

GW - 1

MONITORING REPORTS

DATE:

2005 - 2006



2006 MAR 27 PM 12 05

Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

Certified Mail: 7004 2510 0005 1641 4798

March 23, 2006

RE: Giant Refining Company, Bloomfield Refinery
EPA ID# NMD089416416

Dear Mr. Price,

Please find attached the updated revision of Table 1C from the River Terrace Work Plan. The modification includes NMED's requirement to include mercury in the quarterly analytical suite for DW-1.

NMED also requires Giant Refining – Bloomfield to report the quarterly mercury analytical data within 10 days of receipt of the laboratory results. Included with this packet are the First Quarter-2006 results for DW-1. Samples were pulled March 8, 2006. The mercury level for DW-1 was 0.021 ppm, which exceeds the EPA MCL of 0.002 ppm. Giant Refining – Bloomfield will continue to monitor DW-1.

The first quarter 2006 sampling event for the San Juan River was conducted January 5, 2006. Analytical results are enclosed with this packet. There was not an exceedance of any WQCC standard or EPA maximum contaminant level during this sampling event.

First quarter 2006 Tank #33 and Fresh Water Pond samples were pulled on March 1, 2006. Analytical results are included with this packet. Tank #33 benzene levels were below WQCC standards at a concentration of <0.001 ug/L. Fresh Water Pond results were non detect, also.

PHONE
505-632-8013
FAX
505-632-3911

50 ROAD 4990
P.O. BOX 159
BLOOMFIELD
NEW MEXICO
87413

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

Sincerely,

A handwritten signature in cursive script that reads "Cindy Hurtado". The signature is written in black ink and is positioned above the printed name and title.

Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc: Hope Monzeglio - NMED
Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

Table 1C: Summary of Performance Monitoring Activities

Bioventing Monitoring Plan
Giant Refinery - Bloomfield, New Mexico

Location	Matrix	DTW / DTP	Temp	pH	Cond	DO	ORP	% CO2	% O2	Organic Vapors (PID)	Pressure *	Baseline Samples
MW-48	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO, Pb & Cr
MW-49	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO, Pb & Cr
DW-1	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO, Pb & Cr, Hg*
DW-2	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO, Pb & Cr
TP-1	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO
TP-2	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO
TP-3	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO
TP-4	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO
TP-5	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO
TP-6	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO
TP-8	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO
TP-9	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO
TP-10	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO
TP-11	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO
TP-12	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO
TP-13	GW	WMQ	WMQ	WMQ	WMQ	WMQ	WMQ					Q-B, GRO, DRO
GAC Inf	EW											Q-B, GRO, DRO
GAC 1 Eff	EW											W*M - B, GRO, DRO
GAC 2 Eff	EW											Q - B, GRO, DRO
MW-48	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
MW-49	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
DW-1	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
DW-2	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
TP-1	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
TP-2	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
TP-3	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
TP-4	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
TP-5	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
TP-6	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
TP-8	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
TP-9	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
TP-10	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
TP-11	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
TP-12	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO
TP-13	A							WMQ	WMQ	WMQ	WMQ	Q - B ⁽²⁾ , GRO

* Pressure - Full system and individual well injection pressure will be recorded during each monitoring event.

Matrix

GW - groundwater
 EW - Extracted groundwater
 A - soil gas

Field Parameters

DTW - Depth to water measurement
 DTP - Depth to product measurement
 Temp - temperature
 Cond - conductivity
 DO - dissolved oxygen
 ORP - oxidation-reduction potential
 % CO2 - percent carbon dioxide
 % O2 - percent oxygen
 PID - photoionization detector

Analytical Analysis

B - BTEX, MTBE by EPA Method 8021B
 B⁽²⁾ - BTEX only by EPA Method 8021B
 GRO - GRO by EPA Method 8015B
 DRO - DRO by EPA Method 8051B
 Pb & Cr - Total Lead and Chromium using EPA Method 6010
 Hg* - Mercury by EPA Method 7470 (Collected 1st and 2nd Quarter of 2006 only)

Sample Frequency

WMQ - Weekly x 4 (a sample will be collected once a week for the initial four weeks of operation), monthly for first quarter, then quarterly thereafter.
 Q - Quarterly
 W*M - Weekly until breakthrough is detected; monthly thereafter.

AT 60 DAYS AND IN AUGUST 2006- PERFORM IN-SITU RESPIRATION TESTING

Shutdown blower and monitor oxygen/carbon dioxide levels in TP-1, 2, 5, 6, 8, 9, and each of the 13 BV wells.
 Monitor every 1/2 hour for first 4 hours, then every hour until hour 12. Then monitor every 10 to 12 hours up to 48 to 72 hours.



COVER LETTER

Wednesday, March 22, 2006

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

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

RE: River Terrace- 1st Quarter 2006 - Water

Order No.: 0603115

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/9/2006 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

AZ license # AZ0682
ORELAP Lab # NM100001



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory

Date: 22-Mar-06

CLIENT: San Juan Refining
Lab Order: 0603115
Project: River Terrace- 1st Quarter 2006 - Water
Lab ID: 0603115-01

Client Sample ID: DW #1
Collection Date: 3/8/2006 8:55:00 AM
Date Received: 3/9/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	2.2	1.0		mg/L	1	3/16/2006 5:32:05 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/16/2006 5:32:05 AM
Surr: DNOP	118	58-140		%REC	1	3/16/2006 5:32:05 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	2.8	0.25		mg/L	5	3/16/2006 11:22:35 AM
Surr: BFB	108	79.7-118		%REC	5	3/16/2006 11:22:35 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	5	3/20/2006 4:43:11 PM
Benzene	ND	5.0		µg/L	5	3/20/2006 4:43:11 PM
Toluene	ND	5.0		µg/L	5	3/20/2006 4:43:11 PM
Ethylbenzene	41	5.0		µg/L	5	3/20/2006 4:43:11 PM
Xylenes, Total	230	15		µg/L	5	3/20/2006 4:43:11 PM
Surr: 4-Bromofluorobenzene	95.8	82.2-119		%REC	5	3/20/2006 4:43:11 PM
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	0.021	0.0010		mg/L	5	3/9/2006
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Chromium	0.0095	0.0060		mg/L	1	3/15/2006 12:03:43 PM
Lead	ND	0.0050		mg/L	1	3/15/2006 12:03:43 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Mar-06

ANALYTICAL QC SUMMARY REPORT

CLIENT: San Juan Refining

Work Order: 0603115

Project: River Terrace- 1st Quarter 2006 - Water

TestCode: 8015DRO_W

Sample ID: MB-9976	SampleType: MBLK	TestCode: 8015DRO_W	Units: mg/L	Prep Date: 3/14/2006	RunNo: 18596						
Client ID: ZZZZZ	Batch ID: 9976	TestNo: SW8015		Analysis Date: 3/16/2006	SeqNo: 461813						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO) ND 1.0
Motor Oil Range Organics (MRO) ND 5.0

Sample ID: LCS-9976	SampleType: LCS	TestCode: 8015DRO_W	Units: mg/L	Prep Date: 3/14/2006	RunNo: 18596						
Client ID: ZZZZZ	Batch ID: 9976	TestNo: SW8015		Analysis Date: 3/16/2006	SeqNo: 461814						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.300	1.0	5	0	106	81.2	149				

Diesel Range Organics (DRO) 5.300 1.0 5 0 106 81.2 149

Sample ID: LCSD-9976	SampleType: LCSD	TestCode: 8015DRO_W	Units: mg/L	Prep Date: 3/14/2006	RunNo: 18596						
Client ID: ZZZZZ	Batch ID: 9976	TestNo: SW8015		Analysis Date: 3/16/2006	SeqNo: 461040						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.766	1.0	5	0	115	81.2	149	0	0	23	

Diesel Range Organics (DRO) 5.766 1.0 5 0 115 81.2 149 0 0 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 Spike Recovery outside accepted recovery limits

CLIENT: San Juan Refining
 Work Order: 0603115
 Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GRO_W

Sample ID: 5ML RB	SampleType: MBLK	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18582
Client ID: ZZZZZ	Batch ID: R18582	TestNo: SW8015		Analysis Date: 3/14/2006	SeqNo: 460723
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	ND	0.050			

Sample ID: 5ML RB	SampleType: MBLK	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18620
Client ID: ZZZZZ	Batch ID: R18620	TestNo: SW8015		Analysis Date: 3/16/2006	SeqNo: 462331
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	ND	0.050			

Sample ID: 5ML RB	SampleType: MBLK	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18652
Client ID: ZZZZZ	Batch ID: R18652	TestNo: SW8015		Analysis Date: 3/20/2006	SeqNo: 463005
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	ND	0.050			

Sample ID: 2.5UG GRO LCS	SampleType: LCS	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18582
Client ID: ZZZZZ	Batch ID: R18582	TestNo: SW8015		Analysis Date: 3/15/2006	SeqNo: 460724
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	0.4820	0.050	0.5	0	96.4 82.6 114

Sample ID: 2.5UG GRO LCS	SampleType: LCS	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18620
Client ID: ZZZZZ	Batch ID: R18620	TestNo: SW8015		Analysis Date: 3/16/2006	SeqNo: 462332
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	0.4940	0.050	0.5	0	98.8 82.6 114

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

CLIENT: San Juan Refining
Work Order: 0603115

Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GRO_W

Sample ID: 2.5UG GRO LCS	SampType: LCS	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18652						
Client ID: ZZZZZ	Batch ID: R18652	TestNo: SW8015		Analysis Date: 3/20/2006	SeqNo: 463006						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO) 0.5220 0.050 0.5 0 104 82.6 114

Sample ID: 2.5UG GRO LCSD	SampType: LCSD	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18652						
Client ID: ZZZZZ	Batch ID: R18652	TestNo: SW8015		Analysis Date: 3/20/2006	SeqNo: 463007						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO) 0.5140 0.050 0.5 0 103 82.6 114 0.522 1.54 8.39

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

CLIENT: San Juan Refining
 Work Order: 0603115
 Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021BTEx_W

Sample ID: 5ML RB	SampType: MBLK	TestCode: 8021BTEx_W	Units: µg/L	Prep Date:	RunNo: 18582
Client ID: ZZZZZ	Batch ID: R18582	TestNo: SW8021		Analysis Date: 3/14/2006	SeqNo: 460824
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Methyl tert-butyl ether (MTBE)
 Benzene
 Toluene
 Ethylbenzene
 Xylenes, Total
 1,2,4-Trimethylbenzene
 1,3,5-Trimethylbenzene

Sample ID: 5ML RB	SampType: MBLK	TestCode: 8021BTEx_W	Units: µg/L	Prep Date:	RunNo: 18620
Client ID: ZZZZZ	Batch ID: R18620	TestNo: SW8021		Analysis Date: 3/16/2006	SeqNo: 462157
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Methyl tert-butyl ether (MTBE)
 Benzene
 Toluene
 Ethylbenzene
 Xylenes, Total
 1,2,4-Trimethylbenzene
 1,3,5-Trimethylbenzene

Sample ID: 5ML RB	SampType: MBLK	TestCode: 8021BTEx_W	Units: µg/L	Prep Date:	RunNo: 18652
Client ID: ZZZZZ	Batch ID: R18652	TestNo: SW8021		Analysis Date: 3/20/2006	SeqNo: 462985
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Methyl tert-butyl ether (MTBE)
 Benzene
 Toluene
 Ethylbenzene
 Xylenes, Total

Qualifiers: E Value above quantitation range
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

CLIENT: San Juan Refining
Work Order: 0603115

Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021BTEX_W

Sample ID: 75NG BTEX CCV-B	SampleType: LCS	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 18582						
Client ID: ZZZZZ	Batch ID: R18582	TestNo: SW8021		Analysis Date: 3/14/2006	SeqNo: 460825						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)	30.25	2.5	30	0	101	64.5	133				
Benzene	13.95	1.0	15	0	93.0	88.5	114				
Toluene	15.27	1.0	15	0	102	87.2	114				
Ethylbenzene	14.05	1.0	15	0	93.7	88.6	113				
Xylenes, Total	43.93	3.0	45	0	97.6	83.3	114				
1,2,4-Trimethylbenzene	14.10	1.0	15	0	94.0	83.8	114				
1,3,5-Trimethylbenzene	14.09	1.0	15	0	93.9	82.8	114				

Sample ID: 100NG BTEX LCS	SampleType: LCS	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 18620						
Client ID: ZZZZZ	Batch ID: R18620	TestNo: SW8021		Analysis Date: 3/16/2006	SeqNo: 462158						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)	16.48	2.5	20	0	82.4	64.5	133				
Benzene	19.52	1.0	20	0	97.6	88.5	114				
Toluene	20.29	1.0	20	0	101	87.2	114				
Ethylbenzene	19.77	1.0	20	0	98.9	88.6	113				
Xylenes, Total	41.12	3.0	40	0	103	83.3	114				
1,2,4-Trimethylbenzene	18.22	1.0	20	0	91.1	83.8	114				
1,3,5-Trimethylbenzene	18.27	1.0	20	0	91.4	82.8	114				

Sample ID: 100NG BTEX LCS	SampleType: LCS	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 18652						
Client ID: ZZZZZ	Batch ID: R18652	TestNo: SW8021		Analysis Date: 3/20/2006	SeqNo: 462986						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)	17.56	2.5	20	0	87.8	64.5	133				
Benzene	19.29	1.0	20	0	96.5	88.5	114				
Toluene	19.91	1.0	20	0	99.5	87.2	114				
Ethylbenzene	19.48	1.0	20	0	97.4	88.6	113				
Xylenes, Total	40.17	3.0	40	0	100	83.3	114				

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

CLIENT: San Juan Refining
Work Order: 0603115

Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021BTEX_W

Sample ID: 100NG BTEX LCSD	SampType: LCSD	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 18652						
Client ID: ZZZZZ	Batch ID: R18652	TestNo: SW8021		Analysis Date: 3/20/2006	SeqNo: 462987						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18.04	2.5	20	0	90.2	64.5	133	17.56	2.71	28	
Benzene	18.80	1.0	20	0	94.0	88.5	114	19.29	2.59	27	
Toluene	19.36	1.0	20	0	96.8	87.2	114	19.91	2.77	19	
Ethylbenzene	18.99	1.0	20	0	95.0	88.6	113	19.48	2.55	10	
Xylenes, Total	39.15	3.0	40	0	97.9	83.3	114	40.17	2.58	13	

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: San Juan Refining
Work Order: 0603115
Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: HG_CTW

Sample ID: MB-9952	SampType: MBLK	TestCode: HG_CTW	Units: mg/L	Prep Date: 3/9/2006	RunNo: 18533						
Client ID: ZZZZZ	Batch ID: 9952	TestNo: SW7470	(SW7470)	Analysis Date: 3/9/2006	SeqNo: 459419						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00020									

Sample ID: LCS-9952	SampType: LCS	TestCode: HG_CTW	Units: mg/L	Prep Date: 3/9/2006	RunNo: 18533						
Client ID: ZZZZZ	Batch ID: 9952	TestNo: SW7470	(SW7470)	Analysis Date: 3/9/2006	SeqNo: 459420						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004605	0.00020	0.005	0	92.1	80	120				

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

CLIENT: San Juan Refining
Work Order: 0603115

Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: METALS_TOTAL

Sample ID: MB-9981	SampleType: MBLK	TestCode: METALS_TO	Units: mg/L	Prep Date: 3/14/2006	RunNo: 18593						
Client ID: ZZZZZ	Batch ID: 9981	TestNo: SW6010A		Analysis Date: 3/15/2006	SeqNo: 460967						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: LCS-9981	SampleType: LCS	TestCode: METALS_TO	Units: mg/L	Prep Date: 3/14/2006	RunNo: 18593						
Client ID: ZZZZZ	Batch ID: 9981	TestNo: SW6010A		Analysis Date: 3/15/2006	SeqNo: 460968						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: LCSD-9981	SampleType: LCSD	TestCode: METALS_TO	Units: mg/L	Prep Date: 3/14/2006	RunNo: 18593						
Client ID: ZZZZZ	Batch ID: 9981	TestNo: SW6010A		Analysis Date: 3/15/2006	SeqNo: 460969						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.5112	0.0060	0.5	0.0006694	102	80	120	0.5162	0.979	20	
Lead	0.5219	0.0050	0.5	0	104	80	120	0.5222	0.0546	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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

3/9/2006

Work Order Number 0603115

Received by AT

Checklist completed by

Signature

Date

3/9/06

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 - 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 _____

Phone #: 505-632-4461
Fax #: 505-632-3911

Sample: Cindy's taste of Shelly's garden

Sample Temperature:

03/15-
-1

Received By: (Signature)

0227/ 3/9/06

Level 4 ☐

Project Name:

Project #:

Project Manager:

Sample Temperature:

HEAL No.

Received By: (Signature)

02501

www.hallenvironmental.com

ANALYSIS REQUEST

~~BTEX + MTBE + TMB's~~ (8021)

BTX + 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)

RCRA 8 Metals	
---------------	--

Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
--	--

8081 Pesticides / PCB's (8082)

82608 (VOA)	
-------------	--

8270 (Sem)-VOA	
----------------	--

Total Pb, Cr, Hg	
------------------	--

☒



COVER LETTER

Wednesday, February 22, 2006

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

TEL: (505) 632-4161

FAX (505) 632-3911

RE: River Sampling 1st Qtr 2006

Order No.: 0601064

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/6/2006 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

AZ license # AZ0682
ORELAP Lab # NM100001



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Project: River Sampling 1st Qtr 2006
Lab Order: 0601064

CASE NARRATIVE

The 8270 samples were analyzed by a subcontract laboratory.

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-01

Client Sample ID: N of MW #45
Collection Date: 1/5/2006 2:55:00 PM
Date Received: 1/6/2006
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	1/9/2006 8:01:56 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	1/9/2006 8:01:56 PM
Surr: DNOP	120	58-140		%REC	1	1/9/2006 8:01:56 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	1/12/2006 7:46:33 PM
Surr: BFB	94.9	79.7-118		%REC	1	1/12/2006 7:46:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	1/12/2006 7:46:33 PM
Benzene	ND	0.50		µg/L	1	1/12/2006 7:46:33 PM
Toluene	ND	0.50		µg/L	1	1/12/2006 7:46:33 PM
Ethylbenzene	ND	0.50		µg/L	1	1/12/2006 7:46:33 PM
Xylenes, Total	ND	0.50		µg/L	1	1/12/2006 7:46:33 PM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	ND	0.10		mg/L	1	1/7/2006
Chloride	2.6	0.10		mg/L	1	1/7/2006
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	1/7/2006
Bromide	ND	0.50		mg/L	1	1/7/2006
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	1/7/2006
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	1/7/2006
Sulfate	61	0.50		mg/L	1	1/7/2006
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	1/9/2006
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	1/16/2006 9:49:39 AM
Barium	0.060	0.0020		mg/L	1	1/16/2006 9:49:39 AM
Cadmium	ND	0.0020		mg/L	1	1/16/2006 9:49:39 AM
Calcium	35	1.0		mg/L	1	1/16/2006 9:49:39 AM
Chromium	ND	0.0060		mg/L	1	1/16/2006 9:49:39 AM
Copper	ND	0.0060		mg/L	1	1/16/2006 9:49:39 AM
Iron	0.025	0.020		mg/L	1	1/16/2006 9:49:39 AM
Lead	ND	0.0050		mg/L	1	1/16/2006 9:49:39 AM
Magnesium	6.1	1.0		mg/L	1	1/16/2006 9:49:39 AM
Manganese	0.022	0.0020		mg/L	1	1/16/2006 9:49:39 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-01

Client Sample ID: N of MW #45
Collection Date: 1/5/2006 2:55:00 PM
Date Received: 1/6/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Potassium	1.9	1.0		mg/L	1	1/16/2006 9:49:39 AM
Selenium	ND	0.050		mg/L	1	1/16/2006 9:49:39 AM
Silver	ND	0.0050		mg/L	1	1/16/2006 9:49:39 AM
Sodium	20	1.0		mg/L	1	1/16/2006 9:49:39 AM
Uranium	ND	0.10		mg/L	1	1/16/2006 9:49:39 AM
Zinc	0.11	0.0050		mg/L	1	1/16/2006 9:49:39 AM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: CMC
Arsenic	ND	0.020		mg/L	1	1/16/2006 2:43:12 PM
Barium	0.063	0.020		mg/L	1	1/16/2006 2:43:12 PM
Cadmium	ND	0.0020		mg/L	1	1/16/2006 2:43:12 PM
Chromium	ND	0.0060		mg/L	1	1/16/2006 2:43:12 PM
Lead	ND	0.0050		mg/L	1	1/16/2006 2:43:12 PM
Selenium	ND	0.050		mg/L	1	1/16/2006 2:43:12 PM
Silver	ND	0.0050		mg/L	1	1/16/2006 2:43:12 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	2/16/2006
Acenaphthylene	ND	10		µg/L	1	2/16/2006
Anthracene	ND	10		µg/L	1	2/16/2006
Benz(a)anthracene	ND	15		µg/L	1	2/16/2006
Benzo(a)pyrene	ND	15		µg/L	1	2/16/2006
Benzo(b)fluoranthene	ND	15		µg/L	1	2/16/2006
Benzo(g,h,i)perylene	ND	10		µg/L	1	2/16/2006
Benzo(k)fluoranthene	ND	10		µg/L	1	2/16/2006
Benzolc acid	ND	50		µg/L	1	2/16/2006
Benzyl alcohol	ND	20		µg/L	1	2/16/2006
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	2/16/2006
Bis(2-chloroethyl)ether	ND	15		µg/L	1	2/16/2006
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	2/16/2006
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	2/16/2006
4-Bromophenyl phenyl ether	ND	10		µg/L	1	2/16/2006
Butyl benzyl phthalate	ND	15		µg/L	1	2/16/2006
4-Chloro-3-methylphenol	ND	20		µg/L	1	2/16/2006
4-Chloroaniline	ND	20		µg/L	1	2/16/2006
2-Chloronaphthalene	ND	10		µg/L	1	2/16/2006
2-Chlorophenol	ND	10		µg/L	1	2/16/2006
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	2/16/2006
Chrysene	ND	15		µg/L	1	2/16/2006

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-01

Client Sample ID: N of MW #45
Collection Date: 1/5/2006 2:55:00 PM
Date Received: 1/6/2006
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	2/16/2006
Di-n-octyl phthalate	ND	15		µg/L	1	2/16/2006
Dibenz(a,h)anthracene	ND	10		µg/L	1	2/16/2006
Dibenzofuran	ND	10		µg/L	1	2/16/2006
1,2-Dichlorobenzene	ND	10		µg/L	1	2/16/2006
1,3-Dichlorobenzene	ND	10		µg/L	1	2/16/2006
1,4-Dichlorobenzene	ND	10		µg/L	1	2/16/2006
3,3'-Dichlorobenzidine	ND	15		µg/L	1	2/16/2006
Diethyl phthalate	ND	10		µg/L	1	2/16/2006
Dimethyl phthalate	ND	10		µg/L	1	2/16/2006
2,4-Dichlorophenol	ND	10		µg/L	1	2/16/2006
2,4-Dimethylphenol	ND	10		µg/L	1	2/16/2006
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	2/16/2006
2,4-Dinitrophenol	ND	50		µg/L	1	2/16/2006
2,4-Dinitrotoluene	ND	50		µg/L	1	2/16/2006
2,6-Dinitrotoluene	ND	10		µg/L	1	2/16/2006
Fluoranthene	ND	10		µg/L	1	2/16/2006
Fluorene	ND	10		µg/L	1	2/16/2006
Hexachlorobenzene	ND	10		µg/L	1	2/16/2006
Hexachlorobutadiene	ND	10		µg/L	1	2/16/2006
Hexachloroethane	ND	10		µg/L	1	2/16/2006
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	2/16/2006
Isophorone	ND	10		µg/L	1	2/16/2006
2-Methylnaphthalene	ND	10		µg/L	1	2/16/2006
2-Methylphenol	ND	15		µg/L	1	2/16/2006
3+4-Methylphenol	ND	20		µg/L	1	2/16/2006
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	2/16/2006
N-Nitrosodiphenylamine	ND	10		µg/L	1	2/16/2006
Naphthalene	ND	10		µg/L	1	2/16/2006
2-Nitroaniline	ND	50		µg/L	1	2/16/2006
3-Nitroaniline	ND	50		µg/L	1	2/16/2006
4-Nitroaniline	ND	50		µg/L	1	2/16/2006
Nitrobenzene	ND	10		µg/L	1	2/16/2006
2-Nitrophenol	ND	15		µg/L	1	2/16/2006
4-Nitrophenol	ND	50		µg/L	1	2/16/2006
Pentachlorophenol	ND	50		µg/L	1	2/16/2006
Phenanthrene	ND	10		µg/L	1	2/16/2006
Phenol	ND	10		µg/L	1	2/16/2006
Pyrene	ND	15		µg/L	1	2/16/2006
1,2,4-Trichlorobenzene	ND	10		µg/L	1	2/16/2006

Qualifiers: • Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-01

Client Sample ID: N of MW #45
Collection Date: 1/5/2006 2:55:00 PM
Date Received: 1/6/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
2,4,5-Trichlorophenol	ND	50		µg/L	1	2/16/2006
2,4,6-Trichlorophenol	ND	15		µg/L	1	2/16/2006
Surr: 2,4,6-Tribromophenol	66.0	18.6-150		%REC	1	2/16/2006
Surr: 2-Fluorobiphenyl	67.0	19.6-134		%REC	1	2/16/2006
Surr: 2-Fluorophenol	49.0	9.54-113		%REC	1	2/16/2006
Surr: 4-Terphenyl-d14	81.0	22.7-145		%REC	1	2/16/2006
Surr: Nitrobenzene-d5	64.0	14.6-134		%REC	1	2/16/2006
Surr: Phenol-d5	36.0	10.7-80.3		%REC	1	2/16/2006
EPA METHOD 310.1: ALKALINITY						Analyst: TES
Alkalinity, Total (As CaCO3)	81	2.0		mg/L CaCO3	1	1/9/2006
Carbonate	ND	2.0		mg/L CaCO3	1	1/9/2006
Bicarbonate	81	2.0		mg/L CaCO3	1	1/9/2006
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: TES
Specific Conductance	300	0.010		µmhos/cm	1	1/11/2006
EPA METHOD 160.1: TDS						Analyst: TES
Total Dissolved Solids	190	50		mg/L	1	1/12/2006

Qualifiers:

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

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-02

Client Sample ID: N of MW #46
Collection Date: 1/5/2006 2:30:00 PM
Date Received: 1/6/2006
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	1/9/2006 8:34:52 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	1/9/2006 8:34:52 PM
Surr: DNOP	120	58-140		%REC	1	1/9/2006 8:34:52 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	1/12/2006 9:16:30 PM
Surr: BFB	102	79.7-118		%REC	1	1/12/2006 9:16:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	1/12/2006 9:16:30 PM
Benzene	ND	0.50		µg/L	1	1/12/2006 9:16:30 PM
Toluene	ND	0.50		µg/L	1	1/12/2006 9:16:30 PM
Ethylbenzene	ND	0.50		µg/L	1	1/12/2006 9:16:30 PM
Xylenes, Total	ND	0.50		µg/L	1	1/12/2006 9:16:30 PM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	0.10	0.10		mg/L	1	1/7/2006
Chloride	2.7	0.10		mg/L	1	1/7/2006
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	1/7/2006
Bromide	ND	0.50		mg/L	1	1/7/2006
Nitrogen, Nitrate (As N)	0.11	0.10		mg/L	1	1/7/2006
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	1/7/2006
Sulfate	62	0.50		mg/L	1	1/7/2006
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	1/9/2006
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	1/16/2006 9:52:41 AM
Barium	0.060	0.0020		mg/L	1	1/16/2006 9:52:41 AM
Cadmium	ND	0.0020		mg/L	1	1/16/2006 9:52:41 AM
Calcium	36	1.0		mg/L	1	1/16/2006 9:52:41 AM
Chromium	ND	0.0060		mg/L	1	1/16/2006 9:52:41 AM
Copper	ND	0.0060		mg/L	1	1/16/2006 9:52:41 AM
Iron	ND	0.020		mg/L	1	1/16/2006 9:52:41 AM
Lead	ND	0.0050		mg/L	1	1/16/2006 9:52:41 AM
Magnesium	6.2	1.0		mg/L	1	1/16/2006 9:52:41 AM
Manganese	0.021	0.0020		mg/L	1	1/16/2006 9:52:41 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-02

Client Sample ID: N of MW #46
Collection Date: 1/5/2006 2:30:00 PM
Date Received: 1/6/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Potassium	2.0	1.0		mg/L	1	1/16/2006 9:52:41 AM
Selenium	ND	0.050		mg/L	1	1/16/2006 9:52:41 AM
Silver	ND	0.0050		mg/L	1	1/16/2006 9:52:41 AM
Sodium	20	1.0		mg/L	1	1/16/2006 9:52:41 AM
Uranium	ND	0.10		mg/L	1	1/16/2006 9:52:41 AM
Zinc	0.067	0.0050		mg/L	1	1/16/2006 9:52:41 AM

EPA 6010: TOTAL RECOVERABLE METALS						Analyst: CMC
Arsenic	ND	0.020		mg/L	1	1/16/2006 2:45:23 PM
Barium	0.064	0.020		mg/L	1	1/16/2006 2:45:23 PM
Cadmium	ND	0.0020		mg/L	1	1/16/2006 2:45:23 PM
Chromium	ND	0.0060		mg/L	1	1/16/2006 2:45:23 PM
Lead	ND	0.0050		mg/L	1	1/16/2006 2:45:23 PM
Selenium	ND	0.050		mg/L	1	1/16/2006 2:45:23 PM
Silver	ND	0.0050		mg/L	1	1/16/2006 2:45:23 PM

EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	2/16/2006
Acenaphthylene	ND	10		µg/L	1	2/16/2006
Anthracene	ND	10		µg/L	1	2/16/2006
Benz(a)anthracene	ND	15		µg/L	1	2/16/2006
Benzo(a)pyrene	ND	15		µg/L	1	2/16/2006
Benzo(b)fluoranthene	ND	15		µg/L	1	2/16/2006
Benzo(g,h,i)perylene	ND	10		µg/L	1	2/16/2006
Benzo(k)fluoranthene	ND	10		µg/L	1	2/16/2006
Benzoic acid	ND	50		µg/L	1	2/16/2006
Benzyl alcohol	ND	20		µg/L	1	2/16/2006
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	2/16/2006
Bis(2-chloroethyl)ether	ND	15		µg/L	1	2/16/2006
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	2/16/2006
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	2/16/2006
4-Bromophenyl phenyl ether	ND	10		µg/L	1	2/16/2006
Butyl benzyl phthalate	ND	15		µg/L	1	2/16/2006
4-Chloro-3-methylphenol	ND	20		µg/L	1	2/16/2006
4-Chloroaniline	ND	20		µg/L	1	2/16/2006
2-Chloronaphthalene	ND	10		µg/L	1	2/16/2006
2-Chlorophenol	ND	10		µg/L	1	2/16/2006
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	2/16/2006
Chrysene	ND	15		µg/L	1	2/16/2006

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

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-02

Client Sample ID: N of MW #46
Collection Date: 1/5/2006 2:30:00 PM
Date Received: 1/6/2006
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	2/16/2006
Di-n-octyl phthalate	ND	15		µg/L	1	2/16/2006
Dibenz(a,h)anthracene	ND	10		µg/L	1	2/16/2006
Dibenzofuran	ND	10		µg/L	1	2/16/2006
1,2-Dichlorobenzene	ND	10		µg/L	1	2/16/2006
1,3-Dichlorobenzene	ND	10		µg/L	1	2/16/2006
1,4-Dichlorobenzene	ND	10		µg/L	1	2/16/2006
3,3'-Dichlorobenzidine	ND	15		µg/L	1	2/16/2006
Diethyl phthalate	ND	10		µg/L	1	2/16/2006
Dimethyl phthalate	ND	10		µg/L	1	2/16/2006
2,4-Dichlorophenol	ND	10		µg/L	1	2/16/2006
2,4-Dimethylphenol	ND	10		µg/L	1	2/16/2006
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	2/16/2006
2,4-Dinitrophenol	ND	50		µg/L	1	2/16/2006
2,4-Dinitrotoluene	ND	50		µg/L	1	2/16/2006
2,6-Dinitrotoluene	ND	10		µg/L	1	2/16/2006
Fluoranthene	ND	10		µg/L	1	2/16/2006
Fluorene	ND	10		µg/L	1	2/16/2006
Hexachlorobenzene	ND	10		µg/L	1	2/16/2006
Hexachlorobutadiene	ND	10		µg/L	1	2/16/2006
Hexachloroethane	ND	10		µg/L	1	2/16/2006
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	2/16/2006
Isophorone	ND	10		µg/L	1	2/16/2006
2-Methylnaphthalene	ND	10		µg/L	1	2/16/2006
2-Methylphenol	ND	15		µg/L	1	2/16/2006
3+4-Methylphenol	ND	20		µg/L	1	2/16/2006
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	2/16/2006
N-Nitrosodiphenylamine	ND	10		µg/L	1	2/16/2006
Naphthalene	ND	10		µg/L	1	2/16/2006
2-Nitroaniline	ND	50		µg/L	1	2/16/2006
3-Nitroaniline	ND	50		µg/L	1	2/16/2006
4-Nitroaniline	ND	50		µg/L	1	2/16/2006
Nitrobenzene	ND	10		µg/L	1	2/16/2006
2-Nitrophenol	ND	15		µg/L	1	2/16/2006
4-Nitrophenol	ND	50		µg/L	1	2/16/2006
Pentachlorophenol	ND	50		µg/L	1	2/16/2006
Phenanthrene	ND	10		µg/L	1	2/16/2006
Phenol	ND	10		µg/L	1	2/16/2006
Pyrene	ND	15		µg/L	1	2/16/2006
1,2,4-Trichlorobenzene	ND	10		µg/L	1	2/16/2006

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-02

Client Sample ID: N of MW #46
Collection Date: 1/5/2006 2:30:00 PM
Date Received: 1/6/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
2,4,5-Trichlorophenol	ND	50		µg/L	1	2/16/2006
2,4,6-Trichlorophenol	ND	15		µg/L	1	2/16/2006
Surr: 2,4,6-Tribromophenol	70.0	16.6-150		%REC	1	2/16/2006
Surr: 2-Fluorobiphenyl	80.0	19.6-134		%REC	1	2/16/2006
Surr: 2-Fluorophenol	52.0	9.54-113		%REC	1	2/16/2006
Surr: 4-Terphenyl-d14	97.0	22.7-145		%REC	1	2/16/2006
Surr: Nitrobenzene-d5	73.0	14.6-134		%REC	1	2/16/2006
Surr: Phenol-d5	42.0	10.7-80.3		%REC	1	2/16/2006
EPA METHOD 310.1: ALKALINITY						Analyst: TES
Alkalinity, Total (As CaCO3)	83	2.0		mg/L CaCO3	1	1/9/2006
Carbonate	ND	2.0		mg/L CaCO3	1	1/9/2006
Bicarbonate	83	2.0		mg/L CaCO3	1	1/9/2006
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: TES
Specific Conductance	300	0.010		µmhos/cm	1	1/11/2006
EPA METHOD 160.1: TDS						Analyst: TES
Total Dissolved Solids	190	50		mg/L	1	1/12/2006

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

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-03

Client Sample ID: River Downstream
Collection Date: 1/5/2006 3:45:00 PM
Date Received: 1/6/2006
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	1/9/2006 9:07:54 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	1/9/2006 9:07:54 PM
Surr: DNOP	117	58-140		%REC	1	1/9/2006 9:07:54 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	1/12/2006 10:46:02 PM
Surr: BFB	102	79.7-118		%REC	1	1/12/2006 10:46:02 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	1/12/2006 10:46:02 PM
Benzene	ND	0.50		µg/L	1	1/12/2006 10:46:02 PM
Toluene	ND	0.50		µg/L	1	1/12/2006 10:46:02 PM
Ethylbenzene	ND	0.50		µg/L	1	1/12/2006 10:46:02 PM
Xylenes, Total	ND	0.50		µg/L	1	1/12/2006 10:46:02 PM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	0.17	0.10		mg/L	1	1/7/2006
Chloride	3.9	0.10		mg/L	1	1/7/2006
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	1/7/2006
Bromide	ND	0.50		mg/L	1	1/7/2006
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	1/7/2006
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	1/7/2006
Sulfate	84	2.5		mg/L	5	1/9/2006
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	1/9/2006
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	1/16/2006 9:55:44 AM
Barium	0.058	0.0020		mg/L	1	1/16/2006 9:55:44 AM
Cadmium	ND	0.0020		mg/L	1	1/16/2006 9:55:44 AM
Calcium	40	1.0		mg/L	1	1/16/2006 9:55:44 AM
Chromium	ND	0.0060		mg/L	1	1/16/2006 9:55:44 AM
Copper	ND	0.0060		mg/L	1	1/16/2006 9:55:44 AM
Iron	0.030	0.020		mg/L	1	1/16/2006 9:55:44 AM
Lead	ND	0.0050		mg/L	1	1/16/2006 9:55:44 AM
Magnesium	6.7	1.0		mg/L	1	1/16/2006 9:55:44 AM
Manganese	0.070	0.0020		mg/L	1	1/16/2006 9:55:44 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-03

Client Sample ID: River Downstream
Collection Date: 1/5/2006 3:45:00 PM
Date Received: 1/6/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Potassium	2.0	1.0		mg/L	1	1/16/2006 9:55:44 AM
Selenium	ND	0.050		mg/L	1	1/16/2006 9:55:44 AM
Silver	ND	0.0050		mg/L	1	1/16/2006 9:55:44 AM
Sodium	27	1.0		mg/L	1	1/16/2006 9:55:44 AM
Uranium	ND	0.10		mg/L	1	1/16/2006 9:55:44 AM
Zinc	0.056	0.0050		mg/L	1	1/16/2006 9:55:44 AM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: CMC
Arsenic	ND	0.020		mg/L	1	1/16/2006 2:47:38 PM
Barium	0.063	0.020		mg/L	1	1/16/2006 2:47:38 PM
Cadmium	ND	0.0020		mg/L	1	1/16/2006 2:47:38 PM
Chromium	ND	0.0060		mg/L	1	1/16/2006 2:47:38 PM
Lead	ND	0.0050		mg/L	1	1/16/2006 2:47:38 PM
Selenium	ND	0.050		mg/L	1	1/16/2006 2:47:38 PM
Silver	ND	0.0050		mg/L	1	1/16/2006 2:47:38 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	2/16/2006
Acenaphthylene	ND	10		µg/L	1	2/16/2006
Anthracene	ND	10		µg/L	1	2/16/2006
Benz(a)anthracene	ND	15		µg/L	1	2/16/2006
Benzo(a)pyrene	ND	15		µg/L	1	2/16/2006
Benzo(b)fluoranthene	ND	15		µg/L	1	2/16/2006
Benzo(g,h,i)perylene	ND	10		µg/L	1	2/16/2006
Benzo(k)fluoranthene	ND	10		µg/L	1	2/16/2006
Benzoic acid	ND	50		µg/L	1	2/16/2006
Benzyl alcohol	ND	20		µg/L	1	2/16/2006
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	2/16/2006
Bis(2-chloroethyl)ether	ND	15		µg/L	1	2/16/2006
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	2/16/2006
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	2/16/2006
4-Bromophenyl phenyl ether	ND	10		µg/L	1	2/16/2006
Butyl benzyl phthalate	ND	15		µg/L	1	2/16/2006
4-Chloro-3-methylphenol	ND	20		µg/L	1	2/16/2006
4-Chloroaniline	ND	20		µg/L	1	2/16/2006
2-Chloronaphthalene	ND	10		µg/L	1	2/16/2006
2-Chlorophenol	ND	10		µg/L	1	2/16/2006
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	2/16/2006
Chrysene	ND	15		µg/L	1	2/16/2006

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

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-03

Client Sample ID: River Downstream
Collection Date: 1/5/2006 3:45:00 PM
Date Received: 1/6/2006
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	2/16/2006
Di-n-octyl phthalate	ND	15		µg/L	1	2/16/2006
Dibenz(a,h)anthracene	ND	10		µg/L	1	2/16/2006
Dibenzofuran	ND	10		µg/L	1	2/16/2006
1,2-Dichlorobenzene	ND	10		µg/L	1	2/16/2006
1,3-Dichlorobenzene	ND	10		µg/L	1	2/16/2006
1,4-Dichlorobenzene	ND	10		µg/L	1	2/16/2006
3,3'-Dichlorobenzidine	ND	15		µg/L	1	2/16/2006
Diethyl phthalate	ND	10		µg/L	1	2/16/2006
Dimethyl phthalate	ND	10		µg/L	1	2/16/2006
2,4-Dichlorophenol	ND	10		µg/L	1	2/16/2006
2,4-Dimethylphenol	ND	10		µg/L	1	2/16/2006
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	2/16/2006
2,4-Dinitrophenol	ND	50		µg/L	1	2/16/2006
2,4-Dinitrotoluene	ND	50		µg/L	1	2/16/2006
2,6-Dinitrotoluene	ND	10		µg/L	1	2/16/2006
Fluoranthene	ND	10		µg/L	1	2/16/2006
Fluorene	ND	10		µg/L	1	2/16/2006
Hexachlorobenzene	ND	10		µg/L	1	2/16/2006
Hexachlorobutadiene	ND	10		µg/L	1	2/16/2006
Hexachloroethane	ND	10		µg/L	1	2/16/2006
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	2/16/2006
Isophorone	ND	10		µg/L	1	2/16/2006
2-Methylnaphthalene	ND	10		µg/L	1	2/16/2006
2-Methylphenol	ND	15		µg/L	1	2/16/2006
3+4-Methylphenol	ND	20		µg/L	1	2/16/2006
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	2/16/2006
N-Nitrosodiphenylamine	ND	10		µg/L	1	2/16/2006
Naphthalene	ND	10		µg/L	1	2/16/2006
2-Nitroaniline	ND	50		µg/L	1	2/16/2006
3-Nitroaniline	ND	50		µg/L	1	2/16/2006
4-Nitroaniline	ND	50		µg/L	1	2/16/2006
Nitrobenzene	ND	10		µg/L	1	2/16/2006
2-Nitrophenol	ND	15		µg/L	1	2/16/2006
4-Nitrophenol	ND	50		µg/L	1	2/16/2006
Pentachlorophenol	ND	50		µg/L	1	2/16/2006
Phenanthrene	ND	10		µg/L	1	2/16/2006
Phenol	ND	10		µg/L	1	2/16/2006
Pyrene	ND	15		µg/L	1	2/16/2006
1,2,4-Trichlorobenzene	ND	10		µg/L	1	2/16/2006

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-03

Client Sample ID: River Downstream
Collection Date: 1/5/2006 3:45:00 PM
Date Received: 1/6/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
2,4,5-Trichlorophenol	ND	50		µg/L	1	2/16/2006
2,4,6-Trichlorophenol	ND	15		µg/L	1	2/16/2006
Surr: 2,4,6-Tribromophenol	61.0	16.6-150		%REC	1	2/16/2006
Surr: 2-Fluorobiphenyl	65.0	19.6-134		%REC	1	2/16/2006
Surr: 2-Fluorophenol	46.0	9.54-113		%REC	1	2/16/2006
Surr: 4-Terphenyl-d14	83.0	22.7-145		%REC	1	2/16/2006
Surr: Nitrobenzene-d5	61.0	14.6-134		%REC	1	2/16/2006
Surr: Phenol-d5	36.0	10.7-80.3		%REC	1	2/16/2006
EPA METHOD 310.1: ALKALINITY						Analyst: TES
Alkalinity, Total (As CaCO3)	86	2.0		mg/L CaCO3	1	1/9/2006
Carbonate	ND	2.0		mg/L CaCO3	1	1/9/2006
Bicarbonate	86	2.0		mg/L CaCO3	1	1/9/2006
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: TES
Specific Conductance	370	0.010		µmhos/cm	1	1/11/2006
EPA METHOD 160.1: TDS						Analyst: TES
Total Dissolved Solids	240	50		mg/L	1	1/12/2006

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

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-04

Client Sample ID: River Upstream
Collection Date: 1/5/2006 3:15:00 PM
Date Received: 1/6/2006
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	1/9/2006 9:40:55 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	1/9/2006 9:40:55 PM
Surr: DNOP	115	58-140		%REC	1	1/9/2006 9:40:55 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	1/12/2006 11:15:50 PM
Surr: BFB	102	79.7-118		%REC	1	1/12/2006 11:15:50 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	1/12/2006 11:15:50 PM
Benzene	ND	0.50		µg/L	1	1/12/2006 11:15:50 PM
Toluene	ND	0.50		µg/L	1	1/12/2006 11:15:50 PM
Ethylbenzene	ND	0.50		µg/L	1	1/12/2006 11:15:50 PM
Xylenes, Total	ND	0.50		µg/L	1	1/12/2006 11:15:50 PM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	0.11	0.10		mg/L	1	1/7/2006
Chloride	2.4	0.10		mg/L	1	1/7/2006
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	1/7/2006
Bromide	ND	0.50		mg/L	1	1/7/2006
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	1/7/2006
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	1/7/2006
Sulfate	58	0.50		mg/L	1	1/7/2006
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	1/9/2006
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	1/16/2006 9:58:47 AM
Barium	0.061	0.0020		mg/L	1	1/16/2006 9:58:47 AM
Cadmium	ND	0.0020		mg/L	1	1/16/2006 9:58:47 AM
Calcium	35	1.0		mg/L	1	1/16/2006 9:58:47 AM
Chromium	ND	0.0060		mg/L	1	1/16/2006 9:58:47 AM
Copper	ND	0.0060		mg/L	1	1/16/2006 9:58:47 AM
Iron	ND	0.020		mg/L	1	1/16/2006 9:58:47 AM
Lead	ND	0.0050		mg/L	1	1/16/2006 9:58:47 AM
Magnesium	6.1	1.0		mg/L	1	1/16/2006 9:58:47 AM
Manganese	0.022	0.0020		mg/L	1	1/16/2006 9:58:47 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-04

Client Sample ID: River Upstream
Collection Date: 1/5/2006 3:15:00 PM
Date Received: 1/6/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Potassium	1.9	1.0		mg/L	1	1/16/2006 9:58:47 AM
Selenium	ND	0.050		mg/L	1	1/16/2006 9:58:47 AM
Silver	ND	0.0050		mg/L	1	1/16/2006 9:58:47 AM
Sodium	20	1.0		mg/L	1	1/16/2006 9:58:47 AM
Uranium	ND	0.10		mg/L	1	1/16/2006 9:58:47 AM
Zinc	0.12	0.0050		mg/L	1	1/16/2006 9:58:47 AM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: CMC
Arsenic	ND	0.020		mg/L	1	1/16/2006 2:49:47 PM
Barium	0.063	0.020		mg/L	1	1/16/2006 2:49:47 PM
Cadmium	ND	0.0020		mg/L	1	1/16/2006 2:49:47 PM
Chromium	ND	0.0060		mg/L	1	1/16/2006 2:49:47 PM
Lead	ND	0.0050		mg/L	1	1/16/2006 2:49:47 PM
Selenium	ND	0.050		mg/L	1	1/16/2006 2:49:47 PM
Silver	ND	0.0050		mg/L	1	1/16/2006 2:49:47 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	2/16/2006
Acenaphthylene	ND	10		µg/L	1	2/16/2006
Anthracene	ND	10		µg/L	1	2/16/2006
Benz(a)anthracene	ND	15		µg/L	1	2/16/2006
Benzo(a)pyrene	ND	15		µg/L	1	2/16/2006
Benzo(b)fluoranthene	ND	15		µg/L	1	2/16/2006
Benzo(g,h,i)perylene	ND	10		µg/L	1	2/16/2006
Benzo(k)fluoranthene	ND	10		µg/L	1	2/16/2006
Benzoic acid	ND	100		µg/L	1	2/16/2006
Benzyl alcohol	ND	20		µg/L	1	2/16/2006
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	2/16/2006
Bis(2-chloroethyl)ether	ND	15		µg/L	1	2/16/2006
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	2/16/2006
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	2/16/2006
4-Bromophenyl phenyl ether	ND	10		µg/L	1	2/16/2006
Butyl benzyl phthalate	ND	15		µg/L	1	2/16/2006
4-Chloro-3-methylphenol	ND	20		µg/L	1	2/16/2006
4-Chloroaniline	ND	20		µg/L	1	2/16/2006
2-Chloronaphthalene	ND	10		µg/L	1	2/16/2006
2-Chlorophenol	ND	10		µg/L	1	2/16/2006
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	2/16/2006
Chrysene	ND	15		µg/L	1	2/16/2006

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-04

Client Sample ID: River Upstream
Collection Date: 1/5/2006 3:15:00 PM
Date Received: 1/6/2006
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	2/16/2006
Di-n-octyl phthalate	ND	15		µg/L	1	2/16/2006
Dibenz(a,h)anthracene	ND	10		µg/L	1	2/16/2006
Dibenzofuran	ND	10		µg/L	1	2/16/2006
1,2-Dichlorobenzene	ND	10		µg/L	1	2/16/2006
1,3-Dichlorobenzene	ND	10		µg/L	1	2/16/2006
1,4-Dichlorobenzene	ND	10		µg/L	1	2/16/2006
3,3'-Dichlorobenzidine	ND	15		µg/L	1	2/16/2006
Diethyl phthalate	ND	10		µg/L	1	2/16/2006
Dimethyl phthalate	ND	10		µg/L	1	2/16/2006
2,4-Dichlorophenol	ND	10		µg/L	1	2/16/2006
2,4-Dimethylphenol	ND	10		µg/L	1	2/16/2006
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	2/16/2006
2,4-Dinitrophenol	ND	50		µg/L	1	2/16/2006
2,4-Dinitrotoluene	ND	50		µg/L	1	2/16/2006
2,6-Dinitrotoluene	ND	10		µg/L	1	2/16/2006
Fluoranthene	ND	10		µg/L	1	2/16/2006
Fluorene	ND	10		µg/L	1	2/16/2006
Hexachlorobenzene	ND	10		µg/L	1	2/16/2006
Hexachlorobutadiene	ND	10		µg/L	1	2/16/2006
Hexachloroethane	ND	10		µg/L	1	2/16/2006
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	2/16/2006
Isophorone	ND	10		µg/L	1	2/16/2006
2-Methylnaphthalene	ND	10		µg/L	1	2/16/2006
2-Methylphenol	ND	15		µg/L	1	2/16/2006
3+4-Methylphenol	ND	50		µg/L	1	2/16/2006
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	2/16/2006
N-Nitrosodiphenylamine	ND	10		µg/L	1	2/16/2006
Naphthalene	ND	10		µg/L	1	2/16/2006
2-Nitroaniline	ND	50		µg/L	1	2/16/2006
3-Nitroaniline	ND	50		µg/L	1	2/16/2006
4-Nitroaniline	ND	50		µg/L	1	2/16/2006
Nitrobenzene	ND	10		µg/L	1	2/16/2006
2-Nitrophenol	ND	15		µg/L	1	2/16/2006
4-Nitrophenol	ND	50		µg/L	1	2/16/2006
Pentachlorophenol	ND	50		µg/L	1	2/16/2006
Phenanthrene	ND	10		µg/L	1	2/16/2006
Phenol	ND	10		µg/L	1	2/16/2006
Pyrene	ND	15		µg/L	1	2/16/2006
1,2,4-Trichlorobenzene	ND	10		µg/L	1	2/16/2006

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-04

Client Sample ID: River Upstream
Collection Date: 1/5/2006 3:15:00 PM
Date Received: 1/6/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
2,4,5-Trichlorophenol	ND	50		µg/L	1	2/16/2006
2,4,6-Trichlorophenol	ND	15		µg/L	1	2/16/2006
Surr: 2,4,6-Tribromophenol	63.0	16.6-150		%REC	1	2/16/2006
Surr: 2-Fluorobiphenyl	70.0	19.6-134		%REC	1	2/16/2006
Surr: 2-Fluorophenol	52.0	9.54-113		%REC	1	2/16/2006
Surr: 4-Terphenyl-d14	83.0	22.7-145		%REC	1	2/16/2006
Surr: Nitrobenzene-d5	66.0	14.6-134		%REC	1	2/16/2006
Surr: Phenol-d5	39.0	10.7-80.3		%REC	1	2/16/2006
EPA METHOD 310.1: ALKALINITY						Analyst: TES
Alkalinity, Total (As CaCO3)	82	2.0		mg/L CaCO3	1	1/9/2006
Carbonate	ND	2.0		mg/L CaCO3	1	1/9/2006
Bicarbonate	82	2.0		mg/L CaCO3	1	1/9/2006
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: TES
Specific Conductance	290	0.010		µmhos/cm	1	1/11/2006
EPA METHOD 160.1: TDS						Analyst: TES
Total Dissolved Solids	180	50		mg/L	1	1/12/2006

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining
Lab Order: 0601064
Project: River Sampling 1st Qtr 2006
Lab ID: 0601064-05

Client Sample ID: Trip Blank
Collection Date:
Date Received: 1/6/2006
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	1/12/2006 11:45:43 PM
Surr: BFB	102	79.7-118		%REC	1	1/12/2006 11:45:43 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	1/12/2006 11:45:43 PM
Benzene	ND	1.0		µg/L	1	1/12/2006 11:45:43 PM
Toluene	ND	1.0		µg/L	1	1/12/2006 11:45:43 PM
Ethylbenzene	ND	1.0		µg/L	1	1/12/2006 11:45:43 PM
Xylenes, Total	ND	3.0		µg/L	1	1/12/2006 11:45:43 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	ND Not Detected at the Reporting Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory

Date: 22-Feb-06

CLIENT: San Juan Refining

Work Order: 0601064

Project: River Sampling 1st Qtr 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W

Sample ID: MBLK	SampType: MBLK	TestCode: 300_W	Units: mg/L	Prep Date:	RunNo: 17841
Client ID: ZZZZZ	Batch ID: R17841	TestNo: E300		Analysis Date: 1/6/2006	SeqNo: 438674
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Fluoride	ND	0.10			
Chloride	ND	0.10			
Nitrogen, Nitrite (As N)	ND	0.10			
Bromide	ND	0.50			
Nitrogen, Nitrate (As N)	ND	0.10			
Phosphorus, Orthophosphate (As P)	ND	0.50			
Sulfate	ND	0.50			

Sample ID: MBLK	SampType: MBLK	TestCode: 300_W	Units: mg/L	Prep Date:	RunNo: 17866
Client ID: ZZZZZ	Batch ID: R17866	TestNo: E300		Analysis Date: 1/9/2006	SeqNo: 439207
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Fluoride	ND	0.10			
Chloride	ND	0.10			
Nitrogen, Nitrite (As N)	ND	0.10			
Bromide	ND	0.50			
Nitrogen, Nitrate (As N)	ND	0.10			
Phosphorus, Orthophosphate (As P)	ND	0.50			
Sulfate	ND	0.50			

Sample ID: LCS-ST300-05023	SampType: LCS	TestCode: 300_W	Units: mg/L	Prep Date:	RunNo: 17841
Client ID: ZZZZZ	Batch ID: R17841	TestNo: E300		Analysis Date: 1/6/2006	SeqNo: 438675
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Fluoride	0.4813	0.10	0.5	0	96.3	90	110	
Chloride	4.435	0.10	5	0	88.7	90	110	S
Nitrogen, Nitrite (As N)	0.8891	0.10	1	0	88.9	90	110	S
Bromide	2.394	0.50	2.5	0	95.8	90	110	
Nitrogen, Nitrate (As N)	2.266	0.10	2.5	0	90.6	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

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W

Sample ID: LCS-ST300-05023	Batch ID: R17841	TestCode: 300_W	Units: mg/L	Prep Date:	RunNo: 17841						
Client ID: ZZZZZ		TestNo: E300		Analysis Date: 1/6/2006	SeqNo: 438675						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phosphorus, Orthophosphate (As P)	4.700	0.50	5	0	94.0	90	110				
Sulfate	9.384	0.50	10	0	93.8	90	110				

Sample ID: LCS-ST300-05023	Batch ID: R17866	TestCode: 300_W	Units: mg/L	Prep Date:	RunNo: 17866						
Client ID: ZZZZZ		TestNo: E300		Analysis Date: 1/9/2006	SeqNo: 439208						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Fluoride	0.4877	0.10	0.5	0	97.5	90	110				
Chloride	4.537	0.10	5	0	90.7	90	110				
Nitrogen, Nitrite (As N)	0.9265	0.10	1	0	92.6	90	110				
Bromide	2.343	0.50	2.5	0	93.7	90	110				
Nitrogen, Nitrate (As N)	2.283	0.10	2.5	0	91.3	90	110				
Phosphorus, Orthophosphate (As P)	4.681	0.50	5	0	93.6	90	110				
Sulfate	9.534	0.50	10	0	95.3	90	110				

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

ANALYTICAL QC SUMMARY REPORT

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006

TestCode: 310.1_W

Sample ID: MBLK	Sample Type: MBLK	TestCode: 310.1_W	Units: mg/L CaCO3	Prep Date:	RunNo: 17847
Client ID: ZZZZZ	Batch ID: R17847	TestNo: E310.1		Analysis Date: 1/9/2006	SeqNo: 438805
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Alkalinity, Total (As CaCO3) ND 2.0
 Carbonate ND 2.0
 Bicarbonate ND 2.0

Sample ID: MBLK	Sample Type: MBLK	TestCode: 310.1_W	Units: mg/L CaCO3	Prep Date:	RunNo: 17847
Client ID: ZZZZZ	Batch ID: R17847	TestNo: E310.1		Analysis Date: 1/9/2006	SeqNo: 438812
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Alkalinity, Total (As CaCO3) ND 2.0
 Carbonate ND 2.0
 Bicarbonate ND 2.0

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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

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015DRO_W

Sample ID: MB-9535	SampleType: MBLK	TestCode: 8015DRO_W	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17852						
Client ID: ZZZZZ	Batch ID: 9535	TestNo: SW8015		Analysis Date: 1/9/2006	SeqNo: 438884						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)
 Motor Oil Range Organics (MRO)

Sample ID: LCS-9535	SampleType: LCS	TestCode: 8015DRO_W	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17852						
Client ID: ZZZZZ	Batch ID: 9535	TestNo: SW8015		Analysis Date: 1/9/2006	SeqNo: 438885						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.740	1.0	5	0	115	81.2	149				

Diesel Range Organics (DRO)

Sample ID: LCSD-9535	SampleType: LCSD	TestCode: 8015DRO_W	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17852						
Client ID: ZZZZZ	Batch ID: 9535	TestNo: SW8015		Analysis Date: 1/9/2006	SeqNo: 438886						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.962	1.0	5	0	119	81.2	149	5.74	3.80	23	

Diesel Range Organics (DRO)

Qualifiers: E Value above quantitation range
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006
 TestCode: 8015GRO_W

Sample ID: Reagent Blank 5ml	SampType: MBLK	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 17890						
Client ID: ZZZZZ	Batch ID: R17890	TestNo: SW8015		Analysis Date: 1/12/2006	SeqNo: 439931						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: GRO lcs 2.5ug	SampType: LCS	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 17890						
Client ID: ZZZZZ	Batch ID: R17890	TestNo: SW8015		Analysis Date: 1/13/2006	SeqNo: 439932						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 0601064-02a ms	SampType: MS	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 17890						
Client ID: N of MW #46	Batch ID: R17890	TestNo: SW8015		Analysis Date: 1/12/2006	SeqNo: 439951						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 0601064-02a msd	SampType: MSD	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 17890						
Client ID: N of MW #46	Batch ID: R17890	TestNo: SW8015		Analysis Date: 1/12/2006	SeqNo: 439952						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

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

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021BTEX_W

Sample ID: Reagent Blank 5ml	SampType: MBLK	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 17890
Client ID: ZZZZ	Batch ID: R17890	TestNo: SW8021		Analysis Date: 1/12/2006	SeqNo: 439913
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Methyl tert-butyl ether (MTBE) ND 2.5
 Benzene ND 1.0
 Toluene ND 1.0
 Ethylbenzene ND 1.0
 Xylenes, Total ND 3.0

Sample ID: BTEX Ics 100ng	SampType: LCS	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 17890
Client ID: ZZZZ	Batch ID: R17890	TestNo: SW8021		Analysis Date: 1/12/2006	SeqNo: 440002
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Methyl tert-butyl ether (MTBE) 20.00 2.5 20 0 100 64.5 133
 Benzene 18.85 1.0 20 0 94.2 88.5 114
 Toluene 19.12 1.0 20 0 95.6 87.2 114
 Ethylbenzene 19.76 1.0 20 0 98.8 88.6 113
 Xylenes, Total 39.56 3.0 40 0 98.9 83.3 114

Sample ID: 0601064-01a ms	SampType: MS	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 17890
Client ID: N of MW #45	Batch ID: R17890	TestNo: SW8021		Analysis Date: 1/12/2006	SeqNo: 439929
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Methyl tert-butyl ether (MTBE) 20.07 2.5 20 0 100 64.5 133
 Benzene 17.58 1.0 20 0 87.9 84.2 114
 Toluene 18.56 1.0 20 0 92.8 87.2 114
 Ethylbenzene 18.64 1.0 20 0 93.2 88.6 113
 Xylenes, Total 38.83 3.0 40 0 97.1 83.3 114

Sample ID: 0601064-01a msd	SampType: MSD	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 17890
Client ID: N of MW #45	Batch ID: R17890	TestNo: SW8021		Analysis Date: 1/12/2006	SeqNo: 439930
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

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

CLIENT: San Juan Refining

Work Order: 0601064

Project: River Sampling 1st Qtr 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021BTEX_W

Sample ID: 0601064-01a.msd	SampType: MSD	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 17890						
Client ID: N of MW #45	Batch ID: R17890	TestNo: SW8021		Analysis Date: 1/12/2006	SeqNo: 439930						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.41	2.5	20	0	97.1	64.5	133	20.07	3.33	28	
Benzene	16.95	1.0	20	0	84.7	84.2	114	17.58	3.64	27	
Toluene	18.24	1.0	20	0	91.2	87.2	114	18.56	1.74	19	
Ethylbenzene	18.72	1.0	20	0	93.6	88.6	113	18.64	0.412	10	
Xylenes, Total	38.20	3.0	40	0	95.5	83.3	114	38.83	1.64	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

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_W

Sample ID: MB-9552	SampType: MBLK	TestCode: 8270_W	Units: µg/L	Prep Date: 1/10/2006	RunNo: 18276						
Client ID: ZZZZZ	Batch ID: 9552	TestNo: SW8270C	(SW3510)	Analysis Date: 2/16/2006	SeqNo: 450546						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	10									
Acenaphthylene	ND	10									
Anthracene	ND	10									
Benzo(a)anthracene	ND	15									
Benzo(a)pyrene	ND	15									
Benzo(b)fluoranthene	ND	15									
Benzo(g,h,i)perylene	ND	10									
Benzo(k)fluoranthene	ND	10									
Benzoic acid	ND	50									
Benzyl alcohol	ND	20									
Bis(2-chloroethoxy)methane	ND	10									
Bis(2-chloroethyl)ether	ND	15									
Bis(2-chloroisopropyl)ether	ND	15									
Bis(2-ethylhexyl)phthalate	ND	15									
4-Bromophenyl phenyl ether	ND	10									
Butyl benzyl phthalate	ND	15									
4-Chloro-3-methylphenol	ND	20									
4-Chloroaniline	ND	20									
2-Chloronaphthalene	ND	10									
2-Chlorophenol	ND	10									
4-Chlorophenyl phenyl ether	ND	15									
Chrysene	ND	15									
Di-n-butyl phthalate	ND	10									
Di-n-octyl phthalate	ND	15									
Dibenz(a,h)anthracene	ND	10									
Dibenzofuran	ND	10									
1,2-Dichlorobenzene	ND	10									
1,3-Dichlorobenzene	ND	10									
1,4-Dichlorobenzene	ND	10									
3,3'-Dichlorobenzidine	ND	15									
Diethyl phthalate	ND	10									

Qualifiers: E Value above quantitation range
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006

TestCode: 8270_W

Sample ID: MB-9552		SampType: MBLK		TestCode: 8270_W		Units: µg/L		Prep Date: 1/10/2006		RunNo: 18276		
Client ID: ZZZZZ		Batch ID: 9552		TestNo: SW8270C		(SW3510)		Analysis Date: 2/16/2006		SeqNo: 450546		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dimethyl phthalate		ND	10									
2,4-Dichlorophenol		ND	10									
2,4-Dimethylphenol		ND	10									
4,6-Dinitro-2-methylphenol		ND	50									
2,4-Dinitrophenol		ND	50									
2,4-Dinitrotoluene		ND	50									
2,6-Dinitrotoluene		ND	10									
Fluoranthene		ND	10									
Fluorene		ND	10									
Hexachlorobenzene		ND	10									
Hexachlorobutadiene		ND	10									
Hexachloroethane		ND	10									
Indeno(1,2,3-cd)pyrene		ND	10									
Isophorane		ND	10									
2-Methylnaphthalene		ND	10									
2-Methylphenol		ND	15									
3+4-Methylphenol		ND	20									
N-Nitrosodi-n-propylamine		ND	10									
N-Nitrosodiphenylamine		ND	10									
Naphthalene		ND	10									
2-Nitroaniline		ND	50									
3-Nitroaniline		ND	50									
4-Nitroaniline		ND	50									
Nitrobenzene		ND	10									
2-Nitrophenol		ND	15									
4-Nitrophenol		ND	50									
Pentachlorophenol		ND	50									
Phenanthrene		ND	10									
Phenol		ND	10									
Pyrene		ND	15									
1,2,4-Trichlorobenzene		ND	10									

Qualifiers: E Value above quantitation range
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_W

Sample ID: MB-9552	SampType: MBLK	TestCode: 8270_W	Units: µg/L	Prep Date: 1/10/2006	RunNo: 18276						
Client ID: ZZZZZ	Batch ID: 9552	TestNo: SW8270C	(SW3510)	Analysis Date: 2/16/2006	SeqNo: 450546						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

2,4,5-Trichlorophenol ND 50
 2,4,6-Trichlorophenol ND 15

Sample ID: LCS-9552	SampType: LCS	TestCode: 8270_W	Units: µg/L	Prep Date: 1/10/2006	RunNo: 18276						
Client ID: ZZZZZ	Batch ID: 9552	TestNo: SW8270C	(SW3510)	Analysis Date: 2/16/2006	SeqNo: 450547						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Acenaphthene 81.00 10 100 0 81.0 11 123
 4-Chloro-3-methylphenol 160.0 20 200 0 80.0 15.4 119
 2-Chlorophenol 130.0 10 200 0 65.0 12.2 122
 1,4-Dichlorobenzene 60.00 10 100 0 60.0 16.9 100
 2,4-Dinitrotoluene 85.00 10 100 0 85.0 13 138
 N-Nitrosodi-n-propylamine 73.00 10 100 0 73.0 9.93 122
 4-Nitrophenol 84.00 50 200 0 42.0 -20.5 87.4
 Pentachlorophenol 140.0 50 200 0 70.0 -0.355 114
 Phenol 81.00 10 200 0 40.5 7.53 73.1
 Pyrene 95.00 15 100 0 95.0 12.6 140
 1,2,4-Trichlorobenzene 66.00 10 100 0 66.0 17.4 98.7

Sample ID: LCSD-9552	SampType: LCSD	TestCode: 8270_W	Units: µg/L	Prep Date: 1/10/2006	RunNo: 18276						
Client ID: ZZZZZ	Batch ID: 9552	TestNo: SW8270C	(SW3510)	Analysis Date: 2/16/2006	SeqNo: 450548						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Acenaphthene 76.00 10 100 0 76.0 11 123 81 6.37 30.5
 4-Chloro-3-methylphenol 140.0 20 200 0 70.0 15.4 119 160 13.3 28.6
 2-Chlorophenol 140.0 10 200 0 70.0 12.2 122 130 7.41 107
 1,4-Dichlorobenzene 63.00 10 100 0 63.0 16.9 100 60 4.88 62.1
 2,4-Dinitrotoluene 76.00 10 100 0 76.0 13 138 85 11.2 14.7
 N-Nitrosodi-n-propylamine 72.00 10 100 0 72.0 9.93 122 73 1.38 30.3
 4-Nitrophenol 75.00 50 200 0 37.5 12.5 87.4 84 11.3 36.3

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

CLIENT: San Juan Refining

Work Order: 0601064

Project: River Sampling 1st Qtr 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_W

Sample ID: LCSD-9552	Sample Type: LCSD	TestCode: 8270_W	Units: µg/L	Prep Date: 1/10/2006	RunNo: 18276						
Client ID: ZZZZZ	Batch ID: 9552	TestNo: SW8270C	(SW3510)	Analysis Date: 2/16/2006	SeqNo: 450548						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Pentachlorophenol	140.0	50	200	0	70.0	3.55	114	140	0	49	
Phenol	79.00	10	200	0	39.5	7.53	73.1	81	2.50	52.4	
Pyrene	85.00	15	100	0	85.0	12.6	140	95	11.1	16.3	
1,2,4-Trichlorobenzene	68.00	10	100	0	68.0	17.4	98.7	66	2.99	36.4	

Qualifiers: E Value above quantitation range
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: HG_CTW

Sample ID: MB-9544	SampleType: MBLK	TestCode: HG_CTW	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17848
Client ID: ZZZZZ	Batch ID: 9544	TestNo: SW7470	(SW7470)	Analysis Date: 1/9/2006	SeqNo: 438823
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.00020			

Sample ID: LCS-9544	SampleType: LCS	TestCode: HG_CTW	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17848
Client ID: ZZZZZ	Batch ID: 9544	TestNo: SW7470	(SW7470)	Analysis Date: 1/9/2006	SeqNo: 438824
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.004253	0.00020	0.005	0	85.1 80 120

Sample ID: LCSD-9544	SampleType: LCSD	TestCode: HG_CTW	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17848
Client ID: ZZZZZ	Batch ID: 9544	TestNo: SW7470	(SW7470)	Analysis Date: 1/9/2006	SeqNo: 438848
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.004311	0.00020	0.005	0	86.2 80 120 0.004253 1.35 0

Sample ID: 0601064-04D MS	SampleType: MS	TestCode: HG_CTW	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17848
Client ID: River Upstream	Batch ID: 9544	TestNo: SW7470	(SW7470)	Analysis Date: 1/9/2006	SeqNo: 438842
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.004008	0.00020	0.005	0	80.2 75 125

Sample ID: 0601064-04D MSD	SampleType: MSD	TestCode: HG_CTW	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17848
Client ID: River Upstream	Batch ID: 9544	TestNo: SW7470	(SW7470)	Analysis Date: 1/9/2006	SeqNo: 438843
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.004173	0.00020	0.005	0	83.5 75 125 0.004008 4.03 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

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: METALS DISS

Sample ID: MB	Sample Type: MBLK	Test Code: METALS_DIS	Units: mg/L	Prep Date:	Run No: 17918						
Client ID: ZZZZZ	Batch ID: R17918	Test No: SW6010A		Analysis Date: 1/16/2006	Seq No: 440450						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	ND	0.020									
Barium	ND	0.020									
Cadmium	ND	0.0020									
Calcium	ND	1.0									
Chromium	ND	0.0080									
Copper	ND	0.0060									
Iron	ND	0.020									
Lead	ND	0.0050									
Magnesium	ND	1.0									
Manganese	ND	0.0020									
Potassium	ND	1.0									
Selenium	ND	0.020									
Silver	ND	0.0050									
Sodium	ND	1.0									
Uranium	ND	0.10									
Zinc	ND	0.050									

Sample ID: LCS	SampleType: LCS	TestCode: METALS_DIS	Units: mg/L	Prep Date:	RunNo: 17918						
Client ID: ZZZZZ	Batch ID: R17918	TestNo: SW6010A		Analysis Date: 1/16/2006	SeqNo: 440451						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	0.5073	0.020	0.5	0	101	80	120				
Barium	0.4828	0.020	0.5	0	96.6	80	120				
Cadmium	0.4898	0.0020	0.5	0	98.0	80	120				
Calcium	52.54	1.0	50.5	0	104	80	120				
Chromium	0.4951	0.0060	0.5	0	99.0	80	120				
Copper	0.4786	0.0060	0.5	0	95.7	80	120				
Iron	0.4537	0.020	0.5	0	90.7	80	120				
Lead	0.4843	0.0050	0.5	0	96.9	80	120				
Magnesium	51.97	1.0	50.5	0	103	80	120				

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

ANALYTICAL QC SUMMARY REPORT

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006

TestCode: METALS_DISS

Sample ID: LCS	SampleType: LCS	TestCode: METALS_DIS		Units: mg/L	Prep Date:		RunNo: 17918				
Client ID: ZZZZZ	Batch ID: R17918	TestNo: SW6010A			Analysis Date: 1/16/2006		SeqNo: 440451				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.4647	0.0020	0.5	0	92.9	80	120				
Potassium	55.25	1.0	55	0	100	80	120				
Selenium	0.4899	0.020	0.5	0	98.0	80	120				
Silver	0.4934	0.0050	0.5	0	98.7	80	120				
Sodium	54.67	1.0	50.5	0	108	80	120				
Uranium	2.408	0.10	2.5	0	96.3	80	120				
Zinc	0.4904	0.050	0.5	0	98.1	80	120				

Sample ID: LCSD	SampType: LCSD	TestCode: METALS_DIS	Units: mg/L	Prep Date:	RunNo: 17918						
Client ID: ZZZZZ	Batch ID: R17918	TestNo: SW6010A		Analysis Date: 1/16/2006	SeqNo: 440452						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4999	0.020	0.5	0	100	80	120	0.5073	1.47	20	
Barium	0.4844	0.020	0.5	0	96.9	80	120	0.4828	0.335	20	
Cadmium	0.4857	0.0020	0.5	0	97.1	80	120	0.4898	0.857	20	
Calcium	52.35	1.0	50.5	0	104	80	120	52.54	0.358	20	
Chromium	0.4950	0.0060	0.5	0	99.0	80	120	0.4951	0.0310	20	
Copper	0.4807	0.0060	0.5	0	96.1	80	120	0.4786	0.433	20	
Iron	0.4533	0.020	0.5	0	90.7	80	120	0.4537	0.0691	20	
Lead	0.4844	0.0050	0.5	0	96.9	80	120	0.4843	0.00570	20	
Magnesium	51.74	1.0	50.5	0	102	80	120	51.97	0.449	20	
Manganese	0.4664	0.0020	0.5	0	93.3	80	120	0.4647	0.360	20	
Potassium	55.04	1.0	55	0	100	80	120	55.25	0.382	20	
Selenium	0.4915	0.020	0.5	0	98.3	80	120	0.4899	0.340	20	
Silver	0.4947	0.0050	0.5	0	98.9	80	120	0.4934	0.255	20	
Sodium	54.48	1.0	50.5	0	108	80	120	54.67	0.350	20	
Uranium	2.399	0.10	2.5	0	96.0	80	120	2.408	0.393	20	
Zinc	0.4950	0.050	0.5	0	99.0	80	120	0.4904	0.921	20	

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

CLIENT: San Juan Refining

Work Order: 0601064

Project: River Sampling 1st Qtr 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: METALS_TOTAL

Sample ID: MB-9536	SampleType: MBLK	TestCode: METALS_TO	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17885						
Client ID: ZZZZZ	Batch ID: 9536	TestNo: SW6010A		Analysis Date: 1/12/2006	SeqNo: 439739						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	ND	0.020									
Barium	ND	0.020									
Cadmium	ND	0.0020									
Chromium	ND	0.0060									
Lead	ND	0.0050									
Selenium	ND	0.050									
Silver	ND	0.0050									

Sample ID: MB-9536	SampleType: MBLK	TestCode: METALS_TO	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17932						
Client ID: ZZZZZ	Batch ID: 9536	TestNo: SW6010A		Analysis Date: 1/16/2006	SeqNo: 440773						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	ND	0.020									
Barium	ND	0.020									
Cadmium	ND	0.0020									
Chromium	ND	0.0060									
Lead	ND	0.0050									
Selenium	ND	0.050									
Silver	ND	0.0050									

Sample ID: LCS-9536	Sample Type: LCS	TestCode: METALS_TO	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17885						
Client ID: ZZZZZ	Batch ID: 9536	TestNo: SW6010A		Analysis Date: 1/12/2006	SeqNo: 439740						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	0.4894	0.0050	0.5	0	97.9	80	120				
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Sample ID: LCS-9536	SampleType: LCS	TestCode: METALS_TO	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17932						
Client ID: ZZZZZ	Batch ID: 9536	TestNo: SW6010A		Analysis Date: 1/16/2006	SeqNo: 440774						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

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

ANALYTICAL QC SUMMARY REPORT

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006

TestCode: METALS_TOTAL

Sample ID: LCS-9536	SampleType: LCS	TestCode: METALS_TO	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17932
Client ID: ZZZZZ	Batch ID: 9536	TestNo: SW6010A		Analysis Date: 1/16/2006	SeqNo: 440774

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4853	0.020	0.5	0	97.1	80	120				
Barium	0.4613	0.020	0.5	0	92.3	80	120				
Cadmium	0.4680	0.0020	0.5	0	93.6	80	120				
Chromium	0.4714	0.0060	0.5	0	94.3	80	120				
Lead	0.4601	0.0050	0.5	0	92.0	80	120				
Selenium	0.4684	0.050	0.5	0	93.7	80	120				
Silver	0.4791	0.0050	0.5	0.001109	95.6	80	120				

Sample ID: LCSD-9536	SampleType: LCSD	TestCode: METALS_TO	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17885
Client ID: ZZZZZ	Batch ID: 9536	TestNo: SW6010A		Analysis Date: 1/12/2006	SeqNo: 439741

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.4769	0.0050	0.5	0	95.4	80	120	0.4894	2.60	20	

Sample ID: LCSD-9536	SampleType: LCSD	TestCode: METALS_TO	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17932
Client ID: ZZZZZ	Batch ID: 9536	TestNo: SW6010A		Analysis Date: 1/16/2006	SeqNo: 440775

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4891	0.020	0.5	0	97.8	80	120	0.4853	0.775	20	
Barium	0.4627	0.020	0.5	0	92.5	80	120	0.4613	0.308	20	
Cadmium	0.4676	0.0020	0.5	0	93.5	80	120	0.468	0.0760	20	
Chromium	0.4741	0.0060	0.5	0	94.8	80	120	0.4714	0.582	20	
Lead	0.4560	0.0050	0.5	0	91.2	80	120	0.4601	0.907	20	
Selenium	0.4633	0.050	0.5	0	92.7	80	120	0.4684	1.11	20	
Silver	0.4795	0.0050	0.5	0.001109	95.7	80	120	0.4791	0.0776	20	

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

CLIENT: San Juan Refining
 Work Order: 0601064
 Project: River Sampling 1st Qtr 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: TDS_W

Sample ID: MB-9542	Sample Type: MBLK	Test Code: TDS_W	Units: mg/L	Prep Date: 1/9/2006	Run No: 17898						
Client ID: ZZZZZ	Batch ID: 9542	Test No: E160.1		Analysis Date: 1/12/2006	Seq No: 439871						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Total Dissolved Solids	ND	50									

Sample ID: LCS-9542	SampleType: LCS	TestCode: TDS_W	Units: mg/L	Prep Date: 1/9/2006	RunNo: 17898						
Client ID: ZZZZZ	Batch ID: 9542	TestNo: E160.1		Analysis Date: 1/12/2006	SeqNo: 439872						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	1004	50	1000	0	100	80	120				

Qualifiers: E Value above quantitation range
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

1/6/2006

Work Order Number 0601064

Received by AT

Checklist completed by

Signature

Date

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 - 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 _____

Client: SAN JUAN REFUG

Bloomfield, NM
87413

Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.
------	------	--------	-----------------

Time Matrix

Sample I.D. No.

01/05/2020	H2O	Not MW #46
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[illegible]

Date: 06/06	Time: 3:48	Relinquished By: (Signature) Cindy Purcell
Date:	Time:	Relinquished By: (Signature)

Relinquished By: (Signature) *Cindy Purzac*
Relinquished By: (Signature)

Time: 8:40

Time: 8:40

Level 4 ☐ Std ☐

Other:

Project Name:

ect Name: River Sample / 1st QTR-2006

Project #:

Project Manager:

Sampler: /

Sample Temperature:

Number/Volume

HEAL No.

Preservative

$$\text{H}_2\text{O} \quad \text{HNO}_3$$

2-V0A	X			0601064-2
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1-750.0

15005-1

1-300NA	1-300NA
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100	100

[illegible]

Received By: (Signature)

001711

Received By: (Signature)

1

4901 Hawkins NE, Suite D

Albuquerque, New Mexico 87109

Tel. 505.345.3975 Fax 505.345.4107

www.hallenvironmental.com



ANALYSIS REQUEST

[illegible]

Remarks:

Remarks:

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4900
www.hallenvironmental.com

ANALYSIS REQUEST

	Air Bubbles or Headspace (Y or N)
BTEX + MTBE + TMS (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)	
RCA 8 Metals	X
Anions (F, Cl, NO ₂ , NO ₃ , PO ₄ , SO ₄)	
8081 Pesticides / PCB's (8082)	
8260B (VOA)	
8270 (Semi-VOA)	X
WACC Dissolved Metals	X
N ₂ O ₃ Back up	X
Gen Chem Action Items	X

Remarks:



COVER LETTER

Tuesday, March 07, 2006

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

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

RE: TK #33 - 1st Qtr - 2006

Order No.: 0603015

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/2/2006 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

AZ license # AZ0682
ORELAP Lab # NM100001



4901 Hawkins NE Suite D Albuquerque, NM 87109
505.345.3975 Fax 505.345.4107
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Hall Environmental Analysis Laboratory

Date: 07-Mar-06

CLIENT: San Juan Refining
Project: TK #33 - 1st Qtr - 2006

Lab Order: 0603015

Lab ID: 0603015-01

Collection Date: 3/1/2006 11:15:00 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	3/4/2006 10:03:20 AM
Toluene	ND	1.0		µg/L	1	3/4/2006 10:03:20 AM
Ethylbenzene	ND	1.0		µg/L	1	3/4/2006 10:03:20 AM
Xylenes, Total	ND	3.0		µg/L	1	3/4/2006 10:03:20 AM
Surr: 4-Bromofluorobenzene	101	82.2-119		%REC	1	3/4/2006 10:03:20 AM

Lab ID: 0603015-02

Collection Date: 3/1/2006 11:20:00 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	3/4/2006 10:31:20 AM
Toluene	ND	1.0		µg/L	1	3/4/2006 10:31:20 AM
Ethylbenzene	ND	1.0		µg/L	1	3/4/2006 10:31:20 AM
Xylenes, Total	ND	3.0		µg/L	1	3/4/2006 10:31:20 AM
Surr: 4-Bromofluorobenzene	101	82.2-119		%REC	1	3/4/2006 10:31:20 AM

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

Hall Environmental Analysis Laboratory

Date: 07-Mar-06

CLIENT:

San Juan Refining

Work Order:

0603015

Project:

TK #33 - 1st Qtr - 2006

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021BTEX_W

Sample ID: 5ML RB	SampType: MBLK	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 18480						
Client ID: ZZZZZ	Batch ID: R18480	TestNo: SW8021		Analysis Date: 3/3/2006	SeqNo: 456368						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene ND 1.0
Toluene ND 1.0
Ethylbenzene ND 1.0
Xylenes, Total ND 3.0

Sample ID: 100NG BTEX LCS	SampType: LCS	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 18480						
Client ID: ZZZZZ	Batch ID: R18480	TestNo: SW8021		Analysis Date: 3/4/2006	SeqNo: 456369						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene 20.14 1.0 20 0 101 88.5 114
Toluene 20.49 1.0 20 0 102 87.2 114
Ethylbenzene 20.28 1.0 20 0 101 88.6 113
Xylenes, Total 41.45 3.0 40 0 104 83.3 114

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

3/2/2006

Work Order Number 0603015

Received by LMM

Checklist completed by

Lisa Hedrick
Signature

3/2/06
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 - 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 Paving

Address: #50 Rd 4990

Bloomfield NM 87410

Phone #: 505-632-4161

Fax #: 505-632-3911

Date

Time

Matrix

Sample I.D. No.

Number/Volume

Preservative

HgCl₂

HNO₃

HEAL No.

HEAL 0808015

Sample Temperature:

Indoor/Outdoor/Slurry Coupler

QA/QC Package:

Std ☐ Level 4 ☐

Other:

Project Name:

TK #33-1st Qtr -2006

Project #:

#

Project Manager:

ANALYSIS REQUEST

BTEX + MTBE + HAP's (8021)

BTEX + MTBE + TPH (Gasoline Only)

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8021)

8310 (PMA or PAH)

RCRA 8 Metals

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / PCB's (8082)

8260B (VDA)

8270 (Semi-VDA)

Air Bubbles or Headspace (Y or N)

Remarks:

Relinquished By: (Signature)

Time:

Date:

Received By: (Signature)

Time:

Date:

Relinquished By: (Signature)

Time:

Date:

Received By: (Signature)

Time:

Date:



COVER LETTER

Wednesday, March 22, 2006

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

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

RE: River Terrace- 1st Quarter 2006 - Water

Order No.: 0603115

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/9/2006 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

AZ license # AZ0682
ORELAP Lab # NM100001



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory

Date: 22-Mar-06

CLIENT: San Juan Refining
Lab Order: 0603115
Project: River Terrace- 1st Quarter 2006 - Water
Lab ID: 0603115-01

Client Sample ID: DW #1
Collection Date: 3/8/2006 8:55:00 AM
Date Received: 3/9/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	2.2	1.0		mg/L	1	3/16/2006 5:32:05 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/16/2006 5:32:05 AM
Surr: DNOP	118	58-140		%REC	1	3/16/2006 5:32:05 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	2.8	0.25		mg/L	5	3/16/2006 11:22:35 AM
Surr: BFB	108	79.7-118		%REC	5	3/16/2006 11:22:35 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	5	3/20/2006 4:43:11 PM
Benzene	ND	5.0		µg/L	5	3/20/2006 4:43:11 PM
Toluene	ND	5.0		µg/L	5	3/20/2006 4:43:11 PM
Ethylbenzene	41	5.0		µg/L	5	3/20/2006 4:43:11 PM
Xylenes, Total	230	15		µg/L	5	3/20/2006 4:43:11 PM
Surr: 4-Bromofluorobenzene	95.8	82.2-119		%REC	5	3/20/2006 4:43:11 PM
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	0.021	0.0010		mg/L	5	3/9/2006
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Chromium	0.0095	0.0060		mg/L	1	3/15/2006 12:03:43 PM
Lead	ND	0.0050		mg/L	1	3/15/2006 12:03:43 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory

Date: 22-Mar-06

ANALYTICAL QC SUMMARY REPORT

CLIENT: San Juan Refining

Work Order: 0603115

Project: River Terrace- 1st Quarter 2006 - Water

TestCode: 8015DRO_W

Sample ID: MB-9976	SampType: MBLK	TestCode: 8015DRO_W	Units: mg/L	Prep Date: 3/14/2006	RunNo: 18596
Client ID: ZZZZZ	Batch ID: 9976	TestNo: SW8015		Analysis Date: 3/16/2006	SeqNo: 461813
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel Range Organics (DRO) ND 1.0
 Motor Oil Range Organics (MRO) ND 5.0

Sample ID: LCS-9976	SampType: LCS	TestCode: 8015DRO_W	Units: mg/L	Prep Date: 3/14/2006	RunNo: 18596
Client ID: ZZZZZ	Batch ID: 9976	TestNo: SW8015		Analysis Date: 3/16/2006	SeqNo: 461814
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel Range Organics (DRO) 5,300 1.0 5 0 106 81.2 149

Sample ID: LCSD-9976	SampType: LCSD	TestCode: 8015DRO_W	Units: mg/L	Prep Date: 3/14/2006	RunNo: 18596
Client ID: ZZZZZ	Batch ID: 9976	TestNo: SW8015		Analysis Date: 3/16/2006	SeqNo: 461040
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel Range Organics (DRO) 5,766 1.0 5 0 115 81.2 149 0 0 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 Spike Recovery outside accepted recovery limits

CLIENT: San Juan Refining
Work Order: 0603115

Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GRO_W

Sample ID: 5ML RB	SampleType: MBLK	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18582
Client ID: ZZZZZ	Batch ID: R18582	TestNo: SW8015		Analysis Date: 3/14/2006	SeqNo: 460723
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 0.050

Sample ID: 5ML RB	SampleType: MBLK	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18620
Client ID: ZZZZZ	Batch ID: R18620	TestNo: SW8015		Analysis Date: 3/16/2006	SeqNo: 462331
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 0.050

Sample ID: 5ML RB	SampleType: MBLK	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18652
Client ID: ZZZZZ	Batch ID: R18652	TestNo: SW8015		Analysis Date: 3/20/2006	SeqNo: 463005
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 0.050

Sample ID: 2.5UG GRO LCS	SampleType: LCS	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18582
Client ID: ZZZZZ	Batch ID: R18582	TestNo: SW8015		Analysis Date: 3/15/2006	SeqNo: 460724
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline Range Organics (GRO) 0.4820 0.050 0.5 0 96.4 82.6 114

Sample ID: 2.5UG GRO LCS	SampleType: LCS	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18620
Client ID: ZZZZZ	Batch ID: R18620	TestNo: SW8015		Analysis Date: 3/16/2006	SeqNo: 462332
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline Range Organics (GRO) 0.4940 0.050 0.5 0 98.8 82.6 114

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

CLIENT: San Juan Refining

Work Order: 0603115

Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GRO_W

Sample ID: 2.5UG GRO LCS	SampType: LCS	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18652						
Client ID: ZZZZZ	Batch ID: R18652	TestNo: SW8015		Analysis Date: 3/20/2006	SeqNo: 463006						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 2.5UG GRO LCSD	SampType: LCSD	TestCode: 8015GRO_W	Units: mg/L	Prep Date:	RunNo: 18652						
Client ID: ZZZZZ	Batch ID: R18652	TestNo: SW8015		Analysis Date: 3/20/2006	SeqNo: 463007						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.5140	0.050	0.5	0	103	82.6	114	0.522	1.54	8.39	

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

CLIENT: San Juan Refining
 Work Order: 0603115
 Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021BTEx_W

Sample ID: 5ML RB	SampType: MBLK	TestCode: 8021BTEx_W	Units: µg/L	Prep Date:	RunNo: 18582
Client ID: ZZZZZ	Batch ID: R18582	TestNo: SW8021		Analysis Date: 3/14/2006	SeqNo: 460824
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Methyl tert-butyl ether (MTBE)
 Benzene
 Toluene
 Ethylbenzene
 Xylenes, Total
 1,2,4-Trimethylbenzene
 1,3,5-Trimethylbenzene

Sample ID: 5ML RB	SampType: MBLK	TestCode: 8021BTEx_W	Units: µg/L	Prep Date:	RunNo: 18620
Client ID: ZZZZZ	Batch ID: R18620	TestNo: SW8021		Analysis Date: 3/16/2006	SeqNo: 462157
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Methyl tert-butyl ether (MTBE)
 Benzene
 Toluene
 Ethylbenzene
 Xylenes, Total
 1,2,4-Trimethylbenzene
 1,3,5-Trimethylbenzene

Sample ID: 5ML RB	SampType: MBLK	TestCode: 8021BTEx_W	Units: µg/L	Prep Date:	RunNo: 18652
Client ID: ZZZZZ	Batch ID: R18652	TestNo: SW8021		Analysis Date: 3/20/2006	SeqNo: 462985
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Methyl tert-butyl ether (MTBE)
 Benzene
 Toluene
 Ethylbenzene
 Xylenes, Total

Qualifiers: E Value above quantitation range
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

CLIENT: San Juan Refining

Work Order: 0603115

Project: River Terrace- 1st Quarter 2006 - Water

TestCode: 8021BTEX_W

Sample ID: 75NG BTEX CCV-B	SampType: LCS	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 18582						
Client ID: ZZZZZ	Batch ID: R18582	TestNo: SW8021		Analysis Date: 3/14/2006	SeqNo: 460825						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)	30.25	2.5	30	0	101	64.5	133				
Benzene	13.95	1.0	15	0	93.0	88.5	114				
Toluene	15.27	1.0	15	0	102	87.2	114				
Ethylbenzene	14.05	1.0	15	0	93.7	88.6	113				
Xylenes, Total	43.93	3.0	45	0	97.6	83.3	114				
1,2,4-Trimethylbenzene	14.10	1.0	15	0	94.0	83.8	114				
1,3,5-Trimethylbenzene	14.09	1.0	15	0	93.9	82.8	114				

Sample ID: 100NG BTEX LCS	SampType: LCS	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 18620						
Client ID: ZZZZZ	Batch ID: R18620	TestNo: SW8021		Analysis Date: 3/16/2006	SeqNo: 462158						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)	16.48	2.5	20	0	82.4	64.5	133				
Benzene	19.52	1.0	20	0	97.6	88.5	114				
Toluene	20.29	1.0	20	0	101	87.2	114				
Ethylbenzene	19.77	1.0	20	0	98.9	88.6	113				
Xylenes, Total	41.12	3.0	40	0	103	83.3	114				
1,2,4-Trimethylbenzene	18.22	1.0	20	0	91.1	83.8	114				
1,3,5-Trimethylbenzene	18.27	1.0	20	0	91.4	82.8	114				

Sample ID: 100NG BTEX LCS	SampType: LCS	TestCode: 8021BTEX_W	Units: µg/L	Prep Date:	RunNo: 18652						
Client ID: ZZZZZ	Batch ID: R18652	TestNo: SW8021		Analysis Date: 3/20/2006	SeqNo: 462986						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)	17.56	2.5	20	0	87.8	64.5	133				
Benzene	19.29	1.0	20	0	96.5	88.5	114				
Toluene	19.91	1.0	20	0	99.5	87.2	114				
Ethylbenzene	19.48	1.0	20	0	97.4	88.6	113				
Xylenes, Total	40.17	3.0	40	0	100	83.3	114				

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

CLIENT: San Juan Refining
Work Order: 0603115
Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021BTEX_W

Sample ID: 100NG BTEX LCSD		SampType: LCSD		TestCode: 8021BTEX_W		Units: µg/L		Prep Date:		RunNo: 18652	
Client ID: ZZZZZ		Batch ID: R18652		TestNo: SW8021				Analysis Date: 3/20/2006		SeqNo: 462987	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18.04	2.5	20	0	90.2	64.5	133	17.56	2.71	28	
Benzene	18.80	1.0	20	0	94.0	88.5	114	19.29	2.59	27	
Toluene	19.36	1.0	20	0	96.8	87.2	114	19.91	2.77	19	
Ethylbenzene	18.99	1.0	20	0	95.0	88.6	113	19.48	2.55	10	
Xylenes, Total	39.15	3.0	40	0	97.9	83.3	114	40.17	2.58	13	

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

CLIENT: San Juan Refining
 Work Order: 0603115
 Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: HG_CTW

Sample ID: MB-9952	SampType: MBLK	TestCode: HG_CTW	Units: mg/L	Prep Date: 3/9/2006	RunNo: 18533						
Client ID: ZZZZZ	Batch ID: 9952	TestNo: SW7470	(SW7470)	Analysis Date: 3/9/2006	SeqNo: 459419						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00020									

Sample ID: LCS-9952	SampType: LCS	TestCode: HG_CTW	Units: mg/L	Prep Date: 3/9/2006	RunNo: 18533						
Client ID: ZZZZZ	Batch ID: 9952	TestNo: SW7470	(SW7470)	Analysis Date: 3/9/2006	SeqNo: 459420						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004605	0.00020	0.005	0	92.1	80	120				

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

CLIENT: San Juan Refining
Work Order: 0603115

Project: River Terrace- 1st Quarter 2006 - Water

ANALYTICAL QC SUMMARY REPORT

TestCode: METALS_TOTAL

Sample ID: MB-9981	SampleType: MBLK	TestCode: METALS_TO	Units: mg/L	Prep Date: 3/14/2006	RunNo: 18593
Client ID: ZZZZZ	Batch ID: 9981	TestNo: SW6010A		Analysis Date: 3/15/2006	SeqNo: 460967
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chromium	ND	0.0060			
Lead	ND	0.0050			

Sample ID: LCS-9981	SampleType: LCS	TestCode: METALS_TO	Units: mg/L	Prep Date: 3/14/2006	RunNo: 18593
Client ID: ZZZZZ	Batch ID: 9981	TestNo: SW6010A		Analysis Date: 3/15/2006	SeqNo: 460968
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chromium	0.5162	0.0060	0.5	0.0006694	103 80 120
Lead	0.5222	0.0050	0.5	0	104 80 120

Sample ID: LCSD-9981	SampleType: LCSD	TestCode: METALS_TO	Units: mg/L	Prep Date: 3/14/2006	RunNo: 18593
Client ID: ZZZZZ	Batch ID: 9981	TestNo: SW6010A		Analysis Date: 3/15/2006	SeqNo: 460969
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chromium	0.5112	0.0060	0.5	0.0006694	102 80 120
Lead	0.5219	0.0050	0.5	0	104 80 120

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

3/9/2006

Work Order Number 0603115

Received by AT

Checklist completed by

[Signature]

Signature

Date

3/9/06

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 - 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 _____

GIANT

REFINING COMPANY

Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

Certified Mail: 7004 2510 0005 1641 4576

September 29, 2005

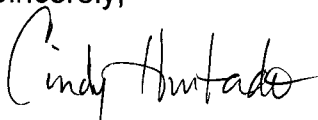
RE: Giant Refining Company, Bloomfield Refiner
EPA ID# NMD089416416
GW - 001

Dear Mr. Price,

Please find attached analytical results for the August 24, 2005 and September 21, 2005 sampling events for Tank #33 and the Fresh Water Ponds at the Giant Refining facility. Note that the results for the August event were all <0.50 ug/L. September results for benzene at Tank #33 are 0.84 ug/L, which is well below the WQCC standard of 10 ug/L. All September results for the Fresh Water Pond are <0.5 ug/L. We will continue to monitor both points on a monthly basis and evaluate the concentration trends.

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

Sincerely,



Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

PHONE
505-632-8013
FAX
505-632-3911

50 ROAD 4990
P.O. BOX 159
BLOOMFIELD
NEW MEXICO
87413

RECEIVED
OCT 3 2005
OIL CONSERVATION
DIVISION

COVER LETTER

September 06, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: Tank #33-8/05

Order No.: 0508292

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 3 samples on 8/25/2005 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

Date: 06-Sep-05

CLIENT: San Juan Refining
Project: Tank #33-8/05

Lab Order: 0508292

Lab ID: 0508292-01

Collection Date: 8/24/2005 1:15:00 PM

Client Sample ID: TK #33

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.50		µg/L	1	9/1/2005 2:04:01 PM
Toluene	ND	0.50		µg/L	1	9/1/2005 2:04:01 PM
Ethylbenzene	ND	0.50		µg/L	1	9/1/2005 2:04:01 PM
Xylenes, Total	ND	0.50		µg/L	1	9/1/2005 2:04:01 PM
Surr: 4-Bromofluorobenzene	96.5	82.2-119		%REC	1	9/1/2005 2:04:01 PM

Lab ID: 0508292-02

Collection Date: 8/24/2005 1:30:00 PM

Client Sample ID: Fresh Water Pond

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.50		µg/L	1	9/1/2005 2:35:28 PM
Toluene	ND	0.50		µg/L	1	9/1/2005 2:35:28 PM
Ethylbenzene	ND	0.50		µg/L	1	9/1/2005 2:35:28 PM
Xylenes, Total	ND	0.50		µg/L	1	9/1/2005 2:35:28 PM
Surr: 4-Bromofluorobenzene	96.6	82.2-119		%REC	1	9/1/2005 2:35:28 PM

Lab ID: 0508292-03

Collection Date:

Client Sample ID: Trip Blank

Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.50		µg/L	1	9/1/2005 3:07:00 PM
Toluene	ND	0.50		µg/L	1	9/1/2005 3:07:00 PM
Ethylbenzene	ND	0.50		µg/L	1	9/1/2005 3:07:00 PM
Xylenes, Total	ND	0.50		µg/L	1	9/1/2005 3:07:00 PM
Surr: 4-Bromofluorobenzene	93.4	82.2-119		%REC	1	9/1/2005 3:07:00 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

Date: 06-Sep-05

CLIENT: San Juan Refining
 Work Order: 0508292
 Project: Tank #33-8/05

QC SUMMARY REPORT

Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R16519	Test Code: SW8021	Units: µg/L	Analysis Date	9/1/2005 9:24:37 AM	Prep Date				
Client ID:			Run ID: PIDFID_050901A		SeqNo:	394723					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	18.53	0	20	0	92.6	82.2	119	0			

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank
 /

Hall Environmental Analysis Laboratory

Date: 06-Sep-05

CLIENT: San Juan Refining
 Work Order: 0508292
 Project: Tank #33-8/05

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0508292-02a.ms	Batch ID: R16519	Test Code: SW8021	Units: µg/L	Analysis Date	9/1/2005 3:38:33 PM	Prep Date				
Client ID:	Fresh Water Pond	Run ID:	PIDFID_050901A	SeqNo:	394734						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.47	0.5	20	0	107	88.5	114	0			
Toluene	20.19	0.5	20	0	101	87.2	114	0			
Ethylbenzene	20.41	0.5	20	0	102	88.6	113	0			
Xylenes, Total	42.21	0.5	40	0	106	83.3	114	0			
Surr: 4-Bromofluorobenzene	20.93	0	20	0	105	82.2	119	0			

Sample ID	0508292-02a msd	Batch ID:	R16519	Test Code:	SW8021	Units:	µg/L	Analysis Date	9/1/2005 4:10:06 PM	Prep Date			
Client ID:	Fresh Water Pond	Run ID:	PIDFID_050901A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte		Result											
Benzene		20.71		0.5	20	0	104	88.5	114	21.47	3.63	27	
Toluene		19.43		0.5	20	0	97.2	87.2	114	20.19	3.84	19	
Ethylbenzene		19.73		0.5	20	0	98.7	88.6	113	20.41	3.36	10	
Xylenes, Total		40.37		0.5	40	0	101	83.3	114	42.21	4.45	13	
Surr: 4-Bromofluorobenzene		20.93		0	20	0	105	82.2	119	20.93	0.0115	0	

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

Hall Environmental Analysis Laboratory

Date: 06-Sep-05

CLIENT: San Juan Refining
Work Order: 0508292
Project: Tank #33-8/05

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	BTEX Ics	100ng	Batch ID: R16519	Test Code: SW8021	Units: µg/L	Analysis Date	9/1/2005 4:41:34 PM	Prep Date				
Client ID:	Run ID:	PIDFID_050901A	PQL	SPK value	SPK Ref Val	SeqNo:	394724					
Analyte	Result					%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.45	0.5	20	0	0	107	88.5	114	0			
Toluene	20.27	0.5	20	0	0	101	87.2	114	0			
Ethylbenzene	20.13	0.5	20	0	0	101	88.6	113	0			
Xylenes, Total	41.72	0.5	40	0	0	104	83.3	114	0			

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

8/25/05

Work Order Number 0508292

Received by SSB

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 - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒

Container/Temp Blank temperature?

9°

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

September 28, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: TANK #33 -9/05

Order No.: 0509240

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 3 samples on 9/22/2005 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,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 28-Sep-05

CLIENT: San Juan Refining
Project: TANK #33 -9/05

Lab Order: 0509240

Lab ID:	0509240-01	Collection Date:	9/21/2005 2:40:00 PM
Client Sample ID:	TK #33	Matrix:	AQUEOUS
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 8021B: VOLATILES			Analyst: NSB
Benzene	0.84	0.50 µg/L	1 9/23/2005 8:36:32 PM
Toluene	ND	0.50 µg/L	1 9/23/2005 8:36:32 PM
Ethylbenzene	ND	0.50 µg/L	1 9/23/2005 8:36:32 PM
Xylenes, Total	ND	0.50 µg/L	1 9/23/2005 8:36:32 PM
Surr: 4-Bromofluorobenzene	99.9	82.2-119 %REC	1 9/23/2005 8:36:32 PM

Lab ID:	0509240-02	Collection Date:	9/21/2005 2:44:00 PM
Client Sample ID:	Fresh Water Ponds	Matrix:	AQUEOUS
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 8021B: VOLATILES			Analyst: NSB
Benzene	ND	0.50 µg/L	1 9/23/2005 11:10:21 PM
Toluene	ND	0.50 µg/L	1 9/23/2005 11:10:21 PM
Ethylbenzene	ND	0.50 µg/L	1 9/23/2005 11:10:21 PM
Xylenes, Total	ND	0.50 µg/L	1 9/23/2005 11:10:21 PM
Surr: 4-Bromofluorobenzene	97.5	82.2-119 %REC	1 9/23/2005 11:10:21 PM

Lab ID:	0509240-03	Collection Date:	
Client Sample ID:	Trip Blank	Matrix:	TRIP BLANK
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 8021B: VOLATILES			Analyst: NSB
Benzene	ND	0.50 µg/L	1 9/23/2005 11:40:58 PM
Toluene	ND	0.50 µg/L	1 9/23/2005 11:40:58 PM
Ethylbenzene	ND	0.50 µg/L	1 9/23/2005 11:40:58 PM
Xylenes, Total	ND	0.50 µg/L	1 9/23/2005 11:40:58 PM
Surr: 4-Bromofluorobenzene	95.3	82.2-119 %REC	1 9/23/2005 11:40:58 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

Date: 28-Sep-05

CLIENT: San Juan Refining
Work Order: 0509240
Project: TANK #33 -9/05

QC SUMMARY REPORT

Method Blank

Sample ID	Roagent Blank 5m	Batch ID: R16759	Test Code: SW8021	Units: µg/L	Analysis Date	9/23/2005 9:37:19 AM	Prep Date				
Client ID:			Run ID: PIDFID_050923A		SeqNo:	403397					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	18.66	0	20	0	93.3	82.2	119	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 28-Sep-05

CLIENT: San Juan Refining
 Work Order: 0509240
 Project: TANK #33 -9/05

QC SUMMARY REPORT
 Sample Matrix Spike

Sample ID	0509240-01a.ms	Batch ID: R16759	Test Code: SW8021	Units: µg/L	Analysis Date	9/23/2005 9:07:23 PM	Prep Date				
Client ID: TK #33			Run ID: PIDFID_050923A		SeqNo: 403420						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.65	0.5	20	0.8358	94.1	88.5	114	0			
Toluene	19.3	0.5	20	0	96.5	87.2	114	0			
Ethylbenzene	19.59	0.5	20	0.2464	96.7	88.6	113	0			
Xylenes, Total	39.9	0.5	40	0.3296	98.9	83.3	114	0			
Surr: 4-Bromofluorobenzene	21.02	0	20	0	105	82.2	119	0			

Sample ID	0509240-01a.ms	Batch ID: R16759	Test Code: SW8021		Units: µg/L		Analysis Date		9/23/2005 9:38:16 PM		Prep Date	
Client ID:	TK #33		Run ID:	PIDFID_050923A			SeqNo:	403421				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	19.86	0.5	20	0.8358	95.1	88.5	114	19.65	1.05	27		
Toluene	19.35	0.5	20	0	96.7	87.2	114	19.3	0.258	19		
Ethylbenzene	19.61	0.5	20	0.2464	96.8	88.6	113	19.59	0.103	10		
Xylenes, Total	39.98	0.5	40	0.3296	99.1	83.3	114	39.9	0.206	13		
Surr: 4-Bromofluorobenzene	20.95	0	20	0	105	82.2	119	21.02	0.359	0		

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 28-Sep-05

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining

Work Order: 0509240

Project: TANK #33 -9/05

Sample ID	BTEX lcs 100ng	Batch ID: R16759	Test Code: SW8021	Units: µg/L	Analysis Date	9/23/2005 10:09:01 PM	Prep Date				
Client ID:			Run ID: PIDFID_050923A		SeqNo: 403402						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.83	0.5	20	0	94.1	88.5	114	0			
Toluene	19.17	0.5	20	0	95.9	87.2	114	0			
Ethylbenzene	19.35	0.5	20	0	96.7	88.6	113	0			
Xylenes, Total	39.79	0.5	40	0	99.5	83.3	114	0			

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank
/

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

9/22/2005

Work Order Number 0509240

Received by SSB

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 - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
Container/Temp Blank temperature?	6°	4° C ± 2 Acceptable If given sufficient time to cool.	

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

Client: San Juan Refining

Client: San Juan Refining
Address: #50 Rd 4990
Bloomfield, NM 87413

Address: #50 Rol 4990
Bloomfield NM 87413

Phone #: 505-632-4161
Fax #: 505-632-3911

Fax #: 505-632-3911

QA/QC Package: ☐ Level 4 ☐ Std ☐

Other:

Project Name:

TANK #33 - 9/05

Project #:

Project Manager:

Sampler: Cindy Husted / Araga, P/K

Sample Temperature:

Number/Volume

Preservative

UNH	130H
-----	------

HEAL No. 100

209248

2-V0A

2.6.2

9/2/2018	029	TK #33
----------	-----	--------

9:44 pm	Fresh Water Ponds
---------	-------------------

Trip Book

ANALYSIS REQUEST

Remarks:

Received By: (Signature) 

Received By: (Signature) 9/22/05 12:10

Date:	9/2/05	Time:	3:35pm
Relinquished By: (Signature) <i>[Signature]</i> TW-710			

Date:	Time:	Relinquished By: (Signature)
-------	-------	------------------------------

25

RECEIVED

OCT 3 2005

**OIL CONSERVATION
DIVISION**

GIANT

Giant Refining Company
Route 3, Box 7
Gallup, NM 87301

September 26, 2005

Wayne Price, Senior Environmental Engr.
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505

Denny Foust, Environmental Geologist
Oil Conservation Division
1000 Rio Bravo Rd
Aztec, NM 887410

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

RE: Soil Sampling for spills dated 8/3/05 and 8/15/05

Dear Wayne, Denny and Hope:

The purpose of this letter is to update your office regarding how and where soil samples were taken from the above dated spills. As you are aware, immediately following the spills the impacted soils were excavated and stockpiled (see attached pictures) on plastic lining. Each stockpile was segregated and representative samples were taken from each and tested for RCRA metals, and 8260B (see attached lab results dated 8/16/05).

At each of the two stockpiles, two four-ounce jars were filled from several locations within the pile ensuring a representative fresh sample. All jars were completely filled to the top and the soil compacted to minimize any air (no head space) pockets. Giant personnel not only ensured the samples were representative, but also ensure all soils gathered were fresh and not dried out. Moreover, the sampler wore surgeon's gloves and changed them with each new sample. At the end of sampling, the samples were placed in an ice filled cooler and were taken in for analysis.

If you need any additional information please contact James Romero of my staff at 505-722-0227 or feel free to contact me at 505-722-3217.

Sincerely,



Ed Riege, Environmental Superintendent
Giant Refining

Stockpile for spill 8/3/05





Stockpile for spill 8/13/05



COVER LETTER

September 06, 2005

Steve Morris
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: Soil Sample From 8/3/05 Event

Order No.: 0508180

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 1 sample on 8/17/2005 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



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory

Date: 06-Sep-05

CLIENT: Giant Refining Co
Lab Order: 0508180
Project: Soil Sample From 8/3/05 Event
Lab ID: 0508180-01

Client Sample ID: Soil 8 3 05
Collection Date: 8/16/2005 11:00:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.050		mg/Kg	1	8/22/2005
Toluene	ND	0.050		mg/Kg	1	8/22/2005
Ethylbenzene	ND	0.050		mg/Kg	1	8/22/2005
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	8/22/2005
1,2,4-Trimethylbenzene	0.18	0.050		mg/Kg	1	8/22/2005
1,3,5-Trimethylbenzene	0.10	0.050		mg/Kg	1	8/22/2005
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	8/22/2005
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	8/22/2005
Naphthalene	0.15	0.10		mg/Kg	1	8/22/2005
1-Methylnaphthalene	0.65	0.20		mg/Kg	1	8/22/2005
2-Methylnaphthalene	0.47	0.20		mg/Kg	1	8/22/2005
Acetone	ND	0.50		mg/Kg	1	8/22/2005
Bromobenzene	ND	0.050		mg/Kg	1	8/22/2005
Bromochloromethane	ND	0.050		mg/Kg	1	8/22/2005
Bromodichloromethane	ND	0.050		mg/Kg	1	8/22/2005
Bromoform	ND	0.050		mg/Kg	1	8/22/2005
Bromomethane	ND	0.10		mg/Kg	1	8/22/2005
2-Butanone	ND	0.50		mg/Kg	1	8/22/2005
Carbon disulfide	ND	0.50		mg/Kg	1	8/22/2005
Carbon tetrachloride	ND	0.10		mg/Kg	1	8/22/2005
Chlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
Chloroethane	ND	0.10		mg/Kg	1	8/22/2005
Chloroform	ND	0.050		mg/Kg	1	8/22/2005
Chloromethane	ND	0.050		mg/Kg	1	8/22/2005
2-Chlorotoluene	ND	0.050		mg/Kg	1	8/22/2005
4-Chlorotoluene	ND	0.050		mg/Kg	1	8/22/2005
cis-1,2-DCE	ND	0.050		mg/Kg	1	8/22/2005
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	8/22/2005
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	8/22/2005
Dibromochloromethane	ND	0.050		mg/Kg	1	8/22/2005
Dibromomethane	ND	0.10		mg/Kg	1	8/22/2005
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	8/22/2005
1,1-Dichloroethane	ND	0.050		mg/Kg	1	8/22/2005
1,1-Dichloroethene	ND	0.050		mg/Kg	1	8/22/2005
1,2-Dichloropropane	ND	0.050		mg/Kg	1	8/22/2005
1,3-Dichloropropane	ND	0.050		mg/Kg	1	8/22/2005
2,2-Dichloropropane	ND	0.050		mg/Kg	1	8/22/2005
1,1-Dichloropropene	ND	0.050		mg/Kg	1	8/22/2005

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

Date: 06-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: Soil 8 3 05

Lab Order: 0508180

Collection Date: 8/16/2005 11:00:00 AM

Project: Soil Sample From 8/3/05 Event

Lab ID: 0508180-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hexachlorobutadiene	ND	0.050		mg/Kg	1	8/22/2005
2-Hexanone	ND	0.50		mg/Kg	1	8/22/2005
Isopropylbenzene	ND	0.050		mg/Kg	1	8/22/2005
4-Isopropyltoluene	ND	0.050		mg/Kg	1	8/22/2005
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	8/22/2005
Methylene chloride	ND	0.15		mg/Kg	1	8/22/2005
n-Butylbenzene	0.16	0.050		mg/Kg	1	8/22/2005
n-Propylbenzene	ND	0.050		mg/Kg	1	8/22/2005
sec-Butylbenzene	0.051	0.050		mg/Kg	1	8/22/2005
Styrene	ND	0.050		mg/Kg	1	8/22/2005
tert-Butylbenzene	ND	0.050		mg/Kg	1	8/22/2005
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	8/22/2005
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	8/22/2005
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	8/22/2005
trans-1,2-DCE	ND	0.050		mg/Kg	1	8/22/2005
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	8/22/2005
1,2,3-Trichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	8/22/2005
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	8/22/2005
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	8/22/2005
Trichlorofluoromethane	ND	0.050		mg/Kg	1	8/22/2005
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	8/22/2005
Vinyl chloride	ND	0.050		mg/Kg	1	8/22/2005
Xylenes, Total	0.055	0.050		mg/Kg	1	8/22/2005
Surr: 1,2-Dichloroethane-d4	101	82.3-110		%REC	1	8/22/2005
Surr: 4-Bromofluorobenzene	105	87.4-120		%REC	1	8/22/2005
Surr: Dibromofluoromethane	106	82.8-110		%REC	1	8/22/2005
Surr: Toluene-d8	89.1	81.5-114		%REC	1	8/22/2005

EPA METHOD 7471: MERCURY

Analyst: CMC

Mercury 0.14 0.033 mg/Kg 1 8/22/2005

EPA METHOD 6010C: SOIL METALS

Analyst: NMO

Arsenic	ND	2.5	mg/Kg	1	8/24/2005 3:07:11 PM
Barium	460	1.0	mg/Kg	10	8/26/2005 4:49:12 PM
Cadmium	ND	0.10	mg/Kg	1	8/24/2005 3:07:11 PM
Chromium	7.3	0.30	mg/Kg	1	8/24/2005 3:07:11 PM
Lead	6.3	0.25	mg/Kg	1	8/24/2005 3:07:11 PM
Selenium	ND	2.5	mg/Kg	1	8/24/2005 3:07:11 PM
Silver	ND	0.25	mg/Kg	1	8/24/2005 3:07:11 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

Date: 06-Sep-05

CLIENT: Giant Refining Co
 Work Order: 0508180
 Project: Soil Sample From 8/3/05 Event

QC SUMMARY REPORT
 Method Blank

Sample ID	MB-8591	Batch ID: 8591	Test Code: SW7471	Units: mg/Kg	Analysis Date 8/22/2005	Prep Date 8/22/2005
Client ID:			Run ID: MI-LA254_050822B		SeqNo: 390821	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val
Mercury		ND	0.033			%RPD RPDLimit Qual

Sample ID	MB-8583	Batch ID: 8583	Test Code: SW6010A	Units: mg/Kg	Analysis Date 8/24/2005 2:00:56 PM	Prep Date 8/22/2005
Client ID:			Run ID: ICP_050824A		SeqNo: 392723	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val
Arsenic		ND	2.5			%RPD RPDLimit Qual
Barium		ND	0.1			
Cadmium		ND	0.1			
Chromium		ND	0.3			
Lead		ND	0.25			
Selenium		ND	2.5			
Silver		ND	0.25			

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Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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Hall Environmental Analysis Laboratory

Date: 06-Sep-05

QC SUMMARY REPORT

Method Blank

CLIENT: Giant Refining Co
Work Order: 0508180
Project: Soil Sample From 8/3/05 Event

Sample ID	mb-8554	Batch ID: 8554	Test Code: SW8260B	Units: mg/Kg	Analysis Date 8/22/2005	Prep Date 8/18/2005					
Client ID:			Run ID: THOR_050822A		SeqNo: 390910						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0162	0.05									J
Toluene	0.0186	0.05									J
Ethylbenzene	0.0119	0.05									J
Methyl tert-butyl ether (MTBE)	ND	0.05									
1,2,4-Trimethylbenzene	ND	0.05									
1,3,5-Trimethylbenzene	ND	0.05									
1,2-Dichloroethane (EDC)	0.0168	0.05									J
1,2-Dibromoethane (EDB)	ND	0.05									
Naphthalene	ND	0.1									
1-Methylnaphthalene	ND	0.2									
2-Methylnaphthalene	ND	0.2									
Acetone	ND	0.5									
Bromobenzene	ND	0.05									
Bromochloromethane	ND	0.05									
Bromodichloromethane	ND	0.05									
Bromoform	ND	0.05									
Bromomethane	ND	0.1									J
2-Butanone	0.4807	0.5									
Carbon disulfide	ND	0.5									
Carbon tetrachloride	ND	0.1									
Chlorobenzene	ND	0.05									
Chloroethane	ND	0.1									
Chloroform	ND	0.05									
Chloromethane	ND	0.05									
2-Chlorotoluene	ND	0.05									
4-Chlorotoluene	ND	0.05									
cis-1,2-DCE	ND	0.05									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: Giant Refining Co
 Work Order: 0508180
 Project: Soil Sample From 8/3/05 Event

cis-1,3-Dichloropropene	ND	0.05	
1,2-Dibromo-3-chloropropane	ND	0.1	
Dibromochloromethane	ND	0.05	
Dibromomethane	ND	0.1	
1,2-Dichlorobenzene	ND	0.05	
1,3-Dichlorobenzene	ND	0.05	
1,4-Dichlorobenzene	ND	0.05	
Dichlorodifluoromethane	ND	0.05	
1,1-Dichloroethane	ND	0.05	
1,1-Dichloroethene	ND	0.05	
1,2-Dichloropropane	0.0162	0.05	J
1,3-Dichloropropane	ND	0.05	
2,2-Dichloropropane	ND	0.05	
1,1-Dichloropropene	ND	0.05	
Hexachlorobutadiene	ND	0.05	
2-Hexanone	ND	0.5	
Isopropylbenzene	ND	0.05	
4-Isopropyltoluene	ND	0.05	
4-Methyl-2-pentanone	0.0973	0.5	J
Methylene chloride	ND	0.15	
n-Butylbenzene	ND	0.05	
n-Propylbenzene	ND	0.05	
sec-Butylbenzene	ND	0.05	
Styrene	ND	0.05	
tert-Butylbenzene	ND	0.05	
1,1,1,2-Tetrachloroethane	ND	0.05	
1,1,2,2-Tetrachloroethane	ND	0.05	
Tetrachloroethene (PCE)	0.0231	0.05	J
trans-1,2-DCE	ND	0.05	
trans-1,3-Dichloropropene	ND	0.05	
1,2,3-Trichlorobenzene	ND	0.05	
1,2,4-Trichlorobenzene	0.0057	0.05	J
1,1,1-Trichloroethane	ND	0.05	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Method Blank

CLIENT: Giant Refining Co

Work Order: 0508180

Project: Soil Sample From 8/3/05 Event

Compound	Concentration (ppm)	Detection Limit (ppm)
1,1,2-Trichloroethane	ND	0.05
Trichloroethene (TCE)	ND	0.05
Trichlorofluoromethane	ND	0.05
1,2,3-Trichloropropane	ND	0.1
Vinyl chloride	ND	0.05
Xylenes, Total	ND	0.05
Surr: 1,2-Dichloroethane-d4	0.5414	0
Surr: 4-Bromofluorobenzene	0.5253	0
Surr: Dibromofluoromethane	0.5481	0
Surr: Toluene-d8	0.4536	0

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	

Hall Environmental Analysis Laboratory

Date: 06-Sep-05

CLIENT: Giant Refining Co
 Work Order: 0508180
 Project: Soil Sample From 8/3/05 Event

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	Ics-8554	Batch ID: 8554	Test Code: SW8260B	Units: mg/Kg	Analysis Date	8/22/2005	Prep Date	8/18/2005			
Client ID:			Run ID: THOR_050822A		SeqNo:	390944					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.9753	0.05	1	0.0162	95.9	84	119	0			
Toluene	0.9313	0.05	1	0.0186	91.3	88.4	124	0			
Chlorobenzene	1.105	0.05	1	0	110	93.2	120	0			
1,1-Dichloroethene	0.9496	0.05	1	0	95.0	59	122	0			
Trichloroethene (TCE)	0.7693	0.05	1	0	76.9	69.4	120	0			

Sample ID	Icsd-8554	Batch ID: 8554	Test Code: SW8260B	Units: mg/Kg	Analysis Date 8/22/2005	Prep Date 8/18/2005					
Client ID:			Run ID: THOR_050822A		SeqNo: 390946						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.011	0.05	1	0.0162	99.5	84	119	0.9753	3.61	20	
Toluene	0.9179	0.05	1	0.0186	89.9	88.4	124	0.9313	1.45	20	
Chlorobenzene	1.001	0.05	1	0	100	93.2	120	1.105	9.85	20	
1,1-Dichloroethene	0.941	0.05	1	0	94.1	59	122	0.9496	0.910	20	
Trichloroethene (TCE)	0.7953	0.05	1	0	79.5	69.4	120	0.7693	3.32	20	

Sample ID	LCS-8591	Batch ID: 8591	Test Code: SW7471	Units: mg/Kg	Analysis Date	8/22/2005	Prep Date	8/22/2005			
Client ID:			Run ID: MI-LA254_050822B		SeqNo:	390822					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.1532	0.033	0.1667	0	91.9	75	125	0			

Sample ID	LCSD-8591	Batch ID: 8591	Test Code: SW7471	Units: mg/Kg	Analysis Date 8/22/2005	Prep Date 8/22/2005					
Client ID:			Run ID: MI-LA254_050822B		SeqNo: 390837						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.1558	0.033	0.1667	0	93.5	75	125	0.1532	1.70	20	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: Giant Refining Co
 Work Order: 0508180
 Project: Soil Sample From 8/3/05 Event

Sample ID	LCS-8583	Batch ID: 8583	Test Code: SW6010A	Units: mg/Kg	Analysis Date	8/24/2005 2:03:59 PM	Prep Date	8/22/2005			
Client ID:		Run ID:	ICP_050824A		SeqNo:	392724					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.43	2.5	25	0	97.7	80	120	0			
Barium	22.41	0.1	25	0	89.6	80	120	0			
Cadmium	23.64	0.1	25	0	94.6	80	120	0			
Chromium	22.99	0.3	25	0	92.0	80	120	0			
Lead	23.06	0.25	25	0	92.2	80	120	0			
Selenium	23.5	2.5	25	0	94.0	80	120	0			
Silver	24.55	0.25	25	0	98.2	80	120	0			

Sample ID	LCSD-8583	Batch ID: 8583	Test Code: SW6010A	Units: mg/Kg	Analysis Date	8/24/2005 2:07:14 PM	Prep Date	8/22/2005			
Client ID:		Run ID:	ICP_050824A		SeqNo:	392725					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.85	2.5	25	0	99.4	80	120	24.43	1.70	20	
Barium	22.84	0.1	25	0	91.4	80	120	22.41	1.92	20	
Cadmium	23.89	0.1	25	0	95.6	80	120	23.64	1.04	20	
Chromium	23.21	0.3	25	0	92.8	80	120	22.99	0.939	20	
Lead	23.15	0.25	25	0	92.6	80	120	23.06	0.401	20	
Selenium	23.61	2.5	25	0	94.4	80	120	23.5	0.468	20	
Silver	24.89	0.25	25	0	99.5	80	120	24.55	1.38	20	

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Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANT REFINERY BLOOM

Date and Time Received:

8/17/2005

Work Order Number 0508180

Received by SSB

Checklist completed by

B. Schipper
Signature

8-17-05
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 - 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 _____

Client: <i>Front Refining</i>	Project Name: <i>Sail samples from</i>
<i>Company - Ciniga</i>	<i>8-3-05 event</i>
Address: <i>Route 3 Box 7</i>	Project #:
<i>Fallup, NM 87301</i>	Project Manager: <i>Steven Abbott</i>
Phone #: <i>505 722 3833</i>	Sampler: <i>Steven Abbott</i>
Fax #: <i>595 722 0210</i>	Sample Temperature: <i>50</i>

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 505.345.4
www.hallenvironmental.com

ANALYSIS REQUEST

[illegible]

Remarks:

Date:	8/17/05	Time:	0800	Relinquished By: (Signature)	<i>[Signature]</i>	Received By: (Signature)	<i>[Signature]</i>
Date:		Time:		Relinquished By: (Signature)		Received By: (Signature)	8/17/05 07:58



RECEIVED

OCT 3 2005

OIL CONSERVATION
DIVISION

COVER LETTER

September 06, 2005

Steve Morris
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: Soil Samples From 8/15/05 Event

Order No.: 0508182

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 1 sample on 8/17/2005 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



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory

Date: 06-Sep-05

CLIENT: Giant Refining Co
Lab Order: 0508182
Project: Soil Samples From 8/15/05 Event
Lab ID: 0508182-01

Client Sample ID: Soil 8 15 05
Collection Date: 8/16/2005 11:30:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	0.071	0.050		mg/Kg	1	8/22/2005
Toluene	0.32	0.050		mg/Kg	1	8/22/2005
Ethylbenzene	0.13	0.050		mg/Kg	1	8/22/2005
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	8/22/2005
1,2,4-Trimethylbenzene	0.46	0.050		mg/Kg	1	8/22/2005
1,3,5-Trimethylbenzene	0.11	0.050		mg/Kg	1	8/22/2005
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	8/22/2005
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	8/22/2005
Naphthalene	0.13	0.10		mg/Kg	1	8/22/2005
1-Methylnaphthalene	0.20	0.20		mg/Kg	1	8/22/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/22/2005
Acetone	ND	0.50		mg/Kg	1	8/22/2005
Bromobenzene	ND	0.050		mg/Kg	1	8/22/2005
Bromochloromethane	ND	0.050		mg/Kg	1	8/22/2005
Bromodichloromethane	ND	0.050		mg/Kg	1	8/22/2005
Bromoform	ND	0.050		mg/Kg	1	8/22/2005
Bromomethane	ND	0.10		mg/Kg	1	8/22/2005
2-Butanone	ND	0.50		mg/Kg	1	8/22/2005
Carbon disulfide	ND	0.50		mg/Kg	1	8/22/2005
Carbon tetrachloride	ND	0.10		mg/Kg	1	8/22/2005
Chlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
Chloroethane	ND	0.10		mg/Kg	1	8/22/2005
Chloroform	ND	0.050		mg/Kg	1	8/22/2005
Chloromethane	ND	0.050		mg/Kg	1	8/22/2005
2-Chlorotoluene	ND	0.050		mg/Kg	1	8/22/2005
4-Chlorotoluene	ND	0.050		mg/Kg	1	8/22/2005
cis-1,2-DCE	ND	0.050		mg/Kg	1	8/22/2005
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	8/22/2005
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	8/22/2005
Dibromochloromethane	ND	0.050		mg/Kg	1	8/22/2005
Dibromomethane	ND	0.10		mg/Kg	1	8/22/2005
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	8/22/2005
1,1-Dichloroethane	ND	0.050		mg/Kg	1	8/22/2005
1,1-Dichloroethene	ND	0.050		mg/Kg	1	8/22/2005
1,2-Dichloropropane	ND	0.050		mg/Kg	1	8/22/2005
1,3-Dichloropropane	ND	0.050		mg/Kg	1	8/22/2005
2,2-Dichloropropane	ND	0.050		mg/Kg	1	8/22/2005
1,1-Dichloropropene	ND	0.050		mg/Kg	1	8/22/2005

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

Date: 06-Sep-05

CLIENT: Giant Refining Co
Lab Order: 0508182
Project: Soil Samples From 8/15/05 Event
Lab ID: 0508182-01

Client Sample ID: Soil 8 15 05
Collection Date: 8/16/2005 11:30:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hexachlorobutadiene	ND	0.050		mg/Kg	1	8/22/2005
2-Hexanone	ND	0.50		mg/Kg	1	8/22/2005
Isopropylbenzene	ND	0.050		mg/Kg	1	8/22/2005
4-Isopropyltoluene	ND	0.050		mg/Kg	1	8/22/2005
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	8/22/2005
Methylene chloride	ND	0.15		mg/Kg	1	8/22/2005
n-Butylbenzene	0.062	0.050		mg/Kg	1	8/22/2005
n-Propylbenzene	ND	0.050		mg/Kg	1	8/22/2005
sec-Butylbenzene	ND	0.050		mg/Kg	1	8/22/2005
Styrene	ND	0.050		mg/Kg	1	8/22/2005
tert-Butylbenzene	ND	0.050		mg/Kg	1	8/22/2005
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	8/22/2005
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	8/22/2005
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	8/22/2005
trans-1,2-DCE	ND	0.050		mg/Kg	1	8/22/2005
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	8/22/2005
1,2,3-Trichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	8/22/2005
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	8/22/2005
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	8/22/2005
Trichlorofluoromethane	ND	0.050		mg/Kg	1	8/22/2005
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	8/22/2005
Vinyl chloride	ND	0.050		mg/Kg	1	8/22/2005
Xylenes, Total	1.4	0.050		mg/Kg	1	8/22/2005
Surr: 1,2-Dichloroethane-d4	98.5	82.3-110		%REC	1	8/22/2005
Surr: 4-Bromofluorobenzene	103	87.4-120		%REC	1	8/22/2005
Surr: Dibromofluoromethane	102	82.8-110		%REC	1	8/22/2005
Surr: Toluene-d8	91.5	81.5-114		%REC	1	8/22/2005
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	0.091	0.033		mg/Kg	1	8/22/2005
EPA METHOD 6010C: SOIL METALS						Analyst: NMO
Arsenic	ND	2.5		mg/Kg	1	8/24/2005 3:09:46 PM
Barium	450	1.0		mg/Kg	10	8/26/2005 4:51:35 PM
Cadmium	ND	0.10		mg/Kg	1	8/24/2005 3:09:46 PM
Chromium	7.7	0.30		mg/Kg	1	8/24/2005 3:09:46 PM
Lead	5.2	0.25		mg/Kg	1	8/24/2005 3:09:46 PM
Selenium	ND	2.5		mg/Kg	1	8/24/2005 3:09:46 PM
Silver	ND	0.25		mg/Kg	1	8/24/2005 3:09:46 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

Date: 06-Sep-05

CLIENT: Giant Refining Co
Work Order: 0308182
Project: Soil Samples From 8/15/05 Event

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8591	Batch ID:	8591	Test Code:	SW7471	Units:	mg/Kg	Analysis Date	8/22/2005	Prep Date	8/22/2005
Client ID:		Run ID:	MI-LA254_050822B	SeqNo:	390821						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.033									
Sample ID	MB-8583	Batch ID:	8583	Test Code:	SW6010A	Units:	mg/Kg	Analysis Date	8/24/2005 2:00:56 PM	Prep Date	8/22/2005
Client ID:		Run ID:	ICP_050824A	SeqNo:	392723						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.5									
Barium	ND	0.1									
Cadmium	ND	0.1									
Chromium	ND	0.3									
Lead	ND	0.25									
Selenium	ND	2.5									
Silver	ND	0.25									

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

Hall Environmental Analysis Laboratory

Date: 06-Sep-05

CLIENT: Giant Refining Co
 Work Order: 0508182
 Project: Soil Samples From 8/15/05 Event

QC SUMMARY REPORT
 Method Blank

Sample ID	mb-8554	Batch ID: 8554	Test Code: SW8260B	Units: mg/Kg	Analysis Date	8/22/2005	Prep Date	8/18/2005			
Client ID:		Run ID:	THOR_050822A		SeqNo:	390910					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0162	0.05									J
Toluene	0.0186	0.05									J
Ethylbenzene	0.0119	0.05									J
Methyl tert-butyl ether (MTBE)	ND	0.05									
1,2,4-Trimethylbenzene	ND	0.05									
1,3,5-Trimethylbenzene	ND	0.05									
1,2-Dichloroethane (EDC)	0.0168	0.05									
1,2-Dibromoethane (EDB)	ND	0.05									J
Naphthalene	ND	0.1									
1-Methylnaphthalene	ND	0.2									
2-Methylnaphthalene	ND	0.2									
Acetone	ND	0.5									
Bromobenzene	ND	0.05									
Bromochloromethane	ND	0.05									
Bromodichloromethane	ND	0.05									
Bromoform	ND	0.05									
Bromomethane	ND	0.1									
2-Butanone	0.4807	0.5									J
Carbon disulfide	ND	0.5									
Carbon tetrachloride	ND	0.1									
Chlorobenzene	ND	0.05									
Chloroethane	ND	0.1									
Chloroform	ND	0.05									
Chloromethane	ND	0.05									
2-Chlorotoluene	ND	0.05									
4-Chlorotoluene	ND	0.05									
cis-1,2-DCE	ND	0.05									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: Giant Refining Co

Work Order: 0508182

Project: Soil Samples From 8/15/05 Event

cis-1,3-Dichloropropene	ND	0.05	
1,2-Dibromo-3-chloropropane	ND	0.1	
Dibromochloromethane	ND	0.05	
Dibromomethane	ND	0.1	
1,2-Dichlorobenzene	ND	0.05	
1,3-Dichlorobenzene	ND	0.05	
1,4-Dichlorobenzene	ND	0.05	
Dichlorodifluoromethane	ND	0.05	
1,1-Dichloroethane	ND	0.05	
1,1-Dichloroethene	ND	0.05	
1,2-Dichloropropane	0.0162	0.05	J
1,3-Dichloropropane	ND	0.05	
2,2-Dichloropropane	ND	0.05	
1,1-Dichloropropene	ND	0.05	
Hexachlorobutadiene	ND	0.05	
2-Hexanone	ND	0.5	
Isopropylbenzene	ND	0.05	
4-Isopropyltoluene	ND	0.05	
4-Methyl-2-pentanone	0.0973	0.5	J
Methylene chloride	ND	0.15	
n-Butylbenzene	ND	0.05	
n-Propylbenzene	ND	0.05	
sec-Butylbenzene	ND	0.05	
Styrene	ND	0.05	
tert-Butylbenzene	ND	0.05	
1,1,1,2-Tetrachloroethane	ND	0.05	
1,1,2,2-Tetrachloroethane	ND	0.05	
Tetrachloroethene (PCE)	0.0231	0.05	J
trans-1,2-DCE	ND	0.05	
trans-1,3-Dichloropropene	ND	0.05	
1,2,3-Trichlorobenzene	ND	0.05	
1,2,4-Trichlorobenzene	0.0057	0.05	J
1,1,1-Trichloroethane	ND	0.05	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508182
Project: Soil Samples From 8/15/05 Event

Chemical Name	Concentration (ppm)	Detection Limit (ppm)	Recovery (%)	Relative Standard Deviation (%)
1,1,1,2-Tetrachloroethane	ND	0.05		
1,1,2-Trichloroethane	ND	0.05		
Trichloroethylene (TCE)	ND	0.05		
Trichlorofluoromethane	ND	0.05		
1,2,3-Trichloropropane	ND	0.1		
Vinyl chloride	ND	0.05		
Xylenes, Total	ND	0.05		
Surr: 1,2-Dichloroethane-d4	0.5414	0	0.5	82.3
Surr: 4-Bromofluorobenzene	0.5253	0	0.5	87.4
Surr: Dibromofluoromethane	0.5481	0	0.5	82.8
Surr: Toluene-d8	0.4536	0	0.5	81.5

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	

Hall Environmental Analysis Laboratory

Date: 06-Sep-05

CLIENT: Giant Refining Co
 Work Order: 0508182
 Project: Soil Samples From 8/15/05 Event

QC SUMMARY REPORT
 Sample Duplicate

Sample ID 0508182-01B DUP	Batch ID: 8583	Test Code: SW6010A	Units: mg/Kg	Analysis Date 8/24/2005 3:12:14 PM	Prep Date 8/22/2005						
Client ID: Soil 8 15 05	Run ID: ICP_050824A	SeqNo: 392739									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	2.005	2.4	0	0	0	0	0	1.832	0	30	J
Cadmium	ND	0.097	0	0	0	0	0	0	0	30	
Chromium	6.18	0.29	0	0	0	0	0	7.707	22.0	30	
Lead	3.836	0.24	0	0	0	0	0	5.232	30.8	30	R
Selenium	ND	2.4	0	0	0	0	0	0	0	30	
Silver	ND	0.24	0	0	0	0	0	0	0	30	

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

Hall Environmental Analysis Laboratory

Date: 06-Sep-05

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: Giant Refining Co
 Work Order: 0508182
 Project: Soil Samples From 8/15/05 Event

Sample ID	ICS-8554	Batch ID: 8554	Test Code: SW8260B	Units: mg/Kg	Analysis Date 8/22/2005	Prep Date 8/18/2005					
Client ID:			Run ID: THOR_050822A		SeqNo: 390944						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.9753	0.05	1	0.0162	95.9	84	119	0			
Toluene	0.9313	0.05	1	0.0186	91.3	88.4	124	0			
Chlorobenzene	1.105	0.05	1	0	110	93.2	120	0			
1,1-Dichloroethene	0.9496	0.05	1	0	95.0	59	122	0			
Trichloroethene (TCE)	0.7693	0.05	1	0	76.9	69.4	120	0			

Sample ID	Icsd-8554	Batch ID: 8554	Test Code: SW8260B	Units: mg/Kg	Analysis Date 8/22/2005	Prep Date 8/18/2005					
Client ID:			Run ID: THOR_050822A		SeqNo: 390946						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.011	0.05	1	0.0162	99.5	84	119	0.9753	3.61	20	
Toluene	0.9179	0.05	1	0.0186	89.9	88.4	124	0.9313	1.45	20	
Chlorobenzene	1.001	0.05	1	0	100	93.2	120	1.105	9.85	20	
1,1-Dichloroethene	0.941	0.05	1	0	94.1	59	122	0.9496	0.910	20	
Trichloroethene (TCE)	0.7953	0.05	1	0	79.5	69.4	120	0.7693	3.32	20	

Sample ID	LCS-8591	Batch ID: 8591	Test Code: SW7471	Units: mg/Kg	Analysis Date 8/22/2005	Prep Date 8/22/2005					
Client ID:			Run ID: MI-LA254_050822B		SeqNo: 390822						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.1532	0.033	0.1667	0	91.9	75	125	0			

Sample ID	LCSD-8591	Batch ID: 8591	Test Code: SW7471	Units: mg/Kg	Analysis Date 8/22/2005	Prep Date 8/22/2005					
Client ID:			Run ID: MI-LA254_050822B		SeqNo: 390837						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.1558	0.033	0.1667	0	93.5	75	125	0.1532	1.70	20	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: Giant Refining Co

Work Order: 0508182

Project: Soil Samples From 8/15/05 Event

Sample ID	LCS-8583	Batch ID: 8583	Test Code: SW6010A	Units: mg/Kg	Analysis Date	8/24/2005 2:03:59 PM	Prep Date	8/22/2005			
Client ID:		Run ID:	ICP_050824A		SeqNo:	392724					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.43	2.5	25	0	97.7	80	120	0			
Barium	22.41	0.1	25	0	89.6	80	120	0			
Cadmium	23.64	0.1	25	0	94.6	80	120	0			
Chromium	22.99	0.3	25	0	92.0	80	120	0			
Lead	23.06	0.25	25	0	92.2	80	120	0			
Selenium	23.5	2.5	25	0	94.0	80	120	0			
Silver	24.55	0.25	25	0	98.2	80	120	0			

Sample ID	LCSD-8583	Batch ID: 8583	Test Code: SW6010A	Units: mg/Kg	Analysis Date	8/24/2005 2:07:14 PM	Prep Date	8/22/2005			
Client ID:			Run ID: ICP_050824A		SeqNo:	392725					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.85	2.5	25	0	99.4	80	120	24.43	1.70	20	
Barium	22.84	0.1	25	0	91.4	80	120	22.41	1.92	20	
Cadmium	23.89	0.1	25	0	95.6	80	120	23.64	1.04	20	
Chromium	23.21	0.3	25	0	92.8	80	120	22.99	0.939	20	
Lead	23.15	0.25	25	0	92.6	80	120	23.06	0.401	20	
Selenium	23.61	2.5	25	0	94.4	80	120	23.5	0.468	20	
Silver	24.89	0.25	25	0	99.5	80	120	24.55	1.38	20	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

8/17/2005

Work Order Number 0508182

Received by SSB

Checklist completed by

[Signature]

8-17-05

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 - 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

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4100
www.hallenvironmental.com

CHAIN-OF-CUSTODY RECORD					QA/QC Package:		
					Std ☐	Level 4 ☐	
					Other:		
Client: Giant Refining					Project Name: Soil samples from		
Company - Cimiga					8-15-05 event		
Address: Route 3 Box 7					Project #:		
Gallup, NM 87301					Project Manager:		
					Heidi G. Morris		
					Sampler: Heidi G. Morris		
Phone #: 505 722 3833					Sample Temperature: 50		
Fax #: 505 722 0210							
Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
8/16/05	1130	soil	soil 81505		HgCl ₂	HNO ₃	5508162
							-1
Date: 8/17/05	Time: 0800	Relinquished By: (Signature) Heidi G. Morris		Relinquished By: (Signature)	Received By: (Signature) Heidi G. Morris		
Date:	Time:	Relinquished By: (Signature)		Relinquished By: (Signature)	Received By: (Signature) 8/17/05		



Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

Certified Mail: 7004 2510 0005 1641 4521

September 1, 2005

RE: Giant Refining Company, Bloomfield Refinery
EPA ID# NMD089416416

Dear Mr. Price,

Please find attached analytical results for the August 9, 2005 sampling event for wells MW #48 and MW #49 on the river terrace at the Giant Refining facility. Both wells were included in the Annual Sampling Event and therefore followed guidelines from the Corrective Measures Study and Corrective Measures Implementation letter dated January 6, 2003. In conjunction, OCD guidance was followed per the Site Investigation and Abatement Plan letter dated December 30, 2002. These results will be included in the Annual Report. Note that the results for well MW #49, located down-gradient of the barrier wall, had a detection of benzene at a concentration of 93 ug/L. We will continue to monitor both wells on a monthly basis and evaluate the concentration trends.

The third quarter 2005 sampling event for the San Juan River was conducted July 19, 2005. Analytical results are enclosed with this packet. There was not an exceedance of any WQCC standard or EPA maximum contaminant level during this sampling event.

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

Sincerely,

A handwritten signature in cursive script that reads "Cindy Hurtado".

Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

COVER LETTER

August 05, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Sampling 3rd Qtr. 2005

Order No.: 0507181

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 5 samples on 7/20/2005 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

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-01

Client Sample ID: River Upstream
Collection Date: 7/19/2005 10:40:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.20	0.10		mg/L	1	7/20/2005
Chloride	3.6	0.10		mg/L	1	7/20/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	7/20/2005
Bromide	ND	0.50		mg/L	1	7/20/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	7/20/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	7/20/2005
Sulfate	74	0.50		mg/L	1	7/20/2005
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO3)	99	2.0		mg/L CaCO3	1	7/28/2005
Carbonate	2.0	2.0		mg/L CaCO3	1	7/28/2005
Bicarbonate	97	2.0		mg/L CaCO3	1	7/28/2005
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/22/2005 4:14:41 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/22/2005 4:14:41 AM
Surr: DNOP	124	58-140		%REC	1	7/22/2005 4:14:41 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/22/2005 1:36:47 AM
Surr: BFB	92.1	78.3-120		%REC	1	7/22/2005 1:36:47 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/22/2005 1:36:47 AM
Benzene	ND	0.50		µg/L	1	7/22/2005 1:36:47 AM
Toluene	ND	0.50		µg/L	1	7/22/2005 1:36:47 AM
Ethylbenzene	ND	0.50		µg/L	1	7/22/2005 1:36:47 AM
Xylenes, Total	ND	0.50		µg/L	1	7/22/2005 1:36:47 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	7/27/2005
Acenaphthylene	ND	10		µg/L	1	7/27/2005
Aniline	ND	10		µg/L	1	7/27/2005
Anthracene	ND	10		µg/L	1	7/27/2005
Azobenzene	ND	10		µg/L	1	7/27/2005
Benz(a)anthracene	ND	15		µg/L	1	7/27/2005
Benzo(a)pyrene	ND	10		µg/L	1	7/27/2005
Benzo(b)fluoranthene	ND	10		µg/L	1	7/27/2005
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/27/2005
Benzo(k)fluoranthene	ND	10		µg/L	1	7/27/2005
Benzoic acid	ND	50		µg/L	1	7/27/2005
Benzyl alcohol	ND	20		µg/L	1	7/27/2005
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/27/2005

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

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
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Lab ID: 0507181-01

Client Sample ID: River Upstream
Collection Date: 7/19/2005 10:40:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Bis(2-chloroethyl)ether	ND	15		µg/L	1	7/27/2005
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	7/27/2005
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	7/27/2005
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/27/2005
Butyl benzyl phthalate	ND	15		µg/L	1	7/27/2005
Carbazole	ND	10		µg/L	1	7/27/2005
4-Chloro-3-methylphenol	ND	20		µg/L	1	7/27/2005
4-Chloroaniline	ND	20		µg/L	1	7/27/2005
2-Chloronaphthalene	ND	10		µg/L	1	7/27/2005
2-Chlorophenol	ND	10		µg/L	1	7/27/2005
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	7/27/2005
Chrysene	ND	15		µg/L	1	7/27/2005
Di-n-butyl phthalate	ND	10		µg/L	1	7/27/2005
Di-n-octyl phthalate	ND	15		µg/L	1	7/27/2005
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/27/2005
Dibenzofuran	ND	10		µg/L	1	7/27/2005
1,2-Dichlorobenzene	ND	10		µg/L	1	7/27/2005
1,3-Dichlorobenzene	ND	10		µg/L	1	7/27/2005
1,4-Dichlorobenzene	ND	10		µg/L	1	7/27/2005
3,3'-Dichlorobenzidine	ND	15		µg/L	1	7/27/2005
Diethyl phthalate	ND	10		µg/L	1	7/27/2005
Dimethyl phthalate	ND	10		µg/L	1	7/27/2005
2,4-Dichlorophenol	ND	10		µg/L	1	7/27/2005
2,4-Dimethylphenol	ND	10		µg/L	1	7/27/2005
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	7/27/2005
2,4-Dinitrophenol	ND	50		µg/L	1	7/27/2005
2,4-Dinitrotoluene	ND	10		µg/L	1	7/27/2005
2,6-Dinitrotoluene	ND	10		µg/L	1	7/27/2005
Fluoranthene	ND	10		µg/L	1	7/27/2005
Fluorene	ND	10		µg/L	1	7/27/2005
Hexachlorobenzene	ND	10		µg/L	1	7/27/2005
Hexachlorobutadiene	ND	10		µg/L	1	7/27/2005
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/27/2005
Hexachloroethane	ND	10		µg/L	1	7/27/2005
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/27/2005
Isophorone	ND	10		µg/L	1	7/27/2005
2-Methylnaphthalene	ND	10		µg/L	1	7/27/2005
2-Methylphenol	ND	15		µg/L	1	7/27/2005
3+4-Methylphenol	ND	10		µg/L	1	7/27/2005
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/27/2005
N-Nitrosodimethylamine	ND	10		µg/L	1	7/27/2005
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/27/2005

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Hall Environmental Analysis Laboratory

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-01

Client Sample ID: River Upstream
Collection Date: 7/19/2005 10:40:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Naphthalene	ND	10		µg/L	1	7/27/2005
2-Nitroaniline	ND	50		µg/L	1	7/27/2005
3-Nitroaniline	ND	50		µg/L	1	7/27/2005
4-Nitroaniline	ND	20		µg/L	1	7/27/2005
Nitrobenzene	ND	10		µg/L	1	7/27/2005
2-Nitrophenol	ND	15		µg/L	1	7/27/2005
4-Nitrophenol	ND	50		µg/L	1	7/27/2005
Pentachlorophenol	ND	50		µg/L	1	7/27/2005
Phenanthrene	ND	10		µg/L	1	7/27/2005
Phenol	ND	10		µg/L	1	7/27/2005
Pyrene	ND	15		µg/L	1	7/27/2005
Pyridine	ND	30		µg/L	1	7/27/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/27/2005
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/27/2005
2,4,6-Trichlorophenol	ND	15		µg/L	1	7/27/2005
Surr: 2,4,6-Tribromophenol	21.3	16.6-150		%REC	1	7/27/2005
Surr: 2-Fluorobiphenyl	44.6	19.6-134		%REC	1	7/27/2005
Surr: 2-Fluorophenol	31.8	9.54-113		%REC	1	7/27/2005
Surr: 4-Terphenyl-d14	50.2	22.7-145		%REC	1	7/27/2005
Surr: Nitrobenzene-d5	44.0	14.6-134		%REC	1	7/27/2005
Surr: Phenol-d6	23.8	10.7-80.3		%REC	1	7/27/2005

EPA 120.1: SPECIFIC CONDUCTANCE

Analyst: DK

Specific Conductance 350 0.010 µmhos/cm

EPA METHOD 7470: MERCURY

Analyst: CMC

Mercury 0.00022 0.00020 mg/L

EPA METHOD 6010C: DISSOLVED METALS

Analyst: NMO

Arsenic	ND	0.020	mg/L	1	7/25/2005 10:28:09 AM
Barium	0.071	0.0020	mg/L	1	7/25/2005 10:28:09 AM
Cadmium	ND	0.0020	mg/L	1	7/25/2005 10:28:09 AM
Calcium	36	1.0	mg/L	1	7/26/2005 9:38:19 AM
Chromium	ND	0.0060	mg/L	1	7/25/2005 10:28:09 AM
Copper	ND	0.0060	mg/L	1	7/25/2005 10:28:09 AM
Iron	ND	0.020	mg/L	1	7/25/2005 10:28:09 AM
Lead	ND	0.0050	mg/L	1	7/25/2005 10:28:09 AM
Magnesium	6.7	1.0	mg/L	1	7/26/2005 9:38:19 AM
Manganese	0.035	0.0020	mg/L	1	7/25/2005 10:28:09 AM
Potassium	2.0	1.0	mg/L	1	8/1/2005 1:45:21 PM
Selenium	ND	0.050	mg/L	1	7/25/2005 10:28:09 AM
Silver	ND	0.0050	mg/L	1	7/25/2005 10:28:09 AM
Sodium	22	1.0	mg/L	1	7/26/2005 9:38:19 AM
Uranium	ND	0.10	mg/L	1	7/25/2005 10:28:09 AM

Qualifiers: ND - Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-01

Client Sample ID: River Upstream
Collection Date: 7/19/2005 10:40:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Zinc	0.029	0.0050		mg/L	1	7/26/2005 9:38:19 AM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	7/26/2005 11:01:19 AM
Barium	0.070	0.020		mg/L	1	7/26/2005 11:01:19 AM
Cadmium	ND	0.0020		mg/L	1	7/26/2005 11:01:19 AM
Chromium	ND	0.0060		mg/L	1	7/26/2005 11:01:19 AM
Lead	ND	0.0050		mg/L	1	7/26/2005 11:01:19 AM
Selenium	ND	0.050		mg/L	1	7/26/2005 11:01:19 AM
Silver	ND	0.0050		mg/L	1	7/26/2005 11:01:19 AM
EPA METHOD 160.1: TDS						Analyst: DK
Total Dissolved Solids	250	50		mg/L	1	7/22/2005

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R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-02

Client Sample ID: River Downstream
Collection Date: 7/19/2005 11:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
						Analyst: MAP
Fluoride	0.22	0.10		mg/L	1	7/20/2005
Chloride	3.6	0.10		mg/L	1	7/20/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	7/20/2005
Bromide	ND	0.50		mg/L	1	7/20/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	7/20/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	7/20/2005
Sulfate	80	0.50		mg/L	1	7/20/2005
EPA METHOD 310.1: ALKALINITY						
						Analyst: MAP
Alkalinity, Total (As CaCO3)	99	2.0		mg/L CaCO3	1	7/28/2005
Carbonate	2.0	2.0		mg/L CaCO3	1	7/28/2005
Bicarbonate	97	2.0		mg/L CaCO3	1	7/28/2005
EPA METHOD 8015B: DIESEL RANGE						
						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/22/2005 5:20:17 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/22/2005 5:20:17 AM
Surr: DNOP	97.4	58-140		%REC	1	7/22/2005 5:20:17 AM
EPA METHOD 8015B: GASOLINE RANGE						
						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/22/2005 2:07:21 AM
Surr: BFB	99.0	78.3-120		%REC	1	7/22/2005 2:07:21 AM
EPA METHOD 8021B: VOLATILES						
						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/22/2005 2:07:21 AM
Benzene	ND	0.50		µg/L	1	7/22/2005 2:07:21 AM
Toluene	ND	0.50		µg/L	1	7/22/2005 2:07:21 AM
Ethylbenzene	ND	0.50		µg/L	1	7/22/2005 2:07:21 AM
Xylenes, Total	ND	0.50		µg/L	1	7/22/2005 2:07:21 AM
EPA METHOD 8270C: SEMIVOLATILES						
						Analyst: BL
Acenaphthene	ND	10		µg/L	1	7/27/2005
Acenaphthylene	ND	10		µg/L	1	7/27/2005
Aniline	ND	10		µg/L	1	7/27/2005
Anthracene	ND	10		µg/L	1	7/27/2005
Azobenzene	ND	10		µg/L	1	7/27/2005
Benz(a)anthracene	ND	15		µg/L	1	7/27/2005
Benzo(a)pyrene	ND	10		µg/L	1	7/27/2005
Benzo(b)fluoranthene	ND	10		µg/L	1	7/27/2005
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/27/2005
Benzo(k)fluoranthene	ND	10		µg/L	1	7/27/2005
Benzoic acid	ND	50		µg/L	1	7/27/2005
Benzyl alcohol	ND	20		µg/L	1	7/27/2005
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/27/2005

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Hall Environmental Analysis Laboratory

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-02

Client Sample ID: River Downstream
Collection Date: 7/19/2005 11:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Bis(2-chloroethyl)ether	ND	15		µg/L	1	7/27/2005
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	7/27/2005
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	7/27/2005
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/27/2005
Butyl benzyl phthalate	ND	15		µg/L	1	7/27/2005
Carbazole	ND	10		µg/L	1	7/27/2005
4-Chloro-3-methylphenol	ND	20		µg/L	1	7/27/2005
4-Chloroaniline	ND	20		µg/L	1	7/27/2005
2-Chloronaphthalene	ND	10		µg/L	1	7/27/2005
2-Chlorophenol	ND	10		µg/L	1	7/27/2005
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	7/27/2005
Chrysene	ND	15		µg/L	1	7/27/2005
Di-n-butyl phthalate	ND	10		µg/L	1	7/27/2005
Di-n-octyl phthalate	ND	15		µg/L	1	7/27/2005
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/27/2005
Dibenzofuran	ND	10		µg/L	1	7/27/2005
1,2-Dichlorobenzene	ND	10		µg/L	1	7/27/2005
1,3-Dichlorobenzene	ND	10		µg/L	1	7/27/2005
1,4-Dichlorobenzene	ND	10		µg/L	1	7/27/2005
3,3'-Dichlorobenzidine	ND	15		µg/L	1	7/27/2005
Diethyl phthalate	ND	10		µg/L	1	7/27/2005
Dimethyl phthalate	ND	10		µg/L	1	7/27/2005
2,4-Dichlorophenol	ND	10		µg/L	1	7/27/2005
2,4-Dimethylphenol	ND	10		µg/L	1	7/27/2005
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	7/27/2005
2,4-Dinitrophenol	ND	50		µg/L	1	7/27/2005
2,4-Dinitrotoluene	ND	10		µg/L	1	7/27/2005
2,6-Dinitrotoluene	ND	10		µg/L	1	7/27/2005
Fluoranthene	ND	10		µg/L	1	7/27/2005
Fluorene	ND	10		µg/L	1	7/27/2005
Hexachlorobenzene	ND	10		µg/L	1	7/27/2005
Hexachlorobutadiene	ND	10		µg/L	1	7/27/2005
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/27/2005
Hexachloroethane	ND	10		µg/L	1	7/27/2005
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/27/2005
Isophorone	ND	10		µg/L	1	7/27/2005
2-Methylnaphthalene	ND	10		µg/L	1	7/27/2005
2-Methylphenol	ND	15		µg/L	1	7/27/2005
3+4-Methylphenol	ND	10		µg/L	1	7/27/2005
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/27/2005
N-Nitrosodimethylamine	ND	10		µg/L	1	7/27/2005
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/27/2005

Qualifiers: ND - Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory

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Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-02

Client Sample ID: River Downstream
Collection Date: 7/19/2005 11:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Naphthalene	ND	10		µg/L	1	7/27/2005
2-Nitroaniline	ND	50		µg/L	1	7/27/2005
3-Nitroaniline	ND	50		µg/L	1	7/27/2005
4-Nitroaniline	ND	20		µg/L	1	7/27/2005
Nitrobenzene	ND	10		µg/L	1	7/27/2005
2-Nitrophenol	ND	15		µg/L	1	7/27/2005
4-Nitrophenol	ND	50		µg/L	1	7/27/2005
Pentachlorophenol	ND	50		µg/L	1	7/27/2005
Phenanthrene	ND	10		µg/L	1	7/27/2005
Phenol	ND	10		µg/L	1	7/27/2005
Pyrene	ND	15		µg/L	1	7/27/2005
Pyridine	ND	30		µg/L	1	7/27/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/27/2005
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/27/2005
2,4,6-Trichlorophenol	ND	15		µg/L	1	7/27/2005
Surr: 2,4,6-Tribromophenol	29.7	16.6-150		%REC	1	7/27/2005
Surr: 2-Fluorobiphenyl	60.3	19.6-134		%REC	1	7/27/2005
Surr: 2-Fluorophenol	44.0	9.54-113		%REC	1	7/27/2005
Surr: 4-Terphenyl-d14	60.2	22.7-145		%REC	1	7/27/2005
Surr: Nitrobenzene-d5	60.8	14.6-134		%REC	1	7/27/2005
Surr: Phenol-d6	31.9	10.7-80.3		%REC	1	7/27/2005

EPA 120.1: SPECIFIC CONDUCTANCE

Analyst: DK

Specific Conductance 380 0.010 µmhos/cm

EPA METHOD 7470: MERCURY

Analyst: CMC

Mercury ND 0.00020 mg/L 1 7/28/2005

EPA METHOD 6010C: DISSOLVED METALS

Analyst: NMO

Arsenic	ND	0.020	mg/L	1	7/25/2005 10:31:07 AM
Barium	0.070	0.0020	mg/L	1	7/25/2005 10:31:07 AM
Cadmium	ND	0.0020	mg/L	1	7/25/2005 10:31:07 AM
Calcium	39	1.0	mg/L	1	7/26/2005 9:40:51 AM
Chromium	ND	0.0060	mg/L	1	7/25/2005 10:31:07 AM
Copper	ND	0.0060	mg/L	1	7/25/2005 10:31:07 AM
Iron	ND	0.020	mg/L	1	7/25/2005 10:31:07 AM
Lead	ND	0.0050	mg/L	1	7/25/2005 10:31:07 AM
Magnesium	6.9	1.0	mg/L	1	7/26/2005 9:40:51 AM
Manganese	0.034	0.0020	mg/L	1	7/25/2005 10:31:07 AM
Potassium	2.1	1.0	mg/L	1	8/1/2005 1:47:34 PM
Selenium	ND	0.050	mg/L	1	7/25/2005 10:31:07 AM
Silver	ND	0.0050	mg/L	1	7/25/2005 10:31:07 AM
Sodium	23	1.0	mg/L	1	7/26/2005 9:40:51 AM
Uranium	ND	0.10	mg/L	1	7/25/2005 10:31:07 AM

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

Date: 05-Aug-05

CLIENT: San Juan Refining

Client Sample ID: River Downstream

Lab Order: 0507181

Collection Date: 7/19/2005 11:00:00 AM

Project: River Sampling 3rd Qtr. 2005

Lab ID: 0507181-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Zinc	0.015	0.0050		mg/L	1	7/26/2005 9:40:51 AM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	7/26/2005 11:04:19 AM
Barium	0.070	0.020		mg/L	1	7/26/2005 11:04:19 AM
Cadmium	ND	0.0020		mg/L	1	7/26/2005 11:04:19 AM
Chromium	ND	0.0060		mg/L	1	7/26/2005 11:04:19 AM
Lead	ND	0.0050		mg/L	1	7/26/2005 11:04:19 AM
Selenium	ND	0.050		mg/L	1	7/26/2005 11:04:19 AM
Silver	ND	0.0050		mg/L	1	7/26/2005 11:04:19 AM
EPA METHOD 160.1: TDS						Analyst: DK
Total Dissolved Solids	250	50		mg/L	1	7/22/2005

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

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-03

Client Sample ID: N of MW #45
Collection Date: 7/19/2005 10:15:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
						Analyst: MAP
Fluoride	0.20	0.10		mg/L	1	7/20/2005
Chloride	3.5	0.10		mg/L	1	7/20/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	7/20/2005
Bromide	ND	0.50		mg/L	1	7/20/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	7/20/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	7/20/2005
Sulfate	74	0.50		mg/L	1	7/20/2005
EPA METHOD 310.1: ALKALINITY						
						Analyst: MAP
Alkalinity, Total (As CaCO ₃)	97	2.0		mg/L CaCO ₃	1	7/28/2005
Carbonate	ND	2.0		mg/L CaCO ₃	1	7/28/2005
Bicarbonate	97	2.0		mg/L CaCO ₃	1	7/28/2005
EPA METHOD 8015B: DIESEL RANGE						
						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/22/2005 5:53:05 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/22/2005 5:53:05 AM
Surr: DNOP	104	58-140		%REC	1	7/22/2005 5:53:05 AM
EPA METHOD 8015B: GASOLINE RANGE						
						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/22/2005 2:37:42 AM
Surr: BFB	96.4	78.3-120		%REC	1	7/22/2005 2:37:42 AM
EPA METHOD 8021B: VOLATILES						
						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/22/2005 2:37:42 AM
Benzene	ND	0.50		µg/L	1	7/22/2005 2:37:42 AM
Toluene	ND	0.50		µg/L	1	7/22/2005 2:37:42 AM
Ethylbenzene	ND	0.50		µg/L	1	7/22/2005 2:37:42 AM
Xylenes, Total	0.61	0.50		µg/L	1	7/22/2005 2:37:42 AM
EPA METHOD 8270C: SEMIVOLATILES						
						Analyst: BL
Acenaphthene	ND	10		µg/L	1	7/27/2005
Acenaphthylene	ND	10		µg/L	1	7/27/2005
Aniline	ND	10		µg/L	1	7/27/2005
Anthracene	ND	10		µg/L	1	7/27/2005
Azobenzene	ND	10		µg/L	1	7/27/2005
Benz(a)anthracene	ND	15		µg/L	1	7/27/2005
Benzo(a)pyrene	ND	10		µg/L	1	7/27/2005
Benzo(b)fluoranthene	ND	10		µg/L	1	7/27/2005
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/27/2005
Benzo(k)fluoranthene	ND	10		µg/L	1	7/27/2005
Benzoic acid	ND	50		µg/L	1	7/27/2005
Benzyl alcohol	ND	20		µg/L	1	7/27/2005
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/27/2005

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

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-03

Client Sample ID: N of MW #45
Collection Date: 7/19/2005 10:15:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Bis(2-chloroethyl)ether	ND	15		µg/L	1	7/27/2005
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	7/27/2005
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	7/27/2005
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/27/2005
Butyl benzyl phthalate	ND	15		µg/L	1	7/27/2005
Carbazole	ND	10		µg/L	1	7/27/2005
4-Chloro-3-methylphenol	ND	20		µg/L	1	7/27/2005
4-Chloroaniline	ND	20		µg/L	1	7/27/2005
2-Chloronaphthalene	ND	10		µg/L	1	7/27/2005
2-Chlorophenol	ND	10		µg/L	1	7/27/2005
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	7/27/2005
Chrysene	ND	15		µg/L	1	7/27/2005
Di-n-butyl phthalate	ND	10		µg/L	1	7/27/2005
Di-n-octyl phthalate	ND	15		µg/L	1	7/27/2005
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/27/2005
Dibenzofuran	ND	10		µg/L	1	7/27/2005
1,2-Dichlorobenzene	ND	10		µg/L	1	7/27/2005
1,3-Dichlorobenzene	ND	10		µg/L	1	7/27/2005
1,4-Dichlorobenzene	ND	10		µg/L	1	7/27/2005
3,3'-Dichlorobenzidine	ND	15		µg/L	1	7/27/2005
Diethyl phthalate	ND	10		µg/L	1	7/27/2005
Dimethyl phthalate	ND	10		µg/L	1	7/27/2005
2,4-Dichlorophenol	ND	10		µg/L	1	7/27/2005
2,4-Dimethylphenol	ND	10		µg/L	1	7/27/2005
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	7/27/2005
2,4-Dinitrophenol	ND	50		µg/L	1	7/27/2005
2,4-Dinitrotoluene	ND	10		µg/L	1	7/27/2005
2,6-Dinitrotoluene	ND	10		µg/L	1	7/27/2005
Fluoranthene	ND	10		µg/L	1	7/27/2005
Fluorene	ND	10		µg/L	1	7/27/2005
Hexachlorobenzene	ND	10		µg/L	1	7/27/2005
Hexachlorobutadiene	ND	10		µg/L	1	7/27/2005
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/27/2005
Hexachloroethane	ND	10		µg/L	1	7/27/2005
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/27/2005
Isophorone	ND	10		µg/L	1	7/27/2005
2-Methylnaphthalene	ND	10		µg/L	1	7/27/2005
2-Methylphenol	ND	15		µg/L	1	7/27/2005
3+4-Methylphenol	ND	10		µg/L	1	7/27/2005
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/27/2005
N-Nitrosodimethylamine	ND	10		µg/L	1	7/27/2005
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/27/2005

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

Date: 05-Aug-05

CLIENT: San Juan Refining

Client Sample ID: N of MW #45

Lab Order: 0507181

Collection Date: 7/19/2005 10:15:00 AM

Project: River Sampling 3rd Qtr. 2005

Lab ID: 0507181-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Naphthalene	ND	10		µg/L	1	7/27/2005
2-Nitroaniline	ND	50		µg/L	1	7/27/2005
3-Nitroaniline	ND	50		µg/L	1	7/27/2005
4-Nitroaniline	ND	20		µg/L	1	7/27/2005
Nitrobenzene	ND	10		µg/L	1	7/27/2005
2-Nitrophenol	ND	15		µg/L	1	7/27/2005
4-Nitrophenol	ND	50		µg/L	1	7/27/2005
Pentachlorophenol	ND	50		µg/L	1	7/27/2005
Phenanthrene	ND	10		µg/L	1	7/27/2005
Phenol	ND	10		µg/L	1	7/27/2005
Pyrene	ND	15		µg/L	1	7/27/2005
Pyridine	ND	30		µg/L	1	7/27/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/27/2005
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/27/2005
2,4,6-Trichlorophenol	ND	15		µg/L	1	7/27/2005
Surr: 2,4,6-Tribromophenol	70.7	16.6-150		%REC	1	7/27/2005
Surr: 2-Fluorobiphenyl	116	19.6-134		%REC	1	7/27/2005
Surr: 2-Fluorophenol	81.6	9.54-113		%REC	1	7/27/2005
Surr: 4-Terphenyl-d14	127	22.7-145		%REC	1	7/27/2005
Surr: Nitrobenzene-d5	117	14.6-134		%REC	1	7/27/2005
Surr: Phenol-d6	61.1	10.7-80.3		%REC	1	7/27/2005
EPA 120.1: SPECIFIC CONDUCTANCE						
Specific Conductance	340	0.010		µmhos/cm	1	7/21/2005
EPA METHOD 7470: MERCURY						
Mercury	ND	0.00020		mg/L	1	7/28/2005
EPA METHOD 6010C: DISSOLVED METALS						
Arsenic	ND	0.020		mg/L	1	7/25/2005 10:34:06 AM
Barium	0.070	0.0020		mg/L	1	7/25/2005 10:34:06 AM
Cadmium	ND	0.0020		mg/L	1	7/25/2005 10:34:06 AM
Calcium	36	1.0		mg/L	1	7/26/2005 9:42:46 AM
Chromium	ND	0.0060		mg/L	1	7/25/2005 10:34:06 AM
Copper	ND	0.0060		mg/L	1	7/25/2005 10:34:06 AM
Iron	ND	0.020		mg/L	1	7/25/2005 10:34:06 AM
Lead	ND	0.0050		mg/L	1	7/25/2005 10:34:06 AM
Magnesium	6.6	1.0		mg/L	1	7/26/2005 9:42:46 AM
Manganese	0.020	0.0020		mg/L	1	7/25/2005 10:34:06 AM
Potassium	2.0	1.0		mg/L	1	8/1/2005 1:50:40 PM
Selenium	ND	0.050		mg/L	1	7/25/2005 10:34:06 AM
Silver	ND	0.0050		mg/L	1	7/25/2005 10:34:06 AM
Sodium	21	1.0		mg/L	1	7/26/2005 9:42:46 AM
Uranium	ND	0.10		mg/L	1	7/25/2005 10:34:06 AM

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-03

Client Sample ID: N of MW #45
Collection Date: 7/19/2005 10:15:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Zinc	0.014	0.0050		mg/L	1	7/26/2005 9:42:46 AM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	7/26/2005 11:07:18 AM
Barium	0.069	0.020		mg/L	1	7/26/2005 11:07:18 AM
Cadmium	ND	0.0020		mg/L	1	7/26/2005 11:07:18 AM
Chromium	ND	0.0060		mg/L	1	7/26/2005 11:07:18 AM
Lead	ND	0.0050		mg/L	1	7/26/2005 11:07:18 AM
Selenium	ND	0.050		mg/L	1	7/26/2005 11:07:18 AM
Silver	ND	0.0050		mg/L	1	7/26/2005 11:07:18 AM
EPA METHOD 160.1: TDS						Analyst: DK
Total Dissolved Solids	230	50		mg/L	1	7/22/2005

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

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-04

Client Sample ID: N of MW #46
Collection Date: 7/19/2005 9:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.21	0.10		mg/L	1	7/20/2005
Chloride	3.6	0.10		mg/L	1	7/20/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	7/20/2005
Bromide	ND	0.50		mg/L	1	7/20/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	7/20/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	7/20/2005
Sulfate	73	0.50		mg/L	1	7/20/2005
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO ₃)	100	2.0		mg/L CaCO ₃	1	7/28/2005
Carbonate	ND	2.0		mg/L CaCO ₃	1	7/28/2005
Bicarbonate	100	2.0		mg/L CaCO ₃	1	7/28/2005
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/22/2005 6:25:58 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/22/2005 6:25:58 AM
Surr: DNOP	89.1	58-140		%REC	1	7/22/2005 6:25:58 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/22/2005 3:07:57 AM
Surr: BFB	94.6	78.3-120		%REC	1	7/22/2005 3:07:57 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/22/2005 3:07:57 AM
Benzene	ND	0.50		µg/L	1	7/22/2005 3:07:57 AM
Toluene	ND	0.50		µg/L	1	7/22/2005 3:07:57 AM
Ethylbenzene	ND	0.50		µg/L	1	7/22/2005 3:07:57 AM
Xylenes, Total	ND	0.50		µg/L	1	7/22/2005 3:07:57 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	7/27/2005
Acenaphthylene	ND	10		µg/L	1	7/27/2005
Aniline	ND	10		µg/L	1	7/27/2005
Anthracene	ND	10		µg/L	1	7/27/2005
Azobenzene	ND	10		µg/L	1	7/27/2005
Benz(a)anthracene	ND	15		µg/L	1	7/27/2005
Benzo(a)pyrene	ND	10		µg/L	1	7/27/2005
Benzo(b)fluoranthene	ND	10		µg/L	1	7/27/2005
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/27/2005
Benzo(k)fluoranthene	ND	10		µg/L	1	7/27/2005
Benzoic acid	ND	50		µg/L	1	7/27/2005
Benzyl alcohol	ND	20		µg/L	1	7/27/2005
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/27/2005

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

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-04

Client Sample ID: N of MW #46
Collection Date: 7/19/2005 9:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Bis(2-chloroethyl)ether	ND	15		µg/L	1	7/27/2005
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	7/27/2005
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	7/27/2005
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/27/2005
Butyl benzyl phthalate	ND	15		µg/L	1	7/27/2005
Carbazole	ND	10		µg/L	1	7/27/2005
4-Chloro-3-methylphenol	ND	20		µg/L	1	7/27/2005
4-Chloroaniline	ND	20		µg/L	1	7/27/2005
2-Chloronaphthalene	ND	10		µg/L	1	7/27/2005
2-Chlorophenol	ND	10		µg/L	1	7/27/2005
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	7/27/2005
Chrysene	ND	15		µg/L	1	7/27/2005
Di-n-butyl phthalate	ND	10		µg/L	1	7/27/2005
Di-n-octyl phthalate	ND	15		µg/L	1	7/27/2005
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/27/2005
Dibenzofuran	ND	10		µg/L	1	7/27/2005
1,2-Dichlorobenzene	ND	10		µg/L	1	7/27/2005
1,3-Dichlorobenzene	ND	10		µg/L	1	7/27/2005
1,4-Dichlorobenzene	ND	10		µg/L	1	7/27/2005
3,3'-Dichlorobenzidine	ND	15		µg/L	1	7/27/2005
Diethyl phthalate	ND	10		µg/L	1	7/27/2005
Dimethyl phthalate	ND	10		µg/L	1	7/27/2005
2,4-Dichlorophenol	ND	10		µg/L	1	7/27/2005
2,4-Dimethylphenol	ND	10		µg/L	1	7/27/2005
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	7/27/2005
2,4-Dinitrophenol	ND	50		µg/L	1	7/27/2005
2,4-Dinitrotoluene	ND	10		µg/L	1	7/27/2005
2,6-Dinitrotoluene	ND	10		µg/L	1	7/27/2005
Fluoranthene	ND	10		µg/L	1	7/27/2005
Fluorene	ND	10		µg/L	1	7/27/2005
Hexachlorobenzene	ND	10		µg/L	1	7/27/2005
Hexachlorobutadiene	ND	10		µg/L	1	7/27/2005
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/27/2005
Hexachloroethane	ND	10		µg/L	1	7/27/2005
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/27/2005
Isophorone	ND	10		µg/L	1	7/27/2005
2-Methylnaphthalene	ND	10		µg/L	1	7/27/2005
2-Methylphenol	ND	15		µg/L	1	7/27/2005
3+4-Methylphenol	ND	10		µg/L	1	7/27/2005
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/27/2005
N-Nitrosodimethylamine	ND	10		µg/L	1	7/27/2005
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/27/2005

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

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-04

Client Sample ID: N of MW #46
Collection Date: 7/19/2005 9:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Naphthalene	ND	10		µg/L	1	7/27/2005
2-Nitroaniline	ND	50		µg/L	1	7/27/2005
3-Nitroaniline	ND	50		µg/L	1	7/27/2005
4-Nitroaniline	ND	20		µg/L	1	7/27/2005
Nitrobenzene	ND	10		µg/L	1	7/27/2005
2-Nitrophenol	ND	15		µg/L	1	7/27/2005
4-Nitrophenol	ND	50		µg/L	1	7/27/2005
Pentachlorophenol	ND	50		µg/L	1	7/27/2005
Phenanthrene	ND	10		µg/L	1	7/27/2005
Phenol	ND	10		µg/L	1	7/27/2005
Pyrene	ND	15		µg/L	1	7/27/2005
Pyridine	ND	30		µg/L	1	7/27/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/27/2005
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/27/2005
2,4,6-Trichlorophenol	ND	15		µg/L	1	7/27/2005
Surr: 2,4,6-Tribromophenol	45.9	16.6-150		%REC	1	7/27/2005
Surr: 2-Fluorobiphenyl	54.3	19.6-134		%REC	1	7/27/2005
Surr: 2-Fluorophenol	41.8	9.54-113		%REC	1	7/27/2005
Surr: 4-Terphenyl-d14	57.3	22.7-145		%REC	1	7/27/2005
Surr: Nitrobenzene-d5	55.6	14.6-134		%REC	1	7/27/2005
Surr: Phenol-d6	28.9	10.7-80.3		%REC	1	7/27/2005
EPA 120.1: SPECIFIC CONDUCTANCE						
Specific Conductance	340	0.010		µmhos/cm	1	7/21/2005
EPA METHOD 7470: MERCURY						
Mercury	ND	0.00020		mg/L	1	7/28/2005
EPA METHOD 6010C: DISSOLVED METALS						
Arsenic	ND	0.020		mg/L	1	7/25/2005 10:37:06 AM
Barium	0.070	0.0020		mg/L	1	7/25/2005 10:37:06 AM
Cadmium	ND	0.0020		mg/L	1	7/25/2005 10:37:06 AM
Calcium	36	1.0		mg/L	1	7/26/2005 9:45:22 AM
Chromium	ND	0.0060		mg/L	1	7/25/2005 10:37:06 AM
Copper	ND	0.0060		mg/L	1	7/25/2005 10:37:06 AM
Iron	0.037	0.020		mg/L	1	7/25/2005 10:37:06 AM
Lead	ND	0.0050		mg/L	1	7/25/2005 10:37:06 AM
Magnesium	6.7	1.0		mg/L	1	7/26/2005 9:45:22 AM
Manganese	0.021	0.0020		mg/L	1	7/25/2005 10:37:06 AM
Potassium	2.0	1.0		mg/L	1	8/1/2005 1:53:41 PM
Selenium	ND	0.050		mg/L	1	7/25/2005 10:37:06 AM
Silver	ND	0.0050		mg/L	1	7/25/2005 10:37:06 AM
Sodium	22	1.0		mg/L	1	7/26/2005 9:45:22 AM
Uranium	ND	0.10		mg/L	1	7/25/2005 10:37:06 AM

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

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-04

Client Sample ID: N of MW #46
Collection Date: 7/19/2005 9:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Zinc	0.045	0.0050		mg/L	1	7/26/2005 9:45:22 AM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	7/26/2005 11:10:16 AM
Barium	0.070	0.020		mg/L	1	7/26/2005 11:10:16 AM
Cadmium	ND	0.0020		mg/L	1	7/26/2005 11:10:16 AM
Chromium	ND	0.0060		mg/L	1	7/26/2005 11:10:16 AM
Lead	ND	0.0050		mg/L	1	7/26/2005 11:10:16 AM
Selenium	ND	0.050		mg/L	1	7/26/2005 11:10:16 AM
Silver	ND	0.0050		mg/L	1	7/26/2005 11:10:16 AM
EPA METHOD 160.1: TDS						Analyst: DK
Total Dissolved Solids	240	50		mg/L	1	7/22/2005

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

Date: 05-Aug-05

CLIENT: San Juan Refining
Lab Order: 0507181
Project: River Sampling 3rd Qtr. 2005
Lab ID: 0507181-05

Client Sample ID: Trip Blank

Collection Date:

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	7/22/2005 3:38:09 AM
Surr: BFB	101	78.3-120		%REC	1	7/22/2005 3:38:09 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/22/2005 3:38:09 AM
Benzene	ND	0.50		µg/L	1	7/22/2005 3:38:09 AM
Toluene	ND	0.50		µg/L	1	7/22/2005 3:38:09 AM
Ethylbenzene	ND	0.50		µg/L	1	7/22/2005 3:38:09 AM
Xylenes, Total	ND	0.50		µg/L	1	7/22/2005 3:38:09 AM

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

Date: 05-Aug-05

CLIENT: San Juan Refining
 Work Order: 0507181
 Project: River Sampling 3rd Qtr. 2005

QC SUMMARY REPORT

Method Blank

Sample ID	MBLK	Batch ID: R16052	Test Code: E300	Units: mg/L	Analysis Date 7/20/2005	Prep Date					
Client ID:			Run ID: LC_050720A		SeqNo: 381430						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Bromide	ND	0.5									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									

Sample ID	MBLK	Batch ID: R16132	Test Code: E310.1	Units: mg/L CaCO3	Analysis Date 7/28/2005	Prep Date					
Client ID:		Run ID: WC_050728C			SeqNo: 383874						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	2									
Carbonate	ND	2									
Bicarbonate	ND	2									

Sample ID MB-8382	Batch ID: 8382	Test Code: SW8015	Units: mg/L	Analysis Date 7/22/2005 2:36:12 AM	Prep Date 7/21/2005						
Client ID:	Run ID: FID(17A) 2_050721A	SeqNo: 381978									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1									
Motor Oil Range Organics (MRO)	ND	5									
Surr: DNOP	1.129	0	1	0	113	58	140	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0507181
Project: River Sampling 3rd Qtr. 2005

QC SUMMARY REPORT

Method Blank

Sample ID	Reagent Blank	Batch ID: R16066	Test Code: SW8015	Units: mg/L	Analysis Date 7/21/2005 9:25:29 AM		Prep Date				
Client ID:			Run ID: PIDFID_050721A		SeqNo: 382110						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.0168	0.05									J
Surr: BFB	19.86	0	20	0	99.3	78.3	120	0			

Sample ID	Reagent Blank	Batch ID: R16066	Test Code: SW8021	Units: µg/L	Analysis Date 7/21/2005 9:25:29 AM	Prep Date					
Client ID:			Run ID: PIDFID_050721A		SeqNo: 382069						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank
 2

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
Work Order: 0507181
Project: River Sampling 3rd Qtr. 2005

Sample ID	MB-8383	Batch ID: 8383	Test Code: SW8270C	Units: µg/L	Analysis Date	7/27/2005	Prep Date	7/21/2005			
Client ID:			Run ID:	ELMO_050727A	SeqNo:	384015					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	10									
Acenaphthylene	ND	10									
Aniline	ND	10									
Anthracene	ND	10									
Azobenzene	ND	10									
Benz(a)anthracene	ND	15									
Benzo(a)pyrene	ND	10									
Benzo(b)fluoranthene	ND	10									
Benzo(g,h,i)perylene	ND	10									
Benzo(k)fluoranthene	ND	10									
Benzoic acid	ND	50									
Benzyl alcohol	ND	20									
Bis(2-chloroethoxy)methane	ND	10									
Bis(2-chloroethyl)ether	ND	15									
Bis(2-chloroisopropyl)ether	ND	15									
Bis(2-ethylhexyl)phthalate	ND	15									
4-Bromophenyl phenyl ether	ND	10									
Butyl benzyl phthalate	ND	15									
Carbazole	ND	10									
4-Chloro-3-methylphenol	ND	20									
4-Chloroaniline	ND	20									
2-Chloronaphthalene	ND	10									
2-Chlorophenol	ND	10									
4-Chlorophenyl phenyl ether	ND	15									
Chrysene	ND	15									
Di-n-butyl phthalate	ND	10									
Di-n-octyl phthalate	ND	15									
Dibenz(a,h)anthracene	ND	10									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0507181
 Project: River Sampling 3rd Qtr. 2005

Dibenzofuran	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
3,3'-Dichlorobenzidine	ND	15
Diethyl phthalate	ND	10
Dimethyl phthalate	ND	10
2,4-Dichlorophenol	ND	10
2,4-Dimethylphenol	ND	10
4,6-Dinitro-2-methylphenol	ND	50
2,4-Dinitrophenol	ND	50
2,4-Dinitrotoluene	ND	10
2,6-Dinitrotoluene	ND	10
Fluoranthene	ND	10
Fluorene	ND	10
Hexachlorobenzene	ND	10
Hexachlorobutadiene	ND	10
Hexachlorocyclopentadiene	ND	10
Hexachloroethane	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Isophorone	ND	10
2-Methylnaphthalene	ND	10
2-Methylphenol	ND	15
3+4-Methylphenol	ND	10
N-Nitrosodi-n-propylamine	ND	10
N-Nitrosodimethylamine	ND	10
N-Nitrosodiphenylamine	ND	10
Naphthalene	ND	10
2-Nitroaniline	ND	50
3-Nitroaniline	ND	50
4-Nitroaniline	ND	20
Nitrobenzene	ND	10
2-Nitrophenol	ND	15

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Method Blank

Project: River Sampling 3rd Qtr. 2005

Chemical Name	ND	50
4-Nitrophenol	ND	50
Pentachlorophenol	ND	50
Phenanthrene	ND	10
Phenol	ND	10
Pyrene	ND	15
Pyridine	ND	30
1,2,4-Trichlorobenzene	ND	10
2,4,5-Trichlorophenol	ND	10
2,4,6-Trichlorophenol	ND	15
Surr: 2,4,6-Tribromophenol	147.6	0
Surr: 2-Fluorobiphenyl	70	0
Surr: 2-Fluorophenol	119	0
Surr: 4-Terphenyl-d14	63.04	0
Surr: Nitrobenzene-d5	73.64	0
Surr: Phenol-d6	86.34	0

[illegible][illegible]

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	

CLIENT: San Juan Refining
Work Order: 0507181
Project: River Sampling 3rd Qtr. 2005

QC SUMMARY REPORT

Method Blank

Sample ID	MB	Batch ID: R16098	Test Code: SW6010A	Units: mg/L	Analysis Date	7/25/2005 9:32:56 AM	Prep Date					
Client ID:			Run ID: ICP_050725C		SeqNo:	383127						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		ND	0.02									
Barium		ND	0.02									
Cadmium		ND	0.002									
Chromium		ND	0.006									
Copper		ND	0.006									
Iron		ND	0.02									
Lead		ND	0.005									
Manganese		ND	0.002									
Selenium		ND	0.02									
Silver		ND	0.005									
Uranium		ND	0.1									
Zinc		ND	0.05									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0507181
Project: River Sampling 3rd Qtr. 2005

QC SUMMARY REPORT
 Method Blank

Sample ID	MB	Batch ID: R16160	Test Code: SW6010A	Units: mg/L	Analysis Date	8/1/2005 1:30:03 PM	Prep Date				
Client ID:		Run ID: ICP_050801A	SeqNo: 384640								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.02									
Cadmium	ND	0.002									
Calcium	ND	1									
Chromium	ND	0.006									
Copper	ND	0.006									
Iron	ND	0.02									
Lead	ND	0.005									
Magnesium	0.1625	1									J
Manganese	ND	0.002									
Potassium	0.2152	1									J
Selenium	ND	0.02									
Silver	ND	0.005									
Sodium	ND	1									
Uranium	ND	0.1									
Zinc	ND	0.05									

Sample ID	MB-8403	Batch ID: 8403	Test Code: SW6010A	Units: mg/L	Analysis Date 7/26/2005 10:41:51 AM	Prep Date 7/25/2005					
Client ID:			Run ID: ICP_050726A		SeqNo: 383287						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.02									
Cadmium	ND	0.002									
Chromium	ND	0.006									
Lead	ND	0.005									
Selenium	ND	0.05									
Silver	0.007622	0.005									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0507181
 Project: River Sampling 3rd Qtr. 2005

Sample ID MB-8377	Batch ID: 8377	Test Code: E160.1	Units: mg/L	Analysis Date 7/22/2005	Prep Date 7/21/2005
Client ID:	Run ID: WC_050622E			SeqNo: 382620	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val
Total Dissolved Solids	ND		50		%RPD RPDLimit Qual

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 05-Aug-05

CLIENT: San Juan Refining

Work Order: 0507181

Project: River Sampling 3rd Qtr. 2005

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS	Batch ID: R16052	Test Code: E300	Units: mg/L	Analysis Date: 7/20/2005	Prep Date:
Client ID:	Run ID: LC_050720A	PQL	SPK value	SeqNo: 381431	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Fluoride	0.5137	0.1	0.5	0	103 90 110 0
Chloride	5.014	0.1	5	0	100 90 110 0
Nitrogen, Nitrite (As N)	0.9945	0.1	1	0	99.5 90 110 0
Bromide	2.637	0.5	2.5	0	105 90 110 0
Nitrogen, Nitrate (As N)	2.542	0.1	2.5	0	102 90 110 0
Phosphorus, Orthophosphate (As P)	5.094	0.5	5	0	102 90 110 0
Sulfate	10.58	0.5	10	0	106 90 110 0

26/35

Sample ID: LCS-8382	Batch ID: 8382	Test Code: SW8015	Units: mg/L	Analysis Date: 7/22/2005 3:09:02 AM	Prep Date: 7/21/2005
Client ID:	Run ID: FID(17A) 2_050721A	PQL	SPK value	SeqNo: 382005	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Diesel Range Organics (DRO)	5.491	1	5	0	110 81.2 149 0
Surr: DNOP	0.5398	0	0.5	0	108 58 140 0

Sample ID: LCSD-8382	Batch ID: 8382	Test Code: SW8015	Units: mg/L	Analysis Date: 7/22/2005 3:41:55 AM	Prep Date: 7/21/2005
Client ID:	Run ID: FID(17A) 2_050721A	PQL	SPK value	SeqNo: 382006	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Diesel Range Organics (DRO)	6.229	1	5	0	125 81.2 149 5.491 23
Surr: DNOP	0.574	0	0.5	0	115 58 140 0.5398 6.14 0

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0507181
 Project: River Sampling 3rd Qtr. 2005

Sample ID: GRO lcs 2.5ug	Batch ID: R16066	Test Code: SW8015	Units: mg/L	Analysis Date: 7/22/2005 1:06:12 AM	Prep Date:
Client ID:		Run ID: PIDFID_050721A		SeqNo: 382113	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	0.4686	0.05	0.5	0.0188	90.4 114 0
Surr: BFB	26.15	0	20	0	131 120 0 S

Sample ID: BTEX lcs 100ng	Batch ID: R16066	Test Code: SW8021	Units: µg/L	Analysis Date: 7/22/2005 12:05:09 AM	Prep Date:
Client ID:		Run ID: PIDFID_050721A		SeqNo: 382081	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Methyl tert-butyl ether (MTBE)	26.97	2.5	20	0	135 133 0 S
Benzene	19.67	0.5	20	0	98.3 114 0
Toluene	19.17	0.5	20	0	95.9 112 0
Ethylbenzene	19.21	0.5	20	0	96.1 113 0
Xylenes, Total	38.86	0.5	40	0	97.1 112 0

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0507181
 Project: River Sampling 3rd Qtr. 2005

Sample ID: LCS-8383	Batch ID: 8383	Test Code: SW8270C	Units: µg/L	Analysis Date: 7/27/2005	Prep Date: 7/21/2005						
Client ID:	Run ID:	ELMO_050727A		SeqNo: 384017							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	63.86	10	100	0	63.9	11	123	0			
4-Chloro-3-methylphenol	143	20	200	0	71.5	15.4	119	0			
2-Chlorophenol	150.1	10	200	0	75.1	12.2	122	0			
1,4-Dichlorobenzene	64.96	10	100	0	65.0	16.9	100	0			
2,4-Dinitrotoluene	64.66	10	100	0	64.7	13	138	0			
N-Nitrosodi-n-propylamine	64.46	10	100	0	64.5	9.93	122	0			
4-Nitrophenol	62.56	50	200	0	31.3	-20.5	87.4	0			
Pentachlorophenol	118	50	200	0	59.0	-0.355	114	0			
Phenol	81.96	10	200	0	41.0	7.53	73.1	0			
Pyrene	63.18	15	100	0	63.2	12.6	140	0			
1,2,4-Trichlorobenzene	67.36	10	100	0	67.4	17.4	98.7	0			
Surr: 2,4,6-Tribromophenol	116.6	0	200	0	58.3	16.6	150	0			
Surr: 2-Fluorobiphenyl	64.44	0	100	0	64.4	19.6	134	0			
Surr: 2-Fluorophenol	113.1	0	200	0	56.6	9.54	113	0			
Surr: 4-Terphenyl-d14	60.7	0	100	0	60.7	22.7	145	0			
Surr: Nitrobenzene-d5	74.04	0	100	0	74.0	14.6	134	0			
Surr: Phenol-d6	85.12	0	200	0	42.6	10.7	80.3	0			

Sample ID: LCS-8427	Batch ID: 8427	Test Code: SW7470	Units: mg/L	Analysis Date: 7/28/2005	Prep Date: 7/28/2005						
Client ID:	Run ID: MI-LA254_050728A	SeqNo: 383809									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005392	0.0002	0.005	0	108	75.2	134	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

CLIENT: San Juan Refining
 Work Order: 0507181
 Project: River Sampling 3rd Qtr. 2005

Sample ID: LCSD-8427	Batch ID: 8427	Test Code: SW7470	Units: mg/L	Analysis Date: 7/28/2005	Prep Date: 7/28/2005
Client ID:		Run ID: MI-LA254_050728A		SeqNo: 383820	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.005386	0.0002	0.005	0	108 75.2 134 0.005392 0.103 0

Sample ID: LCS	Batch ID: R16098	Test Code: SW6010A	Units: mg/L	Analysis Date: 7/26/2005 9:28:14 AM	Prep Date:
Client ID:		Run ID: ICP_050725C		SeqNo: 383119	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Calcium	47.92	1	50.5	0	94.9 80 120 0
Magnesium	48	1	50.5	0	95.1 80 120 0
Zinc	0.5056	0.05	0.5	0	101 80 120 0

Sample ID: LCSD	Batch ID: R16098	Test Code: SW6010A	Units: mg/L	Analysis Date: 7/26/2005 9:30:50 AM	Prep Date:
Client ID:		Run ID: ICP_050725C		SeqNo: 383120	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Calcium	48.23	1	50.5	0	95.5 80 120 47.92 20
Magnesium	48.26	1	50.5	0	95.6 80 120 48 20
Zinc	0.5105	0.05	0.5	0	102 80 120 0.5056 0.973 20

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

CLIENT: San Juan Refining

Work Order: 0507181

Project: River Sampling 3rd Qtr. 2005

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS	Batch ID: R16098	Test Code: SW6010A	Units: mg/L	Analysis Date: 7/25/2005 9:35:50 AM	Prep Date:						
Client ID:	Run ID: ICP_050725C	SeqNo: 383128									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.52	0.02	0.5	0	104	80	120	0			
Barium	0.4998	0.02	0.5	0	100	80	120	0			
Cadmium	0.5146	0.002	0.5	0	103	80	120	0			
Chromium	0.5045	0.006	0.5	0	101	80	120	0			
Copper	0.5097	0.006	0.5	0	102	80	120	0			
Iron	0.4907	0.02	0.5	0	98.1	80	120	0			
Lead	0.503	0.005	0.5	0	101	80	120	0			
Manganese	0.4825	0.002	0.5	0	96.5	80	120	0			
Selenium	0.4867	0.02	0.5	0	97.3	80	120	0			
Silver	0.5158	0.005	0.5	0	103	80	120	0			
Uranium	2.681	0.1	2.5	0	107	80	120	0			
Zinc	0.5071	0.05	0.5	0	101	80	120	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

CLIENT: San Juan Refining
 Work Order: 0507181
 Project: River Sampling 3rd Qtr. 2005

Sample ID: LCSD	Batch ID: R16098	Test Code: SW6010A	Units: mg/L	Analysis Date: 7/25/2005 9:39:01 AM	Prep Date:					
Client ID:	Run ID: ICP_050725C	PQL	SPK value	SeqNo: 383129						
Analyte	Result									
Arsenic	0.5368	0.02	0.5	0	107	80	120	0.52	3.18	20
Barium	0.4961	0.02	0.5	0	99.2	80	120	0.4998	0.745	20
Cadmium	0.5106	0.002	0.5	0	102	80	120	0.5146	0.779	20
Chromium	0.5011	0.006	0.5	0	100	80	120	0.5045	0.678	20
Copper	0.5053	0.006	0.5	0	101	80	120	0.5097	0.879	20
Iron	0.484	0.02	0.5	0	96.8	80	120	0.4907	1.37	20
Lead	0.5017	0.005	0.5	0	100	80	120	0.503	0.250	20
Manganese	0.4792	0.002	0.5	0	95.8	80	120	0.4825	0.685	20
Selenium	0.4768	0.02	0.5	0	95.4	80	120	0.4867	2.05	20
Silver	0.5113	0.005	0.5	0	102	80	120	0.5158	0.875	20
Uranium	2.665	0.1	2.5	0	107	80	120	2.681	0.593	20
Zinc	0.5045	0.05	0.5	0	101	80	120	0.5071	0.509	20

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0507181
Project: River Sampling 3rd Qtr. 2005

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID: LCS	Batch ID: R16160	Test Code: SW6010A	Units: mg/L	Analysis Date: 8/1/2005 1:33:01 PM	Prep Date:						
Client ID:	Run ID: ICP_050801A	PQL	SPK value	SeqNo: 384641							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5354	0.02	0.5	0	107	80	120	0			
Barium	0.4903	0.02	0.5	0	98.1	80	120	0			
Cadmium	0.5104	0.002	0.5	0	102	80	120	0			
Calcium	50.2	1	50.5	0	99.4	80	120	0			
Chromium	0.497	0.006	0.5	0	99.4	80	120	0			
Copper	0.5006	0.006	0.5	0	100	80	120	0			
Iron	0.487	0.02	0.5	0	97.4	80	120	0			
Lead	0.4968	0.005	0.5	0	99.4	80	120	0			
Magnesium	50.63	1	50.5	0.1625	99.9	80	120	0			
Manganese	0.4774	0.002	0.5	0	95.5	80	120	0			
Potassium	53.53	1	55	0.2152	96.9	80	120	0			
Selenium	0.4913	0.02	0.5	0	98.3	80	120	0			
Silver	0.511	0.005	0.5	0	102	80	120	0			
Sodium	53.83	1	50.5	0	107	80	120	0			
Uranium	2.563	0.1	2.5	0	103	80	120	0			
Zinc	0.5061	0.05	0.5	0	101	80	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining

Work Order: 0507181

Project: River Sampling 3rd Qtr. 2005

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID: LCSD	Batch ID: R16160	Test Code: SW6010A	Units: mg/L	Analysis Date: 8/1/2005 1:36:04 PM	Prep Date:						
Client ID:	Run ID: ICP_050801A	SeqNo: 384642									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5145	0.02	0.5	0	103	80	120	0.5354	3.97	20	
Barium	0.4872	0.02	0.5	0	97.4	80	120	0.4903	0.625	20	
Cadmium	0.5015	0.002	0.5	0	100	80	120	0.5104	1.75	20	
Calcium	50.49	1	50.5	0	100	80	120	50.2	0.585	20	
Chromium	0.4906	0.006	0.5	0	98.1	80	120	0.497	1.30	20	
Copper	0.4988	0.006	0.5	0	99.8	80	120	0.5006	0.374	20	
Iron	0.4902	0.02	0.5	0	98.0	80	120	0.487	0.667	20	
Lead	0.4848	0.005	0.5	0	97.0	80	120	0.4968	2.46	20	
Magnesium	50.99	1	50.5	0.1625	101	80	120	50.63	0.710	20	
Manganese	0.4739	0.002	0.5	0	94.8	80	120	0.4774	0.733	20	
Potassium	53.74	1	55	0.2152	97.3	80	120	53.53	0.400	20	
Selenium	0.4831	0.02	0.5	0	96.6	80	120	0.4913	1.68	20	
Silver	0.5081	0.005	0.5	0	102	80	120	0.511	0.577	20	
Sodium	54.4	1	50.5	0	108	80	120	53.83	1.05	20	
Uranium	2.583	0.1	2.5	0	103	80	120	2.563	0.765	20	
Zinc	0.4981	0.05	0.5	0	99.6	80	120	0.5061	1.61	20	

Sample ID: LCS-8403	Batch ID: 8403	Test Code: SW6010A	Units: mg/L	Analysis Date: 7/26/2005 10:45:03 AM	Prep Date: 7/25/2005						
Client ID:	Run ID: ICP_050726A	SeqNo: 383288									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4973	0.02	0.5	0	99.5	80	120	0			
Barium	0.4811	0.02	0.5	0	96.2	80	120	0			
Cadmium	0.486	0.002	0.5	0	97.2	80	120	0			
Chromium	0.4715	0.006	0.5	0	94.3	80	120	0			
Lead	0.4743	0.005	0.5	0	94.9	80	120	0			
Selenium	0.4658	0.05	0.5	0	93.2	80	120	0			
Silver	0.4973	0.005	0.5	0.007622	97.9	80	120	0			B

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining

Work Order: 0507181

Project: River Sampling 3rd Qtr. 2005

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID: LCSD-8403	Batch ID: 8403	Test Code: SW6010A	Units: mg/L	Analysis Date: 7/26/2005 10:48:12 AM	Prep Date: 7/25/2005						
Client ID:		Run ID: ICP_050726A		SeqNo: 383289							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5209	0.02	0.5	0	104	80	120	0.4973	4.64	20	
Barium	0.488	0.02	0.5	0	97.6	80	120	0.4811	1.43	20	
Cadmium	0.4972	0.002	0.5	0	99.4	80	120	0.486	2.29	20	
Chromium	0.4818	0.006	0.5	0	96.4	80	120	0.4715	2.18	20	
Lead	0.485	0.005	0.5	0	97.0	80	120	0.4743	2.23	20	
Selenium	0.4946	0.05	0.5	0	98.9	80	120	0.4658	6.01	20	
Silver	0.5044	0.005	0.5	0.007622	99.4	80	120	0.4973	1.43	20	B

Sample ID: LCS-8377	Batch ID: 8377	Test Code: E160.1	Units: mg/L	Analysis Date: 7/22/2005	Prep Date: 7/21/2005						
Client ID:		Run ID: WC_050622E		SeqNo: 382621							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	1016	50	1000	0	102	80	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank
9

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

7/20/2005

Work Order Number 0507181

Received by AT

Checklist completed by

Signature

Date

7/20/05

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 - 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

August 24, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: Annual Sampling 2005

Order No.: 0508092

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 3 samples on 8/9/2005 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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT: San Juan Refining
Lab Order: 0508092
Project: Annual Sampling 2005
Lab ID: 0508092-02

Client Sample ID: MW #48
Collection Date: 8/9/2005 9:05:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: CMC
Fluoride	0.54	0.10		mg/L	1	8/9/2005
Chloride	120	1.0		mg/L	10	8/10/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/9/2005
Bromide	ND	0.50		mg/L	1	8/9/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/9/2005
Phosphorus, Orthophosphate (As P)	0.53	0.50		mg/L	1	8/9/2005
Sulfate	140	5.0		mg/L	10	8/10/2005
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO ₃)	1300	2.0		mg/L CaCO ₃	1	8/11/2005
Carbonate	110	2.0		mg/L CaCO ₃	1	8/11/2005
Bicarbonate	1200	2.0		mg/L CaCO ₃	1	8/11/2005
EPA METHOD 8260: VOLATILES						Analyst: HLM
Benzene	620	20		µg/L	20	8/16/2005
Toluene	26	20		µg/L	20	8/16/2005
Ethylbenzene	2500	100		µg/L	100	8/17/2005
Methyl tert-butyl ether (MTBE)	ND	20		µg/L	20	8/16/2005
1,2,4-Trimethylbenzene	1600	20		µg/L	20	8/16/2005
1,3,5-Trimethylbenzene	450	20		µg/L	20	8/16/2005
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	8/16/2005
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	8/16/2005
Naphthalene	380	40		µg/L	20	8/16/2005
1-Methylnaphthalene	180	80		µg/L	20	8/16/2005
2-Methylnaphthalene	170	80		µg/L	20	8/16/2005
Acetone	ND	200		µg/L	20	8/16/2005
Bromobenzene	ND	20		µg/L	20	8/16/2005
Bromochloromethane	ND	20		µg/L	20	8/16/2005
Bromodichloromethane	ND	20		µg/L	20	8/16/2005
Bromoform	ND	20		µg/L	20	8/16/2005
Bromomethane	ND	40		µg/L	20	8/16/2005
2-Butanone	ND	200		µg/L	20	8/16/2005
Carbon disulfide	ND	200		µg/L	20	8/16/2005
Carbon Tetrachloride	ND	20		µg/L	20	8/16/2005
Chlorobenzene	ND	20		µg/L	20	8/16/2005
Chloroethane	ND	40		µg/L	20	8/16/2005
Chloroform	ND	20		µg/L	20	8/16/2005
Chloromethane	ND	20		µg/L	20	8/16/2005
2-Chlorotoluene	ND	20		µg/L	20	8/16/2005
4-Chlorotoluene	ND	20		µg/L	20	8/16/2005
cis-1,2-DCE	ND	20		µg/L	20	8/16/2005
cis-1,3-Dichloropropene	ND	20		µg/L	20	8/16/2005

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

Date: 24-Aug-05

CLIENT: San Juan Refining
Lab Order: 0508092
Project: Annual Sampling 2005
Lab ID: 0508092-02

Client Sample ID: MW #48
Collection Date: 8/9/2005 9:05:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	8/16/2005
Dibromochloromethane	ND	20		µg/L	20	8/16/2005
Dibromomethane	ND	40		µg/L	20	8/16/2005
1,2-Dichlorobenzene	ND	20		µg/L	20	8/16/2005
1,3-Dichlorobenzene	ND	20		µg/L	20	8/16/2005
1,4-Dichlorobenzene	ND	20		µg/L	20	8/16/2005
Dichlorodifluoromethane	ND	20		µg/L	20	8/16/2005
1,1-Dichloroethane	ND	20		µg/L	20	8/16/2005
1,1-Dichloroethene	ND	20		µg/L	20	8/16/2005
1,2-Dichloropropane	ND	20		µg/L	20	8/16/2005
1,3-Dichloropropane	ND	20		µg/L	20	8/16/2005
2,2-Dichloropropane	ND	20		µg/L	20	8/16/2005
1,1-Dichloropropene	ND	20		µg/L	20	8/16/2005
Hexachlorobutadiene	ND	20		µg/L	20	8/16/2005
2-Hexanone	ND	200		µg/L	20	8/16/2005
Isopropylbenzene	230	20		µg/L	20	8/16/2005
4-Isopropyltoluene	ND	20		µg/L	20	8/16/2005
4-Methyl-2-pentanone	ND	200		µg/L	20	8/16/2005
Methylene Chloride	ND	60		µg/L	20	8/16/2005
n-Butylbenzene	110	20		µg/L	20	8/16/2005
n-Propylbenzene	420	20		µg/L	20	8/16/2005
sec-Butylbenzene	ND	20		µg/L	20	8/16/2005
Styrene	ND	20		µg/L	20	8/16/2005
tert-Butylbenzene	ND	20		µg/L	20	8/16/2005
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	8/16/2005
1,1,2,2-Tetrachloroethane	ND	20		µg/L	20	8/16/2005
Tetrachloroethene (PCE)	ND	20		µg/L	20	8/16/2005
trans-1,2-DCE	ND	20		µg/L	20	8/16/2005
trans-1,3-Dichloropropene	ND	20		µg/L	20	8/16/2005
1,2,3-Trichlorobenzene	ND	20		µg/L	20	8/16/2005
1,2,4-Trichlorobenzene	ND	20		µg/L	20	8/16/2005
1,1,1-Trichloroethane	ND	20		µg/L	20	8/16/2005
1,1,2-Trichloroethane	ND	20		µg/L	20	8/16/2005
Trichloroethene (TCE)	ND	20		µg/L	20	8/16/2005
Trichlorofluoromethane	ND	20		µg/L	20	8/16/2005
1,2,3-Trichloropropane	ND	40		µg/L	20	8/16/2005
Vinyl chloride	ND	20		µg/L	20	8/16/2005
Xylenes, Total	9900	100		µg/L	100	8/17/2005
Surr: 1,2-Dichloroethane-d4	99.5	87.7-108		%REC	20	8/16/2005
Surr: 4-Bromofluorobenzene	104	88.8-113		%REC	20	8/16/2005
Surr: Dibromofluoromethane	104	84.1-111		%REC	20	8/16/2005
Surr: Toluene-d8	95.3	85.9-109		%REC	20	8/16/2005

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

Date: 24-Aug-05

CLIENT: San Juan Refining
Lab Order: 0508092
Project: Annual Sampling 2005
Lab ID: 0508092-02

Client Sample ID: MW #48
Collection Date: 8/9/2005 9:05:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	2800	0.010		µmhos/cm	1	8/13/2005
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/11/2005 10:07:41 AM
Barium	0.23	0.0020		mg/L	1	8/11/2005 10:07:41 AM
Cadmium	ND	0.0020		mg/L	1	8/11/2005 10:07:41 AM
Calcium	100	10		mg/L	10	8/11/2005 11:55:35 AM
Chromium	ND	0.0060		mg/L	1	8/11/2005 10:07:41 AM
Copper	ND	0.0060		mg/L	1	8/11/2005 10:07:41 AM
Iron	ND	0.020		mg/L	1	8/11/2005 10:07:41 AM
Lead	0.012	0.0050		mg/L	1	8/11/2005 10:07:41 AM
Magnesium	20	1.0		mg/L	1	8/11/2005 10:07:41 AM
Manganese	0.12	0.0020		mg/L	1	8/11/2005 10:07:41 AM
Potassium	4.0	1.0		mg/L	1	8/11/2005 10:07:41 AM
Selenium	0.077	0.050		mg/L	1	8/11/2005 10:07:41 AM
Silver	ND	0.0050		mg/L	1	8/11/2005 10:07:41 AM
Sodium	510	10		mg/L	10	8/11/2005 11:55:35 AM
Uranium	ND	0.10		mg/L	1	8/11/2005 10:07:41 AM
Zinc	0.012	0.0050		mg/L	1	8/11/2005 10:07:41 AM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Chromium	ND	0.0060		mg/L	1	8/15/2005 12:56:42 PM
Lead	0.015	0.0050		mg/L	1	8/15/2005 12:56:42 PM
EPA METHOD 160.1: TDS						Analyst: DK
Total Dissolved Solids	1800	50		mg/L	1	8/12/2005

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

Date: 24-Aug-05

CLIENT: San Juan Refining
Lab Order: 0508092
Project: Annual Sampling 2005
Lab ID: 0508092-03

Client Sample ID: MW #49
Collection Date: 8/9/2005 8:45:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: CMC
Fluoride	0.37	0.10		mg/L	1	8/9/2005
Chloride	140	0.50		mg/L	5	8/10/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/9/2005
Bromide	ND	2.5		mg/L	5	8/10/2005
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/10/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/9/2005
Sulfate	280	5.0		mg/L	10	8/10/2005
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO3)	960	2.0		mg/L CaCO3	1	8/11/2005
Carbonate	ND	2.0		mg/L CaCO3	1	8/11/2005
Bicarbonate	960	2.0		mg/L CaCO3	1	8/11/2005
EPA METHOD 8260: VOLATILES						Analyst: HLM
Benzene	93	2.0		µg/L	2	8/17/2005
Toluene	ND	2.0		µg/L	2	8/17/2005
Ethylbenzene	15	2.0		µg/L	2	8/17/2005
Methyl tert-butyl ether (MTBE)	ND	2.0		µg/L	2	8/17/2005
1,2,4-Trimethylbenzene	34	2.0		µg/L	2	8/17/2005
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	8/17/2005
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	8/17/2005
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	8/17/2005
Naphthalene	9.1	4.0		µg/L	2	8/17/2005
1-Methylnaphthalene	ND	8.0		µg/L	2	8/17/2005
2-Methylnaphthalene	ND	8.0		µg/L	2	8/17/2005
Acetone	ND	20		µg/L	2	8/17/2005
Bromobenzene	ND	2.0		µg/L	2	8/17/2005
Bromochloromethane	ND	2.0		µg/L	2	8/17/2005
Bromodichloromethane	ND	2.0		µg/L	2	8/17/2005
Bromoform	ND	2.0		µg/L	2	8/17/2005
Bromomethane	ND	4.0		µg/L	2	8/17/2005
2-Butanone	ND	20		µg/L	2	8/17/2005
Carbon disulfide	ND	20		µg/L	2	8/17/2005
Carbon Tetrachloride	ND	2.0		µg/L	2	8/17/2005
Chlorobenzene	ND	2.0		µg/L	2	8/17/2005
Chloroethane	ND	4.0		µg/L	2	8/17/2005
Chloroform	ND	2.0		µg/L	2	8/17/2005
Chloromethane	ND	2.0		µg/L	2	8/17/2005
2-Chlorotoluene	ND	2.0		µg/L	2	8/17/2005
4-Chlorotoluene	ND	2.0		µg/L	2	8/17/2005
cis-1,2-DCE	ND	2.0		µg/L	2	8/17/2005
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	8/17/2005

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

Date: 24-Aug-05

CLIENT: San Juan Refining
Lab Order: 0508092
Project: Annual Sampling 2005
Lab ID: 0508092-03

Client Sample ID: MW #49
Collection Date: 8/9/2005 8:45:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	8/17/2005
Dibromochloromethane	ND	2.0		µg/L	2	8/17/2005
Dibromomethane	ND	4.0		µg/L	2	8/17/2005
1,2-Dichlorobenzene	ND	2.0		µg/L	2	8/17/2005
1,3-Dichlorobenzene	ND	2.0		µg/L	2	8/17/2005
1,4-Dichlorobenzene	ND	2.0		µg/L	2	8/17/2005
Dichlorodifluoromethane	ND	2.0		µg/L	2	8/17/2005
1,1-Dichloroethane	ND	2.0		µg/L	2	8/17/2005
1,1-Dichloroethene	ND	2.0		µg/L	2	8/17/2005
1,2-Dichloropropane	ND	2.0		µg/L	2	8/17/2005
1,3-Dichloropropane	ND	2.0		µg/L	2	8/17/2005
2,2-Dichloropropane	ND	2.0		µg/L	2	8/17/2005
1,1-Dichloropropene	ND	2.0		µg/L	2	8/17/2005
Hexachlorobutadiene	ND	2.0		µg/L	2	8/17/2005
2-Hexanone	ND	2.0		µg/L	2	8/17/2005
Isopropylbenzene	22	2.0		µg/L	2	8/17/2005
4-Isopropyltoluene	ND	2.0		µg/L	2	8/17/2005
4-Methyl-2-pentanone	ND	2.0		µg/L	2	8/17/2005
Methylene Chloride	ND	6.0		µg/L	2	8/17/2005
n-Butylbenzene	2.5	2.0		µg/L	2	8/17/2005
n-Propylbenzene	12	2.0		µg/L	2	8/17/2005
sec-Butylbenzene	ND	2.0		µg/L	2	8/17/2005
Styrene	ND	2.0		µg/L	2	8/17/2005
tert-Butylbenzene	ND	2.0		µg/L	2	8/17/2005
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	8/17/2005
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	2	8/17/2005
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	8/17/2005
trans-1,2-DCE	ND	2.0		µg/L	2	8/17/2005
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	8/17/2005
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	8/17/2005
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	8/17/2005
1,1,1-Trichloroethane	ND	2.0		µg/L	2	8/17/2005
1,1,2-Trichloroethane	ND	2.0		µg/L	2	8/17/2005
Trichloroethene (TCE)	ND	2.0		µg/L	2	8/17/2005
Trichlorofluoromethane	ND	2.0		µg/L	2	8/17/2005
1,2,3-Trichloropropane	ND	4.0		µg/L	2	8/17/2005
Vinyl chloride	ND	2.0		µg/L	2	8/17/2005
Xylenes, Total	4.1	2.0		µg/L	2	8/17/2005
Surr: 1,2-Dichloroethane-d4	97.2	87.7-108		%REC	2	8/17/2005
Surr: 4-Bromofluorobenzene	104	88.8-113		%REC	2	8/17/2005
Surr: Dibromofluoromethane	103	84.1-111		%REC	2	8/17/2005
Surr: Toluene-d8	91.7	85.9-109		%REC	2	8/17/2005

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

Date: 24-Aug-05

CLIENT: San Juan Refining
Lab Order: 0508092
Project: Annual Sampling 2005
Lab ID: 0508092-03

Client Sample ID: MW #49
Collection Date: 8/9/2005 8:45:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	2500	0.010		µmhos/cm	1	8/13/2005
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/11/2005 10:11:55 AM
Barium	0.24	0.0020		mg/L	1	8/11/2005 10:11:55 AM
Cadmium	ND	0.0020		mg/L	1	8/11/2005 10:11:55 AM
Calcium	120	10		mg/L	10	8/11/2005 11:58:25 AM
Chromium	ND	0.0060		mg/L	1	8/11/2005 10:11:55 AM
Copper	ND	0.0060		mg/L	1	8/11/2005 10:11:55 AM
Iron	0.72	0.020		mg/L	1	8/11/2005 10:11:55 AM
Lead	ND	0.0050		mg/L	1	8/11/2005 10:11:55 AM
Magnesium	29	1.0		mg/L	1	8/11/2005 10:11:55 AM
Manganese	1.9	0.0020		mg/L	1	8/11/2005 10:11:55 AM
Potassium	4.7	1.0		mg/L	1	8/11/2005 10:11:55 AM
Selenium	ND	0.050		mg/L	1	8/11/2005 10:11:55 AM
Silver	ND	0.0050		mg/L	1	8/11/2005 10:11:55 AM
Sodium	360	10		mg/L	10	8/11/2005 11:58:25 AM
Uranium	ND	0.10		mg/L	1	8/11/2005 10:11:55 AM
Zinc	0.0055	0.0050		mg/L	1	8/11/2005 10:11:55 AM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Chromium	0.013	0.0060		mg/L	1	8/15/2005 1:13:50 PM
Lead	0.0075	0.0050		mg/L	1	8/15/2005 1:13:50 PM
EPA METHOD 160.1: TDS						Analyst: DK
Total Dissolved Solids	1600	50		mg/L	1	8/12/2005

Qualifiers: ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT: San Juan Refining
 Work Order: 0508092
 Project: Annual Sampling 2005

QC SUMMARY REPORT

Method Blank

Sample ID	MBLK	Batch ID: R16247	Test Code: E300	Units: mg/L	Analysis Date 8/9/2005	Prep Date
Client ID:		Run ID: LC_050809A			SeqNo: 386710	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Fluoride	ND	0.1				
Chloride	ND	0.1				
Nitrogen, Nitrite (As N)	ND	0.1				
Bromide	ND	0.5				
Nitrogen, Nitrate (As N)	ND	0.1				
Phosphorus, Orthophosphate (As P)	ND	0.5				
Sulfate	ND	0.5				

Sample ID	MBLK	Batch ID: R16266	Test Code: E300	Units: mg/L	Analysis Date 8/10/2005	Prep Date
Client ID:		Run ID: LC_050810A			SeqNo: 387042	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Fluoride	ND	0.1				
Chloride	ND	0.1				
Nitrogen, Nitrite (As N)	ND	0.1				
Bromide	ND	0.5				
Nitrogen, Nitrate (As N)	ND	0.1				
Phosphorus, Orthophosphate (As P)	ND	0.5				
Sulfate	ND	0.5				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
Work Order: 0508092
Project: Annual Sampling 2005

Sample ID	MBLK	Batch ID: R16266	Test Code: E300	Units: mg/L	Analysis Date 8/10/2005	Prep Date					
Client ID:		Run ID: LC_050810A			SeqNo: 387086						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Bromide	ND	0.5									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									

Sample ID	MB	Batch ID: R16272	Test Code: SW6010A	Units: mg/L	Analysis Date	8/11/2005 8:57:51 AM	Prep Date				
Client ID:		Run ID:	ICP_050811B		SeqNo:	387315					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.02									
Cadmium	ND	0.002									
Calcium	ND	1									
Chromium	ND	0.006									
Copper	ND	0.006									
Iron	ND	0.02									
Lead	ND	0.005									
Magnesium	ND	1									
Manganese	ND	0.002									
Potassium	ND	1									
Selenium	ND	0.02									
Silver	ND	0.005									
Sodium	ND	1									
Uranium	ND	0.1									
Zinc	ND	0.05									

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank
2

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0508092
 Project: Annual Sampling 2005

Sample ID	MB-8517	Batch ID	8517	Test Code	SW6010A	Units	mg/L	Analysis Date	8/15/2005 12:28:52 PM	Prep Date	8/11/2005
Client ID:		Run ID:	ICP_050815A					SeqNo:	388298		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chromium		ND		0.006	0	0	0	0	0	0	
Lead		ND		0.005	0	0	0	0	0	0	

Sample ID	MB-8519	Batch ID	8519	Test Code	E160.1	Units	mg/L	Analysis Date	8/12/2005	Prep Date	8/11/2005
Client ID:		Run ID:	WC_050812E					SeqNo:	388615		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Total Dissolved Solids		ND									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

QC SUMMARY REPORT
Method Blank

CLIENT: San Juan Refining
 Work Order: 0508092
 Project: Annual Sampling 2005

Sample ID	5ml rb	Batch ID: R16318	Test Code: SW8260B	Units: µg/L	Analysis Date	8/16/2005	Prep Date				
Client ID:			Run ID: VAL_050816A		SeqNo: 388908						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1									
Toluene	ND	1									
Ethylbenzene	ND	1									
Methyl tert-butyl ether (MTBE)	ND	1									
1,2,4-Trimethylbenzene	ND	1									
1,3,5-Trimethylbenzene	ND	1									
1,2-Dichloroethane (EDC)	ND	1									
1,2-Dibromoethane (EDB)	ND	1									
Naphthalene	ND	2									
1-Methylnaphthalene	ND	4									
2-Methylnaphthalene	ND	4									
Acetone	ND	10									
Bromobenzene	ND	1									
Bromochloromethane	ND	1									
Bromodichloromethane	ND	1									
Bromoform	ND	1									
Bromomethane	ND	2									
2-Butanone	ND	10									
Carbon disulfide	ND	10									
Carbon Tetrachloride	ND	1									
Chlorobenzene	ND	1									
Chloroethane	ND	2									
Chloroform	ND	1									
Chloromethane	ND	1									
2-Chlorotoluene	ND	1									
4-Chlorotoluene	ND	1									
cis-1,2-DCE	ND	1									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank
 /

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
Work Order: 0508092
Project: Annual Sampling 2005

cis-1,3-Dichloropropene	ND	1
1,2-Dibromo-3-chloropropane	ND	2
Dibromochloromethane	ND	1
Dibromomethane	ND	2
1,2-Dichlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
Dichlorodifluoromethane	ND	1
1,1-Dichloroethane	ND	1
1,1-Dichloroethene	ND	1
1,2-Dichloropropane	ND	1
1,3-Dichloropropane	ND	1
2,2-Dichloropropane	ND	1
1,1-Dichloropropene	ND	1
Hexachlorobutadiene	ND	1
2-Hexanone	ND	10
Isopropylbenzene	ND	1
4-Isopropyltoluene	ND	1
4-Methyl-2-pentanone	ND	10
Methylene Chloride	ND	3
n-Butylbenzene	ND	1
n-Propylbenzene	ND	1
sec-Butylbenzene	ND	1
Styrene	ND	1
tert-Butylbenzene	ND	1
1,1,1,2-Tetrachloroethane	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene (PCE)	ND	1
trans-1,2-DCE	ND	1
trans-1,3-Dichloropropene	ND	1
1,2,3-Trichlorobenzene	ND	1
1,2,4-Trichlorobenzene	ND	1
1,1,1-Trichloroethane	ND	1

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT
Method Blank

CLIENT: San Juan Refining

Work Order: 0508092

Project: Annual Sampling 2005

[illegible]

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

3

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT: San Juan Refining
Work Order: 0508092
Project: Annual Sampling 2005

QC SUMMARY REPORT

Sample Duplicate

Sample ID	0508092-01B DUP	Batch ID: R16283	Test Code: E310.1	Units: mg/L CaCO3	Analysis Date 8/11/2005	Prep Date					
Client ID:	MW #12	Run ID:	WC_050811B	SeqNo:	387649						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	307	2	0	0	0	0	0	312	1.62	15	
Carbonate	ND	2	0	0	0	0	0	0	0	15	
Bicarbonate	307	2	0	0	0	0	0	312	1.62	15	

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT: San Juan Refining
 Work Order: 0508092
 Project: Annual Sampling 2005

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS	Batch ID: R16247	Test Code: E300	Units: mg/L	Analysis Date 8/9/2005	Prep Date					
Client ID:		Run ID: LC_050809A			SeqNo: 385711						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.5223	0.1	0.5	0	104	90	110	0			
Chloride	4.994	0.1	5	0	99.9	90	110	0			
Nitrogen, Nitrite (As N)	0.9494	0.1	1	0	94.9	90	110	0			
Bromide	2.637	0.5	2.5	0	105	90	110	0			
Nitrogen, Nitrate (As N)	2.525	0.1	2.5	0	101	90	110	0			
Phosphorus, Orthophosphate (As P)	5.092	0.5	5	0	102	90	110	0			
Sulfate	10.25	0.5	10	0	103	90	110	0			

Sample ID	LCS	Batch ID: R16266	Test Code: E300	Units: mg/L	Analysis Date 8/10/2005	Prep Date					
Client ID:		Run ID: LC_050810A			SeqNo: 387043						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4754	0.1	0.5	0	95.1	90	110	0			
Chloride	4.805	0.1	5	0	96.1	90	110	0			
Nitrogen, Nitrite (As N)	0.9043	0.1	1	0	90.4	90	110	0			
Bromide	2.525	0.5	2.5	0	101	90	110	0			
Nitrogen, Nitrate (As N)	2.424	0.1	2.5	0	97.0	90	110	0			
Phosphorus, Orthophosphate (As P)	5.01	0.5	5	0	100	90	110	0			
Sulfate	9.757	0.5	10	0	97.6	90	110	0			

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0508092
Project: Annual Sampling 2005

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	LCS	Batch ID: R16266	Test Code: E300	Units: mg/L	Analysis Date 8/10/2005	Prep Date					
Client ID:		Run ID: LC_050810A			SeqNo: 387087						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.495	0.1	0.5	0	99.0	90	110	0			
Chloride	4.883	0.1	5	0	97.7	90	110	0			
Nitrogen, Nitrite (As N)	0.9222	0.1	1	0	92.2	90	110	0			
Bromide	2.576	0.5	2.5	0	103	90	110	0			
Nitrogen, Nitrate (As N)	2.47	0.1	2.5	0	98.8	90	110	0			
Phosphorus, Orthophosphate (As P)	5.075	0.5	5	0	101	90	110	0			
Sulfate	9.928	0.5	10	0	99.3	90	110	0			

Sample ID	100ng Ics	Batch ID: R16318	Test Code: SW8260B	Units: µg/L	Analysis Date 8/16/2005	Prep Date					
Client ID:		Run ID: VAL_050816A			SeqNo: 388909						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.16	1	20	0	106	81.4	130	0			
Toluene	22.8	1	20	0	114	90.8	128	0			
Chlorobenzene	23.26	1	20	0	116	89.6	134	0			
1,1-Dichloroethene	20.37	1	20	0	102	75.1	120	0			
Trichloroethene (TCE)	17.95	1	20	0	89.8	75.8	110	0			

Sample ID	100ng Ics	Batch ID: R16334	Test Code: SW8260B	Units: µg/L	Analysis Date 8/17/2005	Prep Date					
Client ID:		Run ID: VAL_050817A			SeqNo: 389361						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	22.04	1	20	0	110	81.4	130	0			
Toluene	22.87	1	20	0	114	90.8	128	0			
Chlorobenzene	25.72	1	20	0	129	89.6	134	0			
1,1-Dichloroethene	20.58	1	20	0	103	75.1	120	0			
Trichloroethene (TCE)	18.9	1	20	0	94.5	75.8	110	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0508092
 Project: Annual Sampling 2005

Sample ID	LCS	Batch ID: R16272	Test Code: SW6010A	Units: mg/L	Analysis Date	8/11/2005 9:01:03 AM	Prep Date				
Client ID:		Run ID: ICP_050811B			SeqNo: 387316						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.533	0.02	0.5	0	107	80	120	0			
Barium	0.5048	0.02	0.5	0	101	80	120	0			
Cadmium	0.5223	0.002	0.5	0	104	80	120	0			
Calcium	51.98	1	50.5	0	103	80	120	0			
Chromium	0.5109	0.006	0.5	0	102	80	120	0			
Copper	0.5142	0.006	0.5	0	103	80	120	0			
Iron	0.498	0.02	0.5	0	99.6	80	120	0			
Lead	0.5109	0.005	0.5	0	102	80	120	0			
Magnesium	51.93	1	50.5	0	103	80	120	0			
Manganese	0.4902	0.002	0.5	0	98.0	80	120	0			
Potassium	54.41	1	55	0	98.9	80	120	0			
Selenium	0.5129	0.02	0.5	0	103	80	120	0			
Silver	0.5283	0.005	0.5	0	106	80	120	0			
Sodium	55.22	1	50.5	0	109	80	120	0			
Uranium	2.601	0.1	2.5	0	104	80	120	0			
Zinc	0.5238	0.05	0.5	0	105	80	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

CLIENT: San Juan Refining
 Work Order: 0508092
 Project: Annual Sampling 2005

Sample ID	LCSD	Batch ID: R16272	Test Code: SW6010A		Units: mg/L	Analysis Date 8/11/2005 9:04:22 AM		Prep Date			
Client ID:			Run ID:	ICP_050811B		SeqNo:	387317				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5505	0.02	0.5	0	110	80	120	0.533	3.23	20	
Barium	0.5126	0.02	0.5	0	103	80	120	0.5048	1.53	20	
Cadmium	0.5311	0.002	0.5	0	106	80	120	0.5223	1.67	20	
Calcium	52.69	1	50.5	0	104	80	120	51.98	1.36	20	
Chromium	0.5196	0.006	0.5	0	104	80	120	0.5109	1.69	20	
Copper	0.5182	0.006	0.5	0	104	80	120	0.5142	0.774	20	
Iron	0.5	0.02	0.5	0	100	80	120	0.498	0.389	20	
Lead	0.5198	0.005	0.5	0	104	80	120	0.5109	1.74	20	
Magnesium	52.6	1	50.5	0	104	80	120	51.93	1.28	20	
Manganese	0.496	0.002	0.5	0	99.2	80	120	0.4902	1.19	20	
Potassium	55.16	1	55	0	100	80	120	54.41	1.36	20	
Selenium	0.533	0.02	0.5	0	107	80	120	0.5129	3.83	20	
Silver	0.5233	0.005	0.5	0	105	80	120	0.5283	0.954	20	
Sodium	55.88	1	50.5	0	111	80	120	55.22	1.19	20	
Uranium	2.61	0.1	2.5	0	104	80	120	2.601	0.322	20	
Zinc	0.5347	0.05	0.5	0	107	80	120	0.5238	2.06	20	

Sample ID	LCS-8517	Batch ID: 8517	Test Code: SW6010A	Units: mg/L	Analysis Date	8/15/2005 12:32:07 PM	Prep Date	8/11/2005			
Client ID:			Run ID: ICP_050815A		SeqNo: 388299						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.4884	0.006	0.5	0	97.7	80	120	0			
Lead	0.4996	0.005	0.5	0	99.9	80	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

CLIENT: San Juan Refining
 Work Order: 0508092
 Project: Annual Sampling 2005

Sample ID	LCS-D-8517	Batch ID	8517	Test Code	SW6010A	Units	mg/L	Analysis Date	8/15/2005 12:35:41 PM	Prep Date	8/11/2005
Client ID:		Run ID:	ICP_050815A					SeqNo:	388300		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chromium		0.4983	0.008		0.5	0	99.7	80	120	0.4884	2.00 20
Lead		0.5095	0.005		0.5	0	102	80	120	0.4996	1.98 20

Sample ID	LCS-8519	Batch ID	8519	Test Code	E160.1	Units	mg/L	Analysis Date	8/12/2005	Prep Date	8/11/2005
Client ID:		Run ID:	WC_050812E					SeqNo:	388616		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Total Dissolved Solids		1005	50		1000	0	101	80	120	0	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

8/9/2005

Work Order Number 0508092

Received by AT

Checklist completed by

Signature

Date

8/9/05

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 - 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 _____

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Annual Sampling 2005

ANALYSIS REQUEST

Project Manager:

Sampler: Cindy Hurtado/Angela Folk
Sample Temperature: 27.5

Sample Temperature:

[illegible]

Received By: Signature: 1.8/10/15

11/10/24

Received By: (Signature)

GIANT

REFINING COMPANY

2005 OCT 12 PM 1 21

Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

Certified Mail: 7004 2510 0005 1641 4507

August 4, 2005

RE: Giant Refining Company, Bloomfield Refinery
EPA ID# NMD089416416
GW - 001

Dear Mr. Price,

Please find attached analytical results for the July 6, 2005 sampling event for wells MW #48 and MW #49 on the river terrace at the Giant Refining facility. Note that the results for well MW #49, located down gradient of the barrier wall, had a detection of benzene at a concentration of 35 ug/L. A BTEX sample was taken out of the San Juan River adjacent to MW #49. The results of that sample were non detect. We will continue to monitor both wells on a monthly basis and evaluate the concentration trends.

Tank #33 and Fresh Water Pond samples were pulled on July 6, 2005. Analytical results are included with this packet. Tank #33 benzene levels were non detect. Fresh Water Pond results were all non detect.

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

Sincerely,



Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc. Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

COVER LETTER

July 29, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace - 7/05

Order No.: 0507047

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 4 samples on 7/7/2005 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

Date: 29-Jul-05

CLIENT: San Juan Refining
Lab Order: 0507047
Project: River Terrace - 7/05
Lab ID: 0507047-01

Client Sample ID: MW #49
Collection Date: 7/6/2005 11:00:00 AM
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	7/12/2005 6:02:54 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/12/2005 6:02:54 AM
Surr: DNOP	134	58-140		%REC	1	7/12/2005 6:02:54 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.33	0.050		mg/L	1	7/19/2005 2:03:08 PM
Surr: BFB	109	78.3-120		%REC	1	7/19/2005 2:03:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/19/2005 2:03:08 PM
Benzene	35	0.50		µg/L	1	7/19/2005 2:03:08 PM
Toluene	ND	0.50		µg/L	1	7/19/2005 2:03:08 PM
Ethylbenzene	3.8	0.50		µg/L	1	7/19/2005 2:03:08 PM
Xylenes, Total	5.1	0.50		µg/L	1	7/19/2005 2:03:08 PM
Surr: 4-Bromofluorobenzene	111	83.3-121		%REC	1	7/19/2005 2:03:08 PM
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	ND	2.5		µg/L	1	7/20/2005 3:12:42 PM
1-Methylnaphthalene	ND	2.5		µg/L	1	7/20/2005 3:12:42 PM
2-Methylnaphthalene	ND	2.5		µg/L	1	7/20/2005 3:12:42 PM
Acenaphthylene	ND	2.5		µg/L	1	7/20/2005 3:12:42 PM
Acenaphthene	ND	2.5		µg/L	1	7/20/2005 3:12:42 PM
Fluorene	ND	0.80		µg/L	1	7/20/2005 3:12:42 PM
Phenanthrene	ND	0.60		µg/L	1	7/20/2005 3:12:42 PM
Anthracene	ND	0.60		µg/L	1	7/20/2005 3:12:42 PM
Fluoranthene	ND	0.30		µg/L	1	7/20/2005 3:12:42 PM
Pyrene	ND	0.30		µg/L	1	7/20/2005 3:12:42 PM
Benz(a)anthracene	ND	0.020		µg/L	1	7/20/2005 3:12:42 PM
Chrysene	ND	0.20		µg/L	1	7/20/2005 3:12:42 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	7/20/2005 3:12:42 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	7/20/2005 3:12:42 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	7/20/2005 3:12:42 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	7/20/2005 3:12:42 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	7/20/2005 3:12:42 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	7/20/2005 3:12:42 PM
Surr: Benzo(e)pyrene	87.4	54-102		%REC	1	7/20/2005 3:12:42 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

Date: 29-Jul-05

CLIENT: San Juan Refining
Lab Order: 0507047
Project: River Terrace - 7/05
Lab ID: 0507047-02

Client Sample ID: River near MW #49
Collection Date: 7/6/2005 11:10:00 AM

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	7/20/2005 11:26:24 AM
Benzene	ND	0.50		µg/L	1	7/20/2005 11:26:24 AM
Toluene	ND	0.50		µg/L	1	7/20/2005 11:26:24 AM
Ethylbenzene	ND	0.50		µg/L	1	7/20/2005 11:26:24 AM
Xylenes, Total	ND	0.50		µg/L	1	7/20/2005 11:26:24 AM
Surr: 4-Bromofluorobenzene	96.2	83.3-121		%REC	1	7/20/2005 11:26:24 AM

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

Date: 29-Jul-05

CLIENT: San Juan Refining
Lab Order: 0507047
Project: River Terrace - 7/05
Lab ID: 0507047-03

Client Sample ID: MW #48
Collection Date: 7/6/2005 10:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	6.5	1.0		mg/L	1	7/12/2005 6:35:59 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/12/2005 6:35:59 AM
Surr: DNOP	137	58-140		%REC	1	7/12/2005 6:35:59 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	26	2.0		mg/L	40	7/19/2005 4:09:37 PM
Surr: BFB	111	78.3-120		%REC	40	7/19/2005 4:09:37 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	100		µg/L	40	7/19/2005 4:09:37 PM
Benzene	730	20		µg/L	40	7/19/2005 4:09:37 PM
Toluene	ND	20		µg/L	40	7/19/2005 4:09:37 PM
Ethylbenzene	2000	20		µg/L	40	7/19/2005 4:09:37 PM
Xylenes, Total	11000	100		µg/L	200	7/20/2005 11:57:20 AM
Surr: 4-Bromofluorobenzene	112	83.3-121		%REC	40	7/19/2005 4:09:37 PM
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	410	13		µg/L	5	7/28/2005 5:58:30 AM
1-Methylnaphthalene	97	2.5		µg/L	1	7/20/2005 4:00:40 PM
2-Methylnaphthalene	120	2.5		µg/L	1	7/20/2005 4:00:40 PM
Acenaphthylene	ND	2.5		µg/L	1	7/20/2005 4:00:40 PM
Acenaphthene	ND	2.5		µg/L	1	7/20/2005 4:00:40 PM
Fluorene	0.87	0.80		µg/L	1	7/20/2005 4:00:40 PM
Phenanthrene	2.5	0.60		µg/L	1	7/20/2005 4:00:40 PM
Anthracene	ND	0.60		µg/L	1	7/20/2005 4:00:40 PM
Fluoranthene	ND	0.30		µg/L	1	7/20/2005 4:00:40 PM
Pyrene	ND	0.30		µg/L	1	7/20/2005 4:00:40 PM
Benz(a)anthracene	ND	0.020		µg/L	1	7/20/2005 4:00:40 PM
Chrysene	ND	0.20		µg/L	1	7/20/2005 4:00:40 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	7/20/2005 4:00:40 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	7/20/2005 4:00:40 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	7/20/2005 4:00:40 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	7/20/2005 4:00:40 PM
Benzo(g,h,i)perylene	0.16	0.030		µg/L	1	7/20/2005 4:00:40 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	7/20/2005 4:00:40 PM
Surr: Benzo(e)pyrene	90.1	54-102		%REC	1	7/20/2005 4:00:40 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

Date: 29-Jul-05

CLIENT: San Juan Refining
Lab Order: 0507047
Project: River Terrace - 7/05
Lab ID: 0507047-04

Client Sample ID: TRIP BLANK

Collection Date:

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	7/19/2005 4:41:39 PM
Surr: BFB	95.1	78.3-120		%REC	1	7/19/2005 4:41:39 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/19/2005 4:41:39 PM
Benzene	ND	0.50		µg/L	1	7/19/2005 4:41:39 PM
Toluene	ND	0.50		µg/L	1	7/19/2005 4:41:39 PM
Ethylbenzene	ND	0.50		µg/L	1	7/19/2005 4:41:39 PM
Xylenes, Total	ND	0.50		µg/L	1	7/19/2005 4:41:39 PM
Surr: 4-Bromofluorobenzene	99.8	83.3-121		%REC	1	7/19/2005 4:41:39 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

Date: 29-Jul-05

CLIENT: San Juan Refining
Work Order: 0507047
Project: River Terrace - 7/05

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8317	Batch ID:	8317	Test Code:	SW8015	Units:	mg/L	Analysis Date	7/12/2005 4:23:35 AM	Prep Date	7/11/2005
Client ID:		Run ID:		PQL	FID(17A) 2_050711A	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	SeqNo: 379148
Analyte		Result									
Diesel Range Organics (DRO)		ND		1							
Motor Oil Range Organics (MRO)		ND		5							
Surr: DNOP		1.127		0	1	0	0	113	58	140	0

Sample ID	Reagent Blank	Batch ID:	R16034	Test Code:	SW8015	Units:	mg/L	Analysis Date	7/19/2005 9:21:22 AM	Prep Date	
Client ID:		Run ID:		PQL	PIDFID_050719A	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	SeqNo: 381013
Analyte		Result									
Gasoline Range Organics (GRO)		0.0116		0.05							
Surr: BFB		18.73		0	20	0	0	93.6	78.3	120	0

Sample ID	Reagent Blank	Batch ID:	R16047	Test Code:	SW8015	Units:	mg/L	Analysis Date	7/20/2005 9:18:20 AM	Prep Date	
Client ID:		Run ID:		PQL	PIDFID_050720A	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	SeqNo: 381413
Analyte		Result									
Gasoline Range Organics (GRO)		0.014		0.05							
Surr: BFB		19.3		0	20	0	0	96.5	78.3	120	0

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
Work Order: 0507047
Project: River Terrace - 7/05

Sample ID	Reagent Blank	Batch ID: R16034	Test Code: SW8021	Units: µg/L	Analysis Date 7/19/2005 9:21:22 AM	Prep Date					
Client ID:			Run ID: PIDFID_050719A		SeqNo: 380900						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	18.86	0	20	0	94.3	83.3	121	0			

Sample ID	Reagent Blank	Batch ID: R16047	Test Code: SW8021	Units: µg/L	Analysis Date 7/20/2005 9:18:20 AM	Prep Date					
Client ID:			Run ID: PIDFID_050720A		SeqNo: 381328						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	19.53	0	20	0	97.7	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
Work Order: 0507047
Project: River Terrace - 7/05

Sample ID	MB-8318	Batch ID: 8318	Test Code: SW8310	Units: µg/L	Analysis Date	7/20/2005 10:26:02 AM	Prep Date	7/11/2005			
Client ID:			Run ID:	HUGO_050719A	SeqNo:	382145					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	2.5									
1-Methylnaphthalene	ND	2.5									
2-Methylnaphthalene	ND	2.5									
Acenaphthylene	ND	2.5									
Acenaphthene	ND	2.5									
Fluorene	ND	0.8									
Phenanthrene	ND	0.6									
Anthracene	ND	0.6									
Fluoranthene	ND	0.3									
Pyrene	ND	0.3									
Benz(a)anthracene	ND	0.02									
Chrysene	ND	0.2									
Benzo(b)fluoranthene	ND	0.05									
Benzo(k)fluoranthene	ND	0.02									
Benzo(a)pyrene	ND	0.02									
Dibenz(a,h)anthracene	ND	0.04									
Benzo(g,h,i)perylene	ND	0.03									
Indeno(1,2,3-cd)pyrene	ND	0.08									
Surr: Benzo(e)pyrene	7.6	0	10	0	76.0	54	102	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 29-Jul-05

CLIENT: San Juan Refining
Work Order: 0507047
Project: River Terrace - 7/05

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0507047-01a ms	Batch ID: R16034	Test Code: SW8015	Units: mg/L	Analysis Date	7/19/2005 2:34:33 PM	Prep Date				
Client ID:	MW #49	Run ID:	PIDFID_050719A	SeqNo:	381025						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.7948	0.05	0.5	0.327	93.6	82.6	114	0			
Surr: BFB	26.95	0	25	0	108	78.3	120	0			

Sample ID	0507047-01a msd	Batch ID: R16034	Test Code: SW8015	Units: mg/L	Analysis Date	7/19/2005 3:06:18 PM	Prep Date				
Client ID:	MW #49	Run ID:	PIDFID_050719A	SeqNo:	381027						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.7952	0.05	0.5	0.327	93.6	82.6	114	0.7948	0.0503	8.39	
Surr: BFB	26.69	0	25	0	107	78.3	120	26.95	0.979	0	

Sample ID	0507047-01a ms	Batch ID: R16034	Test Code: SW8021	Units: µg/L	Analysis Date	7/19/2005 2:34:33 PM	Prep Date				
Client ID: MW #49			Run ID: PIDFID_050719A		SeqNo: 380908						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	44.39	0.5	8	35.48	111	88.7	114	0			
Toluene	33.33	0.5	34	0.29	97.2	89.3	112	0			
Ethylbenzene	15.83	0.5	12	3.776	100	88.6	113	0			
Xylenes, Total	37.28	0.5	34	5.131	94.6	89.4	112	0			
Surr: 4-Bromofluorobenzene	25.75	0	25	0	103	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

CLIENT: San Juan Refining
 Work Order: 0507047
 Project: River Terrace - 7/05

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID	0507047-01a.ms	Batch ID: R16034	Test Code: SW8021	Units: µg/L	Analysis Date	7/19/2005 3:06:18 PM	Prep Date				
Client ID:	MW #49	Run ID:	PIDFID_050719A		SeqNo:	380909					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.83	0.5	8	35.48	79.4	88.7	114	44.39	5.93	27	S
Toluene	33.04	0.5	34	0.29	96.3	89.3	112	33.33	0.879	19	
Ethylbenzene	15.32	0.5	12	3.776	96.2	88.6	113	15.83	3.29	10	
Xylenes, Total	37.48	0.5	34	5.131	95.2	89.4	112	37.28	0.549	13	
Surr: 4-Bromofluorobenzene	25.98	0	25	0	104	83.3	121	25.75	0.895	0	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 29-Jul-05

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
Work Order: 0507047
Project: River Terrace - 7/05

Sample ID	LCS-8317	Batch ID: 8317	Test Code: SW8015	Units: mg/L	Analysis Date	7/12/2005 4:56:42 AM	Prep Date	7/11/2005				
Client ID:			Run ID: FID(17A) 2_050711A		SeqNo:	379149						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		5.736	1	5	0	115	81.2	149	0			

Sample ID	LCSD-8317	Batch ID: 8317	Test Code: SW8015		Units: mg/L		Analysis Date 7/12/2005 5:29:47 AM		Prep Date 7/11/2005			
Client ID:			Run ID:	FID(17A) 2_050711A		SeqNo: 379150						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		6.942	1	5	0	139	81.2	149	5.736	19.0	23	

Sample ID	LCSD-8317	Batch ID: 8317	Test Code: SW8015	Units: mg/L	Analysis Date	7/20/2005 7:58:28 AM	Prep Date	7/11/2005				
Client ID:			Run ID: FID(17A) 2_050719A		SeqNo:	381026						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		10.94	1	10	0	109	81.2	149	5.736	62.4	23	R

Sample ID	GRO lcs 2.5ug	Batch ID: R16034	Test Code: SW8015	Units: mg/L	Analysis Date	7/20/2005 1:02:35 AM	Prep Date					
Client ID:			Run ID: PIDFID_050719A		SeqNo:	381015						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.4292	0.05	0.5	0.0116	83.5	82.6	114	0			

Sample ID	GRO lcs 2.5ug	Batch ID: R16047	Test Code: SW8015	Units: mg/L	Analysis Date	7/21/2005 2:57:29 AM	Prep Date					
Client ID:			Run ID: PIDFID_050720A		SeqNo:	381592						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.456	0.05	0.5	0.014	88.4	82.6	114	0			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

CLIENT: San Juan Refining
 Work Order: 0507047
 Project: River Terrace - 7/05

Sample ID	GRO lcsd 2.5ug	Batch ID: R16047	Test Code: SW8015		Units: mg/L		Analysis Date 7/21/2005 3:27:42 AM		Prep Date		
Client ID:			Run ID:	PIDFID_050720A			SeqNo:	381593			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.4874	0.05	0.5	0.014	94.7	82.6	114	0.456	6.66	8.39	

Sample ID	BTEX lcs 100ng	Batch ID: R16034	Test Code: SW8021	Units: µg/L	Analysis Date	7/20/2005 2:03:39 AM	Prep Date				
Client ID:			Run ID: PIDFID_050719A		SeqNo: 380901						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	23.56	2.5	40	0	58.9	64.5	133	0			S
	20.04	0.5	20	0	100	88.7	114	0			
	19.49	0.5	20	0	97.4	89.3	112	0			
	19.32	0.5	20	0	96.6	88.6	113	0			
	39.2	0.5	60	0	65.3	89.4	112	0			S

Sample ID	BTEX lcs 100ng	Batch ID: R16047	Test Code: SW8021	Units: µg/L	Analysis Date	7/20/2005 9:52:32 PM	Prep Date				
Client ID:			Run ID: PIDFID_050720A		SeqNo:	381330					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	26.36	2.5	20	0	132	64.5	133	0			
Benzene	20.03	0.5	20	0	100	88.7	114	0			
Toluene	19.28	0.5	20	0	96.4	89.3	112	0			
Ethylbenzene	19.56	0.5	20	0	97.8	88.6	113	0			
Xylenes, Total	39.49	0.5	40	0	98.7	89.4	112	0			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining

Work Order: 0507047

Project: River Terrace - 7/05

Sample ID LCS-8318 Batch ID: 8318 Test Code: SW8310 Units: µg/L Analysis Date 7/20/2005 1:36:45 PM Prep Date 7/11/2005

Client ID: Run ID: HUGO_050719A SeqNo: 382149

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	25.93	2.5	40	0	64.8	34.8	97.4	0			
1-Methylnaphthalene	26.49	2.5	40.1	0	66.1	34.7	100	0			
2-Methylnaphthalene	25.69	2.5	40	0	64.2	35	98.1	0			
Acenaphthylene	28.76	2.5	40.1	0	71.7	48.3	95.1	0			
Acenaphthene	27.51	2.5	40	0	68.8	45	95	0			
Fluorene	2.8	0.8	4.01	0	69.8	46.8	93.4	0			
Phenanthrene	1.5	0.6	2.01	0	74.6	48.7	104	0			
Anthracene	1.51	0.6	2.01	0	75.1	47.5	102	0			
Fluoranthene	3.26	0.3	4.01	0	81.3	46.3	108	0			
Pyrene	3.01	0.3	4.01	0	75.1	43.8	109	0			
Benz(a)anthracene	0.33	0.02	0.401	0	82.3	40.3	115	0			
Chrysene	1.61	0.2	2.01	0	80.1	42.6	107	0			
Benzo(b)fluoranthene	0.36	0.05	0.501	0	71.9	48.6	107	0			
Benzo(k)fluoranthene	0.2	0.02	0.25	0	80.0	23.3	136	0			
Benzo(a)pyrene	0.18	0.02	0.251	0	71.7	33.4	117	0			
Dibenz(a,h)anthracene	0.42	0.04	0.501	0	83.8	27.3	139	0			
Benzo(g,h,i)perylene	0.38	0.03	0.5	0	76.0	38.2	117	0			
Indeno(1,2,3-cd)pyrene	0.798	0.08	1.002	0	79.6	39.9	125	0			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits * R - RPD outside accepted recovery limits 3

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

CLIENT: San Juan Refining
 Work Order: 0507047
 Project: River Terrace - 7/05

Sample ID	LCSD-8318	Batch ID: 8318	Test Code: SW8310	Units: µg/L	Analysis Date	7/20/2005 2:24:43 PM	Prep Date	7/11/2005				
Client ID:	Run ID:	HUGO_050719A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result											
Naphthalene	29.45	2.5	40	0	0	73.6	34.8	97.4	25.93	12.7	32.1	
1-Methylnaphthalene	28.7	2.5	40.1	0	0	71.6	34.7	100	26.49	8.01	32.7	
2-Methylnaphthalene	28.1	2.5	40	0	0	70.3	35	98.1	25.69	8.96	34	
Acenaphthylene	30.25	2.5	40.1	0	0	75.4	48.3	95.1	28.76	5.03	38.8	
Acenaphthene	29.16	2.5	40	0	0	72.9	45	95	27.51	5.82	38.6	
Fluorene	2.9	0.8	4.01	0	0	72.3	46.8	93.4	2.8	3.51	39.3	
Phenanthrene	1.6	0.6	2.01	0	0	79.6	48.7	104	1.5	6.45	25	
Anthracene	1.59	0.6	2.01	0	0	79.1	47.5	102	1.51	5.16	23.9	
Fluoranthene	3.32	0.3	4.01	0	0	82.8	46.3	108	3.26	1.82	15.7	
Pyrene	3.05	0.3	4.01	0	0	76.1	43.8	109	3.01	1.32	15.3	
Benz(a)anthracene	0.32	0.02	0.401	0	0	79.8	40.3	115	0.33	3.08	119	
Chrysene	1.51	0.2	2.01	0	0	75.1	42.6	107	1.61	6.41	16.6	
Benzo(b)fluoranthene	0.36	0.05	0.501	0	0	71.9	48.6	107	0.36	0	21.7	
Benzo(k)fluoranthene	0.21	0.02	0.25	0	0	84.0	23.3	136	0.2	4.88	19.4	
Benzo(a)pyrene	0.2	0.02	0.251	0	0	79.7	33.4	117	0.18	10.5	16.7	
Dibenz(a,h)anthracene	0.43	0.04	0.501	0	0	85.8	27.3	139	0.42	2.35	17.3	
Benzo(g,h,i)perylene	0.39	0.03	0.5	0	0	78.0	38.2	117	0.38	2.60	118	
Indeno(1,2,3-cd)pyrene	0.814	0.08	1.002	0	0	81.2	39.9	125	0.798	1.99	17.7	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

Work Order Number 0507047

Received by AT

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 - 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

July 20, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: TK #33 Effluent

Order No.: 0507046

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 2 samples on 7/7/2005 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

Date: 20-Jul-05

CLIENT: San Juan Refining
Project: TK #33 Effluent**Lab Order:** 0507046**Lab ID:** 0507046-01**Collection Date:** 7/6/2005 11:30:00 AM**Client Sample ID:** TK #33**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.50		µg/L	1	7/19/2005 1:00:36 PM
Toluene	ND	0.50		µg/L	1	7/19/2005 1:00:36 PM
Ethylbenzene	ND	0.50		µg/L	1	7/19/2005 1:00:36 PM
Xylenes, Total	ND	0.50		µg/L	1	7/19/2005 1:00:36 PM
Surr: 4-Bromofluorobenzene	102	83.3-121		%REC	1	7/19/2005 1:00:36 PM

Lab ID: 0507046-02**Collection Date:** 7/6/2005 11:35:00 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	0.50		µg/L	1	7/19/2005 1:31:41 PM
Toluene	ND	0.50		µg/L	1	7/19/2005 1:31:41 PM
Ethylbenzene	ND	0.50		µg/L	1	7/19/2005 1:31:41 PM
Xylenes, Total	ND	0.50		µg/L	1	7/19/2005 1:31:41 PM
Surr: 4-Bromofluorobenzene	97.5	83.3-121		%REC	1	7/19/2005 1:31:41 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

Date: 20-Jul-05

CLIENT: San Juan Refining
 Work Order: 0507046
 Project: TK #33 Effluent

QC SUMMARY REPORT
 Method Blank

Sample ID	Reagent Blank	Batch ID: R16034	Test Code: SW8021	Units: µg/L	Analysis Date 7/19/2005 9:21:22 AM		Prep Date				
Client ID:			Run ID: PIDFID_050719A		SeqNo: 380900						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	18.86	0	20	0	94.3	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank
 /

Hall Environmental Analysis Laboratory

Date: 20-Jul-05

CLIENT: San Juan Refining

Work Order: 0507046

Project: TK #33 Effluent

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	BTEX Ics 100ng	Batch ID: R16034	Test Code: SW8021	Units: µg/L	Analysis Date	7/20/2005 2:03:39 AM	Prep Date				
Client ID:			Run ID: PIDFID_050719A		SeqNo:	380901					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.04	0.5	20	0	100	88.7	114	0			
Toluene	19.49	0.5	20	0	97.4	89.3	112	0			
Ethylbenzene	19.32	0.5	20	0	96.6	88.6	113	0			
Xylenes, Total	39.2	0.5	60	0	65.3	89.4	112	0			S

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

Work Order Number 0507046

Received by AT

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 - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒	
Container/Temp Blank temperature?	10°	4° C ± 2 Acceptable		If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

GIANT

REFINING COMPANY

Wayne Price

New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

RECEIVED

JUN 20 2005

**OIL CONSERVATION
DIVISION**

Certified Mail: 7001 1140 0000 4022 0828

June 17, 2005

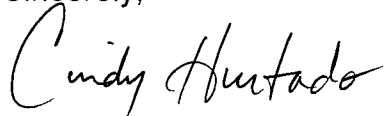
**RE: Giant Refining Company, Bloomfield Refiner
EPA ID# NMD089416416
GW - 001**

Dear Mr. Price,

Please find attached draft results of all analytical and collected data requested by NMED as a condition of approval for the North Boundary Barrier Collection System Design and Monitoring Plan Phase II. Please note that RW #1, RW #9, RW #22, RW #23, and RW #28 are active recovery wells and were not measured. MW #24 was designed for air sparging activities and does not accommodate monitoring.

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

Sincerely,



Cindy Hurtado
Environmental Assistant
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Supervisor – Giant Refining

PHONE

505-632-8013

FAX

505-632-3911

50 ROAD 4990

P.O. BOX 159

BLOOMFIELD

NEW MEXICO

87413

PHASE II Collected Data - 2005

	May 9, 2005		May 12, 2005		May 17, 2005		May 19, 2005		May 24, 2005		May 26, 2005		May 31, 2005		Total Well Depth
	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	
OW 0+60	14.03	13.61	14.09	13.63	14.31	13.26	14.16	13.69	14.22	13.72	14.28	13.74	14.44	13.75	14.98
OW 1+50	13.21	13.19	14.29	13.22	14.13	13.65	14.25	13.28	14.35	13.33	14.38	13.36	14.42	13.41	14.98
OW 3+85	13.10	11.95	13.1	11.95	13.14	12.02	13.18	12.03	13.22	12.07	13.24	12.1	13.31	12.13	15.06
OW 5+50	Dry	Dry	Dry	13.88	13.16	12.02	Dry	13.4	Dry	13.27	Dry	13.24	Dry	13.22	14.09
OW 6+70	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	14.67
OW 8+10	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	17.99
OW 11+15	11.45	0	11.5	0	11.49	0	11.52	0	11.54	0	11.55	0	11.56	0	16.67
OW 14+10	12.25	0	12.3	0	12.3	0	12.32	0	12.33	0	12.3	0	12.37	12.36	13.03
OW 16+60	12.78	11.92	12.78	11.9	12.79	12.02	12.83	12.02	12.78	12.06	12.79	12.03	12.74	12.11	15.21
OW 19+50	11.27	0	11.93	0	12.64	0	12.38	0	12.03	0	11.94	0	11.8	0	13.07
OW 22+00	10.62	0	10.67	0	10.73	0	10.72	0	10.73	0	10.75	0	10.77	0	14.31
OW 23+10	13.58	0	13.58	0	13.63	0	13.62	0	13.62	0	13.61	0	13.61	0	15.79
OW 23+90	13.96	0	13.96	0	14.01	0	13.99	0	13.99	0	13.99	0	13.98	0	15.07
OW 25+70	10.69	0	10.69	0	10.71	0	10.72	0	10.72	0	10.72	0	10.72	0	14.01

DTW = Depth to Water

DTP = Depth to Product

PHASE II Collected Data - 2005

	May 9, 2005		May 12, 2005		May 17, 2005		May 19, 2005		May 24, 2005		May 26, 2005		May 31, 2005		Total Well Depth
	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	
CW 0+60	8.68	0	8.74	0	8.76	0	8.79	0	8.8	0	8.82	0	8.82	0	14.93
CW 1+50	6.71	0	6.76	0	6.8	0	6.82	0	6.82	0	6.83	0	6.85	0	13.84
CW 3+85	7.41	0	7.51	0	7.48	0	7.52	0	7.56	0	7.52	0	7.52	0	15.21
CW 5+50	7.37	0	7.4	0	7.37	0	7.4	0	7.38	0	7.38	0	7.38	0	13.45
CW 6+70	7.80	0	7.91	0	7.86	0	7.9	0	7.88	0	7.89	0	7.85	0	12.7
CW 8+10	7.78	0	7.85	0	7.8	0	7.88	0	7.84	0	7.86	0	7.85	0	12.02
CW 8+45	9.78	9.32	9.64	9.44	9.77	9.35	9.74	9.46	9.6	9.42	9.7	9.37	9.86	9.38	14.95
CW 11+15	7.39	7.27	7.39	7.35	7.41	7.34	7.5	7.4	7.47	7.37	7.42	7.32	7.47	7.37	13.88
CW 14+10	7.43	0	7.52	0	7.45	0	7.56	0	7.54	0	7.52	0	7.52	0	14.09
CW 16+60	8.34	0	8.39	0	8.35	0	8.36	0	8.38	0	8.39	0	8.4	0	14.87
CW 19+50	8.58	0	8.61	0	8.57	0	8.66	0	8.62	0	8.63	0	8.61	0	12.07
CW 22+00	10.97	0	10.98	0	10.98	0	11	0	11	0	11	0	10.77	0	14.1
CW 23+10	11.53	0	11.53	0	11.53	0	11.56	0	11.54	0	11.55	0	11.55	0	15.5
CW 23+90	9.27	0	9.27	0	9.28	0	9.29	0	9.28	0	9.28	0	9.27	0	12.66
CW 25+95	9.02	0	9.02	0	9.02	0	9.02	0	9.01	0	9.02	0	9.01	0	14.07

DTW = Depth to Water

DTP = Depth to Product

PHASE II Collected Data - 2005

	May 9, 2005		May 12, 2005		May 17, 2005		May 19, 2005		May 24, 2005		May 26, 2005		May 31, 2005		Total
	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	Well Depth
MW #11	11.30	0	11.32	0	11.35	0	11.37	0	11.43	0	11.4	0	11.5	0	22.94
MW #12	10.43	0	10.45	0	10.51	0	10.57	0	10.68	0	10.63	0	10.85	0	14.98
MW #20	21.18	20.91	21.2	20.92	21.18	20.89	21.2	20.93	21.19	20.91	21.2	20.91	21.18	20.9	27.13
MW #21	21.99	21.98	21.98	21.97	21.97	21.96	21.97	21.98	21.98	21.97	21.97	21.96	21.98	21.97	30.38
MW #39	29.46	0	29.18	0	28.72	0	28.58	0	28.35	0	28.51	0	28.34	0	38.34
MW #45	11.98	11.65	11.43	11.07	11.41	11.03	11.59	11.15	11.58	11.12	11.57	11.11	11.56	11.11	16.92
MW #46	10.28	0	10.28	0	10.27	0	10.26	0	10.28	0	10.28	0	10.27	0	10.39
MW #47	12.58	11.6	12.71	11.71	12.84	11.72	12.81	11.74	12.86	11.74	12.84	11.73	12.83	11.72	14.28

RW #1, RW #9, RW #22, RW #23,
RW #28 are active recovery wells and
were not measured.

MW #24 was designed for air
sparging activities and does not
accommodate monitoring

DTW = Depth to Water

DTP = Depth to Product

PHASE II MONITORING - 2005

General Chemistry - Observation Wells

EPA Method 300.0										Field Data			
DATE SAMPLED	mg/L Fluoride	mg/L Chloride	mg/L P	mg/L Sulfate	mg/L Nitrate	mg/L E.C.	pH	Farenheit Temp.	mg/L D.O.	mg/L TDS			
WQCC 20NMAC 6.2.3103	1.6	250		600	10		6.0-9.0			1000			
OW 0+60	Well	Not	Sampled			no sample	well	contains	hydro-	carbons			
OW 1+50	Well	Not	Sampled			no sample	well	contains	hydro-	carbons			
OW 3+85	Well	Not	Sampled			no sample	well	contains	hydro-	carbons			
OW 5+50	Well	Not	Sampled			no sample	well	dry					
OW 6+70	Well	Not	Sampled			no sample	well	dry					
OW 8+10	Well	Not	Sampled			no sample	well	dry					
OW 11+15	0.43	320	<.5	130	<.5	2507	6.9	57	7	1951			
OW 14+10	0.53	73	<.5	350	<.5	2311	6.95	60	13.1	1784			
OW 16+60	Well	Not	Sampled			no sample	well	contains	hydro-	carbons			
OW 19+50	0.36	290	<.5	290	<.5	2896	6.82	58	>13.0	2288			
OW 22+00	0.78	480	<.5	140	<.5	2928	6.84	57	>13.0	2311			
OW 23+10	Not	Enough	Water	To	Sample	2678	6.96	59	trace water	2095			
OW 23+90	0.72	320	<.5	77	<.1	2268	6.97	60	trace water	1747			
OW 25+70	0.53	50	<.5	350	<.1	1303	6.94	56	7.7	963			

PHASE II MONITORING - 2005

General Chemistry - Collection Wells

EPA Method 300.0										Field Data				
DATE SAMPLED	mg/L Fluoride	mg/L Chloride	mg/L P	mg/L Sulfate	mg/L Nitrate	mg/L E.C.	pH	Farenheit Temp.	mg/L D.O.	mg/L TDS				
WQCC 20NMAC 6.2.3103	1.6	250		600	10		6.0-9.0			1000				
CW 0+60	5/10/05	39	<.5	75	<.5	1378	6.82	55	>13.0	1023				
CW 1+50	5/10/05	43	<.5	5.8	<.5	1463	6.86	56	7.1	1084				
CW 3+85	5/10/05	270	<.5	32	<.5	2880	6.87	56	>13.0	2270				
CW 5+50	5/10/05	2700	<.5	75	<.5	8765	6.81	56	8.5	7762				
CW 6+70	5/11/05	2400	<.5	170	<.5	8175	6.86	55	8.7	7191				
CW 8+10	5/11/05	1100	<.5	720	<.5	5199	6.83	55	8	4358				
CW 8+45	5/8/05	Not	Sampled			no sample	well	contains	hydro-	carbons				
CW 11+15	5/8/05	Not	Sampled			no sample	well	contains	hydro-	carbons				
CW 14+10	5/11/05	78	<.5	2300	<.5	4103	6.85	58	6.5	3353				
CW 16+60	5/11/05	150	<.5	150	<.5	2420	6.91	60	7.4	1875				
CW 19+50	5/10/05	230	<.5	260	<.5	2844	6.83	56	9.3	6724				
CW 22+00	5/10/05	510	<.5	38	<.5	3202	6.83	57	12.2	2548				
CW 23+10	5/12/05	450	<.5	9.7	<.5	3046	6.92	54	7.8	2425				
CW 23+90	5/12/05	350	<.5	4.9	<.1	2702	6.86	55	7.6	2124				
CW 25+95	5/12/05	85	<.5	270	<.1	1287	6.92	56	8.2	949				

PHASE II MONITORING - 2005

BTEX & Total Metals - Collection Wells

EPA Method 8021B										EPA Method 6010C EPA Method 7470: Mercury						
DATE SAMPLED	mg/L Benzene	mg/L Toluene	mg/L EthylBen	mg/L Xylene	40CFR 141.62	mg/L Arsenic	mg/L Barium	mg/L Cadmium	mg/L Cr	mg/L Lead	mg/L Se	mg/L Silver	mg/L Mercury			
WQCC 20NMAC 6.23103	0.01	0.75	0.75	0.62	MCL	0.05	2	0.005	0.1	0.015	0.05	0.05	0.002			
CW 0+60	0.2	0.032	0.18	1		<.02	0.33	<.002	<.006	0.012	<.05	<.005	<.0002			
CW 1+50	1.2	0.041	0.24	2.3		<.02	0.59	<.002	<.006	0.007	<.05	<.005	<.0002			
CW 3+85	0.035	0.022	0.02	0.25		<.02	0.68	<.002	<.006	<.005	<.05	<.005	<.0002			
CW 5+50	0.2	0.011	0.064	0.24		<.02	0.83	<.002	<.006	<.005	<.05	<.005	<.0002			
CW 6+70	0.0027	<.5	<.5	0.0013		<.02	0.34	<.002	<.006	<.005	<.05	<.005	<.0002			
CW 8+10	0.43	<.00025	0.051	0.66		<.02	0.49	<.002	<.006	<.005	<.05	<.005	<.0002			
CW 8+45	Well	Not	Sampled			no sample	well	contains	hydro-	carbons						
CW 11+15	Well	Not	Sampled			no sample	well	contains	hydro-	carbons						
CW 14+10	9.8	<.00025	2.1	1.3		<.1	0.33	<.01	<.03	<.025	<.25	<.025	<.0002			
CW 16+60	5.3	0.075	3.8	7.3		<.02	0.6	<.002	<.006	0.01	<.05	<.005	<.0002			
CW 19+50	4.8	0.021	1.7	5.1		<.02	0.2	<.002	<.006	0.0061	<.05	<.005	<.0002			
CW 22+00	7	0.09	0.095	0.2		<.02	0.61	<.002	<.006	<.005	<.05	<.005	<.0002			
CW 23+10	6.3	0.076	0.19	3.5		<.02	0.73	<.002	<.006	<.005	<.05	<.005	0.00038			
CW 23+90	3.4	0.035	0.17	0.4		<.02	0.4	<.002	<.006	<.005	<.05	<.005	<.0002			
CW 25+95	0.001	<.0005	<.0005	<.0005		<.02	0.085	<.002	<.006	<.005	<.05	<.005	<.0002			

PHASE II MONITORING - 2005

BTEX & Total Metals - Observation Wells

	EPA Method 8021B							EPA Method 6010C EPA Method 7470: Mercury						
	DATE SAMPLED	mg/L Benzene	mg/L Toluene	mg/L EthylBen	mg/L Xylene	40CFR 141.62	mg/L Arsenic	mg/L Barium	mg/L Cadmium	mg/L Cr	mg/L Lead	mg/L Se	mg/L Silver	mg/L Mercury
WQCC 20NMAC 6.2.3103		0.01	0.75	0.75	0.62	MCL	0.05	2	0.005	0.1	0.015	0.05	0.05	0.002
OW 0+60	5/12/05	Well	Not	Sampled			no sample	well	contains	hydro-	carbons			
OW 1+50	5/12/05	Well	Not	Sampled			no sample	well	contains	hydro-	carbons			
OW 3+85	5/12/05	Well	Not	Sampled			no sample	well	contains	hydro-	carbons			
OW 5+50	5/9/05	Well	Not	Sampled			no sample	well	contains	hydro-	carbons			
OW 6+70	5/9/05	Well	Not	Sampled			no sample	well	contains	hydro-	carbons			
OW 8+10	5/9/05	Well	Not	Sampled			no sample	well	contains	hydro-	carbons			
OW 11+15	5/11/05	0.42	<.00025	0.14	0.52		0.037	1.9	<.002	0.02	0.028	<.05	<.005	<.0002
OW 14+10	5/11/05	10	<.0005	3.9	3.2		0.11	11	<.002	0.09	0.73	<.05	<.005	<.0002
OW 16+60	5/12/05	Well	Not	Sampled			no sample	well	contains	hydro-	carbons			
OW 19+50	5/10/05	1.9	0.013	0.86	3.2		<.02	0.23	<.002	<.006	0.024	<.05	<.005	<.0002
OW 22+00	5/10/05	3.1	0.045	0.15	0.34		<.02	0.16	<.002	<.006	0.012	<.05	<.005	<.0002
OW 23+10	5/10/05	0.34	0.0092	0.011	0.08		<.02	0.75	<.002	0.02	0.0091	<.05	<.005	0.00096
OW 23+90	5/12/05	0.98	0.016	0.031	0.13		Not	enough	water	to	sample			
OW 25+70	5/12/05	0.00079	<.0005	<.0005	<.0005		0.14	25	<.01	0.44	0.13	<.025	<.025	<.0002

GIANT

REFINING COMPANY

Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

Certified Mail: 7004 2510 0005 1641 4439

July 15, 2005

RE: Giant Refining Company, Bloomfield Refiner
EPA ID# NMD089416416
GW - 001

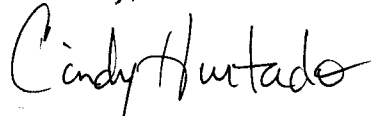
Dear Mr. Price,

Please find attached draft results of collected data from June 2005 requested by NMED as a condition of approval for the North Boundary Barrier Collection System Design and Monitoring Plan Phase II.

Please note that RW #1, RW #9, RW #22, RW #23, and RW #28 are active recovery wells and were not measured. MW #24 was designed for air sparging activities and does not accommodate monitoring.

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

Sincerely,



Cindy Hurtado
Environmental Assistant
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Supervisor – Giant Refining

PHONE

505-632-8013

FAX

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50 ROAD 4990

P.O. BOX 159

BLOOMFIELD

NEW MEXICO

87413

PHASE II Collected Data - June 2005

	June 2, 2005		June 7, 2005		June 9, 2005		June 14, 2005		June 16, 2005		June 21, 2005		June 23, 2005		June 28, 2005		Total Well Depth
	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	
OW 0+60	14.46	13.77	174.4	13.75	14.45	13.78	14.49	13.93	14.49	13.91	14.48	13.93	14.48	13.9	14.49	13.92	14.98
OW 1+50	14.43	13.43	14.41	13.37	14.44	13.44	14.56	13.6	14.51	13.56	14.5	13.57	14.49	13.57	14.51	13.58	14.98
OW 3+85	13.32	12.16	13.33	12.17	13.34	12.18	13.43	12.24	13.43	12.25	13.42	12.25	13.52	12.32	13.53	12.31	15.06
OW 5+50	0.00	13.22	0	13.21	0	13.22	0	13.28	0	13.29	0	13.3	0	13.31	0	13.32	14.09
OW 6+70	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	14.67
OW 8+10	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	17.99
OW 11+15	11.55	0	11.57	0	11.56	0	11.59	0	11.6	0	11.61	0	11.62	0	11.62	0	16.67
OW 14+10	12.38	12.37	12.37	12.36	12.35	12.34	12.46	12.43	12.46	12.43	12.46	12.42	12.54	12.5	12.59	12.5	13.03
OW 16+60	12.84	12.12	12.74	12.1	12.8	12.12	12.94	12.21	12.95	12.2	12.94	12.22	12.97	12.28	12.94	12.43	15.21
OW 19+50	11.77	0	11.76	0	11.77	0	11.83	0	11.85	0	11.84	0	11.94	0	11.97	0	13.07
OW 22+00	10.78	0	10.79	0	10.79	0	11.11	0	11.14	0	11.2	0	11.14	0	11.26	0	14.31
OW 23+10	13.61	0	13.62	0	13.63	0	13.64	0	13.63	0	13.66	0	13.63	0	13.64	0	15.79
OW 23+90	13.99	0	14	0	14	0	14	0	14	0	14.01	0	14.01	0	14.01	0	15.07
OW 25+70	10.71	0	10.72	0	10.73	0	10.73	0	10.73	0	10.72	0	10.73	0	10.72	0	14.01

DTW = Depth to Water

DTP = Depth to Product

PHASE II Collected Data - June 2005

	June 2, 2005		June 7, 2005		June 9, 2005		June 14, 2005		June 16, 2005		June 21, 2005		June 23, 2005		June 28, 2005		Total
	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	Well Depth
CW 0+60	8.83	0	8.82	0	8.85	0	8.9	0	8.88	0	8.84	0	8.89	0	8.91	0	14.93
CW 1+50	6.82	0	6.83	0	6.81	0	6.85	0	6.8	0	6.81	0	6.81	0	6.87	0	13.84
CW 3+85	7.50	0	7.51	0	7.49	0	7.41	0	7.52	0	7.52	0	7.53	0	7.52	0	15.21
CW 5+50	7.37	0	7.38	0	7.36	0	7.38	0	7.38	0	7.39	0	7.37	7.36	7.36	7.35	13.45
CW 6+70	7.87	0	7.86	0	7.86	0	7.9	0	7.9	7.89	7.91	7.9	7.9	7.89	7.9	7.89	12.7
CW 8+10	7.85	0	7.86	0	7.87	0	7.9	0	7.89	7.88	7.9	7.89	7.87	7.86	7.87	7.86	12.02
CW 8+45	9.52	9.43	9.6	9.4	9.73	9.44	11.59	9.5	9.53	9.49	9.62	9.47	9.49	9.47	9.55	9.46	14.95
CW 11+15	7.42	7.34	7.47	7.35	7.46	7.35	7.47	7.4	7.43	7.38	7.48	7.36	7.42	7.35	7.41	7.35	13.88
CW 14+10	7.50	0	7.51	0	7.46	0	7.55	0	7.54	0	7.55	0	7.53	7.52	7.46	0	14.09
CW 16+60	8.40	0	8.4	0	8.39	0	8.4	8.39	8.39	8.38	8.4	0	8.41	8.4	8.4	8.39	14.87
CW 19+50	8.60	0	8.61	0	8.58	0	8.62	0	8.64	0	8.65	0	8.62	0	8.6	0	12.07
CW 22+00	10.98	0	11	0	11	0	10.98	0	11	0	11.1	0	10.98	10.97	10.7	10.6	14.1
CW 23+10	11.52	0	11.54	0	11.53	0	11.55	0	11.55	0	11.54	0	11.54	0	11.53	0	15.5
CW 23+90	9.23	0	9.28	0	9.28	0	9.28	0	9.28	0	9.28	0	9.27	0	9.27	0	12.66
CW 25+95	8.97	0	9.01	0	9.01	0	9.01	0	9.01	0	9.01	0	9	0	9	0	14.07

DTW = Depth to Water

DTP = Depth to Product

PHASE II Collected Data - June 2005

	June 2, 2005	June 7, 2005	June 9, 2005	June 14, 2005	June 16, 2005	June 21, 2005	June 23, 2005	June 28, 2005	Total
	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	Well Depth
MW #11	11.52	0	11.48	0	11.57	0	11.39	0	22.94
MW #12	11.52	0	11.48	0	11.57	0	10.52	0	14.98
MW #20	21.15	20.91	21.18	20.91	21.15	20.88	21.17	20.9	27.13
MW #21	21.98	21.97	21.98	21.97	21.97	21.98	21.97	21.98	30.38
MW #39	27.92	0	27.99	0	27.65	0	27.28	0	38.34
MW #45	11.53	11.11	11.55	11.11	11.61	11.24	11.8	11.17	16.92
MW #46	10.27	0	10.27	0	10.25	0	10.28	0	10.39
MW #47	12.98	11.96	12.94	11.89	12.88	11.8	13.05	12	14.28

RW #1, RW #9, RW #22, RW #23, RW #28 are active recovery wells and were not measured.

MW #24 was designed for air sparging activities and does not accommodate monitoring

DTW = Depth to Water

DTP = Depth to Product



Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

Certified Mail: 7004 2510 0005 1641 4415

July 11, 2005

RE: Giant Refining Company, Bloomfield Refiner
EPA ID# NMD089416416
GW - 001

Dear Mr. Price,

Please find attached analytical results for the June 7, 2005 sampling event for wells MW #48 and MW #49 on the river terrace at the Giant Refining facility. Note that the results for well MW #49, located down gradient of the barrier wall, had a detection of benzene at a concentration of 2.7 ug/L. That result is well below the WQCC limit of 10 ug/l. A BTEX sample was taken out of the San Juan River adjacent to MW #49. The results of that sample were non detect. We will continue to monitor both wells on a monthly basis and evaluate the concentration trends.

Tank #33 and Fresh Water Pond samples were pulled on June 7, 2005. Analytical results are included with this packet. Tank #33 benzene levels were below WQCC standards at a concentration of 1.2 ug/L. Fresh Water Pond results were all non detect.

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

Sincerely,

A handwritten signature in cursive script that reads "Cindy Hurtado".

Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

PHONE
505-632-8013
FAX
505-632-3911

50 ROAD 4990
P.O. BOX 159
BLOOMFIELD
NEW MEXICO
87413



COVER LETTER

July 05, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace - 6/05

Order No.: 0506108

Dear Cindy Hurtado:

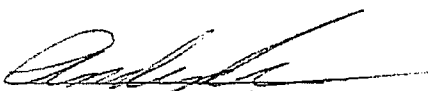
Hall Environmental Analysis Laboratory received 4 samples on 6/10/2005 for the analyses presented in the following report.

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



4901 Hawkins NE • Suite D • Albuquerque, NM 87109
505.345.3975 • Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory

Date: 05-Jul-05

CLIENT: San Juan Refining
Lab Order: 0506108
Project: River Terrace - 6/05
Lab ID: 0506108-01

Client Sample ID: MW #49
Collection Date: 6/9/2005 10:35:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.1	1.0		mg/L	1	6/16/2005 1:56:32 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/16/2005 1:56:32 PM
Surr: DNOP	108	58-140		%REC	1	6/16/2005 1:56:32 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.29	0.050		mg/L	1	6/15/2005 6:04:55 PM
Surr: BFB	112	78.3-120		%REC	1	6/15/2005 6:04:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/15/2005 6:04:55 PM
Benzene	2.7	0.50		µg/L	1	6/15/2005 6:04:55 PM
Toluene	ND	0.50		µg/L	1	6/15/2005 6:04:55 PM
Ethylbenzene	ND	0.50		µg/L	1	6/15/2005 6:04:55 PM
Xylenes, Total	0.64	0.50		µg/L	1	6/15/2005 6:04:55 PM
Surr: 4-Bromofluorobenzene	108	83.3-121		%REC	1	6/15/2005 6:04:55 PM
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	ND	2.5		µg/L	1	6/23/2005 3:31:47 PM
1-Methylnaphthalene	ND	2.5		µg/L	1	6/23/2005 3:31:47 PM
2-Methylnaphthalene	ND	2.5		µg/L	1	6/23/2005 3:31:47 PM
Acenaphthylene	ND	2.5		µg/L	1	6/23/2005 3:31:47 PM
Acenaphthene	ND	2.5		µg/L	1	6/23/2005 3:31:47 PM
Fluorene	ND	0.80		µg/L	1	6/23/2005 3:31:47 PM
Phenanthrene	ND	0.60		µg/L	1	6/23/2005 3:31:47 PM
Anthracene	ND	0.60		µg/L	1	6/23/2005 3:31:47 PM
Fluoranthene	ND	0.30		µg/L	1	6/23/2005 3:31:47 PM
Pyrene	ND	0.30		µg/L	1	6/23/2005 3:31:47 PM
Benz(a)anthracene	ND	0.020		µg/L	1	6/23/2005 3:31:47 PM
Chrysene	ND	0.20		µg/L	1	6/23/2005 3:31:47 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	6/23/2005 3:31:47 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	6/23/2005 3:31:47 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	6/23/2005 3:31:47 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	6/23/2005 3:31:47 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	6/23/2005 3:31:47 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	6/23/2005 3:31:47 PM
Surr: Benzo(e)pyrene	71.9	54-102		%REC	1	6/23/2005 3:31:47 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

Hall Environmental Analysis Laboratory

Date: 05-Jul-05

CLIENT: San Juan Refining Client Sample ID: River Near MW 49
 Lab Order: 0506108 Collection Date: 6/9/2005 10:45:00 AM
 Project: River Terrace - 6/05
 Lab ID: 0506108-02 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	6/15/2005 6:36:20 PM
Benzene	ND	0.50		µg/L	1	6/15/2005 6:36:20 PM
Toluene	ND	0.50		µg/L	1	6/15/2005 6:36:20 PM
Ethylbenzene	ND	0.50		µg/L	1	6/15/2005 6:36:20 PM
Xylenes, Total	ND	0.50		µg/L	1	6/15/2005 6:36:20 PM
Surr: 4-Bromofluorobenzene	102	83.3-121		%REC	1	6/15/2005 6:36:20 PM

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 05-Jul-05

CLIENT: San Juan Refining
Lab Order: 0506108
Project: River Terrace - 6/05
Lab ID: 0506108-03

Client Sample ID: MW #48
Collection Date: 6/9/2005 11:20:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.3	1.0		mg/L	1	6/16/2005 2:29:19 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/16/2005 2:29:19 PM
Surr: DNOP	134	58-140		%REC	1	6/16/2005 2:29:19 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	20	2.0		mg/L	40	6/15/2005 7:07:36 PM
Surr: BFB	107	78.3-120		%REC	40	6/15/2005 7:07:36 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	100		µg/L	40	6/15/2005 7:07:36 PM
Benzene	540	20		µg/L	40	6/15/2005 7:07:36 PM
Toluene	20	20		µg/L	40	6/15/2005 7:07:36 PM
Ethylbenzene	1400	20		µg/L	40	6/15/2005 7:07:36 PM
Xylenes, Total	7200	20		µg/L	40	6/15/2005 7:07:36 PM
Surr: 4-Bromofluorobenzene	108	83.3-121		%REC	40	6/15/2005 7:07:36 PM
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	160	2.0		µg/L	1	6/23/2005 4:19:47 PM
1-Methylnaphthalene	46	2.5		µg/L	1	6/23/2005 4:19:47 PM
2-Methylnaphthalene	49	2.5		µg/L	1	6/23/2005 4:19:47 PM
Acenaphthylene	ND	2.5		µg/L	1	6/23/2005 4:19:47 PM
Acenaphthene	ND	2.5		µg/L	1	6/23/2005 4:19:47 PM
Fluorene	ND	0.80		µg/L	1	6/23/2005 4:19:47 PM
Phenanthrene	1.3	0.60		µg/L	1	6/23/2005 4:19:47 PM
Anthracene	ND	0.60		µg/L	1	6/23/2005 4:19:47 PM
Fluoranthene	ND	0.30		µg/L	1	6/23/2005 4:19:47 PM
Pyrene	ND	0.30		µg/L	1	6/23/2005 4:19:47 PM
Benz(a)anthracene	ND	0.020		µg/L	1	6/23/2005 4:19:47 PM
Chrysene	ND	0.20		µg/L	1	6/23/2005 4:19:47 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	6/23/2005 4:19:47 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	6/23/2005 4:19:47 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	6/23/2005 4:19:47 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	6/23/2005 4:19:47 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	6/23/2005 4:19:47 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	6/23/2005 4:19:47 PM
Surr: Benzo(e)pyrene	75.2	54-102		%REC	1	6/23/2005 4:19:47 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

Hall Environmental Analysis Laboratory

Date: 05-Jul-05

CLIENT: San Juan Refining
Lab Order: 0506108
Project: River Terrace - 6/05
Lab ID: 0506108-04

Client Sample ID: Trip Blank
Collection Date:

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	6/15/2005 7:38:45 PM
Sur: BFB	98.6	78.3-120		%REC	1	6/15/2005 7:38:45 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/15/2005 7:38:45 PM
Benzene	ND	0.50		µg/L	1	6/15/2005 7:38:45 PM
Toluene	ND	0.50		µg/L	1	6/15/2005 7:38:45 PM
Ethylbenzene	ND	0.50		µg/L	1	6/15/2005 7:38:45 PM
Xylenes, Total	ND	0.50		µg/L	1	6/15/2005 7:38:45 PM
Sur: 4-Bromofluorobenzene	98.1	83.3-121		%REC	1	6/15/2005 7:38:45 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

Page 4 of 4

Hall Environmental Analysis Laboratory

Date: 05-Jul-05

CLIENT: San Juan Refining
 Work Order: 0506108
 Project: River Terrace - 6/05

QC SUMMARY REPORT
 Method Blank

Sample ID MB-8160	Batch ID: 8160	Test Code: SW8015	Units: mg/L	Analysis Date 6/16/2005 10:40:32 AM	Prep Date 6/16/2005						
Client ID:		Run ID: FID(17A)_2_050613A		SeqNo: 372186							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1									
Motor Oil Range Organics (MRO)	ND	5									
Surr: DNOP	1.19	0	1	0	119	58	140	0			

Sample ID	Reagent Blank 5m	Batch ID: R15696	Test Code: SW8015	Units: mg/L	Analysis Date	6/15/2005 10:13:36 AM	Prep Date					
Client ID:			Run ID: PIDFID_050615A		SeqNo:	371885						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		ND	0.05									
Surr: BFB		20.17	0	20	0	101	78.3	120	0			

Sample ID	Reagent Blank 5m	Batch ID: R15696	Test Code: SW8021	Units: µg/L	Analysis Date	6/15/2005 10:13:36 AM	Prep Date					
Client ID:			Run ID: PIDFID_050615A		SeqNo:	371884						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)		ND	2.5									
Benzene		ND	0.5									
Toluene		ND	0.5									
Ethylbenzene		ND	0.5									
Xylenes, Total		ND	0.5									
Surr: 4-Bromofluorobenzene		19.32	0	20	0	96.6	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0506108
 Project: River Terrace - 6/05

Sample ID MB-8151 Batch ID: 8151 Test Code: SW8310 Units: µg/L Analysis Date 6/23/2005 11:31:49 AM Prep Date 6/14/2005
 Client ID: HUGO_050623B SeqNo: 374867

Analyte	Result	PQL	SPK value	SPIK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	2.5									
1-Methylnaphthalene	ND	2.5									
2-Methylnaphthalene	ND	2.5									
Acenaphthylene	ND	2.5									
Acenaphthene	ND	2.5									
Fluorene	ND	0.8									
Phenanthrene	ND	0.6									
Anthracene	ND	0.6									
Fluoranthene	ND	0.3									
Pyrene	ND	0.3									
Benz(a)anthracene	ND	0.02									
Chrysene	ND	0.2									
Benzo(b)fluoranthene	ND	0.05									
Benzo(k)fluoranthene	ND	0.02									
Benzo(a)pyrene	ND	0.02									
Dibenz(a,h)anthracene	ND	0.04									
Benzo(g,h,i)perylene	ND	0.03									
Indeno(1,2,3-cd)pyrene	ND	0.08									
Surr: Benzo(e)pyrene	7.36	0	10	0	73.6	54	102	0			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory

Date: 05-Jul-05

CLIENT: San Juan Refining
 Work Order: 0506108
 Project: River Terrace - 6/05

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0506108-01a ms	Batch ID: R15696	Test Code: SW8015	Units: mg/L	Analysis Date	6/15/2005 8:09:56 PM	Prep Date				
Client ID:	MW #49		PIDFID_050615A		SeqNo:	371922					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.7714	0.05	0.5	0.2854	97.2	82.6	114	0			
Surr: BFB	26.49	0	25	0	106	78.3	120	0			
Sample ID	0506108-01a msd	Batch ID: R15696	Test Code: SW8015	Units: mg/L	Analysis Date	6/15/2005 8:41:12 PM	Prep Date				
Client ID:	MW #49		PIDFID_050615A		SeqNo:	371923					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.689	0.05	0.5	0.2854	80.7	80	114	0.7714	11.3	15	
Surr: BFB	26.2	0	25	0	105	78.3	120	26.49	1.08	0	
Sample ID	0506108-02a ms	Batch ID: R15696	Test Code: SW8021	Units: µg/L	Analysis Date	6/15/2005 9:43:09 PM	Prep Date				
Client ID:	River Near MW 49		PIDFID_050615A		SeqNo:	371915					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	42.63	2.5	40	0	107	64.5	133	0			
Benzene	19.78	0.5	20	0	98.9	86.7	114	0			
Toluene	20	0.5	20	0	100	89.3	112	0			
Ethylbenzene	19.9	0.5	20	0	99.5	88.6	113	0			
Xylenes, Total	60.02	0.5	60	0	100	89.4	112	0			
Surr: 4-Bromofluorobenzene	23.44	0	24	0	97.7	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

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QC SUMMARY REPORT

Sample Matrix Spike Duplicate

CLIENT: San Juan Refining
 Work Order: 0506108
 Project: River Terrace - 6/05

Sample ID	0506108-02a.msd	Batch ID: R15696	Test Code: SW8021	Units: µg/L	Analysis Date	6/15/2005 10:14:07 PM	Prep Date				
Client ID:	River Near MW 49		PID/FID_050615A		SeqNo:	371917					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	43.48	2.5	40	0	109	64.5	133	42.63	1.97	28	
Benzene	19.74	0.5	20	0	98.7	88.7	114	19.78	0.196	27	
Toluene	19.64	0.5	20	0	98.2	89.3	112	20	1.82	19	
Ethylbenzene	19.83	0.5	20	0	99.1	88.6	113	19.9	0.376	10	
Xylenes, Total	59.81	0.5	60	0	99.7	89.4	112	60.02	0.342	13	
Surr: 4-Bromofluorobenzene	23.83	0	24	0	99.3	83.3	121	23.44	1.63	0	

Qualifiers: NID - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 05-Jul-05

CLIENT: San Juan Refining
 Work Order: 0506108
 Project: River Terrace - 6/05

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	LCS-8160	Batch ID: 8160	Test Code: SW8015	Units: mg/L	Analysis Date	6/16/2005 12:03:17 PM	Prep Date	6/16/2005				
Client ID:			Run ID: FID(17A)_2_050613A		SeqNo:	372224						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		6.801	1	5	0	136	81.2	149	0			
Sample ID	LCSD-8160	Batch ID: 8160	Test Code: SW8015	Units: mg/L	Analysis Date	6/16/2005 11:44:30 AM	Prep Date	6/16/2005				
Client ID:			Run ID: FID(17A)_2_050613A		SeqNo:	372236						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		6.591	1	5	0	132	81.2	149	6.801	3.14	23	
Sample ID	GRO ccv 2.5ug	Batch ID: R15696	Test Code: SW8015	Units: mg/L	Analysis Date	6/15/2005 4:30:43 PM	Prep Date					
Client ID:			Run ID: PIDFID_050615A		SeqNo:	371908						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.471	0.05	0.5	0	94.2	82.6	114	0			
Sample ID	BTEX ccv 100ng	Batch ID: R15696	Test Code: SW8021	Units: µg/L	Analysis Date	6/15/2005 5:02:10 PM	Prep Date					
Client ID:			Run ID: PIDFID_050615A		SeqNo:	371900						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)		37.54	2.5	40	0	93.9	64.5	133	0			
Benzene		19.49	0.5	20	0	97.4	88.7	114	0			
Toluene		19.54	0.5	20	0	97.7	89.3	112	0			
Ethylbenzene		19.45	0.5	20	0	97.3	88.6	113	0			
Xylenes, Total		59.31	0.5	60	0	98.8	89.4	112	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0506108
 Project: River Terrace - 6/05

Sample ID	LCS-8151	Batch ID: 8151	Test Code: SW8310	Units: µg/L	Analysis Date	6/23/2005 12:19:49 PM	Prep Date	6/14/2005			
Client ID:			Run ID:	HUGO_050623B	SeqNo:	374875					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	20.55	2.5	40	0	51.4	34.8	97.4	0			
1-Methylnaphthalene	20.42	2.5	40.1	0	50.9	34.7	100	0			
2-Methylnaphthalene	19.32	2.5	40	0	48.3	35	98.1	0			
Acenaphthylene	22.61	2.5	40.1	0	56.4	48.3	95.1	0			
Acenaphthene	22.91	2.5	40	0	57.3	45	95	0			
Fluorene	2.38	0.8	4.01	0	59.4	46.8	93.4	0			
Phenanthrene	1.25	0.6	2.01	0	62.2	48.7	104	0			
Anthracene	1.42	0.6	2.01	0	70.6	47.5	102	0			
Fluoranthene	2.81	0.3	4.01	0	70.1	46.3	108	0			
Pyrene	2.45	0.3	4.01	0	61.1	43.8	109	0			
Benz(a)anthracene	0.27	0.02	0.401	0	67.3	40.3	115	0			
Chrysene	1.24	0.2	2.01	0	61.7	42.6	107	0			
Benzo(b)fluoranthene	0.3	0.05	0.501	0	59.9	48.6	107	0			
Benzo(k)fluoranthene	0.17	0.02	0.25	0	68.0	23.3	136	0			
Benzo(a)pyrene	0.17	0.02	0.251	0	67.7	33.4	117	0			
Dibenz(a,h)anthracene	0.29	0.04	0.501	0	57.9	27.3	139	0			
Benzo(g,h,i)perylene	0.372	0.03	0.5	0	74.4	38.2	117	0			
Indeno(1,2,3-cd)pyrene	0.666	0.08	1.002	0	66.5	39.9	125	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

6/10/2005

Work Order Number 0506108

Received by AT

Checklist completed by

Signature

Date

6/10/05

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 - 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 _____

Accreditation Applied:
NELAC ☐ USACE ☐

Other:

Project Name: River Terrace- 6/05-

Address: #50 Rd 499D
Bloomfield, NM 87413

Project Manager:

Phone #: 505-632-4161
Fax #: 505-632-3911

--	--

Date	Time	Matrix	Sample I.D. No.	Number/Volume	1:1000 dilution		HEAL No.
					HgCl ₂	HNO ₃	
6/9/05	1035A	H ₂ O	MW #49	Z-VOA		HCL	OS 6/108-1

	/	/	/	/	/	2-vor	HCl
	/	/	/	/	/	1-liter	Ambier

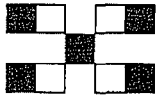
10/09/05	1045A	H2O	River Near MW 49	2-VOA-	HCL	- 2
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9/9/05	1120A	H ₂ O	NW#48	2-V0A	H ₂	-3
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[illegible]

Date: 09/05	Time: 2PM	Relinquished By: (Signature) <i>Andy Gutada</i>	Received By: (Signature) <i>Line</i>
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature) 1535

13



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4900
www.hallenvironmental.com

ANALYSIS REQUEST

[illegible]

Remarks:

COVER LETTER

June 10, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: TC #33 Effluent

Order No.: 0506078

Dear Cindy Hurtado:

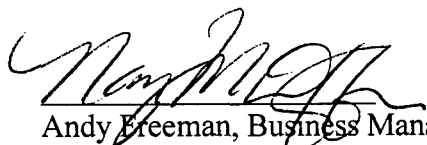
Hall Environmental Analysis Laboratory received 2 samples on 6/8/2005 for the analyses presented in the following report.

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

Date: 10-Jun-05

CLIENT: San Juan Refining
Project: TC #33 Effluent

Lab Order: 0506078

Lab ID: 0506078-01

Collection Date: 6/7/2005 2:10:00 PM

Client Sample ID: T/c#33

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8021B: VOLATILES

Analyst: NSB

Benzene	1.2	0.50		µg/L	1	6/10/2005 1:12:44 AM
Toluene	ND	0.50		µg/L	1	6/10/2005 1:12:44 AM
Ethylbenzene	0.63	0.50		µg/L	1	6/10/2005 1:12:44 AM
Xylenes, Total	1.3	0.50		µg/L	1	6/10/2005 1:12:44 AM
Surr: 4-Bromofluorobenzene	109	83.3-121		%REC	1	6/10/2005 1:12:44 AM

Lab ID: 0506078-02

Collection Date: 6/7/2005 2:16:00 PM

Client Sample ID: Fresh Water Ponds

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8021B: VOLATILES

Analyst: NSB

Benzene	ND	0.50		µg/L	1	6/10/2005 1:43:07 AM
Toluene	ND	0.50		µg/L	1	6/10/2005 1:43:07 AM
Ethylbenzene	ND	0.50		µg/L	1	6/10/2005 1:43:07 AM
Xylenes, Total	ND	0.50		µg/L	1	6/10/2005 1:43:07 AM
Surr: 4-Bromofluorobenzene	102	83.3-121		%REC	1	6/10/2005 1:43:07 AM

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

Date: 10-Jun-05

CLIENT: San Juan Refining
Work Order: 0506078
Project: TC #33 Effluent

QC SUMMARY REPORT
Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R15641	Test Code: SW8021	Units: µg/L	Analysis Date	6/9/2005 9:16:17 AM	Prep Date				
Client ID:			Run ID: PIDFID_050609A		SeqNo:	369704					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	19.39	0	20	0	96.9	83.3	121	0			

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	

Hall Environmental Analysis Laboratory

Date: 10-Jun-05

CLIENT: San Juan Refining
Work Order: 0506078
Project: TC #33 Effluent

QC SUMMARY REPORT
 Sample Matrix Spike

Sample ID	0506078-02a.ms	Batch ID: R15641	Test Code: SW8021	Units: µg/L	Analysis Date	6/10/2005 2:13:27 AM	Prep Date				
Client ID:	Fresh Water Pond	Run ID:	PIDFID_050609A		SeqNo:	369824					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.68	0.5	20	0	103	88.7	114	0			
Toluene	21.37	0.5	20	0	107	89.3	112	0			
Ethylbenzene	21.09	0.5	20	0	105	88.6	113	0			
Xylenes, Total	63.74	0.5	60	0.4698	105	89.4	112	0			
Surr: 4-Bromofluorobenzene	24.89	0	24	0	104	83.3	121	0			

Sample ID	0506078-02a.ms	Batch ID: R15641	Test Code: SW8021	Units: µg/L	Analysis Date	6/10/2005 2:43:48 AM	Prep Date				
Client ID:	Fresh Water Pond	Run ID:	PIDFID_050609A		SeqNo:	369825					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.3	0.5	20	0	102	88.7	114	20.68	1.86	27	
Toluene	20.97	0.5	20	0	105	89.3	112	21.37	1.84	19	
Ethylbenzene	20.81	0.5	20	0	104	88.6	113	21.09	1.32	10	
Xylenes, Total	62.82	0.5	60	0.4698	104	89.4	112	63.74	1.46	13	
Surr: 4-Bromofluorobenzene	24.68	0	24	0	103	83.3	121	24.89	0.851	0	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

Date: 10-Jun-05

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0506078
 Project: TC #33 Effluent

Sample ID	BTEX Ics 100ng	Batch ID: R15641	Test Code: SW8021	Units: µg/L	Analysis Date	6/9/2005 12:51:23 PM	Prep Date				
Client ID:			Run ID: PIDFID_050609A		SeqNo: 369826						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.81	0.5	20	0	104	88.7	114	0			
Toluene	20.97	0.5	20	0	105	89.3	112	0			
Ethylbenzene	20.6	0.5	20	0	103	88.6	113	0			
Xylenes, Total	62.78	0.5	60	0	105	89.4	112	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank
 I

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

Work Order Number 0506078

Received by AMG

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 - 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 _____



Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

Certified Mail: 7004 2510 0005 1641 4415

July 11, 2005

**RE: Giant Refining Company, Bloomfield Refinery
EPA ID# NMD089416416**

Dear Mr. Price,

Please find attached results of analytical data and boring logs for TP-9 through TP-13 requested by NMED. These piezometers are located at the river terrace.

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

Sincerely,

A handwritten signature in cursive script that reads "Cindy Hurtado".

Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

COVER LETTER

April 19, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace Investigation TP9-TP13

Order No.: 0504087

Dear Cindy Hurtado:

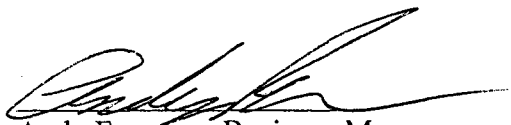
Hall Environmental Analysis Laboratory received 5 samples on 4/8/2005 for the analyses presented in the following report.

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

Date: 19-Apr-05

CLIENT: San Juan Refining

Client Sample ID: TP-9

Lab Order: 0504087

Collection Date: 4/7/2005 2:00:00 PM

Project: River Terrace Investigation TP9-TP13

Lab ID: 0504087-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/13/2005 8:22:05 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/13/2005 8:22:05 AM
Surr: DNOP	113	58-140		%REC	1	4/13/2005 8:22:05 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.67	0.050		mg/L	1	4/8/2005 11:26:46 PM
Surr: BFB	103	78.3-120		%REC	1	4/8/2005 11:26:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/8/2005 11:26:46 PM
Benzene	3.3	0.50		µg/L	1	4/8/2005 11:26:46 PM
Toluene	5.0	0.50		µg/L	1	4/8/2005 11:26:46 PM
Ethylbenzene	7.0	0.50		µg/L	1	4/8/2005 11:26:46 PM
Xylenes, Total	22	0.50		µg/L	1	4/8/2005 11:26:46 PM
Surr: 4-Bromofluorobenzene	116	83.3-121		%REC	1	4/8/2005 11:26:46 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

Date: 19-Apr-05

CLIENT: San Juan Refining

Client Sample ID: TP-10

Lab Order: 0504087

Collection Date: 4/7/2005 2:20:00 PM

Project: River Terrace Investigation TP9-TP13

Lab ID: 0504087-02

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	4/13/2005 9:22:37 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/13/2005 9:22:37 AM
Surr: DNOP	90.4	58-140		%REC	1	4/13/2005 9:22:37 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/8/2005 11:56:47 PM
Surr: BFB	101	78.3-120		%REC	1	4/8/2005 11:56:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/11/2005 1:01:27 PM
Benzene	ND	0.50		µg/L	1	4/11/2005 1:01:27 PM
Toluene	ND	0.50		µg/L	1	4/11/2005 1:01:27 PM
Ethylbenzene	ND	0.50		µg/L	1	4/11/2005 1:01:27 PM
Xylenes, Total	0.56	0.50		µg/L	1	4/11/2005 1:01:27 PM
Surr: 4-Bromofluorobenzene	98.6	83.3-121		%REC	1	4/11/2005 1:01:27 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

Date: 19-Apr-05

CLIENT: San Juan Refining

Client Sample ID: TP-11

Lab Order: 0504087

Collection Date: 4/7/2005 1:00:00 PM

Project: River Terrace Investigation TP9-TP13

Lab ID: 0504087-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/13/2005 9:52:33 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/13/2005 9:52:33 AM
Surr: DNOP	124	58-140		%REC	1	4/13/2005 9:52:33 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.082	0.050		mg/L	1	4/9/2005 12:26:49 AM
Surr: BFB	101	78.3-120		%REC	1	4/9/2005 12:26:49 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/9/2005 12:26:49 AM
Benzene	1.5	0.50		µg/L	1	4/9/2005 12:26:49 AM
Toluene	1.6	0.50		µg/L	1	4/9/2005 12:26:49 AM
Ethylbenzene	ND	0.50		µg/L	1	4/9/2005 12:26:49 AM
Xylenes, Total	2.7	0.50		µg/L	1	4/9/2005 12:26:49 AM
Surr: 4-Bromofluorobenzene	103	83.3-121		%REC	1	4/9/2005 12:26:49 AM

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 19-Apr-05

CLIENT: San Juan Refining
 Lab Order: 0504087
 Project: River Terrace Investigation TP9-TP13
 Lab ID: 0504087-04

Client Sample ID: TP-12
 Collection Date: 4/7/2005 1:20:00 PM

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	4/13/2005 10:22:31 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/13/2005 10:22:31 AM
Surr: DNOP	112	58-140		%REC	1	4/13/2005 10:22:31 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/9/2005 12:56:46 AM
Surr: BFB	99.2	78.3-120		%REC	1	4/9/2005 12:56:46 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/9/2005 12:56:46 AM
Benzene	0.75	0.50		µg/L	1	4/9/2005 12:56:46 AM
Toluene	0.80	0.50		µg/L	1	4/9/2005 12:56:46 AM
Ethylbenzene	ND	0.50		µg/L	1	4/9/2005 12:56:46 AM
Xylenes, Total	1.0	0.50		µg/L	1	4/9/2005 12:56:46 AM
Surr: 4-Bromofluorobenzene	103	83.3-121		%REC	1	4/9/2005 12:56:46 AM

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

Date: 19-Apr-05

CLIENT: San Juan Refining

Client Sample ID: TP-13

Lab Order: 0504087

Collection Date: 4/7/2005 2:45:00 PM

Project: River Terrace Investigation TP9-TP13

Lab ID: 0504087-05

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	4/13/2005 10:52:24 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/13/2005 10:52:24 AM
Surr: DNOP	128	58-140		%REC	1	4/13/2005 10:52:24 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/9/2005 1:26:44 AM
Surr: BFB	102	78.3-120		%REC	1	4/9/2005 1:26:44 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/9/2005 1:26:44 AM
Benzene	2.3	0.50		µg/L	1	4/9/2005 1:26:44 AM
Toluene	2.2	0.50		µg/L	1	4/9/2005 1:26:44 AM
Ethylbenzene	0.55	0.50		µg/L	1	4/9/2005 1:26:44 AM
Xylenes, Total	3.6	0.50		µg/L	1	4/9/2005 1:26:44 AM
Surr: 4-Bromofluorobenzene	101	83.3-121		%REC	1	4/9/2005 1:26:44 AM

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

Date: 19-Apr-05

CLIENT: San Juan Refining
Work Order: 0504087
Project: River Terrace Investigation TP9-TP13

QC SUMMARY REPORT

Method Blank

Sample ID	MB-7741	Batch ID: 7741	Test Code: SW8015	Units: mg/L	Analysis Date	4/13/2005 5:23:14 AM	Prep Date	4/11/2005
Client ID:		Run ID:	FID(17A) 2_050412A		SeqNo:	351425		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Diesel Range Organics (DRO)	ND	1						
Motor Oil Range Organics (MRO)	ND	5						
Surr: DNOP	1.079	0	1	0	108	58	140	0
					%RPD		RPDLimit	Qual

Sample ID	Reagent Blank 5m	Batch ID: R15047	Test Code: SW8015	Units: mg/L	Analysis Date	4/8/2005 8:25:08 AM	Prep Date	
Client ID:		Run ID:	PIDFID_050408A		SeqNo:	350502		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Gasoline Range Organics (GRO)	ND	0.05						
Surr: BFB	19.39	0	20	0	96.9	78.3	120	0
					%RPD		RPDLimit	Qual

Sample ID	Reagent Blank 5m	Batch ID: R15061	Test Code: SW8015	Units: mg/L	Analysis Date	4/11/2005 9:28:42 AM	Prep Date	
Client ID:		Run ID:	PIDFID_050411A		SeqNo:	350886		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Gasoline Range Organics (GRO)	ND	0.05						
Surr: BFB	18.94	0	20	0	94.7	78.3	120	0
					%RPD		RPDLimit	Qual

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining

Work Order: 0504087

Project: River Terrace Investigation TP9-TP13

QC SUMMARY REPORT

Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R15047	Test Code: SW8021	Units: µg/L	Analysis Date 4/8/2005 8:25:08 AM	Prep Date					
Client ID:			Run ID: PIDFID_050408A		SeqNo: 350499						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	19.22	0	20	0	96.1	83.3	121	0			

Sample ID	Reagent Blank 5m	Batch ID: R15061	Test Code: SW8021	Units: µg/L	Analysis Date 4/11/2005 9:28:42 AM	Prep Date					
Client ID:			Run ID: PIDFID_050411A		SeqNo: 350885						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	19.9	0	20	0	99.5	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 19-Apr-05

CLIENT: San Juan Refining
Work Order: 0504087
Project: River Terrace Investigation TP9-TP13

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0504087-02a ms	Batch ID: R15047	Test Code: SW8015	Units: mg/L	Analysis Date	4/9/2005 2:56:36 AM	Prep Date				
Client ID:	TP-10		Run ID: PIDFID_050408A		SeqNo:	350590					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.5284	0.05	0.5	0.0158	103	82.6	114	0			
Surr: BFB	24.25	0	25	0	97.0	78.3	120	0			

Sample ID	0504087-02a msd	Batch ID: R15047	Test Code: SW8015	Units: mg/L	Analysis Date	4/9/2005 3:26:38 AM	Prep Date				
Client ID:	TP-10	Run ID:	PIDFID_050408A	SeqNo:	350593						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.4692	0.05	0.5	0.0158	90.7	82.6	114	0.5284	11.9	15	
Surr: BFB	23.55	0	25	0	94.2	78.3	120	24.25	2.95	0	

Sample ID	0504087-01a.ms	Batch ID: R15047	Test Code: SW8021	Units: µg/L	Analysis Date	4/9/2005 1:56:44 AM	Prep Date				
Client ID:	TP-9	Run ID:	PIDFID_050408A	SeqNo:	350560						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	28.94	2.5	40	0	72.3	64.5	133	0			
Benzene	24.18	0.5	20	3.293	104	88.7	114	0			
Toluene	25.66	0.5	20	4.956	104	89.3	112	0			
Ethylbenzene	27.64	0.5	20	7.037	103	88.6	113	0			
Xylenes, Total	85.02	0.5	60	22.34	104	89.4	112	0			
Surr: 4-Bromofluorobenzene	25.41	0	24	0	106	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

CLIENT: San Juan Refining
Work Order: 0504087
Project: River Terrace Investigation TP9-TP13

QC SUMMARY REPORT
 Sample Matrix Spike Duplicate

Sample ID	0504087-01a.ms	Batch ID: R15047	Test Code: SW8021	Units: µg/L	Analysis Date	4/9/2005 2:26:39 AM	Prep Date				
Client ID:	TP-9	Run ID:	PIDFID_050408A	SeqNo:	350570						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	28.3	2.5	40	0	70.7	64.5	133	28.94	2.25	28	
Benzene	23.47	0.5	20	3.293	101	88.7	114	24.18	3.00	27	
Toluene	25.25	0.5	20	4.956	101	89.3	112	25.66	1.61	19	
Ethylbenzene	27.72	0.5	20	7.037	103	88.6	113	27.64	0.284	10	
Xylenes, Total	82.62	0.5	60	22.34	100	89.4	112	85.02	2.86	13	
Surr: 4-Bromofluorobenzene	24.62	0	24	0	103	83.3	121	25.41	3.15	0	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 19-Apr-05

CLIENT: San Juan Refining

Work Order: 0504087

Project: River Terrace Investigation TP9-TP13

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCSD-7741	Batch ID: 7741	Test Code: SW8015	Units: mg/L	Analysis Date 4/13/2005 5:53:08 AM	Prep Date 4/11/2005					
Client ID:		Run ID: FID(17A) 2_050412A	SeqNo: 351426								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.687	1	5	0	134	81.2	149	0			

Sample ID	LCSD-7741	Batch ID: 7741	Test Code: SW8015	Units: mg/L	Analysis Date 4/13/2005 5:12:01 PM	Prep Date 4/11/2005					
Client ID:		Run ID: FID(17A) 2_050412A	SeqNo: 351565								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.592	1	5	0	112	81.2	149	6.687	17.8	23	

Sample ID	GRO lcs 2.5ug	Batch ID: R15047	Test Code: SW8015	Units: mg/L	Analysis Date 4/9/2005 3:56:36 AM	Prep Date					
Client ID:		Run ID: PIDFID_050408A	SeqNo: 350595								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.4986	0.05	0.5	0	99.7	82.6	114	0			

Sample ID	GRO lcs 2.5ug	Batch ID: R15061	Test Code: SW8015	Units: mg/L	Analysis Date 4/12/2005 1:05:11 AM	Prep Date					
Client ID:		Run ID: PIDFID_050411A	SeqNo: 350892								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.4896	0.05	0.5	0	97.9	82.6	114	0			

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

CLIENT: San Juan Refining

Work Order: 0504087

Project: River Terrace Investigation TP9-TP13

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	BTEX Ics 100ng	Batch ID: R15047	Test Code: SW8021	Units: µg/L	Analysis Date	4/8/2005 7:55:35 PM	Prep Date				
Client ID:		Run ID:	PIDFID_050408A		SeqNo:	350578					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	36.12	2.5	40	0	90.3	64.5	133	0			
Benzene	19.64	0.5	20	0	98.2	88.7	114	0			
Toluene	19.71	0.5	20	0	98.6	89.3	112	0			
Ethylbenzene	20.82	0.5	20	0	104	88.6	113	0			
Xylenes, Total	58.33	0.5	60	0	97.2	89.4	112	0			

Sample ID	BTEX Ics 100ng	Batch ID: R15061	Test Code: SW8021	Units: µg/L	Analysis Date	4/11/2005 11:04:48 PM	Prep Date				
Client ID:		Run ID:	PIDFID_050411A		SeqNo:	350889					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	38.6	2.5	40	0	96.5	64.5	133	0			
Benzene	21.07	0.5	20	0	105	88.7	114	0			
Toluene	20.71	0.5	20	0	104	89.3	112	0			
Ethylbenzene	22.01	0.5	20	0	110	88.6	113	0			
Xylenes, Total	62.29	0.5	60	0	104	89.4	112	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/8/2005

Work Order Number 0504087

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 - 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 _____

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: SAW, Juan Robins

Project Name: River Terrace Investigation
TP9 - TP-13

Address: #50 Rd 4990

Bloomfield, NM
87413

Phone #: 505-632-4161
Fax #: 505-632-3911

Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.
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Matrix

Sample I.D. No.

Number/Volume

Preservative

$$\text{HgCl}_2 \quad \text{HNO}_3$$
$$\text{HgCl}_2 \quad \text{HNO}_3$$

HEAL No. 57

054086

4/07/05	2pm
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holdem

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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10m

170ms

TP-9

FR-10

110

1-1

TP-12

4-VoA

4-vo

11-1/2

401-5

f-V_{0A}

Date:	1/07/05	Time:	3:30p
Date:		Time:	

Relinquished By: (Signature) Cindy Tu

Received By: (Signature)  Received By: (Signature) 

Remarks: 

ANALYSIS REQUEST

[illegible]

Sheet: 1 OF 5
 Bore Point: River Terrace
 Water Elevation: 7.0'
 Boring No.: TP-9

Precision Engineering, Inc.
 P.O. Box 422
 Las Cruces, NM 88004
 505-523-7674

File #: 05-038
 Site: Bloomfield
 Giant Refining
 Elevation: EXISTING
 Date: 4/5/2005

Log of Test Borings

LAB #	DEPTH	BLOW COUNT	PLOT	SCALE	MATERIAL CHARACTERISTICS (MOISTURE, CONDITION, COLOR, ETC.)	%M	LL	PI	CLASS.
	0.0-7.5		///**/// ///**/// ///**/// ///**/// ///**/// ///**/// ///**/// ///**/// ///**/// ///**/// ///**/// ///**/// ///**///	<u>2.5</u> <u>5.0</u>	Clay, Slightly Sandy, Very Fine, Brown, Moist, Gravel, Cobbles				
	7.0		///**/// ///**///	<u>7.5</u>	Water				
	7.5-10.0		***** ***** ***** ***** *****	<u>10.0</u>	Sand, Very Fine, Grey, Water Bearing				
	10.0			<u>15.0</u> <u>20.0</u>	TD Set 2" Well @ 10.0' 5' of Screen, 6' of Riser Top of Sand 3.1' Top of Bentonite 1.5'				
SIZE & TYPE OF BORING: 4 1/4" ID HOLLOW STEMMED AUGER						LOGGED BY: KMM			

File #: 05-038
Site: Bloomfield
Giant Refining
Elevation: EXISTING
Date: 4/5/2005

Sheet: 3 OF 5
 Bore Point: River Terrace
 Water Elevation: 5.3'
 Boring No.: TP-11

Precision Engineering, Inc.
 P.O. Box 422
 Las Cruces, NM 88004
 505-523-7674

File #: 05-038
 Site: Bloomfield
 Giant Refining
 Elevation: EXISTING
 Date: 4/5/2005

Log of Test Borings

LAB #	DEPTH	BLOW COUNT	PLOT	SCALE	MATERIAL CHARACTERISTICS (MOISTURE, CONDITION, COLOR, ETC.)	%M	LL	PI	CLASS.
	0.0-2.0		//////// //////// ////////		<u>Clay</u> , Brown, Moist, Gravel, Cobbles				
	2.0-3.5		***//*** ***//***	<u>2.5</u>	<u>Sand</u> , Clayey, Brown, Moist, Gravel, Cobbles				
	3.5-5.0		***//*** ***_*** ***_*** ***_*** ***_***	<u>5.0</u>	<u>Sand</u> , Silty, Brown, Damp, Gravel, Cobbles				
	5.0-9.5		*****		<u>Sand</u> , Fine to Coarse, Tan, Damp, Wet				
	5.3'		***** ***** ***** ***** ***** ***** *****	<u>7.5</u>	<u>Water</u>				
	9.5			<u>10.0</u>	TD Set 2" Well @ 9.5' 5' of Screen, 5' of Riser Top of Sand 3.5' Top of Bentonite 1.4'				
				<u>15.0</u>					
				<u>20.0</u>					
SIZE & TYPE OF BORING: 4 1/4" ID HOLLOW STEMMED AUGER						LOGGED BY: KMM			

Sheet: 4 OF 5
 Bore Point: RiverTerrace
 Water Elevation: 7.5'
 Boring No.: TP-12

Precision Engineering, Inc.
 P.O. Box 422
 Las Cruces, NM 88004
 505-523-7674

File #: 05-038
 Site: Bloomfield
 Giant Refining
 Elevation: EXISTING
 Date: 4/5/2005

Log of Test Borings

LAB #	DEPTH	BLOW COUNT	PLOT	SCALE	MATERIAL CHARACTERISTICS (MOISTURE, CONDITION, COLOR, ETC.)	%M	LL	PI	CLASS.
	0.0-3.0		***_*** ***_*** ***_*** ***_*** ***_***	<u>2.5</u>	<u>Sand</u> , Very Fine to Fine, Slightly Silty, Brown, Gravel, Cobbles, Moist				
	3.0-4.5		////**// ////**// ////**//		<u>Clay</u> , Sandy, Very Fine, Brown, Some Gravel/ Cobbles, Moist				
	4.5-9.0		***//*** ***//*** ***//*** ***//*** ***//*** ***//*** ***//***	<u>5.0</u> <u>7.5</u>	<u>Sand</u> , Very Fine to Fine, Clayey, Brown, Moist, Some Gravel				
	9.0-13.0		***** ***** ***** ***** ***** ***** ***** ***** ***** *****	<u>10.0</u>	Water <u>Sand</u> , Fine to Coarse, Tan, Water Bearing				
	13.0			<u>15.0</u> <u>20.0</u>	TD Set 2" Well @ 12.0' 5' of Screen, 8' of Riser Top of Sand 5'2" Top of Bentonite 4'2"				
SIZE & TYPE OF BORING: 4 1/4" ID HOLLOW STEMMED AUGER						LOGGED BY: KMM			

Sheet: 5 OF 5
Bore Point: River Terrace
Water Elevation: 6.0'
Boring No.: TP-13

Precision Engineering, Inc.
P.O. Box 422
Las Cruces, NM 88004
505-523-7674

File #: 05-038
Site: Bloomfield
Giant Refining
Elevation: EXISTING
Date: 4/5/2005

Log of Test Borings

LAB #	DEPTH	BLOW COUNT	PLOT	SCALE	MATERIAL CHARACTERISTICS (MOISTURE, CONDITION, COLOR, ETC.)	%M	LL	PI	CLASS.
	0.0-1.5		*-----*		<u>Silt</u> , Sandy, Very Fine to Fine, Brown, Moist, Gravel, Cobbles				
	1.5-8.5		***//*** ***//*** ***//*** ***//*** ***//*** ***//*** ***//*** ***//*** ***//*** ***//***	<u>2.5</u> <u>5.0</u>	<u>Sand</u> , Very Fine, Clayey, Brown, Moist, Gravel, Cobbles				
	6.0		***//*** ***//*** ***//*** ***//***	<u>7.5</u>	Water Level 6.0'				
	8.5-14.0		///////// ///////// ///////// ///////// ///////// ///////// ///////// ///////// ///////// ///////// ///////// /////////	<u>10.0</u>	<u>Clay</u> , Grey/Black, Moist, No Hydrocarbon Odor				
	14.0			<u>15.0</u> <u>20.0</u>	TD Set 2" Well @ 14.5' 10' of Screen, 5' of Riser Top of Sand 2.5' Top of Bentonite 1.5'				

SIZE & TYPE OF BORING: 4 1/4" ID HOLLOW STEMMED AUGER

LOGGED BY: KMM

GIANT

REFINING COMPANY

Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

Certified Mail: 7001 1140 0000 4022 0804

May 26, 2005

RE: Giant Refining Company, Bloomfield Refiner
EPA ID# NMD089416416
GW - 001

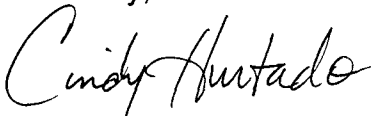
Dear Mr. Price,

Please find attached analytical results for the May 4, 2005 sampling event for wells MW #48 and MW #49 on the river terrace at the Giant Refining facility. Note that the results for well MW #49, located down gradient of the barrier wall, had a detection of benzene at a concentration of 38 ug/L. A BTEX sample was taken out of the San Juan River adjacent to MW #49. The results of that sample were non detect. We will continue to monitor both wells on a monthly basis and evaluate the concentration trends.

Tank #33 and Fresh Water Pond samples were pulled on May 4, 2005. Analytical results are included with this packet. Tank #33 benzene levels were below WQCC standards at a concentration of 1.8 ug/L. Fresh Water Pond results were all non detect.

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

Sincerely,



Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

COVER LETTER

May 12, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: TK #33 Effluent

Order No.: 0505035

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 2 samples on 5/4/2005 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

Date: 12-May-05

CLIENT: San Juan Refining
Lab Order: 0505035
Project: TK #33 Effluent
Lab ID: 0505035-01

Client Sample ID: TK#33
Collection Date: 5/4/2005 10:35:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	23	2.5		µg/L	1	5/9/2005 11:14:16 AM
Benzene	1.8	0.50		µg/L	1	5/9/2005 11:14:16 AM
Toluene	ND	0.50		µg/L	1	5/9/2005 11:14:16 AM
Ethylbenzene	1.1	0.50		µg/L	1	5/9/2005 11:14:16 AM
Xylenes, Total	1.4	0.50		µg/L	1	5/9/2005 11:14:16 AM
Surr: 4-Bromofluorobenzene	104	83.3-121		%REC	1	5/9/2005 11:14:16 AM

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

Date: 12-May-05

CLIENT: San Juan Refining
Lab Order: 0505035
Project: TK #33 Effluent
Lab ID: 0505035-02

Client Sample ID: Fresh Water Ponds
Collection Date: 5/4/2005 10:50:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/9/2005 11:44:55 AM
Benzene	ND	0.50		µg/L	1	5/9/2005 11:44:55 AM
Toluene	ND	0.50		µg/L	1	5/9/2005 11:44:55 AM
Ethylbenzene	ND	0.50		µg/L	1	5/9/2005 11:44:55 AM
Xylenes, Total	ND	0.50		µg/L	1	5/9/2005 11:44:55 AM
Surr: 4-Bromofluorobenzene	99.4	83.3-121		%REC	1	5/9/2005 11:44:55 AM

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

Date: 12-May-05

CLIENT: San Juan Refining
Work Order: 0505035
Project: TK #33 Effluent

QC SUMMARY REPORT
Method Blank

Sample ID: Reagent Blank 5m Batch ID: R15328 Test Code: SW8021 Units: µg/L Analysis Date: 5/9/2005 6:52:11 AM Prep Date
Client ID: Run ID: PIDFID_050509A SeqNo: 359328
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Methyl tert-butyl ether (MTBE)	ND	2.5											
Benzene	ND	0.5											
Toluene	ND	0.5											
Ethylbenzene	ND	0.5											
Xylenes, Total	ND	0.5											
Surr: 4-Bromofluorobenzene	20.48	0	20	0	102	83.3	121	0					

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits /

Date: 12-May-05

Hall Environmental Analysis Laboratory

CLIENT: San Juan Refining
Work Order: 0505035
Project: TK #33 Effluent

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	BTEX Ics 100ng	Batch ID: R15328	Test Code: SW8021	Units: µg/L	Analysis Date	5/9/2005 11:28:27 PM	Prep Date				
Client ID:			Run ID: PIDFID_050509A		SeqNo:	359338					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	43.54	2.5	40	0	109	64.5	133	0			
Benzene	21.07	0.5	20	0	105	88.7	114	0			
Toluene	20.74	0.5	20	0	104	89.3	112	0			
Ethylbenzene	21.84	0.5	20	0	109	88.6	113	0			
Xylenes, Total	62.36	0.5	60	0	104	89.4	112	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

5/4/2005

Work Order Number 0505035

Received by GLS

Checklist completed by

B. Schleppe

5-5-05

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 - 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

Date

Time

Matrix

Sample I.D. No.

Number/Volume

Preservative

HgCl₂

HNO₃

HEAL No.

0505035

5/04/05 1035A

1

1035A

1

Fresh Water Ponds

TK # 33

2-VDA

2-VDA

TKL

TKL

-1

-2

QA/QC Package:

Std ☐

Level 4 ☐

Other:

Project Name:

TK # 33 Effluent

Project #:

Project Manager:

Sampler:

Cindy Hurtado

Sample Temperature:

52

ANALYSIS REQUEST

BTEX + MTBE + TPH (Gasoline Only)

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 802.1)

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)

Remarks:

Received By: (Signature)

[Signature] 5-5-05

Received By: (Signature)

[Signature] 5-5-05

Relinquished By: (Signature)

Cindy Hurtado

Time:

2pm

Relinquished By: (Signature)

Cindy Hurtado

Time:

2pm



COVER LETTER

May 20, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace - 5/05

Order No.: 0505034

Dear Cindy Hurtado:

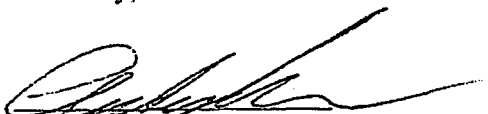
Hall Environmental Analysis Laboratory received 4 samples on 5/5/2005 for the analyses presented in the following report.

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



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory

Date: 20-May-05

CLIENT: San Juan Refining
Lab Order: 0505034
Project: River Terrace - 5/05
Lab ID: 0505034-01

Client Sample ID: MW-48
Collection Date: 5/4/2005 10:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						
						Analyst: SCC
Diesel Range Organics (DRO)	1.2	1.0		mg/L	1	5/19/2005 9:22:39 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/19/2005 9:22:39 PM
Surr: DNOP	120	58-140		%REC	1	5/19/2005 9:22:39 PM
EPA METHOD 8015B: GASOLINE RANGE						
						Analyst: NSB
Gasoline Range Organics (GRO)	14	2.5		mg/L	50	5/9/2005 9:12:52 AM
Surr: BFB	109	78.3-120		%REC	50	5/9/2005 9:12:52 AM
EPA METHOD 8021B: VOLATILES						
						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	130		µg/L	50	5/9/2005 9:12:52 AM
Benzene	280	25		µg/L	50	5/9/2005 9:12:52 AM
Toluene	ND	25		µg/L	50	5/9/2005 9:12:52 AM
Ethylbenzene	900	25		µg/L	50	5/9/2005 9:12:52 AM
Xylenes, Total	3700	25		µg/L	50	5/9/2005 9:12:52 AM
Surr: 4-Bromofluorobenzene	106	83.3-121		%REC	50	5/9/2005 9:12:52 AM
EPA METHOD 8310: PAHS						
						Analyst: JMP
Naphthalene	160	2.5		µg/L	1	5/19/2005 2:37:36 AM
1-Methylnaphthalene	52	2.5		µg/L	1	5/19/2005 2:37:36 AM
2-Methylnaphthalene	72	2.5		µg/L	1	5/19/2005 2:37:36 AM
Acenaphthylene	ND	2.5		µg/L	1	5/19/2005 2:37:36 AM
Acenaphthene	ND	2.5		µg/L	1	5/19/2005 2:37:36 AM
Fluorene	0.86	0.80		µg/L	1	5/19/2005 2:37:36 AM
Phenanthrene	2.4	0.60		µg/L	1	5/19/2005 2:37:36 AM
Anthracene	ND	0.60		µg/L	1	5/19/2005 2:37:36 AM
Fluoranthene	ND	0.30		µg/L	1	5/19/2005 2:37:36 AM
Pyrene	ND	0.30		µg/L	1	5/19/2005 2:37:36 AM
Benz(a)anthracene	ND	0.020		µg/L	1	5/19/2005 2:37:36 AM
Chrysene	ND	0.20		µg/L	1	5/19/2005 2:37:36 AM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	5/19/2005 2:37:36 AM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	5/19/2005 2:37:36 AM
Benzo(a)pyrene	ND	0.020		µg/L	1	5/19/2005 2:37:36 AM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	5/19/2005 2:37:36 AM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	5/19/2005 2:37:36 AM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	5/19/2005 2:37:36 AM
Surr: Benzo(e)pyrene	78.0	54-102		%REC	1	5/19/2005 2:37:36 AM

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

Date: 20-May-05

CLIENT: San Juan Refining
Lab Order: 0505034
Project: River Terrace - 5/05
Lab ID: 0505034-02

Client Sample ID: MW-49
Collection Date: 5/4/2005 9:20:00 AM
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	5/19/2005 9:53:25 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/19/2005 9:53:25 PM
Surr: DNOP	139	58-140		%REC	1	5/19/2005 9:53:25 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.42	0.050		mg/L	1	5/9/2005 9:43:05 AM
Surr: BFB	109	78.3-120		%REC	1	5/9/2005 9:43:05 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/9/2005 9:43:05 AM
Benzene	38	0.50		µg/L	1	5/9/2005 9:43:05 AM
Toluene	0.55	0.50		µg/L	1	5/9/2005 9:43:05 AM
Ethylbenzene	3.0	0.50		µg/L	1	5/9/2005 9:43:05 AM
Xylenes, Total	3.4	0.50		µg/L	1	5/9/2005 9:43:05 AM
Surr: 4-Bromofluorobenzene	106	83.3-121		%REC	1	5/9/2005 9:43:05 AM
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	ND	2.5		µg/L	1	5/19/2005 3:25:36 AM
1-Methylnaphthalene	ND	2.5		µg/L	1	5/19/2005 3:25:36 AM
2-Methylnaphthalene	ND	2.5		µg/L	1	5/19/2005 3:25:36 AM
Acenaphthylene	ND	2.5		µg/L	1	5/19/2005 3:25:36 AM
Acenaphthene	ND	2.5		µg/L	1	5/19/2005 3:25:36 AM
Fluorene	ND	0.80		µg/L	1	5/19/2005 3:25:36 AM
Phenanthrene	ND	0.60		µg/L	1	5/19/2005 3:25:36 AM
Anthracene	ND	0.60		µg/L	1	5/19/2005 3:25:36 AM
Fluoranthene	ND	0.30		µg/L	1	5/19/2005 3:25:36 AM
Pyrene	ND	0.30		µg/L	1	5/19/2005 3:25:36 AM
Benz(a)anthracene	ND	0.020		µg/L	1	5/19/2005 3:25:36 AM
Chrysene	ND	0.20		µg/L	1	5/19/2005 3:25:36 AM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	5/19/2005 3:25:36 AM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	5/19/2005 3:25:36 AM
Benzo(a)pyrene	ND	0.020		µg/L	1	5/19/2005 3:25:36 AM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	5/19/2005 3:25:36 AM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	5/19/2005 3:25:36 AM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	5/19/2005 3:25:36 AM
Surr: Benzo(e)pyrene	74.7	54-102		%REC	1	5/19/2005 3:25:36 AM

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

Date: 20-May-05

CLIENT: San Juan Refining
Lab Order: 0505034
Project: River Terrace - 5/05
Lab ID: 0505034-03

Client Sample ID: River Near MW-49
Collection Date: 5/4/2005 9:35:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/9/2005 10:13:33 AM
Benzene	ND	0.50		µg/L	1	5/9/2005 10:13:33 AM
Toluene	ND	0.50		µg/L	1	5/9/2005 10:13:33 AM
Ethylbenzene	ND	0.50		µg/L	1	5/9/2005 10:13:33 AM
Xylenes, Total	ND	0.50		µg/L	1	5/9/2005 10:13:33 AM
Surr: 4-Bromofluorobenzene	102	83.3-121		%REC	1	5/9/2005 10:13:33 AM

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

Date: 20-May-05

CLIENT: San Juan Refining
Lab Order: 0505034
Project: River Terrace - 5/05
Lab ID: 0505034-04

Client Sample ID: Trip Blank
Collection Date:

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	5/9/2005 10:43:53 AM
Surr: BFB	102	78.3-120		%REC	1	5/9/2005 10:43:53 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/9/2005 10:43:53 AM
Benzene	ND	0.50		µg/L	1	5/9/2005 10:43:53 AM
Toluene	ND	0.50		µg/L	1	5/9/2005 10:43:53 AM
Ethylbenzene	ND	0.50		µg/L	1	5/9/2005 10:43:53 AM
Xylenes, Total	ND	0.50		µg/L	1	5/9/2005 10:43:53 AM
Surr: 4-Bromofluorobenzene	100	83.3-121		%REC	1	5/9/2005 10:43:53 AM

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

Date: 20-May-05

CLIENT: San Juan Refining
 Work Order: 0505034
 Project: River Terrace - 5/05

QC SUMMARY REPORT
 Method Blank

Sample ID MB-7949	Batch ID: 7949	Test Code: SW8015	Units: mg/L	Analysis Date 5/19/2005 8:20:40 PM	Prep Date 5/11/2005						
Client ID:		Run ID: FID(17A) 2_050518A		SeqNo: 363970							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1									
Motor Oil Range Organics (MRO)	ND	5									
Surr: DNOP	0.8745	0	1	0	87.5	58	140	0			

Sample ID Reagent Blank 5m	Batch ID: R15328	Test Code: SW8015	Units: mg/L	Analysis Date 5/9/2005 6:52:11 AM	Prep Date						
Client ID:		Run ID: PIDFID_050509A		SeqNo: 359329							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.05									
Surr: BFB	22	0	20	0	110	78.3	120	0			

Sample ID Reagent Blank 5m	Batch ID: R15328	Test Code: SW8021	Units: µg/L	Analysis Date 5/9/2005 6:52:11 AM	Prep Date						
Client ID:		Run ID: PIDFID_050509A		SeqNo: 359328							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.48	0	20	0	102	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0505034
 Project: River Terrace - 5/05

Sample ID	MB-7940	Batch ID: 7940	Test Code: SW8310	Units: µg/L	Analysis Date	5/18/2005 11:25:38 PM	Prep Date	5/10/2005			
Client ID:			Run ID:	HUGO_050518A	SeqNo:	363800					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	2.5									
1-Methylnaphthalene	ND	2.5									
2-Methylnaphthalene	ND	2.5									
Acenaphthylene	ND	2.5									
Acenaphthene	ND	2.5									
Fluorene	ND	0.8									
Phenanthrene	ND	0.6									
Anthracene	ND	0.6									
Fluoranthene	ND	0.3									
Pyrene	ND	0.3									
Benz(a)anthracene	ND	0.02									
Chrysene	ND	0.2									
Benzo(b)fluoranthene	ND	0.05									
Benzo(k)fluoranthene	ND	0.02									
Benzo(a)pyrene	ND	0.02									
Dibenz(a,h)anthracene	ND	0.04									
Benzo(g,h,i)perylene	ND	0.03									
Indeno(1,2,3-cd)pyrene	ND	0.08									
Surr: Benzo(e)pyrene	7.16	0	10	0	71.6	54	102	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 20-May-05

QC SUMMARY REPORT
Sample Matrix Spike

CLIENT: San Juan Refining
Work Order: 0505034
Project: River Terrace - 5/05

Sample ID	0505034-02a.ms	Batch ID: R15328	Test Code: SW8015	Units: mg/L	Analysis Date	5/9/2005 1:16:44 PM	Prep Date				
Client ID:	MW-49		Run ID: PIDFID_050509A		SeqNo:	359342					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.939	0.05	0.5	0.4158	105	82.6	114	0			
Surr: BFB	26.17	0	25	0	105	78.3	120	0			

Sample ID	0505034-02a.msd	Batch ID: R15328	Test Code: SW8015	Units: mg/L	Analysis Date	5/9/2005 1:47:23 PM	Prep Date				
Client ID:	MW-49		Run ID: PIDFID_050509A		SeqNo: 359343						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.9164	0.05	0.5	0.4158	100	82.6	114	0.939	2.44	8.39	
Surr: BFB	25.5	0	25	0	102	78.3	120	26.17	2.59	0	

Sample ID	0505034-03a.ms	Batch ID: R15328	Test Code: SW8021	Units: µg/L	Analysis Date	5/9/2005 12:15:26 PM	Prep Date				
Client ID:	River Near MW-49		Run ID: PIDFID_050509A		SeqNo:	359336					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	41.39	2.5	40	0	103	64.5	133	0			
Benzene	19.52	0.5	20	0	97.6	88.7	114	0			
Toluene	19.56	0.5	20	0	97.8	89.3	112	0			
Ethylbenzene	19.75	0.5	20	0	98.8	88.6	113	0			
Xylenes, Total	59.02	0.5	60	0	98.4	89.4	112	0			
Surr: 4-Bromofluorobenzene	22.85	0	24	0	95.2	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

CLIENT: San Juan Refining
 Work Order: 0505034
 Project: River Terrace - 5/05

Sample ID	0505034-03a msd	Batch ID: R15328	Test Code: SW8021	Units: µg/L	Analysis Date	5/9/2005 12:45:57 PM	Prep Date				
Client ID:	River Near MW-49	Run ID:	PIDFID_050509A		SeqNo:	359337					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	40.37	2.5	40	0	101	64.5	133	41.39	2.51	28	
Benzene	19.8	0.5	20	0	99.0	88.7	114	19.52	1.41	27	
Toluene	19.99	0.5	20	0	100	89.3	112	19.56	2.22	19	
Ethylbenzene	20.52	0.5	20	0	103	88.6	113	19.75	3.82	10	
Xylenes, Total	59.39	0.5	60	0	99.0	89.4	112	59.02	0.630	13	
Surr: 4-Bromofluorobenzene	23.07	0	24	0	98.1	83.3	121	22.85	0.974	0	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 20-May-05

CLIENT: San Juan Refining
 Work Order: 0505034
 Project: River Terrace - S/05

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	LCS-7949	Batch ID:	7949	Test Code:	SW8015	Units:	mg/L	Analysis Date	5/19/2005 8:51:41 PM	Prep Date	5/11/2005
Client ID:		Run ID:	FID(17A) 2_050518A					SeqNo:	363971		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Diesel Range Organics (DRO)		6.28	1	5	0	0	126	81.2	149	0	
Sample ID	GRO lcs 2.5ug	Batch ID:	R15328	Test Code:	SW8015	Units:	mg/L	Analysis Date	5/9/2005 10:27:44 PM	Prep Date	
Client ID:		Run ID:	PIDFID_050509A					SeqNo:	359344		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Gasoline Range Organics (GRO)		0.4752	0.05	0.5	0	0	95.0	82.6	114	0	
Sample ID	BTEX lcs 100ng	Batch ID:	R15328	Test Code:	SW8021	Units:	µg/L	Analysis Date	5/9/2005 11:28:27 PM	Prep Date	
Client ID:		Run ID:	PIDFID_050509A					SeqNo:	359338		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Methyl tert-butyl ether (MTBE)		43.54	2.5	40	0	0	109	64.5	133	0	
Benzene		21.07	0.5	20	0	0	105	88.7	114	0	
Toluene		20.74	0.5	20	0	0	104	89.3	112	0	
Ethylbenzene		21.84	0.5	20	0	0	109	88.6	113	0	
Xylenes, Total		62.36	0.5	60	0	0	104	89.4	112	0	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0505034
 Project: River Terrace - 5/05

Sample ID	LCS-7940	Batch ID: 7940	Test Code: SW8310	Units: µg/L	Analysis Date	5/19/2005 12:13:38 AM	Prep Date	5/10/2005				
Client ID:	Run ID:	HUGO_050518A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result											
Naphthalene	16.22	2.5	40	40.1	0	40.6	34.8	97.4	0			
1-Methylnaphthalene	18.04	2.5	40.1	40	0	45.0	34.7	100	0			
2-Methylnaphthalene	17.41	2.5	40	40.1	0	43.5	35	98.1	0			
Acenaphthylene	22.83	2.5	40.1	40	0	56.9	48.3	95.1	0			
Acenaphthene	21.32	2.5	40	40.1	0	53.3	45	95	0			
Fluorene	2.63	0.8	4.01	4.01	0	65.6	46.8	93.4	0			
Phenanthrene	1.44	0.6	2.01	2.01	0	71.6	48.7	104	0			
Anthracene	1.56	0.6	2.01	2.01	0	77.6	47.5	102	0			
Fluoranthene	3.17	0.3	4.01	4.01	0	79.1	46.3	108	0			
Pyrene	3.12	0.3	4.01	4.01	0	77.8	43.8	109	0			
Benz(a)anthracene	0.32	0.02	0.401	0.401	0	79.8	40.3	115	0			
Chrysene	1.63	0.2	2.01	2.01	0	81.1	42.6	107	0			
Benzo(b)fluoranthene	0.39	0.05	0.501	0.501	0	77.8	48.6	107	0			
Benzo(k)fluoranthene	0.21	0.02	0.25	0.25	0	84.0	23.3	136	0			
Benzo(a)pyrene	0.21	0.02	0.251	0.251	0	83.7	33.4	117	0			
Dibenz(a,h)anthracene	0.42	0.04	0.501	0.501	0	83.8	27.3	139	0			
Benzo(g,h,i)perylene	0.41	0.03	0.5	0.5	0	82.0	38.2	117	0			
Indeno(1,2,3-cd)pyrene	0.898	0.08	1.002	1.002	0	89.6	39.9	125	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

5/5/2005

Work Order Number 0505034

Received by GLS

Checklist completed by

[Signature]

5-5-05

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 - 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 _____



Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

Certified Mail: 7001 1140 0000 4022 0781

May 3, 2005

RE: Giant Refining Company, Bloomfield Refiner
EPA ID# NMD089416416
GW - 001

Dear Mr. Price,

Please find attached analytical results for the April 4, 2005 sampling event for wells MW #48 and MW #49 on the river terrace at the Giant Refining facility. Note that the results for well MW #49, located down gradient of the barrier wall, had a detection of benzene at a concentration of 41 ug/L. A BTEX sample was taken out of the San Juan River adjacent to MW #49. The results of that sample were non detect. We will continue to monitor both wells on a monthly basis and evaluate the concentration trends.

The second quarter 2005 sampling event for the San Juan River was conducted April 14, 2005. Analytical results are enclosed with this packet. There was not an exceedance of any WQCC standard or EPA maximum contaminant level during this sampling event.

Tank #33 and Fresh Water Pond samples were pulled on April 4, 2005. Analytical results are included with this packet. Tank #33 benzene levels were below WQCC standards at a concentration of 8.4 ug/L. Fresh Water Pond results were all non detect.

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

Sincerely,

A handwritten signature in cursive script that reads "Cindy Hurtado".

Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

COVER LETTER

April 19, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace 4/05

Order No.: 0504042

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 3 samples on 4/5/2005 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

Date: 19-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504042
Project: River Terrace 4/05
Lab ID: 0504042-01

Client Sample ID: MW #48
Collection Date: 4/4/2005 9:45:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.8	1.0		mg/L	1	4/13/2005 6:53:11 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/13/2005 6:53:11 AM
Surr: DNOP	101	58-140		%REC	1	4/13/2005 6:53:11 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	22	2.5		mg/L	50	4/6/2005 11:19:58 PM
Surr: BFB	104	78.3-120		%REC	50	4/6/2005 11:19:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	130		µg/L	50	4/6/2005 11:19:58 PM
Benzene	480	25		µg/L	50	4/6/2005 11:19:58 PM
Toluene	ND	25		µg/L	50	4/6/2005 11:19:58 PM
Ethylbenzene	1700	25		µg/L	50	4/6/2005 11:19:58 PM
Xylenes, Total	7500	25		µg/L	50	4/6/2005 11:19:58 PM
Surr: 4-Bromofluorobenzene	112	83.3-121		%REC	50	4/6/2005 11:19:58 PM
Surr: 4-Bromofluorobenzene	104	83.3-121		%REC	50	4/7/2005 2:24:43 PM
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	150	13		µg/L	1	4/12/2005 8:45:38 PM
1-Methylnaphthalene	54	13		µg/L	1	4/12/2005 8:45:38 PM
2-Methylnaphthalene	70	13		µg/L	1	4/12/2005 8:45:38 PM
Acenaphthylene	ND	13		µg/L	1	4/12/2005 8:45:38 PM
Acenaphthene	ND	13		µg/L	1	4/12/2005 8:45:38 PM
Fluorene	ND	4.0		µg/L	1	4/12/2005 8:45:38 PM
Phenanthrene	ND	3.0		µg/L	1	4/12/2005 8:45:38 PM
Anthracene	ND	3.0		µg/L	1	4/12/2005 8:45:38 PM
Fluoranthene	ND	1.5		µg/L	1	4/12/2005 8:45:38 PM
Pyrene	ND	1.5		µg/L	1	4/12/2005 8:45:38 PM
Benz(a)anthracene	ND	0.10		µg/L	1	4/12/2005 8:45:38 PM
Chrysene	ND	1.0		µg/L	1	4/12/2005 8:45:38 PM
Benzo(b)fluoranthene	ND	0.25		µg/L	1	4/12/2005 8:45:38 PM
Benzo(k)fluoranthene	ND	0.10		µg/L	1	4/12/2005 8:45:38 PM
Benzo(a)pyrene	ND	0.10		µg/L	1	4/12/2005 8:45:38 PM
Dibenz(a,h)anthracene	ND	0.20		µg/L	1	4/12/2005 8:45:38 PM
Benzo(g,h,i)perylene	ND	0.15		µg/L	1	4/12/2005 8:45:38 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		µg/L	1	4/12/2005 8:45:38 PM
Surr: Benzo(e)pyrene	63.9	54-102		%REC	1	4/12/2005 8:45:38 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

Date: 19-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504042
Project: River Terrace 4/05
Lab ID: 0504042-02

Client Sample ID: MW #49
Collection Date: 4/4/2005 9:15:00 AM
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	4/13/2005 7:22:48 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/13/2005 7:22:48 AM
Surr: DNOP	106	58-140		%REC	1	4/13/2005 7:22:48 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.52	0.050		mg/L	1	4/7/2005 12:19:51 AM
Surr: BFB	103	78.3-120		%REC	1	4/7/2005 12:19:51 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/7/2005 12:19:51 AM
Benzene	41	0.50		µg/L	1	4/7/2005 12:19:51 AM
Toluene	0.68	0.50		µg/L	1	4/7/2005 12:19:51 AM
Ethylbenzene	15	0.50		µg/L	1	4/7/2005 12:19:51 AM
Xylenes, Total	24	0.50		µg/L	1	4/7/2005 12:19:51 AM
Surr: 4-Bromofluorobenzene	111	83.3-121		%REC	1	4/7/2005 12:19:51 AM
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	ND	2.5		µg/L	1	4/12/2005 9:33:38 PM
1-Methylnaphthalene	ND	2.5		µg/L	1	4/12/2005 9:33:38 PM
2-Methylnaphthalene	ND	2.5		µg/L	1	4/12/2005 9:33:38 PM
Acenaphthylene	ND	2.5		µg/L	1	4/12/2005 9:33:38 PM
Acenaphthene	ND	2.5		µg/L	1	4/12/2005 9:33:38 PM
Fluorene	ND	0.80		µg/L	1	4/12/2005 9:33:38 PM
Phenanthrene	ND	0.60		µg/L	1	4/12/2005 9:33:38 PM
Anthracene	ND	0.60		µg/L	1	4/12/2005 9:33:38 PM
Fluoranthene	ND	0.30		µg/L	1	4/12/2005 9:33:38 PM
Pyrene	ND	0.30		µg/L	1	4/12/2005 9:33:38 PM
Benz(a)anthracene	ND	0.020		µg/L	1	4/12/2005 9:33:38 PM
Chrysene	ND	0.20		µg/L	1	4/12/2005 9:33:38 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	4/12/2005 9:33:38 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	4/12/2005 9:33:38 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	4/12/2005 9:33:38 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	4/12/2005 9:33:38 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	4/12/2005 9:33:38 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	4/12/2005 9:33:38 PM
Surr: Benzo(e)pyrene	71.5	54-102		%REC	1	4/12/2005 9:33:38 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

Date: 19-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504042
Project: River Terrace 4/05
Lab ID: 0504042-03

Client Sample ID: River Near MW # 49
Collection Date: 4/4/2005 9:30:00 AM

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	4/7/2005 1:44:06 PM
Benzene	ND	0.50		µg/L	1	4/7/2005 1:44:06 PM
Toluene	ND	0.50		µg/L	1	4/7/2005 1:44:06 PM
Ethylbenzene	ND	0.50		µg/L	1	4/7/2005 1:44:06 PM
Xylenes, Total	ND	0.50		µg/L	1	4/7/2005 1:44:06 PM
Surr: 4-Bromofluorobenzene	103	83.3-121		%REC	1	4/7/2005 1:44:06 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

Date: 19-Apr-05

CLIENT: San Juan Refining
Work Order: 0504042
Project: River Terrace 4/05

QC SUMMARY REPORT
 Method Blank

Sample ID	MB-7741	Batch ID: 7741	Test Code: SW8015	Units: mg/L	Analysis Date	4/13/2005 5:23:14 AM	Prep Date	4/11/2005			
Client ID:			Run ID:	FID(17A) 2_050412A	SeqNo:	351425					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1									
Motor Oil Range Organics (MRO)	ND	5									
Surr: DNOP	1.079	0	1	0	108	58	140	0			

Sample ID	Reagent Blank 5m	Batch ID: R15025	Test Code: SW8015	Units: mg/L	Analysis Date 4/6/2005 8:42:50 AM	Prep Date					
Client ID:			Run ID: PIDFID_050406A		SeqNo: 349807						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.05									
Surr: BFB	19.11	0	20	0	95.6	78.3	120	0			

Sample ID	Reagent Blank 5m	Batch ID: R15025	Test Code: SW8021	Units: µg/L	Analysis Date 4/6/2005 8:42:50 AM	Prep Date					
Client ID:			Run ID: PIDFID_050406A		SeqNo: 349804						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.01	0	20	0	100	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0504042
 Project: River Terrace 4/05

Sample ID	Reagent Blank 5m	Batch ID: R15031	Test Code: SW8021	Units: µg/L	Analysis Date 4/7/2005 8:45:25 AM	Prep Date					
Client ID:			Run ID: PIDFID_050407A		SeqNo: 350059						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	19.57	0	20	0	97.8	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
Work Order: 0504042
Project: River Terrace 4/05

Sample ID	MB-7723	Batch ID: 7723	Test Code: SW8310	Units: µg/L	Analysis Date	4/12/2005 4:45:40 PM	Prep Date	4/6/2005			
Client ID:		Run ID:	HUGO_050412A	SeqNo:	351527						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	2.5									
1-Methylnaphthalene	ND	2.5									
2-Methylnaphthalene	ND	2.5									
Acenaphthylene	ND	2.5									
Acenaphthene	ND	2.5									
Fluorene	ND	0.8									
Phenanthrene	ND	0.6									
Anthracene	ND	0.6									
Fluoranthene	ND	0.3									
Pyrene	ND	0.3									
Benz(a)anthracene	ND	0.02									
Chrysene	ND	0.2									
Benzo(b)fluoranthene	ND	0.05									
Benzo(k)fluoranthene	ND	0.02									
Benzo(a)pyrene	ND	0.02									
Dibenz(a,h)anthracene	ND	0.04									
Benzo(g,h,i)perylene	ND	0.03									
Indeno(1,2,3-cd)pyrene	ND	0.08									
Surr: Benzo(e)pyrene	7.65	0	10	0	76.5	54	102	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 19-Apr-05

CLIENT: San Juan Refining
Work Order: 0504042
Project: River Terrace 4/05

QC SUMMARY REPORT
 Sample Matrix Spike

Sample ID	0504042-02A MS	Batch ID: R15025	Test Code: SW8021	Units: µg/L	Analysis Date	4/7/2005 1:19:46 AM	Prep Date				
Client ID:	MW #49	Run ID:	PIDFID_050406A		SeqNo:	349855					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	28.49	2.5	40	0	71.2	64.5	133	0			S
Benzene	49.58	0.5	20	33.78	79.0	85	114	0			
Toluene	19.58	0.5	20	2.239	86.7	85	112	0			
Ethylbenzene	30.76	0.5	20	12.48	91.4	88.6	113	0			
Xylenes, Total	73.53	0.5	60	18.86	91.1	89.4	112	0			
Surr: 4-Bromofluorobenzene	23.39	0	24	0	97.5	83.3	121	0			

Sample ID	0504042-02A MSD	Batch ID: R15025	Test Code: SW8021	Units: µg/L	Analysis Date	4/7/2005 1:49:48 AM	Prep Date				
Client ID:	MW #49		Run ID:	PIDFID_050406A	SeqNo:	349857					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	27.7	2.5	40	0	69.2	64.5	133	28.49	2.83	28	
Benzene	50	0.5	20	33.78	81.1	88.7	114	49.58	0.856	27	S
Toluene	19.25	0.5	20	2.239	85.1	85	112	19.58	1.68	19	
Ethylbenzene	30.82	0.5	20	12.48	91.7	88.6	113	30.76	0.209	10	
Xylenes, Total	73.21	0.5	60	18.86	90.6	89.4	112	73.53	0.440	13	
Surr: 4-Bromofluorobenzene	23.19	0	24	0	96.6	83.3	121	23.39	0.868	0	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank /

Hall Environmental Analysis Laboratory

Date: 19-Apr-05

CLIENT: San Juan Refining
 Work Order: 0504042
 Project: River Terrace 4/05

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-7741	Batch ID: 7741	Test Code: SW8015	Units: mg/L	Analysis Date 4/13/2005 5:53:08 AM	Prep Date 4/11/2005
Client ID:		Run ID:	FID(17A) 2_050412A	SeqNo: 351426		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Diesel Range Organics (DRO)	6.687	1	5	0	134	81.2 149 0

Sample ID	LCSD-7741	Batch ID: 7741	Test Code: SW8015	Units: mg/L	Analysis Date 4/13/2005 5:12:01 PM	Prep Date 4/11/2005
Client ID:		Run ID:	FID(17A) 2_050412A	SeqNo: 351565		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Diesel Range Organics (DRO)	5.592	1	5	0	112	81.2 149 6.687 17.8 23

Sample ID	GRO lcs 2.5ug	Batch ID: R15025	Test Code: SW8015	Units: mg/L	Analysis Date 4/7/2005 2:49:49 AM	Prep Date
Client ID:		Run ID:	PIDFID_050406A	SeqNo: 349934		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	0.4384	0.05	0.5	0	87.7	82.6 114 0

Sample ID	GRO lcsd 2.5ug	Batch ID: R15025	Test Code: SW8015	Units: mg/L	Analysis Date 4/7/2005 3:19:52 AM	Prep Date
Client ID:		Run ID:	PIDFID_050406A	SeqNo: 349935		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	0.417	0.05	0.5	0	83.4	82.6 114 0.4384 5.00 8.39

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

CLIENT: San Juan Refining
 Work Order: 0504042
 Project: River Terrace 4/05

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	BTEX LCS 100ng	Batch ID: R15025	Test Code: SW8021	Units: µg/L	Analysis Date	4/6/2005 9:19:48 PM	Prep Date				
Client ID:	Run ID:	PIDFID_050406A	SeqNo:	349859							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	34.55	2.5	40	0	86.4	64.5	133	0			
Benzene	20.08	0.5	20	0	100	88.7	114	0			
Toluene	20.21	0.5	20	0	101	89.3	112	0			
Ethylbenzene	20.92	0.5	20	0	105	88.6	113	0			
Xylenes, Total	59.68	0.5	60	0	99.5	89.4	112	0			

Sample ID	BTEX lcs 100ng	Batch ID: R15031	Test Code: SW8021	Units: µg/L	Analysis Date	4/7/2005 11:29:24 AM	Prep Date				
Client ID:	Run ID:	PQL	SPK value	PIDFID_050407A	SeqNo:	350061					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	36.16	2.5	40	0	90.4	64.5	133	0			
Benzene	20.94	0.5	20	0	105	88.7	114	0			
Toluene	20.37	0.5	20	0	102	89.3	112	0			
Ethylbenzene	21.18	0.5	20	0	106	88.6	113	0			
Xylenes, Total	61.63	0.5	60	0	103	89.4	112	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining

Work Order: 0504042

Project: River Terrace 4/05

Sample ID	LCS-7723	Batch ID: 7723	Test Code: SW8310	Units: µg/L	Analysis Date	4/12/2005 5:33:40 PM	Prep Date	4/6/2005			
Client ID:			Run ID:	HUGO_050412A	SeqNo:	351528					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	22.91	2.5	40	0	57.3	49.1	92.3	0			
1-Methylnaphthalene	23.88	2.5	40.1	0	59.6	49.7	93.6	0			
2-Methylnaphthalene	23.53	2.5	40	0	58.8	50.1	91.7	0			
Acenaphthylene	28.14	2.5	40.1	0	70.2	54	93	0			
Acenaphthene	27.26	2.5	40	0	68.2	49.5	93.6	0			
Fluorene	2.91	0.8	4.01	0	72.6	46.8	93.4	0			
Phenanthrene	1.46	0.6	2.01	0	72.6	48.7	104	0			
Anthracene	1.52	0.6	2.01	0	75.6	47.5	102	0			
Fluoranthene	3.02	0.3	4.01	0	75.3	46.3	108	0			
Pyrene	2.99	0.3	4.01	0	74.6	43.8	109	0			
Benz(a)anthracene	0.3	0.02	0.401	0	74.8	40.3	115	0			
Chrysene	1.61	0.2	2.01	0	80.1	42.6	107	0			
Benzo(b)fluoranthene	0.29	0.05	0.501	0	57.9	48.6	107	0			
Benzo(k)fluoranthene	0.19	0.02	0.25	0	76.0	23.3	136	0			
Benzo(a)pyrene	0.18	0.02	0.251	0	71.7	33.4	117	0			
Dibenz(a,h)anthracene	0.37	0.04	0.501	0	73.9	27.3	139	0			
Benzo(g,h,i)perylene	0.35	0.03	0.5	0	70.0	38.2	117	0			
Indeno(1,2,3-cd)pyrene	0.738	0.08	1.002	0	73.7	39.9	125	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0504042
Project: River Terrace 4/05

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	LCSD-7723	Batch ID: 7723	Test Code: SW8310	Units: µg/L	Analysis Date	4/12/2005 6:21:40 PM	Prep Date	4/6/2005			
Client ID:			Run ID:	HUGO_050412A	SeqNo:	351529					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	18.58	2.5	40	0	46.5	49.1	92.3	22.91	20.9	32.1	S
1-Methylnaphthalene	18.89	2.5	40.1	0	47.1	49.7	93.6	23.88	23.3	32.7	S
2-Methylnaphthalene	18.72	2.5	40	0	46.8	50.1	91.7	23.53	22.8	34	S
Acenaphthylene	22.63	2.5	40.1	0	56.4	54	93	28.14	21.7	38.8	
Acenaphthene	22.34	2.5	40	0	55.9	49.5	93.6	27.26	19.8	38.6	
Fluorene	2.51	0.8	4.01	0	62.6	46.8	93.4	2.91	14.8	39.3	
Phenanthrene	1.31	0.6	2.01	0	65.2	48.7	104	1.46	10.8	25	
Anthracene	1.37	0.6	2.01	0	68.2	47.5	102	1.52	10.4	23.9	
Fluoranthene	2.86	0.3	4.01	0	71.3	46.3	108	3.02	5.44	15.7	
Pyrene	2.89	0.3	4.01	0	72.1	43.8	109	2.99	3.40	15.3	
Benz(a)anthracene	0.28	0.02	0.401	0	69.8	40.3	115	0.3	6.90	119	
Chrysene	1.42	0.2	2.01	0	70.6	42.6	107	1.61	12.5	16.6	
Benzo(b)fluoranthene	0.27	0.05	0.501	0	53.9	48.6	107	0.29	7.14	21.7	
Benzo(k)fluoranthene	0.17	0.02	0.25	0	68.0	23.3	136	0.19	11.1	19.4	
Benzo(a)pyrene	0.15	0.02	0.251	0	59.8	33.4	117	0.18	18.2	16.7	R
Dibenz(a,h)anthracene	0.33	0.04	0.501	0	65.9	27.3	139	0.37	11.4	17.3	
Benzo(g,h,i)perylene	0.34	0.03	0.5	0	68.0	38.2	117	0.35	2.90	118	
Indeno(1,2,3-cd)pyrene	0.711	0.08	1.002	0	71.0	39.9	125	0.738	3.73	17.7	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/5/2005

Work Order Number 0504042

Received by AT

Checklist completed by

Signature

Date

Matrix

Carrier name FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒ Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☒	No ☐	N/A ☐
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐
Water - 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 Rd 4990

Bloomfield, NM

87413

Phone #: 505-632-4141

Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.
					HgCl ₂	HNO ₃		
4/14/05	945A	H ₂ O	MW# 48	2-VOA			HCL	50442-1
				2-VOA			HCL	-1
				1-liter			ANALY	-1

Date: 4/14/05 Time: 3pm

Relinquished By: (Signature) Cindy Huntado

Received By: (Signature) [Signature] 4/15/05

107

QA/QC Package:
Std ☐ Level 4 ☐

Other:

Project Name:

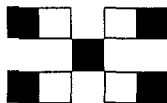
River Terrace - 4/05

Project #:

Project Manager:

Sampler: Cindy Huntado / Angela Folk

Sample Temperature: 10.1



**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 (8092)	+
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)	+
RCRA 8 Metals	
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
8081 Pesticides / PCB's (8082)	
8260B (VOA)	
8270 (Semi-VOA)	
Air Bubbles or Headspace (Y or N)	

Remarks:

QA/QC Package: _____
Std ☐ Level 4 ☐

Other:

Client: SAN JUAN REFINING

Project Name: River Terrace - 4/05

Address: #50 Rd 4990

Bloom field nm

87413

Phone #: 505-632-4161

Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.	Number/Volume	HgCl ₂	HNO ₃	HEAL No.
11/04/05	9:5A	H ₂ O	MW #49	2-VOL			0504012-2
			?	2-VOL			-2
				1-liter			-2

11/04/05	930A	H2O	River near MW #49	2-VolA
----------	------	-----	-------------------	--------

Date:	10/1/05	Time:	3pm	Relinquished By: (Signature)	Received By: (Signature)
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

[illegible]

COVER LETTER

April 29, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Sampling 2nd Qtr-2005

Order No.: 0504130

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 4 samples on 4/14/2005 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

Date: 29-Apr-05

CLIENT: San Juan Refining

Client Sample ID: Upstream River

Lab Order: 0504130

Collection Date: 4/13/2005 8:30:00 AM

Project: River Sampling 2nd Qtr-2005

Lab ID: 0504130-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
						Analyst: MAP
Fluoride	0.22	0.10		mg/L	1	4/14/2005
Chloride	4.1	0.10		mg/L	1	4/14/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	4/14/2005
Bromide	ND	0.50		mg/L	1	4/14/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	4/14/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	4/14/2005
Sulfate	88	2.5		mg/L	5	4/26/2005
EPA METHOD 310.1: ALKALINITY						
						Analyst: MAP
Alkalinity, Total (As CaCO ₃)	96	4.0		mg/L CaCO ₃	2	4/26/2005
Carbonate	ND	4.0		mg/L CaCO ₃	2	4/26/2005
Bicarbonate	96	4.0		mg/L CaCO ₃	2	4/26/2005
EPA METHOD 8015B: DIESEL RANGE						
						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/22/2005 10:55:03 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/22/2005 10:55:03 AM
Surr: DNOP	103	58-140		%REC	1	4/22/2005 10:55:03 AM
EPA METHOD 8015B: GASOLINE RANGE						
						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/15/2005 10:10:24 PM
Surr: BFB	94.2	78.3-120		%REC	1	4/15/2005 10:10:24 PM
EPA METHOD 8021B: VOLATILES						
						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/15/2005 10:10:24 PM
Benzene	ND	0.50		µg/L	1	4/15/2005 10:10:24 PM
Toluene	ND	0.50		µg/L	1	4/15/2005 10:10:24 PM
Ethylbenzene	ND	0.50		µg/L	1	4/15/2005 10:10:24 PM
Xylenes, Total	ND	0.50		µg/L	1	4/15/2005 10:10:24 PM
EPA METHOD 8270C: SEMIVOLATILES						
						Analyst: BL
Acenaphthene	ND	10		µg/L	1	4/22/2005
Acenaphthylene	ND	10		µg/L	1	4/22/2005
Aniline	ND	10		µg/L	1	4/22/2005
Anthracene	ND	10		µg/L	1	4/22/2005
Azobenzene	ND	10		µg/L	1	4/22/2005
Benzo(a)anthracene	ND	15		µg/L	1	4/22/2005
Benzo(a)pyrene	ND	10		µg/L	1	4/22/2005
Benzo(b)fluoranthene	ND	10		µg/L	1	4/22/2005
Benzo(g,h,i)perylene	ND	10		µg/L	1	4/22/2005
Benzo(k)fluoranthene	ND	10		µg/L	1	4/22/2005
Benzoic acid	ND	50		µg/L	1	4/22/2005
Benzyl alcohol	ND	20		µg/L	1	4/22/2005
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	4/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 29-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504130
Project: River Sampling 2nd Qtr-2005
Lab ID: 0504130-01

Client Sample ID: Upstream River
Collection Date: 4/13/2005 8:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Bis(2-chloroethyl)ether	ND	15		µg/L	1	4/22/2005
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	4/22/2005
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	4/22/2005
4-Bromophenyl phenyl ether	ND	10		µg/L	1	4/22/2005
Butyl benzyl phthalate	ND	15		µg/L	1	4/22/2005
Carbazole	ND	10		µg/L	1	4/22/2005
4-Chloro-3-methylphenol	ND	20		µg/L	1	4/22/2005
4-Chloroaniline	ND	20		µg/L	1	4/22/2005
2-Chloronaphthalene	ND	10		µg/L	1	4/22/2005
2-Chlorophenol	ND	10		µg/L	1	4/22/2005
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	4/22/2005
Chrysene	ND	15		µg/L	1	4/22/2005
Di-n-butyl phthalate	ND	10		µg/L	1	4/22/2005
Di-n-octyl phthalate	ND	15		µg/L	1	4/22/2005
Dibenz(a,h)anthracene	ND	10		µg/L	1	4/22/2005
Dibenzofuran	ND	10		µg/L	1	4/22/2005
1,2-Dichlorobenzene	ND	10		µg/L	1	4/22/2005
1,3-Dichlorobenzene	ND	10		µg/L	1	4/22/2005
1,4-Dichlorobenzene	ND	10		µg/L	1	4/22/2005
3,3'-Dichlorobenzidine	ND	15		µg/L	1	4/22/2005
Diethyl phthalate	ND	10		µg/L	1	4/22/2005
Dimethyl phthalate	ND	10		µg/L	1	4/22/2005
2,4-Dichlorophenol	ND	10		µg/L	1	4/22/2005
2,4-Dimethylphenol	ND	10		µg/L	1	4/22/2005
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	4/22/2005
2,4-Dinitrophenol	ND	50		µg/L	1	4/22/2005
2,4-Dinitrotoluene	ND	10		µg/L	1	4/22/2005
2,6-Dinitrotoluene	ND	10		µg/L	1	4/22/2005
Fluoranthene	ND	10		µg/L	1	4/22/2005
Fluorene	ND	10		µg/L	1	4/22/2005
Hexachlorobenzene	ND	10		µg/L	1	4/22/2005
Hexachlorobutadiene	ND	10		µg/L	1	4/22/2005
Hexachlorocyclopentadiene	ND	10		µg/L	1	4/22/2005
Hexachloroethane	ND	10		µg/L	1	4/22/2005
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	4/22/2005
Isophorone	ND	10		µg/L	1	4/22/2005
2-Methylnaphthalene	ND	10		µg/L	1	4/22/2005
2-Methylphenol	ND	15		µg/L	1	4/22/2005
3+4-Methylphenol	ND	10		µg/L	1	4/22/2005
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	4/22/2005
N-Nitrosodimethylamine	ND	10		µg/L	1	4/22/2005
N-Nitrosodiphenylamine	ND	10		µg/L	1	4/22/2005

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

Date: 29-Apr-05

CLIENT: San Juan Refining

Client Sample ID: Upstream River

Lab Order: 0504130

Collection Date: 4/13/2005 8:30:00 AM

Project: River Sampling 2nd Qtr-2005

Lab ID: 0504130-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Naphthalene	ND	10		µg/L	1	4/22/2005
2-Nitroaniline	ND	50		µg/L	1	4/22/2005
3-Nitroaniline	ND	50		µg/L	1	4/22/2005
4-Nitroaniline	ND	20		µg/L	1	4/22/2005
Nitrobenzene	ND	10		µg/L	1	4/22/2005
2-Nitrophenol	ND	15		µg/L	1	4/22/2005
4-Nitrophenol	ND	50		µg/L	1	4/22/2005
Pentachlorophenol	ND	50		µg/L	1	4/22/2005
Phenanthrene	ND	10		µg/L	1	4/22/2005
Phenol	ND	10		µg/L	1	4/22/2005
Pyrene	ND	15		µg/L	1	4/22/2005
Pyridine	ND	30		µg/L	1	4/22/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	1	4/22/2005
2,4,5-Trichlorophenol	ND	10		µg/L	1	4/22/2005
2,4,6-Trichlorophenol	ND	15		µg/L	1	4/22/2005
Surr: 2,4,6-Tribromophenol	60.3	16.6-115		%REC	1	4/22/2005
Surr: 2-Fluorobiphenyl	58.3	37-95.7		%REC	1	4/22/2005
Surr: 2-Fluorophenol	42.8	9.54-89.8		%REC	1	4/22/2005
Surr: 4-Terphenyl-d14	69.1	47.9-115		%REC	1	4/22/2005
Surr: Nitrobenzene-d5	62.3	38-106		%REC	1	4/22/2005
Surr: Phenol-d6	29.4	10.7-63.4		%REC	1	4/22/2005
EPA 120.1: SPECIFIC CONDUCTANCE						
Specific Conductance	400	0.010		µmhos/cm	1	4/21/2005
EPA METHOD 7470: MERCURY						
Mercury	ND	0.00020		mg/L	1	4/26/2005
EPA METHOD 6010C: DISSOLVED METALS						
Arsenic	ND	0.020		mg/L	1	4/22/2005 11:10:49 AM
Barium	0.073	0.0020		mg/L	1	4/22/2005 11:10:49 AM
Cadmium	ND	0.0020		mg/L	1	4/22/2005 11:10:49 AM
Calcium	38	1.0		mg/L	1	4/22/2005 11:10:49 AM
Chromium	ND	0.0060		mg/L	1	4/22/2005 11:10:49 AM
Copper	ND	0.0060		mg/L	1	4/22/2005 11:10:49 AM
Iron	0.037	0.020		mg/L	1	4/22/2005 11:10:49 AM
Lead	ND	0.0050		mg/L	1	4/22/2005 11:10:49 AM
Magnesium	6.7	1.0		mg/L	1	4/22/2005 11:10:49 AM
Manganese	0.014	0.0020		mg/L	1	4/22/2005 11:10:49 AM
Potassium	2.1	1.0		mg/L	1	4/22/2005 3:06:16 PM
Selenium	ND	0.050		mg/L	1	4/22/2005 11:10:49 AM
Silver	ND	0.0050		mg/L	1	4/22/2005 3:06:16 PM
Sodium	28	1.0		mg/L	1	4/22/2005 11:10:49 AM
Uranium	ND	0.10		mg/L	1	4/22/2005 11:10:49 AM

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 29-Apr-05

CLIENT: San Juan Refining

Client Sample ID: Upstream River

Lab Order: 0504130

Collection Date: 4/13/2005 8:30:00 AM

Project: River Sampling 2nd Qtr-2005

Lab ID: 0504130-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Zinc	0.010	0.0050		mg/L	1	4/22/2005 3:06:16 PM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	4/26/2005 9:21:05 AM
Barium	0.092	0.020		mg/L	1	4/28/2005 9:14:26 AM
Cadmium	ND	0.0020		mg/L	1	4/26/2005 9:21:05 AM
Chromium	ND	0.0060		mg/L	1	4/26/2005 9:21:05 AM
Lead	ND	0.0050		mg/L	1	4/26/2005 9:21:05 AM
Selenium	ND	0.050		mg/L	1	4/26/2005 9:21:05 AM
Silver	ND	0.0050		mg/L	1	4/26/2005 9:21:05 AM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	260	50		mg/L	1	4/21/2005

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

Date: 29-Apr-05

CLIENT: San Juan Refining

Client Sample ID: N of MW #45

Lab Order: 0504130

Collection Date: 4/13/2005 10:00:00 AM

Project: River Sampling 2nd Qtr-2005

Lab ID: 0504130-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
						Analyst: MAP
Fluoride	0.16	0.10		mg/L	1	4/14/2005
Chloride	4.0	0.10		mg/L	1	4/14/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	4/14/2005
Bromide	ND	0.50		mg/L	1	4/14/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	4/14/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	4/14/2005
Sulfate	84	2.5		mg/L	5	4/26/2005
EPA METHOD 310.1: ALKALINITY						
						Analyst: MAP
Alkalinity, Total (As CaCO ₃)	100	4.0		mg/L CaCO ₃	2	4/26/2005
Carbonate	ND	4.0		mg/L CaCO ₃	2	4/26/2005
Bicarbonate	100	4.0		mg/L CaCO ₃	2	4/26/2005
EPA METHOD 8015B: DIESEL RANGE						
						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/22/2005 11:24:58 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/22/2005 11:24:58 AM
Surr: DNOP	111	58-140		%REC	1	4/22/2005 11:24:58 AM
EPA METHOD 8015B: GASOLINE RANGE						
						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/15/2005 10:40:46 PM
Surr: BFB	93.9	78.3-120		%REC	1	4/15/2005 10:40:46 PM
EPA METHOD 8021B: VOLATILES						
						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/15/2005 10:40:46 PM
Benzene	ND	0.50		µg/L	1	4/15/2005 10:40:46 PM
Toluene	ND	0.50		µg/L	1	4/15/2005 10:40:46 PM
Ethylbenzene	ND	0.50		µg/L	1	4/15/2005 10:40:46 PM
Xylenes, Total	ND	0.50		µg/L	1	4/15/2005 10:40:46 PM
EPA METHOD 8270C: SEMIVOLATILES						
						Analyst: BL
Acenaphthene	ND	10		µg/L	1	4/22/2005
Acenaphthylene	ND	10		µg/L	1	4/22/2005
Aniline	ND	10		µg/L	1	4/22/2005
Anthracene	ND	10		µg/L	1	4/22/2005
Azobenzene	ND	10		µg/L	1	4/22/2005
Benz(a)anthracene	ND	15		µg/L	1	4/22/2005
Benzo(a)pyrene	ND	10		µg/L	1	4/22/2005
Benzo(b)fluoranthene	ND	10		µg/L	1	4/22/2005
Benzo(g,h,i)perylene	ND	10		µg/L	1	4/22/2005
Benzo(k)fluoranthene	ND	10		µg/L	1	4/22/2005
Benzoic acid	ND	50		µg/L	1	4/22/2005
Benzyl alcohol	ND	20		µg/L	1	4/22/2005
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	4/22/2005

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

Date: 29-Apr-05

CLIENT: San Juan Refining

Client Sample ID: N of MW #45

Lab Order: 0504130

Collection Date: 4/13/2005 10:00:00 AM

Project: River Sampling 2nd Qtr-2005

Lab ID: 0504130-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Bis(2-chloroethyl)ether	ND	15		µg/L	1	4/22/2005
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	4/22/2005
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	4/22/2005
4-Bromophenyl phenyl ether	ND	10		µg/L	1	4/22/2005
Butyl benzyl phthalate	ND	15		µg/L	1	4/22/2005
Carbazole	ND	10		µg/L	1	4/22/2005
4-Chloro-3-methylphenol	ND	20		µg/L	1	4/22/2005
4-Chloroaniline	ND	20		µg/L	1	4/22/2005
2-Chloronaphthalene	ND	10		µg/L	1	4/22/2005
2-Chlorophenol	ND	10		µg/L	1	4/22/2005
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	4/22/2005
Chrysene	ND	15		µg/L	1	4/22/2005
Di-n-butyl phthalate	ND	10		µg/L	1	4/22/2005
Di-n-octyl phthalate	ND	15		µg/L	1	4/22/2005
Dibenz(a,h)anthracene	ND	10		µg/L	1	4/22/2005
Dibenzofuran	ND	10		µg/L	1	4/22/2005
1,2-Dichlorobenzene	ND	10		µg/L	1	4/22/2005
1,3-Dichlorobenzene	ND	10		µg/L	1	4/22/2005
1,4-Dichlorobenzene	ND	10		µg/L	1	4/22/2005
3,3'-Dichlorobenzidine	ND	15		µg/L	1	4/22/2005
Diethyl phthalate	ND	10		µg/L	1	4/22/2005
Dimethyl phthalate	ND	10		µg/L	1	4/22/2005
2,4-Dichlorophenol	ND	10		µg/L	1	4/22/2005
2,4-Dimethylphenol	ND	10		µg/L	1	4/22/2005
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	4/22/2005
2,4-Dinitrophenol	ND	50		µg/L	1	4/22/2005
2,4-Dinitrotoluene	ND	10		µg/L	1	4/22/2005
2,6-Dinitrotoluene	ND	10		µg/L	1	4/22/2005
Fluoranthene	ND	10		µg/L	1	4/22/2005
Fluorene	ND	10		µg/L	1	4/22/2005
Hexachlorobenzene	ND	10		µg/L	1	4/22/2005
Hexachlorobutadiene	ND	10		µg/L	1	4/22/2005
Hexachlorocyclopentadiene	ND	10		µg/L	1	4/22/2005
Hexachloroethane	ND	10		µg/L	1	4/22/2005
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	4/22/2005
Isophorone	ND	10		µg/L	1	4/22/2005
2-Methylnaphthalene	ND	10		µg/L	1	4/22/2005
2-Methylphenol	ND	15		µg/L	1	4/22/2005
3+4-Methylphenol	ND	10		µg/L	1	4/22/2005
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	4/22/2005
N-Nitrosodimethylamine	ND	10		µg/L	1	4/22/2005
N-Nitrosodiphenylamine	ND	10		µg/L	1	4/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 29-Apr-05

CLIENT: San Juan Refining

Client Sample ID: N of MW #45

Lab Order: 0504130

Collection Date: 4/13/2005 10:00:00 AM

Project: River Sampling 2nd Qtr-2005

Lab ID: 0504130-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Naphthalene	ND	10		µg/L	1	4/22/2005
2-Nitroaniline	ND	50		µg/L	1	4/22/2005
3-Nitroaniline	ND	50		µg/L	1	4/22/2005
4-Nitroaniline	ND	20		µg/L	1	4/22/2005
Nitrobenzene	ND	10		µg/L	1	4/22/2005
2-Nitrophenol	ND	15		µg/L	1	4/22/2005
4-Nitrophenol	ND	50		µg/L	1	4/22/2005
Pentachlorophenol	ND	50		µg/L	1	4/22/2005
Phenanthrene	ND	10		µg/L	1	4/22/2005
Phenol	ND	10		µg/L	1	4/22/2005
Pyrene	ND	15		µg/L	1	4/22/2005
Pyridine	ND	30		µg/L	1	4/22/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	1	4/22/2005
2,4,5-Trichlorophenol	ND	10		µg/L	1	4/22/2005
2,4,6-Trichlorophenol	ND	15		µg/L	1	4/22/2005
Surr: 2,4,6-Tribromophenol	68.8	16.6-115		%REC	1	4/22/2005
Surr: 2-Fluorobiphenyl	62.7	37-95.7		%REC	1	4/22/2005
Surr: 2-Fluorophenol	45.0	9.54-89.8		%REC	1	4/22/2005
Surr: 4-Terphenyl-d14	73.9	47.9-115		%REC	1	4/22/2005
Surr: Nitrobenzene-d5	61.5	38-106		%REC	1	4/22/2005
Surr: Phenol-d6	32.8	10.7-63.4		%REC	1	4/22/2005
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	390	0.010		µmhos/cm	1	4/21/2005
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	4/26/2005
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	4/22/2005 11:13:49 AM
Barium	0.075	0.0020		mg/L	1	4/22/2005 11:13:49 AM
Cadmium	ND	0.0020		mg/L	1	4/22/2005 11:13:49 AM
Calcium	38	1.0		mg/L	1	4/22/2005 11:13:49 AM
Chromium	ND	0.0060		mg/L	1	4/22/2005 11:13:49 AM
Copper	ND	0.0060		mg/L	1	4/22/2005 11:13:49 AM
Iron	0.038	0.020		mg/L	1	4/22/2005 11:13:49 AM
Lead	ND	0.0050		mg/L	1	4/22/2005 11:13:49 AM
Magnesium	6.6	1.0		mg/L	1	4/22/2005 11:13:49 AM
Manganese	0.0094	0.0020		mg/L	1	4/22/2005 11:13:49 AM
Potassium	2.1	1.0		mg/L	1	4/22/2005 3:08:49 PM
Selenium	ND	0.050		mg/L	1	4/22/2005 11:13:49 AM
Silver	ND	0.0050		mg/L	1	4/22/2005 3:08:49 PM
Sodium	26	1.0		mg/L	1	4/22/2005 11:13:49 AM
Uranium	ND	0.10		mg/L	1	4/22/2005 11:13:49 AM

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 29-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504130
Project: River Sampling 2nd Qtr-2005
Lab ID: 0504130-02

Client Sample ID: N of MW #45
Collection Date: 4/13/2005 10:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Zinc	0.016	0.0050		mg/L	1	4/22/2005 3:08:49 PM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	4/26/2005 9:23:58 AM
Barium	0.084	0.020		mg/L	1	4/28/2005 9:16:02 AM
Cadmium	ND	0.0020		mg/L	1	4/26/2005 9:23:58 AM
Chromium	ND	0.0060		mg/L	1	4/26/2005 9:23:58 AM
Lead	ND	0.0050		mg/L	1	4/26/2005 9:23:58 AM
Selenium	ND	0.050		mg/L	1	4/26/2005 9:23:58 AM
Silver	ND	0.0050		mg/L	1	4/26/2005 9:23:58 AM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	260	50		mg/L	1	4/21/2005

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

Date: 29-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504130
Project: River Sampling 2nd Qtr-2005
Lab ID: 0504130-03

Client Sample ID: N of MW #46
Collection Date: 4/13/2005 11:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.16	0.10		mg/L	1	4/14/2005
Chloride	4.0	0.10		mg/L	1	4/14/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	4/14/2005
Bromide	ND	0.50		mg/L	1	4/14/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	4/14/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	4/14/2005
Sulfate	82	2.5		mg/L	5	4/26/2005
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO ₃)	100	4.0		mg/L CaCO ₃	2	4/26/2005
Carbonate	ND	4.0		mg/L CaCO ₃	2	4/26/2005
Bicarbonate	100	4.0		mg/L CaCO ₃	2	4/26/2005
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/22/2005 11:55:39 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/22/2005 11:55:39 AM
Surr: DNOP	80.0	58-140		%REC	1	4/22/2005 11:55:39 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/15/2005 11:11:07 PM
Surr: BFB	97.6	78.3-120		%REC	1	4/15/2005 11:11:07 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/15/2005 11:11:07 PM
Benzene	ND	0.50		µg/L	1	4/15/2005 11:11:07 PM
Toluene	ND	0.50		µg/L	1	4/15/2005 11:11:07 PM
Ethylbenzene	ND	0.50		µg/L	1	4/15/2005 11:11:07 PM
Xylenes, Total	ND	0.50		µg/L	1	4/15/2005 11:11:07 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	4/22/2005
Acenaphthylene	ND	10		µg/L	1	4/22/2005
Aniline	ND	10		µg/L	1	4/22/2005
Anthracene	ND	10		µg/L	1	4/22/2005
Azobenzene	ND	10		µg/L	1	4/22/2005
Benz(a)anthracene	ND	15		µg/L	1	4/22/2005
Benzo(a)pyrene	ND	10		µg/L	1	4/22/2005
Benzo(b)fluoranthene	ND	10		µg/L	1	4/22/2005
Benzo(g,h,i)perylene	ND	10		µg/L	1	4/22/2005
Benzo(k)fluoranthene	ND	10		µg/L	1	4/22/2005
Benzoic acid	ND	50		µg/L	1	4/22/2005
Benzyl alcohol	ND	20		µg/L	1	4/22/2005
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	4/22/2005

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

Date: 29-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504130
Project: River Sampling 2nd Qtr-2005
Lab ID: 0504130-03

Client Sample ID: N of MW #46
Collection Date: 4/13/2005 11:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Bis(2-chloroethyl)ether	ND	15		µg/L	1	4/22/2005
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	4/22/2005
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	4/22/2005
4-Bromophenyl phenyl ether	ND	10		µg/L	1	4/22/2005
Butyl benzyl phthalate	ND	15		µg/L	1	4/22/2005
Carbazole	ND	10		µg/L	1	4/22/2005
4-Chloro-3-methylphenol	ND	20		µg/L	1	4/22/2005
4-Chloroaniline	ND	20		µg/L	1	4/22/2005
2-Chloronaphthalene	ND	10		µg/L	1	4/22/2005
2-Chlorophenol	ND	10		µg/L	1	4/22/2005
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	4/22/2005
Chrysene	ND	15		µg/L	1	4/22/2005
Di-n-butyl phthalate	ND	10		µg/L	1	4/22/2005
Di-n-octyl phthalate	ND	15		µg/L	1	4/22/2005
Dibenz(a,h)anthracene	ND	10		µg/L	1	4/22/2005
Dibenzofuran	ND	10		µg/L	1	4/22/2005
1,2-Dichlorobenzene	ND	10		µg/L	1	4/22/2005
1,3-Dichlorobenzene	ND	10		µg/L	1	4/22/2005
1,4-Dichlorobenzene	ND	10		µg/L	1	4/22/2005
3,3'-Dichlorobenzidine	ND	15		µg/L	1	4/22/2005
Diethyl phthalate	ND	10		µg/L	1	4/22/2005
Dimethyl phthalate	ND	10		µg/L	1	4/22/2005
2,4-Dichlorophenol	ND	10		µg/L	1	4/22/2005
2,4-Dimethylphenol	ND	10		µg/L	1	4/22/2005
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	4/22/2005
2,4-Dinitrophenol	ND	50		µg/L	1	4/22/2005
2,4-Dinitrotoluene	ND	10		µg/L	1	4/22/2005
2,6-Dinitrotoluene	ND	10		µg/L	1	4/22/2005
Fluoranthene	ND	10		µg/L	1	4/22/2005
Fluorene	ND	10		µg/L	1	4/22/2005
Hexachlorobenzene	ND	10		µg/L	1	4/22/2005
Hexachlorobutadiene	ND	10		µg/L	1	4/22/2005
Hexachlorocyclopentadiene	ND	10		µg/L	1	4/22/2005
Hexachloroethane	ND	10		µg/L	1	4/22/2005
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	4/22/2005
Isophorone	ND	10		µg/L	1	4/22/2005
2-Methylnaphthalene	ND	10		µg/L	1	4/22/2005
2-Methylphenol	ND	15		µg/L	1	4/22/2005
3+4-Methylphenol	ND	10		µg/L	1	4/22/2005
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	4/22/2005
N-Nitrosodimethylamine	ND	10		µg/L	1	4/22/2005
N-Nitrosodiphenylamine	ND	10		µg/L	1	4/22/2005

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

Date: 29-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504130
Project: River Sampling 2nd Qtr-2005
Lab ID: 0504130-03

Client Sample ID: N of MW #46
Collection Date: 4/13/2005 11:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Naphthalene	ND	10		µg/L	1	4/22/2005
2-Nitroaniline	ND	50		µg/L	1	4/22/2005
3-Nitroaniline	ND	50		µg/L	1	4/22/2005
4-Nitroaniline	ND	20		µg/L	1	4/22/2005
Nitrobenzene	ND	10		µg/L	1	4/22/2005
2-Nitrophenol	ND	15		µg/L	1	4/22/2005
4-Nitrophenol	ND	50		µg/L	1	4/22/2005
Pentachlorophenol	ND	50		µg/L	1	4/22/2005
Phenanthrene	ND	10		µg/L	1	4/22/2005
Phenol	ND	10		µg/L	1	4/22/2005
Pyrene	ND	15		µg/L	1	4/22/2005
Pyridine	ND	30		µg/L	1	4/22/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	1	4/22/2005
2,4,5-Trichlorophenol	ND	10		µg/L	1	4/22/2005
2,4,6-Trichlorophenol	ND	15		µg/L	1	4/22/2005
Surr: 2,4,6-Tribromophenol	66.0	16.6-115		%REC	1	4/22/2005
Surr: 2-Fluorobiphenyl	59.6	37-95.7		%REC	1	4/22/2005
Surr: 2-Fluorophenol	47.2	9.54-89.8		%REC	1	4/22/2005
Surr: 4-Terphenyl-d14	67.5	47.9-115		%REC	1	4/22/2005
Surr: Nitrobenzene-d5	62.4	38-106		%REC	1	4/22/2005
Surr: Phenol-d6	30.8	10.7-63.4		%REC	1	4/22/2005
EPA 120.1: SPECIFIC CONDUCTANCE						
Specific Conductance	390	0.010		µmhos/cm	1	4/21/2005
EPA METHOD 7470: MERCURY						
Mercury	0.00031	0.00020		mg/L	1	4/26/2005
EPA METHOD 6010C: DISSOLVED METALS						
Arsenic	ND	0.020		mg/L	1	4/22/2005 11:16:46 AM
Barium	0.073	0.0020		mg/L	1	4/22/2005 11:16:46 AM
Cadmium	ND	0.0020		mg/L	1	4/22/2005 11:16:46 AM
Calcium	38	1.0		mg/L	1	4/22/2005 11:16:46 AM
Chromium	ND	0.0060		mg/L	1	4/22/2005 11:16:46 AM
Copper	ND	0.0060		mg/L	1	4/22/2005 11:16:46 AM
Iron	0.041	0.020		mg/L	1	4/22/2005 11:16:46 AM
Lead	ND	0.0050		mg/L	1	4/22/2005 11:16:46 AM
Magnesium	6.5	1.0		mg/L	1	4/22/2005 11:16:46 AM
Manganese	0.0080	0.0020		mg/L	1	4/22/2005 11:16:46 AM
Potassium	2.1	1.0		mg/L	1	4/22/2005 3:11:23 PM
Selenium	ND	0.050		mg/L	1	4/22/2005 11:16:46 AM
Silver	ND	0.0050		mg/L	1	4/22/2005 3:11:23 PM
Sodium	25	1.0		mg/L	1	4/22/2005 11:16:46 AM
Uranium	ND	0.10		mg/L	1	4/22/2005 11:16:46 AM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 29-Apr-05

CLIENT: San Juan Refining

Client Sample ID: N of MW #46

Lab Order: 0504130

Collection Date: 4/13/2005 11:00:00 AM

Project: River Sampling 2nd Qtr-2005

Lab ID: 0504130-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Zinc	0.028	0.0050		mg/L	1	4/22/2005 3:11:23 PM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	4/26/2005 9:26:50 AM
Barium	0.083	0.020		mg/L	1	4/28/2005 9:17:23 AM
Cadmium	ND	0.0020		mg/L	1	4/26/2005 9:26:50 AM
Chromium	ND	0.0060		mg/L	1	4/26/2005 9:26:50 AM
Lead	ND	0.0050		mg/L	1	4/26/2005 9:26:50 AM
Selenium	ND	0.050		mg/L	1	4/26/2005 9:26:50 AM
Silver	ND	0.0050		mg/L	1	4/26/2005 9:26:50 AM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	260	50		mg/L	1	4/21/2005

Qualifiers: ND - Not Detected at the Reporting Limit
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* - 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

Date: 29-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504130
Project: River Sampling 2nd Qtr-2005
Lab ID: 0504130-04

Client Sample ID: Downstream River
Collection Date: 4/13/2005 9:30:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS Analyst: MAP						
Fluoride	0.15	0.10		mg/L	1	4/14/2005
Chloride	4.2	0.10		mg/L	1	4/14/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	4/14/2005
Bromide	ND	0.50		mg/L	1	4/14/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	4/14/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	4/14/2005
Sulfate	89	2.5		mg/L	5	4/26/2005
EPA METHOD 310.1: ALKALINITY Analyst: MAP						
Alkalinity, Total (As CaCO ₃)	100	4.0		mg/L CaCO ₃	2	4/26/2005
Carbonate	ND	4.0		mg/L CaCO ₃	2	4/26/2005
Bicarbonate	100	4.0		mg/L CaCO ₃	2	4/26/2005
EPA METHOD 8015B: DIESEL RANGE Analyst: SCC						
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/22/2005 12:25:35 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/22/2005 12:25:35 PM
Surr: DNOP	113	58-140		%REC	1	4/22/2005 12:25:35 PM
EPA METHOD 8015B: GASOLINE RANGE Analyst: NSB						
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/15/2005 11:41:38 PM
Surr: BFB	98.8	78.3-120		%REC	1	4/15/2005 11:41:38 PM
EPA METHOD 8021B: VOLATILES Analyst: NSB						
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/15/2005 11:41:38 PM
Benzene	ND	0.50		µg/L	1	4/15/2005 11:41:38 PM
Toluene	ND	0.50		µg/L	1	4/15/2005 11:41:38 PM
Ethylbenzene	ND	0.50		µg/L	1	4/15/2005 11:41:38 PM
Xylenes, Total	ND	0.50		µg/L	1	4/15/2005 11:41:38 PM
EPA METHOD 8270C: SEMIVOLATILES Analyst: BL						
Acenaphthene	ND	10		µg/L	1	4/22/2005
Acenaphthylene	ND	10		µg/L	1	4/22/2005
Aniline	ND	10		µg/L	1	4/22/2005
Anthracene	ND	10		µg/L	1	4/22/2005
Azobenzene	ND	10		µg/L	1	4/22/2005
Benz(a)anthracene	ND	15		µg/L	1	4/22/2005
Benzo(a)pyrene	ND	10		µg/L	1	4/22/2005
Benzo(b)fluoranthene	ND	10		µg/L	1	4/22/2005
Benzo(g,h,i)perylene	ND	10		µg/L	1	4/22/2005
Benzo(k)fluoranthene	ND	10		µg/L	1	4/22/2005
Benzoic acid	ND	50		µg/L	1	4/22/2005
Benzyl alcohol	ND	20		µg/L	1	4/22/2005
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	4/22/2005

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

Date: 29-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504130
Project: River Sampling 2nd Qtr-2005
Lab ID: 0504130-04

Client Sample ID: Downstream River
Collection Date: 4/13/2005 9:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Bis(2-chloroethyl)ether	ND	15		µg/L	1	4/22/2005
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	4/22/2005
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	4/22/2005
4-Bromophenyl phenyl ether	ND	10		µg/L	1	4/22/2005
Butyl benzyl phthalate	ND	15		µg/L	1	4/22/2005
Carbazole	ND	10		µg/L	1	4/22/2005
4-Chloro-3-methylphenol	ND	20		µg/L	1	4/22/2005
4-Chloroaniline	ND	20		µg/L	1	4/22/2005
2-Chloronaphthalene	ND	10		µg/L	1	4/22/2005
2-Chlorophenol	ND	10		µg/L	1	4/22/2005
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	4/22/2005
Chrysene	ND	15		µg/L	1	4/22/2005
Di-n-butyl phthalate	ND	10		µg/L	1	4/22/2005
Di-n-octyl phthalate	ND	15		µg/L	1	4/22/2005
Dibenz(a,h)anthracene	ND	10		µg/L	1	4/22/2005
Dibenzofuran	ND	10		µg/L	1	4/22/2005
1,2-Dichlorobenzene	ND	10		µg/L	1	4/22/2005
1,3-Dichlorobenzene	ND	10		µg/L	1	4/22/2005
1,4-Dichlorobenzene	ND	10		µg/L	1	4/22/2005
3,3'-Dichlorobenzidine	ND	15		µg/L	1	4/22/2005
Diethyl phthalate	ND	10		µg/L	1	4/22/2005
Dimethyl phthalate	ND	10		µg/L	1	4/22/2005
2,4-Dichlorophenol	ND	10		µg/L	1	4/22/2005
2,4-Dimethylphenol	ND	10		µg/L	1	4/22/2005
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	4/22/2005
2,4-Dinitrophenol	ND	50		µg/L	1	4/22/2005
2,4-Dinitrotoluene	ND	10		µg/L	1	4/22/2005
2,6-Dinitrotoluene	ND	10		µg/L	1	4/22/2005
Fluoranthene	ND	10		µg/L	1	4/22/2005
Fluorene	ND	10		µg/L	1	4/22/2005
Hexachlorobenzene	ND	10		µg/L	1	4/22/2005
Hexachlorobutadiene	ND	10		µg/L	1	4/22/2005
Hexachlorocyclopentadiene	ND	10		µg/L	1	4/22/2005
Hexachloroethane	ND	10		µg/L	1	4/22/2005
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	4/22/2005
Isophorone	ND	10		µg/L	1	4/22/2005
2-Methylnaphthalene	ND	10		µg/L	1	4/22/2005
2-Methylphenol	ND	15		µg/L	1	4/22/2005
3+4-Methylphenol	ND	10		µg/L	1	4/22/2005
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	4/22/2005
N-Nitrosodimethylamine	ND	10		µg/L	1	4/22/2005
N-Nitrosodiphenylamine	ND	10		µg/L	1	4/22/2005

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

Date: 29-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504130
Project: River Sampling 2nd Qtr-2005
Lab ID: 0504130-04

Client Sample ID: Downstream River
Collection Date: 4/13/2005 9:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Naphthalene	ND	10		µg/L	1	4/22/2005
2-Nitroaniline	ND	50		µg/L	1	4/22/2005
3-Nitroaniline	ND	50		µg/L	1	4/22/2005
4-Nitroaniline	ND	20		µg/L	1	4/22/2005
Nitrobenzene	ND	10		µg/L	1	4/22/2005
2-Nitrophenol	ND	15		µg/L	1	4/22/2005
4-Nitrophenol	ND	50		µg/L	1	4/22/2005
Pentachlorophenol	ND	50		µg/L	1	4/22/2005
Phenanthrene	ND	10		µg/L	1	4/22/2005
Phenol	ND	10		µg/L	1	4/22/2005
Pyrene	ND	15		µg/L	1	4/22/2005
Pyridine	ND	30		µg/L	1	4/22/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	1	4/22/2005
2,4,5-Trichlorophenol	ND	10		µg/L	1	4/22/2005
2,4,6-Trichlorophenol	ND	15		µg/L	1	4/22/2005
Surr: 2,4,6-Tribromophenol	69.1	16.6-115		%REC	1	4/22/2005
Surr: 2-Fluorobiphenyl	61.4	37-95.7		%REC	1	4/22/2005
Surr: 2-Fluorophenol	52.1	9.54-89.8		%REC	1	4/22/2005
Surr: 4-Terphenyl-d14	67.7	47.9-115		%REC	1	4/22/2005
Surr: Nitrobenzene-d5	68.6	38-106		%REC	1	4/22/2005
Surr: Phenol-d6	34.6	10.7-63.4		%REC	1	4/22/2005
EPA 120.1: SPECIFIC CONDUCTANCE						
Specific Conductance	400	0.010		µmhos/cm	1	4/21/2005
EPA METHOD 7470: MERCURY						
Mercury	ND	0.00020		mg/L	1	4/26/2005
EPA METHOD 6010C: DISSOLVED METALS						
Arsenic	ND	0.020		mg/L	1	4/22/2005 11:19:44 AM
Barium	0.074	0.0020		mg/L	1	4/22/2005 11:19:44 AM
Cadmium	ND	0.0020		mg/L	1	4/22/2005 11:19:44 AM
Calcium	41	1.0		mg/L	1	4/22/2005 11:19:44 AM
Chromium	ND	0.0060		mg/L	1	4/22/2005 11:19:44 AM
Copper	ND	0.0060		mg/L	1	4/22/2005 11:19:44 AM
Iron	0.035	0.020		mg/L	1	4/22/2005 11:19:44 AM
Lead	ND	0.0050		mg/L	1	4/22/2005 11:19:44 AM
Magnesium	6.8	1.0		mg/L	1	4/22/2005 11:19:44 AM
Manganese	0.033	0.0020		mg/L	1	4/22/2005 11:19:44 AM
Potassium	2.2	1.0		mg/L	1	4/22/2005 3:13:02 PM
Selenium	ND	0.050		mg/L	1	4/22/2005 11:19:44 AM
Silver	ND	0.0050		mg/L	1	4/22/2005 3:13:02 PM
Sodium	27	1.0		mg/L	1	4/22/2005 11:19:44 AM
Uranium	ND	0.10		mg/L	1	4/22/2005 11:19:44 AM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 29-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504130
Project: River Sampling 2nd Qtr-2005
Lab ID: 0504130-04

Client Sample ID: Downstream River
Collection Date: 4/13/2005 9:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Zinc	0.018	0.0050		mg/L	1	4/22/2005 3:13:02 PM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	4/26/2005 9:29:14 AM
Barium	0.12	0.020		mg/L	1	4/28/2005 9:18:58 AM
Cadmium	ND	0.0020		mg/L	1	4/26/2005 9:29:14 AM
Chromium	ND	0.0060		mg/L	1	4/26/2005 9:29:14 AM
Lead	ND	0.0050		mg/L	1	4/26/2005 9:29:14 AM
Selenium	ND	0.050		mg/L	1	4/26/2005 9:29:14 AM
Silver	ND	0.0050		mg/L	1	4/26/2005 9:29:14 AM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	270	50		mg/L	1	4/21/2005

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

Date: 29-Apr-05

CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT

Method Blank

Sample ID	MBLK	Batch ID: R15102	Test Code: E300	Units: mg/L	Analysis Date 4/14/2005	Prep Date					
Client ID:		Run ID: LC_050414A			SeqNo: 352292						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND										
Chloride	ND										
Nitrogen, Nitrite (As N)	ND										
Bromide	ND										
Nitrogen, Nitrate (As N)	ND										
Phosphorus, Orthophosphate (As P)	ND										
Sulfate	ND										

Sample ID	MBLK	Batch ID: R15214	Test Code: E300	Units: mg/Kg	Analysis Date 4/26/2005		Prep Date				
Client ID:			Run ID:	LC_050426A		SeqNo:	355853				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.3									
Chloride	ND	0.3									
Nitrogen, Nitrite (As N)	ND	0.3									
Bromide	ND	0.3									
Nitrogen, Nitrate (As N)	ND	0.3									
Phosphorus, Orthophosphate (As P)	ND	1.5									
Sulfate	ND	1.5									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT
 Method Blank

Sample ID	MBLK	Batch ID: R15214	Test Code: E300	Units: mg/L	Analysis Date 4/27/2005	Prep Date					
Client ID:			Run ID: LC_050426A		SeqNo: 355954						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Bromide	ND	0.5									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	0.227	0.5									J

Sample ID	MBLK	Batch ID: R15209	Test Code: E310.1	Units: mg/L CaCO3	Analysis Date 4/26/2005	Prep Date					
Client ID:			Run ID: WC_050426B		SeqNo: 355747						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	2									
Carbonate	ND	2									
Bicarbonate	ND	2									

Sample ID	MB-7810	Batch ID: 7810	Test Code: SW8015	Units: mg/L	Analysis Date 4/22/2005 9:25:17 AM	Prep Date 4/20/2005					
Client ID:			Run ID: FID(17A) 2_050421A		SeqNo: 354679						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1									
Motor Oil Range Organics (MRO)	ND	5									
Surr: DNOP	1.05	0	1	0	105	58	140	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT
 Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R15110	Test Code: SW8015	Units: mg/L	Analysis Date 4/15/2005 7:48:44 AM	Prep Date					
Client ID:			Run ID: PIDFID_050415A		SeqNo: 352652						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.05									
Surr: BFB	20.13	0	20	0	101	78.3	120	0			

Sample ID	Reagent Blank 5m	Batch ID: R15110	Test Code: SW8021	Units: µg/L	Analysis Date 4/15/2005 7:48:44 AM	Prep Date					
Client ID:			Run ID: PIDFID_050415A		SeqNo: 352651						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0504130
 Project: River Sampling 2nd Qtr-2005

Sample ID	MB-7812	Batch ID: 7812	Test Code: SW8270C	Units: µg/L	Analysis Date	4/22/2005	Prep Date	4/20/2005			
Client ID:			Run ID:	ELMO_050422A	SeqNo:	355209					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	10									
Acenaphthylene	ND	10									
Aniline	ND	10									
Anthracene	ND	10									
Azobenzene	ND	10									
Benz(a)anthracene	ND	15									
Benzo(a)pyrene	ND	10									
Benzo(b)fluoranthene	ND	10									
Benzo(g,h,i)perylene	ND	10									
Benzo(k)fluoranthene	ND	10									
Benzoic acid	ND	50									
Benzyl alcohol	ND	20									
Bis(2-chloroethoxy)methane	ND	10									
Bis(2-chloroethyl)ether	ND	15									
Bis(2-chloroisopropyl)ether	ND	15									
Bis(2-ethylhexyl)phthalate	ND	15									
4-Bromophenyl phenyl ether	ND	10									
Butyl benzyl phthalate	ND	15									
Carbazole	ND	10									
4-Chloro-3-methylphenol	ND	20									
4-Chloroaniline	ND	20									
2-Chloronaphthalene	ND	10									
2-Chlorophenol	ND	10									
4-Chlorophenyl phenyl ether	ND	15									
Chrysene	ND	15									
Di-n-butyl phthalate	ND	10									
Di-n-octyl phthalate	ND	15									
Dibenz(a,h)anthracene	ND	10									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank
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QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0504130
 Project: River Sampling 2nd Qtr-2005

Dibenzofuran	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
3,3'-Dichlorobenzidine	ND	15
Diethyl phthalate	ND	10
Dimethyl phthalate	ND	10
2,4-Dichlorophenol	ND	10
2,4-Dimethylphenol	ND	10
4,6-Dinitro-2-methylphenol	ND	50
2,4-Dinitrophenol	ND	50
2,4-Dinitrotoluene	ND	10
2,6-Dinitrotoluene	ND	10
Fluoranthene	ND	10
Fluorene	ND	10
Hexachlorobenzene	ND	10
Hexachlorobutadiene	ND	10
Hexachlorocyclopentadiene	ND	10
Hexachloroethane	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Isophorone	ND	10
2-Methylnaphthalene	ND	10
2-Methylphenol	ND	15
3+4-Methylphenol	ND	10
N-Nitrosodi-n-propylamine	ND	10
N-Nitrosodimethylamine	ND	10
N-Nitrosodiphenylamine	ND	10
Naphthalene	ND	10
2-Nitroaniline	ND	50
3-Nitroaniline	ND	50
4-Nitroaniline	ND	20
Nitrobenzene	ND	10
2-Nitrophenol	ND	15

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Method Blank

CLIENT: San Juan Refining

Work Order: 0504130

Project: River Sampling 2nd Qtr-2005

Compound	Concentration (mg/L)	Retention Time (min)	Peak Area	Peak Height	Peak Width (min)	Peak Resolution	Peak Shape	Peak Label
4-Nitrophenol	50	ND						
Pentachlorophenol	50	ND						
Phenanthrene	10	ND						
Phenol	10	ND						
Pyrene	15	ND						
Pyridine	30	ND						
1,2,4-Trichlorobenzene	10	ND						
2,4,5-Trichlorophenol	10	ND						
2,4,6-Trichlorophenol	15	ND						
Surr: 2,4,6-Tribromophenol	0	149.8	200	74.9	16.6	115	0	
Surr: 2-Fluorobiphenyl	0	69.22	100	69.2	37	95.7	0	
Surr: 2-Fluorophenol	0	128.3	200	64.1	9.54	89.8	0	
Surr: 4-Terphenyl-d14	0	79.14	100	79.1	51.2	125	0	
Surr: Nitrobenzene-d5	0	78.3	100	78.3	38	106	0	
Surr: Phenol-d6	0	92.62	200	46.3	10.7	63.4	0	

Prep Date 4/26/2005

Analysis Date 4/26/2005

Units: mg/L

Test Code: SW7470

Sample ID	MB-7857	Batch ID	7857
-----------	---------	----------	------

Sample ID MB-7857

SeqNo: 355761

MI-LA254 050426A

Run ID:

Client ID:

Qual	%RPD	RPDLimit	Qual
------	------	----------	------

	wLimit	HighLimit	RPD Ref Val
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000
6	0.000000	0.000000	0.000000
7	0.000000	0.000000	0.000000
8	0.000000	0.000000	0.000000
9	0.000000	0.000000	0.000000
10	0.000000	0.000000	0.000000
11	0.000000	0.000000	0.000000
12	0.000000	0.000000	0.000000
13	0.000000	0.000000	0.000000
14	0.000000	0.000000	0.000000
15	0.000000	0.000000	0.000000
16	0.000000	0.000000	0.000000
17	0.000000	0.000000	0.000000
18	0.000000	0.000000	0.000000
19	0.000000	0.000000	0.000000
20	0.000000	0.000000	0.000000
21	0.000000	0.000000	0.000000
22	0.000000	0.000000	0.000000
23	0.000000	0.000000	0.000000
24	0.000000	0.000000	0.000000
25	0.000000	0.000000	0.000000
26	0.000000	0.000000	0.000000
27	0.000000	0.000000	0.000000
28	0.000000	0.000000	0.000000
29	0.000000	0.000000	0.000000
30	0.000000	0.000000	0.000000
31	0.000000	0.000000	0.000000
32	0.000000	0.000000	0.000000
33	0.000000	0.000000	0.000000
34	0.000000	0.000000	0.000000
35	0.000000	0.000000	0.000000
36	0.000000	0.000000	0.000000
37	0.000000	0.000000	0.000000
38	0.000000	0.000000	0.000000
39	0.000000	0.000000	0.000000
40	0.000000	0.000000	0.000000
41	0.000000	0.000000	0.000000
42	0.000000	0.000000	0.000000
43	0.000000	0.000000	0.000000
44	0.000000	0.000000	0.000000
45	0.000000	0.000000	0.000000
46	0.000000	0.000000	0.000000
47	0.000000	0.000000	0.000000
48	0.000000	0.000000	0.000000
49	0.000000	0.000000	0.000000
50	0.000000	0.000000	0.000000
51	0.000000	0.000000	0.000000
52	0.000000	0.000000	0.000000
53	0.000000	0.000000	0.000000
54	0.000000	0.000000	0.000000
55	0.000000	0.000000	0.000000
56	0.000000	0.000000	0.000000
57	0.000000	0.000000	0.000000
58	0.000000	0.000000	0.000000
59	0.000000	0.000000	0.000000
60	0.000000	0.000000	0.000000
61	0.000000	0.000000	0.000000
62	0.000000	0.000000	0.000000
63	0.000000	0.000000	0.000000
64	0.000000	0.000000	0.000000
65	0.000000	0.000000	0.000000
66	0.000000	0.000000	0.000000
67	0.000000	0.000000	0.000000
68	0.000000	0.000000	0.000000
69	0.000000	0.000000	0.000000
70	0.000000	0.000000	0.000000
71	0.000000	0.000000	0.000000

SPK Ref Val

SPK value

POI

Result

As a result of the above, the following is proposed:

[illegible]

	wLimit	HighLimit	RPD
0	0	0	0
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0
12	0	0	0
13	0	0	0
14	0	0	0
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0
25	0	0	0
26	0	0	0
27	0	0	0
28	0	0	0
29	0	0	0
30	0	0	0
31	0	0	0
32	0	0	0
33	0	0	0
34	0	0	0
35	0	0	0
36	0	0	0
37	0	0	0
38	0	0	0
39	0	0	0
40	0	0	0
41	0	0	0
42	0	0	0
43	0	0	0
44	0	0	0
45	0	0	0
46	0	0	0
47	0	0	0
48	0	0	0
49	0	0	0
50	0	0	0
51	0	0	0
52	0	0	0
53	0	0	0
54	0	0	0
55	0	0	0
56	0	0	0
57	0	0	0
58	0	0	0
59	0	0	0
60	0	0	0
61	0	0	0
62	0	0	0
63	0	0	0
64	0	0	0
65	0	0	0
66	0	0	0
67	0	0	0
68	0	0	0
69	0	0	0
70	0	0	0
71	0	0	0
72	0	0	0
73	0	0	0
74	0	0	0
75	0	0	0
76	0	0	0
77	0	0	0
78	0	0	0
79	0	0	0
80	0	0	0
81	0	0	0
82	0	0	0
83	0	0	0
84	0	0	0
85	0	0	0
86	0	0	0
87	0	0	0
88	0	0	0
89	0	0	0
90	0	0	0
91	0	0	0
92	0	0	0
93	0	0	0
94	0	0	0
95	0	0	0
96	0	0	0
97	0	0	0
98	0	0	0
99	0	0	0
100	0	0	0
101	0	0	0
102	0	0	0
103	0	0	0
104	0	0	0
105	0	0	0
106	0	0	0
107	0	0	0
108	0	0	0
109	0	0	0
110	0	0	0
111	0	0	0
112	0	0	0
113	0	0	0
114	0	0	0
115	0	0	0
116	0	0	0
117	0	0	0
118	0	0	0
119	0	0	0
120	0	0	0
121	0	0	0
122	0	0	0
123	0	0	0
124	0	0	0
125	0	0	0
126	0	0	0
127	0	0	0
128	0	0	0
129	0	0	0

SPK Ref Val

POI SPK va

02

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Mercury

ND 0.0002

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

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CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT
 Method Blank

Sample ID	MB	Batch ID: R15182	Test Code: SW6010A	Units: mg/L	Analysis Date 4/22/2005 9:59:53 AM	Prep Date					
Client ID:		Run ID: ICP_050422A	SeqNo: 354758								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.02									
Cadmium	ND	0.002									
Calcium	ND	1									
Chromium	ND	0.006									
Copper	ND	0.006									
Iron	ND	0.02									
Lead	ND	0.005									
Magnesium	ND	1									
Manganese	0.0001578	0.002									J
Potassium	ND	1									
Selenium	ND	0.02									
Sodium	ND	1									
Uranium	ND	0.1									

Sample ID	MB	Batch ID: R15194	Test Code: SW6010A	Units: mg/L	Analysis Date 4/22/2005 2:57:05 PM	Prep Date					
Client ID:		Run ID: ICP_050422C			SeqNo: 355316						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	0.3855	1									J
Silver	ND	0.005									
Zinc	ND	0.05									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT
 Method Blank

Sample ID MB-7825	Batch ID: 7825	Test Code: SW6010A	Units: mg/L	Analysis Date 4/26/2005 9:03:44 AM	Prep Date 4/22/2005
Client ID:		Run ID: ICP_050426A		SeqNo: 355688	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Arsenic	ND	0.02			
Cadmium	ND	0.002			
Chromium	ND	0.006			
Lead	ND	0.005			
Selenium	ND	0.05			
Silver	0.001093	0.005			J

Sample ID MB-7865	Batch ID: 7865	Test Code: SW6010A	Units: mg/L	Analysis Date 4/28/2005 9:05:12 AM	Prep Date 4/27/2005
Client ID:		Run ID: ICP_050428A		SeqNo: 356576	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Barium	ND	0.02			

Sample ID MB-7811	Batch ID: 7811	Test Code: E160.1	Units: mg/L	Analysis Date 4/21/2005	Prep Date 4/20/2005
Client ID:		Run ID: WC_050421B		SeqNo: 354283	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Total Dissolved Solids	33	50			J

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

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Hall Environmental Analysis Laboratory

Date: 29-Apr-05

CLIENT: San Juan Refining
 Work Order: 0504130
 Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT
 Sample Duplicate

Sample ID 0504130-01C DUP		Batch ID: R15102	Test Code: E300	Units: mg/L		Analysis Date 4/14/2005		Prep Date	
Client ID: Upstream River			Run ID: LC_050414A			SeqNo: 352295			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Fluoride	0.218	0.1	0	0	0	0	0	0.218	0 20
Chloride	4.059	0.1	0	0	0	0	0	4.067	0.197 20
Nitrogen, Nitrite (As N)	ND	0.1	0	0	0	0	0	0	0 20
Bromide	ND	0.5	0	0	0	0	0	0	0 20
Nitrogen, Nitrate (As N)	ND	0.1	0	0	0	0	0	0	0 20
Phosphorus, Orthophosphate (As P)	ND	0.5	0	0	0	0	0	0	0 20

Sample ID 0504130-04D DUP		Batch ID: 7825	Test Code: SW6010A	Units: mg/L		Analysis Date 4/26/2005 9:31:08 AM		Prep Date 4/22/2005	
Client ID: Downstream Rive			Run ID: ICP_050426A			SeqNo: 355698			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Arsenic	ND	0.02	0	0	0	0	0	0	0 30
Cadmium	ND	0.002	0	0	0	0	0	0	0 30
Chromium	0.001731	0.006	0	0	0	0	0	0	0 30 J
Lead	ND	0.005	0	0	0	0	0	0.00231	0 30
Selenium	ND	0.05	0	0	0	0	0	0	0 30
Silver	ND	0.005	0	0	0	0	0	0	0 30

Sample ID 0504130-04D DUP		Batch ID: 7865	Test Code: SW6010A	Units: mg/L		Analysis Date 4/28/2005 9:21:10 AM		Prep Date 4/27/2005	
Client ID: Downstream Rive			Run ID: ICP_050428A			SeqNo: 356584			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Barium	0.117	0.02	0	0	0	0	0	0.1158	0.958 30

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits /

Hall Environmental Analysis Laboratory

Date: 29-Apr-05

CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0504130-01C MS	Batch ID: R15102	Test Code: E300	Units: mg/L	Analysis Date 4/14/2005		Prep Date				
Client ID:	Upstream River	Run ID:	LC_050414A		SeqNo:	352296					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.695	0.1	0.5	0.218	95.4	80	120	0			
Chloride	9.266	0.1	5	4.067	104	80	120	0			
Nitrogen, Nitrite (As N)	0.984	0.1	1	0	98.4	80	120	0			
Bromide	2.787	0.5	2.5	0	111	80	120	0			
Nitrogen, Nitrate (As N)	2.649	0.1	2.5	0	106	80	120	0			
Phosphorus, Orthophosphate (As P)	5.357	0.5	5	0	107	80	120	0			

Sample ID	0504130-01C MSD	Batch ID: R15102	Test Code: E300	Units: mg/L	Analysis Date	4/14/2005	Prep Date				
Client ID:	Upstream River		Run ID: LC_050414A		SeqNo:	352297					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.794	0.1	0.5	0.218	115	80	120	0.695	13.3	20	
Chloride	9.362	0.1	5	4.067	106	80	120	9.266	1.03	20	
Nitrogen, Nitrite (As N)	0.995	0.1	1	0	99.5	80	120	0.984	1.11	20	
Bromide	2.814	0.5	2.5	0	113	80	120	2.787	0.964	20	
Nitrogen, Nitrate (As N)	2.681	0.1	2.5	0	107	80	120	2.649	1.20	20	
Phosphorus, Orthophosphate (As P)	5.469	0.5	5	0	109	80	120	5.357	2.07	20	

Sample ID	0504130-01a ms	Batch ID: R15110	Test Code: SW8015	Units: mg/L	Analysis Date	4/16/2005 12:42:03 AM	Prep Date					
Client ID:	Upstream River	Run ID:	PIDFID_050415A	SeqNo:	352685							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.498	0.05	0.5	0.0118	97.2	82.6	114	0			
Surr: BFB		22.99	0	25	0	92.0	78.3	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT
 Sample Matrix Spike Duplicate

Sample ID 0504130-04a msd Batch ID: R15110 Test Code: SW8015 Units: mg/L Analysis Date 4/16/2005 1:12:15 AM Prep Date
 Client ID: Upstream River Run ID: PIDFID_050415A SeqNo: 352689

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.456	0.05	0.5	0.0118	88.8	82.6	114	0.498	8.81	15	
Surr: BFB	20.99	0	25	0	84.0	78.3	120	22.99	9.10	0	

Sample ID 0504130-04a ms Batch ID: R15110 Test Code: SW8021 Units: µg/L Analysis Date 4/16/2005 1:42:35 AM Prep Date
 Client ID: Downstream Rive Run ID: PIDFID_050415A SeqNo: 352677

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	39.75	2.5	40	0	99.4	64.5	133	0			
Benzene	19.84	0.5	20	0	99.2	88.7	114	0			
Toluene	20.08	0.5	20	0	100	89.3	112	0			
Ethylbenzene	20.43	0.5	20	0	102	88.6	113	0			
Xylenes, Total	61.06	0.5	60	0	102	89.4	112	0			

Sample ID 0504130-04a msd Batch ID: R15110 Test Code: SW8021 Units: µg/L Analysis Date 4/16/2005 2:12:47 AM Prep Date
 Client ID: Downstream Rive Run ID: PIDFID_050415A SeqNo: 352678

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	40.55	2.5	40	0	101	64.5	133	39.75	2.00	28	
Benzene	20.87	0.5	20	0	104	88.7	114	19.84	5.06	27	
Toluene	20.58	0.5	20	0	103	89.3	112	20.08	2.44	19	
Ethylbenzene	21.8	0.5	20	0	109	88.6	113	20.43	6.50	10	
Xylenes, Total	61.26	0.5	60	0	102	89.4	112	61.06	0.331	13	

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT
 Sample Matrix Spike

Sample ID	0504130-04D MS	Batch ID: 7825	Test Code: SW6010A	Units: mg/L	Analysis Date	4/26/2005 9:44:57 AM	Prep Date	4/22/2005			
Client ID:	Downstream Rive		Run ID: ICP_050426A		SeqNo:	355701					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4958	0.02	0.5	0	99.2	75	125	0			
Cadmium	0.4731	0.002	0.5	0	94.6	75	125	0			
Chromium	0.4828	0.006	0.5	0	96.6	75	125	0			
Lead	0.4615	0.005	0.5	0.00231	91.8	75	125	0			
Selenium	0.4515	0.05	0.5	0	90.3	75	125	0			
Silver	0.474	0.005	0.5	0	94.8	75	125	0			

Sample ID	0504130-04D MSD	Batch ID: 7825	Test Code: SW6010A	Units: mg/L	Analysis Date	4/26/2005 9:47:48 AM	Prep Date	4/22/2005			
Client ID:	Downstream Rive		Run ID: ICP_050426A		SeqNo:	355702					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.498	0.02	0.5	0	99.6	75	125	0.4958	0.433	20	
Cadmium	0.4843	0.002	0.5	0	96.9	75	125	0.4731	2.34	20	
Chromium	0.492	0.006	0.5	0	98.4	75	125	0.4828	1.88	20	
Lead	0.4694	0.005	0.5	0.00231	93.4	75	125	0.4615	1.71	20	
Selenium	0.4598	0.05	0.5	0	92.0	75	125	0.4515	1.83	20	
Silver	0.4826	0.005	0.5	0	96.5	75	125	0.474	1.80	20	

Sample ID	0504130-04D MS	Batch ID: 7865	Test Code: SW6010A	Units: mg/L	Analysis Date	4/28/2005 9:23:20 AM	Prep Date	4/27/2005			
Client ID:	Downstream Rive		Run ID: ICP_050428A		SeqNo:	356585					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.5884	0.02	0.5	0.1158	94.5	75	125	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT
 Sample Matrix Spike Duplicate

Sample ID	0504130-04D MSD	Batch ID: 7865	Test Code: SW6010A	Units: mg/L	Analysis Date	4/28/2005 9:24:35 AM	Prep Date	4/27/2005				
Client ID:	Downstream Rive	Run ID:	ICP_050428A		SeqNo:	356586						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium		0.6156	0.02	0.5	0.1158	100	75	125	0.5884	4.52	20	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 29-Apr-05

CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS	Batch ID: R15102	Test Code: E300	Units: mg/L	Analysis Date 4/14/2005	Prep Date					
Client ID:		Run ID: LC_050414A			SeqNo: 352293						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.499	0.1	0.5	0	99.8	90	110	0			
Chloride	4.719	0.1	5	0	94.4	90	110	0			
Nitrogen, Nitrite (As N)	0.923	0.1	1	0	92.3	90	110	0			
Bromide	2.553	0.5	2.5	0	102	90	110	0			
Nitrogen, Nitrate (As N)	2.409	0.1	2.5	0	96.4	90	110	0			
Phosphorus, Orthophosphate (As P)	4.829	0.5	5	0	96.6	90	110	0			
Sulfate	9.615	0.5	10	0	96.2	90	110	0			

Sample ID	LCS	Batch ID: R15214	Test Code: E300	Units: mg/L	Analysis Date 4/26/2005		Prep Date				
Client ID:			Run ID: LC_050426A		SeqNo: 355854						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.534	0.1	0.5	0	107	90	110	0			
Chloride	4.683	0.1	5	0	93.7	90	110	0			
Nitrogen, Nitrite (As N)	0.91	0.1	1	0	91.0	90	110	0			
Bromide	2.535	0.5	2.5	0	101	90	110	0			
Nitrogen, Nitrate (As N)	2.416	0.1	2.5	0	96.6	90	110	0			
Phosphorus, Orthophosphate (As P)	4.834	0.5	5	0	96.7	90	110	0			
Sulfate	9.546	0.5	10	0	95.5	90	110	0			

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

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QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0504130
 Project: River Sampling 2nd Qtr-2005

Sample ID	LCS	Batch ID: R15214	Test Code: E300	Units: mg/L	Analysis Date 4/27/2005	Prep Date					
Client ID:		Run ID: LC_050426A			SeqNo: 355955						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.491	0.1	0.5	0	98.2	90	110	0			
Chloride	4.492	0.1	5	0	89.8	90	110	0			S
Nitrogen, Nitrite (As N)	0.881	0.1	1	0	88.1	90	110	0			S
Bromide	2.406	0.5	2.5	0	96.2	90	110	0			
Nitrogen, Nitrate (As N)	2.278	0.1	2.5	0	91.1	90	110	0			
Phosphorus, Orthophosphate (As P)	4.583	0.5	5	0	91.7	90	110	0			
Sulfate	9.302	0.5	10	0.227	90.8	90	110	0			

Sample ID	LCS-7810	Batch ID: 7810	Test Code: SW8015	Units: mg/L	Analysis Date 4/22/2005 9:55:12 AM	Prep Date 4/20/2005					
Client ID:			Run ID: FID(17A) 2_050421A		SeqNo: 354680						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.754	1	5	0	115	81.2	149	0			

Sample ID	LCSD-7810	Batch ID: 7810	Test Code: SW8015		Units: mg/L	Analysis Date 4/22/2005 10:25:09 AM		Prep Date 4/20/2005			
Client ID:		Run ID:	FID(17A) 2_050421A			SeqNo: 354681					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.007	1	5	0	120	81.2	149	5.754	4.30	23	

Sample ID	GRO lcs 2.5ug	Batch ID: R15110	Test Code: SW8015	Units: mg/L	Analysis Date 4/15/2005 9:09:14 PM	Prep Date					
Client ID:		Run ID: PIDFID_050415A			SeqNo: 352655						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.4814	0.05	0.5	0	96.3	82.6	114	0			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

Sample ID	BTEX Ics 100ng	Batch ID: R15110	Test Code: SW8021	Units: µg/L	Analysis Date	4/16/2005 2:42:59 AM	Prep Date				
Client ID:			Run ID: PIDFID_050415A		SeqNo: 352679						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	35.68	2.5	40	0	89.2	64.5	133	0			
Benzene	19.05	0.5	20	0	95.2	88.7	114	0			
Toluene	19.25	0.5	20	0	96.3	89.3	112	0			
Ethylbenzene	19.66	0.5	20	0	98.3	88.6	113	0			
Xylenes, Total	57.34	0.5	60	0	95.6	89.4	112	0			

Sample ID	LCS-7812	Batch ID: 7812	Test Code: SW8270C	Units: µg/L	Analysis Date	4/22/2005	Prep Date	4/20/2005			
Client ID:			Run ID: ELMO_050422A		SeqNo:	355212					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	68.98	10	100	0	69.0	11	123	0			
4-Chloro-3-methylphenol	144.2	20	200	0	72.1	15.4	119	0			
2-Chlorophenol	145.8	10	200	0	72.9	12.2	122	0			
1,4-Dichlorobenzene	70.22	10	100	0	70.2	16.9	100	0			
2,4-Dinitrotoluene	75.5	10	100	0	75.5	13	138	0			
N-Nitrosodi-n-propylamine	67.58	10	100	0	67.6	9.93	122	0			
4-Nitrophenol	75.86	50	200	0	37.9	-20.5	87.4	0			
Pentachlorophenol	139	50	200	0	69.5	-0.355	114	0			
Phenol	79.34	10	200	0	39.7	7.53	73.1	0			
Pyrene	72.04	15	100	0	72.0	12.6	140	0			
1,2,4-Trichlorobenzene	68.82	10	100	0	68.8	17.4	98.7	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	LCSD-7812	Batch ID: 7812	Test Code: SW8270C	Units: µg/L	Analysis Date 4/23/2005		Prep Date 4/20/2005				
Client ID:		Run ID:	ELMO_050423A		SeqNo:	355276					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	59.66	10	100	0	59.7	11	123	68.98	14.5	30.5	
4-Chloro-3-methylphenol	129.9	20	200	0	64.9	15.4	119	144.2	10.5	28.6	
2-Chlorophenol	123.7	10	200	0	61.9	12.2	122	145.8	16.4	107	
1,4-Dichlorobenzene	56.28	10	100	0	56.3	16.9	100	70.22	22.0	62.1	
2,4-Dinitrotoluene	67	10	100	0	67.0	13	138	75.5	11.9	14.7	
N-Nitrosodi-n-propylamine	62.46	10	100	0	62.5	9.93	122	67.58	7.87	30.3	
4-Nitrophenol	49.62	50	200	0	24.8	12.5	87.4	75.86	0	36.3	J
Pentachlorophenol	97.24	50	200	0	48.6	3.55	114	139	35.3	49	
Phenol	65.18	10	200	0	32.6	7.53	73.1	79.34	19.6	52.4	
Pyrene	70.34	15	100	0	70.3	12.6	140	72.04	2.39	16.3	
1,2,4-Trichlorobenzene	57.62	10	100	0	57.6	17.4	98.7	68.82	17.7	36.4	

Sample ID	LCS-7857	Batch ID: 7857	Test Code: SW7470	Units: mg/L	Analysis Date 4/26/2005				Prep Date 4/26/2005			
Client ID:			Run ID: MI-LA254_050426A		SeqNo: 355762							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.004953	0.0002	0.005	0	99.1	75.2	134	0			

Sample ID	LCSD-7857	Batch ID: 7857	Test Code: SW7470	Units: mg/L	Analysis Date 4/26/2005				Prep Date 4/26/2005			
Client ID:			Run ID: MI-LA254_050426A		SeqNo: 355779							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.005061	0.0002	0.005	0	101	75.2	134	0.004953	2.17	0	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0504130
 Project: River Sampling 2nd Qtr-2005

Sample ID	LCS	Batch ID: R15182	Test Code: SW6010A	Units: mg/L	Analysis Date	4/22/2005 10:11:58 AM	Prep Date				
Client ID:		Run ID: ICP_050422A			SeqNo: 354760						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.506	0.02	0.5	0	101	80	120	0			
Barium	0.511	0.02	0.5	0	102	80	120	0			
Cadmium	0.5131	0.002	0.5	0	103	80	120	0			
Calcium	50.51	1	50.5	0	100	80	120	0			
Chromium	0.5118	0.006	0.5	0	102	80	120	0			
Copper	0.5	0.006	0.5	0	100	80	120	0			
Iron	0.5068	0.02	0.5	0	101	80	120	0			
Lead	0.5032	0.005	0.5	0	101	80	120	0			
Magnesium	49.93	1	50.5	0	98.9	80	120	0			
Manganese	0.5046	0.002	0.5	0.0001578	101	80	120	0			
Potassium	50.92	1	55	0	92.6	80	120	0			
Selenium	0.4986	0.02	0.5	0	99.7	80	120	0			
Sodium	51.81	1	50.5	0	103	80	120	0			
Uranium	2.518	0.1	5	0	50.4	80	120	0			S

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

Sample ID	LCSD	Batch ID: R15182	Test Code: SW6010A	Units: mg/L	Analysis Date 4/22/2005 10:14:23 AM	Prep Date					
Client ID:		Run ID: ICP_050422A	SeqNo: 354761								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5144	0.02	0.5	0	103	80	120	0.506	1.66	20	
Barium	0.5124	0.02	0.5	0	102	80	120	0.511	0.283	20	
Cadmium	0.5149	0.002	0.5	0	103	80	120	0.5131	0.350	20	
Calcium	50.69	1	50.5	0	100	80	120	50.51	0.362	20	
Chromium	0.5129	0.006	0.5	0	103	80	120	0.5118	0.207	20	
Copper	0.5024	0.006	0.5	0	100	80	120	0.5	0.463	20	
Iron	0.5055	0.02	0.5	0	101	80	120	0.5068	0.254	20	
Lead	0.5075	0.005	0.5	0	101	80	120	0.5032	0.844	20	
Magnesium	50.39	1	50.5	0	99.8	80	120	49.93	0.923	20	
Manganese	0.505	0.002	0.5	0.0001578	101	80	120	0.5046	0.0772	20	
Potassium	51.54	1	55	0	93.7	80	120	50.92	1.23	20	
Selenium	0.5026	0.02	0.5	0	101	80	120	0.4986	0.794	20	
Sodium	52.45	1	50.5	0	104	80	120	51.81	1.23	20	
Uranium	2.49	0.1	5	0	49.8	80	120	2.518	1.14	20	S

Sample ID	LCS	Batch ID: R15194	Test Code: SW6010A	Units: mg/L	Analysis Date 4/22/2005 2:59:37 PM	Prep Date					
Client ID:		Run ID: ICP_050422C	SeqNo: 355317								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	55.92	1	55	0.3855	101	80	120	0			
Silver	0.4973	0.005	0.5	0	99.5	80	120	0			
Zinc	0.4829	0.05	0.5	0	96.6	80	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0504130
Project: River Sampling 2nd Qtr-2005

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	LCSD	Batch ID: R15194	Test Code: SW6010A	Units: mg/L	Analysis Date	4/22/2005 3:02:00 PM	Prep Date					
Client ID:		Run ID: ICP_050422C			SeqNo:	355318						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium		55.6	1	55	0.3855	100	80	120	55.92	0.583	20	
Silver		0.4943	0.005	0.5	0	98.9	80	120	0.4973	0.609	20	
Zinc		0.4807	0.05	0.5	0	96.1	80	120	0.4829	0.446	20	

Sample ID	LCS-7825	Batch ID: 7825	Test Code: SW6010A	Units: mg/L	Analysis Date	4/26/2005 9:06:52 AM	Prep Date	4/22/2005			
Client ID:		Run ID: ICP_050426A			SeqNo:	355689					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4889	0.02	0.5	0	97.8	80	120	0			
Cadmium	0.482	0.002	0.5	0	96.4	80	120	0			
Chromium	0.4891	0.006	0.5	0	97.8	80	120	0			
Lead	0.4724	0.005	0.5	0	94.5	80	120	0			
Selenium	0.4623	0.05	0.5	0	92.5	80	120	0			
Silver	0.4809	0.005	0.5	0.001093	96.0	80	120	0			

Sample ID	LCSD-7825	Batch ID: 7825	Test Code: SW6010A	Units: mg/L	Analysis Date	4/26/2005 9:10:02 AM	Prep Date	4/22/2005			
Client ID:		Run ID: ICP_050426A			SeqNo:	355690					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4778	0.02	0.5	0	95.6	80	120	0.4889	2.29	20	
Cadmium	0.4757	0.002	0.5	0	95.1	80	120	0.482	1.31	20	
Chromium	0.4835	0.006	0.5	0	96.7	80	120	0.4891	1.15	20	
Lead	0.4685	0.005	0.5	0	93.7	80	120	0.4724	0.834	20	
Selenium	0.4579	0.05	0.5	0	91.6	80	120	0.4623	0.939	20	
Silver	0.4759	0.005	0.5	0.001093	95.0	80	120	0.4809	1.06	20	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0504130
 Project: River Sampling 2nd Qtr-2005

Sample ID	LCS-7865	Batch ID: 7865	Test Code: SW6010A	Units: mg/L	Analysis Date	4/28/2005 9:06:41 AM	Prep Date	4/27/2005
Client ID:			Run ID: ICP_050428A		SeqNo:	356577		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Barium		0.481	0.02	0.5	0	96.2	80	120
							%RPD	RPDLimit
								Qual

Sample ID	LCSD-7865	Batch ID: 7865	Test Code: SW6010A	Units: mg/L	Analysis Date	4/28/2005 9:08:57 AM	Prep Date	4/27/2005
Client ID:			Run ID: ICP_050428A		SeqNo:	356578		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Barium		0.5018	0.02	0.5	0	100	80	120
							%RPD	RPDLimit
								Qual

Sample ID	LCS-7811	Batch ID: 7811	Test Code: E160.1	Units: mg/L	Analysis Date	4/21/2005	Prep Date	4/20/2005
Client ID:			Run ID: WC_050421B		SeqNo:	354284		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Total Dissolved Solids		1030	50	1000	33	99.7	80	120
							%RPD	RPDLimit
								Qual

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	8

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/14/2005

Work Order Number 0504130

Received by AT

Checklist completed by


Signature

4/14/05
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 - 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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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:							
Project Name: River Sampling 2nd Qtr 2005							
Project #:							
Project Manager:							
Sample: Cindy Hurtado/Angela Folk							
Sample Temperature: 1° F							
Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl ₂	HNO ₃	
4/13/05	8:30am	H ₂ O	Upstream River	2-VOA	X		0504130-1
				2-VOA	X		
				1-500 ml	X		
				1-125 ml	X Filtered		
				1-125 ml		H ₂ SO ₄	
				1-1000 ml			
				1-liter		Amber	
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)				
4/13/05	3pm	Cindy Hurtado	[Signature]	4/14/05			
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)				
				1303			

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4
www.hallenvironmental.com

Client: San Juan Refinery

Project Name: River Sampling
2nd Oct 2003

Address: #50 CR 4990
Bloomfield, NM
87443

Project Manager:

Sampler: Cindy Hurtado / Angela
Sample Temperature: 10 F-olk

Sampler: Cindy Hurtado / Angela
Sample Temperature: 10 F-olk

Phone #: 505-632-4161
Fax #: 505-632-3911

Phone #: 505-632-4161
Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl ₂	HNO ₃	
1/13/05	1144	H ₂ O	N. of MW #40	2-VOA	X		6534/30-3
				2-VOA	X		
				1-500ml		X	
				1-125 ml		X	Filtered
				1-125 ml			H ₂ O ₄
				1-1000 ml			
				1- liter			Amber

Date: 11/13/05	Time: 3pm	Relinquished By: (Signature) <i>Cindy Hurtado</i>
Date:	Time:	Relinquished By: (Signature)

Date: 11/13/05	Time: 3pm	Relinquished By: (Signature) <i>Cindy Hurtado</i>
Date:	Time:	Relinquished By: (Signature)

Received By: (Signature) *[Signature]* 4/14/05
Received By: (Signature) *[Signature]* 1303

Received By: (Signature) *[Signature]* 4/14/05
Received By: (Signature) *[Signature]* 1303

1303

ANALYSIS REQUEST

X	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)
	RCA 8 Metals
	Anions (F^- , Cl^- , NO_3^- , PO_4^{3-} , SO_4^{2-})
	8081 Pesticides / PCB's (8082)
	8260B (VDA)
	8270 (Semi-VOA)
	WDC - dissolved metals
	N _{DG} Backup Gen Chem-Anion/Cat
	Air Bubbles or Headspace (Y or N)

Remarks:

Hall Environmental Analysis Laboratory

Date: 14-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504040
Project: Chad's Recovered Water
Lab ID: 0504040-05

Client Sample ID: TK #33
Collection Date: 4/4/2005 10:45:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 413.2: OIL AND GREASE						Analyst: JT
Oil & Grease, Total Recoverable	7.8	1.0		mg/L	1	4/11/2005
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	8.4	0.50		µg/L	1	4/6/2005 12:17:39 AM
Toluene	ND	0.50		µg/L	1	4/6/2005 12:17:39 AM
Ethylbenzene	1.7	0.50		µg/L	1	4/6/2005 12:17:39 AM
Xylenes, Total	1.5	0.50		µg/L	1	4/6/2005 12:17:39 AM
Surr: 4-Bromofluorobenzene	116	83.3-121		%REC	1	4/6/2005 12:17:39 AM

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

Date: 14-Apr-05

CLIENT: San Juan Refining
Lab Order: 0504040
Project: Chad's Recovered Water
Lab ID: 0504040-06

Client Sample ID: Fresh Water Pond
Collection Date: 4/4/2005 10:55:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.50		µg/L	1	4/6/2005 12:47:32 AM
Toluene	ND	0.50		µg/L	1	4/6/2005 12:47:32 AM
Ethylbenzene	ND	0.50		µg/L	1	4/6/2005 12:47:32 AM
Xylenes, Total	ND	0.50		µg/L	1	4/6/2005 12:47:32 AM
Surr: 4-Bromofluorobenzene	108	83.3-121		%REC	1	4/6/2005 12:47:32 AM

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

Date: 14-Apr-05

CLIENT: San Juan Refining
Work Order: 0504040
Project: Chad's Recovered Water

QC SUMMARY REPORT

Method Blank

Sample ID	MB-7735	Batch ID:	7735	Test Code:	E413.2	Units:	mg/L	Analysis Date	4/11/2005	SeqNo:	351315	Prep Date	4/8/2005
Client ID:		Run ID:	BUCK IR_050411A										
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Oil & Grease, Total Recoverable		ND	1										

Sample ID	Reagent Blank 5m	Batch ID:	R15012	Test Code:	SW8021	Units:	µg/L	Analysis Date	4/5/2005 8:24:01 AM	SeqNo:	349429	Prep Date	
Client ID:		Run ID:	PIDFID_050405A										
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene		ND	0.5										
Toluene		ND	0.5										
Ethylbenzene		ND	0.5										
Xylenes, Total		ND	0.5										
Surr: 4-Bromofluorobenzene		20.47	0	20	0	102	83.3	121	0				

Sample ID	Reagent Blank 5m	Batch ID:	R15012	Test Code:	SW8021	Units:	µg/L	Analysis Date	4/5/2005 3:15:00 PM	SeqNo:	349450	Prep Date	
Client ID:		Run ID:	PIDFID_050405A										
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene		ND	0.5										
Toluene		ND	0.5										
Ethylbenzene		ND	0.5										
Xylenes, Total		ND	0.5										
Surr: 4-Bromofluorobenzene		20.51	0	20	0	103	83.3	121	0				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 14-Apr-05

CLIENT: San Juan Refining

Work Order: 0504040

Project: Chad's Recovered Water

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-7735	Batch ID: 7735	Test Code: E413.2	Units: mg/L	Analysis Date	4/11/2005	Prep Date	4/8/2005				
Client ID:		Run ID:	BUCK IR_050411A		SeqNo:	351316						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease, Total Recoverable		5.7	1	5	0	114	76.7	111	0			S

Sample ID	LCSD-7735	Batch ID: 7735	Test Code: E413.2	Units: mg/L	Analysis Date	4/11/2005	Prep Date	4/8/2005				
Client ID:		Run ID:	BUCK IR_050411A	SeqNo:	351326							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease, Total Recoverable		5.56	1	5	0	111	76.7	111	5.7	2.49	20	S

Sample ID	BTEX Ics 100ng	Batch ID: R15012	Test Code: SW8021	Units: µg/L	Analysis Date	4/5/2005 8:47:35 PM	Prep Date					
Client ID:		Run ID:	PIDFID_050405A		SeqNo:	349430						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		20.16	0.5	20	0	101	88.7	114	0			
Toluene		20.23	0.5	20	0	101	89.3	112	0			
Ethylbenzene		20.77	0.5	20	0	104	88.6	113	0			
Xylenes, Total		60.03	0.5	60	0	100	89.4	112	0			

Sample ID	BTEX Ics II 100ng	Batch ID: R15012	Test Code: SW8021	Units: µg/L	Analysis Date	4/5/2005 9:17:39 PM	Prep Date				
Client ID:		Run ID:	PIDFID_050405A		SeqNo:	349451					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.95	0.5	20	0	99.8	88.7	114	0			
Toluene	20.03	0.5	20	0	100	89.3	112	0			
Ethylbenzene	20.84	0.5	20	0	104	88.6	113	0			
Xylenes, Total	60.2	0.5	60	0	100	89.4	112	0			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

CLIENT: San Juan Refining
Work Order: 0504040
Project: Chad's Recovered Water

QC SUMMARY REPORT
Laboratory Control Spike Duplicate

Sample ID	BTEX IcsdII 100n	Batch ID: R15012	Test Code: SW8021	Units: µg/L	Analysis Date	4/5/2005 9:47:43 PM	Prep Date				
Client ID:		Run ID:	PIDFID_050405A		SeqNo:	349452					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.39	0.5	20	0	97.0	88.7	114	19.95	2.85	27	
Toluene	19.49	0.5	20	0	97.5	89.3	112	20.03	2.69	19	
Ethylbenzene	20.05	0.5	20	0	100	88.6	113	20.84	3.87	10	
Xylenes, Total	59.21	0.5	60	0	98.7	89.4	112	60.2	1.66	13	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

2

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

4/5/2005

Work Order Number 0504040

Received by AT

Checklist completed by

Signature

Date

4/5/05

Matrix

Carrier name FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐ Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☒	N/A ☐
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐
Water - 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 505.345.4107
www.hallenvironmental.com

0.1% *Guayse*
82270 (Semi-VOA)
82608 (VOA)
8081 Pesticides / PCB's (8082)
Anions (F, Cl, NO₂, PO₄, SO₄)
RCRA 8 Metals
8310 (PNA or PAH)
EDC (Method 8021)
EDB (Method 504.1)
TPH (Method 418.1)
TPH Method 8015B (Gas/Diesel)
BTEX + MTBE + TPH (Gasoline Or
BTEX + MTBE + TMB (8021)

CHAIN-OF-CUSTODY RECORD							
QA / QC Package: Std ☐ Level 4 ☒							
Other:							
Project Name: Chad's Recovered Water							
Project #:							
Project Manager:							
Sampler: Lindy Hurtado / Angela Folk							
Sample Temperature:							
Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative HgCl ₂ HNO ₃	HEAL No.	
4/09/05	9:5A	H ₂ O	MW #49	1-500ml		HCL 0584010-2	
1	9:5A	1	MW #48	1-500ml		-3	
1	10:25A	1	TK #37	1-500ml		-4	
1	1	1	TK #37	2-10A		-4	
1	10:45A	1	TK #33	1-500ml		-5	
1	1	1	TK #33	2-10A		-5	
1	10:55	1	Fresh Water Pond	2-10A		-6	
Date: 4/09/05	Time: 3pm	Relinquished By: (Signature) Lindy Hurtado	Relinquished By: (Signature)	Received By: (Signature) [Signature]			4/5705-
Date:	Time:	Relinquished By: (Signature)	Relinquished By: (Signature)	Received By: (Signature)			1003

GIANT

REFINING COMPANY

Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

RECEIVED

APR 12 2005

OIL CONSERVATION
DIVISION

Certified Mail: 7099 3220 001 2242 4764

April 11, 2005

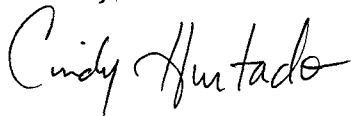
RE: Giant Refining Company, Bloomfield Refiner
EPA ID# NMD089416416
GW - 001

Dear Mr. Price,

Please find attached analytical results for the March 18, 2005 sampling event for wells MW #48 and MW #49 on the river terrace at the Giant Refining facility. Note that the results for well MW #49, located down-gradient of the barrier wall, had a detection of benzene at a concentration of 24 ug/L. We will continue to monitor both wells on a monthly basis and evaluate the concentration trends.

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

Sincerely,



Cindy Hurtado
Environmental Assistant
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

PHONE
505-632-8013
FAX
505-632-3911

50 ROAD 4990
P.O. BOX 159
BLOOMFIELD
NEW MEXICO
87413

COVER LETTER

April 04, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace MW #48/MW #49-3/05

Order No.: 0503182

Dear Cindy Hurtado:

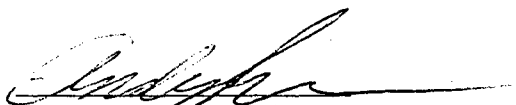
Hall Environmental Analysis Laboratory received 2 samples on 3/18/2005 for the analyses presented in the following report.

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

Date: 04-Apr-05

CLIENT: San Juan Refining
Lab Order: 0503182
Project: River Terrace MW #48/MW #49-3/05
Lab ID: 0503182-01

Client Sample ID: MW #49
Collection Date: 3/16/2005 2:25:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/23/2005 1:47:48 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/23/2005 1:47:48 PM
Surr: DNOP	122	58-140		%REC	1	3/23/2005 1:47:48 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.36	0.050		mg/L	1	3/23/2005 11:13:00 PM
Surr: BFB	105	78.3-120		%REC	1	3/23/2005 11:13:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/23/2005 11:13:00 PM
Benzene	24	0.50		µg/L	1	3/23/2005 11:13:00 PM
Toluene	0.50	0.50		µg/L	1	3/23/2005 11:13:00 PM
Ethylbenzene	9.4	0.50		µg/L	1	3/23/2005 11:13:00 PM
Xylenes, Total	16	0.50		µg/L	1	3/23/2005 11:13:00 PM
Surr: 4-Bromofluorobenzene	110	83.3-121		%REC	1	3/23/2005 11:13:00 PM
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	ND	2.5		µg/L	1	3/29/2005 2:20:26 AM
1-Methylnaphthalene	ND	2.5		µg/L	1	3/29/2005 2:20:26 AM
2-Methylnaphthalene	ND	2.5		µg/L	1	3/29/2005 2:20:26 AM
Acenaphthylene	ND	2.5		µg/L	1	3/29/2005 2:20:26 AM
Acenaphthene	ND	2.5		µg/L	1	3/29/2005 2:20:26 AM
Fluorene	ND	0.80		µg/L	1	3/29/2005 2:20:26 AM
Phenanthrene	ND	0.60		µg/L	1	3/29/2005 2:20:26 AM
Anthracene	ND	0.60		µg/L	1	3/29/2005 2:20:26 AM
Fluoranthene	ND	0.30		µg/L	1	3/29/2005 2:20:26 AM
Pyrene	ND	0.30		µg/L	1	3/29/2005 2:20:26 AM
Benz(a)anthracene	ND	0.020		µg/L	1	3/29/2005 2:20:26 AM
Chrysene	ND	0.20		µg/L	1	3/29/2005 2:20:26 AM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	3/29/2005 2:20:26 AM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	3/29/2005 2:20:26 AM
Benzo(a)pyrene	ND	0.020		µg/L	1	3/29/2005 2:20:26 AM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	3/29/2005 2:20:26 AM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	3/29/2005 2:20:26 AM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	3/29/2005 2:20:26 AM
Surr: Benzo(e)pyrene	78.4	54-102		%REC	1	3/29/2005 2:20:26 AM

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

Date: 04-Apr-05

CLIENT: San Juan Refining
Lab Order: 0503182
Project: River Terrace MW #48/MW #49-3/05
Lab ID: 0503182-02

Client Sample ID: MW #48
Collection Date: 3/16/2005 3:10:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/23/2005 2:47:31 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/23/2005 2:47:31 PM
Surr: DNOP	113	58-140		%REC	1	3/23/2005 2:47:31 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	29	2.5		mg/L	50	3/24/2005 11:32:03 AM
Surr: BFB	107	78.3-120		%REC	50	3/24/2005 11:32:03 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	130		µg/L	50	3/24/2005 11:32:03 AM
Benzene	630	25		µg/L	50	3/24/2005 11:32:03 AM
Toluene	ND	25		µg/L	50	3/24/2005 11:32:03 AM
Ethylbenzene	2100	25		µg/L	50	3/24/2005 11:32:03 AM
Xylenes, Total	10000	25		µg/L	50	3/24/2005 11:32:03 AM
Surr: 4-Bromofluorobenzene	104	83.3-121		%REC	50	3/24/2005 11:32:03 AM
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	260	13		µg/L	5	3/30/2005 3:02:45 PM
1-Methylnaphthalene	79	2.5		µg/L	1	3/27/2005 9:45:16 PM
2-Methylnaphthalene	110	2.5		µg/L	1	3/27/2005 9:45:16 PM
Acenaphthylene	ND	2.5		µg/L	1	3/27/2005 9:45:16 PM
Acenaphthene	ND	2.5		µg/L	1	3/27/2005 9:45:16 PM
Fluorene	1.4	0.80		µg/L	1	3/27/2005 9:45:16 PM
Phenanthrene	1.4	0.60		µg/L	1	3/27/2005 9:45:16 PM
Anthracene	ND	0.60		µg/L	1	3/27/2005 9:45:16 PM
Fluoranthene	ND	0.30		µg/L	1	3/27/2005 9:45:16 PM
Pyrene	ND	0.30		µg/L	1	3/27/2005 9:45:16 PM
Benz(a)anthracene	ND	0.020		µg/L	1	3/27/2005 9:45:16 PM
Chrysene	ND	0.20		µg/L	1	3/27/2005 9:45:16 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	3/27/2005 9:45:16 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	3/27/2005 9:45:16 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	3/27/2005 9:45:16 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	3/27/2005 9:45:16 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	3/27/2005 9:45:16 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	3/27/2005 9:45:16 PM
Surr: Benzo(e)pyrene	77.1	54-102		%REC	1	3/27/2005 9:45:16 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

Date: 04-Apr-05

CLIENT: San Juan Refining

Work Order: 0503182

Project: River Terrace MW #48/MW #49-3/05

QC SUMMARY REPORT

Method Blank

Sample ID	MB-7623	Batch ID: 7623	Test Code: SW8015	Units: mg/L	Analysis Date	3/23/2005 12:18:04 PM	Prep Date	3/23/2005			
Client ID:			Run ID: FID(17A)_2_050323B	SeqNo: 346608							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1									
Motor Oil Range Organics (MRO)	ND	5									
Surr: DNOP	1.163	0	1	0	116	58	140	0			

Sample ID	Reagent Blank 5m	Batch ID: R14909	Test Code: SW8015	Units: mg/L	Analysis Date 3/23/2005 7:11:03 AM	Prep Date					
Client ID:			Run ID: PIDFID_050323A		SeqNo: 346731						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.05									
Surr: BFB	21.28	0	20	0	106	78.3	120	0			

Sample ID	Reagent Blank 5m	Batch ID: R14918	Test Code: SW8015	Units: mg/L	Analysis Date 3/24/2005 8:57:13 AM	Prep Date					
Client ID:			Run ID: PIDFID_050324A		SeqNo: 346990						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.05									
Surr: BFB	19.95	0	20	0	99.7	78.3	120	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

CLIENT: San Juan Refining
Work Order: 0503182
Project: River Terrace MW #48/MW #49-3/05

QC SUMMARY REPORT
 Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R14909	Test Code: SW8021	Units: µg/L	Analysis Date 3/23/2005 7:11:03 AM	Prep Date					
Client ID:			Run ID: PIDFID_050323A		SeqNo: 346730						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	21.85	0	20	0	109	83.3	121	0			

Sample ID	Reagent Blank 5m	Batch ID: R14918	Test Code: SW8021	Units: µg/L	Analysis Date 3/24/2005 8:57:13 AM	Prep Date					
Client ID:			Run ID: PIDFID_050324A		SeqNo: 346989						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	19.66	0	20	0	98.3	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0503182
Project: River Terrace MW #48/MW #49-3/05

QC SUMMARY REPORT
 Method Blank

Sample ID	MB-7619	Batch ID: 7619	Test Code: SW8310	Units: µg/L	Analysis Date	3/28/2005 11:56:25 PM	Prep Date	3/22/2005			
Client ID:			Run ID:	HUGO_050326A		SeqNo:	347579				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	2.5									
1-Methylnaphthalene	ND	2.5									
2-Methylnaphthalene	ND	2.5									
Acenaphthylene	ND	2.5									
Acenaphthene	ND	2.5									
Fluorene	ND	0.8									
Phenanthrene	ND	0.6									
Anthracene	ND	0.6									
Fluoranthene	ND	0.3									
Pyrene	ND	0.3									
Benz(a)anthracene	ND	0.02									
Chrysene	ND	0.2									
Benzo(b)fluoranthene	ND	0.05									
Benzo(k)fluoranthene	ND	0.02									
Benzo(a)pyrene	ND	0.02									
Dibenz(a,h)anthracene	ND	0.04									
Benzo(g,h,i)perylene	ND	0.03									
Indeno(1,2,3-cd)pyrene	ND	0.08									
Surr: Benzo(e)pyrene	7.72	0	10	0	77.2	54	102	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 04-Apr-05

CLIENT: San Juan Refining
 Work Order: 0503182
 Project: River Terrace MW #48/MW #49-3/05

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	LCS-7623	Batch ID: 7623	Test Code: SW8015	Units: mg/L	Analysis Date	3/23/2005 12:48:02 PM	Prep Date	3/23/2005
Client ID:		Run ID:	FID(17A) 2_050323B		SeqNo:	346648		
Analyte		Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val
Diesel Range Organics (DRO)		5.441	1	5	109	81.2	149	0

Sample ID	LCS-7623	Batch ID: 7623	Test Code: SW8015	Units: mg/L	Analysis Date	3/23/2005 1:17:57 PM	Prep Date	3/23/2005
Client ID:		Run ID:	FID(17A) 2_050323B		SeqNo:	346649		
Analyte		Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val
Diesel Range Organics (DRO)		6.085	1	5	122	81.2	149	5.441

Sample ID	GRO lcs 2.5ug	Batch ID: R14909	Test Code: SW8015	Units: mg/L	Analysis Date	3/24/2005 12:12:51 AM	Prep Date	
Client ID:		Run ID:	PIDFID_050323A		SeqNo:	346825		
Analyte		Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val
Gasoline Range Organics (GRO)		0.4414	0.05	0.5	88.3	82.6	114	0

Sample ID	GRO lcsd 2.5ug	Batch ID: R14909	Test Code: SW8015	Units: mg/L	Analysis Date	3/24/2005 12:42:46 AM	Prep Date	
Client ID:		Run ID:	PIDFID_050323A		SeqNo:	346826		
Analyte		Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val
Gasoline Range Organics (GRO)		0.504	0.05	0.5	101	82.6	114	0.4414

Sample ID	GRO lcs 2.5ug	Batch ID: R14918	Test Code: SW8015	Units: mg/L	Analysis Date	3/24/2005 7:04:40 PM	Prep Date	
Client ID:		Run ID:	PIDFID_050324A		SeqNo:	346994		
Analyte		Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val
Gasoline Range Organics (GRO)		0.5548	0.05	0.5	111	82.6	114	0

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank
 /

CLIENT: San Juan Refining
Work Order: 0503182
Project: River Terrace MW #48/MW #49-3/05

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	GRO lcsd 2.5ug	Batch ID: R14918	Test Code: SW8015	Units: mg/L	Analysis Date	3/24/2005 8:04:36 PM	Prep Date					
Client ID:			Run ID: PIDFID_050324A		SeqNo: 346995							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.5332	0.05	0.5	0	107	82.6	114	0.5548	3.97	8.39	

Sample ID	BTEX lcs 100ng	Batch ID: R14909	Test Code: SW8021	Units: µg/L	Analysis Date	3/24/2005 1:42:28 AM	Prep Date				
Client ID:			Run ID: PIDFID_050323A		SeqNo:	346820					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	43.82	2.5	40	0	110	64.5	133	0			
Benzene	19.78	0.5	20	0	98.9	88.7	114	0			
Toluene	20.07	0.5	20	0	100	89.3	112	0			
Ethylbenzene	20.75	0.5	20	0	104	88.6	113	0			
Xylenes, Total	59.31	0.5	60	0	98.8	89.4	112	0			

Sample ID	BTEX lcsd 100ng	Batch ID: R14909	Test Code: SW8021	Units: µg/L	Analysis Date	3/24/2005 2:12:16 AM	Prep Date					
Client ID:			Run ID: PIDFID_050323A		SeqNo: 346822							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)		42.05	2.5	40	0	105	64.5	133	43.82	4.12	28	
Benzene		19.67	0.5	20	0	98.3	88.7	114	19.78	0.594	27	
Toluene		19.8	0.5	20	0	99.0	89.3	112	20.07	1.36	19	
Ethylbenzene		20.66	0.5	20	0	103	88.6	113	20.75	0.418	10	
Xylenes, Total		58.74	0.5	60	0	97.9	89.4	112	59.31	0.963	13	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0503182
Project: River Terrace MW #48/MW #49-3/05

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	BTEX ccv 100ng	Batch ID: R14918	Test Code: SW8021	Units: µg/L	Analysis Date	3/24/2005 8:34:35 PM	Prep Date				
Client ID:		Run ID:	PIDFID_050324A		SeqNo:	347017					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	45.63	2.5	40	0	114	64.5	133	0			
Benzene	19.86	0.5	20	0	99.3	88.7	114	0			
Toluene	20.62	0.5	20	0	103	89.3	112	0			
Ethylbenzene	21.13	0.5	20	0	106	88.6	113	0			
Xylenes, Total	61.93	0.5	60	0	103	89.4	112	0			

Sample ID	LCS-7619	Batch ID: 7619	Test Code: SW8310	Units: µg/L	Analysis Date	3/30/2005 12:38:45 PM	Prep Date	3/22/2005			
Client ID:		Run ID:	HUGO_050329A		SeqNo:	348196					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	23	2.5	40	0	57.5	20.939	111.211	0			
1-Methylnaphthalene	23.43	2.5	40.1	0	58.4	22.016	110.385	0			
2-Methylnaphthalene	23.35	2.5	40	0	58.4	21.098	111.261	0			
Acenaphthylene	27.9	2.5	40.1	0	69.6	23.852	116.857	0			
Acenaphthene	26.72	2.5	40	0	66.8	27.524	111.73	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining
Work Order: 0503182
Project: River Terrace MW #48/MW #49-3/05

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	LCSD-7619	Batch ID: 7619	Test Code: SW8310	Units: µg/L	Analysis Date	3/30/2005 1:26:44 PM	Prep Date	3/22/2005			
Client ID:		Run ID:	HUGO_050329A		SeqNo:	348197					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	24.71	2.5	40	0	61.8	20.939	111.211	23	7.17	32.1	
1-Methylnaphthalene	24.94	2.5	40.1	0	62.2	22.016	110.385	23.43	6.24	32.7	
2-Methylnaphthalene	24.63	2.5	40	0	61.6	21.098	111.261	23.35	5.34	34	
Acenaphthylene	28.36	2.5	40.1	0	70.7	23.852	116.857	27.9	1.64	38.8	
Acenaphthene	27.04	2.5	40	0	67.6	27.524	111.73	26.72	1.19	38.6	
Fluorene	2.87	0.8	4.01	0	71.6	31.046	113.32	2.91	1.38	39.3	
Phenanthrene	1.45	0.6	2.01	0	72.1	42.279	115.749	1.41	2.80	25	
Anthracene	1.51	0.6	2.01	0	75.1	43.767	118.693	1.53	1.32	23.9	
Fluoranthene	2.99	0.3	4.01	0	74.6	55.334	117.461	2.96	1.01	15.7	
Pyrene	3.01	0.3	4.01	0	75.1	57.722	120.832	2.88	4.41	15.3	
Benz(a)anthracene	0.31	0.02	0.401	0	77.3	70.18	113.452	0.31	0	119	
Chrysene	1.43	0.2	2.01	0	71.1	43.942	141.404	1.4	2.12	16.6	
Benzo(b)fluoranthene	0.409	0.05	0.501	0	81.6	71.192	103.368	0.359	13.0	21.7	
Benzo(k)fluoranthene	0.19	0.02	0.25	0	76.0	75.336	107.209	0.19	0	19.4	
Benzo(a)pyrene	0.2	0.02	0.251	0	79.7	74.556	100.742	0.191	4.60	16.7	
Dibenz(a,h)anthracene	0.4	0.04	0.501	0	79.8	80.693	106.931	0.404	0.995	17.3	S
Benzo(g,h,i)perylene	0.37	0.03	0.5	0	74.0	55.168	135.014	0.35	5.56	118	
Indeno(1,2,3-cd)pyrene	0.804	0.08	1.002	0	80.2	79.328	104.794	0.799	0.624	17.7	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

3/18/2005

Work Order Number 0503182

Received by AT

Checklist completed by

Signature

Date

3/18/05

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 - 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 _____

Accreditation Applied:

NELAC ☐	USACE ☐
--------------------------------	--------------------------------

Client: SAN Juan Refining

Project Name: River Terrace -
MW#48 \$MW#49 - 3/05

Address: #50 Rd 4990

Bloomfield, NM
87413

Project Manager:

Sampler: Cindy Hurtado

Sample Temperature:

Phone #: 505-632-4161

Fax #: 505-632-3911

[illegible]

Date:	Time:	Relinquished By: (Signature)
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Date: 3/17/05	Time: 9:10 AM	Relinquished By: (Signature) [Signature]
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Date:	Time:	Relinquished By: (Signature)
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Date:	Time:	Relinquished By: (Signature)
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Received By: (Signature)

5018115

Received By: (Signature)

15

Accreditation Applied:

NELAC ☐	USACE ☐
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Client: SAN Juan Refining

Project Name: River Terrace -
MW#48 \$MW#49 - 3/05

Address: #50 Rd 4990

Bloomfield, NM
87413

Project Manager:

Sampler: Cindy Hurtado

Sample Temperature:

Phone #: 505-632-4161

Fax #: 505-632-3911

[illegible]

Date:	Time:	Relinquished By: (Signature)
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Date: 3/17/05	Time: 9:10 AM	Relinquished By: (Signature) [Signature]
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Date:	Time:	Relinquished By: (Signature)
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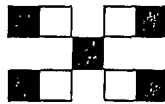
Date:	Time:	Relinquished By: (Signature)
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Received By: (Signature)

5018115

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**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

[illegible]

Remarks:

GIANT

REFINING COMPANY

Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

RECEIVED

APR 1 8 2005

**OIL CONSERVATION
DIVISION**

Certified Mail: 7001 1140 0000 4022 0750

April 8, 2005

**RE: Giant Refining Company, Bloomfield Refiner
EPA ID# NMD089416416
GW - 001**

Dear Mr. Price,

Please find attached analytical results for the January, 2005 sampling event for wells MW #48 and MW #49 on the river terrace at the Giant Refining facility. Note that the results for well MW #49, located down-gradient of the barrier wall, had a detection of benzene at a concentration of <10 ug/L.

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

Sincerely,



Cindy Hurtado
Environmental Assistant
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

PHONE

505-632-8013

FAX

505-632-3911

50 ROAD 4990

P.O. BOX 159

BLOOMFIELD

NEW MEXICO

87413

Hall Environmental Analysis Laboratory

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-04

Client Sample ID: MW #48D
Collection Date: 1/18/2005 1:30:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Sulfate	160	2.5		mg/L	5	1/22/2005
EPA METHOD 310.1: ALKALINITY						
Alkalinity, Total (As CaCO ₃)	1100	4.0		mg/L CaCO ₃	2	2/1/2005
Carbonate	ND	4.0		mg/L CaCO ₃	2	2/1/2005
Bicarbonate	1100	4.0		mg/L CaCO ₃	2	2/1/2005
EPA METHOD 8015B: DIESEL RANGE						
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/24/2005 6:11:11 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	1/24/2005 6:11:11 PM
Surr: DNOP	111	58-140		%REC	1	1/24/2005 6:11:11 PM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	18	5.0		mg/L	100	1/21/2005 5:53:59 PM
Surr: BFB	110	78.3-120		%REC	100	1/21/2005 5:53:59 PM
EPA METHOD 8260B: VOLATILES						
Benzene	320	50		µg/L	50	1/25/2005
Toluene	ND	50		µg/L	50	1/25/2005
Ethylbenzene	1200	50		µg/L	50	1/25/2005
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	1/25/2005
1,2,4-Trimethylbenzene	1300	50		µg/L	50	1/25/2005
1,3,5-Trimethylbenzene	280	50		µg/L	50	1/25/2005
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	1/25/2005
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	1/25/2005
Naphthalene	170	100		µg/L	50	1/25/2005
1-Methylnaphthalene	ND	200		µg/L	50	1/25/2005
2-Methylnaphthalene	ND	200		µg/L	50	1/25/2005
Acetone	ND	500		µg/L	50	1/25/2005
Bromobenzene	ND	50		µg/L	50	1/25/2005
Bromochloromethane	ND	50		µg/L	50	1/25/2005
Bromodichloromethane	ND	50		µg/L	50	1/25/2005
Bromoform	ND	50		µg/L	50	1/25/2005
Bromomethane	ND	100		µg/L	50	1/25/2005
2-Butanone	ND	500		µg/L	50	1/25/2005
Carbon disulfide	ND	500		µg/L	50	1/25/2005
Carbon Tetrachloride	ND	50		µg/L	50	1/25/2005
Chlorobenzene	ND	50		µg/L	50	1/25/2005
Chloroethane	ND	100		µg/L	50	1/25/2005
Chloroform	ND	50		µg/L	50	1/25/2005
Chloromethane	ND	50		µg/L	50	1/25/2005
2-Chlorotoluene	ND	50		µg/L	50	1/25/2005
4-Chlorotoluene	ND	50		µg/L	50	1/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank E - Value above quantitation range
* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-04

Client Sample ID: MW #48D
Collection Date: 1/18/2005 1:30:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,2-DCE	ND	50		µg/L	50	1/25/2005
cis-1,3-Dichloropropene	ND	50		µg/L	50	1/25/2005
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	1/25/2005
Dibromochloromethane	ND	50		µg/L	50	1/25/2005
Dibromomethane	ND	100		µg/L	50	1/25/2005
1,2-Dichlorobenzene	ND	50		µg/L	50	1/25/2005
1,3-Dichlorobenzene	ND	50		µg/L	50	1/25/2005
1,4-Dichlorobenzene	ND	50		µg/L	50	1/25/2005
Dichlorodifluoromethane	ND	50		µg/L	50	1/25/2005
1,1-Dichloroethane	ND	50		µg/L	50	1/25/2005
1,1-Dichloroethene	ND	50		µg/L	50	1/25/2005
1,2-Dichloropropane	ND	50		µg/L	50	1/25/2005
1,3-Dichloropropane	ND	50		µg/L	50	1/25/2005
2,2-Dichloropropane	ND	50		µg/L	50	1/25/2005
1,1-Dichloropropene	ND	50		µg/L	50	1/25/2005
Hexachlorobutadiene	ND	50		µg/L	50	1/25/2005
2-Hexanone	ND	500		µg/L	50	1/25/2005
Isopropylbenzene	100	50		µg/L	50	1/25/2005
4-Isopropyltoluene	ND	50		µg/L	50	1/25/2005
4-Methyl-2-pentanone	ND	500		µg/L	50	1/25/2005
Methylene Chloride	ND	150		µg/L	50	1/25/2005
n-Butylbenzene	64	50		µg/L	50	1/25/2005
n-Propylbenzene	210	50		µg/L	50	1/25/2005
sec-Butylbenzene	ND	50		µg/L	50	1/25/2005
Styrene	ND	50		µg/L	50	1/25/2005
tert-Butylbenzene	ND	50		µg/L	50	1/25/2005
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	1/25/2005
1,1,2,2-Tetrachloroethane	ND	50		µg/L	50	1/25/2005
Tetrachloroethene (PCE)	ND	50		µg/L	50	1/25/2005
trans-1,2-DCE	ND	50		µg/L	50	1/25/2005
trans-1,3-Dichloropropene	ND	50		µg/L	50	1/25/2005
1,2,3-Trichlorobenzene	ND	50		µg/L	50	1/25/2005
1,2,4-Trichlorobenzene	ND	50		µg/L	50	1/25/2005
1,1,1-Trichloroethane	ND	50		µg/L	50	1/25/2005
1,1,2-Trichloroethane	ND	50		µg/L	50	1/25/2005
Trichloroethene (TCE)	ND	50		µg/L	50	1/25/2005
Trichlorofluoromethane	ND	50		µg/L	50	1/25/2005
1,2,3-Trichloropropane	ND	100		µg/L	50	1/25/2005
Vinyl chloride	ND	50		µg/L	50	1/25/2005
Xylenes, Total	5700	50		µg/L	50	1/25/2005
Surr: 1,2-Dichloroethane-d4	102	74.7-113		%REC	50	1/25/2005
Surr: 4-Bromofluorobenzene	104	86.1-120		%REC	50	1/25/2005

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

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-04

Client Sample ID: MW #48D
Collection Date: 1/18/2005 1:30:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: Dibromofluoromethane	92.3	86.3-110		%REC	50	1/25/2005
Surr: Toluene-d8	107	83.1-112		%REC	50	1/25/2005
EPA METHOD 8310: PAHS						Analyst: BL
Naphthalene	120	2.5		µg/L	1	1/27/2005 6:36:50 PM
1-Methylnaphthalene	40	2.5		µg/L	1	1/27/2005 6:36:50 PM
2-Methylnaphthalene	41	2.5		µg/L	1	1/27/2005 6:36:50 PM
Acenaphthylene	ND	2.5		µg/L	1	1/27/2005 6:36:50 PM
Acenaphthene	ND	2.5		µg/L	1	1/27/2005 6:36:50 PM
Fluorene	ND	0.80		µg/L	1	1/27/2005 6:36:50 PM
Phenanthrene	0.95	0.60		µg/L	1	1/27/2005 6:36:50 PM
Anthracene	ND	0.60		µg/L	1	1/27/2005 6:36:50 PM
Fluoranthene	ND	0.30		µg/L	1	1/27/2005 6:36:50 PM
Pyrene	ND	0.30		µg/L	1	1/27/2005 6:36:50 PM
Benz(a)anthracene	ND	0.020		µg/L	1	1/27/2005 6:36:50 PM
Chrysene	ND	0.20		µg/L	1	1/27/2005 6:36:50 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	1/27/2005 6:36:50 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	1/27/2005 6:36:50 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	1/27/2005 6:36:50 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	1/27/2005 6:36:50 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	1/27/2005 6:36:50 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	1/27/2005 6:36:50 PM
Surr: Benzo(e)pyrene	68.4	54-102		%REC	1	1/27/2005 6:36:50 PM
EPA METHOD 6010C: DISSOLVED METALS						Analyst: CMC
Iron	ND	0.020		mg/L	1	1/20/2005 11:51:03 AM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	1700	50		mg/L	1	1/26/2005
EPA METHOD 351.3: TKN						Analyst: CMC
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	1/28/2005

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

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-05

Client Sample ID: MW #48S
Collection Date: 1/18/2005 2:21:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Sulfate	120	2.5		mg/L	5	1/22/2005
EPA METHOD 310.1: ALKALINITY						
Alkalinity, Total (As CaCO ₃)	1100	4.0		mg/L CaCO ₃	2	2/1/2005
Carbonate	ND	4.0		mg/L CaCO ₃	2	2/1/2005
Bicarbonate	1100	4.0		mg/L CaCO ₃	2	2/1/2005
EPA METHOD 8015B: DIESEL RANGE						
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/24/2005 6:41:05 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	1/24/2005 6:41:05 PM
Surr: DNOP	111	58-140		%REC	1	1/24/2005 6:41:05 PM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	20	5.0		mg/L	100	1/21/2005 6:23:51 PM
Surr: BFB	109	78.3-120		%REC	100	1/21/2005 6:23:51 PM
EPA METHOD 8260B: VOLATILES						
Benzene	480	50		µg/L	50	1/25/2005
Toluene	ND	50		µg/L	50	1/25/2005
Ethylbenzene	1600	50		µg/L	50	1/25/2005
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	1/25/2005
1,2,4-Trimethylbenzene	1700	50		µg/L	50	1/25/2005
1,3,5-Trimethylbenzene	380	50		µg/L	50	1/25/2005
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	1/25/2005
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	1/25/2005
Naphthalene	220	100		µg/L	50	1/25/2005
1-Methylnaphthalene	ND	200		µg/L	50	1/25/2005
2-Methylnaphthalene	ND	200		µg/L	50	1/25/2005
Acetone	ND	500		µg/L	50	1/25/2005
Bromobenzene	ND	50		µg/L	50	1/25/2005
Bromochloromethane	ND	50		µg/L	50	1/25/2005
Bromodichloromethane	ND	50		µg/L	50	1/25/2005
Bromoform	ND	50		µg/L	50	1/25/2005
Bromomethane	ND	100		µg/L	50	1/25/2005
2-Butanone	ND	500		µg/L	50	1/25/2005
Carbon disulfide	ND	500		µg/L	50	1/25/2005
Carbon Tetrachloride	ND	50		µg/L	50	1/25/2005
Chlorobenzene	ND	50		µg/L	50	1/25/2005
Chloroethane	ND	100		µg/L	50	1/25/2005
Chloroform	ND	50		µg/L	50	1/25/2005
Chloromethane	ND	50		µg/L	50	1/25/2005
2-Chlorotoluene	ND	50		µg/L	50	1/25/2005
4-Chlorotoluene	ND	50		µg/L	50	1/25/2005

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

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-05

Client Sample ID: MW #48S
Collection Date: 1/18/2005 2:21:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,2-DCE	ND	50		µg/L	50	1/25/2005
cis-1,3-Dichloropropene	ND	50		µg/L	50	1/25/2005
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	1/25/2005
Dibromochloromethane	ND	50		µg/L	50	1/25/2005
Dibromomethane	ND	100		µg/L	50	1/25/2005
1,2-Dichlorobenzene	ND	50		µg/L	50	1/25/2005
1,3-Dichlorobenzene	ND	50		µg/L	50	1/25/2005
1,4-Dichlorobenzene	ND	50		µg/L	50	1/25/2005
Dichlorodifluoromethane	ND	50		µg/L	50	1/25/2005
1,1-Dichloroethane	ND	50		µg/L	50	1/25/2005
1,1-Dichloroethene	ND	50		µg/L	50	1/25/2005
1,2-Dichloropropane	ND	50		µg/L	50	1/25/2005
1,3-Dichloropropane	ND	50		µg/L	50	1/25/2005
2,2-Dichloropropane	ND	50		µg/L	50	1/25/2005
1,1-Dichloropropene	ND	50		µg/L	50	1/25/2005
Hexachlorobutadiene	ND	50		µg/L	50	1/25/2005
2-Hexanone	ND	500		µg/L	50	1/25/2005
Isopropylbenzene	110	50		µg/L	50	1/25/2005
4-Isopropyltoluene	ND	50		µg/L	50	1/25/2005
4-Methyl-2-pentanone	ND	500		µg/L	50	1/25/2005
Methylene Chloride	ND	150		µg/L	50	1/25/2005
n-Butylbenzene	56	50		µg/L	50	1/25/2005
n-Propylbenzene	240	50		µg/L	50	1/25/2005
sec-Butylbenzene	ND	50		µg/L	50	1/25/2005
Styrene	ND	50		µg/L	50	1/25/2005
tert-Butylbenzene	ND	50		µg/L	50	1/25/2005
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	1/25/2005
1,1,2,2-Tetrachloroethane	ND	50		µg/L	50	1/25/2005
Tetrachloroethene (PCE)	ND	50		µg/L	50	1/25/2005
trans-1,2-DCE	ND	50		µg/L	50	1/25/2005
trans-1,3-Dichloropropene	ND	50		µg/L	50	1/25/2005
1,2,3-Trichlorobenzene	ND	50		µg/L	50	1/25/2005
1,2,4-Trichlorobenzene	ND	50		µg/L	50	1/25/2005
1,1,1-Trichloroethane	ND	50		µg/L	50	1/25/2005
1,1,2-Trichloroethane	ND	50		µg/L	50	1/25/2005
Trichloroethene (TCE)	ND	50		µg/L	50	1/25/2005
Trichlorofluoromethane	ND	50		µg/L	50	1/25/2005
1,2,3-Trichloropropane	ND	100		µg/L	50	1/25/2005
Vinyl chloride	ND	50		µg/L	50	1/25/2005
Xylenes, Total	7400	50		µg/L	50	1/25/2005
Surr: 1,2-Dichloroethane-d4	100	74.7-113		%REC	50	1/25/2005
Surr: 4-Bromofluorobenzene	99.0	86.1-120		%REC	50	1/25/2005

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

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-05

Client Sample ID: MW #48S
Collection Date: 1/18/2005 2:21:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: Dibromofluoromethane	94.9	86.3-110		%REC	50	1/25/2005
Surr: Toluene-d8	108	83.1-112		%REC	50	1/25/2005
EPA METHOD 8310: PAHS						Analyst: BL
Naphthalene	160	2.5		µg/L	1	1/27/2005 7:24:50 PM
1-Methylnaphthalene	51	2.5		µg/L	1	1/27/2005 7:24:50 PM
2-Methylnaphthalene	59	2.5		µg/L	1	1/27/2005 7:24:50 PM
Acenaphthylene	ND	2.5		µg/L	1	1/27/2005 7:24:50 PM
Acenaphthene	ND	2.5		µg/L	1	1/27/2005 7:24:50 PM
Fluorene	ND	0.80		µg/L	1	1/27/2005 7:24:50 PM
Phenanthrene	1.3	0.60		µg/L	1	1/27/2005 7:24:50 PM
Anthracene	ND	0.60		µg/L	1	1/27/2005 7:24:50 PM
Fluoranthene	ND	0.30		µg/L	1	1/27/2005 7:24:50 PM
Pyrene	ND	0.30		µg/L	1	1/27/2005 7:24:50 PM
Benz(a)anthracene	ND	0.020		µg/L	1	1/27/2005 7:24:50 PM
Chrysene	ND	0.20		µg/L	1	1/27/2005 7:24:50 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	1/27/2005 7:24:50 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	1/27/2005 7:24:50 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	1/27/2005 7:24:50 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	1/27/2005 7:24:50 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	1/27/2005 7:24:50 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	1/27/2005 7:24:50 PM
Surr: Benzo(e)pyrene	78.1	54-102		%REC	1	1/27/2005 7:24:50 PM
EPA METHOD 6010C: DISSOLVED METALS						Analyst: CMC
Iron	ND	0.020		mg/L	1	1/20/2005 11:55:09 AM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	1600	50		mg/L	1	1/26/2005
EPA METHOD 351.3: TKN						Analyst: CMC
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	1/28/2005

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

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-06

Client Sample ID: MW #49D
Collection Date: 1/18/2005 9:45:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS Analyst: MAP						
Sulfate	220	2.5		mg/L	5	1/22/2005
EPA METHOD 310.1: ALKALINITY Analyst: MAP						
Alkalinity, Total (As CaCO3)	960	4.0		mg/L CaCO3	2	2/1/2005
Carbonate	ND	4.0		mg/L CaCO3	2	2/1/2005
Bicarbonate	960	4.0		mg/L CaCO3	2	2/1/2005
EPA METHOD 8015B: DIESEL RANGE Analyst: JMP						
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/24/2005 7:10:55 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	1/24/2005 7:10:55 PM
Surr: DNOP	115	58-140		%REC	1	1/24/2005 7:10:55 PM
EPA METHOD 8015B: GASOLINE RANGE Analyst: NSB						
Gasoline Range Organics (GRO)	0.11	0.050		mg/L	1	1/21/2005 6:53:37 PM
Surr: BFB	108	78.3-120		%REC	1	1/21/2005 6:53:37 PM
EPA METHOD 8260B: VOLATILES Analyst: BDH						
Benzene	3.8	1.0		µg/L	1	1/25/2005
Toluene	ND	1.0		µg/L	1	1/25/2005
Ethylbenzene	ND	1.0		µg/L	1	1/25/2005
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/25/2005
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/25/2005
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/25/2005
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/25/2005
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/25/2005
Naphthalene	ND	2.0		µg/L	1	1/25/2005
1-Methylnaphthalene	ND	4.0		µg/L	1	1/25/2005
2-Methylnaphthalene	ND	4.0		µg/L	1	1/25/2005
Acetone	ND	10		µg/L	1	1/25/2005
Bromobenzene	ND	1.0		µg/L	1	1/25/2005
Bromochloromethane	ND	1.0		µg/L	1	1/25/2005
Bromodichloromethane	ND	1.0		µg/L	1	1/25/2005
Bromoform	ND	1.0		µg/L	1	1/25/2005
Bromomethane	ND	2.0		µg/L	1	1/25/2005
2-Butanone	ND	10		µg/L	1	1/25/2005
Carbon disulfide	ND	10		µg/L	1	1/25/2005
Carbon Tetrachloride	ND	1.0		µg/L	1	1/25/2005
Chlorobenzene	ND	1.0		µg/L	1	1/25/2005
Chloroethane	ND	2.0		µg/L	1	1/25/2005
Chloroform	ND	1.0		µg/L	1	1/25/2005
Chloromethane	ND	1.0		µg/L	1	1/25/2005
2-Chlorotoluene	ND	1.0		µg/L	1	1/25/2005
4-Chlorotoluene	ND	1.0		µg/L	1	1/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank E - Value above quantitation range
* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-06

Client Sample ID: MW #49D
Collection Date: 1/18/2005 9:45:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,2-DCE	ND	1.0		µg/L	1	1/25/2005
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/25/2005
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/25/2005
Dibromochloromethane	ND	1.0		µg/L	1	1/25/2005
Dibromomethane	ND	2.0		µg/L	1	1/25/2005
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/25/2005
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/25/2005
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/25/2005
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/25/2005
1,1-Dichloroethane	ND	1.0		µg/L	1	1/25/2005
1,1-Dichloroethene	ND	1.0		µg/L	1	1/25/2005
1,2-Dichloropropane	ND	1.0		µg/L	1	1/25/2005
1,3-Dichloropropane	ND	1.0		µg/L	1	1/25/2005
2,2-Dichloropropane	ND	1.0		µg/L	1	1/25/2005
1,1-Dichloropropene	ND	1.0		µg/L	1	1/25/2005
Hexachlorobutadiene	ND	1.0		µg/L	1	1/25/2005
2-Hexanone	ND	10		µg/L	1	1/25/2005
Isopropylbenzene	ND	1.0		µg/L	1	1/25/2005
4-Isopropyltoluene	ND	1.0		µg/L	1	1/25/2005
4-Methyl-2-pentanone	ND	10		µg/L	1	1/25/2005
Methylene Chloride	ND	3.0		µg/L	1	1/25/2005
n-Butylbenzene	ND	1.0		µg/L	1	1/25/2005
n-Propylbenzene	ND	1.0		µg/L	1	1/25/2005
sec-Butylbenzene	ND	1.0		µg/L	1	1/25/2005
Styrene	ND	1.0		µg/L	1	1/25/2005
tert-Butylbenzene	ND	1.0		µg/L	1	1/25/2005
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/25/2005
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	1/25/2005
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/25/2005
trans-1,2-DCE	ND	1.0		µg/L	1	1/25/2005
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/25/2005
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/25/2005
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/25/2005
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/25/2005
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/25/2005
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/25/2005
Trichlorofluoromethane	ND	1.0		µg/L	1	1/25/2005
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/25/2005
Vinyl chloride	ND	1.0		µg/L	1	1/25/2005
Xylenes, Total	ND	1.0		µg/L	1	1/25/2005
Surr: 1,2-Dichloroethane-d4	106	74.7-113		%REC	1	1/25/2005
Surr: 4-Bromofluorobenzene	96.2	86.1-120		%REC	1	1/25/2005

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

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-06

Client Sample ID: MW #49D
Collection Date: 1/18/2005 9:45:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: Dibromofluoromethane	98.5	86.3-110		%REC	1	1/25/2005
Surr: Toluene-d8	101	83.1-112		%REC	1	1/25/2005
EPA METHOD 8310: PAHS						Analyst: BL
Naphthalene	ND	2.5		µg/L	1	1/27/2005 8:12:49 PM
1-Methylnaphthalene	ND	2.5		µg/L	1	1/27/2005 8:12:49 PM
2-Methylnaphthalene	ND	2.5		µg/L	1	1/27/2005 8:12:49 PM
Acenaphthylene	ND	2.5		µg/L	1	1/27/2005 8:12:49 PM
Acenaphthene	ND	2.5		µg/L	1	1/27/2005 8:12:49 PM
Fluorene	ND	0.80		µg/L	1	1/27/2005 8:12:49 PM
Phenanthrene	ND	0.60		µg/L	1	1/27/2005 8:12:49 PM
Anthracene	ND	0.60		µg/L	1	1/27/2005 8:12:49 PM
Fluoranthene	ND	0.30		µg/L	1	1/27/2005 8:12:49 PM
Pyrene	ND	0.30		µg/L	1	1/27/2005 8:12:49 PM
Benz(a)anthracene	ND	0.020		µg/L	1	1/27/2005 8:12:49 PM
Chrysene	ND	0.20		µg/L	1	1/27/2005 8:12:49 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	1/27/2005 8:12:49 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	1/27/2005 8:12:49 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	1/27/2005 8:12:49 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	1/27/2005 8:12:49 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	1/27/2005 8:12:49 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	1/27/2005 8:12:49 PM
Surr: Benzo(e)pyrene	78.4	54-102		%REC	1	1/27/2005 8:12:49 PM
EPA METHOD 6010C: DISSOLVED METALS						Analyst: CMC
Iron	0.82	0.020		mg/L	1	1/20/2005 12:18:37 PM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	1600	50		mg/L	1	1/26/2005
EPA METHOD 351.3: TKN						Analyst: CMC
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	1/28/2005

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

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-07

Client Sample ID: MW #49S
Collection Date: 1/18/2005 11:06:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Sulfate	210	2.5		mg/L	5	1/22/2005
EPA METHOD 310.1: ALKALINITY						
Alkalinity, Total (As CaCO ₃)	1000	4.0		mg/L CaCO ₃	2	2/1/2005
Carbonate	ND	4.0		mg/L CaCO ₃	2	2/1/2005
Bicarbonate	1000	4.0		mg/L CaCO ₃	2	2/1/2005
EPA METHOD 8015B: DIESEL RANGE						
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/24/2005 7:40:32 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	1/24/2005 7:40:32 PM
Surr: DNOP	113	58-140		%REC	1	1/24/2005 7:40:32 PM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	0.14	0.050		mg/L	1	1/21/2005 7:23:29 PM
Surr: BFB	110	78.3-120		%REC	1	1/21/2005 7:23:29 PM
EPA METHOD 8260B: VOLATILES						
Benzene	4.2	1.0		µg/L	1	1/25/2005
Toluene	ND	1.0		µg/L	1	1/25/2005
Ethylbenzene	ND	1.0		µg/L	1	1/25/2005
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/25/2005
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/25/2005
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/25/2005
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/25/2005
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/25/2005
Naphthalene	ND	2.0		µg/L	1	1/25/2005
1-Methylnaphthalene	ND	4.0		µg/L	1	1/25/2005
2-Methylnaphthalene	ND	4.0		µg/L	1	1/25/2005
Acetone	ND	10		µg/L	1	1/25/2005
Bromobenzene	ND	1.0		µg/L	1	1/25/2005
Bromochloromethane	ND	1.0		µg/L	1	1/25/2005
Bromodichloromethane	ND	1.0		µg/L	1	1/25/2005
Bromoform	ND	1.0		µg/L	1	1/25/2005
Bromomethane	ND	2.0		µg/L	1	1/25/2005
2-Butanone	ND	10		µg/L	1	1/25/2005
Carbon disulfide	ND	10		µg/L	1	1/25/2005
Carbon Tetrachloride	ND	1.0		µg/L	1	1/25/2005
Chlorobenzene	ND	1.0		µg/L	1	1/25/2005
Chloroethane	ND	2.0		µg/L	1	1/25/2005
Chloroform	ND	1.0		µg/L	1	1/25/2005
Chloromethane	ND	1.0		µg/L	1	1/25/2005
2-Chlorotoluene	ND	1.0		µg/L	1	1/25/2005
4-Chlorotoluene	ND	1.0		µg/L	1	1/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-07

Client Sample ID: MW #49S
Collection Date: 1/18/2005 11:06:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,2-DCE	ND	1.0		µg/L	1	1/25/2005
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/25/2005
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/25/2005
Dibromochloromethane	ND	1.0		µg/L	1	1/25/2005
Dibromomethane	ND	2.0		µg/L	1	1/25/2005
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/25/2005
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/25/2005
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/25/2005
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/25/2005
1,1-Dichloroethane	ND	1.0		µg/L	1	1/25/2005
1,1-Dichloroethene	ND	1.0		µg/L	1	1/25/2005
1,2-Dichloropropane	ND	1.0		µg/L	1	1/25/2005
1,3-Dichloropropane	ND	1.0		µg/L	1	1/25/2005
2,2-Dichloropropane	ND	1.0		µg/L	1	1/25/2005
1,1-Dichloropropene	ND	1.0		µg/L	1	1/25/2005
Hexachlorobutadiene	ND	1.0		µg/L	1	1/25/2005
2-Hexanone	ND	10		µg/L	1	1/25/2005
Isopropylbenzene	ND	1.0		µg/L	1	1/25/2005
4-Isopropyltoluene	ND	1.0		µg/L	1	1/25/2005
4-Methyl-2-pentanone	ND	10		µg/L	1	1/25/2005
Methylene Chloride	ND	3.0		µg/L	1	1/25/2005
n-Butylbenzene	ND	1.0		µg/L	1	1/25/2005
n-Propylbenzene	ND	1.0		µg/L	1	1/25/2005
sec-Butylbenzene	ND	1.0		µg/L	1	1/25/2005
Styrene	ND	1.0		µg/L	1	1/25/2005
tert-Butylbenzene	ND	1.0		µg/L	1	1/25/2005
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/25/2005
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	1/25/2005
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/25/2005
trans-1,2-DCE	ND	1.0		µg/L	1	1/25/2005
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/25/2005
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/25/2005
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/25/2005
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/25/2005
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/25/2005
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/25/2005
Trichlorofluoromethane	ND	1.0		µg/L	1	1/25/2005
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/25/2005
Vinyl chloride	ND	1.0		µg/L	1	1/25/2005
Xylenes, Total	ND	1.0		µg/L	1	1/25/2005
Surr: 1,2-Dichloroethane-d4	108	74.7-113		%REC	1	1/25/2005
Surr: 4-Bromofluorobenzene	89.2	86.1-120		%REC	1	1/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-07

Client Sample ID: MW #49S
Collection Date: 1/18/2005 11:06:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: Dibromofluoromethane	102	86.3-110		%REC	1	1/25/2005
Surr: Toluene-d8	99.5	83.1-112		%REC	1	1/25/2005
EPA METHOD 8310: PAHS						Analyst: BL
Naphthalene	ND	2.5		µg/L	1	1/27/2005 9:00:48 PM
1-Methylnaphthalene	ND	2.5		µg/L	1	1/27/2005 9:00:48 PM
2-Methylnaphthalene	ND	2.5		µg/L	1	1/27/2005 9:00:48 PM
Acenaphthylene	ND	2.5		µg/L	1	1/27/2005 9:00:48 PM
Acenaphthene	ND	2.5		µg/L	1	1/27/2005 9:00:48 PM
Fluorene	ND	0.80		µg/L	1	1/27/2005 9:00:48 PM
Phenanthrene	ND	0.60		µg/L	1	1/27/2005 9:00:48 PM
Anthracene	ND	0.60		µg/L	1	1/27/2005 9:00:48 PM
Fluoranthene	ND	0.30		µg/L	1	1/27/2005 9:00:48 PM
Pyrene	ND	0.30		µg/L	1	1/27/2005 9:00:48 PM
Benz(a)anthracene	ND	0.020		µg/L	1	1/27/2005 9:00:48 PM
Chrysene	ND	0.20		µg/L	1	1/27/2005 9:00:48 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	1/27/2005 9:00:48 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	1/27/2005 9:00:48 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	1/27/2005 9:00:48 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	1/27/2005 9:00:48 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	1/27/2005 9:00:48 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	1/27/2005 9:00:48 PM
Surr: Benzo(e)pyrene	84.5	54-102		%REC	1	1/27/2005 9:00:48 PM
EPA METHOD 6010C: DISSOLVED METALS						Analyst: CMC
Iron	0.90	0.020		mg/L	1	1/20/2005 12:22:50 PM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	1600	50		mg/L	1	1/26/2005
EPA METHOD 351.3: TKN						Analyst: CMC
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	1/28/2005

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

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-08

Client Sample ID: TRIP BLANK
Collection Date:
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/24/2005 8:39:48 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	1/24/2005 8:39:48 PM
Surr: DNOP	113	58-140		%REC	1	1/24/2005 8:39:48 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	1/21/2005 7:53:19 PM
Surr: BFB	101	78.3-120		%REC	1	1/21/2005 7:53:19 PM
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	1.0		µg/L	1	1/25/2005
Toluene	ND	1.0		µg/L	1	1/25/2005
Ethylbenzene	ND	1.0		µg/L	1	1/25/2005
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/25/2005
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/25/2005
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/25/2005
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/25/2005
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/25/2005
Naphthalene	ND	2.0		µg/L	1	1/25/2005
1-Methylnaphthalene	ND	4.0		µg/L	1	1/25/2005
2-Methylnaphthalene	ND	4.0		µg/L	1	1/25/2005
Acetone	ND	10		µg/L	1	1/25/2005
Bromobenzene	ND	1.0		µg/L	1	1/25/2005
Bromochloromethane	ND	1.0		µg/L	1	1/25/2005
Bromodichloromethane	ND	1.0		µg/L	1	1/25/2005
Bromoform	ND	1.0		µg/L	1	1/25/2005
Bromomethane	ND	2.0		µg/L	1	1/25/2005
2-Butanone	ND	10		µg/L	1	1/25/2005
Carbon disulfide	ND	10		µg/L	1	1/25/2005
Carbon Tetrachloride	ND	1.0		µg/L	1	1/25/2005
Chlorobenzene	ND	1.0		µg/L	1	1/25/2005
Chloroethane	ND	2.0		µg/L	1	1/25/2005
Chloroform	ND	1.0		µg/L	1	1/25/2005
Chloromethane	ND	1.0		µg/L	1	1/25/2005
2-Chlorotoluene	ND	1.0		µg/L	1	1/25/2005
4-Chlorotoluene	ND	1.0		µg/L	1	1/25/2005
cis-1,2-DCE	ND	1.0		µg/L	1	1/25/2005
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/25/2005
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/25/2005
Dibromochloromethane	ND	1.0		µg/L	1	1/25/2005
Dibromomethane	ND	2.0		µg/L	1	1/25/2005
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/25/2005
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/25/2005

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

Date: 04-Feb-05

CLIENT: San Juan Refining
Lab Order: 0501150
Project: River Terrace Investigation
Lab ID: 0501150-08

Client Sample ID: TRIP BLANK
Collection Date:
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/25/2005
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/25/2005
1,1-Dichloroethane	ND	1.0		µg/L	1	1/25/2005
1,1-Dichloroethene	ND	1.0		µg/L	1	1/25/2005
1,2-Dichloropropane	ND	1.0		µg/L	1	1/25/2005
1,3-Dichloropropane	ND	1.0		µg/L	1	1/25/2005
2,2-Dichloropropane	ND	1.0		µg/L	1	1/25/2005
1,1-Dichloropropene	ND	1.0		µg/L	1	1/25/2005
Hexachlorobutadiene	ND	1.0		µg/L	1	1/25/2005
2-Hexanone	ND	10		µg/L	1	1/25/2005
Isopropylbenzene	ND	1.0		µg/L	1	1/25/2005
4-Isopropyltoluene	ND	1.0		µg/L	1	1/25/2005
4-Methyl-2-pentanone	ND	10		µg/L	1	1/25/2005
Methylene Chloride	ND	3.0		µg/L	1	1/25/2005
n-Butylbenzene	ND	1.0		µg/L	1	1/25/2005
n-Propylbenzene	ND	1.0		µg/L	1	1/25/2005
sec-Butylbenzene	ND	1.0		µg/L	1	1/25/2005
Styrene	ND	1.0		µg/L	1	1/25/2005
tert-Butylbenzene	ND	1.0		µg/L	1	1/25/2005
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/25/2005
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	1/25/2005
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/25/2005
trans-1,2-DCE	ND	1.0		µg/L	1	1/25/2005
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/25/2005
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/25/2005
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/25/2005
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/25/2005
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/25/2005
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/25/2005
Trichlorofluoromethane	ND	1.0		µg/L	1	1/25/2005
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/25/2005
Vinyl chloride	ND	1.0		µg/L	1	1/25/2005
Xylenes, Total	ND	1.0		µg/L	1	1/25/2005
Surr: 1,2-Dichloroethane-d4	104	74.7-113		%REC	1	1/25/2005
Surr: 4-Bromofluorobenzene	101	86.1-120		%REC	1	1/25/2005
Surr: Dibromofluoromethane	98.3	86.3-110		%REC	1	1/25/2005
Surr: Toluene-d8	105	83.1-112		%REC	1	1/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level



Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

Certified Mail: 7099 3220 001 2242 5273

March 31, 2005

RE: Giant Refining Company, Bloomfield Refiner
EPA ID# NMD089416416
GW - 001

Dear Mr. Price,

Please find attached analytical results for the February 24, 2005 sampling event for wells MW #48 and MW #49 on the river terrace at the Giant Refining facility. Note that the results for well MW #49, located down-gradient of the barrier wall, had a detection of benzene at a concentration of 35 ug/L. This was the first time that benzene has been detected above 10 ug/L in that well. We will continue to monitor both wells on a monthly basis and evaluate the concentration trends.

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

Sincerely,

A handwritten signature in cursive script that reads "Cindy Hurtado".

Cindy Hurtado
Environmental Assistant
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Supervisor – Giant Refining

PHONE
505-632-8013
FAX
505-632-3911

50 ROAD 4990
P.O. BOX 159
BLOOMFIELD
NEW MEXICO
87413

COVER LETTER

March 15, 2005

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace MW#48 & MW#49-2/05

Order No.: 0502248

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 2 samples on 2/25/2005 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

Date: 15-Mar-05

CLIENT: San Juan Refining

Client Sample ID: MW #48

Lab Order: 0502248

Collection Date: 2/24/2005 9:50:00 AM

Project: River Terrace MW#48 & MW#49-2/05

Lab ID: 0502248-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/3/2005 7:38:35 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/3/2005 7:38:35 AM
Surr: DNOP	134	58-140		%REC	1	3/3/2005 7:38:35 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	31	2.5		mg/L	50	2/28/2005 4:53:28 PM
Surr: BFB	109	78.3-120		%REC	50	2/28/2005 4:53:28 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	130		µg/L	50	2/28/2005 4:53:28 PM
Benzene	660	25		µg/L	50	2/28/2005 4:53:28 PM
Toluene	ND	25		µg/L	50	2/28/2005 4:53:28 PM
Ethylbenzene	2200	25		µg/L	50	2/28/2005 4:53:28 PM
Xylenes, Total	11000	25		µg/L	50	2/28/2005 4:53:28 PM
Surr: 4-Bromofluorobenzene	107	83.3-121		%REC	50	2/28/2005 4:53:28 PM
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	320	13		µg/L	5	3/10/2005 5:50:37 PM
1-Methylnaphthalene	94	2.5		µg/L	1	3/10/2005 2:39:33 PM
2-Methylnaphthalene	120	2.5		µg/L	1	3/10/2005 2:39:33 PM
Acenaphthylene	ND	2.5		µg/L	1	3/10/2005 2:39:33 PM
Acenaphthene	ND	2.5		µg/L	1	3/10/2005 2:39:33 PM
Fluorene	1.2	0.80		µg/L	1	3/10/2005 2:39:33 PM
Phenanthrene	ND	3.0		µg/L	5	3/10/2005 5:50:37 PM
Anthracene	ND	0.60		µg/L	1	3/10/2005 2:39:33 PM
Fluoranthene	ND	0.30		µg/L	1	3/10/2005 2:39:33 PM
Pyrene	ND	0.30		µg/L	1	3/10/2005 2:39:33 PM
Benzo(a)anthracene	ND	0.020		µg/L	1	3/10/2005 2:39:33 PM
Chrysene	ND	0.20		µg/L	1	3/10/2005 2:39:33 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	3/10/2005 2:39:33 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	3/10/2005 2:39:33 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	3/10/2005 2:39:33 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	3/10/2005 2:39:33 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	3/10/2005 2:39:33 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	3/10/2005 2:39:33 PM
Surr: Benzo(e)pyrene	90.0	54-102		%REC	1	3/10/2005 2:39:33 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

Date: 15-Mar-05

CLIENT: San Juan Refining
 Lab Order: 0502248
 Project: River Terrace MW#48 & MW#49-2/05
 Lab ID: 0502248-02

Client Sample ID: MW #49
 Collection Date: 2/24/2005 9:10:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/3/2005 8:08:28 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/3/2005 8:08:28 AM
Surr: DNOP	136	58-140		%REC	1	3/3/2005 8:08:28 AM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	0.39	0.050		mg/L	1	2/28/2005 5:23:18 PM
Surr: BFB	108	78.3-120		%REC	1	2/28/2005 5:23:18 PM
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	2/28/2005 5:23:18 PM
Benzene	35	0.50		µg/L	1	2/28/2005 5:23:18 PM
Toluene	0.55	0.50		µg/L	1	2/28/2005 5:23:18 PM
Ethylbenzene	6.6	0.50		µg/L	1	2/28/2005 5:23:18 PM
Xylenes, Total	4.1	0.50		µg/L	1	2/28/2005 5:23:18 PM
Surr: 4-Bromofluorobenzene	107	83.3-121		%REC	1	2/28/2005 5:23:18 PM
EPA METHOD 8310: PAHS						
Naphthalene	ND	2.5		µg/L	1	3/10/2005 3:27:33 PM
1-Methylnaphthalene	ND	2.5		µg/L	1	3/10/2005 3:27:33 PM
2-Methylnaphthalene	ND	2.5		µg/L	1	3/10/2005 3:27:33 PM
Acenaphthylene	ND	2.5		µg/L	1	3/10/2005 3:27:33 PM
Acenaphthene	ND	2.5		µg/L	1	3/10/2005 3:27:33 PM
Fluorene	ND	0.80		µg/L	1	3/10/2005 3:27:33 PM
Phenanthrene	ND	0.60		µg/L	1	3/10/2005 3:27:33 PM
Anthracene	ND	0.60		µg/L	1	3/10/2005 3:27:33 PM
Fluoranthene	ND	0.30		µg/L	1	3/10/2005 3:27:33 PM
Pyrene	ND	0.30		µg/L	1	3/10/2005 3:27:33 PM
Benz(a)anthracene	ND	0.020		µg/L	1	3/10/2005 3:27:33 PM
Chrysene	ND	0.20		µg/L	1	3/10/2005 3:27:33 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	3/10/2005 3:27:33 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	3/10/2005 3:27:33 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	3/10/2005 3:27:33 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	3/10/2005 3:27:33 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	3/10/2005 3:27:33 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	3/10/2005 3:27:33 PM
Surr: Benzo(e)pyrene	81.7	54-102		%REC	1	3/10/2005 3:27:33 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

Date: 15-Mar-05

CLIENT: San Juan Refining

Work Order: 0502248

Project: River Terrace MW#48 & MW#49-2/05

QC SUMMARY REPORT

Method Blank

Sample ID	MB-7498	Batch ID: 7498	Test Code: SW8015	Units: mg/L	Analysis Date	3/3/2005 4:09:44 AM	Prep Date	3/1/2005			
Client ID:		Run ID:	FID(17A) 2_050302A		SeqNo:	342365					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO) 1
 Motor Oil Range Organics (MRO) 5
 Surr: DNOP 0 126 58 140 0

Sample ID	Reagent Blank 5m	Batch ID: R14694	Test Code: SW8015	Units: mg/L	Analysis Date	2/28/2005 7:20:50 AM	Prep Date				
Client ID:		Run ID:	PIDFID_050228A		SeqNo:	341932					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO) 0.05
 Surr: BFB 0 20 107 78.3 120 0

Sample ID	Reagent Blank 5m	Batch ID: R14694	Test Code: SW8021	Units: µg/L	Analysis Date	2/28/2005 7:20:50 AM	Prep Date				
Client ID:		Run ID:	PIDFID_050228A		SeqNo:	341931					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE) 2.5
 Benzene 0.5
 Toluene 0.5
 Ethylbenzene 0.5
 Xylenes, Total 0.5
 Surr: 4-Bromofluorobenzene 0 20 107 83.3 121 0

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits /

CLIENT: San Juan Refining

Work Order: 0502248

Project: River Terrace MW#48 & MW#49-2/05

QC SUMMARY REPORT

Method Blank

Sample ID	MB-7503	Batch ID: 7503	Test Code: SW8310	Units: µg/L	Analysis Date	3/10/2005 12:15:33 PM	Prep Date	3/2/2005			
Client ID:			Run ID:	HUGO_050309A	SeqNo:	343907					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	2.5									
1-Methylnaphthalene	ND	2.5									
2-Methylnaphthalene	ND	2.5									
Acenaphthylene	ND	2.5									
Acenaphthene	ND	2.5									
Fluorene	ND	0.8									
Phenanthrene	ND	0.6									
Anthracene	ND	0.6									
Fluoranthene	ND	0.3									
Pyrene	ND	0.3									
Benz(a)anthracene	ND	0.02									
Chrysene	ND	0.2									
Benzo(b)fluoranthene	ND	0.05									
Benzo(k)fluoranthene	ND	0.02									
Benzo(a)pyrene	ND	0.02									
Dibenz(a,h)anthracene	ND	0.04									
Benzo(g,h,i)perylene	ND	0.03									
Indeno(1,2,3-cd)pyrene	ND	0.08									
Surr: Benzo(e)pyrene	7.67	0	10	0	76.7	54	102	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 15-Mar-05

CLIENT: San Juan Refining

Work Order: 0502248

Project: River Terrace MW#48 & MW#49-2/05

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0502248-02a ms	Batch ID: R14694	Test Code: SW8015	Units: mg/L	Analysis Date	2/28/2005 5:53:11 PM	Prep Date				
Client ID:	MW #49		Run ID: PIDFID_050228A		SeqNo:	341958					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.8214	0.05	0.5	0.3862	87.0	82.6	114	0			
Surr: BFB	25.65	0	25	0	103	78.3	120	0			

Sample ID	0502248-02a msd	Batch ID: R14694	Test Code: SW8015	Units: mg/L	Analysis Date	2/28/2005 6:23:07 PM	Prep Date				
Client ID:	MW #49		Run ID: PIDFID_050228A		SeqNo:	341959					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.8856	0.05	0.5	0.3862	99.9	82.6	114	0.8214	7.52	8.39	
Surr: BFB	25.84	0	25	0	103	78.3	120	25.65	0.705	0	

Sample ID	0502248-02a ms	Batch ID: R14694	Test Code: SW8021	Units: µg/L	Analysis Date	2/28/2005 6:53:02 PM	Prep Date				
Client ID:	MW #49		PIDFID_050228A		SeqNo:	341945					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	35.15	2.5	40	0.6326	86.3	64.5	133	0			
Benzene	53.04	0.5	20	35.39	88.3	85	114	0			
Toluene	19.66	0.5	20	0.5548	95.5	89.3	112	0			
Ethylbenzene	25.98	0.5	20	6.596	96.9	88.6	113	0			
Xylenes, Total	61.81	0.5	60	4.058	96.3	89.4	112	0			
Surr: 4-Bromofluorobenzene	23.16	0	24	0	96.5	83.3	121	0			

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

CLIENT: San Juan Refining

Work Order: 0502248

Project: River Terrace MW#48 & MW#49-2/05

Sample ID	0502248-02a msd	Batch ID: R14694	Test Code: SW8021	Units: µg/L	Analysis Date	2/28/2005 7:22:56 PM	Prep Date				
Client ID:	MW #49	Run ID:	PIDFID_050228A	SeqNo:	341946						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	39.47	2.5	40	0.6326	97.1	64.5	133	35.15	11.6	28	
Benzene	53.55	0.5	20	35.39	90.8	88.7	114	53.04	0.966	27	
Toluene	19.98	0.5	20	0.5548	97.1	89.3	112	19.66	1.60	19	
Ethylbenzene	25.92	0.5	20	6.596	96.6	88.6	113	25.98	0.236	10	
Xylenes, Total	63.24	0.5	60	4.058	98.6	89.4	112	61.81	2.29	13	
Surr: 4-Bromofluorobenzene	23.93	0	24	0	99.7	83.3	121	23.16	3.27	0	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	

Hall Environmental Analysis Laboratory

Date: 15-Mar-05

CLIENT: San Juan Refining

Work Order: 0502248

Project: River Terrace MW#48 & MW#49-2/05

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-7498	Batch ID: 7498	Test Code: SW8015	Units: mg/L	Analysis Date	3/3/2005 4:39:38 AM	Prep Date	3/1/2005				
Client ID:			Run ID: FID(17A) 2_050302A		SeqNo:	342366						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		6.318	1	5	0	126	81.2	149	0			

Sample ID	LCSD-7498	Batch ID: 7498	Test Code: SW8015	Units: mg/L	Analysis Date	3/3/2005 5:10:21 AM	Prep Date	3/1/2005				
Client ID:			Run ID: FID(17A) 2_050302A		SeqNo:	342367						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		6.037	1	5	0	121	81.2	149	6.318	4.56	23	

Sample ID	GRO lcs 2.5ug	Batch ID: R14694	Test Code: SW8015	Units: mg/L	Analysis Date	2/28/2005 11:51:47 PM	Prep Date					
Client ID:			Run ID: PIDFID_050228A		SeqNo:	341960						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.4676	0.05	0.5	0	93.5	82.6	114	0			

Sample ID	BTEX lcs 100ng	Batch ID: R14694	Test Code: SW8021	Units: µg/L	Analysis Date	2/28/2005 7:52:51 PM	Prep Date					
Client ID:			Run ID: PIDFID_050228A		SeqNo:	341947						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)		39.22	2.5	40	0	98.1	64.5	133	0			
Benzene		20.65	0.5	20	0	103	88.7	114	0			
Toluene		20.68	0.5	20	0	103	89.3	112	0			
Ethylbenzene		20.74	0.5	20	0	104	88.6	113	0			
Xylenes, Total		62.59	0.5	60	0	104	89.4	112	0			

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

/

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0502248
 Project: River Terrace MW#48 & MW#49-2/05

Sample ID	LCS-7503	Batch ID: 7503	Test Code: SW8310	Units: µg/L	Analysis Date	3/10/2005 1:03:33 PM	Prep Date	3/2/2005			
Client ID:		Run ID:	HUGO_050309A		SeqNo:	343910					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	31.38	2.5	40	0	78.5	20.939	111.211	0			
1-Methylnaphthalene	31.63	2.5	40.1	0	78.9	22.016	110.385	0			
2-Methylnaphthalene	30.84	2.5	40	0	77.1	21.098	111.261	0			
Acenaphthylene	30.64	2.5	40.1	0	76.4	23.852	116.857	0			
Acenaphthene	30.97	2.5	40	0	77.4	27.524	111.73	0			
Fluorene	2.86	0.8	4.01	0	71.3	31.046	113.32	0			
Phenanthrene	1.72	0.6	2.01	0	85.6	42.279	115.749	0			
Anthracene	1.63	0.6	2.01	0	81.1	43.767	118.693	0			
Fluoranthene	3.49	0.3	4.01	0	87.0	55.334	117.461	0			
Pyrene	3.6	0.3	4.01	0	89.8	57.722	120.832	0			
Benz(a)anthracene	0.33	0.02	0.401	0	82.3	70.18	113.452	0			
Chrysene	1.56	0.2	2.01	0	77.6	43.942	141.404	0			
Benzo(b)fluoranthene	0.4	0.05	0.501	0	79.8	71.192	103.368	0			
Benzo(k)fluoranthene	0.22	0.02	0.25	0	88.0	75.336	107.209	0			
Benzo(a)pyrene	0.21	0.02	0.251	0	83.7	74.556	100.742	0			
Dibenz(a,h)anthracene	0.48	0.04	0.501	0	95.8	80.693	106.931	0			
Benzo(g,h,i)perylene	0.41	0.03	0.5	0	82.0	55.168	135.014	0			
Indeno(1,2,3-cd)pyrene	0.901	0.08	1.002	0	89.9	79.328	104.794	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

CLIENT: San Juan Refining
 Work Order: 0502248
 Project: River Terrace MW#48 & MW#49-2/05

Sample ID	LCSD-7503	Batch ID: 7503	Test Code: SW8310	Units: µg/L	Analysis Date	3/10/2005 1:51:33 PM	Prep Date	3/2/2005			
Client ID:			Run ID: HUGO_050309A		SeqNo: 343912						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	34.41	2.5	40	0	86.0	20.939	111.211	31.38	9.21	32.1	
1-Methylnaphthalene	35.01	2.5	40.1	0	87.3	22.016	110.385	31.63	10.1	32.7	
2-Methylnaphthalene	33.77	2.5	40	0	84.4	21.098	111.261	30.84	9.07	34	
Acenaphthylene	34.22	2.5	40.1	0	85.3	23.852	116.857	30.64	11.0	38.8	
Acenaphthene	34.59	2.5	40	0	86.5	27.524	111.73	30.97	11.0	38.6	
Fluorene	3.18	0.8	4.01	0	79.3	31.046	113.32	2.86	10.6	39.3	
Phenanthrene	1.81	0.6	2.01	0	90.0	42.279	115.749	1.72	5.10	25	
Anthracene	1.73	0.6	2.01	0	86.1	43.767	118.693	1.63	5.95	23.9	
Fluoranthene	3.59	0.3	4.01	0	89.5	55.334	117.461	3.49	2.82	15.7	
Pyrene	3.69	0.3	4.01	0	92.0	57.722	120.832	3.6	2.47	15.3	
Benz(a)anthracene	0.35	0.02	0.401	0	87.3	70.18	113.452	0.33	5.88	119	
Chrysene	1.67	0.2	2.01	0	83.1	43.942	141.404	1.56	6.81	16.6	
Benzo(b)fluoranthene	0.41	0.05	0.501	0	81.8	71.192	103.368	0.4	2.47	21.7	
Benzo(k)fluoranthene	0.22	0.02	0.25	0	88.0	75.336	107.209	0.22	0	19.4	
Benzo(a)pyrene	0.21	0.02	0.251	0	83.7	74.556	100.742	0.21	0	16.7	
Dibenz(a,h)anthracene	0.5	0.04	0.501	0	99.8	80.693	106.931	0.48	4.08	17.3	
Benzo(g,h,i)perylene	0.41	0.03	0.5	0	82.0	55.168	135.014	0.41	0	118	
Indeno(1,2,3-cd)pyrene	0.903	0.08	1.002	0	90.1	79.328	104.794	0.901	0.222	17.7	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

2/25/2005

Work Order Number 0502248

Received by AT

Checklist completed by



Signature

2/25/05

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 - 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 _____

**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									
QA / QC Package: Std ☐ Level 4 ☐									
Other:									
Client: SAN Juan Refining		Project Name: River TERRACE - MW #48 & MW #49 - 2/05							
Address: #50 CR 4990		Project #:							
Bloomfield, NM 87413		Project Manager:							
Phone # 505-632-4161		Sampler: Cindy Hurtado							
Fax #: 505-632-3911		Sample Temperature: 3							
Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.		
2/24/05	9:50A	H ₂ O	MW #48	2-VOA	HgCl ₂	HNO ₃	0502248-1		
				2-VOA	X	X			
				1-liter			Amber		
2/24/05	9:10A	H ₂ O	MW #49	2-VOA	X		-2		
				2-VOA	X				
				1-liter			Amber		
Date: 2/24/05		Time: 2pm		Relinquished By: (Signature) Cindy Hurtado		Relinquished By: (Signature)		Received By: (Signature) Cindy Hurtado	
Date: 2/24/05		Time: 2pm		Relinquished By: (Signature)		Relinquished By: (Signature)		Received By: (Signature)	



Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

Certified Mail: 7099 3220 001 2242 5259

March 15, 2005

RE: Giant Refining Company, Bloomfield Refiner
EPA ID# NMD089416416
GW - 001

Dear Mr. Price,

This letter is notification that you requested. Giant Refinery – Bloomfield will be collecting semi-annual groundwater samples starting the week of April 4, 2005.

If any representatives from the New Mexico Oil Conservation Division would like to participate, Giant requires all incoming personnel to undergo safety orientation training before entering the plant.

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

Sincerely,

A handwritten signature in cursive script that reads "Cindy Hurtado".

Cindy Hurtado
Environmental Assistant
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Supervisor – Giant Refining

PHONE
505-632-8013
FAX
505-632-3911

50 ROAD 4990
P.O. BOX 159
BLOOMFIELD
NEW MEXICO
87413