04	nc	1.68E+02	3.36E+03
1,2,4-Trichlorobenzene	6.93E+01	nc	2.69E+02	nc	2.30E+02	nc	x	7.16E+00	nc	2.04E-02	4.08E-01
1,1,1-Trichloroethane	5.63E+02	sat	5.63E+02	sat	5.63E+02	sat	x	3.17E+03	nc	1.33E+00	2.65E+01
1,1,2-Trichloroethane	1.19E+01	ca	3.02E+01	ca	1.94E+02	nc	x	1.97E+00	ca	4.98E-04	9.95E-03
Trichloroethylene	6.38E-01	ca	1.56E+00	ca	3.36E+01	ca	x	2.77E-01	ca	1.00E-04	2.00E-03

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
Trichlorofluoromethane	5.88E+02	nc	9.83E+02	sat	9.83E+02	sat	x	1.29E+03	nc	1.12E+00	2.23E+01
2,4,5-Trichlorophenol	6.11E+03	nc	6.84E+04	nc	2.33E+04	nc		3.65E+03	nc	7.13E+00	1.43E+02
2,4,6-Trichlorophenol	6.11E+00	nc	6.84E+01	nc	2.33E+01	nc		3.65E+00	nc	7.13E-03	1.43E-01
1,1,2-Trichloropropane	2.53E+01	nc	9.64E+01	nc	8.35E+01	nc	x	3.04E+01	nc	1.17E-02	2.35E-01
1,2,3-Trichloropropane	8.61E-02	ca	2.09E-01	ca	4.57E+00	ca	x	5.53E-02	ca	2.07E-05	4.14E-04
1,2,3-Trichloropropene	1.21E+00	nc	4.39E+00	nc	3.95E+00	nc	x	2.10E+00	nc	7.88E-04	1.58E-02
Triethylamine	4.90E+01	nc	2.33E+02	nc	1.69E+02	nc	x	1.21E+01	nc	2.14E-03	4.29E-02
1,2,4-Trimethylbenzene	5.80E+01	nc	2.13E+02	nc	1.90E+02	nc	x	1.23E+01	nc	7.09E-02	1.42E+00
1,3,5-Trimethylbenzene	2.48E+01	nc	6.92E+01	sat	6.92E+01	sat	x	1.23E+01	nc	1.77E-02	3.55E-01
2,4,6-Trinitrotoluene	3.06E+01	nc	3.42E+02	nc	1.17E+02	nc		1.83E+01	nc	5.34E-02	1.07E+00
Vanadium	7.82E+01	nc	1.14E+03	nc	3.10E+02	nc		3.65E+01	nc	3.65E+01	7.30E+02
Vinyl acetate	1.07E+03	nc	3.68E+03	sat	3.52E+03	nc	x	4.12E+02	nc	7.57E-02	1.51E+00
Vinyl bromide	2.85E+00	ca	6.84E+00	ca	1.93E+01	nc	x	1.18E+00	ca	4.71E-04	9.41E-03
Vinyl chloride (Child)	2.25E+00	ca					x	4.28E-01	ca	1.40E-04	2.80E-03
Vinyl chloride (adult)	4.37E+00	ca	1.40E+01	ca	1.82E+02	ca	x	8.33E-01	ca	2.72E-04	5.45E-03
m-Xylene	8.20E+01	sat	8.20E+01	sat	8.20E+01	sat	x	2.03E+02	nc	1.03E-01	2.06E+00
o-Xylene	9.95E+01	sat	9.95E+01	sat	9.95E+01	sat	x	7.30E+03	nc	4.07E+00	8.14E+01
Xylenes	8.20E+01	sat	8.20E+01	sat	8.20E+01	sat	x	2.03E+02	nc	1.03E-01	2.06E+00
Zinc	2.35E+04	nc	1.00E+05	max	9.29E+04	nc		1.10E+04	nc	6.82E+02	1.36E+04

Table A-2

Default Exposure Factors			
Symbol	Definition (units)	Default	Reference
CSF _o	Cancer slope factor oral (mg/kg-day) ⁻¹	Chem.-spec.	IRIS, HEAST, or NCEA
CSF _i	Cancer slope factor inhaled (mg/kg-day) ⁻¹	Chem.-spec.	IRIS, HEAST, or NCEA
RfD _o	Reference dose oral (mg/kg-day)	Chem.-spec.	IRIS, HEAST, or NCEA
RfD _i	Reference dose inhaled (mg/kg-day)	Chem.-spec.	IRIS, HEAST, or NCEA
TR	Target cancer risk	1E-05	NMED-specific value
THQ	Target hazard quotient	1	US EPA, 1989
BW	Body weight (kg)		
	-- adult	70	US EPA, 1989
	-- child	15	US EPA, 1991
AT	Averaging time (days)		
	-- carcinogens	25550	US EPA, 1989
	-- noncarcinogens	ED*365	
SA	Exposed surface area for soil/dust (cm ² /day)		US EPA, 1989
	-- adult resident	5700	US EPA, 1996a
	-- adult worker	3300	US EPA, 1996a
	-- child	2800	US EPA, 1989
AF	Adherence factor, soils (mg/cm ²)		US EPA, 1989
	-- adult resident	0.07	US EPA, 1996a
	-- adult worker	0.2	US EPA, 1996a
	-- child resident	0.2	US EPA, 1989
	-- construction worker	0.3	NMED-specific value
ABS	Skin absorption defaults (unitless):		
	-- semi-volatile organics	0.1	US EPA, 1989
	-- volatile organics	na	US EPA, 2003a
	-- inorganics	na	US EPA, 2000s
IRA	Inhalation rate (m ³ /day)		
	-- adult resident	20	US EPA, 1991
	-- adult worker	20	US EPA, 2001a
	-- child resident	10	Exposure Factors, (US EPA, 1997)
IRW	Drinking water ingestion rate (L/day)		
	-- adult	2	US EPA, 2004b
	-- child	1	US EPA, 2004b
IRS	Soil ingestion (mg/day)		
	-- adult resident	100	US EPA, 1991
	-- child resident	200	US EPA, 1991
	-- commercial/industrial worker	100	US EPA, 2001a
	-- construction worker	330	US EPA, 1991
EF	Exposure frequency (days/yr)		
	-- residential	350	US EPA, 1991
	-- commercial/industrial	225	US EPA, 2001a
	-- construction worker	250	NMED-specific value
ED	Exposure duration (years)		
	-- residential	30 ^a	US EPA, 1991)
	-- child	6	(US EPA, 1991)
	-- commercial/industrial	25	(US EPA, 1999)
	-- construction worker	1	NMED-specific value
	Age-adjusted factors for carcinogens		
IFSadj	Ingestion factor, soils ([mg-yr]/[kg-day])	114	US EPA, 2001a
SFSadj	Dermal factor, soils ([mg-yr]/[kg-day])	361	US EPA, 2001a
InhFadj	Inhalation factor, air ([m ³ -yr]/[kg-day])	11	By analogy to RAGS: Part B, (US EPA, 1991)
IFWadj	Ingestion factor, water ([L-yr]/[kg-day])	1.1	By analogy to RAGS: Part B, (US EPA, 1991)
PEF	Particulate emission factor (m ³ /kg)	Chem.-spec.	US EPA, 2001a
VF _s	Volatilization factor for soil (m ³ /kg)	Chem.-spec.	US EPA, 2001a
VF _w	Volatilization factor for water (L/m ³)	0.5	US EPA, 1991
Csat	Soil saturation concentration (mg/kg)	Chem.-spec.	US EPA, 2001a

^aExposure duration for lifetime residents is assumed to be 30 years total. For carcinogens, exposures are combined for children (6 years) and adults (24 years).

Chem.-spec. - Chemical-specific value

na - not applicable

RAGS - Risk Assessment Guidance for Superfund

IRIS - Integrated Risk Information System, USEPA, 2003b

HEAST - Health Effects Assessment Summary Tables, USEPA, 1997

NCEA - National Center for Environmental Assessment, Office of Research and Development (USEPA, 2003c)

NMED - New Mexico Environment Department

APPENDIX B

Table B-1: Physical and Chemical Properties

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _v (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _A (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
Acenaphthene	154.21	1.6E-04	6.36E-03	4.21E-02	7.69E-06	4.90E+03	7.35E+00	4.24E+00	4.13E-07	1.93E+05	3.19E+01
Acetaldehyde	44	7.8E-05	3.20E-03	1.20E-01	1.40E-05	1.80E+01	2.70E-02	1.00E+06	2.28E-05	2.60E+04	2.01E+05
Acetone	58	3.9E-05	1.60E-03	1.20E-01	1.10E-05	5.80E-01	8.70E-04	1.00E+06	1.40E-05	3.31E+04	1.74E+05
Acrylonitrile	53	8.8E-05	3.60E-03	1.08E-01	1.34E-05	8.50E-01	1.28E-03	7.90E+04	2.84E-05	2.42E+04	1.38E+04
Acetophenone	120	1.1E-05	4.51E-04	6.00E-02	8.70E-06	4.62E+01	6.93E-02	6.10E+03	2.59E-06	7.71E+04	1.48E+03
Acrolein	56	1.2E-04	4.90E-03	1.05E-01	1.22E-05	2.10E+01	3.15E-02	2.10E+05	2.86E-05	2.32E+04	4.31E+04
Aldrin	365	1.7E-04	6.97E-03	1.32E-02	4.86E-06	2.45E+06	3.68E+03	1.80E-01			
Aluminum	26.98	2.4E-02	1.00E+00			1.43E+01	1.50E+03				
Anthracene	178	6.5E-05	2.67E-03	3.24E-02	7.74E-06	2.95E+04	4.43E+01	4.34E-02	2.73E-08	7.51E+05	1.93E+00
Antimony	121.75	2.4E-02	1.00E+00			1.43E+01	4.50E+01				
Arsenic	74.92	7.7E-01	3.16E+01			1.43E+01	2.90E+01				
Barium	137.33	2.4E-02	1.00E+00			1.43E+01	4.10E+01				
Benzene	78.1	5.6E-03	2.28E-01	8.80E-02	9.80E-06	5.89E+01	8.84E-02	1.75E+03	7.30E-04	4.59E+03	5.06E+02
Benzidine	184.23	7.0E-11	2.88E-09	3.40E-02	1.50E-05	2.74E+03	4.11E+00	3.22E+02			
Benzo(a)anthracene	228	3.3E-06	1.37E-04	5.10E-02	9.00E-06	3.98E+05	5.97E+02	9.40E-03			
Benzo(a)pyrene	250	1.1E-06	4.63E-05	4.30E-02	9.00E-06	1.02E+06	1.53E+03	1.62E-03			
Benzo(b)fluoranthene	252.3	1.1E-04	4.55E-03	2.26E-02	5.56E-06	1.23E+06	1.85E+03	1.50E-03			
Benzo(k)fluoranthene	252.3	8.3E-07	3.40E-05	2.26E-02	5.56E-06	1.23E+06	1.85E+03	8.00E-04			
Beryllium	9.01	2.4E-02	1.00E+00			1.43E+01	7.90E+02				
α-BHC	290.85	1.1E-05	4.35E-04	1.42E-02	7.34E-06	1.23E+03	1.85E+00	2.00E+00			
β-BHC	290.85	7.4E-07	3.05E-05	1.42E-02	7.34E-06	1.26E+03	1.89E+00	2.40E-01			
γ-BHC	290.85	1.4E-05	5.74E-04	1.42E-02	7.34E-06	1.07E+03	1.61E+00	6.80E+00			
1,1-Biphenyl	150	2.9E-04	1.20E-02	4.00E-02	8.20E-06	7.80E+03	1.17E+01	7.50E+00	4.50E-07	1.85E+05	8.91E+01
Bis(2-chloroethyl) ether	140	1.8E-05	7.38E-04	6.92E-02	7.53E-06	7.60E+01	1.14E-01	1.72E+04	2.90E-06	7.29E+04	4.94E+03
Bis(2-chloroisopropyl) ether	170	1.1E-04	4.60E-03	6.30E-02	6.40E-06	6.17E+01	9.25E-02	1.70E+03	1.23E-05	3.53E+04	4.53E+02
Bis(2-ethylhexyl) phthalate	390.54	1.0E-07	4.18E-06	3.51E-02	3.66E-06	1.51E+07	2.27E+04	3.40E-01			7.70E+03
Bis(chloromethyl) ether	120	2.0E-04	8.20E-03	8.90E-02	9.40E-06	1.20E+00	1.80E-03	2.20E+04	4.55E-05	1.84E+04	3.87E+03
Boron	10.81	2.4E-02	1.00E+00			1.43E+01	3.00E+00				
Bromobenzene	157.02	3.7E-03	1.50E-01	7.30E-02	8.70E-06	2.20E+02	3.30E-01	4.70E+02	2.21E-04	8.36E+03	2.45E+02
Bromodichloromethane	164	1.6E-03	6.58E-02	2.98E-02	1.06E-05	1.00E+02	1.50E-01	6.74E+03	6.31E-05	1.56E+04	2.23E+03

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _a (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
Bromomethane	94.95	6.2E-03	2.56E-01	7.28E-02	1.21E-05	9.00E+00	1.35E-02	1.52E+04	9.03E-04	4.13E+03	3.31E+03
1,3-Butadiene	54	1.8E-01	7.30E+00	9.80E-02	1.10E-05	1.20E+02	1.80E-01	7.40E+02	6.24E-03	1.57E+03	9.10E+02
2-Butanone (MEK)	72	2.7E-05	1.10E-03	9.00E-02	9.80E-06	4.50E+00	6.75E-03	2.70E+05	7.91E-06	4.41E+04	4.87E+04
tert-Butyl methyl ether (MTBE)	88.2	5.9E-04	2.40E-02	8.00E-02	1.00E-05	6.00E+00	9.00E-03	1.50E+05	1.11E-04	1.18E+04	2.78E+04
n-Butylbenzene	130	1.3E-02	5.40E-01	7.50E-02	7.80E-06	2.80E+03	4.20E+00	1.40E+01	9.56E-05	1.27E+04	6.21E+01
sec-Butylbenzene	130	1.9E-02	7.70E-01	7.50E-02	7.80E-06	2.20E+03	3.30E+00	1.70E+01	1.70E-04	9.53E+03	6.06E+01
tert-Butylbenzene	130	1.3E-02	5.20E-01	7.50E-02	7.80E-06	2.20E+03	3.30E+00	3.00E+01	1.16E-04	1.15E+04	1.06E+02
Cadmium	112.41	2.4E-02	1.00E+00			1.43E+01	7.50E+01				
Carbon disulfide	76	2.9E-02	1.20E+00	1.04E-01	1.00E-05	4.60E+01	6.90E-02	1.19E+03	3.42E-03	2.12E+03	4.60E+02
Carbon tetrachloride	154	3.0E-02	1.25E+00	7.80E-02	8.80E-06	1.74E+02	2.61E-01	7.93E+02	1.76E-03	2.96E+03	4.63E+02
Chlordane	409.8	4.9E-05	1.99E-03	1.18E-02	4.37E-06	1.20E+05	1.80E+02	5.60E-02			
2-Chloroacetophenone	154.59	3.7E-02	1.50E+00	7.20E-02	6.80E-06	3.30E+02	4.95E-01	4.70E+02	1.34E-03	3.39E+03	3.99E+02
2-Chloro-1,3-butadiene	88	3.2E-02	1.30E+00	1.10E-01	1.10E-05	5.00E+01	7.50E-02	7.40E+02	3.75E-03	2.03E+03	2.99E+02
1-Chloro-1,1-difluoroethane	100.5	1.0E-01	4.10E+00	8.00E-02	1.10E-05	5.80E+01	8.70E-02	2.80E+02	4.67E-03	1.82E+03	2.11E+02
Chlorobenzene	113	3.7E-03	1.50E-01	7.30E-02	8.70E-06	2.19E+02	3.29E-01	4.72E+02	2.21E-04	8.34E+03	2.45E+02
1-Chlorobutane	92.57	3.2E-02	1.30E+00	1.10E-01	1.10E-05	5.00E+01	7.50E-02	7.40E+02	3.75E-03	2.03E+03	2.99E+02
Chlorodifluoromethane	86.47	1.0E-01	4.10E+00	8.00E-02	1.10E-05	5.80E+01	8.70E-02	2.80E+02	4.67E-03	1.82E+03	2.11E+02
Chloroethane	65	1.1E-02	4.50E-01	1.00E-01	1.20E-05	1.50E+01	2.25E-02	5.70E+03	1.90E-03	2.85E+03	1.42E+03
Chloroform	120	3.7E-03	1.50E-01	1.04E-01	1.00E-05	3.98E+01	5.97E-02	7.92E+03	6.53E-04	4.86E+03	1.99E+03
Chloromethane	51	2.4E-02	9.80E-01	1.09E-01	6.50E-06	3.50E+01	5.25E-02	8.20E+03	3.29E-03	2.16E+03	2.82E+03
β-Chloronaphthalene	160	3.2E-04	1.30E-02	3.50E-02	8.80E-06	1.60E+03	2.40E+00	1.20E+01	1.98E-06	8.81E+04	3.09E+01
o-Chloronitrobenzene	153.33	4.4E-05	1.80E-03	7.60E-02	8.60E-06	6.50E+01	9.75E-02	2.10E+03	6.54E-06	4.85E+04	5.69E+02
p-Chloronitrobenzene	153.33	5.1E-05	2.10E-03	7.60E-02	8.60E-06	6.50E+01	9.75E-02	2.10E+03	7.42E-06	4.56E+04	5.69E+02
2-Chlorophenol	130	3.9E-04	1.60E-02	5.01E-02	9.46E-06	4.00E+02	6.00E-01	2.20E+04	1.13E-05	3.69E+04	1.71E+04
2-Chloropropane	78.54	2.3E-03	9.40E-02	8.00E-02	1.00E-05	5.10E+01	7.65E-02	2.70E+03	3.03E-04	7.13E+03	7.05E+02
o-Chlorotoluene	172.57	3.4E-03	1.40E-01	7.20E-02	8.70E-06	1.60E+02	2.40E-01	4.70E+02	2.46E-04	7.91E+03	2.02E+02
Chromium III	52						1.80E+06				
Chromium VI	52						1.90E+01				
Chrysene	228.28	9.5E-05	3.88E-03	2.48E-02	6.21E-06	3.98E+05	5.97E+02	1.60E+03	2.10E-09	2.71E+06	9.55E-01
Cobalt	58.93	2.4E-02	1.00E+00			1.43E+01	4.50E+01				
Copper	63.55	2.4E-02	1.00E+00			1.43E+01	3.50E+01				
Crotonaldehyde	70.09	2.4E-01	1.00E+01	9.10E-02	1.00E-05	8.40E+02	1.26E+00	2.00E+01	3.67E-03	2.05E+03	5.27E+01

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _A (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
Cumene (isopropylbenzene)	120	1.2E+00	4.90E+01	7.50E-02	7.10E-06	2.20E+02	3.30E-01	6.10E+01	6.22E-03	1.57E+03	3.89E+02
Cyanide	27.03		5.44E-03			2.71E+00	9.90E+00				
Cyanogen	52	5.1E-03	2.10E-01	2.00E-01	1.40E-05	1.40E+00	2.10E-03	8.50E+03	2.20E-03	2.64E+03	1.71E+03
Cyanogen bromide	52	5.1E-03	2.10E-01	9.60E-02	1.00E-05	2.60E+01	3.90E-02	8.50E+03	8.93E-04	4.15E+03	2.02E+03
Cyanogen chloride	52	5.1E-03	2.10E-01	9.60E-02	1.00E-05	2.60E+01	3.90E-02	8.50E+03	8.93E-04	4.15E+03	2.02E+03
DDD	320	4.0E-06	1.64E-04	1.69E-02	4.76E-06	1.00E+06	1.50E+03	9.00E-02			
DDE	318	2.1E-05	8.61E-04	1.44E-02	5.87E-06	4.47E+06	6.71E+03	1.20E-01			
DDT	354.5	8.1E-06	3.32E-04	1.37E-02	4.95E-06	2.63E+06	3.95E+03	2.50E-02			
Dibenz(a,h)anthracene	278.3	1.5E-08	6.03E-07	2.02E-02	5.18E-06	3.80E+06	5.70E+03	2.49E-03			
Dibenzofuran	284.8	1.3E-05	5.33E-04	6.01E-02	1.00E-05	7.76E+03	1.16E+01	3.10E+00	6.20E-08	4.98E+05	3.66E+01
1,2-Dibromo-3-chloropropane	240	1.5E-04	6.00E-03	8.00E-02	8.00E-06	1.70E+02	2.55E-01	1.20E+03	1.24E-05	3.52E+04	5.15E+02
Dibromochloromethane	210	8.5E-04	3.50E-02	2.00E-02	1.00E-05	6.30E+01	9.45E-02	4.40E+03	2.84E-05	2.33E+04	1.20E+03
1,2-Dibromoethane	188	3.2E-04	1.30E-02	7.33E-02	8.06E-06	2.80E+01	4.20E-02	3.40E+03	4.75E-05	1.80E+04	7.37E+02
1,4-Dichloro-2-butene	130	2.7E-04	1.10E-02	7.30E-02	8.10E-06	4.80E+01	7.20E-02	2.80E+03	3.54E-05	2.09E+04	6.91E+02
1,2-Dichlorobenzene	147	1.9E-03	7.79E-02	6.90E-02	7.90E-06	3.80E+01	5.70E-02	1.56E+02	2.36E-04	8.07E+03	3.74E+01
1,3-Dichlorobenzene	147	1.9E-03	7.80E-02	6.90E-02	7.90E-06	3.80E+01	5.70E-02	1.56E+02	2.37E-04	8.07E+03	3.74E+01
1,4-Dichlorobenzene	147	2.4E-03	9.96E-02	6.90E-02	7.90E-06	6.16E+02	9.24E-01	7.38E+01	6.51E-05	1.54E+04	8.19E+01
3,3-Dichlorobenzidine	253.13	4.0E-09	1.64E-07	1.94E-02	6.74E-06	7.24E+02	1.09E+00	3.11E+00			
Dichlorodifluoromethane	120	1.0E-01	4.10E+00	8.00E-02	1.05E-05	5.80E+01	8.70E-02	2.80E+02	4.67E-03	1.82E+03	2.11E+02
1,1-Dichloroethane	99	5.6E-03	2.30E-01	7.42E-02	1.05E-05	5.30E+01	7.95E-02	5.06E+03	6.40E-04	4.90E+03	1.42E+03
1,2-Dichloroethane	99	9.8E-04	4.01E-02	1.04E-01	9.90E-06	3.80E+01	5.70E-02	8.52E+03	1.87E-04	9.07E+03	2.00E+03
cis-1,2-Dichloroethene	97	4.1E-03	1.67E-01	7.36E-02	1.13E-05	3.55E+01	5.33E-02	3.50E+03	5.25E-04	5.42E+03	8.63E+02
trans-1,2-Dichloroethene	97	9.4E-03	3.85E-01	7.07E-02	1.19E-05	3.80E+01	5.70E-02	6.30E+03	1.04E-03	3.85E+03	1.74E+03
1,1-Dichloroethene	97	2.7E-02	1.10E+00	9.00E-02	1.00E-05	6.50E+01	9.75E-02	2.30E+03	2.60E-03	2.43E+03	9.27E+02
2,4-Dichlorophenol	163	3.2E-06	1.30E-04	3.46E-02	8.77E-06	1.47E+02	2.21E-01	4.50E+03			
1,2-Dichloropropane	110	2.7E-03	1.10E-01	7.80E-02	8.70E-06	4.40E+01	6.60E-02	2.80E+03	3.58E-04	6.56E+03	7.07E+02
1,3-Dichloropropane	111	1.8E-02	7.26E-01	6.26E-02	1.00E-05	2.70E+01	4.05E-02	2.80E+03	1.60E-03	3.11E+03	8.43E+02
Dicyclopentadiene	130	1.1E-02	4.40E-01	6.70E-02	1.00E-05	5.70E+02	8.55E-01	1.80E+03	2.86E-04	7.34E+03	1.95E+03
Dieldrin	381	1.5E-05	6.19E-04	1.25E-02	4.74E-06	2.14E+04	3.21E+01	1.95E-01			
Diethyl phthalate	222.2	4.5E-07	1.85E-05	2.56E-02	6.35E-06	2.88E+02	4.32E-01	1.08E+03			
Dimethyl phthalate	194.19	4.1E-07	1.70E-05	5.68E-02	6.29E-06	3.71E+01	5.56E-02	4.00E+03			
Di-n-butyl phthalate	278.34	9.4E-10	3.85E-08	4.38E-02	7.86E-06	3.39E+04	5.09E+01	1.12E+01			

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _A (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
2,4-Dimethylphenol	122.16	2.0E-06	8.20E-05	5.84E-02	8.69E-06	2.09E+02	3.14E-01	7.87E+03			
4,6-Dinitro-o-cresol	198.14	1.4E-06	5.72E-05	2.93E-02	6.91E-06	6.02E+02	9.02E-01	1.98E+02			
2,4-Dinitrophenol	184.11	8.6E-08	3.52E-06	2.73E-02	9.06E-06	3.64E+02	5.46E-01	2.79E+03			
2,4-Dinitrotoluene	182.14	9.3E-08	3.80E-06	2.03E-01	7.06E-06	9.55E+01	1.43E-01	2.70E+02			
1,2-Diphenylhydrazine	184.24	4.6E-11	1.90E-09	3.17E-02	7.36E-06	3.48E+03	5.22E+00	2.21E+02			
Endosulfan	406.95	1.1E-05	4.59E-04	1.15E-02	4.55E-06	2.14E+03	3.21E+00	5.10E-01			
Endrin	381	7.5E-06	3.08E-04	1.25E-02	4.74E-06	1.23E+04	1.85E+01	2.50E-01			
Epichlorohydrin	93	3.2E-05	1.30E-03	8.80E-02	9.80E-06	3.50E+00	5.25E-03	6.00E+04	8.88E-06	4.17E+04	1.07E+04
Ethyl acetate	88	1.4E-04	5.70E-03	7.30E-02	9.70E-06	5.90E+01	8.85E-02	8.00E+04	1.81E-05	2.92E+04	2.10E+04
Ethyl acrylate	100.1	2.4E-01	9.80E+00	9.10E-02	8.60E-06	8.40E+02	1.26E+00	2.00E+01	3.63E-03	2.06E+03	5.22E+01
Ethyl chloride	65	1.1E-02	4.50E-01	1.00E-01	1.20E-05	1.50E+01	2.25E-02	5.70E+03	1.90E-03	2.85E+03	1.42E+03
Ethyl ether	74.12	1.3E-05	5.30E-04	7.00E-02	9.30E-06	1.40E+01	2.10E-02	1.00E+04	3.90E-06	6.29E+04	1.94E+03
Ethyl methacrylate	114.12	2.4E-01	1.00E+01	9.10E-02	8.60E-06	8.40E+02	1.26E+00	2.00E+01	3.67E-03	2.05E+03	5.27E+01
Ethylbenzene	106.2	7.9E-03	3.23E-01	7.50E-02	7.80E-06	3.63E+02	5.45E-01	1.69E+02	3.36E-04	6.77E+03	1.28E+02
Ethylene oxide	44	7.6E-05	3.10E-03	1.30E-01	1.50E-05	2.20E+00	3.30E-03	1.00E+06	2.72E-05	2.38E+04	1.77E+05
Fluoranthene	202.3	1.6E-05	6.60E-04	3.02E-02	6.35E-06	1.07E+05	1.61E+02	2.06E-01			
Fluorene	166.21	7.8E-05	3.20E-03	6.10E-02	7.88E-06	7.90E+03	1.19E+01	1.90E+00	1.96E-07	2.80E+05	2.28E+01
Fluoride	38	2.4E-02	1.00E+00			1.43E+01	1.50E+02	1.69E+00			
Furan	68	5.4E-03	2.20E-01	1.00E-01	1.20E-05	1.20E+01	1.80E-02	1.00E+04	1.06E-03	3.81E+03	2.18E+03
Heptachlor	373.5	1.1E-03	4.47E-02	1.12E-02	5.69E-06	1.41E+06	2.12E+03	1.80E-01			
Hexachlorobenzene	284.8	1.3E-03	5.41E-02	5.42E-02	5.91E-06	5.50E+04	8.25E+01	6.20E+00			
Hexachloro-1,3-butadiene	260.76	8.1E-03	3.34E-01	5.61E-02	6.16E-06	5.37E+04	8.06E+01	3.23E+00			
Hexachlorocyclopentadiene	272.75	2.7E-02	1.11E+00	1.61E-02	7.21E-06	2.00E+05	3.00E+02	1.80E+00			
Hexachloroethane	236.74	3.9E-03	1.59E-01	2.50E-03	6.80E-06	1.78E+03	2.67E+00	5.00E+01			
n-Hexane	86	1.2E-01	5.00E+00	2.00E-01	7.80E-06	8.90E+02	1.34E+00	1.80E+01	5.01E-03	1.75E+03	3.80E+01
HMX	296.2	1.0E-11	4.10E-10			1.85E+03	2.78E+00	2.56E+03			
Hydrogen cyanide	27	1.3E-04	5.30E-03	1.80E-01	1.80E-05	1.70E+01	2.55E-02	1.00E+06	5.36E-05	1.69E+04	1.99E+05
Indeno(1,2,3-cd)pyrene	276.3	1.6E-06	6.56E-05	1.90E-02	5.66E-06	3.47E+06	5.21E+03	2.20E-05			
Iron	55.84	2.4E-02	1.00E+00			1.43E+01	2.50E+01				
Isobutanol	74	1.2E-05	4.90E-04	8.60E-02	9.30E-06	6.20E+01	9.30E-02	8.50E+04	3.04E-06	7.12E+04	2.26E+04
Isophorone	138.21	6.6E-06	2.72E-04	6.23E-02	6.76E-06	4.68E+01	7.02E-02	1.20E+04			
Lead	207.2	2.4E-02	1.00E+00			1.43E+01	9.00E+02				

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _{1/2} (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
lead (tetraethyl-)	64.52										
Maleic hydrazide	110	6.6E-03	2.70E-01	9.00E-02	1.10E-05	4.20E+01	6.30E-02	6.00E+03	9.52E-04	4.02E+03	1.61E+03
Manganese	54.94	2.4E-02	1.00E+00			1.43E+01	6.50E+01				
Mercury (elemental)	200.59	2.4E-02	1.00E+00	3.07E-02	6.30E-06	1.43E+01	5.20E+01				
Mercury (methyl)	215.62	1.1E-02	4.67E-01			1.43E+01					
Methacrylonitrile	67.09	8.8E-05	3.60E-03	1.10E-01	1.30E-05	8.40E-01	1.26E-03	7.90E+04	2.66E-05	2.41E+04	1.38E+04
Methomyl	160	3.9E-02	1.60E+00	6.90E-02	1.00E-05	1.50E+01	2.25E-02	1.70E+05	3.03E-03	2.25E+03	6.59E+04
Methyl acetate	74.08	2.0E-05	8.40E-04	1.00E-01	1.00E-05	2.20E+00	3.30E-03	1.00E+06	7.22E-06	4.62E+04	1.77E+05
Methyl acrylate	86.09	2.4E-01	9.80E+00	9.10E-02	8.60E-06	8.40E+02	1.26E+00	6.00E+01	3.63E-03	2.06E+03	1.57E+02
Methyl isobutyl ketone	100	1.4E-04	5.70E-03	7.50E-02	7.80E-06	1.30E+02	1.95E-01	1.90E+04	1.30E-05	3.45E+04	7.01E+03
Methyl methacrylate	100	3.4E-04	1.40E-02	7.70E-02	8.60E-06	1.30E+01	1.95E-02	1.50E+04	5.98E-05	1.61E+04	2.92E+03
Methyl styrene (alpha)	118.18	2.3E-03	9.40E-02	7.10E-02	8.00E-06	3.60E+02	5.40E-01	3.00E+02	9.69E-05	1.26E+04	2.17E+02
Methyl styrene (mixture)	118.18	2.3E-03	9.40E-02	7.10E-02	8.00E-06	3.60E+02	5.40E-01	3.00E+02	9.69E-05	1.26E+04	2.17E+02
Methylcyclohexane	98	4.4E-01	1.80E+01	7.00E-02	9.00E-06	2.20E+03	3.30E+00	1.40E+01	2.37E-03	2.55E+03	7.89E+01
Methylene bromide	170	9.0E-04	3.70E-02	8.00E-02	8.00E-06	1.80E+02	2.70E-01	1.20E+04	6.99E-05	1.48E+04	5.37E+03
Methylene chloride	85	2.2E-03	9.00E-02	1.00E-01	1.20E-05	1.20E+01	1.80E-02	1.30E+04	4.69E-04	5.73E+03	2.63E+03
Molybdenum	95.94	2.4E-02	1.00E+00			1.43E+01	2.00E+01				
Naphthalene	128.16	4.8E-04	1.98E-02	5.90E-02	7.50E-06	2.00E+03	3.00E+00	3.10E+01	3.94E-06	6.25E+04	9.84E+01
Nickel	58.71	2.4E-02	1.00E+00			1.43E+01	6.50E+01				
Nitrate	101.1	2.4E-02	1.00E+00			1.43E+01					
Nitrite	46	2.0E-07	8.38E-06			2.37E+01	3.56E-02				
Nitrobenzene	120	2.4E-05	9.84E-04	7.60E-02	8.60E-06	6.46E+01	9.69E-02	2.10E+03	4.16E-06	6.09E+04	5.68E+02
Nitroglycerin	227.08	6.1E-03	2.50E-01			2.60E+02	3.90E-01	1.80E+03			
N-Nitrosodiethylamine	102.14	3.7E-06	1.50E-04	6.48E-02	9.13E-06	1.20E+03	1.80E+00	1.06E+05			
N-Nitrosodimethylamine	74.08	1.4E-01	5.90E+00	3.12E-02	6.35E-06	3.82E+01	5.73E-02	1.00E+06			
N-Nitrosodipropylamine	158.2	3.2E-04	1.31E-02	5.80E-02	9.72E-06	2.60E+02	3.90E-01	1.27E+03	1.48E-05	3.23E+04	7.17E+02
N-Nitrosodiphenylamine	198.23	5.0E-06	2.05E-04	3.12E-02	6.35E-06	1.29E+03	1.94E+00	3.51E+01			7.40E+01
N-Nitrosopyrrolidine	100.2	4.9E-08	2.00E-06			1.59E+02	2.38E-01	1.00E+06			
m-Nitrotoluene	137.1	2.4E-05	9.80E-04	7.60E-02	8.60E-06	6.50E+01	9.75E-02	2.10E+03	4.14E-06	6.10E+04	5.69E+02
o-Nitrotoluene	137.13	2.4E-05	9.80E-04	7.60E-02	8.60E-06	6.50E+01	9.75E-02	2.10E+03	4.14E-06	6.10E+04	5.69E+02
p-Nitrotoluene	137.1	2.4E-05	9.80E-04	7.60E-02	8.60E-06	6.50E+01	9.75E-02	2.10E+03	4.14E-06	6.10E+04	5.69E+02
Pentachlorobenzene	250.32	7.1E-03	2.90E-01	5.70E-02	6.30E-06	2.00E+03	3.00E+00	8.31E+02			

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _s (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _A (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
Pentachlorophenol	266.34	2.4E-08	1.00E-06	5.60E-02	6.10E-06	5.92E+02	8.88E-01	1.95E+03			
Phenanthrene	178.2	2.3E-05	9.40E-04			1.40E+04	2.10E+01	1.15E+00			
Phenol	94 (291.98 - 360.85)	4.0E-07	1.63E-05	8.20E-02	9.10E-06	2.88E+01	4.32E-02	8.28E+04			
Polychlorinated biphenyls											
Aroclor 1016	variable	4.2E-02	1.73E+00	1.75E-02	8.00E-06	4.48E+04	6.72E+01	2.77E-01			
Aroclor 1221	variable	1.8E-08	7.40E-07	1.75E-02	8.00E-06	4.48E+04	6.72E+01	2.77E-01			
Aroclor 1232	variable	1.8E-08	7.40E-07	1.75E-02	8.00E-06	4.48E+04	6.72E+01	2.77E-01			
Aroclor 1242	variable	1.8E-08	7.40E-07	1.75E-02	8.00E-06	4.48E+04	6.72E+01	2.77E-01			
Aroclor 1248	variable	1.8E-08	7.40E-07	5.70E+03	6.00E-01	5.30E+05	7.95E+02	2.77E-01			
Aroclor 1254	variable	1.8E-08	7.40E-07	5.70E+03	6.00E-01	5.30E+05	7.95E+02	2.77E-01			
Aroclor 1260	variable	1.8E-08	7.40E-07	5.70E+03	6.00E-01	5.30E+05	7.95E+02	2.77E-01			
n-Propylbenzene	120.19	1.3E-02	5.40E-01	7.50E-02	7.80E-06	2.80E+03	4.20E+00	1.40E+01	9.56E-05	1.27E+04	6.21E+01
Propylene oxide	58	8.5E-05	3.50E-03	1.20E-01	1.30E-05	2.50E+01	3.75E-02	4.80E+05	2.33E-05	2.57E+04	1.01E+05
Pyrene	200	1.1E-05	4.51E-04	2.72E-02	7.24E-06	6.80E+04	1.02E+02	1.35E-01	4.07E-09	1.95E+06	1.38E+01
RDX	222.12	6.3E-08	2.60E-06			7.00E+01	1.05E-01	5.97E+01			
Selenium	78.96	9.7E-03	3.98E-01			1.43E+01	5.00E+00				
Silver	107.87	2.4E-02	1.00E+00			1.43E+01	8.30E+00				
Strontium	87.62	2.4E-02	1.00E+00			1.43E+01	3.50E+01				
Styrene	100	2.7E-03	1.10E-01	7.10E-02	8.00E-06	9.10E+01	1.37E-01	3.10E+02	2.54E-04	7.78E+03	1.00E+02
1,2,4,5-Tetrachlorobenzene	215.89	1.0E-03	4.10E-02	2.11E-02	8.76E-06	1.19E+03	1.78E+00	5.95E-01			
1,1,1,2-Tetrachloroethane	167.85	3.4E-04	1.41E-02	7.10E-02	7.90E-06	7.90E+01	1.19E-01	2.97E+03	3.68E-05	2.05E+04	8.72E+02
1,1,2,2-Tetrachloroethane	169.86	3.4E-04	1.40E-02	7.10E-02	7.90E-06	7.90E+01	1.19E-01	2.97E+03	3.65E-05	2.05E+04	8.72E+02
Tetrachloroethene	170	1.8E-02	7.54E-01	7.20E-02	8.20E-06	2.70E+02	4.05E-01	2.00E+02	8.54E-04	4.25E+03	1.34E+02
Thallium	204.37	2.4E-02	1.00E+00			1.43E+01	7.10E+01				
Toluene	92	6.6E-03	2.72E-01	8.70E-02	8.60E-06	1.82E+02	2.73E-01	5.26E+02	5.19E-04	5.45E+03	2.52E+02
Toxaphene	414	6.0E-06	2.46E-04	1.16E-02	4.34E-06	2.57E+05	3.86E+02	7.40E-01			
Tribromomethane	252.73	6.6E-04	2.70E-02	1.49E-02	1.03E-05	8.70E+01	6.92E+00	3.10E+03	6.51E-07	1.54E+05	2.20E+04
1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	5.2E-01	2.14E+01	2.88E-02	8.07E-06	1.60E+02	2.40E-01	1.10E+03	2.23E-03	2.63E+03	3.28E+03
1,2,4-Trichlorobenzene	181	1.4E-03	5.82E-02	3.00E-02	8.23E-06	1.78E+03	2.67E+00	3.00E+02	6.53E-06	4.86E+04	8.55E+02
1,1,1-Trichloroethane	130	1.7E-02	7.05E-01	7.80E-02	8.80E-06	1.10E+02	1.65E-01	1.33E+03	1.37E-03	3.35E+03	5.63E+02
1,1,2-Trichloroethane	133	9.1E-04	3.74E-02	7.80E-02	8.80E-06	5.01E+01	7.52E-02	4.42E+03	1.22E-04	1.12E+04	1.12E+03

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _a (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
Trichloroethylene	131	1.0E-02	4.22E-01	7.90E-02	9.10E-06	9.40E+01	1.41E-01	1.10E+03	9.61E-04	4.00E+03	4.01E+02
Trichlorofluoromethane	140	9.8E-02	4.00E+00	8.70E-02	1.30E-05	1.60E+02	2.40E-01	1.10E+03	4.15E-03	1.93E+03	9.83E+02
2,4,5-Trichlorophenol	197.46	4.4E-06	1.80E-04	2.91E-02	7.03E-06	1.19E+03	1.78E+00	1.20E+03			
2,4,6-Trichlorophenol	197.46	7.8E-06	3.20E-04	3.18E-02	6.25E-06	1.19E+03	1.78E+00	8.00E+02			
1,1,2-Trichloropropane	147.43	2.9E-02	1.20E+00	4.00E-02	9.30E-06	5.10E+01	7.65E-02	2.70E+03	1.29E-03	3.45E+03	1.06E+03
1,2,3-Trichloropropane	147.43	2.7E-02	1.10E+00	7.10E-02	7.90E-06	5.10E+01	7.65E-02	2.70E+03	2.17E-03	2.67E+03	1.03E+03
1,2,3-Trichloropropene	145.42	2.7E-02	1.10E+00	7.10E-02	7.90E-06	5.10E+01	7.65E-02	2.70E+03	2.17E-03	2.67E+03	1.03E+03
Triethylamine	101.19	9.0E-05	3.70E-03	1.20E-01	1.30E-05	2.20E+00	3.30E-03	1.00E+06	2.92E-05	2.30E+04	1.77E+05
1,2,4-Trimethylbenzene	120	5.6E-03	2.30E-01	7.50E-02	7.10E-06	3.70E+03	5.55E+00	2.60E-01	3.14E-05	2.21E+04	1.50E+00
1,3,5-Trimethylbenzene	120	7.8E-03	3.20E-01	7.50E-02	7.10E-06	8.20E+02	1.23E+00	4.80E+01	1.75E-04	9.40E+03	6.92E+01
2,4,6-Trinitrotoluene	227.13	4.6E-01	1.90E-05	2.45E-02	6.36E-06	1.83E+03	2.75E+00	1.30E+02			
Vanadium	50.94	2.4E-02	1.00E+00			1.43E+01	1.00E+03				
Vinyl acetate	86	5.1E-04	2.10E-02	8.50E-02	9.20E-06	5.30E+00	7.95E-03	2.00E+04	1.04E-04	1.22E+04	3.68E+03
Vinyl bromide	106.95	6.3E-03	2.60E-01	1.00E-01	1.20E-05	1.30E+02	1.95E-01	1.80E+04	6.84E-04	4.75E+03	7.19E+03
Vinyl chloride	63	2.7E-02	1.11E+00	1.10E-01	1.20E-06	1.86E+01	2.79E-02	2.80E+03	3.87E-03	1.99E+03	9.36E+02
Vinyl chloride	63	2.7E-02	1.11E+00	1.10E-01	1.20E-06	1.86E+01	2.79E-02	2.80E+03	3.87E-03	1.99E+03	9.36E+02
m-Xylene	106	7.3E-03	3.01E-01	7.00E-02	7.80E-06	2.00E+02	3.00E-01	1.61E+02	4.34E-04	5.96E+03	8.20E+01
o-Xylene	106	5.2E-03	2.13E-01	8.70E-02	1.00E-05	2.40E+02	3.60E-01	1.78E+02	3.48E-04	6.65E+03	9.95E+01
Xylenes	106	7.3E-03	3.00E-01	7.00E-02	7.80E-06	2.00E+02	3.00E-01	1.61E+02	4.33E-04	5.96E+03	8.20E+01
Zinc	65.38	2.4E-02	1.00E+00			1.43E+01	6.20E+01				

Notes:

MW – Molecular weight
H' – Dimensionless Henry's Law Constant
D_w – Diffusivity in water
K_d – Soil-water partition coefficient
D_a – Apparent diffusivity (calculated for VOCs only)
SAT – Soil saturation limit (calculated for VOCs only)

H – Henry's Law Constant
D_a – Diffusivity in air
K_{oc} – Soil organic carbon partition coefficient
S – Solubility in water
VF – Volatilization factor (calculated for VOCs only)
VOC – Volatile organic compound

APPENDIX C

Table C-1: Human Health Benchmarks Used for Calculating SSLs

Chemical	CSF _o (mg/kg-day) ⁻¹	Reference	RfD _o (mg/kg-day)	Reference	CSF _i (mg/kg-day) ⁻¹	Reference	RfD _i (mg/kg-day)	Reference	ABS
Acenaphthene			6.00E-02	IRIS			6.00E-02	route	0
Acetaldehyde					7.70E-03	IRIS	2.60E-03	IRIS	0
Acetone			9.00E-01	IRIS			9.00E-01	route	0
Acrylonitrile	5.40E-01	IRIS	1.00E-03	HEAST	2.40E-01	IRIS	5.71E-04	IRIS	0
Acetophenone			1.00E-01	IRIS			1.00E-01	route	0
Acrolein			5.00E-04	IRIS			5.71E-06	IRIS	0
Aldrin	1.72E+01	IRIS	3.00E-05	IRIS	1.72E+01	IRIS	3.00E-05	route	0.1
Aluminum			1.00E+00	NCEA			1.40E-03	NCEA	0
Anthracene			3.00E-01	IRIS			3.00E-01	route	0
Antimony			4.00E-04	IRIS					0
Arsenic	1.50E+00	IRIS	3.00E-04	IRIS	1.51E+01	IRIS			0.03
Barium			2.00E-01	IRIS			2.00E-01	route	0
Benzene	5.50E-02	IRIS	4.00E-03	IRIS	2.70E-02	IRIS	8.60E-03	IRIS	0
Benzidine	2.30E+02	IRIS	3.00E-03	IRIS	2.35E+02	IRIS	3.00E-03	route	0.1
Benzo(a)anthracene	7.30E-01	NCEA			3.10E-01	NCEA			0.13
Benzo(a)pyrene	7.30E+00	IRIS			3.10E+00	NCEA			0.13
Benzo(b)fluoranthene	7.30E-01	NCEA			3.10E-01	NCEA			0.13
Benzo(k)fluoranthene	7.30E-02	NCEA			3.10E-02	NCEA			0.13
Beryllium			2.00E-03	IRIS	8.40E+00	IRIS	5.71E-06	IRIS	0
α-BHC	6.30E+00	IRIS	5.00E-04	NCEA	6.30E+00	IRIS	5.00E-04	route	0.04
β-BHC	1.80E+00	IRIS	2.00E-04	NCEA	1.80E+00	IRIS	2.00E-04	route	0.04
γ-BHC	1.30E+00	HEAST	3.00E-04	IRIS	3.00E-04	route	3.00E-04	route	0.04
1,1-Biphenyl			5.00E-02	IRIS			5.00E-02	route	0

Chemical	CSF _o (mg/kg-day) ⁻¹	Reference	RfD _o (mg/kg-day)	Reference	CSF _i (mg/kg-day) ⁻¹	Reference	RfD _i (mg/kg-day)	Reference	ABS
Bis(2-chloroethyl) ether	1.10E+00	IRIS			1.16E+00	IRIS			0
Bis(2-chloroisopropyl) ether	7.00E-02	HEAST	4.00E-02	IRIS	3.50E-02	HEAST	4.00E-02	route	0
Bis(2-ethylhexyl) phthalate	1.40E-02	IRIS	2.00E-02	IRIS	1.40E-02	route	2.00E-02	route	0.1
Bis(chloromethyl) ether	2.20E+02	IRIS			2.17E+02	IRIS			0
Boron			2.00E-01	IRIS			5.70E-03	HEAST	0
Bromobenzene			2.00E-02	NCEA			2.90E-03	NCEA	0
Bromodichloromethane	6.20E-02	IRIS	2.00E-02	IRIS	6.20E-02	route	2.00E-02	route	0
Bromomethane			1.40E-03	IRIS			1.43E-03	IRIS	0
1,3-Butadiene					1.05E-01	IRIS	5.71E-04	IRIS	0
2-Butanone (MEK)			6.00E-01	IRIS			1.43E+00	IRIS	0
tert-Butyl methyl ether (MTBE)	1.80E-03	Reg 6/prov	8.60E-01	route	1.80E-03	route	8.57E-01	IRIS	0
n-Butylbenzene			1.00E-02	NCEA			1.00E-02	route	0
sec-Butylbenzene			1.00E-02	NCEA			1.00E-02	route	0
tert-Butylbenzene			1.00E-02	NCEA			1.00E-02	route	0
Cadmium			5.00E-04	IRIS	6.30E+00	IRIS			0.001
Carbon disulfide			1.00E-01	IRIS			2.00E-01	IRIS	0
Carbon tetrachloride	1.30E-01	IRIS	7.00E-04	IRIS	5.25E-02	IRIS			0
Chlordane	3.50E-01	IRIS	5.00E-04	IRIS	3.50E-01	IRIS	2.00E-04	IRIS	0.04
2-Chloroacetophenone			8.60E-06	route			8.57E-06	IRIS	0
2-Chloro-1,3-butadiene			2.00E-02	HEAST			2.00E-03	HEAST	0
1-Chloro-1,1-difluoroethane			1.40E+01	route			1.43E+01	IRIS	0
Chlorobenzene			2.00E-02	IRIS			1.70E-02	NCEA	0
1-Chlorobutane			4.00E-02	Reg 6/prov			4.00E-02	route	0
Chlorodifluoromethane			4.10E+01	route			1.43E+01	IRIS	0
Chloroethane	2.90E-03	NCEA	4.00E-01	NCEA	2.90E-03	route	2.86E+00	IRIS	0
Chloroform			1.00E-02	IRIS	8.05E-02	IRIS	1.35E-02	NCEA	0

Chemical	CSF _a (mg/kg-day) ⁻¹	Reference	RfD _a (mg/kg-day)	Reference	CSF _i (mg/kg-day) ⁻¹	Reference	RfD _i (mg/kg-day)	Reference	ABS
Chloromethane	1.30E-02	HEAST			6.30E-03	HEAST	2.57E-02	IRIS	0
β-Chloronaphthalene			8.00E-02	IRIS			8.00E-02	route	0
o-Chloronitrobenzene	9.70E-03	HEAST	1.00E-03	HEAST	9.70E-03	route	2.00E-05	HEAST	0
p-Chloronitrobenzene	6.70E-03	HEAST	1.00E-03	HEAST	6.70E-03	route	1.70E-04	HEAST	0
2-Chlorophenol			5.00E-03	IRIS			5.00E-03	route	0
2-Chloropropane			2.90E-02	route			2.90E-02	HEAST	0
o-Chlorotoluene			2.00E-02	IRIS			2.00E-02	route	0
Chromium III			1.50E+00	IRIS					0
Chromium VI			3.00E-03	IRIS	2.90E+02	IRIS	2.85E-05	IRIS	0
Chrysene	7.30E-03	NCEA			3.10E-03	NCEA			0.13
Cobalt			2.00E-02	NCEA	9.80E+00	NCEA	5.70E-06	NCEA	0
Copper			4.00E-02	HEAST					0
Crotonaldehyde	1.90E+00	HEAST			1.90E+00	route			0
Cumene (isopropylbenzene)			1.00E-01	IRIS			1.14E-01	IRIS	0
Cyanide			2.00E-02	IRIS					0.1
Cyanogen			4.00E-02	IRIS					0
Cyanogen bromide			9.00E-02	IRIS					0
Cyanogen chloride			5.00E-02	IRIS					0
DDD	2.40E-01	IRIS			2.40E-01	route			0.03
DDE	3.40E-01	IRIS			3.40E-01	route			0.03
DDT	3.40E-01	IRIS	5.00E-04	IRIS	3.40E-01	IRIS	5.00E-04	route	0.03
Dibenz(a,h)anthracene	7.30E+00	NCEA			3.10E+00	NCEA			0.13
Dibenzofuran			2.00E-03	NCEA			2.00E-03	route	0
1,2-Dibromo-3-chloropropane	1.40E+00	HEAST	5.70E-05	route	2.40E-03	HEAST	5.70E-05	IRIS	0
Dibromochloromethane	8.40E-02	IRIS	2.00E-02	IRIS	8.40E-02	route	2.00E-02	route	0
1,2-Dibromoethane	2.00E+00	IRIS	9.00E-03	IRIS	2.00E+00	IRIS	2.60E-03	IRIS	0

Chemical	CSF _o (mg/kg-day) ⁻¹	Reference	RfD _o (mg/kg-day)	Reference	CSF _i (mg/kg-day) ⁻¹	Reference	RfD _i (mg/kg-day)	Reference	ABS
1,4-Dichloro-2-butene	9.30E+00	route			9.30E+00	HEAST			0
1,2-Dichlorobenzene			9.00E-02	IRIS			6.90E-03	NCEA	0
1,3-Dichlorobenzene			3.00E-03	NCEA			3.00E-03	NCEA	0
1,4-Dichlorobenzene	2.40E-02	HEAST	3.00E-02	NCEA	2.20E-02	NCEA	2.29E-01	IRIS	0
3,3-Dichlorobenzidine	4.50E-01	IRIS			4.50E-01	route			0.1
Dichlorodifluoromethane			2.00E-01	IRIS			5.71E-02	HEAST	0
1,1-Dichloroethane			2.00E-01	Reg 6/prov			2.00E-01	Reg 6/prov	0
1,2-Dichloroethane	9.10E-02	IRIS	2.00E-02	NCEA	9.10E-02	IRIS	1.40E-03	NCEA	0
cis-1,2-Dichloroethene			1.00E-02	HEAST			1.00E-02	route	0
trans-1,2-Dichloroethene			2.00E-02	IRIS			2.00E-02	route	0
1,1-Dichloroethene			5.00E-02	IRIS			5.70E-02	IRIS	0
2,4-Dichlorophenol			3.00E-03	IRIS			3.00E-03	route	0.1
1,2-Dichloropropane	6.80E-02	HEAST	1.10E-03	route	6.80E-02	route	1.10E-03	IRIS	0
1,3-Dichloropropene	1.00E-01	IRIS	3.00E-02	IRIS	1.40E-02	IRIS	5.71E-03	IRIS	0
Dicyclopentadiene			8.00E-03	Reg 6/prov			2.00E-03	Reg 6/prov	0
Dieldrin	1.60E+01	IRIS	5.00E-05	IRIS	1.61E+01	IRIS	5.00E-05	route	0.1
Diethyl phthalate			8.00E-01	IRIS			8.00E-01	route	0.1
Dimethyl phthalate			1.00E+01	HEAST			1.00E+01	route	0.1
Di-n-butyl phthalate			1.00E-01	IRIS			1.00E-01	route	0.1
2,4-Dimethylphenol			2.00E-02	IRIS			2.00E-02	route	0.1
4,6-Dinitro-o-cresol			1.00E-04	prov.			1.00E-04	route	0.1
2,4-Dinitrophenol			2.00E-03	IRIS			2.00E-03	route	0.1
2,4-Dinitrotoluene			2.00E-03	IRIS			2.00E-03	route	0.1
1,2-Diphenylhydrazine	8.00E-01	IRIS			7.70E-01	IRIS			0.1
Endosulfan			6.00E-03	IRIS			6.00E-03	route	0.1
Endrin			3.00E-04	IRIS			3.00E-04	route	0.1

Chemical	CSF _o (mg/kg-day) ⁻¹	Reference	RfD _o (mg/kg-day)	Reference	CSF _i (mg/kg-day) ⁻¹	Reference	RfD _i (mg/kg-day)	Reference	ABS
Epichlorohydrin	9.90E-03	IRIS	2.00E-03	HEAST	4.20E-03	IRIS	2.86E-04	IRIS	0
Ethyl acetate			9.00E-01	IRIS			9.00E-01	route	0
Ethyl acrylate	4.80E-02	HEAST			4.80E-02	route			0
Ethyl chloride	2.90E-03	NCEA	4.00E-01	NCEA	2.90E-03	route	2.86E+00	IRIS	0
Ethyl ether			2.00E-01	IRIS			2.00E-01	route	0
Ethyl methacrylate			9.00E-02	HEAST			9.00E-02	route	0
Ethylbenzene			1.00E-01	IRIS			2.90E-01	IRIS	0
Ethylene oxide	1.00E+00	HEAST			3.50E-01	HEAST			0
Fluoranthene			4.00E-02	IRIS			4.00E-02	route	0.13
Fluorene			4.00E-02	IRIS			4.00E-02	route	0
Fluoride			6.00E-02	IRIS					0.1
Furan			1.00E-03	IRIS			1.00E-03	route	0
Heptachlor	4.50E+00	IRIS	5.00E-04	IRIS	4.55E+00	IRIS	5.00E-04	route	0.1
Hexachlorobenzene	1.60E+00	IRIS	8.00E-04	IRIS	1.61E+00	IRIS	8.00E-04	route	0.1
Hexachloro-1,3-butadiene	7.80E-02	IRIS	2.00E-04	HEAST	7.70E-02	IRIS	2.00E-04	route	0.1
Hexachlorocyclopentadiene			6.00E-03	IRIS			5.71E-05	IRIS	0.1
Hexachloroethane	1.40E-02	IRIS	1.00E-03	IRIS	1.40E-02	IRIS	1.00E-03	route	0.1
n-Hexane			1.10E+01	prov.			5.71E-02	IRIS	0
HMX			5.00E-02	IRIS			5.00E-02	route	0.1
Hydrogen cyanide			2.00E-02	IRIS			8.57E-04	IRIS	0
Indeno(1,2,3-c,d)pyrene	7.30E-01	NCEA			3.10E-01	NCEA			0.13
Iron			3.00E-01	NCEA					0
Isobutanol			3.00E-01	IRIS			3.00E-01	route	0
Isophorone	9.50E-04	IRIS	2.00E-01	IRIS	9.50E-04	route	2.00E-01	route	0.1
Lead									0
Lead (tetraethyl-)			1.00E-07	IRIS					0.1

Chemical	CSF _o (mg/kg-day) ⁻¹	Reference	RID _o (mg/kg-day)	Reference	CSF _i (mg/kg-day) ⁻¹	Reference	RID _i (mg/kg-day)	Reference	ABS
Maleic hydrazide			5.00E-01	IRIS		IRIS	5.00E-01	route	0
Manganese			4.70E-02	Reg 6			1.40E-05	IRIS	0
Mercury (elemental)							8.57E-05	IRIS	0
Mercury (methyl)			1.00E-04	IRIS					0.1
Methacrylonitrile			1.00E-04	IRIS			2.00E-04	HEAST	0
Methomyl			2.50E-02	IRIS			2.50E-02	route	0
Methyl acetate			1.00E+00	HEAST			1.00E+00	route	0
Methyl acrylate			3.00E-02	HEAST			3.00E-02	route	0
Methyl isobutyl ketone			8.00E-02	HEAST			8.57E-01	IRIS	0
Methyl methacrylate			1.40E+00	IRIS			2.00E-01	IRIS	0
Methyl styrene (alpha)			7.00E-02	HEAST			7.00E-02	route	0
Methyl styrene (mixture)			6.00E-03	HEAST			1.00E-02	HEAST	0
Methylcyclohexane			8.60E-01	route			8.60E-01	HEAST	0
Methylene bromide			1.00E-02	HEAST			1.00E-02	route	0
Methylene chloride	7.50E-03	IRIS	6.00E-02	IRIS	1.65E-03	IRIS	8.60E-01	HEAST	0
Molybdenum			5.00E-03	IRIS					0
Naphthalene			2.00E-02	IRIS			8.57E-04	IRIS	0
Nickel			2.00E-02	IRIS					0
Nitrate			1.60E+00	IRIS					0
Nitrite			1.00E-01	IRIS					0
Nitrobenzene			5.00E-04	IRIS			5.71E-04	HEAST	0
Nitroglycerin	1.40E-02	NCEA			1.40E-02	route			0.1
N-Nitrosodiethylamine	1.50E+02	IRIS			1.51E+02	IRIS			0.1
N-Nitrosodimethylamine	5.10E+01	IRIS	8.00E-06	prov.	4.90E+01	II	8.00E-06	route	0.1
N-Nitrosodi-n-butylamine	5.40E+00	IRIS			5.60E+00	IRIS			0.1
N-Nitrosodiphenylamine	4.90E-03	IRIS	2.00E-02	prov.	4.90E-03	route	2.00E-02	route	0.1

Chemical	CSF _o (mg/kg-day) ⁻¹	Reference	RfD _o (mg/kg-day)	Reference	CSF _i (mg/kg-day) ⁻¹	Reference	RfD _i (mg/kg-day)	Reference	ABS
N-Nitrosopyrrolidine	2.10E+00	IRIS			2.14E+00	IRIS			0.1
m-Nitrotoluene			2.00E-02	HEAST			2.00E-02	route	0
o-Nitrotoluene	2.30E-01	prov.	1.00E-02	HEAST	2.30E-01	route	1.00E-02	route	0
p-Nitrotoluene	1.70E-02	prov.	1.00E-02	HEAST	1.70E-02	route	1.00E-02	route	0
Pentachlorobenzene			8.00E-04	IRIS			8.00E-04	route	0.1
Pentachlorophenol	1.20E-01	IRIS	3.00E-02	IRIS	1.20E-01	route	3.00E-02	route	0.25
Phenanthrene (pyrene surrogate)			3.00E-02	IRIS			3.00E-02	route	0.1
Phenol			3.00E-01	IRIS			3.00E-01	route	0.1
Polychlorinated biphenyls									
Aroclor 1016	7.00E-02	IRIS	7.00E-05	IRIS	7.00E-02	IRIS	7.00E-05	route	0.14
Aroclor 1221	2.00E+00	IRIS	2.00E-05	IRIS	2.00E+00	IRIS	2.00E-05	route	0.14
Aroclor 1232	2.00E+00	IRIS	2.00E-05	IRIS	2.00E+00	IRIS	2.00E-05	route	0.14
Aroclor 1242	2.00E+00	IRIS	2.00E-05	IRIS	2.00E+00	IRIS	2.00E-05	route	0.14
Aroclor 1248	2.00E+00	IRIS	2.00E-05	IRIS	2.00E+00	IRIS	2.00E-05	route	0.14
Aroclor 1254	2.00E+00	IRIS	2.00E-05	IRIS	2.00E+00	IRIS	2.00E-05	route	0.14
Aroclor 1260	2.00E+00	IRIS	2.00E-05	IRIS	2.00E+00	IRIS	2.00E-05	route	0.14
n-Propylbenzene			1.00E-02	NCEA			1.00E-02	route	0
Propylene oxide	2.40E-01	IRIS	8.60E-03	route	1.30E-02	IRIS	8.57E-03	IRIS	0
Pyrene			3.00E-02	IRIS			3.00E-02	route	0
RDX	1.10E-01	IRIS	3.00E-03	IRIS	1.10E-01	route	3.00E-03	route	0.1
Selenium			5.00E-03	IRIS					0
Silver			5.00E-03	IRIS					0
Strontium			6.00E-01	IRIS					0
Styrene			2.00E-01	IRIS			2.86E-01	IRIS	0
1,2,4,5-Tetrachlorobenzene			3.00E-04	IRIS			3.00E-04	route	0.1
1,1,1,2-Tetrachloroethane	2.60E-02	IRIS	3.00E-02	IRIS	2.59E-02	IRIS	3.00E-02	route	0

Chemical	CSF _o (mg/kg-day) ⁻¹	Reference	RfD _o (mg/kg-day)	Reference	CSF _i (mg/kg-day) ⁻¹	Reference	RfD _i (mg/kg-day)	Reference	ABS
1,1,2,2-Tetrachloroethane	2.00E-01	IRIS	6.00E-02	NCEA	2.03E-01	IRIS	6.00E-02	route	0
Tetrachloroethylene	5.20E-02	NCEA	1.00E-02	IRIS	2.03E-02	NCEA	1.14E-01	NCEA	0
Thallium			6.80E-05	IRIS					0
Toluene			8.00E-02	IRIS			1.40E+00	IRIS	0
Toxaphene	1.10E+00	IRIS			1.12E+00	IRIS			0.1
Tribromomethane (Bromoform)	7.90E-03	IRIS	2.00E-02	IRIS	3.85E-03	IRIS	2.00E-02	route	0
1,1,2-Trichloro-1,2,2-trifluoroethane			3.00E+01	IRIS			8.57E+00	HEAST	0
1,2,4-Trichlorobenzene			1.00E-02	IRIS			1.00E-03	prov.	0
1,1,1-Trichloroethane			2.80E-01	NCEA			6.30E-01	NCEA	0
1,1,2-Trichloroethane	5.70E-02	IRIS	4.00E-03	IRIS	5.60E-02	IRIS	4.00E-03	route	0
Trichloroethene	4.0E-01	NCEA	3.00E-04	NCEA	4.0E-01	NCEA	1.00E-02	NCEA	0
Trichlorofluoromethane			3.00E-01	IRIS			2.00E-01	HEAST	0
2,4,5-Trichlorophenol			1.00E-01	IRIS			1.00E-01	route	0.1
2,4,6-Trichlorophenol	1.10E-02	IRIS	1.00E-04	NCEA	1.09E-02	IRIS	1.00E-04	route	0.1
1,1,2-Trichloropropane			5.00E-03	IRIS			5.00E-03	route	0
1,2,3-Trichloropropane	2.00E+00	NCEA	6.00E-03	IRIS	2.00E+00	route	1.40E-03	NCEA	0
1,2,3-Trichloropropene			1.00E-02	prov.			2.90E-04	prov.	0
Triethylamine			1.99E-03	route			1.99E-03	IRIS	0
1,2,4-Trimethylbenzene			5.00E-02	NCEA			1.70E-03	NCEA	0
1,3,5-Trimethylbenzene			5.00E-02	NCEA			1.70E-03	NCEA	0
2,4,6-Trinitrotoluene	3.00E-02	IRIS	5.00E-04	IRIS	3.00E-02	route	5.00E-04	route	0.1
Vanadium			1.00E-03	NCEA					0
Vinyl acetate			1.00E+00	HEAST			5.71E-02	IRIS	0
Vinyl bromide (Bromomethene)	1.10E-02	route	8.60E-04	HEAST	1.10E-01	HEAST	8.57E-04	IRIS	0
Vinyl chloride (Child)	1.40E+00	IRIS	3.00E-03	IRIS	3.00E-02	IRIS	2.80E-02	IRIS	0
Vinyl chloride (Adult)	7.20E-01	IRIS	3.00E-03	IRIS	1.54E-02	IRIS	2.85E-02	IRIS	0

NMED Soil Screening Levels
June 2006
Revision 4.0

Chemical	CSF _o (mg/kg-day) ⁻¹	Reference	RfD _o (mg/kg-day)	Reference	CSF _i (mg/kg-day) ⁻¹	Reference	RfD _i (mg/kg-day)	Reference	ABS
m-Xylene			2.00E-01	IRIS			2.86E-02	IRIS	0.1
o-Xylene			2.00E-01	IRIS					0.1
Xylenes			2.00E-01	IRIS			2.86E-02	IRIS	0.1
Zinc			3.00E-01	IRIS					0

Notes:

CSF_o – Oral cancer slope factor
 CSF_i – Inhalation cancer slope factor
 RfD_o – Oral Reference Dose
 RfD_i – Inhalation Reference Dose
 r – Route-to-route extrapolation
 ABS – Dermal absorption coefficient

IRIS – Integrated Risk Information System, USEPA 2006.

NCEA – National Center for Environmental Assessment, Office of Research and Development, USEPA 2003c.

VOLUME 2

**TIER 1: SCREENING-LEVEL ECOLOGICAL RISK
ASSESSMENT**

PHASE I
Scoping Assessment

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1. Introduction

The purpose of an ecological risk assessment is to evaluate the potential adverse effects that chemical contamination has on the plants and animals that make up ecosystems. The risk assessment process provides a way to develop, organize and present scientific information so that it is relevant to environmental decisions.

The New Mexico Environment Department Hazardous Waste Bureau (NMED) has developed a tiered procedure for the evaluation of ecological risk. This procedure is outlined in the *Guidance for Assessing Ecological Risks Posed by Chemicals: Screening-Level Ecological Risk Assessment* (GAERPC) (NMED, 2000). Briefly, the tiers of the procedure are organized as follows:

PHASE I: QUALITATIVE ASSESSMENT

- Tier I: Screening-Level Ecological Risk Assessment
- Scoping Assessment
- Screening Assessment

PHASE II: QUANTITATIVE ASSESSMENT

- Tier II: Site-Specific Ecological Risk Assessment

As discussed above and illustrated in Figure 1, the Scoping Assessment is the first phase of the Tier I Screening-Level Ecological Risk Assessment process as defined by the NMED GAERPC. This document provides specific procedures to assist the facility in conducting the first step (Scoping Assessment) of the Tier I, Screening-Level Ecological Risk Assessment process outlined in the GAERPC. The purpose of the Scoping Assessment is to gather information, which will be used to determine if there is "any reason to believe that ecological receptors and/or complete exposure pathways exist at or in the locality of the site" (NMED, 2000). The scoping assessment step also serves as the initial information-gathering phase for sites clearly in need of a more detailed assessment of potential ecological risk. This document outlines the methodology for conducting a Scoping Assessment, and includes a Site Assessment Checklist (Attachment A), which serves as tool for gathering information about the facility property and surrounding areas. Although the GAERPC provides a copy of the US EPA Checklist for Ecological Assessment/Sampling (US EPA, 1997), the attached Site Assessment Checklist provides an expanded, user-friendly template, which both guides the user as to what information to collect and furnishes an organized structure in which to enter the information.

After the Site Assessment Checklist has been completed, the assessor must use the collected information to generate a Scoping Assessment Report and Preliminary Conceptual Site Exposure Model (PCSEM). Guidance for performing these tasks is provided in this document, and in the GAERPC. The Scoping Assessment Report and PCSEM are subsequently used to address the first in a series of Technical Decision Points of the tiered GAERPC process. Technical Decision Points are questions which must be answered by the assessor after the completion of certain phases in the process. The resulting answer to the question determines the next step to be undertaken by the

facility. The first Technical Decision Point, as illustrated in Figure 1, is to decide: *Is Ecological Risk Suspected?*

If the answer to the first Technical Decision Point is “no” (that is, ecological risk is not suspected), the assessor may use the Exclusion Criteria Checklist and Decision Tree (Attachment B) to help confirm or deny that possibility. However, it is unlikely that any site containing potential ecological habitat or receptors will meet the Site Exclusion Criteria.

If ecological risk is suspected, the facility will usually be directed to proceed to the next phase of Tier I, which is a Screening Level Ecological Risk Assessment (SLERA). A SLERA is a simplified risk assessment that can be conducted with limited site-specific data by defining assumptions for parameters that lack site-specific data (US EPA, 1997). Values used for screening are consistently biased in the direction of overestimating risk to ensure that sites that might pose an ecological risk are properly identified. The completed Site Assessment Checklist is a valuable source of information needed for the completion of the SLERA. Instructions for performing a SLERA can be found in the GAERPC and in a number of EPA guidance documents (e.g., US EPA, 1997; US EPA, 1998).

2. Scoping Assessment

The Scoping Assessment serves as the initial information gathering and evaluation phase of the Tier I process. A Scoping Assessment consists of the following steps:

- Compile and Assess Basic Site Information (using Site Assessment Checklist)
- Conduct Site Visit
- Identify Preliminary Contaminants of Potential Ecological Concern
- Develop a Preliminary Conceptual Site Exposure Model
- Prepare a Scoping Assessment Report

The following subsections provide guidance for completing each step of the Scoping Assessment. For additional guidance, readers should refer to the GAERPC (NMED, 2000).

2.1 COMPILE AND ASSESS BASIC SITE INFORMATION

The first step of the Scoping Assessment process is to compile and assess basic site information. Since the purpose of the Scoping Assessment is to determine if ecological habitats, receptors, and complete exposure pathways are likely to exist at the site, those items are the focus of the information gathering. The Site Assessment Checklist (Attachment A) should be used to complete this step. The questions in the Site Assessment Checklist should be addressed as completely as possible with the information available before conducting a site visit.

In many cases, a large portion of the Site Assessment Checklist can be completed using reference materials and general knowledge of the site. A thorough file search should be conducted to compile all potential reference materials. Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) and Facility Investigation (RFI) reports, inspection reports, RCRA Part B Permit

Applications, and facility maps can all be good sources of the information needed for the Site Assessment Checklist.

Habitats and receptors which may be present at the site can be identified by contacting local and regional natural resource agencies. Habitat types may be determined by reviewing land use and land cover maps (LULC), which are available via the Internet at <http://www.nationalatlas.gov/scripts>. Additional sources of general information for the identification of ecological receptors and habitats are listed in the introduction section of the Site Assessment Checklist (Attachment A).

After all available information has been compiled and entered into the Site Assessment Checklist, the assessor should review the checklist and identify data gaps. Plans should then be made to obtain the missing information by performing additional research and/or by observation and investigation during the site visit.

2.2 SITE VISIT

When performing a Scoping Assessment, at least one site visit should be conducted to directly assess ecological features and conditions. As discussed in the previous section, completion of the Site Assessment Checklist should have begun during the compilation of basic site information. The site visit allows for verification of the information obtained from the review of references and other information sources. The current land and surface water usage and characteristics at the site can be observed, as well as direct and indirect evidence of receptors. In addition to the site, areas adjacent to the site and all areas where ecological receptors are likely to contact site-related chemicals (i.e., all areas which may have been impacted by the release or migration of chemicals from the site) should be observed or visited and addressed in the Site Assessment Checklist. The focus of the habitat and receptor observations should be on a community level. That is, dominant plant and animal species and habitats (e.g., wetlands, wooded areas) should be identified during the site visit. Photographs should be taken during the site visit and attached to the Scoping Assessment Report. Photographs are particularly useful for documenting the nature, quality, and distribution of vegetation, other ecological features, potential exposure pathways, and any evidence of contamination or impact. While the focus of the survey is on the community level, the U.S. Fish and Wildlife Service and the New Mexico Natural Heritage Program should be contacted prior to the site visit. The intent is to determine if state listed and/or federal listed Threatened & Endangered (T&E) species or sensitive habitats may be present at the site, or if any other fish or wildlife species could occur in the area (as indicated in the Site Assessment Checklist, Section IIID). A trained biologist or ecologist should conduct the biota surveys to appropriately characterize major habitats and to determine whether T&E species are present or may potentially use the site. The site assessment should also include a general survey for T&E species and any sensitive habitats (e.g. wetlands, perennial waters, breeding areas), due to the fact that federal and state databases might not be complete.

Site visits should be conducted at times of the year when ecological features are most apparent (i.e., spring, summer, early fall). Visits during winter might not provide as much evidence of the presence or absence of receptors and potential exposure pathways.

In addition to observations of ecological features, the assessor should note any evidence of chemical releases (including visual and olfactory clues), drainage patterns, areas with apparent erosion, signs of

groundwater discharge at the surface (such as seeps or springs), and any natural or anthropogenic site disturbances.

2.3 IDENTIFY CONTAMINANTS OF POTENTIAL ECOLOGICAL CONCERN

Contaminants of Potential Ecological Concern (COPECs) are chemicals which may pose a threat to individual species or biological communities. For the purposes of the Scoping Assessment, all chemicals known or suspected of being released at the site are considered COPECs. The identification of COPECs is usually accomplished by the review of historical information in which previous site activities and releases are identified, or by sampling data which confirm the presence of contaminants in environmental media at the site. If any non-chemical stressors such as mechanical disturbances or extreme temperature conditions are known to be present at the site, they too are to be considered in the assessment.

After the COPECs have been identified, they should be summarized and organized (such as in table or chart form) for presentation in the Scoping Assessment Report.

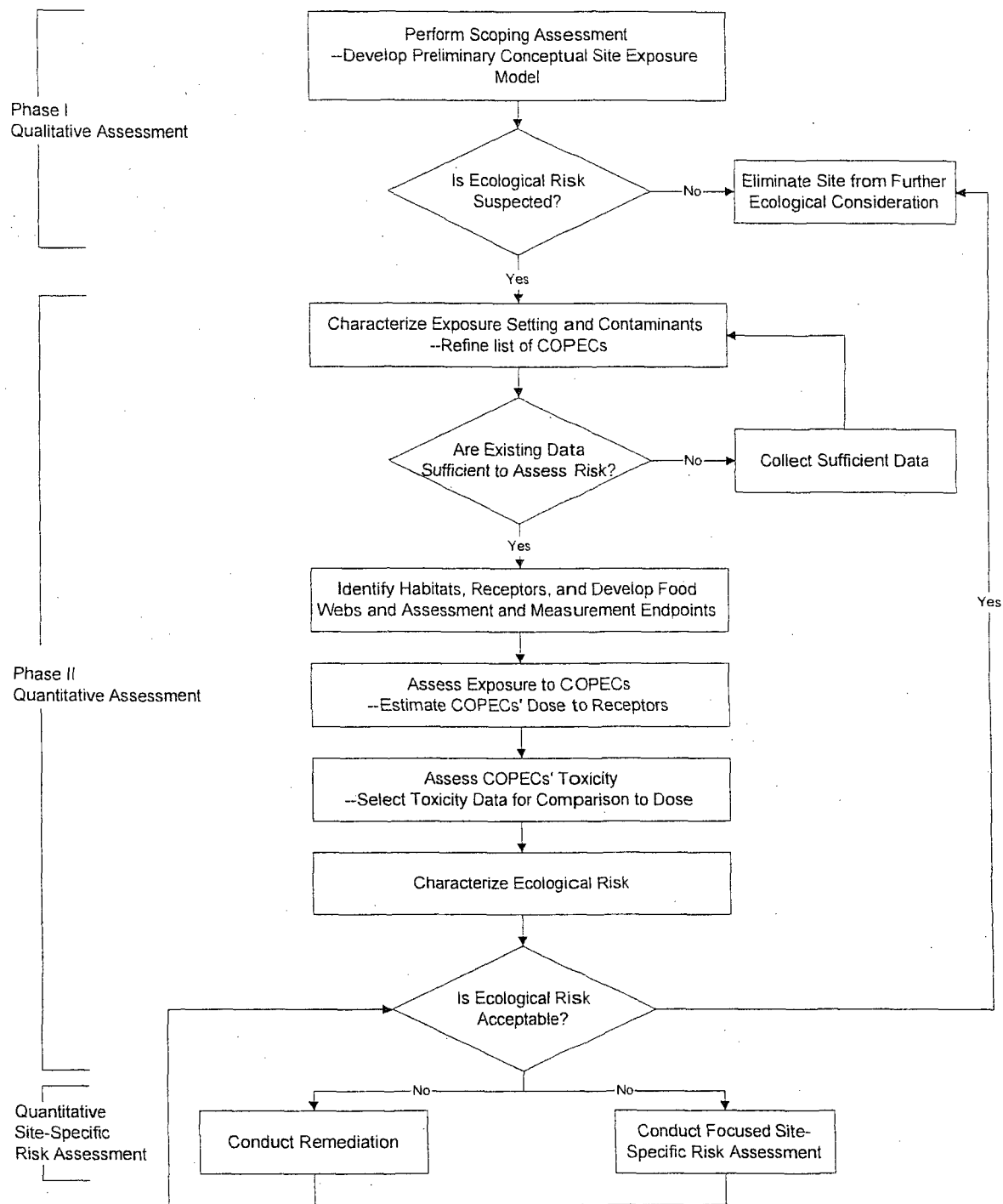
2.4 DEVELOPING THE PRELIMINARY CONCEPTUAL SITE EXPOSURE MODEL

A PCSEM provides a summary of potentially complete exposure pathways, along with potentially exposed receptor types. The PCSEM, in conjunction with the scoping report, is used to determine whether further ecological assessment (i.e., Screening-Level Assessment, Site-Specific Assessment) and/or interim measures are required.

A complete exposure pathway is defined as a pathway having all of the following attributes (US EPA, 1998; NMED, 2000):

- A source and mechanism for hazardous waste/constituent release to the environment
- An environmental transport medium or mechanism by which a receptor can come into contact with the hazardous waste/constituent
- A point of receptor contact with the contaminated media or via the food web, and
- An exposure route to the receptor.

If any of the above components are missing from the exposure pathway, it is not a complete pathway for the site. A discussion regarding all possible exposure pathways and the rationale/justification for eliminating any pathways should be included in the PCSEM narrative and in the Scoping Assessment Report.



Adapted from GAERPC (NMED 2000).

Figure 1. NMED Ecological Risk Assessment Process

The PCSEM is presented as both a narrative discussion and a diagram illustrating potential contaminant migration and exposure pathways to ecological receptors. A sample PCSEM diagram is presented in Figure 2. On the PCSEM diagram, the components of a complete exposure pathway are grouped into three main categories: sources, release mechanisms, and potential receptors. As a contaminant migrates and/or is transformed in the environment, sources and release mechanisms can be defined as primary, secondary, and tertiary.

For example, Figure 2 depicts releases from a landfill that migrate into soils, and reach nearby surface water and sediment via storm water runoff. In this situation, the release from the landfill is considered the primary release, with infiltration as the primary release mechanism. Soil becomes the secondary source, and storm water runoff is the secondary release mechanism to surface water and sediments, the tertiary source.

Subsequent ecological exposures to terrestrial and aquatic receptors will result from this release. The primary exposure routes to ecological receptors are direct contact, ingestion, and possibly inhalation. For example, plant roots will be in direct contact with contaminated sediments, and burrowing mammals will be exposed via dermal contact with soil and incidental ingestion of contaminated soil. In addition, exposures for birds and mammals will occur as they ingest prey items through the food web.

Although completing the Site Assessment Checklist will not provide the user with a ready made PCSEM, a majority of the components of the PCSEM can be found in the information provided by the Site Assessment Checklist. The information gathered for the completion of Section II of the Site Assessment Checklist, can be used to identify sources of releases. The results of Section III, Habitat Evaluation, can be used to both identify secondary and tertiary sources and to identify the types of receptors which may be exposed. The information gathered for completion of Section IV, Exposure Pathway Evaluation, will assist users in tracing the migration pathways of releases in the environment, thus helping to identify release mechanisms and sources.

Once all of the components of the conceptual model have been identified, complete exposure pathways and receptors that have the potential for exposure to site releases can be identified.

For further guidance on constructing a PCSEM, consult the GAERPC (NMED, 2000), and EPA's Office of Solid Waste and Emergency Response's *Soil Screening Guidance: User's Guide* (1996).

2.5 ASSEMBLING THE SCOPING ASSESSMENT REPORT

After completion of the previously described activities of the scoping assessment, the Scoping Assessment Report should be assembled to summarize the site information and present an evaluation of receptors and pathways at the site. The Scoping Assessment Report should be designed to support the decision made regarding the first Technical Decision Point (Is Ecological Risk Suspected?). The Scoping Assessment Report should, at a minimum, contain the following information:

- Existing Data Summary
- Site Visit Summary (including a completed Site Assessment Checklist)

- Evaluation of Receptors and Pathways
- Recommendations
- Attachments (e.g. photographs, field notes, telephone conversation logs with natural resource agencies)
- References/Data Sources

After completion, the Scoping Assessment Report and PCSEM should be submitted to NMED for review and approval. These documents will serve as a basis for decisions regarding future actions at the site.

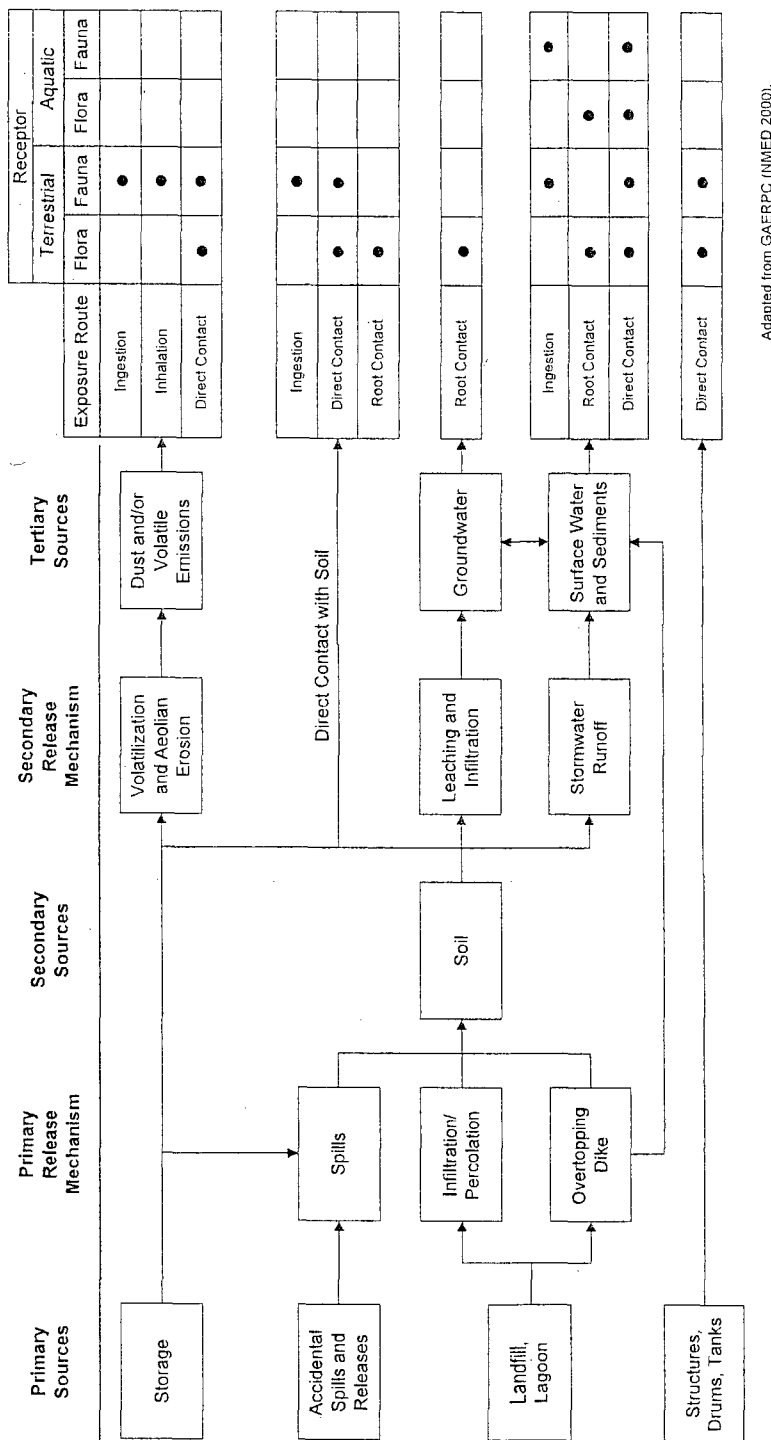


Figure 2. Example Preliminary Conceptual Site Exposure Model Diagram for a Hypothetical Site

3. Site Exclusion Criteria

If the assessor believes that the answer to the first Technical Decision Point (Is Ecological Risk Suspected?) is “no” based on the results of the PCSEM and Scoping Assessment Report, it should be determined whether the facility meets the NMED Site Exclusion Criteria.

Exclusion criteria are defined as those conditions at an affected property which eliminate the need for a SLERA. The three criteria are as follows:

- Affected property does not include viable ecological habitat.
- Affected property is not utilized by potential receptors.
- Complete or potentially complete exposure pathways do not exist due to affected property setting or conditions of affected property media.

The Exclusion Criteria Checklist and associated Decision Tree (Attachment B) can be used as a tool to help the user determine if an affected site meets the exclusion criteria. The checklist assists in making a conservative, qualitative determination of whether viable habitats, ecological receptors, and/or complete exposure pathways exist at or in the locality of the site where a release of hazardous waste/constituents has occurred. Thus, meeting the exclusion criteria means that the facility can answer “no” to the first Technical Decision Point.

If the affected property meets the Site Exclusion Criteria, based on the results of the checklist and decision tree, the facility must still submit a Scoping Assessment Report to NMED which documents the site conditions and justification for how the criteria have been met. Upon review and approval of the exclusion by the appropriate NMED Bureau, the facility will not be required to conduct any further evaluation of ecological risk. However, the exclusion is not permanent; a future change in circumstances may result in the affected property no longer meeting the exclusion criteria.

4. Technical Decision Point: Is Ecological Risk Suspected?

As discussed in the beginning of this document, the Scoping Assessment is the first phase of the GAERPC ecological risk assessment process (Figure 1). Following the submission of the Scoping Assessment Report and PCSEM, NMED will decide upon one of the following three recommendations for the site:

- No further ecological investigation at the site, or
- Continue the risk assessment process, and/or
- Undertake a removal or remedial action.

If the information presented in the Scoping Assessment Report supports the answer of “no” to the first Technical Decision Point, and the site meets the exclusion criteria, the site will likely be excused from further consideration of ecological risk. However, this is only true if it can be documented that a complete exposure pathway does not exist and will not exist in the future at the site based on current conditions. For those sites where valid pathways for potential exposure exist or are likely to exist in the future, further ecological risk assessment (usually in the form of a SLERA) will be

required. However, if the Scoping Assessment indicates that a detailed assessment is warranted, the facility would not be required to conduct a SLERA. Instead the facility would move directly to Tier II–Site-Specific Ecological Risk Assessment.

References

- Los Alamos National Laboratory (LANL), 1997. *Administrative Procedure 4.5*, Draft
- New Mexico Environment Department (NMED), 2000. *Guidance for Assessing Ecological Risks Posed by Chemicals: Screening-Level Ecological Risk Assessment*, Hazardous and Radioactive Materials Bureau, Final, March.
- U.S. Environmental Protection Agency (US EPA), 1996. *Soil Screening Guidance: User's Guide*. Office of Solid Waste and Emergency Response. Washington, DC. EPA-540-R-96/018. July.
- U.S. EPA, 1997. *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments*, Environmental Response Team, Interim Final, June 5.
- U.S.EPA, 1998. *Guidelines for Ecological Risk Assessment*, Risk Assessment Forum, Final, April. EPA/630/R-95/002F; <http://www.epa.gov/ncea/ecorisk.htm>.

Section 5.0 Groundwater Monitoring Results

Title	Tab/Figure	Section
Measured Depth to Groundwater.....	Tab 1.....	9.0
Direction of Groundwater Flow.....	Figures 4 & 5.....	10.0
Groundwater Dissolved Phase Constituents Map.....	Figures 6 & 7.....	10.0
Product Thickness Map.....	Figures 8 & 9.....	10.0
Field Water Quality Measurements.....	Tab 2	9.0
Comparison to Previous Monitoring.....	Tabs 3, 4, 5, 6, 7, 8.....	9.0
Measured Depth to Groundwater North Barrier Wall.....	Tabs 1 – 12.....	15.0
North Barrier Wall Analytical Data.....	Tabs 13, 14, 15.....	15.0

Section 6.0 Chemical Analytical Data

Title	Tab	Section
Background Wells.....	Tab 3.....	9.0
Refinery Wells.....	Tab 4.....	9.0
Cross-gradient Wells.....	Tab 5.....	9.0
Downgradient Wells.....	Tab 6.....	9.0
San Juan River Bluff/Tank #33.....	Tab 7.....	9.0
San Juan River.....	Tab 10.....	9.0
North Barrier Wall.....	Tabs 13, 14, 15.....	15.0

Section 7.0 Remediation System Monitoring

Remediation System Monitoring

Total Fluids Pumping

Traditionally, the primary remediation system in place at Bloomfield is separate phase hydrocarbon (SPH) removal utilizing total fluids pumping. The total fluids pumping system is used to bring SPH and hydrocarbon impacted groundwater to the surface for treatment or disposal. This is accomplished by pumping wells within the SPH plume. The recovery wells pump SPH and hydrocarbon impacted groundwater to the refinery API separator and through the refinery process wastewater treatment system. Pumping is most effective in saturated zones with high hydraulic conductivities such as those measured at the refinery. In 2007 total fluids pumping was accomplished through the use of fourteen recovery wells: RW# 1, 2, 9, 14, 15, 16, 17, 18, 19, 22, 23, 28, 42 and 43.

In 2007 the estimated total gallons pumped (SPH and water) from the recovery wells was 1,090,800 gallons. This is a significant increase in volume over 2006 due to the installation of a discharge line from RW-1 to the process sewer system. RW-1 now pumps continuously whereas previously the well extracted only 300 gallons per week due to storage constraints.

North Boundary Barrier Wall

The North Boundary Barrier Wall and Collection System was completed in late April of 2005. The primary purpose of the wall and collection system was to prevent the flow of hydrocarbon-impacted groundwater to the San Juan River. The wall and the collection wells were designed to accumulate fluids in the depressions or troughs of the Nacimiento Formation.

Monitoring of fluid levels on both sides of the barrier wall consists of measuring the depth to water and depth to product every other week.

Using a vacuum truck, fluids have been removed from the collection and observation wells on a 3X per week basis throughout 2007. Total calculated volume for 2007 from the Observation wells (located on the north side of the slurry wall) is <500 gallons for the entire year or <10 gallons per week.

Total calculated volume removed from Collection wells (located on the south side of the slurry wall) is 16,898 gallons or 324 gallons per week. The formula used for calculating the amount of water pulled from each well is the following: Total Well Depth – Depth to Water X (Conversion Factor for Pipe Size) X 156 (Wells pulled 3X/week X 52 Weeks).

Hammond Ditch Recovery System

The Hammond Ditch Recovery System consists of recovery tank #37, which collects groundwater from two 8-inch influent lines connected to the perforated sub-drain (the French Drain) beneath the Hammond Ditch irrigation canal. The Tk #37 liquid level is set on a float control system and automatically pumped through a flow meter to the API Separator. The total volume pumped through the flow meter in 2007 was 26,404 barrels (1,108,968 gallons). This volume is lower than 2006 due to the fact that the discharge lines were out of service for some time. The discharge lines were out of service because they connect to the process sewer lines in the Sulferox Unit. The Sulferox sewer lines were replaced in 2007 and during the replacement project Tk #37 was emptied many times by Vac Truck and no records were kept as to those volumes.

North Outfalls/Draws

The lined collection and barrier systems that were installed at the point of the seeps in the draws north of the barrier wall are monitored and pumped for recovery. From January 2007 to December 2007, approximately 110,114 gallons were pulled from all outfalls. The majority of the fluids removed from the outfalls are from precipitation events.

Inspections of the draws north of the barrier wall indicate that the barrier wall is preventing migration of contaminated groundwater toward the San Juan River. Since installation of the barrier wall, all previous areas where seepage of fuel hydrocarbon impacted water was present have been eliminated.

As a matter of preventive maintenance, containments in the draws were upgraded periodically throughout 2007.

River Terrace

The River Terrace Bioventing Project was put on-line in January 2006. Monitoring and remedial actions are following the Voluntary Measures Bioventing Monitoring Plan that has been approved by NMED and are submitted in a separate report to the agencies.

East Outfall

The east outfall is collected into a pipe, which flows to Tank #38 and then to Tank #33 located just south of the western fresh water pond. Hydrocarbons are skimmed off the top of the tank into a secondary tank, which is emptied with a vacuum truck and taken to the API separator. The remaining water from Tank #33 is then piped to the fresh water pond. The total gallons pumped in 2007 were 10,493,070 gallons.

Tank #33 effluent analytical summary can be found in Section 9.

Overall System Capabilities

The French Drain and the collection wells are in the same column of water. The French Drain removed 98.9% of the water south of the slurry wall. Vacuuming the Collection Wells three times per week only removed 1.1% of the water south of the slurry wall.

Section 8.0 Summary

Summary

Compliance Monitoring

Measured depth to groundwater tables and analytical summaries are located in Section 9.0 of this report.

Groundwater Monitoring

2007 semi-annual monitoring occurred during the first week of April. Samples were collected from all wells with the exception of wells that contained separate phase hydrocarbon or wells that were dry or did not contain enough water to collect a sample. Annual sampling started the week of August 20, 2007. Bloomfield Refinery personnel followed guidelines from the *Facility-wide Groundwater Monitoring Plan* submitted to NMED and OCD July 31, 2007.

Groundwater Measurements

Depth-to-water and depth-to-product measurements were collected at all monitoring wells, recovery wells, collection wells, and observation wells prior to sample collection during the 2007 sampling events. MW #3, MW #5, and MW #6 were dry in April and August. In April 2007, separate phase hydrocarbon was detected in eight monitoring wells (MW #20, MW #21, MW #25, MW #47, RW #18, RW #23, RW #28, and RW #42). In August 2007, separate phase hydrocarbon was detected in seven additional monitoring wells (MW #4, MW #40, MW #41, RW #2, RW #9, RW #14, and RW #43). Figure 4 and Figure 5 in Section 10.0 represent the groundwater elevation contours for April 2007 and August 2007, respectively.

BTEX

MW #1, MW #8, MW #12, MW #13, MW #27, MW #32, MW #33, MW #35, MW #37, MW #38, East Outfall #2, and East Outfall #3 did not exceed the WQCC BTEX standards. MW #11, MW #26, and RW #1 were over the benzene standard of 0.01 mg/L in April and August 2007. MW #34 topped the benzene standard in August 2007. RW #15 and MW #30 surpassed the benzene, toluene, ethylbenzene, and xylene standards in April and August of 2007. RW #9 exceeded benzene, ethylbenzene, and xylene limits in April and benzene and xylene in August 2007. MW #4 surpassed limits on benzene and xylene in April 2007 but was not sampled in August since the well contained separate phase hydrocarbon. RW #43 exceeded the WQCC BTEX standards in April 2007 but was not sampled in August since the well contained separate phase hydrocarbon. MW #31 topped benzene, ethylbenzene, and xylene standards in April but inadvertently was not sampled in August.

General Chemistry

General chemistry parameters were analyzed only during the annual sampling event in August and not in April 2007. WQCC TDS standard (1000 mg/L) was

exceeded by MW #8, MW #11, MW #12, MW #13, MW #26, MW #27, MW #30, MW #32, MW #34, MW #37, RW #1, and RW #15. The sulfate standard (600 mg/L) was surpassed by MW #8, MW #12, MW #13, MW #27, MW #32, and MW #33. The chloride standard (250 mg/L) was topped by MW #8, MW #13, MW #26, MW #32, MW #33, MW #37, and RW #15. The nitrogen standard (10 mg/L) was exceeded by MW #8, MW #32, and MW #33.

Total Metals (RCRA 8)

Total Metals (RCRA 8) were analyzed only during the annual sampling event in August 2007 but not required during the April 2007 sampling event. The barium was detected above the MCL (2.0 mg/L) at MW #26. Lead was detected over the MCL (0.015 mg/L) in MW #11, MW #12, RW #1, and RW #9. MW #35 surpassed the arsenic MCL (0.05 mg/L). MW #8 exceeded the chromium MCL (0.1 mg/L) and silver MCL (0.05 mg/L).

Dissolved Metals

Samples collected in August 2007 were analyzed for WQCC dissolved metals. Dissolved metals analysis was not required for the April 2007 sampling event. The wells detected to have iron (1.00 mg/L) and manganese (0.20 mg/L) above the WQCC standard are MW #11, MW #26, MW #27, MW #34, MW #35, MW #37, and MW #38. MW #12 and MW #13 exceeded the manganese standard. MW #26 surpassed the barium (1.00 mg/L) and manganese standards. RW #1, RW #9, and RW #15 topped barium, iron, and manganese WQCC standards.

Semi-Volatile Organic Compounds

Samples were analyzed for SVOCs by EPA Method 8270 during the annual sampling event in August 2007. SVOCs were below the respective laboratory reporting limit on all of the analytes in 13 of the 19 wells sampled. Naphthalene was detected above the WQCC standard of 0.03 mg/L in six of the 19 wells (MW #11, MW #26, MW #30, RW #1, RW #9, and RW #15). Five of these six wells had a detected concentration of 2-Methylnaphthalene (with MW #26 being the exception).

North Boundary Barrier Wall

Seeps

There are nine catchment basins located along the bluff north of MW #45 and MW #46 and on the south side of the San Juan River. The catchment basins were installed as temporary measures when the seeps were first identified in 2004. The slurry wall was designed and installed in April 2005 to serve as a permanent control measure to prevent further potential discharges of ground water to surface water and the generation of seeps along the bluff. These basins have been referred to as seeps, outfalls, and catchments. For the purpose of clearing up any confusion, these areas will be referred to as Seep 1 through Seep 9. The seeps are identified in Section 10.0, Figure 10.

Beginning in October 2007, monthly samples were collected from Seeps 1, 6, 7, 8, and 9 and analyzed for BTEX by EPA Method 8021B. Analyses of these water samples indicate that BTEX volatile organic constituents are non-detect. Results and conclusions from those sampling events can be found in the *Evaluation of Interim Measures* report presented to NMED and OCD in January 2008.

Groundwater Monitoring

Semi-annual sample collection began during the first week of April 2007. Annual sampling occurred the week of August 20, 2007. During both sampling events, groundwater samples were collected from all observation wells and two collection wells (CW-0+60 and CW25+95) with the exception of wells that contain separate phase hydrocarbon or wells that were dry or did not contain enough water to catch a sample.

Groundwater Measurements

Depth-to-water and depth-to-product measurements were collected at each monitoring well, collection well, and observation well prior to sample collection during the April and August 2007 sampling events. Groundwater elevation maps were developed using the data gathered at that time. OW 1+50 and OW 3+85 had separate phase hydrocarbon present in both April and August. Separate phase hydrocarbon was detected in OW 5+50 in April and OW 16+60 in August. OW 6+70, OW 8+10, and OW 14+10 were dry in both April and August. OW 5+50 and OW 19+50 were dry in August but not in April.

Water Analysis

OW 0+60 and CW 0+60 were over the benzene (0.01 mg/L) WQCC standards and TPH Screening Guidelines for Diesel Range Organics (DRO)(1.72 mg/L) in August 2007. Concentrations detected at OW 11+15 exceeded the benzene and DRO standards in April and benzene limits in August 2007. OW 22+00 and OW 23+10 surpassed the DRO standards in August

Remedial Action and Conclusions

North Boundary Barrier Wall

During 2007, visual inspections of Seeps 1-9 were performed bi-weekly. This inspection has shown ground water discharge from the seeps along the river bluff has decreased significantly since installation of the slurry wall. It now appears that only seeps #1, #6, #7, #8, and #9 have any actual discharge of ground water as opposed to apparent periodic accumulation of stormwater in the other seep basins.

Groundwater elevation maps indicate that the wall is performing as intended by capturing the water along the south side of the wall. Inspections of the draws north of the barrier wall indicate where seepage of fuel hydrocarbon impacted water was present has been reduced or eliminated.

Visual inspection of Seeps 1-9 and fluid monitoring of the observation and collection wells will continue. The location of separate phase hydrocarbon in all

wells along Hammond Ditch will be assessed and trends in detection and absence of SPH thickness as well as fluid build up on both sides of the barrier will be assessed.

River Terrace Investigation

The system was put on-line in January 2006. Monitoring and remedial actions are following the *Voluntary Measures Bioventing Monitoring Plan* that has been approved by NMED.

Monitoring results and conclusions were presented in the *River Terrace Bioventing Project Annual Report* in January 2008.

Facility-Wide Monitoring and Remedial Actions

Future monitoring and remedial action will follow the *Facility-Wide Groundwater Monitoring Plan* dated December 2007 and approved by NMED and OCD with direction in March 2008. As stated in 5.1.2 of the Monitoring Plan, consideration for on-going monitoring of total metals and SVOC analysis will be assessed for necessity during future monitoring events. Only 6 of the 19 wells analyzed by EPA Method 8270 displayed any detection of SVOCs. Naphthalene was present in all six wells and 2-Methylnaphthalene was present in 5 of the 6 wells. These analytes can also be detected using EPA Method 8260B. Bloomfield Refinery proposes to eliminate EPA Method 8270 in future monitoring and continue to use the more cost-effective EPA Method 8260B.

Section 9.0 Tables

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Groundwater Elevation Information

All Monitoring Wells, Recovery Wells, Observation Wells, Collections Wells. And Sump Wells were resurveyed in February 2006. All Measuring Point Elevations were updated with the 2006 survey for this report.

The following equations were used to calculate "Corrected Groundwater Elevation":

$$(1) \text{ Separate Phase Hydrocarbon not detected} = \text{MPE} - \text{DTW}$$

$$(2) \text{ Separate Phase Hydrocarbon detected} = \text{MPE} - \text{DTW} + [0.8 (\text{DTW} - \text{DTP})]$$

$$\text{Separate Phase Hydrocarbon Thickness} = \text{DTW} - \text{DTP}$$

MPE = Measuring Point Elevation

DTW = Depth to Water

DTP = Depth to Product

Groundwater Elevation

Date	Well ID	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
8/22/2007	MW-01	5519.21	21.56	NPP	17.29	5501.92	NPP
4/4/2007		5519.21	21.56	NPP	17.29	5501.92	NPP
8/22/2007	MW-03	5539.27	36.75	NPP	36.41	5502.86	NPP
4/11/2007		5539.27	36.75	NPP	36.35	5502.92	NPP
8/27/2007	MW-04	5527.78	30.48	27.5	27.53	5500.27	0.03
4/3/2007		5527.78	30.48	NPP	26.53	5501.25	NPP
8/22/2007	MW-05	5548.56	37.2	NPP	NWP		NPP
4/4/2007		5548.56	37.2	NPP	NWP		NPP
8-22-0-7	MW-06	5554.61	48	NPP	NWP		NPP
4/4/2007		5554.61	48	NPP	NWP		NPP
8/22/2007	MW-07	5527.66	62.61	NPP	27.17	5500.49	NPP
4/3/2007		5527.66	62.61	NPP	27.14	5500.52	NPP
8/22/2007	MW-08	5534.58	35.93	NPP	31.84	5502.74	NPP
4/4/2007		5534.58	35.93	NPP	31.8	5502.78	NPP
8/23/2007	MW-11	5510.31	22.94	NPP	10.65	5499.66	NPP
4/3/2007		5510.31	22.94	NPP	10.79	5499.52	NPP
8/23/2007	MW-12	5501.61	14.98	NPP	10.59	5491.02	NPP
4/3/2007		5501.61	14.98	NPP	9.34	5492.27	NPP
8/23/2007	MW-13	5542.04	52.89	NPP	40.27	5501.77	NPP
4/4/2007		5542.04	52.89	NPP	40	5502.04	NPP
8/22/2007	MW-20	5519.9	27.13	20.66	21.15	5499.14	0.49
4/9/2007		5519.9	27.13	20.55	20.67	5499.33	0.12
8/22/2007	MW-21	5521.99	30.38	21.72	21.82	5500.25	0.10
4/9/2007		5521.99	30.38	21.67	21.73	5500.31	0.06
8/22/2007	MW-25	5533.99	41.2	33.07	33.62	5500.81	0.55
4/3/2007		5533.99	41.2	32.33	32.53	5501.62	0.20
8/23/2007	MW-26	5517.88	25.11	NPP	17.16	5500.72	NPP
4/3/2007		5517.88	25.11	NPP	16.79	5501.09	NPP
8/23/2007	MW-27	5518.67	24.42	NPP	18.34	5500.33	NPP
4/2/2007		5518.67	24.42	NPP	18.04	5500.63	NPP

NPP = No Product Present

NWP = No Water Present

Groundwater Elevation

Date	Well ID	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
8/22/2007	MW-29	5524.97	28.62	NPP	23.19	5501.78	NPP
4/4/2007		5524.97	28.62	NPP	23.15	5501.82	NPP
8/22/2007	MW-30	5536.83	40.13	NPP	34	5502.83	NPP
4/11/2007		5536.83	40.13	NPP	33.94	5502.89	NPP
8/23/2007	MW-31	5536.24	39.16	NPP	34.04	5502.20	NPP
4/4/2007		5536.24	39.16	NPP	33.92	5502.32	NPP
8/23/2007	MW-32	5525.64	27.51	NPP	24.77	5500.87	NPP
4/2/2007		5525.64	27.51	NPP	24.49	5501.15	NPP
8/23/2007	MW-33	5521.79	25.51	NPP	21.93	5499.86	NPP
4/2/2007		5521.79	25.51	NPP	21.59	5500.20	NPP
8/23/2007	MW-34	5511.63	20.96	NPP	13.57	5498.06	NPP
4/2/2007		5511.63	20.96	NPP	13.53	5498.10	NPP
8/28/2007	MW-35	5518.95	26.45	NPP	21.8	5497.15	NPP
4/2/2007		5518.95	26.45	NPP	21.67	5497.28	NPP
8/23/2007	MW-36	5516.95	23.26	NPP	20.43	5496.52	NPP
4/2/2007		5516.95	23.26	NPP	20.46	5496.49	NPP
8/27/2007	MW-37	5519.62	27.58	NPP	23.23	5496.39	NPP
4/2/2007		5519.62	27.58	NPP	23.11	5496.51	NPP
8/23/2007	MW-38	5519.19	26.82	NPP	23.54	5495.65	NPP
4/2/2007		5519.19	26.82	NPP	23.29	5495.90	NPP
8/22/2007	MW-39	5520.83	38.34	NPP	26.59	5494.24	NPP
4/16/2007		5520.83	38.34	NPP	25.85	5494.98	NPP
8/22/2007	MW-40	5527.31	30.07	28.17	28.37	5499.10	0.20
4/16/2007		5527.31	30.07	NPP	27.23	5500.08	NPP
8/22/2007	MW-41	5526.41	31.62	26.62	27.35	5499.64	0.73
4/16/2007		5526.41	31.62	NPP	25.87	5500.54	NPP
8/22/2007	MW-44	5535.44	50.91	NPP	34.19	5501.25	NPP
4/11/2007		5535.44	50.91	NPP	33.68	5501.76	NPP
8/22/2007	MW-45	5506.36	16.92	NPP	11.32	5495.04	NPP
4/16/2007		5506.36	16.92	NPP	11.28	5495.08	NPP

NPP = No Product Present

NWP = No Water Present

Groundwater Elevation

Date	Well ID	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
8/22/2007	MW-46	5504.65	10.39	NPP	NWP		NPP
4/9/2007		5504.65	10.39	NPP	NWP		NPP
8/22/2007	MW-47	5506.77	14.28	12.39	13.25	5494.21	0.86
4/9/2007		5506.77	14.28	12.02	12.85	5494.58	0.83
8/22/2007	P-03	5510.77	22.73	NPP	10.9	5499.87	NPP
4/9/2007		5510.77	22.73	NPP	10.56	5500.21	NPP
8/27/2007	RW-01	5529.34	40.8	NPP	31.15	5498.19	NPP
4/9/2007		5529.34	40.8	NPP	29.98	5499.36	NPP
8/27/2007	RW-02	5526.94	35.86	26.74	26.77	5500.19	0.03
4/9/2007		5526.94	35.86	NPP	25.63	5501.31	NPP
8/27/2007	RW-03	5520.35	34.57	NPP	21.74	5498.61	NPP
4/9/2007		5520.35	34.57	NPP	20.97	5499.38	NPP
8/27/2007	RW-09	5523.21	34.04	NPP	24.76	5498.45	NPP
4/9/2007		5523.21	34.04	NPP	24.31	5498.90	NPP
8/27/2007	RW-14	5537.5	41.94	35.1	35.42	5502.34	0.32
4/9/2007		5537.5	41.94	NPP	35.12	5502.38	NPP
8/27/2007	RW-15	5536.83	43.43	NPP	34.84	5501.99	NPP
4/9/2007		5536.83	43.43	NPP	34.73	5502.10	NPP
8/27/2007	RW-16	5535.45	41.48	NPP	33.79	5501.66	NPP
4/9/2007		5535.45	41.48	NPP	33.63	5501.82	NPP
8/27/2007	RW-17	5533.84	41.89	NPP	33	5500.84	NPP
4/9/2007		5533.84	41.89	NPP	32.53	5501.31	NPP
8/27/2007	RW-18	5529.38	37.58	29.58	29.75	5499.77	0.17
4/9/2007		5529.38	37.58	28.94	29.03	5500.42	0.09
8/27/2007	RW-19	5530.51	36.64	30.31	30.34	5500.19	0.03
4/9/2007		5530.51	36.64	NPP	29.52	5500.99	NPP

NPP = No Product Present

NWP = No Water Present

Groundwater Elevation

Date	Well ID	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
8/27/2007	RW-22	5524.44	35.6	NPP	25.49	5498.95	NPP
4/9/2007		5524.44	35.6	NPP	24.92	5499.52	NPP
8/27/2007	RW-23	5521.38	35.53	23.07	23.1	5498.30	0.03
4/9/2007		5521.38	35.53	23.05	23.09	5498.32	0.04
8/27/2007	RW-28	5527.93	36.99	28.59	29.15	5499.23	0.56
4/9/2007		5527.93	36.99	28.09	28.3	5499.80	0.21
8/27/2007	RW-42	5527.48	32.02	27.2	27.71	5500.18	0.51
4/9/2007		5527.48	32.02	26.5	26.63	5500.95	0.13
8/27/2007	* RW-43	5515.74	24.03	20.53	20.74	5495.17	0.21
4/9/2007		5515.74	24.03	NPP	20.22	5495.52	NPP

NPP = No Product Present

NWP = No Water Present

*RW #43 not used for Groundwater contouring purposes due to anomalous fluid level measurements and poor well recovery history

Water Quality Field Measurements

DATE	RW/MW	DEPTH TO H2O (ft)	Depth to Product	WELL DEPTH	E.C. (umhos/cm)	pH	TEMP. (Farenheit)	D.O (mg/L)	ORP
Aug-07	MW #1	17.29	NPP	21.56	854	6.97	64.3	4.0	228
Apr-07		17.29	NPP	21.56	811	6.92	56.6	NR ²	NR ²
Aug-06		17.35	NPP	21.56	952	7.03	64	0.9	223
Aug-07	MW #3	36.41	NPP	36.75	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
Apr-07		36.35	NPP	36.75	NS ¹	NS ¹	NS ¹	NR ²	NR ²
Aug-06		36.36	NPP	36.75	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
Aug-07	MW #4	27.53	27.5	30.48	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		26.53	NPP	30.48	2207	6.99	66.0	NR ²	NR ²
Aug-06		26.85	NPP	30.48	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	MW #5	NWP	NPP	37.2	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
Apr-07		NWP	NPP	37.2	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
Aug-06		NWP	NPP	37.2	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
Aug-07	MW #6	NWP	NPP	47.92	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
Apr-07		NWP	NPP	47.92	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
Aug-06		NWP	NPP	47.92	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
Aug-07	MW #7	27.22	NPP	62.61	NR ²	NR ²	NR ²	NR ²	NR ²
Apr-07		27.14	NPP	62.61	8491	6.93	64.7	NR ²	NR ²
Aug-06		27.14	NPP	62.61	NR ²	NR ²	NR ²	NR ²	NR ²
Aug-07	MW #8	31.84	NPP	35.93	2471	6.93	61.2	1.8	261
Apr-07		31.80	NPP	35.93	2746	6.89	59.8	NR ²	NR ²
Aug-06		31.79	NPP	35.93	2966	7.04	61	0.5	231
Aug-07	MW #11	10.65	NPP	22.94	2109	7.01	66.9	1.6	207
Apr-07		10.79	NPP	22.94	1944	6.93	55.0	NR ²	NR ²
Aug-06		10.57	NPP	22.94	2066	6.91	66	1.4	253
Aug-07	MW #12	10.59	NPP	14.98	987	7.05	68.1	2.6	183
Apr-07		9.34	NPP	14.98	599	6.92	51.8	NR ²	NR ²
Aug-06		10.07	NPP	14.98	875	7.01	65	0.37	158
Aug-07	MW #13	40.27	NPP	52.89	4078	6.98	61.8	1.6	234
Apr-07		40.10	NPP	52.89	3966	6.96	63.8	NR ²	NR ²
Aug-06		40.19	NPP	52.89	3993	6.93	62	0.56	246
Aug-07	MW #20	21.15	20.66	27.13	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		20.55	20.67	27.13	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-06		20.86	20.74	27.13	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹

NS¹= Well is Dry or Not Enough Water to Sample- No Sample

NS² = Sample Inadvertently not Collected this Sampling Event

NR¹= No Sample Required - Well Contains Separate Phase Hydrocarbon

NR² = No Sample Required per OCD and NMED pre-2007 Conditions

NWP = No Water Present

NPP = No Product Present

Water Quality Field Measurements

DATE	RW/MW	DEPTH TO H2O (ft)	Depth to Product	WELL DEPTH	E.C. (umhos/cm)	pH	TEMP. (Fahrenheit)	D.O (mg/L)	ORP
Aug-07	MW #21	21.82	21.72	30.38	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		21.73	21.67	30.38	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-06		21.9	21.84	30.38	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	MW #25	33.07	32.62	41.2	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		32.53	32.33	41.2	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-06		32.84	32.48	41.2	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	MW #26	17.16	NPP	25.11	2670	6.97	65.3	2.6	222
Apr-07		16.79	NPP	25.11	2589	6.94	63.0	NR ²	NR ²
Aug-06		17.06	NPP	25.11	2741	6.97	65	0.17	224
Aug-07	MW #27	18.34	NPP	24.42	2905	6.99	63.4	1.4	210
Apr-07		18.04	NPP	24.42	2945	6.89	59.4	NR ²	NR ²
Aug-06		18.37	NPP	24.42	3453	6.99	65	0.05	234
Aug-07	MW #29	23.19	NPP	28.62	NR ²	NR ²	NR ²	NR ²	NR ²
Apr-07		23.15	NPP	28.62	1669	6.91	59.7	NR ²	NR ²
Aug-06		23.25	NPP	28.62	NR ²	NR ²	NR ²	NR ²	NR ²
Aug-07	MW #30	34.00	NPP	40.13	2995	6.98	65.8	1.6	209
Apr-07		33.94	NPP	40.13	3713	6.79	60.8	NR ²	NR ²
Aug-06		33.93	NPP	40.13	NR ²	NR ²	NR ²	NR ²	NR ²
Aug-07	MW #31	34.04	NPP	39.16	NR ²	NR ²	NR ²	NR ²	NR ²
Apr-07		33.92	NPP	39.16	4024	6.96	64.0	NR ²	NR ²
Aug-06		33.92	NPP	39.16	NR ²	NR ²	NR ²	NR ²	NR ²
Aug-07	MW #32	24.77	NPP	27.51	5407	6.95	59.1	7.1	223
Apr-07		24.49	NPP	27.51	5228	6.89	60.5	NR ²	NR ²
Aug-06		24.75	NPP	27.51	4561	6.99	62	5.1	247
Aug-07	MW #33	21.93	NPP	25.51	4047	6.97	61.1	3.4	217
Apr-07		21.59	NPP	25.51	4248	6.88	60.0	NR ²	NR ²
Aug-06		21.99	NPP	25.51	4484	6.96	64	1.3	228
Aug-07	MW #34	13.57	NPP	20.96	1739	6.98	65.8	0.8	244
Apr-07		13.53	NPP	20.96	1290	6.92	52.5	NR ²	NR ²
Aug-06		13.44	NPP	20.96	1532	6.95	63	0.1	234
Aug-07	MW #35	21.8	NPP	26.45	1689	6.98	65.8	0.8	229
Apr-07		21.67	NPP	26.45	1605	6.88	57.1	NR ²	NR ²
Aug-06		21.69	NPP	26.45	2276	6.98	63	0.1	233

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Water Quality Field Measurements

DATE	RW/MW	DEPTH TO H2O (ft)	Depth to Product	WELL DEPTH	E.C. (umhos/cm)	pH	TEMP. (Fahrenheit)	D.O (mg/L)	ORP
Aug-07	MW #36	20.43	NPP	23.26	NR ²	NR ²	NR ²	NR ²	NR ²
Apr-07		20.46	NPP	23.26	864	6.92	58.2	NR ²	NR ²
Aug-06		20.19	NPP	23.26	1450	6.94	62	0.1	217
Aug-07	MW #37	23.23	NPP	27.58	2477	6.99	65.3	NR ²	NR ²
Apr-07		23.11	NPP	27.58	2757	6.88	59.3	NR ²	NR ²
Aug-06		23.5	NPP	27.58	2978	6.90	61	0.1	237
Aug-07	MW #38	23.54	NPP	26.82	1481	6.99	64.7	0.9	171
Apr-07		23.29	NPP	26.82	1864	6.91	59.7	NR ²	NR ²
Aug-06		23.29	NPP	26.82	2199	6.90	60	2.8	238
Aug-07	MW #39	26.59	NPP	38.34	NR ²	NR ²	NR ²	NR ²	NR ²
Apr-07		30.7	NPP	38.34	5561.0	6.90	63.4	NR ²	NR ²
Aug-06		26.24	NPP	38.34	5625.0	7.04	65.0	0.3	201.7
Aug-07	MW #40	28.37	28.17	30.07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		27.23	NPP	30.07	3103	6.95	64.7	NR ²	NR ²
Aug-06		27.51	27.31	30.07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	MW #41	27.35	26.62	31.62	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		25.87	NPP	31.62	2928	6.91	66.8	NR ²	NR ²
Aug-06		26.22	25.99	31.62	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	MW #44	34.19	NPP	50.91	NR ²	NR ²	NR ²	NR ²	NR ²
Apr-07		33.68	NPP	50.91	5319	6.71	58.4	NR ²	NR ²
Aug-06		34.4	NPP	50.91	NR ²	NR ²	NR ²	NR ²	NR ²
Aug-07	MW #45	11.32	NPP	16.92	NR ²	NR ²	NR ²	NR ²	NR ²
Aug-07		11.28	NPP	16.92	2178	6.88	56.6	NR ²	NR ²
Aug-06		11.25	11.23	16.92	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	MW #46	NS	NPP	10.39	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
Apr-07		NS	NPP	10.39	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
Aug-06		NS	NPP	10.39	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
Aug-07	MW#47	13.25	12.39	14.28	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		12.85	12.02	14.28	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-06		12.89	12.01	14.28	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	O/F #2	Not a Well	Not a Well	Not a Well	1026	7.00	64.0	2.6	244
Apr-07		Not a Well	Not a Well	Not a Well	961	6.82	50.2	NR ²	NR ²
Aug-06		Not a Well	Not a Well	Not a Well	NS ²	NS ²	NS ²	NS ²	NS ²

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Water Quality Field Measurements

DATE	RW/MW	DEPTH TO H2O (ft)	Depth to Product	WELL DEPTH	E.C. (umhos/cm)	pH	TEMP. (Fahrenheit)	D.O (mg/L)	ORP
Aug-07	O/F #3	Not a Well	Not a Well	Not a Well	359	6.99	57.8	6.0	219
Apr-07		Not a Well	Not a Well	Not a Well	1047	6.82	52.5	NR ²	NR ²
Aug-06		Not a Well	Not a Well	Not a Well	398	7.04	62	NR ²	208
Aug-07	RW #1	31.15	NPP	40.8	2896	6.98	65.2	1.3	222
Apr-07		29.98	NPP	40.8	2380	6.93	64.7	NR ²	NR ²
Aug-06		29.97	NPP	40.8	2657	7.02	65.6	NR ²	247
Aug-07	RW #2	26.77	26.74	35.86	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		25.63	NPP	35.86	2236	6.96	64.0	NR ²	NR ²
Aug-06		26.83	25.85	35.86	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	RW #3	21.74	NPP	34.57	NR ²	NR ²	NR ²	NR ²	NR ²
Apr-07		20.97	NPP	34.57	3041	6.92	63.4	NR ²	NR ²
Aug-06		21.02	NPP	34.57	NR ²	NR ²	NR ²	NR ²	NR ²
Aug-07	RW #9	24.76	NPP	34.04	2908.0	6.97	65.5	0.5	245
Apr-07		24.31	NPP	34.04	5624.0	6.75	59.1	NR ²	NR ²
Aug-06		24.52	24.39	34.04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	RW #14	35.42	35.1	41.94	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		35.6	35.58	41.94	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-06		35.12	NPP	41.94	NR ²	NR ²	NR ²	NR ²	NR ²
Aug-07	RW #15	34.84	NPP	43.43	3181.0	7.00	64.8	0.7	248
Apr-07		34.73	NPP	43.43	3220.0	6.79	59.7	NR ²	NR ²
Aug-06		34.83	NPP	43.43	3149.3	7.0	61.0	3.3	231.0
Aug-07	RW #16	33.79	NPP	41.48	NR ²	NR ²	NR ²	NR ²	NR ²
Apr-07		33.63	NPP	41.48	2812	6.81	59.9	NR ²	NR ²
Aug-06		33.73	NPP	41.48	NR ²	NR ²	NR ²	NR ²	NR ²
Aug-07	RW #17	33	NPP	41.89	NR ²	NR ²	NR ²	NR ²	NR ²
Apr-07		32.53	32.72	41.89	3061	6.97	69.3	NR ²	NR ²
Aug-06		32.73	32.72	41.89	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	RW #18	29.75	29.58	37.58	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		29.03	28.94	37.58	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-06		29.25	29.23	37.58	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	RW #19	30.34	30.31	36.64	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		29.52	NPP	36.64	2825	6.80	62.1	NR ²	NR ²
Aug-06		29.69	29.68	36.64	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹

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Water Quality Field Measurements

DATE	RW/MW	DEPTH TO H2O (ft)	Depth to Product	WELL DEPTH	E.C. (umhos/cm)	pH	TEMP. (Fahrenheit)	D.O (mg/L)	ORP
Aug-07	RW #22	25.49	NPP	35.61	NR ²	NR ²	NR ²	NR ²	NR ²
Apr-07		24.92	NPP	35.61	1926	6.81	59.7	NR ²	NR ²
Aug-06		25.03	NPP	35.61	NR ²	NR ²	NR ²	NR ²	NR ²
Aug-07	RW #23	23.1	23.07	35.53	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		23.09	23.05	35.53	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-06		23.11	23.06	35.53	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	RW #28	29.15	28.59	36.99	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07		28.3	28.09	36.99	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-06		28.93	28.23	36.99	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	RW #42	27.71	27.2	32.02	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		26.63	26.5	32.02	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-06		26.98	26.16	32.02	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Aug-07	RW #43	20.74	20.53	24.03	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
Apr-07		20.22	NPP	24.03	1942	6.93	68.5	NR ²	NR ²
Aug-06		20.68	20.32	24.03	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹

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Background Wells

Groundwater Analysis - Organics

		April 2006/2007 - EPA Method 8021B					MGGC 20-NMAC 6123103
		August 2006/2007 - EPA Method 8260B					
Sample Location	Date	Benzene (mg/L)	Toluene (mg/L)	EthylBen (mg/L)	Xylene (mg/L)	MTBE (mg/L)	
		0.01	0.75	0.75	0.62		
MW #3	Aug-07	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	
	Apr-07	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	
	Aug-06	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	
	Apr-06	<0.001	<0.001	<0.001	<0.003	<0.0025	
MW #5	Aug-07	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	
	Apr-07	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	
	Aug-06	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	
	Apr-06	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	
MW #6	Aug-07	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	
	Apr-07	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	
	Aug-06	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	
	Apr-06	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	

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Background Wells

Groundwater Analysis - General Chemistry

		EPA 300.0										EPA 160.1		EPA 120.1		EPA 310.1			
Sample Location	Date	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Bromide (mg/L)	Nitrogen (mg/L)	P (mg/L)	Sulfate (mg/L)	TDS (mg/L)	E.C. (umhos/cm)	D.O. (mg/L)	O.R.P. (mg/L)	CO2 (mg/L)	ALK (mg/L)					
MW #3	Aug-07	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹					
	Aug-06	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹					
	Aug-05	0.33	1200	<0.50	4.5	42	<0.50	2300	6200	8300	NS¹	44	680	680					
	Aug-04	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹					
MW #5	Aug-07	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹					
	Aug-06	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹					
	Aug-05	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹					
	Aug-04	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹					
MW #6	Aug-07	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹					
	Aug-06	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹					
	Aug-05	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹					
	Aug-04	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹					

WQCG 20 NMAC 6/23/03

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WQCG 20 NMAC 6-2-3103

Background Wells

Groundwater Analysis - Total Metals

Sample Location	Date	EPA Method 6010B, EPA Method 7470: Mercury									
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Cr (mg/L)	Lead (mg/L)	Se (mg/L)	Silver (mg/L)	Mercury (mg/L)	40 CFR 141.62 MCL	
MW #3	Aug-07	NS ¹	NS ¹	NS ¹	NS ¹	0.015	0.05	0.05	0.002	NS ¹	NS ¹
	Aug-06	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
	Aug-05	NS ¹	NS ¹	NS ¹	0.016	<0.005	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
	Aug-04	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
MW #5	Aug-07	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
	Aug-06	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
	Aug-05	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
	Aug-04	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
MW #6	Aug-07	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
	Aug-06	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
	Aug-05	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
	Aug-04	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹

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Background Wells

Groundwater Analysis - Dissolved Metals

		EPA Method 6010B													40 CFR 141.62 MCL			
Sample Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
MW # 3	Aug-07	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	0.05	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	
	Aug-06	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	
	Aug-05	<0.020	0.018	<0.002	480	<0.006	<0.006	0.047	<0.005	130	0.43	7.6	<0.050	<0.005	1300	<0.10	0.018	
	Aug-04	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	
MW # 5	Aug-07	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	
	Aug-06	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	
	Aug-05	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	
	Aug-04	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	
MW # 6	Aug-07	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	
	Aug-06	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	
	Aug-05	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	
	Aug-04	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	

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Refinery Wells

Groundwater Analysis - Organics

Sample Location	Date	April 2006/2007 - EPA Method 8021B				
		August 2006/2007 - EPA Method 8260B				
		Benzene (mg/L)	Toluene (mg/L)	EthylBen (mg/L)	Xylene (mg/L)	MTBE (mg/L)
		0.01	0.75	0.75	0.62	
RW #1	Aug-07	0.25	<0.005	0.56	0.4	0.013
	Apr-07	0.035	0.041	0.031	0.012	<0.012
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #4	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-07	1.2	<0.01	0.068	0.7	<0.025
	Aug-06	NS ²	NS ²	NS ²	NS ²	NS ²
	Apr-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #8	Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001
	Apr-07	<0.001	<0.001	<0.001	<0.002	<0.0025
	Aug-06	<0.001	<0.001	<0.001	<0.003	<0.0015
	Apr-06	<0.001	0.0016	<0.001	<0.003	<0.0025
RW #9	Aug-07	9.7	<0.02	0.59	4.1	5.7
	Apr-07	11	<0.10	0.87	4.1	8.6
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
RW #15	Aug-07	6.9	6.2	3.5	20	0.03
	Apr-07	6.8	2.9	3	15	<0.62
	Aug-06	20	20	7.2	43	<0.380
	Apr-06	NR ¹	NR ¹	NR ¹	NR ¹	NR
RW #18	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #20	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹

WQCG 20 NMAC 62.3103

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Refinery Wells

Groundwater Analysis - Organics

		April 2006/2007 - EPA Method 8021B				
		August 2006/2007 - EPA Method 8260B				
Sample Location	Date	Benzene (mg/L)	Toluene (mg/L)	EthylBen (mg/L)	Xylene (mg/L)	MTBE (mg/L)
		0.01	0.75	0.75	0.62	
MW #21	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
RW #23	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
RW #28	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #29	Aug-07	NS ²	NS ²	NS ²	NS ²	NS ²
	Apr-07	<0.001	<0.001	<0.001	<0.002	0.004
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²
	Apr-06	<0.001	<0.001	<0.001	<0.003	0.0045
MW #30	Aug-07	6	2.9	4	16	<0.02
	Apr-07	5.7	3.3	5.4	21	<0.62
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²
	Apr-06	3.5	1.4	2.6	6.8	<0.620
MW #31	Aug-07	NS ²	NS ²	NS ²	NS ²	NS ²
	Apr-07	4.3	<0.10	1.4	4.7	<0.25
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²
	Apr-06	6.1	1.5	0.94	4.5	<0.120
MW #40	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Apr-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹

WQCG201NMAG623103

NS¹= Well is Dry or Not Enough Water to Sample- No Sample

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Refinery Wells

Groundwater Analysis - Organics

		April 2006/2007 - EPA Method 8021B August 2006/2007 - EPA Method 8260B					
Sample Location	Date	Benzene	Toluene	EthylBen	Xylene	MTBE	
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	
		0.01	0.75	0.75	0.62		WQCG-2011MAC-6-23103
RW #42	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Apr-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Apr-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
RW #43	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Apr-07	15	4.5	0.81	6.3	12	
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Apr-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
MW #44	Aug-07	NS ²	NS ²	NS ²	NS ²	NS ²	
	Apr-07	<0.001	0.006	0.003	0.034	<0.0025	
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Apr-06	<0.001	<0.001	<0.001	<0.003	0.003	

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NR² = No Sample Required per OCD and NMED pre-2007 Conditions

Refinery Wells

Groundwater Analysis - General Chemistry

WQCC 20/NMAC 6.2.3103														
Sample Location	Date	EPA 300.0							EPA 160.1			EPA 120.1		
		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Bromide (mg/L)	Nitrogen (mg/L)	P (mg/L)	Sulfate (mg/L)	TDS (mg/L)	E/C (umhos/cm)	DO (mg/L)	O/R/P (mg/L)	CO2 (mg/L)	ALK (mg/L)
RW #1	Aug-07	<0.50	220	<0.50	2.2	<0.50	<2.5	110	2100	3000	1.25	222	1400	1300
	Aug-06	<0.50	230	<0.50	2.8	NS ²	<2.5	3.8	1700	2800	0.3	247	1200	1200
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #4	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #8	Aug-07	0.74	410	<0.10	1.6	20	<0.50	1300	2800	3800	1.78	262	200	190
	Aug-06	0.67	300	26	1.5	NS ²	<0.50	980	2200	3200	0.47	231	200	210
	Aug-05	0.79	260	<0.50	<2.5	27	<0.50	740	2000	2900	7.3	114	260	260
	Aug-04	0.64	250	NS ²	1.2	NS ²	<0.50	920	2100	2600	2.9	142	210	230
RW #9	Aug-07	<2.0	420	<2.0	3.9	<2.0	<10	41	2300	3100	0.46	245	1200	1000
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
RW #15	Aug-07	0.32	400	<2.0	8.4	<0.10	<0.50	<0.50	2000	3300	0.73	248	1300	1300
	Aug-06	<0.50	370	<0.50	7.6	NS ²	<2.5	<2.5	2000	3300	3.3	231	1200	1200
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	0.3	460	<0.10	6.7	<0.10	<0.50	3.4	2100	3100	NR	-85	1100	1300
RW #18	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	<1.0	110	<1.0	<5.0	<1.0	<5.0	940	3900	3400	NS ²	NS ²	590	NS ²
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹

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Refinery Wells

Groundwater Analysis - General Chemistry

WQCC 20 NMAC 6.2.3103														
Sample Location	Date	EPA 300.0					EPA 160.1		EPA 120.1		EPA 310.1			
		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Bromide (mg/L)	Nitrogen (mg/L)	P (mg/L)	Sulfate (mg/L)	TDS (mg/L)	E.C. (umhos/cm)	D.O. (mg/L)	O.R.P. (mg/L)	CO2 (mg/L)	ALK (mg/L)
		1.6	250			10		600	1000					
MW #20	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #21	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
RW #23	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
RW #28	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #29	Aug-07	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	0.31	35	<0.10	<0.10	0.6	<0.50	150	550	760	4.7	115	210	240
MW #30	Aug-07	0.17	240	<0.10	4.7	<0.10	<0.50	76	2400	3300	1.64	209	1500	1400
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-05	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-04	0.18	360	<0.10	5.6	<0.10	<0.10	720	3100	3900	over range	-196	1200	1400

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Refinery Wells

Groundwater Analysis - General Chemistry

WQCC 20 NMAC 6-2-3103													
Sample Location	Date	EPA 300.0						EPA 160.1		EPA 120.1		EPA 310.1	
		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Bromide (mg/L)	Nitrogen (mg/L)	P (mg/L)	Sulfate (mg/L)	TDS (mg/L)	EC (umhos/cm)	D.O. (mg/L)	O.R.P. (mg/L)	CO2 (mg/L)
MW #31	Aug-07	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-05	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-04	0.19	370	<0.10	7.2	0.14	<0.50	750	2800	3700	3.4	-19	980
MW #40	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
RW #42	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
RW #43	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #44	Aug-07	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	0.3	210	<0.10	0.79	<0.10	<0.50	2800	4800	5200	5.3	-52	400
													450

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Refinery Wells

Groundwater Analysis - Total Metals

Sample Location	Date	EPA Method 6010B, EPA Method 7470: Mercury							40 CFR 141.62 MCL		
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Se (mg/L)	Silver (mg/L)	Mercury (mg/L)		
RW #1	Aug-07	0.05	2	0.005	0.1	0.015	0.05	0.05	0.002		
	Aug-07	<0.020	0.61	<0.002	<0.006	0.019	<0.05	<0.005	<0.0002		
	Aug-06	NR ²	NR ²	NR ²	<0.006	<0.005	NR ²	NR ²	NR ²		
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
MW #4	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-06	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²		
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
MW #8	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-07	<0.020	0.027	<0.002	0.56	<0.005	<0.05	0.069	<0.0002		
	Aug-06	NR ²	NR ²	NR ²	2.9	<0.005	NR ²	NR ²	NR ²		
	Aug-05	NR ²	NR ²	NR ²	0.33	<0.005	NR ²	NR ²	NR ²		
RW #9	Aug-04	<0.020	0.071	<0.002	1.9	<0.005	<0.05	<0.005	<0.0002		
	Aug-07	<0.020	1.7	<0.002	<0.006	0.052	<0.05	<0.005	<0.0002		
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
RW #15	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-07	<0.020	1.8	<0.002	<0.006	<0.005	<0.05	<0.005	<0.001		
	Aug-06	NR ²	NR ²	NR ²	<0.006	<0.005	NR ²	NR ²	NR ²		
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
RW #18	Aug-04	<0.020	1.2	<0.002	<0.006	<0.005	<0.05	<0.005	<0.0002		
	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-05	NR ²	NR ²	NR ²	0.32	0.16	NR ²	NR ²	NR ²		
Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		

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Refinery Wells

Groundwater Analysis - Total Metals

Sample Location	Date	EPA Method 6010B, EPA Method 7470: Mercury									
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Se (mg/L)	Silver (mg/L)	Mercury (mg/L)	40 CFR 141.62 MCL	
MW #20	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #21	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
RW #23	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
RW #28	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #29	Aug-07	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	<0.020	0.039	<0.002	<0.006	<0.005	<0.05	<0.005	<0.0002	<0.0002	<0.0002
MW #30	Aug-07	<0.020	0.89	<0.002	<0.006	<0.005	<0.05	<0.005	<0.0002	<0.0002	<0.0002
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-05	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-04	<0.20	0.24	<0.002	0.007	0.011	<0.05	<0.005	0.0002	0.0002	0.0002

NS¹= Well is Dry or Not Enough Water to Sample- No Sample

NS² = Sample Inadvertently not Collected this Sampling Event

NR¹= No Sample Required - Well Contains Separate Phase Hydrocarbon

NR² = No Sample Required per OCD and NMED pre-2007 Conditions

Refinery Wells

Groundwater Analysis - Total Metals

Sample Location	Date	EPA Method 6010B, EPA Method 7470, Mercury								40 CFR 141.62, MCL			
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Cr (mg/L)	Lead (mg/L)	Se (mg/L)	Silver (mg/L)	Mercury (mg/L)				
MW #31	Aug-07	NS ²	NS ²	NS ²	NS ²	0.015	0.05	0.05	0.002				
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²				
	Aug-05	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²				
	Aug-04	<0.020	0.35	<0.002	0.0088	<0.005	<0.050	<0.005	0.00022				
MW #40	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
RW #42	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
RW #43	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
MW #44	Aug-07	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²				
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²				
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹				
	Aug-04	<0.020	0.084	<0.002	0.1	0.036	<0.05	<0.0005	0.0003				

NS¹= Well is Dry or Not Enough Water to Sample- No Sample
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NR¹= No Sample Required - Well Contains Separate Phase Hydrocarbon
 NR² = No Sample Required per OCD and NMED pre-2007 Conditions

Refinery Wells

Groundwater Analysis - Dissolved Metals

		EPA Method 6010B														40 CFR 141.62 MCL			
Sample Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)		
RW #1	Aug-07	<0.02	68	<0.002	140	<0.006	<0.006	8.0	0.007	37	4.2	3.1	<0.25	<0.005	530	<0.10	<0.05		
	Aug-06	<0.20	1.7	<0.002	120	<0.006	<0.006	6.4	0.008	32	3	3.2	<0.05	<0.005	500	<0.10	0.057		
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
MW #4	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-06	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²		
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
MW #8	Aug-07	<0.020	<0.020	<0.002	250	<0.006	<0.006	0.2	<0.005	35	0.24	3.1	0.1	<0.005	420	<0.10	<0.05		
	Aug-06	<0.020	0.018	<0.002	230	<0.006	<0.006	0.033	<0.005	35	0.42	3.2	0.05	<0.005	380	<0.10	0.044		
	Aug-05	<0.020	0.021	<0.002	230	<0.006	<0.006	0.078	<0.005	37	0.65	3.1	<0.05	<0.005	360	<0.10	0.014		
	Aug-04	<0.020	0.021	<0.002	210	<0.006	<0.006	0.059	<0.005	35	0.57	3.0	<0.05	<0.005	360	<0.10	0.022		
RW #9	Aug-07	<0.020	2.5	<0.002	180	<0.006	<0.006	16.0	0.026	52	4.4	3.0	<0.25	<0.005	400	<0.10	0.084		
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
RW #15	Aug-07	<0.020	1.6	<0.002	140	<0.006	<0.006	16.0	<0.005	42	3.2	3.3	<0.25	<0.005	550	<0.10	0.057		
	Aug-06	<0.020	1.3	<0.002	140	<0.006	<0.006	9.9	0.009	43	3.2	3.2	<0.05	<0.005	560	<0.10	0.034		
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-04	<0.020	1.2	<0.002	160	<0.006	<0.006	6.0	<0.005	52	3.3	3.7	<0.050	<0.005	580	<0.10	0.043		
RW #18	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
	Aug-05	<0.020	0.038	<0.002	220	<0.006	<0.006	5.0	<0.005	64	4.1	4.4	<0.050	<0.005	500	<0.10	0.021		
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		

NR¹ = Well is Dry or Not Enough Water to Sample - No Sample
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NR¹ = No Sample Required - Well Contains Separate Phase Hydrocarbon
 NR² = No Sample Required per OCD and NMED pre-2007 Conditions

Refinery Wells

Groundwater Analysis - Dissolved Metals

		EPA Method 6010B													40 CFR 141.62 MCL		
Sample Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Cr (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Mg (mg/L)	Mn (mg/L)	K (mg/L)	Se (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
MW #20	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	0.05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #21	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
RW #23	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
RW #28	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
MW #29	Aug-07	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	Aug-04	<0.020	0.025	<0.002	55	<0.006	<0.006	<0.020	<0.005	15	0.82	2.7	<0.05	<0.005	100	<0.10	0.017
MW #30	Aug-07	<0.02	0.59	<0.002	190	<0.006	<0.006	0.31	<0.005	39	1.8	2.9	<0.25	<0.005	560	<0.10	<0.05
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-05	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-04	<0.020	0.13	<0.002	350	<0.006	0.006	4.7	0.005	88	2.1	<10	<0.05	<0.005	750	<0.10	0.046

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Refinery Wells

Groundwater Analysis - Dissolved Metals

		EPA Method 6010B														40 CFR 141.62 MCL			
Sample Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)		
MW #31	Aug-07	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	
	Aug-05	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	
	Aug-04	<0.02	0.35	<0.002	220	<0.006	<0.006	0.46	<0.005	67	0.58	4.8	<0.05	<0.005	640	<0.1	0.019		
MW #40	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
RW #42	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
RW #43	Aug-07	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Aug-06	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Aug-04	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
MW #44	Aug-07	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	NS ²	
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	
	Aug-05	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
	Aug-04	<0.020	0.046	<0.002	520	0.034	0.027	76	0.015	87	1.7	44	<0.05	<0.005	750	<0.10	<0.05		

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Refinery Wells

Groundwater Analysis - Semi-Volatile Organic Compounds

		EPA Method 8270B								WQCC 20 NMAC 6.2.3.103	
Sample Location	Date	Acenaphthene (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	2,4-Dimethylphenol (mg/L)	Fluorene (mg/L)	2-Methylnaphthalene (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)		
RW #1	Aug-07	0.022	0.077	<0.02	0.088	0.86	0.43	0.093	<0.02		
RW #9	Aug-07	<0.02	<0.03	0.029	<0.02	0.12	0.13	0.026	0.044		
RW #15	Aug-07	<0.05	<0.075	0.078	<0.05	0.33	0.35	0.068	0.11		
MW #30	Aug-07	<0.01	<0.015	<0.01	<0.01	0.14	0.44	<0.01	<0.01		

NS¹= Well is Dry or Not Enough Water to Sample- No Sample

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NR¹= No Sample Required - Well Contains Separate Phase Hydrocarbon

NR² = No Sample Required per OCD and NMED pre-2007 Conditions

Cross - Gradient Wells

Groundwater Analysis - Organics

		April 2006/2007 - EPA Method 8021B				
		August 2006/2007 - EPA Method 8260B				
Sample Location	Date	Benzene (mg/L)	Toluene (mg/L)	EthylBen (mg/L)	Xylene (mg/L)	MTBE (mg/L)
		0.01	0.75	0.75	0.62	
MW #1	Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001
	Apr-07	<0.001	<0.001	<0.001	<0.002	<0.0025
	Aug-06	<0.001	<0.001	<0.001	<0.003	<0.0015
	Apr-06	<0.001	<0.001	<0.001	<0.003	<0.0025
MW #13	Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001
	Apr-07	<0.001	<0.001	<0.001	<0.002	0.005
	Aug-06	<0.001	<0.001	<0.001	<0.003	0.007
	Apr-06	<0.001	<0.001	<0.001	<0.003	0.01
MW #26	Aug-07	0.079	<0.01	0.18	<0.015	0.011
	Apr-07	0.72	<0.01	0.37	0.035	<0.025
	Aug-06	0.33	<0.002	0.48	<0.06	0.038
	Apr-06	0.29	0.073	0.30	<0.06	<0.005
MW #27	Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001
	Apr-07	<0.001	<0.001	<0.001	<0.002	<0.0025
	Aug-06	<0.001	<0.001	<0.001	<0.003	<0.0015
	Apr-06	0.0058	<0.001	<0.001	0.0042	<0.0025
MW #32	Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001
	Apr-07	<0.001	<0.001	<0.001	<0.002	<0.0025
	Aug-06	<0.001	<0.001	<0.001	<0.003	<0.0015
	Apr-06	<0.001	<0.001	<0.001	<0.003	<0.0025
MW #33	Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001
	Apr-07	<0.001	<0.001	<0.001	<0.002	<0.0025
	Aug-06	<0.001	<0.001	<0.001	<0.003	<0.0015
	Apr-06	<0.001	0.0016	<0.001	<0.003	<0.0025

WQCG 201MAG 6/23/03

NS¹= Well is Dry or Not Enough Water to Sample- No Sample

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NR² = No Sample Required per OCD and NMED pre-2007 Conditions

Cross - Gradient Wells

Groundwater Analysis - General Chemistry

WQCC 20 NMAC 6-2-3103															
Sample Location	Date	EPA 300.0							EPA 160.1		EPA 120.1			EPA 310.1	
		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Bromide (mg/L)	Nitrogen (mg/L)	P (mg/L)	Sulfate (mg/L)	TDS (mg/L)	EiG umhos/cm	D.O (mg/L)	O.R.P (mg/L)	CO2 (mg/L)	ALK (mg/L)	
MW #1	Aug-07	0.74	16	<0.10	<0.50	1.9	<0.50	160	570	910	3.96	228	270	290	
	Aug-06	0.65	17	1.2	<0.50	NR	<0.50	190	640	940	0.93	223	240	270	
	Aug-05	0.68	31	<0.10	<0.50	2.1	<0.50	190	650	980	9.2	106	300	300	
	Aug-04	0.63	29	<0.10	0.14	1.9	<0.50	220	650	870	5.4	-532	220	240	
MW #13	Aug-07	0.2	310	<0.10	4	7.8	<0.50	1100	3000	4300	1.64	234	1000	960	
	Aug-06	0.12	310	8.3	3.7	NR	<0.50	1100	3000	4300	0.56	246	910	960	
	Aug-05	0.15	320	0.23	4.6	6.1	<0.50	1000	3000	4600	6.2	166	1000	1000	
	Aug-04	0.2	330	1.6	4.3	6.6	<0.50	950	2800	3400	5	158	860	950	
MW #26	Aug-07	0.38	330	<0.10	5.4	<0.10	<0.50	0.52	1600	2800	2.56	222	1200	1000	
	Aug-06	0.36	410	<0.50	5.2	NR	<0.50	0.68	1700	2900	0.16	224	990	960	
	Aug-05	0.42	290	<0.50	4.5	<0.10	<0.50	<0.50	1600	2700	7.4	-29	1000	1000	
	Aug-04	0.29	230	<0.10	4.2	<0.10	<0.50	<0.50	1600	2200	7.5	-33	910	1000	
MW #27	Aug-07	0.76	110	<1.0	0.83	<0.10	<0.5	1300	2400	3100	1.35	210	350	290	
	Aug-06	0.38	150	<0.50	1.1	NR	<0.5	1700	3000	3700	0.05	234	380	370	
	Aug-05	0.24	260	<1.0	2.1	<0.1	<0.5	1000	2600	3500	>13.0	-66	600	600	
	Aug-04	0.2	290	<0.1	3.1	<0.1	<0.5	120	1700	2400	1.7	-143	890	970	
MW #32	Aug-07	0.36	1100	<1.0	4.7	15	<0.50	1300	3800	5700	7.07	223	180	190	
	Aug-06	0.19	940	5.6	3.4	NR	<0.50	940	3100	4900	5.13	247	180	200	
	Aug-05	0.27	710	<2.0	2.9	8.7	<0.50	780	2600	4100	NA	142	250	250	
	Aug-04	0.24	650	<0.10	2.9	5	<0.50	580	2400	3300	5.6	79	280	310	
MW #33	Aug-07	0.31	560	<1.0	3	26	<0.50	1300	150	4300	3.43	217	150	160	
	Aug-06	0.23	560	33	3	NR	<0.50	1600	3400	4800	1.27	228	130	140	
	Aug-05	0.3	560	<0.5	3.2	26	<0.50	1500	3500	4700	>13.0	106	160	160	
	Aug-04	0.21	550	NR	3.2	NR	ND	1600	3700	4400	5.6	-7.3	140	150	

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Cross - Gradient Wells

Groundwater Analysis - Total Metals

		EPA Method 6010B EPA Method 7470: Mercury									
Sample Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Cr (mg/L)	Lead (mg/L)	Se (mg/L)	Silver (mg/L)	Mercury (mg/L)	40 CFR 141.62 MCL	
MW #1	Aug-07	<0.020	0.086	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002		
	Aug-06	<0.020	0.023	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002		
	Aug-05	NR ²	NR ²	NR ²	<0.006	<0.005	NR ²	NR ²	NR ²		
	Aug-04	<0.020	0.052	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002		
MW #13	Aug-07	<0.020	0.026	<0.002	0.006	0.006	<0.050	<0.005	<0.0002		
	Aug-06	<0.020	0.025	<0.002	<0.006	0.0078	<0.050	<0.005	<0.0002		
	Aug-05	NR ²	NR ²	NR ²	0.012	<0.005	NR ²	NR ²	NR ²		
	Aug-04	<0.020	0.028	<0.002	0.085	<0.005	<0.050	<0.005	<0.0002		
MW #26	Aug-07	<0.020	2.3	<0.002	<0.006	0.009	<0.050	<0.005	<0.0002		
	Aug-06	<0.020	2.2	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002		
	Aug-05	NR ²	NR ²	NR ²	<0.006	<0.005	NR ²	NR ²	NR ²		
	Aug-04	<0.020	2	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002		
MW #27	Aug-07	<0.020	0.09	<0.002	<0.006	0.011	<0.050	<0.005	<0.0002		
	Aug-06	<0.020	0.038	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002		
	Aug-05	NR ²	NR ²	NR ²	<0.006	<0.005	NR ²	NR ²	NR ²		
	Aug-04	<0.020	0.13	<0.002	0.019	<0.005	<0.050	<0.005	<0.0002		
MW #32	Aug-07	<0.020	0.037	<0.002	<0.006	<0.006	<0.050	<0.005	<0.0002		
	Aug-06	<0.020	0.032	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002		
	Aug-05	NR ²	NR ²	NR ²	<0.006	<0.005	NR ²	NR ²	NR ²		
	Aug-04	<0.020	0.049	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002		
MW #33	Aug-07	<0.020	0.26	<0.002	<0.006	0.007	<0.050	<0.005	<0.0002		
	Aug-06	<0.020	0.017	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002		
	Aug-05	NR ²	NR ²	NR ²	<0.006	<0.005	NR ²	NR ²	NR ²		
	Aug-04	<0.020	0.038	<0.002	<0.006	0.0067	<0.050	<0.005	0.00069		

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Cross - Gradient Wells

Groundwater Analysis - Dissolved Metals

40CFR 141.62 MCL															
EPA Method 6010B															
Sample Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)
		0.1	1	0.01		0.05	1	1	0.05		0.2			0.05	
MW #1	Aug-07	<0.02	0.023	<0.002	63	<0.006	<0.006	<0.02	<0.005	16	0.027	2	<0.05	<0.005	78
	Aug-06	<0.02	0.023	<0.002	74	<0.006	<0.006	<0.02	<0.005	18	0.09	2.4	<0.05	<0.005	120
	Aug-05	<0.02	0.022	<0.002	68	<0.006	<0.006	0.14	<0.005	18	0.14	2.7	<0.05	<0.005	140
	Aug-04	<0.02	0.025	<0.002	67	<0.006	<0.006	0.27	<0.005	18	0.13	2.1	<0.05	<0.005	110
MW #13	Aug-07	<0.02	0.027	<0.002	270	<0.006	<0.006	0.047	<0.005	81	1.4	3.6	<0.05	<0.005	640
	Aug-06	<0.02	0.025	<0.002	250	<0.006	0.0063	<0.02	0.0078	82	1.1	3.6	<0.05	<0.005	620
	Aug-05	<0.02	0.028	<0.002	240	<0.006	<0.006	<0.02	<0.005	85	1.1	3.8	<0.05	<0.005	570
	Aug-04	<0.02	0.022	<0.002	210	<0.006	<0.006	0.046	<0.005	80	0.58	3.6	<0.05	<0.005	610
MW #26	Aug-07	<0.02	2.3	<0.002	110	<0.006	<0.006	6.3	<0.005	38	3.2	3	<0.05	<0.005	450
	Aug-06	<0.02	2.2	<0.002	10	<0.006	<0.006	6.8	<0.005	38	3.1	3	<0.05	<0.005	450
	Aug-05	<0.02	1.9	<0.002	92	<0.006	<0.006	6.3	<0.005	32	2.8	2.8	<0.05	<0.005	430
	Aug-04	<0.02	1.8	<0.002	75	<0.006	<0.006	5.1	0.0056	27	2	2.6	<0.05	<0.005	440
MW #27	Aug-07	<0.02	0.021	<0.002	330	<0.006	<0.006	10	<0.005	41	9.6	2.6	<0.05	<0.005	350
	Aug-06	<0.02	0.038	<0.002	360	<0.006	<0.006	7.4	<0.005	52	8	3.7	<0.05	<0.005	440
	Aug-05	<0.02	0.063	<0.002	290	<0.006	<0.006	3.4	<0.005	45	2.7	3.4	<0.05	<0.005	430
	Aug-04	<0.02	0.083	<0.002	170	<0.006	<0.006	0.15	<0.005	26	0.94	206	<0.05	<0.005	390
MW #32	Aug-07	<0.02	0.028	<0.002	350	<0.006	<0.006	<0.02	<0.005	51	0.002	3.5	<0.05	<0.005	820
	Aug-06	<0.02	0.032	<0.002	260	<0.006	<0.006	<0.02	<0.005	38	<0.002	3.1	<0.05	<0.005	700
	Aug-05	<0.02	0.026	<0.002	200	<0.006	<0.006	<0.02	<0.005	32	<0.002	3	<0.05	<0.005	580
	Aug-04	<0.02	0.022	<0.002	170	<0.006	<0.006	0.056	<0.005	26	<0.002	2.7	<0.05	<0.005	550
MW #33	Aug-07	<0.02	<0.02	<0.002	270	<0.006	<0.006	<0.02	<0.005	37	0.009	4.1	<0.05	<0.005	620
	Aug-06	<0.02	0.017	<0.002	320	<0.006	<0.006	<0.020	<0.005	47	0.0077	4.6	<0.05	<0.005	660
	Aug-05	<0.02	0.019	<0.002	340	<0.006	<0.006	<0.02	<0.005	48	0.0065	4.9	<0.05	<0.005	640
	Aug-04	<0.02	0.02	<0.002	350	<0.006	0.0062	0.11	<0.005	54	0.013	5.3	<0.05	<0.005	670

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Cross - Gradient Wells

Groundwater Analysis - Semi-Volatile Organic Compounds

EPA Method 8270B				
Sample Location	Date	Isophorone (mg/L)	Naphthalene (mg/L)	WOGG20 NMAG 6-2-3103
MW #26	Aug-07	0.012	0.051	

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Downgradient Wells

Groundwater Analysis - Organics

		April 2006/2007 - EPA Method 8021B August 2006/2007 - EPA Method 8260B					WQCC 201 NMAG-6-2-3103
Sample Location	Date	Benzene (mg/L)	Toluene (mg/L)	EthylBen (mg/L)	Xylene (mg/L)	MTBE (mg/L)	
		0.01	0.75	0.75	0.62		
MW #11	Aug-07	0.97	<0.01	<0.01	<0.015	0.022	
	Apr-07	3.9	<0.01	0.038	0.16	<0.025	
	Aug-06	0.24	<0.001	0.012	0.045	0.033	
	Apr-06	3.2	<0.005	<0.005	0.23	<0.120	
MW #12	Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001	
	Apr-07	<0.001	<0.001	<0.001	<0.002	<0.0025	
	Aug-06	<0.001	<0.001	<0.001	<0.003	<0.015	
	Apr-06	0.001	<0.001	<0.001	<0.003	<0.025	
MW #34	Aug-07	0.018	<0.001	<0.001	0.0079	0.0046	
	Apr-07	0.014	<0.005	<0.005	0.044	<0.012	
	Aug-06	0.032	<0.005	<0.005	<0.015	<0.075	
	Apr-06	<0.001	0.03	0.0055	0.021	<0.0025	
MW #35	Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001	
	Apr-07	<0.001	<0.001	<0.001	0.003	<0.0025	
	Aug-06	<0.005	<0.005	<0.005	<0.015	<0.075	
	Apr-06	<0.001	0.038	0.011	0.039	<0.0025	
MW #37	Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001	
	Apr-07	<0.001	<0.001	<0.001	<0.002	<0.0025	
	Aug-06	<0.001	<0.001	<0.001	<0.003	<0.0015	
	Apr-06	<0.001	0.0053	<0.001	0.003	<0.0025	
MW #38	Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001	
	Apr-07	<0.001	<0.001	<0.001	<0.002	0.004	
	Aug-06	<0.001	<0.001	<0.001	<0.003	0.0038	
	Apr-06	<0.001	0.0029	<0.001	<0.003	0.0045	

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Downgradient Wells

Groundwater Analysis - General Chemistry

WQCC 20/NMAC 6.2.3.103														
Sample Location	Date	EPA 300.0							EPA 160.1	EPA 120.1	EPA 310.1			
		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Bromide (mg/L)	Nitrogen (mg/L)	P (mg/L)	Sulfate (mg/L)	TDS (mg/L)	EC (umhos/cm)	D.O. (mg/L)	OR:P (mg/L)	CO2 (mg/L)	ALK (mg/L)
		16	250			10		600	1000					
MW #11	Aug-07	0.57	96	<1.0	1.03	<0.10	<0.50	10	1400	2200	1.61	207	1300	1000
	Aug-06	0.1	82	<1.0	1	<0.10	<0.50	19	1400	2200	1.36	253	1100	1100
	Aug-05	0.56	85	<0.10	1.4	<0.10	<0.50	20	1500	2200	>13.0	-55	1100	1100
	Aug-04	0.41	97	NS²	0.97	NS²	<0.50	13	1500	2100	13.8	-36	330	390
MW #12	Aug-07	0.39	19	<0.10	<0.50	<0.10	<0.50	830	1500	2000	258	183	250	260
	Aug-06	0.36	19	<0.10	<0.50	<0.10	<0.50	140	560	890	0.37	158	260	290
	Aug-05	0.43	100	<0.10	0.75	<0.10	<0.50	2400	4000	4600	12.4	94	310	310
	Aug-04	0.52	130	NS²	0.78	NS²	NS²	680	1600	1900	9.3	151	970	1100
MW #34	Aug-07	0.83	100	<1.0	1.3	<0.10	<0.50	68	1300	1900	0.8	244	880	840
	Aug-06	0.95	60	<1.0	0.8	<0.10	<0.50	27	1100	1600	0.11	234	730	760
	Aug-05	0.81	100	<0.1	1.2	0.1	<0.50	9	1500	2200	7.6	-40	1100	1200
	Aug-04	0.62	100	<0.10	1.2	<0.10	<0.50	29	1500	2100	1.7	-51	990	1100
MW #35	Aug-07	0.71	100	<1.0	1	<0.10	<0.50	4.3	980	1800	0.8	229	820	820
	Aug-06	0.48	180	<1.0	2.3	<0.10	<0.50	3.2	1500	2400	0.1	233	980	1000
	Aug-05	0.45	100	<0.1	1.2	0.1	<0.50	3.2	1400	2100	5.6	-40	1100	1100
	Aug-04	0.36	110	<0.10	1.2	<0.10	<0.50	1.7	1400	2000	3.6	-63	910	1000
MW #37	Aug-07	0.75	320	3.7	<1.0	<0.10	<0.50	37	1500	2600	1.47	199	870	890
	Aug-06	0.45	390	<1.0	4.2	<0.10	<0.50	290	1900	3100	0.13	237	720	8
	Aug-05	0.48	150	<0.1	2.1	<0.10	<0.50	52	1400	2200	4.1	-56	960	960
	Aug-04	0.46	98	<0.10	1	<0.10	<0.50	15	1300	1800	4.3	-103	940	1000
MW #38	Aug-07	1	43	<0.10	0.5	<0.10	<0.50	89	890	1400	0.92	171	610	630
	Aug-06	0.67	96	<0.10	1.1	<0.10	<0.50	490	1600	2300	2.78	238	600	640
	Aug-05	0.62	100	<0.1	1.1	<0.10	<0.5	310	1500	2100	9.4	-62	720	720
	Aug-04	0.53	140	<0.1	1.3	<0.10	<0.5	330	1500	1800	12.3	-124	590	660

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Downgradient Wells

Groundwater Analysis - Total Metals

Sample Location	Date	EPA Method 6010B, EPA Method 7470: Mercury							
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)
MW #11	Aug-07	<0.020	0.75	<0.002	<0.006	0.015	<0.050	<0.005	<0.0002
	Aug-06	<0.020	0.69	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002
	Aug-05	NR ²	NR ²	NR ²	<0.006	0.011	NR ²	NR ²	NR ²
	Aug-04	<0.020	0.54	<0.002	<0.006	0.027	<0.050	<0.005	<0.0002
MW #12	Aug-07	<0.020	0.19	<0.002	0.93	0.03	<0.050	<0.005	<0.0002
	Aug-06	<0.020	0.04	<0.002	0.0078	<0.005	<0.050	<0.005	<0.0002
	Aug-05	NR ²	NR ²	NR ²	4.1	0.21	NR ²	NR ²	NR ²
	Aug-04	<0.020	0.19	0.003	0.11	0.18	<0.050	<0.005	0.0005
MW #34	Aug-07	<0.020	0.55	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002
	Aug-06	<0.020	0.44	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002
	Aug-05	NR ²	NR ²	NR ²	0.011	0.0078	NR ²	NR ²	NR ²
	Aug-04	<0.020	0.94	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002
MW #35	Aug-07	0.022	0.86	<0.002	<0.006	0.008	<0.050	<0.005	<0.0002
	Aug-06	0.027	0.71	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002
	Aug-05	NR ²	NR ²	NR ²	0.017	0.017	NR ²	NR ²	NR ²
	Aug-04	<0.020	1.2	<0.002	<0.006	0.0067	<0.050	<0.005	<0.0002
MW #37	Aug-07	<0.020	0.65	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002
	Aug-06	<0.020	0.3	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002
	Aug-05	NR ²	NR ²	NR ²	0.082	0.072	NR ²	NR ²	NR ²
	Aug-04	<0.020	1.3	<0.002	0.018	0.05	<0.050	<0.005	0.00044
MW #38	Aug-07	<0.020	0.14	<0.002	<0.006	0.020	<0.050	<0.005	<0.0002
	Aug-06	<0.020	0.093	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002
	Aug-05	NR ²	NR ²	NR ²	0.340	0.180	NR ²	NR ²	NR ²
	Aug-04	<0.020	0.74	<0.002	0.079	0.028	<0.050	<0.005	0.0012

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40 CFR 141.62 MCL

Downgradient Wells

Groundwater Analysis - Dissolved Metals

		EPA Method 6010B														40 CFR 141.62 MCL			
Sample Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)		
MW #11	Aug-07	<0.02	0.6	<0.002	98	<0.006	0.008	9.5	0.011	22	1.9	1.5	<0.05	<0.005	400	<0.1	<0.05		
	Aug-06	<0.02	0.69	<0.002	100	<0.006	<0.006	9.3	<0.005	22	1.8	1.4	<0.05	<0.005	390	<0.1	0.051		
	Aug-05	<0.02	0.73	<0.002	96	<0.006	<0.006	7.6	<0.005	22	1.6	1.7	<0.05	<0.005	380	<0.1	0.014		
	Aug-04	<0.02	0.47	<0.002	100	<0.006	0.021	6.9	0.022	23	1.7	1.5	<0.05	<0.005	390	<0.1	63		
MW #12	Aug-07	<0.02	0.05	<0.002	120	0.008	<0.006	0.042	<0.005	25	0.46	1.1	<0.05	<0.005	220	<0.1	<0.05		
	Aug-06	<0.02	0.04	<0.002	73	0.0078	<0.006	0.069	<0.005	14	0.3	1.1	<0.05	<0.005	100	<0.1	0.036		
	Aug-05	<0.02	0.07	<0.002	370	0.022	<0.006	0.55	<0.005	97	0.64	2.8	<0.05	<0.005	560	<0.1	0.022		
	Aug-04	<0.02	0.06	<0.002	130	<0.006	<0.006	0.044	<0.005	NR	0.55	1.5	<0.05	<0.005	320	<0.1	0.035		
MW #34	Aug-07	<0.02	0.25	<0.002	130	<0.006	<0.006	1.4	0.005	30	2.0	2.9	<0.05	<0.005	520	<0.1	<0.05		
	Aug-06	<0.02	0.71	<0.002	110	<0.006	0.0065	3	<0.005	12	2.4	<1.0	<0.05	<0.005	310	<0.1	0.11		
	Aug-05	<0.02	0.54	<0.002	120	<0.006	<0.006	4.9	<0.005	20	4.2	1.2	<0.05	<0.005	390	<0.1	0.1		
	Aug-04	<0.02	0.71	<0.002	130	<0.006	0.015	5.6	<0.005	20	4.3	1.3	<0.05	<0.005	400	<0.1	0.02		
MW #35	Aug-07	<0.02	0.71	<0.002	79	<0.006	0.006	3.5	<0.005	16	1.7	1.9	<0.05	<0.005	340	<0.1	<0.05		
	Aug-06	0.027	0.71	<0.002	110	<0.006	<0.006	2.8	<0.005	26	2.9	2.1	<0.05	<0.005	410	<0.1	0.061		
	Aug-05	<0.02	0.54	<0.002	120	<0.006	<0.006	5.9	<0.005	22	3	2.9	<0.05	<0.005	310	<0.1	0.095		
	Aug-04	<0.02	0.71	<0.002	130	<0.006	0.0065	7.2	<0.005	23	3.1	3	<0.05	<0.005	300	<0.1	0.022		
MW #37	Aug-07	<0.02	0.47	<0.002	110	<0.006	<0.006	1.5	0.005	23	1.7	2.9	<0.05	<0.005	460	<0.1	<0.05		
	Aug-06	<0.02	0.3	<0.002	180	<0.006	<0.006	1.3	<0.005	44	2.9	3.5	<0.05	<0.005	550	<0.1	0.032		
	Aug-05	<0.02	0.38	<0.002	120	<0.006	<0.006	2.5	<0.005	20	1.4	4.2	<0.05	<0.005	370	<0.1	0.13		
	Aug-04	<0.02	0.28	<0.002	100	<0.006	<0.006	1.5	<0.005	19	1.3	5	<0.05	<0.005	350	<0.1	0.028		
MW #38	Aug-07	<0.02	0.11	<0.002	95	<0.006	<0.006	1.2	<0.005	16	2	2.5	<0.05	<0.005	230	<0.1	<0.05		
	Aug-06	<0.02	0.093	<0.002	210	<0.006	<0.006	3.1	<0.005	36	3.5	4.3	<0.05	<0.005	290	<0.1	0.059		
	Aug-05	<0.02	0.18	<0.002	200	<0.006	<0.006	7.1	<0.005	32	3.7	4.4	<0.05	<0.005	270	<0.1	0.016		
	Aug-04	<0.02	0.19	<0.002	180	<0.006	<0.006	8	<0.005	32	3.6	4.7	<0.05	<0.005	250	<0.1	0.035		

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Downgradient Wells

Groundwater Analysis - Semi-Volatile Organic Compounds

EPA Method 8270B				
Sample Location	Date	2-methylnaphthalene (mg/L)	Naphthalene (mg/L)	MOCC 20 NMAG 6.2.3103
			0.03	
MW #11	Aug-07	0.013	0.043	

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San Juan River Bluff

Groundwater Analysis - Organics

		April 2006/2007 - EPA Method 8021B : August 2006/2007 - EPA Method 8260B					WQCG 2011 MAC 6.2-3103
Sample Location	Date	Benzene (mg/L)	Toluene (mg/L)	EthylBen (mg/L)	Xylene (mg/L)	MTBE (mg/L)	
		0.01	0.75	0.75	0.62		
Outfall #2	Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001	
	Apr-07	<0.001	<0.001	<0.001	<0.002	<0.0025	
	Aug-06	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	
	Apr-06	<0.001	<0.001	<0.001	<0.003	<0.0025	
Outfall #3	Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001	
	Apr-07	<0.001	<0.001	<0.001	<0.002	<0.0025	
	Aug-06	<0.001	<0.001	<0.001	<0.003	<0.0015	
	Apr-06	<0.001	<0.001	<0.001	<0.003	<0.0025	

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San Juan River Bluff

Groundwater Analysis - Organics

		EPA Method 8021B				MGGC-201NMAG-6-2-3103
Sample Location	Date	Benzene (mg/L)	Toluene (mg/L)	EthylBen (mg/L)	Xylene (mg/L)	
		0.01	0.75	0.75	0.62	
Tank #33 (Outfall #1)	1st QTR 1/03/07	<0.001	<0.001	<0.001	<0.003	
	2nd QTR 4/25/07	<0.001	<0.001	<0.001	<0.002	
	3rd QTR 7/05/07	0.003	<0.001	<0.001	<0.0002	
	4th QTR 10/09/07	<0.001	<0.001	<0.001	<0.003	

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San Juan River Bluff

Groundwater Analysis - General Chemistry

WQCC 20-NMAC 6.2.3.103																
Sample Location	Date	EPA 300.0							EPA 160.1	EPA 120.1				EPA 310.1		
		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Bromide (mg/L)	Nitrogen (mg/L)	P (mg/L)	Sulfate (mg/L)	TDS (mg/L)	E.C. (umhos/cm)	D.O. (mg/L)	O/R.P. (mg/L)	CO2 (mg/L)	ALK (mg/L)		
Outfall #2	Aug-07	1.1	13	<0.10	<0.10	0.17	<0.50	290	730	1100	2.63	244	270	280		
	Aug-06	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		
	Aug-05	0.64	18	<0.10	<0.5	2.2	<0.5	210	620	880	>13	143	220	230		
	Aug-04	0.67	23	<0.10	0.13	2.5	<0.50	200	670	880	6.3	74	250	280		
Outfall #3	Aug-07	0.3	4.6	<0.10	<0.10	0.24	<0.50	78	230	370	6.02	219	370	100		
	Aug-06	0.25	5.5	<0.5	<0.5	<0.5	<0.5	64	230	390	NS²	308	97	110		
	Aug-05	0.61	37	<0.1	<0.5	5.2	<0.5	270	790	1100	>13.0	168	270	270		
	Aug-04	0.46	28	NR	0.17	NR	<0.50	200	660	830	9.8	103	240	270		

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San Juan River Bluff

Groundwater Analysis - Total Metals

		EPA Method 6010B EPA Method 7470: Mercury							
Sample Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Cr (mg/L)	Lead (mg/L)	Se (mg/L)	Silver (mg/L)	Mercury (mg/L)
Outfall #2	Aug-07	<0.020	0.051	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002
	Aug-06	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
	Aug-05	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-04	<0.020	0.055	<0.002	0.0069	<0.005	<0.050	<0.005	<0.0002
Outfall #3	Aug-07	<0.020	0.081	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002
	Aug-06	<0.020	0.063	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002
	Aug-05	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Aug-04	<0.020	0.032	<0.002	<0.006	<0.005	<0.050	<0.005	<0.0002

40 CFR 141.62 MCL

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San Juan River Bluff

Groundwater Analysis - Dissolved Metals

		EPA Method 6010B														40 CFR 141.62 MCL	
Sample Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Cr (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Mg (mg/L)	Mn (mg/L)	K (mg/L)	Se (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
Outfall #2	Aug-07	<0.020	0.05	<0.002	120	<0.006	<0.006	<0.02	<0.005	26	0.0065	1.6	<0.05	<0.005	74	<0.10	<0.05
	Aug-06	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹	NS ¹
	Aug-05	<0.020	0.054	<0.002	96	0.0076	<0.006	<0.02	<0.005	22	0.0033	2.2	<0.05	<0.005	85	<0.10	0.0066
	Aug-04	<0.020	0.048	<0.002	95	0.0071	<0.006	<0.02	<0.005	23	0.0038	2.3	<0.05	<0.005	100	<0.10	0.034
Outfall #3	Aug-07	<0.020	0.063	<0.002	39	<0.006	0.0064	<0.020	<0.005	7	<0.002	1.5	<0.05	<0.005	20	<0.10	<0.05
	Aug-06	<0.020	0.063	<0.002	41	<0.006	<0.006	<0.02	<0.005	7.3	<0.002	1.8	<0.05	<0.005	23	<0.10	0.024
	Aug-05	<0.020	0.033	<0.002	110	<0.006	<0.006	<0.02	<0.005	25	0.01	1.9	<0.05	<0.005	100	<0.10	0.0066
	Aug-04	<0.020	0.03	<0.002	98	<0.006	<0.006	0.024	<0.005	22	0.019	1.8	<0.05	<0.005	90	<0.10	0.014

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San Juan River Analysis - 2007

General Chemistry

								WQCC 20 NMAC 6.2.3103
mg/L	Sampling Event	Date Sampled	North of MW #46	North of MW #45	Upstream of Refinery	Downstream of Refinery		
EPA Method 300.0	Fluoride	4th Quarter	12/07/07	0.2	0.19	0.2	0.2	1.60
		3rd Quarter	07/10/07	0.19	0.19	0.22	0.19	
		2nd Quarter	04/16/07	0.2	0.19	0.18	0.17	
		1st Quarter	02/08/07	0.13	0.17	0.12	0.19	
	Chloride	4th Quarter	12/07/07	3.4	3.4	4.40	3.6	250
		3rd Quarter	07/10/07	2.8	2.8	4.7	2.8	
		2nd Quarter	04/16/07	3.1	2.9	3	3	
		1st Quarter	02/08/07	2.9	3	2.9	3.3	
	Nitrite	4th Quarter	12/07/07	<0.10	2.1	<0.10	<0.10	
		3rd Quarter	07/10/07	<0.10	<0.10	<0.10	<0.10	
		2nd Quarter	04/16/07	<0.10	<0.10	<0.10	<0.10	
		1st Quarter	02/08/07	<0.10	<0.10	<0.10	<0.10	
	Bromide	4th Quarter	12/07/07	<0.50	<0.50	<0.50	<0.50	
		3rd Quarter	07/10/07	<0.50	<0.50	<0.50	<0.50	
		2nd Quarter	04/16/07	<0.50	<0.50	<0.50	<0.50	
		1st Quarter	02/08/07	<0.50	<0.50	<0.50	<0.50	
	Phosphorous	4th Quarter	12/07/07	<0.50	<0.50	<0.50	<0.50	
		3rd Quarter	07/10/07	<0.50	<0.50	<0.50	<0.50	
		2nd Quarter	04/16/07	<0.50	<0.50	<0.50	<0.50	
		1st Quarter	02/08/07	<0.50	<0.50	<0.50	<0.50	
	Sulfate	4th Quarter	12/07/07	110	100	110	110	600
		3rd Quarter	07/10/07	53	52	130	55	
		2nd Quarter	04/16/07	61	60	64	67	
		1st Quarter	02/08/07	62	62	50	80	
EPA 160.1	TDS	4th Quarter	12/07/07	270	270	310	300	1000
		3rd Quarter	07/10/07	180	180	310	180	
		2nd Quarter	04/16/07	200	190	190	210	
		1st Quarter	02/08/07	180	180	180	220	
EPA 310.1	CO3	4th Quarter	12/07/07	<2.0	<2.0	<2.0	<2.0	
		3rd Quarter	07/10/07	<2.0	<2.0	<2.0	<2.0	
		2nd Quarter	04/16/07	<2.0	<2.0	<2.0	<2.0	
		1st Quarter	02/08/07	<2.0	<2.0	<2.0	<2.0	
	ALK	4th Quarter	12/07/07	100	95	94	100	
		3rd Quarter	07/10/07	83	83	110	64	
		2nd Quarter	04/16/07	84	84	84	86	
		1st Quarter	02/08/07	82	82	81	87	
EPA 120.1	E.C. (umhos/cm)	4th Quarter	12/07/07	410	410	450	450	
		3rd Quarter	07/10/07	280	280	470	290	
		2nd Quarter	04/16/07	310	310	320	330	
		1st Quarter	02/08/07	280	280	270	330	

San Juan River Analysis - 2007

Organics

mg/L	Sampling Event	Date Sampled	North of MW #46	North of MW #45	Upstream of Refinery	Downstream of Refinery	WQCC
							20 NMAG 6.2.3103
EPA Method 8021B	Benzene	4th Quarter	12/07/07	<0.0005	<0.0005	<0.0005	<0.0005
		3rd Quarter	07/10/07	<0.0005	<0.0005	<0.0005	<0.0005
		2nd Quarter	04/16/07	<0.0005	<0.0005	<0.0005	<0.0005
		1st Quarter	02/08/07	<0.0005	<0.0005	<0.0005	<0.0005
	Toluene	4th Quarter	12/07/07	<0.0005	<0.0005	<0.0005	<0.0005
		3rd Quarter	07/10/07	<0.0005	<0.0005	<0.0005	<0.0005
		2nd Quarter	04/16/07	<0.0005	<0.0005	<0.0005	<0.0005
		1st Quarter	02/08/07	<0.0005	<0.0005	<0.0005	<0.0005
	EthylBen	4th Quarter	12/07/07	<0.0005	<0.0005	<0.0005	<0.0005
		3rd Quarter	07/10/07	<0.0005	<0.0005	<0.0005	<0.0005
		2nd Quarter	04/16/07	<0.0005	<0.0005	<0.0005	<0.0005
		1st Quarter	02/08/07	<0.0005	<0.0005	<0.0005	<0.0005
	Xylene	4th Quarter	12/07/07	<0.0005	<0.0005	<0.0005	<0.0005
		3rd Quarter	07/10/07	<0.0005	<0.0005	<0.0005	<0.0005
		2nd Quarter	04/16/07	<0.0005	<0.0005	<0.0005	<0.0005
		1st Quarter	02/08/07	<0.0005	<0.0005	<0.0005	<0.0005
	MTBE	4th Quarter	12/07/07	<0.0025	<0.0025	<0.0025	<0.0025
		3rd Quarter	07/10/07	<0.0025	<0.0025	<0.0025	<0.0025
		2nd Quarter	04/16/07	<0.0025	<0.0025	<0.0025	<0.0025
		1st Quarter	02/08/07	<0.0025	<0.0025	<0.0025	<0.0025
EPA Method 8015B	DRO	4th Quarter	12/07/07	<1.0	<1.0	<1.0	<1.0
		3rd Quarter	07/10/07	<1.0	<1.0	<1.0	<1.0
		2nd Quarter	04/16/07	<1.0	<1.0	<1.0	<1.0
		1st Quarter	02/08/07	<1.0	<1.0	<1.0	<1.0
	MRO	4th Quarter	12/07/07	<5.0	<5.0	<5.0	<5.0
		3rd Quarter	07/10/07	<5.0	<5.0	<5.0	<5.0
		2nd Quarter	04/16/07	<5.0	<5.0	<5.0	<5.0
		1st Quarter	02/08/07	<5.0	<5.0	<5.0	<5.0
	GRO	4th Quarter	12/07/07	<0.050	<0.050	<0.050	<0.050
		3rd Quarter	07/10/07	<0.050	<0.050	<0.050	<0.050
		2nd Quarter	04/16/07	<0.050	<0.050	<0.050	<0.050
		1st Quarter	02/08/07	<0.050	<0.050	<0.050	<0.050

San Juan River Analysis - 2007

Total Metals

EPA Method 6010, EPA Method 7470: Mercury							40CFR141.62
mg/L	Sampling Event	Date Sampled	North of MW #46	North of MW #45	Upstream of Refinery	Down stream of Refinery	MCL
Arsenic	4th Quarter	12/07/07	<0.020	<0.020	<0.020	<0.020	0.01
	3rd Quarter	07/10/07	<0.020	<0.020	<0.020	<0.020	
	2nd Quarter	04/16/07	<0.020	<0.020	<0.020	<0.020	
	1st Quarter	02/08/07	<0.020	<0.020	<0.020	<0.020	
Barium	4th Quarter	12/07/07	0.073	0.071	0.069	0.071	2
	3rd Quarter	07/10/07	0.068	0.067	0.064	0.066	
	2nd Quarter	04/16/07	0.074	0.073	0.068	0.085	
	1st Quarter	02/08/07	0.082	0.079	0.075	0.088	
Cadmium	4th Quarter	12/07/07	<0.002	<0.002	<0.002	<0.002	0.005
	3rd Quarter	07/10/07	<0.002	<0.002	<0.002	<0.002	
	2nd Quarter	04/16/07	<0.002	<0.002	<0.002	<0.002	
	1st Quarter	02/08/07	<0.002	<0.002	<0.002	<0.002	
Chromium	4th Quarter	12/07/07	<0.006	<0.006	<0.006	<0.006	0.1
	3rd Quarter	07/10/07	<0.006	<0.006	<0.006	<0.006	
	2nd Quarter	04/16/07	<0.006	<0.006	<0.006	<0.006	
	1st Quarter	02/08/07	<0.006	<0.006	<0.006	<0.006	
Lead	4th Quarter	12/07/07	<0.005	<0.005	<0.005	<0.005	0.015
	3rd Quarter	07/10/07	<0.005	<0.005	<0.005	<0.005	
	2nd Quarter	04/16/07	<0.005	<0.005	<0.005	0.01	
	1st Quarter	02/08/07	<0.005	<0.005	<0.005	<0.005	
Selenium	4th Quarter	12/07/07	<0.050	<0.050	<0.050	<0.050	0.05
	3rd Quarter	07/10/07	<0.050	<0.050	<0.050	<0.050	
	2nd Quarter	04/16/07	<0.050	<0.050	<0.050	<0.050	
	1st Quarter	02/08/07	<0.050	<0.050	<0.050	<0.050	
Silver	4th Quarter	12/07/07	<0.005	<0.005	<0.005	<0.005	
	3rd Quarter	07/10/07	<0.005	<0.005	<0.005	<0.005	
	2nd Quarter	04/16/07	<0.005	<0.005	<0.005	<0.005	
	1st Quarter	02/08/07	<0.005	<0.005	<0.005	<0.005	
Mercury	4th Quarter	12/07/07	<0.0002	<0.0002	<0.0002	<0.0002	0.002
	3rd Quarter	07/10/07	<0.0002	<0.0002	<0.0002	<0.0002	
	2nd Quarter	04/16/07	<0.0002	<0.0002	<0.0002	<0.0002	
	1st Quarter	02/08/07	<0.0002	<0.0002	<0.0002	<0.0002	

San Juan River Analysis- 2007

Dissolved Metals

EPA Method 6010B							WQCC 20 NMAG 6.2:3.103
mg/L	Sampling Event	Date Sampled	North of MW #46	North of MW #45	Upstream of Refinery	Downstream of Refinery	
Arsenic	4th Quarter	12/07/07	<0.020	<0.020	<0.020	<0.020	0.10
	3rd Quarter	07/10/07	<0.020	<0.020	<0.020	<0.020	
	2nd Quarter	04/16/07	<0.020	<0.020	<0.020	<0.020	
	1st Quarter	02/08/07	<0.020	<0.020	<0.020	<0.020	
Barium	4th Quarter	12/07/07	0.058	0.059	0.059	0.061	1.00
	3rd Quarter	07/10/07	0.065	0.065	0.064	0.066	
	2nd Quarter	04/16/07	0.059	0.056	0.057	0.051	
	1st Quarter	02/08/07	0.055	0.057	0.058	0.057	
Cadmium	4th Quarter	12/07/07	<0.002	<0.002	<0.002	<0.002	0.01
	3rd Quarter	07/10/07	<0.002	<0.002	<0.002	<0.002	
	2nd Quarter	04/16/07	<0.002	<0.002	<0.002	<0.002	
	1st Quarter	02/08/07	<0.002	<0.002	<0.002	<0.002	
Calcium	4th Quarter	12/07/07	40	41	40	44	
	3rd Quarter	07/10/07	29	28	33	29	
	2nd Quarter	04/16/07	30	31	31	33	
	1st Quarter	02/08/07	31	32	31	37	
Chromium	4th Quarter	12/07/07	<0.006	<0.006	<0.006	<0.006	0.05
	3rd Quarter	07/10/07	<0.006	<0.006	<0.006	<0.006	
	2nd Quarter	04/16/07	<0.006	<0.006	<0.006	<0.006	
	1st Quarter	02/08/07	<0.006	<0.006	<0.006	<0.006	
Copper	4th Quarter	12/07/07	<0.006	<0.006	<0.006	<0.006	1.00
	3rd Quarter	07/10/07	<0.006	<0.006	<0.006	<0.006	
	2nd Quarter	04/16/07	<0.006	<0.006	<0.006	0.008	
	1st Quarter	02/08/07	<0.006	<0.006	<0.006	<0.006	
Iron	4th Quarter	12/07/07	0.07	0.024	<0.020	<0.020	1.00
	3rd Quarter	07/10/07	<0.020	<0.020	<0.020	<0.020	
	2nd Quarter	04/16/07	<0.020	<0.020	<0.020	<0.020	
	1st Quarter	02/08/07	<0.020	<0.020	<0.020	<0.020	
Lead	4th Quarter	12/07/07	<0.005	<0.005	<0.005	<0.005	0.05
	3rd Quarter	07/10/07	<0.005	<0.005	<0.005	<0.005	
	2nd Quarter	04/16/07	<0.005	<0.005	<0.005	<0.005	
	1st Quarter	02/08/07	<0.005	<0.005	<0.005	<0.005	
Magnesium	4th Quarter	12/07/07	6.5	6.8	6.9	7	
	3rd Quarter	07/10/07	5.1	5.1	6.8	5.1	
	2nd Quarter	04/16/07	5.5	5.7	5.8	5.8	
	1st Quarter	02/08/07	5.4	5.7	5.5	6	
Manganese	4th Quarter	12/07/07	0.035	0.036	0.058	0.072	0.20
	3rd Quarter	07/10/07	0.0092	0.0085	0.083	0.015	
	2nd Quarter	04/16/07	0.002	0.002	0.011		
	1st Quarter	02/08/07	0.011	0.012	0.012	0.049	

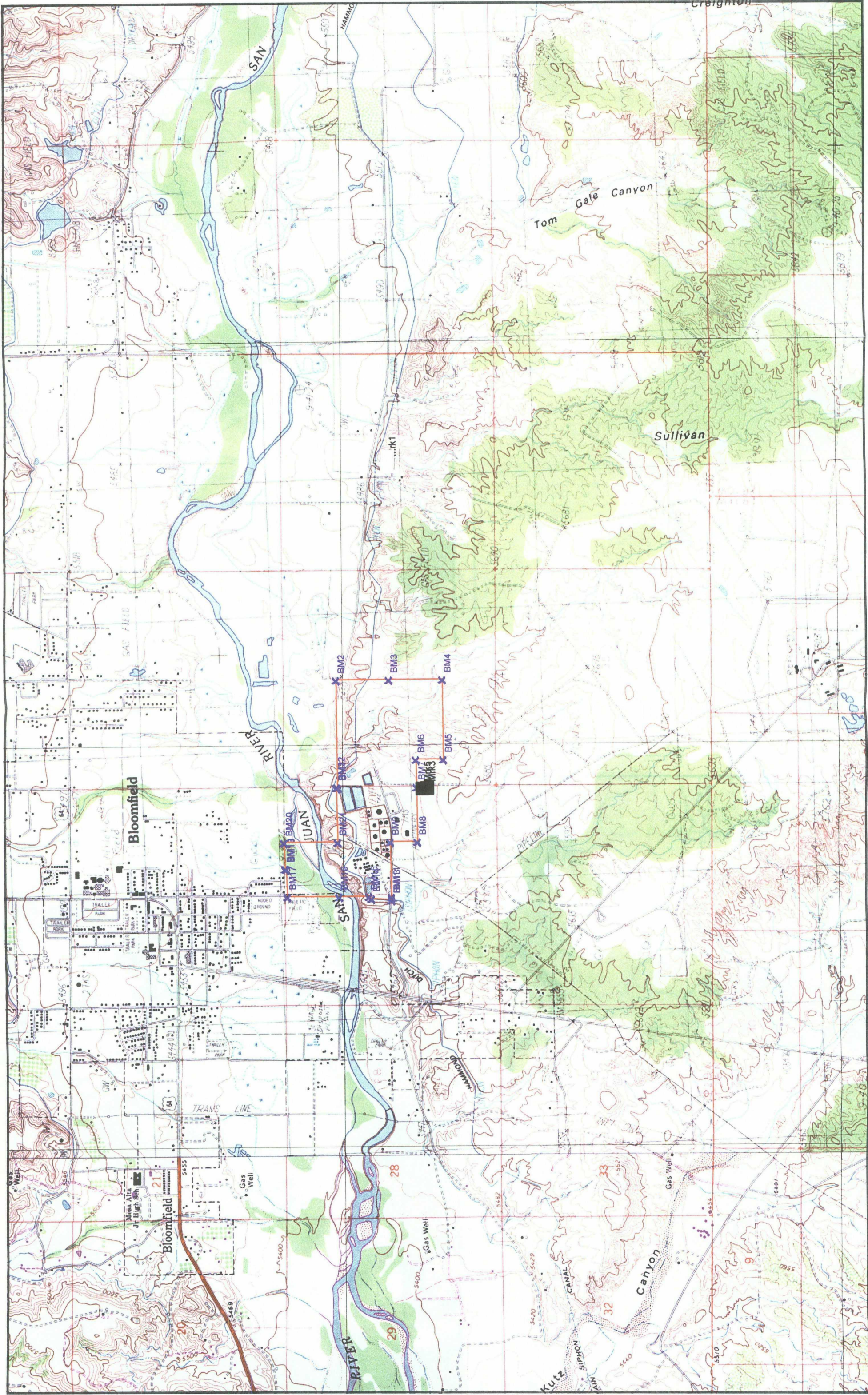
San Juan River Analysis- 2007

Dissolved Metals

EPA Method 6010B							WQCC
mg/L	Sampling Event	Date Sampled	North of MW #46	North of MW #45	Upstream of Refinery	Downstream of Refinery	20:1 NMAC 6.2:3:103
Potassium	4th Quarter	12/07/07	1.8	1.9	1.9	1.9	
	3rd Quarter	07/10/07	1.7	1.7	1.8	1.6	
	2nd Quarter	04/16/07	1.6	1.4	1.6	1.6	
	1st Quarter	02/08/07	1.50	1.60	1.70	1.70	
Selenium	4th Quarter	12/07/07	<0.050	<0.050	<0.050	<0.050	0.05
	3rd Quarter	07/10/07	<0.050	<0.050	<0.050	<0.050	
	2nd Quarter	04/16/07	<0.050	<0.050	<0.050	<0.050	
	1st Quarter	02/08/07	<0.050	<0.050	<0.050	<0.050	
Silver	4th Quarter	12/07/07	<0.0050	<0.0050	<0.0050	<0.0050	0.05
	3rd Quarter	07/10/07	<0.0050	<0.0050	<0.0050	<0.0050	
	2nd Quarter	04/16/07	<0.0050	<0.0050	<0.0050	<0.0050	
	1st Quarter	02/08/07	<0.0050	<0.0050	<0.0050	<0.0050	
Sodium	4th Quarter	12/07/07	30	31	37	33	
	3rd Quarter	07/10/07	16	16	46	16	
	2nd Quarter	04/16/07	21	19	21	20	
	1st Quarter	02/08/07	19	20	19	24	

Section 10.0 Figures

<u>Title</u>	<u>Figure</u>
Vicinity Map.....	Figures 1
Facility Site Plan (11X17).....	Figure 2
Facility Site Plan.....	Figure 3
Groundwater Elevation and Flow Direction – April.....	Figure 4
Groundwater Elevation and Flow Direction – August.....	Figure 5
BTEX & MTBE Concentration Map – April.....	Figure 6
BTEX & MTBE Concentration Map – August.....	Figure 7
Product Thickness Map – April.....	Figure 8
Product Thickness Map – August.....	Figure 9
San Juan River Bluff – Seep Identification.....	Figure 10



Scale: 1 inch equals 2000 feet

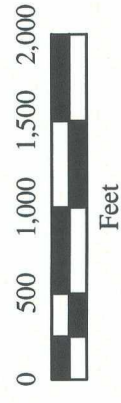




Legend

- | | |
|---|--|
|  | Monitoring Well |
|  | Observation Well |
|  | Recovery Well |
|  | Piezometer |
|  | Collection Well |
|  | Seep |
|  | Groundwater Elevation
Contours |
|  | Site |
|  | Groundwater Flow
Direction - dashed
where inferred |
- MW-13
5502.04
- Well ID
 - Groundwater Elevation
(ft amsl)

Note:
Refer to Figure 10 for detail
on seep locations along the
San Juan River bluff.

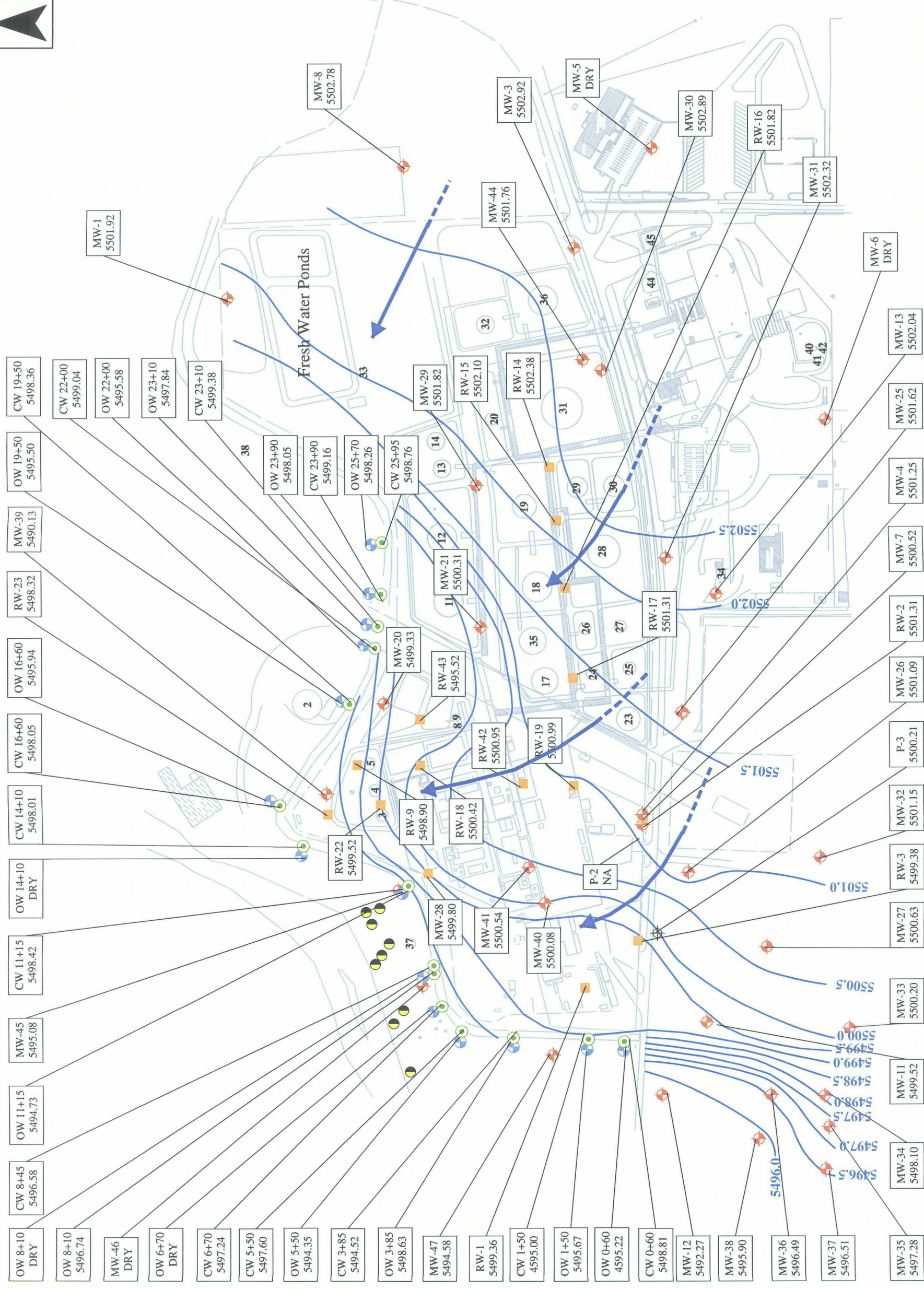


**MALCOLM
PIRNIE**

Groundwater Elevation and Flow Direction - April 2007 Bloomfield Refinery

April 2008

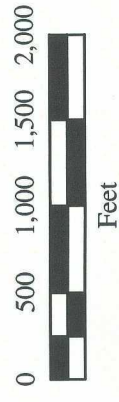
Figure 4



Legend

- Monitoring Well
- Observation Well
- Recovery Well
- Piezometer
- Collection Well
- Seep
- Groundwater Elevation Contours
- Site
- Groundwater Flow Direction - dashed where inferred
- Well ID
- Groundwater Elevation (ft amsl)

Note:
Refer to Figure 10 for detail on seep locations along the San Juan River bluff.



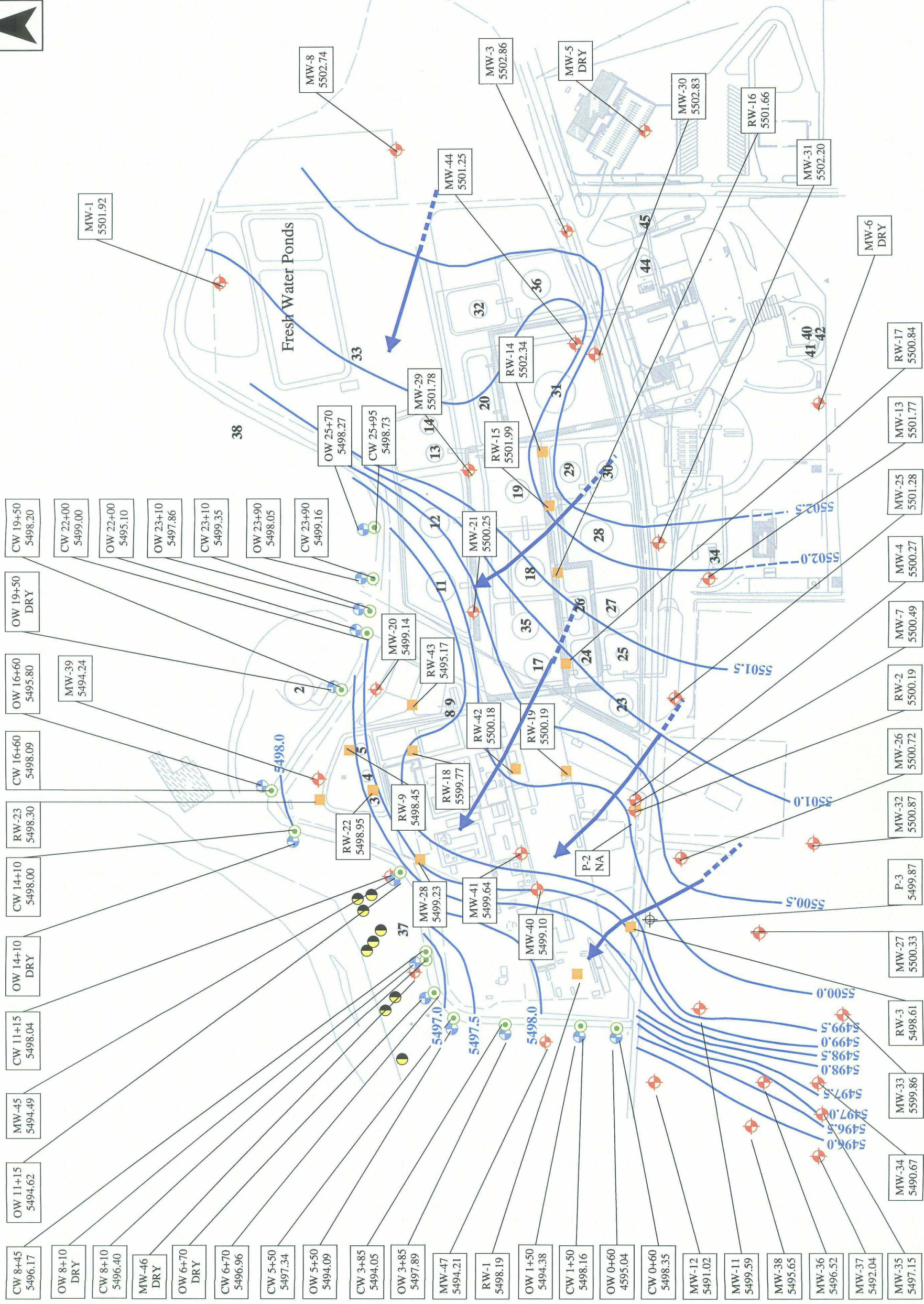
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PIRNE

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Suite 400
Phoenix, AZ 85008

Groundwater Elevation and
Flow Direction - August 2007
Bloomfield Refinery

April 2008

Figure 5



Legend

-  Observation Well
 Monitoring Well
 Recovery Well
 Outfall
 Collection Well
 Site

MW-38	
< 0.001	- Benzene
< 0.001	- Toluene
< 0.001	- Ethylben
< 0.002	- Xylenes,
0.004	- MTBE

Notes:

All concentrations in milligrams per liter (mg/L)

NS^1= Well is Dry or Not Enough
Water to Sample- No sample

NS^2 = Sample Inadvertently not Collected this Sampling Event

NR¹= No Sample Required - Well
Contains Separate Phase
Hydrocarbon

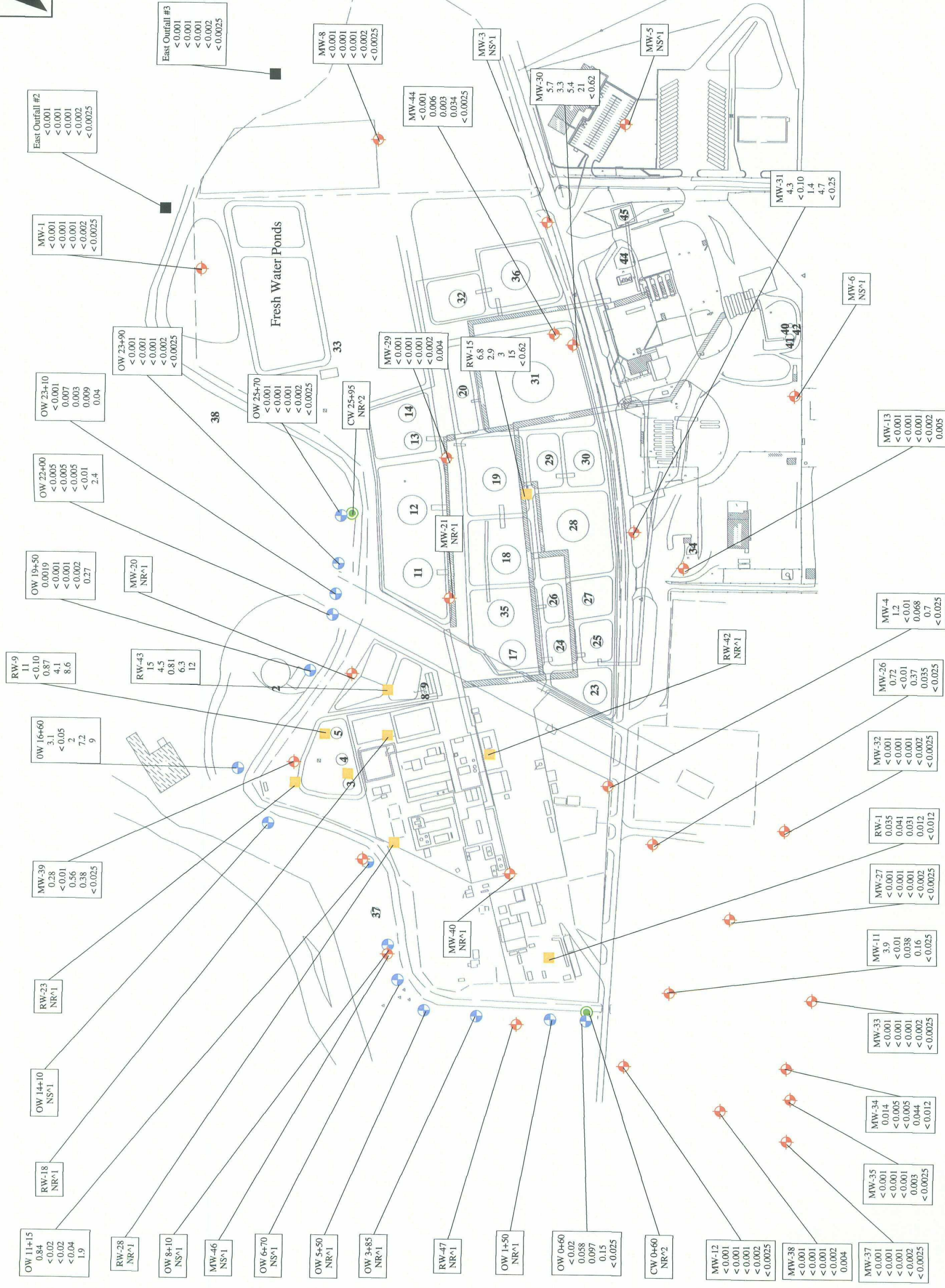
NR² = No Sample Required per
OCD and NMED ConditionsMALCOLM
PIRNIE

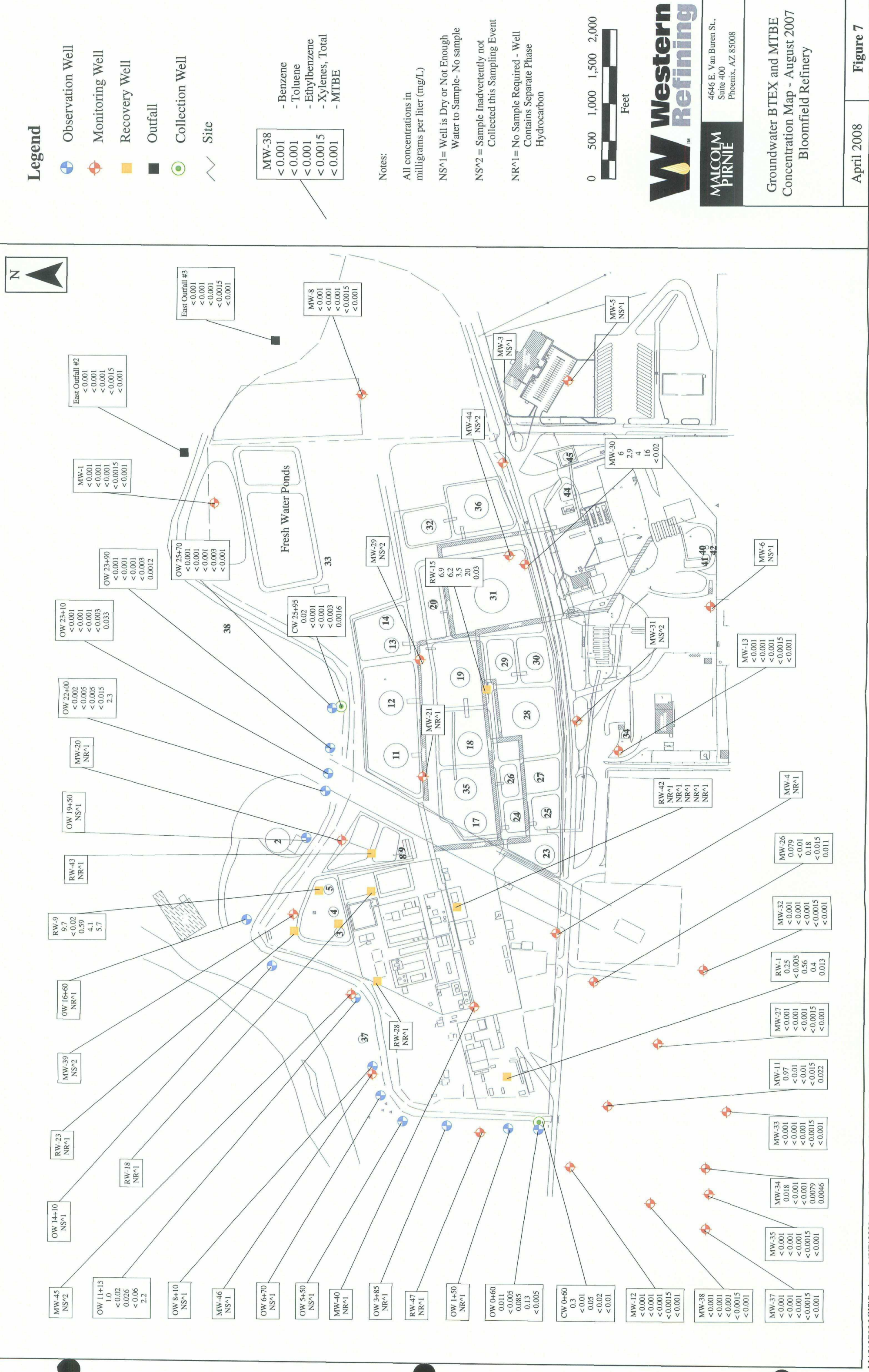
4646 E. Van Buren St.,
Suite 400
Phoenix, AZ 85008

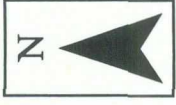
Groundwater BTEX and MTBE
Concentration Map - April 2007
Bloomfield Refinery

April 2008

Figure 6

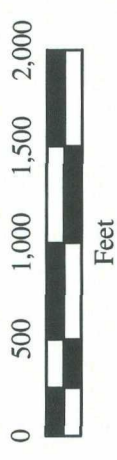
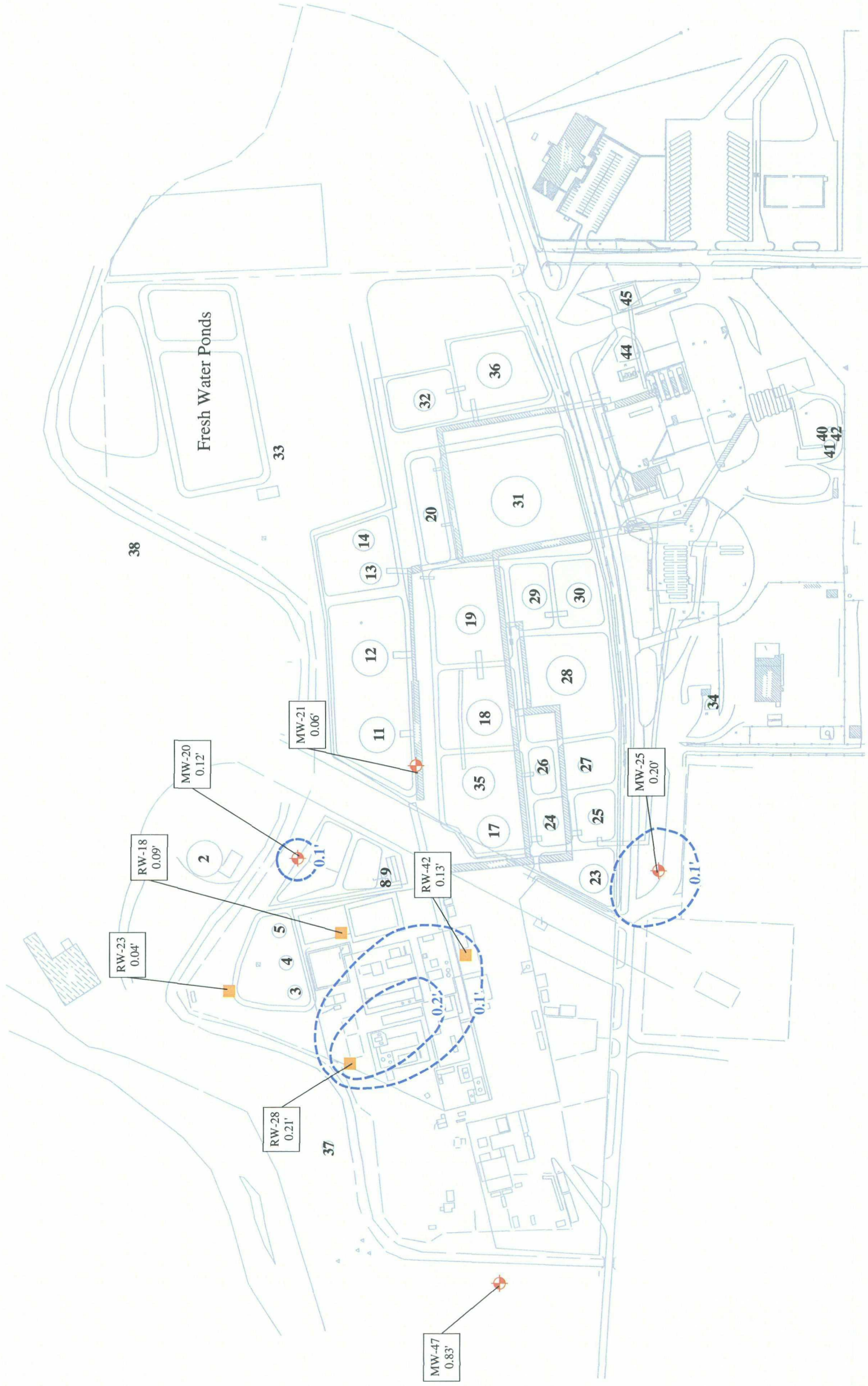






Legend

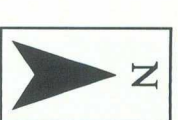
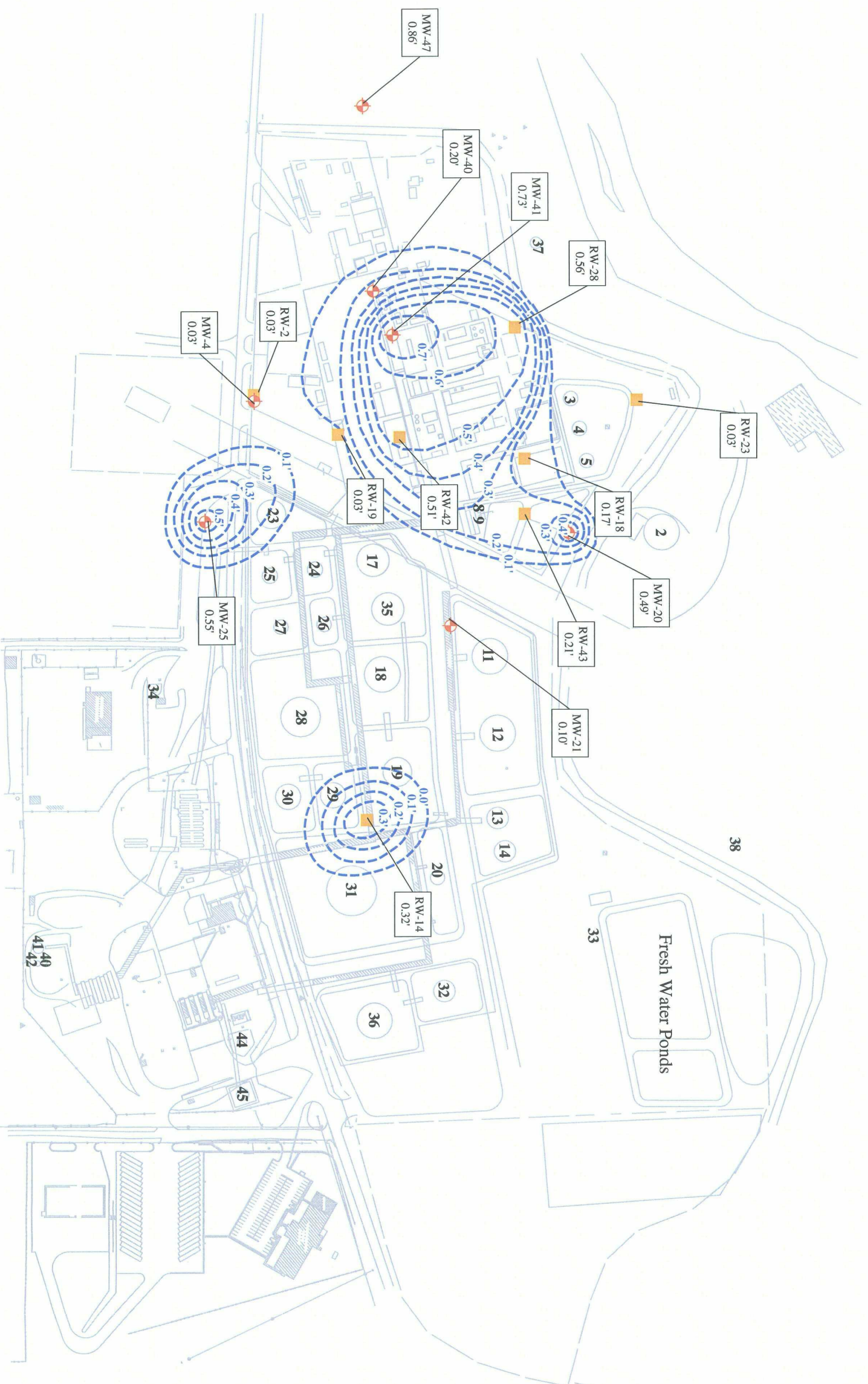
-  Monitoring Well
-  Recovery Well
-  April 2007 Product Thickness
-  Site
-  - Well ID
MW-47
0.83'
-  - Product Thickness (feet)



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Phoenix, AZ 85008

Product Thickness Map -
April 2007
Bloomfield Refinery



Legend

- Monitoring Well
- Recovery Well

- ## Recovery Well

- Site

- 

- | MW-47
0.86' | - Well ID | - Product Thickness (feet) |
|----------------|-----------|----------------------------|
| | | |

- Product Thickness (feet)

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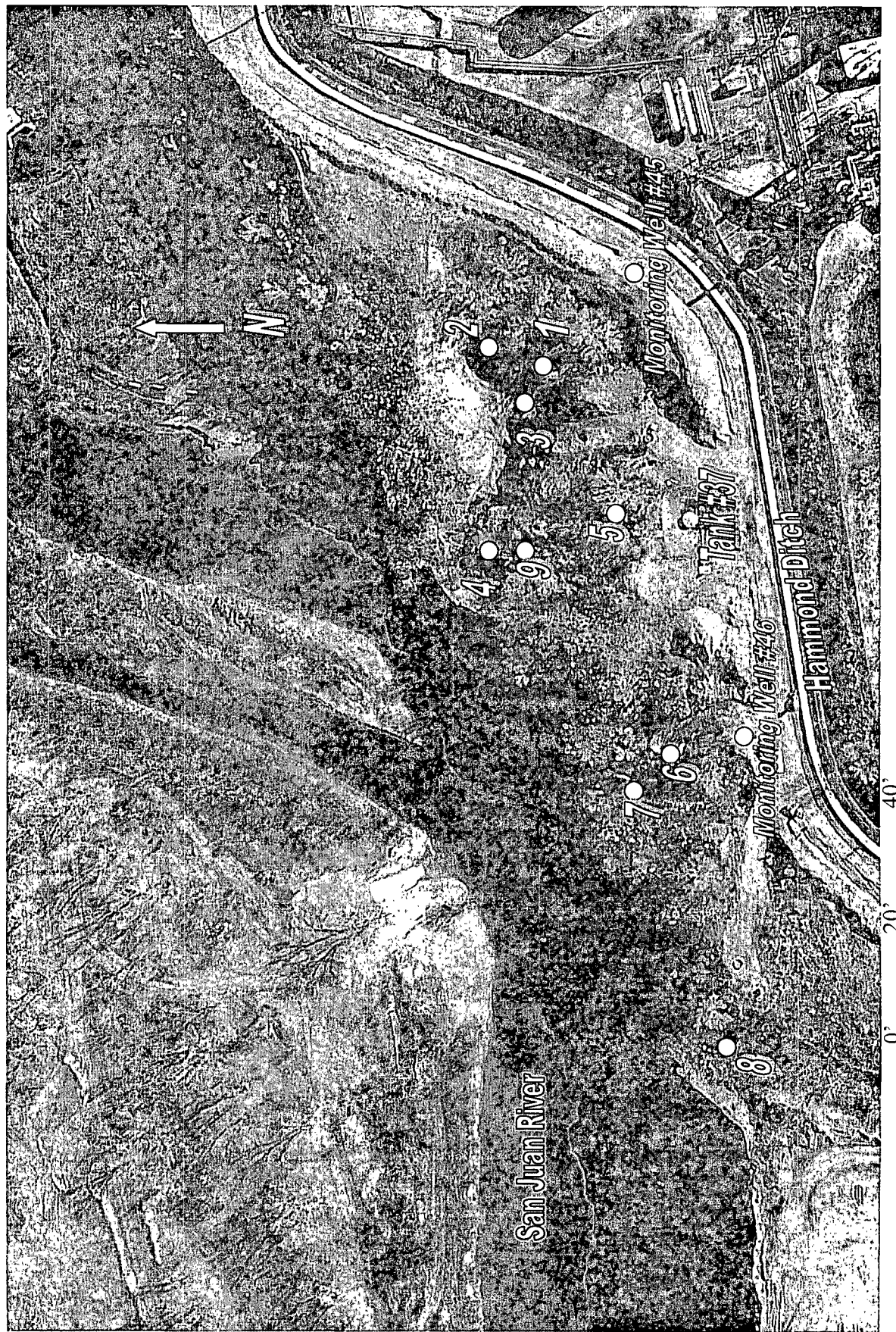
Product Thickness Map -
August 2007
Bloomfield Refinery

April 2008

Figure 9

San Juan River Bluff – Seep Identification

Seeps are Designated by Numbers 1 - 9

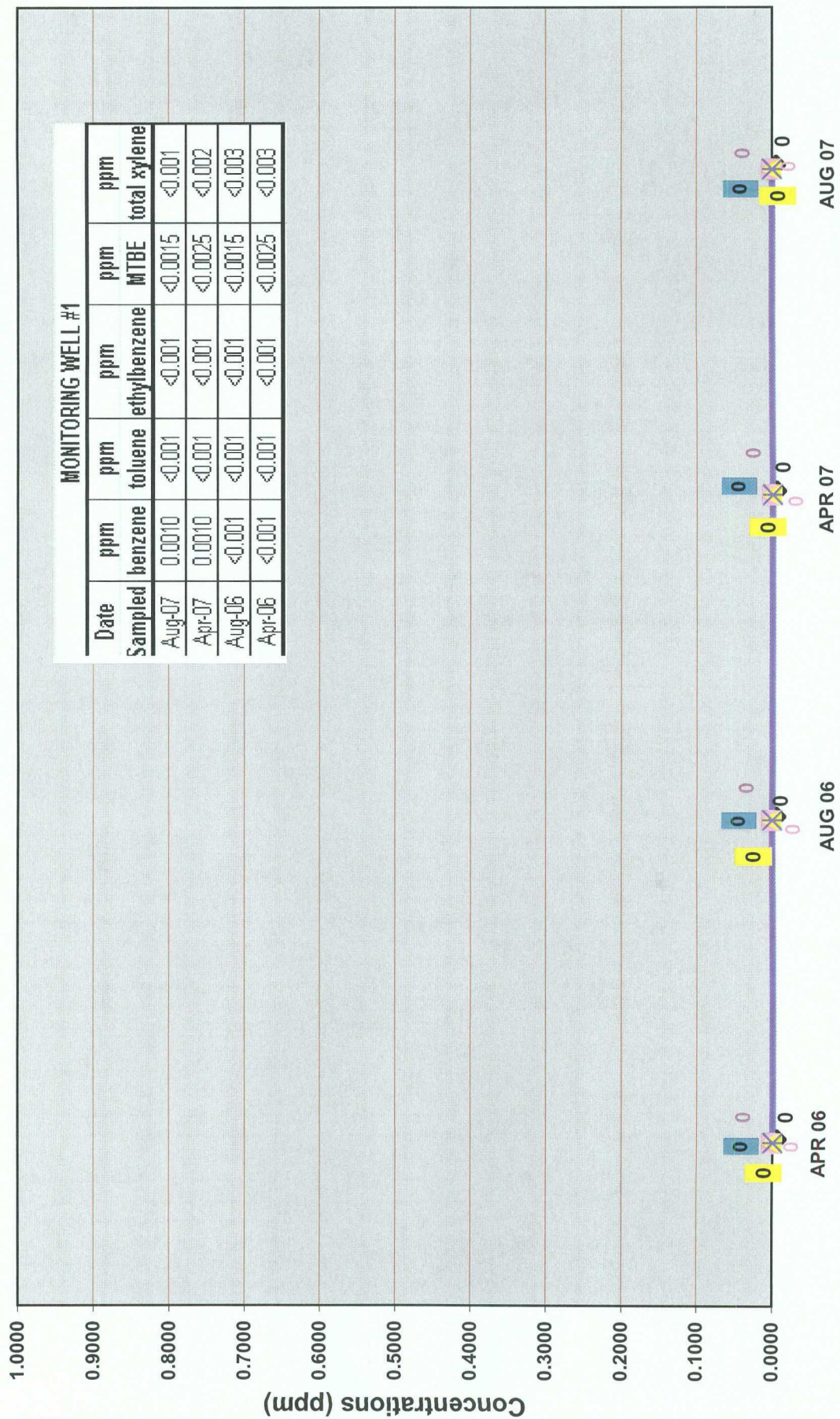


0' 20' 40'
Approximate Scale

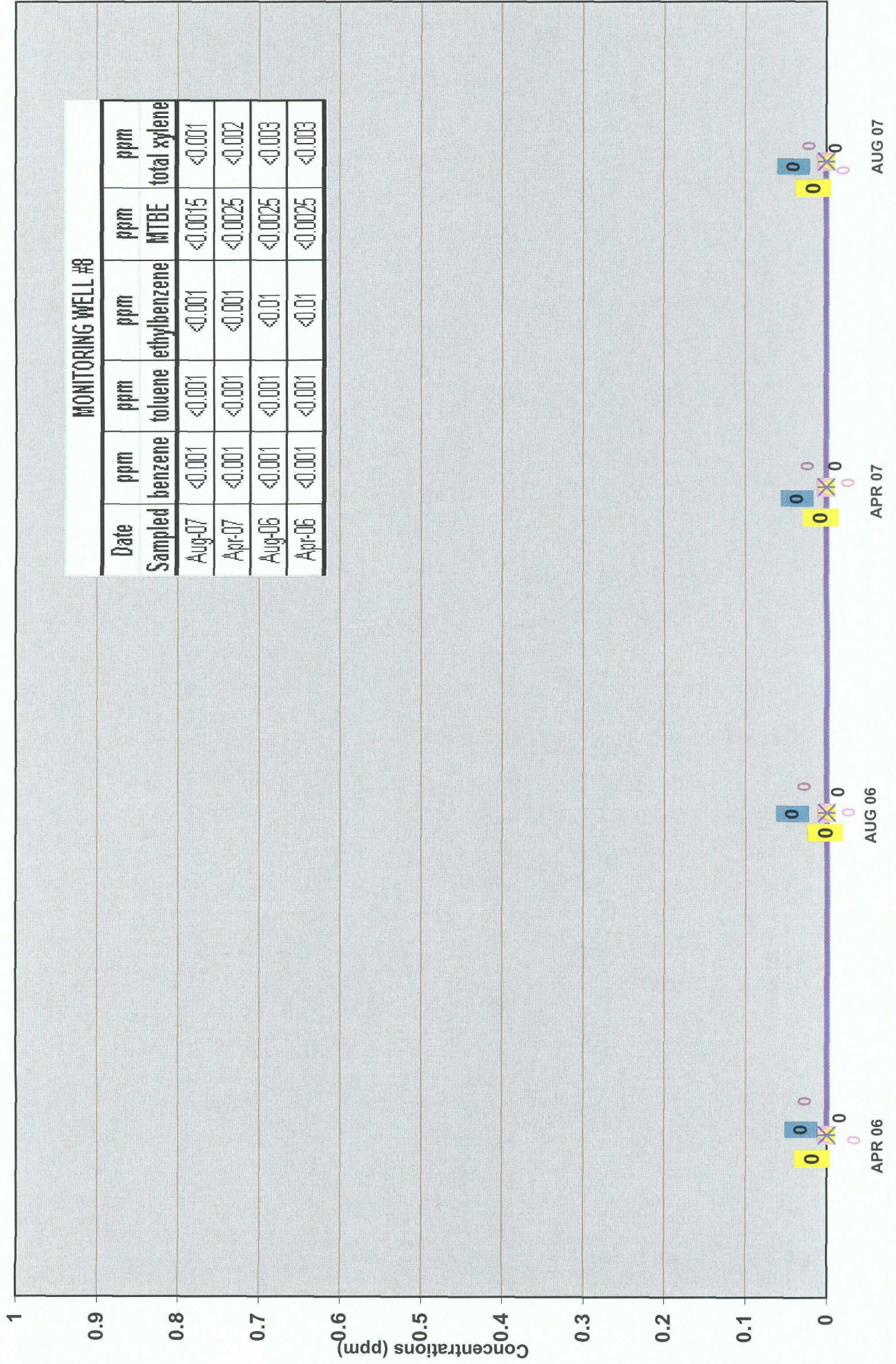
Section 11.0 BTEX & MTBE Concentration vs Time

Monitoring Well #1

◆ Benzene
 ◆ Toluene
 ◆ Ethylbenzene
 ◆ MTBE
 ◆ Total Xylene

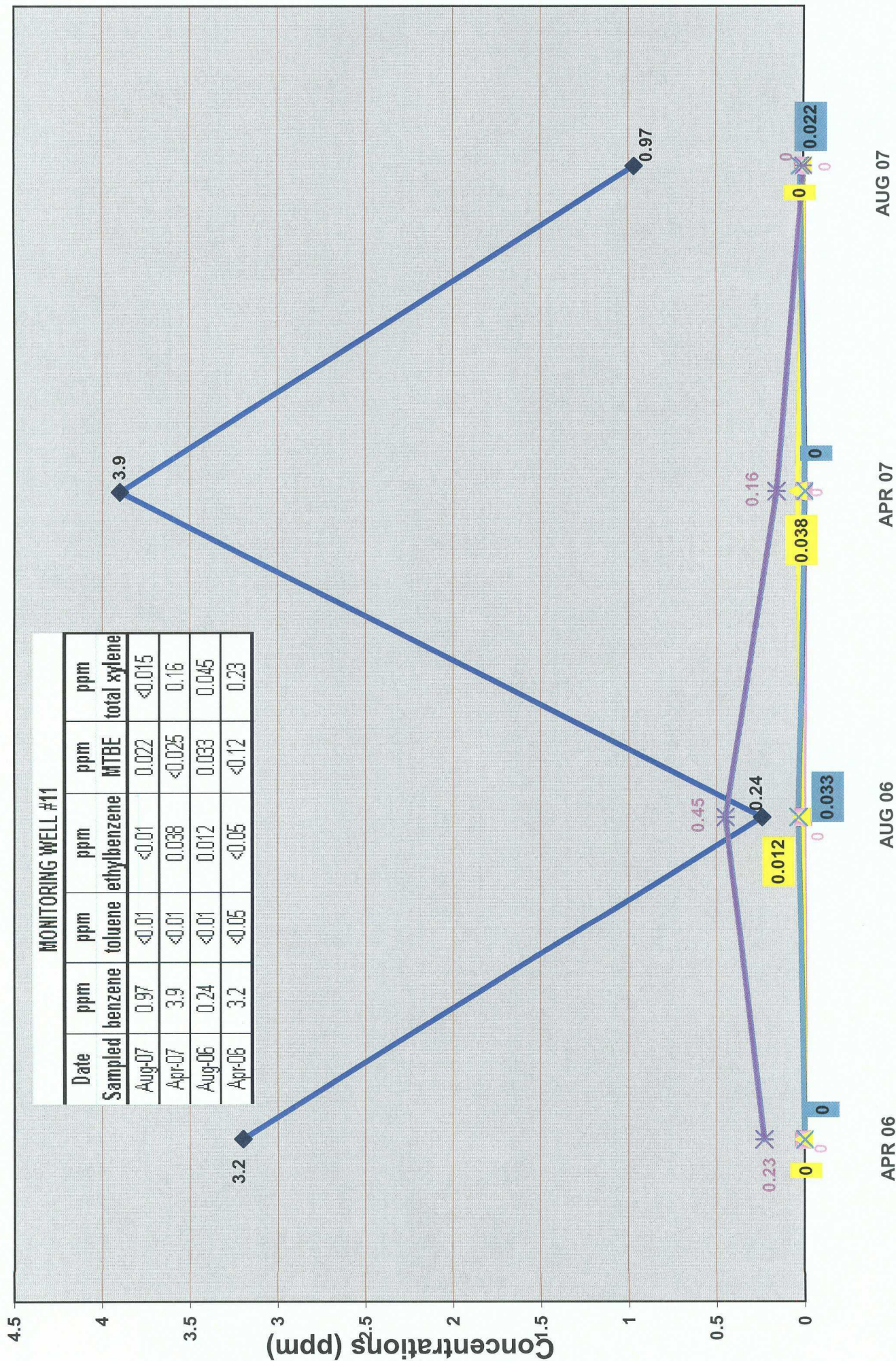


Monitoring Well #8

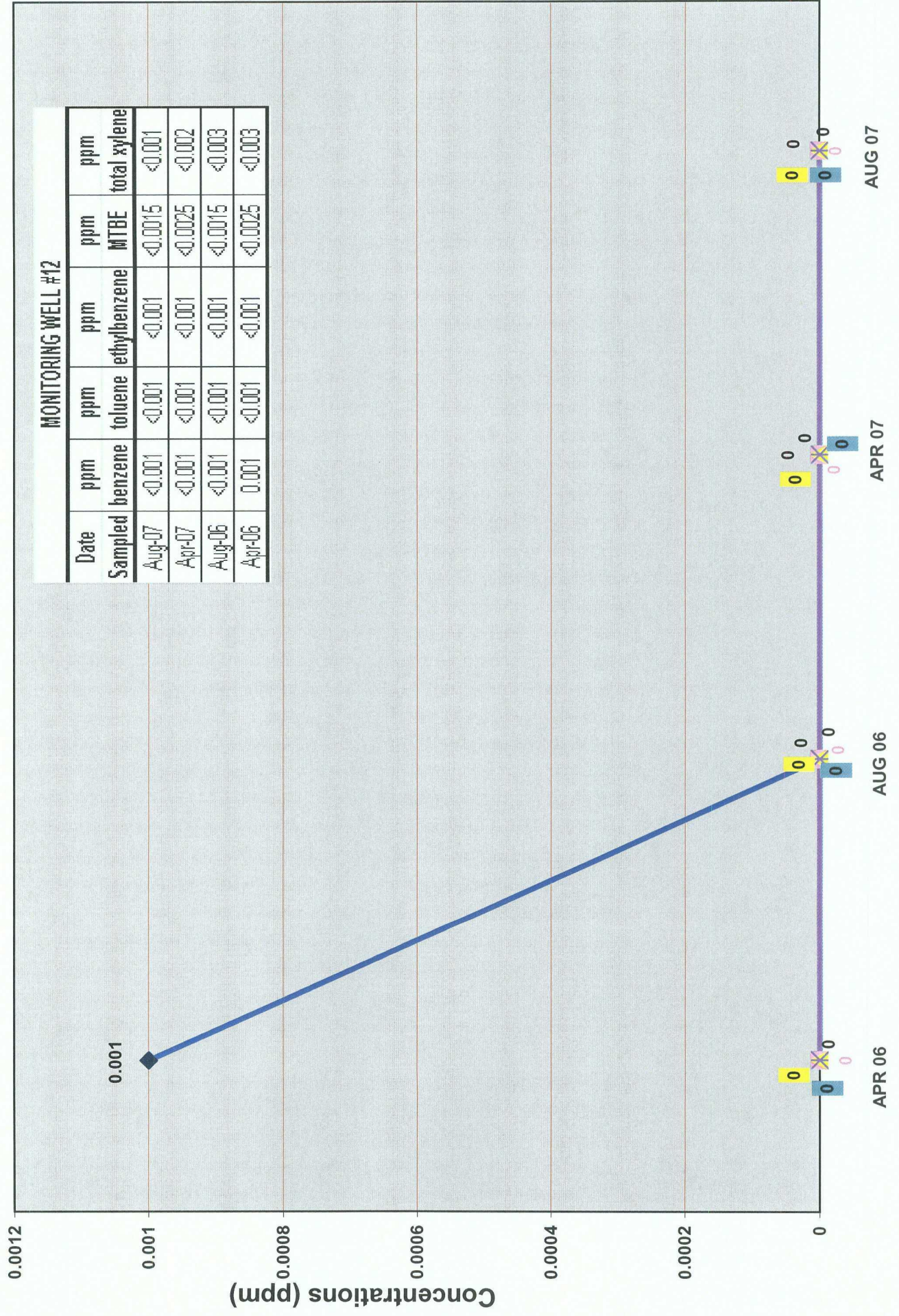


MONITORING WELL #8						
Date	benzene	toluene	ethylbenzene	MTBE	total xylene	
Aug-07	<0.001	<0.001	<0.001	<0.0015	<0.001	
Apr-07	<0.001	<0.001	<0.001	<0.0025	<0.002	
Aug-06	<0.001	<0.001	<0.01	<0.0025	<0.003	
Apr-06	<0.001	<0.001	<0.01	<0.0025	<0.003	

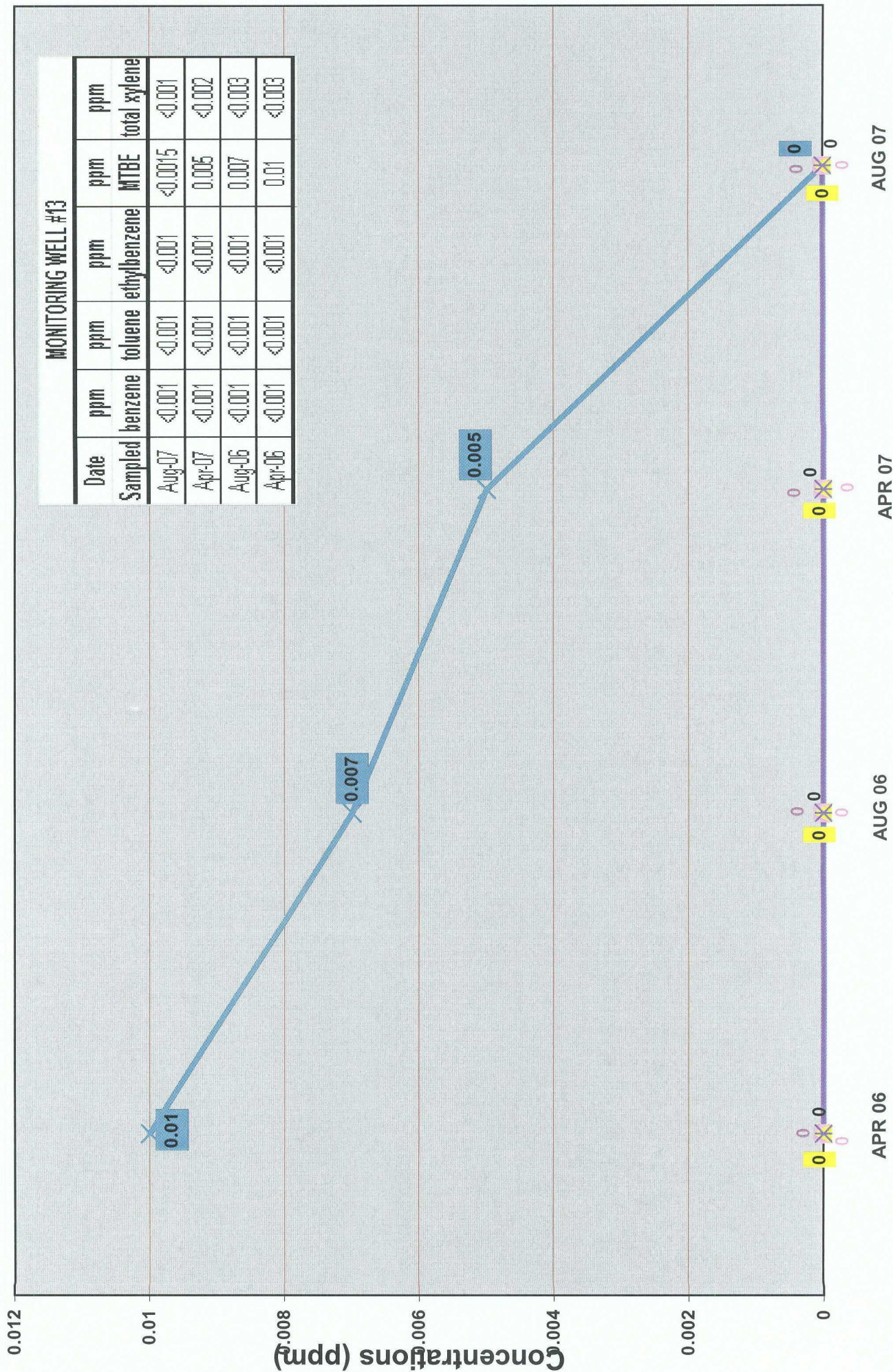
Monitoring Well #11



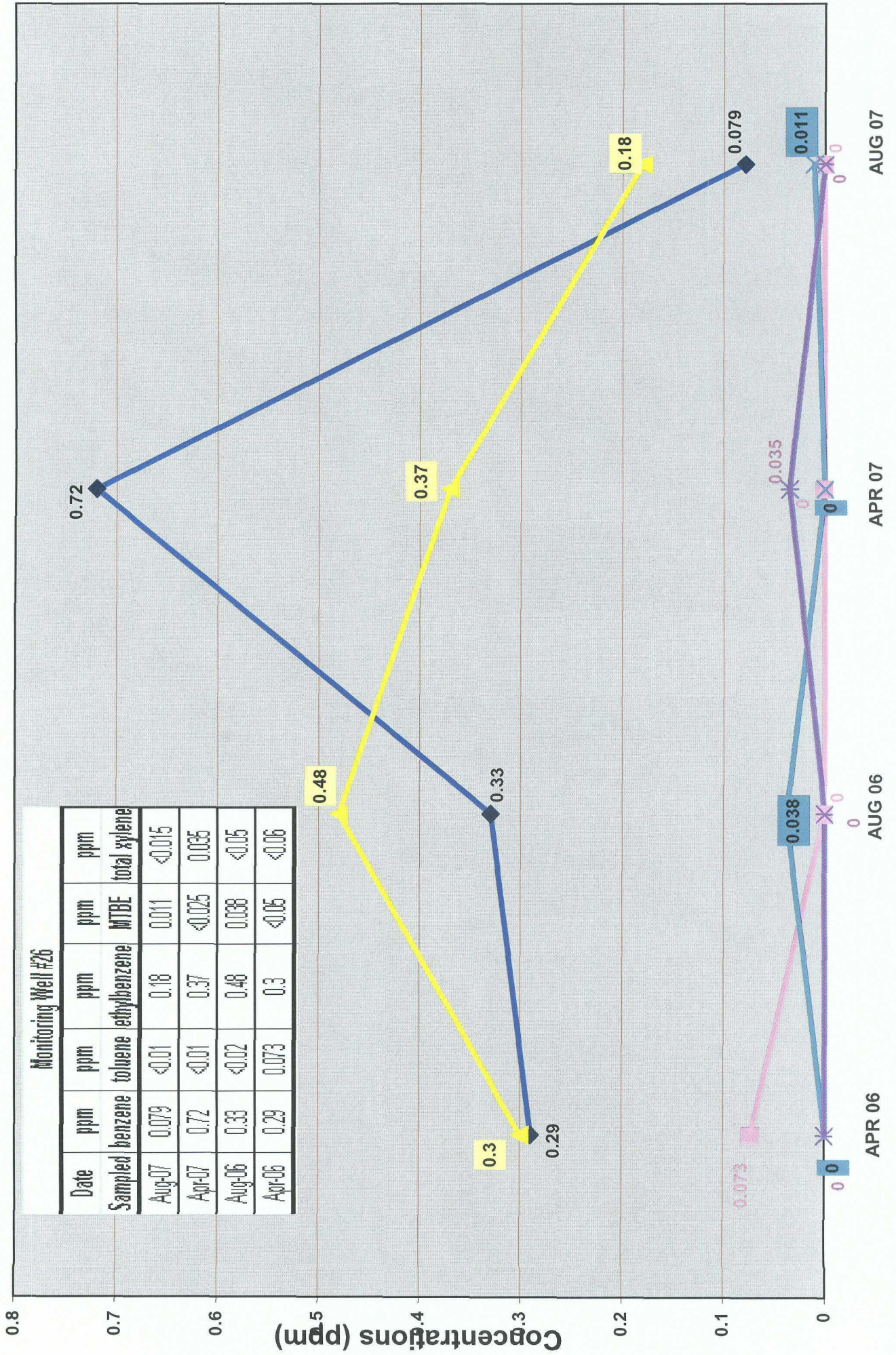
Monitoring Well #12



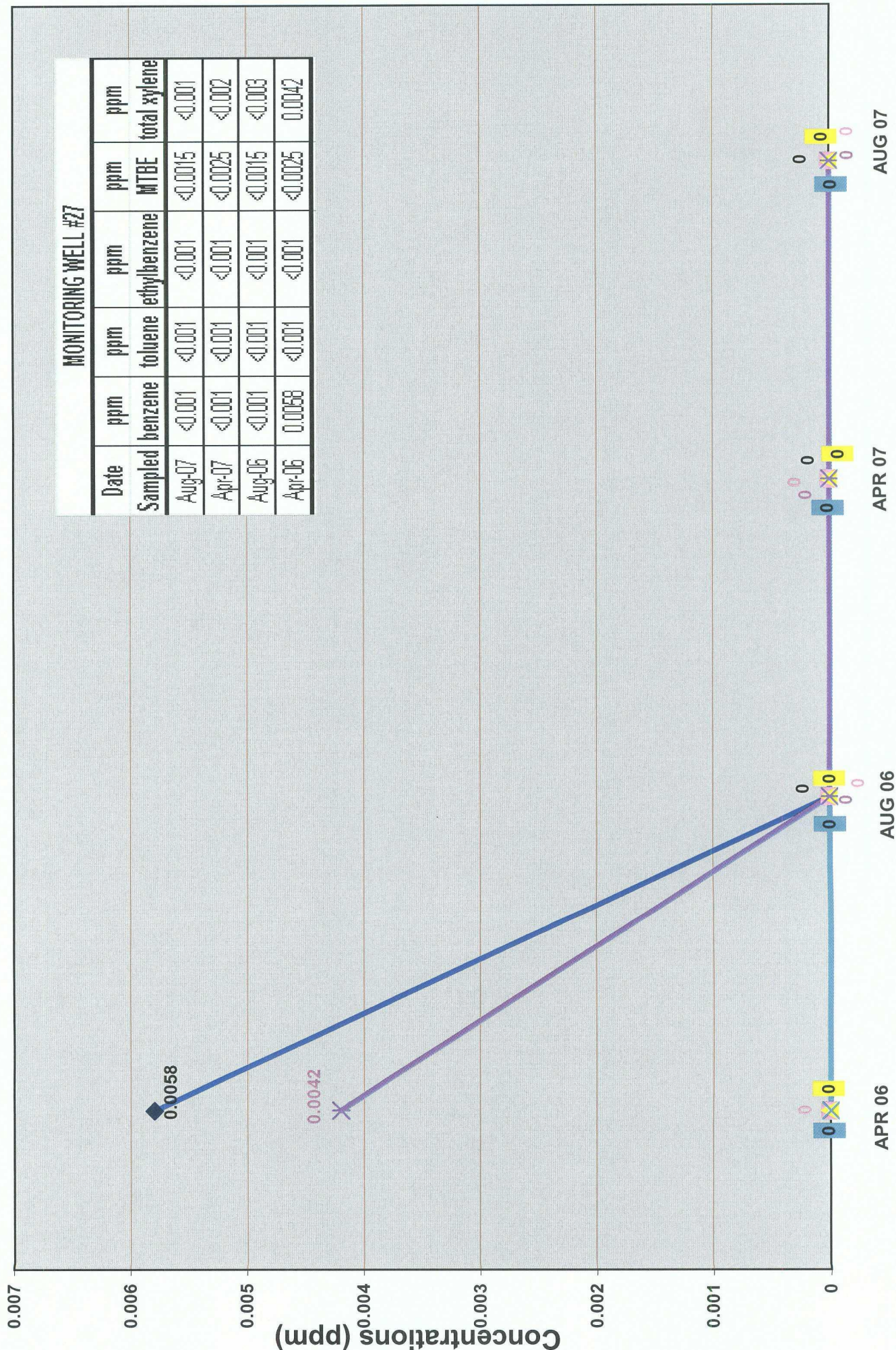
Monitoring Well #13



Monitoring Well #26



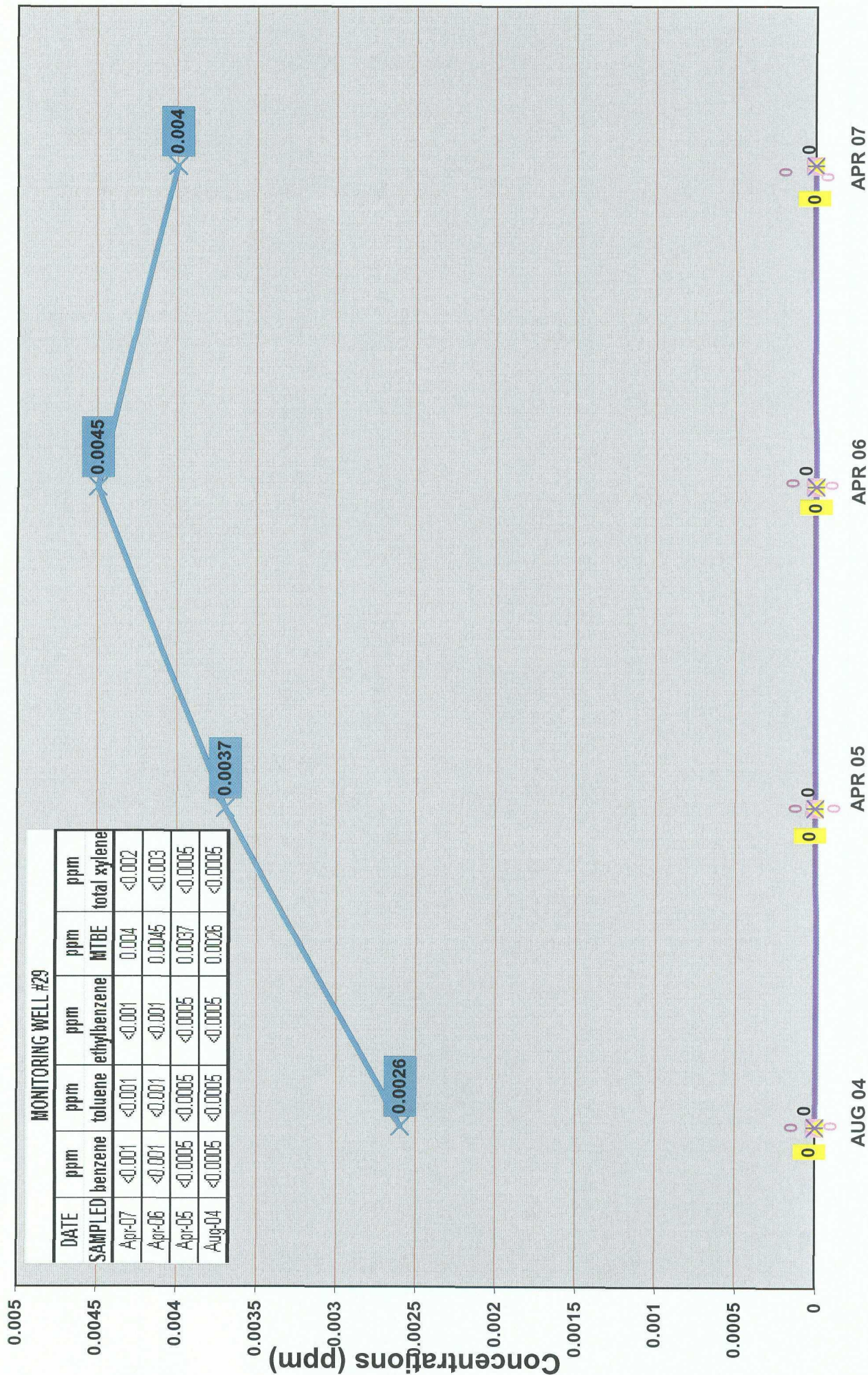
Monitoring Well #27



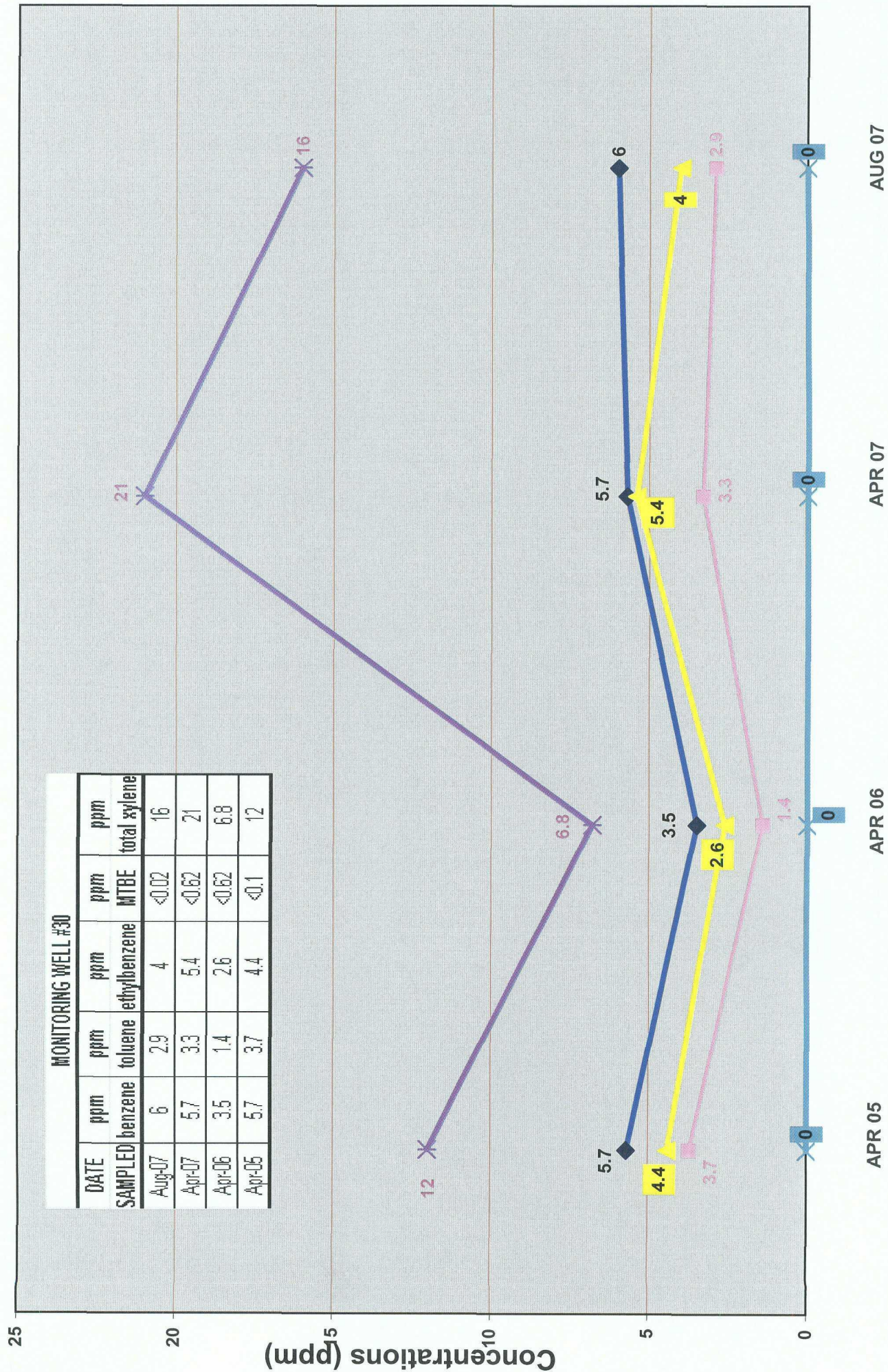
MONITORING WELL #27						
Date	ppm	benzene	toluene	ethylbenzene	MTBE	total xylene
Aug-07	<0.001	<0.001	<0.001	<0.001	<0.0015	<0.001
Apr-07	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.002
Aug-06	<0.001	<0.001	<0.001	<0.001	<0.0015	<0.003
Apr-06	0.0058	<0.001	<0.001	<0.001	<0.0025	0.0042

Monitoring Well #29

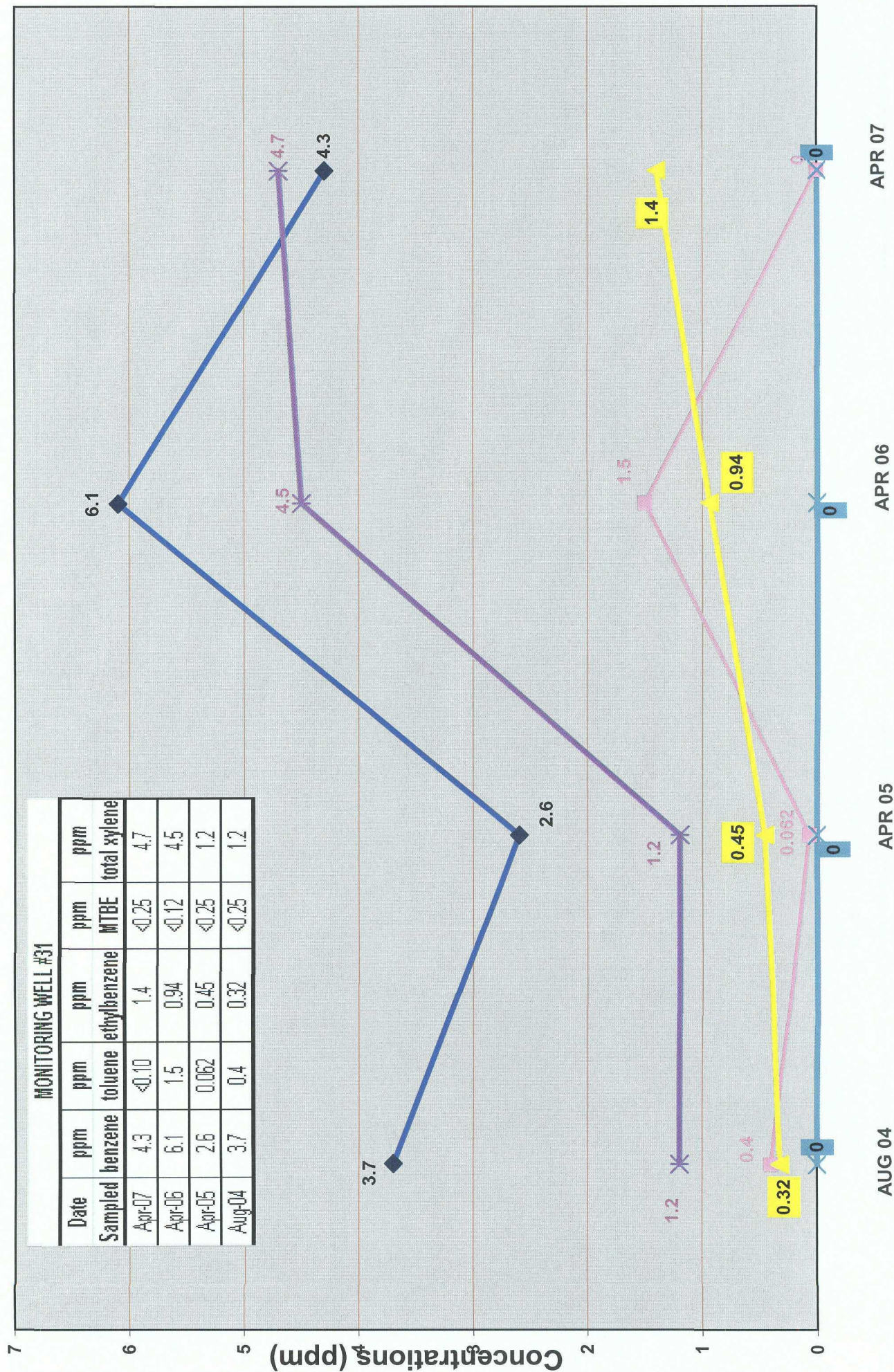
◆ Benzene
 ◆ Toluene
 ◆ Ethylbenzene
 ◆ MTBE
 ◆ Total Xylene



Monitoring Well #30

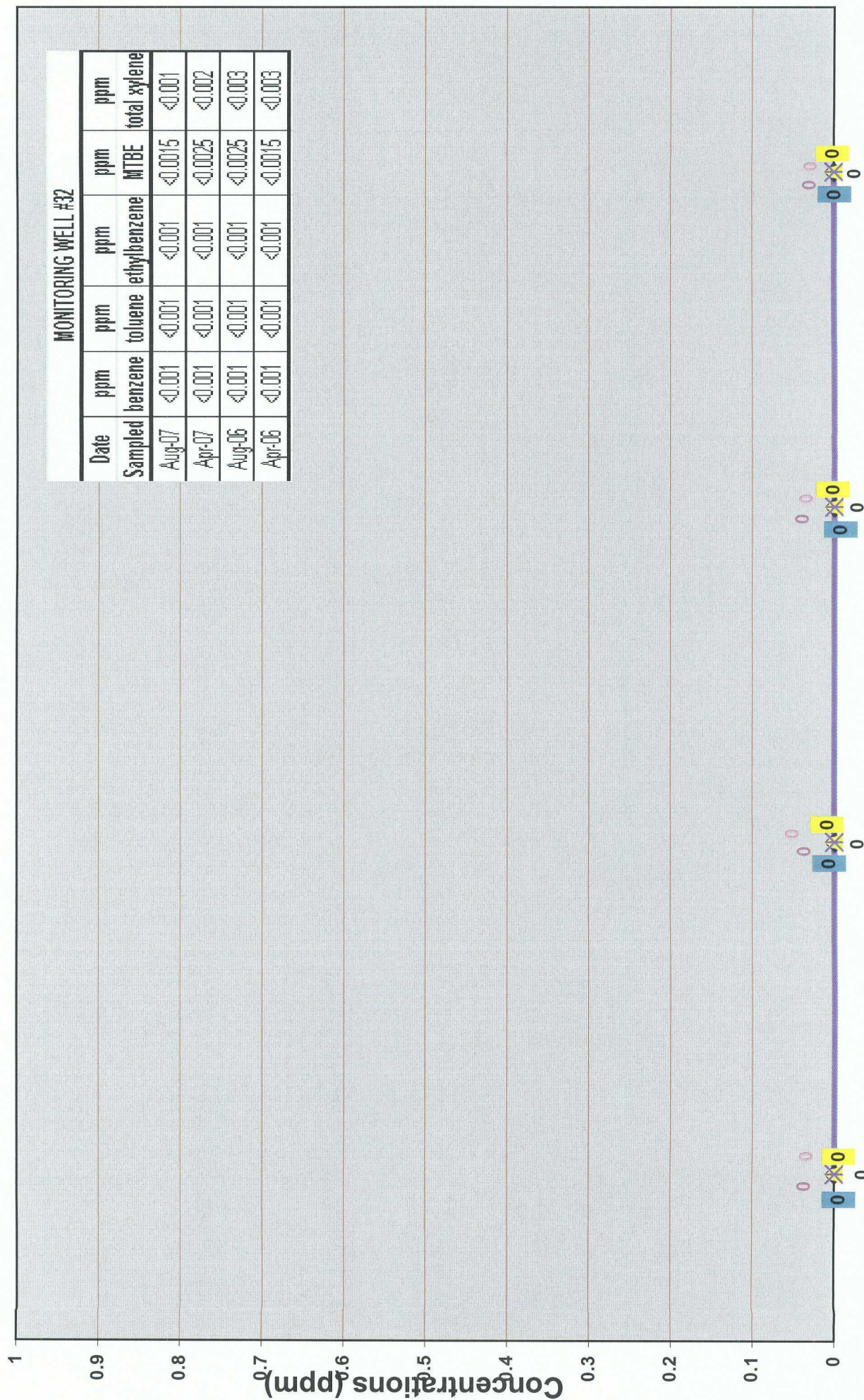


Monitoring Well #31



Monitoring Well #32

◆ Benzene
 ■ Toluene
 ■ Ethylbenzene
 ✕ MTBE
 ✕ Total Xylene



MONITORING WELL #32					
Date	ppm	benzene	toluene	ethylbenzene	ppm
Aug-07	<0.001	<0.001	<0.001	<0.001	<0.0015
Apr-07	<0.001	<0.001	<0.001	<0.001	<0.0025
Aug-06	<0.001	<0.001	<0.001	<0.001	<0.0025
Apr-06	<0.001	<0.001	<0.001	<0.001	<0.0015
					<0.003
					<0.003

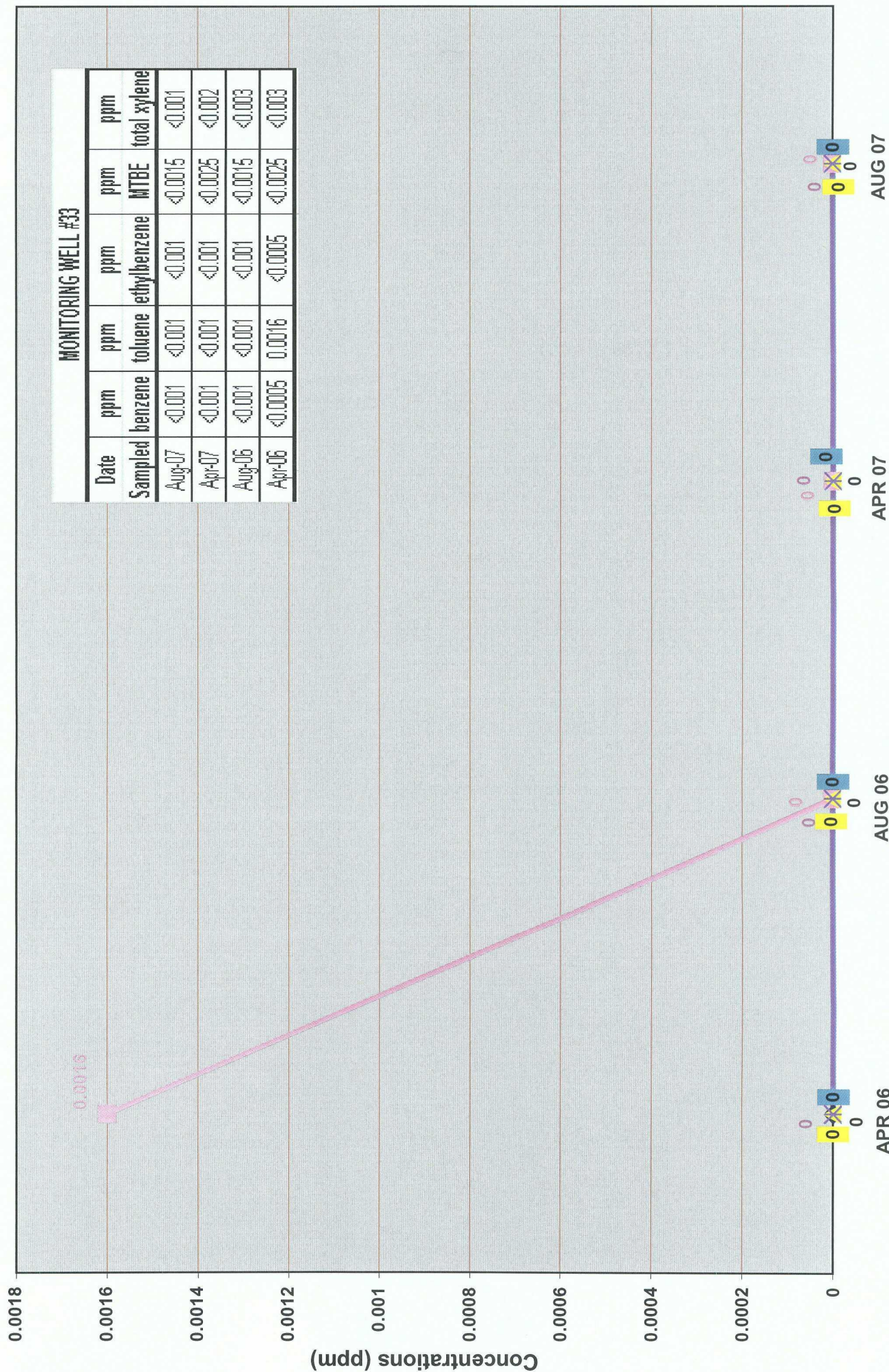
AUG 07

APR 07

AUG 06

APR 06

Monitoring Well #33



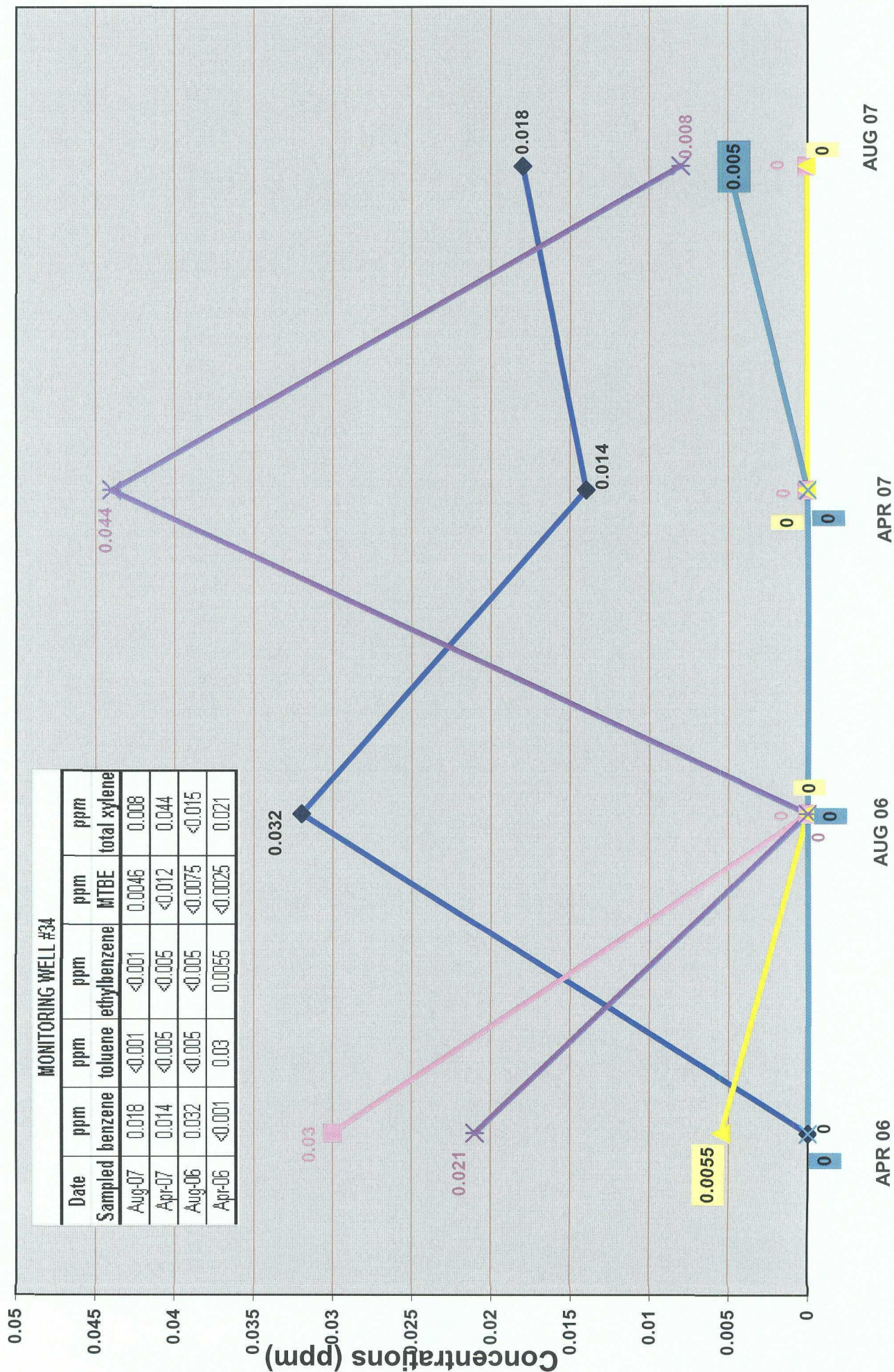
AUG 07

APR 07

AUG 06

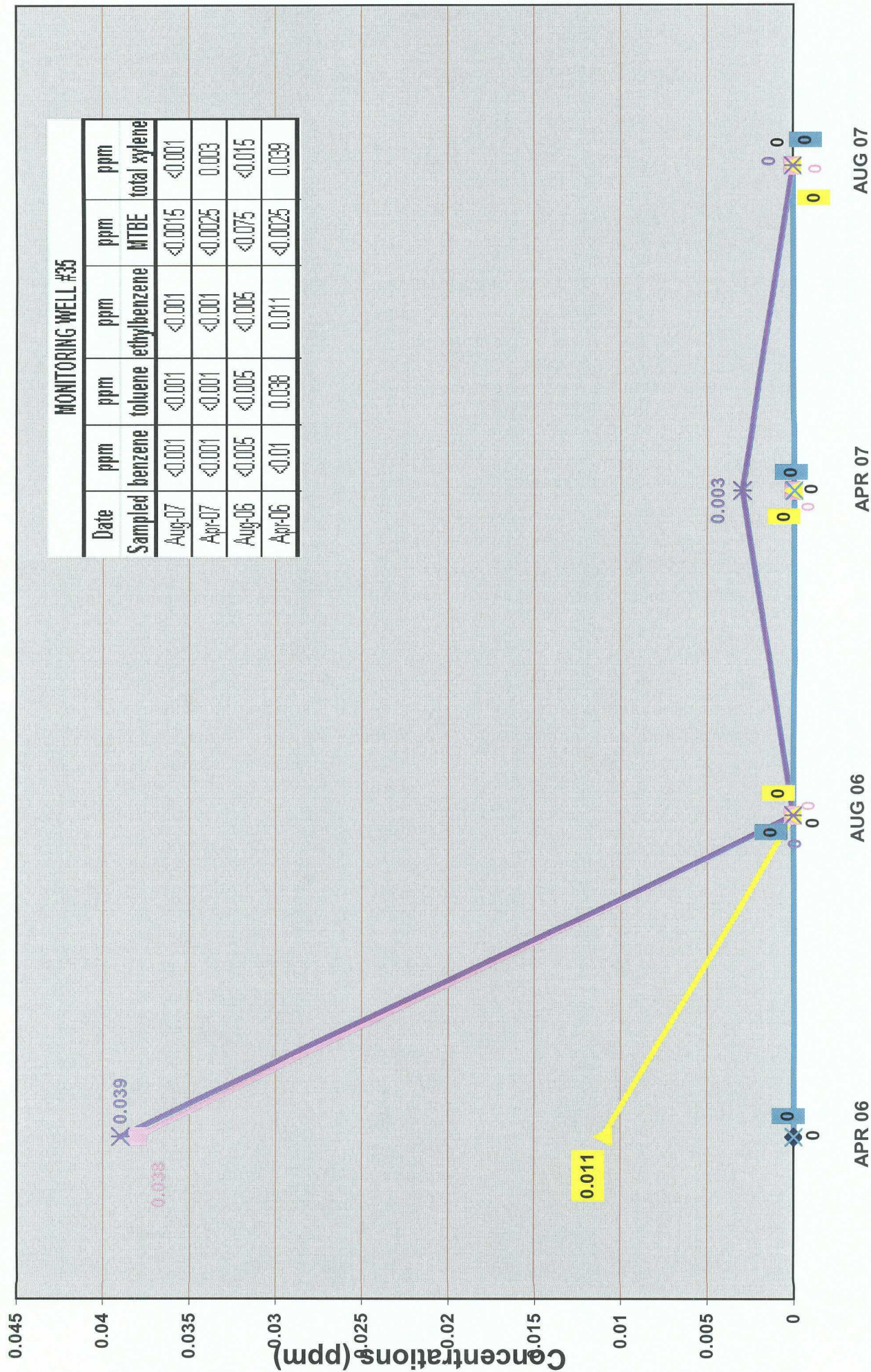
APR 06

Monitoring Well #34

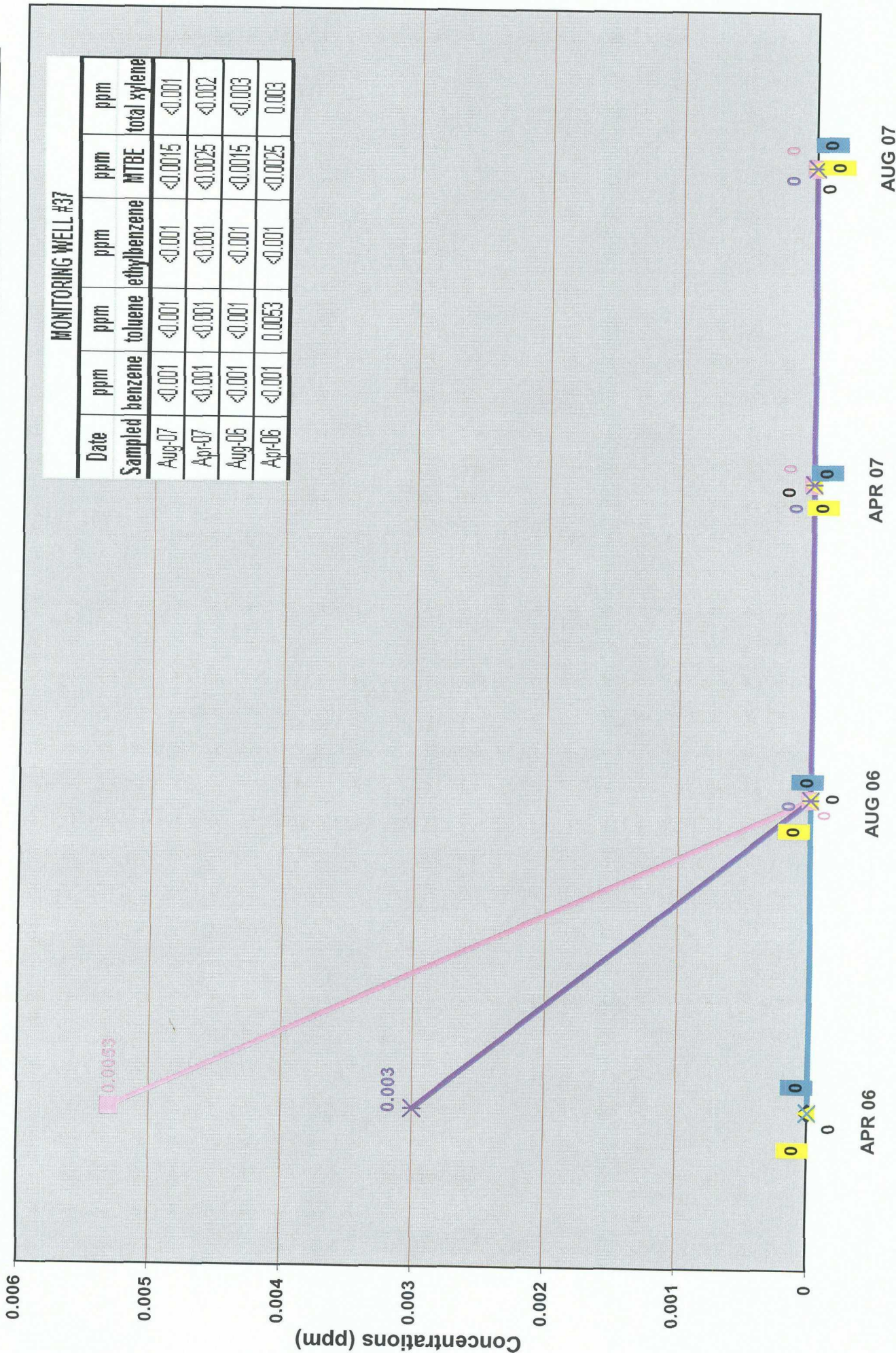


Monitoring Well #35

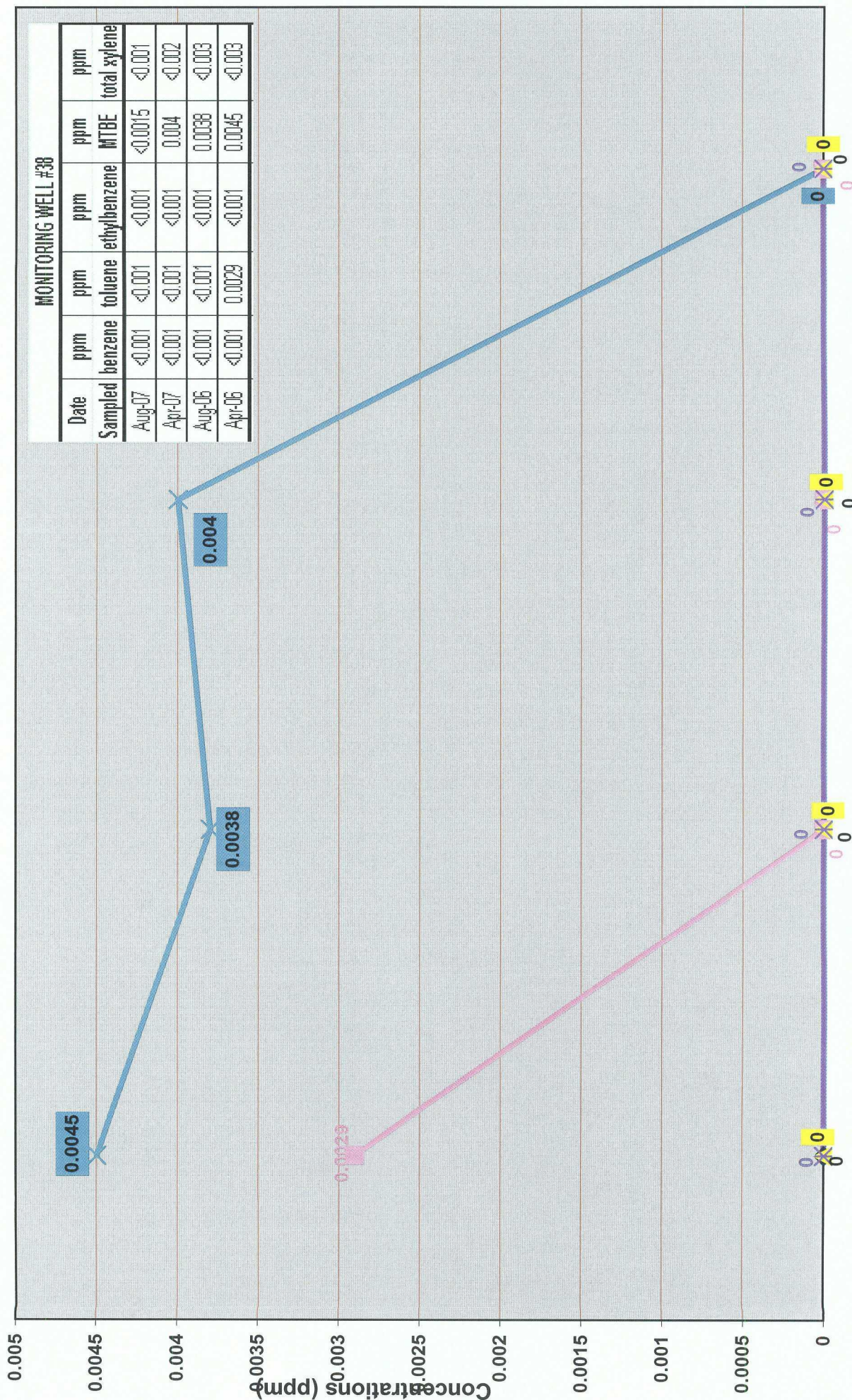
◆ Benzene
 ◆ Toluene
 ◆ Ethylbenzene
 ✕ MTBE
 ✕ Total Xylene



Monitoring Well #37



Monitoring Well #38



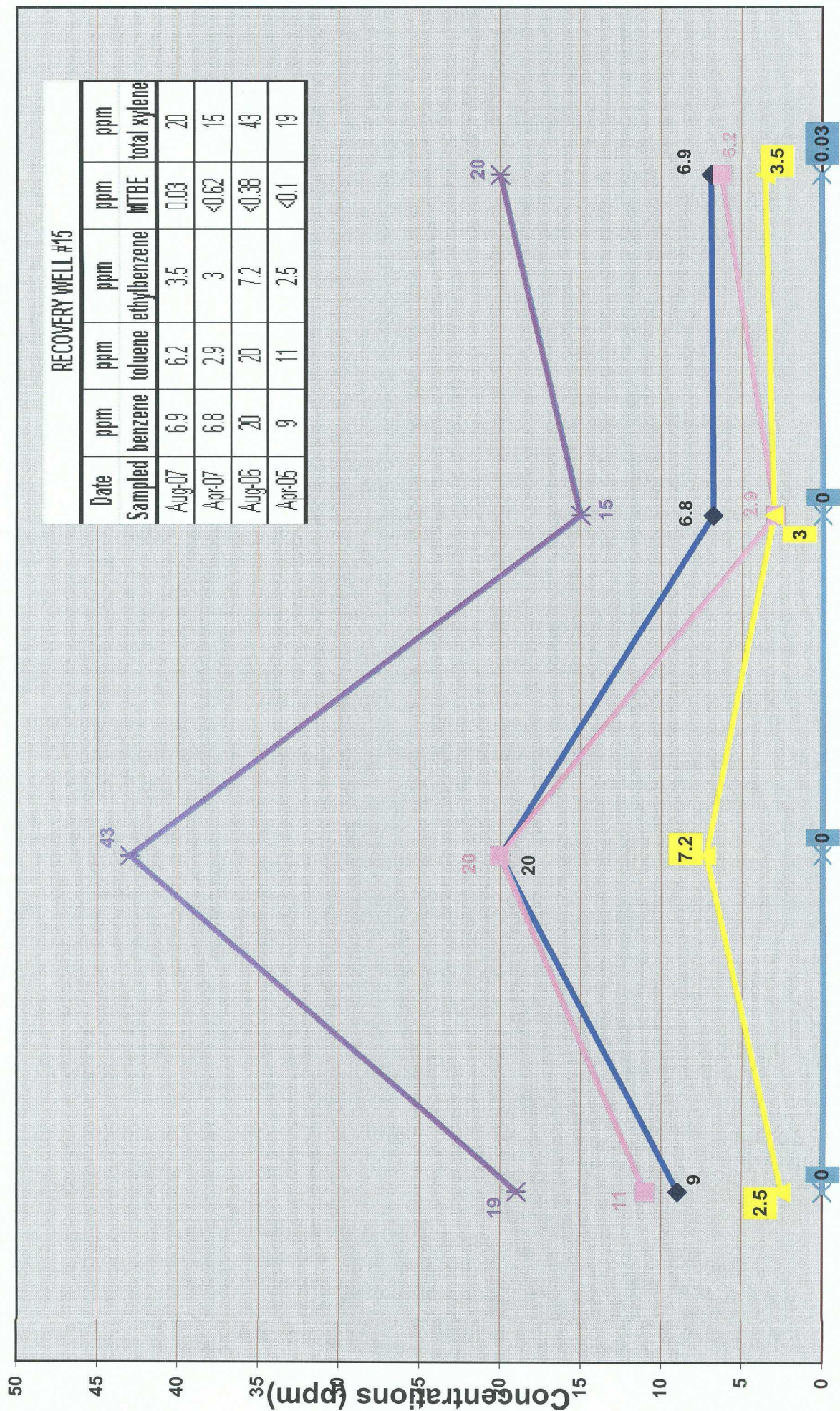
AUG 07

APR 07

AUG 06

APR 06

Recovery Well #15



RECOVERY WELL #15					
Date	ppm	ppm	ppm	ppm	ppm
Sampled	benzene	toluene	ethylbenzene	MTBE	total xylene
Aug-07	6.9	6.2	3.5	0.03	20
Apr-07	6.8	2.9	3	<0.62	15
Aug-06	20	20	7.2	<0.38	43
Apr-05	9	11	2.5	<0.1	19

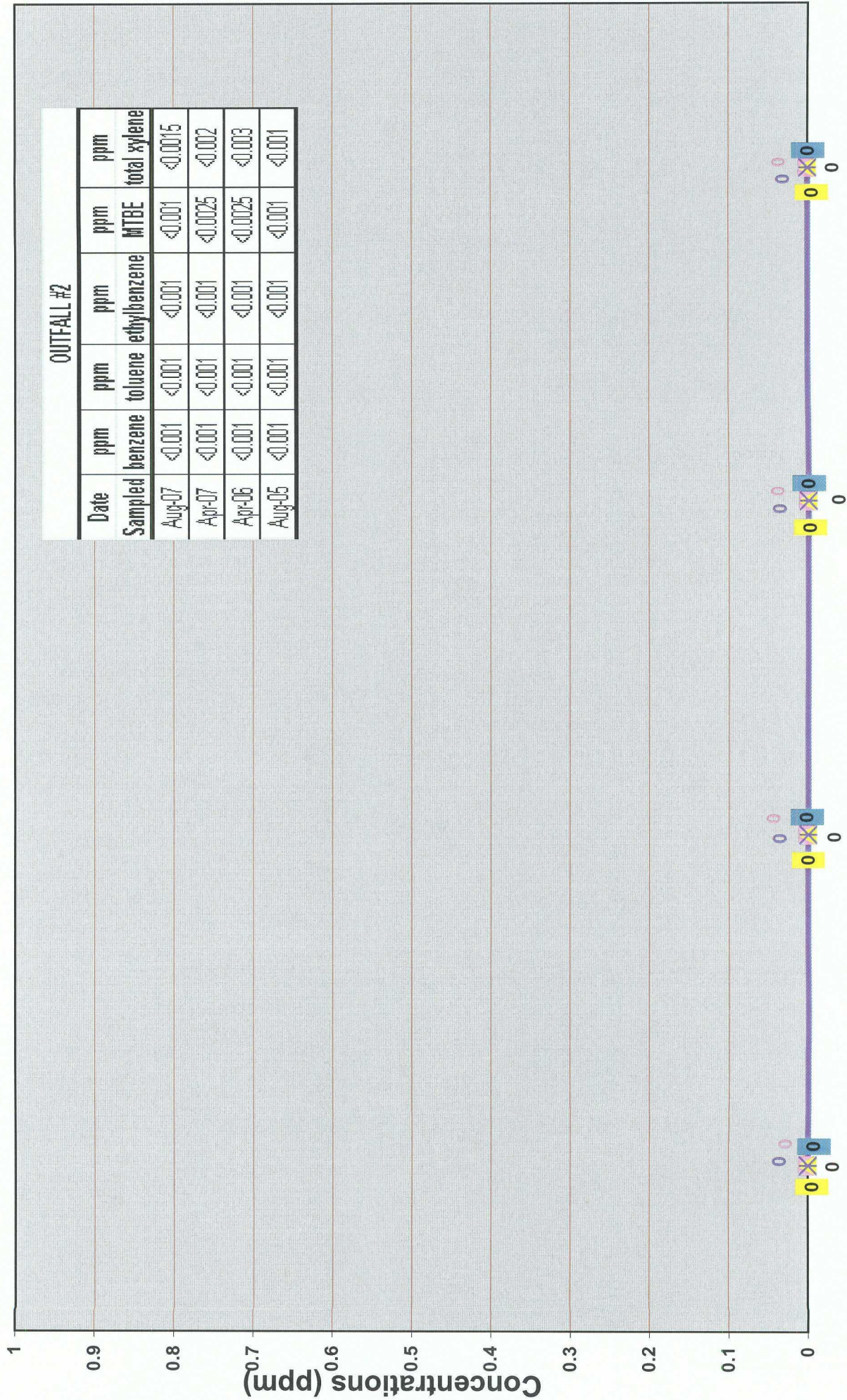
APR 05

AUG 06

APR 07

AUG 07

OUTFALL #2



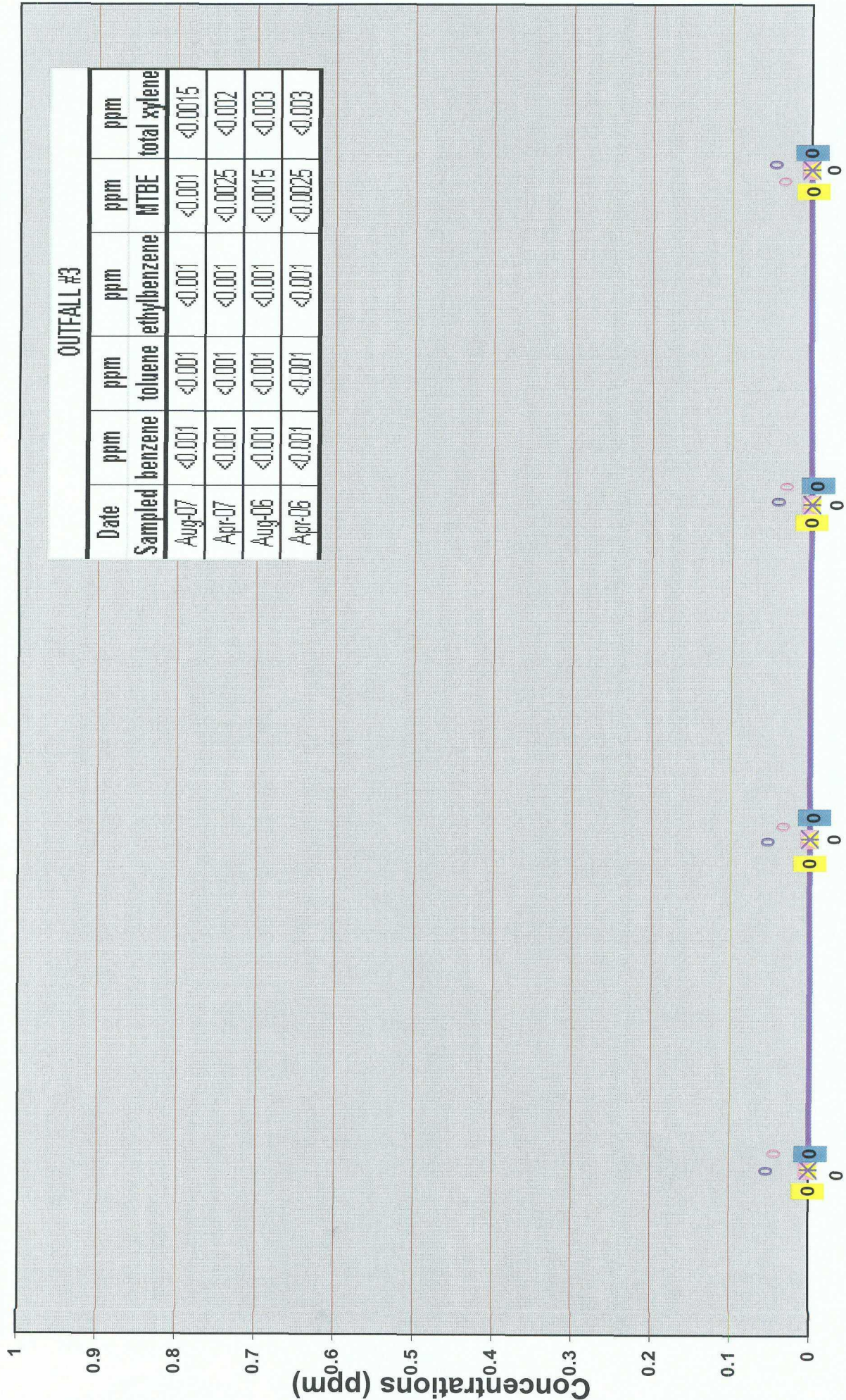
AUG 07

APR 07

APR 06

AUG 05

OUTFALL #3



OUTFALL #3

Date	benzene	toluene	ethylbenzene	MTBE	total xylene
Aug-07	<0.001	<0.001	<0.001	<0.001	<0.0015
Apr-07	<0.001	<0.001	<0.001	<0.0025	<0.002
Aug-06	<0.001	<0.001	<0.001	<0.0015	<0.003
Apr-06	<0.001	<0.001	<0.001	<0.0025	<0.003

APRIL 06

AUG 06

APR 07

AUG 07

Section 12.0 Field Methods

Field Methods

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, the 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.

<u>Casing</u>	<u>Conversion Factor</u>
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

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.

On occasion, the submersible pump is used for purging wells that have a large volume of water. All purged water is poured/pumped into a 55-gallon drum designated for sampling events.

Well Sampling and Sample Handling Procedure

Equipment and supplies needed for collecting representative groundwater samples include:

- Interface Meter
- YSI 550A Dissolved Oxygen Probe
- Ultrameter 6P
- Distilled Water
- Disposable Latex Gloves
- Disposable Bailers
- Submersible pump and Generator (if needed)
- String/Twine
- Cooler with Ice

- Bottle kits with Preservatives (provided by the contract laboratory)
- Disposable 0.45 micron Field Filters and Syringes
- Glass Jar (usually 4 oz.)
- Sharpie Permanent Marker
- Field Paperwork/Logsheet
- Two 5-gallon buckets
- Trash container (plastic garbage bag)
- Ziploc Bags
- Paper towels

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

For dissolved metals, sample water is poured into a jar and then extracted with a syringe. The syringe is then used to push water through a field filter into the proper sample bottle to collect the dissolved metals sample. Volatile organic analysis samples are collected as to allow no head space in the container.

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

Purge and Decontamination Water Disposal

The Ultrameter 6P, the YSI 550A Dissolved Oxygen 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.

The submersible pump is decontaminated by placing it in a 55-gallon barrel filled with plant water and some Alconox. The pump is activated and will pump down the barrel twice. External areas are washed down and rinsed, also. All wash and rinse water is on containment and runs to the refinery wastewater system.

Any glassware used is taken to the refinery laboratory and washed with Alconox and water and rinsed with reverse osmosis water. Laboratory wastewater runs through the refinery 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.

Remediation System Measurement

Recovery well flows are measured using a 500 ml graduated cylinder. The discharge line of the pump is disconnected and placed in the graduated cylinder. During a pump cycle, a measurement is taken over time and then calculated to a gallon per day rate.

Recovery rates at Tk #37 (Hammond Ditch French Drain) and Tk #38 (#1 East Outfall) are determined through flow meters installed in those systems. Refinery personnel record the rates periodically.

Section 13.0 Waste Disposition

Waste Disposition 2007

Pick-up Date	Manifest #	Description	Containers		Quantity	Destination	Treatment	Cert. of Disposal/ Consumption
			No.	Type				
1/24/2007	1694648JJK	Sulfur Guard Catalyst K-171	2	flowbin	4300 P	Gulf Chemical 302 Midway Rd. Freeport, Texas 77541	Recycled for Metals	Yes
1/24/2007	1694648JJK	Unifiner Spent Catalyst K-171	1	flowbin	3400 P	Gulf Chemical 302 Midway Rd. Freeport, Texas 77541	Recycled for Metals	Yes
1/31/2007	000555760 FLE	Waste Corrosive Solid Acidic (Spent Poly Catalyst)	1	DT (Dump Trailer)	36,300	Clean Harbors Grassy Mountain, UT Facility 3miles east, 7 miles north of Knolls Grantsville, UT 84029	Landfilled	Yes
4/11/2007	002799793J JK (Canadian 9213824-7)	Sulfide Poisoned DHT Catalyst K-171	8	flowbin	43740 P	Recupere Sol, Inc 80 Rue Des Melezes St. Ambroise, Quebec G7P2N4	Recycled for Metals	Yes
6/11/2007	1154807FLE (9b.1)	Outdated Red Dye D-001	1	drum	170 P	Clean Harbors 2247 South Highway 71 Kimball, NE 69145	Incinerated	Yes
6/11/2007	1154807FLE (9b.2)	Main Column Bottoms Sludge K-170, D008, D009	2	drum	900 P	Clean Harbors 2247 South Highway 71 Kimball, NE 69145	Incinerated	Yes
6/11/2007	1154807FLE (9b.3)	DSL/Soil Non-Haz (cleanout of DSL Cross in Firetraining Grounds)	5	drum	1800 P	Clean Harbors 2247 South Highway 71 Kimball, NE 69145	Landfilled	Yes
6/11/2007	1154807FLE (9b.4)	Soil/Red Dye (Terminals Cleanup)	1	drum	350 P	Clean Harbors 2247 South Highway 71 Kimball, NE 69145	Incinerated	Yes
6/19/2007	61907G	Non-Hazardous, Non DOT Regulated Liquid (Chelant)	1	TT	4000 G	Clean Harbors Grassy Mountain, UT Facility 3miles east, 7 miles north of Knolls Grantsville, UT 84029	Landfilled	Yes

Waste Disposition 2007

Pick-up Date	Manifest #	Description	Containers		Quantity	Destination	Treatment	Cert. of Disposal/ Consumption
			No.	Type				
7/17/2007	893883FLE	Waste Corrosive Solid Acidic (Spent Poly Catalyst)	1	DT (Dump Trailer)	40,780 P	Clean Harbors Grassy Mountain, UT Facility 3miles east, 7 miles north of Knolls Grantsville, UT 84029	Landfilled	Yes
9/11/2007	895417FLE 9b.1	Soil/Hitech Spill Cleanup (Flammable Liquid) D001, D018	1	drum	450 P	Clean Harbors 2247 South Highway 71 Kimball, NE 69145	Incinerated	Yes
9/11/2007	895417FLE 9b.2	Unifiner Catalyst Skimmings K-171, D001, D018	3	drum	1200 P	Clean Harbors 2247 South Highway 71 Kimball, NE 69145	Incinerated	Yes
9/11/2007	895417FLE 9b.3	Exchanger Bundle Cleaning Sludge K050	3	drum	1500 P	Clean Harbors 2247 South Highway 71 Kimball, NE 69145	Incinerated	Yes
9/11/2007	895417FLE 9b.4	Computer Waste Non DOT Regulated Material (Electronics for Recycle)	2	pallets (CW)	1200 P	Supreme Computer and Electronic Recyclers, Inc.	Recycled	Yes
9/11/2007	895417FLE 9b.5	Oily Soil - Non Haz LACT Unit Cleanout	3	drum	1350 P	Clean Harbors 2247 South Highway 71 Kimball, NE 69145	Incinerated	Yes
9/11/2007	895417FLE 9b.6	Petroleum Contaminated Soil Non Haz Wet Gas Compressor Dock	1	drum	450 P	Clean Harbors 2247 South Highway 71 Kimball, NE 69145	Incinerated	Yes
9/11/2007	895417FLE 9b.7	Main Column Bottoms Sludge K-170, D008, D009	1	drum	500 P	Clean Harbors 2247 South Highway 71 Kimball, NE 69145	Incinerated	Yes
10/8/2007	81447JJK	Spent Hydrotreating Catalyst Waste Self Heating Solid (DHT Catalyst - K-171)	8	flowbins	39,280 P	Eurecat US, Inc. 13100 Baypark Rd Pasadena, Texas 77507	Recycled	Yes

Waste Disposition 2007

Pick-up Date	Manifest #	Description	Containers		Quantity	Destination	Treatment	Cert. of Disposal/ Consumption
			No.	Type				
10/11/2007	001068391 FLE	Non-Hazardous, Non DOT Regulated Liquid (Chelant)	1	TT	38,980 P	Clean Harbors Grassy Mountain, UT Facility 3miles east, 7 miles north of Knolls Grantsville, UT 84029	Landfilled	Yes
11/13/2007	001066055 FLE	Waste Corrosive Solid Acidic (Spent Poly Catalyst)	1	DT (Dump Trailer)	45,020	Clean Harbors Grassy Mountain, UT Facility 3miles east, 7 miles north of Knolls Grantsville, UT 84029	Landfilled	Yes
11/20/2007	1066098FLE	Waste Caustic Liquid D-002 Alkali	1	TT (Tanker Truck)	36,740 P	Clean Harbors Grassy Mountain, UT Facility 3miles east, 7 miles north of Knolls Grantsville, UT 84029	Landfilled	Yes
11/20/2007	106697FLE	Waste Caustic Liquid D-002 Alkali	1	TT (Tanker Truck)	42,820 P	Clean Harbors Grassy Mountain, UT Facility 3miles east, 7 miles north of Knolls Grantsville, UT 84029	Landfilled	Yes
11/29/2007	106697FLE	Waste Caustic Liquid D-002 Alkali	1	TT (Tanker Truck)	32,500 P	Clean Harbors Grassy Mountain, UT Facility 3miles east, 7 miles north of Knolls Grantsville, UT 84029	Landfilled	Yes

Section 14.0 Below Grade Testing

2007 Below Grade Testing

Description (Service)	Location (Unit)	Line Size (inches)	Starting Location	End Location	DRAWING REFERENCE	Test Date	Test Method	Pass/Fail
ULSD Sales- Tk 19	Tank Farm	12	Pipe Rack Southwest of Tk. # 31	Filter Pad Area North Of Loading Pad	N/A	Nov-07	Praxair Tracertight	Pass
ULSD To Bay # 4	Terminals	8	From F-703 Filter Piping	To Meter Spool @ Bay # 4	D-700-500-123	Nov-07	Praxair Tracertight	Pass
Off Road Diesel Sales Tk 18	Tank Farm	6	Pipe Rack Southwest of Tk. # 31	Filter Pad Area North Of Loading Pad	N/A	Nov-07	Praxair Tracertight	Pass
Off Road Diesel - Bays #1 & 2	Terminals	8	From F-706 Filter Piping	To Meter Spools @ Bays # 1&2	D-700-500-118	Nov-07	Praxair Tracertight	Pass
Unleaded Gasoline Sales - Tk 13 & 14	Tank Farm	12	Pipe Rack Southwest of Tk. # 31	Filter Pad Area North Of Loading Pad	N/A	Nov-07	Praxair Tracertight	Pass
Unleaded Gasoline Sales Line	Terminals	10	From F-704 Filter Piping	To Meter Spools @ Bays # 1,2 & 3	D-700-500-118	Nov-07	Praxair Tracertight	Pass
Premium Sales - Tk 3 & 4	Tank Farm	8	Pipe Rack West of Tk.# 36	Filter Pad Area North Of Loading Pad	B-600-500-236	Nov-07	Praxair Tracertight	Pass
Premium Sales Line	Terminals	10	From F-705 Filter Piping	To Meter Spools @ Bays # 1,2 & 3	D-700-500-118	Nov-07	Praxair Tracertight	Pass
Premium Sales Line	Tank Farm	8	Area West of API Separator	DHT Option City	N/A	Nov-07	Praxair Tracertight	Pass
Sub Grade Gasoline - Tk 32	Tank Farm	8	Pipe Rack West of Tk.# 36	Filter Pad Area North Of Loading Pad	N/A	Nov-07	Praxair Tracertight	Pass
Sub Grade Gasoline Sales	Terminals	10	F-701	To Bay 1,2, &3	N/A	Nov-07	Praxair Tracertight	Pass

Praxair leak tested approximately 2,160 linear feet (trench length) of underground piping.

2007 Below Grade Testing

Description (Service)	Location (Unit)	Line Size (inches)	Starting Location	End Location	DRAWING REFERENCE	Test Date	Test Method	Pass/Fail
Naphtha Unloading 320 feet	Tank Farm	6	Berm North of Tk #35	Berm North of Tk #19	N/A	Sep-07	Hydrotest	Pass
Fire Water Line 840 feet	Tank Farm	12	North of ARU	NE of Tk #5, South of Flare	D-500-500-096	Dec-07	Hydrotest	Pass
Sulfurox Sewer line 580 feet	Sulfurox	4,8,10	North End of Sulfurox	Roadway btwn Poly and DHT Units	B-800-900-008	Dec-07	Hydrotest	Pass

2007 TANK WATERDRAW SUMPS

Sump ID Number	Location	Description (Service)	Type Material	Length Size (ft)	Width Size (ft)	Depth (ft)	Unit	Capacity (Gal.)	Test Date	Test Method	Pass/Fail
16	Sump @ S.W. Side Of Tk. 3	Tank Drain Sump	Concrete	4	4	4	Tank Farm	478.7	Nov-07	Hydrotest	Pass
17	Sump Between Tk. 3 & 4	Tank Drain Sump	Concrete	4	4	4	Tank Farm	478.7	Nov-07	Hydrotest	Pass
18	Sump Between Tk. 4 & 5	Tank Drain Sump	Concrete	6	10	4	Tank Farm	1795.2	Nov-07	Hydrotest	Pass
19	Sump @ N.Side Of Tk. 5	Tank Drain Sump	Concrete	4	4	4	Tank Farm	478.7	Nov-07	Hydrotest	Pass
20	Sump Between Tk. 11 & 12	Tank Drain Sump	Concrete	6	10	4	Tank Farm	1795.2	Nov-07	Hydrotest	Pass
21	Sump Between Tk. 13 & 14	Tank Drain Sump	Concrete	6	10	4	Tank Farm	1795.2	Nov-07	Hydrotest	Pass
22	Sump @ N. Side Of Tk. 17	Tank Drain Sump	Concrete	4	4	4	Tank Farm	478.7	Nov-07	Hydrotest	Pass
23	Sump @ N.E. Side Of Tk. 18	Tank Drain Sump	Concrete	6	10	4	Tank Farm	1795.2	Nov-07	Hydrotest	Pass
24	Sump @ N.E. Side Of Tk. 19	Tank Drain Sump	Concrete	6	10	4	Tank Farm	1795.2	Nov-07	Hydrotest	Pass
25	Sump @ S.W. Side Of Tk. 20	Tank Drain Sump	Steel	8' Dia.	N/A	8	Tank Farm	2520.0	Nov-07	Hydrotest	Pass
26	Sump @ S. Side Of Tk. 23	Tank Drain Sump	Concrete	4	4	4	Tank Farm	478.7	Nov-07	Hydrotest	Pass

2007 TANK WATERDRAW SUMPS

Sump ID Number	Location	Description (Service)	Type Material	Length Size (ft)	Width Size (ft)	Depth (ft)	Unit	Capacity (Gal.)	Test Date	Test Method	Pass/Fail
27	Sump @ N.E. Side Of Tk. 24	Tank Drain Sump	Steel	6' Dia.	N/A	6	Tank Farm	1260.0	Nov-07	Hydrotest	Pass
28	Sump @ N.E. Side Of Tk. 25	Tank Drain Sump	Steel	6' Dia.	N/A	6	Tank Farm	1260.0	Nov-07	Hydrotest	Pass
29	Sump @ N.W. Side Of Tk. 26	Tank Drain Sump	Concrete	4	4	4	Tank Farm	478.7	Nov-07	Hydrotest	Pass
30	Sump @ S.E. Side Of Tk. 27	Tank Drain Sump	Concrete	6	10	4	Tank Farm	1795.2	Nov-07	Hydrotest	Pass
31	Sump @ West Side Of Tk. 28	Tank Drain Sump	Concrete	6	10	4	Tank Farm	1795.2	Nov-07	Hydrotest	Pass
32	Sump @ N.E. Side Of Tk. 29	Tank Drain Sump	Concrete	6	10	4	Tank Farm	1795.2	Nov-07	Hydrotest	Pass
33	Sump @ S.W. Side Of Tk. 30	Tank Drain Sump	Concrete	6	10	4	Tank Farm	1795.2	Nov-07	Hydrotest	Pass
34	Sump @ N.W. Side Of Tk. 31	Tank Drain Sump	Concrete	6	10	4	Tank Farm	1795.2	Nov-07	Hydrotest	Pass
35	Sump @ S.E. Side Of Tk. 31	Tank Drain Sump	Concrete	6	10	4	Tank Farm	1795.2	Nov-07	Hydrotest	Pass
36	Sump @ East Side Of Tk. 32	Tank Drain Sump	Concrete	4	4	4	Tank Farm	478.7	Nov-07	Hydrotest	Pass
37	Sump @ N.E. Side Of Tk. 35	Tank Drain Sump	Steel	7.8' Dia	N/A	5.5	Tank Farm	1680.0	Nov-07	Hydrotest	Pass
38	Sump @ N.E. Side Of Tk. 36	Tank Drain Sump	Steel	7.8' Dia.	N/A	5.5	Tank Farm	1680.0	Nov-07	Hydrotest	Pass

Section 15.0 North Barrier Wall

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Observation Well Fluids Monitoring January 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 0+60	1/2/2007	5506.62	12.26	NPP	11.07	5495.55	NPP
	1/15/2007	5506.62	12.26	NPP	11.15	5495.47	NPP
	1/29/2007	5506.62	12.26	NPP	11.21	5495.41	NPP
OW 1+50	1/2/2007	5508.03	14.36	12.86	12.91	5495.16	0.05
	1/15/2007	5508.03	14.36	12.93	12.95	5495.10	0.02
	1/29/2007	5508.03	14.36	13.03	13.05	5495.00	0.02
OW 3+85	1/2/2007	5507.31	15.06	NPP	12.41	5494.90	NPP
	1/15/2007	5507.31	15.06	NPP	12.46	5494.85	NPP
	1/29/2007	5507.31	15.06	12.52	12.53	5494.79	0.01
OW 5+50	1/2/2007	5507.59	13.67	13.52	13.59	5494.06	0.07
	1/15/2007	5507.59	13.67	13.55	13.56	5494.04	0.01
	1/29/2007	5507.59	13.67	NPP	13.32	5494.27	NPP
OW 6+70	1/2/2007	5504.78	14.67	NPP	DRY		NPP
	1/15/2007	5504.78	14.67	NPP	DRY		NPP
	1/29/2007	5504.78	14.67	NPP	DRY		
OW 8+10	1/2/2007	5506.53	15.99	NPP	DRY		NPP
	1/15/2007	5506.53	15.99	NPP	DRY		NPP
	1/29/2007	5506.53	15.99	NPP	DRY		
OW 11+15	1/2/2007	5506.70	16.59	NPP	11.94	5494.76	NPP
	1/15/2007	5506.70	16.59	NPP	11.97	5494.73	NPP
	1/29/2007	5506.70	16.59	NPP	12.01	5494.69	NPP

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring January 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 14+ 10	1/2/2007	5508.14	12.96	NPP	DRY		NPP
	1/15/2007	5508.14	12.96	NPP	DRY		NPP
	1/29/2007	5508.14	12.96	NPP	DRY		NPP
OW 16+ 60	1/2/2007	5508.43	15.21	NPP	12.13	5496.30	NPP
	1/15/2007	5508.43	15.21	NPP	12.19	5496.24	NPP
	1/29/2007	5508.43	15.21	NPP	12.27	5496.16	NPP
OW 19+ 50	1/2/2007	5508.03	13.00	NPP	12.53	5495.50	NPP
	1/15/2007	5508.03	13.00	NPP	12.43	5495.60	NPP
	1/29/2007	5508.03	13.00	NPP	12.34	5495.69	NPP
OW 22+ 00	1/2/2007	5506.91	14.16	NPP	11.09	5495.82	NPP
	1/15/2007	5506.91	14.16	11.35	11.36	5495.56	0.01
	1/29/2007	5506.91	14.16	NPP	11.50	5495.41	NPP
OW 23+ 10	1/2/2007	5514.12	18.34	16.25	16.26	5497.87	0.01
	1/15/2007	5514.12	18.34	NPP	16.31	5497.81	NPP
	1/29/2007	5514.12	18.34	NPP	16.29	5497.83	NPP
OW 23+ 90	1/2/2007	5515.18	18.01	NPP	17.12	5498.06	NPP
	1/15/2007	5515.18	18.01	NPP	17.16	5498.02	NPP
	1/29/2007	5515.18	18.01	NPP	17.21	5497.97	NPP
OW 25+ 70	1/2/2007	5509.00	13.98	10.73	10.74	5498.27	0.01
	1/15/2007	5509.00	13.98	NPP	10.77	5498.23	NPP
	1/29/2007	5509.00	13.98	NPP	10.77	5498.23	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring January 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 0+60	1/2/2007	5506.68	14.09	NPP	7.86	5498.82	NPP
	1/15/2007	5506.68	14.09	NPP	7.96	5498.72	NPP
	1/29/2007	5506.68	14.09	NPP	7.97	5498.71	NPP
CW 1+50	1/2/2007	5505.13	13.74	NPP	6.18	5498.95	NPP
	1/15/2007	5505.13	13.74	NPP	6.25	5498.88	NPP
	1/29/2007	5505.13	13.74	NPP	6.21	5498.92	NPP
CW 3+85	1/2/2007	5503.87	13.11	NPP	5.26	5498.61	NPP
	1/15/2007	5503.87	13.11	NPP	5.25	5498.62	NPP
	1/29/2007	5503.87	13.11	NPP	5.27	5498.60	NPP
CW 5+50	1/2/2007	5503.76	12.27	NPP	6.14	5497.62	NPP
	1/15/2007	5503.76	12.27	NPP	6.15	5497.61	NPP
	1/29/2007	5503.76	12.27	NPP	6.18	5497.58	NPP
CW 6+70	1/2/2007	5503.84	11.45	NPP	6.65	5497.19	NPP
	1/15/2007	5503.84	11.45	NPP	6.66	5497.18	NPP
	1/29/2007	5503.84	11.45	NPP	6.67	5497.17	NPP
CW 8+10	1/2/2007	5504.02	11.63	NPP	7.43	5496.59	NPP
	1/15/2007	5504.02	11.63	NPP	7.43	5496.59	NPP
	1/29/2007	5504.02	11.63	NPP	7.43	5496.59	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring

January 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 8+45	1/2/2007	5503.80	12.6	7.49	7.52	5496.30	0.03
	1/15/2007	5503.80	12.6	7.51	7.52	5496.29	0.01
	1/29/2007	5503.80	12.6	7.50	7.52	5496.30	0.02
CW 11+15	1/2/2007	5503.95	12.27	NPP	5.61	5498.34	NPP
	1/15/2007	5503.95	12.27	NPP	5.59	5498.36	NPP
	1/29/2007	5503.95	12.27	NPP	5.60	5498.35	NPP
CW 14+10	1/2/2007	5504.39	13.05	NPP	6.46	5497.93	NPP
	1/15/2007	5504.39	13.05	NPP	6.49	5497.90	NPP
	1/29/2007	5504.39	13.05	NPP	6.44	5497.95	NPP
CW 16+60	1/2/2007	5504.32	12.86	NPP	6.25	5498.07	NPP
	1/15/2007	5504.32	12.86	NPP	6.27	5498.05	NPP
	1/29/2007	5504.32	12.86	NPP	6.27	5498.05	NPP
CW 19+50	1/2/2007	5504.52	9.99	6.23	6.24	5498.29	0.01
	1/15/2007	5504.52	9.99	NPP	6.26	5498.26	NPP
	1/29/2007	5504.52	9.99	NPP	6.21	5498.31	NPP
CW 22+00	1/2/2007	5508.04	12.34	8.98	8.99	5499.06	0.01
	1/15/2007	5508.04	12.34	NPP	9.02	5499.02	NPP
	1/29/2007	5508.04	12.34	NPP	8.99	5499.05	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring January 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 23+ 10	1/2/2007	5510.04	14.65	NPP	10.63	5499.41	NPP
	1/15/2007	5510.04	14.65	NPP	10.63	5499.41	NPP
	1/29/2007	5510.04	14.65	NPP	10.61	5499.43	NPP
CW 23+ 90	1/2/2007	5507.32	11.72	NPP	8.14	5499.18	NPP
	1/15/2007	5507.32	11.72	NPP	8.17	5499.15	NPP
	1/29/2007	5507.32	11.72	NPP	8.33	5498.99	NPP
CW 25+ 95	1/2/2007	5505.90	12.25	7.13	7.14	5498.77	0.01
	1/15/2007	5505.90	12.25	NPP	7.16	5498.74	NPP
	1/29/2007	5505.90	12.25	NPP	7.16	5498.74	NPP

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring January 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #11	1/2/2007	5510.31	22.94	NPP	10.91	5499.40	NPP
	1/15/2007	5510.31	22.94	NPP	11	5499.31	NPP
	1/29/2007	5510.31	22.94	NPP	10.78	5499.53	NPP
MW #12	1/2/2007	5501.61	14.98	NPP	9.05	5492.56	NPP
	1/15/2007	5501.61	14.98	NPP	9.14	5492.47	NPP
	1/29/2007	5501.61	14.98	NPP	9.24	5492.37	NPP
MW #20	1/2/2007	5519.90	27.13	20.60	20.61	5499.30	0.01
	1/15/2007	5519.90	27.13	20.57	20.67	5499.31	0.10
	1/29/2007	5519.90	27.13	20.54	20.59	5499.35	0.05
MW #21	1/2/2007	5521.99	30.38	21.64	21.71	5500.34	0.07
	1/15/2007	5521.99	30.38	21.67	21.73	5500.31	0.06
	1/29/2007	5521.99	30.38	21.62	21.69	5500.36	0.07
MW #39	1/2/2007	5520.83	38.34	NPP	26.25	5494.58	NPP
	1/15/2007	5520.83	38.34	NPP	26.18	5494.65	NPP
	1/29/2007	5520.83	38.34	NPP	26.10	5494.73	NPP
MW #45	1/2/2007	5506.36	16.92	NPP	11.34	5495.02	NPP
	1/15/2007	5506.36	16.92	NPP	11.41	5494.95	NPP
	1/29/2007	5506.36	16.92	11.36	11.38	5495.00	0.02

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring January 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #46	1/2/2007	5504.65	10.39	NPP	DRY		NPP
	1/15/2007	5504.65	10.39	NPP	DRY		NPP
	1/29/2007	5504.65	10.39	NPP	DRY		NPP
MW #47	1/2/2007	5506.77	14.28	11.82	11.83	5494.95	0.01
	1/15/2007	5506.77	14.28	11.89	12.00	5494.86	0.11
	1/29/2007	5506.77	14.28	11.93	12.51	5494.72	0.58

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring February 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 0+60	2/12/2007	5506.62	12.26	NPP	11.3	5495.32	NPP
	2/26/2007	5506.62	12.26	NPP	11.32	5495.30	NPP
OW 1+50	2/12/2007	5508.03	14.36	13.12	13.16	5494.90	0.04
	2/26/2007	5508.03	14.36	13.12	13.15	5494.90	0.03
OW 3+85	2/12/2007	5507.31	15.06	12.59	12.60	5494.72	0.01
	2/26/2007	5507.31	15.06	12.64	12.65	5494.67	0.01
OW 5+50	2/12/2007	5507.59	13.67	13.31	13.32	5494.28	0.01
	2/26/2007	5507.59	13.67	13.26	13.27	5494.33	0.01
OW 6+70	2/12/2007	5504.78	14.67	NPP	DRY		NPP
	2/26/2007	5504.78	14.67	NPP	DRY		NPP
OW 8+10	2/12/2007	5506.53	15.99	NPP	DRY		NPP
	2/26/2007	5506.53	15.99	NPP	DRY		NPP
OW 11+15	2/12/2007	5506.70	16.59	NPP	12.01	5494.69	NPP
	2/26/2007	5506.70	16.59	NPP	12.02	5494.68	NPP
OW 14+10	2/12/2007	5508.14	12.96	NPP	DRY		NPP
	2/26/2007	5508.14	12.96	NPP	DRY		NPP
OW 16+60	2/12/2007	5508.43	15.21	NPP	12.34	5496.09	NPP
	2/26/2007	5508.43	15.21	NPP	12.34	5496.09	NPP

NPP = No Product Present NWPP = No Water Present

Observation Well Fluids Monitoring February 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 19+ 50	2/12/2007	5508.03	13.00	NPP	12.54	5495.49	NPP
	2/26/2007	5508.03	13.00	NPP	12.46	5495.57	NPP
OW 22+ 00	2/12/2007	5506.91	14.16	NPP	11.32	5495.59	NPP
	2/26/2007	5506.91	14.16	NPP	11.13	5495.78	NPP
OW 23+ 10	2/12/2007	5514.12	18.34	NPP	16.29	5497.83	NPP
	2/26/2007	5514.12	18.34	NPP	16.27	5497.85	NPP
OW 23+ 90	2/12/2007	5515.18	18.01	NPP	17.11	5498.07	NPP
	2/26/2007	5515.18	18.01	NPP	17.12	5498.06	NPP
OW 25+ 70	2/12/2007	5509.00	13.98	NPP	10.79	5498.21	NPP
	2/26/2007	5509.00	13.98	NPP	10.77	5498.23	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring February 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
0+60 CW	2/12/2007	5506.68	14.09	NPP	7.94	5498.74	NPP
	2/26/2007	5506.68	14.09	NPP	7.85	5498.83	NPP
1+50 CW	2/12/2007	5505.13	13.74	NPP	6.21	5498.92	NPP
	2/26/2007	5505.13	13.74	NPP	6.13	5499.00	NPP
3+85 CW	2/12/2007	5503.87	13.11	NPP	5.26	5498.61	NPP
	2/26/2007	5503.87	13.11	NPP	5.24	5498.63	NPP
5+50 CW	2/12/2007	5503.76	12.27	NPP	6.14	5497.62	NPP
	2/26/2007	5503.76	12.27	NPP	6.17	5497.59	NPP
6+70 CW	2/12/2007	5503.84	11.45	NPP	6.59	5497.25	NPP
	2/26/2007	5503.84	11.45	NPP	6.60	5497.24	NPP
8+10 CW	2/12/2007	5504.02	11.63	NPP	7.40	5496.62	NPP
	2/26/2007	5504.02	11.63	NPP	7.35	5496.67	NPP
8+45 CW	2/12/2007	5503.80	12.6	7.46	7.48	5496.34	0.02
	2/26/2007	5503.80	12.6	7.40	7.41	5496.40	0.01
11+ 15 CW	2/12/2007	5503.95	12.27	NPP	5.60	5498.35	NPP
	2/26/2007	5503.95	12.27	NPP	5.57	5498.38	NPP
14+ 10 CW	2/12/2007	5504.39	13.05	NPP	6.46	5497.93	NPP
	2/26/2007	5504.39	13.05	NPP	6.43	5497.96	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring February 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 16+ 60	2/12/2007	5504.32	12.86	NPP	6.27	5498.05	NPP
	2/26/2007	5504.32	12.86	NPP	6.28	5498.04	NPP
CW 19+ 50	2/12/2007	5504.52	9.99	NPP	6.15	5498.37	NPP
	2/26/2007	5504.52	9.99	NPP	6.18	5498.34	NPP
CW 22+ 00	2/12/2007	5508.04	12.34	NPP	8.98	5499.06	NPP
	2/26/2007	5508.04	12.34	NPP	8.99	5499.05	NPP
CW 23+ 10	2/12/2007	5510.04	14.65	NPP	10.63	5499.41	NPP
	2/26/2007	5510.04	14.65	NPP	10.64	5499.40	NPP
CW 23+ 90	2/12/2007	5507.32	11.72	NPP	8.14	5499.18	NPP
	2/26/2007	5507.32	11.72	NPP	8.15	5499.17	NPP
CW 25+ 95	2/12/2007	5505.90	12.25	NPP	7.14	5498.76	NPP
	2/26/2007	5505.90	12.25	NPP	7.14	5498.76	NPP

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring February 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #11	2/12/2007	5510.31	22.94	NPP	10.77	5499.54	NPP
	2/26/2007	5510.31	22.94	NPP	10.54	5499.77	NPP
MW #12	2/12/2007	5501.61	14.98	NPP	9.29	5492.32	NPP
	2/26/2007	5501.61	14.98	NPP	9.20	5492.41	NPP
MW #20	2/12/2007	5519.90	27.13	20.55	20.61	5499.34	0.06
	2/26/2007	5519.90	27.13	20.56	20.65	5499.32	0.09
MW #21	2/12/2007	5521.99	30.38	21.69	21.75	5500.29	0.06
	2/26/2007	5521.99	30.38	21.66	21.73	5500.32	0.07
MW #39	2/12/2007	5520.83	38.34	NPP	26.25	5494.58	NPP
	2/26/2007	5520.83	38.34	NPP	25.94	5494.89	NPP
MW #45	2/12/2007	5506.36	16.92	NPP	11.35	5495.01	NPP
	2/26/2007	5506.36	16.92	NPP	11.35	5495.01	NPP
MW #46	2/12/2007	5504.65	10.39	NPP	DRY		NPP
	2/26/2007	5504.65	10.39	NPP	DRY		NPP
MW #47	2/12/2007	5506.77	14.28	11.93	12.60	5494.71	0.67
	2/26/2007	5506.77	14.28	11.94	12.56	5494.71	0.62

NPP = No Product Present NWPP = No Water Present

Observation Well Fluids Monitoring March 2007

WellID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 0+60	3/12/2007	5506.62	12.26	11.35	11.36	5495.27	0.01
	3/26/2007	5506.62	12.26	NPP	11.36	5495.26	NPP
OW 1+50	3/12/2007	5508.03	14.36	13.23	13.26	5494.79	0.03
	3/26/2007	5508.03	14.36	13.20	13.41	5494.79	0.21
OW 3+85	3/12/2007	5507.31	15.06	12.68	12.78	5494.61	0.10
	3/26/2007	5507.31	15.06	12.77	12.87	5494.52	0.10
OW 5+50	3/12/2007	5507.59	13.67	NPP	13.25	5494.34	NPP
	3/26/2007	5507.59	13.67	13.21	13.24	5494.37	0.03
OW 6+70	3/12/2007	5504.78	14.67	NPP	DRY		NPP
	3/26/2007	5504.78	14.67	NPP	DRY		NPP
OW 8+10	3/12/2007	5506.53	15.99	NPP	DRY		NPP
	3/26/2007	5506.53	15.99	NPP	DRY		NPP
OW 11+15	3/12/2007	5506.70	16.59	NPP	12.06	5494.64	NPP
	3/26/2007	5506.70	16.59	NPP	12.05	5494.65	NPP
OW 14+10	3/12/2007	5508.14	12.96	NPP	DRY		NPP
	3/26/2007	5508.14	12.96	NPP	DRY		NPP
OW 16+60	3/12/2007	5508.43	15.21	NPP	12.41	5496.02	NPP
	3/26/2007	5508.43	15.21	NPP	12.49	5495.94	NPP

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring March 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 19+ 50	3/12/2007	5508.03	13.00	NPP	12.54	5495.49	NPP
	3/26/2007	5508.03	13.00	NPP	12.54	5495.49	NPP
OW 22+ 00	3/12/2007	5506.91	14.16	NPP	11.43	5495.48	NPP
	3/26/2007	5506.91	14.16	NPP	11.04	5495.87	NPP
OW 23+ 10	3/12/2007	5514.12	18.34	NPP	16.29	5497.83	NPP
	3/26/2007	5514.12	18.34	NPP	16.31	5497.81	NPP
OW 23+ 90	3/12/2007	5515.18	18.01	NPP	17.14	5498.04	NPP
	3/26/2007	5515.18	18.01	NPP	17.11	5498.07	NPP
OW 25+ 70	3/12/2007	5509.00	13.98	NPP	10.80	5498.20	NPP
	3/26/2007	5509.00	13.98	NPP	10.77	5498.23	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring March 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 0+60	3/12/2007	5506.68	14.09	NPP	7.94	5498.74	NPP
	3/26/2007	5506.68	14.09	NPP	7.82	5498.86	NPP
CW 1+50	3/12/2007	5505.13	13.74	NPP	6.16	5498.97	NPP
	3/26/2007	5505.13	13.74	NPP	6.13	5499.00	NPP
CW 3+85	3/12/2007	5503.87	13.11	NPP	5.24	5498.63	NPP
	3/26/2007	5503.87	13.11	NPP	5.24	5498.63	NPP
CW 5+50	3/12/2007	5503.76	12.27	NPP	6.18	5497.58	NPP
	3/26/2007	5503.76	12.27	NPP	6.16	5497.60	NPP
CW 6+70	3/12/2007	5503.84	11.45	NPP	6.60	5497.24	NPP
	3/26/2007	5503.84	11.45	NPP	6.56	5497.28	NPP
CW 8+10	3/12/2007	5504.02	11.63	NPP	7.41	5496.61	NPP
	3/26/2007	5504.02	11.63	NPP	7.35	5496.67	NPP
CW 8+45	3/12/2007	5503.80	12.6	7.49	7.5	5496.31	0.01
	3/26/2007	5503.80	12.6	7.40	7.41	5496.40	0.01
CW 11+15	3/12/2007	5503.95	12.27	NPP	5.57	5498.38	NPP
	3/26/2007	5503.95	12.27	NPP	5.53	5498.42	NPP
CW 14+10	3/12/2007	5504.39	13.05	NPP	6.46	5497.93	NPP
	3/26/2007	5504.39	13.05	NPP	6.41	5497.98	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring March 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 16+ 60	3/12/2007	5504.32	12.86	NPP	6.29	5498.03	NPP
	3/26/2007	5504.32	12.86	NPP	6.27	5498.05	NPP
CW 19+ 50	3/12/2007	5504.52	9.99	NPP	6.22	5498.30	NPP
	3/26/2007	5504.52	9.99	NPP	6.18	5498.34	NPP
CW 22+ 00	3/12/2007	5508.04	12.34	NPP	9.02	5499.02	NPP
	3/26/2007	5508.04	12.34	NPP	9.02	5499.02	NPP
CW 23+ 10	3/12/2007	5510.04	14.65	NPP	10.66	5499.38	NPP
	3/26/2007	5510.04	14.65	NPP	10.66	5499.38	NPP
CW 23+ 90	3/12/2007	5507.32	11.72	NPP	8.17	5499.15	NPP
	3/26/2007	5507.32	11.72	NPP	8.13	5499.19	NPP
CW 25+ 95	3/12/2007	5505.90	12.25	NPP	7.15	5498.75	NPP
	3/26/2007	5505.90	12.25	NPP	7.14	5498.76	NPP

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring March 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #11	3/12/2007	5510.31	22.94	NPP	10.72	5499.59	NPP
	3/26/2007	5510.31	22.94	NPP	10.73	5499.58	NPP
MW #12	3/12/2007	5501.61	14.98	NPP	9.30	5492.31	NPP
	3/26/2007	5501.61	14.98	NPP	9.33	5492.28	NPP
MW #20	3/12/2007	5519.90	27.13	20.57	20.70	5499.30	0.13
	3/26/2007	5519.90	27.13	20.56	20.69	5499.31	0.13
MW #21	3/12/2007	5521.99	30.38	21.72	21.79	5500.26	0.07
	3/26/2007	5521.99	30.38	21.72	21.79	5500.26	0.07
MW #39	3/12/2007	5520.83	38.34	NPP	25.98	5494.85	NPP
	3/26/2007	5520.83	38.34	NPP	25.92	5494.91	NPP
MW #45	3/12/2007	5506.36	16.92	11.42	11.43	5494.94	0.01
	3/26/2007	5506.36	16.92	11.35	11.36	5495.01	0.01
MW #46	3/12/2007	5504.65	10.39	NPP	DRY		NPP
	3/26/2007	5504.65	10.39	NPP	DRY		NPP
MW #47	3/12/2007	5506.77	14.28	12.01	12.71	5494.62	0.70
	3/26/2007	5506.77	14.28	12.01	12.77	5494.61	0.76

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring April 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 0+60	4/9/2007	5506.62	12.26	NPP	11.4	5495.22	NPP
	4/23/2007	5506.62	12.26	NPP	11.36	5495.26	NPP
OW 1+50	4/9/2007	5508.03	14.36	13.23	13.88	5494.67	0.65
	4/23/2007	5508.03	14.36	13.21	13.55	5494.75	0.34
OW 3+85	4/9/2007	5507.31	15.06	12.75	12.95	5494.52	0.20
	4/23/2007	5507.31	15.06	12.75	12.95	5494.52	0.20
OW 5+50	4/9/2007	5507.59	13.67	13.24	13.25	5494.35	0.01
	4/23/2007	5507.59	13.67	13.47	13.63	5494.09	0.16
OW 6+70	4/9/2007	5504.78	14.67	NPP	DRY		NPP
	4/23/2007	5504.78	14.67	NPP	DRY		NPP
OW 8+10	4/9/2007	5506.53	15.99	NPP	DRY		NPP
	4/23/2007	5506.53	15.99	NPP	DRY		NPP
OW 11+15	4/9/2007	5506.70	16.59	NPP	11.97	5494.73	NPP
	4/23/2007	5506.70	16.59	NPP	11.98	5494.72	NPP
OW 14+10	4/9/2007	5508.14	12.96	NPP	DRY		NPP
	4/23/2007	5508.14	12.96	NPP	DRY		NPP
OW 16+60	4/9/2007	5508.43	15.21	NPP	12.49	5495.94	NPP
	4/23/2007	5508.43	15.21	NPP	12.55	5495.88	NPP

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring April 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 19+ 50	4/9/2007	5508.03	13.00	NPP	12.53	5495.50	NPP
	4/23/2007	5508.03	13.00	NPP	12.65	5495.38	NPP
OW 22+ 00	4/9/2007	5506.91	14.16	NPP	11.33	5495.58	NPP
	4/23/2007	5506.91	14.16	NPP	11.52	5495.39	NPP
OW 23+ 10	4/9/2007	5514.12	18.34	NPP	16.28	5497.84	NPP
	4/23/2007	5514.12	18.34	NPP	16.32	5497.80	NPP
OW 23+ 90	4/9/2007	5515.18	18.01	NPP	17.13	5498.05	NPP
	4/23/2007	5515.18	18.01	NPP	17.12	5498.06	NPP
OW 25+ 70	4/9/2007	5509.00	13.98	NPP	10.74	5498.26	NPP
	4/23/2007	5509.00	13.98	NPP	10.74	5498.26	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring April 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth to Product (DTP)	Depth to Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 0+60	4/9/2007	5506.68	14.09	NPP	7.87	5498.81	NPP
	4/23/2007	5506.68	14.09	NPP	7.86	5498.82	NPP
CW 1+50	4/9/2007	5505.13	13.74	NPP	6.13	5499.00	NPP
	4/23/2007	5505.13	13.74	NPP	6.13	5499.00	NPP
CW 3+85	4/9/2007	5503.87	13.11	NPP	5.24	5498.63	NPP
	4/23/2007	5503.87	13.11	NPP	5.23	5498.64	NPP
CW 5+50	4/9/2007	5503.76	12.27	NPP	6.16	5497.60	NPP
	4/23/2007	5503.76	12.27	NPP	6.13	5497.63	NPP
CW 6+70	4/9/2007	5503.84	11.45	NPP	6.55	5497.29	NPP
	4/23/2007	5503.84	11.45	NPP	6.53	5497.31	NPP
CW 8+10	4/9/2007	5504.02	11.63	NPP	7.28	5496.74	NPP
	4/23/2007	5504.02	11.63	NPP	7.32	5496.70	NPP
CW 8+45	4/9/2007	5503.80	12.6	7.22	7.24	5496.58	0.02
	4/23/2007	5503.80	12.6	7.35	7.36	5496.45	0.01
CW 11+15	4/9/2007	5503.95	12.27	NPP	5.55	5498.40	NPP
	4/23/2007	5503.95	12.27	NPP	5.53	5498.42	NPP
CW 14+10	4/9/2007	5504.39	13.05	NPP	6.38	5498.01	NPP
	4/23/2007	5504.39	13.05	NPP	6.40	5497.99	NPP

NPP = No Product Present

NWP = No Water Present

Collection Well Fluids Monitoring April 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 16+ 60	4/9/2007	5504.32	12.86	NPP	6.27	5498.05	NPP
	4/23/2007	5504.32	12.86	NPP	6.24	5498.08	NPP
CW 19+ 50	4/9/2007	5504.52	9.99	NPP	6.16	5498.36	NPP
	4/23/2007	5504.52	9.99	NPP	6.09	5498.43	NPP
CW 22+ 00	4/9/2007	5508.04	12.34	NPP	9.00	5499.04	NPP
	4/23/2007	5508.04	12.34	NPP	8.99	5499.05	NPP
CW 23+ 10	4/9/2007	5510.04	14.65	NPP	10.66	5499.38	NPP
	4/23/2007	5510.04	14.65	NPP	10.64	5499.40	NPP
CW 23+ 90	4/9/2007	5507.32	11.72	NPP	8.16	5499.16	NPP
	4/23/2007	5507.32	11.72	NPP	8.15	5499.17	NPP
CW 25+ 95	4/9/2007	5505.90	12.25	NPP	7.14	5498.76	NPP
	4/23/2007	5505.90	12.25	NPP	7.13	5498.77	NPP

NPP = No Product Present

NWP = No Water Present

Monitoring Well Fluids Monitoring April 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (D1W)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon thickness
MW #11	4/9/2007	5510.31	22.94	NPP	10.81	5499.50	NPP
	4/23/2007	5510.31	22.94	NPP	10.65	5499.66	NPP
MW #12	4/9/2007	5501.61	14.98	NPP	9.37	5492.24	NPP
	4/23/2007	5501.61	14.98	NPP	9.47	5492.14	NPP
MW #20	4/9/2007	5519.90	27.13	20.55	20.67	5499.33	0.12
	4/24/2007	5519.90	27.13	20.55	20.66	5499.33	0.11
MW #21	4/9/2007	5521.99	30.38	21.67	21.73	5500.31	0.06
	4/24/2007	5521.99	30.38	21.65	21.72	5500.33	0.07
MW #39	4/9/2007	5520.83	38.34	NPP	25.00	5495.83	NPP
	4/24/2007	5520.83	38.34	NPP	25.23	5495.60	NPP
MW #45	4/9/2007	5506.36	16.92	NPP	11.27	5495.09	NPP
	4/23/2007	5506.36	16.92	11.30	11.31	5495.06	0.01
MW #46	4/9/2007	5504.65	10.39	NPP	DRY		NPP
	4/23/2007	5504.65	10.39	NPP	DRY		NPP
MW #47	4/9/2007	5506.77	14.28	12.02	12.85	5494.58	0.83
	4/23/2007	5506.77	14.28	12.15	12.85	5494.48	0.70

NPP = No Product Present

NWP = No Water Present

Observation Well Fluids Monitoring MAY 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 0+60	5/7/2007	5506.62	12.26	NPP	11.32	5495.30	NPP
	5/21/2007	5506.62	12.26	NPP	11.3	5495.32	NPP
OW 1+50	5/7/2007	5508.03	14.36	13.22	13.61	5494.73	0.39
	5/21/2007	5508.03	14.36	13.20	13.64	5494.74	0.44
OW 3+85	5/7/2007	5507.31	15.06	12.78	13.17	5494.45	0.39
	5/21/2007	5507.31	15.06	12.96	13.33	5494.28	0.37
OW 5+50	5/7/2007	5507.59	13.67	13.36	13.37	5494.23	0.01
	5/21/2007	5507.59	13.67	13.32	13.34	5494.27	0.02
OW 6+70	5/7/2007	5504.78	14.67	NPP	DRY		NPP
	5/21/2007	5504.78	14.67	NPP	DRY		NPP
OW 8+10	5/7/2007	5506.53	15.99	NPP	DRY		NPP
	5/21/2007	5506.53	15.99	NPP	DRY		NPP
OW 11+15	5/7/2007	5506.70	16.59	NPP	11.99	5494.71	NPP
	5/21/2007	5506.70	16.59	NPP	11.97	5494.73	NPP
OW 14+10	5/7/2007	5508.14	12.96	NPP	DRY		NPP
	5/21/2007	5508.14	12.96	NPP	DRY		NPP
OW 16+60	5/7/2007	5508.43	15.21	NPP	12.52	5495.91	NPP
	5/21/2007	5508.43	15.21	NPP	12.48	5495.95	NPP

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring May 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 19+50	5/7/2007	5508.03	13.00	NPP	12.7	5495.33	NPP
	5/21/2007	5508.03	13.00	NPP	12.78	5495.25	NPP
OW 22+00	5/7/2007	5506.91	14.16	NPP	11.45	5495.46	NPP
	5/21/2007	5506.91	14.16	NPP	11.56	5495.35	NPP
OW 23+10	5/7/2007	5514.12	18.34	NPP	16.29	5497.83	NPP
	5/21/2007	5514.12	18.34	NPP	16.32	5497.80	NPP
OW 23+90	5/7/2007	5515.18	18.01	NPP	17.14	5498.04	NPP
	5/21/2007	5515.18	18.01	NPP	17.17	5498.01	NPP
OW 25+70	5/7/2007	5509.00	13.98	NPP	10.74	5498.26	NPP
	5/21/2007	5509.00	13.98	NPP	10.75	5498.25	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring May 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 0+60	5/7/2007	5506.68	14.09	NPP	8.03	5498.65	NPP
	5/21/2007	5506.68	14.09	NPP	8.11	5498.57	NPP
CW 1+50	5/7/2007	5505.13	13.74	NPP	6.69	5498.44	NPP
	5/21/2007	5505.13	13.74	NPP	6.81	5498.32	NPP
CW 3+85	5/7/2007	5503.87	13.11	NPP	5.54	5498.33	NPP
	5/21/2007	5503.87	13.11	NPP	5.64	5498.23	NPP
CW 5+50	5/7/2007	5503.76	12.27	NPP	6.2	5497.56	NPP
	5/21/2007	5503.76	12.27	NPP	6.25	5497.51	NPP
CW 6+70	5/7/2007	5503.84	11.45	NPP	6.59	5497.25	NPP
	5/21/2007	5503.84	11.45	NPP	6.61	5497.23	NPP
CW 8+10	5/7/2007	5504.02	11.63	NPP	7.40	5496.62	NPP
	5/21/2007	5504.02	11.63	NPP	7.37	5496.65	NPP
CW 8+45	5/7/2007	5503.80	12.6	7.45	7.46	5496.35	0.01
	5/21/2007	5503.80	12.6	7.40	7.42	5496.40	0.02
CW 11+15	5/7/2007	5503.95	12.27	NPP	5.64	5498.31	NPP
	5/21/2007	5503.95	12.27	NPP	5.56	5498.39	NPP
CW 14+10	5/7/2007	5504.39	13.05	NPP	6.50	5497.89	NPP
	5/21/2007	5504.39	13.05	NPP	6.35	5498.04	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring May 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 16+ 60	5/7/2007	5504.32	12.86	NPP	6.29	5498.03	NPP
	5/21/2007	5504.32	12.86	NPP	6.24	5498.08	NPP
CW 19+ 50	5/7/2007	5504.52	9.99	NPP	6.21	5498.31	NPP
	5/21/2007	5504.52	9.99	NPP	6.12	5498.40	NPP
CW 22+ 00	5/7/2007	5508.04	12.34	NPP	9.02	5499.02	NPP
	5/21/2007	5508.04	12.34	NPP	9.09	5498.95	NPP
CW 23+ 10	5/7/2007	5510.04	14.65	NPP	10.66	5499.38	NPP
	5/21/2007	5510.04	14.65	NPP	10.66	5499.38	NPP
CW 23+ 90	5/7/2007	5507.32	11.72	NPP	8.16	5499.16	NPP
	5/21/2007	5507.32	11.72	NPP	8.15	5499.17	NPP
CW 25+ 95	5/7/2007	5505.90	12.25	NPP	7.14	5498.76	NPP
	5/21/2007	5505.90	12.25	NPP	7.14	5498.76	NPP

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring May 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #11	5/7/2007	5510.31	22.94	NPP	10.46	5499.85	NPP
	5/21/2007	5510.31	22.94	NPP	10.32	5499.99	NPP
MW #12	5/7/2007	5501.61	14.98	NPP	9.47	5492.14	NPP
	5/21/2007	5501.61	14.98	NPP	9.54	5492.07	NPP
MW #20	5/7/2007	5519.90	27.13	20.57	20.74	5499.30	0.17
	5/21/2007	5519.90	27.13	20.55	20.71	5499.32	0.16
MW #21	5/7/2007	5521.99	30.38	21.70	21.78	5500.27	0.08
	5/21/2007	5521.99	30.38	21.69	21.8	5500.28	0.11
MW #39	5/7/2007	5520.83	38.34	NPP	29.60	5491.23	NPP
	5/21/2007	5520.83	38.34	NPP	28.00	5492.83	NPP
MW #45	5/7/2007	5506.36	16.92	11.38	11.43	5494.97	0.05
	5/21/2007	5506.36	16.92	NPP	11.28	5495.08	NPP
MW #46	5/7/2007	5504.65	10.39	NPP	DRY		NPP
	5/21/2007	5504.65	10.39	NPP	DRY		NPP
MW #47	5/7/2007	5506.77	14.28	12.07	12.94	5494.53	0.87
	5/21/2007	5506.77	14.28	12.13	13.00	5494.47	0.87

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring JUNE 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 0+60	6/4/2007	5506.62	12.26	NPP	11.31	5495.31	NPP
	6/18/2007	5506.62	12.26	NPP	11.4	5495.22	NPP
OW 1+50	6/4/2007	5508.03	14.36	13.30	13.39	5494.71	0.09
	6/18/2007	5508.03	14.36	13.35	13.70	5494.61	0.35
OW 3+85	6/4/2007	5507.31	15.06	12.77	13.47	5494.40	0.70
	6/18/2007	5507.31	15.06	12.77	13.70	5494.35	0.93
OW 5+50	6/4/2007	5507.59	13.67	13.48	13.52	5494.10	0.04
	6/18/2007	5507.59	13.67	13.40	13.41	5494.19	0.01
OW 6+70	6/4/2007	5504.78	14.67	NPP	DRY		NPP
	6/18/2007	5504.78	14.67	NPP	DRY		NPP
OW 8+10	6/4/2007	5506.53	15.99	NPP	DRY		NPP
	6/18/2007	5506.53	15.99	NPP	DRY		NPP
OW 11+15	6/4/2007	5506.70	16.59	NPP	12.02	5494.68	NPP
	6/18/2007	5506.70	16.59	NPP	12.02	5494.68	NPP
OW 14+10	6/4/2007	5508.14	12.96	NPP	DRY		NPP
	6/18/2007	5508.14	12.96	NPP	DRY		NPP
OW 16+60	6/4/2007	5508.43	15.21	NPP	12.55	5495.88	NPP
	6/18/2007	5508.43	15.21	NPP	12.63	5495.80	NPP

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring June 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 19+ 50	6/4/2007	5508.03	13.00	NPP	12.86	5495.17	NPP
	6/18/2007	5508.03	13.00	NPP	12.98	5495.05	NPP
OW 22+ 00	6/4/2007	5506.91	14.16	NPP	11.77	5495.14	NPP
	6/18/2007	5506.91	14.16	NPP	11.93	5494.98	NPP
OW 23+ 10	6/4/2007	5514.12	18.34	NPP	16.33	5497.79	NPP
	6/18/2007	5514.12	18.34	NPP	16.34	5497.78	NPP
OW 23+ 90	6/4/2007	5515.18	18.01	NPP	17.17	5498.01	NPP
	6/18/2007	5515.18	18.01	NPP	17.18	5498.00	NPP
OW 25+ 70	6/4/2007	5509.00	13.98	NPP	10.73	5498.27	NPP
	6/18/2007	5509.00	13.98	NPP	10.78	5498.22	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring June 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 0+60	6/4/2007	5506.68	14.09	NPP	8.22	5498.46	NPP
	6/18/2007	5506.68	14.09	NPP	8.28	5498.40	NPP
CW 1+50	6/4/2007	5505.13	13.74	NPP	6.97	5498.16	NPP
	6/18/2007	5505.13	13.74	NPP	7.05	5498.08	NPP
CW 3+85	6/4/2007	5503.87	13.11	NPP	5.79	5498.08	NPP
	6/18/2007	5503.87	13.11	NPP	5.88	5497.99	NPP
CW 5+50	6/4/2007	5503.76	12.27	NPP	6.31	5497.45	NPP
	6/18/2007	5503.76	12.27	NPP	6.36	5497.40	NPP
CW 6+70	6/4/2007	5503.84	11.45	NPP	6.68	5497.16	NPP
	6/18/2007	5503.84	11.45	NPP	6.73	5497.11	NPP
CW 8+10	6/4/2007	5504.02	11.63	NPP	7.47	5496.55	NPP
	6/18/2007	5504.02	11.63	NPP	7.48	5496.54	NPP
CW 8+45	6/4/2007	5503.80	12.6	7.51	7.52	5496.29	0.01
	6/18/2007	5503.80	12.6	7.52	7.53	5496.28	0.01
CW 11+15	6/4/2007	5503.95	12.27	NPP	5.63	5498.32	NPP
	6/18/2007	5503.95	12.27	NPP	5.63	5498.32	NPP
CW 14+10	6/4/2007	5504.39	13.05	NPP	6.42	5497.97	NPP
	6/18/2007	5504.39	13.05	NPP	6.40	5497.99	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring June 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 16+ 60	6/4/2007	5504.32	12.86	NPP	6.26	5498.06	NPP
	6/18/2007	5504.32	12.86	NPP	6.26	5498.06	NPP
CW 19+ 50	6/4/2007	5504.52	9.99	NPP	6.18	5498.34	NPP
	6/18/2007	5504.52	9.99	NPP	6.16	5498.36	NPP
CW 22+ 00	6/4/2007	5508.04	12.34	NPP	9.00	5499.04	NPP
	6/18/2007	5508.04	12.34	NPP	8.99	5499.05	NPP
CW 23+ 10	6/4/2007	5510.04	14.65	NPP	10.66	5499.38	NPP
	6/18/2007	5510.04	14.65	NPP	10.64	5499.40	NPP
CW 23+ 90	6/4/2007	5507.32	11.72	NPP	8.15	5499.17	NPP
	6/18/2007	5507.32	11.72	NPP	8.14	5499.18	NPP
CW 25+ 95	6/4/2007	5505.90	12.25	NPP	7.14	5498.76	NPP
	6/18/2007	5505.90	12.25	NPP	7.17	5498.73	NPP

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring June 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #11	6/4/2007	5510.31	22.94	NPP	10.48	5499.83	NPP
	6/18/2007	5510.31	22.94	NPP	10.57	5499.74	NPP
MW #12	6/4/2007	5501.61	14.98	NPP	9.75	5491.86	NPP
	6/18/2007	5501.61	14.98	NPP	9.95	5491.66	NPP
MW #20	6/4/2007	5519.90	27.13	20.58	20.70	5499.30	0.12
	6/18/2007	5519.90	27.13	20.54	20.67	5499.33	0.13
MW #21	6/4/2007	5521.99	30.38	21.70	21.77	5500.28	0.07
	6/18/2007	5521.99	30.38	21.70	21.81	5500.27	0.11
MW #39	6/4/2007	5520.83	38.34	NPP	27.31	5493.52	NPP
	6/18/2007	5520.83	38.34	NPP	27.02	5493.81	NPP
MW #45	6/4/2007	5506.36	16.92	11.37	11.39	5494.99	0.02
	6/18/2007	5506.36	16.92	NPP	11.36	5495.00	NPP
MW #46	6/4/2007	5504.65	10.39	NPP	DRY		NPP
	6/18/2007	5504.65	10.39	NPP	DRY		NPP
MW #47	6/4/2007	5506.77	14.28	12.22	13.02	5494.39	0.80
	6/18/2007	5506.77	14.28	12.20	13.15	5494.38	0.95

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring July 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 0+60	7/2/2007	5506.62	12.26	NPP	11.46	5495.16	NPP
	7/16/2007	5506.62	12.26	NPP	11.57	5495.05	NPP
	7/30/2007	5506.62	12.26	NPP	11.46	5495.16	NPP
OW 1+50	7/2/2007	5508.03	14.36	13.32	14.02	5494.57	0.70
	7/16/2007	5508.03	14.36	13.43	14.13	5494.46	0.70
	7/30/2007	5508.03	14.36	13.45	13.47	5494.58	0.02
OW 3+85	7/2/2007	5507.31	15.06	12.83	13.93	5494.26	1.10
	7/16/2007	5507.31	15.06	12.78	14.02	5494.28	1.24
	7/30/2007	5507.31	15.06	12.81	12.85	5494.49	0.04
OW 5+50	7/2/2007	5507.59	13.67	13.52	13.33	5494.11	-0.19
	7/16/2007	5507.59	13.67	13.35	13.37	5494.24	0.02
	7/30/2007	5507.59	13.67	NPP	13.57	5494.02	NPP
OW 6+70	7/2/2007	5504.78	14.67	NPP	DRY		NPP
	7/16/2007	5504.78	14.67	NPP	DRY		NPP
	7/30/2007	5504.78	14.67	NPP	DRY		NPP
OW 8+10	7/2/2007	5506.53	15.99	NPP	DRY		NPP
	7/16/2007	5506.53	15.99	NPP	DRY		NPP
	7/30/2007	5506.53	15.99	NPP	DRY		NPP
OW 11+15	7/2/2007	5506.70	16.59	NPP	12.03	5494.67	NPP
	7/16/2007	5506.70	16.59	NPP	12.07	5494.63	NPP
	7/30/2007	5506.70	16.59	NPP	12.10	5494.60	NPP

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring July 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 14+ 10	7/2/2007	5508.14	12.96	NPP	DRY		NPP
	7/16/2007	5508.14	12.96	NPP	DRY		NPP
	7/30/2007	5508.14	12.96	NPP	DRY		NPP
OW 16+ 60	7/2/2007	5508.43	15.21	NPP	12.65	5495.78	NPP
	7/16/2007	5508.43	15.21	NPP	12.76	5495.67	NPP
	7/30/2007	5508.43	15.21	NPP	12.78	5495.65	NPP
OW 19+ 50	7/2/2007	5508.03	13.00	NPP	DRY		NPP
	7/16/2007	5508.03	13.00	NPP	DRY		NPP
	7/30/2007	5508.03	13.00	NPP	DRY		NPP
OW 22+ 00	7/2/2007	5506.91	14.16	NPP	12.16	5494.75	NPP
	7/16/2007	5506.91	14.16	NPP	12.26	5494.65	NPP
	7/30/2007	5506.91	14.16	NPP	12.36	5494.55	NPP
OW 23+ 10	7/2/2007	5514.12	18.34	16.25	16.32	5497.86	0.07
	7/16/2007	5514.12	18.34	NPP	16.34	5497.78	NPP
	7/30/2007	5514.12	18.34	NPP	16.30	5497.82	NPP
OW 23+ 90	7/2/2007	5515.18	18.01	NPP	17.18	5498.00	NPP
	7/16/2007	5515.18	18.01	NPP	17.15	5498.03	NPP
	7/30/2007	5515.18	18.01	NPP	17.18	5498.00	NPP
OW 25+ 70	7/2/2007	5509.00	13.98	NPP	10.74	5498.26	NPP
	7/16/2007	5509.00	13.98	NPP	10.76	5498.24	NPP
	7/30/2007	5509.00	13.98	NPP	10.76	5498.24	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring July 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 0+60	7/2/2007	5506.68	14.09	NPP	8.33	5498.35	NPP
	7/16/2007	5506.68	14.09	NPP	8.32	5498.36	NPP
	7/30/2007	5506.68	14.09	NPP	8.4	5498.28	NPP
CW 1+50	7/2/2007	5505.13	13.74	NPP	7.09	5498.04	NPP
	7/16/2007	5505.13	13.74	NPP	7.11	5498.02	NPP
	7/30/2007	5505.13	13.74	NPP	7.13	5498.00	NPP
CW 3+85	7/2/2007	5503.87	13.11	NPP	5.92	5497.95	NPP
	7/16/2007	5503.87	13.11	NPP	5.97	5497.90	NPP
	7/30/2007	5503.87	13.11	NPP	6.00	5497.87	NPP
CW 5+50	7/2/2007	5503.76	12.27	NPP	6.39	5497.37	NPP
	7/16/2007	5503.76	12.27	NPP	6.43	5497.33	NPP
	7/30/2007	5503.76	12.27	NPP	6.44	5497.32	NPP
CW 6+70	7/2/2007	5503.84	11.45	NPP	6.76	5497.08	NPP
	7/16/2007	5503.84	11.45	NPP	6.79	5497.05	NPP
	7/30/2007	5503.84	11.45	NPP	6.83	5497.01	NPP
CW 8+10	7/2/2007	5504.02	11.63	NPP	7.52	5496.50	NPP
	7/16/2007	5504.02	11.63	NPP	7.54	5496.48	NPP
	7/30/2007	5504.02	11.63	NPP	7.57	5496.45	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring July 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 8+45	7/2/2007	5503.80	12.6	NPP	7.57	5496.23	NPP
	7/16/2007	5503.80	12.6	NPP	7.55	5496.25	NPP
	7/30/2007	5503.80	12.6	NPP	7.6	5496.20	NPP
CW 11+15	7/2/2007	5503.95	12.27	NPP	5.66	5498.29	NPP
	7/16/2007	5503.95	12.27	NPP	5.72	5498.23	NPP
	7/30/2007	5503.95	12.27	NPP	5.77	5498.18	NPP
CW 14+10	7/2/2007	5504.39	13.05	NPP	6.41	5497.98	NPP
	7/16/2007	5504.39	13.05	NPP	6.37	5498.02	NPP
	7/30/2007	5504.39	13.05	NPP	6.36	5498.03	NPP
CW 16+60	7/2/2007	5504.32	12.86	NPP	6.25	5498.07	NPP
	7/16/2007	5504.32	12.86	NPP	6.25	5498.07	NPP
	7/30/2007	5504.32	12.86	NPP	6.23	5498.09	NPP
CW 19+50	7/2/2007	5504.52	9.99	NPP	6.18	5498.34	NPP
	7/16/2007	5504.52	9.99	NPP	6.17	5498.35	NPP
	7/30/2007	5504.52	9.99	NPP	6.15	5498.37	NPP
CW 22+00	7/2/2007	5508.04	12.34	NPP	8.99	5499.05	NPP
	7/16/2007	5508.04	12.34	NPP	9.02	5499.02	NPP
	7/30/2007	5508.04	12.34	NPP	9.03	5499.01	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring July 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 23+ 10	7/2/2007	5510.04	14.65	NPP	10.64	5499.40	NPP
	7/16/2007	5510.04	14.65	NPP	10.66	5499.38	NPP
	7/30/2007	5510.04	14.65	NPP	10.69	5499.35	NPP
CW 23+ 90	7/2/2007	5507.32	11.72	NPP	8.13	5499.19	NPP
	7/16/2007	5507.32	11.72	NPP	8.15	5499.17	NPP
	7/30/2007	5507.32	11.72	NPP	8.16	5499.16	NPP
CW 25+ 95	7/2/2007	5505.90	12.25	NPP	7.16	5498.74	NPP
	7/16/2007	5505.90	12.25	NPP	7.16	5498.74	NPP
	7/30/2007	5505.90	12.25	NPP	7.17	5498.73	NPP

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring July 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #11	7/2/2007	5510.31	22.94	NPP	10.55	5499.76	NPP
	7/16/2007	5510.31	22.94	NPP	10.62	5499.69	NPP
	7/30/2007	5510.31	22.94	NPP	10.68	5499.63	NPP
MW #12	7/2/2007	5501.61	14.98	NPP	10.23	5491.38	NPP
	7/16/2007	5501.61	14.98	NPP	10.45	5491.16	NPP
	7/30/2007	5501.61	14.98	NPP	10.54	5491.07	NPP
MW #20	7/2/2007	5519.90	27.13	20.55	20.73	5499.31	0.18
	7/16/2007	5519.90	27.13	20.60	20.91	5499.24	0.31
	7/30/2007	5519.90	27.13	20.63	21.03	5499.19	0.40
MW #21	7/2/2007	5521.99	30.38	21.70	21.8	5500.27	0.10
	7/16/2007	5521.99	30.38	21.73	21.85	5500.24	0.12
	7/30/2007	5521.99	30.38	21.78	21.86	5500.19	0.08
MW #39	7/2/2007	5520.83	38.34	NPP	26.90	5493.93	NPP
	7/16/2007	5520.83	38.34	NPP	26.81	5494.02	NPP
	7/30/2007	5520.83	38.34	NPP	26.81	5494.02	NPP
MW #45	7/2/2007	5506.36	16.92	NPP	11.38	5494.98	NPP
	7/16/2007	5506.36	16.92	NPP	11.41	5494.95	NPP
	7/30/2007	5506.36	16.92	11.36	11.40	5494.99	0.04

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring July 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #46	7/2/2007	5504.65	10.39	NPP	DRY		NPP
	7/16/2007	5504.65	10.39	NPP	DRY		NPP
	7/30/2007	5504.65	10.39	NPP	DRY		NPP
MW #47	7/2/2007	5506.77	14.28	12.20	13.23	5494.36	1.03
	7/16/2007	5506.77	14.28	12.29	13.25	5494.29	0.96
	7/30/2007	5506.77	14.28	12.34	13.27	5494.24	0.93

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring August 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 0+60	8/13/2007	5506.62	12.26	NPP	11.51	5495.11	NPP
	8/27/2007	5506.62	12.26	NPP	11.58	5495.04	NPP
OW 1+50	8/13/2007	5508.03	14.36	13.38	14.11	5494.50	0.73
	8/27/2007	5508.03	14.36	13.50	14.25	5494.38	0.75
OW 3+85	8/13/2007	5507.31	15.06	12.84	13.92	5494.25	1.08
	8/27/2007	5507.31	15.06	13.04	14.12	5494.05	1.08
OW 5+50	8/13/2007	5507.59	13.67	NPP	13.44	5494.15	NPP
	8/27/2007	5507.59	13.67	NPP	13.50	5494.09	NPP
OW 6+70	8/13/2007	5504.78	14.67	NPP	DRY		NPP
	8/27/2007	5504.78	14.67	NPP	DRY		NPP
OW 8+10	8/13/2007	5506.53	15.99	NPP	DRY		NPP
	8/13/2007	5506.53	15.99	NPP	DRY		NPP
OW 11+15	8/13/2007	5506.70	16.59	NPP	12.03	5494.67	NPP
	8/27/2007	5506.70	16.59	NPP	12.08	5494.62	NPP
OW 14+10	8/13/2007	5508.14	12.96	NPP	DRY		NPP
	8/27/2007	5508.14	12.96	NPP	DRY		NPP
OW 16+60	8/13/2007	5508.43	15.21	12.65	12.69	5495.77	0.04
	8/27/2007	5508.43	15.21	12.61	12.69	5495.80	0.08

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring August 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 19+ 50	8/13/2007	5508.03	13.00	NPP	DRY		NPP
	8/27/2007	5508.03	13.00	NPP	DRY		NPP
OW 22+ 00	8/13/2007	5506.91	14.16	NPP	11.59	5495.32	NPP
	8/27/2007	5506.91	14.16	NPP	11.81	5495.10	NPP
OW 23+ 10	8/13/2007	5514.12	18.34	NPP	16.29	5497.83	NPP
	8/27/2007	5514.12	18.34	NPP	16.26	5497.86	NPP
OW 23+ 90	8/13/2007	5515.18	18.01	NPP	17.07	5498.11	NPP
	8/27/2007	5515.18	18.01	NPP	17.13	5498.05	NPP
OW 25+ 70	8/13/2007	5509.00	13.98	NPP	10.72	5498.28	NPP
	8/27/2007	5509.00	13.98	NPP	10.74	5498.26	NPP

NPP = No Product Present NVWP = No Water Present

Collection Well Fluids Monitoring August 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 0+60	8/13/2007	5506.68	14.09	NPP	8.29	5498.39	NPP
	8/27/2007	5506.68	14.09	NPP	8.33	5498.35	NPP
CW 1+50	8/13/2007	5505.13	13.74	NPP	7.08	5498.05	NPP
	8/27/2007	5505.13	13.74	NPP	6.97	5498.16	NPP
CW 3+85	8/13/2007	5503.87	13.11	NPP	6.01	5497.86	NPP
	8/27/2007	5503.87	13.11	NPP	5.98	5497.89	NPP
CW 5+50	8/13/2007	5503.76	12.27	NPP	6.41	5497.35	NPP
	8/27/2007	5503.76	12.27	NPP	6.42	5497.34	NPP
CW 6+70	8/13/2007	5503.84	11.45	NPP	6.86	5496.98	NPP
	8/27/2007	5503.84	11.45	NPP	6.88	5496.96	NPP
CW 8+10	8/13/2007	5504.02	11.63	NPP	7.61	5496.41	NPP
	8/27/2007	5504.02	11.63	NPP	7.62	5496.40	NPP
CW 8+45	8/13/2007	5503.80	12.6	NPP	7.67	5496.13	NPP
	8/27/2007	5503.80	12.6	7.63	7.64	5496.17	0.01
CW 11+15	8/13/2007	5503.95	12.27	NPP	5.87	5498.08	NPP
	8/27/2007	5503.95	12.27	NPP	5.91	5498.04	NPP
CW 14+10	8/13/2007	5504.39	13.05	NPP	6.40	5497.99	NPP
	8/27/2007	5504.39	13.05	NPP	6.39	5498.00	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring August 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 16+ 60	8/13/2007	5504.32	12.86	NPP	6.23	5498.09	NPP
	8/27/2007	5504.32	12.86	NPP	6.23	5498.09	NPP
CW 19+ 50	8/13/2007	5504.52	9.99	NPP	6.32	5498.20	NPP
	8/27/2007	5504.52	9.99	NPP	6.32	5498.20	NPP
CW 22+ 00	8/13/2007	5508.04	12.34	NPP	9.02	5499.02	NPP
	8/27/2007	5508.04	12.34	NPP	9.04	5499.00	NPP
CW 23+ 10	8/13/2007	5510.04	14.65	NPP	10.67	5499.37	NPP
	8/27/2007	5510.04	14.65	NPP	10.69	5499.35	NPP
CW 23+ 90	8/13/2007	5507.32	11.72	NPP	8.13	5499.19	NPP
	8/27/2007	5507.32	11.72	NPP	8.16	5499.16	NPP
CW 25+ 95	8/13/2007	5505.90	12.25	NPP	7.17	5498.73	NPP
	8/27/2007	5505.90	12.25	NPP	7.17	5498.73	NPP

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring August 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth to Product (DTP)	Depth to Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #11	8/13/2007	5510.31	22.94	NPP	10.55	5499.76	NPP
	8/27/2007	5510.31	22.94	NPP	10.72	5499.59	NPP
MW #12	8/13/2007	5501.61	14.98	NPP	10.52	5491.09	NPP
	8/27/2007	5501.61	14.98	NPP	10.59	5491.02	NPP
MW #20	8/13/2007	5519.90	27.13	20.59	20.67	5499.29	0.08
	8/27/2007	5519.90	27.13	20.66	21.15	5499.14	0.49
MW #21	8/13/2007	5521.99	30.38	21.70	21.8	5500.27	0.10
	8/27/2007	5521.99	30.38	21.72	21.82	5500.25	0.10
MW #39	8/13/2007	5520.83	38.34	NPP	26.70	5494.13	NPP
	8/27/2007	5520.83	38.34	NPP	26.59	5494.24	NPP
MW #45	8/13/2007	5506.36	16.92	NPP	11.29	5495.07	NPP
	8/27/2007	5506.36	16.92	11.87	11.88	5494.49	0.01
MW #46	8/13/2007	5504.65	10.39	NPP	DRY		NPP
	8/27/2007	5504.65	10.39	NPP	DRY		NPP
MW #47	8/13/2007	5506.77	14.28	12.37	12.38	5494.40	0.01
	8/27/2007	5506.77	14.28	12.40	13.26	5494.20	0.86

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring Sept. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 0+60	9/10/2007	5506.62	12.26	NPP	11.65	5494.97	NPP
	9/24/2007	5506.62	12.26	NPP	11.75	5494.87	NPP
OW 1+50	9/10/2007	5508.03	14.36	13.57	14.33	5494.31	0.76
	9/24/2007	5508.03	14.36	13.59	14.34	5494.29	0.75
OW 3+85	9/10/2007	5507.31	15.06	12.89	14.16	5494.17	1.27
	9/24/2007	5507.31	15.06	12.94	14.00	5494.16	1.06
OW 5+50	9/10/2007	5507.59	13.67	NPP	13.46	5494.13	NPP
	9/24/2007	5507.59	13.67	NPP	13.46	5494.13	NPP
OW 6+70	9/10/2007	5504.78	14.67	NPP	DRY		NPP
	9/24/2007	5504.78	14.67	NPP	DRY		NPP
OW 8+10	9/10/2007	5506.53	15.99	NPP	DRY		NPP
	9/24/2007	5506.53	15.99	NPP	DRY		NPP
OW 11+15	9/10/2007	5506.70	16.59	NPP	12.14	5494.56	NPP
	9/24/2007	5506.70	16.59	NPP	12.19	5494.51	NPP
OW 14+10	9/10/2007	5508.14	12.96	NPP	DRY		NPP
	9/24/2007	5508.14	12.96	NPP	DRY		NPP
OW 16+60	9/10/2007	5508.43	15.21	12.67	12.75	5495.74	0.08
	9/24/2007	5508.43	15.21	NPP	12.27	5496.16	NPP

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring Sept. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 19+ 50	9/10/2007	5508.03	13.00	NPP	DRY		NPP
	9/24/2007	5508.03	13.00	NPP	DRY		NPP
OW 22+ 00	9/10/2007	5506.91	14.16	NPP	12.11	5494.80	NPP
	9/24/2007	5506.91	14.16	NPP	12.27	5494.64	NPP
OW 23+ 10	9/10/2007	5514.12	18.34	NPP	16.31	5497.81	NPP
	9/24/2007	5514.12	18.34	NPP	16.31	5497.81	NPP
OW 23+ 90	9/10/2007	5515.18	18.01	NPP	17.18	5498.00	NPP
	9/24/2007	5515.18	18.01	NPP	17.15	5498.03	NPP
OW 25+ 70	9/10/2007	5509.00	13.98	NPP	10.75	5498.25	NPP
	9/24/2007	5509.00	13.98	NPP	10.75	5498.25	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring Sept. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 0+60	9/10/2007	5506.68	14.09	NPP	8.41	5498.27	NPP
	9/24/2007	5506.68	14.09	NPP	8.49	5498.19	NPP
CW 1+50	9/10/2007	5505.13	13.74	NPP	7.09	5498.04	NPP
	9/24/2007	5505.13	13.74	NPP	7.20	5497.93	NPP
CW 3+85	9/10/2007	5503.87	13.11	NPP	6.01	5497.86	NPP
	9/24/2007	5503.87	13.11	NPP	6.06	5497.81	NPP
CW 5+50	9/10/2007	5503.76	12.27	NPP	6.45	5497.31	NPP
	9/24/2007	5503.76	12.27	NPP	6.46	5497.30	NPP
CW 6+70	9/10/2007	5503.84	11.45	NPP	6.91	5496.93	NPP
	9/24/2007	5503.84	11.45	NPP	6.94	5496.90	NPP
CW 8+10	9/10/2007	5504.02	11.63	NPP	7.66	5496.36	NPP
	9/24/2007	5504.02	11.63	NPP	7.67	5496.35	NPP
CW 8+45	9/10/2007	5503.80	12.6	NPP	7.67	5496.13	NPP
	9/24/2007	5503.80	12.6	NPP	7.69	5496.11	NPP
CW 11+15	9/10/2007	5503.95	12.27	NPP	6.01	5497.94	NPP
	9/24/2007	5503.95	12.27	NPP	6.05	5497.90	NPP
CW 14+10	9/10/2007	5504.39	13.05	NPP	6.44	5497.95	NPP
	9/24/2007	5504.39	13.05	NPP	6.43	5497.96	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring Sept. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 16+ 60	9/10/2007	5504.32	12.86	NPP	6.27	5498.05	NPP
	9/24/2007	5504.32	12.86	NPP	6.28	5498.04	NPP
CW 19+ 50	9/10/2007	5504.52	9.99	NPP	6.33	5498.19	NPP
	9/24/2007	5504.52	9.99	NPP	6.46	5498.06	NPP
CW 22+ 00	9/10/2007	5508.04	12.34	NPP	9.08	5498.96	NPP
	9/24/2007	5508.04	12.34	NPP	9.10	5498.94	NPP
CW 23+ 10	9/10/2007	5510.04	14.65	NPP	10.73	5499.31	NPP
	9/24/2007	5510.04	14.65	NPP	10.75	5499.29	NPP
CW 23+ 90	9/10/2007	5507.32	11.72	NPP	8.18	5499.14	NPP
	9/24/2007	5507.32	11.72	NPP	8.18	5499.14	NPP
CW 25+ 95	9/10/2007	5505.90	12.25	NPP	7.13	5498.77	NPP
	9/24/2007	5505.90	12.25	NPP	7.18	5498.72	NPP

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring Sept. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #11	9/10/2007	5510.31	22.94	NPP	10.87	5499.44	NPP
	9/24/2007	5510.31	22.94	NPP	10.95	5499.36	NPP
MW #12	9/10/2007	5501.61	14.98	NPP	10.64	5490.97	NPP
	9/24/2007	5501.61	14.98	NPP	10.56	5491.05	NPP
MW #20	9/10/2007	5519.90	27.13	20.70	21.30	5499.08	0.60
	9/24/2007	5519.90	27.13	20.71	21.35	5499.06	0.64
MW #21	9/10/2007	5521.99	30.38	21.84	21.9	5500.14	0.06
	9/24/2007	5521.99	30.38	21.85	21.95	5500.12	0.10
MW #39	9/10/2007	5520.83	38.34	NPP	26.45	5494.38	NPP
	9/24/2007	5520.83	38.34	NPP	26.37	5494.46	NPP
MW #45	9/10/2007	5506.36	16.92	11.46	11.47	5494.90	0.01
	9/24/2007	5506.36	16.92	NPP	11.48	5494.88	NPP
MW #46	9/10/2007	5504.65	10.39	NPP	DRY		NPP
	9/24/2007	5504.65	10.39	NPP	DRY		NPP
MW #47	9/10/2007	5506.77	14.28	12.58	12.62	5494.18	0.04
	9/24/2007	5506.77	14.28	NPP	12.64	5494.13	NPP

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring Oct. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 0+60	10/8/2007	5506.62	12.26	NPP	11.8	5494.82	NPP
	10/22/2007	5506.62	12.26	NPP	11.82	5494.80	NPP
OW 1+50	10/8/2007	5508.03	14.36	13.65	14.32	5494.25	0.67
	10/22/2007	5508.03	14.36	13.62	14.30	5494.27	0.68
OW 3+85	10/8/2007	5507.31	15.06	13.07	13.97	5494.06	0.90
	10/22/2007	5507.31	15.06	13.12	13.98	5494.02	0.86
OW 5+50	10/8/2007	5507.59	13.67	NPP	13.60	5493.99	NPP
	10/22/2007	5507.59	13.67	13.73	13.75	5493.86	0.02
OW 6+70	10/8/2007	5504.78	14.67	NPP	DRY		NPP
	10/22/2007	5504.78	14.67	NPP	DRY		NPP
OW 8+10	10/8/2007	5506.53	15.99	NPP	DRY		NPP
	10/22/2007	5506.53	15.99	NPP	DRY		NPP
OW 11+15	10/8/2007	5506.70	16.59	NPP	12.22	5494.48	NPP
	10/22/2007	5506.70	16.59	NPP	12.27	5494.43	NPP
OW 14+10	10/8/2007	5508.14	12.96	NPP	DRY		NPP
	10/22/2007	5508.14	12.96	NPP	DRY		NPP
OW 16+60	10/8/2007	5508.43	15.21	12.77	13.00	5495.61	0.23
	10/22/2007	5508.43	15.21	12.73	12.95	5495.66	0.22

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring Oct. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 19+50	10/8/2007	5508.03	13.00	NPP	DRY		NPP
	10/22/2007	5508.03	13.00	NPP	DRY		NPP
OW 22+00	10/8/2007	5506.91	14.16	NPP	12.40	5494.51	NPP
	10/22/2007	5506.91	14.16	NPP	12.42	5494.49	NPP
OW 23+10	10/8/2007	5514.12	18.34	NPP	16.37	5497.75	NPP
	10/22/2007	5514.12	18.34	NPP	16.30	5497.82	NPP
OW 23+90	10/8/2007	5515.18	18.01	NPP	17.24	5497.94	NPP
	10/22/2007	5515.18	18.01	NPP	17.15	5498.03	NPP
OW 25+70	10/8/2007	5509.00	13.98	NPP	10.76	5498.24	NPP
	10/22/2007	5509.00	13.98	NPP	10.75	5498.25	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring Oct. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
0+60 CW	10/8/2007	5506.68	14.09	NPP	8.55	5498.13	NPP
	10/22/2007	5506.68	14.09	NPP	8.61	5498.07	NPP
1+50 CW	10/8/2007	5505.13	13.74	NPP	7.28	5497.85	NPP
	10/22/2007	5505.13	13.74	NPP	7.35	5497.78	NPP
3+85 CW	10/8/2007	5503.87	13.11	NPP	6.11	5497.76	NPP
	10/22/2007	5503.87	13.11	NPP	6.17	5497.70	NPP
5+50 CW	10/8/2007	5503.76	12.27	NPP	6.51	5497.25	NPP
	10/22/2007	5503.76	12.27	NPP	6.56	5497.20	NPP
6+70 CW	10/8/2007	5503.84	11.45	NPP	7.00	5496.84	NPP
	10/22/2007	5503.84	11.45	NPP	7.03	5496.81	NPP
8+10 CW	10/8/2007	5504.02	11.63	NPP	7.78	5496.24	NPP
	10/22/2007	5504.02	11.63	NPP	7.88	5496.14	NPP
8+45 CW	10/8/2007	5503.80	12.6	NPP	7.79	5496.01	NPP
	10/22/2007	5503.80	12.6	7.84	7.93	5495.94	0.09
11+15 CW	10/8/2007	5503.95	12.27	NPP	6.11	5497.84	NPP
	10/22/2007	5503.95	12.27	NPP	6.19	5497.76	NPP
14+10 CW	10/8/2007	5504.39	13.05	NPP	6.50	5497.89	NPP
	10/22/2007	5504.39	13.05	NPP	6.60	5497.79	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring Oct. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 16+ 60	10/8/2007	5504.32	12.86	NPP	6.32	5498.00	NPP
	10/22/2007	5504.32	12.86	NPP	6.35	5497.97	NPP
CW 19+ 50	10/8/2007	5504.52	9.99	NPP	6.42	5498.10	NPP
	10/22/2007	5504.52	9.99	NPP	6.54	5497.98	NPP
CW 22+ 00	10/8/2007	5508.04	12.34	NPP	9.12	5498.92	NPP
	10/22/2007	5508.04	12.34	NPP	9.13	5498.91	NPP
CW 23+ 10	10/8/2007	5510.04	14.65	NPP	10.75	5499.29	NPP
	10/22/2007	5510.04	14.65	NPP	10.75	5499.29	NPP
CW 23+ 90	10/8/2007	5507.32	11.72	NPP	8.18	5499.14	NPP
	10/22/2007	5507.32	11.72	NPP	8.18	5499.14	NPP
CW 25+ 95	10/8/2007	5505.90	12.25	NPP	7.18	5498.72	NPP
	10/22/2007	5505.90	12.25	NPP	7.17	5498.73	NPP

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring Oct. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #11	10/8/2007	5510.31	22.94	NPP	10.99	5499.32	NPP
	10/22/2007	5510.31	22.94	NPP	11.07	5499.24	NPP
MW #12	10/8/2007	5501.61	14.98	NPP	10.41	5491.20	NPP
	10/22/2007	5501.61	14.98	NPP	10.28	5491.33	NPP
MW #20	10/8/2007	5519.90	27.13	20.71	21.44	5499.04	0.73
	10/22/2007	5519.90	27.13	20.74	20.84	5499.14	0.10
MW #21	10/8/2007	5521.99	30.38	21.84	21.88	5500.14	0.04
	10/22/2007	5521.99	30.38	21.86	21.91	5500.12	0.05
MW #39	10/8/2007	5520.83	38.34	NPP	26.30	5494.53	NPP
	10/22/2007	5520.83	38.34	NPP	26.30	5494.53	NPP
MW #45	10/8/2007	5506.36	16.92	NPP	11.58	5494.78	NPP
	10/22/2007	5506.36	16.92	NPP	11.65	5494.71	NPP
MW #46	10/8/2007	5504.65	10.39	NPP	DRY		NPP
	10/22/2007	5504.65	10.39	NPP	DRY		NPP
MW #47	10/8/2007	5506.77	14.28	NPP	12.68	5494.09	NPP
	10/22/2007	5506.77	14.28	NPP	12.74	5494.03	NPP

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring Nov. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 0+60	11/5/2007	5506.62	12.26	NPP	11.93	5494.69	NPP
	11/19/2007	5506.62	12.26	NPP	11.95	5494.67	NPP
OW 1+50	11/5/2007	5508.03	14.36	13.75	14.32	5494.17	0.57
	11/19/2007	5508.03	14.36	13.85	14.36	5494.08	0.51
OW 3+85	11/5/2007	5507.31	15.06	13.17	13.77	5494.02	0.60
	11/19/2007	5507.31	15.06	13.16	14.06	5493.97	0.90
OW 5+50	11/5/2007	5507.59	13.67	NPP	13.65	5493.94	NPP
	11/19/2007	5507.59	13.67	NPP	13.61	5493.98	NPP
OW 6+70	11/5/2007	5504.78	14.67	NPP	DRY		NPP
	11/19/2007	5504.78	14.67	NPP	DRY		NPP
OW 8+10	11/5/2007	5506.53	15.99	NPP	DRY		NPP
	11/19/2007	5506.53	15.99	NPP	DRY		NPP
OW 11+15	11/5/2007	5506.70	16.59	NPP	12.39	5494.31	NPP
	11/19/2007	5506.70	16.59	NPP	12.34	5494.36	NPP
OW 14+10	11/5/2007	5508.14	12.96	NPP	DRY		NPP
	11/19/2007	5508.14	12.96	NPP	DRY		NPP
OW 16+60	11/5/2007	5508.43	15.21	12.95	13.04	5495.46	0.09
	11/19/2007	5508.43	15.21	12.91	12.92	5495.52	0.01

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring Nov. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 19+ 50	11/5/2007	5508.03	13.00	NPP	DRY		NPP
	11/19/2007	5508.03	13.00	NPP	DRY		NPP
OW 22+ 00	11/5/2007	5506.91	14.16	NPP	12.36	5494.55	NPP
	11/19/2007	5506.91	14.16	NPP	12.30	5494.61	NPP
OW 23+ 10	11/5/2007	5514.12	18.34	NPP	16.28	5497.84	NPP
	11/19/2007	5514.12	18.34	NPP	16.34	5497.78	NPP
OW 23+ 90	11/5/2007	5515.18	18.01	NPP	17.1	5498.08	NPP
	11/19/2007	5515.18	18.01	NPP	17.18	5498.00	NPP
OW 25+ 70	11/5/2007	5509.00	13.98	NPP	10.80	5498.20	NPP
	11/19/2007	5509.00	13.98	NPP	10.75	5498.25	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring Nov. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 0+60	11/5/2007	5506.68	14.09	NPP	8.73	5497.95	NPP
	11/19/2007	5506.68	14.09	NPP	8.86	5497.82	NPP
CW 1+50	11/5/2007	5505.13	13.74	NPP	7.40	5497.73	NPP
	11/19/2007	5505.13	13.74	NPP	7.46	5497.67	NPP
CW 3+85	11/5/2007	5503.87	13.11	NPP	6.17	5497.70	NPP
	11/19/2007	5503.87	13.11	NPP	6.20	5497.67	NPP
CW 5+50	11/5/2007	5503.76	12.27	NPP	6.58	5497.18	NPP
	11/19/2007	5503.76	12.27	NPP	6.62	5497.14	NPP
CW 6+70	11/5/2007	5503.84	11.45	NPP	7.04	5496.80	NPP
	11/19/2007	5503.84	11.45	NPP	7.04	5496.80	NPP
CW 8+10	11/5/2007	5504.02	11.63	NPP	7.83	5496.19	NPP
	11/19/2007	5504.02	11.63	NPP	7.88	5496.14	NPP
CW 8+45	11/5/2007	5503.80	12.6	NPP	7.83	5495.97	NPP
	11/19/2007	5503.80	12.6	7.86	7.96	5495.92	0.10
CW 11+15	11/5/2007	5503.95	12.27	NPP	6.12	5497.83	NPP
	11/19/2007	5503.95	12.27	NPP	6.13	5497.82	NPP
CW 14+10	11/5/2007	5504.39	13.05	NPP	6.40	5497.99	NPP
	11/19/2007	5504.39	13.05	NPP	6.46	5497.93	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring Nov. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 16+ 60	11/5/2007	5504.32	12.86	NPP	6.3	5498.02	NPP
	11/19/2007	5504.32	12.86	NPP	6.33	5497.99	NPP
CW 19+ 50	11/5/2007	5504.52	9.99	NPP	6.55	5497.97	NPP
	11/19/2007	5504.52	9.99	NPP	6.54	5497.98	NPP
CW 22+ 00	11/5/2007	5508.04	12.34	NPP	9.09	5498.95	NPP
	11/19/2007	5508.04	12.34	NPP	9.08	5498.96	NPP
CW 23+ 10	11/5/2007	5510.04	14.65	NPP	10.7	5499.34	NPP
	11/19/2007	5510.04	14.65	NPP	10.68	5499.36	NPP
CW 23+ 90	11/5/2007	5507.32	11.72	NPP	8.15	5499.17	NPP
	11/19/2007	5507.32	11.72	NPP	8.14	5499.18	NPP
CW 25+ 95	11/5/2007	5505.90	12.25	NPP	7.16	5498.74	NPP
	11/19/2007	5505.90	12.25	NPP	7.16	5498.74	NPP

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring Nov. 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #11	11/5/2007	5510.31	22.94	NPP	11.57	5498.74	NPP
	11/19/2007	5510.31	22.94	NPP	11.27	5499.04	NPP
MW #12	11/5/2007	5501.61	14.98	NPP	10.21	5491.40	NPP
	11/19/2007	5501.61	14.98	NPP	10.17	5491.44	NPP
MW #20	11/5/2007	5519.90	27.13	20.75	21.45	5499.01	0.70
	11/19/2007	5519.90	27.13	20.71	21.46	5499.04	0.75
MW #21	11/5/2007	5521.99	30.38	21.82	21.89	5500.16	0.07
	11/19/2007	5521.99	30.38	21.81	21.87	5500.17	0.06
MW #39	11/5/2007	5520.83	38.34	NPP	26.20	5494.63	NPP
	11/19/2007	5520.83	38.34	NPP	26.11	5494.72	NPP
MW #45	11/5/2007	5506.36	16.92	NPP	11.62	5494.74	NPP
	11/19/2007	5506.36	16.92	NPP	11.64	5494.72	NPP
MW #46	11/5/2007	5504.65	10.39	NPP	DRY		NPP
	11/19/2007	5504.65	10.39	NPP	DRY		NPP
MW #47	11/5/2007	5506.77	14.28	12.76	13.17	5493.93	0.41
	11/19/2007	5506.77	14.28	12.61	13.21	5494.04	0.60

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring December 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 0+60	12/3/2007	5506.62	12.26	NPP	12.02	5494.60	NPP
	12/17/2007	5506.62	12.26	NPP	12.01	5494.61	NPP
	12/31/2007	5506.62	12.26	NPP	12.04	5494.58	NPP
OW 1+50	12/3/2007	5508.03	14.36	13.84	14.36	5494.09	0.52
	12/17/2007	5508.03	14.36	13.78	14.30	5494.15	0.52
	12/31/2007	5508.03	14.36	14.00	14.40	5493.95	0.40
OW 3+85	12/3/2007	5507.31	15.06	13.34	13.45	5493.95	0.11
	12/17/2007	5507.31	15.06	13.25	13.65	5493.98	0.40
	12/31/2007	5507.31	15.06	NPP	13.47	5493.84	NPP
OW 5+50	12/3/2007	5507.59	13.67	NPP	13.67	5493.92	NPP
	12/17/2007	5507.59	13.67	NPP	13.68	5493.91	NPP
	12/31/2007	5507.59	13.67	NPP	13.64	5493.95	NPP
OW 6+70	12/3/2007	5504.78	14.67	NPP	DRY		NPP
	12/17/2007	5504.78	14.67	NPP	DRY		NPP
	12/31/2007	5504.78	14.67	NPP	DRY		NPP
OW 8+10	12/3/2007	5506.53	15.99	NPP	DRY		NPP
	12/17/2007	5506.53	15.99	NPP	DRY		NPP
	12/31/2007	5506.53	15.99	NPP	DRY		NPP
OW 11+15	12/3/2007	5506.70	16.59	NPP	12.35	5494.35	NPP
	12/17/2007	5506.70	16.59	NPP	12.38	5494.32	NPP
	12/31/2007	5506.70	16.59	NPP	12.50	5494.20	NPP

NPP = No Product Present NWP = No Water Present

Observation Well Fluids Monitoring December 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTPW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
OW 14+ 10	12/3/2007	5508.14	12.96	NPP	DRY		NPP
	12/17/2007	5508.14	12.96	NPP	DRY		NPP
	12/31/2007	5508.14	12.96	NPP	DRY		NPP
OW 16+ 60	12/3/2007	5508.43	15.21	12.92	13.04	5495.49	0.12
	12/17/2007	5508.43	15.21	12.95	13.00	5495.47	0.05
	12/31/2007	5508.43	15.21	12.81	12.84	5495.61	0.03
OW 19+ 50	12/3/2007	5508.03	13.00	NPP	DRY		NPP
	12/17/2007	5508.03	13.00	NPP	DRY		NPP
	12/31/2007	5508.03	13.00	NPP	DRY		NPP
OW 22+ 00	12/3/2007	5506.91	14.16	NPP	12.32	5494.59	NPP
	12/17/2007	5506.91	14.16	NPP	11.99	5494.92	NPP
	12/31/2007	5506.91	14.16	NPP	12.80	5494.11	NPP
OW 23+ 10	12/3/2007	5514.12	18.34	NPP	16.29	5497.83	NPP
	12/17/2007	5514.12	18.34	NPP	16.27	5497.85	NPP
	12/31/2007	5514.12	18.34	NPP	16.27	5497.85	NPP
OW 23+ 90	12/3/2007	5515.18	18.01	NPP	17.17	5498.01	NPP
	12/17/2007	5515.18	18.01	NPP	17.12	5498.06	NPP
	12/31/2007	5515.18	18.01	NPP	17.20	5497.98	NPP
OW 25+ 70	12/3/2007	5509.00	13.98	NPP	10.75	5498.25	NPP
	12/17/2007	5509.00	13.98	NPP	10.82	5498.18	NPP
	12/31/2007	5509.00	13.98	NPP	10.79	5498.21	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring December 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 0+60	12/3/2007	5506.68	14.09	NPP	8.93	5497.75	NPP
	12/17/2007	5506.68	14.09	NPP	8.56	5498.12	NPP
	12/31/2007	5506.68	14.09	NPP	8.7	5497.98	NPP
CW 1+50	12/3/2007	5505.13	13.74	NPP	7.61	5497.52	NPP
	12/17/2007	5505.13	13.74	NPP	7.38	5497.75	NPP
	12/31/2007	5505.13	13.74	NPP	7.45	5497.68	NPP
CW 3+85	12/3/2007	5503.87	13.11	NPP	6.26	5497.61	NPP
	12/17/2007	5503.87	13.11	NPP	6.23	5497.64	NPP
	12/31/2007	5503.87	13.11	NPP	6.25	5497.62	NPP
CW 5+50	12/3/2007	5503.76	12.27	NPP	6.58	5497.18	NPP
	12/17/2007	5503.76	12.27	NPP	6.62	5497.14	NPP
	12/31/2007	5503.76	12.27	NPP	6.7	5497.06	NPP
CW 6+70	12/3/2007	5503.84	11.45	NPP	7.11	5496.73	NPP
	12/17/2007	5503.84	11.45	NPP	7.09	5496.75	NPP
	12/31/2007	5503.84	11.45	NPP	7.17	5496.67	NPP
CW 8+10	12/3/2007	5504.02	11.63	NPP	8.04	5495.98	NPP
	12/17/2007	5504.02	11.63	NPP	7.92	5496.10	NPP
	12/31/2007	5504.02	11.63	NPP	8.18	5495.84	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring December 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 8+45	12/3/2007	5503.80	12.6	8.03	8.13	5495.75	0.10
	12/17/2007	5503.80	12.6	NPP	7.99	5495.81	NPP
	12/31/2007	5503.80	12.6	8.06	8.2	5495.71	0.14
CW 11+15	12/3/2007	5503.95	12.27	NPP	6.23	5497.72	NPP
	12/17/2007	5503.95	12.27	NPP	6.10	5497.85	NPP
	12/31/2007	5503.95	12.27	NPP	6.24	5497.71	NPP
CW 14+10	12/3/2007	5504.39	13.05	NPP	6.64	5497.75	NPP
	12/17/2007	5504.39	13.05	NPP	6.46	5497.93	NPP
	12/31/2007	5504.39	13.05	NPP	6.58	5497.81	NPP
CW 16+60	12/3/2007	5504.32	12.86	NPP	6.39	5497.93	NPP
	12/17/2007	5504.32	12.86	NPP	6.34	5497.98	NPP
	12/31/2007	5504.32	12.86	NPP	6.29	5498.03	NPP
CW 19+50	12/3/2007	5504.52	9.99	NPP	6.67	5497.85	NPP
	12/17/2007	5504.52	9.99	NPP	6.59	5497.93	NPP
	12/31/2007	5504.52	9.99	NPP	6.60	5497.92	NPP
CW 22+00	12/3/2007	5508.04	12.34	NPP	9.10	5498.94	NPP
	12/17/2007	5508.04	12.34	NPP	9.06	5498.98	NPP
	12/31/2007	5508.04	12.34	NPP	9.12	5498.92	NPP

NPP = No Product Present NWP = No Water Present

Collection Well Fluids Monitoring December 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
CW 23+ 10	12/3/2007	5510.04	14.65	NPP	10.72	5499.32	NPP
	12/17/2007	5510.04	14.65	NPP	10.7	5499.34	NPP
	12/31/2007	5510.04	14.65	NPP	7.5	5502.54	NPP
CW 23+ 90	12/3/2007	5507.32	11.72	NPP	8.17	5499.15	NPP
	12/17/2007	5507.32	11.72	NPP	8.17	5499.15	NPP
	12/31/2007	5507.32	11.72	NPP	8.20	5499.12	NPP
CW 25+ 95	12/3/2007	5505.90	12.25	NPP	7.17	5498.73	NPP
	12/17/2007	5505.90	12.25	NPP	7.18	5498.72	NPP
	12/31/2007	5505.90	12.25	NPP	7.18	5498.72	NPP

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring December 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #11	12/3/2007	5510.31	22.94	NPP	11.38	5498.93	NPP
	12/17/2007	5510.31	22.94	NPP	10.95	5499.36	NPP
	12/31/2007	5510.31	22.94	NPP	11.22	5499.09	NPP
MW #12	12/3/2007	5501.61	14.98	NPP	10.18	5491.43	NPP
	12/17/2007	5501.61	14.98	NPP	10.22	5491.39	NPP
	12/31/2007	5501.61	14.98	NPP	10.22	5491.39	NPP
MW #20	12/3/2007	5519.90	27.13	20.76	21.52	5498.99	0.76
	12/17/2007	5519.90	27.13	20.74	21.48	5499.01	0.74
	12/31/2007	5519.90	27.13	20.75	21.51	5499.00	0.76
MW #21	12/3/2007	5521.99	30.38	21.83	21.9	5500.15	0.07
	12/17/2007	5521.99	30.38	21.82	21.89	5500.16	0.07
	12/31/2007	5521.99	30.38	21.87	21.92	5500.11	0.05
MW #39	12/3/2007	5520.83	38.34	NPP	26.19	5494.64	NPP
	12/17/2007	5520.83	38.34	NPP	26.02	5494.81	NPP
	12/31/2007	5520.83	38.34	NPP	26.10	5494.73	NPP
MW #45	12/3/2007	5506.36	16.92	NPP	11.74	5494.62	NPP
	12/17/2007	5506.36	16.92	NPP	11.68	5494.68	NPP
	12/31/2007	5506.36	16.92	11.80	11.83	5494.55	0.03

NPP = No Product Present NWP = No Water Present

Monitoring Well Fluids Monitoring December 2007

Well ID	Date	Measuring Point Elevation	Total Well Depth	Depth To Product (DTP)	Depth To Water (DTW)	Corrected Groundwater Elevation	Separate Phase Hydrocarbon Thickness
MW #46	12/3/2007	5504.65	10.39	NPP	DRY		NPP
	12/17/2007	5504.65	10.39	NPP	DRY		NPP
	12/31/2007	5504.65	10.39	NPP	DRY		NPP
MW #47	12/3/2007	5506.77	14.28	12.71	13.24	5493.95	0.53
	12/17/2007	5506.77	14.28	12.70	13.25	5493.96	0.55
	12/31/2007	5506.77	14.28	NPP	12.90	5493.87	NPP

NPP = No Product Present NWP = No Water Present

North Barrier Wall

Collection Wells Groundwater Analysis & Field Data

EPA Method 8021B										EPA Method 8015B		Field Data			
WQCC 20NMAG 6:23:103		mg/L Benzene	mg/L Toluene	mg/L Ethylben	mg/L Xylene	mg/L MTBE	mg/L DRO	mmhos/cm E.C.	pH	Farenheit Temp.	mg/L TDS				
	Date Sampled	0.01	0.75	0.75	0.62		TPH Screening Guidelines Table 23	172	60-9.0		1000				
CW 0+60	Aug-07	0.3	<0.01	0.05	<0.03	<0.01	2.0	1347	7.04	69.0	NS ²				
	Apr-07	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²				
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²				
	Apr-06	0.360	0.015	0.048	0.160	<0.025	NR	1525	6.91	51.5	1148				
CW 25+95	Aug-07	0.02	<0.001	<0.001	<0.003	0.0016	<1.0	1401	7.06	70.7	NS ²				
	Apr-07	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²				
	Aug-06	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²				
	Apr-06	<0.001	<0.001	<0.001	<0.003	0.0054	NR	2205	6.93	52.3	1670				

NS¹= Well is Dry or Not Enough Water to Sample- No Sample

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NR¹= No Sample Required - Well Contains Separate Phase Hydrocarbon

NR² = No Sample Required per OCD and NMED Conditions

Observation Wells Groundwater Analysis & Field Data

EPA Method 8021B												EPA Method 8015B				Field Data			
WQCC 20NIMAC 6:2:3:103	Date Sampled	mg/L Benzene	mg/L Toluene	mg/L Ethylben	mg/L Xylene	mg/L MTBE	mg/L DRO	mmhos/cm E.C.	pH	Farenheit Temp.	mg/L TDS								
		0.01	0.75	0.75	0.62		TPH Screening Guidelines Table 2	1.72	6.0-9.0		1000								
OW 0+60	Aug-07	0.011	<0.005	0.085	0.13	<0.005	5.7	1986	7.05	75.5	NS²								
	Apr-07	<0.02	0.058	0.097	0.15	<0.025	NS²	1991	6.95	54.6	1495								
	Aug-06	0.057	0.12	0.31	1.2	<0.025	34	1854	7.05	69.3	NR								
	Apr-06	0.065	0.033	0.34	1.6	<0.025	110	1942	6.93	55.6	1453								
OW 1+50	Aug-07	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹								
	Apr-07	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹								
	Aug-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹								
	Apr-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹								
OW 3+85	Aug-07	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹								
	Apr-07	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹								
	Aug-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹								
	Apr-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹								
OW 5+50	Aug-07	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹								
	Apr-07	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹								
	Aug-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹								
	Apr-06	0.015	0.014	0.089	9.7	<0.0025	130	3073	6.96	54.5	2393								
OW 6+70	Aug-07	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹								
	Apr-07	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹								
	Aug-06	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹								
	Apr-06	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹								

NS¹= Well is Dry or Not Enough Water to Sample- No SampleNR¹= No Sample Required - Well Contains Separate Phase HydrocarbonNS² = Sample Inadvertently not Collected this Sampling EventNR² = No Sample Required per OCD and NMED Conditions

North Barrier Wall

Observation Wells Groundwater Analysis & Field Data

EPA Method 8021B											EPA Method 8015B		Field Data		
WQCC 20NMAC 6.2.3103	Date Sampled	mg/L Benzene	mg/L Toluene	mg/L Ethylben	mg/L Xylene	mg/L MTBE	TPH Screening Guidelines Table 2		mg/L DRO	mmhos/cm E.C.	pH	Farenheit Temp.	mg/L TDS		
		0.01	0.75	0.75	0.62		1-72								
OW 8+10	Aug-07	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		
	Apr-07	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		
	Aug-06	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		
	Apr-06	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		
OW 11+15	Aug-07	1.0	<0.02	0.026	<0.06	2.2		42	2199	7.03	69.7	NS²	NS²		
	Apr-07	0.84	<0.02	<0.02	<0.04	1.9		NS²	2264	6.83	54.5	1715	1715		
	Aug-06	0.86	<0.020	0.026	0.096	1.8		16	2391	7.02	69.5	NR	NR		
	Apr-06	0.23	<0.020	<0.020	<0.060	1.6		15	1840	6.92	55.1	2014	2014		
OW 14+10	Aug-07	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		
	Apr-07	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		
	Aug-06	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		
	Apr-06	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		
OW 16+60	Aug-07	NR¹	NR¹	NR¹	NR¹	NR¹		NR¹	NR¹	NR¹	NR¹	NR¹	NR¹		
	Apr-07	3.1	<0.05	2	7.2	9		NS²	2457	6.78	60.6	1887	1887		
	Aug-06	NR¹	NR¹	NR¹	NR¹	NR¹		NR¹	NR¹	NR¹	NR¹	NR¹	NR¹		
	Apr-06	NR¹	NR¹	NR¹	NR¹	NR¹		NR¹	NR¹	NR¹	NR¹	NR¹	NR¹		
OW 19+50	Aug-07	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		
	Apr-07	0.0019	<0.001	<0.001	<0.002	0.27		NS²	4204	6.69	52.7	3403	3403		
	Aug-06	NR¹	NR¹	NR¹	NR¹	NR¹		NR¹	NR¹	NR¹	NR¹	NR¹	NR¹		
	Apr-06	0.0035	<0.001	0.012	0.077	0.18		3.4	4043	6.9	54.9	3242	3242		

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Observation Wells Groundwater Analysis & Field Data

2														
EPA Method 8021B							EPA Method 8015B					Field Data		
WQCC-20NMAG 6:2.3103		0.01	0.75	0.75	0.62	mg/L MTBE	mg/L DRO	mmhos/cm E.C.	pH	Fahrenheit Temp.	mg/L TDS			
Date Sampled		mg/L Benzene	mg/L Toluene	mg/L Ethylben	mg/L Xylene	mg/L MTBE	mg/L DRO	mmhos/cm E.C.	pH	Fahrenheit Temp.	mg/L TDS			
OW 22+00	Aug-07	<0.002	<0.005	<0.005	<0.015	2.3	13	3062	7.02	70.8	NS²			
	Apr-07	<<0.005	<0.005	<0.005	<0.01	2.4	NS²	3044	67.0	52.3	2388			
	Aug-06	<0.010	0.012	<0.010	<0.030	3.6	87	3037	7.02	69.5	NR			
	Apr-06	<0.001	<0.001	<0.001	<0.003	3.9	13	2878	6.99	54.6	2227			
OW 23+10	Aug-07	<0.001	<0.001	<0.001	<0.003	0.033	6.2	2050	7.0	68.3	NS²			
	Apr-07	<0.001	0.007	0.003	0.009	0.04	NS²	1898	67.3	54.3	1423			
	Aug-06	0.015	0.012	0.013	0.27	0.17	290	2010	7.02	69.6	NR			
	Apr-06	0.026	0.012	0.018	0.18	0.31	20	1772	6.99	59	1309			
OW 23+90	Aug-07	<0.001	<0.001	<0.001	<0.003	0.0012	<1.0	1728	6.98	65.5	NS²			
	Apr-07	<0.001	<0.001	<0.001	<0.002	<0.0025	NS²	1695	6.96	56.2	1252			
	Aug-06	0.0017	0.0024	0.0039	<0.030	0.0034	4.5	1794	7.06	68.7	NR			
	Apr-06	0.012	0.0032	0.014	0.029	0.034	24	1499	7.02	61.3	1092			
OW 25+70	Aug-07	<0.001	<0.001	<0.001	<0.003	<0.001	<1.0	1246	7.05	75.4	NS²			
	Apr-07	<0.001	<0.001	<0.001	<0.002	<0.0025	NS²	1517	6.889	53	1116			
	Aug-06	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.0	1187	7.06	70.8	NR			
	Apr-06	<0.0025	<0.001	<0.001	<0.003	<0.0025	<1.0	1552	6.99	54.7	1137			

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Monitoring Wells Groundwater Analysis & Field Data

EPA Method 8021B & 8260B												EPA Method 8015B		Field Data			
WQCC 20NMAC 6.2:3103	mg/L Benzene	mg/L Toluene	mg/L Ethylben	mg/L Xylene	mg/L MTBE	mg/L DRO	mmhos/cm E.C.	pH	°F Temp.	mg/L TDS							
MW - #11	Aug-07	0.97	<0.01	<0.012	0.022	NS²	2109	7.01	66.9	NS²							
	Apr-07	3.9	<0.01	0.038	0.16	NS²	1944	6.93	55.0	1454							
	Aug-06	0.24	<0.01	0.012	0.045	20	2066	6.91	65.0	1400							
	Apr-06	3.2	<0.005	<0.005	0.23	35	2052	6.78	56.0	1535							
MW - #12	Aug-07	<0.001	<0.001	<0.001	<0.0015	NS²	987	7.05	68.1	NS²							
	Apr-07	<0.001	<0.001	<0.001	<0.002	NS²	599	6.92	51.8	421							
	Aug-06	<0.001	<0.001	<0.001	<0.003	<1.0	875	7.01	65.0	NS²							
	Apr-06	0.001	<0.001	<0.001	<0.003	<1.0	1048	6.86	48.9	757							
MW - #20	Aug-07	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹							
	Apr-07	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹							
	Aug-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹							
	Apr-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹							
MW - #21	Aug-07	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹							
	Apr-07	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹							
	Aug-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹							
	Apr-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹							
MW #38	Aug-07	<0.001	<0.001	<0.001	<0.0015	NS²	1481	6.99	64.7	NS²							
	Apr-07	<0.001	<0.001	<0.001	<0.002	NS²	1864	6.91	59.7	1375							
	Aug-06	<0.001	<0.001	<0.001	<0.003	3.5	2199	6.90	60.0	1600							
	Apr-06	<0.001	0.0029	<0.001	<0.003	2.8	2298	6.43	55.8	1740							

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North Barrier Wall

Monitoring Wells Groundwater Analysis & Field Data

EPA Method 8021B & 8260B												EPA Method 8015B		Field Data			
WQCC 20NMAC 6.2.3103		mg/L Benzene	mg/L Toluene	mg/L Ethylben	mg/L Xylene	mg/L MTBE	TPH Screening Guidelines Table 2a		mg/L DRO	mmhos/cm E.C.	pH	'F Temp.	mg/L TDS				
Date Sampled		0.01	0.75	0.75	0.62		1.72						1000				
MW #39	Aug-07	NS²	NS²	NS²	NS²	NS²	mg/L		NS²	NS²	NS²	NS²	mg/L				
	Apr-07	0.28	<0.01	0.56	0.38	<0.025	NS²		NS²	5439	6.94	62.1	4497				
	Aug-06	0.33	<0.005	0.89	0.88	<0.012	3.30		5625	7.04	65	NS²	NS²				
	Apr-06	0.28	0.05	0.9	0.89	<0.050	2.6		5698	6.96	61.8	4782	4782				
MW #45	Aug-07	NS²	NS²	NS²	NS²	NS²	NS²		NS²	NS²	NS²	NS²	NS²				
	Apr-07	0.14	<0.05	0.12	0.49	3.2	NS²		NS²	2201	6.85	54.1	1663				
	Aug-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹		NR¹	NR¹	NR¹	NR¹	NR¹				
	Apr-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹		NR¹	NR¹	NR¹	NR¹	NR¹				
MW #46	Aug-07	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹				
	Apr-07	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹				
	Aug-06	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹				
	Apr-06	NS¹	NS¹	NS¹	NS¹	NS¹	NS¹		NS¹	NS¹	NS¹	NS¹	NS¹				
MW #47	Aug-07	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹		NR¹	NR¹	NR¹	NR¹	NR¹				
	Apr-07	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹		NR¹	NR¹	NR¹	NR¹	NR¹				
	Aug-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹		NR¹	NR¹	NR¹	NR¹	NR¹				
	Apr-06	NR¹	NR¹	NR¹	NR¹	NR¹	NR¹		NR¹	NR¹	NR¹	NR¹	NR¹				

NS¹= Well is Dry or Not Enough Water to Sample- No Sample
NS² = Sample Inadvertently not Collected this Sampling Event
NR¹= No Sample Required - Well Contains Separate Phase Hydrocarbon
NR² = No Sample Required per OCD and NMED Conditions

Section 16.0 Chemical Analytical Program



HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory

QUALITY ASSURANCE PLAN

Effective Date: May 2007

Revision 8.3

www.hallenvironmental.com

Control Number: 0000069

Approved By:

Approved By:

Nancy McDuffie Date
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3.0 Introduction

Purpose of Document

The purpose of this Quality Assurance Manual 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. This laboratory continually implements the aspects of this plan as an essential and integral part of laboratory operations in order to assure that high quality data is produced in an efficient cost 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 in this manual. 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 assures that the analytical results are valid and defensible.

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. All data reported meets the applicable requirements for NELAC, EPA and/or State Bureaus. For specific method requirements refer to Standard Operating Procedures (SOP's), EPA methods, Standard Methods 20th edition or state specific methods.

The management assures that this documentation is correct in terms of required accuracy, data reproducibility, and that the procedures contain proper Quality Control measures. The management additionally assures that all equipment is reliable, well maintained and calibrated. The procedures and practices of the laboratory are able to conform to client specifications and regulatory requirements. 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 QA Officer is responsible for supervising and administering this quality assurance program, insuring 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.

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 feels 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 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 the 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 commercial, financial, or other undue pressures, which might adversely affect the quality of their work.

All client information at HEAL is 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 Officer keeps the tracking number on file.

4.0 Organization and Responsibility

Company

HEAL is accredited in accordance with NELAC standards (see NELAC accredited analysis list) and by the Arizona Department of Health Services. Additionally, HEAL is qualified as defined under the Petroleum Storage Tank Regulations of the State of New Mexico Environmental Improvement Board (USTR §1201), the State of New Mexico Water Quality Control Commission regulations and the New Mexico State Drinking Water Bureau. It 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 and air samples for many sites in the region. HEAL's client base includes local, state and federal governmental agencies, private consultants as well as individual homeowners. It 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 a volatile organic section, a semi-volatile organic section, and an inorganic section. Each section has a designated manager/technical director. The section managers report directly to the laboratory manager, who oversees all operations.

Certifications

National Environmental Laboratory Accreditation Program (NELAP) – Oregon Primary accrediting authority.

Arizona Department of Health Services

See appendix A for copies of current licenses and licensed parameters.

Personnel

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 on page 11.

Laboratory Director

The Laboratory Director is responsible for overall technical direction and business leadership of Hall Environmental Analysis Laboratory, Inc. The Laboratory Manager and the Business Manager report directly to the Laboratory Director. Someone with a minimum of 7 years of directly related experience and a BS in a scientific or engineering discipline should fill this position.

Laboratory Manager/Technical Director

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

In events where employee scheduling or current workload is such that new work cannot be incorporated with missing holdtimes, the Laboratory Manager has authority to modify employee scheduling or re-schedule projects.

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

The Lab 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 lab manager addresses questions or complaints that cannot be answered by the section managers. Someone with a minimum of 7 years of directly related experience and a BS in a scientific or engineering discipline should fill this position.

Business/ Project Manager

The role of the business/project manager is to act as a liaison between the client and the laboratory. The business project manager reviews reports, updates clients on the status of projects in-house, prepares quotations for new work, and is responsible for the marketing effort.

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

It is also the duty of the project manager to work with government agencies and other clients to make certain that the laboratory is compliant on specific work plan requirements.

Additionally, the Business Manager can initiate the review of the need for new analytical procedures and methods, and performs a technical review of some analytical results. The Business Manager provides technical support to customers. Someone with a minimum of

7 years of directly related experience and a BS in a scientific or engineering discipline should fill this position.

Quality Assurance Officer

The Quality Assurance Officer (QAO) is responsible for developing and carrying out the approved Quality Assurance Program, and advising and assisting management in meeting these requirements. The QAO monitors quality control activities of the laboratory in order to determine conformance with the Quality Assurance Program, performing Quality Assurance Audits, writing reports, providing follow-up action, and issuing Observation and Corrective Action Reports as needed.

Additional responsibilities include cataloged documentation of the following: Staff Training and Demonstration Of Capability (DOC) records, Instrument Detection Limits (IDL), Method Detection Limits (MDL), and Instrument/Equipment Certification and/or Maintenance records.

Complaints from clients are logged on a complaint form, which is reviewed by the QAO to ensure that it is handled according to the Quality Systems Section 5.5.3.1 and kept on file. When procedures are not in compliance with the requirements of this plan, "stop work orders" can be issued.

Finally, the QAO provides clients with Quality Control data and Quality Assurance reports as requested. Someone with a minimum of 3 years of directly related experience and a BS in a scientific or engineering discipline should fill this position or it can be filled by a senior manager.

Section Manager/Technical Directors

The Section Manager/Technical Directors are responsible for training and supervising departmental staff. They schedule incoming work and monitor laboratory personnel to ensure that proper procedures and techniques are being used. They supervise and implement new Quality Control procedures as directed by the QAO, update and maintain quality control records and evaluate laboratory personnel in their Quality Control activities.

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 3 years of directly related experience and a BS in a scientific or engineering discipline should fill this position.

Chemist I, II and III

A Chemist is responsible for the analysis of soil and water samples and the generation of high quality data in accordance with the laboratory SOPs and QA/QC guidelines in a reasonable time as prescribed by standard turnaround schedules or as directed by the Section Manager, Laboratory Manager or Business Manager.

The chemist is 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 may be divided into three levels, Chemist I, II, and III. Chemist I must have a minimum of an AA in a related field or equivalent experience. Chemist II must have a minimum of an AA in a related field or equivalent plus, at least 2 years of environmental or closely related lab experience. Chemist III must have Bachelors degree and 3 years of environmental or closely related lab experience.

Lab Technician

A lab technician is responsible for providing support in the form of sample preparation, sample analysis, general lab maintenance, glassware washing, chemical inventories and sample kit preparation.

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 also 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 assure the appropriate analytical tests 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 3 years of directly related experience and can also be filled by a senior manager.

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 an appropriately qualified member.

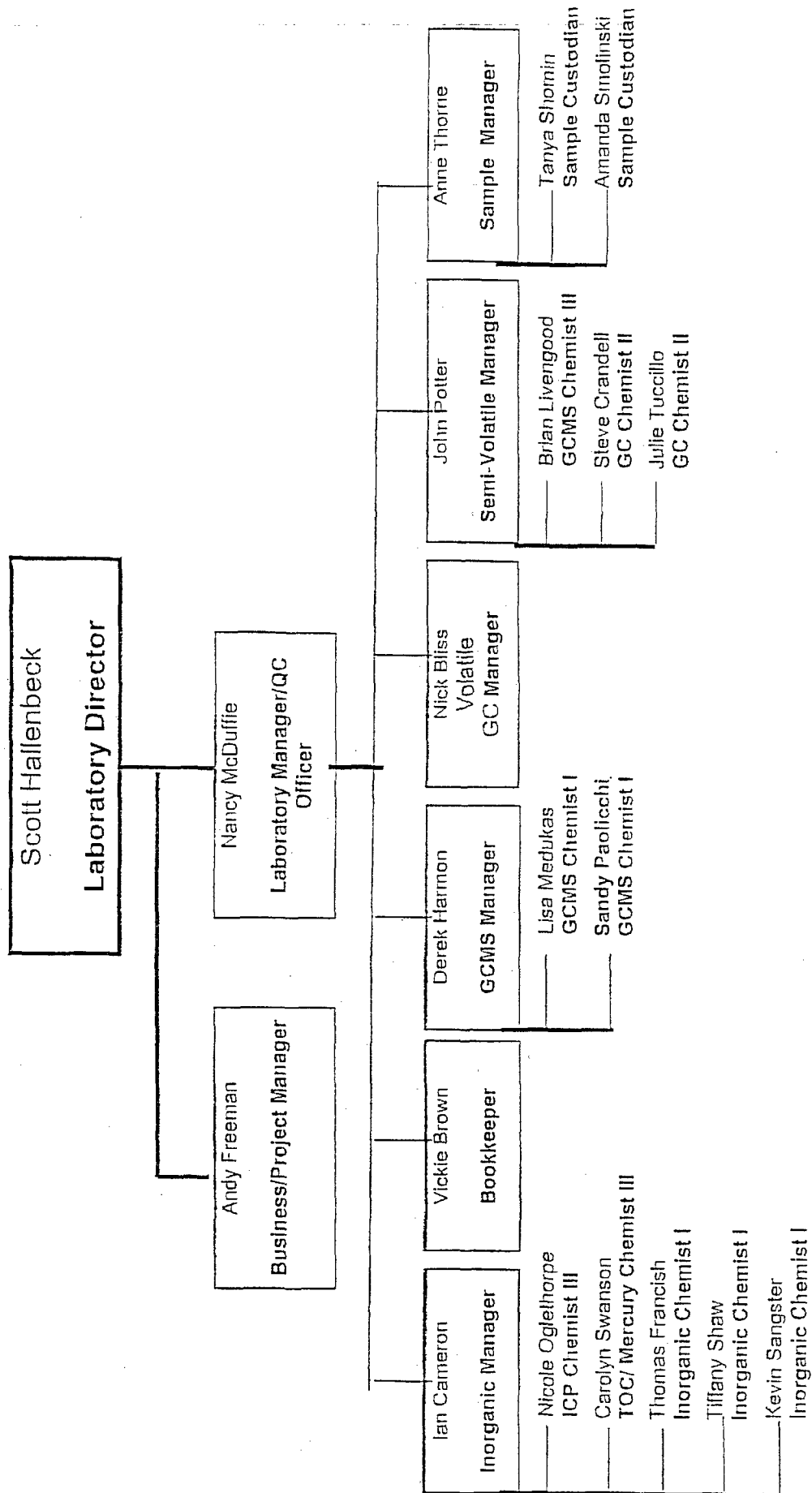
Laboratory Personnel Qualification and Training

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. Initial demonstration of capability must be completed and documented prior to performing assignments unsupervised.

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.

Laboratory staff must successfully pass an external Proficiency Testing (PT) sample or initial PT sample. Each new employee shall sign an ethics and data integrity agreement to ensure that they know 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.

Diagram of Organizational Structure



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. The sample control manager reviews the kits prior to shipment.

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. Those containers are received with a Certificate of Analysis verifying that the containers have been cleaned according to the EPA wash procedure. Containers are generally 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 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. 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.

The following pages contain tables specifying additional preservation requirements for samples.

Tables of Standard Holding Times, Preservation, and Containers

Organic Compounds

Compound	Matrix	Container	Preservative	Holding Time
Purgeable halocarbons and aromatics	aqueous	40 mL glass voas, teflon-lined septum	HgCl ₂ , or HCl, pH <2; cool, <6° C	14 days to analysis
Purgeable halocarbons and aromatics	Soil/MeOH*	4 oz. Jar/2-20 ml VOAs w/ methanol	cool, <6° C	14 days to analysis
Semi-volatiles	aqueous	1 L amber	cool, <6° C	7 days to extract, 40 days after extraction to analyze
Semi-volatiles	soil	8 oz. Jar	cool, <6° C	14 days to extract, 40 days after extraction to analyze
PCBs, pesticides, herbicides	aqueous	1 L amber	cool, <6° C	7 days to extract, 40 days after extraction to analyze
PCBs, pesticides, herbicides	soil	8 oz. Jar	cool, <6° C	14 days to extract, 40 days after extraction to analyze

*Use of field methanol kits are available and recommended for the PSTB.

Inorganic Compounds

Compound	Matrix	Container	Preservative	Holding Time
Acidity	aqueous	250-mL HDP	cool, <6° C	14 days
Alkalinity	aqueous	250-mL HDP	cool, <6° C	14 days
Ammonia	aqueous	1-L HDP	cool, <6° C, H ₂ SO ₄ pH<2	28 days
Biochemical Oxygen Demand	aqueous	2-L HDP	cool, <6° C	48 hours
Bromide	aqueous	250-mL HDP	none required	28 days
Chemical Oxygen Demand	aqueous	125-mL HDP	cool, <6° C, H ₂ SO ₄ pH<2	28 days
Chloride	aqueous	125-mL HDP	none required	28 days
Chloride	solid	4-oz jar	none required	28 days
Chlorine, total residual	aqueous	500-mL HDP	none required	analyze immediately
Chromium VI	aqueous	250-mL HDP	cool, <6° C	24 hours
Chromium VI	solid	8-oz jar	cool, <6° C	as soon as possible

Parameter	Matrix	Container	Preservation	Stability
Color	aqueous	125-mL HDP	cool, <6° C	48 hours
Cyanide	aqueous	1-L HDP	cool, <6° C NaOH pH>12	14 days
Cyanide	solid	4-oz jar	cool, <6° C	14 days
Fluoride	aqueous	500-mL HDP	none required	28 days
Hardness	aqueous	250-mL HDP	HNO ₃ or H ₂ SO ₄ pH<2	6 months
Hydrogen ion (pH)	aqueous	60-mL HDP	none required	analyze immediately
Hydrogen ion (pH)	solid	4-oz jar	none required	analyze immediately
Kjeldahl and organic nitrogen	aqueous	1-L HDP	cool, <6° C, H ₂ SO ₄ pH<2	28 days
Mercury	aqueous	250-mL HDP	HNO ₃ pH < 2	28 days
Mercury	solid	8-oz jar	none required	28 days
Metals (except Cr VI and Hg)	aqueous	500-mL HDP	HNO ₃ pH < 2	6 months
Nitrate	aqueous	250-mL HDP	cool, <6° C	48 hours
Nitrate	solid	8-oz jar	cool, <6° C	analyze immediately
Nitrate-Nitrite	aqueous	250-mL HDP	cool, <6° C, H ₂ SO ₄ pH<2	28 days
Nitrate-Nitrite	solid	8-oz jar	cool, <6° C	28 days
Nitrite	aqueous	125-mL HDP	cool, <6° C	48 hours
Oil and Grease	aqueous	2-L wide-mouth glass	cool, <6° C, H ₂ SO ₄ pH<2	28 days
Oil and Grease	solid	2-L wide-mouth glass	cool, <6° C	28 days
Organic Carbon	aqueous	125-mL HDP	cool, <6° C, HCl or H ₂ SO ₄ pH<2	28 days
Organic Carbon	solid	4-oz jar	cool, <6° C	28 days
Orthophosphate	aqueous	125-mL HDP	Cool, <6° C	48 hours
Phenolics	aqueous	1-L Boston Round	cool, <6° C, H ₂ SO ₄ pH<2	28 days
Phenolics	solid	8-oz jar (glass only)	cool, <6° C	28 days
Phosphorous (elemental)	aqueous	1-L Boston Round	cool, <6° C	48 hours
Phosphorous (total)	aqueous	125-mL HDP	cool, <6° C, H ₂ SO ₄ pH<2	28 days
Residue, total	aqueous	250-mL HDP	cool, <6° C	7 days
Residue, filterable (TDS)	aqueous	250-mL HDP	cool, <6° C	7 days
Residue, non-filterable (TSS)	aqueous	250-mL HDP	cool, <6° C	7 days
Residue, settleable	aqueous	Imhoff Cone	cool, <6° C	48 hours

Residue, volatile aqueous 250-mL HDP cool, <6° C 7 days

Component	Matrix	Container	Preservative	Stability Time
Silica	aqueous	125-mL HDP	cool, <6° C	28 days
Specific conductance	aqueous	250-mL HDP	cool, <6° C	28 days
Specific conductance	solid	8-oz jar	cool, <6° C	28 days
Sulfate	aqueous	125-mL HDP	cool, <6° C	28 days
Sulfate	solid	4-oz jar	cool, <6° C	28 days
Sulfide	aqueous	1-L HDP	cool, <6° C, ZnAc + NaOH pH>9	7 days
Sulfide	solid	8-oz jar	cool, <6° C	7 days
Surfactants	aqueous	500-mL HDP	cool, <6° C	48 hours
Turbidity	aqueous	250-mL HDP	cool, <6° C	48 hours

Sample Custody

Chain-of-Custody Form

A Chain-of-Custody (CoC) form is used to provide a record of sample chronology starting with the field sampling through laboratory analysis. 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. 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.

A sample chain-of-custody form can be found at the end of this section.

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 and time. 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 HALL 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 analytes requested, are generated and placed on their respective containers. The pH of preserved samples is checked and noted if out of compliance. Samples are reviewed by the sample control manager prior to being distributed to the storage refrigerators or appropriate laboratory personnel.

Samples are stored in the volatile section refrigerator, the semi-volatile section refrigerator, or the inorganic section refrigerator. If a soil sample must be extracted for both volatile and semi-volatile analysis, it is first placed into the volatile soil sample refrigerator. After the volatile extraction, the sample is moved to the semi-volatile refrigerator to minimize any risk of contamination.

Each project (sample set) is entered into the Laboratory Information Management System (LIMS) with a unique ID given to 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, reference the Sample Login SOP.

Disposal of Samples

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 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.

Accreditation Applied: ☒ NEIAC ☐ USACE ☐ Other: _____

Other: _____
Project Name: _____

Project #1:

Project Manager:

Sampler:

Sample Temperature:

[illegible]

Remarks:		BTEX + MTBE + TMB's (8021)
		BTEX + MTBE + TPH (Gasoline Only)
		TPH Method 8015B MOD (Gas/Diesel)
		TPH (Method 418.1)
		EDB (Method 504.1)
		EDC (Method 8021)
		B310 (PNA or PAH)
		RCRA 8 Metals
		Cations (Na, K, Ca, Mg)
		Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)
		8081 Pesticides / PCB's (8082)
		8260 (VDA)
		8270 (Semi-VDA)
		Air Bubbles or Headspace (Y or N)



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6.0 Analytical Procedures

All analytical methods used at HEAL incorporate necessary and sufficient Quality Assurance and Quality Control practices. A Standard Operating Procedure is used for each method to provide the necessary criteria to yield acceptable results. These procedures are updated each year or more often if necessary and are attached as a pdf file in the Laboratory Information Management System (LIMS) for easy access by each analyst. The sample is almost always 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, section manager, and lab 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 validity is in question.

List of Procedures Used

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

Organic Analysis

Method #	Method
8021B	"Halogenated and Aromatic Volatile Organics by Gas Chromatography"
8015B	"Nonhalogenated Volatile Organics by Gas Chromatography" (Gasoline Range and Diesel Range Organics)
8081A	"Organochlorine Pesticides by Gas Chromatography"
8082	"PCBs as Aroclors by Gas Chromatography"
8151A	"Chlorinated Herbicides by GC using Methylation or Pentafluorobenzoylation Derivatization"
8310	"Polynuclear Aromatic Hydrocarbons"
8330	"Nitroaromatics and Nitramines"
8315	"Formaldehyde"
1005	"TNRCC - Total Petroleum Hydrocarbons"
504.1	"EDB" & "DBCP"
418.1	"Total Petroleum Hydrocarbons"
413.2	"Oil and Grease"

Gas Chromatographic/Mass Spectrometric Methods

Method #	Method
8260B	"Volatile Organic Compounds by GC/MS: Capillary Column Technique"
8270C	"Semivolatile Organic Compounds by GC/MS: Capillary Column Technique"
624	"Purgeables"
625	"Base/Neutrals and Acids"

Inorganic Analysis

Methodology	Title of Method
310.1	Alkalinity
350.3	Ammonia
300.0/300.1	Anions (aqueous)
9065	Anion (soil)
120.1	Electrical Conductivity
3500	Ferrous Iron
351.2	Total Kjeldhal Nitrogen (TKN)
9095	Paint Filter
150.1	pH
420.3	Phenols
160.1	Total Dissolved Solids (TDS)
160.2	Total Suspended Solids (TSS)
180.1	Turbidity
Metals	
200.7/6010B	ICP Metals
7470	Mercury (aqueous)
7471	Mercury (soil)

Preparative Methodologies

Methodology	Title of Method
1311	Toxicity Characteristic Leaching Procedure
1312	Synthetic Precipitation Leaching Procedure
3005	Acid Digestion of Waters for Total Recoverable or Dissolved Metals
3010	Acid Digestion of Aqueous Samples and Extracts for Total Metals
3050	Acid Digestion of Sediment, Sludge, and Soil samples
3510B	Separatory Funnel Liquid-Liquid Extraction
3540	Soxhlet Extraction
3545	Accelerated Solvent Extraction
3665	Sulfuric Acid/Permanganate Cleanup (PCB)
5030	Purge-and-Trap for Aqueous Samples
5035	Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples

Analytical Standard Operating Procedures (SOPs) are based upon the above listed methods and a variety of other publications. A log of all current SOPs is on file with the QAO and detailed SOPs are available at request.

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 these 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, TCLP Extractions, digestion blocks and samples at the time of log-in. All of these are checked for annually with a NIST certified thermometer and a correction factor is noted on each thermometer log.

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 between $\pm 2^\circ \text{C}$. Samples are stored separately from the standards to reduce the risk of contamination.

Ovens

The oven contains a thermometer graduated by 1° C. the temperature is measured before and after a cycle when the operating procedure demands this level of precision. Otherwise they are checked daily.

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.

A minimum of 5 calibration points must be used for the calibration curve for GC, GC/MS and HPLC methods.

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 and a third order polynomial requires a minimum of seven calibration levels.

When more than 5 levels of standards are analyzed in anticipation of using second- or third-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.

Analytical balance

All of the analytical balances are capable of weighing to a minimum precision of 0.1 grams. Records are kept of daily calibration checks for the balances in use. Certified weights are used in these checks. The balances are annually certified by an outside source and the certifications are on file with the QAO.

pH Meter

The pH meter measures to a precision of 0.01 pH units. The log book contains the calibration before each use, or each day, if used more than once per day. It is calibrated using 3 certified buffers. Also available with the pH meter is a magnetic stirrer with a temperature sensor.

Other Analytical Instrumentation and Equipment

The conductivity probe constant shall be determined prior to use. A 3 point linear curve is used.

Eppendorf (or equivalent brands) pipettes are calibrated gravimetrically once a week and verified prior to use.

Reagents

HEAL assures 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.

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 signed. These solutions are traceable back to their primary reagents.

All gases used with an instrument shall meet specifications of the manufacturer. Recommended shelf life shall be documented and controlled. 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 delivered, it shall be checked for leaks and marked with the date put in use. The date and initial pressure of a new tank will be noted on the new tank.

HEAL has a Quality Assurance Procedure designed to assure that the quality of laboratory reagent water meets established criteria for all analytical methods. HEAL continuously monitors the quality of the reagent water and provides the necessary indicators for maintenance of the purification systems.

Reagent blank samples are also analyzed to ensure that no contamination is present at detectable levels. The frequency of reagent blank analysis is the same as calibration verification samples. The reagent blank and calibration verification should be analyzed successively. 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 logs are kept for each major instrument. In the front of the log, 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.

9.0 Quality Control

Internal Quality Control Checks

Hall Environmental Analysis Laboratory, Inc. utilizes various internal quality control checks, including replicates, spiked samples, blanks, laboratory control spikes, calibration standards, quality control charts, uncertainty measurements and surrogates.

Replicates, or duplicates, are identical tests repeated for the same sample in order to determine the precision of such a method. A Relative Percent Difference (RPD) is calculated as a measure of this precision.

Spiked Samples (MS/MSD) are samples evaluated with a known added quantity of a target compound. This is to help determine the accuracy of the analyses. A percent recovery is calculated to assess the quality of the accuracy.

Duplicate samples, laboratory control spikes (LCS) and spiked samples (MS/MSD) are performed according to the following schedule for each area:

Organics: LCS and MS/MSD samples are analyzed for every batch of 20 samples (sufficient sample volume permitting for the MS/MSD).

Metals and wet chemistry: LCS, MS/MSD and sample duplicate analysis are performed, at a minimum, for every batch of 20 samples (sufficient sample volume permitting for the MS/MSD and sample duplicate).

Anions: LCS, MS/MSD and sample duplicate analysis are performed, at a minimum, for every batch of 10 samples (sufficient sample volume permitting for the MS and sample duplicate).

Blanks consist of all the reagents measured and treated as they are with samples, except without the samples. This enables the laboratory to assure clean reagents and procedures.

Blind Quality Control Samples are samples provided by an unbiased third party. They contain a pre-determined concentration of the target compound, which is unknown to the analyst. They are analyzed quarterly, and enable the laboratory to assess the quality of its results.

Calibration standards are standards run to calibrate and confirm the consistency of the instrumentation. Calibration standards are utilized at the beginning and end of each batch, and more frequently for larger batches.

Quality Control Charts are charts with acceptable ranges of the values of quality control checks. If a value falls outside the appropriate range, immediate evaluation and assessment of the procedures is required.

A surrogate compound, a substance that has similar properties to the target compounds (but not expected to be present), is added in all applicable tests. It is a measure of the level of recovery achieved in testing.

Uncertainty measurements are used to estimate the range of uncertainty of a certain result.

The specific types and frequency of QC sample analysis differ from method to method and section to section. Individual method specific QC sample criteria are outlined in the each Methods SOP.

SOPs will be update annually or more often if changes are deemed necessary. SOPs are stored as a linked .pdf file in the test portion of the LIMS. This is done by right clicking on the SOP tab of the test screen and adding the appropriate path where the current SOPs are located on the server. The QAO will update these links as necessary.

An initial demonstration of capability is performed each time there is a change in instrument type, personnel, or test method. A minimum of 4 replicate control spikes are prepared and analyzed according to the test method. Sample results are compared against current acceptable LCS recovery limits.

Precision, Accuracy, Detection Levels

Precision

The laboratory uses sample duplicates to assess precision. A duplicate sample is analyzed for each batch of 20 samples (5% frequency) when possible. HEAL requires the RPD to fall within the 99% confidence interval of established control charts or a RPD of less than 20 if control charts are not available. RPD's greater than these limits are considered out-of-control and require an appropriate response. Allowances can be made for high RPD values when the sample results are above the detection limit but less than 5X the detection limit. Criteria (based on sample matrix and methodology) for these situations require analyst/supervisor review to determine appropriate corrective action required.

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 are 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:

$$\% \text{Recovery} = \{(\text{concentration} * \text{recovered}) / (\text{concentration} * \text{added})\} \times 100$$

*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 85 to 115% 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 utilize 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 laboratories measure of the sensitivity of an analytical method. An MDL determination (also outlined in SW-846 Appendix B part 136) 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. Seven replicates are spiked and then analyzed successively and their Standard Deviation (s) calculated. 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.

$$\text{Average} = (\sum x_i) / n$$

x_i = the value x in the i^{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.

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

Percent Recovery (MS, MSD, LCS and LCSD)

$$\text{Percent Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{(\text{Spike Added})} \times 100$$

Confidence Intervals

Confidence intervals are calculated using the average ($\bar{x}$), 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 = $\bar{x} \pm s * s\text{-dist}$

Student's t Distribution

	10	15	20	25	30	40	60	120	>120
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 analyte. Relative percent difference (RPD) is calculated as follows:

$$RPD = \frac{2 \times (\text{Sample Result} - \text{Duplicate Result})}{(\text{Sample Result} + \text{Duplicate Result})} \times 100$$

Uncertainty Measurements

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) and above the highest calibration point (UQL). Ranges of uncertainty are also calculated using LCS recoveries. These are kept on file with the QAO and are updated annually.

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

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

b. Standard Deviation

$$s = \text{SQRT} \{ [\sum (RF_i - RF_{AVE})^2] / (n-1) \}$$

c. Relative Standard Deviation

$$RSD = s / RF_{AVE}$$

Where:

A_x = Area of the compound

C_x = Concentration of the compound

A_{is} = Area of the internal standard

C_{is} = 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

$$y=mx+b$$

a. Slope (m)

$$m = (n \sum x_i y_i - (n \sum x_i)(n \sum y_i)) / (n \sum x_i^2 - (\sum x_i)^2)$$

b. Intercept (b)

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

c. Correlation Coefficient (cc)

$$CC(r) = \{ \sum ((x_i - x_{ave})(y_i - y_{ave})) \} / \{ \text{SQRT}((\sum (x_i - x_{ave})^2)(\sum (y_i - y_{ave})^2)) \}$$

Or

$$CC(r) = [(\sum w * \sum wxy) - (\sum wx * \sum wy)] / (\text{sqrt}((\sum w * \sum wx^2) - (\sum wx * \sum wx)) * ((\sum w * \sum wy^2) - (\sum wy * \sum wy))))]$$

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

Σ = the sum of the values indicated

3. Quadratic Regression

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

a. Coefficient of Determination

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

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

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)

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

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

$$a = S_{(x_2y)}S_{(xx)} - S_{(xy)}S_{(xx_2)} / S_{(xx)}S_{(x_2x_2)} - [S_{(xx_2)}]^2$$

$$b = S_{(xy)}S_{(x_2x_2)} - S_{(x_2y)}S_{(xx_2)} / S_{(xx)}S_{(x_2x_2)} - [S_{(xx_2)}]^2$$

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

Where:

n = number of replicate x,y pairs

x = x values

y = y values

$$w = S^{-2} / (\Sigma S^{-2}/n)$$

$$S_{(xx)} = (\Sigma x^2w) - [(\Sigma xw)^2 / n]$$

$$S_{(xy)} = (\Sigma xyw) - [(\Sigma xw)(\Sigma yw) / n]$$

$$S_{(xx_2)} = (\Sigma x^3w) - [(\Sigma xw)(\Sigma x^2w) / n]$$

$$S_{(x_2y)} = (\Sigma x^2yw) - [(\Sigma x^2w)(\Sigma yw) / n]$$

$$S_{(x_2x_2)} = (\Sigma x^4w) - [(\Sigma x^2w)^2 / n]$$

Or If unweighted calibration, w=1

$$S_{(xx)} = (Sx^2) - [(Sx)^2 / n]$$

$$S_{(xy)} = (Sxy) - [(Sx)(Sy) / n]$$

$$S_{(xx_2)} = (Sx^3) - [(Sx)(Sx^2) / n]$$

$$S_{(x_2y)} = (Sx^2y) - [(Sx^2)(Sy) / n]$$

$$S_{(x_2x_2)} = (Sx^4) - [(Sx^2)^2 / n]$$

10.0 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, the 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), response factor calculations for manual calculations, and other miscellaneous calculations related to the sample quantitation.

If the results are computer generated, then the formulas must be confirmed by hand calculations.

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 mistake 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 management to provide a logical review of all the 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.

Data that is being reported is treated with the utmost respect and care to help eliminate errors. Unethical practices will be detected through peer review and be dealt with the utmost severity.

Reports and Records

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 the section supervisor, 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, diskette 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.

11.0 Corrective Action

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 lab manager shall be made aware of the problem at the time of the occurrence. See the 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.

An analyte above control limits in a Continuing Calibration may be acceptable if the previous continuing calibration standard was acceptable for that analyte. Further, the target analyte in the samples analyzed after the acceptable calibration standard and before calibration standard with the high bias, are reported as non-detected. Finally, the samples following an analyte that is above control limits for a continuing calibration standard can not be reported for that 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 officer.

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 Officer.

12.0 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 the methods includes internal performance evaluations, which are conducted by the use of control samples, replicate measurements and use 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 the appropriate vendor. We also participate in soil and water Underground Storage Tank PT studies. Copies of our results are available upon request.

Quality Assurance Audits are performed annually by the Quality Assurance Officer. 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 Quality Assurance Officer will conduct these audits on an annual basis. Performance evaluation will, in part, be based upon the results obtained on the proficiency results.

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 for 3 years unless otherwise stated.

Internal and External Reports

The Quality Assurance Officer 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.

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

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

Appendix A



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:

Air	Drinking Water	Non Potable Water	Solids and Chem. Waste	Tissue
	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
1717 SW 10th
Portland, OR 97201



ISSUE DATE: 3/1/2007

EXPIRATION DATE: 2/29/2008

Certificate No: NM100001-005



Oregon

Environmental Laboratory Accreditation Program

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

Public Health Laboratory
 1717 SW 10th Avenue
 Portland, OR 97201
 (503) 229-5505
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NELAP Recognized

ORELAP Fields of Accreditation

ORELAPID: NM100001

EPACode: NM00001

Hall Environmental Analysis Laboratory, Inc.

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

Certificate: NM100001-005

Issue Date: 3/1/2007

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MATRIX: Drinking Water			
Reference	Code	Description	
EPA 160.1	10009208	Total Dissolved Solids, dried @ 180 C.	
<u>Analyte Code</u>	<u>Analyte</u>		
1955	Residue-filterable (TDS)		
EPA 200.7	10014003	ICP - metals	
<u>Analyte Code</u>	<u>Analyte</u>		
1000	Aluminum		
1005	Antimony		
1010	Arsenic		
1015	Barium		
1020	Beryllium		
1025	Boron		
1030	Cadmium		
1040	Chromium		
1055	Copper		
1070	Iron		
1075	Lead		
1090	Manganese		
1100	Molybdenum		
1105	Nickel		
1140	Selenium		
1150	Silver		
1175	Tin		
1180	Titanium		
1185	Vanadium		
1190	Zinc		
EPA 245.1	10036609	Mercury by Cold Vapor Atomic Absorption	
<u>Analyte Code</u>	<u>Analyte</u>		
1095	Mercury		
EPA 300.0	10053006	Ion chromatography - anions.	
<u>Analyte Code</u>	<u>Analyte</u>		
1575	Chloride		
1730	Fluoride		
1810	Nitrate as N		
1835	Nitrite		
1870	Orthophosphate as P		
2000	Sulfate		

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EPA 415.1	10078407	Organic carbon - Combustion or Oxidation
<u>Analyte Code</u>	<u>Analyte</u>	
2040	Total Organic Carbon	
EPA 5030B	10153409	Purge and trap for aqueous samples
<u>Analyte Code</u>	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 504.1	10083008	EDB/DBCP/TCF micro-extraction, GC/ECD
<u>Analyte Code</u>	<u>Analyte</u>	
4570	1,2-Dibromo-3-chloropropane (DBCP)	
4585	1,2-Dibromoethane (EDB, Ethylene dibromide)	
EPA 524.2	10088808	Volatile Organic Compounds GC/MS Capillary Column
<u>Analyte Code</u>	<u>Analyte</u>	
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	
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	
5870	4-Isopropyltoluene	
4375	Benzene	
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	
4575	Dibromochloromethane	
4595	Dibromomethane	
4765	Ethylbenzene	
4835	Hexachlorobutadiene	
4900	Isopropylbenzene	
5000	Methyl tert-butyl ether (MTBE)	
4435	n-Butylbenzene	
5090	n-Propylbenzene	
4440	sec-Butylbenzene	

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5100	Styrene
5115	Tetrachloroethylene (Perchloroethylene)
5120	Tetrahydrofuran (THF)
5140	Toluene
4700	trans-1,2-Dichloroethylene
4685	trans-1,3-Dichloropropylene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane
5235	Vinyl chloride

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Customers: Please verify the current accreditation standing with ORELAP.

MATRIX: Non-Potable Water			
Reference	Code	Description	
EPA 150.1	10008408	pH - Electrometric Measurement	
<u>Analyte Code</u>	<u>Analyte</u>		
1900	pH		
EPA 160.1	10009208	Total Dissolved Solids, dried @ 180 C.	
<u>Analyte Code</u>	<u>Analyte</u>		
1955	Residue-filterable (TDS)		
EPA 300.0	10053006	Ion chromatography - anions.	
<u>Analyte Code</u>	<u>Analyte</u>		
1540	Bromide		
1575	Chloride		
1730	Fluoride		
1810	Nitrate as N		
1840	Nitrite as N		
1870	Orthophosphate as P		
2000	Sulfate		
EPA 3005A	10133207	Acid Digestion of waters for Total Recoverable or Dissolved Metals	
<u>Analyte Code</u>	<u>Analyte</u>		
125	Extraction/Preparation		
EPA 3510C	10138202	Separatory Funnel Liquid-liquid extraction	
<u>Analyte Code</u>	<u>Analyte</u>		
125	Extraction/Preparation		
EPA 5030B	10153409	Purge and trap for aqueous samples	
<u>Analyte Code</u>	<u>Analyte</u>		
125	Extraction/Preparation		
EPA 6010B	10155609	ICP - AES	
<u>Analyte Code</u>	<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		

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3035	Uranium		
1185	Vanadium		
1190	Zinc		
EPA 8015B		10173601	Non-halogenated organics using GC/FID
<u>Analyte Code</u>	<u>Analyte</u>		
9369	Diesel range organics (DRO)		
9408	Gasoline range organics (GRO)		
EPA 8015E		10174806	Aromatic and Halogenated Volatiles by GC with PID and/or ECD Purge &
<u>Analyte Code</u>	<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		
EPA 8081A		10178606	Organochlorine Pesticides by GC/ECD
<u>Analyte Code</u>	<u>Analyte</u>		
7355	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
<u>Analyte Code</u>	<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		10184802	Volatile Organic Compounds by purge and trap GC/MS
<u>Analyte Code</u>	<u>Analyte</u>		
5105	1,1,1,2-Tetrachloroethane		
5160	1,1,1-Trichloroethane		
5110	1,1,2,2-Tetrachloroethane		
5165	1,1,2-Trichloroethane		

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4530	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
4570	1,2-Dibromo-3-chloropropane (DBCP)
4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
4510	1,2-Dichlorobenzene
4535	1,2-Dichloroethane
4555	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
4060	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	Bromoforn
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

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5250	o-Xylene
4910	p-Isopropyltoluene
4440	sec-Butylbenzene
5100	Styrene
4445	tert-Butylbenzene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
4700	trans-1,2-Dichloroethylene
4685	trans-1,3-Dichloropropylene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane
5235	Vinyl chloride
5260	Xylene (total)
EPA 8270C	10185805 SemiVolatile Organic compounds by GC/MS
<u>Analyte Code</u>	<u>Analyte</u>
5155	1,2,4-Trichlorobenzene
4610	1,2-Dichlorobenzene
4615	1,3-Dichlorobenzene
4620	1,4-Dichlorobenzene
6635	2,4,5-Trichlorophenol
6640	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
5945	Aniline
5555	Anthracene
123	Azobenzene
5575	Benzo[a]anthracene
5580	Benzo[a]pyrene
5585	Benzo[b]fluoranthene
5590	Benzo[g,h,i]perylene

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5600	Benzo(k)fluoranthene
482	Benzo(a)fluoranthene
5610	Benzole 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
6505	Pentachlorophenol
6615	Phenanthrene
6625	Phenol
6665	Pyrene
5095	Pyridine

EPA 8310 10187607 Polynuclear Aromatic Hydrocarbons by HPLC/UV-VIS

<u>Analyte Code</u>	<u>Analyte</u>
6380	1-Methylnaphthalene
6385	2-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

ORELAP Fields of Accreditation

ORELAPID: NM100001

EPACode: NM00001

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5005	Naphthalene
6015	Phenanthrene
6565	Pyrene

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MATRIX: Solids

<u>Reference</u>	<u>Code</u>	<u>Description</u>
EPA 3050A	10135407	Acid Digestion of Sediments, Sludges, and soils
<u>Analyte Code</u>	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 3540C	10140202	Soxhlet Extraction
<u>Analyte Code</u>	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 3545	10140804	Pressurized Fluid Extraction (PFE)
<u>Analyte Code</u>	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 5035	10154004	Closed-System Purge-and-Trap and Extraction for Volatile Organics in So
<u>Analyte Code</u>	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 6010B	10155609	ICP - AES
<u>Analyte Code</u>	<u>Analyte</u>	
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	
1145	Silicon	
1150	Silver	
1155	Sodium	
1165	Thallium	
1175	Tin	
1180	Titanium	
3035	Uranium	
1185	Vanadium	
1190	Zinc	
EPA 7471A	10165208	Mercury in Solid Waste by Cold Vapor Atomic Absorption
<u>Analyte Code</u>	<u>Analyte</u>	
1095	Mercury	
EPA 8015B	10173601	Non-halogenated organics using GC/FID
<u>Analyte Code</u>	<u>Analyte</u>	
9369	Diesel range organics (DRO)	
9408	Gasoline range organics (GRO)	

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EPA 8021B	10174809	Aromatic and Halogenated Volatiles by GC with PID and/or ECD Purge &
<u>Analyte Code</u>	<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	10178606	Organochlorine Pesticides by GC/ECD
<u>Analyte Code</u>	<u>Analyte</u>	
7355	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
<u>Analyte Code</u>	<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	10184802	Volatile Organic Compounds by purge and trap GC/MS
<u>Analyte Code</u>	<u>Analyte</u>	
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	
5155	1,2,4-Trichlorobenzene	

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5210	1,2,4-Trimethylbenzene
4570	1,2-Dibromo-3-chloropropane (DBCP)
4565	1,2-Dibromethane (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-Chloroluene
4860	2-Hexanone
6385	2-Methylnaphthalene
4540	4-Chloroluene
4995	4-Methyl-2-pentanone (MIBK)
4315	Acetone
4375	Benzene
4385	Bromobenzene
4390	Bromochloromethane
4395	Bromodichloromethane
4400	Bromolom
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)

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5140 Toluene
4700 trans-1,2-Dichloroethylene
4685 trans-1,3-Dichloropropylene
5170 Trichloroethene (Trichloroethylene)
5175 Trichlorofluoromethane
5235 Vinyl chloride
5260 Xylene (total)

EPA 8270C 10185805 Semi/Volatile Organic compounds by GC/MS

Analyte Code	Analyte
5155	1,2,4-Trichlorobenzene
4610	1,2-Dichlorobenzene
4615	1,3-Dichlorobenzene
4620	1,4-Dichlorobenzene
5835	2,4,5-Trichlorophenol
5840	2,4,6-Trichlorophenol
5000	2,4-Dichlorophenol
5130	2,4-Dimethylphenol
5175	2,4-Dinitrophenol
5185	2,4-Dinitrotoluene (2,4-DNT)
5190	2,6-Dinitrotoluene (2,6-DNT)
5795	2-Chloronaphthalene
5800	2-Chlorophenol
5385	2-Methylnaphthalene
5400	2-Methylphenol (o-Cresol)
5450	2-Nitroaniline
5490	2-Nitrophenol
5412	3 & 4 Methylphenol
5945	3,3'-Dichlorobenzidine
5455	3-Nitroaniline
5140	4,6-Dinitro-2-methylphenol
5550	4-Bromophenyl phenyl ether
5700	4-Chloro-3-methylphenol
5745	4-Chloroaniline
5825	4-Chlorophenyl phenylether
5470	4-Nitroaniline
5500	4-Nitrophenol
5500	Acenaphthene
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
5610	Benzoic acid
5630	Benzyl alcohol
5750	bis(2-Chloroethoxy)methane
5765	bis(2-Chloroethyl)ether
5780	bis(2-Chloroisopropyl)ether
5255	bis(2-Ethylhexyl)phthalate (DEHP)

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

Certificate: NM100001-005

Issue Date: 3/1/2007

Expiration Date: 2/29/2008

As of 3/1/2007 this list supersedes all previous lists for this certificate number.
Customers: Please verify the current accreditation standing with ORELAP.

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	Hexachloromethane
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
6655	Pyrene
5095	Pyridine

EPA 0310

10187607

Polynuclear Aromatic Hydrocarbons by HPLC/UV-VIS

Analyte Code	Analyte
6380	1-Methylnaphthalene
6385	2-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
6665	Pyrene



ENVIRONMENTAL LABORATORY LICENSE

Issued to:

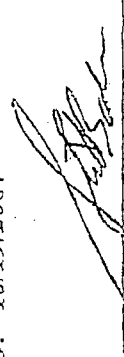
Laboratory Director: Scott Hallenbeck
Owner/Representative: Scott Hallenbeck

Hall Environmental Analysis Laboratory
AZ0682

is in compliance with Environmental Laboratory's applicable standards for the State of Arizona and maintains on file a List of Parameters for which the laboratory is certified to perform analysis.

PERIOD OF LICENSURE FROM: 10/20/2006 TO: 10/19/2007




Steven D. Baker, Chief
Office of Laboratory Services
Bureau of State Laboratory Services

Thursday, September 7 2006

License: AZ0682

Lab Name: Hall Environmental Analysis Laboratory

Director: Mr. Scott Hallenbeck

Phone: (505) 345-3975

Fax: (505) 345-4187

Program	HW			
	Parameter	EPA Method	Billing Code	Cert Date
	Aluminum	EPA 6010B	MTL3	10/20/05
	Arsenic	EPA 6010B	MTL3	10/20/05
	Barium	EPA 6010B	MTL3	10/20/05
	Beryllium	EPA 6010B	MTL3	10/20/05
	C10-C32 Hydrocarbons	8015AZ	VOC4	
	Cadmium	EPA 6010B	MTL3	10/20/05
	Calcium	EPA 6010B	MTL3	10/20/05
	Chromium Total	EPA 6010B	MTL3	10/20/05
	Copper	EPA 6010B	MTL3	10/20/05
	Funnel Liquid-Liquid Extraction	EPA 3510C	*	
	Iron	EPA 6010B	MTL3	10/20/05
	Lead	EPA 6010B	MTL3	10/20/05
	Magnesium	EPA 6010B	MTL3	10/20/05
	Manganese	EPA 6010B	MTL3	10/20/05
	Mercury	EPA 7470A	MTL5	10/20/05
	Mercury	EPA 7471A	MTL5	10/20/05
	Nickel	EPA 6010B	MTL3	10/20/05
	Nonhalogenated Volatile Organics	EPA 8015B	VOC3	10/20/05
	Polynuclear Aromatic Hydrocarbons	EPA 8310	SOC13	
	Potassium	EPA 6010B	MTL3	10/20/05
	Pressurized Fluid Extraction	EPA 3546	*	
	Purge And Trap	EPA 5030B	*	10/20/05
	Purge And Trap	EPA 5035	*	10/20/05
	Sediments, Sludges And Soils	EPA 3050B	*	10/20/05
	Selenium	EPA 6010B	MTL3	
	Silver	EPA 6010B	MTL3	10/20/05
	Sodium	EPA 6010B	MTL3	10/20/05
	Total Recoverable In Water	EPA 3005A	*	10/20/05
	Volatile Organics	EPA 8021B	VOC1	10/20/05
	Volatile Organics	EPA 8260B	VOC8	10/20/05
	Zinc	EPA 6010B	MTL3	10/20/05
Total Licensed Parameters in this Program:		31		

Instruments	Quantity	Date
GAS CHROMATOGRAPH	2	09/06/06
GAS CHROMATOGRAPH/MASS SPECTROMETER	1	08/11/05
INDUCTIVELY COUPLED PLASMA SPECTROMETER	1	08/11/05
MERCURY ANALYZER	1	08/11/05

Thursday, September 7 2006

AZ License: AZ0682

Lab Name: Hall Environmental Analysis Laboratory

Softwares
VARIAN STAR - GCMS
PERKIN ELMER - ICP
VARIAN GALAXIE AND CUSTOM WRITTEN GC

Section 17.0 Chemical Analytical Reports

<u>Title</u>	<u>Tab Number</u>
2007 Semi-Annual Monitoring Wells.....	1
2007 Annual Monitoring Wells	2
San Juan River Quarterly Analysis.....	3
Tank #33 Quarterly Analysis.....	4
North Barrier Wall 2007 Semi - Annual.....	5
North Barrier Wall 2007 Annual.....	6

COVER LETTER

Wednesday, April 11, 2007

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

TEL: (505) 632-4161

FAX (505) 632-3911

RE: 2007 Semi-Annual

Order No.: 0704054

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 4/4/2007 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



Hall Environmental Analysis Laboratory, Inc.

Date: 11-Apr-07

CLIENT: San Juan Refining
Project: 2007 Semi-Annual**Lab Order:** 0704054**Lab ID:** 0704054-01**Collection Date:** 4/3/2007 9:30:00 AM**Client Sample ID:** MW #4**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	4/7/2007 12:32:08 AM
Benzene	1200	20		µg/L	20	4/7/2007 9:53:15 PM
Toluene	ND	10		µg/L	10	4/7/2007 12:32:08 AM
Ethylbenzene	68	10		µg/L	10	4/7/2007 12:32:08 AM
Xylenes, Total	700	20		µg/L	10	4/7/2007 12:32:08 AM
Surr: 4-Bromofluorobenzene	91.1	70.2-105		%REC	10	4/7/2007 12:32:08 AM

Lab ID: 0704054-02**Collection Date:** 4/3/2007 10:30:00 AM**Client Sample ID:** MW #7**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/9/2007 2:49:54 PM
Benzene	1.5	1.0		µg/L	1	4/9/2007 2:49:54 PM
Toluene	ND	1.0		µg/L	1	4/9/2007 2:49:54 PM
Ethylbenzene	ND	1.0		µg/L	1	4/9/2007 2:49:54 PM
Xylenes, Total	ND	2.0		µg/L	1	4/9/2007 2:49:54 PM
Surr: 4-Bromofluorobenzene	87.9	70.2-105		%REC	1	4/9/2007 2:49:54 PM

Lab ID: 0704054-03**Collection Date:** 4/3/2007 11:30:00 AM**Client Sample ID:** MW #26**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	4/7/2007 1:34:52 AM
Benzene	720	10		µg/L	10	4/7/2007 1:34:52 AM
Toluene	ND	10		µg/L	10	4/7/2007 1:34:52 AM
Ethylbenzene	370	10		µg/L	10	4/7/2007 1:34:52 AM
Xylenes, Total	35	20		µg/L	10	4/7/2007 1:34:52 AM
Surr: 4-Bromofluorobenzene	88.9	70.2-105		%REC	10	4/7/2007 1:34:52 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 11-Apr-07

CLIENT: San Juan Refining
Project: 2007 Semi-Annual**Lab Order:** 0704054**Lab ID:** 0704054-04**Collection Date:** 4/3/2007 12:45:00 PM**Client Sample ID:** MW #12**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/7/2007 2:35:01 AM
Benzene	ND	1.0		µg/L	1	4/7/2007 2:35:01 AM
Toluene	ND	1.0		µg/L	1	4/7/2007 2:35:01 AM
Ethylbenzene	ND	1.0		µg/L	1	4/7/2007 2:35:01 AM
Xylenes, Total	ND	2.0		µg/L	1	4/7/2007 2:35:01 AM
Surr: 4-Bromofluorobenzene	86.8	70.2-105		%REC	1	4/7/2007 2:35:01 AM

Lab ID: 0704054-05**Collection Date:** 4/3/2007 1:30:00 PM**Client Sample ID:** MW #11**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	4/7/2007 3:07:34 AM
Benzene	3900	100		µg/L	100	4/7/2007 10:25:57 PM
Toluene	ND	10		µg/L	10	4/7/2007 3:07:34 AM
Ethylbenzene	38	10		µg/L	10	4/7/2007 3:07:34 AM
Xylenes, Total	160	20		µg/L	10	4/7/2007 3:07:34 AM
Surr: 4-Bromofluorobenzene	88.8	70.2-105		%REC	10	4/7/2007 3:07:34 AM

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: 2007 Semi-Annual

Work Order: 0704054

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 5ML REAGENT BLA MBLK Batch ID: R23139 Analysis Date: 4/6/2007 9:30:14 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

Sample ID: 5ML REAGENT BLA MBLK Batch ID: R23144 Analysis Date: 4/7/2007 3:11:02 PM

Methyl tert-butyl ether (MTBE) ND µg/L 2.5
Benzene ND µg/L 1.0
Toluene ND µg/L 1.0
Ethylbenzene ND µg/L 1.0
Xylenes, Total ND µg/L 2.0

Sample ID: 5ML REAGENT BLA MBLK Batch ID: R23152 Analysis Date: 4/9/2007 8:27:59 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

Sample ID: 100NG BTEX LCS LCS Batch ID: R23139 Analysis Date: 4/6/2007 11:12:13 AM

Methyl tert-butyl ether (MTBE) 18.45 µg/L 2.5 46.1 51.2 138 S
Benzene 18.88 µg/L 1.0 94.4 85.9 113
Toluene 19.42 µg/L 1.0 97.1 86.4 113
Ethylbenzene 19.64 µg/L 1.0 98.2 83.5 118
Xylenes, Total 59.10 µg/L 2.0 98.5 83.4 122

Sample ID: 100NG BTEX LCS LCS Batch ID: R23144 Analysis Date: 4/7/2007 4:41:35 PM

Methyl tert-butyl ether (MTBE) 19.30 µg/L 2.5 48.2 51.2 138 S
Benzene 19.18 µg/L 1.0 95.9 85.9 113
Toluene 19.60 µg/L 1.0 98.0 86.4 113
Ethylbenzene 19.77 µg/L 1.0 98.9 83.5 118
Xylenes, Total 59.26 µg/L 2.0 98.8 83.4 122

Sample ID: 100NG BTEX LCS LCS Batch ID: R23152 Analysis Date: 4/9/2007 3:35:52 PM

Methyl tert-butyl ether (MTBE) 18.67 µg/L 2.5 93.3 51.2 138
Benzene 19.09 µg/L 1.0 95.4 85.9 113
Toluene 19.22 µg/L 1.0 96.1 86.4 113
Ethylbenzene 19.32 µg/L 1.0 96.6 83.5 118
Xylenes, Total 57.82 µg/L 2.0 96.4 83.4 122

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/4/2007

Work Order Number 0704054

Received by

GLS

Checklist completed by

Signature

Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Present ☒

Not-Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

COVER LETTER

Wednesday, April 11, 2007

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

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

RE: 2007 Semi Annual

Order No.: 0704068

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 4/5/2007 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



Hall Environmental Analysis Laboratory, Inc.

Date: 11-Apr-07

CLIENT: San Juan Refining
Project: 2007 Semi Annual

Lab Order: 0704068

Lab ID: 0704068-01

Collection Date: 4/4/2007 11:10:00 AM

Client Sample ID: MW-13

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	4.8	2.5		µg/L	1	4/10/2007 2:50:34 AM
Benzene	ND	1.0		µg/L	1	4/10/2007 2:50:34 AM
Toluene	ND	1.0		µg/L	1	4/10/2007 2:50:34 AM
Ethylbenzene	ND	1.0		µg/L	1	4/10/2007 2:50:34 AM
Xylenes, Total	ND	2.0		µg/L	1	4/10/2007 2:50:34 AM
Surr: 4-Bromofluorobenzene	90.3	70.2-105		%REC	1	4/10/2007 2:50:34 AM

Lab ID: 0704068-02

Collection Date: 4/4/2007 1:00:00 PM

Client Sample ID: MW-31

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	4/10/2007 3:23:11 AM
Benzene	4300	100		µg/L	100	4/10/2007 3:23:11 AM
Toluene	ND	100		µg/L	100	4/10/2007 3:23:11 AM
Ethylbenzene	1400	100		µg/L	100	4/10/2007 3:23:11 AM
Xylenes, Total	4700	200		µg/L	100	4/10/2007 3:23:11 AM
Surr: 4-Bromofluorobenzene	89.0	70.2-105		%REC	100	4/10/2007 3:23:11 AM

Lab ID: 0704068-03

Collection Date: 4/4/2007 1:25:00 PM

Client Sample ID: MW-29

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	4.1	2.5		µg/L	1	4/10/2007 4:26:07 AM
Benzene	ND	1.0		µg/L	1	4/10/2007 4:26:07 AM
Toluene	ND	1.0		µg/L	1	4/10/2007 4:26:07 AM
Ethylbenzene	ND	1.0		µg/L	1	4/10/2007 4:26:07 AM
Xylenes, Total	ND	2.0		µg/L	1	4/10/2007 4:26:07 AM
Surr: 4-Bromofluorobenzene	87.0	70.2-105		%REC	1	4/10/2007 4:26:07 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 11-Apr-07

CLIENT: San Juan Refining
Project: 2007 Semi Annual**Lab Order:** 0704068**Lab ID:** 0704068-04**Collection Date:** 4/4/2007 1:45:00 PM**Client Sample ID:** MW-8**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/10/2007 4:56:08 AM
Benzene	ND	1.0		µg/L	1	4/10/2007 4:56:08 AM
Toluene	ND	1.0		µg/L	1	4/10/2007 4:56:08 AM
Ethylbenzene	ND	1.0		µg/L	1	4/10/2007 4:56:08 AM
Xylenes, Total	ND	2.0		µg/L	1	4/10/2007 4:56:08 AM
Surr: 4-Bromofluorobenzene	88.1	70.2-105		%REC	1	4/10/2007 4:56:08 AM

Lab ID: 0704068-05**Collection Date:** 4/4/2007 2:30:00 PM**Client Sample ID:** MW-1**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/10/2007 5:26:10 AM
Benzene	ND	1.0		µg/L	1	4/10/2007 5:26:10 AM
Toluene	ND	1.0		µg/L	1	4/10/2007 5:26:10 AM
Ethylbenzene	ND	1.0		µg/L	1	4/10/2007 5:26:10 AM
Xylenes, Total	ND	2.0		µg/L	1	4/10/2007 5:26:10 AM
Surr: 4-Bromofluorobenzene	86.2	70.2-105		%REC	1	4/10/2007 5:26:10 AM

Lab ID: 0704068-06**Collection Date:****Client Sample ID:** Trip Blank**Matrix:** TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/10/2007 5:56:14 AM
Benzene	ND	1.0		µg/L	1	4/10/2007 5:56:14 AM
Toluene	ND	1.0		µg/L	1	4/10/2007 5:56:14 AM
Ethylbenzene	ND	1.0		µg/L	1	4/10/2007 5:56:14 AM
Xylenes, Total	ND	2.0		µg/L	1	4/10/2007 5:56:14 AM
Surr: 4-Bromofluorobenzene	87.6	70.2-105		%REC	1	4/10/2007 5:56:14 AM

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: 2007 Semi Annual

Work Order: 0704068

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 5ML REAGENT BLA

MBLK

Batch ID: R23152

Analysis Date:

4/9/2007 8:27:59 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

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R23152

Analysis Date:

4/9/2007 3:35:52 PM

Methyl tert-butyl ether (MTBE)	18.67	µg/L	2.5	93.3	51.2	138
Benzene	19.09	µg/L	1.0	95.4	85.9	113
Toluene	19.22	µg/L	1.0	96.1	86.4	113
Ethylbenzene	19.32	µg/L	1.0	96.6	83.5	118
Xylenes, Total	57.82	µg/L	2.0	96.4	83.4	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 ^{50%} recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/5/2007

Work Order Number 0704068

Received by TLS

Checklist completed by

Jamy Shomi
Signature

April 05, 07
Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☒	
Chain of custody present?	Yes ☒	No ☐		
Chain of custody signed when relinquished and received?	Yes ☒	No ☐		
Chain of custody agrees with sample labels?	Yes ☒	No ☐		
Samples in proper container/bottle?	Yes ☒	No ☐		
Sample containers intact?	Yes ☒	No ☐		
Sufficient sample volume for indicated test?	Yes ☒	No ☐		
All samples received within holding time?	Yes ☒	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☒	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒	

Container/Temp Blank temperature?

5°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

Client: SAU JUAN Refining

Address: #50 CR 4990 Bloomfield

82413

Phone #: 505-632-4161

Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative	HEAL No.
4-4-07	11:10	H ₂ O	MW-13	3-VOA	HgCl ₂ HNO ₃ HCl	0704008
4-4-07	1:00	H ₂ O	MW-31	3-VOA	X	1
4-4-07	1:25	H ₂ O	MW-29	3-VOA	X	2
4-4-07	1:45	H ₂ O	MW-8	3-VOA	X	3
4-4-07	2:30	H ₂ O	MW-1	3-VOA	X	4
			<u>Rip Blank</u>	2-VOA	X	5

Date: 4-4-07

Time: 2:45

Date: 4-4-07

Time: 2:45

Relinquished By: (Signature) [Signature]

Relinquished By: (Signature) [Signature]

Received By: (Signature) [Signature]

Received By: (Signature) [Signature]

4/5/07

948

QA/QC Package:

Std ☐ Level 4 ☐

Other: _____

Project Name:

2007 Semi Annual

Project #:

Project Manager:

[Signature]

Sampler:

[Signature]

Sample Temperature:

5°

BTEX + MTBE + TPH (Gasoline Only)

BTEX + MTBE + TPH (8021)

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8021)

8310 (PNA or PAH)

RCRA 8 Metals

Anions (F, Cl, NO₂, NO₃, PO₄, SO₄)

8081 Pesticides / PCB's (8082)

8260B (VOA)

8270 (Semi-VOA)

Air Bubbles or Headspace (Y or N)

ANALYSIS REQUEST

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D

Albuquerque, New Mexico 87109

Tel. 505.345.3975 Fax 505.345.4107

www.hallenvironmental.com

COVER LETTER

Wednesday, April 11, 2007

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

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

RE: 2007 Semi-Annual

Order No.: 0704017

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 8 sample(s) on 4/3/2007 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



Hall Environmental Analysis Laboratory, Inc.

Date: 11-Apr-07

CLIENT: San Juan Refining
Project: 2007 Semi-Annual

Lab Order: 0704017

Lab ID: 0704017-01

Collection Date: 4/2/2007 10:30:00 AM

Client Sample ID: MW #34

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	5	4/7/2007 6:44:45 PM
Benzene	14	5.0		µg/L	5	4/7/2007 6:44:45 PM
Toluene	ND	5.0		µg/L	5	4/7/2007 6:44:45 PM
Ethylbenzene	ND	5.0		µg/L	5	4/7/2007 6:44:45 PM
Xylenes, Total	44	10		µg/L	5	4/7/2007 6:44:45 PM
Surr: 4-Bromofluorobenzene	90.6	70.2-105		%REC	5	4/7/2007 6:44:45 PM

Lab ID: 0704017-02

Collection Date: 4/2/2007 10:55:00 AM

Client Sample ID: MW #35

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/9/2007 1:49:34 PM
Benzene	ND	1.0		µg/L	1	4/9/2007 1:49:34 PM
Toluene	ND	1.0		µg/L	1	4/9/2007 1:49:34 PM
Ethylbenzene	ND	1.0		µg/L	1	4/9/2007 1:49:34 PM
Xylenes, Total	3.3	2.0		µg/L	1	4/9/2007 1:49:34 PM
Surr: 4-Bromofluorobenzene	90.5	70.2-105		%REC	1	4/9/2007 1:49:34 PM

Lab ID: 0704017-03

Collection Date: 4/2/2007 1:05:00 PM

Client Sample ID: MW #36

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/9/2007 1:19:33 PM
Benzene	ND	1.0		µg/L	1	4/9/2007 1:19:33 PM
Toluene	ND	1.0		µg/L	1	4/9/2007 1:19:33 PM
Ethylbenzene	ND	1.0		µg/L	1	4/9/2007 1:19:33 PM
Xylenes, Total	ND	2.0		µg/L	1	4/9/2007 1:19:33 PM
Surr: 4-Bromofluorobenzene	69.4	70.2-105	S	%REC	1	4/9/2007 1:19:33 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

Hall Environmental Analysis Laboratory, Inc.

Date: 11-Apr-07

CLIENT: San Juan Refining
Project: 2007 Semi-Annual**Lab Order:** 0704017**Lab ID:** 0704017-04**Collection Date:** 4/2/2007 1:20:00 PM**Client Sample ID:** MW #37**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/9/2007 2:19:44 PM
Benzene	ND	1.0		µg/L	1	4/9/2007 2:19:44 PM
Toluene	ND	1.0		µg/L	1	4/9/2007 2:19:44 PM
Ethylbenzene	ND	1.0		µg/L	1	4/9/2007 2:19:44 PM
Xylenes, Total	ND	2.0		µg/L	1	4/9/2007 2:19:44 PM
Surr: 4-Bromofluorobenzene	89.6	70.2-105		%REC	1	4/9/2007 2:19:44 PM

Lab ID: 0704017-05**Collection Date:** 4/2/2007 1:35:00 PM**Client Sample ID:** MW #38**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	3.8	2.5		µg/L	1	4/7/2007 8:50:27 PM
Benzene	ND	1.0		µg/L	1	4/7/2007 8:50:27 PM
Toluene	ND	1.0		µg/L	1	4/7/2007 8:50:27 PM
Ethylbenzene	ND	1.0		µg/L	1	4/7/2007 8:50:27 PM
Xylenes, Total	ND	2.0		µg/L	1	4/7/2007 8:50:27 PM
Surr: 4-Bromofluorobenzene	88.9	70.2-105		%REC	1	4/7/2007 8:50:27 PM

Lab ID: 0704017-06**Collection Date:** 4/2/2007 2:00:00 PM**Client Sample ID:** MW #32**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/6/2007 7:56:28 PM
Benzene	ND	1.0		µg/L	1	4/6/2007 7:56:28 PM
Toluene	ND	1.0		µg/L	1	4/6/2007 7:56:28 PM
Ethylbenzene	ND	1.0		µg/L	1	4/6/2007 7:56:28 PM
Xylenes, Total	ND	2.0		µg/L	1	4/6/2007 7:56:28 PM
Surr: 4-Bromofluorobenzene	86.7	70.2-105		%REC	1	4/6/2007 7:56:28 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

Hall Environmental Analysis Laboratory, Inc.

Date: 11-Apr-07

CLIENT: San Juan Refining
Project: 2007 Semi-Annual**Lab Order:** 0704017**Lab ID:** 0704017-07**Collection Date:** 4/2/2007 2:20:00 PM**Client Sample ID:** MW #33**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/6/2007 8:26:31 PM
Benzene	ND	1.0		µg/L	1	4/6/2007 8:26:31 PM
Toluene	ND	1.0		µg/L	1	4/6/2007 8:26:31 PM
Ethylbenzene	ND	1.0		µg/L	1	4/6/2007 8:26:31 PM
Xylenes, Total	ND	2.0		µg/L	1	4/6/2007 8:26:31 PM
Surr: 4-Bromofluorobenzene	88.8	70.2-105		%REC	1	4/6/2007 8:26:31 PM

Lab ID: 0704017-08**Collection Date:** 4/2/2007 2:45:00 PM**Client Sample ID:** MW #27**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/6/2007 8:56:39 PM
Benzene	ND	1.0		µg/L	1	4/6/2007 8:56:39 PM
Toluene	ND	1.0		µg/L	1	4/6/2007 8:56:39 PM
Ethylbenzene	ND	1.0		µg/L	1	4/6/2007 8:56:39 PM
Xylenes, Total	ND	2.0		µg/L	1	4/6/2007 8:56:39 PM
Surr: 4-Bromofluorobenzene	85.8	70.2-105		%REC	1	4/6/2007 8:56:39 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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: 2007 Semi-Annual

Work Order: 0704017

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 5ML REAGENT BLA		MBLK			Batch ID: R23139	Analysis Date:	4/6/2007 9:30:14 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						
Sample ID: 5ML REAGENT BLA		MBLK			Batch ID: R23144	Analysis Date:	4/7/2007 3:11:02 PM		
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 5ML REAGENT BLA		MBLK			Batch ID: R23152	Analysis Date:	4/9/2007 8:27:59 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						
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R23139	Analysis Date:	4/6/2007 11:12:13 AM		
Methyl tert-butyl ether (MTBE)	18.45	µg/L	2.5	46.1	51.2	138			S
Benzene	18.88	µg/L	1.0	94.4	85.9	113			
Toluene	19.42	µg/L	1.0	97.1	86.4	113			
Ethylbenzene	19.64	µg/L	1.0	98.2	83.5	118			
Xylenes, Total	59.10	µg/L	2.0	98.5	83.4	122			
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R23144	Analysis Date:	4/7/2007 4:41:35 PM		
Methyl tert-butyl ether (MTBE)	19.30	µg/L	2.5	48.2	51.2	138			S
Benzene	19.18	µg/L	1.0	95.9	85.9	113			
Toluene	19.60	µg/L	1.0	98.0	86.4	113			
Ethylbenzene	19.77	µg/L	1.0	98.9	83.5	118			
Xylenes, Total	59.26	µg/L	2.0	98.8	83.4	122			
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R23152	Analysis Date:	4/9/2007 3:35:52 PM		
Methyl tert-butyl ether (MTBE)	18.67	µg/L	2.5	93.3	51.2	138			
Benzene	19.09	µg/L	1.0	95.4	85.9	113			
Toluene	19.22	µg/L	1.0	96.1	86.4	113			
Ethylbenzene	19.32	µg/L	1.0	96.6	83.5	118			
Xylenes, Total	57.82	µg/L	2.0	96.4	83.4	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 Sample recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/3/2007

Work Order Number 0704017

Received by TLS

Checklist completed by

Signature

Date

Matrix

Carrier name Ups

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

2°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

COVER LETTER

Tuesday, April 24, 2007

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

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

RE: Semi-Annual 2007

Order No.: 0704252

Dear Cindy Hurtado:

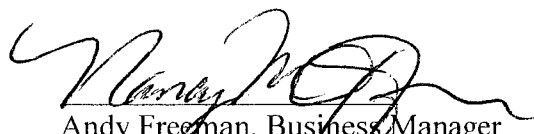
Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 4/18/2007 for the analyses presented in the following report.

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



Hall Environmental Analysis Laboratory, Inc.

Date: 24-Apr-07

CLIENT: San Juan Refining
Project: Semi-Annual 2007

Lab Order: 0704252

Lab ID: 0704252-01

Collection Date: 4/16/2007 9:45:00 AM

Client Sample ID: MW #40

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	4/23/2007 1:15:29 PM
Benzene	110	10		µg/L	10	4/23/2007 1:15:29 PM
Toluene	26	10		µg/L	10	4/23/2007 1:15:29 PM
Ethylbenzene	120	10		µg/L	10	4/23/2007 1:15:29 PM
Xylenes, Total	220	20		µg/L	10	4/23/2007 1:15:29 PM
Surr: 4-Bromofluorobenzene	90.6	70.2-105		%REC	10	4/23/2007 1:15:29 PM

Lab ID: 0704252-02

Collection Date: 4/16/2007 10:00:00 AM

Client Sample ID: MW #41

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	510	50		µg/L	20	4/23/2007 1:48:17 PM
Benzene	950	20		µg/L	20	4/23/2007 1:48:17 PM
Toluene	ND	20		µg/L	20	4/23/2007 1:48:17 PM
Ethylbenzene	120	20		µg/L	20	4/23/2007 1:48:17 PM
Xylenes, Total	150	40		µg/L	20	4/23/2007 1:48:17 PM
Surr: 4-Bromofluorobenzene	92.3	70.2-105		%REC	20	4/23/2007 1:48:17 PM

Lab ID: 0704252-03

Collection Date: 4/16/2007 10:25:00 AM

Client Sample ID: MW #39

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	4/23/2007 2:21:01 PM
Benzene	280	10		µg/L	10	4/23/2007 2:21:01 PM
Toluene	ND	10		µg/L	10	4/23/2007 2:21:01 PM
Ethylbenzene	560	10		µg/L	10	4/23/2007 2:21:01 PM
Xylenes, Total	380	20		µg/L	10	4/23/2007 2:21:01 PM
Surr: 4-Bromofluorobenzene	91.4	70.2-105		%REC	10	4/23/2007 2:21:01 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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Apr-07

CLIENT: San Juan Refining
Project: Semi-Annual 2007**Lab Order:** 0704252**Lab ID:** 0704252-04**Collection Date:** 4/16/2007 10:45:00 AM**Client Sample ID:** MW #45**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	3200	120		µg/L	50	4/21/2007 5:35:30 AM
Benzene	140	50		µg/L	50	4/21/2007 5:35:30 AM
Toluene	ND	50		µg/L	50	4/21/2007 5:35:30 AM
Ethylbenzene	120	50		µg/L	50	4/21/2007 5:35:30 AM
Xylenes, Total	490	100		µg/L	50	4/21/2007 5:35:30 AM
Surr: 4-Bromofluorobenzene	87.9	70.2-105		%REC	50	4/21/2007 5:35:30 AM

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Semi-Annual 2007

Work Order: 070425

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 5ML RB-II		MBLK				Batch ID: R23317	Analysis Date:	4/20/2007 8:23:53 PM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 5ML RB-III		MBLK				Batch ID: R23317	Analysis Date:	4/21/2007 10:35:58 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						
Sample ID: 5ML REAGENT BLA		MBLK				Batch ID: R23331	Analysis Date:	4/23/2007 7:52:09 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						
Sample ID: 100NG BTEX LCS-II		LCS				Batch ID: R23317	Analysis Date:	4/21/2007 2:54:23 AM	
Methyl tert-butyl ether (MTBE)	18.41	µg/L	2.5	92.0	51.2	138			
Benzene	18.80	µg/L	1.0	94.0	85.9	113			
Toluene	19.18	µg/L	1.0	95.9	86.4	113			
Ethylbenzene	19.30	µg/L	1.0	96.5	83.5	118			
Xylenes, Total	57.44	µg/L	2.0	95.7	83.4	122			
Sample ID: 100NG BTEX LCS-III		LCS				Batch ID: R23317	Analysis Date:	4/21/2007 4:39:25 PM	
Methyl tert-butyl ether (MTBE)	19.25	µg/L	2.5	96.3	51.2	138			
Benzene	18.62	µg/L	1.0	93.1	85.9	113			
Toluene	19.04	µg/L	1.0	95.2	86.4	113			
Ethylbenzene	19.13	µg/L	1.0	95.6	83.5	118			
Xylenes, Total	56.54	µg/L	2.0	94.2	83.4	122			
Sample ID: 100NG BTEX LCS		LCS				Batch ID: R23331	Analysis Date:	4/23/2007 7:21:56 PM	
Methyl tert-butyl ether (MTBE)	19.12	µg/L	2.5	95.6	51.2	138			
Benzene	18.95	µg/L	1.0	94.8	85.9	113			
Toluene	19.41	µg/L	1.0	97.1	86.4	113			
Ethylbenzene	19.63	µg/L	1.0	98.2	83.5	118			
Xylenes, Total	58.40	µg/L	2.0	97.3	83.4	122			
Sample ID: 100NG BTEX LCSD-I		LCSD				Batch ID: R23317	Analysis Date:	4/21/2007 5:09:27 PM	
Methyl tert-butyl ether (MTBE)	19.25	µg/L	2.5	96.2	51.2	138	0.0416	28	
Benzene	18.92	µg/L	1.0	94.6	85.9	113	1.56	27	
Toluene	19.27	µg/L	1.0	96.4	86.4	113	1.18	19	
Ethylbenzene	19.29	µg/L	1.0	96.5	83.5	118	0.864	10	
Xylenes, Total	57.53	µg/L	2.0	95.9	83.4	122	1.73	13	

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/18/2007

Work Order Number 0704252

Received by TLS

Checklist completed by

Janya Shom
Signature

April 18, 07
Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

1°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

COVER LETTER

Thursday, April 19, 2007

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

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

RE: Semi-Annual 2007

Order No.: 0704217-A

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 9 samples on 4/13/07 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



Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704217
Project: Semi-Annual 2007
Lab ID: 0704217-01

Client Sample ID: East Outfall #2
Collection Date: 4/12/2007 8:25:00 AM
Date Received: 4/13/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/17/2007 8:29:16 PM
Benzene	ND	1.0		µg/L	1	4/17/2007 8:29:16 PM
Toluene	ND	1.0		µg/L	1	4/17/2007 8:29:16 PM
Ethylbenzene	ND	1.0		µg/L	1	4/17/2007 8:29:16 PM
Xylenes, Total	ND	2.0		µg/L	1	4/17/2007 8:29:16 PM
Surr: 4-Bromofluorobenzene	87.4	70.2-105		%REC	1	4/17/2007 8:29:16 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: East Outfall #3

Lab Order: 0704217

Collection Date: 4/12/2007 8:35:00 AM

Project: Semi-Annual 2007

Date Received: 4/13/2007

Lab ID: 0704217-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/17/2007 8:59:14 PM
Benzene	ND	1.0		µg/L	1	4/17/2007 8:59:14 PM
Toluene	ND	1.0		µg/L	1	4/17/2007 8:59:14 PM
Ethylbenzene	ND	1.0		µg/L	1	4/17/2007 8:59:14 PM
Xylenes, Total	ND	2.0		µg/L	1	4/17/2007 8:59:14 PM
Surr: 4-Bromofluorobenzene	88.3	70.2-105		%REC	1	4/17/2007 8:59:14 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704217
Project: Semi-Annual 2007
Lab ID: 0704217-05

Client Sample ID: MW #44
Collection Date: 4/11/2007 10:20:00 AM
Date Received: 4/13/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/17/2007 10:29:26 PM
Benzene	ND	1.0		µg/L	1	4/17/2007 10:29:26 PM
Toluene	5.8	1.0		µg/L	1	4/17/2007 10:29:26 PM
Ethylbenzene	2.6	1.0		µg/L	1	4/17/2007 10:29:26 PM
Xylenes, Total	34	2.0		µg/L	1	4/17/2007 10:29:26 PM
Surr: 4-Bromofluorobenzene	91.1	70.2-105		%REC	1	4/17/2007 10:29:26 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: RW #15

Lab Order: 0704217

Collection Date: 4/11/2007 12:50:00 PM

Project: Semi-Annual 2007

Date Received: 4/13/2007

Lab ID: 0704217-06

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	620		µg/L	250	4/17/2007 10:59:28 PM
Benzene	6800	250		µg/L	250	4/17/2007 10:59:28 PM
Toluene	2900	250		µg/L	250	4/17/2007 10:59:28 PM
Ethylbenzene	3000	250		µg/L	250	4/17/2007 10:59:28 PM
Xylenes, Total	15000	500		µg/L	250	4/17/2007 10:59:28 PM
Surr: 4-Bromofluorobenzene	88.0	70.2-105		%REC	250	4/17/2007 10:59:28 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: RW #16

Lab Order: 0704217

Collection Date: 4/11/2007 1:15:00 PM

Project: Semi-Annual 2007

Date Received: 4/13/2007

Lab ID: 0704217-07

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/18/2007 11:27:59 AM
Benzene	85	1.0		µg/L	1	4/18/2007 11:27:59 AM
Toluene	4.4	1.0		µg/L	1	4/18/2007 11:27:59 AM
Ethylbenzene	6.1	1.0		µg/L	1	4/18/2007 11:27:59 AM
Xylenes, Total	42	2.0		µg/L	1	4/18/2007 11:27:59 AM
Surr: 4-Bromofluorobenzene	89.6	70.2-105		%REC	1	4/18/2007 11:27:59 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: MW #30

Lab Order: 0704217

Collection Date: 4/11/2007 1:40:00 PM

Project: Semi-Annual 2007

Date Received: 4/13/2007

Lab ID: 0704217-08

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	620		µg/L	250	4/18/2007 2:32:16 AM
Benzene	5700	250		µg/L	250	4/18/2007 2:32:16 AM
Toluene	3300	250		µg/L	250	4/18/2007 2:32:16 AM
Ethylbenzene	5400	250		µg/L	250	4/18/2007 2:32:16 AM
Xylenes, Total	21000	500		µg/L	250	4/18/2007 2:32:16 AM
Surr: 4-Bromofluorobenzene	89.5	70.2-105		%REC	250	4/18/2007 2:32:16 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: RW #19

Lab Order: 0704217

Collection Date: 4/11/2007 2:10:00 PM

Project: Semi-Annual 2007

Date Received: 4/13/2007

Lab ID: 0704217-09

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	4/18/2007 12:30:43 PM
Benzene	750	10		µg/L	10	4/18/2007 12:30:43 PM
Toluene	21	10		µg/L	10	4/18/2007 12:30:43 PM
Ethylbenzene	520	10		µg/L	10	4/18/2007 12:30:43 PM
Xylenes, Total	630	20		µg/L	10	4/18/2007 12:30:43 PM
Surr: 4-Bromofluorobenzene	90.0	70.2-105		%REC	10	4/18/2007 12:30:43 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704217
Project: Semi-Annual 2007
Lab ID: 0704217-10

Client Sample ID: RW #22
Collection Date: 4/11/2007 2:40:00 PM
Date Received: 4/13/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	4000	250		µg/L	100	4/18/2007 3:35:11 AM
Benzene	9000	250		µg/L	250	4/18/2007 1:00:50 PM
Toluene	ND	100		µg/L	100	4/18/2007 3:35:11 AM
Ethylbenzene	2100	100		µg/L	100	4/18/2007 3:35:11 AM
Xylenes, Total	11000	200		µg/L	100	4/18/2007 3:35:11 AM
Surr: 4-Bromofluorobenzene	88.2	70.2-105		%REC	100	4/18/2007 3:35:11 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704217
Project: Semi-Annual 2007
Lab ID: 0704217-11

Client Sample ID: RW #9
Collection Date: 4/11/2007 3:00:00 PM
Date Received: 4/13/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	8600	250		µg/L	100	4/18/2007 4:40:31 AM
Benzene	11000	250		µg/L	250	4/18/2007 1:30:56 PM
Toluene	ND	100		µg/L	100	4/18/2007 4:40:31 AM
Ethylbenzene	870	100		µg/L	100	4/18/2007 4:40:31 AM
Xylenes, Total	4100	200		µg/L	100	4/18/2007 4:40:31 AM
Surr: 4-Bromofluorobenzene	90.7	70.2-105		%REC	100	4/18/2007 4:40:31 AM

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Object: Semi-Annual 2007

Work Order: 0704217

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 5ML REAGENT BLA MBLK Batch ID: R23257 Analysis Date: 4/17/2007 8:27:16 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

Sample ID: 5ML RB-II MBLK Batch ID: R23257 Analysis Date: 4/18/2007 12:32:06 AM

Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5
Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	2.0

Sample ID: 5ML REAGENT BLA MBLK Batch ID: R23276 Analysis Date: 4/18/2007 8:27:21 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

Sample ID: 5ML RB-II MBLK Batch ID: R23276 Analysis Date: 4/18/2007 11:43:04 PM

Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5
Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	2.0

Sample ID: 100NG BTEX LCS LCS Batch ID: R23257 Analysis Date: 4/17/2007 5:28:34 PM

Methyl tert-butyl ether (MTBE)	19.50	µg/L	2.5	97.5	51.2	138
Benzene	19.51	µg/L	1.0	97.6	85.9	113
Toluene	19.75	µg/L	1.0	98.8	86.4	113
Ethylbenzene	19.94	µg/L	1.0	99.7	83.5	118
Xylenes, Total	59.17	µg/L	2.0	98.6	83.4	122

Sample ID: 100NG BTEX LCS-II LCS Batch ID: R23257 Analysis Date: 4/18/2007 1:02:03 AM

Methyl tert-butyl ether (MTBE)	19.16	µg/L	2.5	95.8	51.2	138
Benzene	19.87	µg/L	1.0	99.4	85.9	113
Toluene	20.20	µg/L	1.0	101	86.4	113
Ethylbenzene	20.35	µg/L	1.0	102	83.5	118
Xylenes, Total	60.60	µg/L	2.0	101	83.4	122

Sample ID: 100NG BTEX LCS LCS Batch ID: R23276 Analysis Date: 4/18/2007 5:39:27 PM

Methyl tert-butyl ether (MTBE)	18.98	µg/L	2.5	94.9	51.2	138
Benzene	19.32	µg/L	1.0	96.6	85.9	113
Toluene	19.63	µg/L	1.0	98.1	86.4	113
Ethylbenzene	19.81	µg/L	1.0	99.1	83.5	118
Xylenes, Total	59.01	µg/L	2.0	98.4	83.4	122

Sample ID: 100NG BTEX LCS-II LCS Batch ID: R23276 Analysis Date: 4/19/2007 12:43:03 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Semi-Annual 2007

Work Order: 070421

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: SW8021

Sample ID: 100NG BTEX LCS-II

LCS

Batch ID: R23276 Analysis Date: 4/19/2007 12:43:03 AM

Methyl tert-butyl ether (MTBE)	18.97	µg/L	2.5	94.9	51.2	138			
Benzene	19.59	µg/L	1.0	98.0	85.9	113			
Toluene	19.98	µg/L	1.0	99.9	86.4	113			
Ethylbenzene	20.16	µg/L	1.0	101	83.5	118			
Xylenes, Total	60.23	µg/L	2.0	100	83.4	122			

Sample ID: 100NG BTEX LCSD-I

LCSD

Batch ID: R23257 Analysis Date: 4/18/2007 1:32:05 AM

Methyl tert-butyl ether (MTBE)	19.20	µg/L	2.5	96.0	51.2	138	0.209	28	
Benzene	19.20	µg/L	1.0	96.0	85.9	113	3.42	27	
Toluene	19.53	µg/L	1.0	97.6	86.4	113	3.37	19	
Ethylbenzene	19.67	µg/L	1.0	98.4	83.5	118	3.38	10	
Xylenes, Total	58.58	µg/L	2.0	97.6	83.4	122	3.39	13	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/13/2007

Work Order Number 0704217

Received by TLS

Checklist completed by

Janya JRL
Signature

April 13, 07
Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☒	
Chain of custody present?	Yes ☒	No ☐		
Chain of custody signed when relinquished and received?	Yes ☒	No ☐		
Chain of custody agrees with sample labels?	Yes ☒	No ☐		
Samples in proper container/bottle?	Yes ☒	No ☐		
Sample containers intact?	Yes ☒	No ☐		
Sufficient sample volume for indicated test?	Yes ☒	No ☐		
All samples received within holding time?	Yes ☒	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☒	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒	

Container/Temp Blank temperature?

5°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

CHAIN-OF-CUSTODY RECORD

Client: SAN Juan Refining

Address: #50 Rd 4990

Bloomfield, NM

87413

Phone #: 505-632-4161

Fax #: 505-632-3911

QA/QC Package:

Std ☐ Level 4 ☐

Other:

Project Name:

Semi-Annual 2007

Project #:

Project Manager:

Cindy Hurtado

Sample Temperature:

5°

Number/Volume

HEAL No. 0704217

Preservative

HgCl₂ HNO₃ HCl

✓ ✓ ✓

3-Vol

1

East Outfall #2

East Outfall #3

Time

825A

835A

Date

4/12/07

4/12/07

Relinquished By: (Signature)

Cindy Hurtado

Time:

905 AM

Date:

4/12/07

Received By: (Signature)

James

4/13/07

1400

Received By: (Signature)

(Signature)

Relinquished By: (Signature)

Cindy Hurtado

Time:

905 AM

Date:

4/12/07

ANALYSIS REQUEST

BTEX + MTBE + TPH (Gasoline Only)

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8021)

B310 (PNA or PAH)

RCRA 8 Metals

Anions (F, Cl, NO₂, NO₃, PO₄, SO₄)

8081 Pesticides / PCB's (8082)

8260B (VOA)

8270 (Semi-VOA)

Air Bubbles or Headspace (Y or N)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D

Albuquerque, New Mexico 87109

Tel. 505.345.3975 Fax 505.345.4107

www.hallenvironmental.com

CHAIN-OF-CUSTODY RECORD

Client: SAN JUAN Refinery

Address: #50 Rd 4990

Bloomfield, NM

87413

Phone #: 505-632-4161

Fax #: 505-632-3911

Date

Time

Matrix

Sample I.D. No.

Number/Volume

Preservative

HgCl₂ HNO₃

HEAL No.

0704217

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COVER LETTER

Thursday, April 19, 2007

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

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

RE: Semi-Annual 2007

Order No.: 0704187

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 5 samples on 4/12/07 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



Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704187
Project: Semi-Annual-2007
Lab ID: 0704187-01

Client Sample ID: RW #2
Collection Date: 4/9/2007 2:02:00 PM
Date Received: 4/12/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	4/13/2007 7:05:46 PM
Benzene	4500	50		µg/L	50	4/13/2007 7:05:46 PM
Toluene	ND	50		µg/L	50	4/13/2007 7:05:46 PM
Ethylbenzene	720	50		µg/L	50	4/13/2007 7:05:46 PM
Xylenes, Total	8100	100		µg/L	50	4/13/2007 7:05:46 PM
Surr: 4-Bromofluorobenzene	90.1	70.2-105		%REC	50	4/13/2007 7:05:46 PM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704187
Project: Semi-Annual-2007
Lab ID: 0704187-02

Client Sample ID: RW #3
Collection Date: 4/9/2007 2:52:00 PM
Date Received: 4/12/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	5	4/16/2007 11:13:46 AM
Benzene	94	5.0		µg/L	5	4/16/2007 11:13:46 AM
Toluene	53	5.0		µg/L	5	4/16/2007 11:13:46 AM
Ethylbenzene	270	5.0		µg/L	5	4/16/2007 11:13:46 AM
Xylenes, Total	150	10		µg/L	5	4/16/2007 11:13:46 AM
Surr: 4-Bromofluorobenzene	90.4	70.2-105		%REC	5	4/16/2007 11:13:46 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704187
Project: Semi-Annual-2007
Lab ID: 0704187-03

Client Sample ID: RW #1
Collection Date: 4/9/2007 3:30:00 PM
Date Received: 4/12/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	5	4/13/2007 8:11:11 PM
Benzene	35	5.0		µg/L	5	4/13/2007 8:11:11 PM
Toluene	41	5.0		µg/L	5	4/13/2007 8:11:11 PM
Ethylbenzene	31	5.0		µg/L	5	4/13/2007 8:11:11 PM
Xylenes, Total	12	10		µg/L	5	4/13/2007 8:11:11 PM
Surr: 4-Bromofluorobenzene	91.8	70.2-105		%REC	5	4/13/2007 8:11:11 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: RW #43

Lab Order: 0704187

Collection Date: 4/10/2007 12:30:00 PM

Project: Semi-Annual-2007

Date Received: 4/12/2007

Lab ID: 0704187-04

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	12000	620		µg/L	250	4/16/2007 12:14:00 PM
Benzene	15000	250		µg/L	250	4/16/2007 12:14:00 PM
Toluene	4500	100		µg/L	100	4/13/2007 9:16:20 PM
Ethylbenzene	810	100		µg/L	100	4/13/2007 9:16:20 PM
Xylenes, Total	6300	200		µg/L	100	4/13/2007 9:16:20 PM
Surr: 4-Bromofluorobenzene	92.0	70.2-105		%REC	100	4/13/2007 9:16:20 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: RW #17

Lab Order: 0704187

Collection Date: 4/10/2007 2:30:00 PM

Project: Semi-Annual-2007

Date Received: 4/12/2007

Lab ID: 0704187-05

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	4/13/2007 9:48:57 PM
Benzene	480	50		µg/L	50	4/13/2007 9:48:57 PM
Toluene	260	50		µg/L	50	4/13/2007 9:48:57 PM
Ethylbenzene	460	50		µg/L	50	4/13/2007 9:48:57 PM
Xylenes, Total	3100	100		µg/L	50	4/13/2007 9:48:57 PM
Surr: 4-Bromofluorobenzene	92.7	70.2-105		%REC	50	4/13/2007 9:48:57 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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Semi-Annual-2007

Work Order: 0704187

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 5ML REAGENT BLA MBLK Batch ID: R23225 Analysis Date: 4/13/2007 8:41:38 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

Sample ID: 5ML REAGENT BLA MBLK Batch ID: R23234 Analysis Date: 4/16/2007 9:38:01 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

Sample ID: 100NG BTEX LCS LCS Batch ID: R23225 Analysis Date: 4/14/2007 7:07:44 AM

Methyl tert-butyl ether (MTBE) 19.37 µg/L 2.5 96.8 51.2 138
 Benzene 19.40 µg/L 1.0 97.0 85.9 113
 Toluene 19.73 µg/L 1.0 98.6 86.4 113
 Ethylbenzene 20.31 µg/L 1.0 102 83.5 118
 Xylenes, Total 60.22 µg/L 2.0 100 83.4 122

Sample ID: 100NG BTEX LCS LCS Batch ID: R23234 Analysis Date: 4/16/2007 3:14:44 PM

Methyl tert-butyl ether (MTBE) 18.76 µg/L 2.5 93.8 51.2 138
 Benzene 18.81 µg/L 1.0 94.1 85.9 113
 Toluene 19.22 µg/L 1.0 96.1 86.4 113
 Ethylbenzene 19.52 µg/L 1.0 97.6 83.5 118
 Xylenes, Total 58.26 µg/L 2.0 97.1 83.4 122

Sample ID: 100NG BTEX LCSD LCS Batch ID: R23225 Analysis Date: 4/14/2007 7:37:39 AM

Methyl tert-butyl ether (MTBE) 18.63 µg/L 2.5 93.2 51.2 138 3.89 28
 Benzene 19.11 µg/L 1.0 95.6 85.9 113 1.50 27
 Toluene 19.37 µg/L 1.0 96.9 86.4 113 1.82 19
 Ethylbenzene 19.52 µg/L 1.0 97.6 83.5 118 3.99 10
 Xylenes, Total 57.74 µg/L 2.0 96.2 83.4 122 4.19 13

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/12/2007

Work Order Number 0704187

Received by TLS

Checklist completed by

[Signature]
Signature

April 12, 07
Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐ Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐
Water - Preservation labels on bottle and cap match?	Yes ☒	No ☐	N/A ☐
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐

Container/Temp Blank temperature?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

COVER LETTER

Monday, September 17, 2007

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

TEL: (505) 632-4161

FAX (505) 632-3911

RE: Annual Sampling-2007

Order No.: 0708330

Dear Cindy Hurtado:

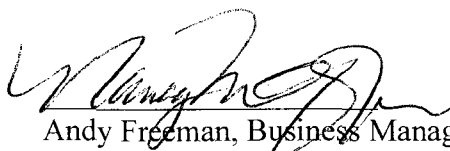
Hall Environmental Analysis Laboratory, Inc. received 9 sample(s) on 8/24/2007 for the analyses presented in the following report.

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



CLIENT: San Juan Refining
Project: Annual Sampling-2007
Lab Order: 0708330

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0708330-01A	MW #11	R24931	EPA Method 8260B: VOLATILES	8/23/2007 10:35:00 AM
0708330-01A	MW #11	R24931	EPA Method 8260B: VOLATILES	8/23/2007 10:35:00 AM
0708330-01B	MW #11	13706	EPA Method 8270C: Semivolatiles	8/23/2007 10:35:00 AM
0708330-01C	MW #11	R24913	EPA Method 300.0: Anions	8/23/2007 10:35:00 AM
0708330-01C	MW #11	R24913	EPA Method 300.0: Anions	8/23/2007 10:35:00 AM
0708330-01C	MW #11	R24925	EPA 120.1: Specific Conductance	8/23/2007 10:35:00 AM
0708330-01C	MW #11	R24934	SM 2320C: Alkalinity	8/23/2007 10:35:00 AM
0708330-01C	MW #11	R24934	Carbon Dioxide	8/23/2007 10:35:00 AM
0708330-01C	MW #11	13699	SM 2540C: TDS	8/23/2007 10:35:00 AM
0708330-01D	MW #11	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 10:35:00 AM
0708330-01D	MW #11	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 10:35:00 AM
0708330-01D	MW #11	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 10:35:00 AM
0708330-01E	MW #11	13788	EPA 6010B: Total Recoverable Metals	8/23/2007 10:35:00 AM
0708330-01E	MW #11	13768	EPA Method 7470: Mercury	8/23/2007 10:35:00 AM
0708330-02A	MW #12	R24931	EPA Method 8260B: VOLATILES	8/23/2007 10:50:00 AM
0708330-02B	MW #12	13706	EPA Method 8270C: Semivolatiles	8/23/2007 10:50:00 AM
0708330-02C	MW #12	R24913	EPA Method 300.0: Anions	8/23/2007 10:50:00 AM
0708330-02C	MW #12	R24913	EPA Method 300.0: Anions	8/23/2007 10:50:00 AM
0708330-02C	MW #12	R24933	EPA Method 300.0: Anions	8/23/2007 10:50:00 AM
0708330-02C	MW #12	R24925	EPA 120.1: Specific Conductance	8/23/2007 10:50:00 AM
0708330-02C	MW #12	R24934	SM 2320C: Alkalinity	8/23/2007 10:50:00 AM
0708330-02C	MW #12	R24934	Carbon Dioxide	8/23/2007 10:50:00 AM
0708330-02C	MW #12	13699	SM 2540C: TDS	8/23/2007 10:50:00 AM
0708330-02D	MW #12	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 10:50:00 AM
0708330-02D	MW #12	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 10:50:00 AM
0708330-02E	MW #12	13768	EPA Method 7470: Mercury	8/23/2007 10:50:00 AM
0708330-02E	MW #12	13788	EPA 6010B: Total Recoverable Metals	8/23/2007 10:50:00 AM
0708330-03A	MW #26	R24931	EPA Method 8260B: VOLATILES	8/23/2007 9:50:00 AM
0708330-03A	MW #26	R24931	EPA Method 8260B: VOLATILES	8/23/2007 9:50:00 AM
0708330-03B	MW #26	13706	EPA Method 8270C: Semivolatiles	8/23/2007 9:50:00 AM
0708330-03C	MW #26	R24913	EPA Method 300.0: Anions	8/23/2007 9:50:00 AM
0708330-03C	MW #26	R24913	EPA Method 300.0: Anions	8/23/2007 9:50:00 AM
0708330-03C	MW #26	R24925	EPA 120.1: Specific Conductance	8/23/2007 9:50:00 AM
0708330-03C	MW #26	R24934	SM 2320C: Alkalinity	8/23/2007 9:50:00 AM
0708330-03C	MW #26	R24934	Carbon Dioxide	8/23/2007 9:50:00 AM
0708330-03C	MW #26	13699	SM 2540C: TDS	8/23/2007 9:50:00 AM
0708330-03D	MW #26	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 9:50:00 AM
0708330-03D	MW #26	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 9:50:00 AM

CLIENT: San Juan Refining
Project: Annual Sampling-2007
Lab Order: 0708330

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0708330-03E	MW #26	13768	EPA Method 7470: Mercury	8/23/2007 9:50:00 AM
0708330-03E	MW #26	13788	EPA 6010B: Total Recoverable Metals	8/23/2007 9:50:00 AM
0708330-03E	MW #26	13788	EPA 6010B: Total Recoverable Metals	8/23/2007 9:50:00 AM
0708330-04A	MW #26 FD	R24931	EPA Method 8260B: VOLATILES	8/23/2007 10:05:00 AM
0708330-04A	MW #26 FD	R24931	EPA Method 8260B: VOLATILES	8/23/2007 10:05:00 AM
0708330-04B	MW #26 FD	13706	EPA Method 8270C: Semivolatiles	8/23/2007 10:05:00 AM
0708330-04C	MW #26 FD	R24913	EPA Method 300.0: Anions	8/23/2007 10:05:00 AM
0708330-04C	MW #26 FD	R24913	EPA Method 300.0: Anions	8/23/2007 10:05:00 AM
0708330-04C	MW #26 FD	R24925	EPA 120.1: Specific Conductance	8/23/2007 10:05:00 AM
0708330-04C	MW #26 FD	R24934	SM 2320C: Alkalinity	8/23/2007 10:05:00 AM
0708330-04C	MW #26 FD	R24934	Carbon Dioxide	8/23/2007 10:05:00 AM
0708330-04C	MW #26 FD	13699	SM 2540C: TDS	8/23/2007 10:05:00 AM
0708330-04D	MW #26 FD	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 10:05:00 AM
0708330-04D	MW #26 FD	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 10:05:00 AM
0708330-04E	MW #26 FD	13768	EPA Method 7470: Mercury	8/23/2007 10:05:00 AM
0708330-04E	MW #26 FD	13788	EPA 6010B: Total Recoverable Metals	8/23/2007 10:05:00 AM
0708330-04E	MW #26 FD	13788	EPA 6010B: Total Recoverable Metals	8/23/2007 10:05:00 AM
0708330-05A	MW #13	R24931	EPA Method 8260B: VOLATILES	8/23/2007 8:40:00 AM
0708330-05B	MW #13	13706	EPA Method 8270C: Semivolatiles	8/23/2007 8:40:00 AM
0708330-05B	MW #13	13706	EPA Method 8270C: Semivolatiles	8/23/2007 8:40:00 AM
0708330-05C	MW #13	R24913	EPA Method 300.0: Anions	8/23/2007 8:40:00 AM
0708330-05C	MW #13	R24913	EPA Method 300.0: Anions	8/23/2007 8:40:00 AM
0708330-05C	MW #13	R24933	EPA Method 300.0: Anions	8/23/2007 8:40:00 AM
0708330-05C	MW #13	R24925	EPA 120.1: Specific Conductance	8/23/2007 8:40:00 AM
0708330-05C	MW #13	R24934	SM 2320C: Alkalinity	8/23/2007 8:40:00 AM
0708330-05C	MW #13	R24934	Carbon Dioxide	8/23/2007 8:40:00 AM
0708330-05C	MW #13	13699	SM 2540C: TDS	8/23/2007 8:40:00 AM
0708330-05D	MW #13	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 8:40:00 AM
0708330-05D	MW #13	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 8:40:00 AM
0708330-05E	MW #13	13768	EPA Method 7470: Mercury	8/23/2007 8:40:00 AM
0708330-05E	MW #13	13788	EPA 6010B: Total Recoverable Metals	8/23/2007 8:40:00 AM
0708330-06A	MW #32	R24931	EPA Method 8260B: VOLATILES	8/23/2007 9:00:00 AM
0708330-06B	MW #32	13706	EPA Method 8270C: Semivolatiles	8/23/2007 9:00:00 AM
0708330-06C	MW #32	R24913	EPA Method 300.0: Anions	8/23/2007 9:00:00 AM
0708330-06C	MW #32	R24933	EPA Method 300.0: Anions	8/23/2007 9:00:00 AM
0708330-06C	MW #32	R24933	EPA Method 300.0: Anions	8/23/2007 9:00:00 AM
0708330-06C	MW #32	R24925	EPA 120.1: Specific Conductance	8/23/2007 9:00:00 AM
0708330-06C	MW #32	R24934	SM 2320C: Alkalinity	8/23/2007 9:00:00 AM
0708330-06C	MW #32	R24934	Carbon Dioxide	8/23/2007 9:00:00 AM
0708330-06C	MW #32	13699	SM 2540C: TDS	8/23/2007 9:00:00 AM

CLIENT: San Juan Refining
Project: Annual Sampling-2007
Lab Order: 0708330

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0708330-06C	MW #32	R24913	EPA Method 300.0: Anions	8/23/2007 9:00:00 AM
0708330-06D	MW #32	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 9:00:00 AM
0708330-06D	MW #32	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 9:00:00 AM
0708330-06E	MW #32	13768	EPA Method 7470: Mercury	8/23/2007 9:00:00 AM
0708330-06E	MW #32	13788	EPA 6010B: Total Recoverable Metals	8/23/2007 9:00:00 AM
0708330-07A	MW #33	R24931	EPA Method 8260B: VOLATILES	8/23/2007 9:15:00 AM
0708330-07B	MW #33	13706	EPA Method 8270C: Semivolatiles	8/23/2007 9:15:00 AM
0708330-07B	MW #33	13706	EPA Method 8270C: Semivolatiles	8/23/2007 9:15:00 AM
0708330-07C	MW #33	R24913	EPA Method 300.0: Anions	8/23/2007 9:15:00 AM
0708330-07C	MW #33	R24913	EPA Method 300.0: Anions	8/23/2007 9:15:00 AM
0708330-07C	MW #33	R24933	EPA Method 300.0: Anions	8/23/2007 9:15:00 AM
0708330-07C	MW #33	R24925	EPA 120.1: Specific Conductance	8/23/2007 9:15:00 AM
0708330-07C	MW #33	R24934	SM 2320C: Alkalinity	8/23/2007 9:15:00 AM
0708330-07C	MW #33	R24934	Carbon Dioxide	8/23/2007 9:15:00 AM
0708330-07C	MW #33	13699	SM 2540C: TDS	8/23/2007 9:15:00 AM
0708330-07D	MW #33	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 9:15:00 AM
0708330-07D	MW #33	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 9:15:00 AM
0708330-07E	MW #33	13768	EPA Method 7470: Mercury	8/23/2007 9:15:00 AM
0708330-07E	MW #33	13788	EPA 6010B: Total Recoverable Metals	8/23/2007 9:15:00 AM
0708330-08A	MW #27	R24931	EPA Method 8260B: VOLATILES	8/23/2007 9:35:00 AM
0708330-08B	MW #27	13706	EPA Method 8270C: Semivolatiles	8/23/2007 9:35:00 AM
0708330-08B	MW #27	13706	EPA Method 8270C: Semivolatiles	8/23/2007 9:35:00 AM
0708330-08C	MW #27	R24913	EPA Method 300.0: Anions	8/23/2007 9:35:00 AM
0708330-08C	MW #27	R24913	EPA Method 300.0: Anions	8/23/2007 9:35:00 AM
0708330-08C	MW #27	R24933	EPA Method 300.0: Anions	8/23/2007 9:35:00 AM
0708330-08C	MW #27	R24925	EPA 120.1: Specific Conductance	8/23/2007 9:35:00 AM
0708330-08C	MW #27	R24934	SM 2320C: Alkalinity	8/23/2007 9:35:00 AM
0708330-08C	MW #27	R24934	Carbon Dioxide	8/23/2007 9:35:00 AM
0708330-08C	MW #27	13699	SM 2540C: TDS	8/23/2007 9:35:00 AM
0708330-08D	MW #27	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 9:35:00 AM
0708330-08D	MW #27	R25092	EPA Method 6010B: Dissolved Metals	8/23/2007 9:35:00 AM
0708330-08E	MW #27	13768	EPA Method 7470: Mercury	8/23/2007 9:35:00 AM
0708330-08E	MW #27	13788	EPA 6010B: Total Recoverable Metals	8/23/2007 9:35:00 AM
0708330-09A	Trip Blank	R24931	EPA Method 8260B: VOLATILES	

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Project: Annual Sampling-2007
Lab Order: 0708330

CASE NARRATIVE

Analytical Comments for METHOD 8270_W, SAMPLE 0708330-05B: Low surrogate recovery due to high emulsion in the extraction. Analytical Comments for METHOD 8270_W, SAMPLE 0708330-07B: Low surrogate recovery due to high emulsion in the extraction. Analytical Comments for METHOD 8270_W, SAMPLE 0708330-08B: Low surrogate recovery due to high emulsion in the extraction.

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-01

Client Sample ID: MW #11
Collection Date: 8/23/2007 10:35:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.57	0.10		mg/L	1	8/24/2007 4:47:28 PM
Chloride	96	1.0		mg/L	10	8/24/2007 5:04:53 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/24/2007 4:47:28 PM
Bromide	1.3	0.10		mg/L	1	8/24/2007 4:47:28 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/24/2007 4:47:28 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/24/2007 4:47:28 PM
Sulfate	10	0.50		mg/L	1	8/24/2007 4:47:28 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/6/2007 3:32:08 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/10/2007 5:41:50 PM
Barium	0.60	0.020		mg/L	1	9/10/2007 5:41:50 PM
Cadmium	ND	0.0020		mg/L	1	9/10/2007 5:41:50 PM
Calcium	98	1.0		mg/L	1	9/10/2007 5:41:50 PM
Chromium	ND	0.0060		mg/L	1	9/10/2007 5:41:50 PM
Copper	0.0084	0.0060		mg/L	1	9/10/2007 5:41:50 PM
Iron	9.5	0.40		mg/L	20	9/10/2007 8:56:05 PM
Lead	0.011	0.0050		mg/L	1	9/10/2007 5:41:50 PM
Magnesium	22	1.0		mg/L	1	9/10/2007 5:41:50 PM
Manganese	1.9	0.010		mg/L	5	9/10/2007 8:53:06 PM
Potassium	1.5	1.0		mg/L	1	9/10/2007 5:41:50 PM
Selenium	ND	0.050		mg/L	1	9/10/2007 5:41:50 PM
Silver	ND	0.0050		mg/L	1	9/10/2007 5:41:50 PM
Sodium	400	20		mg/L	20	9/10/2007 8:56:05 PM
Uranium	ND	0.10		mg/L	1	9/10/2007 5:41:50 PM
Zinc	ND	0.050		mg/L	1	9/10/2007 5:41:50 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/11/2007 12:33:49 PM
Barium	0.75	0.020		mg/L	1	9/11/2007 12:33:49 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2007 12:33:49 PM
Chromium	ND	0.0060		mg/L	1	9/11/2007 12:33:49 PM
Lead	0.019	0.0050		mg/L	1	9/11/2007 12:33:49 PM
Selenium	ND	0.050		mg/L	1	9/11/2007 12:33:49 PM
Silver	ND	0.0050		mg/L	1	9/11/2007 12:33:49 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-01

Client Sample ID: MW #11
Collection Date: 8/23/2007 10:35:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	8/31/2007
Aniline	ND	20		µg/L	1	8/31/2007
Anthracene	ND	10		µg/L	1	8/31/2007
Azobenzene	ND	10		µg/L	1	8/31/2007
Benz(a)anthracene	ND	15		µg/L	1	8/31/2007
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	8/31/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2007
Benzoic acid	ND	50		µg/L	1	8/31/2007
Benzyl alcohol	ND	20		µg/L	1	8/31/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	8/31/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	8/31/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	8/31/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2007
Butyl benzyl phthalate	ND	15		µg/L	1	8/31/2007
Carbazole	ND	10		µg/L	1	8/31/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	8/31/2007
4-Chloroaniline	ND	20		µg/L	1	8/31/2007
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2007
2-Chlorophenol	ND	10		µg/L	1	8/31/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	8/31/2007
Chrysene	ND	15		µg/L	1	8/31/2007
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2007
Di-n-octyl phthalate	ND	15		µg/L	1	8/31/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2007
Dibenzofuran	ND	10		µg/L	1	8/31/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	8/31/2007
Diethyl phthalate	ND	10		µg/L	1	8/31/2007
Dimethyl phthalate	ND	10		µg/L	1	8/31/2007
2,4-Dichlorophenol	ND	10		µg/L	1	8/31/2007
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	8/31/2007
2,4-Dinitrophenol	ND	50		µg/L	1	8/31/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2007
Fluoranthene	ND	10		µg/L	1	8/31/2007

Qualifiers:

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- E Value above quantitation range
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- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
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Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-01

Client Sample ID: MW #11
Collection Date: 8/23/2007 10:35:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	8/31/2007
Hexachlorobenzene	ND	10		µg/L	1	8/31/2007
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	8/31/2007
Hexachloroethane	ND	10		µg/L	1	8/31/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2007
Isophorone	ND	10		µg/L	1	8/31/2007
2-Methylnaphthalene	13	10		µg/L	1	8/31/2007
2-Methylphenol	ND	15		µg/L	1	8/31/2007
3+4-Methylphenol	ND	20		µg/L	1	8/31/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2007
Naphthalene	43	10		µg/L	1	8/31/2007
2-Nitroaniline	ND	50		µg/L	1	8/31/2007
3-Nitroaniline	ND	50		µg/L	1	8/31/2007
4-Nitroaniline	ND	20		µg/L	1	8/31/2007
Nitrobenzene	ND	10		µg/L	1	8/31/2007
2-Nitrophenol	ND	15		µg/L	1	8/31/2007
4-Nitrophenol	ND	50		µg/L	1	8/31/2007
Pentachlorophenol	ND	50		µg/L	1	8/31/2007
Phenanthrene	ND	10		µg/L	1	8/31/2007
Phenol	ND	10		µg/L	1	8/31/2007
Pyrene	ND	15		µg/L	1	8/31/2007
Pyridine	ND	30		µg/L	1	8/31/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	8/31/2007
Surr: 2,4,6-Tribromophenol	89.6	16.6-150		%REC	1	8/31/2007
Surr: 2-Fluorobiphenyl	84.7	19.6-134		%REC	1	8/31/2007
Surr: 2-Fluorophenol	48.2	9.54-113		%REC	1	8/31/2007
Surr: 4-Terphenyl-d14	49.6	22.7-145		%REC	1	8/31/2007
Surr: Nitrobenzene-d5	79.0	14.6-134		%REC	1	8/31/2007
Surr: Phenol-d5	39.1	10.7-80.3		%REC	1	8/31/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	970	10	µg/L	10	8/27/2007 4:16:49 PM
Toluene	ND	10	µg/L	10	8/27/2007 4:16:49 PM
Ethylbenzene	ND	10	µg/L	10	8/27/2007 4:16:49 PM
Methyl tert-butyl ether (MTBE)	22	10	µg/L	10	8/27/2007 4:16:49 PM
1,2,4-Trimethylbenzene	830	10	µg/L	10	8/27/2007 4:16:49 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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-01

Client Sample ID: MW #11
Collection Date: 8/23/2007 10:35:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Naphthalene	97	20		µg/L	10	8/27/2007 4:16:49 PM
1-Methylnaphthalene	ND	40		µg/L	10	8/27/2007 4:16:49 PM
2-Methylnaphthalene	ND	40		µg/L	10	8/27/2007 4:16:49 PM
Acetone	ND	100		µg/L	10	8/27/2007 4:16:49 PM
Bromobenzene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Bromochloromethane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Bromodichloromethane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Bromoform	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Bromomethane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
2-Butanone	ND	100		µg/L	10	8/27/2007 4:16:49 PM
Carbon disulfide	ND	100		µg/L	10	8/27/2007 4:16:49 PM
Carbon Tetrachloride	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Chlorobenzene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Chloroethane	ND	20		µg/L	10	8/27/2007 4:16:49 PM
Chloroform	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Chloromethane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
2-Chlorotoluene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
4-Chlorotoluene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
cis-1,2-DCE	ND	10		µg/L	10	8/27/2007 4:16:49 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/27/2007 4:16:49 PM
Dibromochloromethane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Dibromomethane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Dichlorodifluoromethane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,1-Dichloroethane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,1-Dichloroethene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,2-Dichloropropane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,3-Dichloropropane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
2,2-Dichloropropane	ND	20		µg/L	10	8/27/2007 4:16:49 PM
1,1-Dichloropropene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Hexachlorobutadiene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
2-Hexanone	ND	100		µg/L	10	8/27/2007 4:16:49 PM
Isopropylbenzene	68	10		µg/L	10	8/27/2007 4:16:49 PM
4-Isopropyltoluene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	8/27/2007 4:16:49 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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-01

Client Sample ID: MW #11
Collection Date: 8/23/2007 10:35:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	30		µg/L	10	8/27/2007 4:16:49 PM
n-Butylbenzene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
n-Propylbenzene	66	10		µg/L	10	8/27/2007 4:16:49 PM
sec-Butylbenzene	23	10		µg/L	10	8/27/2007 4:16:49 PM
Styrene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
tert-Butylbenzene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/27/2007 4:16:49 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/27/2007 4:16:49 PM
trans-1,2-DCE	ND	10		µg/L	10	8/27/2007 4:16:49 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Trichloroethene (TCE)	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Trichlorofluoromethane	ND	10		µg/L	10	8/27/2007 4:16:49 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	8/27/2007 4:16:49 PM
Vinyl chloride	ND	10		µg/L	10	8/27/2007 4:16:49 PM
Xylenes, Total	ND	15		µg/L	10	8/27/2007 4:16:49 PM
Surr: 1,2-Dichloroethane-d4	91.2	68.1-123		%REC	10	8/27/2007 4:16:49 PM
Surr: 4-Bromofluorobenzene	97.6	53.2-145		%REC	10	8/27/2007 4:16:49 PM
Surr: Dibromofluoromethane	98.1	68.5-119		%REC	10	8/27/2007 4:16:49 PM
Surr: Toluene-d8	97.1	64-131		%REC	10	8/27/2007 4:16:49 PM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	1000	20		mg/L CaCO3	1	8/27/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/27/2007
Bicarbonate	1000	20		mg/L CaCO3	1	8/27/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	1300	1.0		mg CO2/L	1	8/27/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	2200	0.010		µmhos/cm	1	8/27/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	1400	20		mg/L	1	8/28/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-02

Client Sample ID: MW #12
Collection Date: 8/23/2007 10:50:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.39	0.10		mg/L	1	8/24/2007 5:22:18 PM
Chloride	19	0.10		mg/L	1	8/24/2007 5:22:18 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/24/2007 5:22:18 PM
Bromide	ND	0.10		mg/L	1	8/24/2007 5:22:18 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/24/2007 5:22:18 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/24/2007 5:22:18 PM
Sulfate	830	10		mg/L	20	8/27/2007 2:50:28 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/6/2007 3:33:55 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/10/2007 5:45:47 PM
Barium	0.050	0.020		mg/L	1	9/10/2007 5:45:47 PM
Cadmium	ND	0.0020		mg/L	1	9/10/2007 5:45:47 PM
Calcium	120	5.0		mg/L	5	9/10/2007 8:59:02 PM
Chromium	0.0082	0.0060		mg/L	1	9/10/2007 5:45:47 PM
Copper	ND	0.0060		mg/L	1	9/10/2007 5:45:47 PM
Iron	0.042	0.020		mg/L	1	9/10/2007 5:45:47 PM
Lead	ND	0.0050		mg/L	1	9/10/2007 5:45:47 PM
Magnesium	25	1.0		mg/L	1	9/10/2007 5:45:47 PM
Manganese	0.46	0.0020		mg/L	1	9/10/2007 5:45:47 PM
Potassium	1.1	1.0		mg/L	1	9/10/2007 5:45:47 PM
Selenium	ND	0.050		mg/L	1	9/10/2007 5:45:47 PM
Silver	ND	0.0050		mg/L	1	9/10/2007 5:45:47 PM
Sodium	220	5.0		mg/L	5	9/10/2007 8:59:02 PM
Uranium	ND	0.10		mg/L	1	9/10/2007 5:45:47 PM
Zinc	ND	0.050		mg/L	1	9/10/2007 5:45:47 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/11/2007 12:36:16 PM
Barium	0.19	0.020		mg/L	1	9/11/2007 12:36:16 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2007 12:36:16 PM
Chromium	0.93	0.0060		mg/L	1	9/11/2007 12:36:16 PM
Lead	0.030	0.0050		mg/L	1	9/11/2007 12:36:16 PM
Selenium	ND	0.050		mg/L	1	9/11/2007 12:36:16 PM
Silver	ND	0.0050		mg/L	1	9/11/2007 12:36:16 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-02

Client Sample ID: MW #12
 Collection Date: 8/23/2007 10:50:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	8/31/2007
Aniline	ND	20		µg/L	1	8/31/2007
Anthracene	ND	10		µg/L	1	8/31/2007
Azobenzene	ND	10		µg/L	1	8/31/2007
Benz(a)anthracene	ND	15		µg/L	1	8/31/2007
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	8/31/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2007
Benzoic acid	ND	50		µg/L	1	8/31/2007
Benzyl alcohol	ND	20		µg/L	1	8/31/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	8/31/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	8/31/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	8/31/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2007
Butyl benzyl phthalate	ND	15		µg/L	1	8/31/2007
Carbazole	ND	10		µg/L	1	8/31/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	8/31/2007
4-Chloroaniline	ND	20		µg/L	1	8/31/2007
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2007
2-Chlorophenol	ND	10		µg/L	1	8/31/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	8/31/2007
Chrysene	ND	15		µg/L	1	8/31/2007
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2007
Di-n-octyl phthalate	ND	15		µg/L	1	8/31/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2007
Dibenzofuran	ND	10		µg/L	1	8/31/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	8/31/2007
Diethyl phthalate	ND	10		µg/L	1	8/31/2007
Dimethyl phthalate	ND	10		µg/L	1	8/31/2007
2,4-Dichlorophenol	ND	10		µg/L	1	8/31/2007
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	8/31/2007
2,4-Dinitrophenol	ND	50		µg/L	1	8/31/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2007
Fluoranthene	ND	10		µg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-02

Client Sample ID: MW #12
 Collection Date: 8/23/2007 10:50:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	8/31/2007
Hexachlorobenzene	ND	10		µg/L	1	8/31/2007
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	8/31/2007
Hexachloroethane	ND	10		µg/L	1	8/31/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2007
Isophorone	ND	10		µg/L	1	8/31/2007
2-Methylnaphthalene	ND	10		µg/L	1	8/31/2007
2-Methylphenol	ND	15		µg/L	1	8/31/2007
3+4-Methylphenol	ND	20		µg/L	1	8/31/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2007
Naphthalene	ND	10		µg/L	1	8/31/2007
2-Nitroaniline	ND	50		µg/L	1	8/31/2007
3-Nitroaniline	ND	50		µg/L	1	8/31/2007
4-Nitroaniline	ND	20		µg/L	1	8/31/2007
Nitrobenzene	ND	10		µg/L	1	8/31/2007
2-Nitrophenol	ND	15		µg/L	1	8/31/2007
4-Nitrophenol	ND	50		µg/L	1	8/31/2007
Pentachlorophenol	ND	50		µg/L	1	8/31/2007
Phenanthrene	ND	10		µg/L	1	8/31/2007
Phenol	ND	10		µg/L	1	8/31/2007
Pyrene	ND	15		µg/L	1	8/31/2007
Pyridine	ND	30		µg/L	1	8/31/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	8/31/2007
Surr: 2,4,6-Tribromophenol	41.3	16.6-150		%REC	1	8/31/2007
Surr: 2-Fluorobiphenyl	58.3	19.6-134		%REC	1	8/31/2007
Surr: 2-Fluorophenol	44.4	9.54-113		%REC	1	8/31/2007
Surr: 4-Terphenyl-d14	52.7	22.7-145		%REC	1	8/31/2007
Surr: Nitrobenzene-d5	59.0	14.6-134		%REC	1	8/31/2007
Surr: Phenol-d5	35.2	10.7-80.3		%REC	1	8/31/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Toluene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Ethylbenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-02

Client Sample ID: MW #12
Collection Date: 8/23/2007 10:50:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Naphthalene	ND	2.0		µg/L	1	8/27/2007 5:23:48 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/27/2007 5:23:48 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/27/2007 5:23:48 PM
Acetone	ND	10		µg/L	1	8/27/2007 5:23:48 PM
Bromobenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Bromochloromethane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Bromoform	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Bromomethane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
2-Butanone	ND	10		µg/L	1	8/27/2007 5:23:48 PM
Carbon disulfide	ND	10		µg/L	1	8/27/2007 5:23:48 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Chlorobenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Chloroethane	ND	2.0		µg/L	1	8/27/2007 5:23:48 PM
Chloroform	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Chloromethane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/27/2007 5:23:48 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Dibromomethane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/27/2007 5:23:48 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
2-Hexanone	ND	10		µg/L	1	8/27/2007 5:23:48 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/27/2007 5:23:48 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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-02

Client Sample ID: MW #12
 Collection Date: 8/23/2007 10:50:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	8/27/2007 5:23:48 PM
n-Butylbenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Styrene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/27/2007 5:23:48 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/27/2007 5:23:48 PM
Vinyl chloride	ND	1.0		µg/L	1	8/27/2007 5:23:48 PM
Xylenes, Total	ND	1.5		µg/L	1	8/27/2007 5:23:48 PM
Surr: 1,2-Dichloroethane-d4	95.3	68.1-123		%REC	1	8/27/2007 5:23:48 PM
Surr: 4-Bromofluorobenzene	96.4	53.2-145		%REC	1	8/27/2007 5:23:48 PM
Surr: Dibromofluoromethane	98.6	68.5-119		%REC	1	8/27/2007 5:23:48 PM
Surr: Toluene-d8	96.7	64-131		%REC	1	8/27/2007 5:23:48 PM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO ₃)	260	20		mg/L CaCO ₃	1	8/27/2007
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/27/2007
Bicarbonate	260	20		mg/L CaCO ₃	1	8/27/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	250	1.0		mg CO ₂ /L	1	8/27/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	2000	0.010		µmhos/cm	1	8/27/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	1500	20		mg/L	1	8/28/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-03

Client Sample ID: MW #26
Collection Date: 8/23/2007 9:50:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.38	0.10		mg/L	1	8/24/2007 6:31:57 PM
Chloride	330	1.0		mg/L	10	8/24/2007 6:49:22 PM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	8/24/2007 6:49:22 PM
Bromide	5.4	0.10		mg/L	1	8/24/2007 6:31:57 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/24/2007 6:31:57 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/24/2007 6:31:57 PM
Sulfate	0.52	0.50		mg/L	1	8/24/2007 6:31:57 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/6/2007 3:35:42 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/10/2007 5:49:58 PM
Barium	2.3	0.20		mg/L	10	9/10/2007 9:01:58 PM
Cadmium	ND	0.0020		mg/L	1	9/10/2007 5:49:58 PM
Calcium	110	10		mg/L	10	9/10/2007 9:01:58 PM
Chromium	ND	0.0060		mg/L	1	9/10/2007 5:49:58 PM
Copper	ND	0.0060		mg/L	1	9/10/2007 5:49:58 PM
Iron	6.3	0.20		mg/L	10	9/10/2007 9:01:58 PM
Lead	ND	0.0050		mg/L	1	9/10/2007 5:49:58 PM
Magnesium	38	1.0		mg/L	1	9/10/2007 5:49:58 PM
Manganese	3.2	0.020		mg/L	10	9/10/2007 9:01:58 PM
Potassium	3.0	1.0		mg/L	1	9/10/2007 5:49:58 PM
Selenium	ND	0.050		mg/L	1	9/10/2007 5:49:58 PM
Silver	ND	0.0050		mg/L	1	9/10/2007 5:49:58 PM
Sodium	450	10		mg/L	10	9/10/2007 9:01:58 PM
Uranium	ND	0.10		mg/L	1	9/10/2007 5:49:58 PM
Zinc	ND	0.050		mg/L	1	9/10/2007 5:49:58 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/11/2007 12:40:28 PM
Barium	2.3	0.20		mg/L	10	9/11/2007 1:08:24 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2007 12:40:28 PM
Chromium	ND	0.0060		mg/L	1	9/11/2007 12:40:28 PM
Lead	0.0087	0.0050		mg/L	1	9/11/2007 12:40:28 PM
Selenium	ND	0.050		mg/L	1	9/11/2007 12:40:28 PM
Silver	ND	0.0050		mg/L	1	9/11/2007 12:40:28 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-03

Client Sample ID: MW #26
 Collection Date: 8/23/2007 9:50:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	8/31/2007
Aniline	ND	20		µg/L	1	8/31/2007
Anthracene	ND	10		µg/L	1	8/31/2007
Azobenzene	ND	10		µg/L	1	8/31/2007
Benz(a)anthracene	ND	15		µg/L	1	8/31/2007
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	8/31/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2007
Benzoic acid	ND	50		µg/L	1	8/31/2007
Benzyl alcohol	ND	20		µg/L	1	8/31/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	8/31/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	8/31/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	8/31/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2007
Butyl benzyl phthalate	ND	15		µg/L	1	8/31/2007
Carbazole	ND	10		µg/L	1	8/31/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	8/31/2007
4-Chloroaniline	ND	20		µg/L	1	8/31/2007
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2007
2-Chlorophenol	ND	10		µg/L	1	8/31/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	8/31/2007
Chrysene	ND	15		µg/L	1	8/31/2007
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2007
Di-n-octyl phthalate	ND	15		µg/L	1	8/31/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2007
Dibenzofuran	ND	10		µg/L	1	8/31/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	8/31/2007
Diethyl phthalate	ND	10		µg/L	1	8/31/2007
Dimethyl phthalate	ND	10		µg/L	1	8/31/2007
2,4-Dichlorophenol	ND	10		µg/L	1	8/31/2007
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	8/31/2007
2,4-Dinitrophenol	ND	50		µg/L	1	8/31/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2007
Fluoranthene	ND	10		µg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-03

Client Sample ID: MW #26
 Collection Date: 8/23/2007 9:50:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	8/31/2007
Hexachlorobenzene	ND	10		µg/L	1	8/31/2007
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	8/31/2007
Hexachloroethane	ND	10		µg/L	1	8/31/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2007
Isophorone	ND	10		µg/L	1	8/31/2007
2-Methylnaphthalene	12	10		µg/L	1	8/31/2007
2-Methylphenol	ND	15		µg/L	1	8/31/2007
3+4-Methylphenol	ND	20		µg/L	1	8/31/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2007
Naphthalene	51	10		µg/L	1	8/31/2007
2-Nitroaniline	ND	50		µg/L	1	8/31/2007
3-Nitroaniline	ND	50		µg/L	1	8/31/2007
4-Nitroaniline	ND	20		µg/L	1	8/31/2007
Nitrobenzene	ND	10		µg/L	1	8/31/2007
2-Nitrophenol	ND	15		µg/L	1	8/31/2007
4-Nitrophenol	ND	50		µg/L	1	8/31/2007
Pentachlorophenol	ND	50		µg/L	1	8/31/2007
Phenanthrene	ND	10		µg/L	1	8/31/2007
Phenol	ND	10		µg/L	1	8/31/2007
Pyrene	ND	15		µg/L	1	8/31/2007
Pyridine	ND	30		µg/L	1	8/31/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	8/31/2007
Surr: 2,4,6-Tribromophenol	76.2	16.6-150		%REC	1	8/31/2007
Surr: 2-Fluorobiphenyl	71.9	19.6-134		%REC	1	8/31/2007
Surr: 2-Fluorophenol	43.6	9.54-113		%REC	1	8/31/2007
Surr: 4-Terphenyl-d14	50.9	22.7-145		%REC	1	8/31/2007
Surr: Nitrobenzene-d5	70.8	14.6-134		%REC	1	8/31/2007
Surr: Phenol-d5	37.6	10.7-80.3		%REC	1	8/31/2007
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	79	10		µg/L	10	8/27/2007 6:30:45 PM
Toluene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Ethylbenzene	180	10		µg/L	10	8/27/2007 6:30:45 PM
Methyl tert-butyl ether (MTBE)	11	10		µg/L	10	8/27/2007 6:30:45 PM
1,2,4-Trimethylbenzene	1100	100		µg/L	100	8/27/2007 5:57:16 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
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 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-03

Client Sample ID: MW #26
 Collection Date: 8/23/2007 9:50:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Naphthalene	120	20		µg/L	10	8/27/2007 6:30:45 PM
1-Methylnaphthalene	ND	40		µg/L	10	8/27/2007 6:30:45 PM
2-Methylnaphthalene	ND	40		µg/L	10	8/27/2007 6:30:45 PM
Acetone	ND	100		µg/L	10	8/27/2007 6:30:45 PM
Bromobenzene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Bromochloromethane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Bromodichloromethane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Bromoform	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Bromomethane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
2-Butanone	ND	100		µg/L	10	8/27/2007 6:30:45 PM
Carbon disulfide	ND	100		µg/L	10	8/27/2007 6:30:45 PM
Carbon Tetrachloride	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Chlorobenzene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Chloroethane	ND	20		µg/L	10	8/27/2007 6:30:45 PM
Chloroform	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Chloromethane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
2-Chlorotoluene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
4-Chlorotoluene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
cis-1,2-DCE	ND	10		µg/L	10	8/27/2007 6:30:45 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/27/2007 6:30:45 PM
Dibromochloromethane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Dibromomethane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Dichlorodifluoromethane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,1-Dichloroethane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,1-Dichloroethene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,2-Dichloropropane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,3-Dichloropropane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
2,2-Dichloropropane	ND	20		µg/L	10	8/27/2007 6:30:45 PM
1,1-Dichloropropene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Hexachlorobutadiene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
2-Hexanone	ND	100		µg/L	10	8/27/2007 6:30:45 PM
Isopropylbenzene	100	10		µg/L	10	8/27/2007 6:30:45 PM
4-Isopropyltoluene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	8/27/2007 6:30:45 PM

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 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
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Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-03

Client Sample ID: MW #26
Collection Date: 8/23/2007 9:50:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	30		µg/L	10	8/27/2007 6:30:45 PM
n-Butylbenzene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
n-Propylbenzene	110	10		µg/L	10	8/27/2007 6:30:45 PM
sec-Butylbenzene	15	10		µg/L	10	8/27/2007 6:30:45 PM
Styrene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
tert-Butylbenzene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/27/2007 6:30:45 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/27/2007 6:30:45 PM
trans-1,2-DCE	ND	10		µg/L	10	8/27/2007 6:30:45 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Trichloroethene (TCE)	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Trichlorofluoromethane	ND	10		µg/L	10	8/27/2007 6:30:45 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	8/27/2007 6:30:45 PM
Vinyl chloride	ND	10		µg/L	10	8/27/2007 6:30:45 PM
Xylenes, Total	ND	15		µg/L	10	8/27/2007 6:30:45 PM
Surr: 1,2-Dichloroethane-d4	96.2	68.1-123		%REC	10	8/27/2007 6:30:45 PM
Surr: 4-Bromofluorobenzene	96.7	53.2-145		%REC	10	8/27/2007 6:30:45 PM
Surr: Dibromofluoromethane	98.2	68.5-119		%REC	10	8/27/2007 6:30:45 PM
Surr: Toluene-d8	98.0	64-131		%REC	10	8/27/2007 6:30:45 PM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	1000	20		mg/L CaCO3	1	8/27/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/27/2007
Bicarbonate	1000	20		mg/L CaCO3	1	8/27/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	1200	1.0		mg CO2/L	1	8/27/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	2800	0.010		µmhos/cm	1	8/27/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	1600	200		mg/L	1	8/28/2007

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ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-04

Client Sample ID: MW #26 FD
Collection Date: 8/23/2007 10:05:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.37	0.10		mg/L	1	8/24/2007 7:06:47 PM
Chloride	330	1.0		mg/L	10	8/24/2007 7:24:12 PM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	8/24/2007 7:24:12 PM
Bromide	5.4	0.10		mg/L	1	8/24/2007 7:06:47 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/24/2007 7:06:47 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/24/2007 7:06:47 PM
Sulfate	0.55	0.50		mg/L	1	8/24/2007 7:06:47 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/6/2007 3:41:12 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/10/2007 5:53:56 PM
Barium	2.2	0.20		mg/L	10	9/10/2007 9:04:53 PM
Cadmium	ND	0.0020		mg/L	1	9/10/2007 5:53:56 PM
Calcium	110	10		mg/L	10	9/10/2007 9:04:53 PM
Chromium	ND	0.0060		mg/L	1	9/10/2007 5:53:56 PM
Copper	ND	0.0060		mg/L	1	9/10/2007 5:53:56 PM
Iron	6.4	0.20		mg/L	10	9/10/2007 9:04:53 PM
Lead	ND	0.0050		mg/L	1	9/10/2007 5:53:56 PM
Magnesium	37	1.0		mg/L	1	9/10/2007 5:53:56 PM
Manganese	3.0	0.020		mg/L	10	9/10/2007 9:04:53 PM
Potassium	2.9	1.0		mg/L	1	9/10/2007 5:53:56 PM
Selenium	ND	0.050		mg/L	1	9/10/2007 5:53:56 PM
Silver	ND	0.0050		mg/L	1	9/10/2007 5:53:56 PM
Sodium	450	10		mg/L	10	9/10/2007 9:04:53 PM
Uranium	ND	0.10		mg/L	1	9/10/2007 5:53:56 PM
Zinc	ND	0.050		mg/L	1	9/10/2007 5:53:56 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/11/2007 12:42:57 PM
Barium	2.3	0.20		mg/L	10	9/11/2007 1:10:52 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2007 12:42:57 PM
Chromium	ND	0.0060		mg/L	1	9/11/2007 12:42:57 PM
Lead	0.0086	0.0050		mg/L	1	9/11/2007 12:42:57 PM
Selenium	ND	0.050		mg/L	1	9/11/2007 12:42:57 PM
Silver	ND	0.0050		mg/L	1	9/11/2007 12:42:57 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/4/2007

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
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- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
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Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-04

Client Sample ID: MW #26 FD
 Collection Date: 8/23/2007 10:05:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/4/2007
Aniline	ND	20		µg/L	1	9/4/2007
Anthracene	ND	10		µg/L	1	9/4/2007
Azobenzene	ND	10		µg/L	1	9/4/2007
Benz(a)anthracene	ND	15		µg/L	1	9/4/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/4/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/4/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/4/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/4/2007
Benzoic acid	ND	50		µg/L	1	9/4/2007
Benzyl alcohol	ND	20		µg/L	1	9/4/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/4/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/4/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/4/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/4/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/4/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/4/2007
Carbazole	ND	10		µg/L	1	9/4/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/4/2007
4-Chloroaniline	ND	20		µg/L	1	9/4/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/4/2007
2-Chlorophenol	ND	10		µg/L	1	9/4/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/4/2007
Chrysene	ND	15		µg/L	1	9/4/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/4/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/4/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/4/2007
Dibenzofuran	ND	10		µg/L	1	9/4/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/4/2007
Diethyl phthalate	ND	10		µg/L	1	9/4/2007
Dimethyl phthalate	ND	10		µg/L	1	9/4/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/4/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/4/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/4/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/4/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/4/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/4/2007
Fluoranthene	ND	10		µg/L	1	9/4/2007

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
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- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-04

Client Sample ID: MW #26 FD
 Collection Date: 8/23/2007 10:05:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/4/2007
Hexachlorobenzene	ND	10		µg/L	1	9/4/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/4/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/4/2007
Hexachloroethane	ND	10		µg/L	1	9/4/2007
indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2007
Isophorone	ND	10		µg/L	1	9/4/2007
2-Methylnaphthalene	20	10		µg/L	1	9/4/2007
2-Methylphenol	ND	15		µg/L	1	9/4/2007
3+4-Methylphenol	ND	20		µg/L	1	9/4/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2007
Naphthalene	86	10		µg/L	1	9/4/2007
2-Nitroaniline	ND	50		µg/L	1	9/4/2007
3-Nitroaniline	ND	50		µg/L	1	9/4/2007
4-Nitroaniline	ND	20		µg/L	1	9/4/2007
Nitrobenzene	ND	10		µg/L	1	9/4/2007
2-Nitrophenol	ND	15		µg/L	1	9/4/2007
4-Nitrophenol	ND	50		µg/L	1	9/4/2007
Pentachlorophenol	ND	50		µg/L	1	9/4/2007
Phenanthrene	ND	10		µg/L	1	9/4/2007
Phenol	ND	10		µg/L	1	9/4/2007
Pyrene	ND	15		µg/L	1	9/4/2007
Pyridine	ND	30		µg/L	1	9/4/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/4/2007
Surr: 2,4,6-Tribromophenol	76.0	16.6-150		%REC	1	9/4/2007
Surr: 2-Fluorobiphenyl	82.5	19.6-134		%REC	1	9/4/2007
Surr: 2-Fluorophenol	53.2	9.54-113		%REC	1	9/4/2007
Surr: 4-Terphenyl-d14	43.4	22.7-145		%REC	1	9/4/2007
Surr: Nitrobenzene-d5	79.4	14.6-134		%REC	1	9/4/2007
Surr: Phenol-d5	41.5	10.7-80.3		%REC	1	9/4/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	87	10		µg/L	10	8/27/2007 11:31:50 PM
Toluene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Ethylbenzene	180	10		µg/L	10	8/27/2007 11:31:50 PM
Methyl tert-butyl ether (MTBE)	12	10		µg/L	10	8/27/2007 11:31:50 PM
1,2,4-Trimethylbenzene	1200	100		µg/L	100	8/27/2007 10:58:23 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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-04

Client Sample ID: MW #26 FD
 Collection Date: 8/23/2007 10:05:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Naphthalene	130	20		µg/L	10	8/27/2007 11:31:50 PM
1-Methylnaphthalene	ND	40		µg/L	10	8/27/2007 11:31:50 PM
2-Methylnaphthalene	ND	40		µg/L	10	8/27/2007 11:31:50 PM
Acetone	ND	100		µg/L	10	8/27/2007 11:31:50 PM
Bromobenzene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Bromochloromethane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Bromodichloromethane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Bromoform	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Bromomethane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
2-Butanone	ND	100		µg/L	10	8/27/2007 11:31:50 PM
Carbon disulfide	ND	100		µg/L	10	8/27/2007 11:31:50 PM
Carbon Tetrachloride	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Chlorobenzene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Chloroethane	ND	20		µg/L	10	8/27/2007 11:31:50 PM
Chloroform	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Chloromethane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
2-Chlorotoluene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
4-Chlorotoluene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
cis-1,2-DCE	ND	10		µg/L	10	8/27/2007 11:31:50 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/27/2007 11:31:50 PM
Dibromochloromethane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Dibromomethane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Dichlorodifluoromethane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,1-Dichloroethane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,1-Dichloroethene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,2-Dichloropropane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,3-Dichloropropane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
2,2-Dichloropropane	ND	20		µg/L	10	8/27/2007 11:31:50 PM
1,1-Dichloropropene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Hexachlorobutadiene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
2-Hexanone	ND	100		µg/L	10	8/27/2007 11:31:50 PM
Isopropylbenzene	110	10		µg/L	10	8/27/2007 11:31:50 PM
4-Isopropyltoluene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	8/27/2007 11:31:50 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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-04

Client Sample ID: MW #26 FD
 Collection Date: 8/23/2007 10:05:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	30		µg/L	10	8/27/2007 11:31:50 PM
n-Butylbenzene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
n-Propylbenzene	110	10		µg/L	10	8/27/2007 11:31:50 PM
sec-Butylbenzene	16	10		µg/L	10	8/27/2007 11:31:50 PM
Styrene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
tert-Butylbenzene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/27/2007 11:31:50 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/27/2007 11:31:50 PM
trans-1,2-DCE	ND	10		µg/L	10	8/27/2007 11:31:50 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Trichloroethene (TCE)	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Trichlorofluoromethane	ND	10		µg/L	10	8/27/2007 11:31:50 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	8/27/2007 11:31:50 PM
Vinyl chloride	ND	10		µg/L	10	8/27/2007 11:31:50 PM
Xylenes, Total	ND	15		µg/L	10	8/27/2007 11:31:50 PM
Surr: 1,2-Dichloroethane-d4	96.8	68.1-123		%REC	10	8/27/2007 11:31:50 PM
Surr: 4-Bromofluorobenzene	96.8	53.2-145		%REC	10	8/27/2007 11:31:50 PM
Surr: Dibromofluoromethane	102	68.5-119		%REC	10	8/27/2007 11:31:50 PM
Surr: Toluene-d8	93.0	64-131		%REC	10	8/27/2007 11:31:50 PM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO ₃)	1000	20		mg/L CaCO ₃	1	8/27/2007
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/27/2007
Bicarbonate	1000	20		mg/L CaCO ₃	1	8/27/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	1200	1.0		mg CO ₂ /L	1	8/27/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	2800	0.010		µmhos/cm	1	8/27/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	1600	200		mg/L	1	8/28/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-05

Client Sample ID: MW #13
 Collection Date: 8/23/2007 8:40:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.20	0.10		mg/L	1	8/24/2007 7:41:36 PM
Chloride	310	1.0		mg/L	10	8/24/2007 7:59:00 PM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	8/24/2007 7:59:00 PM
Bromide	4.0	0.10		mg/L	1	8/24/2007 7:41:36 PM
Nitrogen, Nitrate (As N)	7.8	0.10		mg/L	1	8/24/2007 7:41:36 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/24/2007 7:41:36 PM
Sulfate	1100	10		mg/L	20	8/27/2007 3:07:52 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/6/2007 3:43:01 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/10/2007 5:57:53 PM
Barium	0.027	0.020		mg/L	1	9/10/2007 5:57:53 PM
Cadmium	ND	0.0020		mg/L	1	9/10/2007 5:57:53 PM
Calcium	270	10		mg/L	10	9/10/2007 9:07:54 PM
Chromium	ND	0.0060		mg/L	1	9/10/2007 5:57:53 PM
Copper	ND	0.0060		mg/L	1	9/10/2007 5:57:53 PM
Iron	0.047	0.020		mg/L	1	9/10/2007 5:57:53 PM
Lead	ND	0.0050		mg/L	1	9/10/2007 5:57:53 PM
Magnesium	81	1.0		mg/L	1	9/10/2007 5:57:53 PM
Manganese	1.4	0.020		mg/L	10	9/10/2007 9:07:54 PM
Potassium	3.6	1.0		mg/L	1	9/10/2007 5:57:53 PM
Selenium	ND	0.050		mg/L	1	9/10/2007 5:57:53 PM
Silver	ND	0.0050		mg/L	1	9/10/2007 5:57:53 PM
Sodium	640	10		mg/L	10	9/10/2007 9:07:54 PM
Uranium	ND	0.10		mg/L	1	9/10/2007 5:57:53 PM
Zinc	ND	0.050		mg/L	1	9/10/2007 5:57:53 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/11/2007 12:46:01 PM
Barium	0.026	0.020		mg/L	1	9/11/2007 12:46:01 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2007 12:46:01 PM
Chromium	0.0060	0.0060		mg/L	1	9/11/2007 12:46:01 PM
Lead	0.0064	0.0050		mg/L	1	9/11/2007 12:46:01 PM
Selenium	ND	0.050		mg/L	1	9/11/2007 12:46:01 PM
Silver	ND	0.0050		mg/L	1	9/11/2007 12:46:01 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-05

Client Sample ID: MW #13
 Collection Date: 8/23/2007 8:40:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/4/2007
Aniline	ND	20		µg/L	1	9/4/2007
Anthracene	ND	10		µg/L	1	9/4/2007
Azobenzene	ND	10		µg/L	1	9/4/2007
Benz(a)anthracene	ND	15		µg/L	1	9/4/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/4/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/4/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/4/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/4/2007
Benzoic acid	ND	50		µg/L	1	9/4/2007
Benzyl alcohol	ND	20		µg/L	1	9/4/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/4/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/4/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/4/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/4/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/4/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/4/2007
Carbazole	ND	10		µg/L	1	9/4/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/4/2007
4-Chloroaniline	ND	20		µg/L	1	9/4/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/4/2007
2-Chlorophenol	ND	10		µg/L	1	9/4/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/4/2007
Chrysene	ND	15		µg/L	1	9/4/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/4/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/4/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/4/2007
Dibenzofuran	ND	10		µg/L	1	9/4/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/4/2007
Diethyl phthalate	ND	10		µg/L	1	9/4/2007
Dimethyl phthalate	ND	10		µg/L	1	9/4/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/4/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/4/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/4/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/4/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/4/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/4/2007
Fluoranthene	ND	10		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-05

Client Sample ID: MW #13
 Collection Date: 8/23/2007 8:40:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/4/2007
Hexachlorobenzene	ND	10		µg/L	1	9/4/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/4/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/4/2007
Hexachloroethane	ND	10		µg/L	1	9/4/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2007
Isophorone	ND	10		µg/L	1	9/4/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/4/2007
2-Methylphenol	ND	15		µg/L	1	9/4/2007
3+4-Methylphenol	ND	20		µg/L	1	9/4/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2007
Naphthalene	ND	10		µg/L	1	9/4/2007
2-Nitroaniline	ND	50		µg/L	1	9/4/2007
3-Nitroaniline	ND	50		µg/L	1	9/4/2007
4-Nitroaniline	ND	20		µg/L	1	9/4/2007
Nitrobenzene	ND	10		µg/L	1	9/4/2007
2-Nitrophenol	ND	15		µg/L	1	9/4/2007
4-Nitrophenol	ND	50		µg/L	1	9/4/2007
Pentachlorophenol	ND	50		µg/L	1	9/4/2007
Phenanthrene	ND	10		µg/L	1	9/4/2007
Phenol	ND	10		µg/L	1	9/4/2007
Pyrene	ND	15		µg/L	1	9/4/2007
Pyridine	ND	30		µg/L	1	9/4/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/4/2007
Surr: 2,4,6-Tribromophenol	2.06	16.6-150	S	%REC	1	9/4/2007
Surr: 2-Fluorobiphenyl	62.7	19.6-134		%REC	1	9/4/2007
Surr: 2-Fluorophenol	0.410	9.54-113	S	%REC	1	9/4/2007
Surr: 4-Terphenyl-d14	40.2	22.7-145		%REC	1	9/4/2007
Surr: Nitrobenzene-d5	60.9	14.6-134		%REC	1	9/4/2007
Surr: Phenol-d5	3.14	10.7-80.3	S	%REC	1	9/4/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Toluene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Methyl tert-butyl ether (MTBE)	4.5	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-05

Client Sample ID: MW #13
 Collection Date: 8/23/2007 8:40:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Naphthalene	ND	2.0		µg/L	1	8/28/2007 12:38:53 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2007 12:38:53 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2007 12:38:53 AM
Acetone	ND	10		µg/L	1	8/28/2007 12:38:53 AM
Bromobenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Bromochloromethane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Bromoform	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Bromomethane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
2-Butanone	ND	10		µg/L	1	8/28/2007 12:38:53 AM
Carbon disulfide	ND	10		µg/L	1	8/28/2007 12:38:53 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Chloroethane	ND	2.0		µg/L	1	8/28/2007 12:38:53 AM
Chloroform	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Chloromethane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2007 12:38:53 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Dibromomethane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2007 12:38:53 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
2-Hexanone	ND	10		µg/L	1	8/28/2007 12:38:53 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2007 12:38:53 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-05

Client Sample ID: MW #13
 Collection Date: 8/23/2007 8:40:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	8/28/2007 12:38:53 AM
n-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Styrene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2007 12:38:53 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2007 12:38:53 AM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2007 12:38:53 AM
Xylenes, Total	ND	1.5		µg/L	1	8/28/2007 12:38:53 AM
Surr: 1,2-Dichloroethane-d4	96.1	68.1-123		%REC	1	8/28/2007 12:38:53 AM
Surr: 4-Bromofluorobenzene	95.5	53.2-145		%REC	1	8/28/2007 12:38:53 AM
Surr: Dibromofluoromethane	101	68.5-119		%REC	1	8/28/2007 12:38:53 AM
Surr: Toluene-d8	98.2	64-131		%REC	1	8/28/2007 12:38:53 AM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	960	20		mg/L CaCO3	1	8/27/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/27/2007
Bicarbonate	960	20		mg/L CaCO3	1	8/27/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	1000	1.0		mg CO2/L	1	8/27/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	4300	0.010		µmhos/cm	1	8/27/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	3000	20		mg/L	1	8/28/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-06

Client Sample ID: MW #32
Collection Date: 8/23/2007 9:00:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.36	0.10		mg/L	1	8/24/2007 8:16:24 PM
Chloride	1100	5.0		mg/L	50	8/27/2007 4:17:31 PM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	8/24/2007 8:33:49 PM
Bromide	4.7	0.10		mg/L	1	8/24/2007 8:16:24 PM
Nitrogen, Nitrate (As N)	15	0.10		mg/L	1	8/24/2007 8:16:24 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/24/2007 8:16:24 PM
Sulfate	1300	10		mg/L	20	8/27/2007 3:25:17 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/6/2007 3:44:50 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/10/2007 6:02:05 PM
Barium	0.028	0.020		mg/L	1	9/10/2007 6:02:05 PM
Cadmium	ND	0.0020		mg/L	1	9/10/2007 6:02:05 PM
Calcium	350	10		mg/L	10	9/10/2007 9:10:51 PM
Chromium	ND	0.0060		mg/L	1	9/10/2007 6:02:05 PM
Copper	ND	0.0060		mg/L	1	9/10/2007 6:02:05 PM
Iron	ND	0.020		mg/L	1	9/10/2007 6:02:05 PM
Lead	ND	0.0050		mg/L	1	9/10/2007 6:02:05 PM
Magnesium	51	1.0		mg/L	1	9/10/2007 6:02:05 PM
Manganese	0.0021	0.0020		mg/L	1	9/10/2007 6:02:05 PM
Potassium	3.5	1.0		mg/L	1	9/10/2007 6:02:05 PM
Selenium	ND	0.050		mg/L	1	9/10/2007 6:02:05 PM
Silver	ND	0.0050		mg/L	1	9/10/2007 6:02:05 PM
Sodium	820	10		mg/L	10	9/10/2007 9:10:51 PM
Uranium	ND	0.10		mg/L	1	9/10/2007 6:02:05 PM
Zinc	ND	0.050		mg/L	1	9/10/2007 6:02:05 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/11/2007 12:48:32 PM
Barium	0.037	0.020		mg/L	1	9/11/2007 12:48:32 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2007 12:48:32 PM
Chromium	ND	0.0060		mg/L	1	9/11/2007 12:48:32 PM
Lead	ND	0.0050		mg/L	1	9/11/2007 12:48:32 PM
Selenium	ND	0.050		mg/L	1	9/11/2007 12:48:32 PM
Silver	ND	0.0050		mg/L	1	9/11/2007 12:48:32 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-06

Client Sample ID: MW #32
 Collection Date: 8/23/2007 9:00:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/4/2007
Aniline	ND	20		µg/L	1	9/4/2007
Anthracene	ND	10		µg/L	1	9/4/2007
Azobenzene	ND	10		µg/L	1	9/4/2007
Benz(a)anthracene	ND	15		µg/L	1	9/4/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/4/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/4/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/4/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/4/2007
Benzoic acid	ND	50		µg/L	1	9/4/2007
Benzyl alcohol	ND	20		µg/L	1	9/4/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/4/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/4/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/4/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/4/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/4/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/4/2007
Carbazole	ND	10		µg/L	1	9/4/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/4/2007
4-Chloroaniline	ND	20		µg/L	1	9/4/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/4/2007
2-Chlorophenol	ND	10		µg/L	1	9/4/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/4/2007
Chrysene	ND	15		µg/L	1	9/4/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/4/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/4/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/4/2007
Dibenzofuran	ND	10		µg/L	1	9/4/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/4/2007
Diethyl phthalate	ND	10		µg/L	1	9/4/2007
Dimethyl phthalate	ND	10		µg/L	1	9/4/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/4/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/4/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/4/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/4/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/4/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/4/2007
Fluoranthene	ND	10		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-06

Client Sample ID: MW #32
 Collection Date: 8/23/2007 9:00:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/4/2007
Hexachlorobenzene	ND	10		µg/L	1	9/4/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/4/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/4/2007
Hexachloroethane	ND	10		µg/L	1	9/4/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2007
Isophorone	ND	10		µg/L	1	9/4/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/4/2007
2-Methylphenol	ND	15		µg/L	1	9/4/2007
3+4-Methylphenol	ND	20		µg/L	1	9/4/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2007
Naphthalene	ND	10		µg/L	1	9/4/2007
2-Nitroaniline	ND	50		µg/L	1	9/4/2007
3-Nitroaniline	ND	50		µg/L	1	9/4/2007
4-Nitroaniline	ND	20		µg/L	1	9/4/2007
Nitrobenzene	ND	10		µg/L	1	9/4/2007
2-Nitrophenol	ND	15		µg/L	1	9/4/2007
4-Nitrophenol	ND	50		µg/L	1	9/4/2007
Pentachlorophenol	ND	50		µg/L	1	9/4/2007
Phenanthrene	ND	10		µg/L	1	9/4/2007
Phenol	ND	10		µg/L	1	9/4/2007
Pyrene	ND	15		µg/L	1	9/4/2007
Pyridine	ND	30		µg/L	1	9/4/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/4/2007
Surr: 2,4,6-Tribromophenol	65.0	16.6-150		%REC	1	9/4/2007
Surr: 2-Fluorobiphenyl	63.1	19.6-134		%REC	1	9/4/2007
Surr: 2-Fluorophenol	47.9	9.54-113		%REC	1	9/4/2007
Surr: 4-Terphenyl-d14	43.8	22.7-145		%REC	1	9/4/2007
Surr: Nitrobenzene-d5	60.6	14.6-134		%REC	1	9/4/2007
Surr: Phenol-d5	36.7	10.7-80.3		%REC	1	9/4/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Toluene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-06

Client Sample ID: MW #32
Collection Date: 8/23/2007 9:00:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Naphthalene	ND	2.0		µg/L	1	8/28/2007 1:12:21 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2007 1:12:21 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2007 1:12:21 AM
Acetone	ND	10		µg/L	1	8/28/2007 1:12:21 AM
Bromobenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Bromochloromethane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Bromoform	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Bromomethane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
2-Butanone	ND	10		µg/L	1	8/28/2007 1:12:21 AM
Carbon disulfide	ND	10		µg/L	1	8/28/2007 1:12:21 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Chloroethane	ND	2.0		µg/L	1	8/28/2007 1:12:21 AM
Chloroform	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Chloromethane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2007 1:12:21 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Dibromomethane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2007 1:12:21 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
2-Hexanone	ND	10		µg/L	1	8/28/2007 1:12:21 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2007 1:12:21 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-06

Client Sample ID: MW #32
 Collection Date: 8/23/2007 9:00:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	8/28/2007 1:12:21 AM
n-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Styrene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2007 1:12:21 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2007 1:12:21 AM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2007 1:12:21 AM
Xylenes, Total	ND	1.5		µg/L	1	8/28/2007 1:12:21 AM
Surr: 1,2-Dichloroethane-d4	96.4	68.1-123		%REC	1	8/28/2007 1:12:21 AM
Surr: 4-Bromofluorobenzene	95.6	53.2-145		%REC	1	8/28/2007 1:12:21 AM
Surr: Dibromofluoromethane	101	68.5-119		%REC	1	8/28/2007 1:12:21 AM
Surr: Toluene-d8	99.8	64-131		%REC	1	8/28/2007 1:12:21 AM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO ₃)	190	20		mg/L CaCO ₃	1	8/27/2007
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/27/2007
Bicarbonate	190	20		mg/L CaCO ₃	1	8/27/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	180	1.0		mg CO ₂ /L	1	8/27/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	5700	0.010		µmhos/cm	1	8/27/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	3800	20		mg/L	1	8/28/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-07

Client Sample ID: MW #33
 Collection Date: 8/23/2007 9:15:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.31	0.10		mg/L	1	8/24/2007 8:51:14 PM
Chloride	560	2.0		mg/L	20	8/27/2007 4:34:56 PM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	8/24/2007 9:08:39 PM
Bromide	3.0	0.10		mg/L	1	8/24/2007 8:51:14 PM
Nitrogen, Nitrate (As N)	26	1.0		mg/L	10	8/24/2007 9:08:39 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/24/2007 8:51:14 PM
Sulfate	1300	10		mg/L	20	8/27/2007 4:34:56 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/6/2007 3:46:40 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/10/2007 6:06:21 PM
Barium	ND	0.020		mg/L	1	9/10/2007 6:06:21 PM
Cadmium	ND	0.0020		mg/L	1	9/10/2007 6:06:21 PM
Calcium	270	10		mg/L	10	9/10/2007 9:13:48 PM
Chromium	ND	0.0060		mg/L	1	9/10/2007 6:06:21 PM
Copper	ND	0.0060		mg/L	1	9/10/2007 6:06:21 PM
Iron	ND	0.020		mg/L	1	9/10/2007 6:06:21 PM
Lead	ND	0.0050		mg/L	1	9/10/2007 6:06:21 PM
Magnesium	37	1.0		mg/L	1	9/10/2007 6:06:21 PM
Manganese	0.0094	0.0020		mg/L	1	9/10/2007 6:06:21 PM
Potassium	4.1	1.0		mg/L	1	9/10/2007 6:06:21 PM
Selenium	ND	0.050		mg/L	1	9/10/2007 6:06:21 PM
Silver	ND	0.0050		mg/L	1	9/10/2007 6:06:21 PM
Sodium	620	10		mg/L	10	9/10/2007 9:13:48 PM
Uranium	ND	0.10		mg/L	1	9/10/2007 6:06:21 PM
Zinc	ND	0.050		mg/L	1	9/10/2007 6:06:21 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/11/2007 12:51:04 PM
Barium	0.026	0.020		mg/L	1	9/11/2007 12:51:04 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2007 12:51:04 PM
Chromium	ND	0.0060		mg/L	1	9/11/2007 12:51:04 PM
Lead	0.0073	0.0050		mg/L	1	9/11/2007 12:51:04 PM
Selenium	ND	0.050		mg/L	1	9/11/2007 12:51:04 PM
Silver	ND	0.0050		mg/L	1	9/11/2007 12:51:04 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-07

Client Sample ID: MW #33
 Collection Date: 8/23/2007 9:15:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/4/2007
Aniline	ND	20		µg/L	1	9/4/2007
Anthracene	ND	10		µg/L	1	9/4/2007
Azobenzene	ND	10		µg/L	1	9/4/2007
Benz(a)anthracene	ND	15		µg/L	1	9/4/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/4/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/4/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/4/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/4/2007
Benzoic acid	ND	50		µg/L	1	9/4/2007
Benzyl alcohol	ND	20		µg/L	1	9/4/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/4/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/4/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/4/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/4/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/4/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/4/2007
Carbazole	ND	10		µg/L	1	9/4/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/4/2007
4-Chloroaniline	ND	20		µg/L	1	9/4/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/4/2007
2-Chlorophenol	ND	10		µg/L	1	9/4/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/4/2007
Chrysene	ND	15		µg/L	1	9/4/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/4/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/4/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/4/2007
Dibenzofuran	ND	10		µg/L	1	9/4/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/4/2007
Diethyl phthalate	ND	10		µg/L	1	9/4/2007
Dimethyl phthalate	ND	10		µg/L	1	9/4/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/4/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/4/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/4/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/4/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/4/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/4/2007
Fluoranthene	ND	10		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-07

Client Sample ID: MW #33
 Collection Date: 8/23/2007 9:15:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/4/2007
Hexachlorobenzene	ND	10		µg/L	1	9/4/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/4/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/4/2007
Hexachloroethane	ND	10		µg/L	1	9/4/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2007
Isophorone	ND	10		µg/L	1	9/4/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/4/2007
2-Methylphenol	ND	15		µg/L	1	9/4/2007
3+4-Methylphenol	ND	20		µg/L	1	9/4/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2007
Naphthalene	ND	10		µg/L	1	9/4/2007
2-Nitroaniline	ND	50		µg/L	1	9/4/2007
3-Nitroaniline	ND	50		µg/L	1	9/4/2007
4-Nitroaniline	ND	20		µg/L	1	9/4/2007
Nitrobenzene	ND	10		µg/L	1	9/4/2007
2-Nitrophenol	ND	15		µg/L	1	9/4/2007
4-Nitrophenol	ND	50		µg/L	1	9/4/2007
Pentachlorophenol	ND	50		µg/L	1	9/4/2007
Phenanthrene	ND	10		µg/L	1	9/4/2007
Phenol	ND	10		µg/L	1	9/4/2007
Pyrene	ND	15		µg/L	1	9/4/2007
Pyridine	ND	30		µg/L	1	9/4/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/4/2007
Surr: 2,4,6-Tribromophenol	2.33	16.6-150	S	%REC	1	9/4/2007
Surr: 2-Fluorobiphenyl	71.1	19.6-134		%REC	1	9/4/2007
Surr: 2-Fluorophenol	1.12	9.54-113	S	%REC	1	9/4/2007
Surr: 4-Terphenyl-d14	48.5	22.7-145		%REC	1	9/4/2007
Surr: Nitrobenzene-d5	73.5	14.6-134		%REC	1	9/4/2007
Surr: Phenol-d5	11.0	10.7-80.3		%REC	1	9/4/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Toluene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-07

Client Sample ID: MW #33
Collection Date: 8/23/2007 9:15:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Naphthalene	ND	2.0		µg/L	1	8/28/2007 1:45:48 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2007 1:45:48 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2007 1:45:48 AM
Acetone	ND	10		µg/L	1	8/28/2007 1:45:48 AM
Bromobenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Bromochloromethane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Bromoform	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Bromomethane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
2-Butanone	ND	10		µg/L	1	8/28/2007 1:45:48 AM
Carbon disulfide	ND	10		µg/L	1	8/28/2007 1:45:48 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Chloroethane	ND	2.0		µg/L	1	8/28/2007 1:45:48 AM
Chloroform	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Chloromethane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2007 1:45:48 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Dibromomethane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2007 1:45:48 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
2-Hexanone	ND	10		µg/L	1	8/28/2007 1:45:48 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2007 1:45:48 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-07

Client Sample ID: MW #33
Collection Date: 8/23/2007 9:15:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	8/28/2007 1:45:48 AM
n-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Styrene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2007 1:45:48 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2007 1:45:48 AM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2007 1:45:48 AM
Xylenes, Total	ND	1.5		µg/L	1	8/28/2007 1:45:48 AM
Surr: 1,2-Dichloroethane-d4	95.1	68.1-123		%REC	1	8/28/2007 1:45:48 AM
Surr: 4-Bromofluorobenzene	98.3	53.2-145		%REC	1	8/28/2007 1:45:48 AM
Surr: Dibromofluoromethane	101	68.5-119		%REC	1	8/28/2007 1:45:48 AM
Surr: Toluene-d8	100	64-131		%REC	1	8/28/2007 1:45:48 AM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	160	20		mg/L CaCO3	1	8/27/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/27/2007
Bicarbonate	160	20		mg/L CaCO3	1	8/27/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	150	1.0		mg CO2/L	1	8/27/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	4300	0.010		µmhos/cm	1	8/27/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	3000	20		mg/L	1	8/28/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-08

Client Sample ID: MW #27
Collection Date: 8/23/2007 9:35:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.76	0.10		mg/L	1	8/24/2007 10:00:53 PM
Chloride	110	1.0		mg/L	10	8/24/2007 10:18:18 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/24/2007 10:00:53 PM
Bromide	0.83	0.10		mg/L	1	8/24/2007 10:00:53 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/24/2007 10:00:53 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/24/2007 10:00:53 PM
Sulfate	1300	25		mg/L	50	8/27/2007 4:52:22 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/6/2007 3:48:31 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/10/2007 6:10:30 PM
Barium	0.021	0.020		mg/L	1	9/10/2007 6:10:30 PM
Cadmium	ND	0.0020		mg/L	1	9/10/2007 6:10:30 PM
Calcium	330	20		mg/L	20	9/10/2007 9:24:56 PM
Chromium	ND	0.0060		mg/L	1	9/10/2007 6:10:30 PM
Copper	ND	0.0060		mg/L	1	9/10/2007 6:10:30 PM
Iron	10	0.40		mg/L	20	9/10/2007 9:24:56 PM
Lead	ND	0.0050		mg/L	1	9/10/2007 6:10:30 PM
Magnesium	41	1.0		mg/L	1	9/10/2007 6:10:30 PM
Manganese	9.6	0.040		mg/L	20	9/10/2007 9:24:56 PM
Potassium	2.6	1.0		mg/L	1	9/10/2007 6:10:30 PM
Selenium	ND	0.050		mg/L	1	9/10/2007 6:10:30 PM
Silver	ND	0.0050		mg/L	1	9/10/2007 6:10:30 PM
Sodium	350	20		mg/L	20	9/10/2007 9:24:56 PM
Uranium	ND	0.10		mg/L	1	9/10/2007 6:10:30 PM
Zinc	ND	0.050		mg/L	1	9/10/2007 6:10:30 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/11/2007 12:53:33 PM
Barium	0.090	0.020		mg/L	1	9/11/2007 12:53:33 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2007 12:53:33 PM
Chromium	ND	0.0060		mg/L	1	9/11/2007 12:53:33 PM
Lead	0.011	0.0050		mg/L	1	9/11/2007 12:53:33 PM
Selenium	ND	0.050		mg/L	1	9/11/2007 12:53:33 PM
Silver	ND	0.0050		mg/L	1	9/11/2007 12:53:33 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-08

Client Sample ID: MW #27
Collection Date: 8/23/2007 9:35:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/4/2007
Aniline	ND	20		µg/L	1	9/4/2007
Anthracene	ND	10		µg/L	1	9/4/2007
Azobenzene	ND	10		µg/L	1	9/4/2007
Benz(a)anthracene	ND	15		µg/L	1	9/4/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/4/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/4/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/4/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/4/2007
Benzoic acid	ND	50		µg/L	1	9/4/2007
Benzyl alcohol	ND	20		µg/L	1	9/4/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/4/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/4/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/4/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/4/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/4/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/4/2007
Carbazole	ND	10		µg/L	1	9/4/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/4/2007
4-Chloroaniline	ND	20		µg/L	1	9/4/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/4/2007
2-Chlorophenol	ND	10		µg/L	1	9/4/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/4/2007
Chrysene	ND	15		µg/L	1	9/4/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/4/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/4/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/4/2007
Dibenzofuran	ND	10		µg/L	1	9/4/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/4/2007
Diethyl phthalate	ND	10		µg/L	1	9/4/2007
Dimethyl phthalate	ND	10		µg/L	1	9/4/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/4/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/4/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/4/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/4/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/4/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/4/2007
Fluoranthene	ND	10		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-08

Client Sample ID: MW #27
 Collection Date: 8/23/2007 9:35:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/4/2007
Hexachlorobenzene	ND	10		µg/L	1	9/4/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/4/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/4/2007
Hexachloroethane	ND	10		µg/L	1	9/4/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2007
Isophorone	ND	10		µg/L	1	9/4/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/4/2007
2-Methylphenol	ND	15		µg/L	1	9/4/2007
3+4-Methylphenol	ND	20		µg/L	1	9/4/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2007
Naphthalene	ND	10		µg/L	1	9/4/2007
2-Nitroaniline	ND	50		µg/L	1	9/4/2007
3-Nitroaniline	ND	50		µg/L	1	9/4/2007
4-Nitroaniline	ND	20		µg/L	1	9/4/2007
Nitrobenzene	ND	10		µg/L	1	9/4/2007
2-Nitrophenol	ND	15		µg/L	1	9/4/2007
4-Nitrophenol	ND	50		µg/L	1	9/4/2007
Pentachlorophenol	ND	50		µg/L	1	9/4/2007
Phenanthrene	ND	10		µg/L	1	9/4/2007
Phenol	ND	10		µg/L	1	9/4/2007
Pyrene	ND	15		µg/L	1	9/4/2007
Pyridine	ND	30		µg/L	1	9/4/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/4/2007
Surr: 2,4,6-Tribromophenol	2.13	16.6-150	S	%REC	1	9/4/2007
Surr: 2-Fluorobiphenyl	76.8	19.6-134		%REC	1	9/4/2007
Surr: 2-Fluorophenol	0.280	9.54-113	S	%REC	1	9/4/2007
Surr: 4-Terphenyl-d14	50.6	22.7-145		%REC	1	9/4/2007
Surr: Nitrobenzene-d5	67.2	14.6-134		%REC	1	9/4/2007
Surr: Phenol-d5	1.13	10.7-80.3	S	%REC	1	9/4/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Toluene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-08

Client Sample ID: MW #27
 Collection Date: 8/23/2007 9:35:00 AM
 Date Received: 8/24/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Naphthalene	ND	2.0		µg/L	1	8/28/2007 2:19:15 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2007 2:19:15 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2007 2:19:15 AM
Acetone	ND	10		µg/L	1	8/28/2007 2:19:15 AM
Bromobenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Bromochloromethane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Bromoform	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Bromomethane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
2-Butanone	ND	10		µg/L	1	8/28/2007 2:19:15 AM
Carbon disulfide	ND	10		µg/L	1	8/28/2007 2:19:15 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Chloroethane	ND	2.0		µg/L	1	8/28/2007 2:19:15 AM
Chloroform	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Chloromethane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2007 2:19:15 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Dibromomethane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2007 2:19:15 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
2-Hexanone	ND	10		µg/L	1	8/28/2007 2:19:15 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2007 2:19:15 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-08

Client Sample ID: MW #27
Collection Date: 8/23/2007 9:35:00 AM
Date Received: 8/24/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	8/28/2007 2:19:15 AM
n-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Styrene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2007 2:19:15 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2007 2:19:15 AM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2007 2:19:15 AM
Xylenes, Total	ND	1.5		µg/L	1	8/28/2007 2:19:15 AM
Surr: 1,2-Dichloroethane-d4	97.7	68.1-123		%REC	1	8/28/2007 2:19:15 AM
Surr: 4-Bromofluorobenzene	102	53.2-145		%REC	1	8/28/2007 2:19:15 AM
Surr: Dibromofluoromethane	100	68.5-119		%REC	1	8/28/2007 2:19:15 AM
Surr: Toluene-d8	100	64-131		%REC	1	8/28/2007 2:19:15 AM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	290	20		mg/L CaCO3	1	8/27/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/27/2007
Bicarbonate	290	20		mg/L CaCO3	1	8/27/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	350	1.0		mg CO2/L	1	8/27/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	3100	0.010		µmhos/cm	1	8/27/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	2400	100		mg/L	1	8/28/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708330
Project: Annual Sampling-2007
Lab ID: 0708330-09

Client Sample ID: Trip Blank
Collection Date:
Date Received: 8/24/2007
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Toluene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Naphthalene	ND	2.0		µg/L	1	8/28/2007 2:52:43 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2007 2:52:43 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2007 2:52:43 AM
Acetone	ND	10		µg/L	1	8/28/2007 2:52:43 AM
Bromobenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Bromochloromethane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Bromoform	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Bromomethane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
2-Butanone	ND	10		µg/L	1	8/28/2007 2:52:43 AM
Carbon disulfide	ND	10		µg/L	1	8/28/2007 2:52:43 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Chloroethane	ND	2.0		µg/L	1	8/28/2007 2:52:43 AM
Chloroform	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Chloromethane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2007 2:52:43 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Dibromomethane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2007 2:52:43 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708330
 Project: Annual Sampling-2007
 Lab ID: 0708330-09

Client Sample ID: Trip Blank
 Collection Date:
 Date Received: 8/24/2007
 Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
2-Hexanone	ND	10		µg/L	1	8/28/2007 2:52:43 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2007 2:52:43 AM
Methylene Chloride	ND	3.0		µg/L	1	8/28/2007 2:52:43 AM
n-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Styrene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2007 2:52:43 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2007 2:52:43 AM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2007 2:52:43 AM
Xylenes, Total	ND	1.5		µg/L	1	8/28/2007 2:52:43 AM
Surr: 1,2-Dichloroethane-d4	96.1	68.1-123		%REC	1	8/28/2007 2:52:43 AM
Surr: 4-Bromofluorobenzene	95.3	53.2-145		%REC	1	8/28/2007 2:52:43 AM
Surr: Dibromofluoromethane	98.6	68.5-119		%REC	1	8/28/2007 2:52:43 AM
Surr: Toluene-d8	97.6	64-131		%REC	1	8/28/2007 2:52:43 AM

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

Hall Environmental Analysis Laboratory, Inc.

17-Sep-07

Lab Order: 0708330
 Client: San Juan Refining
 Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708330-01A	MW #11	8/23/2007 10:35:00 AM	Aqueous	EPA Method 8260B: VOLATILES	R24931		8/27/2007
0708330-01B				EPA Method 8260B: VOLATILES	R24931		8/27/2007
0708330-01C				EPA Method 8270C: Semivolatiles	13706	8/28/2007	8/31/2007
				Carbon Dioxide	R24934		8/27/2007
				EPA 120.1: Specific Conductance	R24925		8/27/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				SM 2320C: Alkalinity	R24934		8/27/2007
				SM 2540C: TDS	13699	8/27/2007	8/28/2007
0708330-01D				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
0708330-01E				EPA 6010B: Total Recoverable Metals	13788	9/7/2007	9/11/2007
				EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
0708330-02A	MW #12	8/23/2007 10:50:00 AM		EPA Method 8260B: VOLATILES	R24931		8/27/2007
0708330-02B				EPA Method 8270C: Semivolatiles	13706	8/28/2007	8/31/2007
0708330-02C				Carbon Dioxide	R24934		8/27/2007
				EPA 120.1: Specific Conductance	R24925		8/27/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				EPA Method 300.0: Anions	R24933		8/27/2007
				SM 2320C: Alkalinity	R24934		8/27/2007
				SM 2540C: TDS	13699	8/27/2007	8/28/2007
0708330-02D				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007

Lab Order: 0708330
 Client: San Juan Refining
 Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708330-02E	MW #12	8/23/2007 10:50:00 AM	Aqueous	EPA 6010B: Total Recoverable Metals	13788	9/7/2007	9/11/2007
0708330-03A	MW #26	8/23/2007 9:50:00 AM		EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
0708330-03B				EPA Method 8260B: VOLATILES	R24931		8/27/2007
0708330-03C				EPA Method 8260B: VOLATILES	R24931		8/27/2007
				EPA Method 8270C: Semivolatiles	13706	8/28/2007	8/31/2007
				Carbon Dioxide	R24934		8/27/2007
				EPA 120.1: Specific Conductance	R24925		8/27/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				SM 2320C: Alkalinity	R24934		8/27/2007
				SM 2540C: TDS	13699	8/27/2007	8/28/2007
0708330-03D				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
0708330-03E				EPA 6010B: Total Recoverable Metals	13788	9/7/2007	9/11/2007
				EPA 6010B: Total Recoverable Metals	13788	9/7/2007	9/11/2007
				EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
0708330-04A	MW #26 FD	8/23/2007 10:05:00 AM		EPA Method 8260B: VOLATILES	R24931		8/27/2007
				EPA Method 8260B: VOLATILES	R24931		8/27/2007
0708330-04B				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/4/2007
0708330-04C				Carbon Dioxide	R24934		8/27/2007
				EPA 120.1: Specific Conductance	R24925		8/27/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				SM 2320C: Alkalinity	R24934		8/27/2007
				SM 2540C: TDS	13699	8/27/2007	8/28/2007

Hall Environmental Analysis Laboratory, Inc.

17-Sep-07

Lab Order: 0708330
 Client: San Juan Refining
 Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708330-04D	MW #26 FD	8/23/2007 10:05:00 AM	Aqueous	EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
0708330-04E				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
				EPA 6010B: Total Recoverable Metals	13788	9/7/2007	9/11/2007
				EPA 6010B: Total Recoverable Metals	13788	9/7/2007	9/11/2007
				EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
0708330-05A	MW #13	8/23/2007 8:40:00 AM		EPA Method 8260B: VOLATILES	R24931		8/28/2007
0708330-05B				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/5/2007
				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/4/2007
0708330-05C				Carbon Dioxide	R24934		8/27/2007
				EPA 120.1: Specific Conductance	R24925		8/27/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
0708330-05D				EPA Method 300.0: Anions	R24933		8/27/2007
				SM 2320C: Alkalinity	R24934		8/27/2007
				SM 2540C: TDS	13699	8/27/2007	8/28/2007
				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
0708330-05E				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
				EPA 6010B: Total Recoverable Metals	13788	9/7/2007	9/11/2007
0708330-06A				EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
				EPA Method 8260B: VOLATILES	R24931		8/28/2007
				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/4/2007
				Carbon Dioxide	R24934		8/27/2007
0708330-06B				EPA 120.1: Specific Conductance	R24925		8/27/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
0708330-06C				EPA Method 300.0: Anions	R24933		8/27/2007

Lab Order: 0708330

Client: San Juan Refining

Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708330-06C	MW #32	8/23/2007 9:00:00 AM	Aqueous	EPA Method 300.0: Anions	R24933		8/27/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				SM 2320C: Alkalinity	R24934		8/27/2007
				SM 2540C: TDS	13699	8/27/2007	8/28/2007
0708330-06D				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
0708330-06E				EPA 6010B: Total Recoverable Metals	13788	9/7/2007	9/11/2007
				EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
0708330-07A	MW #33	8/23/2007 9:15:00 AM		EPA Method 8260B: VOLATILES	R24931		8/28/2007
0708330-07B				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/5/2007
0708330-07C				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/4/2007
				Carbon Dioxide	R24934		8/27/2007
				EPA 120.1: Specific Conductance	R24925		8/27/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				EPA Method 300.0: Anions	R24933		8/27/2007
				SM 2320C: Alkalinity	R24934		8/27/2007
				SM 2540C: TDS	13699	8/27/2007	8/28/2007
0708330-07D				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
0708330-07E				EPA 6010B: Total Recoverable Metals	13788	9/7/2007	9/11/2007
				EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
0708330-08A	MW #27	8/23/2007 9:35:00 AM		EPA Method 8260B: VOLATILES	R24931		8/28/2007
0708330-08B				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/4/2007
				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/5/2007

Hall Environmental Analysis Laboratory, Inc.

17-Sep-07

Lab Order: 0708330
 Client: San Juan Refining
 Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708330-08C	MW #27	8/23/2007 9:35:00 AM	Aqueous	Carbon Dioxide	R24934		8/27/2007
				EPA 120.1: Specific Conductance	R24925		8/27/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				EPA Method 300.0: Anions	R24913		8/24/2007
				EPA Method 300.0: Anions	R24933		8/27/2007
				SM 2320C: Alkalinity	R24934		8/27/2007
				SM 2540C: TDS	13699	8/27/2007	8/28/2007
0708330-08D				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
				EPA Method 6010B: Dissolved Metals	R25092		9/10/2007
0708330-08E				EPA 6010B: Total Recoverable Metals	13788	9/7/2007	9/11/2007
				EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
0708330-09A	Trip Blank		Trip Blank	EPA Method 8260B: VOLATILES	R24931		8/28/2007

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708330

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: E300									
Sample ID: MBLK		MBLK			Batch ID: R24913		Analysis Date: 8/24/2007 11:03:45 AM		
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrite (As N)	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MBLK		MBLK			Batch ID: R24933		Analysis Date: 8/27/2007 12:48:35 PM		
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrite (As N)	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS ST300-07030		LCS			Batch ID: R24913		Analysis Date: 8/24/2007 11:21:09 AM		
Fluoride	0.5106	mg/L	0.10	102	90	110			
Chloride	5.218	mg/L	0.10	104	90	110			
Nitrogen, Nitrite (As N)	1.040	mg/L	0.10	104	90	110			
Bromide	2.718	mg/L	0.10	109	90	110			
Nitrogen, Nitrate (As N)	2.659	mg/L	0.10	106	90	110			
Phosphorus, Orthophosphate (As P)	5.461	mg/L	0.50	109	90	110			
Sulfate	10.72	mg/L	0.50	107	90	110			
Sample ID: LCS ST300-07030		LCS			Batch ID: R24933		Analysis Date: 8/27/2007 1:06:00 PM		
Fluoride	0.5053	mg/L	0.10	101	90	110			
Chloride	5.131	mg/L	0.10	103	90	110			
Nitrogen, Nitrite (As N)	1.056	mg/L	0.10	106	90	110			
Bromide	2.686	mg/L	0.10	107	90	110			
Nitrogen, Nitrate (As N)	2.613	mg/L	0.10	105	90	110			
Phosphorus, Orthophosphate (As P)	5.488	mg/L	0.50	110	90	110			
Sulfate	10.55	mg/L	0.50	105	90	110			
Method: E310.1									
Sample ID: 0708330-07CMSD		MSD			Batch ID: R24934		Analysis Date: 8/27/2007		
Alkalinity, Total (As CaCO3)	240.0	mg/L CaC	20	105	80	120	0	20	
Sample ID: MB		MBLK			Batch ID: R24934		Analysis Date: 8/27/2007		
Alkalinity, Total (As CaCO3)	ND	mg/L CaC	20						
Carbonate	ND	mg/L CaC	20						
Bicarbonate	ND	mg/L CaC	20						
Sample ID: LCS		LCS			Batch ID: R24934		Analysis Date: 8/27/2007		
Alkalinity, Total (As CaCO3)	82.80	mg/L CaC	20	104	80	120			
Sample ID: 0708330-07CMS		MS			Batch ID: R24934		Analysis Date: 8/27/2007		
Alkalinity, Total (As CaCO3)	240.0	mg/L CaC	20	105	80	120			

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708330

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8260B

Sample ID: 5ml rb

MBLK

Batch ID: R24931 Analysis Date: 8/27/2007 8:46:34 AM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
1,2-Dichloroethane (EDC)	ND	µg/L	1.0
1,2-Dibromoethane (EDB)	ND	µg/L	1.0
Naphthalene	ND	µg/L	2.0
1-Methylnaphthalene	ND	µg/L	4.0
2-Methylnaphthalene	ND	µg/L	4.0
Acetone	ND	µg/L	10
Bromobenzene	ND	µg/L	1.0
Bromochloromethane	ND	µg/L	1.0
Bromodichloromethane	ND	µg/L	1.0
Bromoform	ND	µg/L	1.0
Bromomethane	ND	µg/L	1.0
2-Butanone	ND	µg/L	10
Carbon disulfide	ND	µg/L	10
Carbon Tetrachloride	ND	µg/L	1.0
Chlorobenzene	ND	µg/L	1.0
Chloroethane	ND	µg/L	2.0
Chloroform	ND	µg/L	1.0
Chloromethane	ND	µg/L	1.0
2-Chlorotoluene	ND	µg/L	1.0
4-Chlorotoluene	ND	µg/L	1.0
cis-1,2-DCE	ND	µg/L	1.0
cis-1,3-Dichloropropene	ND	µg/L	1.0
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0
Dibromochloromethane	ND	µg/L	1.0
Dibromomethane	ND	µg/L	1.0
1,2-Dichlorobenzene	ND	µg/L	1.0
1,3-Dichlorobenzene	ND	µg/L	1.0
1,4-Dichlorobenzene	ND	µg/L	1.0
Dichlorodifluoromethane	ND	µg/L	1.0
1,1-Dichloroethane	ND	µg/L	1.0
1,1-Dichloroethene	ND	µg/L	1.0
1,2-Dichloropropane	ND	µg/L	1.0
1,3-Dichloropropane	ND	µg/L	1.0
2,2-Dichloropropane	ND	µg/L	2.0
1,1-Dichloropropene	ND	µg/L	1.0
Hexachlorobutadiene	ND	µg/L	1.0
2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708330

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8260B

Sample ID: 5ml rb

MBLK

Batch ID: R24931 Analysis Date: 8/27/2007 8:46:34 AM

4-Isopropyltoluene	ND	µg/L	1.0
4-Methyl-2-pentanone	ND	µg/L	10
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
vinyl chloride	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	1.5

Sample ID: 100ng lcs

LCS

Batch ID: R24931 Analysis Date: 8/27/2007 10:08:50 AM

Benzene	18.48	µg/L	1.0	92.4	82.4	128
Toluene	19.71	µg/L	1.0	98.6	77.2	115
Chlorobenzene	19.10	µg/L	1.0	95.5	78.3	117
1,1-Dichloroethene	19.96	µg/L	1.0	99.8	90.7	132
Trichloroethene (TCE)	18.07	µg/L	1.0	90.4	71.8	113

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708330

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8270C

Sample ID: mb-13706

MBLK

Batch ID: 13706 Analysis Date: 8/31/2007

Acenaphthene	ND	µg/L	10
Acenaphthylene	ND	µg/L	10
Aniline	ND	µg/L	20
Anthracene	ND	µg/L	10
Azobenzene	ND	µg/L	10
Benz(a)anthracene	ND	µg/L	15
Benzo(a)pyrene	ND	µg/L	10
Benzo(b)fluoranthene	ND	µg/L	15
Benzo(g,h,i)perylene	ND	µg/L	10
Benzo(k)fluoranthene	ND	µg/L	10
Benzoic acid	ND	µg/L	50
Benzyl alcohol	ND	µg/L	20
Bis(2-chloroethoxy)methane	ND	µg/L	10
Bis(2-chloroethyl)ether	ND	µg/L	15
Bis(2-chloroisopropyl)ether	ND	µg/L	15
Bis(2-ethylhexyl)phthalate	ND	µg/L	15
4-Bromophenyl phenyl ether	ND	µg/L	10
Butyl benzyl phthalate	ND	µg/L	15
Carbazole	ND	µg/L	10
4-Chloro-3-methylphenol	ND	µg/L	20
4-Chloroaniline	ND	µg/L	20
2-Chloronaphthalene	ND	µg/L	10
2-Chlorophenol	ND	µg/L	10
4-Chlorophenyl phenyl ether	ND	µg/L	15
Chrysene	ND	µg/L	15
Di-n-butyl phthalate	ND	µg/L	10
Di-n-octyl phthalate	ND	µg/L	15
Dibenz(a,h)anthracene	ND	µg/L	10
Dibenzofuran	ND	µg/L	10
1,2-Dichlorobenzene	ND	µg/L	10
1,3-Dichlorobenzene	ND	µg/L	10
1,4-Dichlorobenzene	ND	µg/L	10
3,3'-Dichlorobenzidine	ND	µg/L	15
Diethyl phthalate	ND	µg/L	10
Dimethyl phthalate	ND	µg/L	10
2,4-Dichlorophenol	ND	µg/L	10
2,4-Dimethylphenol	ND	µg/L	10
4,6-Dinitro-2-methylphenol	ND	µg/L	50
2,4-Dinitrophenol	ND	µg/L	50
2,4-Dinitrotoluene	ND	µg/L	10
2,6-Dinitrotoluene	ND	µg/L	10
Fluoranthene	ND	µg/L	10
Fluorene	ND	µg/L	10
Hexachlorobenzene	ND	µg/L	10

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708330

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8270C

Sample ID: mb-13706

MBLK

Batch ID: 13706 Analysis Date: 8/31/2007

Hexachlorobutadiene	ND	µg/L	10
Hexachlorocyclopentadiene	ND	µg/L	50
Hexachloroethane	ND	µg/L	10
Indeno(1,2,3-cd)pyrene	ND	µg/L	10
Isophorone	ND	µg/L	10
2-Methylnaphthalene	ND	µg/L	10
2-Methylphenol	ND	µg/L	15
3+4-Methylphenol	ND	µg/L	20
N-Nitrosodi-n-propylamine	ND	µg/L	10
N-Nitrosodimethylamine	ND	µg/L	10
N-Nitrosodiphenylamine	ND	µg/L	10
Naphthalene	ND	µg/L	10
2-Nitroaniline	ND	µg/L	50
3-Nitroaniline	ND	µg/L	50
4-Nitroaniline	ND	µg/L	20
Nitrobenzene	ND	µg/L	10
2-Nitrophenol	ND	µg/L	15
4-Nitrophenol	ND	µg/L	50
Pentachlorophenol	ND	µg/L	50
Phenanthrene	ND	µg/L	10
Phenol	ND	µg/L	10
Pyrene	ND	µg/L	15
Pyridine	ND	µg/L	30
1,2,4-Trichlorobenzene	ND	µg/L	10
2,4,5-Trichlorophenol	ND	µg/L	10
2,4,6-Trichlorophenol	ND	µg/L	15

Sample ID: lcs-13706

LCS

Batch ID: 13706 Analysis Date: 8/31/2007

Acenaphthene	76.44	µg/L	10	76.4	11	123
4-Chloro-3-methylphenol	164.6	µg/L	20	82.3	15.4	119
2-Chlorophenol	158.1	µg/L	10	79.1	12.2	122
1,4-Dichlorobenzene	74.70	µg/L	10	74.7	16.9	100
2,4-Dinitrotoluene	73.38	µg/L	10	73.4	13	138
N-Nitrosodi-n-propylamine	77.84	µg/L	10	77.8	9.93	122
4-Nitrophenol	147.4	µg/L	50	73.7	12.5	87.4
Pentachlorophenol	147.7	µg/L	50	73.9	3.55	114
Phenol	156.0	µg/L	10	78.0	7.53	73.1
Pyrene	70.52	µg/L	15	70.5	12.6	140
1,2,4-Trichlorobenzene	74.64	µg/L	10	74.6	17.4	98.7

S

Sample ID: lcsd-13706

LCSD

Batch ID: 13706 Analysis Date: 8/31/2007

Acenaphthene	69.48	µg/L	10	69.5	11	123	9.54	30.5
4-Chloro-3-methylphenol	143.1	µg/L	20	71.6	15.4	119	14.0	28.6
2-Chlorophenol	128.5	µg/L	10	64.2	12.2	122	20.7	107
1,4-Dichlorobenzene	61.02	µg/L	10	61.0	16.9	100	20.2	62.1
2,4-Dinitrotoluene	69.08	µg/L	10	69.1	13	138	6.04	14.7

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708330

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8270C

Sample ID: lcsd-13706 LCSD Batch ID: 13706 Analysis Date: 8/31/2007

N-Nitrosodi-n-propylamine	66.86	µg/L	10	66.9	9.93	122	15.2	30.3	
4-Nitrophenol	139.1	µg/L	50	69.5	12.5	87.4	5.81	36.3	
Pentachlorophenol	141.5	µg/L	50	70.8	3.55	114	4.27	49	
Phenol	128.3	µg/L	10	64.2	7.53	73.1	19.5	52.4	
Pyrene	69.74	µg/L	15	69.7	12.6	140	1.11	16.3	
1,2,4-Trichlorobenzene	62.10	µg/L	10	62.1	17.4	98.7	18.3	36.4	

Method: E120.1

Sample ID: 0708330-02CDUP DUP Batch ID: R24925 Analysis Date: 8/27/2007

Specific Conductance	1985	µmhos/cm	0.010				0.553	20	
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Method: SW7470

Sample ID: MB-13768 MBLK Batch ID: 13768 Analysis Date: 9/6/2007 3:19:47 PM

Mercury	ND	mg/L	0.00020						
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Sample ID: LCS-13768 LCS Batch ID: 13768 Analysis Date: 9/6/2007 3:21:32 PM

Mercury	0.004954	mg/L	0.00020	99.1	80	120			
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Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708330

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW6010A

Sample ID: 0708330-08D MSD

MSD

Batch ID: R25092 Analysis Date: 9/10/2007 8:49:10 PM

Arsenic	0.5300	mg/L	0.020	106	75	125	1.83	20
Barium	0.5061	mg/L	0.020	97.1	75	125	2.06	20
Cadmium	0.5191	mg/L	0.0020	104	75	125	2.61	20
Chromium	0.4903	mg/L	0.0060	98.1	75	125	2.72	20
Copper	0.5252	mg/L	0.0060	105	75	125	1.76	20
Lead	0.4838	mg/L	0.0050	96.8	75	125	2.98	20
Magnesium	94.57	mg/L	1.0	105	75	125	1.14	20
Potassium	56.94	mg/L	1.0	98.8	75	125	1.22	20
Selenium	0.6112	mg/L	0.050	122	75	125	5.70	20
Uranium	0.5544	mg/L	0.10	111	75	125	2.11	20
Zinc	0.5212	mg/L	0.050	101	75	125	2.51	20

Sample ID: MB

MBLK

Batch ID: R25092 Analysis Date: 9/10/2007 5:35:29 PM

Arsenic	ND	mg/L	0.020					
Barium	ND	mg/L	0.020					
Cadmium	ND	mg/L	0.0020					
Calcium	ND	mg/L	1.0					
Chromium	ND	mg/L	0.0060					
Copper	ND	mg/L	0.0060					
Iron	ND	mg/L	0.020					
Lead	ND	mg/L	0.0050					
Magnesium	ND	mg/L	1.0					
Manganese	ND	mg/L	0.0020					
Potassium	ND	mg/L	1.0					
Selenium	ND	mg/L	0.050					
Silver	ND	mg/L	0.0050					
Sodium	ND	mg/L	1.0					
Uranium	ND	mg/L	0.10					
Zinc	ND	mg/L	0.050					

Sample ID: LCS

LCS

Batch ID: R25092 Analysis Date: 9/10/2007 5:38:33 PM

Arsenic	0.4639	mg/L	0.020	92.8	80	120		
Barium	0.4726	mg/L	0.020	94.5	80	120		
Cadmium	0.4906	mg/L	0.0020	98.1	80	120		
Calcium	49.03	mg/L	1.0	96.6	80	120		
Chromium	0.4814	mg/L	0.0060	96.3	80	120		
Copper	0.4705	mg/L	0.0060	94.1	80	120		
Iron	0.4798	mg/L	0.020	95.1	80	120		
Lead	0.4729	mg/L	0.0050	94.6	80	120		
Magnesium	48.81	mg/L	1.0	96.1	80	120		
Manganese	0.4696	mg/L	0.0020	93.9	80	120		
Potassium	51.77	mg/L	1.0	93.6	80	120		
Selenium	0.4848	mg/L	0.050	97.0	80	120		
Silver	0.4858	mg/L	0.0050	97.2	80	120		
Sodium	52.36	mg/L	1.0	103	80	120		
Uranium	0.4244	mg/L	0.10	84.9	80	120		

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708330

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW6010A

Sample ID: LCS

LCS

Batch ID: R25092 Analysis Date: 9/10/2007 5:38:33 PM

Zinc 0.4828 mg/L 0.050 96.6 80 120

Sample ID: 0708330-08D MS

MS

Batch ID: R25092 Analysis Date: 9/10/2007 8:45:09 PM

Arsenic 0.5204 mg/L 0.020 104 75 125

Barium 0.4957 mg/L 0.020 95.0 75 125

Cadmium 0.5057 mg/L 0.0020 101 75 125

Chromium 0.4772 mg/L 0.0060 95.4 75 125

Copper 0.5161 mg/L 0.0060 103 75 125

Lead 0.4696 mg/L 0.0050 93.9 75 125

Magnesium 95.65 mg/L 1.0 108 75 125

Potassium 57.64 mg/L 1.0 100 75 125

Selenium 0.5774 mg/L 0.050 115 75 125

Uranium 0.5428 mg/L 0.10 109 75 125

Zinc 0.5083 mg/L 0.050 98.8 75 125

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708330

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW6010A

Sample ID: MB-13788

MBLK

Batch ID: 13788 Analysis Date: 9/10/2007 8:41:34 AM

Arsenic ND mg/L 0.020
 Barium ND mg/L 0.020
 Cadmium ND mg/L 0.0020
 Chromium ND mg/L 0.0060
 Lead ND mg/L 0.0050
 Selenium ND mg/L 0.050
 Silver ND mg/L 0.0050

Sample ID: MB-13788

MBLK

Batch ID: 13788 Analysis Date: 9/11/2007 1:29:23 PM

Arsenic ND mg/L 0.020
 Barium ND mg/L 0.020
 Cadmium ND mg/L 0.0020
 Chromium ND mg/L 0.0060
 Lead ND mg/L 0.0050
 Selenium ND mg/L 0.050
 Silver ND mg/L 0.0050

Sample ID: LCS-13788

LCS

Batch ID: 13788 Analysis Date: 9/10/2007 8:44:36 AM

Arsenic 0.5363 mg/L 0.020 107 80 120
 Barium 0.4951 mg/L 0.020 99.0 80 120
 Cadmium 0.5244 mg/L 0.0020 105 80 120
 Chromium 0.5113 mg/L 0.0060 102 80 120
 Lead 0.5129 mg/L 0.0050 103 80 120
 Selenium 0.5690 mg/L 0.050 114 80 120
 Silver 0.5143 mg/L 0.0050 103 80 120

Sample ID: LCS-13788

LCS

Batch ID: 13788 Analysis Date: 9/11/2007 12:02:04 PM

Arsenic 0.5169 mg/L 0.020 103 80 120
 Barium 0.4933 mg/L 0.020 98.7 80 120
 Cadmium 0.5159 mg/L 0.0020 103 80 120
 Chromium 0.5067 mg/L 0.0060 101 80 120
 Lead 0.5014 mg/L 0.0050 100 80 120
 Selenium 0.5434 mg/L 0.050 109 80 120
 Silver 0.5080 mg/L 0.0050 102 80 120

Method: E160.1

Sample ID: 0708330-05C MSD

MSD

Batch ID: 13699 Analysis Date: 8/28/2007

Total Dissolved Solids 4041 mg/L 20 99.4 80 120 0.248 20

Sample ID: MB-13699

MBLK

Batch ID: 13699 Analysis Date: 8/28/2007

Total Dissolved Solids ND mg/L 20

Sample ID: LCS-13699

LCS

Batch ID: 13699 Analysis Date: 8/28/2007

Total Dissolved Solids 1003 mg/L 20 100 80 120

Sample ID: 0708330-05C MS

MS

Batch ID: 13699 Analysis Date: 8/28/2007

Total Dissolved Solids 4031 mg/L 20 98.4 80 120

Qualifiers:

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

8/24/2007

Work Order Number 0708330

Received by TLS

Checklist completed by

Signature

Date

8/24/07

Matrix

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☒

N/A ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

CHAIN-OF-CUSTODY RECORD

Client: SAN JUAN ROHING

Address: #50 Rd 4990
Bloomfield, NM
87413

Phone #: 505-632-4161
 Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl ₂	HNO ₃	
8/23/07	7:03 AM	H ₂ O	MW # 11	3-VOL			0708330
				1-liter			
				1-500ml	X		
				1-125ml	X		
				1-500ml			
				1-500ml			
8/23/07	6:50 AM	H ₂ O	MW-#12	3-VOL			-1
				2-liter			
				1-500ml	X		
				1-125ml	X		
				1-500ml			
				1-500ml			

Date: 8/23/07 Time: 7:03 AM Relinquished By: (Signature) Gandy Hurtado
 Date: 8/23/07 Time: 7:03 AM Relinquished By: (Signature) Gandy Hurtado

QA/QC Package:

Std ☐

Level 4 ☒

Other:

Project Name:

Annual Sampling - 2007

Project #:

Project Manager:

Gandy Hurtado

Sample: Gandy Hurtado/Bob Krakow

Sample Temperature:

4°

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D

Albuquerque, New Mexico 87109

Tel. 505.345.3975 Fax 505.345.4107

www.hallenvironmental.com

ANALYSIS REQUEST

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	WAC Dissolved Metals	TDS, EC, CO ₂ , ALC	Air Bubbles or Headspace (Y or N)
										X				
							X				X			
												X		
								X				X		
								X				X		
									X					
										X				
							X					X		
													X	
													X	

Remarks:

Tap Blank

CHAIN-OF-CUSTODY RECORD

Client: SAN JUAN Refining

Address: #50 Rd 4990

Bloomfield NM

87413

Phone #: 505-632-4161

Fax #: 505-632-3911

Date

Time

Matrix

Sample I.D. No.

Number/Volume

Preservative

HgCl₂

HNO₃

HEAL No.

8-23-07 9:50A H₂O MW#26 3-VOL 1-liter HCL -3

1-500ml HCL

1-125ml HCL

1-500ml HCL

1-500ml HCL

8-23-07 10:05 H₂O MW#26 FD 3-VOL 1-liter HCL -4

1-500ml HCL

1-125ml HCL

1-500ml HCL

1-500ml HCL

Date:

Time:

Relinquished By: (Signature)

Received By: (Signature)

8/24/07

Date:

Time:

Relinquished By: (Signature)

Received By: (Signature)

8/24/07

QA / QC Package:

Std ☐ Level 4 ☒

Other:

Project Name:

Annual Sampling - 2007

Project #:

Project Manager:

Cindy Hurtado

Sample:

Cindy Hurtado / Bob Krakow

Sample Temperature:

4°

BTEX + MTBE + TMB's (8021)

BTEX + MTBE + TPH (Gasoline Only)

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8021)

8310 (PNA or PAH)

RCRA 8 Metals

Anions (F, Cl, NO₂, PO₄, SO₄)

8081 Pesticides / PCB's (8082)

8260B (VOA)

8270 (Semi-VOA)

WAC Dissolved Metals

TDs, EC, Day AIC

Air Bubbles or Headspace (Y or N)

ANALYSIS REQUEST

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D

Albuquerque, New Mexico 87109

Tel. 505.345.3975 Fax 505.345.4107

www.hallenvironmental.com

Remarks: That Blank

COVER LETTER

Thursday, September 20, 2007

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

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

RE: Annual Sampling-2007

Order No.: 0708354

Dear Cindy Hurtado:

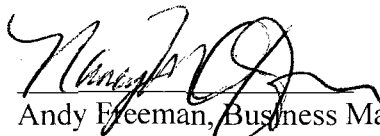
Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 8/28/2007 for the analyses presented in the following report.

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



Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Project: Annual Sampling-2007
Lab Order: 0708354

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0708354-01A	RW #15	R24962	EPA Method 8260B: VOLATILES	8/27/2007 1:25:00 PM
0708354-01A	RW #15	R24962	EPA Method 8260B: VOLATILES	8/27/2007 1:25:00 PM
0708354-01B	RW #15	13706	EPA Method 8270C: Semivolatiles	8/27/2007 1:25:00 PM
0708354-01C	RW #15	R24938	EPA 120.1: Specific Conductance	8/27/2007 1:25:00 PM
0708354-01C	RW #15	R24941	EPA Method 300.0: Anions	8/27/2007 1:25:00 PM
0708354-01C	RW #15	R24942	SM 2320C: Alkalinity	8/27/2007 1:25:00 PM
0708354-01C	RW #15	R24942	Carbon Dioxide	8/27/2007 1:25:00 PM
0708354-01C	RW #15	R24953	EPA Method 300.0: Anions	8/27/2007 1:25:00 PM
0708354-01C	RW #15	R24953	EPA Method 300.0: Anions	8/27/2007 1:25:00 PM
0708354-01C	RW #15	13738	SM 2540C: TDS	8/27/2007 1:25:00 PM
0708354-01D	RW #15	R25202	EPA Method 6010B: Dissolved Metals	8/27/2007 1:25:00 PM
0708354-01D	RW #15	R25202	EPA Method 6010B: Dissolved Metals	8/27/2007 1:25:00 PM
0708354-01D	RW #15	R25202	EPA Method 6010B: Dissolved Metals	8/27/2007 1:25:00 PM
0708354-01E	RW #15	13812	EPA 6010B: Total Recoverable Metals	8/27/2007 1:25:00 PM
0708354-01E	RW #15	13812	EPA 6010B: Total Recoverable Metals	8/27/2007 1:25:00 PM
0708354-01E	RW #15	13768	EPA Method 7470: Mercury	8/27/2007 1:25:00 PM
0708354-01E	RW #15	13768	EPA Method 7470: Mercury	8/27/2007 1:25:00 PM
0708354-02A	MW #30	R24962	EPA Method 8260B: VOLATILES	8/27/2007 1:45:00 PM
0708354-02A	MW #30	R24962	EPA Method 8260B: VOLATILES	8/27/2007 1:45:00 PM
0708354-02B	MW #30	13706	EPA Method 8270C: Semivolatiles	8/27/2007 1:45:00 PM
0708354-02B	MW #30	13706	EPA Method 8270C: Semivolatiles	8/27/2007 1:45:00 PM
0708354-02C	MW #30	R24941	EPA Method 300.0: Anions	8/27/2007 1:45:00 PM
0708354-02C	MW #30	13738	SM 2540C: TDS	8/27/2007 1:45:00 PM
0708354-02C	MW #30	R24953	EPA Method 300.0: Anions	8/27/2007 1:45:00 PM
0708354-02C	MW #30	R24953	EPA Method 300.0: Anions	8/27/2007 1:45:00 PM
0708354-02C	MW #30	R24942	SM 2320C: Alkalinity	8/27/2007 1:45:00 PM
0708354-02C	MW #30	R24938	EPA 120.1: Specific Conductance	8/27/2007 1:45:00 PM
0708354-02C	MW #30	R24942	Carbon Dioxide	8/27/2007 1:45:00 PM
0708354-02D	MW #30	R25202	EPA Method 6010B: Dissolved Metals	8/27/2007 1:45:00 PM
0708354-02D	MW #30	R25202	EPA Method 6010B: Dissolved Metals	8/27/2007 1:45:00 PM
0708354-02D	MW #30	R25202	EPA Method 6010B: Dissolved Metals	8/27/2007 1:45:00 PM
0708354-02E	MW #30	13812	EPA 6010B: Total Recoverable Metals	8/27/2007 1:45:00 PM
0708354-02E	MW #30	13768	EPA Method 7470: Mercury	8/27/2007 1:45:00 PM
0708354-03A	RW #1	R24962	EPA Method 8260B: VOLATILES	8/27/2007 11:25:00 AM
0708354-03A	RW #1	R24982	EPA Method 8260B: VOLATILES	8/27/2007 11:25:00 AM
0708354-03A	RW #1	R24998	EPA Method 8260B: VOLATILES	8/27/2007 11:25:00 AM
0708354-03B	RW #1	13706	EPA Method 8270C: Semivolatiles	8/27/2007 11:25:00 AM
0708354-03B	RW #1	13706	EPA Method 8270C: Semivolatiles	8/27/2007 11:25:00 AM

CLIENT: San Juan Refining
Project: Annual Sampling-2007
Lab Order: 0708354

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0708354-03C	RW #1	R24941	EPA Method 300.0: Anions	8/27/2007 11:25:00 AM
0708354-03C	RW #1	13738	SM 2540C: TDS	8/27/2007 11:25:00 AM
0708354-03C	RW #1	R24960	EPA Method 300.0: Anions	8/27/2007 11:25:00 AM
0708354-03C	RW #1	R24942	SM 2320C: Alkalinity	8/27/2007 11:25:00 AM
0708354-03C	RW #1	R24938	EPA 120.1: Specific Conductance	8/27/2007 11:25:00 AM
0708354-03C	RW #1	R24942	Carbon Dioxide	8/27/2007 11:25:00 AM
0708354-03D	RW #1	R25202	EPA Method 6010B: Dissolved Metals	8/27/2007 11:25:00 AM
0708354-03D	RW #1	R25202	EPA Method 6010B: Dissolved Metals	8/27/2007 11:25:00 AM
0708354-03D	RW #1	R25202	EPA Method 6010B: Dissolved Metals	8/27/2007 11:25:00 AM
0708354-03E	RW #1	13768	EPA Method 7470: Mercury	8/27/2007 11:25:00 AM
0708354-03E	RW #1	13812	EPA 6010B: Total Recoverable Metals	8/27/2007 11:25:00 AM
0708354-04A	RW #9	R24962	EPA Method 8260B: VOLATILES	8/27/2007 1:00:00 PM
0708354-04A	RW #9	R24962	EPA Method 8260B: VOLATILES	8/27/2007 1:00:00 PM
0708354-04B	RW #9	13706	EPA Method 8270C: Semivolatiles	8/27/2007 1:00:00 PM
0708354-04C	RW #9	R24942	Carbon Dioxide	8/27/2007 1:00:00 PM
0708354-04C	RW #9	13738	SM 2540C: TDS	8/27/2007 1:00:00 PM
0708354-04C	RW #9	R24942	SM 2320C: Alkalinity	8/27/2007 1:00:00 PM
0708354-04C	RW #9	R24941	EPA Method 300.0: Anions	8/27/2007 1:00:00 PM
0708354-04C	RW #9	R24938	EPA 120.1: Specific Conductance	8/27/2007 1:00:00 PM
0708354-04D	RW #9	R25202	EPA Method 6010B: Dissolved Metals	8/27/2007 1:00:00 PM
0708354-04D	RW #9	R25202	EPA Method 6010B: Dissolved Metals	8/27/2007 1:00:00 PM
0708354-04D	RW #9	R25202	EPA Method 6010B: Dissolved Metals	8/27/2007 1:00:00 PM
0708354-04E	RW #9	13768	EPA Method 7470: Mercury	8/27/2007 1:00:00 PM
0708354-04E	RW #9	13812	EPA 6010B: Total Recoverable Metals	8/27/2007 1:00:00 PM
0708354-04E	RW #9	13812	EPA 6010B: Total Recoverable Metals	8/27/2007 1:00:00 PM
0708354-05A	Field Blank	R24962	EPA Method 8260B: VOLATILES	8/27/2007 1:50:00 PM
0708354-06A	Trip Blank	R24962	EPA Method 8260B: VOLATILES	

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-01

Client Sample ID: RW #15
Collection Date: 8/27/2007 1:25:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: CMS
Fluoride	0.32	0.10		mg/L	1	8/29/2007 6:21:55 AM
Chloride	400	2.0		mg/L	20	8/29/2007 6:39:20 AM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/29/2007 6:39:20 AM
Bromide	8.4	0.10		mg/L	1	8/29/2007 6:21:55 AM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/29/2007 6:21:55 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/29/2007 6:21:55 AM
Sulfate	ND	0.50		mg/L	1	8/29/2007 6:21:55 AM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.0010		mg/L	5	9/6/2007 4:37:56 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 4:44:22 PM
Barium	1.6	0.10		mg/L	5	9/17/2007 8:01:20 PM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 4:44:22 PM
Calcium	140	5.0		mg/L	5	9/17/2007 8:01:20 PM
Chromium	ND	0.0060		mg/L	1	9/14/2007 4:44:22 PM
Copper	ND	0.0060		mg/L	1	9/14/2007 4:44:22 PM
Iron	16	0.40		mg/L	20	9/17/2007 8:04:09 PM
Lead	ND	0.0050		mg/L	1	9/14/2007 4:44:22 PM
Magnesium	42	1.0		mg/L	1	9/14/2007 4:44:22 PM
Manganese	3.2	0.010		mg/L	5	9/17/2007 8:01:20 PM
Potassium	3.3	1.0		mg/L	1	9/14/2007 4:44:22 PM
Selenium	ND	0.25		mg/L	5	9/17/2007 8:01:20 PM
Silver	ND	0.0050		mg/L	1	9/14/2007 4:44:22 PM
Sodium	550	20		mg/L	20	9/17/2007 8:04:09 PM
Uranium	ND	0.10		mg/L	1	9/14/2007 4:44:22 PM
Zinc	0.057	0.050		mg/L	1	9/14/2007 4:44:22 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 9:28:00 AM
Barium	1.8	0.10		mg/L	5	9/14/2007 10:33:35 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 9:28:00 AM
Chromium	ND	0.0060		mg/L	1	9/14/2007 9:28:00 AM
Lead	ND	0.0050		mg/L	1	9/14/2007 9:28:00 AM
Selenium	ND	0.050		mg/L	1	9/14/2007 9:28:00 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 9:28:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-01

Client Sample ID: RW #15
Collection Date: 8/27/2007 1:25:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8270C: SEMIVOLATILES

Analyst: JDC

Acenaphthylene	ND	50		µg/L	1	9/4/2007
Aniline	ND	100		µg/L	1	9/4/2007
Anthracene	ND	50		µg/L	1	9/4/2007
Azobenzene	ND	50		µg/L	1	9/4/2007
Benz(a)anthracene	ND	75		µg/L	1	9/4/2007
Benzo(a)pyrene	ND	50		µg/L	1	9/4/2007
Benzo(b)fluoranthene	ND	75		µg/L	1	9/4/2007
Benzo(g,h,i)perylene	ND	50		µg/L	1	9/4/2007
Benzo(k)fluoranthene	ND	50		µg/L	1	9/4/2007
Benzoic acid	ND	250		µg/L	1	9/4/2007
Benzyl alcohol	ND	100		µg/L	1	9/4/2007
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	9/4/2007
Bis(2-chloroethyl)ether	ND	75		µg/L	1	9/4/2007
Bis(2-chloroisopropyl)ether	ND	75		µg/L	1	9/4/2007
Bis(2-ethylhexyl)phthalate	ND	75		µg/L	1	9/4/2007
4-Bromophenyl phenyl ether	ND	50		µg/L	1	9/4/2007
Butyl benzyl phthalate	ND	75		µg/L	1	9/4/2007
Carbazole	ND	50		µg/L	1	9/4/2007
4-Chloro-3-methylphenol	ND	100		µg/L	1	9/4/2007
4-Chloroaniline	ND	100		µg/L	1	9/4/2007
2-Chloronaphthalene	ND	50		µg/L	1	9/4/2007
2-Chlorophenol	ND	50		µg/L	1	9/4/2007
4-Chlorophenyl phenyl ether	ND	75		µg/L	1	9/4/2007
Chrysene	ND	75		µg/L	1	9/4/2007
Di-n-butyl phthalate	ND	50		µg/L	1	9/4/2007
Di-n-octyl phthalate	ND	75		µg/L	1	9/4/2007
Dibenz(a,h)anthracene	ND	50		µg/L	1	9/4/2007
Dibenzofuran	ND	50		µg/L	1	9/4/2007
1,2-Dichlorobenzene	ND	50		µg/L	1	9/4/2007
1,3-Dichlorobenzene	ND	50		µg/L	1	9/4/2007
1,4-Dichlorobenzene	ND	50		µg/L	1	9/4/2007
3,3'-Dichlorobenzidine	ND	75		µg/L	1	9/4/2007
Diethyl phthalate	ND	50		µg/L	1	9/4/2007
Dimethyl phthalate	ND	50		µg/L	1	9/4/2007
2,4-Dichlorophenol	ND	50		µg/L	1	9/4/2007
2,4-Dimethylphenol	78	50		µg/L	1	9/4/2007
4,6-Dinitro-2-methylphenol	ND	250		µg/L	1	9/4/2007
2,4-Dinitrophenol	ND	250		µg/L	1	9/4/2007
2,4-Dinitrotoluene	ND	50		µg/L	1	9/4/2007
2,6-Dinitrotoluene	ND	50		µg/L	1	9/4/2007
Fluoranthene	ND	50		µg/L	1	9/4/2007

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S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-01

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Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	50		µg/L	1	9/4/2007
Hexachlorobenzene	ND	50		µg/L	1	9/4/2007
Hexachlorobutadiene	ND	50		µg/L	1	9/4/2007
Hexachlorocyclopentadiene	ND	250		µg/L	1	9/4/2007
Hexachloroethane	ND	50		µg/L	1	9/4/2007
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	9/4/2007
Isophorone	ND	50		µg/L	1	9/4/2007
2-Methylnaphthalene	330	50		µg/L	1	9/4/2007
2-Methylphenol	ND	75		µg/L	1	9/4/2007
3+4-Methylphenol	ND	100		µg/L	1	9/4/2007
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	9/4/2007
N-Nitrosodimethylamine	ND	50		µg/L	1	9/4/2007
N-Nitrosodiphenylamine	ND	50		µg/L	1	9/4/2007
Naphthalene	350	50		µg/L	1	9/4/2007
2-Nitroaniline	ND	250		µg/L	1	9/4/2007
3-Nitroaniline	ND	250		µg/L	1	9/4/2007
4-Nitroaniline	ND	100		µg/L	1	9/4/2007
Nitrobenzene	ND	50		µg/L	1	9/4/2007
2-Nitrophenol	ND	75		µg/L	1	9/4/2007
4-Nitrophenol	ND	250		µg/L	1	9/4/2007
Pentachlorophenol	ND	250		µg/L	1	9/4/2007
Phenanthrene	68	50		µg/L	1	9/4/2007
Phenol	110	50		µg/L	1	9/4/2007
Pyrene	ND	75		µg/L	1	9/4/2007
Pyridine	ND	150		µg/L	1	9/4/2007
1,2,4-Trichlorobenzene	ND	50		µg/L	1	9/4/2007
2,4,5-Trichlorophenol	ND	50		µg/L	1	9/4/2007
2,4,6-Trichlorophenol	ND	75		µg/L	1	9/4/2007
Surr: 2,4,6-Tribromophenol	75.0	16.6-150		%REC	1	9/4/2007
Surr: 2-Fluorobiphenyl	77.5	19.6-134		%REC	1	9/4/2007
Surr: 2-Fluorophenol	47.1	9.54-113		%REC	1	9/4/2007
Surr: 4-Terphenyl-d14	66.9	22.7-145		%REC	1	9/4/2007
Surr: Nitrobenzene-d5	74.2	14.6-134		%REC	1	9/4/2007
Surr: Phenol-d5	40.1	10.7-80.3		%REC	1	9/4/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	6900	200	µg/L	200	8/29/2007 1:26:59 PM
Toluene	6200	200	µg/L	200	8/29/2007 1:26:59 PM
Ethylbenzene	3500	200	µg/L	200	8/29/2007 1:26:59 PM
Methyl tert-butyl ether (MTBE)	30	20	µg/L	20	8/29/2007 2:00:29 PM
1,2,4-Trimethylbenzene	2200	200	µg/L	200	8/29/2007 1:26:59 PM

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- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
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Lab ID: 0708354-01

Client Sample ID: RW #15
Collection Date: 8/27/2007 1:25:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	700	20		µg/L	20	8/29/2007 2:00:29 PM
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Naphthalene	650	40		µg/L	20	8/29/2007 2:00:29 PM
1-Methylnaphthalene	110	80		µg/L	20	8/29/2007 2:00:29 PM
2-Methylnaphthalene	150	80		µg/L	20	8/29/2007 2:00:29 PM
Acetone	ND	200		µg/L	20	8/29/2007 2:00:29 PM
Bromobenzene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Bromochloromethane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Bromodichloromethane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Bromoform	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Bromomethane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
2-Butanone	ND	200		µg/L	20	8/29/2007 2:00:29 PM
Carbon disulfide	ND	200		µg/L	20	8/29/2007 2:00:29 PM
Carbon Tetrachloride	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Chlorobenzene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Chloroethane	ND	40		µg/L	20	8/29/2007 2:00:29 PM
Chloroform	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Chloromethane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
2-Chlorotoluene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
4-Chlorotoluene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
cis-1,2-DCE	ND	20		µg/L	20	8/29/2007 2:00:29 PM
cis-1,3-Dichloropropene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	8/29/2007 2:00:29 PM
Dibromochloromethane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Dibromomethane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,2-Dichlorobenzene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,3-Dichlorobenzene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,4-Dichlorobenzene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Dichlorodifluoromethane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,1-Dichloroethane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,1-Dichloroethene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,2-Dichloropropane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,3-Dichloropropane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
2,2-Dichloropropane	ND	40		µg/L	20	8/29/2007 2:00:29 PM
1,1-Dichloropropene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Hexachlorobutadiene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
2-Hexanone	ND	200		µg/L	20	8/29/2007 2:00:29 PM
Isopropylbenzene	97	20		µg/L	20	8/29/2007 2:00:29 PM
4-Isopropyltoluene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
4-Methyl-2-pentanone	ND	200		µg/L	20	8/29/2007 2:00:29 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
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- 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
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Date: 24-Sep-07

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Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-01

Client Sample ID: RW #15
Collection Date: 8/27/2007 1:25:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	60		µg/L	20	8/29/2007 2:00:29 PM
n-Butylbenzene	130	20		µg/L	20	8/29/2007 2:00:29 PM
n-Propylbenzene	320	20		µg/L	20	8/29/2007 2:00:29 PM
sec-Butylbenzene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Styrene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
tert-Butylbenzene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	8/29/2007 2:00:29 PM
Tetrachloroethene (PCE)	ND	20		µg/L	20	8/29/2007 2:00:29 PM
trans-1,2-DCE	ND	20		µg/L	20	8/29/2007 2:00:29 PM
trans-1,3-Dichloropropene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,2,3-Trichlorobenzene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,2,4-Trichlorobenzene	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,1,1-Trichloroethane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,1,2-Trichloroethane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Trichloroethene (TCE)	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Trichlorofluoromethane	ND	20		µg/L	20	8/29/2007 2:00:29 PM
1,2,3-Trichloropropane	ND	40		µg/L	20	8/29/2007 2:00:29 PM
Vinyl chloride	ND	20		µg/L	20	8/29/2007 2:00:29 PM
Xylenes, Total	20000	300		µg/L	200	8/29/2007 1:26:59 PM
Surr: 1,2-Dichloroethane-d4	86.9	68.1-123		%REC	20	8/29/2007 2:00:29 PM
Surr: 4-Bromofluorobenzene	102	53.2-145		%REC	20	8/29/2007 2:00:29 PM
Surr: Dibromofluoromethane	94.2	68.5-119		%REC	20	8/29/2007 2:00:29 PM
Surr: Toluene-d8	97.5	64-131		%REC	20	8/29/2007 2:00:29 PM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	1300	20		mg/L CaCO3	1	8/28/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/28/2007
Bicarbonate	1300	20		mg/L CaCO3	1	8/28/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	1300	1.0		mg CO2/L	1	8/28/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	3300	0.010		µmhos/cm	1	8/28/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	2000	200		mg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-02

Client Sample ID: MW #30
Collection Date: 8/27/2007 1:45:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: CMS
Fluoride	0.17	0.10		mg/L	1	8/29/2007 6:56:45 AM
Chloride	240	1.0		mg/L	10	8/29/2007 7:14:09 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/29/2007 6:56:45 AM
Bromide	4.7	0.10		mg/L	1	8/29/2007 6:56:45 AM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/29/2007 6:56:45 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/29/2007 6:56:45 AM
Sulfate	76	0.50		mg/L	1	8/29/2007 6:56:45 AM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/6/2007 3:53:49 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 4:57:33 PM
Barium	0.59	0.020		mg/L	1	9/14/2007 4:57:33 PM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 4:57:33 PM
Calcium	190	5.0		mg/L	5	9/17/2007 8:07:04 PM
Chromium	ND	0.0060		mg/L	1	9/14/2007 4:57:33 PM
Copper	ND	0.0060		mg/L	1	9/14/2007 4:57:33 PM
Iron	0.31	0.020		mg/L	1	9/14/2007 4:57:33 PM
Lead	ND	0.0050		mg/L	1	9/14/2007 4:57:33 PM
Magnesium	39	1.0		mg/L	1	9/14/2007 4:57:33 PM
Manganese	1.8	0.010		mg/L	5	9/17/2007 8:07:04 PM
Potassium	2.9	1.0		mg/L	1	9/14/2007 4:57:33 PM
Selenium	ND	0.25		mg/L	5	9/17/2007 8:07:04 PM
Silver	ND	0.0050		mg/L	1	9/14/2007 4:57:33 PM
Sodium	560	10		mg/L	10	9/17/2007 8:10:01 PM
Uranium	ND	0.10		mg/L	1	9/14/2007 4:57:33 PM
Zinc	ND	0.050		mg/L	1	9/14/2007 4:57:33 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 9:31:55 AM
Barium	0.89	0.020		mg/L	1	9/14/2007 9:31:55 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 9:31:55 AM
Chromium	ND	0.0060		mg/L	1	9/14/2007 9:31:55 AM
Lead	ND	0.0050		mg/L	1	9/14/2007 9:31:55 AM
Selenium	ND	0.050		mg/L	1	9/14/2007 9:31:55 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 9:31:55 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-02

Client Sample ID: MW #30
Collection Date: 8/27/2007 1:45:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/4/2007
Aniline	ND	20		µg/L	1	9/4/2007
Anthracene	ND	10		µg/L	1	9/4/2007
Azobenzene	ND	10		µg/L	1	9/4/2007
Benz(a)anthracene	ND	15		µg/L	1	9/4/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/4/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/4/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/4/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/4/2007
Benzoic acid	ND	50		µg/L	1	9/4/2007
Benzyl alcohol	ND	20		µg/L	1	9/4/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/4/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/4/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/4/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/4/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/4/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/4/2007
Carbazole	ND	10		µg/L	1	9/4/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/4/2007
4-Chloroaniline	ND	20		µg/L	1	9/4/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/4/2007
2-Chlorophenol	ND	10		µg/L	1	9/4/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/4/2007
Chrysene	ND	15		µg/L	1	9/4/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/4/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/4/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/4/2007
Dibenzofuran	ND	10		µg/L	1	9/4/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/4/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/4/2007
Diethyl phthalate	ND	10		µg/L	1	9/4/2007
Dimethyl phthalate	ND	10		µg/L	1	9/4/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/4/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/4/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/4/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/4/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/4/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/4/2007
Fluoranthene	ND	10		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-02

Client Sample ID: MW #30
Collection Date: 8/27/2007 1:45:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/4/2007
Hexachlorobenzene	ND	10		µg/L	1	9/4/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/4/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/4/2007
Hexachloroethane	ND	10		µg/L	1	9/4/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2007
Isophorone	ND	10		µg/L	1	9/4/2007
2-Methylnaphthalene	140	10		µg/L	1	9/4/2007
2-Methylphenol	ND	15		µg/L	1	9/4/2007
3+4-Methylphenol	20	20		µg/L	1	9/4/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2007
Naphthalene	440	50		µg/L	5	9/5/2007
2-Nitroaniline	ND	50		µg/L	1	9/4/2007
3-Nitroaniline	ND	50		µg/L	1	9/4/2007
4-Nitroaniline	ND	20		µg/L	1	9/4/2007
Nitrobenzene	ND	10		µg/L	1	9/4/2007
2-Nitrophenol	ND	15		µg/L	1	9/4/2007
4-Nitrophenol	ND	50		µg/L	1	9/4/2007
Pentachlorophenol	ND	50		µg/L	1	9/4/2007
Phenanthrene	ND	10		µg/L	1	9/4/2007
Phenol	ND	10		µg/L	1	*9/4/2007
Pyrene	ND	15		µg/L	1	9/4/2007
Pyridine	ND	30		µg/L	1	9/4/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/4/2007
Surr: 2,4,6-Tribromophenol	74.9	16.6-150		%REC	1	9/4/2007
Surr: 2-Fluorobiphenyl	64.8	19.6-134		%REC	1	9/4/2007
Surr: 2-Fluorophenol	35.7	9.54-113		%REC	1	9/4/2007
Surr: 4-Terphenyl-d14	60.9	22.7-145		%REC	1	9/4/2007
Surr: Nitrobenzene-d5	58.1	14.6-134		%REC	1	9/4/2007
Surr: Phenol-d5	27.4	10.7-80.3		%REC	1	9/4/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	6000	200	µg/L	200	8/29/2007 3:07:27 PM
Toluene	2900	200	µg/L	200	8/29/2007 3:07:27 PM
Ethylbenzene	4000	200	µg/L	200	8/29/2007 3:07:27 PM
Methyl tert-butyl ether (MTBE)	ND	20	µg/L	20	8/29/2007 3:41:00 PM
1,2,4-Trimethylbenzene	3400	200	µg/L	200	8/29/2007 3:07:27 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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-02

Client Sample ID: MW #30
Collection Date: 8/27/2007 1:45:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	840	20		µg/L	20	8/29/2007 3:41:00 PM
1,2-Dichloroethane (EDC)	20	20		µg/L	20	8/29/2007 3:41:00 PM
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Naphthalene	1000	40		µg/L	20	8/29/2007 3:41:00 PM
1-Methylnaphthalene	200	80		µg/L	20	8/29/2007 3:41:00 PM
2-Methylnaphthalene	300	80		µg/L	20	8/29/2007 3:41:00 PM
Acetone	ND	200		µg/L	20	8/29/2007 3:41:00 PM
Bromobenzene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Bromochloromethane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Bromodichloromethane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Bromoform	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Bromomethane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
2-Butanone	ND	200		µg/L	20	8/29/2007 3:41:00 PM
Carbon disulfide	ND	200		µg/L	20	8/29/2007 3:41:00 PM
Carbon Tetrachloride	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Chlorobenzene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Chloroethane	ND	40		µg/L	20	8/29/2007 3:41:00 PM
Chloroform	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Chloromethane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
2-Chlorotoluene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
4-Chlorotoluene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
cis-1,2-DCE	ND	20		µg/L	20	8/29/2007 3:41:00 PM
cis-1,3-Dichloropropene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	8/29/2007 3:41:00 PM
Dibromochloromethane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Dibromomethane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,2-Dichlorobenzene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,3-Dichlorobenzene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,4-Dichlorobenzene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Dichlorodifluoromethane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,1-Dichloroethane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,1-Dichloroethene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,2-Dichloropropane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,3-Dichloropropane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
2,2-Dichloropropane	ND	40		µg/L	20	8/29/2007 3:41:00 PM
1,1-Dichloropropene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Hexachlorobutadiene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
2-Hexanone	ND	200		µg/L	20	8/29/2007 3:41:00 PM
Isopropylbenzene	170	20		µg/L	20	8/29/2007 3:41:00 PM
4-Isopropyltoluene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
4-Methyl-2-pentanone	ND	200		µg/L	20	8/29/2007 3:41:00 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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-02

Client Sample ID: MW #30
Collection Date: 8/27/2007 1:45:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	60		µg/L	20	8/29/2007 3:41:00 PM
n-Butylbenzene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
n-Propylbenzene	520	20		µg/L	20	8/29/2007 3:41:00 PM
sec-Butylbenzene	29	20		µg/L	20	8/29/2007 3:41:00 PM
Styrene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
tert-Butylbenzene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	8/29/2007 3:41:00 PM
Tetrachloroethene (PCE)	ND	20		µg/L	20	8/29/2007 3:41:00 PM
trans-1,2-DCE	ND	20		µg/L	20	8/29/2007 3:41:00 PM
trans-1,3-Dichloropropene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,2,3-Trichlorobenzene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,2,4-Trichlorobenzene	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,1,1-Trichloroethane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,1,2-Trichloroethane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Trichloroethene (TCE)	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Trichlorofluoromethane	ND	20		µg/L	20	8/29/2007 3:41:00 PM
1,2,3-Trichloropropane	ND	40		µg/L	20	8/29/2007 3:41:00 PM
Vinyl chloride	ND	20		µg/L	20	8/29/2007 3:41:00 PM
Xylenes, Total	16000	300		µg/L	200	8/29/2007 3:07:27 PM
Surr: 1,2-Dichloroethane-d4	85.9	68.1-123		%REC	20	8/29/2007 3:41:00 PM
Surr: 4-Bromofluorobenzene	93.5	53.2-145		%REC	20	8/29/2007 3:41:00 PM
Surr: Dibromofluoromethane	96.3	68.5-119		%REC	20	8/29/2007 3:41:00 PM
Surr: Toluene-d8	108	64-131		%REC	20	8/29/2007 3:41:00 PM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	1400	20		mg/L CaCO3	1	8/28/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/28/2007
Bicarbonate	1400	20		mg/L CaCO3	1	8/28/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	1500	1.0		mg CO2/L	1	8/28/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	3300	0.010		µmhos/cm	1	8/28/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	2400	200		mg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-03

Client Sample ID: RW #1
Collection Date: 8/27/2007 11:25:00 AM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	ND	0.50		mg/L	5	8/29/2007 8:41:12 AM
Chloride	220	1.0		mg/L	10	8/28/2007 3:19:26 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/29/2007 8:41:12 AM
Bromide	2.2	0.50		mg/L	5	8/29/2007 8:41:12 AM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/29/2007 8:41:12 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/29/2007 8:41:12 AM
Sulfate	110	2.5		mg/L	5	8/29/2007 8:41:12 AM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/6/2007 3:55:33 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 5:01:44 PM
Barium	0.68	0.020		mg/L	1	9/14/2007 5:01:44 PM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 5:01:44 PM
Calcium	140	5.0		mg/L	5	9/17/2007 8:25:01 PM
Chromium	ND	0.0060		mg/L	1	9/14/2007 5:01:44 PM
Copper	ND	0.0060		mg/L	1	9/14/2007 5:01:44 PM
Iron	8.0	0.20		mg/L	10	9/17/2007 8:27:58 PM
Lead	0.0066	0.0050		mg/L	1	9/14/2007 5:01:44 PM
Magnesium	37	1.0		mg/L	1	9/14/2007 5:01:44 PM
Manganese	4.2	0.020		mg/L	10	9/17/2007 8:27:58 PM
Potassium	3.1	1.0		mg/L	1	9/14/2007 5:01:44 PM
Selenium	ND	0.25		mg/L	5	9/17/2007 8:25:01 PM
Silver	ND	0.0050		mg/L	1	9/14/2007 5:01:44 PM
Sodium	530	10		mg/L	10	9/17/2007 8:27:58 PM
Uranium	ND	0.10		mg/L	1	9/14/2007 5:01:44 PM
Zinc	ND	0.050		mg/L	1	9/14/2007 5:01:44 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 9:35:51 AM
Barium	0.61	0.020		mg/L	1	9/14/2007 9:35:51 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 9:35:51 AM
Chromium	ND	0.0060		mg/L	1	9/14/2007 9:35:51 AM
Lead	0.019	0.0050		mg/L	1	9/14/2007 9:35:51 AM
Selenium	ND	0.050		mg/L	1	9/14/2007 9:35:51 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 9:35:51 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	22	20		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-03

Client Sample ID: RW #1
Collection Date: 8/27/2007 11:25:00 AM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	20		µg/L	1	9/4/2007
Aniline	ND	40		µg/L	1	9/4/2007
Anthracene	ND	20		µg/L	1	9/4/2007
Azobenzene	ND	20		µg/L	1	9/4/2007
Benz(a)anthracene	ND	30		µg/L	1	9/4/2007
Benzo(a)pyrene	ND	20		µg/L	1	9/4/2007
Benzo(b)fluoranthene	ND	30		µg/L	1	9/4/2007
Benzo(g,h,i)perylene	ND	20		µg/L	1	9/4/2007
Benzo(k)fluoranthene	ND	20		µg/L	1	9/4/2007
Benzoic acid	ND	100		µg/L	1	9/4/2007
Benzyl alcohol	ND	40		µg/L	1	9/4/2007
Bis(2-chloroethoxy)methane	ND	20		µg/L	1	9/4/2007
Bis(2-chloroethyl)ether	ND	30		µg/L	1	9/4/2007
Bis(2-chloroisopropyl)ether	ND	30		µg/L	1	9/4/2007
Bis(2-ethylhexyl)phthalate	77	30		µg/L	1	9/4/2007
4-Bromophenyl phenyl ether	ND	20		µg/L	1	9/4/2007
Butyl benzyl phthalate	ND	30		µg/L	1	9/4/2007
Carbazole	ND	20		µg/L	1	9/4/2007
4-Chloro-3-methylphenol	ND	40		µg/L	1	9/4/2007
4-Chloroaniline	ND	40		µg/L	1	9/4/2007
2-Chloronaphthalene	ND	20		µg/L	1	9/4/2007
2-Chlorophenol	ND	20		µg/L	1	9/4/2007
4-Chlorophenyl phenyl ether	ND	30		µg/L	1	9/4/2007
Chrysene	ND	30		µg/L	1	9/4/2007
Di-n-butyl phthalate	ND	20		µg/L	1	9/4/2007
Di-n-octyl phthalate	ND	30		µg/L	1	9/4/2007
Dibenz(a,h)anthracene	ND	20		µg/L	1	9/4/2007
Dibenzofuran	ND	20		µg/L	1	9/4/2007
1,2-Dichlorobenzene	ND	20		µg/L	1	9/4/2007
1,3-Dichlorobenzene	ND	20		µg/L	1	9/4/2007
1,4-Dichlorobenzene	ND	20		µg/L	1	9/4/2007
3,3'-Dichlorobenzidine	ND	30		µg/L	1	9/4/2007
Diethyl phthalate	ND	20		µg/L	1	9/4/2007
Dimethyl phthalate	ND	20		µg/L	1	9/4/2007
2,4-Dichlorophenol	ND	20		µg/L	1	9/4/2007
2,4-Dimethylphenol	ND	20		µg/L	1	9/4/2007
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	9/4/2007
2,4-Dinitrophenol	ND	100		µg/L	1	9/4/2007
2,4-Dinitrotoluene	ND	20		µg/L	1	9/4/2007
2,6-Dinitrotoluene	ND	20		µg/L	1	9/4/2007
Fluoranthene	ND	20		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708354
 Project: Annual Sampling-2007
 Lab ID: 0708354-03

Client Sample ID: RW #1
 Collection Date: 8/27/2007 11:25:00 AM
 Date Received: 8/28/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	88	20		µg/L	1	9/4/2007
Hexachlorobenzene	ND	20		µg/L	1	9/4/2007
Hexachlorobutadiene	ND	20		µg/L	1	9/4/2007
Hexachlorocyclopentadiene	ND	100		µg/L	1	9/4/2007
Hexachloroethane	ND	20		µg/L	1	9/4/2007
Indeno(1,2,3-cd)pyrene	ND	20		µg/L	1	9/4/2007
Isophorone	ND	20		µg/L	1	9/4/2007
2-Methylnaphthalene	860	100		µg/L	5	9/5/2007
2-Methylphenol	ND	30		µg/L	1	9/4/2007
3+4-Methylphenol	ND	40		µg/L	1	9/4/2007
N-Nitrosodi-n-propylamine	ND	20		µg/L	1	9/4/2007
N-Nitrosodimethylamine	ND	20		µg/L	1	9/4/2007
N-Nitrosodiphenylamine	ND	20		µg/L	1	9/4/2007
Naphthalene	430	20		µg/L	1	9/4/2007
2-Nitroaniline	ND	100		µg/L	1	9/4/2007
3-Nitroaniline	ND	100		µg/L	1	9/4/2007
4-Nitroaniline	ND	40		µg/L	1	9/4/2007
Nitrobenzene	ND	20		µg/L	1	9/4/2007
2-Nitrophenol	ND	30		µg/L	1	9/4/2007
4-Nitrophenol	ND	100		µg/L	1	9/4/2007
Pentachlorophenol	ND	100		µg/L	1	9/4/2007
Phenanthrene	93	20		µg/L	1	9/4/2007
Phenol	ND	20		µg/L	1	9/4/2007
Pyrene	ND	30		µg/L	1	9/4/2007
Pyridine	ND	60		µg/L	1	9/4/2007
1,2,4-Trichlorobenzene	ND	20		µg/L	1	9/4/2007
2,4,5-Trichlorophenol	ND	20		µg/L	1	9/4/2007
2,4,6-Trichlorophenol	ND	30		µg/L	1	9/4/2007
Surr: 2,4,6-Tribromophenol	76.6	16.6-150		%REC	1	9/4/2007
Surr: 2-Fluorobiphenyl	72.0	19.6-134		%REC	1	9/4/2007
Surr: 2-Fluorophenol	37.7	9.54-113		%REC	1	9/4/2007
Surr: 4-Terphenyl-d14	66.2	22.7-145		%REC	1	9/4/2007
Surr: Nitrobenzene-d5	73.9	14.6-134		%REC	1	9/4/2007
Surr: Phenol-d5	29.1	10.7-80.3		%REC	1	9/4/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	250	5.0		µg/L	5	8/31/2007 11:37:31 AM
Toluene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Ethylbenzene	560	50		µg/L	50	8/30/2007 3:47:26 PM
Methyl tert-butyl ether (MTBE)	13	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,2,4-Trimethylbenzene	1100	50		µg/L	50	8/30/2007 3:47:26 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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-03

Client Sample ID: RW #1
Collection Date: 8/27/2007 11:25:00 AM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	180	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Naphthalene	320	10		µg/L	5	8/31/2007 11:37:31 AM
1-Methylnaphthalene	280	20		µg/L	5	8/31/2007 11:37:31 AM
2-Methylnaphthalene	390	20		µg/L	5	8/31/2007 11:37:31 AM
Acetone	ND	50		µg/L	5	8/31/2007 11:37:31 AM
Bromobenzene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Bromochloromethane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Bromodichloromethane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Bromoform	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Bromomethane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
2-Butanone	ND	50		µg/L	5	8/31/2007 11:37:31 AM
Carbon disulfide	ND	50		µg/L	5	8/31/2007 11:37:31 AM
Carbon Tetrachloride	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Chlorobenzene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Chloroethane	ND	10		µg/L	5	8/31/2007 11:37:31 AM
Chloroform	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Chloromethane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
2-Chlorotoluene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
4-Chlorotoluene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
cis-1,2-DCE	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	8/31/2007 11:37:31 AM
Dibromochloromethane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Dibromomethane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Dichlorodifluoromethane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,1-Dichloroethane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,1-Dichloroethene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,2-Dichloropropane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,3-Dichloropropane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
2,2-Dichloropropane	ND	10		µg/L	5	8/31/2007 11:37:31 AM
1,1-Dichloropropene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Hexachlorobutadiene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
2-Hexanone	ND	50		µg/L	5	8/31/2007 11:37:31 AM
Isopropylbenzene	180	50		µg/L	50	8/30/2007 3:47:26 PM
4-Isopropyltoluene	30	5.0		µg/L	5	8/31/2007 11:37:31 AM
4-Methyl-2-pentanone	ND	50		µg/L	5	8/31/2007 11:37:31 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-03

Client Sample ID: RW #1
Collection Date: 8/27/2007 11:25:00 AM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	15		µg/L	5	8/31/2007 11:37:31 AM
n-Butylbenzene	41	5.0		µg/L	5	8/31/2007 11:37:31 AM
n-Propylbenzene	200	5.0		µg/L	5	8/31/2007 11:37:31 AM
sec-Butylbenzene	88	5.0		µg/L	5	8/31/2007 11:37:31 AM
Styrene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
tert-Butylbenzene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	8/31/2007 11:37:31 AM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
trans-1,2-DCE	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Trichloroethene (TCE)	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Trichlorofluoromethane	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
1,2,3-Trichloropropane	ND	10		µg/L	5	8/31/2007 11:37:31 AM
Vinyl chloride	ND	5.0		µg/L	5	8/31/2007 11:37:31 AM
Xylenes, Total	400	75		µg/L	50	8/30/2007 3:47:26 PM
Surr: 1,2-Dichloroethane-d4	98.3	68.1-123		%REC	5	8/31/2007 11:37:31 AM
Surr: 4-Bromofluorobenzene	94.3	53.2-145		%REC	50	8/30/2007 3:47:26 PM
Surr: Dibromofluoromethane	101	68.5-119		%REC	5	8/31/2007 11:37:31 AM
Surr: Toluene-d8	94.9	64-131		%REC	50	8/30/2007 3:47:26 PM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	1300	20		mg/L CaCO3	1	8/28/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/28/2007
Bicarbonate	1300	20		mg/L CaCO3	1	8/28/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	1400	1.0		mg CO2/L	1	8/28/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	3000	0.010		µmhos/cm	1	8/28/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	2100	200		mg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-04

Client Sample ID: RW #9
Collection Date: 8/27/2007 1:00:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	ND	2.0		mg/L	20	8/28/2007 3:36:50 PM
Chloride	420	2.0		mg/L	20	8/28/2007 3:36:50 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/28/2007 3:36:50 PM
Bromide	3.9	2.0		mg/L	20	8/28/2007 3:36:50 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	8/28/2007 3:36:50 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/28/2007 3:36:50 PM
Sulfate	41	10		mg/L	20	8/28/2007 3:36:50 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/6/2007 3:57:18 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 5:05:41 PM
Barium	2.5	0.10		mg/L	5	9/17/2007 8:30:53 PM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 5:05:41 PM
Calcium	180	5.0		mg/L	5	9/17/2007 8:30:53 PM
Chromium	ND	0.0060		mg/L	1	9/14/2007 5:05:41 PM
Copper	ND	0.0060		mg/L	1	9/14/2007 5:05:41 PM
Iron	16	0.40		mg/L	20	9/17/2007 8:33:42 PM
Lead	0.026	0.0050		mg/L	1	9/14/2007 5:05:41 PM
Magnesium	52	1.0		mg/L	1	9/14/2007 5:05:41 PM
Manganese	4.4	0.040		mg/L	20	9/17/2007 8:33:42 PM
Potassium	3.0	1.0		mg/L	1	9/14/2007 5:05:41 PM
Selenium	ND	0.25		mg/L	5	9/17/2007 8:30:53 PM
Silver	ND	0.0050		mg/L	1	9/14/2007 5:05:41 PM
Sodium	400	20		mg/L	20	9/17/2007 8:33:42 PM
Uranium	ND	0.10		mg/L	1	9/14/2007 5:05:41 PM
Zinc	0.084	0.050		mg/L	1	9/14/2007 5:05:41 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 9:39:48 AM
Barium	1.7	0.10		mg/L	5	9/17/2007 8:48:20 PM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 9:39:48 AM
Chromium	ND	0.0060		mg/L	1	9/14/2007 9:39:48 AM
Lead	0.052	0.0050		mg/L	1	9/14/2007 9:39:48 AM
Selenium	ND	0.050		mg/L	1	9/14/2007 9:39:48 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 9:39:48 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	20		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-04

Client Sample ID: RW #9
Collection Date: 8/27/2007 1:00:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	20		µg/L	1	9/4/2007
Aniline	ND	40		µg/L	1	9/4/2007
Anthracene	ND	20		µg/L	1	9/4/2007
Azobenzene	ND	20		µg/L	1	9/4/2007
Benz(a)anthracene	ND	30		µg/L	1	9/4/2007
Benzo(a)pyrene	ND	20		µg/L	1	9/4/2007
Benzo(b)fluoranthene	ND	30		µg/L	1	9/4/2007
Benzo(g,h,i)perylene	ND	20		µg/L	1	9/4/2007
Benzo(k)fluoranthene	ND	20		µg/L	1	9/4/2007
Benzoic acid	ND	100		µg/L	1	9/4/2007
Benzyl alcohol	ND	40		µg/L	1	9/4/2007
Bis(2-chloroethoxy)methane	ND	20		µg/L	1	9/4/2007
Bis(2-chloroethyl)ether	ND	30		µg/L	1	9/4/2007
Bis(2-chloroisopropyl)ether	ND	30		µg/L	1	9/4/2007
Bis(2-ethylhexyl)phthalate	ND	30		µg/L	1	9/4/2007
4-Bromophenyl phenyl ether	ND	20		µg/L	1	9/4/2007
Butyl benzyl phthalate	ND	30		µg/L	1	9/4/2007
Carbazole	ND	20		µg/L	1	9/4/2007
4-Chloro-3-methylphenol	ND	40		µg/L	1	9/4/2007
4-Chloroaniline	ND	40		µg/L	1	9/4/2007
2-Chloronaphthalene	ND	20		µg/L	1	9/4/2007
2-Chlorophenol	ND	20		µg/L	1	9/4/2007
4-Chlorophenyl phenyl ether	ND	30		µg/L	1	9/4/2007
Chrysene	ND	30		µg/L	1	9/4/2007
Di-n-butyl phthalate	ND	20		µg/L	1	9/4/2007
Di-n-octyl phthalate	ND	30		µg/L	1	9/4/2007
Dibenz(a,h)anthracene	ND	20		µg/L	1	9/4/2007
Dibenzofuran	ND	20		µg/L	1	9/4/2007
1,2-Dichlorobenzene	ND	20		µg/L	1	9/4/2007
1,3-Dichlorobenzene	ND	20		µg/L	1	9/4/2007
1,4-Dichlorobenzene	ND	20		µg/L	1	9/4/2007
3,3'-Dichlorobenzidine	ND	30		µg/L	1	9/4/2007
Diethyl phthalate	ND	20		µg/L	1	9/4/2007
Dimethyl phthalate	ND	20		µg/L	1	9/4/2007
2,4-Dichlorophenol	ND	20		µg/L	1	9/4/2007
2,4-Dimethylphenol	29	20		µg/L	1	9/4/2007
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	9/4/2007
2,4-Dinitrophenol	ND	100		µg/L	1	9/4/2007
2,4-Dinitrotoluene	ND	20		µg/L	1	9/4/2007
2,6-Dinitrotoluene	ND	20		µg/L	1	9/4/2007
Fluoranthene	ND	20		µg/L	1	9/4/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-04

Client Sample ID: RW #9
Collection Date: 8/27/2007 1:00:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	20		µg/L	1	9/4/2007
Hexachlorobenzene	ND	20		µg/L	1	9/4/2007
Hexachlorobutadiene	ND	20		µg/L	1	9/4/2007
Hexachlorocyclopentadiene	ND	100		µg/L	1	9/4/2007
Hexachloroethane	ND	20		µg/L	1	9/4/2007
Indeno(1,2,3-cd)pyrene	ND	20		µg/L	1	9/4/2007
Isophorone	ND	20		µg/L	1	9/4/2007
2-Methylnaphthalene	120	20		µg/L	1	9/4/2007
2-Methylphenol	ND	30		µg/L	1	9/4/2007
3+4-Methylphenol	ND	40		µg/L	1	9/4/2007
N-Nitrosodi-n-propylamine	ND	20		µg/L	1	9/4/2007
N-Nitrosodimethylamine	ND	20		µg/L	1	9/4/2007
N-Nitrosodiphenylamine	ND	20		µg/L	1	9/4/2007
Naphthalene	130	20		µg/L	1	9/4/2007
2-Nitroaniline	ND	100		µg/L	1	9/4/2007
3-Nitroaniline	ND	100		µg/L	1	9/4/2007
4-Nitroaniline	ND	40		µg/L	1	9/4/2007
Nitrobenzene	ND	20		µg/L	1	9/4/2007
2-Nitrophenol	ND	30		µg/L	1	9/4/2007
4-Nitrophenol	ND	100		µg/L	1	9/4/2007
Pentachlorophenol	ND	100		µg/L	1	9/4/2007
Phenanthrene	26	20		µg/L	1	9/4/2007
Phenol	44	20		µg/L	1	9/4/2007
Pyrene	ND	30		µg/L	1	9/4/2007
Pyridine	ND	60		µg/L	1	9/4/2007
1,2,4-Trichlorobenzene	ND	20		µg/L	1	9/4/2007
2,4,5-Trichlorophenol	ND	20		µg/L	1	9/4/2007
2,4,6-Trichlorophenol	ND	30		µg/L	1	9/4/2007
Surr: 2,4,6-Tribromophenol	73.5	16.6-150		%REC	1	9/4/2007
Surr: 2-Fluorobiphenyl	76.5	19.6-134		%REC	1	9/4/2007
Surr: 2-Fluorophenol	43.8	9.54-113		%REC	1	9/4/2007
Surr: 4-Terphenyl-d14	64.5	22.7-145		%REC	1	9/4/2007
Surr: Nitrobenzene-d5	72.6	14.6-134		%REC	1	9/4/2007
Surr: Phenol-d5	39.0	10.7-80.3		%REC	1	9/4/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	9700	200		µg/L	200	8/29/2007 5:54:59 PM
Toluene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Ethylbenzene	590	20		µg/L	20	8/29/2007 6:28:25 PM
Methyl tert-butyl ether (MTBE)	5700	200		µg/L	200	8/29/2007 5:54:59 PM
1,2,4-Trimethylbenzene	880	20		µg/L	20	8/29/2007 6:28:25 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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-04

Client Sample ID: RW #9
Collection Date: 8/27/2007 1:00:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	290	20		µg/L	20	8/29/2007 6:28:25 PM
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Naphthalene	180	40		µg/L	20	8/29/2007 6:28:25 PM
1-Methylnaphthalene	ND	80		µg/L	20	8/29/2007 6:28:25 PM
2-Methylnaphthalene	110	80		µg/L	20	8/29/2007 6:28:25 PM
Acetone	ND	200		µg/L	20	8/29/2007 6:28:25 PM
Bromobenzene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Bromochloromethane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Bromodichloromethane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Bromoform	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Bromomethane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
2-Butanone	ND	200		µg/L	20	8/29/2007 6:28:25 PM
Carbon disulfide	ND	200		µg/L	20	8/29/2007 6:28:25 PM
Carbon Tetrachloride	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Chlorobenzene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Chloroethane	ND	40		µg/L	20	8/29/2007 6:28:25 PM
Chloroform	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Chloromethane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
2-Chlorotoluene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
4-Chlorotoluene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
cis-1,2-DCE	ND	20		µg/L	20	8/29/2007 6:28:25 PM
cis-1,3-Dichloropropene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	8/29/2007 6:28:25 PM
Dibromochloromethane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Dibromomethane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,2-Dichlorobenzene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,3-Dichlorobenzene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,4-Dichlorobenzene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Dichlorodifluoromethane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,1-Dichloroethane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,1-Dichloroethene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,2-Dichloropropane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,3-Dichloropropane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
2,2-Dichloropropane	ND	40		µg/L	20	8/29/2007 6:28:25 PM
1,1-Dichloropropene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Hexachlorobutadiene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
2-Hexanone	220	200		µg/L	20	8/29/2007 6:28:25 PM
Isopropylbenzene	47	20		µg/L	20	8/29/2007 6:28:25 PM
4-Isopropyltoluene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
4-Methyl-2-pentanone	ND	200		µg/L	20	8/29/2007 6:28:25 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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-04

Client Sample ID: RW #9
Collection Date: 8/27/2007 1:00:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	60		µg/L	20	8/29/2007 6:28:25 PM
n-Butylbenzene	49	20		µg/L	20	8/29/2007 6:28:25 PM
n-Propylbenzene	54	20		µg/L	20	8/29/2007 6:28:25 PM
sec-Butylbenzene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Styrene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
tert-Butylbenzene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	8/29/2007 6:28:25 PM
Tetrachloroethene (PCE)	ND	20		µg/L	20	8/29/2007 6:28:25 PM
trans-1,2-DCE	ND	20		µg/L	20	8/29/2007 6:28:25 PM
trans-1,3-Dichloropropene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,2,3-Trichlorobenzene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,2,4-Trichlorobenzene	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,1,1-Trichloroethane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,1,2-Trichloroethane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Trichloroethene (TCE)	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Trichlorofluoromethane	ND	20		µg/L	20	8/29/2007 6:28:25 PM
1,2,3-Trichloropropane	ND	40		µg/L	20	8/29/2007 6:28:25 PM
Vinyl chloride	ND	20		µg/L	20	8/29/2007 6:28:25 PM
Xylenes, Total	4100	30		µg/L	20	8/29/2007 6:28:25 PM
Surr: 1,2-Dichloroethane-d4	78.8	68.1-123		%REC	20	8/29/2007 6:28:25 PM
Surr: 4-Bromofluorobenzene	87.8	53.2-145		%REC	20	8/29/2007 6:28:25 PM
Surr: Dibromofluoromethane	94.0	68.5-119		%REC	20	8/29/2007 6:28:25 PM
Surr: Toluene-d8	102	64-131		%REC	20	8/29/2007 6:28:25 PM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	1000	20		mg/L CaCO3	1	8/28/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/28/2007
Bicarbonate	1000	20		mg/L CaCO3	1	8/28/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	1200	1.0		mg CO2/L	1	8/28/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	3100	0.010		µmhos/cm	1	8/28/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	2300	400		mg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining

Client Sample ID: Field Blank

Lab Order: 0708354

Collection Date: 8/27/2007 1:50:00 PM

Project: Annual Sampling-2007

Date Received: 8/28/2007

Lab ID: 0708354-05

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Toluene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Ethylbenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Naphthalene	ND	2.0		µg/L	1	8/29/2007 7:35:18 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2007 7:35:18 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2007 7:35:18 PM
Acetone	ND	10		µg/L	1	8/29/2007 7:35:18 PM
Bromobenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Bromochloromethane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Bromoform	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Bromomethane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
2-Butanone	ND	10		µg/L	1	8/29/2007 7:35:18 PM
Carbon disulfide	ND	10		µg/L	1	8/29/2007 7:35:18 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Chlorobenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Chloroethane	ND	2.0		µg/L	1	8/29/2007 7:35:18 PM
Chloroform	11	1.0		µg/L	1	8/29/2007 7:35:18 PM
Chloromethane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/29/2007 7:35:18 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Dibromomethane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/29/2007 7:35:18 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/29/2007 7:35:18 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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-05

Client Sample ID: Field Blank
Collection Date: 8/27/2007 1:50:00 PM
Date Received: 8/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Hexachlorobutadiene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
2-Hexanone	ND	10		µg/L	1	8/29/2007 7:35:18 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/29/2007 7:35:18 PM
Methylene Chloride	ND	3.0		µg/L	1	8/29/2007 7:35:18 PM
n-Butylbenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Styrene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/29/2007 7:35:18 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/29/2007 7:35:18 PM
Vinyl chloride	ND	1.0		µg/L	1	8/29/2007 7:35:18 PM
Xylenes, Total	ND	1.5		µg/L	1	8/29/2007 7:35:18 PM
Surr: 1,2-Dichloroethane-d4	93.5	68.1-123		%REC	1	8/29/2007 7:35:18 PM
Surr: 4-Bromofluorobenzene	98.8	53.2-145		%REC	1	8/29/2007 7:35:18 PM
Surr: Dibromofluoromethane	96.4	68.5-119		%REC	1	8/29/2007 7:35:18 PM
Surr: Toluene-d8	99.4	64-131		%REC	1	8/29/2007 7:35:18 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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-06

Client Sample ID: Trip Blank
Collection Date:
Date Received: 8/28/2007
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Toluene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Ethylbenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Naphthalene	ND	2.0		µg/L	1	8/29/2007 8:08:41 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2007 8:08:41 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2007 8:08:41 PM
Acetone	ND	10		µg/L	1	8/29/2007 8:08:41 PM
Bromobenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Bromochloromethane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Bromoform	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Bromomethane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
2-Butanone	ND	10		µg/L	1	8/29/2007 8:08:41 PM
Carbon disulfide	ND	10		µg/L	1	8/29/2007 8:08:41 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Chlorobenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Chloroethane	ND	2.0		µg/L	1	8/29/2007 8:08:41 PM
Chloroform	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Chloromethane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/29/2007 8:08:41 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Dibromomethane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/29/2007 8:08:41 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/29/2007 8:08:41 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

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708354
Project: Annual Sampling-2007
Lab ID: 0708354-06

Client Sample ID: Trip Blank
Collection Date:
Date Received: 8/28/2007
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Hexachlorobutadiene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
2-Hexanone	ND	10		µg/L	1	8/29/2007 8:08:41 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/29/2007 8:08:41 PM
Methylene Chloride	ND	3.0		µg/L	1	8/29/2007 8:08:41 PM
n-Butylbenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Styrene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/29/2007 8:08:41 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/29/2007 8:08:41 PM
Vinyl chloride	ND	1.0		µg/L	1	8/29/2007 8:08:41 PM
Xylenes, Total	ND	1.5		µg/L	1	8/29/2007 8:08:41 PM
Surr: 1,2-Dichloroethane-d4	95.3	68.1-123		%REC	1	8/29/2007 8:08:41 PM
Surr: 4-Bromofluorobenzene	97.2	53.2-145		%REC	1	8/29/2007 8:08:41 PM
Surr: Dibromofluoromethane	97.7	68.5-119		%REC	1	8/29/2007 8:08:41 PM
Surr: Toluene-d8	96.8	64-131		%REC	1	8/29/2007 8:08:41 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

Hall Environmental Analysis Laboratory, Inc.

24-Sep-07

Lab Order: 0708354
 Client: San Juan Refining
 Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708354-01A	RW #15	8/27/2007 1:25:00 PM	Aqueous	EPA Method 8260B: VOLATILES	R24962		8/29/2007
0708354-01B				EPA Method 8260B: VOLATILES	R24962		8/29/2007
0708354-01C				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/4/2007
				Carbon Dioxide	R24942		8/28/2007
				EPA 120.1: Specific Conductance	R24938		8/28/2007
				EPA Method 300.0: Anions	R24941		8/28/2007
				EPA Method 300.0: Anions	R24953		8/29/2007
				EPA Method 300.0: Anions	R24953		8/29/2007
				SM 2320C: Alkalinity	R24942		8/28/2007
				SM 2540C: TDS	13738	8/31/2007	8/31/2007
0708354-01D				EPA Method 6010B: Dissolved Metals	R25202		9/14/2007
				EPA Method 6010B: Dissolved Metals	R25202		9/17/2007
				EPA Method 6010B: Dissolved Metals	R25202		9/17/2007
0708354-01E				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
				EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
0708354-02A	MW #30	8/27/2007 1:45:00 PM		EPA Method 8260B: VOLATILES	R24962		8/29/2007
				EPA Method 8260B: VOLATILES	R24962		8/29/2007
0708354-02B				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/4/2007
				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/5/2007
0708354-02C				Carbon Dioxide	R24942		8/28/2007
				EPA 120.1: Specific Conductance	R24938		8/28/2007
				EPA Method 300.0: Anions	R24953		8/29/2007
				EPA Method 300.0: Anions	R24953		8/29/2007

Hall Environmental Analysis Laboratory, Inc.

24-Sep-07

Lab Order: 0708354
 Client: San Juan Refining
 Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708354-02C	MW #30	8/27/2007 1:45:00 PM	Aqueous	EPA Method 300.0: Anions	R24941		8/28/2007
				SM 2320C: Alkalinity	R24942		8/28/2007
				SM 2540C: TDS	13738	8/31/2007	8/31/2007
0708354-02D				EPA Method 6010B: Dissolved Metals	R25202		9/14/2007
				EPA Method 6010B: Dissolved Metals	R25202		9/17/2007
				EPA Method 6010B: Dissolved Metals	R25202		9/17/2007
0708354-02E				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
0708354-03A	RW #1	8/27/2007 11:25:00 AM		EPA Method 8260B: VOLATILES	R24962		8/29/2007
				EPA Method 8260B: VOLATILES	R24982		8/30/2007
				EPA Method 8260B: VOLATILES	R24998		8/31/2007
0708354-03B				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/4/2007
				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/5/2007
				Carbon Dioxide	R24942		8/28/2007
				EPA 120.1: Specific Conductance	R24938		8/28/2007
				EPA Method 300.0: Anions	R24960		8/29/2007
				EPA Method 300.0: Anions	R24941		8/28/2007
				SM 2320C: Alkalinity	R24942		8/28/2007
				SM 2540C: TDS	13738	8/31/2007	8/31/2007
0708354-03D				EPA Method 6010B: Dissolved Metals	R25202		9/14/2007
				EPA Method 6010B: Dissolved Metals	R25202		9/17/2007
				EPA Method 6010B: Dissolved Metals	R25202		9/17/2007
0708354-03E				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
0708354-04A	RW #9	8/27/2007 1:00:00 PM		EPA Method 8260B: VOLATILES	R24962		8/29/2007

Hall Environmental Analysis Laboratory, Inc.

24-Sep-07

Lab Order: 0708354
 Client: San Juan Refining
 Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708354-04A	RW #9	8/27/2007 1:00:00 PM	Aqueous	EPA Method 8260B: VOLATILES	R24962		8/29/2007
0708354-04B				EPA Method 8270C: Semivolatiles	13706	8/28/2007	9/4/2007
0708354-04C				Carbon Dioxide	R24942		8/28/2007
				EPA 120.1: Specific Conductance	R24938		8/28/2007
				EPA Method 300.0: Anions	R24941		8/28/2007
				SM 2320C: Alkalinity	R24942		8/28/2007
				SM 2540C: TDS	13738	8/31/2007	8/31/2007
0708354-04D				EPA Method 6010B: Dissolved Metals	R25202		9/17/2007
				EPA Method 6010B: Dissolved Metals	R25202		9/17/2007
				EPA Method 6010B: Dissolved Metals	R25202		9/14/2007
0708354-04E				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/17/2007
				EPA Method 7470: Mercury	13768	9/6/2007	9/6/2007
0708354-05A	Field Blank	8/27/2007 1:50:00 PM		EPA Method 8260B: VOLATILES	R24962		8/29/2007
0708354-06A	Trip Blank		Trip Blank	EPA Method 8260B: VOLATILES	R24962		8/29/2007

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708354

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 300.0: Anions

Sample ID: MBLK MBLK Batch ID: R24941 Analysis Date: 8/28/2007 11:15:42 AM

Fluoride ND mg/L 0.10
 Chloride ND mg/L 0.10
 Nitrogen, Nitrite (As N) ND mg/L 0.10
 Bromide ND mg/L 0.10
 Nitrogen, Nitrate (As N) ND mg/L 0.10
 Phosphorus, Orthophosphate (As P) ND mg/L 0.50
 Sulfate ND mg/L 0.50

Sample ID: MBLK MBLK Batch ID: R24953 Analysis Date: 8/28/2007 6:10:38 PM

Fluoride ND mg/L 0.10
 Chloride ND mg/L 0.10
 Nitrogen, Nitrite (As N) ND mg/L 0.10
 Bromide ND mg/L 0.10
 Nitrogen, Nitrate (As N) ND mg/L 0.10
 Phosphorus, Orthophosphate (As P) ND mg/L 0.50
 Sulfate ND mg/L 0.50

Sample ID: MBLK MBLK Batch ID: R24960 Analysis Date: 8/29/2007 8:06:23 AM

Fluoride ND mg/L 0.10
 Chloride ND mg/L 0.10
 Nitrogen, Nitrite (As N) ND mg/L 0.10
 Bromide ND mg/L 0.10
 Nitrogen, Nitrate (As N) ND mg/L 0.10
 Phosphorus, Orthophosphate (As P) ND mg/L 0.50
 Sulfate ND mg/L 0.50

Sample ID: LCS ST300-07030 LCS Batch ID: R24941 Analysis Date: 8/28/2007 11:33:07 AM

Fluoride 0.4917 mg/L 0.10 98.3 90 110
 Chloride 5.022 mg/L 0.10 100 90 110
 Nitrogen, Nitrite (As N) 0.9882 mg/L 0.10 98.8 90 110
 Bromide 2.619 mg/L 0.10 105 90 110
 Nitrogen, Nitrate (As N) 2.559 mg/L 0.10 102 90 110
 Phosphorus, Orthophosphate (As P) 5.361 mg/L 0.50 107 90 110
 Sulfate 10.30 mg/L 0.50 103 90 110

Sample ID: LCS ST300-07030 LCS Batch ID: R24953 Analysis Date: 8/28/2007 6:28:02 PM

Fluoride 0.5183 mg/L 0.10 104 90 110
 Chloride 5.034 mg/L 0.10 101 90 110
 Nitrogen, Nitrite (As N) 1.061 mg/L 0.10 106 90 110
 Bromide 2.615 mg/L 0.10 105 90 110
 Nitrogen, Nitrate (As N) 2.596 mg/L 0.10 104 90 110
 Phosphorus, Orthophosphate (As P) 5.385 mg/L 0.50 108 90 110
 Sulfate 10.36 mg/L 0.50 104 90 110

Sample ID: LCS ST300-07030 LCS Batch ID: R24960 Analysis Date: 8/29/2007 8:23:47 AM

Fluoride 0.5001 mg/L 0.10 100 90 110
 Chloride 5.069 mg/L 0.10 101 90 110
 Nitrogen, Nitrite (As N) 1.014 mg/L 0.10 101 90 110

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708354

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 300.0: Anions

Sample ID: LCS ST300-07030	LCS				Batch ID: R24960	Analysis Date: 8/29/2007 8:23:47 AM
Bromide	2.619	mg/L	0.10	105	90	110
Nitrogen, Nitrate (As N)	2.619	mg/L	0.10	105	90	110
Phosphorus, Orthophosphate (As P)	5.443	mg/L	0.50	109	90	110
Sulfate	10.38	mg/L	0.50	104	90	110

Method: SM 2320C: Alkalinity

Sample ID: 0708354-04CMSD		MSD			Batch ID: R24942		Analysis Date:		8/28/2007
Alkalinity, Total (As CaCO3)	1091	mg/L CaC	20	96.2	80	120	0.0917	20	
Sample ID: MB		MBLK			Batch ID: R24942		Analysis Date:		8/28/2007
Alkalinity, Total (As CaCO3)	ND	mg/L CaC	20						
Carbonate	ND	mg/L CaC	2.0						
Bicarbonate	ND	mg/L CaC	20						
Sample ID: LCS		LCS			Batch ID: R24942		Analysis Date:		8/28/2007
Alkalinity, Total (As CaCO3)	83.00	mg/L CaC	20	104	80	120			
Sample ID: 0708354-04CMS		MS			Batch ID: R24942		Analysis Date:		8/28/2007
Alkalinity, Total (As CaCO3)	1090	mg/L CaC	20	95.0	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708354

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R24962 Analysis Date: 8/29/2007 8:22:07 AM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
1,2-Dichloroethane (EDC)	ND	µg/L	1.0
1,2-Dibromoethane (EDB)	ND	µg/L	1.0
Naphthalene	ND	µg/L	2.0
1-Methylnaphthalene	ND	µg/L	4.0
2-Methylnaphthalene	ND	µg/L	4.0
Acetone	ND	µg/L	10
Bromobenzene	ND	µg/L	1.0
Bromochloromethane	ND	µg/L	1.0
Bromodichloromethane	ND	µg/L	1.0
Bromoform	ND	µg/L	1.0
Bromomethane	ND	µg/L	1.0
2-Butanone	ND	µg/L	10
Carbon disulfide	ND	µg/L	10
Carbon Tetrachloride	ND	µg/L	1.0
Chlorobenzene	ND	µg/L	1.0
Chloroethane	ND	µg/L	2.0
Chloroform	ND	µg/L	1.0
Chloromethane	ND	µg/L	1.0
2-Chlorotoluene	ND	µg/L	1.0
4-Chlorotoluene	ND	µg/L	1.0
cis-1,2-DCE	ND	µg/L	1.0
cis-1,3-Dichloropropene	ND	µg/L	1.0
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0
Dibromochloromethane	ND	µg/L	1.0
Dibromomethane	ND	µg/L	1.0
1,2-Dichlorobenzene	ND	µg/L	1.0
1,3-Dichlorobenzene	ND	µg/L	1.0
1,4-Dichlorobenzene	ND	µg/L	1.0
Dichlorodifluoromethane	ND	µg/L	1.0
1,1-Dichloroethane	ND	µg/L	1.0
1,1-Dichloroethene	ND	µg/L	1.0
1,2-Dichloropropane	ND	µg/L	1.0
1,3-Dichloropropane	ND	µg/L	1.0
2,2-Dichloropropane	ND	µg/L	2.0
1,1-Dichloropropene	ND	µg/L	1.0
Hexachlorobutadiene	ND	µg/L	1.0
2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708354

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R24962 Analysis Date: 8/29/2007 8:22:07 AM

4-Isopropyltoluene	ND	µg/L	1.0
4-Methyl-2-pentanone	ND	µg/L	10
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	1.5

Sample ID: 5ml rb

MBLK

Batch ID: R24982 Analysis Date: 8/30/2007 3:13:56 PM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
1,2-Dichloroethane (EDC)	ND	µg/L	1.0
1,2-Dibromoethane (EDB)	ND	µg/L	1.0
Naphthalene	ND	µg/L	2.0
1-Methylnaphthalene	ND	µg/L	4.0
2-Methylnaphthalene	ND	µg/L	4.0
Acetone	ND	µg/L	10
Bromobenzene	ND	µg/L	1.0
Bromochloromethane	ND	µg/L	1.0
Bromodichloromethane	ND	µg/L	1.0
Bromoform	ND	µg/L	1.0
Bromomethane	ND	µg/L	1.0
2-Butanone	ND	µg/L	10
Carbon disulfide	ND	µg/L	10
Carbon Tetrachloride	ND	µg/L	1.0
Chlorobenzene	ND	µg/L	1.0

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708354

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R24982 Analysis Date: 8/30/2007 3:13:56 PM

Chloroethane	ND	µg/L	2.0
Chloroform	ND	µg/L	1.0
Chloromethane	ND	µg/L	1.0
2-Chlorotoluene	ND	µg/L	1.0
4-Chlorotoluene	ND	µg/L	1.0
cis-1,2-DCE	ND	µg/L	1.0
cis-1,3-Dichloropropene	ND	µg/L	1.0
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0
Dibromochloromethane	ND	µg/L	1.0
Dibromomethane	ND	µg/L	1.0
1,2-Dichlorobenzene	ND	µg/L	1.0
1,3-Dichlorobenzene	ND	µg/L	1.0
1,4-Dichlorobenzene	ND	µg/L	1.0
Dichlorodifluoromethane	ND	µg/L	1.0
1,1-Dichloroethane	ND	µg/L	1.0
1,1-Dichloroethene	ND	µg/L	1.0
1,2-Dichloropropane	ND	µg/L	1.0
1,3-Dichloropropane	ND	µg/L	1.0
2,2-Dichloropropane	ND	µg/L	2.0
2,1-Dichloropropene	ND	µg/L	1.0
Hexachlorobutadiene	ND	µg/L	1.0
2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0
4-Isopropyltoluene	ND	µg/L	1.0
4-Methyl-2-pentanone	ND	µg/L	10
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708354

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb		MBLK			Batch ID: R24982	Analysis Date: 8/30/2007 3:13:56 PM
Xylenes, Total	ND	µg/L	1.5			
Sample ID: 5ml rb		MBLK			Batch ID: R24998	Analysis Date: 8/31/2007 9:06:02 AM
Benzene	ND	µg/L	1.0			
Toluene	ND	µg/L	1.0			
Ethylbenzene	ND	µg/L	1.0			
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0			
1,2,4-Trimethylbenzene	ND	µg/L	1.0			
1,3,5-Trimethylbenzene	ND	µg/L	1.0			
1,2-Dichloroethane (EDC)	ND	µg/L	1.0			
1,2-Dibromoethane (EDB)	ND	µg/L	1.0			
Naphthalene	ND	µg/L	2.0			
1-Methylnaphthalene	ND	µg/L	4.0			
2-Methylnaphthalene	ND	µg/L	4.0			
Acetone	ND	µg/L	10			
Bromobenzene	ND	µg/L	1.0			
Bromochloromethane	ND	µg/L	1.0			
Bromodichloromethane	ND	µg/L	1.0			
Bromoform	ND	µg/L	1.0			
Bromomethane	ND	µg/L	1.0			
2-Butanone	ND	µg/L	10			
Carbon disulfide	ND	µg/L	10			
Carbon Tetrachloride	ND	µg/L	1.0			
Chlorobenzene	ND	µg/L	1.0			
Chloroethane	ND	µg/L	2.0			
Chloroform	ND	µg/L	1.0			
Chloromethane	ND	µg/L	1.0			
2-Chlorotoluene	ND	µg/L	1.0			
4-Chlorotoluene	ND	µg/L	1.0			
cis-1,2-DCE	ND	µg/L	1.0			
cis-1,3-Dichloropropene	ND	µg/L	1.0			
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0			
Dibromochloromethane	ND	µg/L	1.0			
Dibromomethane	ND	µg/L	1.0			
1,2-Dichlorobenzene	ND	µg/L	1.0			
1,3-Dichlorobenzene	ND	µg/L	1.0			
1,4-Dichlorobenzene	ND	µg/L	1.0			
Dichlorodifluoromethane	ND	µg/L	1.0			
1,1-Dichloroethane	ND	µg/L	1.0			
1,1-Dichloroethene	ND	µg/L	1.0			
1,2-Dichloropropane	ND	µg/L	1.0			
1,3-Dichloropropane	ND	µg/L	1.0			
2,2-Dichloropropane	ND	µg/L	2.0			
1,1-Dichloropropene	ND	µg/L	1.0			
Hexachlorobutadiene	ND	µg/L	1.0			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708354

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R24998 Analysis Date: 8/31/2007 9:06:02 AM

2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0
4-Isopropyltoluene	ND	µg/L	1.0
4-Methyl-2-pentanone	ND	µg/L	10
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	1.5

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708354

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-13706

MBLK

Batch ID: 13706 Analysis Date: 8/31/2007

Acenaphthene	ND	µg/L	10
Acenaphthylene	ND	µg/L	10
Aniline	ND	µg/L	20
Anthracene	ND	µg/L	10
Azobenzene	ND	µg/L	10
Benz(a)anthracene	ND	µg/L	15
Benzo(a)pyrene	ND	µg/L	10
Benzo(b)fluoranthene	ND	µg/L	15
Benzo(g,h,i)perylene	ND	µg/L	10
Benzo(k)fluoranthene	ND	µg/L	10
Benzoic acid	ND	µg/L	50
Benzyl alcohol	ND	µg/L	20
Bis(2-chloroethoxy)methane	ND	µg/L	10
Bis(2-chloroethyl)ether	ND	µg/L	15
Bis(2-chloroisopropyl)ether	ND	µg/L	15
Bis(2-ethylhexyl)phthalate	ND	µg/L	15
4-Bromophenyl phenyl ether	ND	µg/L	10
Butyl benzyl phthalate	ND	µg/L	15
Carbazole	ND	µg/L	10
4-Chloro-3-methylphenol	ND	µg/L	20
4-Chloroaniline	ND	µg/L	20
2-Chloronaphthalene	ND	µg/L	10
2-Chlorophenol	ND	µg/L	10
4-Chlorophenyl phenyl ether	ND	µg/L	15
Chrysene	ND	µg/L	15
Di-n-butyl phthalate	ND	µg/L	10
Di-n-octyl phthalate	ND	µg/L	15
Dibenz(a,h)anthracene	ND	µg/L	10
Dibenzofuran	ND	µg/L	10
1,2-Dichlorobenzene	ND	µg/L	10
1,3-Dichlorobenzene	ND	µg/L	10
1,4-Dichlorobenzene	ND	µg/L	10
3,3'-Dichlorobenzidine	ND	µg/L	15
Diethyl phthalate	ND	µg/L	10
Dimethyl phthalate	ND	µg/L	10
2,4-Dichlorophenol	ND	µg/L	10
2,4-Dimethylphenol	ND	µg/L	10
4,6-Dinitro-2-methylphenol	ND	µg/L	50
2,4-Dinitrophenol	ND	µg/L	50
2,4-Dinitrotoluene	ND	µg/L	10
2,6-Dinitrotoluene	ND	µg/L	10
Fluoranthene	ND	µg/L	10
Fluorene	ND	µg/L	10
Hexachlorobenzene	ND	µg/L	10

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708354

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-13706 MBLK Batch ID: 13706 Analysis Date: 8/31/2007

Hexachlorobutadiene	ND	µg/L	10
Hexachlorocyclopentadiene	ND	µg/L	50
Hexachloroethane	ND	µg/L	10
Indeno(1,2,3-cd)pyrene	ND	µg/L	10
Isophorone	ND	µg/L	10
2-Methylnaphthalene	ND	µg/L	10
2-Methylphenol	ND	µg/L	15
3+4-Methylphenol	ND	µg/L	20
N-Nitrosodi-n-propylamine	ND	µg/L	10
N-Nitrosodimethylamine	ND	µg/L	10
N-Nitrosodiphenylamine	ND	µg/L	10
Naphthalene	ND	µg/L	10
2-Nitroaniline	ND	µg/L	50
3-Nitroaniline	ND	µg/L	50
4-Nitroaniline	ND	µg/L	20
Nitrobenzene	ND	µg/L	10
2-Nitrophenol	ND	µg/L	15
4-Nitrophenol	ND	µg/L	50
Pentachlorophenol	ND	µg/L	50
Benanthrene	ND	µg/L	10
Phenol	ND	µg/L	10
Pyrene	ND	µg/L	15
Pyridine	ND	µg/L	30
1,2,4-Trichlorobenzene	ND	µg/L	10
2,4,5-Trichlorophenol	ND	µg/L	10
2,4,6-Trichlorophenol	ND	µg/L	15

Sample ID: lcs-13706 LCS Batch ID: 13706 Analysis Date: 8/31/2007

Acenaphthene	76.44	µg/L	10	76.4	11	123
4-Chloro-3-methylphenol	164.6	µg/L	20	82.3	15.4	119
2-Chlorophenol	158.1	µg/L	10	79.1	12.2	122
1,4-Dichlorobenzene	74.70	µg/L	10	74.7	16.9	100
2,4-Dinitrotoluene	73.38	µg/L	10	73.4	13	138
N-Nitrosodi-n-propylamine	77.84	µg/L	10	77.8	9.93	122
4-Nitrophenol	147.4	µg/L	50	73.7	12.5	87.4
Pentachlorophenol	147.7	µg/L	50	73.9	3.55	114
Phenol	156.0	µg/L	10	78.0	7.53	73.1
Pyrene	70.52	µg/L	15	70.5	12.6	140
1,2,4-Trichlorobenzene	74.64	µg/L	10	74.6	17.4	98.7

S

Sample ID: lcsd-13706 LCSD Batch ID: 13706 Analysis Date: 8/31/2007

Acenaphthene	69.48	µg/L	10	69.5	11	123	9.54	30.5
4-Chloro-3-methylphenol	143.1	µg/L	20	71.6	15.4	119	14.0	28.6
2-Chlorophenol	128.5	µg/L	10	64.2	12.2	122	20.7	107
1,4-Dichlorobenzene	61.02	µg/L	10	61.0	16.9	100	20.2	62.1
2,4-Dinitrotoluene	69.08	µg/L	10	69.1	13	138	6.04	14.7

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708354

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: lcsd-13706		LCSD			Batch ID: 13706		Analysis Date: 8/31/2007	
N-Nitrosodi-n-propylamine	66.86	µg/L	10	66.9	9.93	122	15.2	30.3
4-Nitrophenol	139.1	µg/L	50	69.5	12.5	87.4	5.81	36.3
Pentachlorophenol	141.5	µg/L	50	70.8	3.55	114	4.27	49
Phenol	128.3	µg/L	10	64.2	7.53	73.1	19.5	52.4
Pyrene	69.74	µg/L	15	69.7	12.6	140	1.11	16.3
1,2,4-Trichlorobenzene	62.10	µg/L	10	62.1	17.4	98.7	18.3	36.4

Method: EPA 120.1: Specific Conductance

Sample ID: 0708354-04C DUP		DUP		Batch ID: R24938	Analysis Date: 8/28/2007	
Specific Conductance	3050	µmhos/cm	0.010		1.30	20

Method: EPA Method 7470: Mercury

Sample ID: 0708354-01E MSD		MSD			Batch ID: 13768	Analysis Date: 9/6/2007 4:41:33 PM
Mercury	0.004881	mg/L	0.0010	97.6	75 125	0 20
Sample ID: MB-13768		MBLK			Batch ID: 13768	Analysis Date: 9/6/2007 3:19:47 PM
Mercury	ND	mg/L	0.00020			
Sample ID: LCS-13768		LCS			Batch ID: 13768	Analysis Date: 9/6/2007 3:21:32 PM
Mercury	0.004954	mg/L	0.00020	99.1	80 120	
Sample ID: 0708354-01E MS		MS			Batch ID: 13768	Analysis Date: 9/6/2007 4:39:44 PM
Mercury	0.004921	mg/L	0.0010	98.4	75 125	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708354

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 6010B: Dissolved Metals

Sample ID: 0708354-04D MSD		MSD			Batch ID: R25202		Analysis Date: 9/14/2007 5:30:38 PM	
Arsenic	0.5226	mg/L	0.020	105	75	125	3.98	20
Cadmium	0.4666	mg/L	0.0020	93.3	75	125	1.09	20
Chromium	0.4676	mg/L	0.0060	93.5	75	125	1.37	20
Copper	0.4774	mg/L	0.0060	95.5	75	125	0.213	20
Lead	0.4736	mg/L	0.0050	89.6	75	125	1.15	20
Magnesium	97.62	mg/L	1.0	89.4	75	125	0.244	20
Potassium	53.94	mg/L	1.0	92.6	75	125	1.10	20
Silver	0.4491	mg/L	0.0050	89.8	75	125	1.04	20
Uranium	0.5791	mg/L	0.10	116	75	125	0.0620	20
Zinc	0.5641	mg/L	0.050	95.9	75	125	0.00242	20

Sample ID: 0708354-04D MSD	MSD				Batch ID: R25202	Analysis Date: 9/17/2007 8:45:30 PM		
Calcium	417.0	mg/L	5.0	92.0	75	125	5.62	20
Selenium	2.741	mg/L	0.25	110	75	125	3.01	20

Sample ID: MB		MBLK		Batch ID: R25202	Analysis Date: 9/14/2007 4:12:15 PM
Arsenic	ND	mg/L	0.020		
Barium	ND	mg/L	0.020		
Cadmium	ND	mg/L	0.0020		
Calcium	ND	mg/L	1.0		
Chromium	ND	mg/L	0.0060		
Copper	ND	mg/L	0.0060		
Iron	ND	mg/L	0.020		
Lead	ND	mg/L	0.0050		
Magnesium	ND	mg/L	1.0		
Manganese	ND	mg/L	0.0020		
Potassium	ND	mg/L	1.0		
Selenium	ND	mg/L	0.050		
Silver	ND	mg/L	0.0050		
Sodium	ND	mg/L	1.0		
Uranium	ND	mg/L	0.10		
Zinc	ND	mg/L	0.050		

Sample ID:	LCS	LCS			Batch ID:	R25202	Analysis Date:	9/14/2007 4:15:19 PM
Arsenic	0.4994	mg/L	0.020	99.9	80	120		
Barium	0.4776	mg/L	0.020	95.5	80	120		
Cadmium	0.4993	mg/L	0.0020	99.9	80	120		
Calcium	49.68	mg/L	1.0	98.4	80	120		
Chromium	0.4855	mg/L	0.0060	97.1	80	120		
Copper	0.4607	mg/L	0.0060	92.1	80	120		
Iron	0.4906	mg/L	0.020	98.1	80	120		
Lead	0.4755	mg/L	0.0050	95.1	80	120		
Magnesium	49.79	mg/L	1.0	98.6	80	120		
Manganese	0.4705	mg/L	0.0020	94.1	80	120		
Potassium	52.75	mg/L	1.0	95.9	80	120		
Selenium	0.5214	mg/L	0.050	104	80	120		

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708354

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 6010B: Dissolved Metals

Sample ID: LCS LCS Batch ID: R25202 Analysis Date: 9/14/2007 4:15:19 PM

Silver	0.4903	mg/L	0.0050	98.1	80	120			
Sodium	52.89	mg/L	1.0	105	80	120			
Uranium	0.4383	mg/L	0.10	83.9	80	120			
Zinc	0.4959	mg/L	0.050	99.2	80	120			

Sample ID: 0708354-04D MS MS Batch ID: R25202 Analysis Date: 9/14/2007 5:26:32 PM

Arsenic	0.5022	mg/L	0.020	100	75	125			
Cadmium	0.4615	mg/L	0.0020	92.3	75	125			
Chromium	0.4612	mg/L	0.0060	92.2	75	125			
Copper	0.4764	mg/L	0.0060	95.3	75	125			
Lead	0.4682	mg/L	0.0050	88.5	75	125			
Magnesium	97.86	mg/L	1.0	89.9	75	125			
Potassium	54.53	mg/L	1.0	93.7	75	125			
Silver	0.4445	mg/L	0.0050	88.9	75	125			
Uranium	0.5788	mg/L	0.10	116	75	125			
Zinc	0.5641	mg/L	0.050	95.9	75	125			

Sample ID: 0708354-04D MS MS Batch ID: R25202 Analysis Date: 9/17/2007 8:42:42 PM

Calcium	441.1	mg/L	5.0	102	75	125			
Selenium	2.825	mg/L	0.25	113	75	125			

Method: EPA 6010B: Total Recoverable Metals

Sample ID: MB-13812 MBLK Batch ID: 13812 Analysis Date: 9/14/2007 9:21:44 AM

Arsenic	ND	mg/L	0.020						
Barium	ND	mg/L	0.020						
Cadmium	ND	mg/L	0.0020						
Chromium	ND	mg/L	0.0060						
Lead	ND	mg/L	0.0050						
Selenium	ND	mg/L	0.050						
Silver	ND	mg/L	0.0050						

Sample ID: LCS-13812 LCS Batch ID: 13812 Analysis Date: 9/14/2007 9:24:49 AM

Arsenic	0.5203	mg/L	0.020	104	80	120			
Barium	0.4959	mg/L	0.020	99.2	80	120			
Cadmium	0.5082	mg/L	0.0020	102	80	120			
Chromium	0.5051	mg/L	0.0060	101	80	120			
Lead	0.4933	mg/L	0.0050	98.7	80	120			
Selenium	0.5493	mg/L	0.050	110	80	120			
Silver	0.5088	mg/L	0.0050	102	80	120			

Method: SM 2540C: TDS

Sample ID: MB-13738 MBLK Batch ID: 13738 Analysis Date: 8/31/2007

Total Dissolved Solids	ND	mg/L	20						
------------------------	----	------	----	--	--	--	--	--	--

Sample ID: LCS-13738 LCS Batch ID: 13738 Analysis Date: 8/31/2007

Total Dissolved Solids	1020	mg/L	20	101	80	120			
------------------------	------	------	----	-----	----	-----	--	--	--

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

8/28/2007

Work Order Number 0708354

Received by ARS

Checklist completed by

Signature

 8/28/07

Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

5°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Added 1 ml HNO₃ to each # 2+3 for acceptable pH. AS 8/28/07

Corrective Action

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.34
www.hallenvironmental.com

Client: SAN JUAN Refining

Address: #50 Rd/4990

87413

505-632-4161

505-632-3911

Sample I.D. No.

125m 12D

3-V0A-

[illegible]

1

Number/Volume

HEAL No. 0708354

Time:

Relinquished By: (Signature)

Received By: (Signature)

Time:

Relinquished By (Signature)

Received By: (Signature)

Remarks: Trip Blank

ANALYSIS REQUEST

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

#50 Rd 4990

87413

505-632-4161

505-632-3911

Sample I.D. No.

RW# 1

RW #9

By: (Signature) _____

By: (Signature)

Std Level 4

Project Name:

Project Name:

Annual Sampling - 2007

Project #:

Project Manager:

Sample: under Puerto Bob Katon

Sample Temperature:

Number/Volume

Preservative

[illegible]

HEAL No.

3. VOA-

1 liter

1-500

1-5-2017

1-5000

3-V0A

1-liter

1-500ml
1125

1-15m

1005-1

Received by: (Signature)

Received By: (Signature) W.D. 9.20

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline 0
TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)
EDB (Method 504.1)	EDC (Method 8021)
8310 (PNA or PAH)	HCRA 8 Metals
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / PCB's (8082)
8260B (VOA)	8270 (Semi-VOA)
Water Dissolved Metals	ISS, EC, Aik, CO ₂
Air Bubbles or Headspace (V or N)	

ANALYSIS REQUEST

Remarks:

Remarks: Gold Blank 5-8/27/07 e 1350

1/10 Blank - 6

COVER LETTER

Monday, September 24, 2007

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

TEL: (505) 632-4161

FAX (505) 632-3911

RE: Annual Sampling-2007

Order No.: 0708368

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 7 sample(s) on 8/29/2007 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



CLIENT: San Juan Refining
Project: Annual Sampling-2007
Lab Order: 0708368

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0708368-01A	MW #1	R24962	EPA Method 8260B: VOLATILES	8/28/2007 10:35:00 AM
0708368-01B	MW #1	13744	EPA Method 8270C: Semivolatiles	8/28/2007 10:35:00 AM
0708368-01C	MW #1	R24960	EPA Method 300.0: Anions	8/28/2007 10:35:00 AM
0708368-01C	MW #1	R24969	EPA 120.1: Specific Conductance	8/28/2007 10:35:00 AM
0708368-01C	MW #1	R24971	SM 2320C: Alkalinity	8/28/2007 10:35:00 AM
0708368-01C	MW #1	R24971	Carbon Dioxide	8/28/2007 10:35:00 AM
0708368-01C	MW #1	13739	SM 2540C: TDS	8/28/2007 10:35:00 AM
0708368-01C	MW #1	R25029	EPA Method 300.0: Anions	8/28/2007 10:35:00 AM
0708368-01D	MW #1	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 10:35:00 AM
0708368-01E	MW #1	13785	EPA Method 7470: Mercury	8/28/2007 10:35:00 AM
0708368-01E	MW #1	13812	EPA 6010B: Total Recoverable Metals	8/28/2007 10:35:00 AM
0708368-02A	Outfall #3	R24962	EPA Method 8260B: VOLATILES	8/28/2007 11:20:00 AM
0708368-02B	Outfall #3	13744	EPA Method 8270C: Semivolatiles	8/28/2007 11:20:00 AM
0708368-02C	Outfall #3	R24960	EPA Method 300.0: Anions	8/28/2007 11:20:00 AM
0708368-02C	Outfall #3	R24969	EPA 120.1: Specific Conductance	8/28/2007 11:20:00 AM
0708368-02C	Outfall #3	R24971	SM 2320C: Alkalinity	8/28/2007 11:20:00 AM
0708368-02C	Outfall #3	R24971	Carbon Dioxide	8/28/2007 11:20:00 AM
0708368-02C	Outfall #3	13739	SM 2540C: TDS	8/28/2007 11:20:00 AM
0708368-02D	Outfall #3	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 11:20:00 AM
0708368-02E	Outfall #3	13812	EPA 6010B: Total Recoverable Metals	8/28/2007 11:20:00 AM
0708368-02E	Outfall #3	13785	EPA Method 7470: Mercury	8/28/2007 11:20:00 AM
0708368-03A	MW #8	R24962	EPA Method 8260B: VOLATILES	8/28/2007 9:40:00 AM
0708368-03B	MW #8	13744	EPA Method 8270C: Semivolatiles	8/28/2007 9:40:00 AM
0708368-03C	MW #8	13739	SM 2540C: TDS	8/28/2007 9:40:00 AM
0708368-03C	MW #8	R25029	EPA Method 300.0: Anions	8/28/2007 9:40:00 AM
0708368-03C	MW #8	R24971	Carbon Dioxide	8/28/2007 9:40:00 AM
0708368-03C	MW #8	R24971	SM 2320C: Alkalinity	8/28/2007 9:40:00 AM
0708368-03C	MW #8	R24969	EPA 120.1: Specific Conductance	8/28/2007 9:40:00 AM
0708368-03C	MW #8	R24960	EPA Method 300.0: Anions	8/28/2007 9:40:00 AM
0708368-03D	MW #8	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 9:40:00 AM
0708368-03D	MW #8	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 9:40:00 AM
0708368-03E	MW #8	13785	EPA Method 7470: Mercury	8/28/2007 9:40:00 AM
0708368-03E	MW #8	13812	EPA 6010B: Total Recoverable Metals	8/28/2007 9:40:00 AM
0708368-04A	MW #8 FD	R24962	EPA Method 8260B: VOLATILES	8/28/2007 9:50:00 AM
0708368-04A	MW #8 FD	R24982	EPA Method 8260B: VOLATILES	8/28/2007 9:50:00 AM
0708368-04B	MW #8 FD	13744	EPA Method 8270C: Semivolatiles	8/28/2007 9:50:00 AM
0708368-04C	MW #8 FD	R24969	EPA 120.1: Specific Conductance	8/28/2007 9:50:00 AM
0708368-04C	MW #8 FD	R24971	SM 2320C: Alkalinity	8/28/2007 9:50:00 AM

CLIENT: San Juan Refining
Project: Annual Sampling-2007
Lab Order: 0708368

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0708368-04C	MW #8 FD	R24971	Carbon Dioxide	8/28/2007 9:50:00 AM
0708368-04C	MW #8 FD	13739	SM 2540C: TDS	8/28/2007 9:50:00 AM
0708368-04C	MW #8 FD	R25029	EPA Method 300.0: Anions	8/28/2007 9:50:00 AM
0708368-04C	MW #8 FD	R25029	EPA Method 300.0: Anions	8/28/2007 9:50:00 AM
0708368-04C	MW #8 FD	R24960	EPA Method 300.0: Anions	8/28/2007 9:50:00 AM
0708368-04D	MW #8 FD	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 9:50:00 AM
0708368-04D	MW #8 FD	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 9:50:00 AM
0708368-04E	MW #8 FD	13812	EPA 6010B: Total Recoverable Metals	8/28/2007 9:50:00 AM
0708368-04E	MW #8 FD	13785	EPA Method 7470: Mercury	8/28/2007 9:50:00 AM
0708368-05A	MW #34	R24998	EPA Method 8260B: VOLATILES	8/28/2007 1:40:00 PM
0708368-05A	MW #34	R24962	EPA Method 8260B: VOLATILES	8/28/2007 1:40:00 PM
0708368-05A	MW #34	R24982	EPA Method 8260B: VOLATILES	8/28/2007 1:40:00 PM
0708368-05B	MW #34	13744	EPA Method 8270C: Semivolatiles	8/28/2007 1:40:00 PM
0708368-05C	MW #34	R25029	EPA Method 300.0: Anions	8/28/2007 1:40:00 PM
0708368-05C	MW #34	R24969	EPA 120.1: Specific Conductance	8/28/2007 1:40:00 PM
0708368-05C	MW #34	R24971	SM 2320C: Alkalinity	8/28/2007 1:40:00 PM
0708368-05C	MW #34	R24971	Carbon Dioxide	8/28/2007 1:40:00 PM
0708368-05C	MW #34	13739	SM 2540C: TDS	8/28/2007 1:40:00 PM
0708368-05C	MW #34	R25029	EPA Method 300.0: Anions	8/28/2007 1:40:00 PM
0708368-05D	MW #34	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 1:40:00 PM
0708368-05D	MW #34	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 1:40:00 PM
0708368-05E	MW #34	13785	EPA Method 7470: Mercury	8/28/2007 2:05:00 PM
0708368-05E	MW #34	13785	EPA Method 7470: Mercury	8/28/2007 2:05:00 PM
0708368-05E	MW #34	13812	EPA 6010B: Total Recoverable Metals	8/28/2007 2:05:00 PM
0708368-06A	MW #35	R24962	EPA Method 8260B: VOLATILES	8/28/2007 2:05:00 PM
0708368-06A	MW #35	R24998	EPA Method 8260B: VOLATILES	8/28/2007 2:05:00 PM
0708368-06B	MW #35	13744	EPA Method 8270C: Semivolatiles	8/28/2007 2:05:00 PM
0708368-06C	MW #35	R24969	EPA 120.1: Specific Conductance	8/28/2007 2:05:00 PM
0708368-06C	MW #35	R25029	EPA Method 300.0: Anions	8/28/2007 2:05:00 PM
0708368-06C	MW #35	R25029	EPA Method 300.0: Anions	8/28/2007 2:05:00 PM
0708368-06C	MW #35	13739	SM 2540C: TDS	8/28/2007 2:05:00 PM
0708368-06C	MW #35	R24971	SM 2320C: Alkalinity	8/28/2007 2:05:00 PM
0708368-06C	MW #35	R24971	Carbon Dioxide	8/28/2007 2:05:00 PM
0708368-06D	MW #35	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 2:05:00 PM
0708368-06D	MW #35	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 2:05:00 PM
0708368-06E	MW #35	13785	EPA Method 7470: Mercury	8/28/2007 2:05:00 PM
0708368-06E	MW #35	13812	EPA 6010B: Total Recoverable Metals	8/28/2007 2:05:00 PM
0708368-07A	Trip Blank	R24962	EPA Method 8260B: VOLATILES	

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-01

Client Sample ID: MW #1
Collection Date: 8/28/2007 10:35:00 AM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.74	0.10		mg/L	1	8/29/2007 6:08:20 PM
Chloride	16	0.10		mg/L	1	8/29/2007 6:08:20 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/29/2007 6:08:20 PM
Bromide	ND	0.10		mg/L	1	8/29/2007 6:08:20 PM
Nitrogen, Nitrate (As N)	1.9	0.10		mg/L	1	8/29/2007 6:08:20 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/29/2007 6:08:20 PM
Sulfate	160	5.0		mg/L	10	8/30/2007 5:12:21 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/7/2007 3:42:00 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/18/2007 1:18:51 PM
Barium	0.023	0.020		mg/L	1	9/18/2007 1:18:51 PM
Cadmium	ND	0.0020		mg/L	1	9/18/2007 1:18:51 PM
Calcium	63	1.0		mg/L	1	9/18/2007 1:18:51 PM
Chromium	ND	0.0060		mg/L	1	9/18/2007 1:18:51 PM
Copper	ND	0.0060		mg/L	1	9/18/2007 1:18:51 PM
Iron	ND	0.020		mg/L	1	9/18/2007 1:18:51 PM
Lead	ND	0.0050		mg/L	1	9/18/2007 1:18:51 PM
Magnesium	16	1.0		mg/L	1	9/18/2007 1:18:51 PM
Manganese	0.027	0.0020		mg/L	1	9/18/2007 1:18:51 PM
Potassium	2.0	1.0		mg/L	1	9/18/2007 1:18:51 PM
Selenium	ND	0.050		mg/L	1	9/18/2007 1:18:51 PM
Silver	ND	0.0050		mg/L	1	9/18/2007 1:18:51 PM
Sodium	78	1.0		mg/L	1	9/18/2007 1:18:51 PM
Uranium	ND	0.10		mg/L	1	9/18/2007 1:18:51 PM
Zinc	ND	0.050		mg/L	1	9/18/2007 1:18:51 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 9:43:43 AM
Barium	0.086	0.020		mg/L	1	9/14/2007 9:43:43 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 9:43:43 AM
Chromium	ND	0.0060		mg/L	1	9/14/2007 9:43:43 AM
Lead	ND	0.0050		mg/L	1	9/14/2007 9:43:43 AM
Selenium	ND	0.050		mg/L	1	9/14/2007 9:43:43 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 9:43:43 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-01

Client Sample ID: MW #1
Collection Date: 8/28/2007 10:35:00 AM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/7/2007
Aniline	ND	20		µg/L	1	9/7/2007
Anthracene	ND	10		µg/L	1	9/7/2007
Azobenzene	ND	10		µg/L	1	9/7/2007
Benz(a)anthracene	ND	15		µg/L	1	9/7/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/7/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/7/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/7/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/7/2007
Benzoic acid	ND	50		µg/L	1	9/7/2007
Benzyl alcohol	ND	20		µg/L	1	9/7/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/7/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/7/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/7/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/7/2007
Carbazole	ND	10		µg/L	1	9/7/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/7/2007
4-Chloroaniline	ND	20		µg/L	1	9/7/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/7/2007
2-Chlorophenol	ND	10		µg/L	1	9/7/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/7/2007
Chrysene	ND	15		µg/L	1	9/7/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/7/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/7/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/7/2007
Dibenzofuran	ND	10		µg/L	1	9/7/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/7/2007
Diethyl phthalate	ND	10		µg/L	1	9/7/2007
Dimethyl phthalate	ND	10		µg/L	1	9/7/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/7/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/7/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
Fluoranthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-01

Client Sample ID: MW #1
 Collection Date: 8/28/2007 10:35:00 AM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/7/2007
Hexachlorobenzene	ND	10		µg/L	1	9/7/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/7/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/7/2007
Hexachloroethane	ND	10		µg/L	1	9/7/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/7/2007
Isophorone	ND	10		µg/L	1	9/7/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/7/2007
2-Methylphenol	ND	15		µg/L	1	9/7/2007
3+4-Methylphenol	ND	20		µg/L	1	9/7/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/7/2007
Naphthalene	ND	10		µg/L	1	9/7/2007
2-Nitroaniline	ND	50		µg/L	1	9/7/2007
3-Nitroaniline	ND	50		µg/L	1	9/7/2007
4-Nitroaniline	ND	20		µg/L	1	9/7/2007
Nitrobenzene	ND	10		µg/L	1	9/7/2007
2-Nitrophenol	ND	15		µg/L	1	9/7/2007
4-Nitrophenol	ND	50		µg/L	1	9/7/2007
Pentachlorophenol	ND	50		µg/L	1	9/7/2007
Phenanthrene	ND	10		µg/L	1	9/7/2007
Phenol	ND	10		µg/L	1	9/7/2007
Pyrene	ND	15		µg/L	1	9/7/2007
Pyridine	ND	30		µg/L	1	9/7/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/7/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/7/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/7/2007
Surr: 2,4,6-Tribromophenol	64.0	16.6-150		%REC	1	9/7/2007
Surr: 2-Fluorobiphenyl	60.4	19.6-134		%REC	1	9/7/2007
Surr: 2-Fluorophenol	48.0	9.54-113		%REC	1	9/7/2007
Surr: 4-Terphenyl-d14	65.5	22.7-145		%REC	1	9/7/2007
Surr: Nitrobenzene-d5	60.4	14.6-134		%REC	1	9/7/2007
Surr: Phenol-d5	36.0	10.7-80.3		%REC	1	9/7/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Toluene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Ethylbenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-01

Client Sample ID: MW #1
Collection Date: 8/28/2007 10:35:00 AM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Naphthalene	ND	2.0		µg/L	1	8/29/2007 8:42:07 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2007 8:42:07 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2007 8:42:07 PM
Acetone	ND	10		µg/L	1	8/29/2007 8:42:07 PM
Bromobenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Bromochloromethane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Bromoform	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Bromomethane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
2-Butanone	ND	10		µg/L	1	8/29/2007 8:42:07 PM
Carbon disulfide	ND	10		µg/L	1	8/29/2007 8:42:07 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Chlorobenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Chloroethane	ND	2.0		µg/L	1	8/29/2007 8:42:07 PM
Chloroform	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Chloromethane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/29/2007 8:42:07 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Dibromomethane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/29/2007 8:42:07 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
2-Hexanone	ND	10		µg/L	1	8/29/2007 8:42:07 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/29/2007 8:42:07 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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-01

Client Sample ID: MW #1
 Collection Date: 8/28/2007 10:35:00 AM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	8/29/2007 8:42:07 PM
n-Butylbenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Styrene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/29/2007 8:42:07 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/29/2007 8:42:07 PM
Vinyl chloride	ND	1.0		µg/L	1	8/29/2007 8:42:07 PM
Xylenes, Total	ND	1.5		µg/L	1	8/29/2007 8:42:07 PM
Surr: 1,2-Dichloroethane-d4	92.7	68.1-123		%REC	1	8/29/2007 8:42:07 PM
Surr: 4-Bromofluorobenzene	96.8	53.2-145		%REC	1	8/29/2007 8:42:07 PM
Surr: Dibromofluoromethane	94.7	68.5-119		%REC	1	8/29/2007 8:42:07 PM
Surr: Toluene-d8	96.4	64-131		%REC	1	8/29/2007 8:42:07 PM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO ₃)	290	20		mg/L CaCO ₃	1	8/29/2007
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/29/2007
Bicarbonate	290	20		mg/L CaCO ₃	1	8/29/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	270	1.0		mg CO ₂ /L	1	8/29/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	910	0.010		µmhos/cm	1	8/29/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	570	20		mg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-02

Client Sample ID: Outfall #3
Collection Date: 8/28/2007 11:20:00 AM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.30	0.10		mg/L	1	8/29/2007 7:00:34 PM
Chloride	4.6	0.10		mg/L	1	8/29/2007 7:00:34 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/29/2007 7:00:34 PM
Bromide	ND	0.10		mg/L	1	8/29/2007 7:00:34 PM
Nitrogen, Nitrate (As N)	0.24	0.10		mg/L	1	8/29/2007 7:00:34 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/29/2007 7:00:34 PM
Sulfate	78	0.50		mg/L	1	8/29/2007 7:00:34 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/7/2007 3:43:48 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/18/2007 1:21:57 PM
Barium	0.063	0.020		mg/L	1	9/18/2007 1:21:57 PM
Cadmium	ND	0.0020		mg/L	1	9/18/2007 1:21:57 PM
Calcium	39	1.0		mg/L	1	9/18/2007 1:21:57 PM
Chromium	ND	0.0060		mg/L	1	9/18/2007 1:21:57 PM
Copper	0.0064	0.0060		mg/L	1	9/18/2007 1:21:57 PM
Iron	ND	0.020		mg/L	1	9/18/2007 1:21:57 PM
Lead	ND	0.0050		mg/L	1	9/18/2007 1:21:57 PM
Magnesium	7.0	1.0		mg/L	1	9/18/2007 1:21:57 PM
Manganese	ND	0.0020		mg/L	1	9/18/2007 1:21:57 PM
Potassium	1.5	1.0		mg/L	1	9/18/2007 1:21:57 PM
Selenium	ND	0.050		mg/L	1	9/18/2007 1:21:57 PM
Silver	ND	0.0050		mg/L	1	9/18/2007 1:21:57 PM
Sodium	20	1.0		mg/L	1	9/18/2007 1:21:57 PM
Uranium	ND	0.10		mg/L	1	9/18/2007 1:21:57 PM
Zinc	ND	0.050		mg/L	1	9/18/2007 1:21:57 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 9:46:37 AM
Barium	0.081	0.020		mg/L	1	9/14/2007 9:46:37 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 9:46:37 AM
Chromium	ND	0.0060		mg/L	1	9/14/2007 9:46:37 AM
Lead	ND	0.0050		mg/L	1	9/14/2007 9:46:37 AM
Selenium	ND	0.050		mg/L	1	9/14/2007 9:46:37 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 9:46:37 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-02

Client Sample ID: Outfall #3
 Collection Date: 8/28/2007 11:20:00 AM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/7/2007
Aniline	ND	20		µg/L	1	9/7/2007
Anthracene	ND	10		µg/L	1	9/7/2007
Azobenzene	ND	10		µg/L	1	9/7/2007
Benz(a)anthracene	ND	15		µg/L	1	9/7/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/7/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/7/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/7/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/7/2007
Benzoic acid	ND	50		µg/L	1	9/7/2007
Benzyl alcohol	ND	20		µg/L	1	9/7/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/7/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/7/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/7/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/7/2007
Carbazole	ND	10		µg/L	1	9/7/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/7/2007
4-Chloroaniline	ND	20		µg/L	1	9/7/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/7/2007
2-Chlorophenol	ND	10		µg/L	1	9/7/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/7/2007
Chrysene	ND	15		µg/L	1	9/7/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/7/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/7/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/7/2007
Dibenzofuran	ND	10		µg/L	1	9/7/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/7/2007
Diethyl phthalate	ND	10		µg/L	1	9/7/2007
Dimethyl phthalate	ND	10		µg/L	1	9/7/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/7/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/7/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
Fluoranthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-02

Client Sample ID: Outfall #3
 Collection Date: 8/28/2007 11:20:00 AM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/7/2007
Hexachlorobenzene	ND	10		µg/L	1	9/7/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/7/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/7/2007
Hexachloroethane	ND	10		µg/L	1	9/7/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/7/2007
Isophorone	ND	10		µg/L	1	9/7/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/7/2007
2-Methylphenol	ND	15		µg/L	1	9/7/2007
3+4-Methylphenol	ND	20		µg/L	1	9/7/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/7/2007
Naphthalene	ND	10		µg/L	1	9/7/2007
2-Nitroaniline	ND	50		µg/L	1	9/7/2007
3-Nitroaniline	ND	50		µg/L	1	9/7/2007
4-Nitroaniline	ND	20		µg/L	1	9/7/2007
Nitrobenzene	ND	10		µg/L	1	9/7/2007
2-Nitrophenol	ND	15		µg/L	1	9/7/2007
4-Nitrophenol	ND	50		µg/L	1	9/7/2007
Pentachlorophenol	ND	50		µg/L	1	9/7/2007
Phenanthrene	ND	10		µg/L	1	9/7/2007
Phenol	ND	10		µg/L	1	9/7/2007
Pyrene	ND	15		µg/L	1	9/7/2007
Pyridine	ND	30		µg/L	1	9/7/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/7/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/7/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/7/2007
Surr: 2,4,6-Tribromophenol	67.8	16.6-150		%REC	1	9/7/2007
Surr: 2-Fluorobiphenyl	62.1	19.6-134		%REC	1	9/7/2007
Surr: 2-Fluorophenol	47.4	9.54-113		%REC	1	9/7/2007
Surr: 4-Terphenyl-d14	70.7	22.7-145		%REC	1	9/7/2007
Surr: Nitrobenzene-d5	61.6	14.6-134		%REC	1	9/7/2007
Surr: Phenol-d5	36.6	10.7-80.3		%REC	1	9/7/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Toluene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Ethylbenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-02

Client Sample ID: Outfall #3
 Collection Date: 8/28/2007 11:20:00 AM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Naphthalene	ND	2.0		µg/L	1	8/29/2007 9:15:31 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2007 9:15:31 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2007 9:15:31 PM
Acetone	ND	10		µg/L	1	8/29/2007 9:15:31 PM
Bromobenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Bromochloromethane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Bromoform	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Bromomethane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
2-Butanone	ND	10		µg/L	1	8/29/2007 9:15:31 PM
Carbon disulfide	ND	10		µg/L	1	8/29/2007 9:15:31 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Chlorobenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Chloroethane	ND	2.0		µg/L	1	8/29/2007 9:15:31 PM
Chloroform	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Chloromethane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/29/2007 9:15:31 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Dibromomethane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/29/2007 9:15:31 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
2-Hexanone	ND	10		µg/L	1	8/29/2007 9:15:31 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/29/2007 9:15:31 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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-02

Client Sample ID: Outfall #3
Collection Date: 8/28/2007 11:20:00 AM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	8/29/2007 9:15:31 PM
n-Butylbenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Styrene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/29/2007 9:15:31 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/29/2007 9:15:31 PM
Vinyl chloride	ND	1.0		µg/L	1	8/29/2007 9:15:31 PM
Xylenes, Total	ND	1.5		µg/L	1	8/29/2007 9:15:31 PM
Surr: 1,2-Dichloroethane-d4	93.7	68.1-123		%REC	1	8/29/2007 9:15:31 PM
Surr: 4-Bromofluorobenzene	94.5	53.2-145		%REC	1	8/29/2007 9:15:31 PM
Surr: Dibromofluoromethane	93.5	68.5-119		%REC	1	8/29/2007 9:15:31 PM
Surr: Toluene-d8	101	64-131		%REC	1	8/29/2007 9:15:31 PM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	100	20		mg/L CaCO3	1	8/29/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/29/2007
Bicarbonate	100	20		mg/L CaCO3	1	8/29/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	94	1.0		mg CO2/L	1	8/29/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	370	0.010		µmhos/cm	1	8/29/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	230	20		mg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-03

Client Sample ID: MW #8
 Collection Date: 8/28/2007 9:40:00 AM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.74	0.10		mg/L	1	8/29/2007 5:33:30 PM
Chloride	410	2.0		mg/L	20	8/30/2007 9:48:38 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/29/2007 5:33:30 PM
Bromide	1.6	0.10		mg/L	1	8/29/2007 5:33:30 PM
Nitrogen, Nitrate (As N)	20	0.10		mg/L	1	8/29/2007 5:33:30 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/29/2007 5:33:30 PM
Sulfate	1300	10		mg/L	20	8/30/2007 9:48:38 AM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/7/2007 3:45:36 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/18/2007 1:25:02 PM
Barium	ND	0.020		mg/L	1	9/18/2007 1:25:02 PM
Cadmium	ND	0.0020		mg/L	1	9/18/2007 1:25:02 PM
Calcium	250	5.0		mg/L	5	9/18/2007 3:25:07 PM
Chromium	ND	0.0060		mg/L	1	9/18/2007 1:25:02 PM
Copper	ND	0.0060		mg/L	1	9/18/2007 1:25:02 PM
Iron	0.16	0.020		mg/L	1	9/18/2007 1:25:02 PM
Lead	ND	0.0050		mg/L	1	9/18/2007 1:25:02 PM
Magnesium	35	1.0		mg/L	1	9/18/2007 1:25:02 PM
Manganese	0.24	0.0020		mg/L	1	9/18/2007 1:25:02 PM
Potassium	3.1	1.0		mg/L	1	9/18/2007 1:25:02 PM
Selenium	0.10	0.050		mg/L	1	9/18/2007 1:25:02 PM
Silver	ND	0.0050		mg/L	1	9/18/2007 1:25:02 PM
Sodium	420	5.0		mg/L	5	9/18/2007 3:25:07 PM
Uranium	ND	0.10		mg/L	1	9/18/2007 1:25:02 PM
Zinc	ND	0.050		mg/L	1	9/18/2007 1:25:02 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 9:49:36 AM
Barium	0.027	0.020		mg/L	1	9/14/2007 9:49:36 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 9:49:36 AM
Chromium	0.56	0.0060		mg/L	1	9/14/2007 9:49:36 AM
Lead	ND	0.0050		mg/L	1	9/14/2007 9:49:36 AM
Selenium	0.069	0.050		mg/L	1	9/14/2007 9:49:36 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 9:49:36 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-03

Client Sample ID: MW #8
Collection Date: 8/28/2007 9:40:00 AM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/7/2007
Aniline	ND	20		µg/L	1	9/7/2007
Anthracene	ND	10		µg/L	1	9/7/2007
Azobenzene	ND	10		µg/L	1	9/7/2007
Benz(a)anthracene	ND	15		µg/L	1	9/7/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/7/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/7/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/7/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/7/2007
Benzoic acid	ND	50		µg/L	1	9/7/2007
Benzyl alcohol	ND	20		µg/L	1	9/7/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/7/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/7/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/7/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/7/2007
Carbazole	ND	10		µg/L	1	9/7/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/7/2007
4-Chloroaniline	ND	20		µg/L	1	9/7/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/7/2007
2-Chlorophenol	ND	10		µg/L	1	9/7/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/7/2007
Chrysene	ND	15		µg/L	1	9/7/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/7/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/7/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/7/2007
Dibenzofuran	ND	10		µg/L	1	9/7/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/7/2007
Diethyl phthalate	ND	10		µg/L	1	9/7/2007
Dimethyl phthalate	ND	10		µg/L	1	9/7/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/7/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/7/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
Fluoranthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-03

Client Sample ID: MW #8
 Collection Date: 8/28/2007 9:40:00 AM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/7/2007
Hexachlorobenzene	ND	10		µg/L	1	9/7/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/7/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/7/2007
Hexachloroethane	ND	10		µg/L	1	9/7/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/7/2007
Isophorone	ND	10		µg/L	1	9/7/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/7/2007
2-Methylphenol	ND	15		µg/L	1	9/7/2007
3+4-Methylphenol	ND	20		µg/L	1	9/7/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/7/2007
Naphthalene	ND	10		µg/L	1	9/7/2007
2-Nitroaniline	ND	50		µg/L	1	9/7/2007
3-Nitroaniline	ND	50		µg/L	1	9/7/2007
4-Nitroaniline	ND	20		µg/L	1	9/7/2007
Nitrobenzene	ND	10		µg/L	1	9/7/2007
2-Nitrophenol	ND	15		µg/L	1	9/7/2007
4-Nitrophenol	ND	50		µg/L	1	9/7/2007
Pentachlorophenol	ND	50		µg/L	1	9/7/2007
Phenanthrene	ND	10		µg/L	1	9/7/2007
Phenol	ND	10		µg/L	1	9/7/2007
Pyrene	ND	15		µg/L	1	9/7/2007
Pyridine	ND	30		µg/L	1	9/7/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/7/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/7/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/7/2007
Surr: 2,4,6-Tribromophenol	55.8	16.6-150		%REC	1	9/7/2007
Surr: 2-Fluorobiphenyl	60.2	19.6-134		%REC	1	9/7/2007
Surr: 2-Fluorophenol	46.4	9.54-113		%REC	1	9/7/2007
Surr: 4-Terphenyl-d14	58.2	22.7-145		%REC	1	9/7/2007
Surr: Nitrobenzene-d5	62.6	14.6-134		%REC	1	9/7/2007
Surr: Phenol-d5	37.2	10.7-80.3		%REC	1	9/7/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Toluene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-03

Client Sample ID: MW #8
Collection Date: 8/28/2007 9:40:00 AM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2007 12:02:36 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2007 12:02:36 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2007 12:02:36 AM
Acetone	ND	10		µg/L	1	8/30/2007 12:02:36 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Bromochloromethane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Bromoform	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Bromomethane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
2-Butanone	ND	10		µg/L	1	8/30/2007 12:02:36 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2007 12:02:36 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2007 12:02:36 AM
Chloroform	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Chloromethane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2007 12:02:36 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2007 12:02:36 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
2-Hexanone	ND	10		µg/L	1	8/30/2007 12:02:36 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2007 12:02:36 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-03

Client Sample ID: MW #8
 Collection Date: 8/28/2007 9:40:00 AM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	8/30/2007 12:02:36 AM
n-Butylbenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Styrene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2007 12:02:36 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2007 12:02:36 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2007 12:02:36 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2007 12:02:36 AM
Surr: 1,2-Dichloroethane-d4	93.2	68.1-123		%REC	1	8/30/2007 12:02:36 AM
Surr: 4-Bromofluorobenzene	96.3	53.2-145		%REC	1	8/30/2007 12:02:36 AM
Surr: Dibromofluoromethane	95.7	68.5-119		%REC	1	8/30/2007 12:02:36 AM
Surr: Toluene-d8	99.2	64-131		%REC	1	8/30/2007 12:02:36 AM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO ₃)	190	20		mg/L CaCO ₃	1	8/29/2007
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/29/2007
Bicarbonate	190	20		mg/L CaCO ₃	1	8/29/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	200	1.0		mg CO ₂ /L	1	8/29/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	3800	0.010		µmhos/cm	1	8/29/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	2800	20		mg/L	1	8/31/2007

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 15 of 37

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-04

Client Sample ID: MW #8 FD
Collection Date: 8/28/2007 9:50:00 AM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.66	0.10		mg/L	1	8/29/2007 5:50:55 PM
Chloride	320	2.0		mg/L	20	8/30/2007 9:13:48 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/29/2007 5:50:55 PM
Bromide	1.5	0.10		mg/L	1	8/29/2007 5:50:55 PM
Nitrogen, Nitrate (As N)	27	2.0		mg/L	20	8/30/2007 9:13:48 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/29/2007 5:50:55 PM
Sulfate	1000	10		mg/L	20	8/30/2007 9:13:48 AM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/7/2007 3:47:24 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/18/2007 1:29:14 PM
Barium	ND	0.020		mg/L	1	9/18/2007 1:29:14 PM
Cadmium	ND	0.0020		mg/L	1	9/18/2007 1:29:14 PM
Calcium	220	5.0		mg/L	5	9/18/2007 3:28:10 PM
Chromium	ND	0.0060		mg/L	1	9/18/2007 1:29:14 PM
Copper	ND	0.0060		mg/L	1	9/18/2007 1:29:14 PM
Iron	0.13	0.020		mg/L	1	9/18/2007 1:29:14 PM
Lead	ND	0.0050		mg/L	1	9/18/2007 1:29:14 PM
Magnesium	33	1.0		mg/L	1	9/18/2007 1:29:14 PM
Manganese	0.28	0.0020		mg/L	1	9/18/2007 1:29:14 PM
Potassium	2.9	1.0		mg/L	1	9/18/2007 1:29:14 PM
Selenium	0.093	0.050		mg/L	1	9/18/2007 1:29:14 PM
Silver	ND	0.0050		mg/L	1	9/18/2007 1:29:14 PM
Sodium	390	5.0		mg/L	5	9/18/2007 3:28:10 PM
Uranium	ND	0.10		mg/L	1	9/18/2007 1:29:14 PM
Zinc	ND	0.050		mg/L	1	9/18/2007 1:29:14 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 9:53:30 AM
Barium	0.030	0.020		mg/L	1	9/14/2007 9:53:30 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 9:53:30 AM
Chromium	0.78	0.0060		mg/L	1	9/14/2007 9:53:30 AM
Lead	ND	0.0050		mg/L	1	9/14/2007 9:53:30 AM
Selenium	0.067	0.050		mg/L	1	9/14/2007 9:53:30 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 9:53:30 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-04

Client Sample ID: MW #8 FD
 Collection Date: 8/28/2007 9:50:00 AM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/7/2007
Aniline	ND	20		µg/L	1	9/7/2007
Anthracene	ND	10		µg/L	1	9/7/2007
Azobenzene	ND	10		µg/L	1	9/7/2007
Benz(a)anthracene	ND	15		µg/L	1	9/7/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/7/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/7/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/7/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/7/2007
Benzoic acid	ND	50		µg/L	1	9/7/2007
Benzyl alcohol	ND	20		µg/L	1	9/7/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/7/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/7/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/7/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/7/2007
Carbazole	ND	10		µg/L	1	9/7/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/7/2007
4-Chloroaniline	ND	20		µg/L	1	9/7/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/7/2007
2-Chlorophenol	ND	10		µg/L	1	9/7/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/7/2007
Chrysene	ND	15		µg/L	1	9/7/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/7/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/7/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/7/2007
Dibenzofuran	ND	10		µg/L	1	9/7/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/7/2007
Diethyl phthalate	ND	10		µg/L	1	9/7/2007
Dimethyl phthalate	ND	10		µg/L	1	9/7/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/7/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/7/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
Fluoranthene	ND	10		µg/L	1	9/7/2007

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

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Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-04

Client Sample ID: MW #8 FD
 Collection Date: 8/28/2007 9:50:00 AM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/7/2007
Hexachlorobenzene	ND	10		µg/L	1	9/7/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/7/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/7/2007
Hexachloroethane	ND	10		µg/L	1	9/7/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/7/2007
Isophorone	ND	10		µg/L	1	9/7/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/7/2007
2-Methylphenol	ND	15		µg/L	1	9/7/2007
3+4-Methylphenol	ND	20		µg/L	1	9/7/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/7/2007
Naphthalene	ND	10		µg/L	1	9/7/2007
2-Nitroaniline	ND	50		µg/L	1	9/7/2007
3-Nitroaniline	ND	50		µg/L	1	9/7/2007
4-Nitroaniline	ND	20		µg/L	1	9/7/2007
Nitrobenzene	ND	10		µg/L	1	9/7/2007
2-Nitrophenol	ND	15		µg/L	1	9/7/2007
4-Nitrophenol	ND	50		µg/L	1	9/7/2007
Pentachlorophenol	ND	50		µg/L	1	9/7/2007
Phenanthrene	ND	10		µg/L	1	9/7/2007
Phenol	ND	10		µg/L	1	9/7/2007
Pyrene	ND	15		µg/L	1	9/7/2007
Pyridine	ND	30		µg/L	1	9/7/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/7/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/7/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/7/2007
Surr: 2,4,6-Tribromophenol	64.5	16.6-150		%REC	1	9/7/2007
Surr: 2-Fluorobiphenyl	68.9	19.6-134		%REC	1	9/7/2007
Surr: 2-Fluorophenol	45.5	9.54-113		%REC	1	9/7/2007
Surr: 4-Terphenyl-d14	64.5	22.7-145		%REC	1	9/7/2007
Surr: Nitrobenzene-d5	75.3	14.6-134		%REC	1	9/7/2007
Surr: Phenol-d5	34.4	10.7-80.3		%REC	1	9/7/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Toluene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-04

Client Sample ID: MW #8 FD
Collection Date: 8/28/2007 9:50:00 AM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2007 12:36:02 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2007 12:36:02 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2007 12:36:02 AM
Acetone	ND	10		µg/L	1	8/30/2007 12:36:02 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Bromochloromethane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Bromoform	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Bromomethane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
2-Butanone	ND	10		µg/L	1	8/30/2007 12:36:02 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2007 12:36:02 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2007 12:36:02 AM
Chloroform	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Chloromethane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2007 12:36:02 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2007 12:36:02 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
2-Hexanone	ND	10		µg/L	1	8/30/2007 12:36:02 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2007 12:36:02 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-04

Client Sample ID: MW #8 FD
 Collection Date: 8/28/2007 9:50:00 AM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	8/30/2007 12:36:02 AM
n-Butylbenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Styrene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2007 12:36:02 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2007 12:36:02 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2007 12:36:02 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2007 12:36:02 AM
Surr: 1,2-Dichloroethane-d4	95.3	68.1-123		%REC	1	8/30/2007 12:36:02 AM
Surr: 4-Bromofluorobenzene	96.0	53.2-145		%REC	1	8/30/2007 12:36:02 AM
Surr: Dibromofluoromethane	95.4	68.5-119		%REC	1	8/30/2007 12:36:02 AM
Surr: Toluene-d8	100	64-131		%REC	1	8/30/2007 12:36:02 AM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO ₃)	210	20		mg/L CaCO ₃	1	8/29/2007
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/29/2007
Bicarbonate	210	20		mg/L CaCO ₃	1	8/29/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	210	1.0		mg CO ₂ /L	1	8/29/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	3200	0.010		µmhos/cm	1	8/29/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	2300	20		mg/L	1	8/31/2007

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 20 of 37

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-05

Client Sample ID: MW #34
Collection Date: 8/28/2007 2:05:00 PM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.83	0.10		mg/L	1	8/30/2007 7:29:18 AM
Chloride	100	1.0		mg/L	10	8/30/2007 7:46:43 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/30/2007 7:29:18 AM
Bromide	1.3	0.10		mg/L	1	8/30/2007 7:29:18 AM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/30/2007 7:29:18 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/30/2007 7:29:18 AM
Sulfate	68	0.50		mg/L	1	8/30/2007 7:29:18 AM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.0010		mg/L	5	9/7/2007 4:21:10 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/18/2007 1:33:25 PM
Barium	0.25	0.020		mg/L	1	9/18/2007 1:33:25 PM
Cadmium	ND	0.0020		mg/L	1	9/18/2007 1:33:25 PM
Calcium	130	10		mg/L	10	9/18/2007 3:31:14 PM
Chromium	ND	0.0060		mg/L	1	9/18/2007 1:33:25 PM
Copper	ND	0.0060		mg/L	1	9/18/2007 1:33:25 PM
Iron	1.4	0.20		mg/L	10	9/18/2007 3:31:14 PM
Lead	0.0054	0.0050		mg/L	1	9/18/2007 1:33:25 PM
Magnesium	30	1.0		mg/L	1	9/18/2007 1:33:25 PM
Manganese	2.0	0.020		mg/L	10	9/18/2007 3:31:14 PM
Potassium	2.9	1.0		mg/L	1	9/18/2007 1:33:25 PM
Selenium	ND	0.050		mg/L	1	9/18/2007 1:33:25 PM
Silver	ND	0.0050		mg/L	1	9/18/2007 1:33:25 PM
Sodium	520	10		mg/L	10	9/18/2007 3:31:14 PM
Uranium	ND	0.10		mg/L	1	9/18/2007 1:33:25 PM
Zinc	ND	0.050		mg/L	1	9/18/2007 1:33:25 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 10:08:20 AM
Barium	0.55	0.020		mg/L	1	9/14/2007 10:08:20 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 10:08:20 AM
Chromium	ND	0.0060		mg/L	1	9/14/2007 10:08:20 AM
Lead	ND	0.0050		mg/L	1	9/14/2007 10:08:20 AM
Selenium	ND	0.050		mg/L	1	9/14/2007 10:08:20 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 10:08:20 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-05

Client Sample ID: MW #34
Collection Date: 8/28/2007 2:05:00 PM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/7/2007
Aniline	ND	20		µg/L	1	9/7/2007
Anthracene	ND	10		µg/L	1	9/7/2007
Azobenzene	ND	10		µg/L	1	9/7/2007
Benz(a)anthracene	ND	15		µg/L	1	9/7/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/7/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/7/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/7/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/7/2007
Benzoic acid	ND	50		µg/L	1	9/7/2007
Benzyl alcohol	ND	20		µg/L	1	9/7/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/7/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/7/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/7/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/7/2007
Carbazole	ND	10		µg/L	1	9/7/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/7/2007
4-Chloroaniline	ND	20		µg/L	1	9/7/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/7/2007
2-Chlorophenol	ND	10		µg/L	1	9/7/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/7/2007
Chrysene	ND	15		µg/L	1	9/7/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/7/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/7/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/7/2007
Dibenzofuran	ND	10		µg/L	1	9/7/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/7/2007
Diethyl phthalate	ND	10		µg/L	1	9/7/2007
Dimethyl phthalate	ND	10		µg/L	1	9/7/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/7/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/7/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
Fluoranthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-05

Client Sample ID: MW #34
 Collection Date: 8/28/2007 2:05:00 PM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/7/2007
Hexachlorobenzene	ND	10		µg/L	1	9/7/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/7/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/7/2007
Hexachloroethane	ND	10		µg/L	1	9/7/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/7/2007
Isophorone	ND	10		µg/L	1	9/7/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/7/2007
2-Methylphenol	ND	15		µg/L	1	9/7/2007
3+4-Methylphenol	ND	20		µg/L	1	9/7/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/7/2007
Naphthalene	ND	10		µg/L	1	9/7/2007
2-Nitroaniline	ND	50		µg/L	1	9/7/2007
3-Nitroaniline	ND	50		µg/L	1	9/7/2007
4-Nitroaniline	ND	20		µg/L	1	9/7/2007
Nitrobenzene	ND	10		µg/L	1	9/7/2007
2-Nitrophenol	ND	15		µg/L	1	9/7/2007
4-Nitrophenol	ND	50		µg/L	1	9/7/2007
Pentachlorophenol	ND	50		µg/L	1	9/7/2007
Phenanthrene	ND	10		µg/L	1	9/7/2007
Phenol	ND	10		µg/L	1	9/7/2007
Pyrene	ND	15		µg/L	1	9/7/2007
Pyridine	ND	30		µg/L	1	9/7/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/7/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/7/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/7/2007
Surr: 2,4,6-Tribromophenol	66.2	16.6-150		%REC	1	9/7/2007
Surr: 2-Fluorobiphenyl	65.5	19.6-134		%REC	1	9/7/2007
Surr: 2-Fluorophenol	38.4	9.54-113		%REC	1	9/7/2007
Surr: 4-Terphenyl-d14	56.7	22.7-145		%REC	1	9/7/2007
Surr: Nitrobenzene-d5	66.2	14.6-134		%REC	1	9/7/2007
Surr: Phenol-d5	30.9	10.7-80.3		%REC	1	9/7/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	18	1.0		µg/L	1	8/30/2007 1:09:25 AM
Toluene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Methyl tert-butyl ether (MTBE)	4.6	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2,4-Trimethylbenzene	160	5.0		µg/L	5	8/30/2007 4:54:23 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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-05

Client Sample ID: MW #34
Collection Date: 8/28/2007 2:05:00 PM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Naphthalene	8.0	2.0		µg/L	1	8/30/2007 1:09:25 AM
1-Methylnaphthalene	4.2	4.0		µg/L	1	8/30/2007 1:09:25 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2007 1:09:25 AM
Acetone	ND	10		µg/L	1	8/30/2007 1:09:25 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Bromochloromethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Bromoform	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Bromomethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
2-Butanone	ND	10		µg/L	1	8/30/2007 1:09:25 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2007 1:09:25 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2007 1:09:25 AM
Chloroform	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Chloromethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2007 1:09:25 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2007 1:09:25 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
2-Hexanone	ND	10		µg/L	1	8/30/2007 1:09:25 AM
Isopropylbenzene	24	1.0		µg/L	1	8/30/2007 1:09:25 AM
4-Isopropyltoluene	3.9	1.0		µg/L	1	8/30/2007 1:09:25 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2007 1:09:25 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-05

Client Sample ID: MW #34
Collection Date: 8/28/2007 2:05:00 PM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	8/30/2007 1:09:25 AM
n-Butylbenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
n-Propylbenzene	19	1.0		µg/L	1	8/30/2007 1:09:25 AM
sec-Butylbenzene	10	1.0		µg/L	1	8/30/2007 1:09:25 AM
Styrene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
tert-Butylbenzene	2.2	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2007 1:09:25 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2007 1:09:25 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Xylenes, Total	7.9	1.5		µg/L	1	8/30/2007 1:09:25 AM
Surr: 1,2-Dichloroethane-d4	94.2	68.1-123		%REC	1	8/30/2007 1:09:25 AM
Surr: 4-Bromofluorobenzene	82.0	53.2-145		%REC	1	8/30/2007 1:09:25 AM
Surr: Dibromofluoromethane	96.7	68.5-119		%REC	1	8/30/2007 1:09:25 AM
Surr: Toluene-d8	87.4	64-131		%REC	1	8/30/2007 1:09:25 AM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	840	20		mg/L CaCO3	1	8/29/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/29/2007
Bicarbonate	840	20		mg/L CaCO3	1	8/29/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	880	1.0		mg CO2/L	1	8/29/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	1900	0.010		µmhos/cm	1	8/29/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	1300	20		mg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-05

Client Sample ID: MW #34
Collection Date: 8/28/2007 1:40:00 PM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.83	0.10		mg/L	1	8/30/2007 7:29:18 AM
Chloride	100	1.0		mg/L	10	8/30/2007 7:46:43 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/30/2007 7:29:18 AM
Bromide	1.3	0.10		mg/L	1	8/30/2007 7:29:18 AM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/30/2007 7:29:18 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/30/2007 7:29:18 AM
Sulfate	68	0.50		mg/L	1	8/30/2007 7:29:18 AM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.0010		mg/L	5	9/7/2007 4:21:10 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/18/2007 1:33:25 PM
Barium	0.25	0.020		mg/L	1	9/18/2007 1:33:25 PM
Cadmium	ND	0.0020		mg/L	1	9/18/2007 1:33:25 PM
Calcium	130	10		mg/L	10	9/18/2007 3:31:14 PM
Chromium	ND	0.0060		mg/L	1	9/18/2007 1:33:25 PM
Copper	ND	0.0060		mg/L	1	9/18/2007 1:33:25 PM
Iron	1.4	0.20		mg/L	10	9/18/2007 3:31:14 PM
Lead	0.0054	0.0050		mg/L	1	9/18/2007 1:33:25 PM
Magnesium	30	1.0		mg/L	1	9/18/2007 1:33:25 PM
Manganese	2.0	0.020		mg/L	10	9/18/2007 3:31:14 PM
Potassium	2.9	1.0		mg/L	1	9/18/2007 1:33:25 PM
Selenium	ND	0.050		mg/L	1	9/18/2007 1:33:25 PM
Silver	ND	0.0050		mg/L	1	9/18/2007 1:33:25 PM
Sodium	520	10		mg/L	10	9/18/2007 3:31:14 PM
Uranium	ND	0.10		mg/L	1	9/18/2007 1:33:25 PM
Zinc	ND	0.050		mg/L	1	9/18/2007 1:33:25 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 10:08:20 AM
Barium	0.55	0.020		mg/L	1	9/14/2007 10:08:20 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 10:08:20 AM
Chromium	ND	0.0060		mg/L	1	9/14/2007 10:08:20 AM
Lead	ND	0.0050		mg/L	1	9/14/2007 10:08:20 AM
Selenium	ND	0.050		mg/L	1	9/14/2007 10:08:20 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 10:08:20 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-05

Client Sample ID: MW #34
 Collection Date: 8/28/2007 1:40:00 PM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/7/2007
Aniline	ND	20		µg/L	1	9/7/2007
Anthracene	ND	10		µg/L	1	9/7/2007
Azobenzene	ND	10		µg/L	1	9/7/2007
Benz(a)anthracene	ND	15		µg/L	1	9/7/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/7/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/7/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/7/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/7/2007
Benzoic acid	ND	50		µg/L	1	9/7/2007
Benzyl alcohol	ND	20		µg/L	1	9/7/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/7/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/7/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/7/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/7/2007
Carbazole	ND	10		µg/L	1	9/7/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/7/2007
4-Chloroaniline	ND	20		µg/L	1	9/7/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/7/2007
2-Chlorophenol	ND	10		µg/L	1	9/7/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/7/2007
Chrysene	ND	15		µg/L	1	9/7/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/7/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/7/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/7/2007
Dibenzofuran	ND	10		µg/L	1	9/7/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/7/2007
Diethyl phthalate	ND	10		µg/L	1	9/7/2007
Dimethyl phthalate	ND	10		µg/L	1	9/7/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/7/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/7/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
Fluoranthene	ND	10		µg/L	1	9/7/2007

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 27 of 37

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-05

Client Sample ID: MW #34
 Collection Date: 8/28/2007 1:40:00 PM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/7/2007
Hexachlorobenzene	ND	10		µg/L	1	9/7/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/7/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/7/2007
Hexachloroethane	ND	10		µg/L	1	9/7/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/7/2007
Isophorone	ND	10		µg/L	1	9/7/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/7/2007
2-Methylphenol	ND	15		µg/L	1	9/7/2007
3+4-Methylphenol	ND	20		µg/L	1	9/7/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/7/2007
Naphthalene	ND	10		µg/L	1	9/7/2007
2-Nitroaniline	ND	50		µg/L	1	9/7/2007
3-Nitroaniline	ND	50		µg/L	1	9/7/2007
4-Nitroaniline	ND	20		µg/L	1	9/7/2007
Nitrobenzene	ND	10		µg/L	1	9/7/2007
2-Nitrophenol	ND	15		µg/L	1	9/7/2007
4-Nitrophenol	ND	50		µg/L	1	9/7/2007
Pentachlorophenol	ND	50		µg/L	1	9/7/2007
Phenanthrene	ND	10		µg/L	1	9/7/2007
Phenol	ND	10		µg/L	1	9/7/2007
Pyrene	ND	15		µg/L	1	9/7/2007
Pyridine	ND	30		µg/L	1	9/7/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/7/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/7/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/7/2007
Surr: 2,4,6-Tribromophenol	66.2	16.6-150		%REC	1	9/7/2007
Surr: 2-Fluorobiphenyl	65.5	19.6-134		%REC	1	9/7/2007
Surr: 2-Fluorophenol	38.4	9.54-113		%REC	1	9/7/2007
Surr: 4-Terphenyl-d14	56.7	22.7-145		%REC	1	9/7/2007
Surr: Nitrobenzene-d5	66.2	14.6-134		%REC	1	9/7/2007
Surr: Phenol-d5	30.9	10.7-80.3		%REC	1	9/7/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	18	1.0		µg/L	1	8/30/2007 1:09:25 AM
Toluene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Methyl tert-butyl ether (MTBE)	4.6	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2,4-Trimethylbenzene	160	5.0		µg/L	5	8/30/2007 4:54:23 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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-05

Client Sample ID: MW #34
 Collection Date: 8/28/2007 1:40:00 PM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Naphthalene	8.0	2.0		µg/L	1	8/30/2007 1:09:25 AM
1-Methylnaphthalene	4.2	4.0		µg/L	1	8/30/2007 1:09:25 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2007 1:09:25 AM
Acetone	ND	10		µg/L	1	8/30/2007 1:09:25 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Bromochloromethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Bromoform	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Bromomethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
2-Butanone	ND	10		µg/L	1	8/30/2007 1:09:25 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2007 1:09:25 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2007 1:09:25 AM
Chloroform	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Chloromethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2007 1:09:25 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2007 1:09:25 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
2-Hexanone	ND	10		µg/L	1	8/30/2007 1:09:25 AM
Isopropylbenzene	24	1.0		µg/L	1	8/30/2007 1:09:25 AM
4-Isopropyltoluene	3.9	1.0		µg/L	1	8/30/2007 1:09:25 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2007 1:09:25 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-05

Client Sample ID: MW #34
Collection Date: 8/28/2007 1:40:00 PM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	8/30/2007 1:09:25 AM
n-Butylbenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
n-Propylbenzene	19	1.0		µg/L	1	8/30/2007 1:09:25 AM
sec-Butylbenzene	10	1.0		µg/L	1	8/30/2007 1:09:25 AM
Styrene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
tert-Butylbenzene	2.2	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2007 1:09:25 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2007 1:09:25 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2007 1:09:25 AM
Xylenes, Total	7.9	1.5		µg/L	1	8/30/2007 1:09:25 AM
Surr: 1,2-Dichloroethane-d4	94.2	68.1-123		%REC	1	8/30/2007 1:09:25 AM
Surr: 4-Bromofluorobenzene	82.0	53.2-145		%REC	1	8/30/2007 1:09:25 AM
Surr: Dibromofluoromethane	96.7	68.5-119		%REC	1	8/30/2007 1:09:25 AM
Surr: Toluene-d8	87.4	64-131		%REC	1	8/30/2007 1:09:25 AM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	840	20		mg/L CaCO3	1	8/29/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/29/2007
Bicarbonate	840	20		mg/L CaCO3	1	8/29/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	880	1.0		mg CO2/L	1	8/29/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	1900	0.010		µmhos/cm	1	8/29/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	1300	20		mg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-06

Client Sample ID: MW #35
Collection Date: 8/28/2007 2:05:00 PM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.71	0.10		mg/L	1	8/30/2007 8:04:08 AM
Chloride	100	1.0		mg/L	10	8/30/2007 8:21:33 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/30/2007 8:04:08 AM
Bromide	1.0	0.10		mg/L	1	8/30/2007 8:04:08 AM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/30/2007 8:04:08 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/30/2007 8:04:08 AM
Sulfate	4.3	0.50		mg/L	1	8/30/2007 8:04:08 AM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/7/2007 3:54:43 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/18/2007 1:37:40 PM
Barium	0.71	0.020		mg/L	1	9/18/2007 1:37:40 PM
Cadmium	ND	0.0020		mg/L	1	9/18/2007 1:37:40 PM
Calcium	79	1.0		mg/L	1	9/18/2007 1:37:40 PM
Chromium	ND	0.0060		mg/L	1	9/18/2007 1:37:40 PM
Copper	ND	0.0060		mg/L	1	9/18/2007 1:37:40 PM
Iron	3.5	0.10		mg/L	5	9/18/2007 3:34:16 PM
Lead	ND	0.0050		mg/L	1	9/18/2007 1:37:40 PM
Magnesium	16	1.0		mg/L	1	9/18/2007 1:37:40 PM
Manganese	1.9	0.010		mg/L	5	9/18/2007 3:34:16 PM
Potassium	1.9	1.0		mg/L	1	9/18/2007 1:37:40 PM
Selenium	ND	0.050		mg/L	1	9/18/2007 1:37:40 PM
Silver	ND	0.0050		mg/L	1	9/18/2007 1:37:40 PM
Sodium	340	5.0		mg/L	5	9/18/2007 3:34:16 PM
Uranium	ND	0.10		mg/L	1	9/18/2007 1:37:40 PM
Zinc	ND	0.050		mg/L	1	9/18/2007 1:37:40 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	0.022	0.020		mg/L	1	9/14/2007 10:12:13 AM
Barium	0.86	0.020		mg/L	1	9/14/2007 10:12:13 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 10:12:13 AM
Chromium	ND	0.0060		mg/L	1	9/14/2007 10:12:13 AM
Lead	0.0084	0.0050		mg/L	1	9/14/2007 10:12:13 AM
Selenium	ND	0.050		mg/L	1	9/14/2007 10:12:13 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 10:12:13 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-06

Client Sample ID: MW #35
 Collection Date: 8/28/2007 2:05:00 PM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/7/2007
Aniline	ND	20		µg/L	1	9/7/2007
Anthracene	ND	10		µg/L	1	9/7/2007
Azobenzene	ND	10		µg/L	1	9/7/2007
Benz(a)anthracene	ND	15		µg/L	1	9/7/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/7/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/7/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/7/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/7/2007
Benzoic acid	ND	50		µg/L	1	9/7/2007
Benzyl alcohol	ND	20		µg/L	1	9/7/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/7/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/7/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/7/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/7/2007
Carbazole	ND	10		µg/L	1	9/7/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/7/2007
4-Chloroaniline	ND	20		µg/L	1	9/7/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/7/2007
2-Chlorophenol	ND	10		µg/L	1	9/7/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/7/2007
Chrysene	ND	15		µg/L	1	9/7/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/7/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/7/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/7/2007
Dibenzofuran	ND	10		µg/L	1	9/7/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/7/2007
Diethyl phthalate	ND	10		µg/L	1	9/7/2007
Dimethyl phthalate	ND	10		µg/L	1	9/7/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/7/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/7/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
Fluoranthene	ND	10		µg/L	1	9/7/2007

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 32 of 37

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708368
 Project: Annual Sampling-2007
 Lab ID: 0708368-06

Client Sample ID: MW #35
 Collection Date: 8/28/2007 2:05:00 PM
 Date Received: 8/29/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/7/2007
Hexachlorobenzene	ND	10		µg/L	1	9/7/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/7/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/7/2007
Hexachloroethane	ND	10		µg/L	1	9/7/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/7/2007
Isophorone	ND	10		µg/L	1	9/7/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/7/2007
2-Methylphenol	ND	15		µg/L	1	9/7/2007
3+4-Methylphenol	ND	20		µg/L	1	9/7/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/7/2007
Naphthalene	ND	10		µg/L	1	9/7/2007
2-Nitroaniline	ND	50		µg/L	1	9/7/2007
3-Nitroaniline	ND	50		µg/L	1	9/7/2007
4-Nitroaniline	ND	20		µg/L	1	9/7/2007
Nitrobenzene	ND	10		µg/L	1	9/7/2007
2-Nitrophenol	ND	15		µg/L	1	9/7/2007
4-Nitrophenol	ND	50		µg/L	1	9/7/2007
Pentachlorophenol	ND	50		µg/L	1	9/7/2007
Phenanthrene	ND	10		µg/L	1	9/7/2007
Phenol	ND	10		µg/L	1	9/7/2007
Pyrene	ND	15		µg/L	1	9/7/2007
Pyridine	ND	30		µg/L	1	9/7/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/7/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/7/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/7/2007
Surr: 2,4,6-Tribromophenol	74.0	16.6-150		%REC	1	9/7/2007
Surr: 2-Fluorobiphenyl	70.9	19.6-134		%REC	1	9/7/2007
Surr: 2-Fluorophenol	45.1	9.54-113		%REC	1	9/7/2007
Surr: 4-Terphenyl-d14	61.2	22.7-145		%REC	1	9/7/2007
Surr: Nitrobenzene-d5	67.6	14.6-134		%REC	1	9/7/2007
Surr: Phenol-d5	36.1	10.7-80.3		%REC	1	9/7/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Toluene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,2,4-Trimethylbenzene	200	5.0		µg/L	5	8/31/2007 6:52:53 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 33 of 37

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-06

Client Sample ID: MW #35
Collection Date: 8/28/2007 2:05:00 PM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Naphthalene	6.7	2.0		µg/L	1	8/30/2007 1:42:48 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2007 1:42:48 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2007 1:42:48 AM
Acetone	ND	10		µg/L	1	8/30/2007 1:42:48 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Bromochloromethane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Bromoform	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Bromomethane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
2-Butanone	ND	10		µg/L	1	8/30/2007 1:42:48 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2007 1:42:48 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2007 1:42:48 AM
Chloroform	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Chloromethane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2007 1:42:48 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2007 1:42:48 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
2-Hexanone	ND	10		µg/L	1	8/30/2007 1:42:48 AM
Isopropylbenzene	7.6	1.0		µg/L	1	8/30/2007 1:42:48 AM
4-Isopropyltoluene	2.5	1.0		µg/L	1	8/30/2007 1:42:48 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2007 1:42:48 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-06

Client Sample ID: MW #35
Collection Date: 8/28/2007 2:05:00 PM
Date Received: 8/29/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	8/30/2007 1:42:48 AM
n-Butylbenzene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
n-Propylbenzene	4.6	1.0		µg/L	1	8/30/2007 1:42:48 AM
sec-Butylbenzene	2.5	1.0		µg/L	1	8/30/2007 1:42:48 AM
Styrene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
tert-Butylbenzene	1.0	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2007 1:42:48 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2007 1:42:48 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2007 1:42:48 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2007 1:42:48 AM
Surr: 1,2-Dichloroethane-d4	96.5	68.1-123		%REC	1	8/30/2007 1:42:48 AM
Surr: 4-Bromofluorobenzene	85.7	53.2-145		%REC	1	8/30/2007 1:42:48 AM
Surr: Dibromofluoromethane	98.7	68.5-119		%REC	1	8/30/2007 1:42:48 AM
Surr: Toluene-d8	91.7	64-131		%REC	1	8/30/2007 1:42:48 AM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	820	20		mg/L CaCO3	1	8/29/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/29/2007
Bicarbonate	820	20		mg/L CaCO3	1	8/29/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	820	1.0		mg CO2/L	1	8/29/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	1800	0.010		µmhos/cm	1	8/29/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	980	200		mg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-07

Client Sample ID: Trip Blank
Collection Date:
Date Received: 8/29/2007
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Toluene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2007 2:16:08 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2007 2:16:08 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2007 2:16:08 AM
Acetone	ND	10		µg/L	1	8/30/2007 2:16:08 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Bromochloromethane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Bromoform	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Bromomethane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
2-Butanone	ND	10		µg/L	1	8/30/2007 2:16:08 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2007 2:16:08 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2007 2:16:08 AM
Chloroform	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Chloromethane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2007 2:16:08 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2007 2:16:08 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708368
Project: Annual Sampling-2007
Lab ID: 0708368-07

Client Sample ID: Trip Blank
Collection Date:
Date Received: 8/29/2007
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
2-Hexanone	ND	10		µg/L	1	8/30/2007 2:16:08 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2007 2:16:08 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2007 2:16:08 AM
n-Butylbenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Styrene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2007 2:16:08 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2007 2:16:08 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2007 2:16:08 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2007 2:16:08 AM
Surr: 1,2-Dichloroethane-d4	93.3	68.1-123		%REC	1	8/30/2007 2:16:08 AM
Surr: 4-Bromofluorobenzene	97.4	53.2-145		%REC	1	8/30/2007 2:16:08 AM
Surr: Dibromofluoromethane	94.0	68.5-119		%REC	1	8/30/2007 2:16:08 AM
Surr: Toluene-d8	98.9	64-131		%REC	1	8/30/2007 2:16:08 AM

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

Lab Order: 0708368

Client: San Juan Refining

Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708368-01A	MW #1	8/28/2007 10:35:00 AM	Aqueous	EPA Method 8260B: VOLATILES	R24962		8/29/2007
0708368-01B				EPA Method 8270C: Semivolatiles	13744	9/4/2007	9/7/2007
0708368-01C				Carbon Dioxide	R24971		8/29/2007
				EPA 120.1: Specific Conductance	R24969		8/29/2007
				EPA Method 300.0: Anions	R24960		8/29/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				SM 2320C: Alkalinity	R24971		8/29/2007
				SM 2540C: TDS	13739	8/31/2007	8/31/2007
0708368-01D				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
0708368-01E				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA Method 7470: Mercury	13785	9/7/2007	9/7/2007
0708368-02A	Outfall #3	8/28/2007 11:20:00 AM		EPA Method 8260B: VOLATILES	R24962		8/29/2007
0708368-02B				EPA Method 8270C: Semivolatiles	13744	9/4/2007	9/7/2007
0708368-02C				Carbon Dioxide	R24971		8/29/2007
				EPA 120.1: Specific Conductance	R24969		8/29/2007
				EPA Method 300.0: Anions	R24960		8/29/2007
				SM 2320C: Alkalinity	R24971		8/29/2007
				SM 2540C: TDS	13739	8/31/2007	8/31/2007
0708368-02D				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
0708368-02E				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA Method 7470: Mercury	13785	9/7/2007	9/7/2007
0708368-03A	MW #8	8/28/2007 9:40:00 AM		EPA Method 8260B: VOLATILES	R24962		8/30/2007
0708368-03B				EPA Method 8270C: Semivolatiles	13744	9/4/2007	9/7/2007
0708368-03C				Carbon Dioxide	R24971		8/29/2007
				EPA 120.1: Specific Conductance	R24969		8/29/2007

Hall Environmental Analysis Laboratory, Inc.

25-Sep-07

Lab Order: 0708368
Client: San Juan Refining
Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708368-03C	MW #8	8/28/2007 9:40:00 AM	Aqueous	EPA Method 300.0: Anions	R24960		8/29/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				SM 2320C: Alkalinity	R24971		8/29/2007
				SM 2540C: TDS	13739	8/31/2007	8/31/2007
0708368-03D				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
0708368-03E				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA Method 7470: Mercury	13785	9/7/2007	9/7/2007
0708368-04A	MW #8 FD	8/28/2007 9:50:00 AM		EPA Method 8260B: VOLATILES	R24962		8/30/2007
				EPA Method 8260B: VOLATILES	R24982		8/30/2007
0708368-04B				EPA Method 8270C: Semivolatiles	13744	9/4/2007	9/7/2007
0708368-04C				Carbon Dioxide	R24971		8/29/2007
				EPA 120.1: Specific Conductance	R24969		8/29/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				EPA Method 300.0: Anions	R24960		8/29/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				SM 2320C: Alkalinity	R24971		8/29/2007
				SM 2540C: TDS	13739	8/31/2007	8/31/2007
0708368-04D				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
0708368-04E				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA Method 7470: Mercury	13785	9/7/2007	9/7/2007
0708368-05A	MW #34	8/28/2007 1:40:00 PM		EPA Method 8260B: VOLATILES	R24962		8/30/2007
				EPA Method 8260B: VOLATILES	R24982		8/30/2007
				EPA Method 8260B: VOLATILES	R24998		8/31/2007

Lab Order: 0708368
 Client: San Juan Refining
 Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708368-05B	MW #34	8/28/2007 1:40:00 PM	Aqueous	EPA Method 8270C: Semivolatiles	13744	9/4/2007	9/7/2007
0708368-05C				Carbon Dioxide	R24971		8/29/2007
				EPA 120.1: Specific Conductance	R24969		8/29/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				SM 2320C: Alkalinity	R24971		8/29/2007
				SM 2540C: TDS	13739	8/31/2007	8/31/2007
0708368-05D				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
0708368-05E		8/28/2007 2:05:00 PM		EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA Method 7470: Mercury	13785	9/7/2007	9/7/2007
				EPA Method 7470: Mercury	13785	9/7/2007	9/7/2007
0708368-06A	MW #35			EPA Method 8260B: VOLATILES	R24962		8/30/2007
				EPA Method 8260B: VOLATILES	R24988		8/31/2007
0708368-06B				EPA Method 8270C: Semivolatiles	13744	9/4/2007	9/7/2007
0708368-06C				Carbon Dioxide	R24971		8/29/2007
				EPA 120.1: Specific Conductance	R24969		8/29/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				SM 2320C: Alkalinity	R24971		8/29/2007
				SM 2540C: TDS	13739	8/31/2007	8/31/2007
0708368-06D				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
0708368-06E				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA Method 7470: Mercury	13785	9/7/2007	9/7/2007

Hall Environmental Analysis Laboratory, Inc.

25-Sep-07

Lab Order: 0708368

Client: San Juan Refining

Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708368-07A	Trip Blank		Trip Blank	EPA Method 8260B: VOLATILES	R24962		8/30/2007

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708368

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 300.0: Anions

Sample ID: 0708368-06C MSD MSD Batch ID: R25029 Analysis Date: 8/30/2007 4:54:57 PM

Fluoride	1.215	mg/L	0.10	102	80	120	2.17	20
Nitrogen, Nitrite (As N)	0.9083	mg/L	0.10	90.8	80	120	5.10	20
Bromide	3.748	mg/L	0.10	109	80	120	2.45	20
Nitrogen, Nitrate (As N)	2.764	mg/L	0.10	108	80	120	4.13	20
Phosphorus, Orthophosphate (As P)	5.662	mg/L	0.50	113	80	120	4.85	20
Sulfate	15.60	mg/L	0.50	113	80	120	2.86	20

Sample ID: MBLK MBLK Batch ID: R24960 Analysis Date: 8/29/2007 8:06:23 AM

Fluoride	ND	mg/L	0.10
Chloride	ND	mg/L	0.10
Nitrogen, Nitrite (As N)	ND	mg/L	0.10
Bromide	ND	mg/L	0.10
Nitrogen, Nitrate (As N)	ND	mg/L	0.10
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50
Sulfate	ND	mg/L	0.50

Sample ID: MBLK MBLK Batch ID: R25029 Analysis Date: 8/30/2007 5:27:24 AM

Fluoride	ND	mg/L	0.10
Chloride	ND	mg/L	0.10
Nitrogen, Nitrite (As N)	ND	mg/L	0.10
Bromide	ND	mg/L	0.10
Nitrogen, Nitrate (As N)	ND	mg/L	0.10
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50
Sulfate	ND	mg/L	0.50

Sample ID: LCS ST300-07030 LCS Batch ID: R24960 Analysis Date: 8/29/2007 8:23:47 AM

Fluoride	0.5001	mg/L	0.10	100	90	110
Chloride	5.069	mg/L	0.10	101	90	110
Nitrogen, Nitrite (As N)	1.014	mg/L	0.10	101	90	110
Bromide	2.619	mg/L	0.10	105	90	110
Nitrogen, Nitrate (As N)	2.619	mg/L	0.10	105	90	110
Phosphorus, Orthophosphate (As P)	5.443	mg/L	0.50	109	90	110
Sulfate	10.38	mg/L	0.50	104	90	110

Sample ID: LCS ST300-07030 LCS Batch ID: R25029 Analysis Date: 8/30/2007 5:44:49 AM

Fluoride	0.5167	mg/L	0.10	103	90	110
Chloride	5.201	mg/L	0.10	104	90	110
Nitrogen, Nitrite (As N)	1.001	mg/L	0.10	100	90	110
Bromide	2.714	mg/L	0.10	109	90	110
Nitrogen, Nitrate (As N)	2.671	mg/L	0.10	107	90	110
Sulfate	10.70	mg/L	0.50	107	90	110

Sample ID: LCS ST300-07030 LCS Batch ID: R25029 Analysis Date: 8/30/2007 7:11:53 AM

Phosphorus, Orthophosphate (As P)	5.480	mg/L	0.50	110	90	110
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Sample ID: 0708368-06C MS Batch ID: R25029 Analysis Date: 8/30/2007 4:37:32 PM

Fluoride	1.189	mg/L	0.10	96.6	80	120
Nitrogen, Nitrite (As N)	0.8632	mg/L	0.10	86.3	80	120
Bromide	3.657	mg/L	0.10	105	80	120

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708368

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 300.0: Anions

Sample ID: 0708368-06C MS	MS	Batch ID: R25029	Analysis Date: 8/30/2007 4:37:32 PM
Nitrogen, Nitrate (As N)	2.652 mg/L	0.10 103	80 120
Phosphorus, Orthophosphate (As P)	5.394 mg/L	0.50 108	80 120
Sulfate	15.16 mg/L	0.50 109	80 120

Method: SM 2320C: Alkalinity

Sample ID: 0708368-02CMSD	MSD	Batch ID: R24971	Analysis Date: 8/29/2007
Alkalinity, Total (As CaCO3)	181.0 mg/L CaC	20 100	80 120 0.551 20
Sample ID: MB	MBLK	Batch ID: R24971	Analysis Date: 8/29/2007
Alkalinity, Total (As CaCO3)	ND mg/L CaC	20	
Carbonate	ND mg/L CaC	2.0	
Bicarbonate	ND mg/L CaC	20	
Sample ID: LCS	LCS	Batch ID: R24971	Analysis Date: 8/29/2007
Alkalinity, Total (As CaCO3)	83.00 mg/L CaC	20 101	80 120
Sample ID: 0708368-02CMS	MS	Batch ID: R24971	Analysis Date: 8/29/2007
Alkalinity, Total (As CaCO3)	182.0 mg/L CaC	20 101	80 120

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708368

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R24962 Analysis Date: 8/29/2007 8:22:07 AM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
1,2-Dichloroethane (EDC)	ND	µg/L	1.0
1,2-Dibromoethane (EDB)	ND	µg/L	1.0
Naphthalene	ND	µg/L	2.0
1-Methylnaphthalene	ND	µg/L	4.0
2-Methylnaphthalene	ND	µg/L	4.0
Acetone	ND	µg/L	10
Bromobenzene	ND	µg/L	1.0
Bromochloromethane	ND	µg/L	1.0
Bromodichloromethane	ND	µg/L	1.0
Bromoform	ND	µg/L	1.0
Bromomethane	ND	µg/L	1.0
2-Butanone	ND	µg/L	10
Carbon disulfide	ND	µg/L	10
Carbon Tetrachloride	ND	µg/L	1.0
Chlorobenzene	ND	µg/L	1.0
Chloroethane	ND	µg/L	2.0
Chloroform	ND	µg/L	1.0
Chloromethane	ND	µg/L	1.0
2-Chlorotoluene	ND	µg/L	1.0
4-Chlorotoluene	ND	µg/L	1.0
cis-1,2-DCE	ND	µg/L	1.0
cis-1,3-Dichloropropene	ND	µg/L	1.0
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0
Dibromochloromethane	ND	µg/L	1.0
Dibromomethane	ND	µg/L	1.0
1,2-Dichlorobenzene	ND	µg/L	1.0
1,3-Dichlorobenzene	ND	µg/L	1.0
1,4-Dichlorobenzene	ND	µg/L	1.0
Dichlorodifluoromethane	ND	µg/L	1.0
1,1-Dichloroethane	ND	µg/L	1.0
1,1-Dichloroethene	ND	µg/L	1.0
1,2-Dichloropropane	ND	µg/L	1.0
1,3-Dichloropropane	ND	µg/L	1.0
2,2-Dichloropropane	ND	µg/L	2.0
1,1-Dichloropropene	ND	µg/L	1.0
Hexachlorobutadiene	ND	µg/L	1.0
2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708368

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R24962 Analysis Date: 8/29/2007 8:22:07 AM

4-Isopropyltoluene	ND	µg/L	1.0
4-Methyl-2-pentanone	ND	µg/L	10
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	1.5

Sample ID: 5ml rb

MBLK

Batch ID: R24982 Analysis Date: 8/30/2007 3:13:56 PM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
1,2-Dichloroethane (EDC)	ND	µg/L	1.0
1,2-Dibromoethane (EDB)	ND	µg/L	1.0
Naphthalene	ND	µg/L	2.0
1-Methylnaphthalene	ND	µg/L	4.0
2-Methylnaphthalene	ND	µg/L	4.0
Acetone	ND	µg/L	10
Bromobenzene	ND	µg/L	1.0
Bromochloromethane	ND	µg/L	1.0
Bromodichloromethane	ND	µg/L	1.0
Bromoform	ND	µg/L	1.0
Bromomethane	ND	µg/L	1.0
2-Butanone	ND	µg/L	10
Carbon disulfide	ND	µg/L	10
Carbon Tetrachloride	ND	µg/L	1.0
Chlorobenzene	ND	µg/L	1.0

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708368

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R24982 Analysis Date: 8/30/2007 3:13:56 PM

Chloroethane	ND	µg/L	2.0
Chloroform	ND	µg/L	1.0
Chloromethane	ND	µg/L	1.0
2-Chlorotoluene	ND	µg/L	1.0
4-Chlorotoluene	ND	µg/L	1.0
cis-1,2-DCE	ND	µg/L	1.0
cis-1,3-Dichloropropene	ND	µg/L	1.0
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0
Dibromochloromethane	ND	µg/L	1.0
Dibromomethane	ND	µg/L	1.0
1,2-Dichlorobenzene	ND	µg/L	1.0
1,3-Dichlorobenzene	ND	µg/L	1.0
1,4-Dichlorobenzene	ND	µg/L	1.0
Dichlorodifluoromethane	ND	µg/L	1.0
1,1-Dichloroethane	ND	µg/L	1.0
1,1-Dichloroethene	ND	µg/L	1.0
1,2-Dichloropropane	ND	µg/L	1.0
1,3-Dichloropropane	ND	µg/L	1.0
2,2-Dichloropropane	ND	µg/L	2.0
1,2-Dichloropropene	ND	µg/L	1.0
1,2,3,4-Tetrachlorobutadiene	ND	µg/L	1.0
2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0
4-Isopropyltoluene	ND	µg/L	1.0
4-Methyl-2-pentanone	ND	µg/L	10
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708368

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb MBLK Batch ID: R24982 Analysis Date: 8/30/2007 3:13:56 PM

Xylenes, Total ND µg/L 1.5

Sample ID: 5ml rb MBLK Batch ID: R24998 Analysis Date: 8/31/2007 9:06:02 AM

Benzene ND µg/L 1.0

Toluene ND µg/L 1.0

Ethylbenzene ND µg/L 1.0

Methyl tert-butyl ether (MTBE) ND µg/L 1.0

1,2,4-Trimethylbenzene ND µg/L 1.0

1,3,5-Trimethylbenzene ND µg/L 1.0

1,2-Dichloroethane (EDC) ND µg/L 1.0

1,2-Dibromoethane (EDB) ND µg/L 1.0

Naphthalene ND µg/L 2.0

1-Methylnaphthalene ND µg/L 4.0

2-Methylnaphthalene ND µg/L 4.0

Acetone ND µg/L 10

Bromobenzene ND µg/L 1.0

Bromochloromethane ND µg/L 1.0

Bromodichloromethane ND µg/L 1.0

Bromoform ND µg/L 1.0

Bromomethane ND µg/L 1.0

2-Butanone ND µg/L 10

Carbon disulfide ND µg/L 10

Carbon Tetrachloride ND µg/L 1.0

Chlorobenzene ND µg/L 1.0

Chloroethane ND µg/L 2.0

Chloroform ND µg/L 1.0

Chloromethane ND µg/L 1.0

2-Chlorotoluene ND µg/L 1.0

4-Chlorotoluene ND µg/L 1.0

cis-1,2-DCE ND µg/L 1.0

cis-1,3-Dichloropropene ND µg/L 1.0

1,2-Dibromo-3-chloropropane ND µg/L 2.0

Dibromochloromethane ND µg/L 1.0

Dibromomethane ND µg/L 1.0

1,2-Dichlorobenzene ND µg/L 1.0

1,3-Dichlorobenzene ND µg/L 1.0

1,4-Dichlorobenzene ND µg/L 1.0

Dichlorodifluoromethane ND µg/L 1.0

1,1-Dichloroethane ND µg/L 1.0

1,1-Dichloroethene ND µg/L 1.0

1,2-Dichloropropane ND µg/L 1.0

1,3-Dichloropropane ND µg/L 1.0

2,2-Dichloropropane ND µg/L 2.0

1,1-Dichloropropene ND µg/L 1.0

Hexachlorobutadiene ND µg/L 1.0

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708368

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R24998 Analysis Date: 8/31/2007 9:06:02 AM

2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0
4-Isopropyltoluene	ND	µg/L	1.0
4-Methyl-2-pentanone	ND	µg/L	10
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	1.5

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708368

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: 0708368-02Bmsd		MSD			Batch ID: 13744		Analysis Date: 9/7/2007	
Acenaphthene	69.20	µg/L	10	69.2	43.1	89.9	3.77	30.5
4-Chloro-3-methylphenol	140.0	µg/L	20	70.0	44.1	93.2	1.28	28.6
2-Chlorophenol	136.7	µg/L	10	68.4	20.7	98	2.26	107
1,4-Dichlorobenzene	61.50	µg/L	10	61.5	24.1	90.7	1.31	62.1
2,4-Dinitrotoluene	67.02	µg/L	10	67.0	43.2	101	3.46	14.7
N-Nitrosodi-n-propylamine	67.64	µg/L	10	67.6	44.6	99.9	3.58	30.3
4-Nitrophenol	81.20	µg/L	50	40.6	11.8	60.1	4.92	36.3
Pentachlorophenol	134.5	µg/L	50	67.3	8.65	105	2.27	49
Phenol	74.64	µg/L	10	37.3	21.1	55.3	1.10	52.4
Pyrene	68.80	µg/L	15	68.8	35.7	111	1.02	16.3
1,2,4-Trichlorobenzene	60.40	µg/L	10	60.4	30.2	89.6	2.24	36.4

Sample ID: mb-13744	MBLK	Batch ID: 13744	Analysis Date: 9/7/2007
Acenaphthene	ND	µg/L	10
Acenaphthylene	ND	µg/L	10
Aniline	ND	µg/L	20
Anthracene	ND	µg/L	10
Azobenzene	ND	µg/L	10
Benz(a)anthracene	ND	µg/L	15
Benzo(a)pyrene	ND	µg/L	10
Benzo(b)fluoranthene	ND	µg/L	15
Benzo(g,h,i)perylene	ND	µg/L	10
Benzo(k)fluoranthene	ND	µg/L	10
Benzoic acid	ND	µg/L	50
Benzyl alcohol	ND	µg/L	20
Bis(2-chloroethoxy)methane	ND	µg/L	10
Bis(2-chloroethyl)ether	ND	µg/L	15
Bis(2-chloroisopropyl)ether	ND	µg/L	15
Bis(2-ethylhexyl)phthalate	ND	µg/L	15
4-Bromophenyl phenyl ether	ND	µg/L	10
Butyl benzyl phthalate	ND	µg/L	15
Carbazole	ND	µg/L	10
4-Chloro-3-methylphenol	ND	µg/L	20
4-Chloroaniline	ND	µg/L	20
2-Chloronaphthalene	ND	µg/L	10
2-Chlorophenol	ND	µg/L	10
4-Chlorophenyl phenyl ether	ND	µg/L	15
Chrysene	ND	µg/L	15
Di-n-butyl phthalate	ND	µg/L	10
Di-n-octyl phthalate	ND	µg/L	15
Dibenz(a,h)anthracene	ND	µg/L	10
Dibenzofuran	ND	µg/L	10
1,2-Dichlorobenzene	ND	µg/L	10
1,3-Dichlorobenzene	ND	µg/L	10
1,4-Dichlorobenzene	ND	µg/L	10

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708368

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-13744 MBLK Batch ID: 13744 Analysis Date: 9/7/2007

3,3'-Dichlorobenzidine	ND	µg/L	15
Diethyl phthalate	ND	µg/L	10
Dimethyl phthalate	ND	µg/L	10
2,4-Dichlorophenol	ND	µg/L	10
2,4-Dimethylphenol	ND	µg/L	10
4,6-Dinitro-2-methylphenol	ND	µg/L	50
2,4-Dinitrophenol	ND	µg/L	50
2,4-Dinitrotoluene	ND	µg/L	10
2,6-Dinitrotoluene	ND	µg/L	10
Fluoranthene	ND	µg/L	10
Fluorene	ND	µg/L	10
Hexachlorobenzene	ND	µg/L	10
Hexachlorobutadiene	ND	µg/L	10
Hexachlorocyclopentadiene	ND	µg/L	50
Hexachloroethane	ND	µg/L	10
Indeno(1,2,3-cd)pyrene	ND	µg/L	10
Isophorone	ND	µg/L	10
2-Methylnaphthalene	ND	µg/L	10
2-Methylphenol	ND	µg/L	15
4-Methylphenol	ND	µg/L	20
N-Nitrosodi-n-propylamine	ND	µg/L	10
N-Nitrosodimethylamine	ND	µg/L	10
N-Nitrosodiphenylamine	ND	µg/L	10
Naphthalene	ND	µg/L	10
2-Nitroaniline	ND	µg/L	50
3-Nitroaniline	ND	µg/L	50
4-Nitroaniline	ND	µg/L	20
Nitrobenzene	ND	µg/L	10
2-Nitrophenol	ND	µg/L	15
4-Nitrophenol	ND	µg/L	50
Pentachlorophenol	ND	µg/L	50
Phenanthrene	ND	µg/L	10
Phenol	ND	µg/L	10
Pyrene	ND	µg/L	15
Pyridine	ND	µg/L	30
1,2,4-Trichlorobenzene	ND	µg/L	10
2,4,5-Trichlorophenol	ND	µg/L	10
2,4,6-Trichlorophenol	ND	µg/L	15

Sample ID: lcs-13744 LCS Batch ID: 13744 Analysis Date: 9/7/2007

Acenaphthene	61.94	µg/L	10	61.9	11	123
4-Chloro-3-methylphenol	128.3	µg/L	20	64.1	15.4	119
2-Chlorophenol	130.0	µg/L	10	65.0	12.2	122
1,4-Dichlorobenzene	52.24	µg/L	10	52.2	16.9	100
2,4-Dinitrotoluene	66.64	µg/L	10	66.6	13	138

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708368

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: lcs-13744 LCS Batch ID: 13744 Analysis Date: 9/7/2007

N-Nitrosodi-n-propylamine	65.16	µg/L	10	65.2	9.93	122			
4-Nitrophenol	80.62	µg/L	50	40.3	12.5	87.4			
Pentachlorophenol	137.2	µg/L	50	68.6	3.55	114			
Phenol	76.20	µg/L	10	38.1	7.53	73.1			
Pyrene	68.80	µg/L	15	68.8	12.6	140			
1,2,4-Trichlorobenzene	51.10	µg/L	10	51.1	17.4	98.7			

Sample ID: lcsd-13744 LCSD Batch ID: 13744 Analysis Date: 9/7/2007

Acenaphthene	61.84	µg/L	10	61.8	11	123	0.162	30.5	
4-Chloro-3-methylphenol	132.7	µg/L	20	66.3	15.4	119	3.39	28.6	
2-Chlorophenol	134.0	µg/L	10	67.0	12.2	122	2.99	107	
1,4-Dichlorobenzene	55.12	µg/L	10	55.1	16.9	100	5.37	62.1	
2,4-Dinitrotoluene	66.00	µg/L	10	66.0	13	138	0.965	14.7	
N-Nitrosodi-n-propylamine	66.22	µg/L	10	66.2	9.93	122	1.61	30.3	
4-Nitrophenol	78.32	µg/L	50	39.2	12.5	87.4	2.89	36.3	
Pentachlorophenol	138.9	µg/L	50	69.5	3.55	114	1.29	49	
Phenol	77.14	µg/L	10	38.6	7.53	73.1	1.23	52.4	
Pyrene	66.72	µg/L	15	66.7	12.6	140	3.07	16.3	
1,2,4-Trichlorobenzene	53.60	µg/L	10	53.6	17.4	98.7	4.78	36.4	

Sample ID: 0708368-02Bms MS Batch ID: 13744 Analysis Date: 9/7/2007

Acenaphthene	66.64	µg/L	10	66.6	43.1	89.9			
4-Chloro-3-methylphenol	138.2	µg/L	20	69.1	44.1	93.2			
2-Chlorophenol	133.7	µg/L	10	66.8	20.7	98			
1,4-Dichlorobenzene	60.70	µg/L	10	60.7	24.1	90.7			
2,4-Dinitrotoluene	64.74	µg/L	10	64.7	43.2	101			
N-Nitrosodi-n-propylamine	65.26	µg/L	10	65.3	44.6	99.9			
4-Nitrophenol	77.30	µg/L	50	38.6	11.8	60.1			
Pentachlorophenol	131.5	µg/L	50	65.8	8.65	105			
Phenol	73.82	µg/L	10	36.9	21.1	55.3			
Pyrene	68.10	µg/L	15	68.1	35.7	111			
1,2,4-Trichlorobenzene	59.06	µg/L	10	59.1	30.2	89.6			

Method: EPA 120.1: Specific Conductance

Sample ID: 0708368-06CDUP DUP Batch ID: R24969 Analysis Date: 8/29/2007

Specific Conductance 1764 µmhos/cm 0.010 0.227 20

Sample ID: 0708373-21ADUP DUP Batch ID: R24969 Analysis Date: 8/29/2007

Specific Conductance 736.0 µmhos/cm 0.010 0.136 20

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708368

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 7470: Mercury

Sample ID: 0708368-05E MSD	MSD	Batch ID: 13785	Analysis Date: 9/7/2007 4:24:48 PM				
Mercury	0.004651 mg/L	0.0010	93.0	75	125	1.67	20
Sample ID: MB-13785	MBLK	Batch ID: 13785	Analysis Date: 9/7/2007 3:31:26 PM				
Mercury	ND	mg/L	0.00020				
Sample ID: LCS-13785	LCS	Batch ID: 13785	Analysis Date: 9/7/2007 3:33:11 PM				
Mercury	0.004706 mg/L	0.00020	94.1	80	120		
Sample ID: 0708368-05E MS	MS	Batch ID: 13785	Analysis Date: 9/7/2007 4:22:59 PM				
Mercury	0.004574 mg/L	0.0010	91.5	75	125		

Method: EPA Method 6010B: Dissolved Metals

Sample ID: MB		MBLK		Batch ID: R25217		Analysis Date: 9/18/2007 1:12:35 PM	
Arsenic	ND	mg/L	0.020				
Barium	ND	mg/L	0.020				
Cadmium	ND	mg/L	0.0020				
Calcium	ND	mg/L	1.0				
Chromium	ND	mg/L	0.0060				
Copper	ND	mg/L	0.0060				
Iron	ND	mg/L	0.020				
Lead	ND	mg/L	0.0050				
Magnesium	ND	mg/L	1.0				
Manganese	ND	mg/L	0.0020				
Potassium	ND	mg/L	1.0				
Selenium	ND	mg/L	0.050				
Silver	ND	mg/L	0.0050				
Sodium	ND	mg/L	1.0				
Uranium	ND	mg/L	0.10				
Zinc	ND	mg/L	0.050				
Sample ID: LCS		LCS		Batch ID: R25217		Analysis Date: 9/18/2007 1:15:36 PM	
Arsenic	0.4968	mg/L	0.020	99.4	80	120	
Barium	0.5008	mg/L	0.020	100	80	120	
Cadmium	0.5291	mg/L	0.0020	106	80	120	
Calcium	47.82	mg/L	1.0	94.6	80	120	
Chromium	0.5117	mg/L	0.0060	102	80	120	
Copper	0.4951	mg/L	0.0060	98.4	80	120	
Iron	0.5158	mg/L	0.020	101	80	120	
Lead	0.4812	mg/L	0.0050	96.2	80	120	
Magnesium	48.10	mg/L	1.0	95.2	80	120	
Manganese	0.4967	mg/L	0.0020	99.3	80	120	
Potassium	52.41	mg/L	1.0	95.3	80	120	
Selenium	0.5077	mg/L	0.050	102	80	120	
Silver	0.5094	mg/L	0.0050	102	80	120	
Sodium	51.30	mg/L	1.0	102	80	120	
Uranium	0.4660	mg/L	0.10	93.2	80	120	
Zinc	0.5417	mg/L	0.050	108	80	120	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708368

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA 6010B: Total Recoverable Metals

Sample ID: MB-13812 MBLK Batch ID: 13812 Analysis Date: 9/14/2007 9:21:44 AM

Arsenic	ND	mg/L	0.020						
Barium	ND	mg/L	0.020						
Cadmium	ND	mg/L	0.0020						
Chromium	ND	mg/L	0.0060						
Lead	ND	mg/L	0.0050						
Selenium	ND	mg/L	0.050						
Silver	ND	mg/L	0.0050						

Sample ID: LCS-13812 LCS Batch ID: 13812 Analysis Date: 9/14/2007 9:24:49 AM

Arsenic	0.5203	mg/L	0.020	104	80	120			
Barium	0.4959	mg/L	0.020	99.2	80	120			
Cadmium	0.5082	mg/L	0.0020	102	80	120			
Chromium	0.5051	mg/L	0.0060	101	80	120			
Lead	0.4933	mg/L	0.0050	98.7	80	120			
Selenium	0.5493	mg/L	0.050	110	80	120			
Silver	0.5088	mg/L	0.0050	102	80	120			

Method: SM 2540C: TDS

Sample ID: MB-13739 MBLK Batch ID: 13739 Analysis Date: 8/31/2007

Total Dissolved Solids ND mg/L 20

Sample ID: LCS-13739 LCS Batch ID: 13739 Analysis Date: 8/31/2007

Total Dissolved Solids 1007 mg/L 20 101 80 120

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

8/29/2007

Work Order Number 0708368

Received by ARS

Checklist completed by

Signature

Date

8/29/07

Matrix

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☒

N/A ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Added 4ml HNO₃ to beal #6 for acceptable pH AS 8/29

Corrective Action

CHAIN-OF-CUSTODY RECORD

Client: San Juan Refining

Address: #50 Rd 4990

Bloomfield, NM

87413

Phone # 505-632-4161

Fax #: 505-632-3911

Date

Time

Matrix

Sample I.D. No.

Number/Volume

Preservative

HgCl₂

HNO₃

HEAL No.

0708368

5

He

Amber

1-liter

1-500

1-125

1-500

1-500

3-10A

1-liter

1-500

1-125

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1-500

3-10A

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3-10A

COVER LETTER

Wednesday, September 26, 2007

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

TEL: (505) 632-4161

FAX (505) 632-3911

RE: Annual Sampling-2007

Order No.: 0708392

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 8/30/2007 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



Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Project: Annual Sampling-2007
Lab Order: 0708392

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0708392-01A	MW #37	R24998	EPA Method 8260B: VOLATILES	8/28/2007 2:25:00 PM
0708392-01B	MW #37	13744	EPA Method 8270C: Semivolatiles	8/28/2007 2:25:00 PM
0708392-01C	MW #37	R25213	EPA Method 300.0: Anions	8/28/2007 2:25:00 PM
0708392-01C	MW #37	R24975	EPA 120.1: Specific Conductance	8/28/2007 2:25:00 PM
0708392-01C	MW #37	R24976	SM 2320C: Alkalinity	8/28/2007 2:25:00 PM
0708392-01C	MW #37	R24976	Carbon Dioxide	8/28/2007 2:25:00 PM
0708392-01C	MW #37	13739	SM 2540C: TDS	8/28/2007 2:25:00 PM
0708392-01C	MW #37	R25029	EPA Method 300.0: Anions	8/28/2007 2:25:00 PM
0708392-01C	MW #37	R25088	EPA Method 300.0: Anions	8/28/2007 2:25:00 PM
0708392-01C	MW #37	R25088	EPA Method 300.0: Anions	8/28/2007 2:25:00 PM
0708392-01D	MW #37	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 2:25:00 PM
0708392-01D	MW #37	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 2:25:00 PM
0708392-01E	MW #37	13785	EPA Method 7470: Mercury	8/28/2007 2:25:00 PM
0708392-01E	MW #37	13812	EPA 6010B: Total Recoverable Metals	8/28/2007 2:25:00 PM
0708392-02A	MW #38	R24998	EPA Method 8260B: VOLATILES	8/28/2007 2:40:00 PM
0708392-02B	MW #38	13744	EPA Method 8270C: Semivolatiles	8/28/2007 2:40:00 PM
0708392-02C	MW #38	R25029	EPA Method 300.0: Anions	8/28/2007 2:40:00 PM
0708392-02C	MW #38	R24975	EPA 120.1: Specific Conductance	8/28/2007 2:40:00 PM
0708392-02C	MW #38	R24976	SM 2320C: Alkalinity	8/28/2007 2:40:00 PM
0708392-02C	MW #38	R24976	Carbon Dioxide	8/28/2007 2:40:00 PM
0708392-02C	MW #38	R25029	EPA Method 300.0: Anions	8/28/2007 2:40:00 PM
0708392-02C	MW #38	13739	SM 2540C: TDS	8/28/2007 2:40:00 PM
0708392-02D	MW #38	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 2:40:00 PM
0708392-02D	MW #38	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 2:40:00 PM
0708392-02E	MW #38	13785	EPA Method 7470: Mercury	8/28/2007 2:40:00 PM
0708392-02E	MW #38	13812	EPA 6010B: Total Recoverable Metals	8/28/2007 2:40:00 PM
0708392-03A	East Outfall #2	R24998	EPA Method 8260B: VOLATILES	8/28/2007 1:00:00 PM
0708392-03B	East Outfall #2	13744	EPA Method 8270C: Semivolatiles	8/28/2007 1:00:00 PM
0708392-03C	East Outfall #2	R24976	SM 2320C: Alkalinity	8/28/2007 1:00:00 PM
0708392-03C	East Outfall #2	R25029	EPA Method 300.0: Anions	8/28/2007 1:00:00 PM
0708392-03C	East Outfall #2	R25029	EPA Method 300.0: Anions	8/28/2007 1:00:00 PM
0708392-03C	East Outfall #2	R24976	Carbon Dioxide	8/28/2007 1:00:00 PM
0708392-03C	East Outfall #2	R24975	EPA 120.1: Specific Conductance	8/28/2007 1:00:00 PM
0708392-03C	East Outfall #2	13739	SM 2540C: TDS	8/28/2007 1:00:00 PM
0708392-03D	East Outfall #2	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 1:00:00 PM
0708392-03D	East Outfall #2	R25217	EPA Method 6010B: Dissolved Metals	8/28/2007 1:00:00 PM
0708392-03E	East Outfall #2	13785	EPA Method 7470: Mercury	8/28/2007 1:00:00 PM
0708392-03E	East Outfall #2	13812	EPA 6010B: Total Recoverable Metals	8/28/2007 1:00:00 PM

CLIENT: San Juan Refining
Project: Annual Sampling-2007
Lab Order: 0708392

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0708392-04A	Field Blank	R24998	EPA Method 8260B: VOLATILES	8/28/2007 2:00:00 PM
0708392-05A	Rinsate Blank	R24998	EPA Method 8260B: VOLATILES	8/28/2007 1:30:00 PM
0708392-06A	Trip Blank	R24998	EPA Method 8260B: VOLATILES	

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-01

Client Sample ID: MW #37
Collection Date: 8/28/2007 2:25:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.75	0.10		mg/L	1	8/30/2007 11:06:43 AM
Chloride	320	1.0		mg/L	10	9/7/2007 2:41:23 PM
Bromide	3.7	0.10		mg/L	1	8/30/2007 11:06:43 AM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	9/14/2007 1:05:52 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/30/2007 11:06:43 AM
Sulfate	37	0.50		mg/L	1	8/30/2007 11:06:43 AM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/7/2007 3:56:32 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/18/2007 1:41:34 PM
Barium	0.47	0.020		mg/L	1	9/18/2007 1:41:34 PM
Cadmium	ND	0.0020		mg/L	1	9/18/2007 1:41:34 PM
Calcium	110	10		mg/L	10	9/18/2007 3:37:24 PM
Chromium	ND	0.0060		mg/L	1	9/18/2007 1:41:34 PM
Copper	ND	0.0060		mg/L	1	9/18/2007 1:41:34 PM
Iron	1.5	0.20		mg/L	10	9/18/2007 3:37:24 PM
Lead	0.0051	0.0050		mg/L	1	9/18/2007 1:41:34 PM
Magnesium	23	1.0		mg/L	1	9/18/2007 1:41:34 PM
Manganese	1.7	0.020		mg/L	10	9/18/2007 3:37:24 PM
Potassium	2.9	1.0		mg/L	1	9/18/2007 1:41:34 PM
Selenium	ND	0.050		mg/L	1	9/18/2007 1:41:34 PM
Silver	ND	0.0050		mg/L	1	9/18/2007 1:41:34 PM
Sodium	460	10		mg/L	10	9/18/2007 3:37:24 PM
Uranium	ND	0.10		mg/L	1	9/18/2007 1:41:34 PM
Zinc	ND	0.050		mg/L	1	9/18/2007 1:41:34 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 10:16:07 AM
Barium	0.65	0.020		mg/L	1	9/14/2007 10:16:07 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 10:16:07 AM
Chromium	ND	0.0060		mg/L	1	9/14/2007 10:16:07 AM
Lead	ND	0.0050		mg/L	1	9/14/2007 10:16:07 AM
Selenium	ND	0.050		mg/L	1	9/14/2007 10:16:07 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 10:16:07 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/7/2007
Acenaphthylene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-01

Client Sample ID: MW #37
Collection Date: 8/28/2007 2:25:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Aniline	ND	20		µg/L	1	9/7/2007
Anthracene	ND	10		µg/L	1	9/7/2007
Azobenzene	ND	10		µg/L	1	9/7/2007
Benz(a)anthracene	ND	15		µg/L	1	9/7/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/7/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/7/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/7/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/7/2007
Benzoic acid	ND	50		µg/L	1	9/7/2007
Benzyl alcohol	ND	20		µg/L	1	9/7/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/7/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/7/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/7/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/7/2007
Carbazole	ND	10		µg/L	1	9/7/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/7/2007
4-Chloroaniline	ND	20		µg/L	1	9/7/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/7/2007
2-Chlorophenol	ND	10		µg/L	1	9/7/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/7/2007
Chrysene	ND	15		µg/L	1	9/7/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/7/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/7/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/7/2007
Dibenzofuran	ND	10		µg/L	1	9/7/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/7/2007
Diethyl phthalate	ND	10		µg/L	1	9/7/2007
Dimethyl phthalate	ND	10		µg/L	1	9/7/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/7/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/7/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
Fluoranthene	ND	10		µg/L	1	9/7/2007
Fluorene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708392
 Project: Annual Sampling-2007
 Lab ID: 0708392-01

Client Sample ID: MW #37
 Collection Date: 8/28/2007 2:25:00 PM
 Date Received: 8/30/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Hexachlorobenzene	ND	10		µg/L	1	9/7/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/7/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/7/2007
Hexachloroethane	ND	10		µg/L	1	9/7/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/7/2007
Isophorone	ND	10		µg/L	1	9/7/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/7/2007
2-Methylphenol	ND	15		µg/L	1	9/7/2007
3+4-Methylphenol	ND	20		µg/L	1	9/7/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/7/2007
Naphthalene	ND	10		µg/L	1	9/7/2007
2-Nitroaniline	ND	50		µg/L	1	9/7/2007
3-Nitroaniline	ND	50		µg/L	1	9/7/2007
4-Nitroaniline	ND	20		µg/L	1	9/7/2007
Nitrobenzene	ND	10		µg/L	1	9/7/2007
2-Nitrophenol	ND	15		µg/L	1	9/7/2007
4-Nitrophenol	ND	50		µg/L	1	9/7/2007
Pentachlorophenol	ND	50		µg/L	1	9/7/2007
Phenanthrene	ND	10		µg/L	1	9/7/2007
Phenol	ND	10		µg/L	1	9/7/2007
Pyrene	ND	15		µg/L	1	9/7/2007
Pyridine	ND	30		µg/L	1	9/7/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/7/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/7/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/7/2007
Surr: 2,4,6-Tribromophenol	76.8	16.6-150		%REC	1	9/7/2007
Surr: 2-Fluorobiphenyl	74.8	19.6-134		%REC	1	9/7/2007
Surr: 2-Fluorophenol	48.7	9.54-113		%REC	1	9/7/2007
Surr: 4-Terphenyl-d14	60.3	22.7-145		%REC	1	9/7/2007
Surr: Nitrobenzene-d5	65.2	14.6-134		%REC	1	9/7/2007
Surr: Phenol-d5	36.8	10.7-80.3		%REC	1	9/7/2007
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Toluene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-01

Client Sample ID: MW #37
Collection Date: 8/28/2007 2:25:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2007 6:01:57 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2007 6:01:57 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2007 6:01:57 AM
Acetone	ND	10		µg/L	1	9/1/2007 6:01:57 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Bromochloromethane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Bromoform	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Bromomethane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
2-Butanone	ND	10		µg/L	1	9/1/2007 6:01:57 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2007 6:01:57 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2007 6:01:57 AM
Chloroform	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Chloromethane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2007 6:01:57 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2007 6:01:57 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
2-Hexanone	ND	10		µg/L	1	9/1/2007 6:01:57 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2007 6:01:57 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2007 6:01:57 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-01

Client Sample ID: MW #37
Collection Date: 8/28/2007 2:25:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
n-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Styrene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2007 6:01:57 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2007 6:01:57 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2007 6:01:57 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2007 6:01:57 AM
Surr: 1,2-Dichloroethane-d4	96.8	68.1-123		%REC	1	9/1/2007 6:01:57 AM
Surr: 4-Bromofluorobenzene	98.2	53.2-145		%REC	1	9/1/2007 6:01:57 AM
Surr: Dibromofluoromethane	96.2	68.5-119		%REC	1	9/1/2007 6:01:57 AM
Surr: Toluene-d8	98.3	64-131		%REC	1	9/1/2007 6:01:57 AM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	890	20		mg/L CaCO3	1	8/30/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/30/2007
Bicarbonate	890	20		mg/L CaCO3	1	8/30/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	870	1.0		mg CO2/L	1	8/30/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	2600	0.010		µmhos/cm	1	8/30/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	1500	200		mg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-02

Client Sample ID: MW #38
Collection Date: 8/28/2007 2:40:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	1.0	0.10		mg/L	1	8/30/2007 11:24:08 AM
Chloride	43	1.0		mg/L	10	8/30/2007 10:25:47 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/30/2007 11:24:08 AM
Bromide	0.50	0.10		mg/L	1	8/30/2007 11:24:08 AM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/30/2007 11:24:08 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/30/2007 11:24:08 AM
Sulfate	89	5.0		mg/L	10	8/30/2007 10:25:47 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/7/2007 3:58:23 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/18/2007 1:45:46 PM
Barium	0.11	0.020		mg/L	1	9/18/2007 1:45:46 PM
Cadmium	ND	0.0020		mg/L	1	9/18/2007 1:45:46 PM
Calcium	95	1.0		mg/L	1	9/18/2007 1:45:46 PM
Chromium	ND	0.0060		mg/L	1	9/18/2007 1:45:46 PM
Copper	ND	0.0060		mg/L	1	9/18/2007 1:45:46 PM
Iron	1.2	0.10		mg/L	5	9/18/2007 3:40:30 PM
Lead	ND	0.0050		mg/L	1	9/18/2007 1:45:46 PM
Magnesium	16	1.0		mg/L	1	9/18/2007 1:45:46 PM
Manganese	2.0	0.010		mg/L	5	9/18/2007 3:40:30 PM
Potassium	2.5	1.0		mg/L	1	9/18/2007 1:45:46 PM
Selenium	ND	0.050		mg/L	1	9/18/2007 1:45:46 PM
Silver	ND	0.0050		mg/L	1	9/18/2007 1:45:46 PM
Sodium	230	5.0		mg/L	5	9/18/2007 3:40:30 PM
Uranium	ND	0.10		mg/L	1	9/18/2007 1:45:46 PM
Zinc	ND	0.050		mg/L	1	9/18/2007 1:45:46 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 10:20:01 AM
Barium	0.14	0.020		mg/L	1	9/14/2007 10:20:01 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 10:20:01 AM
Chromium	ND	0.0060		mg/L	1	9/14/2007 10:20:01 AM
Lead	0.020	0.0050		mg/L	1	9/14/2007 10:20:01 AM
Selenium	ND	0.050		mg/L	1	9/14/2007 10:20:01 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 10:20:01 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-02

Client Sample ID: MW #38
Collection Date: 8/28/2007 2:40:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/7/2007
Aniline	ND	20		µg/L	1	9/7/2007
Anthracene	ND	10		µg/L	1	9/7/2007
Azobenzene	ND	10		µg/L	1	9/7/2007
Benz(a)anthracene	ND	15		µg/L	1	9/7/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/7/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/7/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/7/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/7/2007
Benzoic acid	ND	50		µg/L	1	9/7/2007
Benzyl alcohol	ND	20		µg/L	1	9/7/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/7/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/7/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/7/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/7/2007
Carbazole	ND	10		µg/L	1	9/7/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/7/2007
4-Chloroaniline	ND	20		µg/L	1	9/7/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/7/2007
2-Chlorophenol	ND	10		µg/L	1	9/7/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/7/2007
Chrysene	ND	15		µg/L	1	9/7/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/7/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/7/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/7/2007
Dibenzofuran	ND	10		µg/L	1	9/7/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/7/2007
Diethyl phthalate	ND	10		µg/L	1	9/7/2007
Dimethyl phthalate	ND	10		µg/L	1	9/7/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/7/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/7/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
Fluoranthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-02

Client Sample ID: MW #38
Collection Date: 8/28/2007 2:40:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/7/2007
Hexachlorobenzene	ND	10		µg/L	1	9/7/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/7/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/7/2007
Hexachloroethane	ND	10		µg/L	1	9/7/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/7/2007
Isophorone	ND	10		µg/L	1	9/7/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/7/2007
2-Methylphenol	ND	15		µg/L	1	9/7/2007
3+4-Methylphenol	ND	20		µg/L	1	9/7/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/7/2007
Naphthalene	ND	10		µg/L	1	9/7/2007
2-Nitroaniline	ND	50		µg/L	1	9/7/2007
3-Nitroaniline	ND	50		µg/L	1	9/7/2007
4-Nitroaniline	ND	20		µg/L	1	9/7/2007
Nitrobenzene	ND	10		µg/L	1	9/7/2007
2-Nitrophenol	ND	15		µg/L	1	9/7/2007
4-Nitrophenol	ND	50		µg/L	1	9/7/2007
Pentachlorophenol	ND	50		µg/L	1	9/7/2007
Phenanthrene	ND	10		µg/L	1	9/7/2007
Phenol	ND	10		µg/L	1	9/7/2007
Pyrene	ND	15		µg/L	1	9/7/2007
Pyridine	ND	30		µg/L	1	9/7/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/7/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/7/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/7/2007
Surr: 2,4,6-Tribromophenol	78.8	16.6-150		%REC	1	9/7/2007
Surr: 2-Fluorobiphenyl	65.9	19.6-134		%REC	1	9/7/2007
Surr: 2-Fluorophenol	38.1	9.54-113		%REC	1	9/7/2007
Surr: 4-Terphenyl-d14	66.9	22.7-145		%REC	1	9/7/2007
Surr: Nitrobenzene-d5	66.9	14.6-134		%REC	1	9/7/2007
Surr: Phenol-d5	28.7	10.7-80.3		%REC	1	9/7/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Toluene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-02

Client Sample ID: MW #38
Collection Date: 8/28/2007 2:40:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2007 9:56:07 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2007 9:56:07 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2007 9:56:07 AM
Acetone	ND	10		µg/L	1	9/1/2007 9:56:07 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Bromochloromethane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Bromoform	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Bromomethane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
2-Butanone	ND	10		µg/L	1	9/1/2007 9:56:07 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2007 9:56:07 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2007 9:56:07 AM
Chloroform	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Chloromethane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2007 9:56:07 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2007 9:56:07 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
2-Hexanone	ND	10		µg/L	1	9/1/2007 9:56:07 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2007 9:56:07 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-02

Client Sample ID: MW #38
Collection Date: 8/28/2007 2:40:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	9/1/2007 9:56:07 AM
n-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Styrene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2007 9:56:07 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2007 9:56:07 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2007 9:56:07 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2007 9:56:07 AM
Surr: 1,2-Dichloroethane-d4	96.5	68.1-123		%REC	1	9/1/2007 9:56:07 AM
Surr: 4-Bromofluorobenzene	99.2	53.2-145		%REC	1	9/1/2007 9:56:07 AM
Surr: Dibromofluoromethane	96.3	68.5-119		%REC	1	9/1/2007 9:56:07 AM
Surr: Toluene-d8	100	64-131		%REC	1	9/1/2007 9:56:07 AM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	630	20		mg/L CaCO3	1	8/30/2007
Carbonate	ND	2.0		mg/L CaCO3	1	8/30/2007
Bicarbonate	630	20		mg/L CaCO3	1	8/30/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	610	1.0		mg CO2/L	1	8/30/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	1400	0.010		µmhos/cm	1	8/30/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	890	200		mg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-03

Client Sample ID: East Outfall #2
Collection Date: 8/28/2007 1:00:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	1.1	0.10		mg/L	1	8/30/2007 10:49:19 AM
Chloride	13	0.10		mg/L	1	8/30/2007 10:49:19 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/30/2007 10:49:19 AM
Bromide	ND	0.10		mg/L	1	8/30/2007 10:49:19 AM
Nitrogen, Nitrate (As N)	0.17	0.10		mg/L	1	8/30/2007 10:49:19 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/30/2007 10:49:19 AM
Sulfate	290	5.0		mg/L	10	8/30/2007 11:18:02 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	9/7/2007 4:00:14 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/18/2007 2:32:26 PM
Barium	0.050	0.020		mg/L	1	9/18/2007 2:32:26 PM
Cadmium	ND	0.0020		mg/L	1	9/18/2007 2:32:26 PM
Calcium	120	5.0		mg/L	5	9/18/2007 3:43:33 PM
Chromium	ND	0.0060		mg/L	1	9/18/2007 2:32:26 PM
Copper	ND	0.0060		mg/L	1	9/18/2007 2:32:26 PM
Iron	ND	0.020		mg/L	1	9/18/2007 2:32:26 PM
Lead	ND	0.0050		mg/L	1	9/18/2007 2:32:26 PM
Magnesium	26	1.0		mg/L	1	9/18/2007 2:32:26 PM
Manganese	0.0065	0.0020		mg/L	1	9/18/2007 2:32:26 PM
Potassium	1.6	1.0		mg/L	1	9/18/2007 2:32:26 PM
Selenium	ND	0.050		mg/L	1	9/18/2007 2:32:26 PM
Silver	ND	0.0050		mg/L	1	9/18/2007 2:32:26 PM
Sodium	74	1.0		mg/L	1	9/18/2007 2:32:26 PM
Uranium	ND	0.10		mg/L	1	9/18/2007 2:32:26 PM
Zinc	ND	0.050		mg/L	1	9/18/2007 2:32:26 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	9/14/2007 10:23:56 AM
Barium	0.051	0.020		mg/L	1	9/14/2007 10:23:56 AM
Cadmium	ND	0.0020		mg/L	1	9/14/2007 10:23:56 AM
Chromium	ND	0.0060		mg/L	1	9/14/2007 10:23:56 AM
Lead	ND	0.0050		mg/L	1	9/14/2007 10:23:56 AM
Selenium	ND	0.050		mg/L	1	9/14/2007 10:23:56 AM
Silver	ND	0.0050		mg/L	1	9/14/2007 10:23:56 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-03

Client Sample ID: East Outfall #2
Collection Date: 8/28/2007 1:00:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthylene	ND	10		µg/L	1	9/7/2007
Aniline	ND	20		µg/L	1	9/7/2007
Anthracene	ND	10		µg/L	1	9/7/2007
Azobenzene	ND	10		µg/L	1	9/7/2007
Benz(a)anthracene	ND	15		µg/L	1	9/7/2007
Benzo(a)pyrene	ND	10		µg/L	1	9/7/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	9/7/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/7/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	9/7/2007
Benzoic acid	ND	50		µg/L	1	9/7/2007
Benzyl alcohol	ND	20		µg/L	1	9/7/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/7/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/7/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/7/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/7/2007
Butyl benzyl phthalate	ND	15		µg/L	1	9/7/2007
Carbazole	ND	10		µg/L	1	9/7/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/7/2007
4-Chloroaniline	ND	20		µg/L	1	9/7/2007
2-Chloronaphthalene	ND	10		µg/L	1	9/7/2007
2-Chlorophenol	ND	10		µg/L	1	9/7/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/7/2007
Chrysene	ND	15		µg/L	1	9/7/2007
Di-n-butyl phthalate	ND	10		µg/L	1	9/7/2007
Di-n-octyl phthalate	ND	15		µg/L	1	9/7/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/7/2007
Dibenzofuran	ND	10		µg/L	1	9/7/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	9/7/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/7/2007
Diethyl phthalate	ND	10		µg/L	1	9/7/2007
Dimethyl phthalate	ND	10		µg/L	1	9/7/2007
2,4-Dichlorophenol	ND	10		µg/L	1	9/7/2007
2,4-Dimethylphenol	ND	10		µg/L	1	9/7/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrophenol	ND	50		µg/L	1	9/7/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	9/7/2007
Fluoranthene	ND	10		µg/L	1	9/7/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708392
 Project: Annual Sampling-2007
 Lab ID: 0708392-03

Client Sample ID: East Outfall #2
 Collection Date: 8/28/2007 1:00:00 PM
 Date Received: 8/30/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Fluorene	ND	10		µg/L	1	9/7/2007
Hexachlorobenzene	ND	10		µg/L	1	9/7/2007
Hexachlorobutadiene	ND	10		µg/L	1	9/7/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	9/7/2007
Hexachloroethane	ND	10		µg/L	1	9/7/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/7/2007
Isophorone	ND	10		µg/L	1	9/7/2007
2-Methylnaphthalene	ND	10		µg/L	1	9/7/2007
2-Methylphenol	ND	15		µg/L	1	9/7/2007
3+4-Methylphenol	ND	20		µg/L	1	9/7/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	9/7/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/7/2007
Naphthalene	ND	10		µg/L	1	9/7/2007
2-Nitroaniline	ND	50		µg/L	1	9/7/2007
3-Nitroaniline	ND	50		µg/L	1	9/7/2007
4-Nitroaniline	ND	20		µg/L	1	9/7/2007
Nitrobenzene	ND	10		µg/L	1	9/7/2007
2-Nitrophenol	ND	15		µg/L	1	9/7/2007
4-Nitrophenol	ND	50		µg/L	1	9/7/2007
Pentachlorophenol	ND	50		µg/L	1	9/7/2007
Phenanthrene	ND	10		µg/L	1	9/7/2007
Phenol	ND	10		µg/L	1	9/7/2007
Pyrene	ND	15		µg/L	1	9/7/2007
Pyridine	ND	30		µg/L	1	9/7/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/7/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/7/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/7/2007
Surr: 2,4,6-Tribromophenol	65.0	16.6-150		%REC	1	9/7/2007
Surr: 2-Fluorobiphenyl	69.9	19.6-134		%REC	1	9/7/2007
Surr: 2-Fluorophenol	41.2	9.54-113		%REC	1	9/7/2007
Surr: 4-Terphenyl-d14	57.1	22.7-145		%REC	1	9/7/2007
Surr: Nitrobenzene-d5	66.3	14.6-134		%REC	1	9/7/2007
Surr: Phenol-d5	30.2	10.7-80.3		%REC	1	9/7/2007

EPA METHOD 8260B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Toluene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-03

Client Sample ID: East Outfall #2
Collection Date: 8/28/2007 1:00:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2007 10:29:29 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2007 10:29:29 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2007 10:29:29 AM
Acetone	ND	10		µg/L	1	9/1/2007 10:29:29 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Bromochloromethane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Bromoform	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Bromomethane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
2-Butanone	ND	10		µg/L	1	9/1/2007 10:29:29 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2007 10:29:29 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2007 10:29:29 AM
Chloroform	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Chloromethane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2007 10:29:29 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2007 10:29:29 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
2-Hexanone	ND	10		µg/L	1	9/1/2007 10:29:29 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2007 10:29:29 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708392
 Project: Annual Sampling-2007
 Lab ID: 0708392-03

Client Sample ID: East Outfall #2
 Collection Date: 8/28/2007 1:00:00 PM
 Date Received: 8/30/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Methylene Chloride	ND	3.0		µg/L	1	9/1/2007 10:29:29 AM
n-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
sec-Butylbenzene	4.8	1.0		µg/L	1	9/1/2007 10:29:29 AM
Styrene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2007 10:29:29 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2007 10:29:29 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2007 10:29:29 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2007 10:29:29 AM
Surr: 1,2-Dichloroethane-d4	99.5	68.1-123		%REC	1	9/1/2007 10:29:29 AM
Surr: 4-Bromofluorobenzene	102	53.2-145		%REC	1	9/1/2007 10:29:29 AM
Surr: Dibromofluoromethane	97.0	68.5-119		%REC	1	9/1/2007 10:29:29 AM
Surr: Toluene-d8	95.9	64-131		%REC	1	9/1/2007 10:29:29 AM
SM 2320C: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO ₃)	280	20		mg/L CaCO ₃	1	8/30/2007
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/30/2007
Bicarbonate	280	20		mg/L CaCO ₃	1	8/30/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	270	1.0		mg CO ₂ /L	1	8/30/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	1100	0.010		µmhos/cm	1	8/30/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	730	20		mg/L	1	8/31/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-04

Client Sample ID: Field Blank
Collection Date: 8/28/2007 2:00:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Toluene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2007 11:02:58 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2007 11:02:58 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2007 11:02:58 AM
Acetone	ND	10		µg/L	1	9/1/2007 11:02:58 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Bromochloromethane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Bromoform	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Bromomethane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
2-Butanone	ND	10		µg/L	1	9/1/2007 11:02:58 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2007 11:02:58 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2007 11:02:58 AM
Chloroform	7.6	1.0		µg/L	1	9/1/2007 11:02:58 AM
Chloromethane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2007 11:02:58 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2007 11:02:58 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-04

Client Sample ID: Field Blank
Collection Date: 8/28/2007 2:00:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
2-Hexanone	ND	10		µg/L	1	9/1/2007 11:02:58 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2007 11:02:58 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2007 11:02:58 AM
n-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Styrene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2007 11:02:58 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2007 11:02:58 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2007 11:02:58 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2007 11:02:58 AM
Surr: 1,2-Dichloroethane-d4	96.1	68.1-123		%REC	1	9/1/2007 11:02:58 AM
Surr: 4-Bromofluorobenzene	91.6	53.2-145		%REC	1	9/1/2007 11:02:58 AM
Surr: Dibromofluoromethane	97.0	68.5-119		%REC	1	9/1/2007 11:02:58 AM
Surr: Toluene-d8	99.0	64-131		%REC	1	9/1/2007 11:02:58 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-05

Client Sample ID: Rinsate Blank
Collection Date: 8/28/2007 1:30:00 PM
Date Received: 8/30/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Toluene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2007 11:36:24 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2007 11:36:24 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2007 11:36:24 AM
Acetone	ND	10		µg/L	1	9/1/2007 11:36:24 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Bromochloromethane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Bromoform	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Bromomethane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
2-Butanone	ND	10		µg/L	1	9/1/2007 11:36:24 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2007 11:36:24 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2007 11:36:24 AM
Chloroform	6.3	1.0		µg/L	1	9/1/2007 11:36:24 AM
Chloromethane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2007 11:36:24 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2007 11:36:24 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708392
 Project: Annual Sampling-2007
 Lab ID: 0708392-05

Client Sample ID: Rinsate Blank
 Collection Date: 8/28/2007 1:30:00 PM
 Date Received: 8/30/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
2-Hexanone	ND	10		µg/L	1	9/1/2007 11:36:24 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2007 11:36:24 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2007 11:36:24 AM
n-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Styrene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2007 11:36:24 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2007 11:36:24 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2007 11:36:24 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2007 11:36:24 AM
Surr: 1,2-Dichloroethane-d4	95.9	68.1-123		%REC	1	9/1/2007 11:36:24 AM
Surr: 4-Bromofluorobenzene	96.2	53.2-145		%REC	1	9/1/2007 11:36:24 AM
Surr: Dibromofluoromethane	93.5	68.5-119		%REC	1	9/1/2007 11:36:24 AM
Surr: Toluene-d8	97.3	64-131		%REC	1	9/1/2007 11:36:24 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708392
 Project: Annual Sampling-2007
 Lab ID: 0708392-06

Client Sample ID: Trip Blank
 Collection Date:
 Date Received: 8/30/2007
 Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Toluene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Naphthalene	ND	2.0		µg/L	1	9/1/2007 12:09:49 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2007 12:09:49 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2007 12:09:49 PM
Acetone	ND	10		µg/L	1	9/1/2007 12:09:49 PM
Bromobenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Bromochloromethane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Bromoform	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Bromomethane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
2-Butanone	ND	10		µg/L	1	9/1/2007 12:09:49 PM
Carbon disulfide	ND	10		µg/L	1	9/1/2007 12:09:49 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Chloroethane	ND	2.0		µg/L	1	9/1/2007 12:09:49 PM
Chloroform	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Chloromethane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2007 12:09:49 PM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Dibromomethane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2007 12:09:49 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 12:09:49 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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708392
Project: Annual Sampling-2007
Lab ID: 0708392-06

Client Sample ID: Trip Blank
Collection Date:
Date Received: 8/30/2007
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
2-Hexanone	ND	10		µg/L	1	9/1/2007 12:09:49 PM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2007 12:09:49 PM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2007 12:09:49 PM
n-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Styrene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2007 12:09:49 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2007 12:09:49 PM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2007 12:09:49 PM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2007 12:09:49 PM
Surr: 1,2-Dichloroethane-d4	95.1	68.1-123		%REC	1	9/1/2007 12:09:49 PM
Surr: 4-Bromofluorobenzene	98.5	53.2-145		%REC	1	9/1/2007 12:09:49 PM
Surr: Dibromofluoromethane	95.6	68.5-119		%REC	1	9/1/2007 12:09:49 PM
Surr: Toluene-d8	96.6	64-131		%REC	1	9/1/2007 12:09:49 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

Lab Order: 0708392

Client: San Juan Refining

Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708392-01A	MW #37	8/28/2007 2:25:00 PM	Aqueous	EPA Method 8260B: VOLATILES	R24998		9/1/2007
0708392-01B				EPA Method 8270C: Semivolatiles	13744	9/4/2007	9/7/2007
0708392-01C				Carbon Dioxide	R24976		8/30/2007
				EPA 120.1: Specific Conductance	R24975		8/30/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				EPA Method 300.0: Anions	R25088		9/7/2007
				EPA Method 300.0: Anions	R25088		9/7/2007
				EPA Method 300.0: Anions	R25213		9/14/2007
				SM 2320C: Alkalinity	R24976		8/30/2007
				SM 2540C: TDS	13739	8/31/2007	8/31/2007
0708392-01D				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
0708392-01E				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA Method 7470: Mercury	13785	9/7/2007	9/7/2007
0708392-02A	MW #38	8/28/2007 2:40:00 PM		EPA Method 8260B: VOLATILES	R24998		9/1/2007
0708392-02B				EPA Method 8270C: Semivolatiles	13744	9/4/2007	9/7/2007
0708392-02C				Carbon Dioxide	R24976		8/30/2007
				EPA 120.1: Specific Conductance	R24975		8/30/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				SM 2320C: Alkalinity	R24976		8/30/2007
				SM 2540C: TDS	13739	8/31/2007	8/31/2007
0708392-02D				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
0708392-02E				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007

Hall Environmental Analysis Laboratory, Inc.

28-Sep-07

Lab Order: 0708392
 Client: San Juan Refining
 Project: Annual Sampling-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708392-02E	MW #38	8/28/2007 2:40:00 PM	Aqueous	EPA Method 7470: Mercury	13785	9/7/2007	9/7/2007
0708392-03A	East Outfall #2	8/28/2007 1:00:00 PM		EPA Method 8260B: VOLATILES	R24998		9/1/2007
0708392-03B				EPA Method 8270C: Semivolatiles	13744	9/4/2007	9/7/2007
0708392-03C				Carbon Dioxide	R24976		8/30/2007
				EPA 120.1: Specific Conductance	R24975		8/30/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				EPA Method 300.0: Anions	R25029		8/30/2007
				SM 2320C: Alkalinity	R24976		8/30/2007
				SM 2540C: TDS	13739	8/31/2007	8/31/2007
0708392-03D				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
				EPA Method 6010B: Dissolved Metals	R25217		9/18/2007
0708392-03E				EPA 6010B: Total Recoverable Metals	13812	9/12/2007	9/14/2007
				EPA Method 7470: Mercury	13785	9/7/2007	9/7/2007
0708392-04A	Field Blank	8/28/2007 2:00:00 PM		EPA Method 8260B: VOLATILES	R24998		9/1/2007
0708392-05A	Rinsate Blank	8/28/2007 1:30:00 PM		EPA Method 8260B: VOLATILES	R24998		9/1/2007
0708392-06A	Trip Blank		Trip Blank	EPA Method 8260B: VOLATILES	R24998		9/1/2007

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708392

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 300.0: Anions

Sample ID: MBLK MBLK Batch ID: R25029 Analysis Date: 8/30/2007 5:27:24 AM

Fluoride	ND	mg/L	0.10
Chloride	ND	mg/L	0.10
Nitrogen, Nitrite (As N)	ND	mg/L	0.10
Bromide	ND	mg/L	0.10
Nitrogen, Nitrate (As N)	ND	mg/L	0.10
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50
Sulfate	ND	mg/L	0.50

Sample ID: MBLK MBLK Batch ID: R25088 Analysis Date: 9/7/2007 1:14:21 PM

Fluoride	ND	mg/L	0.10
Chloride	ND	mg/L	0.10
Bromide	ND	mg/L	0.10
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50
Sulfate	ND	mg/L	0.50

Sample ID: MBLK MBLK Batch ID: R25213 Analysis Date: 9/14/2007 12:13:38 PM

Fluoride	ND	mg/L	0.10
Chloride	ND	mg/L	0.10
Bromide	ND	mg/L	0.10
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50
Sulfate	ND	mg/L	0.50

Sample ID: LCS ST300-07030 LCS Batch ID: R25029 Analysis Date: 8/30/2007 5:44:49 AM

Fluoride	0.5167	mg/L	0.10	103	90	110
Chloride	5.201	mg/L	0.10	104	90	110
Nitrogen, Nitrite (As N)	1.001	mg/L	0.10	100	90	110
Bromide	2.714	mg/L	0.10	109	90	110
Nitrogen, Nitrate (As N)	2.671	mg/L	0.10	107	90	110
Nitrate (As N)+Nitrite (As N)	3.672	mg/L	0.20	105	90	110
Sulfate	10.70	mg/L	0.50	107	90	110

Sample ID: LCS ST300-07030 LCS Batch ID: R25029 Analysis Date: 8/30/2007 7:11:53 AM

Phosphorus, Orthophosphate (As P)	5.480	mg/L	0.50	110	90	110
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Sample ID: LCS ST300-07030 LCS Batch ID: R25088 Analysis Date: 9/7/2007 1:31:46 PM

Fluoride	0.5041	mg/L	0.10	101	90	110
Chloride	5.123	mg/L	0.10	102	90	110
Bromide	2.656	mg/L	0.10	106	90	110
Nitrate (As N)+Nitrite (As N)	3.601	mg/L	0.20	103	90	110
Phosphorus, Orthophosphate (As P)	5.444	mg/L	0.50	109	90	110
Sulfate	10.48	mg/L	0.50	105	90	110

Sample ID: LCS ST300-07038 LCS Batch ID: R25213 Analysis Date: 9/14/2007 12:31:03 PM

Fluoride	0.5037	mg/L	0.10	101	90	110
Chloride	5.041	mg/L	0.10	101	90	110
Bromide	2.612	mg/L	0.10	104	90	110

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708392

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 300.0: Anions

Sample ID: LCS ST300-07038

LCS

Batch ID: R25213 Analysis Date: 9/14/2007 12:31:03 PM

Nitrate (As N)+Nitrite (As N)	3.581	mg/L	0.20	102	90	110
Phosphorus, Orthophosphate (As P)	5.313	mg/L	0.50	106	90	110
Sulfate	10.45	mg/L	0.50	104	90	110

Method: SM 2320C: Alkalinity

Sample ID: 0708392-03C MSD

MSD

Batch ID: R24976 Analysis Date: 8/30/2007

Alkalinity, Total (As CaCO3)	356.0	mg/L CaC	20	97.8	80	120	0.563	20
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Sample ID: MB

MBLK

Batch ID: R24976 Analysis Date: 8/30/2007

Alkalinity, Total (As CaCO3)	ND	mg/L CaC	20
Carbonate	ND	mg/L CaC	2.0
Bicarbonate	ND	mg/L CaC	20

Sample ID: LCS

LCS

Batch ID: R24976 Analysis Date: 8/30/2007

Alkalinity, Total (As CaCO3)	82.80	mg/L CaC	20	104	80	120
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Sample ID: 0708392-03C MS

MS

Batch ID: R24976 Analysis Date: 8/30/2007

Alkalinity, Total (As CaCO3)	354.0	mg/L CaC	20	95.3	80	120
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Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708392

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R24998 Analysis Date: 8/31/2007 9:06:02 AM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
1,2-Dichloroethane (EDC)	ND	µg/L	1.0
1,2-Dibromoethane (EDB)	ND	µg/L	1.0
Naphthalene	ND	µg/L	2.0
1-Methylnaphthalene	ND	µg/L	4.0
2-Methylnaphthalene	ND	µg/L	4.0
Acetone	ND	µg/L	10
Bromobenzene	ND	µg/L	1.0
Bromochloromethane	ND	µg/L	1.0
Bromodichloromethane	ND	µg/L	1.0
Bromoform	ND	µg/L	1.0
Bromomethane	ND	µg/L	1.0
2-Butanone	ND	µg/L	10
Carbon disulfide	ND	µg/L	10
Carbon Tetrachloride	ND	µg/L	1.0
Chlorobenzene	ND	µg/L	1.0
Chloroethane	ND	µg/L	2.0
Chloroform	ND	µg/L	1.0
Chloromethane	ND	µg/L	1.0
2-Chlorotoluene	ND	µg/L	1.0
4-Chlorotoluene	ND	µg/L	1.0
cis-1,2-DCE	ND	µg/L	1.0
cis-1,3-Dichloropropene	ND	µg/L	1.0
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0
Dibromochloromethane	ND	µg/L	1.0
Dibromomethane	ND	µg/L	1.0
1,2-Dichlorobenzene	ND	µg/L	1.0
1,3-Dichlorobenzene	ND	µg/L	1.0
1,4-Dichlorobenzene	ND	µg/L	1.0
Dichlorodifluoromethane	ND	µg/L	1.0
1,1-Dichloroethane	ND	µg/L	1.0
1,1-Dichloroethene	ND	µg/L	1.0
1,2-Dichloropropane	ND	µg/L	1.0
1,3-Dichloropropane	ND	µg/L	1.0
2,2-Dichloropropane	ND	µg/L	2.0
1,1-Dichloropropene	ND	µg/L	1.0
Hexachlorobutadiene	ND	µg/L	1.0
2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708392

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R24998 Analysis Date: 8/31/2007 9:06:02 AM

4-Isopropyltoluene	ND	µg/L	1.0
4-Methyl-2-pentanone	ND	µg/L	10
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	1.5

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708392

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-13744

MBLK

Batch ID:

13744

Analysis Date:

9/7/2007

Acenaphthene	ND	µg/L	10
Acenaphthylene	ND	µg/L	10
Aniline	ND	µg/L	20
Anthracene	ND	µg/L	10
Azobenzene	ND	µg/L	10
Benz(a)anthracene	ND	µg/L	15
Benzo(a)pyrene	ND	µg/L	10
Benzo(b)fluoranthene	ND	µg/L	15
Benzo(g,h,i)perylene	ND	µg/L	10
Benzo(k)fluoranthene	ND	µg/L	10
Benzoic acid	ND	µg/L	50
Benzyl alcohol	ND	µg/L	20
Bis(2-chloroethoxy)methane	ND	µg/L	10
Bis(2-chloroethyl)ether	ND	µg/L	15
Bis(2-chloroisopropyl)ether	ND	µg/L	15
Bis(2-ethylhexyl)phthalate	ND	µg/L	15
4-Bromophenyl phenyl ether	ND	µg/L	10
Butyl benzyl phthalate	ND	µg/L	15
Carbazole	ND	µg/L	10
4-Chloro-3-methylphenol	ND	µg/L	20
4-Chloroaniline	ND	µg/L	20
2-Chloronaphthalene	ND	µg/L	10
2-Chlorophenol	ND	µg/L	10
4-Chlorophenyl phenyl ether	ND	µg/L	15
Chrysene	ND	µg/L	15
Di-n-butyl phthalate	ND	µg/L	10
Di-n-octyl phthalate	ND	µg/L	15
Dibenz(a,h)anthracene	ND	µg/L	10
Dibenzofuran	ND	µg/L	10
1,2-Dichlorobenzene	ND	µg/L	10
1,3-Dichlorobenzene	ND	µg/L	10
1,4-Dichlorobenzene	ND	µg/L	10
3,3'-Dichlorobenzidine	ND	µg/L	15
Diethyl phthalate	ND	µg/L	10
Dimethyl phthalate	ND	µg/L	10
2,4-Dichlorophenol	ND	µg/L	10
2,4-Dimethylphenol	ND	µg/L	10
4,6-Dinitro-2-methylphenol	ND	µg/L	50
2,4-Dinitrophenol	ND	µg/L	50
2,4-Dinitrotoluene	ND	µg/L	10
2,6-Dinitrotoluene	ND	µg/L	10
Fluoranthene	ND	µg/L	10
Fluorene	ND	µg/L	10
Hexachlorobenzene	ND	µg/L	10

Qualifiers:

E 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

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708392

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-13744 MBLK Batch ID: 13744 Analysis Date: 9/7/2007

Hexachlorobutadiene	ND	µg/L	10
Hexachlorocyclopentadiene	ND	µg/L	50
Hexachloroethane	ND	µg/L	10
Indeno(1,2,3-cd)pyrene	ND	µg/L	10
Isophorone	ND	µg/L	10
2-Methylnaphthalene	ND	µg/L	10
2-Methylphenol	ND	µg/L	15
3+4-Methylphenol	ND	µg/L	20
N-Nitrosodi-n-propylamine	ND	µg/L	10
N-Nitrosodimethylamine	ND	µg/L	10
N-Nitrosodiphenylamine	ND	µg/L	10
Naphthalene	ND	µg/L	10
2-Nitroaniline	ND	µg/L	50
3-Nitroaniline	ND	µg/L	50
4-Nitroaniline	ND	µg/L	20
Nitrobenzene	ND	µg/L	10
2-Nitrophenol	ND	µg/L	15
4-Nitrophenol	ND	µg/L	50
Pentachlorophenol	ND	µg/L	50
Phenanthrene	ND	µg/L	10
Phenol	ND	µg/L	10
Pyrene	ND	µg/L	15
Pyridine	ND	µg/L	30
1,2,4-Trichlorobenzene	ND	µg/L	10
2,4,5-Trichlorophenol	ND	µg/L	10
2,4,6-Trichlorophenol	ND	µg/L	15

Sample ID: lcs-13744 LCS Batch ID: 13744 Analysis Date: 9/7/2007

Acenaphthene	61.94	µg/L	10	61.9	11	123
4-Chloro-3-methylphenol	128.3	µg/L	20	64.1	15.4	119
2-Chlorophenol	130.0	µg/L	10	65.0	12.2	122
1,4-Dichlorobenzene	52.24	µg/L	10	52.2	16.9	100
2,4-Dinitrotoluene	66.64	µg/L	10	66.6	13	138
N-Nitrosodi-n-propylamine	65.16	µg/L	10	65.2	9.93	122
4-Nitrophenol	80.62	µg/L	50	40.3	12.5	87.4
Pentachlorophenol	137.2	µg/L	50	68.6	3.55	114
Phenol	76.20	µg/L	10	38.1	7.53	73.1
Pyrene	68.80	µg/L	15	68.8	12.6	140
1,2,4-Trichlorobenzene	51.10	µg/L	10	51.1	17.4	98.7

Sample ID: lcsd-13744 LCSD Batch ID: 13744 Analysis Date: 9/7/2007

Acenaphthene	61.84	µg/L	10	61.8	11	123	0.162	30.5
4-Chloro-3-methylphenol	132.7	µg/L	20	66.3	15.4	119	3.39	28.6
2-Chlorophenol	134.0	µg/L	10	67.0	12.2	122	2.99	107
1,4-Dichlorobenzene	55.12	µg/L	10	55.1	16.9	100	5.37	62.1
2,4-Dinitrotoluene	66.00	µg/L	10	66.0	13	138	0.965	14.7

Qualifiers:

- | | | | |
|---|--|----|--|
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| R | RPD outside accepted recovery limits | S | Spiked recovery outside accepted recovery limits |

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708392

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: lcsd-13744		LCS			Batch ID: 13744		Analysis Date: 9/7/2007		
N-Nitrosodi-n-propylamine	66.22	µg/L	10	66.2	9.93	122	1.61	30.3	
4-Nitrophenol	78.32	µg/L	50	39.2	12.5	87.4	2.89	36.3	
Pentachlorophenol	138.9	µg/L	50	69.5	3.55	114	1.29	49	
Phenol	77.14	µg/L	10	38.6	7.53	73.1	1.23	52.4	
Pyrene	66.72	µg/L	15	66.7	12.6	140	3.07	16.3	
1,2,4-Trichlorobenzene	53.60	µg/L	10	53.6	17.4	98.7	4.78	36.4	

Method: EPA 120.1: Specific Conductance

Sample ID: 0708392-02C DUP		DUP			Batch ID: R24975		Analysis Date: 8/30/2007		
Specific Conductance	1429	µmhos/cm	0.010				0.140	20	

Method: EPA Method 7470: Mercury

Sample ID: MB-13785		MBLK			Batch ID: 13785		Analysis Date: 9/7/2007 3:31:26 PM		
Mercury	ND	mg/L	0.00020						
Sample ID: LCS-13785		LCS			Batch ID: 13785		Analysis Date: 9/7/2007 3:33:11 PM		
Mercury	0.004706	mg/L	0.00020	94.1	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708392

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 6010B: Dissolved Metals

Sample ID: 0708392-03DMSD		MSD			Batch ID: R25217		Analysis Date: 9/18/2007 3:20:29 PM	
Arsenic	0.5378	mg/L	0.020	108	75	125	2.80	20
Barium	0.5475	mg/L	0.020	99.6	75	125	1.95	20
Cadmium	0.5773	mg/L	0.0020	115	75	125	3.66	20
Chromium	0.5366	mg/L	0.0060	107	75	125	3.41	20
Copper	0.5125	mg/L	0.0060	102	75	125	2.55	20
Iron	0.5217	mg/L	0.020	103	75	125	1.69	20
Lead	0.5114	mg/L	0.0050	102	75	125	3.25	20
Magnesium	75.16	mg/L	1.0	96.8	75	125	0.425	20
Manganese	0.5075	mg/L	0.0020	100	75	125	1.79	20
Potassium	56.16	mg/L	1.0	99.2	75	125	0.260	20
Selenium	0.6037	mg/L	0.050	121	75	125	4.68	20
Silver	0.4517	mg/L	0.0050	90.3	75	125	3.39	20
Uranium	0.4596	mg/L	0.10	90.6	75	125	0.956	20
Zinc	0.5602	mg/L	0.050	111	75	125	3.87	20

Sample ID: 0708392-03DMSD	MSD				Batch ID: R25217	Analysis Date: 9/18/2007 4:20:53 PM		
Sodium	330.1	mg/L	5.0	100	75	125	1.18	20

Sample ID: MB	MBLK			Batch ID: R25217	Analysis Date: 9/18/2007 1:12:35 PM
Arsenic	ND	mg/L	0.020		
Barium	ND	mg/L	0.020		
Cadmium	ND	mg/L	0.0020		
Calcium	ND	mg/L	1.0		
Chromium	ND	mg/L	0.0060		
Copper	ND	mg/L	0.0060		
Iron	ND	mg/L	0.020		
Lead	ND	mg/L	0.0050		
Magnesium	ND	mg/L	1.0		
Manganese	ND	mg/L	0.0020		
Potassium	ND	mg/L	1.0		
Selenium	ND	mg/L	0.050		
Silver	ND	mg/L	0.0050		
Sodium	ND	mg/L	1.0		
Uranium	ND	mg/L	0.10		
Zinc	ND	mg/L	0.050		

Sample ID: LCS		LCS			Batch ID: R25217		Analysis Date: 9/18/2007 1:15:36 PM	
Arsenic	0.4968	mg/L	0.020	99.4	80	120		
Barium	0.5008	mg/L	0.020	100	80	120		
Cadmium	0.5291	mg/L	0.0020	106	80	120		
Calcium	47.82	mg/L	1.0	94.6	80	120		
Chromium	0.5117	mg/L	0.0060	102	80	120		
Copper	0.4951	mg/L	0.0060	98.4	80	120		
Iron	0.5158	mg/L	0.020	101	80	120		
Lead	0.4812	mg/L	0.0050	96.2	80	120		
Magnesium	48.10	mg/L	1.0	95.2	80	120		

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: Annual Sampling-2007

Work Order: 0708392

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 6010B: Dissolved Metals

Sample ID: LCS	LCS				Batch ID: R25217	Analysis Date: 9/18/2007 1:15:36 PM
Manganese	0.4967	mg/L	0.0020	99.3	80	120
Potassium	52.41	mg/L	1.0	95.3	80	120
Selenium	0.5077	mg/L	0.050	102	80	120
Silver	0.5094	mg/L	0.0050	102	80	120
Sodium	51.30	mg/L	1.0	102	80	120
Uranium	0.4660	mg/L	0.10	93.2	80	120
Zinc	0.5417	mg/L	0.050	108	80	120

Sample ID: 0708392-03DMS	MS				Batch ID: R25217	Analysis Date: 9/18/2007 3:17:14 PM
Arsenic	0.5229	mg/L	0.020	105	75	125
Barium	0.5582	mg/L	0.020	102	75	125
Cadmium	0.5566	mg/L	0.0020	111	75	125
Chromium	0.5186	mg/L	0.0060	104	75	125
Copper	0.5257	mg/L	0.0060	105	75	125
Iron	0.5130	mg/L	0.020	102	75	125
Lead	0.4951	mg/L	0.0050	99.0	75	125
Magnesium	75.48	mg/L	1.0	97.4	75	125
Manganese	0.5166	mg/L	0.0020	102	75	125
Potassium	56.31	mg/L	1.0	99.5	75	125
Selenium	0.5761	mg/L	0.050	115	75	125
Silver	0.4673	mg/L	0.0050	93.5	75	125
Uranium	0.4640	mg/L	0.10	91.5	75	125
Zinc	0.5389	mg/L	0.050	106	75	125
Sample ID: 0708392-03DMS	MS				Batch ID: R25217	Analysis Date: 9/18/2007 4:17:41 PM
Sodium	334.0	mg/L	5.0	102	75	125

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Annual Sampling-2007

Work Order: 0708392

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA 6010B: Total Recoverable Metals

Sample ID: 0708392-03E MSD		MSD			Batch ID: 13812		Analysis Date: 9/14/2007 10:30:13 AM	
Arsenic	0.5373	mg/L	0.020	107	75	125	2.90	20
Barium	0.5640	mg/L	0.020	103	75	125	0.677	20
Cadmium	0.5175	mg/L	0.0020	104	75	125	1.17	20
Chromium	0.5150	mg/L	0.0060	103	75	125	1.19	20
Lead	0.4977	mg/L	0.0050	99.5	75	125	0.650	20
Selenium	0.5336	mg/L	0.050	107	75	125	1.23	20
Silver	0.5243	mg/L	0.0050	105	75	125	1.07	20

Sample ID: MB-13812	MBLK			Batch ID: 13812	Analysis Date: 9/14/2007 9:21:44 AM
Arsenic	ND	mg/L	0.020		
Barium	ND	mg/L	0.020		
Cadmium	ND	mg/L	0.0020		
Chromium	ND	mg/L	0.0060		
Lead	ND	mg/L	0.0050		
Selenium	ND	mg/L	0.050		
Silver	ND	mg/L	0.0050		

Sample ID: LCS-13812		LCS			Batch ID: 13812		Analysis Date: 9/14/2007 9:24:49 AM	
Arsenic	0.5203	mg/L	0.020	104	80	120		
Barium	0.4959	mg/L	0.020	99.2	80	120		
Cadmium	0.5082	mg/L	0.0020	102	80	120		
Chromium	0.5051	mg/L	0.0060	101	80	120		
Lead	0.4933	mg/L	0.0050	98.7	80	120		
Selenium	0.5493	mg/L	0.050	110	80	120		
Silver	0.5088	mg/L	0.0050	102	80	120		

Sample ID: 0708392-03E MS		MS			Batch ID: 13812		Analysis Date: 9/14/2007 10:27:02 AM	
Arsenic	0.5219	mg/L	0.020	104	75	125		
Barium	0.5602	mg/L	0.020	102	75	125		
Cadmium	0.5115	mg/L	0.0020	102	75	125		
Chromium	0.5089	mg/L	0.0060	102	75	125		
Lead	0.4944	mg/L	0.0050	98.9	75	125		
Selenium	0.5271	mg/L	0.050	105	75	125		
Silver	0.5187	mg/L	0.0050	104	75	125		

Method: SM 2540C: TDS

Sample ID: MB-13739		MBLK		Batch ID: 13739		Analysis Date: 8/31/2007	
Total Dissolved Solids	ND	mg/L	20				
Sample ID: LCS-13739		LCS		Batch ID: 13739		Analysis Date: 8/31/2007	
Total Dissolved Solids	1007	mg/L	20	101	80	120	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Work Order Number 0708392

Checklist completed by

Signature

Date and Time Received:

8/30/2007

Received by ARS

Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☒

N/A ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

13°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action



COVER LETTER

Monday, March 05, 2007

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

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

RE: River Sampling 1st Qtr 2007

Order No.: 0702098

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 2/9/2007 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



Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining
Lab Order: 0702098
Project: River Sampling 1st Qtr 2007
Lab ID: 0702098-01

Client Sample ID: N of MW #45
Collection Date: 2/8/2007 9:40:00 AM
Date Received: 2/9/2007
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	2/12/2007 6:24:38 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/12/2007 6:24:38 PM
Surr: DNOP	117	58-140		%REC	1	2/12/2007 6:24:38 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: LMM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	2/9/2007 9:33:33 PM
Surr: BFB	107	79.2-121		%REC	1	2/9/2007 9:33:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	2/9/2007 9:33:33 PM
Benzene	ND	1.0		µg/L	1	2/9/2007 9:33:33 PM
Toluene	ND	1.0		µg/L	1	2/9/2007 9:33:33 PM
Ethylbenzene	ND	1.0		µg/L	1	2/9/2007 9:33:33 PM
Xylenes, Total	ND	2.0		µg/L	1	2/9/2007 9:33:33 PM
Surr: 4-Bromofluorobenzene	89.6	70.2-105		%REC	1	2/9/2007 9:33:33 PM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	0.17	0.10		mg/L	1	2/9/2007 6:56:43 PM
Chloride	3.0	0.10		mg/L	1	2/9/2007 6:56:43 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	2/9/2007 6:56:43 PM
Bromide	ND	0.50		mg/L	1	2/9/2007 6:56:43 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	2/9/2007 6:56:43 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	2/9/2007 6:56:43 PM
Sulfate	62	0.50		mg/L	1	2/9/2007 6:56:43 PM
EPA METHOD 7470: MERCURY						Analyst: CMS
Mercury	ND	0.00020		mg/L	1	2/15/2007
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	2/27/2007 9:30:15 AM
Barium	0.057	0.0020		mg/L	1	2/27/2007 9:30:15 AM
Cadmium	ND	0.0020		mg/L	1	2/27/2007 9:30:15 AM
Calcium	32	1.0		mg/L	1	2/27/2007 9:30:15 AM
Chromium	ND	0.0060		mg/L	1	2/27/2007 9:30:15 AM
Copper	ND	0.0060		mg/L	1	2/27/2007 9:30:15 AM
Iron	ND	0.020		mg/L	1	2/27/2007 9:30:15 AM
Lead	ND	0.0050		mg/L	1	2/27/2007 9:30:15 AM
Magnesium	5.7	1.0		mg/L	1	2/27/2007 9:30:15 AM
Manganese	0.012	0.0020		mg/L	1	2/27/2007 9:30:15 AM
Potassium	1.5	1.0		mg/L	1	2/27/2007 9:30:15 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining

Client Sample ID: N of MW #45

Lab Order: 0702098

Collection Date: 2/8/2007 9:40:00 AM

Project: River Sampling 1st Qtr 2007

Date Received: 2/9/2007

Lab ID: 0702098-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Selenium	ND	0.050		mg/L	1	2/27/2007 9:30:15 AM
Silver	ND	0.0050		mg/L	1	2/27/2007 9:30:15 AM
Sodium	20	1.0		mg/L	1	2/27/2007 9:30:15 AM
Uranium	ND	0.10		mg/L	1	2/27/2007 9:30:15 AM
Zinc	0.097	0.0050		mg/L	1	2/27/2007 9:30:15 AM

EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	2/15/2007 9:57:57 AM
Barium	0.079	0.020		mg/L	1	2/15/2007 9:57:57 AM
Cadmium	ND	0.0020		mg/L	1	2/15/2007 9:57:57 AM
Chromium	ND	0.0060		mg/L	1	2/15/2007 9:57:57 AM
Lead	ND	0.0050		mg/L	1	2/15/2007 9:57:57 AM
Selenium	ND	0.050		mg/L	1	2/15/2007 9:57:57 AM
Silver	ND	0.0050		mg/L	1	2/15/2007 9:57:57 AM

EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	3/1/2007
Acenaphthylene	ND	10		µg/L	1	3/1/2007
Aniline	ND	20		µg/L	1	3/1/2007
Anthracene	ND	10		µg/L	1	3/1/2007
Azobenzene	ND	10		µg/L	1	3/1/2007
Benz(a)anthracene	ND	15		µg/L	1	3/1/2007
Benzo(a)pyrene	ND	10		µg/L	1	3/1/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	3/1/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/1/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	3/1/2007
Benzoic acid	ND	50		µg/L	1	3/1/2007
Benzyl alcohol	ND	20		µg/L	1	3/1/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/1/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	3/1/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	3/1/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	3/1/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/1/2007
Butyl benzyl phthalate	ND	15		µg/L	1	3/1/2007
Carbazole	ND	10		µg/L	1	3/1/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	3/1/2007
4-Chloroaniline	ND	20		µg/L	1	3/1/2007
2-Chloronaphthalene	ND	10		µg/L	1	3/1/2007
2-Chlorophenol	ND	10		µg/L	1	3/1/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	3/1/2007
Chrysene	ND	15		µg/L	1	3/1/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining
Lab Order: 0702098
Project: River Sampling 1st Qtr 2007
Lab ID: 0702098-01

Client Sample ID: N of MW #45
Collection Date: 2/8/2007 9:40:00 AM
Date Received: 2/9/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8270C: SEMIVOLATILES

Analyst: BL

Di-n-butyl phthalate	ND	10		µg/L	1	3/1/2007
Di-n-octyl phthalate	ND	15		µg/L	1	3/1/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/1/2007
Dibenzofuran	ND	10		µg/L	1	3/1/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	3/1/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	3/1/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	3/1/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	3/1/2007
Diethyl phthalate	ND	10		µg/L	1	3/1/2007
Dimethyl phthalate	ND	10		µg/L	1	3/1/2007
2,4-Dichlorophenol	ND	10		µg/L	1	3/1/2007
2,4-Dimethylphenol	ND	10		µg/L	1	3/1/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	3/1/2007
2,4-Dinitrophenol	ND	50		µg/L	1	3/1/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	3/1/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	3/1/2007
Fluoranthene	ND	10		µg/L	1	3/1/2007
Fluorene	ND	10		µg/L	1	3/1/2007
Hexachlorobenzene	ND	10		µg/L	1	3/1/2007
Hexachlorobutadiene	ND	10		µg/L	1	3/1/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/1/2007
Hexachloroethane	ND	10		µg/L	1	3/1/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/1/2007
Isophorone	ND	10		µg/L	1	3/1/2007
2-Methylnaphthalene	ND	10		µg/L	1	3/1/2007
2-Methylphenol	ND	15		µg/L	1	3/1/2007
3+4-Methylphenol	ND	20		µg/L	1	3/1/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/1/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	3/1/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/1/2007
Naphthalene	ND	10		µg/L	1	3/1/2007
2-Nitroaniline	ND	50		µg/L	1	3/1/2007
3-Nitroaniline	ND	50		µg/L	1	3/1/2007
4-Nitroaniline	ND	20		µg/L	1	3/1/2007
Nitrobenzene	ND	10		µg/L	1	3/1/2007
2-Nitrophenol	ND	15		µg/L	1	3/1/2007
4-Nitrophenol	ND	50		µg/L	1	3/1/2007
Pentachlorophenol	ND	50		µg/L	1	3/1/2007
Phenanthrene	ND	10		µg/L	1	3/1/2007
Phenol	ND	10		µg/L	1	3/1/2007
Pyrene	ND	15		µg/L	1	3/1/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining

Client Sample ID: N of MW #45

Lab Order: 0702098

Collection Date: 2/8/2007 9:40:00 AM

Project: River Sampling 1st Qtr 2007

Date Received: 2/9/2007

Lab ID: 0702098-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Pyridine	ND	30		µg/L	1	3/1/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/1/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/1/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	3/1/2007
Surr: 2,4,6-Tribromophenol	80.8	16.6-150		%REC	1	3/1/2007
Surr: 2-Fluorobiphenyl	82.5	19.6-134		%REC	1	3/1/2007
Surr: 2-Fluorophenol	58.1	9.54-113		%REC	1	3/1/2007
Surr: 4-Terphenyl-d14	94.3	22.7-145		%REC	1	3/1/2007
Surr: Nitrobenzene-d5	87.8	14.6-134		%REC	1	3/1/2007
Surr: Phenol-d5	44.6	10.7-80.3		%REC	1	3/1/2007
EPA METHOD 310.1: ALKALINITY						Analyst: KS
Alkalinity, Total (As CaCO3)	82	2.0		mg/L CaCO3	1	2/20/2007
Carbonate	ND	2.0		mg/L CaCO3	1	2/20/2007
Bicarbonate	82	2.0		mg/L CaCO3	1	2/20/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMS
Specific Conductance	280	0.010		µmhos/cm	1	2/9/2007
EPA METHOD 160.1: TDS						Analyst: KS
Total Dissolved Solids	180	20		mg/L	1	2/14/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining

Client Sample ID: N of MW #46

Lab Order: 0702098

Collection Date: 2/8/2007 9:25:00 AM

Project: River Sampling 1st Qtr 2007

Date Received: 2/9/2007

Lab ID: 0702098-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/12/2007 6:58:45 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/12/2007 6:58:45 PM
Surr: DNOP	112	58-140		%REC	1	2/12/2007 6:58:45 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: LMM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	2/9/2007 10:03:40 PM
Surr: BFB	108	79.2-121		%REC	1	2/9/2007 10:03:40 PM
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	2/9/2007 10:03:40 PM
Benzene	ND	1.0		µg/L	1	2/9/2007 10:03:40 PM
Toluene	ND	1.0		µg/L	1	2/9/2007 10:03:40 PM
Ethylbenzene	ND	1.0		µg/L	1	2/9/2007 10:03:40 PM
Xylenes, Total	ND	2.0		µg/L	1	2/9/2007 10:03:40 PM
Surr: 4-Bromofluorobenzene	90.0	70.2-105		%REC	1	2/9/2007 10:03:40 PM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	0.13	0.10		mg/L	1	2/9/2007 7:14:07 PM
Chloride	2.9	0.10		mg/L	1	2/9/2007 7:14:07 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	2/9/2007 7:14:07 PM
Bromide	ND	0.50		mg/L	1	2/9/2007 7:14:07 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	2/9/2007 7:14:07 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	2/9/2007 7:14:07 PM
Sulfate	62	0.50		mg/L	1	2/9/2007 7:14:07 PM
EPA METHOD 7470: MERCURY						Analyst: CMS
Mercury	ND	0.00020		mg/L	1	2/15/2007
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	2/27/2007 9:33:17 AM
Barium	0.055	0.0020		mg/L	1	2/27/2007 9:33:17 AM
Cadmium	ND	0.0020		mg/L	1	2/27/2007 9:33:17 AM
Calcium	31	1.0		mg/L	1	2/27/2007 9:33:17 AM
Chromium	ND	0.0060		mg/L	1	2/27/2007 9:33:17 AM
Copper	ND	0.0060		mg/L	1	2/27/2007 9:33:17 AM
Iron	ND	0.020		mg/L	1	2/27/2007 9:33:17 AM
Lead	ND	0.0050		mg/L	1	2/27/2007 9:33:17 AM
Magnesium	5.4	1.0		mg/L	1	2/27/2007 9:33:17 AM
Manganese	0.011	0.0020		mg/L	1	2/27/2007 9:33:17 AM
Potassium	1.6	1.0		mg/L	1	2/27/2007 9:33:17 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining
Lab Order: 0702098
Project: River Sampling 1st Qtr 2007
Lab ID: 0702098-02

Client Sample ID: N of MW #46
Collection Date: 2/8/2007 9:25:00 AM
Date Received: 2/9/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Selenium	ND	0.050		mg/L	1	2/27/2007 9:33:17 AM
Silver	ND	0.0050		mg/L	1	2/27/2007 9:33:17 AM
Sodium	19	1.0		mg/L	1	2/27/2007 9:33:17 AM
Uranium	ND	0.10		mg/L	1	2/27/2007 9:33:17 AM
Zinc	0.053	0.0050		mg/L	1	2/27/2007 9:33:17 AM

EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	2/15/2007 10:01:02 AM
Barium	0.082	0.020		mg/L	1	2/15/2007 10:01:02 AM
Cadmium	ND	0.0020		mg/L	1	2/15/2007 10:01:02 AM
Chromium	ND	0.0060		mg/L	1	2/15/2007 10:01:02 AM
Lead	ND	0.0050		mg/L	1	2/15/2007 10:01:02 AM
Selenium	ND	0.050		mg/L	1	2/15/2007 10:01:02 AM
Silver	ND	0.0050		mg/L	1	2/15/2007 10:01:02 AM

EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	3/1/2007
Acenaphthylene	ND	10		µg/L	1	3/1/2007
Aniline	ND	20		µg/L	1	3/1/2007
Anthracene	ND	10		µg/L	1	3/1/2007
Azobenzene	ND	10		µg/L	1	3/1/2007
Benz(a)anthracene	ND	15		µg/L	1	3/1/2007
Benzo(a)pyrene	ND	10		µg/L	1	3/1/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	3/1/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/1/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	3/1/2007
Benzoic acid	ND	50		µg/L	1	3/1/2007
Benzyl alcohol	ND	20		µg/L	1	3/1/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/1/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	3/1/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	3/1/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	3/1/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/1/2007
Butyl benzyl phthalate	ND	15		µg/L	1	3/1/2007
Carbazole	ND	10		µg/L	1	3/1/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	3/1/2007
4-Chloroaniline	ND	20		µg/L	1	3/1/2007
2-Chloronaphthalene	ND	10		µg/L	1	3/1/2007
2-Chlorophenol	ND	10		µg/L	1	3/1/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	3/1/2007
Chrysene	ND	15		µg/L	1	3/1/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining

Client Sample ID: N of MW #46

Lab Order: 0702098

Collection Date: 2/8/2007 9:25:00 AM

Project: River Sampling 1st Qtr 2007

Date Received: 2/9/2007

Lab ID: 0702098-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Di-n-butyl phthalate	ND	10		µg/L	1	3/1/2007
Di-n-octyl phthalate	ND	15		µg/L	1	3/1/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/1/2007
Dibenzofuran	ND	10		µg/L	1	3/1/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	3/1/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	3/1/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	3/1/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	3/1/2007
Diethyl phthalate	ND	10		µg/L	1	3/1/2007
Dimethyl phthalate	ND	10		µg/L	1	3/1/2007
2,4-Dichlorophenol	ND	10		µg/L	1	3/1/2007
2,4-Dimethylphenol	ND	10		µg/L	1	3/1/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	3/1/2007
2,4-Dinitrophenol	ND	50		µg/L	1	3/1/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	3/1/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	3/1/2007
Fluoranthene	ND	10		µg/L	1	3/1/2007
Fluorene	ND	10		µg/L	1	3/1/2007
Hexachlorobenzene	ND	10		µg/L	1	3/1/2007
Hexachlorobutadiene	ND	10		µg/L	1	3/1/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/1/2007
Hexachloroethane	ND	10		µg/L	1	3/1/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/1/2007
Isophorone	ND	10		µg/L	1	3/1/2007
2-Methylnaphthalene	ND	10		µg/L	1	3/1/2007
2-Methylphenol	ND	15		µg/L	1	3/1/2007
3+4-Methylphenol	ND	20		µg/L	1	3/1/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/1/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	3/1/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/1/2007
Naphthalene	ND	10		µg/L	1	3/1/2007
2-Nitroaniline	ND	50		µg/L	1	3/1/2007
3-Nitroaniline	ND	50		µg/L	1	3/1/2007
4-Nitroaniline	ND	20		µg/L	1	3/1/2007
Nitrobenzene	ND	10		µg/L	1	3/1/2007
2-Nitrophenol	ND	15		µg/L	1	3/1/2007
4-Nitrophenol	ND	50		µg/L	1	3/1/2007
Pentachlorophenol	ND	50		µg/L	1	3/1/2007
Phenanthrene	ND	10		µg/L	1	3/1/2007
Phenol	ND	10		µg/L	1	3/1/2007
Pyrene	ND	15		µg/L	1	3/1/2007

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 7/26

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining**Client Sample ID:** N of MW #46**Lab Order:** 0702098**Collection Date:** 2/8/2007 9:25:00 AM**Project:** River Sampling 1st Qtr 2007**Date Received:** 2/9/2007**Lab ID:** 0702098-02**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8270C: SEMIVOLATILES

Analyst: BL

Pyridine	ND	30		µg/L	1	3/1/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/1/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/1/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	3/1/2007
Surr: 2,4,6-Tribromophenol	78.5	16.6-150		%REC	1	3/1/2007
Surr: 2-Fluorobiphenyl	83.6	19.6-134		%REC	1	3/1/2007
Surr: 2-Fluorophenol	64.5	9.54-113		%REC	1	3/1/2007
Surr: 4-Terphenyl-d14	90.5	22.7-145		%REC	1	3/1/2007
Surr: Nitrobenzene-d5	97.9	14.6-134		%REC	1	3/1/2007
Surr: Phenol-d5	47.6	10.7-80.3		%REC	1	3/1/2007

EPA METHOD 310.1: ALKALINITY

Analyst: KS

Alkalinity, Total (As CaCO ₃)	83	2.0		mg/L CaCO ₃	1	2/20/2007
Carbonate	ND	2.0		mg/L CaCO ₃	1	2/20/2007
Bicarbonate	83	2.0		mg/L CaCO ₃	1	2/20/2007

EPA 120.1: SPECIFIC CONDUCTANCE

Analyst: CMS

Specific Conductance	280	0.010		µmhos/cm	1	2/9/2007
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EPA METHOD 160.1: TDS

Analyst: KS

Total Dissolved Solids	180	20		mg/L	1	2/14/2007
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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

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining
Lab Order: 0702098
Project: River Sampling 1st Qtr 2007
Lab ID: 0702098-03

Client Sample ID: River Upstream
Collection Date: 2/8/2007 1:00:00 PM
Date Received: 2/9/2007
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	2/12/2007 7:32:53 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/12/2007 7:32:53 PM
Surr: DNOP	116	58-140		%REC	1	2/12/2007 7:32:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: LMM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	2/10/2007 12:34:05 AM
Surr: BFB	108	79.2-121		%REC	1	2/10/2007 12:34:05 AM
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	2/10/2007 12:34:05 AM
Benzene	ND	1.0		µg/L	1	2/10/2007 12:34:05 AM
Toluene	ND	1.0		µg/L	1	2/10/2007 12:34:05 AM
Ethylbenzene	ND	1.0		µg/L	1	2/10/2007 12:34:05 AM
Xylenes, Total	ND	2.0		µg/L	1	2/10/2007 12:34:05 AM
Surr: 4-Bromofluorobenzene	88.7	70.2-105		%REC	1	2/10/2007 12:34:05 AM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	0.12	0.10		mg/L	1	2/9/2007 7:31:31 PM
Chloride	2.9	0.10		mg/L	1	2/9/2007 7:31:31 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	2/9/2007 7:31:31 PM
Bromide	ND	0.50		mg/L	1	2/9/2007 7:31:31 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	2/9/2007 7:31:31 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	2/9/2007 7:31:31 PM
Sulfate	61	0.50		mg/L	1	2/9/2007 7:31:31 PM
EPA METHOD 7470: MERCURY						Analyst: CMS
Mercury	ND	0.00020		mg/L	1	2/15/2007
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	2/27/2007 9:45:38 AM
Barium	0.058	0.0020		mg/L	1	2/27/2007 9:45:38 AM
Cadmium	ND	0.0020		mg/L	1	2/27/2007 9:45:38 AM
Calcium	31	1.0		mg/L	1	2/27/2007 9:45:38 AM
Chromium	ND	0.0060		mg/L	1	2/27/2007 9:45:38 AM
Copper	ND	0.0060		mg/L	1	2/27/2007 9:45:38 AM
Iron	ND	0.020		mg/L	1	2/27/2007 9:45:38 AM
Lead	ND	0.0050		mg/L	1	2/27/2007 9:45:38 AM
Magnesium	5.5	1.0		mg/L	1	2/27/2007 9:45:38 AM
Manganese	0.012	0.0020		mg/L	1	2/27/2007 9:45:38 AM
Potassium	1.7	1.0		mg/L	1	2/27/2007 9:45:38 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining
Lab Order: 0702098
Project: River Sampling 1st Qtr 2007
Lab ID: 0702098-03

Client Sample ID: River Upstream
Collection Date: 2/8/2007 1:00:00 PM
Date Received: 2/9/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Selenium	ND	0.050		mg/L	1	2/27/2007 9:45:38 AM
Silver	ND	0.0050		mg/L	1	2/27/2007 9:45:38 AM
Sodium	19	1.0		mg/L	1	2/27/2007 9:45:38 AM
Uranium	ND	0.10		mg/L	1	2/27/2007 9:45:38 AM
Zinc	0.069	0.0050		mg/L	1	2/27/2007 9:45:38 AM

EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	2/15/2007 10:04:08 AM
Barium	0.075	0.020		mg/L	1	2/15/2007 10:04:08 AM
Cadmium	ND	0.0020		mg/L	1	2/15/2007 10:04:08 AM
Chromium	ND	0.0060		mg/L	1	2/15/2007 10:04:08 AM
Lead	ND	0.0050		mg/L	1	2/15/2007 10:04:08 AM
Selenium	ND	0.050		mg/L	1	2/15/2007 10:04:08 AM
Silver	ND	0.0050		mg/L	1	2/15/2007 10:04:08 AM

EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	3/1/2007
Acenaphthylene	ND	10		µg/L	1	3/1/2007
Aniline	ND	20		µg/L	1	3/1/2007
Anthracene	ND	10		µg/L	1	3/1/2007
Azobenzene	ND	10		µg/L	1	3/1/2007
Benz(a)anthracene	ND	15		µg/L	1	3/1/2007
Benzo(a)pyrene	ND	10		µg/L	1	3/1/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	3/1/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/1/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	3/1/2007
Benzoic acid	ND	50		µg/L	1	3/1/2007
Benzyl alcohol	ND	20		µg/L	1	3/1/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/1/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	3/1/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	3/1/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	3/1/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/1/2007
Butyl benzyl phthalate	ND	15		µg/L	1	3/1/2007
Carbazole	ND	10		µg/L	1	3/1/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	3/1/2007
4-Chloroaniline	ND	20		µg/L	1	3/1/2007
2-Chloronaphthalene	ND	10		µg/L	1	3/1/2007
2-Chlorophenol	ND	10		µg/L	1	3/1/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	3/1/2007
Chrysene	ND	15		µg/L	1	3/1/2007

Qualifiers:

* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike recovery outside accepted recovery limit: 10 / 26	

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining
Lab Order: 0702098
Project: River Sampling 1st Qtr 2007
Lab ID: 0702098-03

Client Sample ID: River Upstream
Collection Date: 2/8/2007 1:00:00 PM
Date Received: 2/9/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Di-n-butyl phthalate	ND	10		µg/L	1	3/1/2007
Di-n-octyl phthalate	ND	15		µg/L	1	3/1/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/1/2007
Dibenzofuran	ND	10		µg/L	1	3/1/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	3/1/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	3/1/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	3/1/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	3/1/2007
Diethyl phthalate	ND	10		µg/L	1	3/1/2007
Dimethyl phthalate	ND	10		µg/L	1	3/1/2007
2,4-Dichlorophenol	ND	10		µg/L	1	3/1/2007
2,4-Dimethylphenol	ND	10		µg/L	1	3/1/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	3/1/2007
2,4-Dinitrophenol	ND	50		µg/L	1	3/1/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	3/1/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	3/1/2007
Fluoranthene	ND	10		µg/L	1	3/1/2007
Fluorene	ND	10		µg/L	1	3/1/2007
Hexachlorobenzene	ND	10		µg/L	1	3/1/2007
Hexachlorobutadiene	ND	10		µg/L	1	3/1/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/1/2007
Hexachloroethane	ND	10		µg/L	1	3/1/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/1/2007
Isophorone	ND	10		µg/L	1	3/1/2007
2-Methylnaphthalene	ND	10		µg/L	1	3/1/2007
2-Methylphenol	ND	15		µg/L	1	3/1/2007
3+4-Methylphenol	ND	20		µg/L	1	3/1/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/1/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	3/1/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/1/2007
Naphthalene	ND	10		µg/L	1	3/1/2007
2-Nitroaniline	ND	50		µg/L	1	3/1/2007
3-Nitroaniline	ND	50		µg/L	1	3/1/2007
4-Nitroaniline	ND	20		µg/L	1	3/1/2007
Nitrobenzene	ND	10		µg/L	1	3/1/2007
2-Nitrophenol	ND	15		µg/L	1	3/1/2007
4-Nitrophenol	ND	50		µg/L	1	3/1/2007
Pentachlorophenol	ND	50		µg/L	1	3/1/2007
Phenanthrene	ND	10		µg/L	1	3/1/2007
Phenol	ND	10		µg/L	1	3/1/2007
Pyrene	ND	15		µg/L	1	3/1/2007

Qualifiers: * Value exceeds Maximum Contaminant Level B Analyte detected in the associated Method Blank
E Value above quantitation range H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit RL Reporting Limit
S Spike recovery outside accepted recovery limit: 11 / 26

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining
Lab Order: 0702098
Project: River Sampling 1st Qtr 2007
Lab ID: 0702098-03

Client Sample ID: River Upstream
Collection Date: 2/8/2007 1:00:00 PM
Date Received: 2/9/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Pyridine	ND	30		µg/L	1	3/1/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/1/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/1/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	3/1/2007
Surr: 2,4,6-Tribromophenol	80.5	16.6-150		%REC	1	3/1/2007
Surr: 2-Fluorobiphenyl	88.3	19.6-134		%REC	1	3/1/2007
Surr: 2-Fluorophenol	55.3	9.54-113		%REC	1	3/1/2007
Surr: 4-Terphenyl-d14	91.1	22.7-145		%REC	1	3/1/2007
Surr: Nitrobenzene-d5	95.0	14.6-134		%REC	1	3/1/2007
Surr: Phenol-d5	43.0	10.7-80.3		%REC	1	3/1/2007
EPA METHOD 310.1: ALKALINITY						Analyst: KS
Alkalinity, Total (As CaCO3)	81	2.0		mg/L CaCO3	1	2/20/2007
Carbonate	ND	2.0		mg/L CaCO3	1	2/20/2007
Bicarbonate	81	2.0		mg/L CaCO3	1	2/20/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMS
Specific Conductance	270	0.010		µmhos/cm	1	2/9/2007
EPA METHOD 160.1: TDS						Analyst: KS
Total Dissolved Solids	180	20		mg/L	1	2/14/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining
Lab Order: 0702098
Project: River Sampling 1st Qtr 2007
Lab ID: 0702098-04

Client Sample ID: River Downstream
Collection Date: 2/8/2007 10:45:00 AM
Date Received: 2/9/2007
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	2/12/2007 8:07:01 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/12/2007 8:07:01 PM
Surr: DNOP	113	58-140		%REC	1	2/12/2007 8:07:01 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: LMM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	2/10/2007 1:04:14 AM
Surr: BFB	108	79.2-121		%REC	1	2/10/2007 1:04:14 AM
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	2/10/2007 1:04:14 AM
Benzene	ND	1.0		µg/L	1	2/10/2007 1:04:14 AM
Toluene	ND	1.0		µg/L	1	2/10/2007 1:04:14 AM
Ethylbenzene	ND	1.0		µg/L	1	2/10/2007 1:04:14 AM
Xylenes, Total	ND	2.0		µg/L	1	2/10/2007 1:04:14 AM
Surr: 4-Bromofluorobenzene	89.0	70.2-105		%REC	1	2/10/2007 1:04:14 AM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	0.19	0.10		mg/L	1	2/9/2007 7:48:55 PM
Chloride	3.3	0.10		mg/L	1	2/9/2007 7:48:55 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	2/9/2007 7:48:55 PM
Bromide	ND	0.50		mg/L	1	2/9/2007 7:48:55 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	2/9/2007 7:48:55 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	2/9/2007 7:48:55 PM
Sulfate	80	2.5		mg/L	5	2/10/2007 10:49:25 PM
EPA METHOD 7470: MERCURY						Analyst: CMS
Mercury	ND	0.00020		mg/L	1	2/15/2007
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	2/27/2007 9:48:40 AM
Barium	0.057	0.0020		mg/L	1	2/27/2007 9:48:40 AM
Cadmium	ND	0.0020		mg/L	1	2/27/2007 9:48:40 AM
Calcium	37	1.0		mg/L	1	2/27/2007 9:48:40 AM
Chromium	ND	0.0060		mg/L	1	2/27/2007 9:48:40 AM
Copper	ND	0.0060		mg/L	1	2/27/2007 9:48:40 AM
Iron	ND	0.020		mg/L	1	2/27/2007 9:48:40 AM
Lead	ND	0.0050		mg/L	1	2/27/2007 9:48:40 AM
Magnesium	6.0	1.0		mg/L	1	2/27/2007 9:48:40 AM
Manganese	0.049	0.0020		mg/L	1	2/27/2007 9:48:40 AM
Potassium	1.7	1.0		mg/L	1	2/27/2007 9:48:40 AM

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 limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining

Client Sample ID: River Downstream

Lab Order: 0702098

Collection Date: 2/8/2007 10:45:00 AM

Project: River Sampling 1st Qtr 2007

Date Received: 2/9/2007

Lab ID: 0702098-04

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Selenium	ND	0.050		mg/L	1	2/27/2007 9:48:40 AM
Silver	ND	0.0050		mg/L	1	2/27/2007 9:48:40 AM
Sodium	24	1.0		mg/L	1	2/27/2007 9:48:40 AM
Uranium	ND	0.10		mg/L	1	2/27/2007 9:48:40 AM
Zinc	0.058	0.0050		mg/L	1	2/27/2007 9:48:40 AM

EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	2/15/2007 10:07:16 AM
Barium	0.088	0.020		mg/L	1	2/15/2007 10:07:16 AM
Cadmium	ND	0.0020		mg/L	1	2/15/2007 10:07:16 AM
Chromium	ND	0.0060		mg/L	1	2/15/2007 10:07:16 AM
Lead	ND	0.0050		mg/L	1	2/15/2007 10:07:16 AM
Selenium	ND	0.050		mg/L	1	2/15/2007 10:07:16 AM
Silver	ND	0.0050		mg/L	1	2/15/2007 10:07:16 AM

EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	3/1/2007
Acenaphthylene	ND	10		µg/L	1	3/1/2007
Aniline	ND	20		µg/L	1	3/1/2007
Anthracene	ND	10		µg/L	1	3/1/2007
Azobenzene	ND	10		µg/L	1	3/1/2007
Benz(a)anthracene	ND	15		µg/L	1	3/1/2007
Benzo(a)pyrene	ND	10		µg/L	1	3/1/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	3/1/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/1/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	3/1/2007
Benzoic acid	ND	50		µg/L	1	3/1/2007
Benzyl alcohol	ND	20		µg/L	1	3/1/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/1/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	3/1/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	3/1/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	3/1/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/1/2007
Butyl benzyl phthalate	ND	15		µg/L	1	3/1/2007
Carbazole	ND	10		µg/L	1	3/1/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	3/1/2007
4-Chloroaniline	ND	20		µg/L	1	3/1/2007
2-Chloronaphthalene	ND	10		µg/L	1	3/1/2007
2-Chlorophenol	ND	10		µg/L	1	3/1/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	3/1/2007
Chrysene	ND	15		µg/L	1	3/1/2007

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 14 / 26

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining
 Lab Order: 0702098
 Project: River Sampling 1st Qtr 2007
 Lab ID: 0702098-04

Client Sample ID: River Downstream
 Collection Date: 2/8/2007 10:45:00 AM
 Date Received: 2/9/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Di-n-butyl phthalate	ND	10		µg/L	1	3/1/2007
Di-n-octyl phthalate	ND	15		µg/L	1	3/1/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/1/2007
Dibenzofuran	ND	10		µg/L	1	3/1/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	3/1/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	3/1/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	3/1/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	3/1/2007
Diethyl phthalate	ND	10		µg/L	1	3/1/2007
Dimethyl phthalate	ND	10		µg/L	1	3/1/2007
2,4-Dichlorophenol	ND	10		µg/L	1	3/1/2007
2,4-Dimethylphenol	ND	10		µg/L	1	3/1/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	3/1/2007
2,4-Dinitrophenol	ND	50		µg/L	1	3/1/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	3/1/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	3/1/2007
Fluoranthene	ND	10		µg/L	1	3/1/2007
Fluorene	ND	10		µg/L	1	3/1/2007
Hexachlorobenzene	ND	10		µg/L	1	3/1/2007
Hexachlorobutadiene	ND	10		µg/L	1	3/1/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/1/2007
Hexachloroethane	ND	10		µg/L	1	3/1/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/1/2007
Isophorone	ND	10		µg/L	1	3/1/2007
2-Methylnaphthalene	ND	10		µg/L	1	3/1/2007
2-Methylphenol	ND	15		µg/L	1	3/1/2007
3+4-Methylphenol	ND	20		µg/L	1	3/1/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/1/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	3/1/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/1/2007
Naphthalene	ND	10		µg/L	1	3/1/2007
2-Nitroaniline	ND	50		µg/L	1	3/1/2007
3-Nitroaniline	ND	50		µg/L	1	3/1/2007
4-Nitroaniline	ND	20		µg/L	1	3/1/2007
Nitrobenzene	ND	10		µg/L	1	3/1/2007
2-Nitrophenol	ND	15		µg/L	1	3/1/2007
4-Nitrophenol	ND	50		µg/L	1	3/1/2007
Pentachlorophenol	ND	50		µg/L	1	3/1/2007
Phenanthrene	ND	10		µg/L	1	3/1/2007
Phenol	ND	10		µg/L	1	3/1/2007
Pyrene	ND	15		µg/L	1	3/1/2007

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 limit 15 / 26

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining

Client Sample ID: River Downstream

Lab Order: 0702098

Collection Date: 2/8/2007 10:45:00 AM

Project: River Sampling 1st Qtr 2007

Date Received: 2/9/2007

Lab ID: 0702098-04

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8270C: SEMIVOLATILES

Analyst: BL

Pyridine	ND	30		µg/L	1	3/1/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/1/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/1/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	3/1/2007
Surr: 2,4,6-Tribromophenol	69.6	16.6-150		%REC	1	3/1/2007
Surr: 2-Fluorobiphenyl	77.2	19.6-134		%REC	1	3/1/2007
Surr: 2-Fluorophenol	49.0	9.54-113		%REC	1	3/1/2007
Surr: 4-Terphenyl-d14	93.9	22.7-145		%REC	1	3/1/2007
Surr: Nitrobenzene-d5	81.2	14.6-134		%REC	1	3/1/2007
Surr: Phenol-d5	38.5	10.7-80.3		%REC	1	3/1/2007

EPA METHOD 310.1: ALKALINITY

Analyst: KS

Alkalinity, Total (As CaCO3)	87	2.0		mg/L CaCO3	1	2/20/2007
Carbonate	ND	2.0		mg/L CaCO3	1	2/20/2007
Bicarbonate	87	2.0		mg/L CaCO3	1	2/20/2007

EPA 120.1: SPECIFIC CONDUCTANCE

Analyst: CMS

Specific Conductance	330	0.010		µmhos/cm	1	2/9/2007
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EPA METHOD 160.1: TDS

Analyst: KS

Total Dissolved Solids	220	20		mg/L	1	2/14/2007
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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

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Mar-07

CLIENT: San Juan Refining**Client Sample ID:** Trip Blank**Lab Order:** 0702098**Collection Date:****Project:** River Sampling 1st Qtr 2007**Date Received:** 2/9/2007**Lab ID:** 0702098-05**Matrix:** TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: LMM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	2/10/2007 2:04:30 AM
Surr: BFB	107	79.2-121		%REC	1	2/10/2007 2:04:30 AM
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	2/10/2007 2:04:30 AM
Benzene	ND	1.0		µg/L	1	2/10/2007 2:04:30 AM
Toluene	ND	1.0		µg/L	1	2/10/2007 2:04:30 AM
Ethylbenzene	ND	1.0		µg/L	1	2/10/2007 2:04:30 AM
Xylenes, Total	ND	2.0		µg/L	1	2/10/2007 2:04:30 AM
Surr: 4-Bromofluorobenzene	88.8	70.2-105		%REC	1	2/10/2007 2:04:30 AM

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 limit

- 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 Sampling 1st Qtr 2007

Work Order: 0702098

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: E300

Sample ID: MBLK MBLK Batch ID: R22429 Analysis Date: 2/9/2007 11:58:55 AM

Fluoride ND mg/L 0.10
Chloride ND mg/L 0.10
Nitrogen, Nitrite (As N) ND mg/L 0.10
Bromide ND mg/L 0.10
Nitrogen, Nitrate (As N) ND mg/L 0.10
Phosphorus, Orthophosphate (As P) ND mg/L 0.50
Sulfate ND mg/L 0.50

Sample ID: MBLK MBLK Batch ID: R22429 Analysis Date: 2/9/2007 9:15:57 PM

Fluoride ND mg/L 0.10
Chloride ND mg/L 0.10
Nitrogen, Nitrite (As N) ND mg/L 0.10
Bromide ND mg/L 0.10
Nitrogen, Nitrate (As N) ND mg/L 0.10
Phosphorus, Orthophosphate (As P) ND mg/L 0.50
Sulfate ND mg/L 0.50

Sample ID: MBLK MBLK Batch ID: R22432 Analysis Date: 2/10/2007 12:05:19 PM

Fluoride ND mg/L 0.10
Chloride ND mg/L 0.10
Nitrogen, Nitrite (As N) ND mg/L 0.10
Bromide ND mg/L 0.10
Nitrogen, Nitrate (As N) ND mg/L 0.10
Phosphorus, Orthophosphate (As P) ND mg/L 0.50
Sulfate ND mg/L 0.50

Sample ID: LCS ST300-06026 LCS Batch ID: R22429 Analysis Date: 2/9/2007 12:16:19 PM

Fluoride 0.4876 mg/L 0.10 97.5 90 110
Chloride 4.827 mg/L 0.10 96.5 90 110
Nitrogen, Nitrite (As N) 1.074 mg/L 0.10 107 90 110
Bromide 2.449 mg/L 0.10 98.0 90 110
Nitrogen, Nitrate (As N) 2.397 mg/L 0.10 95.9 90 110
Phosphorus, Orthophosphate (As P) 4.849 mg/L 0.50 97.0 90 110
Sulfate 9.743 mg/L 0.50 97.4 90 110

Sample ID: LCS ST300-06026 LCS Batch ID: R22429 Analysis Date: 2/9/2007 9:33:21 PM

Fluoride 0.4862 mg/L 0.10 97.2 90 110
Chloride 4.875 mg/L 0.10 97.5 90 110
Nitrogen, Nitrite (As N) 1.082 mg/L 0.10 108 90 110
Bromide 2.469 mg/L 0.10 98.7 90 110
Nitrogen, Nitrate (As N) 2.396 mg/L 0.10 95.9 90 110
Phosphorus, Orthophosphate (As P) 4.921 mg/L 0.50 98.4 90 110
Sulfate 9.792 mg/L 0.50 96.6 90 110

Sample ID: LCS ST300-06026 LCS Batch ID: R22432 Analysis Date: 2/10/2007 12:22:43 PM

Fluoride 0.4842 mg/L 0.10 96.8 90 110
Chloride 4.856 mg/L 0.10 97.1 90 110
Nitrogen, Nitrite (As N) 1.029 mg/L 0.10 103 90 110

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 Recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Sampling 1st Qtr 2007

Work Order: 0702098

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: E300

Sample ID: LCS ST300-06026		LCS			Batch ID:	R22432	Analysis Date:	2/10/2007 12:22:43 PM
Bromide	2.471	mg/L	0.10	98.8	90	110		
Nitrogen, Nitrate (As N)	2.429	mg/L	0.10	97.2	90	110		
Phosphorus, Orthophosphate (As P)	4.961	mg/L	0.50	99.2	90	110		
Sulfate	9.882	mg/L	0.50	98.8	90	110		

Method: E310.1

Sample ID: 0702098-02C MSD		MSD			Batch ID:	R22532	Analysis Date:	2/20/2007
Alkalinity, Total (As CaCO3)	163.0	mg/L CaC	2.0	100	80	120	0.612	20
Sample ID: MB		MBLK			Batch ID:	R22532	Analysis Date:	2/20/2007
Alkalinity, Total (As CaCO3)	ND	mg/L CaC	2.0					
Carbonate	ND	mg/L CaC	2.0					
Bicarbonate	ND	mg/L CaC	2.0					
Sample ID: LCS		LCS			Batch ID:	R22532	Analysis Date:	2/20/2007
Alkalinity, Total (As CaCO3)	82.00	mg/L CaC	2.0	103	80	120		
Sample ID: 0702098-02C MS		MS			Batch ID:	R22532	Analysis Date:	2/20/2007
Alkalinity, Total (As CaCO3)	164.0	mg/L CaC	2.0	101	80	120		

Method: SW8015

Sample ID: MB-12299		MBLK			Batch ID:	12299	Analysis Date:	2/12/2007 4:08:22 PM
Diesel Range Organics (DRO)	ND	mg/L	1.0					
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Sample ID: LCS-12299		LCS			Batch ID:	12299	Analysis Date:	2/12/2007 4:42:25 PM
Diesel Range Organics (DRO)	5.505	mg/L	1.0	110	74	157		
Sample ID: LCSD-12299		LCSD			Batch ID:	12299	Analysis Date:	2/12/2007 5:16:29 PM
Diesel Range Organics (DRO)	5.045	mg/L	1.0	101	74	157	8.71	23

Method: SW8015

Sample ID: 0702098-02A MSD		MSD			Batch ID:	R22431	Analysis Date:	2/10/2007 12:03:56 AM
Gasoline Range Organics (GRO)	0.4980	mg/L	0.050	94.8	80	115	0.766	8.39
Sample ID: 5ML RB		MBLK			Batch ID:	R22431	Analysis Date:	2/9/2007 10:01:19 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Sample ID: 2.5UG GRO LCS		LCS			Batch ID:	R22431	Analysis Date:	2/9/2007 12:01:44 PM
Gasoline Range Organics (GRO)	0.5348	mg/L	0.050	102	80	115		
Sample ID: 0702098-02A MS		MS			Batch ID:	R22431	Analysis Date:	2/9/2007 11:33:47 PM
Gasoline Range Organics (GRO)	0.4942	mg/L	0.050	94.0	80	115		

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 Recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: River Sampling 1st Qtr 2007

Work Order: 0702098

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 0702098-02A MSD

MSD

Batch ID: R22431

Analysis Date: 2/10/2007 12:03:56 AM

Methyl tert-butyl ether (MTBE)	8.088	µg/L	2.5	101	51.2	138	1.27	28	
Benzene	5.580	µg/L	1.0	93.0	85.9	113	0.359	27	
Toluene	34.37	µg/L	1.0	101	86.4	113	1.25	19	
Ethylbenzene	7.976	µg/L	1.0	99.7	83.5	118	0.175	10	
Xylenes, Total	40.29	µg/L	2.0	101	83.4	122	0.867	13	

Sample ID: 5ML RB

MBLK

Batch ID: R22431

Analysis Date: 2/9/2007 10:01:19 AM

Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R22431

Analysis Date: 2/9/2007 11:31:36 AM

Methyl tert-butyl ether (MTBE)	37.97	µg/L	2.5	94.9	51.2	138			
Benzene	18.22	µg/L	1.0	91.1	85.9	113			
Toluene	19.06	µg/L	1.0	95.3	86.4	113			
Ethylbenzene	19.12	µg/L	1.0	95.6	83.5	118			
Xylenes, Total	57.11	µg/L	2.0	95.2	83.4	122			

Sample ID: 0702098-02A MS

MS

Batch ID: R22431

Analysis Date: 2/9/2007 11:33:47 PM

Methyl tert-butyl ether (MTBE)	7.986	µg/L	2.5	99.8	51.2	138			
Benzene	5.560	µg/L	1.0	92.7	85.9	113			
Toluene	33.95	µg/L	1.0	99.8	86.4	113			
Ethylbenzene	7.990	µg/L	1.0	99.9	83.5	118			
Xylenes, Total	39.94	µg/L	2.0	99.9	83.4	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 Recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Sampling 1st Qtr 2007

Work Order: 0702098

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8270C

Sample ID: MB-12307

MBLK

Batch ID: 12307 Analysis Date: 3/1/2007

Acenaphthene	ND	µg/L	10
Acenaphthylene	ND	µg/L	10
Aniline	ND	µg/L	20
Anthracene	ND	µg/L	10
Azobenzene	ND	µg/L	10
Benz(a)anthracene	ND	µg/L	15
Benzo(a)pyrene	ND	µg/L	10
Benzo(b)fluoranthene	ND	µg/L	15
Benzo(g,h,i)perylene	ND	µg/L	10
Benzo(k)fluoranthene	ND	µg/L	10
Benzoic acid	ND	µg/L	50
Benzyl alcohol	ND	µg/L	20
Bis(2-chloroethoxy)methane	ND	µg/L	10
Bis(2-chloroethyl)ether	ND	µg/L	15
Bis(2-chloroisopropyl)ether	ND	µg/L	15
Bis(2-ethylhexyl)phthalate	ND	µg/L	15
4-Bromophenyl phenyl ether	ND	µg/L	10
Butyl benzyl phthalate	ND	µg/L	15
Carbazole	ND	µg/L	10
4-Chloro-3-methylphenol	ND	µg/L	20
4-Chloroaniline	ND	µg/L	20
2-Chloronaphthalene	ND	µg/L	10
2-Chlorophenol	ND	µg/L	10
4-Chlorophenyl phenyl ether	ND	µg/L	15
Chrysene	ND	µg/L	15
Di-n-butyl phthalate	ND	µg/L	10
Di-n-octyl phthalate	ND	µg/L	15
Dibenz(a,h)anthracene	ND	µg/L	10
Dibenzofuran	ND	µg/L	10
1,2-Dichlorobenzene	ND	µg/L	10
1,3-Dichlorobenzene	ND	µg/L	10
1,4-Dichlorobenzene	ND	µg/L	10
3,3'-Dichlorobenzidine	ND	µg/L	15
Diethyl phthalate	ND	µg/L	10
Dimethyl phthalate	ND	µg/L	10
2,4-Dichlorophenol	ND	µg/L	10
2,4-Dimethylphenol	ND	µg/L	10
4,6-Dinitro-2-methylphenol	ND	µg/L	50
2,4-Dinitrophenol	ND	µg/L	50
2,4-Dinitrotoluene	ND	µg/L	10
2,6-Dinitrotoluene	ND	µg/L	10
Fluoranthene	ND	µg/L	10
Fluorene	ND	µg/L	10
Hexachlorobenzene	ND	µg/L	10

Qualifiers:

E 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 Recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Sampling 1st Qtr 2007

Work Order: 0702098

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8270C

Sample ID: MB-12307

MBLK

Batch ID:

12307

Analysis Date:

3/1/2007

Hexachlorobutadiene	ND	µg/L	10
Hexachlorocyclopentadiene	ND	µg/L	50
Hexachloroethane	ND	µg/L	10
Indeno(1,2,3-cd)pyrene	ND	µg/L	10
Isophorone	ND	µg/L	10
2-Methylnaphthalene	ND	µg/L	10
2-Methylphenol	ND	µg/L	15
3+4-Methylphenol	ND	µg/L	20
N-Nitrosodi-n-propylamine	ND	µg/L	10
N-Nitrosodimethylamine	ND	µg/L	10
N-Nitrosodiphenylamine	ND	µg/L	10
Naphthalene	ND	µg/L	10
2-Nitroaniline	ND	µg/L	50
3-Nitroaniline	ND	µg/L	50
4-Nitroaniline	ND	µg/L	20
Nitrobenzene	ND	µg/L	10
2-Nitrophenol	ND	µg/L	15
4-Nitrophenol	ND	µg/L	50
Pentachlorophenol	ND	µg/L	50
Phenanthrene	ND	µg/L	10
Phenol	ND	µg/L	10
Pyrene	ND	µg/L	15
Pyridine	ND	µg/L	30
1,2,4-Trichlorobenzene	ND	µg/L	10
2,4,5-Trichlorophenol	ND	µg/L	10
2,4,6-Trichlorophenol	ND	µg/L	15

Sample ID: LCS-12307

LCS

Batch ID:

12307

Analysis Date:

3/1/2007

Acenaphthene	80.50	µg/L	10	80.5	11	123
4-Chloro-3-methylphenol	146.8	µg/L	20	73.4	15.4	119
2-Chlorophenol	128.4	µg/L	10	64.2	12.2	122
1,4-Dichlorobenzene	60.90	µg/L	10	60.9	16.9	100
2,4-Dinitrotoluene	72.32	µg/L	10	72.3	13	138
N-Nitrosodi-n-propylamine	61.00	µg/L	10	61.0	9.93	122
4-Nitrophenol	79.94	µg/L	50	40.0	12.5	87.4
Pentachlorophenol	118.6	µg/L	50	59.3	3.55	114
Phenol	74.02	µg/L	10	37.0	7.53	73.1
Pyrene	72.40	µg/L	15	72.4	12.6	140
1,2,4-Trichlorobenzene	62.42	µg/L	10	62.4	17.4	98.7

Sample ID: LCS-12307

LCS

Batch ID:

12307

Analysis Date:

3/1/2007

Acenaphthene	81.52	µg/L	10	81.5	11	123
4-Chloro-3-methylphenol	142.4	µg/L	20	71.2	15.4	119
2-Chlorophenol	139.5	µg/L	10	69.8	12.2	122
1,4-Dichlorobenzene	60.56	µg/L	10	60.6	16.9	100
2,4-Dinitrotoluene	75.24	µg/L	10	75.2	13	138

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 Recovery outside accepted recovery limits

22 / 26

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Sampling 1st Qtr 2007

Work Order: 0702098

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8270C

Sample ID: LCS-12307 LCS Batch ID: 12307 Analysis Date: 3/1/2007

N-Nitrosodi-n-propylamine	65.10	µg/L	10	65.1	9.93	122			
4-Nitrophenol	93.66	µg/L	50	46.8	12.5	87.4			
Pentachlorophenol	158.0	µg/L	50	79.0	3.55	114			
Phenol	75.78	µg/L	10	37.9	7.53	73.1			
Pyrene	72.70	µg/L	15	72.7	12.6	140			
1,2,4-Trichlorobenzene	60.64	µg/L	10	60.6	17.4	98.7			

Sample ID: LCSD-12307 LCSD Batch ID: 12307 Analysis Date: 3/1/2007

Acenaphthene	103.6	µg/L	10	104	11	123	25.1	30.5	
4-Chloro-3-methylphenol	180.1	µg/L	20	90.1	15.4	119	20.4	28.6	
2-Chlorophenol	190.5	µg/L	10	95.2	12.2	122	39.0	107	
1,4-Dichlorobenzene	85.54	µg/L	10	85.5	16.9	100	33.7	62.1	
2,4-Dinitrotoluene	92.42	µg/L	10	92.4	13	138	24.4	14.7	R
N-Nitrosodi-n-propylamine	80.62	µg/L	10	80.6	9.93	122	27.7	30.3	
4-Nitrophenol	109.0	µg/L	50	54.5	12.5	87.4	30.8	36.3	
Pentachlorophenol	150.7	µg/L	50	75.4	3.55	114	23.9	49	
Phenol	103.1	µg/L	10	51.6	7.53	73.1	32.9	52.4	
Pyrene	93.24	µg/L	15	93.2	12.6	140	25.2	16.3	R
1,2,4-Trichlorobenzene	85.88	µg/L	10	85.9	17.4	98.7	31.6	36.4	

Sample ID: LCSD-12307 LCSD Batch ID: 12307 Analysis Date: 3/1/2007

Acenaphthene	99.12	µg/L	10	99.1	11	123	19.5	30.5	
4-Chloro-3-methylphenol	187.1	µg/L	20	93.6	15.4	119	27.2	28.6	
2-Chlorophenol	184.3	µg/L	10	92.2	12.2	122	27.7	107	
1,4-Dichlorobenzene	89.24	µg/L	10	89.2	16.9	100	38.3	62.1	
2,4-Dinitrotoluene	93.90	µg/L	10	93.9	13	138	22.1	14.7	R
N-Nitrosodi-n-propylamine	87.42	µg/L	10	87.4	9.93	122	29.3	30.3	
4-Nitrophenol	119.8	µg/L	50	59.9	12.5	87.4	24.5	36.3	
Pentachlorophenol	190.6	µg/L	50	95.3	3.55	114	18.7	49	
Phenol	109.6	µg/L	10	54.8	7.53	73.1	36.5	52.4	
Pyrene	95.10	µg/L	15	95.1	12.6	140	26.7	16.3	R
1,2,4-Trichlorobenzene	84.74	µg/L	10	84.7	17.4	98.7	33.2	36.4	

Method: SW7470

Sample ID: MB-12318 MBLK Batch ID: 12318 Analysis Date: 2/15/2007

Mercury ND mg/L 0.00020

Sample ID: LCS-12318 LCS Batch ID: 12318 Analysis Date: 2/15/2007

Mercury 0.004926 mg/L 0.00020 97.7 80 120

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 Recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: River Sampling 1st Qtr 2007

Work Order: 0702098

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW6010A

Sample ID: MB

MBLK

Batch ID: R22619 Analysis Date: 2/27/2007 9:09:53 AM

Arsenic	ND	mg/L	0.020
Barium	ND	mg/L	0.020
Cadmium	ND	mg/L	0.0020
Calcium	ND	mg/L	1.0
Chromium	ND	mg/L	0.0060
Copper	ND	mg/L	0.0060
Iron	ND	mg/L	0.020
Lead	ND	mg/L	0.0050
Magnesium	ND	mg/L	1.0
Manganese	ND	mg/L	0.0020
Potassium	ND	mg/L	1.0
Selenium	ND	mg/L	0.050
Silver	ND	mg/L	0.0050
Sodium	ND	mg/L	1.0
Uranium	ND	mg/L	0.10
Zinc	ND	mg/L	0.050

Sample ID: LCS

LCS

Batch ID: R22619 Analysis Date: 2/27/2007 9:12:57 AM

Arsenic	0.4674	mg/L	0.020	93.5	80	120
Barium	0.4676	mg/L	0.020	93.5	80	120
Cadmium	0.4615	mg/L	0.0020	92.3	80	120
Calcium	49.14	mg/L	1.0	97.3	80	120
Chromium	0.4688	mg/L	0.0060	93.8	80	120
Copper	0.4628	mg/L	0.0060	92.6	80	120
Iron	0.4734	mg/L	0.020	94.7	80	120
Lead	0.4530	mg/L	0.0050	90.6	80	120
Magnesium	49.52	mg/L	1.0	98.1	80	120
Manganese	0.4617	mg/L	0.0020	92.3	80	120
Potassium	53.18	mg/L	1.0	96.7	80	120
Selenium	0.4225	mg/L	0.050	84.5	80	120
Silver	0.4720	mg/L	0.0050	94.4	80	120
Sodium	53.35	mg/L	1.0	106	80	120
Uranium	0.5357	mg/L	0.10	107	80	120
Zinc	0.4596	mg/L	0.050	91.9	80	120

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 Recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Sampling 1st Qtr 2007

Work Order: 0702098

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW6010A

Sample ID: MB-12293

MBLK

Batch ID: 12293 Analysis Date: 2/15/2007 9:11:25 AM

Arsenic	ND	mg/L	0.020
Barium	ND	mg/L	0.020
Cadmium	ND	mg/L	0.0020
Chromium	ND	mg/L	0.0060
Lead	ND	mg/L	0.0050
Selenium	ND	mg/L	0.050
Silver	ND	mg/L	0.0050

Sample ID: LCS-12293

LCS

Batch ID: 12293 Analysis Date: 2/15/2007 9:14:27 AM

Arsenic	0.5148	mg/L	0.020	103	80	120
Barium	0.5163	mg/L	0.020	103	80	120
Cadmium	0.5011	mg/L	0.0020	100	80	120
Chromium	0.5164	mg/L	0.0060	103	80	120
Lead	0.5026	mg/L	0.0050	101	80	120
Selenium	0.4632	mg/L	0.050	92.6	80	120
Silver	0.5142	mg/L	0.0050	103	80	120

Method: E160.1

Sample ID: MB-12312

MBLK

Batch ID: 12312 Analysis Date: 2/14/2007

Total Dissolved Solids	ND	mg/L	20
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Sample ID: LCS-12312

LCS

Batch ID: 12312 Analysis Date: 2/14/2007

Total Dissolved Solids	984.0	mg/L	20	98.4	80	120
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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 25 / 26 recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

2/9/2007

Work Order Number 0702098

Received by TLS

Checklist completed by

[Signature]
Signature

2-9-07
Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☒	
Chain of custody present?	Yes ☒	No ☐		
Chain of custody signed when relinquished and received?	Yes ☒	No ☐		
Chain of custody agrees with sample labels?	Yes ☒	No ☐		
Samples in proper container/bottle?	Yes ☒	No ☐		
Sample containers intact?	Yes ☒	No ☐		
Sufficient sample volume for indicated test?	Yes ☒	No ☐		
All samples received within holding time?	Yes ☒	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☒	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐	

Container/Temp Blank temperature?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4901
www.hallenvironmental.com

[illegible]

COVER LETTER

Friday, May 04, 2007

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911
RE: San Juan River-2nd Qtr 2007

Order No.: 0704253

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 4/18/2007 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



Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-01

Client Sample ID: Upstream
Collection Date: 4/16/2007 2:30:00 PM
Date Received: 4/18/2007
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	4/19/2007 10:55:52 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/19/2007 10:55:52 PM
Surr: DNOP	128	58-140		%REC	1	4/19/2007 10:55:52 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/21/2007 6:35:23 AM
Surr: BFB	111	79.2-121		%REC	1	4/21/2007 6:35:23 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/21/2007 6:35:23 AM
Benzene	ND	1.0		µg/L	1	4/21/2007 6:35:23 AM
Toluene	ND	1.0		µg/L	1	4/21/2007 6:35:23 AM
Ethylbenzene	ND	1.0		µg/L	1	4/21/2007 6:35:23 AM
Xylenes, Total	ND	2.0		µg/L	1	4/21/2007 6:35:23 AM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	0.18	0.10		mg/L	1	4/19/2007 7:14:30 AM
Chloride	3.0	0.10		mg/L	1	4/19/2007 7:14:30 AM
Bromide	ND	0.50		mg/L	1	4/19/2007 7:14:30 AM
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	4/19/2007 7:31:55 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	4/19/2007 7:14:30 AM
Sulfate	64	0.50		mg/L	1	4/19/2007 7:14:30 AM
EPA METHOD 7470: MERCURY						Analyst: MAP
Mercury	ND	0.00020		mg/L	1	5/1/2007
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	5/3/2007 6:03:19 PM
Barium	0.057	0.0020		mg/L	1	5/3/2007 3:09:24 PM
Cadmium	ND	0.0020		mg/L	1	5/3/2007 3:09:24 PM
Calcium	31	1.0		mg/L	1	5/3/2007 3:09:24 PM
Chromium	ND	0.0060		mg/L	1	5/3/2007 3:09:24 PM
Copper	ND	0.0060		mg/L	1	5/3/2007 3:09:24 PM
Iron	ND	0.020		mg/L	1	5/3/2007 3:09:24 PM
Lead	ND	0.0050		mg/L	1	5/3/2007 3:09:24 PM
Magnesium	5.8	1.0		mg/L	1	5/3/2007 3:09:24 PM
Manganese	0.011	0.0020		mg/L	1	5/3/2007 3:09:24 PM
Potassium	1.6	1.0		mg/L	1	5/3/2007 3:09:24 PM
Selenium	ND	0.050		mg/L	1	5/4/2007 10:55:31 AM
Silver	ND	0.0050		mg/L	1	5/3/2007 3:09:24 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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-01

Client Sample ID: Upstream
Collection Date: 4/16/2007 2:30:00 PM
Date Received: 4/18/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Sodium	21	1.0		mg/L	1	5/3/2007 3:09:24 PM
Uranium	ND	0.10		mg/L	1	5/3/2007 3:09:24 PM
Zinc	0.050	0.0050		mg/L	1	5/3/2007 3:09:24 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	5/2/2007 11:45:37 AM
Barium	0.068	0.020		mg/L	1	5/2/2007 11:45:37 AM
Cadmium	ND	0.0020		mg/L	1	5/2/2007 11:45:37 AM
Chromium	ND	0.0060		mg/L	1	5/2/2007 11:45:37 AM
Lead	ND	0.0050		mg/L	1	5/2/2007 11:45:37 AM
Selenium	ND	0.050		mg/L	1	5/4/2007 11:20:26 AM
Silver	ND	0.0050		mg/L	1	5/2/2007 11:45:37 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	4/26/2007
Acenaphthylene	ND	10		µg/L	1	4/26/2007
Aniline	ND	20		µg/L	1	4/26/2007
Anthracene	ND	10		µg/L	1	4/26/2007
Azobenzene	ND	10		µg/L	1	4/26/2007
Benz(a)anthracene	ND	15		µg/L	1	4/26/2007
Benzo(a)pyrene	ND	10		µg/L	1	4/26/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	4/26/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	4/26/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	4/26/2007
Benzoic acid	ND	50		µg/L	1	4/26/2007
Benzyl alcohol	ND	20		µg/L	1	4/26/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	4/26/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	4/26/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	4/26/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	4/26/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	4/26/2007
Butyl benzyl phthalate	ND	15		µg/L	1	4/26/2007
Carbazole	ND	10		µg/L	1	4/26/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	4/26/2007
4-Chloroaniline	ND	20		µg/L	1	4/26/2007
2-Chloronaphthalene	ND	10		µg/L	1	4/26/2007
2-Chlorophenol	ND	10		µg/L	1	4/26/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	4/26/2007
Chrysene	ND	15		µg/L	1	4/26/2007
Di-n-butyl phthalate	ND	10		µg/L	1	4/26/2007
Di-n-octyl phthalate	ND	15		µg/L	1	4/26/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
 Lab Order: 0704253
 Project: San Juan River-2nd Qtr 2007
 Lab ID: 0704253-01

Client Sample ID: Upstream
 Collection Date: 4/16/2007 2:30:00 PM
 Date Received: 4/18/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Dibenz(a,h)anthracene	ND	10		µg/L	1	4/26/2007
Dibenzofuran	ND	10		µg/L	1	4/26/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	4/26/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	4/26/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	4/26/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	4/26/2007
Diethyl phthalate	ND	10		µg/L	1	4/26/2007
Dimethyl phthalate	ND	10		µg/L	1	4/26/2007
2,4-Dichlorophenol	ND	10		µg/L	1	4/26/2007
2,4-Dimethylphenol	ND	10		µg/L	1	4/26/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	4/26/2007
2,4-Dinitrophenol	ND	50		µg/L	1	4/26/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	4/26/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	4/26/2007
Fluoranthene	ND	10		µg/L	1	4/26/2007
Fluorene	ND	10		µg/L	1	4/26/2007
Hexachlorobenzene	ND	10		µg/L	1	4/26/2007
Hexachlorobutadiene	ND	10		µg/L	1	4/26/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	4/26/2007
Hexachloroethane	ND	10		µg/L	1	4/26/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	4/26/2007
Isophorone	ND	10		µg/L	1	4/26/2007
2-Methylnaphthalene	ND	10		µg/L	1	4/26/2007
2-Methylphenol	ND	15		µg/L	1	4/26/2007
3+4-Methylphenol	ND	20		µg/L	1	4/26/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	4/26/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	4/26/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	4/26/2007
Naphthalene	ND	10		µg/L	1	4/26/2007
2-Nitroaniline	ND	50		µg/L	1	4/26/2007
3-Nitroaniline	ND	50		µg/L	1	4/26/2007
4-Nitroaniline	ND	20		µg/L	1	4/26/2007
Nitrobenzene	ND	10		µg/L	1	4/26/2007
2-Nitrophenol	ND	15		µg/L	1	4/26/2007
4-Nitrophenol	ND	50		µg/L	1	4/26/2007
Pentachlorophenol	ND	50		µg/L	1	4/26/2007
Phenanthrene	ND	10		µg/L	1	4/26/2007
Phenol	ND	10		µg/L	1	4/26/2007
Pyrene	ND	15		µg/L	1	4/26/2007
Pyridine	ND	30		µg/L	1	4/26/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	4/26/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-01

Client Sample ID: Upstream
Collection Date: 4/16/2007 2:30:00 PM
Date Received: 4/18/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
2,4,5-Trichlorophenol	ND	10		µg/L	1	4/26/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	4/26/2007
Surr: 2,4,6-Tribromophenol	18.0	16.6-150		%REC	1	4/26/2007
Surr: 2-Fluorobiphenyl	61.5	19.6-134		%REC	1	4/26/2007
Surr: 2-Fluorophenol	26.5	9.54-113		%REC	1	4/26/2007
Surr: 4-Terphenyl-d14	69.4	22.7-145		%REC	1	4/26/2007
Surr: Nitrobenzene-d5	62.6	14.6-134		%REC	1	4/26/2007
Surr: Phenol-d5	25.1	10.7-80.3		%REC	1	4/26/2007
EPA METHOD 310.1: ALKALINITY						Analyst: KS
Alkalinity, Total (As CaCO3)	84	2.0		mg/L CaCO3	1	4/24/2007
Carbonate	ND	2.0		mg/L CaCO3	1	4/24/2007
Bicarbonate	84	2.0		mg/L CaCO3	1	4/24/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: TES
Specific Conductance	320	0.010		µmhos/cm	1	4/18/2007
EPA METHOD 160.1: TDS						Analyst: KS
Total Dissolved Solids	190	20		mg/L	1	4/18/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-02

Client Sample ID: Downstream
Collection Date: 4/16/2007 3:00:00 PM
Date Received: 4/18/2007
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	4/20/2007 12:03:59 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/20/2007 12:03:59 AM
Surr: DNOP	125	58-140		%REC	1	4/20/2007 12:03:59 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/21/2007 8:05:32 AM
Surr: BFB	111	79.2-121		%REC	1	4/21/2007 8:05:32 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/21/2007 8:05:32 AM
Benzene	ND	1.0		µg/L	1	4/21/2007 8:05:32 AM
Toluene	ND	1.0		µg/L	1	4/21/2007 8:05:32 AM
Ethylbenzene	ND	1.0		µg/L	1	4/21/2007 8:05:32 AM
Xylenes, Total	ND	2.0		µg/L	1	4/21/2007 8:05:32 AM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	0.17	0.10		mg/L	1	4/19/2007 7:49:19 AM
Chloride	3.0	0.10		mg/L	1	4/19/2007 7:49:19 AM
Bromide	ND	0.50		mg/L	1	4/19/2007 7:49:19 AM
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	4/19/2007 8:24:08 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	4/19/2007 7:49:19 AM
Sulfate	67	0.50		mg/L	1	4/19/2007 7:49:19 AM
EPA METHOD 7470: MERCURY						Analyst: MAP
Mercury	ND	0.00020		mg/L	1	5/1/2007
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	5/3/2007 6:05:48 PM
Barium	0.051	0.0020		mg/L	1	5/3/2007 3:12:26 PM
Cadmium	ND	0.0020		mg/L	1	5/3/2007 3:12:26 PM
Calcium	33	1.0		mg/L	1	5/3/2007 3:12:26 PM
Chromium	ND	0.0060		mg/L	1	5/3/2007 3:12:26 PM
Copper	0.0081	0.0060		mg/L	1	5/3/2007 3:12:26 PM
Iron	ND	0.020		mg/L	1	5/3/2007 3:12:26 PM
Lead	ND	0.0050		mg/L	1	5/3/2007 3:12:26 PM
Magnesium	5.8	1.0		mg/L	1	5/3/2007 3:12:26 PM
Manganese	0.015	0.0020		mg/L	1	5/3/2007 3:12:26 PM
Potassium	1.6	1.0		mg/L	1	5/3/2007 3:12:26 PM
Selenium	ND	0.050		mg/L	1	5/4/2007 10:57:26 AM
Silver	ND	0.0050		mg/L	1	5/3/2007 3:12:26 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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining

Client Sample ID: Downstream

Lab Order: 0704253

Collection Date: 4/16/2007 3:00:00 PM

Project: San Juan River-2nd Qtr 2007

Date Received: 4/18/2007

Lab ID: 0704253-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Sodium	20	1.0		mg/L	1	5/3/2007 3:12:26 PM
Uranium	ND	0.10		mg/L	1	5/3/2007 3:12:26 PM
Zinc	0.020	0.0050		mg/L	1	5/3/2007 3:12:26 PM

EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	5/2/2007 11:48:43 AM
Barium	0.085	0.020		mg/L	1	5/2/2007 11:48:43 AM
Cadmium	ND	0.0020		mg/L	1	5/2/2007 11:48:43 AM
Chromium	ND	0.0060		mg/L	1	5/2/2007 11:48:43 AM
Lead	0.010	0.0050		mg/L	1	5/2/2007 11:48:43 AM
Selenium	ND	0.050		mg/L	1	5/4/2007 11:36:54 AM
Silver	ND	0.0050		mg/L	1	5/2/2007 11:48:43 AM

EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	4/26/2007
Acenaphthylene	ND	10		µg/L	1	4/26/2007
Aniline	ND	20		µg/L	1	4/26/2007
Anthracene	ND	10		µg/L	1	4/26/2007
Azobenzene	ND	10		µg/L	1	4/26/2007
Benz(a)anthracene	ND	15		µg/L	1	4/26/2007
Benzo(a)pyrene	ND	10		µg/L	1	4/26/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	4/26/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	4/26/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	4/26/2007
Benzoic acid	ND	50		µg/L	1	4/26/2007
Benzyl alcohol	ND	20		µg/L	1	4/26/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	4/26/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	4/26/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	4/26/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	4/26/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	4/26/2007
Butyl benzyl phthalate	ND	15		µg/L	1	4/26/2007
Carbazole	ND	10		µg/L	1	4/26/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	4/26/2007
4-Chloroaniline	ND	20		µg/L	1	4/26/2007
2-Chloronaphthalene	ND	10		µg/L	1	4/26/2007
2-Chlorophenol	ND	10		µg/L	1	4/26/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	4/26/2007
Chrysene	ND	15		µg/L	1	4/26/2007
Di-n-butyl phthalate	ND	10		µg/L	1	4/26/2007
Di-n-octyl phthalate	ND	15		µg/L	1	4/26/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-02

Client Sample ID: Downstream
Collection Date: 4/16/2007 3:00:00 PM
Date Received: 4/18/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Dibenz(a,h)anthracene	ND	10		µg/L	1	4/26/2007
Dibenzofuran	ND	10		µg/L	1	4/26/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	4/26/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	4/26/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	4/26/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	4/26/2007
Diethyl phthalate	ND	10		µg/L	1	4/26/2007
Dimethyl phthalate	ND	10		µg/L	1	4/26/2007
2,4-Dichlorophenol	ND	10		µg/L	1	4/26/2007
2,4-Dimethylphenol	ND	10		µg/L	1	4/26/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	4/26/2007
2,4-Dinitrophenol	ND	50		µg/L	1	4/26/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	4/26/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	4/26/2007
Fluoranthene	ND	10		µg/L	1	4/26/2007
Fluorene	ND	10		µg/L	1	4/26/2007
Hexachlorobenzene	ND	10		µg/L	1	4/26/2007
Hexachlorobutadiene	ND	10		µg/L	1	4/26/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	4/26/2007
Hexachloroethane	ND	10		µg/L	1	4/26/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	4/26/2007
Isophorone	ND	10		µg/L	1	4/26/2007
2-Methylnaphthalene	ND	10		µg/L	1	4/26/2007
2-Methylphenol	ND	15		µg/L	1	4/26/2007
3+4-Methylphenol	ND	20		µg/L	1	4/26/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	4/26/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	4/26/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	4/26/2007
Naphthalene	ND	10		µg/L	1	4/26/2007
2-Nitroaniline	ND	50		µg/L	1	4/26/2007
3-Nitroaniline	ND	50		µg/L	1	4/26/2007
4-Nitroaniline	ND	20		µg/L	1	4/26/2007
Nitrobenzene	ND	10		µg/L	1	4/26/2007
2-Nitrophenol	ND	15		µg/L	1	4/26/2007
4-Nitrophenol	ND	50		µg/L	1	4/26/2007
Pentachlorophenol	ND	50		µg/L	1	4/26/2007
Phenanthrene	ND	10		µg/L	1	4/26/2007
Phenol	ND	10		µg/L	1	4/26/2007
Pyrene	ND	15		µg/L	1	4/26/2007
Pyridine	ND	30		µg/L	1	4/26/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	4/26/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-02

Client Sample ID: Downstream
Collection Date: 4/16/2007 3:00:00 PM
Date Received: 4/18/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8270C: SEMIVOLATILES

Analyst: BL

2,4,5-Trichlorophenol	ND	10		µg/L	1	4/26/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	4/26/2007
Surr: 2,4,6-Tribromophenol	55.7	16.6-150		%REC	1	4/26/2007
Surr: 2-Fluorobiphenyl	65.3	19.6-134		%REC	1	4/26/2007
Surr: 2-Fluorophenol	39.7	9.54-113		%REC	1	4/26/2007
Surr: 4-Terphenyl-d14	84.9	22.7-145		%REC	1	4/26/2007
Surr: Nitrobenzene-d5	55.7	14.6-134		%REC	1	4/26/2007
Surr: Phenol-d5	28.8	10.7-80.3		%REC	1	4/26/2007

EPA METHOD 310.1: ALKALINITY

Analyst: KS

Alkalinity, Total (As CaCO3)	86	2.0		mg/L CaCO3	1	4/24/2007
Carbonate	ND	2.0		mg/L CaCO3	1	4/24/2007
Bicarbonate	86	2.0		mg/L CaCO3	1	4/24/2007

EPA 120.1: SPECIFIC CONDUCTANCE

Analyst: TES

Specific Conductance	330	0.010		µmhos/cm	1	4/18/2007
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EPA METHOD 160.1: TDS

Analyst: KS

Total Dissolved Solids	210	20		mg/L	1	4/18/2007
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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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-03

Client Sample ID: North of MW #46
Collection Date: 4/16/2007 1:25:00 PM
Date Received: 4/18/2007
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	4/20/2007 12:38:05 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/20/2007 12:38:05 AM
Surr: DNOP	127	58-140		%REC	1	4/20/2007 12:38:05 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/21/2007 8:35:36 AM
Surr: BFB	108	79.2-121		%REC	1	4/21/2007 8:35:36 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/21/2007 8:35:36 AM
Benzene	ND	1.0		µg/L	1	4/21/2007 8:35:36 AM
Toluene	ND	1.0		µg/L	1	4/21/2007 8:35:36 AM
Ethylbenzene	ND	1.0		µg/L	1	4/21/2007 8:35:36 AM
Xylenes, Total	ND	2.0		µg/L	1	4/21/2007 8:35:36 AM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	0.20	0.10		mg/L	1	4/19/2007 8:41:32 AM
Chloride	3.1	0.10		mg/L	1	4/19/2007 8:41:32 AM
Bromide	ND	0.50		mg/L	1	4/19/2007 8:41:32 AM
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	4/19/2007 8:58:56 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	4/19/2007 8:41:32 AM
Sulfate	61	0.50		mg/L	1	4/19/2007 8:41:32 AM
EPA METHOD 7470: MERCURY						Analyst: MAP
Mercury	ND	0.00020		mg/L	1	5/1/2007
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	5/3/2007 6:08:15 PM
Barium	0.059	0.0020		mg/L	1	5/3/2007 3:15:32 PM
Cadmium	ND	0.0020		mg/L	1	5/3/2007 3:15:32 PM
Calcium	30	1.0		mg/L	1	5/3/2007 3:15:32 PM
Chromium	ND	0.0060		mg/L	1	5/3/2007 3:15:32 PM
Copper	ND	0.0060		mg/L	1	5/3/2007 3:15:32 PM
Iron	ND	0.020		mg/L	1	5/3/2007 3:15:32 PM
Lead	ND	0.0050		mg/L	1	5/3/2007 3:15:32 PM
Magnesium	5.5	1.0		mg/L	1	5/3/2007 3:15:32 PM
Manganese	0.0070	0.0020		mg/L	1	5/3/2007 3:15:32 PM
Potassium	1.5	1.0		mg/L	1	5/3/2007 3:15:32 PM
Selenium	ND	0.050		mg/L	1	5/4/2007 10:59:49 AM
Silver	ND	0.0050		mg/L	1	5/3/2007 3:15:32 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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
 Lab Order: 0704253
 Project: San Juan River-2nd Qtr 2007
 Lab ID: 0704253-03

Client Sample ID: North of MW #46
 Collection Date: 4/16/2007 1:25:00 PM
 Date Received: 4/18/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Sodium	18	1.0		mg/L	1	5/3/2007 3:15:32 PM
Uranium	ND	0.10		mg/L	1	5/3/2007 3:15:32 PM
Zinc	0.032	0.0050		mg/L	1	5/3/2007 3:15:32 PM

EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	5/2/2007 11:51:52 AM
Barium	0.074	0.020		mg/L	1	5/2/2007 11:51:52 AM
Cadmium	ND	0.0020		mg/L	1	5/2/2007 11:51:52 AM
Chromium	ND	0.0060		mg/L	1	5/2/2007 11:51:52 AM
Lead	ND	0.0050		mg/L	1	5/2/2007 11:51:52 AM
Selenium	ND	0.050		mg/L	1	5/4/2007 11:22:55 AM
Silver	ND	0.0050		mg/L	1	5/2/2007 11:51:52 AM

EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	4/26/2007
Acenaphthylene	ND	10		µg/L	1	4/26/2007
Aniline	ND	20		µg/L	1	4/26/2007
Anthracene	ND	10		µg/L	1	4/26/2007
Azobenzene	ND	10		µg/L	1	4/26/2007
Benz(a)anthracene	ND	15		µg/L	1	4/26/2007
Benzo(a)pyrene	ND	10		µg/L	1	4/26/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	4/26/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	4/26/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	4/26/2007
Benzoic acid	ND	50		µg/L	1	4/26/2007
Benzyl alcohol	ND	20		µg/L	1	4/26/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	4/26/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	4/26/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	4/26/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	4/26/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	4/26/2007
Butyl benzyl phthalate	ND	15		µg/L	1	4/26/2007
Carbazole	ND	10		µg/L	1	4/26/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	4/26/2007
4-Chloroaniline	ND	20		µg/L	1	4/26/2007
2-Chloronaphthalene	ND	10		µg/L	1	4/26/2007
2-Chlorophenol	ND	10		µg/L	1	4/26/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	4/26/2007
Chrysene	ND	15		µg/L	1	4/26/2007
Di-n-butyl phthalate	ND	10		µg/L	1	4/26/2007
Di-n-octyl phthalate	ND	15		µg/L	1	4/26/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-03

Client Sample ID: North of MW #46
Collection Date: 4/16/2007 1:25:00 PM
Date Received: 4/18/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Dibenz(a,h)anthracene	ND	10		µg/L	1	4/26/2007
Dibenzofuran	ND	10		µg/L	1	4/26/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	4/26/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	4/26/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	4/26/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	4/26/2007
Diethyl phthalate	ND	10		µg/L	1	4/26/2007
Dimethyl phthalate	ND	10		µg/L	1	4/26/2007
2,4-Dichlorophenol	ND	10		µg/L	1	4/26/2007
2,4-Dimethylphenol	ND	10		µg/L	1	4/26/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	4/26/2007
2,4-Dinitrophenol	ND	50		µg/L	1	4/26/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	4/26/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	4/26/2007
Fluoranthene	ND	10		µg/L	1	4/26/2007
Fluorene	ND	10		µg/L	1	4/26/2007
Hexachlorobenzene	ND	10		µg/L	1	4/26/2007
Hexachlorobutadiene	ND	10		µg/L	1	4/26/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	4/26/2007
Hexachloroethane	ND	10		µg/L	1	4/26/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	4/26/2007
Isophorone	ND	10		µg/L	1	4/26/2007
2-Methylnaphthalene	ND	10		µg/L	1	4/26/2007
2-Methylphenol	ND	15		µg/L	1	4/26/2007
3+4-Methylphenol	ND	20		µg/L	1	4/26/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	4/26/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	4/26/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	4/26/2007
Naphthalene	ND	10		µg/L	1	4/26/2007
2-Nitroaniline	ND	50		µg/L	1	4/26/2007
3-Nitroaniline	ND	50		µg/L	1	4/26/2007
4-Nitroaniline	ND	20		µg/L	1	4/26/2007
Nitrobenzene	ND	10		µg/L	1	4/26/2007
2-Nitrophenol	ND	15		µg/L	1	4/26/2007
4-Nitrophenol	ND	50		µg/L	1	4/26/2007
Pentachlorophenol	ND	50		µg/L	1	4/26/2007
Phenanthrene	ND	10		µg/L	1	4/26/2007
Phenol	ND	10		µg/L	1	4/26/2007
Pyrene	ND	15		µg/L	1	4/26/2007
Pyridine	ND	30		µg/L	1	4/26/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	4/26/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining

Client Sample ID: North of MW #46

Lab Order: 0704253

Collection Date: 4/16/2007 1:25:00 PM

Project: San Juan River-2nd Qtr 2007

Date Received: 4/18/2007

Lab ID: 0704253-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
2,4,5-Trichlorophenol	ND	10		µg/L	1	4/26/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	4/26/2007
Surr: 2,4,6-Tribromophenol	55.8	16.6-150		%REC	1	4/26/2007
Surr: 2-Fluorobiphenyl	57.9	19.6-134		%REC	1	4/26/2007
Surr: 2-Fluorophenol	52.0	9.54-113		%REC	1	4/26/2007
Surr: 4-Terphenyl-d14	82.0	22.7-145		%REC	1	4/26/2007
Surr: Nitrobenzene-d5	51.5	14.6-134		%REC	1	4/26/2007
Surr: Phenol-d5	44.1	10.7-80.3		%REC	1	4/26/2007
EPA METHOD 310.1: ALKALINITY						Analyst: KS
Alkalinity, Total (As CaCO3)	84	2.0		mg/L CaCO3	1	4/24/2007
Carbonate	ND	2.0		mg/L CaCO3	1	4/24/2007
Bicarbonate	84	2.0		mg/L CaCO3	1	4/24/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: TES
Specific Conductance	310	0.010		µmhos/cm	1	4/18/2007
EPA METHOD 160.1: TDS						Analyst: KS
Total Dissolved Solids	200	20		mg/L	1	4/18/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-04

Client Sample ID: North of MW #45
Collection Date: 4/16/2007 1:55:00 PM
Date Received: 4/18/2007
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	4/20/2007 1:12:19 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/20/2007 1:12:19 AM
Surr: DNOP	128	58-140		%REC	1	4/20/2007 1:12:19 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/21/2007 9:05:47 AM
Surr: BFB	112	79.2-121		%REC	1	4/21/2007 9:05:47 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/21/2007 9:05:47 AM
Benzene	ND	1.0		µg/L	1	4/21/2007 9:05:47 AM
Toluene	ND	1.0		µg/L	1	4/21/2007 9:05:47 AM
Ethylbenzene	ND	1.0		µg/L	1	4/21/2007 9:05:47 AM
Xylenes, Total	ND	2.0		µg/L	1	4/21/2007 9:05:47 AM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	0.19	0.10		mg/L	1	4/19/2007 9:16:21 AM
Chloride	2.9	0.10		mg/L	1	4/19/2007 9:16:21 AM
Bromide	ND	0.50		mg/L	1	4/19/2007 9:16:21 AM
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	4/19/2007 10:46:24 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	4/19/2007 9:16:21 AM
Sulfate	60	0.50		mg/L	1	4/19/2007 9:16:21 AM
EPA METHOD 7470: MERCURY						Analyst: MAP
Mercury	ND	0.00020		mg/L	1	5/1/2007
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	5/3/2007 6:10:45 PM
Barium	0.056	0.0020		mg/L	1	5/3/2007 3:18:33 PM
Cadmium	ND	0.0020		mg/L	1	5/3/2007 3:18:33 PM
Calcium	31	1.0		mg/L	1	5/3/2007 3:18:33 PM
Chromium	ND	0.0060		mg/L	1	5/3/2007 3:18:33 PM
Copper	0.0060	0.0060		mg/L	1	5/3/2007 3:18:33 PM
Iron	ND	0.020		mg/L	1	5/3/2007 3:18:33 PM
Lead	ND	0.0050		mg/L	1	5/3/2007 3:18:33 PM
Magnesium	5.7	1.0		mg/L	1	5/3/2007 3:18:33 PM
Manganese	0.0059	0.0020		mg/L	1	5/3/2007 3:18:33 PM
Potassium	1.4	1.0		mg/L	1	5/3/2007 3:18:33 PM
Selenium	ND	0.050		mg/L	1	5/4/2007 11:02:16 AM
Silver	ND	0.0050		mg/L	1	5/3/2007 3:18:33 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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-04

Client Sample ID: North of MW #45
Collection Date: 4/16/2007 1:55:00 PM
Date Received: 4/18/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 6010B: DISSOLVED METALS

Analyst: NMO

Sodium	19	1.0		mg/L	1	5/3/2007 3:18:33 PM
Uranium	ND	0.10		mg/L	1	5/3/2007 3:18:33 PM
Zinc	0.034	0.0050		mg/L	1	5/3/2007 3:18:33 PM

EPA 6010B: TOTAL RECOVERABLE METALS

Analyst: NMO

Arsenic	ND	0.020		mg/L	1	5/2/2007 11:54:58 AM
Barium	0.073	0.020		mg/L	1	5/2/2007 11:54:58 AM
Cadmium	ND	0.0020		mg/L	1	5/2/2007 11:54:58 AM
Chromium	ND	0.0060		mg/L	1	5/2/2007 11:54:58 AM
Lead	ND	0.0050		mg/L	1	5/2/2007 11:54:58 AM
Selenium	ND	0.050		mg/L	1	5/4/2007 11:29:26 AM
Silver	ND	0.0050		mg/L	1	5/2/2007 11:54:58 AM

EPA METHOD 8270C: SEMIVOLATILES

Analyst: BL

Acenaphthene	ND	10		µg/L	1	4/26/2007
Acenaphthylene	ND	10		µg/L	1	4/26/2007
Aniline	ND	20		µg/L	1	4/26/2007
Anthracene	ND	10		µg/L	1	4/26/2007
Azobenzene	ND	10		µg/L	1	4/26/2007
Benz(a)anthracene	ND	15		µg/L	1	4/26/2007
Benzo(a)pyrene	ND	10		µg/L	1	4/26/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	4/26/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	4/26/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	4/26/2007
Benzoic acid	ND	50		µg/L	1	4/26/2007
Benzyl alcohol	ND	20		µg/L	1	4/26/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	4/26/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	4/26/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	4/26/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	4/26/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	4/26/2007
Butyl benzyl phthalate	ND	15		µg/L	1	4/26/2007
Carbazole	ND	10		µg/L	1	4/26/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	4/26/2007
4-Chloroaniline	ND	20		µg/L	1	4/26/2007
2-Chloronaphthalene	ND	10		µg/L	1	4/26/2007
2-Chlorophenol	ND	10		µg/L	1	4/26/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	4/26/2007
Chrysene	ND	15		µg/L	1	4/26/2007
Di-n-butyl phthalate	ND	10		µg/L	1	4/26/2007
Di-n-octyl phthalate	ND	15		µg/L	1	4/26/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-04

Client Sample ID: North of MW #45
Collection Date: 4/16/2007 1:55:00 PM
Date Received: 4/18/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Dibenz(a,h)anthracene	ND	10		µg/L	1	4/26/2007
Dibenzofuran	ND	10		µg/L	1	4/26/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	4/26/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	4/26/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	4/26/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	4/26/2007
Diethyl phthalate	ND	10		µg/L	1	4/26/2007
Dimethyl phthalate	ND	10		µg/L	1	4/26/2007
2,4-Dichlorophenol	ND	10		µg/L	1	4/26/2007
2,4-Dimethylphenol	ND	10		µg/L	1	4/26/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	4/26/2007
2,4-Dinitrophenol	ND	50		µg/L	1	4/26/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	4/26/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	4/26/2007
Fluoranthene	ND	10		µg/L	1	4/26/2007
Fluorene	ND	10		µg/L	1	4/26/2007
Hexachlorobenzene	ND	10		µg/L	1	4/26/2007
Hexachlorobutadiene	ND	10		µg/L	1	4/26/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	4/26/2007
Hexachloroethane	ND	10		µg/L	1	4/26/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	4/26/2007
Isophorone	ND	10		µg/L	1	4/26/2007
2-Methylnaphthalene	ND	10		µg/L	1	4/26/2007
2-Methylphenol	ND	15		µg/L	1	4/26/2007
3+4-Methylphenol	ND	20		µg/L	1	4/26/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	4/26/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	4/26/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	4/26/2007
Naphthalene	ND	10		µg/L	1	4/26/2007
2-Nitroaniline	ND	50		µg/L	1	4/26/2007
3-Nitroaniline	ND	50		µg/L	1	4/26/2007
4-Nitroaniline	ND	20		µg/L	1	4/26/2007
Nitrobenzene	ND	10		µg/L	1	4/26/2007
2-Nitrophenol	ND	15		µg/L	1	4/26/2007
4-Nitrophenol	ND	50		µg/L	1	4/26/2007
Pentachlorophenol	ND	50		µg/L	1	4/26/2007
Phenanthrene	ND	10		µg/L	1	4/26/2007
Phenol	ND	10		µg/L	1	4/26/2007
Pyrene	ND	15		µg/L	1	4/26/2007
Pyridine	ND	30		µg/L	1	4/26/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	4/26/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-04

Client Sample ID: North of MW #45
Collection Date: 4/16/2007 1:55:00 PM
Date Received: 4/18/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
2,4,5-Trichlorophenol	ND	10		µg/L	1	4/26/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	4/26/2007
Surr: 2,4,6-Tribromophenol	51.0	16.6-150		%REC	1	4/26/2007
Surr: 2-Fluorobiphenyl	63.9	19.6-134		%REC	1	4/26/2007
Surr: 2-Fluorophenol	59.0	9.54-113		%REC	1	4/26/2007
Surr: 4-Terphenyl-d14	80.0	22.7-145		%REC	1	4/26/2007
Surr: Nitrobenzene-d5	58.1	14.6-134		%REC	1	4/26/2007
Surr: Phenol-d5	47.6	10.7-80.3		%REC	1	4/26/2007
EPA METHOD 310.1: ALKALINITY						Analyst: KS
Alkalinity, Total (As CaCO3)	84	2.0		mg/L CaCO3	1	4/24/2007
Carbonate	ND	2.0		mg/L CaCO3	1	4/24/2007
Bicarbonate	84	2.0		mg/L CaCO3	1	4/24/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: TES
Specific Conductance	310	0.010		µmhos/cm	1	4/18/2007
EPA METHOD 160.1: TDS						Analyst: KS
Total Dissolved Solids	190	20		mg/L	1	4/18/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 04-May-07

CLIENT: San Juan Refining
Lab Order: 0704253
Project: San Juan River-2nd Qtr 2007
Lab ID: 0704253-05

Client Sample ID: Trip Blank
Collection Date:
Date Received: 4/18/2007
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/21/2007 9:35:54 AM
Surr: BFB	112	79.2-121		%REC	1	4/21/2007 9:35:54 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/21/2007 9:35:54 AM
Benzene	ND	1.0		µg/L	1	4/21/2007 9:35:54 AM
Toluene	ND	1.0		µg/L	1	4/21/2007 9:35:54 AM
Ethylbenzene	ND	1.0		µg/L	1	4/21/2007 9:35:54 AM
Xylenes, Total	ND	2.0		µg/L	1	4/21/2007 9:35:54 AM

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River-2nd Qtr 2007

Work Order: 0704253

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: E300

Sample ID: MBLK MBLK Batch ID: R23291 Analysis Date: 4/18/2007 4:25:03 PM

Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						

Sample ID: LCS ST300-07001 LCS Batch ID: R23291 Analysis Date: 4/18/2007 4:42:27 PM

Fluoride	0.5304	mg/L	0.10	106	90	110			
Chloride	4.708	mg/L	0.10	94.2	90	110			
Bromide	2.469	mg/L	0.10	98.8	90	110			
Nitrate (As N)+Nitrite (As N)	3.391	mg/L	0.10	96.9	90	110			
Phosphorus, Orthophosphate (As P)	4.722	mg/L	0.50	94.4	90	110			
Sulfate	9.514	mg/L	0.50	95.1	90	110			

Method: E310.1

Sample ID: MB MBLK Batch ID: R23339 Analysis Date: 4/24/2007

Alkalinity, Total (As CaCO3)	2.000	mg/L CaC	2.0						
Carbonate	ND	mg/L CaC	2.0						
Bicarbonate	2.000	mg/L CaC	2.0						

Sample ID: LCS LCS Batch ID: R23339 Analysis Date: 4/24/2007

Alkalinity, Total (As CaCO3)	82.00	mg/L CaC	2.0	100	80	120			
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Method: SW8015

Sample ID: MB-12765 MBLK Batch ID: 12765 Analysis Date: 4/19/2007 8:04:08 PM

Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						

Sample ID: LCS-12765 LCS Batch ID: 12765 Analysis Date: 4/19/2007 8:38:31 PM

Diesel Range Organics (DRO)	4.783	mg/L	1.0	95.7	74	157			
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Sample ID: LCSD-12765 LCSD Batch ID: 12765 Analysis Date: 4/19/2007 9:12:55 PM

Diesel Range Organics (DRO)	5.149	mg/L	1.0	103	74	157	7.37	23	
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Method: SW8015

Sample ID: 0704253-01A MSD MSD Batch ID: R23317 Analysis Date: 4/21/2007 7:35:30 AM

Gasoline Range Organics (GRO)	0.4056	mg/L	0.050	81.1	80	115	1.42	8.39	
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Sample ID: 5ml rb-II 24 MBLK Batch ID: R23317 Analysis Date: 4/20/2007 8:23:53 PM

Gasoline Range Organics (GRO)	ND	mg/L	0.050						
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Sample ID: 2.5UG GRO LCS-II LCS Batch ID: R23317 Analysis Date: 4/21/2007 6:09:47 PM

Gasoline Range Organics (GRO)	0.4208	mg/L	0.050	84.2	80	115			
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Sample ID: 0704253-01A MS MS Batch ID: R23317 Analysis Date: 4/21/2007 7:05:23 AM

Gasoline Range Organics (GRO)	0.4114	mg/L	0.050	82.3	80	115			
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Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River-2nd Qtr 2007

Work Order: 0704253

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 5ML RB-II MBLK Batch ID: R23317 Analysis Date: 4/20/2007 8:23:53 PM

Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						

Sample ID: 5ML RB-III MBLK Batch ID: R23317 Analysis Date: 4/21/2007 10:35:58 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						

Sample ID: 100NG BTEX LCS-II LCS Batch ID: R23317 Analysis Date: 4/21/2007 2:54:23 AM

Methyl tert-butyl ether (MTBE)	18.41	µg/L	2.5	92.0	51.2	138			
Benzene	18.80	µg/L	1.0	94.0	85.9	113			
Toluene	19.18	µg/L	1.0	95.9	86.4	113			
Ethylbenzene	19.30	µg/L	1.0	96.5	83.5	118			
Xylenes, Total	57.44	µg/L	2.0	95.7	83.4	122			

Sample ID: 100NG BTEX LCS-III LCS Batch ID: R23317 Analysis Date: 4/21/2007 4:39:25 PM

Methyl tert-butyl ether (MTBE)	19.25	µg/L	2.5	96.3	51.2	138			
Benzene	18.62	µg/L	1.0	93.1	85.9	113			
Toluene	19.04	µg/L	1.0	95.2	86.4	113			
Ethylbenzene	19.13	µg/L	1.0	95.6	83.5	118			
Xylenes, Total	56.54	µg/L	2.0	94.2	83.4	122			

Sample ID: 100NG BTEX LCSD-I LCSD Batch ID: R23317 Analysis Date: 4/21/2007 5:09:27 PM

Methyl tert-butyl ether (MTBE)	19.25	µg/L	2.5	96.2	51.2	138	0.0416	28	
Benzene	18.92	µg/L	1.0	94.6	85.9	113	1.56	27	
Toluene	19.27	µg/L	1.0	96.4	86.4	113	1.18	19	
Ethylbenzene	19.29	µg/L	1.0	96.5	83.5	118	0.864	10	
Xylenes, Total	57.53	µg/L	2.0	95.9	83.4	122	1.73	13	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining

Project: San Juan River-2nd Qtr 2007

Work Order: 0704253

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8270C

Sample ID: MB-12781

MBLK

Batch ID: 12781

Analysis Date:

4/26/2007

Acenaphthene	ND	µg/L	10
Acenaphthylene	ND	µg/L	10
Aniline	ND	µg/L	20
Anthracene	ND	µg/L	10
Azobenzene	ND	µg/L	10
Benz(a)anthracene	ND	µg/L	15
Benzo(a)pyrene	ND	µg/L	10
Benzo(b)fluoranthene	ND	µg/L	15
Benzo(g,h,i)perylene	ND	µg/L	10
Benzo(k)fluoranthene	ND	µg/L	10
Benzoic acid	ND	µg/L	50
Benzyl alcohol	ND	µg/L	20
Bis(2-chloroethoxy)methane	ND	µg/L	10
Bis(2-chloroethyl)ether	ND	µg/L	15
Bis(2-chloroisopropyl)ether	ND	µg/L	15
Bis(2-ethylhexyl)phthalate	ND	µg/L	15
4-Bromophenyl phenyl ether	ND	µg/L	10
Butyl benzyl phthalate	ND	µg/L	15
Carbazole	ND	µg/L	10
Chloro-3-methylphenol	ND	µg/L	20
4-Chloroaniline	ND	µg/L	20
2-Chloronaphthalene	ND	µg/L	10
2-Chlorophenol	ND	µg/L	10
4-Chlorophenyl phenyl ether	ND	µg/L	15
Chrysene	ND	µg/L	15
Di-n-butyl phthalate	ND	µg/L	10
Di-n-octyl phthalate	ND	µg/L	15
Dibenz(a,h)anthracene	ND	µg/L	10
Dibenzofuran	ND	µg/L	10
1,2-Dichlorobenzene	ND	µg/L	10
1,3-Dichlorobenzene	ND	µg/L	10
1,4-Dichlorobenzene	ND	µg/L	10
3,3'-Dichlorobenzidine	ND	µg/L	15
Diethyl phthalate	ND	µg/L	10
Dimethyl phthalate	ND	µg/L	10
2,4-Dichlorophenol	ND	µg/L	10
2,4-Dimethylphenol	ND	µg/L	10
4,6-Dinitro-2-methylphenol	ND	µg/L	50
2,4-Dinitrophenol	ND	µg/L	50
2,4-Dinitrotoluene	ND	µg/L	10
2,6-Dinitrotoluene	ND	µg/L	10
Fluoranthene	ND	µg/L	10
Fluorene	ND	µg/L	10
Hexachlorobenzene	ND	µg/L	10

Qualifiers:

E 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

Client: San Juan Refining
Project: San Juan River-2nd Qtr 2007

Work Order: 0704253

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8270C

Sample ID: MB-12781

MBLK

Batch ID: 12781 Analysis Date: 4/26/2007

Hexachlorobutadiene	ND	µg/L	10
Hexachlorocyclopentadiene	ND	µg/L	50
Hexachloroethane	ND	µg/L	10
Indeno(1,2,3-cd)pyrene	ND	µg/L	10
Isophorone	ND	µg/L	10
2-Methylnaphthalene	ND	µg/L	10
2-Methylphenol	ND	µg/L	15
3+4-Methylphenol	ND	µg/L	20
N-Nitrosodi-n-propylamine	ND	µg/L	10
N-Nitrosodimethylamine	ND	µg/L	10
N-Nitrosodiphenylamine	ND	µg/L	10
Naphthalene	ND	µg/L	10
2-Nitroaniline	ND	µg/L	50
3-Nitroaniline	ND	µg/L	50
4-Nitroaniline	ND	µg/L	20
Nitrobenzene	ND	µg/L	10
2-Nitrophenol	ND	µg/L	15
4-Nitrophenol	ND	µg/L	50
Pentachlorophenol	ND	µg/L	50
Phenanthrene	ND	µg/L	10
Phenol	ND	µg/L	10
Pyrene	ND	µg/L	15
Pyridine	ND	µg/L	30
1,2,4-Trichlorobenzene	ND	µg/L	10
2,4,5-Trichlorophenol	ND	µg/L	10
2,4,6-Trichlorophenol	ND	µg/L	15

Sample ID: MB-12785

MBLK

Batch ID: 12785 Analysis Date: 4/26/2007

Acenaphthene	ND	µg/L	10
Acenaphthylene	ND	µg/L	10
Aniline	ND	µg/L	20
Anthracene	ND	µg/L	10
Azobenzene	ND	µg/L	10
Benz(a)anthracene	ND	µg/L	15
Benzo(a)pyrene	ND	µg/L	10
Benzo(b)fluoranthene	ND	µg/L	15
Benzo(g,h,i)perylene	ND	µg/L	10
Benzo(k)fluoranthene	ND	µg/L	10
Benzoic acid	ND	µg/L	50
Benzyl alcohol	ND	µg/L	20
Bis(2-chloroethoxy)methane	ND	µg/L	10
Bis(2-chloroethyl)ether	ND	µg/L	15
Bis(2-chloroisopropyl)ether	ND	µg/L	15
Bis(2-ethylhexyl)phthalate	ND	µg/L	15
4-Bromophenyl phenyl ether	ND	µg/L	10

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River-2nd Qtr 2007

Work Order: 0704253

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8270C

Sample ID: MB-12785

MBLK

Batch ID: 12785 Analysis Date: 4/26/2007

Butyl benzyl phthalate	ND	µg/L	15
Carbazole	ND	µg/L	10
4-Chloro-3-methylphenol	ND	µg/L	20
4-Chloroaniline	ND	µg/L	20
2-Chloronaphthalene	ND	µg/L	10
2-Chlorophenol	ND	µg/L	10
4-Chlorophenyl phenyl ether	ND	µg/L	15
Chrysene	ND	µg/L	15
Di-n-butyl phthalate	ND	µg/L	10
Di-n-octyl phthalate	ND	µg/L	15
Dibenz(a,h)anthracene	ND	µg/L	10
Dibenzofuran	ND	µg/L	10
1,2-Dichlorobenzene	ND	µg/L	10
1,3-Dichlorobenzene	ND	µg/L	10
1,4-Dichlorobenzene	ND	µg/L	10
3,3'-Dichlorobenzidine	ND	µg/L	15
Diethyl phthalate	ND	µg/L	10
Dimethyl phthalate	ND	µg/L	10
2,4-Dichlorophenol	ND	µg/L	10
4-Dimethylphenol	ND	µg/L	10
2,6-Dinitro-2-methylphenol	ND	µg/L	50
2,4-Dinitrophenol	ND	µg/L	50
2,4-Dinitrotoluene	ND	µg/L	10
2,6-Dinitrotoluene	ND	µg/L	10
Fluoranthene	ND	µg/L	10
Fluorene	ND	µg/L	10
Hexachlorobenzene	ND	µg/L	10
Hexachlorobutadiene	ND	µg/L	10
Hexachlorocyclopentadiene	ND	µg/L	50
Hexachloroethane	ND	µg/L	10
Indeno(1,2,3-cd)pyrene	ND	µg/L	10
Isophorone	ND	µg/L	10
2-Methylnaphthalene	ND	µg/L	10
2-Methylphenol	ND	µg/L	15
3+4-Methylphenol	ND	µg/L	20
N-Nitrosodi-n-propylamine	ND	µg/L	10
N-Nitrosodimethylamine	ND	µg/L	10
N-Nitrosodiphenylamine	ND	µg/L	10
Naphthalene	ND	µg/L	10
2-Nitroaniline	ND	µg/L	50
3-Nitroaniline	ND	µg/L	50
4-Nitroaniline	ND	µg/L	20
Nitrobenzene	ND	µg/L	10
2-Nitrophenol	ND	µg/L	15

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River-2nd Qtr 2007

Work Order: 070425

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8270C

Sample ID: MB-12785

MBLK

Batch ID: 12785 Analysis Date: 4/26/2007

4-Nitrophenol	ND	µg/L	50
Pentachlorophenol	ND	µg/L	50
Phenanthrene	ND	µg/L	10
Phenol	ND	µg/L	10
Pyrene	ND	µg/L	15
Pyridine	ND	µg/L	30
1,2,4-Trichlorobenzene	ND	µg/L	10
2,4,5-Trichlorophenol	ND	µg/L	10
2,4,6-Trichlorophenol	ND	µg/L	15

Sample ID: LCS-12785

LCS

Batch ID: 12785 Analysis Date: 4/26/2007

Acenaphthene	69.88	µg/L	10	69.9	11	123
4-Chloro-3-methylphenol	121.7	µg/L	20	60.8	15.4	119
2-Chlorophenol	113.8	µg/L	10	56.9	12.2	122
1,4-Dichlorobenzene	45.64	µg/L	10	45.6	16.9	100
2,4-Dinitrotoluene	53.22	µg/L	10	53.2	13	138
N-Nitrosodi-n-propylamine	60.68	µg/L	10	60.7	9.93	122
4-Nitrophenol	96.52	µg/L	50	48.3	12.5	87.4
Pentachlorophenol	119.0	µg/L	50	59.5	3.55	114
Phenol	99.62	µg/L	10	49.8	7.53	73.1
Pyrene	73.10	µg/L	15	73.1	12.6	140
1,2,4-Trichlorobenzene	48.26	µg/L	10	48.3	17.4	98.7

Sample ID: LCSD-12785

LCSD

Batch ID: 12785 Analysis Date: 4/26/2007

Acenaphthene	71.24	µg/L	10	71.2	11	123	1.93	30.5
4-Chloro-3-methylphenol	130.6	µg/L	20	65.3	15.4	119	7.07	28.6
2-Chlorophenol	131.8	µg/L	10	65.9	12.2	122	14.7	107
1,4-Dichlorobenzene	55.58	µg/L	10	55.6	16.9	100	19.6	62.1
2,4-Dinitrotoluene	60.84	µg/L	10	60.8	13	138	13.4	14.7
N-Nitrosodi-n-propylamine	61.68	µg/L	10	61.7	9.93	122	1.63	30.3
4-Nitrophenol	108.1	µg/L	50	54.0	12.5	87.4	11.3	36.3
Pentachlorophenol	133.3	µg/L	50	66.7	3.55	114	11.4	49
Phenol	115.7	µg/L	10	57.8	7.53	73.1	14.9	52.4
Pyrene	78.64	µg/L	15	78.6	12.6	140	7.30	16.3
1,2,4-Trichlorobenzene	58.72	µg/L	10	58.7	17.4	98.7	19.6	36.4

Method: SW7470

Sample ID: MB-12845

MBLK

Batch ID: 12845 Analysis Date: 5/1/2007

Mercury ND mg/L 0.00020

Sample ID: LCS-12845

LCS

Batch ID: 12845 Analysis Date: 5/1/2007

Mercury 0.005073 mg/L 0.00020 101 80 120

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River-2nd Qtr 2007

Work Order: 0704253

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW6010A									
Sample ID: MBLK		MBLK							
Arsenic	ND	mg/L	0.020						
Sample ID: MBLK		MBLK							
Barium	ND	mg/L	0.020						
Cadmium	ND	mg/L	0.0020						
Calcium	ND	mg/L	1.0						
Chromium	ND	mg/L	0.0060						
Copper	ND	mg/L	0.0060						
Iron	ND	mg/L	0.020						
Lead	ND	mg/L	0.0050						
Magnesium	ND	mg/L	1.0						
Manganese	ND	mg/L	0.0020						
Potassium	ND	mg/L	1.0						
Silver	ND	mg/L	0.0050						
Sodium	ND	mg/L	1.0						
Uranium	ND	mg/L	0.10						
Zinc	ND	mg/L	0.050						
Sample ID: MBLK		MBLK							
Selenium	ND	mg/L	0.050						
Sample ID: LCS		LCS							
Arsenic	0.4666	mg/L	0.020	93.3	80	120			
Sample ID: LCS		LCS							
Barium	0.4505	mg/L	0.020	90.1	80	120			
Cadmium	0.4742	mg/L	0.0020	94.8	80	120			
Calcium	47.81	mg/L	1.0	94.6	80	120			
Chromium	0.4744	mg/L	0.0060	94.9	80	120			
Copper	0.4546	mg/L	0.0060	90.0	80	120			
Iron	0.4611	mg/L	0.020	92.2	80	120			
Lead	0.4674	mg/L	0.0050	93.5	80	120			
Magnesium	48.24	mg/L	1.0	95.4	80	120			
Manganese	0.4479	mg/L	0.0020	89.6	80	120			
Potassium	51.39	mg/L	1.0	93.4	80	120			
Silver	0.4607	mg/L	0.0050	92.1	80	120			
Sodium	51.35	mg/L	1.0	102	80	120			
Uranium	0.4816	mg/L	0.10	19.3	80	120			S
Zinc	0.4646	mg/L	0.050	92.9	80	120			
Sample ID: LCS		LCS							
Selenium	0.5168	mg/L	0.050	103	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: San Juan River-2nd Qtr 2007

Work Order: 070425

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW6010A									
Sample ID: 0704253-03D MSD		MSD			Batch ID: 12828		Analysis Date: 5/2/2007 1:20:55 PM		
Arsenic	0.4432	mg/L	0.020	88.6	75	125	1.18	20	
Barium	0.5662	mg/L	0.020	106	75	125	1.64	20	
Cadmium	0.4851	mg/L	0.0020	97.0	75	125	0.810	20	
Chromium	0.5007	mg/L	0.0060	100	75	125	0.362	20	
Lead	0.4967	mg/L	0.0050	97.6	75	125	0.539	20	
Sample ID: 0704253-02D MSD		MSD			Batch ID: 12865		Analysis Date: 5/4/2007 11:41:00 AM		
Selenium	0.4899	mg/L	0.050	98.0	75	125	1.20	20	
Sample ID: MB-12828		MBLK			Batch ID: 12828		Analysis Date: 5/2/2007 10:55:22 AM		
Arsenic	ND	mg/L	0.020						
Barium	ND	mg/L	0.020						
Cadmium	ND	mg/L	0.0020						
Chromium	ND	mg/L	0.0060						
Lead	ND	mg/L	0.0050						
Silver	ND	mg/L	0.0050						
Sample ID: MB-12865		MBLK			Batch ID: 12865		Analysis Date: 5/4/2007 8:29:58 AM		
Arsenic	ND	mg/L	0.020						
Barium	ND	mg/L	0.020						
Cadmium	ND	mg/L	0.0020						
Chromium	ND	mg/L	0.0060						
Lead	ND	mg/L	0.0050						
Silver	ND	mg/L	0.0050						
Sample ID: MB-12865		MBLK			Batch ID: 12865		Analysis Date: 5/4/2007 11:15:25 AM		
Selenium	ND	mg/L	0.050						
Sample ID: LCS-12828		LCS			Batch ID: 12828		Analysis Date: 5/2/2007 11:21:04 AM		
Arsenic	0.4405	mg/L	0.020	88.1	80	120			
Barium	0.4517	mg/L	0.020	90.3	80	120			
Cadmium	0.4531	mg/L	0.0020	90.6	80	120			
Chromium	0.4709	mg/L	0.0060	94.2	80	120			
Lead	0.4619	mg/L	0.0050	91.6	80	120			
Silver	0.4532	mg/L	0.0050	90.6	80	120			
Sample ID: LCS-12865		LCS			Batch ID: 12865		Analysis Date: 5/4/2007 8:32:07 AM		
Arsenic	ND	mg/L	0.020	0	80	120			
Barium	ND	mg/L	0.020	0	80	120			
Cadmium	ND	mg/L	0.0020	0	80	120			
Chromium	ND	mg/L	0.0060	0	80	120			
Lead	ND	mg/L	0.0050	0	80	120			
Silver	ND	mg/L	0.0050	0	80	120			
Sample ID: LCS-12865		LCS			Batch ID: 12865		Analysis Date: 5/4/2007 11:17:55 AM		
Selenium	0.4931	mg/L	0.050	98.6	80	120			
Sample ID: 0704253-03D MS		MS			Batch ID: 12828		Analysis Date: 5/2/2007 1:17:50 PM		
Arsenic	0.4485	mg/L	0.020	89.7	75	125			
Barium	0.5570	mg/L	0.020	104	75	125			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River-2nd Qtr 2007

Work Order: 0704253

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: SW6010A

Sample ID: 0704253-03D MS

MS

Batch ID: 12828 Analysis Date: 5/2/2007 1:17:50 PM

Cadmium 0.4812 mg/L 0.0020 96.2 75 125

Chromium 0.4989 mg/L 0.0060 99.8 75 125

Lead 0.4994 mg/L 0.0050 98.2 75 125

Sample ID: 0704253-02D MS

MS

Batch ID: 12865 Analysis Date: 5/4/2007 11:39:23 AM

Selenium 0.4958 mg/L 0.050 99.2 75 125

Method: E160.1

Sample ID: MB-12763

MBLK

Batch ID: 12763 Analysis Date: 4/18/2007

Total Dissolved Solids ND mg/L 20

Sample ID: LCS-12763

LCS

Batch ID: 12763 Analysis Date: 4/18/2007

Total Dissolved Solids 1016 mg/L 20 102 80 120

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/18/2007

Work Order Number 0704253

Received by TLS

Checklist completed by

Signature

Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

2°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4900
www.hallenvironmental.com

CHAIN-OF-CUSTODY RECORD									
QA / QC Package: ☐ Std ☐ Level 4 ☐ Other: _____									
Client: <u>SAN Juan Refining</u>		Project Name: <u>SAN Juan River - 2nd Qtr-2007</u>							
Address: <u>#50 Rd 4990</u>		Project #: _____							
<u>Bloomfield, NM</u>		Project Manager: _____							
<u>87413</u>		Sample: <u>Wey Hurtado / Bob Kikow</u>							
Phone #: <u>505-632-4611</u>		Sample Temperature: <u>20</u>							
Fax #: <u>505-632-3911</u>									
Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.	
					HgCl ₂	HNO ₃			
<u>4/10/07</u>	<u>3pm</u>	<u>H2O</u>	<u>Downstream</u>	<u>4-10A</u>			<u>HL</u>	<u>0704253</u>	
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>1-500ml</u>		<u>X</u>		<u>Z</u>	
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>1-250ml</u>		<u>X</u>	<u>Filtered</u>	<u>Z</u>	
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>1-250ml</u>			<u>H2SO4</u>	<u>Z</u>	
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>1-500ml</u>				<u>Z</u>	
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>1-liter</u>			<u>Anker</u>	<u>Z</u>	
Date: <u>4/17/09</u>	Time: <u>8:00am</u>	Relinquished By: (Signature) <u>Wey Hurtado</u>		Received By: (Signature) <u>Dave</u>		4/15/07		915	
Date: <u> </u>	Time: <u> </u>	Relinquished By: (Signature) <u> </u>		Received By: (Signature) <u> </u>					

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

QA/QC Package:

Std Level 4

Other:

Client: SAN Juan Refining

Project Name:

SAN JUAN RIVER - 7th 242-2007

Address: #50 Rd 499D

Bloomfield, NM

87413

Phone #: 505-632-4161

Fax #: 505-632-3911

Time

Matrix

Sample I.D. No.

Number/Volume:

HEAL No.

2523

4/16/07	125am	970	North of Mill #46
---------	-------	-----	-------------------

1-25-0

3

1-25-1

2

M

1,250.0

11.4

M



M

1.5

1

2

Time:

Relinquished By: (Signature)

Ret

Received By: (Signature)

4/18/57

Time:

Rejuvenated By (Signature)

Re

Received By: (Signature)

ANALYSIS REQUEST

BTEX + MTBE + TPH (Gasoline 0
BTEX + MTBE + TPH's (8021)
TPH (Method 418.1)
EDB (Method 504.1)
EDC (Method 8021)
8310 (PNA or PAH)
RCRA 8 Metals
Anions (F^{-} , Cl^{-} , NO_3^{-} , PO_4^{3-} , SO_4^{2-})
8081 Pesticides / PCB's (8082)
8260B (VOA)
8270 (Semi-VOA)
Dissolved WACC Mo
Back-up
General Chemist

Air Bubbles or Headspace (Y or N)

Remarks:

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**
4901 Hawking NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4
www.hallenvironmental.com

Std Level 4

Other:

Project Name:

SAN JUAN RIVER - 2nd EXR - 2007

Project #:

Project Manager:

Signature: _____

Sample Temperature:

Date _____

Time

Matrix

Sample I.D. No.

Number/Volume

HEAL No.

0704253

44607	155mm	620	North of NW #45
-------	-------	-----	-----------------

1-57-1

1-250-0

1-2570

100

107

12/22/17

Tr. Blank

Date:

Time:

Relinquished By: (Signature)

Received By: (Signature)

2	18	6
---	----	---

Date: _____

Time:

Relinquished By: (Signature)

Redeived By: (Signature)

ANALYSIS REQUEST

	Air Bubbles or Headspace (Y or N)
BTEX + MTBE + TPH s (8021)	X
BTEX + MTBE + TPH (Gasoline Only)	X
TPH Method 8015B (Gas/Diesel)	X
TPH (Method 418.1)	
EDB (Method 504.1)	
EDC (Method 8021)	
8310 (PNA or PAH)	
RCRA 8 Metals	X
Anions (F ⁻ , Cl ⁻ , NO ₃ ⁻ , PO ₄ ³⁻ , SO ₄ ²⁻)	
8081 Pesticides / PCB's (8082)	
8260B (VOA)	
8270 (Semi-VOA)	X
Dissolved WACC Metals	X
BACK-up	X
General Chemistry	X

Remarks:

COVER LETTER

Wednesday, July 25, 2007

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

TEL: (505) 632-4161

FAX (505) 632-3911

RE: San Juan River-3rd Qtr 2007

Order No.: 0707136

Dear Cindy Hurtado:

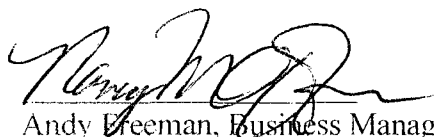
Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 7/11/2007 for the analyses presented in the following report.

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



Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining
Lab Order: 0707136
Project: San Juan River-3rd Qtr 2007
Lab ID: 0707136-01

Client Sample ID: North of MW #45
Collection Date: 7/10/2007 10:35:00 AM
Date Received: 7/11/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/12/2007 3:09:05 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/12/2007 3:09:05 PM
Surr: DNOP	114	58-140		%REC	1	7/12/2007 3:09:05 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/14/2007 1:20:48 AM
Surr: BFB	97.2	79.2-121		%REC	1	7/14/2007 1:20:48 AM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/14/2007 1:20:48 AM
Benzene	ND	1.0		µg/L	1	7/14/2007 1:20:48 AM
Toluene	ND	1.0		µg/L	1	7/14/2007 1:20:48 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2007 1:20:48 AM
Xylenes, Total	ND	2.0		µg/L	1	7/14/2007 1:20:48 AM
Surr: 4-Bromofluorobenzene	90.5	70.2-105		%REC	1	7/14/2007 1:20:48 AM
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.19	0.10		mg/L	1	7/11/2007 5:15:38 PM
Chloride	2.8	0.10		mg/L	1	7/11/2007 5:15:38 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	7/11/2007 5:15:38 PM
Bromide	ND	0.10		mg/L	1	7/11/2007 5:15:38 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	7/11/2007 5:15:38 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	7/11/2007 5:15:38 PM
Sulfate	52	0.50		mg/L	1	7/11/2007 5:15:38 PM
EPA METHOD 7470: MERCURY						Analyst: IC
Mercury	ND	0.00020		mg/L	1	7/12/2007 11:19:59 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	7/24/2007 10:27:04 AM
Barium	0.065	0.0020		mg/L	1	7/24/2007 10:27:04 AM
Cadmium	ND	0.0020		mg/L	1	7/24/2007 10:27:04 AM
Calcium	28	1.0		mg/L	1	7/24/2007 2:10:49 PM
Chromium	ND	0.0060		mg/L	1	7/24/2007 10:27:04 AM
Copper	ND	0.0060		mg/L	1	7/24/2007 10:27:04 AM
Iron	ND	0.020		mg/L	1	7/24/2007 10:27:04 AM
Lead	ND	0.0050		mg/L	1	7/24/2007 10:27:04 AM
Magnesium	5.1	1.0		mg/L	1	7/24/2007 2:10:49 PM
Manganese	0.0085	0.0020		mg/L	1	7/24/2007 10:27:04 AM
Potassium	1.7	1.0		mg/L	1	7/24/2007 2:10:49 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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining
Lab Order: 0707136
Project: San Juan River-3rd Qtr 2007
Lab ID: 0707136-01

Client Sample ID: North of MW #45
Collection Date: 7/10/2007 10:35:00 AM
Date Received: 7/11/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Selenium	ND	0.050		mg/L	1	7/24/2007 10:27:04 AM
Silver	ND	0.0050		mg/L	1	7/24/2007 10:27:04 AM
Sodium	16	1.0		mg/L	1	7/24/2007 2:10:49 PM
Uranium	ND	0.10		mg/L	1	7/24/2007 10:27:04 AM
Zinc	0.032	0.0050		mg/L	1	7/24/2007 10:27:04 AM

EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: CMS
Arsenic	ND	0.020		mg/L	1	7/24/2007 7:13:42 PM
Barium	0.067	0.020		mg/L	1	7/24/2007 7:13:42 PM
Cadmium	ND	0.0020		mg/L	1	7/24/2007 7:13:42 PM
Chromium	ND	0.0060		mg/L	1	7/24/2007 7:13:42 PM
Lead	ND	0.0050		mg/L	1	7/24/2007 7:13:42 PM
Selenium	ND	0.050		mg/L	1	7/24/2007 7:13:42 PM
Silver	ND	0.0050		mg/L	1	7/24/2007 7:13:42 PM

EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	7/16/2007
Acenaphthylene	ND	10		µg/L	1	7/16/2007
Aniline	ND	20		µg/L	1	7/16/2007
Anthracene	ND	10		µg/L	1	7/16/2007
Azobenzene	ND	10		µg/L	1	7/16/2007
Benz(a)anthracene	ND	15		µg/L	1	7/16/2007
Benzo(a)pyrene	ND	10		µg/L	1	7/16/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	7/16/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/16/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	7/16/2007
Benzoic acid	ND	50		µg/L	1	7/16/2007
Benzyl alcohol	ND	20		µg/L	1	7/16/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/16/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	7/16/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	7/16/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	7/16/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/16/2007
Butyl benzyl phthalate	ND	15		µg/L	1	7/16/2007
Carbazole	ND	10		µg/L	1	7/16/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	7/16/2007
4-Chloroaniline	ND	20		µg/L	1	7/16/2007
2-Chloronaphthalene	ND	10		µg/L	1	7/16/2007
2-Chlorophenol	ND	10		µg/L	1	7/16/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	7/16/2007
Chrysene	ND	15		µg/L	1	7/16/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining
Lab Order: 0707136
Project: San Juan River-3rd Qtr 2007
Lab ID: 0707136-01

Client Sample ID: North of MW #45
Collection Date: 7/10/2007 10:35:00 AM
Date Received: 7/11/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Di-n-butyl phthalate	ND	10		µg/L	1	7/16/2007
Di-n-octyl phthalate	ND	15		µg/L	1	7/16/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/16/2007
Dibenzofuran	ND	10		µg/L	1	7/16/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	7/16/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	7/16/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	7/16/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	7/16/2007
Diethyl phthalate	ND	10		µg/L	1	7/16/2007
Dimethyl phthalate	ND	10		µg/L	1	7/16/2007
2,4-Dichlorophenol	ND	10		µg/L	1	7/16/2007
2,4-Dimethylphenol	ND	10		µg/L	1	7/16/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	7/16/2007
2,4-Dinitrophenol	ND	50		µg/L	1	7/16/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	7/16/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	7/16/2007
Fluoranthene	ND	10		µg/L	1	7/16/2007
Fluorene	ND	10		µg/L	1	7/16/2007
Hexachlorobenzene	ND	10		µg/L	1	7/16/2007
Hexachlorobutadiene	ND	10		µg/L	1	7/16/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	7/16/2007
Hexachloroethane	ND	10		µg/L	1	7/16/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/16/2007
Isophorone	ND	10		µg/L	1	7/16/2007
2-Methylnaphthalene	ND	10		µg/L	1	7/16/2007
2-Methylphenol	ND	15		µg/L	1	7/16/2007
3+4-Methylphenol	ND	20		µg/L	1	7/16/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/16/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	7/16/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/16/2007
Naphthalene	ND	10		µg/L	1	7/16/2007
2-Nitroaniline	ND	50		µg/L	1	7/16/2007
3-Nitroaniline	ND	50		µg/L	1	7/16/2007
4-Nitroaniline	ND	20		µg/L	1	7/16/2007
Nitrobenzene	ND	10		µg/L	1	7/16/2007
2-Nitrophenol	ND	15		µg/L	1	7/16/2007
4-Nitrophenol	ND	50		µg/L	1	7/16/2007
Pentachlorophenol	ND	50		µg/L	1	7/16/2007
Phenanthrene	ND	10		µg/L	1	7/16/2007
Phenol	ND	10		µg/L	1	7/16/2007
Pyrene	ND	15		µg/L	1	7/16/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining
Lab Order: 0707136
Project: San Juan River-3rd Qtr 2007
Lab ID: 0707136-01

Client Sample ID: North of MW #45
Collection Date: 7/10/2007 10:35:00 AM
Date Received: 7/11/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Pyridine	ND	30		µg/L	1	7/16/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/16/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/16/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	7/16/2007
Surr: 2,4,6-Tribromophenol	62.1	16.6-150		%REC	1	7/16/2007
Surr: 2-Fluorobiphenyl	61.8	19.6-134		%REC	1	7/16/2007
Surr: 2-Fluorophenol	59.1	9.54-113		%REC	1	7/16/2007
Surr: 4-Terphenyl-d14	70.8	22.7-145		%REC	1	7/16/2007
Surr: Nitrobenzene-d5	62.0	14.6-134		%REC	1	7/16/2007
Surr: Phenol-d5	56.1	10.7-80.3		%REC	1	7/16/2007
EPA METHOD 310.1: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	83	20		mg/L CaCO3	1	7/12/2007
Carbonate	ND	2.0		mg/L CaCO3	1	7/12/2007
Bicarbonate	83	20		mg/L CaCO3	1	7/12/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	280	0.010		µmhos/cm	1	7/13/2007
EPA METHOD 160.1: TDS						Analyst: TAF
Total Dissolved Solids	180	20		mg/L	1	7/13/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining

Client Sample ID: North of MW #46

Lab Order: 0707136

Collection Date: 7/10/2007 10:15:00 AM

Project: San Juan River-3rd Qtr 2007

Date Received: 7/11/2007

Lab ID: 0707136-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/12/2007 3:44:20 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/12/2007 3:44:20 PM
Surr: DNOP	114	58-140		%REC	1	7/12/2007 3:44:20 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/14/2007 1:50:46 AM
Surr: BFB	100	79.2-121		%REC	1	7/14/2007 1:50:46 AM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/14/2007 1:50:46 AM
Benzene	ND	1.0		µg/L	1	7/14/2007 1:50:46 AM
Toluene	ND	1.0		µg/L	1	7/14/2007 1:50:46 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2007 1:50:46 AM
Xylenes, Total	ND	2.0		µg/L	1	7/14/2007 1:50:46 AM
Surr: 4-Bromofluorobenzene	94.1	70.2-105		%REC	1	7/14/2007 1:50:46 AM
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.19	0.10		mg/L	1	7/11/2007 5:50:26 PM
Chloride	2.8	0.10		mg/L	1	7/11/2007 5:50:26 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	7/11/2007 5:50:26 PM
Bromide	ND	0.50		mg/L	1	7/11/2007 5:50:26 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	7/11/2007 5:50:26 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	7/11/2007 5:50:26 PM
Sulfate	53	0.50		mg/L	1	7/11/2007 5:50:26 PM
EPA METHOD 7470: MERCURY						Analyst: IC
Mercury	ND	0.00020		mg/L	1	7/12/2007 11:21:39 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	7/24/2007 10:30:04 AM
Barium	0.065	0.0020		mg/L	1	7/24/2007 10:30:04 AM
Cadmium	ND	0.0020		mg/L	1	7/24/2007 10:30:04 AM
Calcium	29	1.0		mg/L	1	7/24/2007 2:13:04 PM
Chromium	ND	0.0060		mg/L	1	7/24/2007 10:30:04 AM
Copper	ND	0.0060		mg/L	1	7/24/2007 10:30:04 AM
Iron	ND	0.020		mg/L	1	7/24/2007 10:30:04 AM
Lead	ND	0.0050		mg/L	1	7/24/2007 10:30:04 AM
Magnesium	5.1	1.0		mg/L	1	7/24/2007 2:13:04 PM
Manganese	0.0092	0.0020		mg/L	1	7/24/2007 10:30:04 AM
Potassium	1.7	1.0		mg/L	1	7/24/2007 2:13:04 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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining

Client Sample ID: North of MW #46

Lab Order: 0707136

Collection Date: 7/10/2007 10:15:00 AM

Project: San Juan River-3rd Qtr 2007

Date Received: 7/11/2007

Lab ID: 0707136-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Selenium	ND	0.050		mg/L	1	7/24/2007 10:30:04 AM
Silver	ND	0.0050		mg/L	1	7/24/2007 10:30:04 AM
Sodium	16	1.0		mg/L	1	7/24/2007 2:13:04 PM
Uranium	ND	0.10		mg/L	1	7/24/2007 10:30:04 AM
Zinc	0.054	0.0050		mg/L	1	7/24/2007 10:30:04 AM

EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: CMS
Arsenic	ND	0.020		mg/L	1	7/24/2007 7:16:14 PM
Barium	0.068	0.020		mg/L	1	7/24/2007 7:16:14 PM
Cadmium	ND	0.0020		mg/L	1	7/24/2007 7:16:14 PM
Chromium	ND	0.0060		mg/L	1	7/24/2007 7:16:14 PM
Lead	ND	0.0050		mg/L	1	7/24/2007 7:16:14 PM
Selenium	ND	0.050		mg/L	1	7/24/2007 7:16:14 PM
Silver	ND	0.0050		mg/L	1	7/24/2007 7:16:14 PM

EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	7/17/2007
Acenaphthylene	ND	10		µg/L	1	7/17/2007
Aniline	ND	20		µg/L	1	7/17/2007
Anthracene	ND	10		µg/L	1	7/17/2007
Azobenzene	ND	10		µg/L	1	7/17/2007
Benz(a)anthracene	ND	15		µg/L	1	7/17/2007
Benzo(a)pyrene	ND	10		µg/L	1	7/17/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	7/17/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/17/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	7/17/2007
Benzoic acid	ND	50		µg/L	1	7/17/2007
Benzyl alcohol	ND	20		µg/L	1	7/17/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/17/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	7/17/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	7/17/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	7/17/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/17/2007
Butyl benzyl phthalate	ND	15		µg/L	1	7/17/2007
Carbazole	ND	10		µg/L	1	7/17/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	7/17/2007
4-Chloroaniline	ND	20		µg/L	1	7/17/2007
2-Chloronaphthalene	ND	10		µg/L	1	7/17/2007
2-Chlorophenol	ND	10		µg/L	1	7/17/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	7/17/2007
Chrysene	ND	15		µg/L	1	7/17/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining

Client Sample ID: North of MW #46

Lab Order: 0707136

Collection Date: 7/10/2007 10:15:00 AM

Project: San Juan River-3rd Qtr 2007

Date Received: 7/11/2007

Lab ID: 0707136-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Di-n-butyl phthalate	ND	10		µg/L	1	7/17/2007
Di-n-octyl phthalate	ND	15		µg/L	1	7/17/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/17/2007
Dibenzofuran	ND	10		µg/L	1	7/17/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	7/17/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	7/17/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	7/17/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	7/17/2007
Diethyl phthalate	ND	10		µg/L	1	7/17/2007
Dimethyl phthalate	ND	10		µg/L	1	7/17/2007
2,4-Dichlorophenol	ND	10		µg/L	1	7/17/2007
2,4-Dimethylphenol	ND	10		µg/L	1	7/17/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	7/17/2007
2,4-Dinitrophenol	ND	50		µg/L	1	7/17/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	7/17/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	7/17/2007
Fluoranthene	ND	10		µg/L	1	7/17/2007
Fluorene	ND	10		µg/L	1	7/17/2007
Hexachlorobenzene	ND	10		µg/L	1	7/17/2007
Hexachlorobutadiene	ND	10		µg/L	1	7/17/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	7/17/2007
Hexachloroethane	ND	10		µg/L	1	7/17/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/17/2007
Isophorone	ND	10		µg/L	1	7/17/2007
2-Methylnaphthalene	ND	10		µg/L	1	7/17/2007
2-Methylphenol	ND	15		µg/L	1	7/17/2007
3+4-Methylphenol	ND	20		µg/L	1	7/17/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/17/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	7/17/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/17/2007
Naphthalene	ND	10		µg/L	1	7/17/2007
2-Nitroaniline	ND	50		µg/L	1	7/17/2007
3-Nitroaniline	ND	50		µg/L	1	7/17/2007
4-Nitroaniline	ND	20		µg/L	1	7/17/2007
Nitrobenzene	ND	10		µg/L	1	7/17/2007
2-Nitrophenol	ND	15		µg/L	1	7/17/2007
4-Nitrophenol	ND	50		µg/L	1	7/17/2007
Pentachlorophenol	ND	50		µg/L	1	7/17/2007
Phenanthrene	ND	10		µg/L	1	7/17/2007
Phenol	ND	10		µg/L	1	7/17/2007
Pyrene	ND	15		µg/L	1	7/17/2007

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

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining

Client Sample ID: North of MW #46

Lab Order: 0707136

Collection Date: 7/10/2007 10:15:00 AM

Project: San Juan River-3rd Qtr 2007

Date Received: 7/11/2007

Lab ID: 0707136-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Pyridine	ND	30		µg/L	1	7/17/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/17/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/17/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	7/17/2007
Surr: 2,4,6-Tribromophenol	45.4	16.6-150		%REC	1	7/17/2007
Surr: 2-Fluorobiphenyl	52.6	19.6-134		%REC	1	7/17/2007
Surr: 2-Fluorophenol	39.6	9.54-113		%REC	1	7/17/2007
Surr: 4-Terphenyl-d14	68.9	22.7-145		%REC	1	7/17/2007
Surr: Nitrobenzene-d5	49.8	14.6-134		%REC	1	7/17/2007
Surr: Phenol-d5	27.6	10.7-80.3		%REC	1	7/17/2007
EPA METHOD 310.1: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	83	20		mg/L CaCO3	1	7/12/2007
Carbonate	ND	2.0		mg/L CaCO3	1	7/12/2007
Bicarbonate	83	20		mg/L CaCO3	1	7/12/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	280	0.010		µmhos/cm	1	7/13/2007
EPA METHOD 160.1: TDS						Analyst: TAF
Total Dissolved Solids	180	20		mg/L	1	7/13/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining
Lab Order: 0707136
Project: San Juan River-3rd Qtr 2007
Lab ID: 0707136-03

Client Sample ID: Up Stream
Collection Date: 7/10/2007 11:15:00 AM
Date Received: 7/11/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/12/2007 4:19:53 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/12/2007 4:19:53 PM
Surr: DNOP	111	58-140		%REC	1	7/12/2007 4:19:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/14/2007 3:20:39 AM
Surr: BFB	96.2	79.2-121		%REC	1	7/14/2007 3:20:39 AM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/14/2007 3:20:39 AM
Benzene	ND	1.0		µg/L	1	7/14/2007 3:20:39 AM
Toluene	ND	1.0		µg/L	1	7/14/2007 3:20:39 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2007 3:20:39 AM
Xylenes, Total	ND	2.0		µg/L	1	7/14/2007 3:20:39 AM
Surr: 4-Bromofluorobenzene	90.0	70.2-105		%REC	1	7/14/2007 3:20:39 AM
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.22	0.10		mg/L	1	7/11/2007 6:25:16 PM
Chloride	4.7	0.10		mg/L	1	7/11/2007 6:25:16 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	7/11/2007 6:25:16 PM
Bromide	ND	0.50		mg/L	1	7/11/2007 6:25:16 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	7/11/2007 6:25:16 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	7/11/2007 6:25:16 PM
Sulfate	130	5.0		mg/L	10	7/11/2007 6:42:40 PM
EPA METHOD 7470: MERCURY						Analyst: IC
Mercury	ND	0.00020		mg/L	1	7/12/2007 11:23:21 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	7/24/2007 10:33:04 AM
Barium	0.064	0.0020		mg/L	1	7/24/2007 10:33:04 AM
Cadmium	ND	0.0020		mg/L	1	7/24/2007 10:33:04 AM
Calcium	33	1.0		mg/L	1	7/24/2007 2:15:18 PM
Chromium	ND	0.0060		mg/L	1	7/24/2007 10:33:04 AM
Copper	ND	0.0060		mg/L	1	7/24/2007 10:33:04 AM
Iron	ND	0.020		mg/L	1	7/24/2007 10:33:04 AM
Lead	ND	0.0050		mg/L	1	7/24/2007 10:33:04 AM
Magnesium	6.8	1.0		mg/L	1	7/24/2007 2:15:18 PM
Manganese	0.083	0.0020		mg/L	1	7/24/2007 10:33:04 AM
Potassium	1.8	1.0		mg/L	1	7/24/2007 2:15:18 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

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining
Lab Order: 0707136
Project: San Juan River-3rd Qtr 2007
Lab ID: 0707136-03

Client Sample ID: Up Stream
Collection Date: 7/10/2007 11:15:00 AM
Date Received: 7/11/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Selenium	ND	0.050		mg/L	1	7/24/2007 10:33:04 AM
Silver	ND	0.0050		mg/L	1	7/24/2007 10:33:04 AM
Sodium	46	1.0		mg/L	1	7/24/2007 2:15:18 PM
Uranium	ND	0.10		mg/L	1	7/24/2007 10:33:04 AM
Zinc	0.033	0.0050		mg/L	1	7/24/2007 10:33:04 AM

EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: CMS
Arsenic	ND	0.020		mg/L	1	7/24/2007 7:18:45 PM
Barium	0.064	0.020		mg/L	1	7/24/2007 7:18:45 PM
Cadmium	ND	0.0020		mg/L	1	7/24/2007 7:18:45 PM
Chromium	ND	0.0060		mg/L	1	7/24/2007 7:18:45 PM
Lead	ND	0.0050		mg/L	1	7/24/2007 7:18:45 PM
Selenium	ND	0.050		mg/L	1	7/24/2007 7:18:45 PM
Silver	ND	0.0050		mg/L	1	7/24/2007 7:18:45 PM

EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	7/16/2007
Acenaphthylene	ND	10		µg/L	1	7/16/2007
Aniline	ND	20		µg/L	1	7/16/2007
Anthracene	ND	10		µg/L	1	7/16/2007
Azobenzene	ND	10		µg/L	1	7/16/2007
Benz(a)anthracene	ND	15		µg/L	1	7/16/2007
Benzo(a)pyrene	ND	10		µg/L	1	7/16/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	7/16/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/16/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	7/16/2007
Benzoic acid	ND	50		µg/L	1	7/16/2007
Benzyl alcohol	ND	20		µg/L	1	7/16/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/16/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	7/16/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	7/16/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	7/16/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/16/2007
Butyl benzyl phthalate	ND	15		µg/L	1	7/16/2007
Carbazole	ND	10		µg/L	1	7/16/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	7/16/2007
4-Chloroaniline	ND	20		µg/L	1	7/16/2007
2-Chloronaphthalene	ND	10		µg/L	1	7/16/2007
2-Chlorophenol	ND	10		µg/L	1	7/16/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	7/16/2007
Chrysene	ND	15		µg/L	1	7/16/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining

Client Sample ID: Up Stream

Lab Order: 0707136

Collection Date: 7/10/2007 11:15:00 AM

Project: San Juan River-3rd Qtr 2007

Date Received: 7/11/2007

Lab ID: 0707136-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8270C: SEMIVOLATILES

Analyst: BL

Di-n-butyl phthalate	ND	10		µg/L	1	7/16/2007
Di-n-octyl phthalate	ND	15		µg/L	1	7/16/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/16/2007
Dibenzofuran	ND	10		µg/L	1	7/16/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	7/16/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	7/16/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	7/16/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	7/16/2007
Diethyl phthalate	ND	10		µg/L	1	7/16/2007
Dimethyl phthalate	ND	10		µg/L	1	7/16/2007
2,4-Dichlorophenol	ND	10		µg/L	1	7/16/2007
2,4-Dimethylphenol	ND	10		µg/L	1	7/16/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	7/16/2007
2,4-Dinitrophenol	ND	50		µg/L	1	7/16/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	7/16/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	7/16/2007
Fluoranthene	ND	10		µg/L	1	7/16/2007
Fluorene	ND	10		µg/L	1	7/16/2007
Hexachlorobenzene	ND	10		µg/L	1	7/16/2007
Hexachlorobutadiene	ND	10		µg/L	1	7/16/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	7/16/2007
Hexachloroethane	ND	10		µg/L	1	7/16/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/16/2007
Isophorone	ND	10		µg/L	1	7/16/2007
2-Methylnaphthalene	ND	10		µg/L	1	7/16/2007
2-Methylphenol	ND	15		µg/L	1	7/16/2007
3+4-Methylphenol	ND	20		µg/L	1	7/16/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/16/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	7/16/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/16/2007
Naphthalene	ND	10		µg/L	1	7/16/2007
2-Nitroaniline	ND	50		µg/L	1	7/16/2007
3-Nitroaniline	ND	50		µg/L	1	7/16/2007
4-Nitroaniline	ND	20		µg/L	1	7/16/2007
Nitrobenzene	ND	10		µg/L	1	7/16/2007
2-Nitrophenol	ND	15		µg/L	1	7/16/2007
4-Nitrophenol	ND	50		µg/L	1	7/16/2007
Pentachlorophenol	ND	50		µg/L	1	7/16/2007
Phenanthrene	ND	10		µg/L	1	7/16/2007
Phenol	ND	10		µg/L	1	7/16/2007
Pyrene	ND	15		µg/L	1	7/16/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining
Lab Order: 0707136
Project: San Juan River-3rd Qtr 2007
Lab ID: 0707136-03

Client Sample ID: Up Stream
Collection Date: 7/10/2007 11:15:00 AM
Date Received: 7/11/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Pyridine	ND	30		µg/L	1	7/16/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/16/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/16/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	7/16/2007
Surr: 2,4,6-Tribromophenol	39.8	16.6-150		%REC	1	7/16/2007
Surr: 2-Fluorobiphenyl	62.3	19.6-134		%REC	1	7/16/2007
Surr: 2-Fluorophenol	48.0	9.54-113		%REC	1	7/16/2007
Surr: 4-Terphenyl-d14	66.1	22.7-145		%REC	1	7/16/2007
Surr: Nitrobenzene-d5	61.1	14.6-134		%REC	1	7/16/2007
Surr: Phenol-d5	34.5	10.7-80.3		%REC	1	7/16/2007
EPA METHOD 310.1: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	110	20		mg/L CaCO3	1	7/12/2007
Carbonate	ND	2.0		mg/L CaCO3	1	7/12/2007
Bicarbonate	110	20		mg/L CaCO3	1	7/12/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	470	0.010		µmhos/cm	1	7/13/2007
EPA METHOD 160.1: TDS						Analyst: TAF
Total Dissolved Solids	310	20		mg/L	1	7/13/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining
Lab Order: 0707136
Project: San Juan River-3rd Qtr 2007
Lab ID: 0707136-04

Client Sample ID: Down Stream
Collection Date: 7/10/2007 8:10:00 AM
Date Received: 7/11/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/12/2007 4:55:29 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/12/2007 4:55:29 PM
Surr: DNOP	118	58-140		%REC	1	7/12/2007 4:55:29 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/14/2007 3:50:33 AM
Surr: BFB	97.2	79.2-121		%REC	1	7/14/2007 3:50:33 AM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/14/2007 3:50:33 AM
Benzene	ND	1.0		µg/L	1	7/14/2007 3:50:33 AM
Toluene	ND	1.0		µg/L	1	7/14/2007 3:50:33 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2007 3:50:33 AM
Xylenes, Total	ND	2.0		µg/L	1	7/14/2007 3:50:33 AM
Surr: 4-Bromofluorobenzene	90.5	70.2-105		%REC	1	7/14/2007 3:50:33 AM
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.19	0.10		mg/L	1	7/11/2007 7:34:53 PM
Chloride	2.8	0.10		mg/L	1	7/11/2007 7:34:53 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	7/11/2007 7:34:53 PM
Bromide	ND	0.50		mg/L	1	7/11/2007 7:34:53 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	7/11/2007 7:34:53 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	7/11/2007 7:34:53 PM
Sulfate	55	0.50		mg/L	1	7/11/2007 7:34:53 PM
EPA METHOD 7470: MERCURY						Analyst: IC
Mercury	ND	0.00020		mg/L	1	7/12/2007 11:30:26 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	7/24/2007 10:36:05 AM
Barium	0.066	0.0020		mg/L	1	7/24/2007 10:36:05 AM
Cadmium	ND	0.0020		mg/L	1	7/24/2007 10:36:05 AM
Calcium	29	1.0		mg/L	1	7/24/2007 2:17:32 PM
Chromium	ND	0.0060		mg/L	1	7/24/2007 10:36:05 AM
Copper	ND	0.0060		mg/L	1	7/24/2007 10:36:05 AM
Iron	ND	0.020		mg/L	1	7/24/2007 10:36:05 AM
Lead	ND	0.0050		mg/L	1	7/24/2007 10:36:05 AM
Magnesium	5.1	1.0		mg/L	1	7/24/2007 2:17:32 PM
Manganese	0.015	0.0020		mg/L	1	7/24/2007 10:36:05 AM
Potassium	1.6	1.0		mg/L	1	7/24/2007 2:17:32 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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining

Client Sample ID: Down Stream

Lab Order: 0707136

Collection Date: 7/10/2007 8:10:00 AM

Project: San Juan River-3rd Qtr 2007

Date Received: 7/11/2007

Lab ID: 0707136-04

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Selenium	ND	0.050		mg/L	1	7/24/2007 10:36:05 AM
Silver	ND	0.0050		mg/L	1	7/24/2007 10:36:05 AM
Sodium	16	1.0		mg/L	1	7/24/2007 2:17:32 PM
Uranium	ND	0.10		mg/L	1	7/24/2007 10:36:05 AM
Zinc	0.016	0.0050		mg/L	1	7/24/2007 10:36:05 AM

EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: CMS
Arsenic	ND	0.020		mg/L	1	7/24/2007 7:22:24 PM
Barium	0.066	0.020		mg/L	1	7/24/2007 7:22:24 PM
Cadmium	ND	0.0020		mg/L	1	7/24/2007 7:22:24 PM
Chromium	ND	0.0060		mg/L	1	7/24/2007 7:22:24 PM
Lead	ND	0.0050		mg/L	1	7/24/2007 7:22:24 PM
Selenium	ND	0.050		mg/L	1	7/24/2007 7:22:24 PM
Silver	ND	0.0050		mg/L	1	7/24/2007 7:22:24 PM

EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	7/16/2007
Acenaphthylene	ND	10		µg/L	1	7/16/2007
Aniline	ND	20		µg/L	1	7/16/2007
Anthracene	ND	10		µg/L	1	7/16/2007
Azobenzene	ND	10		µg/L	1	7/16/2007
Benz(a)anthracene	ND	15		µg/L	1	7/16/2007
Benzo(a)pyrene	ND	10		µg/L	1	7/16/2007
Benzo(b)fluoranthene	ND	15		µg/L	1	7/16/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/16/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	7/16/2007
Benzoic acid	ND	50		µg/L	1	7/16/2007
Benzyl alcohol	ND	20		µg/L	1	7/16/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/16/2007
Bis(2-chloroethyl)ether	ND	15		µg/L	1	7/16/2007
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	7/16/2007
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	7/16/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/16/2007
Butyl benzyl phthalate	ND	15		µg/L	1	7/16/2007
Carbazole	ND	10		µg/L	1	7/16/2007
4-Chloro-3-methylphenol	ND	20		µg/L	1	7/16/2007
4-Chloroaniline	ND	20		µg/L	1	7/16/2007
2-Chloronaphthalene	ND	10		µg/L	1	7/16/2007
2-Chlorophenol	ND	10		µg/L	1	7/16/2007
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	7/16/2007
Chrysene	ND	15		µg/L	1	7/16/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining

Client Sample ID: Down Stream

Lab Order: 0707136

Collection Date: 7/10/2007 8:10:00 AM

Project: San Juan River-3rd Qtr 2007

Date Received: 7/11/2007

Lab ID: 0707136-04

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8270C: SEMIVOLATILES

Analyst: BL

Di-n-butyl phthalate	ND	10		µg/L	1	7/16/2007
Di-n-octyl phthalate	ND	15		µg/L	1	7/16/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/16/2007
Dibenzofuran	ND	10		µg/L	1	7/16/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	7/16/2007
1,3-Dichlorobenzene	ND	10		µg/L	1	7/16/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	7/16/2007
3,3'-Dichlorobenzidine	ND	15		µg/L	1	7/16/2007
Diethyl phthalate	ND	10		µg/L	1	7/16/2007
Dimethyl phthalate	ND	10		µg/L	1	7/16/2007
2,4-Dichlorophenol	ND	10		µg/L	1	7/16/2007
2,4-Dimethylphenol	ND	10		µg/L	1	7/16/2007
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	7/16/2007
2,4-Dinitrophenol	ND	50		µg/L	1	7/16/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	7/16/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	7/16/2007
Fluoranthene	ND	10		µg/L	1	7/16/2007
Fluorene	ND	10		µg/L	1	7/16/2007
Hexachlorobenzene	ND	10		µg/L	1	7/16/2007
Hexachlorobutadiene	ND	10		µg/L	1	7/16/2007
Hexachlorocyclopentadiene	ND	50		µg/L	1	7/16/2007
Hexachloroethane	ND	10		µg/L	1	7/16/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/16/2007
Isophorone	ND	10		µg/L	1	7/16/2007
2-Methylnaphthalene	ND	10		µg/L	1	7/16/2007
2-Methylphenol	ND	15		µg/L	1	7/16/2007
3+4-Methylphenol	ND	20		µg/L	1	7/16/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/16/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	7/16/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/16/2007
Naphthalene	ND	10		µg/L	1	7/16/2007
2-Nitroaniline	ND	50		µg/L	1	7/16/2007
3-Nitroaniline	ND	50		µg/L	1	7/16/2007
4-Nitroaniline	ND	20		µg/L	1	7/16/2007
Nitrobenzene	ND	10		µg/L	1	7/16/2007
2-Nitrophenol	ND	15		µg/L	1	7/16/2007
4-Nitrophenol	ND	50		µg/L	1	7/16/2007
Pentachlorophenol	ND	50		µg/L	1	7/16/2007
Phenanthrene	ND	10		µg/L	1	7/16/2007
Phenol	ND	10		µg/L	1	7/16/2007
Pyrene	ND	15		µg/L	1	7/16/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining
Lab Order: 0707136
Project: San Juan River-3rd Qtr 2007
Lab ID: 0707136-04

Client Sample ID: Down Stream
Collection Date: 7/10/2007 8:10:00 AM
Date Received: 7/11/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Pyridine	ND	30		µg/L	1	7/16/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/16/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/16/2007
2,4,6-Trichlorophenol	ND	15		µg/L	1	7/16/2007
Surr: 2,4,6-Tribromophenol	47.5	16.6-150		%REC	1	7/16/2007
Surr: 2-Fluorobiphenyl	58.2	19.6-134		%REC	1	7/16/2007
Surr: 2-Fluorophenol	43.2	9.54-113		%REC	1	7/16/2007
Surr: 4-Terphenyl-d14	69.3	22.7-145		%REC	1	7/16/2007
Surr: Nitrobenzene-d5	55.2	14.6-134		%REC	1	7/16/2007
Surr: Phenol-d5	31.5	10.7-80.3		%REC	1	7/16/2007
EPA METHOD 310.1: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	64	20		mg/L CaCO3	1	7/12/2007
Carbonate	ND	2.0		mg/L CaCO3	1	7/12/2007
Bicarbonate	64	20		mg/L CaCO3	1	7/12/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	290	0.010		µmhos/cm	1	7/13/2007
EPA METHOD 160.1: TDS						Analyst: TAF
Total Dissolved Solids	180	20		mg/L	1	7/13/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jul-07

CLIENT: San Juan Refining
Lab Order: 0707136
Project: San Juan River-3rd Qtr 2007
Lab ID: 0707136-05

Client Sample ID: Trip Blank
Collection Date:
Date Received: 7/11/2007
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/14/2007 4:20:35 AM
Surr: BFB	98.5	79.2-121		%REC	1	7/14/2007 4:20:35 AM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/14/2007 4:20:35 AM
Benzene	ND	1.0		µg/L	1	7/14/2007 4:20:35 AM
Toluene	ND	1.0		µg/L	1	7/14/2007 4:20:35 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2007 4:20:35 AM
Xylenes, Total	ND	2.0		µg/L	1	7/14/2007 4:20:35 AM
Surr: 4-Bromofluorobenzene	91.5	70.2-105		%REC	1	7/14/2007 4:20:35 AM

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River-3rd Qtr 2007

Work Order: 0707136

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: E300									
Sample ID: MBLK		MBLK			Batch ID: R24350	Analysis Date: 7/11/2007 9:08:13 AM			
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrite (As N)	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS ST300-07026		LCS			Batch ID: R24350	Analysis Date: 7/11/2007 9:25:37 AM			
Fluoride	0.5440	mg/L	0.10	109	90	110			
Chloride	4.855	mg/L	0.10	97.1	90	110			
Nitrogen, Nitrite (As N)	1.006	mg/L	0.10	101	90	110			
Bromide	2.467	mg/L	0.10	98.7	90	110			
Nitrogen, Nitrate (As N)	2.434	mg/L	0.10	97.3	90	110			
Phosphorus, Orthophosphate (As P)	4.975	mg/L	0.50	99.5	90	110			
Sulfate	10.01	mg/L	0.50	100	90	110			
Method: E310.1									
Sample ID: MB		MBLK			Batch ID: R24370	Analysis Date: 7/12/2007			
Alkalinity, Total (As CaCO3)	ND	mg/L CaC	20						
Carbonate	ND	mg/L CaC	2.0						
Bicarbonate	ND	mg/L CaC	20						
Sample ID: LCS		LCS			Batch ID: R24370	Analysis Date: 7/12/2007			
Alkalinity, Total (As CaCO3)	82.00	mg/L CaC	20	100	80	120			
Method: SW8015									
Sample ID: MB-13366		MBLK			Batch ID: 13366	Analysis Date: 7/12/2007 1:23:35 PM			
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-13366		LCS			Batch ID: 13366	Analysis Date: 7/12/2007 1:58:37 PM			
Diesel Range Organics (DRO)	5.689	mg/L	1.0	101	74	157			
Sample ID: LCSD-13366		LCSD			Batch ID: 13366	Analysis Date: 7/12/2007 2:33:51 PM			
Diesel Range Organics (DRO)	5.477	mg/L	1.0	96.6	74	157	3.80	23	
Method: SW8015									
Sample ID: 0707136-02A MSD		MSD			Batch ID: R24375	Analysis Date: 7/14/2007 2:50:34 AM			
Gasoline Range Organics (GRO)	0.4024	mg/L	0.050	80.5	80	115	5.09	8.39	
Sample ID: 5ML RB		MBLK			Batch ID: R24375	Analysis Date: 7/13/2007 9:56:27 AM			
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		LCS			Batch ID: R24375	Analysis Date: 7/14/2007 9:21:50 AM			
Gasoline Range Organics (GRO)	0.4258	mg/L	0.050	85.2	80	115			
Sample ID: 0707136-02A MS		MS			Batch ID: R24375	Analysis Date: 7/14/2007 2:20:36 AM			
Gasoline Range Organics (GRO)	0.4234	mg/L	0.050	84.7	80	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River-3rd Qtr 2007

Work Order: 0707136

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 0707136-02A MSD

MSD

Batch ID: R24375 Analysis Date: 7/14/2007 2:50:34 AM

Methyl tert-butyl ether (MTBE)	8.072	µg/L	2.5	101	51.2	138	0.149	28	
Benzene	5.768	µg/L	1.0	96.1	85.9	113	4.14	27	
Toluene	37.57	µg/L	1.0	93.9	86.4	113	5.26	19	
Ethylbenzene	7.516	µg/L	1.0	94.0	83.5	118	4.60	10	
Xylenes, Total	43.10	µg/L	2.0	95.8	83.4	122	3.90	13	

Sample ID: 5ML RB

MBLK

Batch ID: R24375 Analysis Date: 7/13/2007 9:56:27 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						

Sample ID: 2.0UG LCS LCS

LCS

Batch ID: R24375 Analysis Date: 7/14/2007 9:51:44 AM

Methyl tert-butyl ether (MTBE)	6.104	µg/L	2.5	92.5	80	120			
Benzene	4.374	µg/L	1.0	97.2	80	120			
Toluene	27.72	µg/L	1.0	85.5	80	120			
Ethylbenzene	5.368	µg/L	1.0	85.2	80	120			
Xylenes, Total	30.72	µg/L	2.0	81.6	80	120			

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R24375 Analysis Date: 7/14/2007 10:21:37 AM

Methyl tert-butyl ether (MTBE)	21.91	µg/L	2.5	54.8	51.2	138			
Benzene	20.29	µg/L	1.0	101	85.9	113			
Toluene	19.86	µg/L	1.0	97.5	86.4	113			
Ethylbenzene	19.20	µg/L	1.0	96.0	83.5	118			
Xylenes, Total	56.95	µg/L	2.0	94.1	83.4	122			

Sample ID: 0707136-02A MS

MS

Batch ID: R24375 Analysis Date: 7/14/2007 2:20:36 AM

Methyl tert-butyl ether (MTBE)	8.084	µg/L	2.5	101	51.2	138			
Benzene	6.012	µg/L	1.0	100	85.9	113			
Toluene	39.60	µg/L	1.0	99.0	86.4	113			
Ethylbenzene	7.870	µg/L	1.0	98.4	83.5	118			
Xylenes, Total	44.81	µg/L	2.0	99.6	83.4	122			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River-3rd Qtr 2007

Work Order: 0707136

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: SW8270C

Sample ID: MB-13367

MBLK

Batch ID: 13367 Analysis Date: 7/16/2007

Acenaphthene	ND	µg/L	10
Acenaphthylene	ND	µg/L	10
Aniline	ND	µg/L	20
Anthracene	ND	µg/L	10
Azobenzene	ND	µg/L	10
Benz(a)anthracene	ND	µg/L	15
Benzo(a)pyrene	ND	µg/L	10
Benzo(b)fluoranthene	ND	µg/L	15
Benzo(g,h,i)perylene	ND	µg/L	10
Benzo(k)fluoranthene	ND	µg/L	10
Benzoic acid	ND	µg/L	50
Benzyl alcohol	ND	µg/L	20
Bis(2-chloroethoxy)methane	ND	µg/L	10
Bis(2-chloroethyl)ether	ND	µg/L	15
Bis(2-chloroisopropyl)ether	ND	µg/L	15
Bis(2-ethylhexyl)phthalate	ND	µg/L	15
4-Bromophenyl phenyl ether	ND	µg/L	10
Butyl benzyl phthalate	ND	µg/L	15
Carbazole	ND	µg/L	10
2-Chloro-3-methylphenol	ND	µg/L	20
4-Chloroaniline	ND	µg/L	20
2-Chloronaphthalene	ND	µg/L	10
2-Chlorophenol	ND	µg/L	10
4-Chlorophenyl phenyl ether	ND	µg/L	15
Chrysene	ND	µg/L	15
Di-n-butyl phthalate	ND	µg/L	10
Di-n-octyl phthalate	ND	µg/L	15
Dibenz(a,h)anthracene	ND	µg/L	10
Dibenzofuran	ND	µg/L	10
1,2-Dichlorobenzene	ND	µg/L	10
1,3-Dichlorobenzene	ND	µg/L	10
1,4-Dichlorobenzene	ND	µg/L	10
3,3'-Dichlorobenzidine	ND	µg/L	15
Diethyl phthalate	ND	µg/L	10
Dimethyl phthalate	ND	µg/L	10
2,4-Dichlorophenol	ND	µg/L	10
2,4-Dimethylphenol	ND	µg/L	10
4,6-Dinitro-2-methylphenol	ND	µg/L	50
2,4-Dinitrophenol	ND	µg/L	50
2,4-Dinitrotoluene	ND	µg/L	10
2,6-Dinitrotoluene	ND	µg/L	10
Fluoranthene	ND	µg/L	10
Fluorene	ND	µg/L	10
Hexachlorobenzene	ND	µg/L	10

Qualifiers:

- E 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

Client: San Juan Refining
Project: San Juan River-3rd Qtr 2007

Work Order: 070713

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8270C

Sample ID: MB-13367

MBLK

Batch ID: 13367 Analysis Date: 7/16/2007

Hexachlorobutadiene	ND	µg/L	10
Hexachlorocyclopentadiene	ND	µg/L	50
Hexachloroethane	ND	µg/L	10
Indeno(1,2,3-cd)pyrene	ND	µg/L	10
Isophorone	ND	µg/L	10
2-Methylnaphthalene	ND	µg/L	10
2-Methylphenol	ND	µg/L	15
3+4-Methylphenol	ND	µg/L	20
N-Nitrosodi-n-propylamine	ND	µg/L	10
N-Nitrosodimethylamine	ND	µg/L	10
N-Nitrosodiphenylamine	ND	µg/L	10
Naphthalene	ND	µg/L	10
2-Nitroaniline	ND	µg/L	50
3-Nitroaniline	ND	µg/L	50
4-Nitroaniline	ND	µg/L	20
Nitrobenzene	ND	µg/L	10
2-Nitrophenol	ND	µg/L	15
4-Nitrophenol	ND	µg/L	50
Pentachlorophenol	ND	µg/L	50
Phenanthrene	ND	µg/L	10
Phenol	ND	µg/L	10
Pyrene	ND	µg/L	15
Pyridine	ND	µg/L	30
1,2,4-Trichlorobenzene	ND	µg/L	10
2,4,5-Trichlorophenol	ND	µg/L	10
2,4,6-Trichlorophenol	ND	µg/L	15

Sample ID: LCS-13367

LCS

Batch ID: 13367 Analysis Date: 7/16/2007

Acenaphthene	60.70	µg/L	10	60.7	11	123
4-Chloro-3-methylphenol	121.9	µg/L	20	61.0	15.4	119
2-Chlorophenol	107.7	µg/L	10	53.9	12.2	122
1,4-Dichlorobenzene	44.88	µg/L	10	44.9	16.9	100
2,4-Dinitrotoluene	57.16	µg/L	10	57.2	13	138
N-Nitrosodi-n-propylamine	64.70	µg/L	10	64.7	9.93	122
4-Nitrophenol	53.46	µg/L	50	26.7	12.5	87.4
Pentachlorophenol	90.44	µg/L	50	45.2	3.55	114
Phenol	61.04	µg/L	10	30.5	7.53	73.1
Pyrene	64.40	µg/L	15	64.4	12.6	140
1,2,4-Trichlorobenzene	44.74	µg/L	10	44.7	17.4	98.7

Sample ID: LCSD-13367

LCSD

Batch ID: 13367 Analysis Date: 7/16/2007

Acenaphthene	68.84	µg/L	10	68.8	11	123	12.6	30.5
4-Chloro-3-methylphenol	136.4	µg/L	20	68.2	15.4	119	11.2	28.6
2-Chlorophenol	120.1	µg/L	10	60.1	12.2	122	10.9	107
1,4-Dichlorobenzene	49.30	µg/L	10	49.3	16.9	100	9.39	62.1
2,4-Dinitrotoluene	65.30	µg/L	10	65.3	13	138	13.3	14.7

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Object: San Juan River-3rd Qtr 2007

Work Order: 0707136

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8270C

Sample ID: LCSD-13367	LCSD				Batch ID: 13367	Analysis Date: 7/16/2007			
N-Nitrosodi-n-propylamine	68.50	µg/L	10	68.5	9.93	122	5.71	30.3	
4-Nitrophenol	81.20	µg/L	50	40.6	12.5	87.4	41.2	36.3	R
Pentachlorophenol	125.6	µg/L	50	62.8	3.55	114	32.5	49	
Phenol	70.42	µg/L	10	35.2	7.53	73.1	14.3	52.4	
Pyrene	74.36	µg/L	15	74.4	12.6	140	14.4	16.3	
1,2,4-Trichlorobenzene	51.04	µg/L	10	51.0	17.4	98.7	13.2	36.4	

Method: SW7470

Sample ID: 0707136-04DMSD	MSD				Batch ID: 13370	Analysis Date: 7/12/2007 11:33:51 PM			
Mercury	0.004844	mg/L	0.00020	96.9	75	125	7.43	20	
Sample ID: MB-13370	MBLK				Batch ID: 13370	Analysis Date: 7/12/2007 11:11:17 PM			
Mercury	ND	mg/L	0.00020						
Sample ID: LCS-13370	LCS				Batch ID: 13370	Analysis Date: 7/12/2007 11:13:04 PM			
Mercury	0.005298	mg/L	0.00020	106	80	120			
Sample ID: 0707136-04DMS	MS				Batch ID: 13370	Analysis Date: 7/12/2007 11:32:09 PM			
Mercury	0.005218	mg/L	0.00020	104	75	125			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River-3rd Qtr 2007

Work Order: 070713

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW6010A

Sample ID: MB

MBLK

Batch ID: R24499 Analysis Date: 7/24/2007 10:06:38 AM

Barium	ND	mg/L	0.020						
Cadmium	ND	mg/L	0.0020						
Chromium	ND	mg/L	0.0060						
Copper	ND	mg/L	0.0060						
Iron	ND	mg/L	0.020						
Lead	ND	mg/L	0.0050						
Manganese	ND	mg/L	0.0020						
Silver	ND	mg/L	0.0050						
Uranium	ND	mg/L	0.10						
Zinc	ND	mg/L	0.050						

Sample ID: MB

MBLK

Batch ID: R24499 Analysis Date: 7/24/2007 1:54:10 PM

Calcium	ND	mg/L	1.0						
Magnesium	ND	mg/L	1.0						
Potassium	ND	mg/L	1.0						
Sodium	ND	mg/L	1.0						

Sample ID: LCS

LCS

Batch ID: R24499 Analysis Date: 7/24/2007 10:09:37 AM

Barium	0.4889	mg/L	0.020	97.8	80	120			
Cadmium	0.4915	mg/L	0.0020	98.3	80	120			
Chromium	0.4910	mg/L	0.0060	98.2	80	120			
Copper	0.4793	mg/L	0.0060	95.9	80	120			
Iron	0.4757	mg/L	0.020	95.1	80	120			
Lead	0.4819	mg/L	0.0050	96.4	80	120			
Manganese	0.4831	mg/L	0.0020	96.6	80	120			
Silver	0.4970	mg/L	0.0050	99.4	80	120			
Uranium	0.4875	mg/L	0.10	97.5	80	120			
Zinc	0.4897	mg/L	0.050	97.9	80	120			

Sample ID: LCS

LCS

Batch ID: R24499 Analysis Date: 7/24/2007 1:56:42 PM

Calcium	45.86	mg/L	1.0	90.8	80	120			
Magnesium	46.16	mg/L	1.0	91.3	80	120			
Potassium	49.26	mg/L	1.0	89.3	80	120			
Sodium	49.77	mg/L	1.0	98.4	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River-3rd Qtr 2007

Work Order: 0707136

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW6010A									
Sample ID: MB-13383		MBLK							
Lead	ND	mg/L	0.0050						
Sample ID: MB-13383		MBLK							
Arsenic	ND	mg/L	0.020						
Barium	ND	mg/L	0.020						
Cadmium	ND	mg/L	0.0020						
Chromium	ND	mg/L	0.0060						
Lead	ND	mg/L	0.0050						
Selenium	ND	mg/L	0.050						
Silver	ND	mg/L	0.0050						
Sample ID: LCS-13383		LCS							
Lead	0.5001	mg/L	0.0050	100	80	120			
Sample ID: LCS-13383		LCS							
Arsenic	0.4827	mg/L	0.020	96.5	80	120			
Barium	0.4843	mg/L	0.020	96.9	80	120			
Cadmium	0.4841	mg/L	0.0020	96.8	80	120			
Chromium	0.4899	mg/L	0.0060	98.0	80	120			
Lead	0.4694	mg/L	0.0050	93.9	80	120			
Selenium	0.4850	mg/L	0.050	97.0	80	120			
Silver	0.4911	mg/L	0.0050	97.9	80	120			
Method: E160.1									
Sample ID: MB-13368		MBLK							
Total Dissolved Solids	ND	mg/L	20						
Sample ID: LCS-13368		LCS							
Total Dissolved Solids	1020	mg/L	20	102	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

7/11/2007

Work Order Number 0707136

Received by ARS

Checklist completed by

Signature

Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐ Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☒	N/A ☐
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐
Water - Preservation labels on bottle and cap match?	Yes ☒	No ☐	N/A ☐
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐

Container/Temp Blank temperature?

1°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

CHAIN-OF-CUSTODY RECORD

Client: SAN JUAN Refining

Address: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4166

Fax #: 505-632-3911

Date Time Matrix Sample I.D. No.

7-10-07 10:35 H₂O North of MW #45

1-500 ml

1-250 ml

1-250 ml

1-500 ml

1-liter

Preservative

HgCl₂

HNO₃

HEAL No.

0707136

Number/Volume

5th - VOA

HCl

-1

X

X

filtered

H₂SO₄

Amber

-1

Date: 7-10-07

Time: 2pm

Relinquished By: (Signature)

Cindy Hurtado

Received By: (Signature)

[Signature]

7/11/07

09:30

Remarks:

QA/QC Package:

Std ☐ Level 4 ☐

Other:

Project Name:

SAN JUAN River QRT - 2007

Project #:

3rd

Project Manager:

Cindy Hurtado

Sampler:

Cindy Hurtado

Sample Temperature:

1

ANALYSIS REQUEST

BTEX + MTBE + ~~10~~'s (8021)

BTEX + MTBE + TPH (Gasoline Only)

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8021)

8310 (PNA or PAH)

RCRA 8 Metals

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / PCB's (8082)

8260B (VOA)

8270 (Semi-VOA)

Dissolved WQC Metals

Back up

General Chemistry

Air Bubbles or Headspace (Y or N)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D

Albuquerque, New Mexico 87109

Tel. 505.345.3975 Fax 505.345.4107

www.hallenvironmental.com

Std ☐ Level 4 ☐

Other:

Project Name:

SAN JUAN RIVER 3rd QTR-2007

Project #:

Project Manager:

Cindy Hurtado
Cindy Hurtado/RMK
Signature: /s/

Sampler:

Phone #: 505-632-4161

Sample Text

Fax #: 505-632-3911

[illegible]

Date: _____

Date: 7-10-07	Time: 2pm
---------------	-----------

Relinquished By: (Signature)

Published By: (Signature) *Enrique Hurtado*

Received By: (Signature)

07 09.30

Date: _____

Time:

Relinquished By: (Signature)

Received By: (Signature)

Remarks:

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

4901 Hawkins NE, Suite D

Albuquerque, New Mexico 87109

Tel. 505.345.3975 Fax 505.345.4107

www.hallenvironmental.com

ANALYSIS REQUEST

BTEX + MTBE + TCEs (8021)	X
BTEX + MTBE + TPH (Gasoline Only)	
TPH Method 8015B (Gas/Diesel)	X
TPH (Method 418.1)	
EDB (Method 504.1)	
EDC (Method 8021)	
8310 (PNA or PAH)	
RCPA 8 Metals	X
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
8081 Pesticides / PCB's (8082)	
8260B (VOA)	
8270 (Semi-VOA)	
Dissolved WQC metals	X
Back up	X
General chemistry	X
Air Bubbles or Headspace (Y or N)	

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

Project Name: _____

Project Name: SAN JUAN RIVER QTR-2007
3rd

Project #:

Sampler: 1

Sample #: WJ1000 / Bob Skow
Sample Description: WJ1000

Sample Temperature:

Fax #: 505-632-3911

[illegible]

Received By (Signature)

97:60709:46

Received By: (Signature)

Remarks:

ANALYSIS REQUEST

[illegible]

Air Bubbles or Headspace (Y or N)

QA/QC Package:

Std  Level 4 

Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.34
www.hallenvironmental.com

ANALYSIS REQUEST

5/14

808) S. (S.
P.O., S.

Sampled by Robert Krabom 1/21

Sample Temperature: 20

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.
					HgCl ₂	HNO ₃		
7-10-87	8:10	H ₂ O	DownStream	3-VOA			HCl	0707136 -4
				1-500 ml		X		
				1-250 ml		X	Filtered	
				1-250 ml			H ₂ SO ₄	
				1-500 ml				
				1-Liter			Amber	-4
			Trip Bank					-5

Date:	0-07	Time:	2pm	Relinquished By: (Signature)	Received By: (Signature)
Date:		Time:		Relinquished By: (Signature)	Received By: (Signature)

ANALYSIS REQUEST

[illegible]

Remarks:

COVER LETTER

Friday, December 28, 2007

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911
RE: San Juan River 4th Qtr-2007

Order No.: 0712109

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 12/7/2007 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



Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining
Project: San Juan River 4th Qtr-2007
Lab Order: 0712109

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0712109-01A	North of MW #46	R26429	EPA Method 8015B: Gasoline Range	12/7/2007 9:15:00 AM
0712109-01A	North of MW #46	14625	EPA Method 8015B: Diesel Range	12/7/2007 9:15:00 AM
0712109-01A	North of MW #46	R26429	EPA Method 8021B: Volatiles	12/7/2007 9:15:00 AM
0712109-01B	North of MW #46	14602	EPA Method 8270C: Semivolatiles	12/7/2007 9:15:00 AM
0712109-01C	North of MW #46	R26511	SM 2320B: Alkalinity	12/7/2007 9:15:00 AM
0712109-01C	North of MW #46	R26567	EPA Method 300.0: Anions	12/7/2007 9:15:00 AM
0712109-01C	North of MW #46	R26567	EPA Method 300.0: Anions	12/7/2007 9:15:00 AM
0712109-01C	North of MW #46	R26511	Carbon Dioxide	12/7/2007 9:15:00 AM
0712109-01C	North of MW #46	R26497	EPA 120.1: Specific Conductance	12/7/2007 9:15:00 AM
0712109-01C	North of MW #46	R26484	EPA Method 300.0: Anions	12/7/2007 9:15:00 AM
0712109-01C	North of MW #46	R26484	EPA Method 300.0: Anions	12/7/2007 9:15:00 AM
0712109-01C	North of MW #46	14645	SM 2540C: TDS	12/7/2007 9:15:00 AM
0712109-01D	North of MW #46	R26493	EPA Method 6010B: Dissolved Metals	12/7/2007 9:15:00 AM
0712109-01D	North of MW #46	R26494	EPA Method 6010B: Dissolved Metals	12/7/2007 9:15:00 AM
0712109-01E	North of MW #46	14618	EPA 6010B: Total Recoverable Metals	12/7/2007 9:15:00 AM
0712109-01E	North of MW #46	14591	EPA Method 7470: Mercury	12/7/2007 9:15:00 AM
0712109-02A	North of MW #45	14625	EPA Method 8015B: Diesel Range	12/6/2007 9:20:00 AM
0712109-02A	North of MW #45	R26429	EPA Method 8021B: Volatiles	12/6/2007 9:20:00 AM
0712109-02A	North of MW #45	R26429	EPA Method 8015B: Gasoline Range	12/6/2007 9:20:00 AM
0712109-02B	North of MW #45	14602	EPA Method 8270C: Semivolatiles	12/6/2007 9:20:00 AM
0712109-02C	North of MW #45	R26511	Carbon Dioxide	12/6/2007 9:20:00 AM
0712109-02C	North of MW #45	R26567	EPA Method 300.0: Anions	12/6/2007 9:20:00 AM
0712109-02C	North of MW #45	14626	SM 2540C: TDS	12/6/2007 9:20:00 AM
0712109-02C	North of MW #45	R26511	SM 2320B: Alkalinity	12/6/2007 9:20:00 AM
0712109-02C	North of MW #45	R26497	EPA 120.1: Specific Conductance	12/6/2007 9:20:00 AM
0712109-02C	North of MW #45	R26484	EPA Method 300.0: Anions	12/6/2007 9:20:00 AM
0712109-02C	North of MW #45	R26484	EPA Method 300.0: Anions	12/6/2007 9:20:00 AM
0712109-02C	North of MW #45	R26567	EPA Method 300.0: Anions	12/6/2007 9:20:00 AM
0712109-02D	North of MW #45	R26493	EPA Method 6010B: Dissolved Metals	12/6/2007 9:20:00 AM
0712109-02D	North of MW #45	R26494	EPA Method 6010B: Dissolved Metals	12/6/2007 9:20:00 AM
0712109-02E	North of MW #45	14591	EPA Method 7470: Mercury	12/6/2007 9:20:00 AM
0712109-02E	North of MW #45	14618	EPA 6010B: Total Recoverable Metals	12/6/2007 9:20:00 AM
0712109-03A	Up Stream	R26429	EPA Method 8015B: Gasoline Range	12/6/2007 10:00:00 AM
0712109-03A	Up Stream	14625	EPA Method 8015B: Diesel Range	12/6/2007 10:00:00 AM
0712109-03A	Up Stream	R26429	EPA Method 8021B: Volatiles	12/6/2007 10:00:00 AM
0712109-03B	Up Stream	14602	EPA Method 8270C: Semivolatiles	12/6/2007 10:00:00 AM
0712109-03C	Up Stream	R26511	SM 2320B: Alkalinity	12/6/2007 10:00:00 AM
0712109-03C	Up Stream	R26567	EPA Method 300.0: Anions	12/6/2007 10:00:00 AM

CLIENT: San Juan Refining
Project: San Juan River 4th Qtr-2007
Lab Order: 0712109

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0712109-03C	Up Stream	R26511	Carbon Dioxide	12/6/2007 10:00:00 AM
0712109-03C	Up Stream	R26497	EPA 120.1: Specific Conductance	12/6/2007 10:00:00 AM
0712109-03C	Up Stream	R26484	EPA Method 300.0: Anions	12/6/2007 10:00:00 AM
0712109-03C	Up Stream	R26484	EPA Method 300.0: Anions	12/6/2007 10:00:00 AM
0712109-03C	Up Stream	R26484	EPA Method 300.0: Anions	12/6/2007 10:00:00 AM
0712109-03C	Up Stream	14626	SM 2540C: TDS	12/6/2007 10:00:00 AM
0712109-03D	Up Stream	R26493	EPA Method 6010B: Dissolved Metals	12/6/2007 10:00:00 AM
0712109-03D	Up Stream	R26494	EPA Method 6010B: Dissolved Metals	12/6/2007 10:00:00 AM
0712109-03E	Up Stream	14591	EPA Method 7470: Mercury	12/6/2007 10:00:00 AM
0712109-03E	Up Stream	14618	EPA 6010B: Total Recoverable Metals	12/6/2007 10:00:00 AM
0712109-04A	Down Stream	R26429	EPA Method 8021B: Volatiles	12/6/2007 10:30:00 AM
0712109-04A	Down Stream	14625	EPA Method 8015B: Diesel Range	12/6/2007 10:30:00 AM
0712109-04A	Down Stream	R26429	EPA Method 8015B: Gasoline Range	12/6/2007 10:30:00 AM
0712109-04B	Down Stream	14602	EPA Method 8270C: Semivolatiles	12/6/2007 10:30:00 AM
0712109-04C	Down Stream	R26511	Carbon Dioxide	12/6/2007 10:30:00 AM
0712109-04C	Down Stream	R26567	EPA Method 300.0: Anions	12/6/2007 10:30:00 AM
0712109-04C	Down Stream	14626	SM 2540C: TDS	12/6/2007 10:30:00 AM
0712109-04C	Down Stream	R26511	SM 2320B: Alkalinity	12/6/2007 10:30:00 AM
0712109-04C	Down Stream	R26497	EPA 120.1: Specific Conductance	12/6/2007 10:30:00 AM
0712109-04C	Down Stream	R26484	EPA Method 300.0: Anions	12/6/2007 10:30:00 AM
0712109-04C	Down Stream	R26484	EPA Method 300.0: Anions	12/6/2007 10:30:00 AM
0712109-04C	Down Stream	R26567	EPA Method 300.0: Anions	12/6/2007 10:30:00 AM
0712109-04D	Down Stream	R26493	EPA Method 6010B: Dissolved Metals	12/6/2007 10:30:00 AM
0712109-04D	Down Stream	R26494	EPA Method 6010B: Dissolved Metals	12/6/2007 10:30:00 AM
0712109-04E	Down Stream	14591	EPA Method 7470: Mercury	12/6/2007 10:30:00 AM
0712109-04E	Down Stream	14618	EPA 6010B: Total Recoverable Metals	12/6/2007 10:30:00 AM
0712109-05A	Trip Blank	R26429	EPA Method 8015B: Gasoline Range	
0712109-05A	Trip Blank	R26429	EPA Method 8021B: Volatiles	

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining
Lab Order: 0712109
Project: San Juan River 4th Qtr-2007
Lab ID: 0712109-01

Client Sample ID: North of MW #46
Collection Date: 12/7/2007 9:15:00 AM
Date Received: 12/7/2007
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	12/13/2007 4:25:08 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/13/2007 4:25:08 PM
Surr: DNOP	123	58-140		%REC	1	12/13/2007 4:25:08 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/8/2007 10:54:49 AM
Surr: BFB	96.3	79.2-121		%REC	1	12/8/2007 10:54:49 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/8/2007 10:54:49 AM
Benzene	ND	1.0		µg/L	1	12/8/2007 10:54:49 AM
Toluene	ND	1.0		µg/L	1	12/8/2007 10:54:49 AM
Ethylbenzene	ND	1.0		µg/L	1	12/8/2007 10:54:49 AM
Xylenes, Total	ND	2.0		µg/L	1	12/8/2007 10:54:49 AM
EPA METHOD 300.0: ANIONS						Analyst: SMP
Fluoride	0.20	0.10		mg/L	1	12/11/2007 4:25:38 PM
Chloride	3.4	0.10		mg/L	1	12/11/2007 4:25:38 PM
Bromide	ND	0.10		mg/L	1	12/11/2007 4:25:38 PM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	12/17/2007 7:03:42 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	12/11/2007 4:25:38 PM
Sulfate	110	5.0		mg/L	10	12/17/2007 7:21:06 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	12/10/2007 2:41:56 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	12/12/2007 12:02:37 PM
Barium	0.058	0.020		mg/L	1	12/12/2007 12:02:37 PM
Cadmium	ND	0.0020		mg/L	1	12/12/2007 12:02:37 PM
Calcium	40	1.0		mg/L	1	12/12/2007 12:02:37 PM
Chromium	ND	0.0060		mg/L	1	12/12/2007 12:02:37 PM
Copper	ND	0.0060		mg/L	1	12/12/2007 12:02:37 PM
Iron	0.070	0.020		mg/L	1	12/12/2007 12:02:37 PM
Lead	ND	0.0050		mg/L	1	12/12/2007 12:02:37 PM
Magnesium	6.5	1.0		mg/L	1	12/12/2007 12:02:37 PM
Manganese	0.035	0.0020		mg/L	1	12/12/2007 12:02:37 PM
Potassium	1.8	1.0		mg/L	1	12/12/2007 12:02:37 PM
Selenium	ND	0.050		mg/L	1	12/12/2007 12:02:37 PM
Silver	ND	0.0050		mg/L	1	12/12/2007 12:02:37 PM
Sodium	30	1.0		mg/L	1	12/12/2007 12:02:37 PM
Uranium	ND	0.10		mg/L	1	12/12/2007 2:15:19 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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining

Client Sample ID: North of MW #46

Lab Order: 0712109

Collection Date: 12/7/2007 9:15:00 AM

Project: San Juan River 4th Qtr-2007

Date Received: 12/7/2007

Lab ID: 0712109-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Zinc	ND	0.050		mg/L	1	12/12/2007 12:02:37 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	12/12/2007 5:20:06 PM
Barium	0.073	0.020		mg/L	1	12/12/2007 5:20:06 PM
Cadmium	ND	0.0020		mg/L	1	12/12/2007 5:20:06 PM
Chromium	ND	0.0060		mg/L	1	12/12/2007 5:20:06 PM
Lead	ND	0.0050		mg/L	1	12/12/2007 5:20:06 PM
Selenium	ND	0.050		mg/L	1	12/12/2007 5:20:06 PM
Silver	ND	0.0050		mg/L	1	12/12/2007 5:20:06 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	12/12/2007
Acenaphthylene	ND	10		µg/L	1	12/12/2007
Aniline	ND	10		µg/L	1	12/12/2007
Anthracene	ND	10		µg/L	1	12/12/2007
Azobenzene	ND	10		µg/L	1	12/12/2007
Benz(a)anthracene	ND	10		µg/L	1	12/12/2007
Benzo(a)pyrene	ND	10		µg/L	1	12/12/2007
Benzo(b)fluoranthene	ND	10		µg/L	1	12/12/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	12/12/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	12/12/2007
Benzoic acid	ND	20		µg/L	1	12/12/2007
Benzyl alcohol	ND	10		µg/L	1	12/12/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	12/12/2007
Bis(2-chloroethyl)ether	ND	10		µg/L	1	12/12/2007
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	12/12/2007
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	12/12/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	12/12/2007
Butyl benzyl phthalate	ND	10		µg/L	1	12/12/2007
Carbazole	ND	10		µg/L	1	12/12/2007
4-Chloro-3-methylphenol	ND	10		µg/L	1	12/12/2007
4-Chloroaniline	ND	10		µg/L	1	12/12/2007
2-Chloronaphthalene	ND	10		µg/L	1	12/12/2007
2-Chlorophenol	ND	10		µg/L	1	12/12/2007
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	12/12/2007
Chrysene	ND	10		µg/L	1	12/12/2007
Di-n-butyl phthalate	ND	10		µg/L	1	12/12/2007
Di-n-octyl phthalate	ND	10		µg/L	1	12/12/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	12/12/2007
Dibenzofuran	ND	10		µg/L	1	12/12/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	12/12/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining
Lab Order: 0712109
Project: San Juan River 4th Qtr-2007
Lab ID: 0712109-01

Client Sample ID: North of MW #46
Collection Date: 12/7/2007 9:15:00 AM
Date Received: 12/7/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,3-Dichlorobenzene	ND	10		µg/L	1	12/12/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	12/12/2007
3,3'-Dichlorobenzidine	ND	10		µg/L	1	12/12/2007
Diethyl phthalate	ND	10		µg/L	1	12/12/2007
Dimethyl phthalate	ND	10		µg/L	1	12/12/2007
2,4-Dichlorophenol	ND	10		µg/L	1	12/12/2007
2,4-Dimethylphenol	ND	10		µg/L	1	12/12/2007
4,6-Dinitro-2-methylphenol	ND	10		µg/L	1	12/12/2007
2,4-Dinitrophenol	ND	10		µg/L	1	12/12/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	12/12/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	12/12/2007
Fluoranthene	ND	10		µg/L	1	12/12/2007
Fluorene	ND	10		µg/L	1	12/12/2007
Hexachlorobenzene	ND	10		µg/L	1	12/12/2007
Hexachlorobutadiene	ND	10		µg/L	1	12/12/2007
Hexachlorocyclopentadiene	ND	10		µg/L	1	12/12/2007
Hexachloroethane	ND	10		µg/L	1	12/12/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	12/12/2007
Isophorone	ND	10		µg/L	1	12/12/2007
2-Methylnaphthalene	ND	10		µg/L	1	12/12/2007
2-Methylphenol	ND	10		µg/L	1	12/12/2007
3+4-Methylphenol	ND	10		µg/L	1	12/12/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	12/12/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	12/12/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	12/12/2007
Naphthalene	ND	10		µg/L	1	12/12/2007
2-Nitroaniline	ND	10		µg/L	1	12/12/2007
3-Nitroaniline	ND	10		µg/L	1	12/12/2007
4-Nitroaniline	ND	10		µg/L	1	12/12/2007
Nitrobenzene	ND	10		µg/L	1	12/12/2007
2-Nitrophenol	ND	10		µg/L	1	12/12/2007
4-Nitrophenol	ND	10		µg/L	1	12/12/2007
Pentachlorophenol	ND	10		µg/L	1	12/12/2007
Phenanthrene	ND	10		µg/L	1	12/12/2007
Phenol	ND	10		µg/L	1	12/12/2007
Pyrene	ND	10		µg/L	1	12/12/2007
Pyridine	ND	10		µg/L	1	12/12/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	12/12/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	12/12/2007
2,4,6-Trichlorophenol	ND	10		µg/L	1	12/12/2007
Surr: 2,4,6-Tribromophenol	26.6	16.6-150		%REC	1	12/12/2007
Surr: 2-Fluorobiphenyl	72.3	19.6-134		%REC	1	12/12/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining
Lab Order: 0712109
Project: San Juan River 4th Qtr-2007
Lab ID: 0712109-01

Client Sample ID: North of MW #46
Collection Date: 12/7/2007 9:15:00 AM
Date Received: 12/7/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2-Fluorophenol	49.4	9.54-113		%REC	1	12/12/2007
Surr: 4-Terphenyl-d14	81.5	22.7-145		%REC	1	12/12/2007
Surr: Nitrobenzene-d5	76.9	14.6-134		%REC	1	12/12/2007
Surr: Phenol-d5	37.6	10.7-80.3		%REC	1	12/12/2007
SM 2320B: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	100	20		mg/L CaCO3	1	12/12/2007
Carbonate	ND	2.0		mg/L CaCO3	1	12/12/2007
Bicarbonate	100	20		mg/L CaCO3	1	12/12/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	92	1.0		mg CO2/L	1	12/12/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	410	0.010		µmhos/cm	1	12/12/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	270	20		mg/L	1	12/14/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining

Client Sample ID: North of MW #45

Lab Order: 0712109

Collection Date: 12/6/2007 9:20:00 AM

Project: San Juan River 4th Qtr-2007

Date Received: 12/7/2007

Lab ID: 0712109-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	12/13/2007 4:59:28 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/13/2007 4:59:28 PM
Surr: DNOP	117	58-140		%REC	1	12/13/2007 4:59:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/8/2007 11:25:05 AM
Surr: BFB	96.3	79.2-121		%REC	1	12/8/2007 11:25:05 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/8/2007 11:25:05 AM
Benzene	ND	1.0		µg/L	1	12/8/2007 11:25:05 AM
Toluene	ND	1.0		µg/L	1	12/8/2007 11:25:05 AM
Ethylbenzene	ND	1.0		µg/L	1	12/8/2007 11:25:05 AM
Xylenes, Total	ND	2.0		µg/L	1	12/8/2007 11:25:05 AM
EPA METHOD 300.0: ANIONS						Analyst: SMP
Fluoride	0.19	0.10		mg/L	1	12/11/2007 4:43:03 PM
Chloride	3.4	0.10		mg/L	1	12/11/2007 4:43:03 PM
Bromide	ND	0.10		mg/L	1	12/11/2007 4:43:03 PM
Nitrate (As N)+Nitrite (As N)	2.1	1.0		mg/L	5	12/17/2007 7:38:31 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	12/11/2007 4:43:03 PM
Sulfate	100	5.0		mg/L	10	12/17/2007 8:30:45 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	12/10/2007 2:43:46 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	12/12/2007 12:14:24 PM
Barium	0.059	0.020		mg/L	1	12/12/2007 12:14:24 PM
Cadmium	ND	0.0020		mg/L	1	12/12/2007 12:14:24 PM
Calcium	41	1.0		mg/L	1	12/12/2007 12:14:24 PM
Chromium	ND	0.0060		mg/L	1	12/12/2007 12:14:24 PM
Copper	ND	0.0060		mg/L	1	12/12/2007 12:14:24 PM
Iron	0.024	0.020		mg/L	1	12/12/2007 12:14:24 PM
Lead	ND	0.0050		mg/L	1	12/12/2007 12:14:24 PM
Magnesium	6.8	1.0		mg/L	1	12/12/2007 12:14:24 PM
Manganese	0.036	0.0020		mg/L	1	12/12/2007 12:14:24 PM
Potassium	1.9	1.0		mg/L	1	12/12/2007 12:14:24 PM
Selenium	ND	0.050		mg/L	1	12/12/2007 12:14:24 PM
Silver	ND	0.0050		mg/L	1	12/12/2007 12:14:24 PM
Sodium	31	1.0		mg/L	1	12/12/2007 12:14:24 PM
Uranium	ND	0.10		mg/L	1	12/12/2007 2:17:33 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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining
Lab Order: 0712109
Project: San Juan River 4th Qtr-2007
Lab ID: 0712109-02

Client Sample ID: North of MW #45
Collection Date: 12/6/2007 9:20:00 AM
Date Received: 12/7/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 6010B: DISSOLVED METALS

Analyst: NMO

Zinc	ND	0.050		mg/L	1	12/12/2007 12:14:24 PM
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EPA 6010B: TOTAL RECOVERABLE METALS

Analyst: TES

Arsenic	ND	0.020		mg/L	1	12/12/2007 5:23:07 PM
Barium	0.071	0.020		mg/L	1	12/12/2007 5:23:07 PM
Cadmium	ND	0.0020		mg/L	1	12/12/2007 5:23:07 PM
Chromium	ND	0.0060		mg/L	1	12/12/2007 5:23:07 PM
Lead	ND	0.0050		mg/L	1	12/12/2007 5:23:07 PM
Selenium	ND	0.050		mg/L	1	12/12/2007 5:23:07 PM
Silver	ND	0.0050		mg/L	1	12/12/2007 5:23:07 PM

EPA METHOD 8270C: SEMIVOLATILES

Analyst: JDC

Acenaphthene	ND	10		µg/L	1	12/12/2007
Acenaphthylene	ND	10		µg/L	1	12/12/2007
Aniline	ND	10		µg/L	1	12/12/2007
Anthracene	ND	10		µg/L	1	12/12/2007
Azobenzene	ND	10		µg/L	1	12/12/2007
Benz(a)anthracene	ND	10		µg/L	1	12/12/2007
Benzo(a)pyrene	ND	10		µg/L	1	12/12/2007
Benzo(b)fluoranthene	ND	10		µg/L	1	12/12/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	12/12/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	12/12/2007
Benzoic acid	ND	20		µg/L	1	12/12/2007
Benzyl alcohol	ND	10		µg/L	1	12/12/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	12/12/2007
Bis(2-chloroethyl)ether	ND	10		µg/L	1	12/12/2007
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	12/12/2007
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	12/12/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	12/12/2007
Butyl benzyl phthalate	ND	10		µg/L	1	12/12/2007
Carbazole	ND	10		µg/L	1	12/12/2007
4-Chloro-3-methylphenol	ND	10		µg/L	1	12/12/2007
4-Chloroaniline	ND	10		µg/L	1	12/12/2007
2-Chloronaphthalene	ND	10		µg/L	1	12/12/2007
2-Chlorophenol	ND	10		µg/L	1	12/12/2007
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	12/12/2007
Chrysene	ND	10		µg/L	1	12/12/2007
Di-n-butyl phthalate	ND	10		µg/L	1	12/12/2007
Di-n-octyl phthalate	ND	10		µg/L	1	12/12/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	12/12/2007
Dibenzofuran	ND	10		µg/L	1	12/12/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	12/12/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining

Client Sample ID: North of MW #45

Lab Order: 0712109

Collection Date: 12/6/2007 9:20:00 AM

Project: San Juan River 4th Qtr-2007

Date Received: 12/7/2007

Lab ID: 0712109-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,3-Dichlorobenzene	ND	10		µg/L	1	12/12/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	12/12/2007
3,3'-Dichlorobenzidine	ND	10		µg/L	1	12/12/2007
Diethyl phthalate	ND	10		µg/L	1	12/12/2007
Dimethyl phthalate	ND	10		µg/L	1	12/12/2007
2,4-Dichlorophenol	ND	10		µg/L	1	12/12/2007
2,4-Dimethylphenol	ND	10		µg/L	1	12/12/2007
4,6-Dinitro-2-methylphenol	ND	10		µg/L	1	12/12/2007
2,4-Dinitrophenol	ND	10		µg/L	1	12/12/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	12/12/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	12/12/2007
Fluoranthene	ND	10		µg/L	1	12/12/2007
Fluorene	ND	10		µg/L	1	12/12/2007
Hexachlorobenzene	ND	10		µg/L	1	12/12/2007
Hexachlorobutadiene	ND	10		µg/L	1	12/12/2007
Hexachlorocyclopentadiene	ND	10		µg/L	1	12/12/2007
Hexachloroethane	ND	10		µg/L	1	12/12/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	12/12/2007
Isophorone	ND	10		µg/L	1	12/12/2007
2-Methylnaphthalene	ND	10		µg/L	1	12/12/2007
2-Methylphenol	ND	10		µg/L	1	12/12/2007
3+4-Methylphenol	ND	10		µg/L	1	12/12/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	12/12/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	12/12/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	12/12/2007
Naphthalene	ND	10		µg/L	1	12/12/2007
2-Nitroaniline	ND	10		µg/L	1	12/12/2007
3-Nitroaniline	ND	10		µg/L	1	12/12/2007
4-Nitroaniline	ND	10		µg/L	1	12/12/2007
Nitrobenzene	ND	10		µg/L	1	12/12/2007
2-Nitrophenol	ND	10		µg/L	1	12/12/2007
4-Nitrophenol	ND	10		µg/L	1	12/12/2007
Pentachlorophenol	ND	10		µg/L	1	12/12/2007
Phenanthrene	ND	10		µg/L	1	12/12/2007
Phenol	ND	10		µg/L	1	12/12/2007
Pyrene	ND	10		µg/L	1	12/12/2007
Pyridine	ND	10		µg/L	1	12/12/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	12/12/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	12/12/2007
2,4,6-Trichlorophenol	ND	10		µg/L	1	12/12/2007
Surr: 2,4,6-Tribromophenol	56.5	16.6-150		%REC	1	12/12/2007
Surr: 2-Fluorobiphenyl	83.0	19.6-134		%REC	1	12/12/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining**Client Sample ID:** North of MW #45**Lab Order:** 0712109**Collection Date:** 12/6/2007 9:20:00 AM**Project:** San Juan River 4th Qtr-2007**Date Received:** 12/7/2007**Lab ID:** 0712109-02**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2-Fluorophenol	52.2	9.54-113		%REC	1	12/12/2007
Surr: 4-Terphenyl-d14	72.7	22.7-145		%REC	1	12/12/2007
Surr: Nitrobenzene-d5	87.9	14.6-134		%REC	1	12/12/2007
Surr: Phenol-d5	40.0	10.7-80.3		%REC	1	12/12/2007
SM 2320B: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	95	20		mg/L CaCO3	1	12/12/2007
Carbonate	ND	2.0		mg/L CaCO3	1	12/12/2007
Bicarbonate	95	20		mg/L CaCO3	1	12/12/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	87	1.0		mg CO2/L	1	12/12/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	410	0.010		µmhos/cm	1	12/12/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	270	20		mg/L	1	12/13/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining
Lab Order: 0712109
Project: San Juan River 4th Qtr-2007
Lab ID: 0712109-03

Client Sample ID: Up Stream
Collection Date: 12/6/2007 10:00:00 AM
Date Received: 12/7/2007
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	12/13/2007 5:33:53 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/13/2007 5:33:53 PM
Surr: DNOP	108	58-140		%REC	1	12/13/2007 5:33:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/8/2007 11:55:14 AM
Surr: BFB	96.1	79.2-121		%REC	1	12/8/2007 11:55:14 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/8/2007 11:55:14 AM
Benzene	ND	1.0		µg/L	1	12/8/2007 11:55:14 AM
Toluene	ND	1.0		µg/L	1	12/8/2007 11:55:14 AM
Ethylbenzene	ND	1.0		µg/L	1	12/8/2007 11:55:14 AM
Xylenes, Total	ND	2.0		µg/L	1	12/8/2007 11:55:14 AM
EPA METHOD 300.0: ANIONS						Analyst: SMP
Fluoride	0.20	0.10		mg/L	1	12/11/2007 5:00:27 PM
Chloride	4.4	0.10		mg/L	1	12/11/2007 5:00:27 PM
Bromide	ND	0.10		mg/L	1	12/11/2007 5:00:27 PM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	12/17/2007 8:48:09 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	12/11/2007 5:00:27 PM
Sulfate	110	5.0		mg/L	10	12/11/2007 5:17:52 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	12/10/2007 2:45:36 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	12/12/2007 12:17:26 PM
Barium	0.059	0.020		mg/L	1	12/12/2007 12:17:26 PM
Cadmium	ND	0.0020		mg/L	1	12/12/2007 12:17:26 PM
Calcium	40	1.0		mg/L	1	12/12/2007 12:17:26 PM
Chromium	ND	0.0060		mg/L	1	12/12/2007 12:17:26 PM
Copper	ND	0.0060		mg/L	1	12/12/2007 12:17:26 PM
Iron	ND	0.020		mg/L	1	12/12/2007 12:17:26 PM
Lead	ND	0.0050		mg/L	1	12/12/2007 12:17:26 PM
Magnesium	6.9	1.0		mg/L	1	12/12/2007 12:17:26 PM
Manganese	0.058	0.0020		mg/L	1	12/12/2007 12:17:26 PM
Potassium	1.9	1.0		mg/L	1	12/12/2007 12:17:26 PM
Selenium	ND	0.050		mg/L	1	12/12/2007 12:17:26 PM
Silver	ND	0.0050		mg/L	1	12/12/2007 12:17:26 PM
Sodium	37	1.0		mg/L	1	12/12/2007 12:17:26 PM
Uranium	ND	0.10		mg/L	1	12/12/2007 2:19:47 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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining

Client Sample ID: Up Stream

Lab Order: 0712109

Collection Date: 12/6/2007 10:00:00 AM

Project: San Juan River 4th Qtr-2007

Date Received: 12/7/2007

Lab ID: 0712109-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Zinc	ND	0.050		mg/L	1	12/12/2007 12:17:26 PM

EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	12/12/2007 5:27:50 PM
Barium	0.069	0.020		mg/L	1	12/12/2007 5:27:50 PM
Cadmium	ND	0.0020		mg/L	1	12/12/2007 5:27:50 PM
Chromium	ND	0.0060		mg/L	1	12/12/2007 5:27:50 PM
Lead	ND	0.0050		mg/L	1	12/12/2007 5:27:50 PM
Selenium	ND	0.050		mg/L	1	12/12/2007 5:27:50 PM
Silver	ND	0.0050		mg/L	1	12/12/2007 5:27:50 PM

EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	12/12/2007
Acenaphthylene	ND	10		µg/L	1	12/12/2007
Aniline	ND	10		µg/L	1	12/12/2007
Anthracene	ND	10		µg/L	1	12/12/2007
Azobenzene	ND	10		µg/L	1	12/12/2007
Benz(a)anthracene	ND	10		µg/L	1	12/12/2007
Benzo(a)pyrene	ND	10		µg/L	1	12/12/2007
Benzo(b)fluoranthene	ND	10		µg/L	1	12/12/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	12/12/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	12/12/2007
Benzoic acid	ND	20		µg/L	1	12/12/2007
Benzyl alcohol	ND	10		µg/L	1	12/12/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	12/12/2007
Bis(2-chloroethyl)ether	ND	10		µg/L	1	12/12/2007
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	12/12/2007
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	12/12/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	12/12/2007
Butyl benzyl phthalate	ND	10		µg/L	1	12/12/2007
Carbazole	ND	10		µg/L	1	12/12/2007
4-Chloro-3-methylphenol	ND	10		µg/L	1	12/12/2007
4-Chloroaniline	ND	10		µg/L	1	12/12/2007
2-Chloronaphthalene	ND	10		µg/L	1	12/12/2007
2-Chlorophenol	ND	10		µg/L	1	12/12/2007
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	12/12/2007
Chrysene	ND	10		µg/L	1	12/12/2007
Di-n-butyl phthalate	ND	10		µg/L	1	12/12/2007
Di-n-octyl phthalate	ND	10		µg/L	1	12/12/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	12/12/2007
Dibenzofuran	ND	10		µg/L	1	12/12/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	12/12/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining

Client Sample ID: Up Stream

Lab Order: 0712109

Collection Date: 12/6/2007 10:00:00 AM

Project: San Juan River 4th Qtr-2007

Date Received: 12/7/2007

Lab ID: 0712109-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,3-Dichlorobenzene	ND	10		µg/L	1	12/12/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	12/12/2007
3,3'-Dichlorobenzidine	ND	10		µg/L	1	12/12/2007
Diethyl phthalate	ND	10		µg/L	1	12/12/2007
Dimethyl phthalate	ND	10		µg/L	1	12/12/2007
2,4-Dichlorophenol	ND	10		µg/L	1	12/12/2007
2,4-Dimethylphenol	ND	10		µg/L	1	12/12/2007
4,6-Dinitro-2-methylphenol	ND	10		µg/L	1	12/12/2007
2,4-Dinitrophenol	ND	10		µg/L	1	12/12/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	12/12/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	12/12/2007
Fluoranthene	ND	10		µg/L	1	12/12/2007
Fluorene	ND	10		µg/L	1	12/12/2007
Hexachlorobenzene	ND	10		µg/L	1	12/12/2007
Hexachlorobutadiene	ND	10		µg/L	1	12/12/2007
Hexachlorocyclopentadiene	ND	10		µg/L	1	12/12/2007
Hexachloroethane	ND	10		µg/L	1	12/12/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	12/12/2007
Isophorone	ND	10		µg/L	1	12/12/2007
2-Methylnaphthalene	ND	10		µg/L	1	12/12/2007
2-Methylphenol	ND	10		µg/L	1	12/12/2007
3+4-Methylphenol	ND	10		µg/L	1	12/12/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	12/12/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	12/12/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	12/12/2007
Naphthalene	ND	10		µg/L	1	12/12/2007
2-Nitroaniline	ND	10		µg/L	1	12/12/2007
3-Nitroaniline	ND	10		µg/L	1	12/12/2007
4-Nitroaniline	ND	10		µg/L	1	12/12/2007
Nitrobenzene	ND	10		µg/L	1	12/12/2007
2-Nitrophenol	ND	10		µg/L	1	12/12/2007
4-Nitrophenol	ND	10		µg/L	1	12/12/2007
Pentachlorophenol	ND	10		µg/L	1	12/12/2007
Phenanthrene	ND	10		µg/L	1	12/12/2007
Phenol	ND	10		µg/L	1	12/12/2007
Pyrene	ND	10		µg/L	1	12/12/2007
Pyridine	ND	10		µg/L	1	12/12/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	12/12/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	12/12/2007
2,4,6-Trichlorophenol	ND	10		µg/L	1	12/12/2007
Surr: 2,4,6-Tribromophenol	59.8	16.6-150		%REC	1	12/12/2007
Surr: 2-Fluorobiphenyl	77.4	19.6-134		%REC	1	12/12/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining
Lab Order: 0712109
Project: San Juan River 4th Qtr-2007
Lab ID: 0712109-03

Client Sample ID: Up Stream
Collection Date: 12/6/2007 10:00:00 AM
Date Received: 12/7/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2-Fluorophenol	45.5	9.54-113		%REC	1	12/12/2007
Surr: 4-Terphenyl-d14	74.3	22.7-145		%REC	1	12/12/2007
Surr: Nitrobenzene-d5	82.4	14.6-134		%REC	1	12/12/2007
Surr: Phenol-d5	36.4	10.7-80.3		%REC	1	12/12/2007
SM 2320B: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	94	20		mg/L CaCO3	1	12/12/2007
Carbonate	ND	2.0		mg/L CaCO3	1	12/12/2007
Bicarbonate	94	20		mg/L CaCO3	1	12/12/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	86	1.0		mg CO2/L	1	12/12/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	450	0.010		µmhos/cm	1	12/12/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	310	20		mg/L	1	12/13/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining
Lab Order: 0712109
Project: San Juan River 4th Qtr-2007
Lab ID: 0712109-04

Client Sample ID: Down Stream
Collection Date: 12/6/2007 10:30:00 AM
Date Received: 12/7/2007
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	12/13/2007 6:08:18 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/13/2007 6:08:18 PM
Surr: DNOP	114	58-140		%REC	1	12/13/2007 6:08:18 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/8/2007 12:55:48 PM
Surr: BFB	96.1	79.2-121		%REC	1	12/8/2007 12:55:48 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/8/2007 12:55:48 PM
Benzene	ND	1.0		µg/L	1	12/8/2007 12:55:48 PM
Toluene	ND	1.0		µg/L	1	12/8/2007 12:55:48 PM
Ethylbenzene	ND	1.0		µg/L	1	12/8/2007 12:55:48 PM
Xylenes, Total	ND	2.0		µg/L	1	12/8/2007 12:55:48 PM
EPA METHOD 300.0: ANIONS						Analyst: SMP
Fluoride	0.20	0.10		mg/L	1	12/11/2007 5:35:16 PM
Chloride	3.6	0.10		mg/L	1	12/11/2007 5:35:16 PM
Bromide	ND	0.10		mg/L	1	12/11/2007 5:35:16 PM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	12/17/2007 9:05:33 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	12/11/2007 5:35:16 PM
Sulfate	110	5.0		mg/L	10	12/17/2007 9:22:58 PM
EPA METHOD 7470: MERCURY						Analyst: SLB
Mercury	ND	0.00020		mg/L	1	12/10/2007 2:47:28 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	12/12/2007 12:20:29 PM
Barium	0.061	0.020		mg/L	1	12/12/2007 12:20:29 PM
Cadmium	ND	0.0020		mg/L	1	12/12/2007 12:20:29 PM
Calcium	44	1.0		mg/L	1	12/12/2007 12:20:29 PM
Chromium	ND	0.0060		mg/L	1	12/12/2007 12:20:29 PM
Copper	ND	0.0060		mg/L	1	12/12/2007 12:20:29 PM
Iron	ND	0.020		mg/L	1	12/12/2007 12:20:29 PM
Lead	ND	0.0050		mg/L	1	12/12/2007 12:20:29 PM
Magnesium	7.0	1.0		mg/L	1	12/12/2007 12:20:29 PM
Manganese	0.072	0.0020		mg/L	1	12/12/2007 12:20:29 PM
Potassium	1.9	1.0		mg/L	1	12/12/2007 12:20:29 PM
Selenium	ND	0.050		mg/L	1	12/12/2007 12:20:29 PM
Silver	ND	0.0050		mg/L	1	12/12/2007 12:20:29 PM
Sodium	33	1.0		mg/L	1	12/12/2007 12:20:29 PM
Uranium	ND	0.10		mg/L	1	12/12/2007 2:22:02 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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining
Lab Order: 0712109
Project: San Juan River 4th Qtr-2007
Lab ID: 0712109-04

Client Sample ID: Down Stream
Collection Date: 12/6/2007 10:30:00 AM
Date Received: 12/7/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Zinc	ND	0.050		mg/L	1	12/12/2007 12:20:29 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	12/12/2007 5:30:52 PM
Barium	0.071	0.020		mg/L	1	12/12/2007 5:30:52 PM
Cadmium	ND	0.0020		mg/L	1	12/12/2007 5:30:52 PM
Chromium	ND	0.0060		mg/L	1	12/12/2007 5:30:52 PM
Lead	ND	0.0050		mg/L	1	12/12/2007 5:30:52 PM
Selenium	ND	0.050		mg/L	1	12/12/2007 5:30:52 PM
Silver	ND	0.0050		mg/L	1	12/12/2007 5:30:52 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	12/12/2007
Acenaphthylene	ND	10		µg/L	1	12/12/2007
Aniline	ND	10		µg/L	1	12/12/2007
Anthracene	ND	10		µg/L	1	12/12/2007
Azobenzene	ND	10		µg/L	1	12/12/2007
Benz(a)anthracene	ND	10		µg/L	1	12/12/2007
Benzo(a)pyrene	ND	10		µg/L	1	12/12/2007
Benzo(b)fluoranthene	ND	10		µg/L	1	12/12/2007
Benzo(g,h,i)perylene	ND	10		µg/L	1	12/12/2007
Benzo(k)fluoranthene	ND	10		µg/L	1	12/12/2007
Benzoic acid	ND	20		µg/L	1	12/12/2007
Benzyl alcohol	ND	10		µg/L	1	12/12/2007
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	12/12/2007
Bis(2-chloroethyl)ether	ND	10		µg/L	1	12/12/2007
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	12/12/2007
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	12/12/2007
4-Bromophenyl phenyl ether	ND	10		µg/L	1	12/12/2007
Butyl benzyl phthalate	ND	10		µg/L	1	12/12/2007
Carbazole	ND	10		µg/L	1	12/12/2007
4-Chloro-3-methylphenol	ND	10		µg/L	1	12/12/2007
4-Chloroaniline	ND	10		µg/L	1	12/12/2007
2-Chloronaphthalene	ND	10		µg/L	1	12/12/2007
2-Chlorophenol	ND	10		µg/L	1	12/12/2007
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	12/12/2007
Chrysene	ND	10		µg/L	1	12/12/2007
Di-n-butyl phthalate	ND	10		µg/L	1	12/12/2007
Di-n-octyl phthalate	ND	10		µg/L	1	12/12/2007
Dibenz(a,h)anthracene	ND	10		µg/L	1	12/12/2007
Dibenzofuran	ND	10		µg/L	1	12/12/2007
1,2-Dichlorobenzene	ND	10		µg/L	1	12/12/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining

Client Sample ID: Down Stream

Lab Order: 0712109

Collection Date: 12/6/2007 10:30:00 AM

Project: San Juan River 4th Qtr-2007

Date Received: 12/7/2007

Lab ID: 0712109-04

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,3-Dichlorobenzene	ND	10		µg/L	1	12/12/2007
1,4-Dichlorobenzene	ND	10		µg/L	1	12/12/2007
3,3'-Dichlorobenzidine	ND	10		µg/L	1	12/12/2007
Diethyl phthalate	ND	10		µg/L	1	12/12/2007
Dimethyl phthalate	ND	10		µg/L	1	12/12/2007
2,4-Dichlorophenol	ND	10		µg/L	1	12/12/2007
2,4-Dimethylphenol	ND	10		µg/L	1	12/12/2007
4,6-Dinitro-2-methylphenol	ND	10		µg/L	1	12/12/2007
2,4-Dinitrophenol	ND	10		µg/L	1	12/12/2007
2,4-Dinitrotoluene	ND	10		µg/L	1	12/12/2007
2,6-Dinitrotoluene	ND	10		µg/L	1	12/12/2007
Fluoranthene	ND	10		µg/L	1	12/12/2007
Fluorene	ND	10		µg/L	1	12/12/2007
Hexachlorobenzene	ND	10		µg/L	1	12/12/2007
Hexachlorobutadiene	ND	10		µg/L	1	12/12/2007
Hexachlorocyclopentadiene	ND	10		µg/L	1	12/12/2007
Hexachloroethane	ND	10		µg/L	1	12/12/2007
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	12/12/2007
Isophorone	ND	10		µg/L	1	12/12/2007
2-Methylnaphthalene	ND	10		µg/L	1	12/12/2007
2-Methylphenol	ND	10		µg/L	1	12/12/2007
3+4-Methylphenol	ND	10		µg/L	1	12/12/2007
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	12/12/2007
N-Nitrosodimethylamine	ND	10		µg/L	1	12/12/2007
N-Nitrosodiphenylamine	ND	10		µg/L	1	12/12/2007
Naphthalene	ND	10		µg/L	1	12/12/2007
2-Nitroaniline	ND	10		µg/L	1	12/12/2007
3-Nitroaniline	ND	10		µg/L	1	12/12/2007
4-Nitroaniline	ND	10		µg/L	1	12/12/2007
Nitrobenzene	ND	10		µg/L	1	12/12/2007
2-Nitrophenol	ND	10		µg/L	1	12/12/2007
4-Nitrophenol	ND	10		µg/L	1	12/12/2007
Pentachlorophenol	ND	10		µg/L	1	12/12/2007
Phenanthrene	ND	10		µg/L	1	12/12/2007
Phenol	ND	10		µg/L	1	12/12/2007
Pyrene	ND	10		µg/L	1	12/12/2007
Pyridine	ND	10		µg/L	1	12/12/2007
1,2,4-Trichlorobenzene	ND	10		µg/L	1	12/12/2007
2,4,5-Trichlorophenol	ND	10		µg/L	1	12/12/2007
2,4,6-Trichlorophenol	ND	10		µg/L	1	12/12/2007
Surr: 2,4,6-Tribromophenol	58.7	16.6-150		%REC	1	12/12/2007
Surr: 2-Fluorobiphenyl	79.7	19.6-134		%REC	1	12/12/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining

Client Sample ID: Down Stream

Lab Order: 0712109

Collection Date: 12/6/2007 10:30:00 AM

Project: San Juan River 4th Qtr-2007

Date Received: 12/7/2007

Lab ID: 0712109-04

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2-Fluorophenol	52.5	9.54-113		%REC	1	12/12/2007
Surr: 4-Terphenyl-d14	76.0	22.7-145		%REC	1	12/12/2007
Surr: Nitrobenzene-d5	87.4	14.6-134		%REC	1	12/12/2007
Surr: Phenol-d5	42.4	10.7-80.3		%REC	1	12/12/2007
SM 2320B: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	100	20		mg/L CaCO3	1	12/12/2007
Carbonate	ND	2.0		mg/L CaCO3	1	12/12/2007
Bicarbonate	100	20		mg/L CaCO3	1	12/12/2007
TOTAL CARBON DIOXIDE CALCULATION						Analyst: LMM
Total Carbon Dioxide	91	1.0		mg CO2/L	1	12/12/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	450	0.010		µmhos/cm	1	12/12/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	300	20		mg/L	1	12/13/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Dec-07

CLIENT: San Juan Refining
Lab Order: 0712109
Project: San Juan River 4th Qtr-2007
Lab ID: 0712109-05

Client Sample ID: Trip Blank
Collection Date:
Date Received: 12/7/2007
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/8/2007 1:25:59 PM
Surr: BFB	94.3	79.2-121		%REC	1	12/8/2007 1:25:59 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/8/2007 1:25:59 PM
Benzene	ND	1.0		µg/L	1	12/8/2007 1:25:59 PM
Toluene	ND	1.0		µg/L	1	12/8/2007 1:25:59 PM
Ethylbenzene	ND	1.0		µg/L	1	12/8/2007 1:25:59 PM
Xylenes, Total	ND	2.0		µg/L	1	12/8/2007 1:25:59 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

Lab Order: 0712109

Client: San Juan Refining

Project: San Juan River 4th Qtr-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0712109-01A	North of MW #46	12/7/2007 9:15:00 AM	Aqueous	EPA Method 8015B: Diesel Range	14625	12/13/2007	12/13/2007
				EPA Method 8015B: Gasoline Range	R26429		12/8/2007
				EPA Method 8021B: Volatiles	R26429		12/8/2007
0712109-01B				EPA Method 8270C: Semivolatiles	14602	12/11/2007	12/12/2007
0712109-01C				Carbon Dioxide	R26511		12/12/2007
				EPA 120.1: Specific Conductance	R26497		12/12/2007
				EPA Method 300.0: Anions	R26567		12/17/2007
				EPA Method 300.0: Anions	R26567		12/17/2007
				EPA Method 300.0: Anions	R26484		12/11/2007
				EPA Method 300.0: Anions	R26484		12/11/2007
				SM 2320B: Alkalinity	R26511		12/12/2007
				SM 2540C: TDS	14645	12/14/2007	12/14/2007
0712109-01D				EPA Method 6010B: Dissolved Metals	R26493		12/12/2007
				EPA Method 6010B: Dissolved Metals	R26494		12/12/2007
0712109-01E				EPA 6010B: Total Recoverable Metals	14618	12/12/2007	12/12/2007
				EPA Method 7470: Mercury	14591	12/10/2007	12/10/2007
0712109-02A	North of MW #45	12/6/2007 9:20:00 AM		EPA Method 8015B: Diesel Range	14625	12/13/2007	12/13/2007
				EPA Method 8015B: Gasoline Range	R26429		12/8/2007
				EPA Method 8021B: Volatiles	R26429		12/8/2007
0712109-02B				EPA Method 8270C: Semivolatiles	14602	12/11/2007	12/12/2007
0712109-02C				Carbon Dioxide	R26511		12/12/2007
				EPA 120.1: Specific Conductance	R26497		12/12/2007
				EPA Method 300.0: Anions	R26567		12/17/2007
				EPA Method 300.0: Anions	R26567		12/17/2007
				EPA Method 300.0: Anions	R26484		12/11/2007

Hall Environmental Analysis Laboratory, Inc.

28-Dec-07

Lab Order: 0712109
 Client: San Juan Refining
 Project: San Juan River 4th Qtr-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0712109-02C	North of MW #45	12/6/2007 9:20:00 AM	Aqueous	EPA Method 300.0: Anions	R26484		12/11/2007
				SM 2320B: Alkalinity	R26511		12/12/2007
				SM 2540C: TDS	14626	12/13/2007	12/13/2007
0712109-02D				EPA Method 6010B: Dissolved Metals	R26493		12/12/2007
				EPA Method 6010B: Dissolved Metals	R26494		12/12/2007
0712109-02E				EPA 6010B: Total Recoverable Metals	14618	12/12/2007	12/12/2007
				EPA Method 7470: Mercury	14591	12/10/2007	12/10/2007
0712109-03A	Up Stream	12/6/2007 10:00:00 AM		EPA Method 8015B: Diesel Range	14625	12/13/2007	12/13/2007
				EPA Method 8015B: Gasoline Range	R26429		12/8/2007
				EPA Method 8021B: Volatiles	R26429		12/8/2007
0712109-03B				EPA Method 8270C: Semivolatiles	14602	12/11/2007	12/12/2007
0712109-03C				Carbon Dioxide	R26511		12/12/2007
				EPA 120.1: Specific Conductance	R26497		12/12/2007
				EPA Method 300.0: Anions	R26484		12/11/2007
				EPA Method 300.0: Anions	R26567		12/17/2007
				EPA Method 300.0: Anions	R26484		12/11/2007
				EPA Method 300.0: Anions	R26484		12/11/2007
				SM 2320B: Alkalinity	R26511		12/12/2007
				SM 2540C: TDS	14626	12/13/2007	12/13/2007
0712109-03D				EPA Method 6010B: Dissolved Metals	R26493		12/12/2007
				EPA Method 6010B: Dissolved Metals	R26494		12/12/2007
0712109-03E				EPA 6010B: Total Recoverable Metals	14618	12/12/2007	12/12/2007
				EPA Method 7470: Mercury	14591	12/10/2007	12/10/2007
0712109-04A	Down Stream	12/6/2007 10:30:00 AM		EPA Method 8015B: Diesel Range	14625	12/13/2007	12/13/2007
				EPA Method 8015B: Gasoline Range	R26429		12/8/2007

Lab Order: 0712109

Client: San Juan Refining

Project: San Juan River 4th Qtr-2007

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0712109-04A	Down Stream	12/6/2007 10:30:00 AM	Aqueous	EPA Method 8021B: Volatiles	R26429		12/8/2007
0712109-04B				EPA Method 8270C: Semivolatiles	14602	12/11/2007	12/12/2007
0712109-04C				Carbon Dioxide	R26511		12/12/2007
				EPA 120.1: Specific Conductance	R26497		12/12/2007
				EPA Method 300.0: Anions	R26567		12/17/2007
				EPA Method 300.0: Anions	R26567		12/17/2007
				EPA Method 300.0: Anions	R26484		12/11/2007
				EPA Method 300.0: Anions	R26484		12/11/2007
				SM 2320B: Alkalinity	R26511		12/12/2007
				SM 2540C: TDS	14626	12/13/2007	12/13/2007
0712109-04D				EPA Method 6010B: Dissolved Metals	R26493		12/12/2007
				EPA Method 6010B: Dissolved Metals	R26494		12/12/2007
0712109-04E				EPA 6010B: Total Recoverable Metals	14618	12/12/2007	12/12/2007
				EPA Method 7470: Mercury	14591	12/10/2007	12/10/2007
0712109-05A	Trip Blank		Trip Blank	EPA Method 8015B: Gasoline Range	R26429		12/8/2007
				EPA Method 8021B: Volatiles	R26429		12/8/2007

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: San Juan River 4th Qtr-2007

Work Order: 0712109

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: MBLK		MBLK							
					Batch ID: R26484		Analysis Date:		12/11/2007 8:52:59 AM
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB		MBLK							
					Batch ID: R26567		Analysis Date:		12/17/2007 9:40:21 PM
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS		LCS							
					Batch ID: R26484		Analysis Date:		12/11/2007 9:10:24 AM
Fluoride	0.4925	mg/L	0.10	98.5	90	110			
Chloride	4.814	mg/L	0.10	96.3	90	110			
Bromide	2.472	mg/L	0.10	98.9	90	110			
Nitrate (As N)+Nitrite (As N)	3.382	mg/L	0.20	96.6	90	110			
Phosphorus, Orthophosphate (As P)	4.806	mg/L	0.50	96.1	90	110			
Sulfate	9.818	mg/L	0.50	98.2	90	110			
Sample ID: LCS		LCS							
					Batch ID: R26567		Analysis Date:		12/17/2007 9:57:46 PM
Fluoride	0.5604	mg/L	0.10	112	90	110			S
Chloride	4.366	mg/L	0.10	87.3	90	110			S
Bromide	2.549	mg/L	0.10	102	90	110			
Nitrate (As N)+Nitrite (As N)	3.540	mg/L	0.20	101	90	110			
Phosphorus, Orthophosphate (As P)	4.949	mg/L	0.50	99.0	90	110			
Sulfate	10.09	mg/L	0.50	101	90	110			
Method: SM 2320B: Alkalinity									
Sample ID: 0712109-03CMSD		MSD							
					Batch ID: R26511		Analysis Date:		12/12/2007
Alkalinity, Total (As CaCO3)	173.2	mg/L CaC	20	98.8	80	120	0	20	
Sample ID: MB		MBLK							
					Batch ID: R26511		Analysis Date:		12/12/2007
Alkalinity, Total (As CaCO3)	ND	mg/L CaC	20						
Carbonate	ND	mg/L CaC	2.0						
Bicarbonate	ND	mg/L CaC	20						
Sample ID: LCS		LCS							
					Batch ID: R26511		Analysis Date:		12/12/2007
Alkalinity, Total (As CaCO3)	82.00	mg/L CaC	20	103	80	120			
Sample ID: 0712109-03CMS		MS							
					Batch ID: R26511		Analysis Date:		12/12/2007
Alkalinity, Total (As CaCO3)	173.2	mg/L CaC	20	98.8	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: San Juan River 4th Qtr-2007

Work Order: 0712109

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Diesel Range

Sample ID: MB-14625			MBLK		Batch ID: 14625		Analysis Date: 12/13/2007 2:41:54 PM	
Diesel Range Organics (DRO)	ND	mg/L	1.0					
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Surr: DNOP	1.175	mg/L	0	117	58	140		
Sample ID: LCS-14625			LCS		Batch ID: 14625		Analysis Date: 12/13/2007 3:16:15 PM	
Diesel Range Organics (DRO)	6.095	mg/L	1.0	122	74	157		
Surr: DNOP	0.6356	mg/L	0	127	58	140		
Sample ID: LCSD-14625			LCSD		Batch ID: 14625		Analysis Date: 12/13/2007 3:50:46 PM	
Diesel Range Organics (DRO)	6.105	mg/L	1.0	122	74	157	0.159	23
Surr: DNOP	0.6002	mg/L	0	120	58	140	0	0

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB		MBLK		Batch ID: R26429		Analysis Date: 12/7/2007 8:47:20 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050				
Surr: BFB	19.26	mg/L	0	96.3	79.2	121	
Sample ID: 2.5UG GRO LCS		LCS		Batch ID: R26429		Analysis Date: 12/8/2007 3:26:31 PM	
Gasoline Range Organics (GRO)	0.4644	mg/L	0.050	88.6	80	115	
Surr: BFB	21.60	mg/L	0	108	79.2	121	
Sample ID: 2.5UG GRO LCSD		LCSD		Batch ID: R26429		Analysis Date: 12/8/2007 3:56:39 PM	
Gasoline Range Organics (GRO)	0.4670	mg/L	0.050	89.1	80	115	0.558 8.39
Surr: BFB	21.63	mg/L	0	108	79.2	121	0 0
Sample ID: 0712109-03A DUP		DUP		Batch ID: R26429		Analysis Date: 12/8/2007 12:25:35 PM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050				0 20
Surr: BFB	19.09	mg/L	0	95.5	84.5	129	0 0

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB		MBLK			Batch ID: R26429	Analysis Date: 12/7/2007 8:47:20 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			
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R26429	Analysis Date: 12/8/2007 7:52:31 AM
Methyl tert-butyl ether (MTBE)	21.42	µg/L	2.5	107	51.2	138
Benzene	20.28	µg/L	1.0	101	85.9	113
Toluene	20.20	µg/L	1.0	100	86.4	113
Ethylbenzene	20.14	µg/L	1.0	101	83.5	118
Xylenes, Total	61.09	µg/L	2.0	102	83.4	122

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: San Juan River 4th Qtr-2007

Work Order: 0712109

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-14602

MBLK

Batch ID: 14602 Analysis Date: 12/12/2007

Acenaphthene	ND	µg/L	10
Acenaphthylene	ND	µg/L	10
Aniline	ND	µg/L	10
Anthracene	ND	µg/L	10
Azobenzene	ND	µg/L	10
Benz(a)anthracene	ND	µg/L	10
Benzo(a)pyrene	ND	µg/L	10
Benzo(b)fluoranthene	ND	µg/L	10
Benzo(g,h,i)perylene	ND	µg/L	10
Benzo(k)fluoranthene	ND	µg/L	10
Benzoic acid	ND	µg/L	20
Benzyl alcohol	ND	µg/L	10
Bis(2-chloroethoxy)methane	ND	µg/L	10
Bis(2-chloroethyl)ether	ND	µg/L	10
Bis(2-chloroisopropyl)ether	ND	µg/L	10
Bis(2-ethylhexyl)phthalate	ND	µg/L	10
4-Bromophenyl phenyl ether	ND	µg/L	10
Butyl benzyl phthalate	ND	µg/L	10
Carbazole	ND	µg/L	10
4-Chloro-3-methylphenol	ND	µg/L	10
4-Chloroaniline	ND	µg/L	10
2-Chloronaphthalene	ND	µg/L	10
2-Chlorophenol	ND	µg/L	10
4-Chlorophenyl phenyl ether	ND	µg/L	10
Chrysene	ND	µg/L	10
Di-n-butyl phthalate	ND	µg/L	10
Di-n-octyl phthalate	ND	µg/L	10
Dibenz(a,h)anthracene	ND	µg/L	10
Dibenzofuran	ND	µg/L	10
1,2-Dichlorobenzene	ND	µg/L	10
1,3-Dichlorobenzene	ND	µg/L	10
1,4-Dichlorobenzene	ND	µg/L	10
3,3'-Dichlorobenzidine	ND	µg/L	10
Diethyl phthalate	ND	µg/L	10
Dimethyl phthalate	ND	µg/L	10
2,4-Dichlorophenol	ND	µg/L	10
2,4-Dimethylphenol	ND	µg/L	10
4,6-Dinitro-2-methylphenol	ND	µg/L	10
2,4-Dinitrophenol	ND	µg/L	10
2,4-Dinitrotoluene	ND	µg/L	10
2,6-Dinitrotoluene	ND	µg/L	10
Fluoranthene	ND	µg/L	10
Fluorene	ND	µg/L	10
Hexachlorobenzene	ND	µg/L	10

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River 4th Qtr-2007

Work Order: 0712109

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-14602

MBLK

Batch ID: 14602

Analysis Date:

12/12/2007

Hexachlorobutadiene	ND	µg/L	10						
Hexachlorocyclopentadiene	ND	µg/L	10						
Hexachloroethane	ND	µg/L	10						
Indeno(1,2,3-cd)pyrene	ND	µg/L	10						
Isophorone	ND	µg/L	10						
2-Methylnaphthalene	ND	µg/L	10						
2-Methylphenol	ND	µg/L	10						
3+4-Methylphenol	ND	µg/L	10						
N-Nitrosodi-n-propylamine	ND	µg/L	10						
N-Nitrosodimethylamine	ND	µg/L	10						
N-Nitrosodiphenylamine	ND	µg/L	10						
Naphthalene	ND	µg/L	10						
2-Nitroaniline	ND	µg/L	10						
3-Nitroaniline	ND	µg/L	10						
4-Nitroaniline	ND	µg/L	10						
Nitrobenzene	ND	µg/L	10						
2-Nitrophenol	ND	µg/L	10						
4-Nitrophenol	ND	µg/L	10						
2,4-Dichlorophenol	ND	µg/L	10						
Phenanthrene	ND	µg/L	10						
Phenol	ND	µg/L	10						
Pyrene	ND	µg/L	10						
Pyridine	ND	µg/L	10						
1,2,4-Trichlorobenzene	ND	µg/L	10						
2,4,5-Trichlorophenol	ND	µg/L	10						
2,4,6-Trichlorophenol	ND	µg/L	10						
Surr: 2,4,6-Tribromophenol	140.3	µg/L	0	70.1	16.6	150			
Surr: 2-Fluorobiphenyl	86.04	µg/L	0	86.0	19.6	134			
Surr: 2-Fluorophenol	129.1	µg/L	0	64.5	9.54	113			
Surr: 4-Terphenyl-d14	96.42	µg/L	0	96.4	22.7	145			
Surr: Nitrobenzene-d5	92.68	µg/L	0	92.7	14.6	134			
Surr: Phenol-d5	98.98	µg/L	0	49.5	10.7	80.3			

Sample ID: lcs-14602

LCS

Batch ID: 14602

Analysis Date:

12/12/2007

Acenaphthene	71.56	µg/L	10	71.6	11	123			
4-Chloro-3-methylphenol	144.9	µg/L	10	72.4	15.4	119			
2-Chlorophenol	144.1	µg/L	10	72.1	12.2	122			
1,4-Dichlorobenzene	60.42	µg/L	10	60.4	16.9	100			
2,4-Dinitrotoluene	65.50	µg/L	10	65.5	13	138			
N-Nitrosodi-n-propylamine	75.48	µg/L	10	75.5	9.93	122			
4-Nitrophenol	70.82	µg/L	10	35.4	12.5	87.4			
Pentachlorophenol	117.6	µg/L	10	58.8	3.55	114			
Phenol	86.92	µg/L	10	43.5	7.53	73.1			
Pyrene	66.72	µg/L	10	66.7	12.6	140			
1,2,4-Trichlorobenzene	54.98	µg/L	10	55.0	17.4	98.7			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: San Juan River 4th Qtr-2007

Work Order: 0712109

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: Ics-14602		LCS			Batch ID: 14602		Analysis Date: 12/12/2007	
Surr: 2,4,6-Tribromophenol	119.6	µg/L	0	59.8	16.6	150		
Surr: 2-Fluorobiphenyl	71.38	µg/L	0	71.4	19.6	134		
Surr: 2-Fluorophenol	110.6	µg/L	0	55.3	9.54	113		
Surr: 4-Terphenyl-d14	85.18	µg/L	0	85.2	22.7	145		
Surr: Nitrobenzene-d5	84.12	µg/L	0	84.1	14.6	134		
Surr: Phenol-d5	86.72	µg/L	0	43.4	10.7	80.3		

Sample ID: Icsd-14602		LCSD			Batch ID: 14602	Analysis Date: 12/12/2007
Acenaphthene	86.18	µg/L	10	86.2	11	123
Acenaphthylene	ND	µg/L	10	0	0	0
Aniline	ND	µg/L	10	0.880	0	0
Anthracene	ND	µg/L	10	0	0	0
Azobenzene	ND	µg/L	10	0	0	0
Benz(a)anthracene	ND	µg/L	10	0	0	0
Benzo(a)pyrene	ND	µg/L	10	0	0	0
Benzo(b)fluoranthene	ND	µg/L	10	0	0	0
Benzo(g,h,i)perylene	ND	µg/L	10	0	0	0
Benzo(k)fluoranthene	ND	µg/L	10	0	0	0
Benzoic acid	ND	µg/L	20	-5.36	0	0
Benzyl alcohol	ND	µg/L	10	0	0	0
Bis(2-chloroethoxy)methane	ND	µg/L	10	0	0	0
Bis(2-chloroethyl)ether	ND	µg/L	10	0	0	0
Bis(2-chloroisopropyl)ether	ND	µg/L	10	0	0	0
Bis(2-ethylhexyl)phthalate	ND	µg/L	10	0.180	0	0
4-Bromophenyl phenyl ether	ND	µg/L	10	0	0	0
Butyl benzyl phthalate	ND	µg/L	10	0	0	0
Carbazole	ND	µg/L	10	0	0	0
4-Chloro-3-methylphenol	183.4	µg/L	10	91.7	15.4	119
4-Chloroaniline	ND	µg/L	10	-4.38	0	0
2-Chloronaphthalene	ND	µg/L	10	0	0	0
2-Chlorophenol	175.2	µg/L	10	87.6	12.2	122
4-Chlorophenyl phenyl ether	ND	µg/L	10	0	0	0
Chrysene	ND	µg/L	10	0	0	0
Di-n-butyl phthalate	ND	µg/L	10	0	0	0
Di-n-octyl phthalate	ND	µg/L	10	0	0	0
Dibenz(a,h)anthracene	ND	µg/L	10	0	0	0
Dibenzofuran	ND	µg/L	10	0	0	0
1,2-Dichlorobenzene	ND	µg/L	10	0	0	0
1,3-Dichlorobenzene	ND	µg/L	10	0	0	0
1,4-Dichlorobenzene	74.38	µg/L	10	74.4	16.9	100
3,3'-Dichlorobenzidine	ND	µg/L	10	0	0	0
Diethyl phthalate	ND	µg/L	10	0	0	0
Dimethyl phthalate	ND	µg/L	10	0	0	0
2,4-Dichlorophenol	ND	µg/L	10	-2.12	0	0
2,4-Dimethylphenol	ND	µg/L	10	0	0	0

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River 4th Qtr-2007

Work Order: 0712109

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: 1csd-14602 LCSD Batch ID: 14602 Analysis Date: 12/12/2007

4,6-Dinitro-2-methylphenol	ND	µg/L	10	0	0	0			
2,4-Dinitrophenol	ND	µg/L	10	0	0	0			
2,4-Dinitrotoluene	82.72	µg/L	10	82.7	13	138			
2,6-Dinitrotoluene	ND	µg/L	10	0	0	0			
Fluoranthene	ND	µg/L	10	0	0	0			
Fluorene	ND	µg/L	10	2.24	0	0			
Hexachlorobenzene	ND	µg/L	10	0	0	0			
Hexachlorobutadiene	ND	µg/L	10	0	0	0			
Hexachlorocyclopentadiene	ND	µg/L	10	0	0	0			
Hexachloroethane	ND	µg/L	10	0	0	0			
Indeno(1,2,3-cd)pyrene	ND	µg/L	10	0	0	0			
Isophorone	ND	µg/L	10	0	0	0			
2-Methylnaphthalene	ND	µg/L	10	0	0	0			
2-Methylphenol	ND	µg/L	10	0	0	0			
3+4-Methylphenol	ND	µg/L	10	0	0	0			
N-Nitrosodi-n-propylamine	91.06	µg/L	10	91.1	9.93	122			
N-Nitrosodimethylamine	ND	µg/L	10	0	0	0			
N-Nitrosodiphenylamine	ND	µg/L	10	0	0	0			
1-Methylphenol	ND	µg/L	10	0	0	0			
2-Nitroaniline	ND	µg/L	10	0	0	0			
3-Nitroaniline	ND	µg/L	10	0	0	0			
4-Nitroaniline	ND	µg/L	10	0	0	0			
Nitrobenzene	ND	µg/L	10	0	0	0			
2-Nitrophenol	ND	µg/L	10	0	0	0			
4-Nitrophenol	88.40	µg/L	10	44.2	12.5	87.4			
Pentachlorophenol	151.2	µg/L	10	75.6	3.55	114			
Phenanthrene	ND	µg/L	10	0	0	0			
Phenol	103.7	µg/L	10	51.8	7.53	73.1			
Pyrene	84.56	µg/L	10	84.6	12.6	140			
Pyridine	ND	µg/L	10	-1.62	0	0			
1,2,4-Trichlorobenzene	69.84	µg/L	10	69.8	17.4	98.7			
2,4,5-Trichlorophenol	ND	µg/L	10	-2.02	0	0			
2,4,6-Trichlorophenol	ND	µg/L	10	0	0	0			
Surr: 2,4,6-Tribromophenol	145.1	µg/L	0	72.6	16.6	150			
Surr: 2-Fluorobiphenyl	88.32	µg/L	0	88.3	19.6	134			
Surr: 2-Fluorophenol	137.8	µg/L	0	68.9	9.54	113			
Surr: 4-Terphenyl-d14	100.4	µg/L	0	100	22.7	145			
Surr: Nitrobenzene-d5	102.3	µg/L	0	102	14.6	134			
Surr: Phenol-d5	105.0	µg/L	0	52.5	10.7	80.3			

Method: EPA 120.1: Specific Conductance

Sample ID: 0712109-01CDUP DUP Batch ID: R26497 Analysis Date: 12/12/2007

Specific Conductance 412.0 µmhos/cm 0.010 0.484 20

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: San Juan River 4th Qtr-2007

Work Order: 0712109

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 7470: Mercury									
Sample ID: 0712109-04E MSD		MSD							
Mercury	0.004837	mg/L	0.00020	96.7	75	125	1.37	20	
Sample ID: MB-14591		MBLK							
Mercury	ND	mg/L	0.00020						
Sample ID: LCS-14591		LCS							
Mercury	0.005084	mg/L	0.00020	102	80	120			
Sample ID: 0712109-04E MS		MS							
Mercury	0.004903	mg/L	0.00020	98.1	75	125			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River 4th Qtr-2007

Work Order: 0712109

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 6010B: Dissolved Metals

Sample ID: MB MBLK

Batch ID: R26493 Analysis Date: 12/12/2007 10:59:28 AM

Arsenic	ND	mg/L	0.020
Barium	ND	mg/L	0.020
Cadmium	ND	mg/L	0.0020
Calcium	ND	mg/L	1.0
Chromium	ND	mg/L	0.0060
Copper	ND	mg/L	0.0060
Iron	ND	mg/L	0.020
Lead	ND	mg/L	0.0050
Magnesium	ND	mg/L	1.0
Manganese	ND	mg/L	0.0020
Potassium	ND	mg/L	1.0
Selenium	ND	mg/L	0.050
Silver	ND	mg/L	0.0050
Sodium	ND	mg/L	1.0
Zinc	ND	mg/L	0.050

Sample ID: MB MBLK

Batch ID: R26494 Analysis Date: 12/12/2007 2:09:13 PM

Uranium ND mg/L 0.10

Sample ID: LCS LCS

Batch ID: R26493 Analysis Date: 12/12/2007 11:27:28 AM

Arsenic	0.4813	mg/L	0.020	96.3	80	120
Barium	0.4622	mg/L	0.020	92.4	80	120
Cadmium	0.4658	mg/L	0.0020	93.2	80	120
Calcium	50.36	mg/L	1.0	99.7	80	120
Chromium	0.4696	mg/L	0.0060	93.9	80	120
Copper	0.4528	mg/L	0.0060	90.6	80	120
Iron	0.4736	mg/L	0.020	94.7	80	120
Lead	0.4757	mg/L	0.0050	95.1	80	120
Magnesium	49.15	mg/L	1.0	97.3	80	120
Manganese	0.4602	mg/L	0.0020	92.0	80	120
Potassium	51.43	mg/L	1.0	93.5	80	120
Selenium	0.4892	mg/L	0.050	97.8	80	120
Silver	0.4368	mg/L	0.0050	87.4	80	120
Sodium	51.75	mg/L	1.0	102	80	120
Zinc	0.4823	mg/L	0.050	96.5	80	120

Sample ID: LCS LCS

Batch ID: R26494 Analysis Date: 12/12/2007 2:13:05 PM

Uranium 0.4445 mg/L 0.10 89.3 80 120

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River 4th Qtr-2007

Work Order: 0712109

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA 6010B: Total Recoverable Metals

Sample ID: 0712109-01E MSD

MSD

Batch ID: 14618 Analysis Date: 12/12/2007 6:53:22 PM

Arsenic	0.4967	mg/L	0.020	99.3	75	125	5.24	20
Barium	0.5558	mg/L	0.010	96.5	75	125	3.45	20
Cadmium	0.4838	mg/L	0.0020	96.8	75	125	1.66	20
Chromium	0.4822	mg/L	0.0060	96.4	75	125	2.06	20
Lead	0.4658	mg/L	0.0050	93.2	75	125	0.854	20
Selenium	0.4764	mg/L	0.050	95.3	75	125	2.10	20
Silver	0.5051	mg/L	0.0050	100	75	125	3.14	20

Sample ID: MB-14618

MBLK

Batch ID: 14618 Analysis Date: 12/12/2007 5:00:48 PM

Arsenic	ND	mg/L	0.020					
Barium	ND	mg/L	0.010					
Cadmium	ND	mg/L	0.0020					
Chromium	ND	mg/L	0.0060					
Lead	ND	mg/L	0.0050					
Selenium	ND	mg/L	0.050					
Silver	ND	mg/L	0.0050					

Sample ID: LCS-14618

LCS

Batch ID: 14618 Analysis Date: 12/12/2007 5:03:49 PM

Arsenic	0.4859	mg/L	0.020	97.2	80	120		
Barium	0.4642	mg/L	0.010	92.8	80	120		
Cadmium	0.4797	mg/L	0.0020	95.9	80	120		
Chromium	0.4820	mg/L	0.0060	96.4	80	120		
Lead	0.4759	mg/L	0.0050	95.2	80	120		
Selenium	0.4938	mg/L	0.050	98.8	80	120		
Silver	0.4835	mg/L	0.0050	96.0	80	120		

Sample ID: 0712109-01E MS

MS

Batch ID: 14618 Analysis Date: 12/12/2007 6:49:59 PM

Arsenic	0.4713	mg/L	0.020	94.3	75	125		
Barium	0.5370	mg/L	0.010	92.8	75	125		
Cadmium	0.4758	mg/L	0.0020	95.2	75	125		
Chromium	0.4723	mg/L	0.0060	94.5	75	125		
Lead	0.4619	mg/L	0.0050	92.4	75	125		
Selenium	0.4665	mg/L	0.050	93.3	75	125		
Silver	0.4895	mg/L	0.0050	97.4	75	125		

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: San Juan River 4th Qtr-2007

Work Order: 0712109

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SM 2540C: TDS

Sample ID: 0712109-01C MSD MSD Batch ID: 14645 Analysis Date: 12/14/2007

Total Dissolved Solids 1291 mg/L 20 102 80 120 0.0774 20

Sample ID: MB-14626 MBLK Batch ID: 14626 Analysis Date: 12/13/2007

Total Dissolved Solids ND mg/L 20

Sample ID: MB-14645 MBLK Batch ID: 14645 Analysis Date: 12/14/2007

Total Dissolved Solids ND mg/L 20

Sample ID: LCS-14626 LCS Batch ID: 14626 Analysis Date: 12/13/2007

Total Dissolved Solids 1035 mg/L 20 103 80 120

Sample ID: LCS-14645 LCS Batch ID: 14645 Analysis Date: 12/14/2007

Total Dissolved Solids 1012 mg/L 20 101 80 120

Sample ID: 0712109-01C MS MS Batch ID: 14645 Analysis Date: 12/14/2007

Total Dissolved Solids 1292 mg/L 20 102 80 120

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **SJR**

Date Received:

12/7/2007

Work Order Number **0712109**

Received by: **AT**

Checklist completed by:

Signature

Date

Sample ID labels checked by

Initials

Matrix

Carrier name **UPS**

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

2°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

COVER LETTER

Monday, January 08, 2007

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

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

RE: TK #33 - 1st Qtr - 2007

Order No.: 0701032

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 1/4/2007 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



Hall Environmental Analysis Laboratory, Inc.

Date: 09-Jan-07

CLIENT: San Juan Refining
Lab Order: 0701032
Project: TK #33 - 1st Qtr - 2007
Lab ID: 0701032-01

Client Sample ID: TK #33
Collection Date: 1/3/2007 1:30:00 PM
Date Received: 1/4/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Benzene	ND	1.0		µg/L	1	1/5/2007 12:22:58 PM
Toluene	ND	1.0		µg/L	1	1/5/2007 12:22:58 PM
Ethylbenzene	ND	1.0		µg/L	1	1/5/2007 12:22:58 PM
Xylenes, Total	ND	3.0		µg/L	1	1/5/2007 12:22:58 PM
Surr: 4-Bromofluorobenzene	84.3	70.2-105		%REC	1	1/5/2007 12:22:58 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

Hall Environmental Analysis Laboratory, Inc.

Date: 09-Jan-07

CLIENT: San Juan Refining
Lab Order: 0701032
Project: TK #33 - 1st Qtr - 2007
Lab ID: 0701032-02

Client Sample ID: Fresh Water Ponds
Collection Date: 1/3/2007 1:35:00 PM
Date Received: 1/4/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Benzene	ND	1.0		µg/L	1	1/5/2007 12:53:00 PM
Toluene	ND	1.0		µg/L	1	1/5/2007 12:53:00 PM
Ethylbenzene	ND	1.0		µg/L	1	1/5/2007 12:53:00 PM
Xylenes, Total	ND	3.0		µg/L	1	1/5/2007 12:53:00 PM
Surr: 4-Bromofluorobenzene	78.4	70.2-105		%REC	1	1/5/2007 12:53:00 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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: TK #33 - 1st Qtr - 2007

Work Order: 0701031

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: SW8021

Sample ID: 5ML RB

MBLK

Batch ID: R22023 Analysis Date: 1/5/2007 9:36:07 AM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	3.0

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R22023 Analysis Date: 1/5/2007 11:06:27 AM

Benzene	17.80	µg/L	1.0	89.0	85.9	113
Toluene	17.87	µg/L	1.0	89.3	86.4	113
Ethylbenzene	17.69	µg/L	1.0	88.4	83.5	118
Xylenes, Total	53.20	µg/L	3.0	88.7	83.4	122

Qualifiers:

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



4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.3976
www.hallenvironmental.com

CHAIN-OF-CUSTODY RECORD						QA/QC Package:		
						Std ☐	Level 4 ☐	
Other:								
Client:		SAN JUAN Refining						
Address:		#50 Rd 4990 Blondfield, NM 87413						
Phone #:		505-632-4161						
Fax #:		505-632-3911						
Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.
					HgCl ₂	HNO ₃	HCL	
-3-07	1:30	H ₂ O	TK#33	2-VOA		X		07010321
-3-07	1:35	H ₂ O	Fresh water ponds	2-VOA		X		2
Date:	Time:	Relinquished By: (Signature)		Received By: (Signature)				
3/07	1500	(new signature)		(signature)				11/4/07
Date:	Time:	Relinquished By: (Signature)		Received By: (Signature)				
								10/15

COVER LETTER

Monday, April 30, 2007

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911
RE: TK #33 - 2nd Qtr - 2007

Order No.: 0704399

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 4/26/2007 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



Hall Environmental Analysis Laboratory, Inc.

Date: 30-Apr-07

CLIENT: San Juan Refining
Project: TK #33 - 2nd Qtr - 2007**Lab Order:** 0704399**Lab ID:** 0704399-01**Collection Date:** 4/25/2007 10:35:00 AM**Client Sample ID:** TK #33**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/26/2007 10:28:50 PM
Toluene	ND	1.0		µg/L	1	4/26/2007 10:28:50 PM
Ethylbenzene	ND	1.0		µg/L	1	4/26/2007 10:28:50 PM
Xylenes, Total	ND	2.0		µg/L	1	4/26/2007 10:28:50 PM
Surr: 4-Bromofluorobenzene	86.0	70.2-105		%REC	1	4/26/2007 10:28:50 PM

Lab ID: 0704399-02**Collection Date:** 4/25/2007 10:45:00 AM**Client Sample ID:** Fresh Water Ponds**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/26/2007 10:58:56 PM
Toluene	ND	1.0		µg/L	1	4/26/2007 10:58:56 PM
Ethylbenzene	ND	1.0		µg/L	1	4/26/2007 10:58:56 PM
Xylenes, Total	ND	2.0		µg/L	1	4/26/2007 10:58:56 PM
Surr: 4-Bromofluorobenzene	87.7	70.2-105		%REC	1	4/26/2007 10:58:56 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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: TK #33 - 2nd Qtr - 2007

Work Order: 0704399

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: SW8021

Sample ID: 5ML REAGENT BLA

MBLK

Batch ID: R23375 Analysis Date: 4/26/2007 9:26:05 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

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R23375 Analysis Date: 4/26/2007 6:58:00 PM

Benzene	18.93	µg/L	1.0	94.6	85.9	113
Toluene	19.52	µg/L	1.0	97.6	86.4	113
Ethylbenzene	19.78	µg/L	1.0	98.9	83.5	118
Xylenes, Total	59.08	µg/L	2.0	98.5	83.4	122

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/26/2007

Work Order Number 0704399

Received by TLS

Checklist completed by

Jamy Sh
Signature

APR. 26, 07
Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☒	
Chain of custody present?	Yes ☒	No ☐		
Chain of custody signed when relinquished and received?	Yes ☒	No ☐		
Chain of custody agrees with sample labels?	Yes ☒	No ☐		
Samples in proper container/bottle?	Yes ☒	No ☐		
Sample containers intact?	Yes ☒	No ☐		
Sufficient sample volume for indicated test?	Yes ☒	No ☐		
All samples received within holding time?	Yes ☒	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☒	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒	

Container/Temp Blank temperature?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

QA/QC Package:

Std Level 4

Other:

Project Name:

Project #:

Project Manager:

Sampler:

Sample Temperature:

Number	Volume	Preservative	HEAL No.
--------	--------	--------------	----------

HEAL No.

Preservative

$$\text{HgCl}_2 \mid \text{HNO}_3$$
 HNO_3

075112

4-25-07	10:35	TL#23	2-10A	✓
				✓

44-25-57	10:15	1	English	8-10M	✓	2
----------	-------	---	---------	-------	---	---

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
		/	4/26/07

Date:	2024/11/13	Relinquished By: (Signature)	Received By: (Signature)
		<i>[Signature]</i>	<i>[Signature]</i>

Remarks:

4/26/07

15

Received By: [Signature]

Received By: [Signature]

COVER LETTER

Tuesday, July 10, 2007

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

TEL: (505) 632-4161

FAX (505) 632-3911

RE: TK #33 - 3rd Qtr - 2007

Order No.: 0707076

Dear Cindy Hurtado:

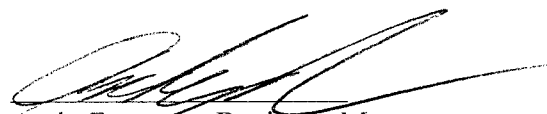
Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 7/6/2007 for the analyses presented in the following report.

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



Hall Environmental Analysis Laboratory, Inc.

Date: 10-Jul-07

CLIENT: San Juan Refining
Project: TK #33 - 3rd Qtr - 2007**Lab Order:** 0707076**Lab ID:** 0707076-01 **Collection Date:** 7/5/2007 8:00:00 AM**Client Sample ID:** TK #33 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES Analyst: NSB						
Benzene	3.1	1.0		µg/L	1	7/9/2007 9:47:37 PM
Toluene	ND	1.0		µg/L	1	7/9/2007 9:47:37 PM
Ethylbenzene	ND	1.0		µg/L	1	7/9/2007 9:47:37 PM
Xylenes, Total	ND	2.0		µg/L	1	7/9/2007 9:47:37 PM
Surr: 4-Bromofluorobenzene	82.3	70.2-105		%REC	1	7/9/2007 9:47:37 PM

Lab ID: 0707076-02 **Collection Date:** 7/5/2007 8:05:00 AM**Client Sample ID:** Fresh Water Pond **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES Analyst: NSB						
Benzene	ND	1.0		µg/L	1	7/9/2007 10:17:31 PM
Toluene	ND	1.0		µg/L	1	7/9/2007 10:17:31 PM
Ethylbenzene	ND	1.0		µg/L	1	7/9/2007 10:17:31 PM
Xylenes, Total	ND	2.0		µg/L	1	7/9/2007 10:17:31 PM
Surr: 4-Bromofluorobenzene	83.5	70.2-105		%REC	1	7/9/2007 10:17:31 PM

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: TK #33 - 3rd Qtr - 2007

Work Order: 0707076

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: SW8021

Sample ID: 5ML RB

MBLK

Batch ID: R24312 Analysis Date: 7/9/2007 9:12:55 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

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R24312 Analysis Date: 7/9/2007 10:44:44 AM

Benzene	19.91	µg/L	1.0	99.6	85.9	113
Toluene	20.19	µg/L	1.0	101	86.4	113
Ethylbenzene	20.23	µg/L	1.0	101	83.5	118
Xylenes, Total	59.52	µg/L	2.0	99.2	83.4	122

Sample ID: 100NG BTEX LCSD

LCSD

Batch ID: R24312 Analysis Date: 7/9/2007 7:47:51 PM

Benzene	19.86	µg/L	1.0	99.3	85.9	113	0.272	27
Toluene	20.23	µg/L	1.0	101	86.4	113	0.198	19
Ethylbenzene	20.51	µg/L	1.0	103	83.5	118	1.36	10
Xylenes, Total	61.45	µg/L	2.0	102	83.4	122	3.19	13

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

7/6/2007

Work Order Number 0707076

Received by ARS

Checklist completed by

Signature



7/6/07

Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Present ☐

Not Shipped ☒

Custody seals intact on sample bottles?

Yes ☒

No ☐

N/A ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

3°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

COVER LETTER

Thursday, October 18, 2007

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

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

RE: TK #33 - 4th Qtr

Order No.: 0710206

Dear Cindy Hurtado:

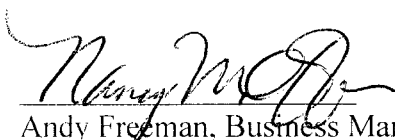
Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 10/10/2007 for the analyses presented in the following report.

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



CLIENT: San Juan Refining
Project: TK #33 - 4th Qtr
Lab Order: 0710206

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0710206-01A	TK #33	R25530	EPA Method 8021B: Volatiles	10/9/2007 1:30:00 PM
0710206-02A	Freshwater Pond	R25530	EPA Method 8021B: Volatiles	10/9/2007 1:40:00 PM
0710206-03A	TK #33 Dup	R25530	EPA Method 8021B: Volatiles	10/9/2007 1:45:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Oct-07

CLIENT: San Juan Refining
Lab Order: 0710206
Project: TK #33 - 4th Qtr
Lab ID: 0710206-01

Client Sample ID: TK #33
Collection Date: 10/9/2007 1:30:00 PM
Date Received: 10/10/2007
Matrix: AQUEOUS

Analyses		Result	Qual	MDL	PQL Units	DF	Date Analyzed
CAS #	EPA METHOD 8021B: VOLATILES						Analyst: NSB
71-43-2	Benzene	ND		0.047	1.0 µg/L	1	10/11/2007 4:49:57 PM
108-88-3	Toluene	ND		0.047	1.0 µg/L	1	10/11/2007 4:49:57 PM
100-41-4	Ethylbenzene	ND		0.047	1.0 µg/L	1	10/11/2007 4:49:57 PM
1330-20-7	Xylenes, Total	ND		0.16	2.0 µg/L	1	10/11/2007 4:49:57 PM
460-00-4	Surr: 4-Bromofluorobenzene	88.2		0	70.2-105 %REC	1	10/11/2007 4:49:57 PM

Qualifiers: 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Oct-07

CLIENT: San Juan Refining
Lab Order: 0710206
Project: TK #33 - 4th Qtr
Lab ID: 0710206-02

Client Sample ID: Freshwater Pond
Collection Date: 10/9/2007 1:40:00 PM
Date Received: 10/10/2007
Matrix: AQUEOUS

Analyses		Result	Qual	MDL	PQL Units	DF	Date Analyzed
CAS #	EPA METHOD 8021B: VOLATILES						Analyst: NSB
71-43-2	Benzene	ND		0.047	1.0 µg/L	1	10/11/2007 5:19:55 PM
108-88-3	Toluene	ND		0.047	1.0 µg/L	1	10/11/2007 5:19:55 PM
100-41-4	Ethylbenzene	ND		0.047	1.0 µg/L	1	10/11/2007 5:19:55 PM
1330-20-7	Xylenes, Total	ND		0.16	2.0 µg/L	1	10/11/2007 5:19:55 PM
460-00-4	Surr: 4-Bromofluorobenzene	85.2		0	70.2-105 %REC	1	10/11/2007 5:19:55 PM

Qualifiers: 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

CLIENT: San Juan Refining
Lab Order: 0710206
Project: TK #33 - 4th Qtr
Lab ID: 0710206-03

Client Sample ID: TK #33 Dup
Collection Date: 10/9/2007 1:45:00 PM
Date Received: 10/10/2007
Matrix: AQUEOUS

Analyses		Result	Qual	MDL	PQL Units	DF	Date Analyzed
CAS #	EPA METHOD 8021B: VOLATILES						Analyst: NSB
71-43-2	Benzene	ND		0.047	1.0 µg/L	1	10/11/2007 5:49:47 PM
108-88-3	Toluene	ND		0.047	1.0 µg/L	1	10/11/2007 5:49:47 PM
100-41-4	Ethylbenzene	ND		0.047	1.0 µg/L	1	10/11/2007 5:49:47 PM
1330-20-7	Xylenes, Total	ND		0.16	2.0 µg/L	1	10/11/2007 5:49:47 PM
460-00-4	Surr: 4-Bromofluorobenzene	86.5		0	70.2-105 %REC	1	10/11/2007 5:49:47 PM

Qualifiers: 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

Lab Order: 0710206

Client: San Juan Refining

Project: TK #33 - 4th Qtr

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0710206-01A	TK #33	10/9/2007 1:30:00 PM	Aqueous	EPA Method 8021B: Volatiles	R25530		10/11/2007
0710206-02A	Freshwater Pond	10/9/2007 1:40:00 PM		EPA Method 8021B: Volatiles	R25530		10/11/2007
0710206-03A	TK #33 Dup	10/9/2007 1:45:00 PM		EPA Method 8021B: Volatiles	R25530		10/11/2007

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: TK #33 - 4th Qtr

Work Order: 0710206

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: SW8021

Sample ID: 5ML RB

MBLK

Batch ID: R25530 Analysis Date: 10/11/2007 8:41:40 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	17.09	µg/L	0	85.4	70.2	105			

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R25530 Analysis Date: 10/11/2007 9:49:42 PM

Benzene	20.51	µg/L	1.0	103	85.9	113			
Toluene	19.82	µg/L	1.0	99.1	86.4	113			
Ethylbenzene	19.44	µg/L	1.0	97.2	83.5	118			
Xylenes, Total	57.97	µg/L	2.0	96.6	83.4	122			
Surr: 4-Bromofluorobenzene	19.40	µg/L	0	97.0	70.2	105			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **SJR**

Date and Time Received:

10/10/2007

Work Order Number **0710206**

Received by **TLS**

Checklist completed by

Signature

Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Present ☐

Not Shipped ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

COVER LETTER

Thursday, April 19, 2007

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

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

RE: Semi-Annual 2007

Order No.: 0704187-A

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 6 samples on 4/12/07 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



Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704187
Project: Semi-Annual-2007
Lab ID: 0704187-06

Client Sample ID: OW 0+60
Collection Date: 4/11/2007 8:45:00 AM
Date Received: 4/12/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	4/13/2007 10:21:38 PM
Benzene	ND	10		µg/L	10	4/13/2007 10:21:38 PM
Toluene	58	10		µg/L	10	4/13/2007 10:21:38 PM
Ethylbenzene	97	10		µg/L	10	4/13/2007 10:21:38 PM
Xylenes, Total	150	20		µg/L	10	4/13/2007 10:21:38 PM
Surr: 4-Bromofluorobenzene	93.1	70.2-105		%REC	10	4/13/2007 10:21:38 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704187
Project: Semi-Annual-2007
Lab ID: 0704187-07

Client Sample ID: OW 11+15
Collection Date: 4/11/2007 9:00:00 AM
Date Received: 4/12/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	1900	50		µg/L	20	4/13/2007 10:54:14 PM
Benzene	840	20		µg/L	20	4/13/2007 10:54:14 PM
Toluene	ND	20		µg/L	20	4/13/2007 10:54:14 PM
Ethylbenzene	ND	20		µg/L	20	4/13/2007 10:54:14 PM
Xylenes, Total	ND	40		µg/L	20	4/13/2007 10:54:14 PM
Surr: 4-Bromofluorobenzene	90.2	70.2-105		%REC	20	4/13/2007 10:54:14 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: OW 16+60

Lab Order: 0704187

Collection Date: 4/11/2007 9:10:00 AM

Project: Semi-Annual-2007

Date Received: 4/12/2007

Lab ID: 0704187-08

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	9000	620		µg/L	250	4/16/2007 12:44:12 PM
Benzene	3100	50		µg/L	50	4/14/2007 12:27:07 AM
Toluene	ND	50		µg/L	50	4/14/2007 12:27:07 AM
Ethylbenzene	2000	50		µg/L	50	4/14/2007 12:27:07 AM
Xylenes, Total	7200	100		µg/L	50	4/14/2007 12:27:07 AM
Surr: 4-Bromofluorobenzene	91.2	70.2-105		%REC	50	4/14/2007 12:27:07 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704187
Project: Semi-Annual-2007
Lab ID: 0704187-09

Client Sample ID: OW 19+50
Collection Date: 4/11/2007 9:15:00 AM
Date Received: 4/12/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	270	50		µg/L	20	4/14/2007 12:59:46 AM
Benzene	1.9	1.0		µg/L	1	4/16/2007 1:14:17 PM
Toluene	ND	1.0		µg/L	1	4/16/2007 1:14:17 PM
Ethylbenzene	ND	1.0		µg/L	1	4/16/2007 1:14:17 PM
Xylenes, Total	ND	2.0		µg/L	1	4/16/2007 1:14:17 PM
Surr: 4-Bromofluorobenzene	85.9	70.2-105		%REC	1	4/16/2007 1:14:17 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: OW 22+00

Lab Order: 0704187

Collection Date: 4/11/2007 9:25:00 AM

Project: Semi-Annual-2007

Date Received: 4/12/2007

Lab ID: 0704187-10

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	2400	120		µg/L	50	4/14/2007 1:32:23 AM
Benzene	ND	5.0		µg/L	5	4/14/2007 2:04:58 AM
Toluene	ND	5.0		µg/L	5	4/14/2007 2:04:58 AM
Ethylbenzene	ND	5.0		µg/L	5	4/14/2007 2:04:58 AM
Xylenes, Total	ND	10		µg/L	5	4/14/2007 2:04:58 AM
Surr: 4-Bromofluorobenzene	90.3	70.2-105		%REC	5	4/14/2007 2:04:58 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704187
Project: Semi-Annual-2007
Lab ID: 0704187-11

Client Sample ID: OW 23+10
Collection Date: 4/11/2007 9:35:00 AM
Date Received: 4/12/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	40	2.5		µg/L	1	4/16/2007 2:14:26 PM
Benzene	ND	1.0		µg/L	1	4/16/2007 2:14:26 PM
Toluene	7.1	1.0		µg/L	1	4/16/2007 2:14:26 PM
Ethylbenzene	3.2	1.0		µg/L	1	4/16/2007 2:14:26 PM
Xylenes, Total	9.3	2.0		µg/L	1	4/16/2007 2:14:26 PM
Surr: 4-Bromofluorobenzene	93.9	70.2-105		%REC	1	4/16/2007 2:14:26 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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Semi-Annual-2007

Work Order: 0704187

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 5ML REAGENT BLA		MBLK			Batch ID: R23225	Analysis Date: 4/13/2007 8:41:38 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						
Sample ID: 5ML REAGENT BLA		MBLK			Batch ID: R23234	Analysis Date: 4/16/2007 9:38:01 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						
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R23225	Analysis Date: 4/14/2007 7:07:44 AM			
Methyl tert-butyl ether (MTBE)	19.37	µg/L	2.5	96.8	51.2	138			
Benzene	19.40	µg/L	1.0	97.0	85.9	113			
Toluene	19.73	µg/L	1.0	98.6	86.4	113			
Ethylbenzene	20.31	µg/L	1.0	102	83.5	118			
Xylenes, Total	60.22	µg/L	2.0	100	83.4	122			
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R23234	Analysis Date: 4/16/2007 3:14:44 PM			
Methyl tert-butyl ether (MTBE)	18.76	µg/L	2.5	93.8	51.2	138			
Benzene	18.81	µg/L	1.0	94.1	85.9	113			
Toluene	19.22	µg/L	1.0	96.1	86.4	113			
Ethylbenzene	19.52	µg/L	1.0	97.6	83.5	118			
Xylenes, Total	58.26	µg/L	2.0	97.1	83.4	122			
Sample ID: 100NG BTEX LCSD		LCSD			Batch ID: R23225	Analysis Date: 4/14/2007 7:37:39 AM			
Methyl tert-butyl ether (MTBE)	18.63	µg/L	2.5	93.2	51.2	138	3.89	28	
Benzene	19.11	µg/L	1.0	95.6	85.9	113	1.50	27	
Toluene	19.37	µg/L	1.0	96.9	86.4	113	1.82	19	
Ethylbenzene	19.52	µg/L	1.0	97.6	83.5	118	3.99	10	
Xylenes, Total	57.74	µg/L	2.0	96.2	83.4	122	4.19	13	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/12/2007

Work Order Number 0704187

Received by TLS

Checklist completed by

[Signature]
Signature

April 12, 07
Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☒	
Chain of custody present?	Yes ☒	No ☐		
Chain of custody signed when relinquished and received?	Yes ☒	No ☐		
Chain of custody agrees with sample labels?	Yes ☒	No ☐		
Samples in proper container/bottle?	Yes ☒	No ☐		
Sample containers intact?	Yes ☒	No ☐		
Sufficient sample volume for indicated test?	Yes ☒	No ☐		
All samples received within holding time?	Yes ☒	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☒	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐	

Container/Temp Blank temperature?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

QA/QC Package: ☐ Std ☐ Level 4 ☐

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.halfenvironmental.com

ANALYSIS REQUEST

Air Bubbles or Headspace (Y or N)

[illegible]

COVER LETTER

Thursday, April 19, 2007

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

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

RE: Semi-Annual 2007

Order No.: 0704217

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 2 samples on 4/13/07 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



Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704217
Project: Semi-Annual 2007
Lab ID: 0704217-03

Client Sample ID: OW 23+90
Collection Date: 4/12/2007 8:00:00 AM
Date Received: 4/13/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/17/2007 9:29:17 PM
Benzene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Toluene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Ethylbenzene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Xylenes, Total	ND	2.0		µg/L	1	4/17/2007 9:29:17 PM
Surr: 4-Bromofluorobenzene	88.1	70.2-105		%REC	1	4/17/2007 9:29:17 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704217
Project: Semi-Annual 2007
Lab ID: 0704217-04

Client Sample ID: OW 25+70
Collection Date: 4/12/2007 8:15:00 AM
Date Received: 4/13/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/17/2007 9:59:23 PM
Benzene	ND	1.0		µg/L	1	4/17/2007 9:59:23 PM
Toluene	ND	1.0		µg/L	1	4/17/2007 9:59:23 PM
Ethylbenzene	ND	1.0		µg/L	1	4/17/2007 9:59:23 PM
Xylenes, Total	ND	2.0		µg/L	1	4/17/2007 9:59:23 PM
Surr: 4-Bromofluorobenzene	87.5	70.2-105		%REC	1	4/17/2007 9:59:23 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704217
Project: Semi-Annual 2007
Lab ID: 0704217-03

Client Sample ID: OW 23+90
Collection Date: 4/12/2007 8:00:00 AM
Date Received: 4/13/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/17/2007 9:29:17 PM
Benzene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Toluene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Ethylbenzene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Xylenes, Total	ND	2.0		µg/L	1	4/17/2007 9:29:17 PM
Surr: 4-Bromofluorobenzene	88.1	70.2-105		%REC	1	4/17/2007 9:29:17 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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Semi-Annual 2007

Work Order: 0704217

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: SW8021

Sample ID: 100NG BTEX LCS-II LCS Batch ID: R23276 Analysis Date: 4/19/2007 12:43:03 AM

Methyl tert-butyl ether (MTBE)	18.97	µg/L	2.5	94.9	51.2	138			
Benzene	19.59	µg/L	1.0	98.0	85.9	113			
Toluene	19.98	µg/L	1.0	99.9	86.4	113			
Ethylbenzene	20.16	µg/L	1.0	101	83.5	118			
Xylenes, Total	60.23	µg/L	2.0	100	83.4	122			

Sample ID: 100NG BTEX LCSD-I LCSD Batch ID: R23257 Analysis Date: 4/18/2007 1:32:05 AM

Methyl tert-butyl ether (MTBE)	19.20	µg/L	2.5	96.0	51.2	138	0.209	28	
Benzene	19.20	µg/L	1.0	96.0	85.9	113	3.42	27	
Toluene	19.53	µg/L	1.0	97.6	86.4	113	3.37	19	
Ethylbenzene	19.67	µg/L	1.0	98.4	83.5	118	3.38	10	
Xylenes, Total	58.58	µg/L	2.0	97.6	83.4	122	3.39	13	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/13/2007

Work Order Number 0704217

Received by TLS

Checklist completed by

Janya S.
Signature

April 13, 07
Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☒	
Chain of custody present?	Yes ☒	No ☐		
Chain of custody signed when relinquished and received?	Yes ☒	No ☐		
Chain of custody agrees with sample labels?	Yes ☒	No ☐		
Samples in proper container/bottle?	Yes ☒	No ☐		
Sample containers intact?	Yes ☒	No ☐		
Sufficient sample volume for indicated test?	Yes ☒	No ☐		
All samples received within holding time?	Yes ☒	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☒	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒	
Container/Temp Blank temperature?	5°	4° C ± 2 Acceptable If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

COVER LETTER

Thursday, April 19, 2007

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

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

RE: Semi-Annual 2007

Order No.: 0704217

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 2 samples on 4/13/07 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



Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704217
Project: Semi-Annual 2007
Lab ID: 0704217-03

Client Sample ID: OW 23+90
Collection Date: 4/12/2007 8:00:00 AM
Date Received: 4/13/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/17/2007 9:29:17 PM
Benzene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Toluene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Ethylbenzene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Xylenes, Total	ND	2.0		µg/L	1	4/17/2007 9:29:17 PM
Surr: 4-Bromofluorobenzene	88.1	70.2-105		%REC	1	4/17/2007 9:29:17 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704217
Project: Semi-Annual 2007
Lab ID: 0704217-04

Client Sample ID: OW 25+70
Collection Date: 4/12/2007 8:15:00 AM
Date Received: 4/13/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/17/2007 9:59:23 PM
Benzene	ND	1.0		µg/L	1	4/17/2007 9:59:23 PM
Toluene	ND	1.0		µg/L	1	4/17/2007 9:59:23 PM
Ethylbenzene	ND	1.0		µg/L	1	4/17/2007 9:59:23 PM
Xylenes, Total	ND	2.0		µg/L	1	4/17/2007 9:59:23 PM
Surr: 4-Bromofluorobenzene	87.5	70.2-105		%REC	1	4/17/2007 9:59:23 PM

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Semi-Annual 2007

Work Order: 070421

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 5ML REAGENT BLA MBLK Batch ID: R23257 Analysis Date: 4/17/2007 8:27:16 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

Sample ID: 5ML RB-II MBLK Batch ID: R23257 Analysis Date: 4/18/2007 12:32:06 AM

Methyl tert-butyl ether (MTBE) ND µg/L 2.5
Benzene ND µg/L 1.0
Toluene ND µg/L 1.0
Ethylbenzene ND µg/L 1.0
Xylenes, Total ND µg/L 2.0

Sample ID: 5ML REAGENT BLA MBLK Batch ID: R23276 Analysis Date: 4/18/2007 8:27:21 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

Sample ID: 5ML RB-II MBLK Batch ID: R23276 Analysis Date: 4/18/2007 11:43:04 PM

Methyl tert-butyl ether (MTBE) ND µg/L 2.5
Benzene ND µg/L 1.0
Toluene ND µg/L 1.0
Ethylbenzene ND µg/L 1.0
Xylenes, Total ND µg/L 2.0

Sample ID: 100NG BTEX LCS LCS Batch ID: R23257 Analysis Date: 4/17/2007 5:28:34 PM

Methyl tert-butyl ether (MTBE) 19.50 µg/L 2.5 97.5 51.2 138
Benzene 19.51 µg/L 1.0 97.6 85.9 113
Toluene 19.75 µg/L 1.0 98.8 86.4 113
Ethylbenzene 19.94 µg/L 1.0 99.7 83.5 118
Xylenes, Total 59.17 µg/L 2.0 98.6 83.4 122

Sample ID: 100NG BTEX LCS-II LCS Batch ID: R23257 Analysis Date: 4/18/2007 1:02:03 AM

Methyl tert-butyl ether (MTBE) 19.16 µg/L 2.5 95.8 51.2 138
Benzene 19.87 µg/L 1.0 99.4 85.9 113
Toluene 20.20 µg/L 1.0 101 86.4 113
Ethylbenzene 20.35 µg/L 1.0 102 83.5 118
Xylenes, Total 60.60 µg/L 2.0 101 83.4 122

Sample ID: 100NG BTEX LCS LCS Batch ID: R23276 Analysis Date: 4/18/2007 5:39:27 PM

Methyl tert-butyl ether (MTBE) 18.98 µg/L 2.5 94.9 51.2 138
Benzene 19.32 µg/L 1.0 96.6 85.9 113
Toluene 19.63 µg/L 1.0 98.1 86.4 113
Ethylbenzene 19.81 µg/L 1.0 99.1 83.5 118
Xylenes, Total 59.01 µg/L 2.0 98.4 83.4 122

Sample ID: 100NG BTEX LCS-II LCS Batch ID: R23276 Analysis Date: 4/19/2007 12:43:03 AM

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Subject: Semi-Annual 2007

Work Order: 0704217

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 100NG BTEX LCS-II LCS Batch ID: R23276 Analysis Date: 4/19/2007 12:43:03 AM

Methyl tert-butyl ether (MTBE)	18.97	µg/L	2.5	94.9	51.2	138
Benzene	19.59	µg/L	1.0	98.0	85.9	113
Toluene	19.98	µg/L	1.0	99.9	86.4	113
Ethylbenzene	20.16	µg/L	1.0	101	83.5	118
Xylenes, Total	60.23	µg/L	2.0	100	83.4	122

Sample ID: 100NG BTEX LCSD-I LCSD Batch ID: R23257 Analysis Date: 4/18/2007 1:32:05 AM

Methyl tert-butyl ether (MTBE)	19.20	µg/L	2.5	96.0	51.2	138	0.209	28
Benzene	19.20	µg/L	1.0	96.0	85.9	113	3.42	27
Toluene	19.53	µg/L	1.0	97.6	86.4	113	3.37	19
Ethylbenzene	19.67	µg/L	1.0	98.4	83.5	118	3.38	10
Xylenes, Total	58.58	µg/L	2.0	97.6	83.4	122	3.39	13

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/13/2007

Work Order Number 0704217

Received by TLS

Checklist completed by

[Signature]
Signature

April 13, 07
Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A	☒
Chain of custody present?	Yes ☒	No ☐		
Chain of custody signed when relinquished and received?	Yes ☒	No ☐		
Chain of custody agrees with sample labels?	Yes ☒	No ☐		
Samples in proper container/bottle?	Yes ☒	No ☐		
Sample containers intact?	Yes ☒	No ☐		
Sufficient sample volume for indicated test?	Yes ☒	No ☐		
All samples received within holding time?	Yes ☒	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A	☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A	☒

Container/Temp Blank temperature?

5°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

COVER LETTER

Wednesday, September 12, 2007

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: North Barrier Wall Semi-Annual-8/07

Order No.: 0708307

Dear Cindy Hurtado:

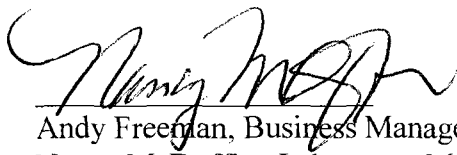
Hall Environmental Analysis Laboratory, Inc. received 12 sample(s) on 8/23/2007 for the analyses presented in the following report.

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



Hall Environmental Analysis Laboratory, Inc.

Date: 12-Sep-07

CLIENT: San Juan Refining
Project: North Barrier Wall Semi-Annual-8/07
Lab Order: 0708307

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0708307-01A	CW 25+95	13694	EPA Method 8015B: Diesel Range	8/21/2007 1:15:00 PM
0708307-01A	CW 25+95	R24907	EPA Method 8260: Volatiles Short List	8/21/2007 1:15:00 PM
0708307-02A	CW 25+95 FD	R24907	EPA Method 8260: Volatiles Short List	8/21/2007 1:18:00 PM
0708307-02A	CW 25+95 FD	13694	EPA Method 8015B: Diesel Range	8/21/2007 1:18:00 PM
0708307-03A	OW 25+70	R24907	EPA Method 8260: Volatiles Short List	8/21/2007 1:27:00 PM
0708307-03A	OW 25+70	13694	EPA Method 8015B: Diesel Range	8/21/2007 1:27:00 PM
0708307-04A	OW 22+00	R24907	EPA Method 8260: Volatiles Short List	8/21/2007 1:35:00 PM
0708307-04A	OW 22+00	R24907	EPA Method 8260: Volatiles Short List	8/21/2007 1:35:00 PM
0708307-04A	OW 22+00	13694	EPA Method 8015B: Diesel Range	8/21/2007 1:35:00 PM
0708307-05A	OW 11+15	R24907	EPA Method 8260: Volatiles Short List	8/21/2007 1:55:00 PM
0708307-05A	OW 11+15	13694	EPA Method 8015B: Diesel Range	8/21/2007 1:55:00 PM
0708307-06A	OW 0+60	13694	EPA Method 8015B: Diesel Range	8/21/2007 2:15:00 PM
0708307-06A	OW 0+60	R24931	EPA Method 8260B: VOLATILES	8/21/2007 2:15:00 PM
0708307-06A	OW 0+60	R24907	EPA Method 8260: Volatiles Short List	8/21/2007 2:15:00 PM
0708307-07A	CW 0+60	R24907	EPA Method 8260: Volatiles Short List	8/21/2007 2:45:00 PM
0708307-07A	CW 0+60	13694	EPA Method 8015B: Diesel Range	8/21/2007 2:45:00 PM
0708307-08A	Field Blank	R24907	EPA Method 8260: Volatiles Short List	8/21/2007 3:10:00 PM
0708307-08A	Field Blank	13694	EPA Method 8015B: Diesel Range	8/21/2007 3:10:00 PM
0708307-09A	Rinsate Blank	R24907	EPA Method 8260: Volatiles Short List	8/21/2007 2:30:00 PM
0708307-09A	Rinsate Blank	13694	EPA Method 8015B: Diesel Range	8/21/2007 2:30:00 PM
0708307-10A	OW 23+10	R24907	EPA Method 8260: Volatiles Short List	8/22/2007 8:10:00 AM
0708307-10A	OW 23+10	13694	EPA Method 8015B: Diesel Range	8/22/2007 8:10:00 AM
0708307-11A	OW 23+90	R24907	EPA Method 8260: Volatiles Short List	8/22/2007 8:30:00 AM
0708307-11A	OW 23+90	13697	EPA Method 8015B: Diesel Range	8/22/2007 8:30:00 AM
0708307-12A	Trip Blank	R24907	EPA Method 8260: Volatiles Short List	

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708307
Project: North Barrier Wall Semi-Annual-8/07
Lab ID: 0708307-01

Client Sample ID: CW 25+95
Collection Date: 8/21/2007 1:15:00 PM
Date Received: 8/23/2007
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	9/1/2007 7:49:45 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/1/2007 7:49:45 PM
Surr: DNOP	130	58-140		%REC	1	9/1/2007 7:49:45 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	24	1.0		µg/L	1	8/24/2007 5:36:54 PM
Toluene	ND	1.0		µg/L	1	8/24/2007 5:36:54 PM
Ethylbenzene	ND	1.0		µg/L	1	8/24/2007 5:36:54 PM
Methyl tert-butyl ether (MTBE)	1.6	1.0		µg/L	1	8/24/2007 5:36:54 PM
Xylenes, Total	ND	3.0		µg/L	1	8/24/2007 5:36:54 PM
Surr: 1,2-Dichloroethane-d4	97.4	69.9-130		%REC	1	8/24/2007 5:36:54 PM
Surr: 4-Bromofluorobenzene	101	71.2-123		%REC	1	8/24/2007 5:36:54 PM
Surr: Dibromofluoromethane	98.5	73.9-134		%REC	1	8/24/2007 5:36:54 PM
Surr: Toluene-d8	99.8	81.9-122		%REC	1	8/24/2007 5:36:54 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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Sep-07

CLIENT: San Juan Refining

Client Sample ID: CW 25+95 FD

Lab Order: 0708307

Collection Date: 8/21/2007 1:18:00 PM

Project: North Barrier Wall Semi-Annual-8/07

Date Received: 8/23/2007

Lab ID: 0708307-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/1/2007 8:21:21 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/1/2007 8:21:21 PM
Surr: DNOP	137	58-140		%REC	1	9/1/2007 8:21:21 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	23	1.0		µg/L	1	8/24/2007 6:10:25 PM
Toluene	ND	1.0		µg/L	1	8/24/2007 6:10:25 PM
Ethylbenzene	ND	1.0		µg/L	1	8/24/2007 6:10:25 PM
Methyl tert-butyl ether (MTBE)	1.5	1.0		µg/L	1	8/24/2007 6:10:25 PM
Xylenes, Total	ND	3.0		µg/L	1	8/24/2007 6:10:25 PM
Surr: 1,2-Dichloroethane-d4	96.9	69.9-130		%REC	1	8/24/2007 6:10:25 PM
Surr: 4-Bromofluorobenzene	97.0	71.2-123		%REC	1	8/24/2007 6:10:25 PM
Surr: Dibromofluoromethane	98.8	73.9-134		%REC	1	8/24/2007 6:10:25 PM
Surr: Toluene-d8	99.5	81.9-122		%REC	1	8/24/2007 6:10:25 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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708307
 Project: North Barrier Wall Semi-Annual-8/07
 Lab ID: 0708307-03

Client Sample ID: OW 25+70
 Collection Date: 8/21/2007 1:27:00 PM
 Date Received: 8/23/2007
 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	9/1/2007 8:52:52 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/1/2007 8:52:52 PM
Surr: DNOP	145	58-140	S	%REC	1	9/1/2007 8:52:52 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	ND	1.0		µg/L	1	8/24/2007 6:43:52 PM
Toluene	ND	1.0		µg/L	1	8/24/2007 6:43:52 PM
Ethylbenzene	ND	1.0		µg/L	1	8/24/2007 6:43:52 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2007 6:43:52 PM
Xylenes, Total	ND	3.0		µg/L	1	8/24/2007 6:43:52 PM
Surr: 1,2-Dichloroethane-d4	102	69.9-130		%REC	1	8/24/2007 6:43:52 PM
Surr: 4-Bromofluorobenzene	97.7	71.2-123		%REC	1	8/24/2007 6:43:52 PM
Surr: Dibromofluoromethane	99.6	73.9-134		%REC	1	8/24/2007 6:43:52 PM
Surr: Toluene-d8	98.9	81.9-122		%REC	1	8/24/2007 6:43:52 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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708307
Project: North Barrier Wall Semi-Annual-8/07
Lab ID: 0708307-04

Client Sample ID: OW 22+00
Collection Date: 8/21/2007 1:35:00 PM
Date Received: 8/23/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	13	1.0		mg/L	1	9/1/2007 9:24:13 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/1/2007 9:24:13 PM
Surr: DNOP	122	58-140		%REC	1	9/1/2007 9:24:13 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	ND	5.0		µg/L	5	8/24/2007 7:50:49 PM
Toluene	ND	5.0		µg/L	5	8/24/2007 7:50:49 PM
Ethylbenzene	ND	5.0		µg/L	5	8/24/2007 7:50:49 PM
Methyl tert-butyl ether (MTBE)	2300	50		µg/L	50	8/24/2007 7:17:18 PM
Xylenes, Total	ND	15		µg/L	5	8/24/2007 7:50:49 PM
Surr: 1,2-Dichloroethane-d4	96.8	69.9-130		%REC	5	8/24/2007 7:50:49 PM
Surr: 4-Bromofluorobenzene	99.7	71.2-123		%REC	5	8/24/2007 7:50:49 PM
Surr: Dibromofluoromethane	98.3	73.9-134		%REC	5	8/24/2007 7:50:49 PM
Surr: Toluene-d8	100	81.9-122		%REC	5	8/24/2007 7:50:49 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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708307
Project: North Barrier Wall Semi-Annual-8/07
Lab ID: 0708307-05

Client Sample ID: OW 11+15
Collection Date: 8/21/2007 1:55:00 PM
Date Received: 8/23/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	42	1.0		mg/L	1	9/1/2007 9:55:33 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/1/2007 9:55:33 PM
Surr: DNOP	143	58-140	S	%REC	1	9/1/2007 9:55:33 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	1000	20		µg/L	20	8/24/2007 8:57:42 PM
Toluene	ND	20		µg/L	20	8/24/2007 8:57:42 PM
Ethylbenzene	26	20		µg/L	20	8/24/2007 8:57:42 PM
Methyl tert-butyl ether (MTBE)	2200	20		µg/L	20	8/24/2007 8:57:42 PM
Xylenes, Total	ND	60		µg/L	20	8/24/2007 8:57:42 PM
Surr: 1,2-Dichloroethane-d4	97.3	69.9-130		%REC	20	8/24/2007 8:57:42 PM
Surr: 4-Bromofluorobenzene	93.8	71.2-123		%REC	20	8/24/2007 8:57:42 PM
Surr: Dibromofluoromethane	98.5	73.9-134		%REC	20	8/24/2007 8:57:42 PM
Surr: Toluene-d8	99.5	81.9-122		%REC	20	8/24/2007 8:57:42 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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708307
Project: North Barrier Wall Semi-Annual-8/07
Lab ID: 0708307-06

Client Sample ID: OW 0+60
Collection Date: 8/21/2007 2:15:00 PM
Date Received: 8/23/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	5.7	1.0		mg/L	1	9/1/2007 10:26:49 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/1/2007 10:26:49 PM
Surr: DNOP	131	58-140		%REC	1	9/1/2007 10:26:49 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	11	5.0		µg/L	5	8/25/2007 12:18:03 AM
Toluene	ND	5.0		µg/L	5	8/25/2007 12:18:03 AM
Ethylbenzene	85	5.0		µg/L	5	8/25/2007 12:18:03 AM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	8/25/2007 12:18:03 AM
Xylenes, Total	130	15		µg/L	5	8/25/2007 12:18:03 AM
Surr: 1,2-Dichloroethane-d4	95.0	69.9-130		%REC	5	8/25/2007 12:18:03 AM
Surr: 4-Bromofluorobenzene	88.7	71.2-123		%REC	5	8/25/2007 12:18:03 AM
Surr: Dibromofluoromethane	97.8	73.9-134		%REC	5	8/25/2007 12:18:03 AM
Surr: Toluene-d8	90.2	81.9-122		%REC	5	8/25/2007 12:18:03 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708307
Project: North Barrier Wall Semi-Annual-8/07
Lab ID: 0708307-07

Client Sample ID: CW 0+60
Collection Date: 8/21/2007 2:45:00 PM
Date Received: 8/23/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	2.0	1.0		mg/L	1	9/1/2007 10:58:05 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/1/2007 10:58:05 PM
Surr: DNOP	123	58-140		%REC	1	9/1/2007 10:58:05 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	270	10		µg/L	10	8/25/2007 12:51:27 AM
Toluene	ND	10		µg/L	10	8/25/2007 12:51:27 AM
Ethylbenzene	45	10		µg/L	10	8/25/2007 12:51:27 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	8/25/2007 12:51:27 AM
Xylenes, Total	ND	30		µg/L	10	8/25/2007 12:51:27 AM
Surr: 1,2-Dichloroethane-d4	102	69.9-130		%REC	10	8/25/2007 12:51:27 AM
Surr: 4-Bromofluorobenzene	99.1	71.2-123		%REC	10	8/25/2007 12:51:27 AM
Surr: Dibromofluoromethane	101	73.9-134		%REC	10	8/25/2007 12:51:27 AM
Surr: Toluene-d8	97.7	81.9-122		%REC	10	8/25/2007 12:51:27 AM

Qualifiers:

- V 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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Sep-07

CLIENT: San Juan Refining
Lab Order: 0708307
Project: North Barrier Wall Semi-Annual-8/07
Lab ID: 0708307-08

Client Sample ID: Field Blank
Collection Date: 8/21/2007 3:10:00 PM
Date Received: 8/23/2007
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	9/1/2007 11:29:20 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/1/2007 11:29:20 PM
Surr: DNOP	129	58-140		%REC	1	9/1/2007 11:29:20 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	ND	1.0		µg/L	1	8/25/2007 1:24:56 AM
Toluene	ND	1.0		µg/L	1	8/25/2007 1:24:56 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2007 1:24:56 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/25/2007 1:24:56 AM
Xylenes, Total	ND	3.0		µg/L	1	8/25/2007 1:24:56 AM
Surr: 1,2-Dichloroethane-d4	98.0	69.9-130		%REC	1	8/25/2007 1:24:56 AM
Surr: 4-Bromofluorobenzene	94.6	71.2-123		%REC	1	8/25/2007 1:24:56 AM
Surr: Dibromofluoromethane	97.7	73.9-134		%REC	1	8/25/2007 1:24:56 AM
Surr: Toluene-d8	99.0	81.9-122		%REC	1	8/25/2007 1:24:56 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708307
 Project: North Barrier Wall Semi-Annual-8/07
 Lab ID: 0708307-09

Client Sample ID: Rinsate Blank
 Collection Date: 8/21/2007 2:30:00 PM
 Date Received: 8/23/2007
 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	9/2/2007 12:00:36 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/2/2007 12:00:36 AM
Surr: DNOP	133	58-140		%REC	1	9/2/2007 12:00:36 AM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	ND	1.0		µg/L	1	8/25/2007 1:58:26 AM
Toluene	ND	1.0		µg/L	1	8/25/2007 1:58:26 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2007 1:58:26 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/25/2007 1:58:26 AM
Xylenes, Total	ND	3.0		µg/L	1	8/25/2007 1:58:26 AM
Surr: 1,2-Dichloroethane-d4	97.9	69.9-130		%REC	1	8/25/2007 1:58:26 AM
Surr: 4-Bromofluorobenzene	98.9	71.2-123		%REC	1	8/25/2007 1:58:26 AM
Surr: Dibromofluoromethane	98.8	73.9-134		%REC	1	8/25/2007 1:58:26 AM
Surr: Toluene-d8	100	81.9-122		%REC	1	8/25/2007 1:58:26 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708307
 Project: North Barrier Wall Semi-Annual-8/07
 Lab ID: 0708307-10

Client Sample ID: OW 23+10
 Collection Date: 8/22/2007 8:10:00 AM
 Date Received: 8/23/2007
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	6.2	1.0		mg/L	1	9/2/2007 12:31:58 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/2/2007 12:31:58 AM
Surr: DNOP	138	58-140		%REC	1	9/2/2007 12:31:58 AM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	ND	1.0		µg/L	1	8/25/2007 2:31:51 AM
Toluene	ND	1.0		µg/L	1	8/25/2007 2:31:51 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2007 2:31:51 AM
Methyl tert-butyl ether (MTBE)	33	1.0		µg/L	1	8/25/2007 2:31:51 AM
Xylenes, Total	ND	3.0		µg/L	1	8/25/2007 2:31:51 AM
Surr: 1,2-Dichloroethane-d4	97.5	69.9-130		%REC	1	8/25/2007 2:31:51 AM
Surr: 4-Bromofluorobenzene	90.8	71.2-123		%REC	1	8/25/2007 2:31:51 AM
Surr: Dibromofluoromethane	101	73.9-134		%REC	1	8/25/2007 2:31:51 AM
Surr: Toluene-d8	95.7	81.9-122		%REC	1	8/25/2007 2:31:51 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Sep-07

CLIENT: San Juan Refining
 Lab Order: 0708307
 Project: North Barrier Wall Semi-Annual-8/07
 Lab ID: 0708307-11

Client Sample ID: OW 23+90
 Collection Date: 8/22/2007 8:30:00 AM
 Date Received: 8/23/2007
 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	9/2/2007 3:07:45 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/2/2007 3:07:45 AM
Surr: DNOP	127	58-140		%REC	1	9/2/2007 3:07:45 AM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	ND	1.0		µg/L	1	8/25/2007 3:05:14 AM
Toluene	ND	1.0		µg/L	1	8/25/2007 3:05:14 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2007 3:05:14 AM
Methyl tert-butyl ether (MTBE)	1.2	1.0		µg/L	1	8/25/2007 3:05:14 AM
Xylenes, Total	ND	3.0		µg/L	1	8/25/2007 3:05:14 AM
Surr: 1,2-Dichloroethane-d4	98.4	69.9-130		%REC	1	8/25/2007 3:05:14 AM
Surr: 4-Bromofluorobenzene	101	71.2-123		%REC	1	8/25/2007 3:05:14 AM
Surr: Dibromofluoromethane	96.8	73.9-134		%REC	1	8/25/2007 3:05:14 AM
Surr: Toluene-d8	99.8	81.9-122		%REC	1	8/25/2007 3:05:14 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Sep-07

CLIENT: San Juan Refining

Client Sample ID: Trip Blank

Lab Order: 0708307

Collection Date:

Project: North Barrier Wall Semi-Annual-8/07

Date Received: 8/23/2007

Lab ID: 0708307-12

Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	ND	1.0		µg/L	1	8/25/2007 4:11:56 AM
Toluene	ND	1.0		µg/L	1	8/25/2007 4:11:56 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2007 4:11:56 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/25/2007 4:11:56 AM
Xylenes, Total	ND	3.0		µg/L	1	8/25/2007 4:11:56 AM
Surr: 1,2-Dichloroethane-d4	98.7	69.9-130		%REC	1	8/25/2007 4:11:56 AM
Surr: 4-Bromofluorobenzene	99.6	71.2-123		%REC	1	8/25/2007 4:11:56 AM
Surr: Dibromofluoromethane	98.4	73.9-134		%REC	1	8/25/2007 4:11:56 AM
Surr: Toluene-d8	97.3	81.9-122		%REC	1	8/25/2007 4:11:56 AM

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

Lab Order: 0708307
 Client: San Juan Refining
 Project: North Barrier Wall Semi-Annual-8

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0708307-01A	CW 25+95	8/21/2007 1:15:00 PM	Aqueous	EPA Method 8015B: Diesel Range	13694	8/27/2007	9/1/2007
0708307-02A	CW 25+95 FD	8/21/2007 1:18:00 PM		EPA Method 8260: Volatiles Short List	R24907		8/24/2007
				EPA Method 8015B: Diesel Range	13694	8/27/2007	9/1/2007
0708307-03A	OW 25+70	8/21/2007 1:27:00 PM		EPA Method 8260: Volatiles Short List	R24907		8/24/2007
				EPA Method 8015B: Diesel Range	13694	8/27/2007	9/1/2007
0708307-04A	OW 22+00	8/21/2007 1:35:00 PM		EPA Method 8260: Volatiles Short List	R24907		8/24/2007
				EPA Method 8015B: Diesel Range	13694	8/27/2007	9/1/2007
0708307-05A	OW 11+15	8/21/2007 1:55:00 PM		EPA Method 8260: Volatiles Short List	R24907		8/24/2007
				EPA Method 8015B: Diesel Range	13694	8/27/2007	9/1/2007
0708307-06A	OW 0+60	8/21/2007 2:15:00 PM		EPA Method 8260: Volatiles Short List	R24907		8/24/2007
				EPA Method 8015B: Diesel Range	13694	8/27/2007	9/1/2007
0708307-07A	CW 0+60	8/21/2007 2:45:00 PM		EPA Method 8260: Volatiles Short List	R24907		8/24/2007
				EPA Method 8015B: Diesel Range	13694	8/27/2007	9/1/2007
0708307-08A	Field Blank	8/21/2007 3:10:00 PM		EPA Method 8260: Volatiles Short List	R24907		8/24/2007
				EPA Method 8015B: Diesel Range	13694	8/27/2007	9/1/2007
0708307-09A	Rinsate Blank	8/21/2007 2:30:00 PM		EPA Method 8260: Volatiles Short List	R24907		8/24/2007
				EPA Method 8015B: Diesel Range	13694	8/27/2007	9/1/2007
0708307-10A	OW 23+10	8/22/2007 8:10:00 AM		EPA Method 8260: Volatiles Short List	R24907		8/24/2007
				EPA Method 8015B: Diesel Range	13694	8/27/2007	9/1/2007
0708307-11A	OW 23+90	8/22/2007 8:30:00 AM		EPA Method 8260: Volatiles Short List	R24907		8/24/2007
				EPA Method 8015B: Diesel Range	13697	8/27/2007	9/1/2007
0708307-12A	Trip Blank		Trip Blank	EPA Method 8260: Volatiles Short List	R24907		8/24/2007
				EPA Method 8015B: Diesel Range	R24907		8/24/2007

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: North Barrier Wall Semi-Annual-8/07

Work Order: 0708307

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8015									
Sample ID: MB-13694		MBLK							
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: MB-13694		MBLK							
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: MB-13694		MBLK							
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-13694		LCS							
Diesel Range Organics (DRO)	6.735	mg/L	1.0	135	74	157			
Sample ID: LCS-13694		LCS							
Diesel Range Organics (DRO)	7.466	mg/L	1.0	149	74	157			
Sample ID: LCS-13694		LCS							
Diesel Range Organics (DRO)	5.878	mg/L	1.0	118	74	157			
Sample ID: LCSD-13694		LCSD							
Diesel Range Organics (DRO)	7.021	mg/L	1.0	140	74	157	4.15	23	
Sample ID: LCSD-13694		LCSD							
Diesel Range Organics (DRO)	6.595	mg/L	1.0	132	74	157	12.4	23	
Sample ID: LCSD-13694		LCSD							
Diesel Range Organics (DRO)	6.300	mg/L	1.0	126	74	157	6.93	23	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: North Barrier Wall Semi-Annual-8/07

Work Order: 0708307

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8260B									
Sample ID: 5ml rb		MBLK							
			Batch ID: R24907				Analysis Date: 8/24/2007 9:09:40 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	3.0						
Sample ID: 100ng lcs-b		LCS							
			Batch ID: R24907				Analysis Date: 8/24/2007 1:09:11 PM		
Benzene	20.09	µg/L	1.0	100	82.4	128			
Toluene	19.40	µg/L	1.0	97.0	77.2	115			
Sample ID: 100ng lcsd		LCSD							
			Batch ID: R24907				Analysis Date: 8/24/2007 11:11:22 PM		
Benzene	20.16	µg/L	1.0	101	82.4	128	0.338	20	
Method: SW8260B									
Sample ID: 5ml rb		MBLK							
			Batch ID: R24907				Analysis Date: 8/24/2007 9:09:40 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
Trichloroethene (PCE)	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 100ng lcs-b		LCS							
			Batch ID: R24907				Analysis Date: 8/24/2007 1:09:11 PM		
Benzene	20.09	µg/L	1.0	100	82.4	128			
Toluene	19.40	µg/L	1.0	97.0	77.2	115			
Trichloroethene (TCE)	18.41	µg/L	1.0	92.1	71.8	113			
Sample ID: 100ng lcsd		LCSD							
			Batch ID: R24907				Analysis Date: 8/24/2007 11:11:22 PM		
Benzene	20.16	µg/L	1.0	101	82.4	128	0.338	11	
Toluene	19.49	µg/L	1.0	97.5	77.2	115	0.483	12.2	
Trichloroethene (TCE)	18.92	µg/L	1.0	94.6	71.8	113	2.69	15.5	

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

8/23/2007

Work Order Number 0708307

Received by ARS

Checklist completed by

Signature

Date

8/23/07

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☒	N/A ☐	
Chain of custody present?	Yes ☒	No ☐		
Chain of custody signed when relinquished and received?	Yes ☒	No ☐		
Chain of custody agrees with sample labels?	Yes ☒	No ☐		
Samples in proper container/bottle?	Yes ☒	No ☐		
Sample containers intact?	Yes ☒	No ☐		
Sufficient sample volume for indicated test?	Yes ☒	No ☐		
All samples received within holding time?	Yes ☒	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☒	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐	

Container/Temp Blank temperature?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

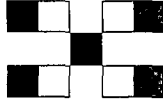
Regarding

Comments:

Corrective Action

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com



TPH Method 8015B (Gas/TPH)
TPH (Method 418.1)
EDB (Method 504.1)
EDC (Method 8021)
8310 (PNA or PAH)
RCRA 8 Metals
Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)
8081 Pesticides / PCB's (8082)
8260B (VOA) **BTEX/MTBE**
8270 (Semi-VOA)

CHAIN-OF-CUSTODY RECORD					QA/QC Package: Std ☐ Level 4 ☒				
Client: SAN Juan Refining					Other:				
Address: #50 Rd 4990					Project Name: North Barrier Wall				
Bloomfield, NM					Semi-Annual - 0/07				
87413					Project #:				
Phone #: 505-632-4101					Project Manager: Cindy Hurtado				
Fax #: 505-632-3911					Sampler: Cindy Hurtado / Bob Kakow				
					Sample Temperature: 4°				
Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.	
					HgCl ₂	HNO ₃			
8-22-07	8:00A	H2O	OW 13110	3-VOL				400708307	
/	8:30A	/	OW 23+90	/				-10	
			Trip Blank					-11	
								-12	
Date: 8-22-07	Time: 8:45A	Relinquished By: (Signature) Cindy Hurtado			Received By: (Signature) [Signature]			8/23/07	
Date:	Time:	Relinquished By: (Signature)			Received By: (Signature)				

COVER LETTER

Thursday, April 19, 2007

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

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

RE: Semi-Annual 2007

Order No.: 0704187-A

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 6 samples on 4/12/07 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



Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: OW 0+60

Lab Order: 0704187

Collection Date: 4/11/2007 8:45:00 AM

Project: Semi-Annual-2007

Date Received: 4/12/2007

Lab ID: 0704187-06

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	4/13/2007 10:21:38 PM
Benzene	ND	10		µg/L	10	4/13/2007 10:21:38 PM
Toluene	58	10		µg/L	10	4/13/2007 10:21:38 PM
Ethylbenzene	97	10		µg/L	10	4/13/2007 10:21:38 PM
Xylenes, Total	150	20		µg/L	10	4/13/2007 10:21:38 PM
Surr: 4-Bromofluorobenzene	93.1	70.2-105		%REC	10	4/13/2007 10:21:38 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: OW 11+15

Lab Order: 0704187

Collection Date: 4/11/2007 9:00:00 AM

Project: Semi-Annual-2007

Date Received: 4/12/2007

Lab ID: 0704187-07

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	1900	50		µg/L	20	4/13/2007 10:54:14 PM
Benzene	840	20		µg/L	20	4/13/2007 10:54:14 PM
Toluene	ND	20		µg/L	20	4/13/2007 10:54:14 PM
Ethylbenzene	ND	20		µg/L	20	4/13/2007 10:54:14 PM
Xylenes, Total	ND	40		µg/L	20	4/13/2007 10:54:14 PM
Surr: 4-Bromofluorobenzene	90.2	70.2-105		%REC	20	4/13/2007 10:54:14 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704187
Project: Semi-Annual-2007
Lab ID: 0704187-08

Client Sample ID: OW 16+60
Collection Date: 4/11/2007 9:10:00 AM
Date Received: 4/12/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	9000	620		µg/L	250	4/16/2007 12:44:12 PM
Benzene	3100	50		µg/L	50	4/14/2007 12:27:07 AM
Toluene	ND	50		µg/L	50	4/14/2007 12:27:07 AM
Ethylbenzene	2000	50		µg/L	50	4/14/2007 12:27:07 AM
Xylenes, Total	7200	100		µg/L	50	4/14/2007 12:27:07 AM
Surr: 4-Bromofluorobenzene	91.2	70.2-105		%REC	50	4/14/2007 12:27:07 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704187
Project: Semi-Annual-2007
Lab ID: 0704187-09

Client Sample ID: OW 19+50
Collection Date: 4/11/2007 9:15:00 AM
Date Received: 4/12/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	270	50		µg/L	20	4/14/2007 12:59:46 AM
Benzene	1.9	1.0		µg/L	1	4/16/2007 1:14:17 PM
Toluene	ND	1.0		µg/L	1	4/16/2007 1:14:17 PM
Ethylbenzene	ND	1.0		µg/L	1	4/16/2007 1:14:17 PM
Xylenes, Total	ND	2.0		µg/L	1	4/16/2007 1:14:17 PM
Surr: 4-Bromofluorobenzene	85.9	70.2-105		%REC	1	4/16/2007 1:14:17 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704187
Project: Semi-Annual-2007
Lab ID: 0704187-10

Client Sample ID: OW 22+00
Collection Date: 4/11/2007 9:25:00 AM
Date Received: 4/12/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	2400	120		µg/L	50	4/14/2007 1:32:23 AM
Benzene	ND	5.0		µg/L	5	4/14/2007 2:04:58 AM
Toluene	ND	5.0		µg/L	5	4/14/2007 2:04:58 AM
Ethylbenzene	ND	5.0		µg/L	5	4/14/2007 2:04:58 AM
Xylenes, Total	ND	10		µg/L	5	4/14/2007 2:04:58 AM
Surr: 4-Bromofluorobenzene	90.3	70.2-105		%REC	5	4/14/2007 2:04:58 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: OW 23+10

Lab Order: 0704187

Collection Date: 4/11/2007 9:35:00 AM

Project: Semi-Annual-2007

Date Received: 4/12/2007

Lab ID: 0704187-11

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	40	2.5		µg/L	1	4/16/2007 2:14:26 PM
Benzene	ND	1.0		µg/L	1	4/16/2007 2:14:26 PM
Toluene	7.1	1.0		µg/L	1	4/16/2007 2:14:26 PM
Ethylbenzene	3.2	1.0		µg/L	1	4/16/2007 2:14:26 PM
Xylenes, Total	9.3	2.0		µg/L	1	4/16/2007 2:14:26 PM
Surr: 4-Bromofluorobenzene	93.9	70.2-105		%REC	1	4/16/2007 2:14:26 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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Semi-Annual-2007

Work Order: 0704187

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 5ML REAGENT BLA *MBLK* Batch ID: R23225 Analysis Date: 4/13/2007 8:41:38 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

Sample ID: 5ML REAGENT BLA *MBLK* Batch ID: R23234 Analysis Date: 4/16/2007 9:38:01 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

Sample ID: 100NG BTEX LCS Batch ID: R23225 Analysis Date: 4/14/2007 7:07:44 AM

Methyl tert-butyl ether (MTBE)	19.37	µg/L	2.5	96.8	51.2	138
Benzene	19.40	µg/L	1.0	97.0	85.9	113
Toluene	19.73	µg/L	1.0	98.6	86.4	113
Ethylbenzene	20.31	µg/L	1.0	102	83.5	118
Xylenes, Total	60.22	µg/L	2.0	100	83.4	122

Sample ID: 100NG BTEX LCS Batch ID: R23234 Analysis Date: 4/16/2007 3:14:44 PM

Methyl tert-butyl ether (MTBE)	18.76	µg/L	2.5	93.8	51.2	138
Benzene	18.81	µg/L	1.0	94.1	85.9	113
Toluene	19.22	µg/L	1.0	96.1	86.4	113
Ethylbenzene	19.52	µg/L	1.0	97.6	83.5	118
Xylenes, Total	58.26	µg/L	2.0	97.1	83.4	122

Sample ID: 100NG BTEX LCSD Batch ID: R23225 Analysis Date: 4/14/2007 7:37:39 AM

Methyl tert-butyl ether (MTBE)	18.63	µg/L	2.5	93.2	51.2	138	3.89	28
Benzene	19.11	µg/L	1.0	95.6	85.9	113	1.50	27
Toluene	19.37	µg/L	1.0	96.9	86.4	113	1.82	19
Ethylbenzene	19.52	µg/L	1.0	97.6	83.5	118	3.99	10
Xylenes, Total	57.74	µg/L	2.0	96.2	83.4	122	4.19	13

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/12/2007

Work Order Number 0704187

Received by TLS

Checklist completed by

[Signature]
Signature

April 12, 07
Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐ Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐
Water - Preservation labels on bottle and cap match?	Yes ☒	No ☐	N/A ☐
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐

Container/Temp Blank temperature?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

COVER LETTER

Thursday, April 19, 2007

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

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

RE: Semi-Annual 2007

Order No.: 0704217

Dear Cindy Hurtado:

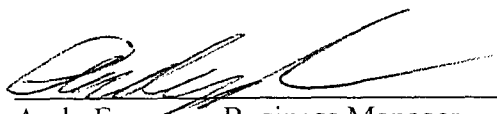
Hall Environmental Analysis Laboratory received 2 samples on 4/13/07 for the analyses presented in the following report.

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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining

Client Sample ID: OW 23+90

Lab Order: 0704217

Collection Date: 4/12/2007 8:00:00 AM

Project: Semi-Annual 2007

Date Received: 4/13/2007

Lab ID: 0704217-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/17/2007 9:29:17 PM
Benzene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Toluene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Ethylbenzene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Xylenes, Total	ND	2.0		µg/L	1	4/17/2007 9:29:17 PM
Surr: 4-Bromofluorobenzene	88.1	70.2-105		%REC	1	4/17/2007 9:29:17 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704217
Project: Semi-Annual 2007
Lab ID: 0704217-04

Client Sample ID: OW 25+70
Collection Date: 4/12/2007 8:15:00 AM
Date Received: 4/13/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/17/2007 9:59:23 PM
Benzene	ND	1.0		µg/L	1	4/17/2007 9:59:23 PM
Toluene	ND	1.0		µg/L	1	4/17/2007 9:59:23 PM
Ethylbenzene	ND	1.0		µg/L	1	4/17/2007 9:59:23 PM
Xylenes, Total	ND	2.0		µg/L	1	4/17/2007 9:59:23 PM
Surr: 4-Bromofluorobenzene	87.5	70.2-105		%REC	1	4/17/2007 9:59:23 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

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Apr-07

CLIENT: San Juan Refining
Lab Order: 0704217
Project: Semi-Annual 2007
Lab ID: 0704217-03

Client Sample ID: OW 23+90
Collection Date: 4/12/2007 8:00:00 AM
Date Received: 4/13/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/17/2007 9:29:17 PM
Benzene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Toluene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Ethylbenzene	ND	1.0		µg/L	1	4/17/2007 9:29:17 PM
Xylenes, Total	ND	2.0		µg/L	1	4/17/2007 9:29:17 PM
Surr: 4-Bromofluorobenzene	88.1	70.2-105		%REC	1	4/17/2007 9:29:17 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

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: Semi-Annual 2007

Work Order: 0704217

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 100NG BTEX LCS-II

LCS

Batch ID: R23276

Analysis Date: 4/19/2007 12:43:03 AM

Methyl tert-butyl ether (MTBE)	18.97	µg/L	2.5	94.9	51.2	138
Benzene	19.59	µg/L	1.0	98.0	85.9	113
Toluene	19.98	µg/L	1.0	99.9	86.4	113
Ethylbenzene	20.16	µg/L	1.0	101	83.5	118
Xylenes, Total	60.23	µg/L	2.0	100	83.4	122

Sample ID: 100NG BTEX LCSD-I

LCSD

Batch ID: R23257

Analysis Date: 4/18/2007 1:32:05 AM

Methyl tert-butyl ether (MTBE)	19.20	µg/L	2.5	96.0	51.2	138	0.209	28
Benzene	19.20	µg/L	1.0	96.0	85.9	113	3.42	27
Toluene	19.53	µg/L	1.0	97.6	86.4	113	3.37	19
Ethylbenzene	19.67	µg/L	1.0	98.4	83.5	118	3.38	10
Xylenes, Total	58.58	µg/L	2.0	97.6	83.4	122	3.39	13

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/13/2007

Work Order Number 0704217

Received by TLS

Checklist completed by

Janya SL
Signature

April 13, 07
Date

Matrix

Carrier name UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐ Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒

Container/Temp Blank temperature?

5°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

Client: SAN JUAN Refining

Address: #50 Rd 4990

Bloomfield, NM

89413

Phone #: 505-632-4161

Fax #: 505-632-3911

Date

Time

Matrix

Sample I.D. No.

Number/Volume

Preservative

HgCl₂

HNO₃

HEAL No.

0704217

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

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4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

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4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

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3-VOL

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4/12/07

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3-VOL

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OW 25170

4/12/07

8AM

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4

3-VOL

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OW 25170

4/12/07

8AM

H2O

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3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

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3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

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3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓

3

4

3-VOL

OW 23190

OW 25170

4/12/07

8AM

H2O

✓