

COVER LETTER

July 06, 2004

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

RE: Inj Well 2nd Qtr 2004

Order No.: 0406089

Dear Cindy Hurtado:

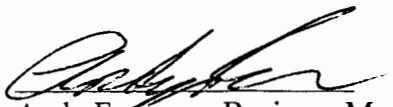
Hall Environmental Analysis Laboratory received 2 samples on 6/9/2004 for the analyses presented in the following report.

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-Jul-04

CLIENT: San Juan Refining
 Lab Order: 0406089
 Project: Inj Well 2nd Qtr 2004
 Lab ID: 0406089-01

Client Sample ID: QTR Inj Well 2nd
 Collection Date: 6/8/2004 9:00:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Chloride	1500	5.0		mg/L	50	6/30/2004 3:06:22 PM
Sulfate	1800	25		mg/L	50	6/30/2004 3:06:22 PM
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO3)	470	4.0		mg/L CaCO3	2	6/15/2004
Carbonate	ND	4.0		mg/L CaCO3	2	6/15/2004
Bicarbonate	470	4.0		mg/L CaCO3	2	6/15/2004
EPA METHOD 8260B: VOLATILES						Analyst: JDC
Benzene	ND	10		µg/L	10	6/11/2004
Toluene	ND	10		µg/L	10	6/11/2004
Ethylbenzene	ND	10		µg/L	10	6/11/2004
Methyl tert-butyl ether (MTBE)	900	10		µg/L	10	6/11/2004
1,2,4-Trimethylbenzene	21	10		µg/L	10	6/11/2004
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/11/2004
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/11/2004
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/11/2004
Naphthalene	ND	20		µg/L	10	6/11/2004
1-Methylnaphthalene	ND	40		µg/L	10	6/11/2004
2-Methylnaphthalene	ND	40		µg/L	10	6/11/2004
Acetone	570	100		µg/L	10	6/11/2004
Bromobenzene	ND	10		µg/L	10	6/11/2004
Bromochloromethane	ND	10		µg/L	10	6/11/2004
Bromodichloromethane	ND	10		µg/L	10	6/11/2004
Bromoform	ND	10		µg/L	10	6/11/2004
Bromomethane	ND	20		µg/L	10	6/11/2004
2-Butanone	ND	100		µg/L	10	6/11/2004
Carbon disulfide	ND	100		µg/L	10	6/11/2004
Carbon Tetrachloride	ND	10		µg/L	10	6/11/2004
Chlorobenzene	ND	10		µg/L	10	6/11/2004
Chloroethane	ND	20		µg/L	10	6/11/2004
Chloroform	ND	10		µg/L	10	6/11/2004
Chloromethane	ND	10		µg/L	10	6/11/2004
2-Chlorotoluene	ND	10		µg/L	10	6/11/2004
4-Chlorotoluene	ND	10		µg/L	10	6/11/2004
cis-1,2-DCE	ND	10		µg/L	10	6/11/2004
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/11/2004
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/11/2004
Dibromochloromethane	ND	10		µg/L	10	6/11/2004
Dibromomethane	ND	20		µg/L	10	6/11/2004
1,2-Dichlorobenzene	ND	10		µg/L	10	6/11/2004
1,3-Dichlorobenzene	ND	10		µg/L	10	6/11/2004

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-Jul-04

CLIENT: San Juan Refining
 Lab Order: 0406089
 Project: Inj Well 2nd Qtr 2004
 Lab ID: 0406089-01

Client Sample ID: QTR Inj Well 2nd
 Collection Date: 6/8/2004 9:00:00 AM
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Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,4-Dichlorobenzene	ND	10		µg/L	10	6/11/2004
Dichlorodifluoromethane	ND	10		µg/L	10	6/11/2004
1,1-Dichloroethane	ND	10		µg/L	10	6/11/2004
1,1-Dichloroethene	ND	10		µg/L	10	6/11/2004
1,2-Dichloropropane	ND	10		µg/L	10	6/11/2004
1,3-Dichloropropane	ND	10		µg/L	10	6/11/2004
2,2-Dichloropropane	ND	10		µg/L	10	6/11/2004
1,1-Dichloropropene	ND	10		µg/L	10	6/11/2004
Hexachlorobutadiene	ND	10		µg/L	10	6/11/2004
2-Hexanone	ND	100		µg/L	10	6/11/2004
Isopropylbenzene	ND	10		µg/L	10	6/11/2004
4-Isopropyltoluene	ND	10		µg/L	10	6/11/2004
4-Methyl-2-pentanone	ND	100		µg/L	10	6/11/2004
Methylene Chloride	ND	30		µg/L	10	6/11/2004
n-Butylbenzene	ND	10		µg/L	10	6/11/2004
n-Propylbenzene	ND	10		µg/L	10	6/11/2004
sec-Butylbenzene	ND	10		µg/L	10	6/11/2004
Styrene	ND	10		µg/L	10	6/11/2004
tert-Butylbenzene	ND	10		µg/L	10	6/11/2004
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/11/2004
1,1,2,2-Tetrachloroethane	ND	10		µg/L	10	6/11/2004
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/11/2004
trans-1,2-DCE	ND	10		µg/L	10	6/11/2004
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/11/2004
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/11/2004
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/11/2004
1,1,1-Trichloroethane	ND	10		µg/L	10	6/11/2004
1,1,2-Trichloroethane	ND	10		µg/L	10	6/11/2004
Trichloroethene (TCE)	ND	10		µg/L	10	6/11/2004
Trichlorofluoromethane	ND	10		µg/L	10	6/11/2004
1,2,3-Trichloropropane	ND	20		µg/L	10	6/11/2004
Vinyl chloride	ND	10		µg/L	10	6/11/2004
Xylenes, Total	47	10		µg/L	10	6/11/2004
Surr: 1,2-Dichloroethane-d4	94.8	70.6-124		%REC	10	6/11/2004
Surr: 4-Bromofluorobenzene	97.1	76.4-130		%REC	10	6/11/2004
Surr: Dibromofluoromethane	98.9	67.2-131		%REC	10	6/11/2004
Surr: Toluene-d8	99.0	82.1-123		%REC	10	6/11/2004

EPA METHOD 8270D: SEMIVOLATILES

Analyst: CS

Acenaphthene	ND	100		µg/L	1	6/21/2004
Acenaphthylene	ND	100		µg/L	1	6/21/2004
Aniline	ND	100		µg/L	1	6/21/2004
Anthracene	ND	100		µg/L	1	6/21/2004

Qualifiers: ND - Not Detected at the Reporting Limit

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E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

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Date: 06-Jul-04

CLIENT: San Juan Refining
 Lab Order: 0406089
 Project: Inj Well 2nd Qtr 2004
 Lab ID: 0406089-01

Client Sample ID: QTR Inj Well 2nd
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Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Azobenzene	ND	100		µg/L	1	6/21/2004
Benz(a)anthracene	ND	150		µg/L	1	6/21/2004
Benzo(a)pyrene	ND	100		µg/L	1	6/21/2004
Benzo(b)fluoranthene	ND	100		µg/L	1	6/21/2004
Benzo(g,h,i)perylene	ND	100		µg/L	1	6/21/2004
Benzo(k)fluoranthene	ND	100		µg/L	1	6/21/2004
Benzoic acid	ND	500		µg/L	1	6/21/2004
Benzyl alcohol	ND	200		µg/L	1	6/21/2004
Bis(2-chloroethoxy)methane	ND	100		µg/L	1	6/21/2004
Bis(2-chloroethyl)ether	ND	150		µg/L	1	6/21/2004
Bis(2-chloroisopropyl)ether	ND	150		µg/L	1	6/21/2004
Bis(2-ethylhexyl)phthalate	ND	150		µg/L	1	6/21/2004
4-Bromophenyl phenyl ether	ND	100		µg/L	1	6/21/2004
Butyl benzyl phthalate	ND	150		µg/L	1	6/21/2004
Carbazole	ND	100		µg/L	1	6/21/2004
4-Chloro-3-methylphenol	ND	200		µg/L	1	6/21/2004
4-Chloroaniline	ND	200		µg/L	1	6/21/2004
2-Chloronaphthalene	ND	100		µg/L	1	6/21/2004
2-Chlorophenol	ND	100		µg/L	1	6/21/2004
4-Chlorophenyl phenyl ether	ND	150		µg/L	1	6/21/2004
Chrysene	ND	150		µg/L	1	6/21/2004
Di-n-butyl phthalate	ND	100		µg/L	1	6/21/2004
Di-n-octyl phthalate	ND	150		µg/L	1	6/21/2004
Dibenz(a,h)anthracene	ND	100		µg/L	1	6/21/2004
Dibenzofuran	ND	100		µg/L	1	6/21/2004
1,2-Dichlorobenzene	ND	100		µg/L	1	6/21/2004
1,3-Dichlorobenzene	ND	100		µg/L	1	6/21/2004
1,4-Dichlorobenzene	ND	100		µg/L	1	6/21/2004
3,3'-Dichlorobenzidine	ND	150		µg/L	1	6/21/2004
Diethyl phthalate	ND	100		µg/L	1	6/21/2004
Dimethyl phthalate	ND	100		µg/L	1	6/21/2004
2,4-Dichlorophenol	ND	100		µg/L	1	6/21/2004
2,4-Dimethylphenol	ND	100		µg/L	1	6/21/2004
4,6-Dinitro-2-methylphenol	ND	500		µg/L	1	6/21/2004
2,4-Dinitrophenol	ND	500		µg/L	1	6/21/2004
2,4-Dinitrotoluene	ND	100		µg/L	1	6/21/2004
2,6-Dinitrotoluene	ND	100		µg/L	1	6/21/2004
Fluoranthene	ND	100		µg/L	1	6/21/2004
Fluorene	ND	100		µg/L	1	6/21/2004
Hexachlorobenzene	ND	100		µg/L	1	6/21/2004
Hexachlorobutadiene	ND	100		µg/L	1	6/21/2004
Hexachlorocyclopentadiene	ND	100		µg/L	1	6/21/2004

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
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Hall Environmental Analysis Laboratory

Date: 06-Jul-04

CLIENT: San Juan Refining
 Lab Order: 0406089
 Project: Inj Well 2nd Qtr 2004
 Lab ID: 0406089-01

Client Sample ID: QTR Inj Well 2nd
 Collection Date: 6/8/2004 9:00:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hexachloroethane	ND	100		µg/L	1	6/21/2004
Indeno(1,2,3-cd)pyrene	ND	100		µg/L	1	6/21/2004
Isophorone	ND	100		µg/L	1	6/21/2004
2-Methylnaphthalene	ND	100		µg/L	1	6/21/2004
2-Methylphenol	ND	150		µg/L	1	6/21/2004
3+4-Methylphenol	ND	100		µg/L	1	6/21/2004
N-Nitrosodi-n-propylamine	ND	100		µg/L	1	6/21/2004
N-Nitrosodimethylamine	ND	100		µg/L	1	6/21/2004
N-Nitrosodiphenylamine	ND	100		µg/L	1	6/21/2004
Naphthalene	ND	100		µg/L	1	6/21/2004
2-Nitroaniline	ND	500		µg/L	1	6/21/2004
3-Nitroaniline	ND	500		µg/L	1	6/21/2004
4-Nitroaniline	ND	200		µg/L	1	6/21/2004
Nitrobenzene	ND	100		µg/L	1	6/21/2004
2-Nitrophenol	ND	150		µg/L	1	6/21/2004
4-Nitrophenol	ND	500		µg/L	1	6/21/2004
Pentachlorophenol	ND	500		µg/L	1	6/21/2004
Phenanthrene	ND	100		µg/L	1	6/21/2004
Phenol	ND	100		µg/L	1	6/21/2004
Pyrene	ND	150		µg/L	1	6/21/2004
Pyridine	ND	300		µg/L	1	6/21/2004
1,2,4-Trichlorobenzene	ND	100		µg/L	1	6/21/2004
2,4,5-Trichlorophenol	ND	100		µg/L	1	6/21/2004
2,4,6-Trichlorophenol	ND	150		µg/L	1	6/21/2004
Surr: 2,4,6-Tribromophenol	77.9	16.6-115		%REC	1	6/21/2004
Surr: 2-Fluorobiphenyl	65.2	37-95.7		%REC	1	6/21/2004
Surr: 2-Fluorophenol	52.1	9.54-89.8		%REC	1	6/21/2004
Surr: 4-Terphenyl-d14	69.6	47.9-115		%REC	1	6/21/2004
Surr: Nitrobenzene-d5	61.1	38-106		%REC	1	6/21/2004
Surr: Phenol-d6	38.4	10.7-63.4		%REC	1	6/21/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: MAP
Specific Conductance	8200	0.010		µmhos/cm	1	6/15/2004
EPA METHOD 7470: MERCURY						Analyst: IC
Mercury	0.0042	0.00020		mg/L	1	6/23/2004
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	6/15/2004 11:26:36 AM
Barium	0.10	0.020		mg/L	1	6/15/2004 11:26:36 AM
Cadmium	ND	0.0020		mg/L	1	6/17/2004 8:51:42 AM
Calcium	45	1.0		mg/L	1	6/15/2004 11:26:36 AM
Chromium	0.0061	0.0060		mg/L	1	6/15/2004 11:26:36 AM
Copper	0.047	0.0060		mg/L	1	6/16/2004 10:24:44 AM

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

Hall Environmental Analysis Laboratory

Date: 06-Jul-04

CLIENT: San Juan Refining
 Lab Order: 0406089
 Project: Inj Well 2nd Qtr 2004
 Lab ID: 0406089-01

Client Sample ID: QTR Inj Well 2nd
 Collection Date: 6/8/2004 9:00:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Lead	ND	0.0050		mg/L	1	6/15/2004 11:26:36 AM
Magnesium	22	1.0		mg/L	1	6/15/2004 11:26:36 AM
Potassium	21	1.0		mg/L	1	6/15/2004 11:26:36 AM
Selenium	0.058	0.020		mg/L	1	6/16/2004 10:24:44 AM
Silver	ND	0.0050		mg/L	1	6/16/2004 10:24:44 AM
Sodium	1600	100		mg/L	100	6/15/2004 11:58:46 AM
EPA METHOD 150.1: PH						Analyst: MAP
pH	7.94	0.010		pH units	1	6/15/2004
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	5000	50		mg/L	1	6/14/2004

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: 06-Jul-04

CLIENT: San Juan Refining
 Lab Order: 0406089
 Project: Inj Well 2nd Qtr 2004
 Lab ID: 0406089-02

Client Sample ID: Trip Blank
 Collection Date:
 Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDC
Benzene	ND	1.0		µg/L	1	6/11/2004
Toluene	ND	1.0		µg/L	1	6/11/2004
Ethylbenzene	ND	1.0		µg/L	1	6/11/2004
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/11/2004
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/11/2004
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/11/2004
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/11/2004
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/11/2004
Naphthalene	ND	2.0		µg/L	1	6/11/2004
1-Methylnaphthalene	ND	4.0		µg/L	1	6/11/2004
2-Methylnaphthalene	ND	4.0		µg/L	1	6/11/2004
Acetone	ND	10		µg/L	1	6/11/2004
Bromobenzene	ND	1.0		µg/L	1	6/11/2004
Bromochloromethane	ND	1.0		µg/L	1	6/11/2004
Bromodichloromethane	ND	1.0		µg/L	1	6/11/2004
Bromoform	ND	1.0		µg/L	1	6/11/2004
Bromomethane	ND	2.0		µg/L	1	6/11/2004
2-Butanone	ND	10		µg/L	1	6/11/2004
Carbon disulfide	ND	10		µg/L	1	6/11/2004
Carbon Tetrachloride	ND	1.0		µg/L	1	6/11/2004
Chlorobenzene	ND	1.0		µg/L	1	6/11/2004
Chloroethane	ND	2.0		µg/L	1	6/11/2004
Chloroform	ND	1.0		µg/L	1	6/11/2004
Chloromethane	ND	1.0		µg/L	1	6/11/2004
2-Chlorotoluene	ND	1.0		µg/L	1	6/11/2004
4-Chlorotoluene	ND	1.0		µg/L	1	6/11/2004
cis-1,2-DCE	ND	1.0		µg/L	1	6/11/2004
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/11/2004
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/11/2004
Dibromochloromethane	ND	1.0		µg/L	1	6/11/2004
Dibromomethane	ND	2.0		µg/L	1	6/11/2004
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2004
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2004
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2004
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/11/2004
1,1-Dichloroethane	ND	1.0		µg/L	1	6/11/2004
1,1-Dichloroethene	ND	1.0		µg/L	1	6/11/2004
1,2-Dichloropropane	ND	1.0		µg/L	1	6/11/2004
1,3-Dichloropropane	ND	1.0		µg/L	1	6/11/2004
2,2-Dichloropropane	ND	1.0		µg/L	1	6/11/2004
1,1-Dichloropropene	ND	1.0		µg/L	1	6/11/2004

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 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 06-Jul-04

CLIENT: San Juan Refining
 Lab Order: 0406089
 Project: Inj Well 2nd Qtr 2004
 Lab ID: 0406089-02

Client Sample ID: Trip Blank
 Collection Date:

Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hexachlorobutadiene	ND	1.0		µg/L	1	6/11/2004
2-Hexanone	ND	10		µg/L	1	6/11/2004
Isopropylbenzene	ND	1.0		µg/L	1	6/11/2004
4-Isopropyltoluene	ND	1.0		µg/L	1	6/11/2004
4-Methyl-2-pentanone	ND	10		µg/L	1	6/11/2004
Methylene Chloride	ND	3.0		µg/L	1	6/11/2004
n-Butylbenzene	ND	1.0		µg/L	1	6/11/2004
n-Propylbenzene	ND	1.0		µg/L	1	6/11/2004
sec-Butylbenzene	ND	1.0		µg/L	1	6/11/2004
Styrene	ND	1.0		µg/L	1	6/11/2004
tert-Butylbenzene	ND	1.0		µg/L	1	6/11/2004
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/11/2004
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/11/2004
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/11/2004
trans-1,2-DCE	ND	1.0		µg/L	1	6/11/2004
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/11/2004
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/11/2004
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/11/2004
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/11/2004
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/11/2004
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/11/2004
Trichlorofluoromethane	ND	1.0		µg/L	1	6/11/2004
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/11/2004
Vinyl chloride	ND	1.0		µg/L	1	6/11/2004
Xylenes, Total	ND	1.0		µg/L	1	6/11/2004
Surr: 1,2-Dichloroethane-d4	97.0	70.6-124		%REC	1	6/11/2004
Surr: 4-Bromofluorobenzene	96.4	76.4-130		%REC	1	6/11/2004
Surr: Dibromofluoromethane	97.8	67.2-131		%REC	1	6/11/2004
Surr: Toluene-d8	99.2	82.1-123		%REC	1	6/11/2004

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



LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
 Project: Inj. Well
 Lab ID: C04060517-001
 Client Sample ID: QTR Inj Well 2nd (0406089-01)

Report Date: 06/22/04
 Collection Date: Not Provided
 Date Received: 06/11/04
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL PROPERTIES							
Flash Point (Ignitability)	>140	°F		60	140	SW1010	06/14/04 15:44 bah
pH, Corrosivity	7.49	s.u.		0.01		E9040 B	06/14/04 12:55 dd
- Flashpoint has been corrected for barometric pressure.							
REACTIVITY							
Sulfide, Reactive	ND	mg/kg		20.0	500	SW846 Ch 7	06/15/04 14:51 / dd
Cyanide, Reactive	ND	mg/kg		1.0	250	SW846 Ch 7	06/16/04 13:14 / eli-b

Report Definitions: RL - Analyte reporting limit.
 QCL - Quality control limit.

MCL - Maximum contaminant level.
 ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hall Environmental
Project: Inj. Well

Report Date: 06/22/04
Work Order: C04060517

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW1010							Batch: 040614A-FLSHPNT-LIQ		
Sample ID: MBLK1_040614A	Method Blank								06/14/04 15:45
Flash Point (Ignitability)	ND	°F	60						
- Flashpoint has been corrected for barometric pressure.									
Sample ID: LCS1_040614A	Laboratory Control Spike								06/14/04 07:34
Flash Point (Ignitability)	82.0	°F	60	100	96	104			
- Flashpoint has not been corrected for barometric pressure.									
Method: SW846 Ch 7							Batch: 5798		
Sample ID: MB-5798	Method Blank								06/15/04 14:46
Sulfide, Reactive	ND	mg/kg	20						
Method: SW846 Ch 7							Batch: B_10922		
Sample ID: MB-10922	Method Blank								06/16/04 13:15
Cyanide, Reactive	ND	mg/kg	0.050						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory

Date: 06-Jul-04

CLIENT: San Juan Refining
 Work Order: 0406089
 Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT

Method Blank

Sample ID	MBLK	Batch ID: R12317	Test Code: E300	Units: mg/L	Analysis Date	6/30/2004 12:35:10 PM	Prep Date					
Client ID:			Run ID: LC_040630A		SeqNo:	283497						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride		ND	0.1									
Sulfate		ND	0.5									

Sample ID	MBLK	Batch ID: R12172	Test Code: E310.1	Units: mg/L CaCO3	Analysis Date	6/15/2004	Prep Date					
Client ID:			Run ID: WC_040615D		SeqNo:	280191						
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									

10/26

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: 0406089
Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT

Method Blank

Sample ID	MB-5964	Batch ID:	5964	Test Code:	SW8270A	Units:	µg/L	Analysis Date	6/21/2004	Prep Date	6/15/2004
Client ID:				Run ID:	ELMO_040621A	SeqNo:	281542				
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

CLIENT: San Juan Refining
Work Order: 0406089
Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT

Method Blank

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

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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

CLIENT: San Juan Refining
Work Order: 0406089
Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT

Method Blank

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	126.6	0	200	0	63.3	16.6	115	0	
Surr: 2-Fluorobiphenyl	58.78	0	100	0	58.8	37	95.7	0	
Surr: 2-Fluorophenol	105.2	0	200	0	52.6	9.54	89.8	0	
Surr: 4-Terphenyl-d14	73	0	100	0	73.0	51.2	125	0	
Surr: Nitrobenzene-d5	60.6	0	100	0	60.6	38	106	0	
Surr: Phenol-d6	78.74	0	200	0	39.4	10.7	63.4	0	

Sample ID **MB-6007** Batch ID: **6007** Test Code: **SW7470** Units: **mg/L** Analysis Date **6/23/2004** Prep Date **6/23/2004**
 Client ID: Run ID: **MI-LA254_040623A** SeqNo: **282228**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002									

13/26

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: 0406089
Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT

Method Blank

Sample ID **MB-5946** Batch ID: **5946** Test Code: **SW6010A** Units: **mg/L** Analysis Date **6/15/2004 10:05:47 AM** Prep Date **6/11/2004**
 Client ID: Run ID: **ICP_040615A** SeqNo: **281034**

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									
Lead	ND	0.005									
Magnesium	ND	1									
Potassium	ND	1									
Selenium	ND	0.02									
Silver	0.002486	0.005									J
Sodium	ND	1									

Sample ID **MB-5946** Batch ID: **5946** Test Code: **SW6010A** Units: **mg/L** Analysis Date **6/17/2004 8:42:54 AM** Prep Date **6/11/2004**
 Client ID: Run ID: **ICP_040616E** SeqNo: **281045**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	0.002									

Sample ID **MB-5946** Batch ID: **5946** Test Code: **SW6010A** Units: **mg/L** Analysis Date **6/16/2004 10:14:02 AM** Prep Date **6/11/2004**
 Client ID: Run ID: **ICP_040616C** SeqNo: **281048**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	ND	0.02									
Silver	ND	0.005									

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: 0406089
Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT

Method Blank

Sample ID	MB-5945	Batch ID:	5945	Test Code:	E160.1	Units:	mg/L	Analysis Date	6/14/2004	Prep Date	6/11/2004	
Client ID:		Run ID:	WC_040614C	SeqNo:	279871							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids		ND	50									

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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-Jul-04

CLIENT: San Juan Refining
 Work Order: 0406089
 Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT

Method Blank

Sample ID	5ml rb	Batch ID: R12148	Test Code: SW8260B	Units: µg/L	Analysis Date 6/11/2004	Prep Date						
Client ID:			Run ID: NEPTUNE_040611A			SeqNo: 279738						
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 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: 0406089
Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT

Method Blank

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
1,1,1,2,2-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

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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

CLIENT: San Juan Refining
Work Order: 0406089
Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT

Method Blank

1,1,2-Trichloroethane	ND	1							
Trichloroethene (TCE)	ND	1							
Trichlorofluoromethane	ND	1							
1,2,3-Trichloropropane	ND	2							
Vinyl chloride	ND	1							
Xylenes, Total	ND	1							
Surr: 1,2-Dichloroethane-d4	9.344	0	10	0	93.4	68.4	127	0	
Surr: 4-Bromofluorobenzene	9.686	0	10	0	96.9	70.4	126	0	
Surr: Dibromofluoromethane	9.31	0	10	0	93.1	70.2	126	0	
Surr: Toluene-d8	10.07	0	10	0	101	73.5	129	0	

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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

Date: 06-Jul-04

CLIENT: San Juan Refining
 Work Order: 0406089
 Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT

Sample Duplicate

Sample ID	0406089-01C DUP	Batch ID:	R12172	Test Code:	E310.1	Units:	mg/L CaCO3	Analysis Date	6/15/2004	Prep Date	
Client ID:	QTR Inj Well 2nd	Run ID:	WC_040615D	SeqNo:	280195						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	472	4	0	0	0	0	0	468	0.851	15	
Carbonate	ND	4	0	0	0	0	0	0	0	15	
Bicarbonate	472	4	0	0	0	0	0	468	0.851	15	

Sample ID	0406089-01C DUP	Batch ID:	R12169	Test Code:	E120.1	Units:	µmhos/cm	Analysis Date	6/15/2004	Prep Date	
Client ID:	QTR Inj Well 2nd	Run ID:	WC_040615B	SeqNo:	280161						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Conductance	8020	0.01	0	0	0	0	0	8170	1.85	20	

Sample ID	0406089-01C DUP	Batch ID:	R12169	Test Code:	E150.1	Units:	pH units	Analysis Date	6/15/2004	Prep Date	
Client ID:	QTR Inj Well 2nd	Run ID:	WC_040615C	SeqNo:	280170						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.96	0.01	0	0	0	0	0	0			

Sample ID	0406089-01C dup	Batch ID:	5945	Test Code:	E160.1	Units:	mg/L	Analysis Date	6/14/2004	Prep Date	6/11/2004
Client ID:	QTR Inj Well 2nd	Run ID:	WC_040614C	SeqNo:	279883						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	5217	50	0	0	0	0	0	5042	3.41	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

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Hall Environmental Analysis Laboratory

Date: 06-Jul-04

CLIENT: San Juan Refining
 Work Order: 0406089
 Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT
 Sample Matrix Spike

Sample ID	0406089-01C ms	Batch ID:	5945	Test Code:	E160.1	Units:	mg/L	Analysis Date	6/14/2004	Prep Date	6/11/2004
Client ID:	QTR Inj Well 2nd	Run ID:	WC_040614C	SeqNo:	279884						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	6147	50	1000	5042	111	80	120	0			

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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-Jul-04

CLIENT: San Juan Refining
 Work Order: 0406089
 Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	LCS	Batch ID: R12317	Test Code: E300	Units: mg/L	Analysis Date	6/30/2004 12:51:58 PM	Prep Date					
Client ID:			Run ID: LC_040630A		SeqNo:	283498						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride		4.717	0.1	5	0	94.3	90	110	0			
Sulfate		9.522	0.5	10	0	95.2	90	110	0			

Sample ID	LCS	Batch ID: R12317	Test Code: E300	Units: mg/L	Analysis Date	6/30/2004 10:40:11 PM	Prep Date					
Client ID:			Run ID: LC_040630A		SeqNo:	283533						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride		4.709	0.1	5	0	94.2	90	110	0			
Sulfate		9.462	0.5	10	0	94.6	90	110	0			

Sample ID	100ng lcs	Batch ID: R12148	Test Code: SW8260B	Units: µg/L	Analysis Date	6/11/2004	Prep Date					
Client ID:			Run ID: NEPTUNE_040611A		SeqNo:	279739						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		23.26	1	20	0	116	75.3	128	0			
Toluene		23.51	1	20	0	118	87.7	122	0			
Chlorobenzene		24.32	1	20	0	122	85.6	136	0			
1,1-Dichloroethene		24.07	1	20	0	120	70.7	122	0			
Trichloroethene (TCE)		21.62	1	20	0	108	76.9	130	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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CLIENT: San Juan Refining
Work Order: 0406089
Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-5964	5964	SW8270A	µg/L	6/21/2004	6/15/2004						
Client ID:		Run ID:	ELMO_040621A	SeqNo:	281544						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	55.98	10	100	0	56.0	44.8	96.8	0			
4-Chloro-3-methylphenol	116.6	20	200	0	58.3	51.5	98.7	0			
2-Chlorophenol	121.5	10	200	0	60.8	45.9	99.6	0			
1,4-Dichlorobenzene	57.68	10	100	0	57.7	33	95.9	0			
2,4-Dinitrotoluene	71.56	10	100	0	71.6	47.8	103	0			
N-Nitrosodi-n-propylamine	55.08	10	100	0	55.1	45.9	93.6	0			
4-Nitrophenol	74.5	50	200	0	37.3	22.1	58.3	0			
Pentachlorophenol	130.8	50	200	0	65.4	26.4	118	0			
Phenol	68.76	10	200	0	34.4	6.99	71.3	0			
Pyrene	76.28	15	100	0	76.3	58.3	103	0			
1,2,4-Trichlorobenzene	56.86	10	100	0	56.9	38.7	92.3	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-5964	5964	SW8270A	µg/L	6/21/2004	6/15/2004						
Client ID:		Run ID:	ELMO_040621A	SeqNo:	281548						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	66.58	10	100	0	66.6	44.8	96.8	55.98	17.3	30.5	
4-Chloro-3-methylphenol	138.9	20	200	0	69.4	51.5	98.7	116.6	17.5	28.6	
2-Chlorophenol	132.1	10	200	0	66.1	45.9	99.6	121.5	8.37	107	
1,4-Dichlorobenzene	65.86	10	100	0	65.9	33	95.9	57.68	13.2	62.1	
2,4-Dinitrotoluene	71.92	10	100	0	71.9	47.8	103	71.56	0.502	14.7	
N-Nitrosodi-n-propylamine	64.66	10	100	0	64.7	45.9	93.6	55.08	16.0	30.3	
4-Nitrophenol	78.54	50	200	0	39.3	22.1	58.3	74.5	5.28	36.3	
Pentachlorophenol	125.9	50	200	0	63.0	26.4	118	130.8	3.80	49	
Phenol	80.08	10	200	0	40.0	6.99	71.3	68.76	15.2	52.4	
Pyrene	73.72	15	100	0	73.7	58.3	103	76.28	3.41	16.3	
1,2,4-Trichlorobenzene	66.46	10	100	0	66.5	38.7	92.3	56.86	15.6	36.4	

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: 0406089
Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	LCS-6007	Batch ID:	6007	Test Code:	SW7470	Units:	mg/L	Analysis Date	6/23/2004	Prep Date	6/23/2004
Client ID:		Run ID:	MI-LA254_040623A	SeqNo:	282229						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004817	0.0002	0.005	0	96.3	75.2	134	0			

Sample ID	LCSD-6007	Batch ID:	6007	Test Code:	SW7470	Units:	mg/L	Analysis Date	6/23/2004	Prep Date	6/23/2004
Client ID:		Run ID:	MI-LA254_040623A	SeqNo:	282230						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004811	0.0002	0.005	0	96.2	75.2	134	0.004817	0.109	0	

Sample ID	LCS-5946	Batch ID:	5946	Test Code:	SW6010A	Units:	mg/L	Analysis Date	6/15/2004 10:08:18 AM	Prep Date	6/11/2004
Client ID:		Run ID:	ICP_040615A	SeqNo:	281035						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4751	0.02	0.5	0	95.0	80	120	0			
Barium	0.4914	0.02	0.5	0	98.3	80	120	0			
Cadmium	0.4806	0.002	0.5	0	96.1	80	120	0			
Calcium	46.87	1	50	0	93.7	80	120	0			
Chromium	0.4933	0.006	0.5	0	98.7	80	120	0			
Lead	0.504	0.005	0.5	0	101	80	120	0			
Magnesium	46.86	1	50	0	93.7	80	120	0			
Potassium	50.2	1	50	0	100	80	120	0			
Sodium	52.53	1	50	0	105	80	120	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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CLIENT: San Juan Refining
Work Order: 0406089
Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-5946	5946	SW6010A	mg/L	6/15/2004 10:16:54 AM	6/11/2004						
Client ID:		Run ID: ICP_040615A		SeqNo: 281037							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4723	0.02	0.5	0	94.5	80	120	0.4751	0.587	20	
Barium	0.4881	0.02	0.5	0	97.6	80	120	0.4914	0.663	20	
Cadmium	0.4752	0.002	0.5	0	95.0	80	120	0.4806	1.12	20	
Calcium	47.46	1	50	0	94.9	80	120	46.87	1.26	20	
Chromium	0.4924	0.006	0.5	0	98.5	80	120	0.4933	0.166	20	
Lead	0.5076	0.005	0.5	0	102	80	120	0.504	0.708	20	
Magnesium	47.13	1	50	0	94.3	80	120	46.86	0.576	20	
Potassium	49.82	1	50	0	99.6	80	120	50.2	0.750	20	
Sodium	52.47	1	50	0	105	80	120	52.53	0.108	20	

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-5946	5946	SW6010A	mg/L	6/17/2004 8:44:11 AM	6/11/2004						
Client ID:		Run ID: ICP_040616E		SeqNo: 281046							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.4671	0.002	0.5	0	93.4	80	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-5946	5946	SW6010A	mg/L	6/17/2004 8:45:27 AM	6/11/2004						
Client ID:		Run ID: ICP_040616E		SeqNo: 281047							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.4779	0.002	0.5	0	95.6	80	120	0.4671	2.29	20	

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-5946	5946	SW6010A	mg/L	6/16/2004 10:16:16 AM	6/11/2004						
Client ID:		Run ID: ICP_040616C		SeqNo: 281049							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.5084	0.02	0.5	0	102	80	120	0			
Silver	0.4625	0.005	0.5	0	92.5	80	120	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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CLIENT: San Juan Refining
Work Order: 0406089
Project: Inj Well 2nd Qtr 2004

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	LCSD-5946	Batch ID:	5946	Test Code:	SW6010A	Units:	mg/L	Analysis Date	6/16/2004 10:18:31 AM	Prep Date	6/11/2004	
Client ID:		Run ID:	ICP_040616C	SeqNo:	281050							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium		0.5087	0.02	0.5	0	102	80	120	0.5084	0.0673	20	
Silver		0.4715	0.005	0.5	0	94.3	80	120	0.4625	1.94	20	

Sample ID	LCS-5945	Batch ID:	5945	Test Code:	E160.1	Units:	mg/L	Analysis Date	6/14/2004	Prep Date	6/11/2004	
Client ID:		Run ID:	WC_040614C	SeqNo:	279872							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids		1049	50	1000	0	105	80	120	0			

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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

Sample Receipt Checklist

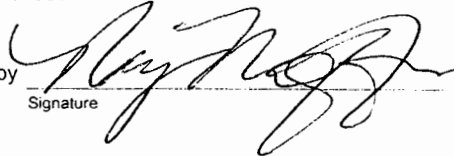
Client Name SJR

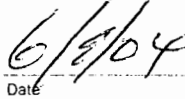
Date and Time Received:

Work Order Number 0406089

Received by AMF

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?

12°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

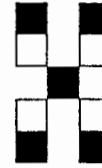
Corrective Action _____

CHAIN-OF-CUSTODY RECORD

Accreditation Applied:

NELAC USACE

Other: _____



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: *SAN Juan Refining*

Project Name: *Injection Well 2nd Qtr 2004*

Address: *#50 CR 4990
Bloomfield, NM
87413*

Project #:

Project Manager:

Phone #: *505-632-4461*

Sampler: *Cindy Hurtado*

Fax #: *505-632-3911*

Sample Temperature: *12°C*

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl ₂	HNO ₃	
<i>6-08-04</i>	<i>9AM</i>	<i>H₂O</i>	<i>Qtr Inj Well 2nd</i>	<i>3-VOA</i>	<i>X</i>		<i>D4D6089-1</i>
				<i>1-liter</i>		<i>Amber</i>	<i>-1</i>
				<i>1-500</i>			<i>-1</i>
				<i>1-500</i>			<i>-1</i>
				<i>1-500</i>	<i>X</i>		<i>-1</i>
				<i>1-250</i>		<i>NaOH</i>	<i>-1</i>
				<i>1-250</i>		<i>B₂N Acetate</i>	<i>-1</i>
			<i>Tap Blank</i>				<i>-2</i>

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals + Na, K, Mg, Ca	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	EC, PH, TDS, SO ₄ , ALK, Cl	Ignitability, Corrosivity	Reactivity	Sulfide	Air Bubbles or Headspace (Y or N)
										<i>X</i>						
											<i>X</i>					
												<i>X</i>				
							<i>X</i>						<i>X</i>			
													<i>X</i>			
										<i>X</i>					<i>X</i>	

Date: *6-08-04* Time: *9:35 AM* Relinquished By: (Signature) *Cindy Hurtado*
 Received By: (Signature) *[Signature]* *6/9/04 15:20*

Date: _____ Time: _____ Relinquished By: (Signature) _____
 Received By: (Signature) _____

Remarks: