Gallegos 05

Attachments can contain viruses that may harm your computer. Attachments may not display correctly.

Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com] **Sent:** Tue 11/29/2005 6:22 AM
To: Monzeglio, Hope, NMENV; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD; Price, Wayne, EMNRD; Dave Cobrain (E-mail)
Cc: Ed Riege; James Romero; Johnny Sanchez; Steve Morris
Subject: Update for the week of 11-25-2005
Attachments: HALL6663_Condensate.pdf(565KB) HALL6674_SplitwOCD.pdf(986KB)

1) API separator No problems noted.

2) Attached are sample results from the condensate leak west of Railroad Rack gathered on
11/11/2005 and analysis indicates it meets WQCC 20 NMAC, also Split samples were taken with OCD on 11/10/2005.

3) Vector Arizona Inc. will be onsite all week (11/28/2005 - 12/2/2005) to put together the
stormwater/process water site map.

4) Dennis Fuhs of Fuhs Const. plans to be onsite January 3rd for clean up of the banks on Aeration lagoons 1 & 2 as well as Evaporation ponds 1 & 2.
He will also build a berm around the LPG bullet tanks and Light Natural Gasoline tanks.
When those two projects are complete he will take care of the mounds of soil east of the
Central OCD landfarm.
<<HALL6663_Condensate.pdf>> <<HALL6674_SplitwOCD.pdf>>

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HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

November 22, 2005

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

RE: Split samples w/OCD on Old API Sep Order No.: 0511125

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 3 samples on 11/11/2005 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: *23-Nov-05*

CLIENT: Giant Refining Co
Project: Split samples w/OCD on Old API Sep
Lab Order: 0511125

CASE NARRATIVE

Practical quantitation limits (PQL) elevated for EPA Method 8270 due to emulsion formed during extraction and the amount of hydrocarbons in the sample.

Hall Environmental Analysis Laboratory

Date: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-01

Client Sample ID: Old API Sep
Collection Date: 11/10/2005 5:20:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 418.1: TPH						Analyst: JAT
Petroleum Hydrocarbons, TR	2100	100		mg/L	20	11/16/2005
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	200	10		µg/L	10	11/16/2005
Toluene	220	10		µg/L	10	11/16/2005
Ethylbenzene	ND	10		µg/L	10	11/16/2005
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2005
1,2,4-Trimethylbenzene	68	10		µg/L	10	11/16/2005
1,3,5-Trimethylbenzene	24	10		µg/L	10	11/16/2005
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2005
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2005
Naphthalene	82	20		µg/L	10	11/16/2005
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2005
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2005
Acetone	ND	100		µg/L	10	11/16/2005
Bromobenzene	ND	10		µg/L	10	11/16/2005
Bromochloromethane	ND	10		µg/L	10	11/16/2005
Bromodichloromethane	ND	10		µg/L	10	11/16/2005
Bromoform	ND	10		µg/L	10	11/16/2005
Bromomethane	ND	20		µg/L	10	11/16/2005
2-Butanone	ND	100		µg/L	10	11/16/2005
Carbon disulfide	ND	100		µg/L	10	11/16/2005
Carbon Tetrachloride	ND	20		µg/L	10	11/16/2005
Chlorobenzene	ND	10		µg/L	10	11/16/2005
Chloroethane	ND	20		µg/L	10	11/16/2005
Chloroform	ND	10		µg/L	10	11/16/2005
Chloromethane	ND	10		µg/L	10	11/16/2005
2-Chlorotoluene	ND	10		µg/L	10	11/16/2005
4-Chlorotoluene	ND	10		µg/L	10	11/16/2005
cis-1,2-DCE	ND	10		µg/L	10	11/16/2005
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2005
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2005
Dibromochloromethane	ND	10		µg/L	10	11/16/2005
Dibromomethane	ND	20		µg/L	10	11/16/2005
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2005
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2005
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2005
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2005
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2005
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2005
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2005

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

Hall Environmental Analysis Laboratory

Date: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-01

Client Sample ID: Old API Sep
Collection Date: 11/10/2005 5:20:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2005
2,2-Dichloropropane	ND	10		µg/L	10	11/16/2005
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2005
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2005
2-Hexanone	ND	100		µg/L	10	11/16/2005
Isopropylbenzene	ND	10		µg/L	10	11/16/2005
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2005
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2005
Methylene Chloride	ND	30		µg/L	10	11/16/2005
n-Butylbenzene	ND	10		µg/L	10	11/16/2005
n-Propylbenzene	ND	10		µg/L	10	11/16/2005
sec-Butylbenzene	ND	10		µg/L	10	11/16/2005
Styrene	ND	10		µg/L	10	11/16/2005
tert-Butylbenzene	ND	10		µg/L	10	11/16/2005
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2005
1,1,2,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2005
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2005
trans-1,2-DCE	ND	10		µg/L	10	11/16/2005
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2005
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2005
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2005
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2005
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2005
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2005
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2005
Vinyl chloride	ND	10		µg/L	10	11/16/2005
Xylenes, Total	290	10		µg/L	10	11/16/2005
Surr: 1,2-Dichloroethane-d4	109	69.9-130		%REC	10	11/16/2005
Surr: 4-Bromofluorobenzene	100	71.2-123		%REC	10	11/16/2005
Surr: Dibromofluoromethane	106	73.9-134		%REC	10	11/16/2005
Surr: Toluene-d8	104	81.9-122		%REC	10	11/16/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	20		µg/L	1	11/17/2005
Acenaphthylene	ND	20		µg/L	1	11/17/2005
Aniline	ND	40		µg/L	1	11/17/2005
Anthracene	ND	20		µg/L	1	11/17/2005
Azobenzene	ND	20		µg/L	1	11/17/2005
Benz(a)anthracene	ND	30		µg/L	1	11/17/2005
Benzo(a)pyrene	ND	30		µg/L	1	11/17/2005
Benzo(b)fluoranthene	ND	30		µg/L	1	11/17/2005
Benzo(g,h,i)perylene	ND	20		µg/L	1	11/17/2005

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E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-01

Client Sample ID: Old API Sep
Collection Date: 11/10/2005 5:20:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Benzo(k)fluoranthene	ND	20		µg/L	1	11/17/2005
Benzoic acid	ND	100		µg/L	1	11/17/2005
Benzyl alcohol	ND	40		µg/L	1	11/17/2005
Bis(2-chloroethoxy)methane	ND	20		µg/L	1	11/17/2005
Bis(2-chloroethyl)ether	ND	30		µg/L	1	11/17/2005
Bis(2-chloroisopropyl)ether	ND	30		µg/L	1	11/17/2005
Bis(2-ethylhexyl)phthalate	31	30		µg/L	1	11/17/2005
4-Bromophenyl phenyl ether	ND	20		µg/L	1	11/17/2005
Butyl benzyl phthalate	ND	30		µg/L	1	11/17/2005
Carbazole	ND	20		µg/L	1	11/17/2005
4-Chloro-3-methylphenol	ND	40		µg/L	1	11/17/2005
4-Chloroaniline	ND	40		µg/L	1	11/17/2005
2-Chloronaphthalene	ND	20		µg/L	1	11/17/2005
2-Chlorophenol	ND	20		µg/L	1	11/17/2005
4-Chlorophenyl phenyl ether	ND	30		µg/L	1	11/17/2005
Chrysene	ND	30		µg/L	1	11/17/2005
Di-n-butyl phthalate	ND	20		µg/L	1	11/17/2005
Di-n-octyl phthalate	ND	30		µg/L	1	11/17/2005
Dibenz(a,h)anthracene	ND	20		µg/L	1	11/17/2005
Dibenzofuran	27	20		µg/L	1	11/17/2005
1,2-Dichlorobenzene	ND	20		µg/L	1	11/17/2005
1,3-Dichlorobenzene	ND	20		µg/L	1	11/17/2005
1,4-Dichlorobenzene	ND	20		µg/L	1	11/17/2005
3,3'-Dichlorobenzidine	ND	30		µg/L	1	11/17/2005
Diethyl phthalate	ND	20		µg/L	1	11/17/2005
Dimethyl phthalate	ND	20		µg/L	1	11/17/2005
2,4-Dichlorophenol	ND	20		µg/L	1	11/17/2005
2,4-Dimethylphenol	ND	20		µg/L	1	11/17/2005
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/17/2005
2,4-Dinitrophenol	ND	100		µg/L	1	11/17/2005
2,4-Dinitrotoluene	ND	20		µg/L	1	11/17/2005
2,6-Dinitrotoluene	ND	20		µg/L	1	11/17/2005
Fluoranthene	ND	20		µg/L	1	11/17/2005
Fluorene	75	20		µg/L	1	11/17/2005
Hexachlorobenzene	ND	20		µg/L	1	11/17/2005
Hexachlorobutadiene	ND	20		µg/L	1	11/17/2005
Hexachlorocyclopentadiene	ND	20		µg/L	1	11/17/2005
Hexachloroethane	ND	20		µg/L	1	11/17/2005
Indeno(1,2,3-cd)pyrene	ND	20		µg/L	1	11/17/2005
Isophorone	ND	20		µg/L	1	11/17/2005
2-Methylnaphthalene	250	20		µg/L	1	11/17/2005
2-Methylphenol	ND	30		µg/L	1	11/17/2005

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Hall Environmental Analysis Laboratory

Date: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-01

Client Sample ID: Old API Sep
Collection Date: 11/10/2005 5:20:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
3+4-Methylphenol	ND	40		µg/L	1	11/17/2005
N-Nitrosodi-n-propylamine	ND	20		µg/L	1	11/17/2005
N-Nitrosodimethylamine	ND	20		µg/L	1	11/17/2005
N-Nitrosodiphenylamine	ND	20		µg/L	1	11/17/2005
Naphthalene	92	20		µg/L	1	11/17/2005
2-Nitroaniline	ND	100		µg/L	1	11/17/2005
3-Nitroaniline	ND	100		µg/L	1	11/17/2005
4-Nitroaniline	ND	40		µg/L	1	11/17/2005
Nitrobenzene	ND	20		µg/L	1	11/17/2005
2-Nitrophenol	ND	30		µg/L	1	11/17/2005
4-Nitrophenol	ND	100		µg/L	1	11/17/2005
Pentachlorophenol	ND	100		µg/L	1	11/17/2005
Phenanthrene	170	20		µg/L	1	11/17/2005
Phenol	ND	20		µg/L	1	11/17/2005
Pyrene	86	30		µg/L	1	11/17/2005
Pyridine	ND	60		µg/L	1	11/17/2005
1,2,4-Trichlorobenzene	ND	20		µg/L	1	11/17/2005
2,4,5-Trichlorophenol	ND	20		µg/L	1	11/17/2005
2,4,6-Trichlorophenol	ND	30		µg/L	1	11/17/2005
Surr: 2,4,6-Tribromophenol	75.6	16.6-150		%REC	1	11/17/2005
Surr: 2-Fluorobiphenyl	80.2	19.6-134		%REC	1	11/17/2005
Surr: 2-Fluorophenol	48.2	9.54-113		%REC	1	11/17/2005
Surr: 4-Terphenyl-d14	78.1	22.7-145		%REC	1	11/17/2005
Surr: Nitrobenzene-d5	78.1	14.6-134		%REC	1	11/17/2005
Surr: Phenol-d5	38.1	10.7-80.3		%REC	1	11/17/2005
EPA METHOD 245.1: MERCURY						Analyst: **CMC**
Mercury	0.0024	0.00020		mg/L	1	11/14/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **NMO**
Aluminum	4.3	0.40		mg/L	20	11/17/2005 12:59:54 PM
Antimony	ND	0.010		mg/L	1	11/17/2005 11:19:21 AM
Arsenic	ND	0.020		mg/L	1	11/17/2005 11:19:21 AM
Barium	0.74	0.020		mg/L	1	11/17/2005 11:19:21 AM
Beryllium	ND	0.0030		mg/L	1	11/17/2005 11:19:21 AM
Boron	0.21	0.040		mg/L	1	11/17/2005 11:19:21 AM
Cadmium	0.0025	0.0020		mg/L	1	11/17/2005 11:19:21 AM
Calcium	110	20		mg/L	20	11/17/2005 12:59:54 PM
Chromium	0.027	0.0060		mg/L	1	11/17/2005 11:19:21 AM
Cobalt	0.0073	0.0060		mg/L	1	11/17/2005 11:19:21 AM
Copper	0.12	0.0060		mg/L	1	11/17/2005 11:19:21 AM
Iron	46	1.0		mg/L	20	11/17/2005 12:59:54 PM
Lead	0.028	0.0050		mg/L	1	11/17/2005 11:19:21 AM

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Hall Environmental Analysis Laboratory

Date: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-01

Client Sample ID: Old API Sep
Collection Date: 11/10/2005 5:20:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Magnesium	29	1.0		mg/L	1	11/17/2005 11:19:21 AM
Manganese	0.75	0.0020		mg/L	1	11/17/2005 11:19:21 AM
Molybdenum	0.091	0.0080		mg/L	1	11/17/2005 11:19:21 AM
Nickel	0.060	0.010		mg/L	1	11/17/2005 11:19:21 AM
Potassium	35	1.0		mg/L	1	11/17/2005 11:19:21 AM
Selenium	ND	0.050		mg/L	1	11/17/2005 11:19:21 AM
Silver	ND	0.0050		mg/L	1	11/17/2005 11:19:21 AM
Sodium	530	20		mg/L	20	11/17/2005 12:59:54 PM
Thallium	ND	0.050		mg/L	1	11/17/2005 11:19:21 AM
Vanadium	ND	0.050		mg/L	1	11/17/2005 11:19:21 AM
Zinc	2.6	1.0		mg/L	20	11/17/2005 12:59:54 PM
Silica	40	22		mg/L	20	11/17/2005 12:59:54 PM

Qualifiers:

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J - Analyte detected below quantitation limits
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* - Value exceeds Maximum Contaminant Level
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E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-02

Client Sample ID: AL-2 to EP-1
Collection Date: 11/10/2005 5:35:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 418.1: TPH						Analyst: JAT
Petroleum Hydrocarbons, TR	65	2.0		mg/L	1	11/16/2005
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	25	10		µg/L	10	11/16/2005
Toluene	28	10		µg/L	10	11/16/2005
Ethylbenzene	ND	10		µg/L	10	11/16/2005
Methyl tert-butyl ether (MTBE)	19	10		µg/L	10	11/16/2005
1,2,4-Trimethylbenzene	19	10		µg/L	10	11/16/2005
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2005
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2005
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2005
Naphthalene	ND	20		µg/L	10	11/16/2005
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2005
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2005
Acetone	3500	500		µg/L	50	11/18/2005
Bromobenzene	ND	10		µg/L	10	11/16/2005
Bromochloromethane	ND	10		µg/L	10	11/16/2005
Bromodichloromethane	ND	10		µg/L	10	11/16/2005
Bromoform	ND	10		µg/L	10	11/16/2005
Bromomethane	ND	20		µg/L	10	11/16/2005
2-Butanone	360	100		µg/L	10	11/16/2005
Carbon disulfide	ND	100		µg/L	10	11/16/2005
Carbon Tetrachloride	ND	20		µg/L	10	11/16/2005
Chlorobenzene	ND	10		µg/L	10	11/16/2005
Chloroethane	ND	20		µg/L	10	11/16/2005
Chloroform	ND	10		µg/L	10	11/16/2005
Chloromethane	ND	10		µg/L	10	11/16/2005
2-Chlorotoluene	ND	10		µg/L	10	11/16/2005
4-Chlorotoluene	ND	10		µg/L	10	11/16/2005
cis-1,2-DCE	ND	10		µg/L	10	11/16/2005
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2005
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2005
Dibromochloromethane	ND	10		µg/L	10	11/16/2005
Dibromomethane	ND	20		µg/L	10	11/16/2005
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2005
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2005
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2005
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2005
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2005
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2005
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2005

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CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-02

Client Sample ID: AL-2 to EP-1
Collection Date: 11/10/2005 5:35:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2005
2,2-Dichloropropane	ND	10		µg/L	10	11/16/2005
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2005
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2005
2-Hexanone	ND	100		µg/L	10	11/16/2005
Isopropylbenzene	ND	10		µg/L	10	11/16/2005
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2005
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2005
Methylene Chloride	ND	30		µg/L	10	11/16/2005
n-Butylbenzene	ND	10		µg/L	10	11/16/2005
n-Propylbenzene	ND	10		µg/L	10	11/16/2005
sec-Butylbenzene	ND	10		µg/L	10	11/16/2005
Styrene	ND	10		µg/L	10	11/16/2005
tert-Butylbenzene	ND	10		µg/L	10	11/16/2005
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2005
1,1,2,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2005
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2005
trans-1,2-DCE	ND	10		µg/L	10	11/16/2005
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2005
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2005
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2005
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2005
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2005
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2005
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2005
Vinyl chloride	ND	10		µg/L	10	11/16/2005
Xylenes, Total	18	10		µg/L	10	11/16/2005
Surr: 1,2-Dichloroethane-d4	103	69.9-130		%REC	10	11/16/2005
Surr: 4-Bromofluorobenzene	90.7	71.2-123		%REC	10	11/16/2005
Surr: Dibromofluoromethane	104	73.9-134		%REC	10	11/16/2005
Surr: Toluene-d8	114	81.9-122		%REC	10	11/16/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	200		µg/L	10	11/17/2005
Acenaphthylene	ND	200		µg/L	10	11/17/2005
Aniline	ND	400		µg/L	10	11/17/2005
Anthracene	ND	200		µg/L	10	11/17/2005
Azobenzene	ND	200		µg/L	10	11/17/2005
Benz(a)anthracene	ND	300		µg/L	10	11/17/2005
Benzo(a)pyrene	ND	300		µg/L	10	11/17/2005
Benzo(b)fluoranthene	ND	300		µg/L	10	11/17/2005
Benzo(g,h,i)perylene	ND	200		µg/L	10	11/17/2005

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: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-02

Client Sample ID: AL-2 to EP-1
Collection Date: 11/10/2005 5:35:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Benzo(k)fluoranthene	ND	200		µg/L	10	11/17/2005
Benzoic acid	ND	1000		µg/L	10	11/17/2005
Benzyl alcohol	ND	400		µg/L	10	11/17/2005
Bis(2-chloroethoxy)methane	ND	200		µg/L	10	11/17/2005
Bis(2-chloroethyl)ether	ND	300		µg/L	10	11/17/2005
Bis(2-chloroisopropyl)ether	ND	300		µg/L	10	11/17/2005
Bis(2-ethylhexyl)phthalate	ND	300		µg/L	10	11/17/2005
4-Bromophenyl phenyl ether	ND	200		µg/L	10	11/17/2005
Butyl benzyl phthalate	ND	300		µg/L	10	11/17/2005
Carbazole	ND	200		µg/L	10	11/17/2005
4-Chloro-3-methylphenol	ND	400		µg/L	10	11/17/2005
4-Chloroaniline	ND	400		µg/L	10	11/17/2005
2-Chloronaphthalene	ND	200		µg/L	10	11/17/2005
2-Chlorophenol	ND	200		µg/L	10	11/17/2005
4-Chlorophenyl phenyl ether	ND	300		µg/L	10	11/17/2005
Chrysene	ND	300		µg/L	10	11/17/2005
Di-n-butyl phthalate	ND	200		µg/L	10	11/17/2005
Di-n-octyl phthalate	ND	300		µg/L	10	11/17/2005
Dibenz(a,h)anthracene	ND	200		µg/L	10	11/17/2005
Dibenzofuran	ND	200		µg/L	10	11/17/2005
1,2-Dichlorobenzene	ND	200		µg/L	10	11/17/2005
1,3-Dichlorobenzene	ND	200		µg/L	10	11/17/2005
1,4-Dichlorobenzene	ND	200		µg/L	10	11/17/2005
3,3'-Dichlorobenzidine	ND	300		µg/L	10	11/17/2005
Diethyl phthalate	ND	200		µg/L	10	11/17/2005
Dimethyl phthalate	ND	200		µg/L	10	11/17/2005
2,4-Dichlorophenol	ND	200		µg/L	10	11/17/2005
2,4-Dimethylphenol	ND	200		µg/L	10	11/17/2005
4,6-Dinitro-2-methylphenol	ND	1000		µg/L	10	11/17/2005
2,4-Dinitrophenol	ND	1000		µg/L	10	11/17/2005
2,4-Dinitrotoluene	ND	200		µg/L	10	11/17/2005
2,6-Dinitrotoluene	ND	200		µg/L	10	11/17/2005
Fluoranthene	ND	200		µg/L	10	11/17/2005
Fluorene	ND	200		µg/L	10	11/17/2005
Hexachlorobenzene	ND	200		µg/L	10	11/17/2005
Hexachlorobutadiene	ND	200		µg/L	10	11/17/2005
Hexachlorocyclopentadiene	ND	200		µg/L	10	11/17/2005
Hexachloroethane	ND	200		µg/L	10	11/17/2005
Indeno(1,2,3-cd)pyrene	ND	200		µg/L	10	11/17/2005
Isophorone	ND	200		µg/L	10	11/17/2005
2-Methylnaphthalene	ND	200		µg/L	10	11/17/2005
2-Methylphenol	ND	300		µg/L	10	11/17/2005

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

Hall Environmental Analysis Laboratory

Date: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-02

Client Sample ID: AL-2 to EP-1
Collection Date: 11/10/2005 5:35:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
3+4-Methylphenol	ND	400		µg/L	10	11/17/2005
N-Nitrosodi-n-propylamine	ND	200		µg/L	10	11/17/2005
N-Nitrosodimethylamine	ND	200		µg/L	10	11/17/2005
N-Nitrosodiphenylamine	ND	200		µg/L	10	11/17/2005
Naphthalene	ND	200		µg/L	10	11/17/2005
2-Nitroaniline	ND	1000		µg/L	10	11/17/2005
3-Nitroaniline	ND	1000		µg/L	10	11/17/2005
4-Nitroaniline	ND	400		µg/L	10	11/17/2005
Nitrobenzene	ND	200		µg/L	10	11/17/2005
2-Nitrophenol	ND	300		µg/L	10	11/17/2005
4-Nitrophenol	ND	1000		µg/L	10	11/17/2005
Pentachlorophenol	ND	1000		µg/L	10	11/17/2005
Phenanthrene	ND	200		µg/L	10	11/17/2005
Phenol	ND	200		µg/L	10	11/17/2005
Pyrene	ND	300		µg/L	10	11/17/2005
Pyridine	ND	600		µg/L	10	11/17/2005
1,2,4-Trichlorobenzene	ND	200		µg/L	10	11/17/2005
2,4,5-Trichlorophenol	ND	200		µg/L	10	11/17/2005
2,4,6-Trichlorophenol	ND	300		µg/L	10	11/17/2005
Surr: 2,4,6-Tribromophenol	93.2	16.6-150		%REC	10	11/17/2005
Surr: 2-Fluorobiphenyl	75.6	19.6-134		%REC	10	11/17/2005
Surr: 2-Fluorophenol	50.3	9.54-113		%REC	10	11/17/2005
Surr: 4-Terphenyl-d14	80.2	22.7-145		%REC	10	11/17/2005
Surr: Nitrobenzene-d5	68.0	14.6-134		%REC	10	11/17/2005
Surr: Phenol-d5	37.8	10.7-80.3		%REC	10	11/17/2005
EPA METHOD 245.1: MERCURY						Analyst: **CMC**
Mercury	0.0013	0.00020		mg/L	1	11/14/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **NMO**
Aluminum	0.73	0.020		mg/L	1	11/17/2005 11:22:15 AM
Antimony	ND	0.010		mg/L	1	11/17/2005 11:22:15 AM
Arsenic	ND	0.020		mg/L	1	11/17/2005 11:22:15 AM
Barium	0.11	0.020		mg/L	1	11/17/2005 11:22:15 AM
Beryllium	ND	0.0030		mg/L	1	11/17/2005 11:22:15 AM
Boron	0.21	0.040		mg/L	1	11/17/2005 11:22:15 AM
Cadmium	ND	0.0020		mg/L	1	11/17/2005 11:22:15 AM
Calcium	57	1.0		mg/L	1	11/17/2005 11:22:15 AM
Chromium	0.0081	0.0060		mg/L	1	11/17/2005 11:22:15 AM
Cobalt	0.0081	0.0060		mg/L	1	11/17/2005 11:22:15 AM
Copper	0.0071	0.0060		mg/L	1	11/17/2005 11:22:15 AM
Iron	7.5	1.0		mg/L	20	11/17/2005 1:05:59 PM
Lead	ND	0.0050		mg/L	1	11/17/2005 11:22:15 AM

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

Hall Environmental Analysis Laboratory

Date: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-02

Client Sample ID: AL-2 to EP-1
Collection Date: 11/10/2005 5:35:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Magnesium	14	1.0		mg/L	1	11/17/2005 11:22:15 AM
Manganese	0.27	0.0020		mg/L	1	11/17/2005 11:22:15 AM
Molybdenum	0.013	0.0080		mg/L	1	11/17/2005 11:22:15 AM
Nickel	0.022	0.010		mg/L	1	11/17/2005 11:22:15 AM
Potassium	34	1.0		mg/L	1	11/17/2005 11:22:15 AM
Selenium	ND	0.050		mg/L	1	11/17/2005 11:22:15 AM
Silver	ND	0.0050		mg/L	1	11/17/2005 11:22:15 AM
Sodium	650	20		mg/L	20	11/17/2005 1:05:59 PM
Thallium	ND	0.050		mg/L	1	11/17/2005 11:22:15 AM
Vanadium	ND	0.050		mg/L	1	11/17/2005 11:22:15 AM
Zinc	1.4	1.0		mg/L	20	11/17/2005 1:05:59 PM
Silica	21	5.4		mg/L	5	11/18/2005 12:53:53 PM

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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: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-03

Client Sample ID: EP-1 to EP-2
Collection Date: 11/10/2005 6:05:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 418.1: TPH						Analyst: JAT
Petroleum Hydrocarbons, TR	50	2.0		mg/L	1	11/16/2005
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	11	10		µg/L	10	11/16/2005
Toluene	20	10		µg/L	10	11/16/2005
Ethylbenzene	ND	10		µg/L	10	11/16/2005
Methyl tert-butyl ether (MTBE)	12	10		µg/L	10	11/16/2005
1,2,4-Trimethylbenzene	26	10		µg/L	10	11/16/2005
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2005
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2005
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2005
Naphthalene	42	20		µg/L	10	11/16/2005
1-Methylnaphthalene	50	40		µg/L	10	11/16/2005
2-Methylnaphthalene	52	40		µg/L	10	11/16/2005
Acetone	1600	100		µg/L	10	11/16/2005
Bromobenzene	ND	10		µg/L	10	11/16/2005
Bromochloromethane	ND	10		µg/L	10	11/16/2005
Bromodichloromethane	ND	10		µg/L	10	11/16/2005
Bromoform	ND	10		µg/L	10	11/16/2005
Bromomethane	ND	20		µg/L	10	11/16/2005
2-Butanone	220	100		µg/L	10	11/16/2005
Carbon disulfide	ND	100		µg/L	10	11/16/2005
Carbon Tetrachloride	ND	20		µg/L	10	11/16/2005
Chlorobenzene	ND	10		µg/L	10	11/16/2005
Chloroethane	ND	20		µg/L	10	11/16/2005
Chloroform	ND	10		µg/L	10	11/16/2005
Chloromethane	ND	10		µg/L	10	11/16/2005
2-Chlorotoluene	ND	10		µg/L	10	11/16/2005
4-Chlorotoluene	ND	10		µg/L	10	11/16/2005
cis-1,2-DCE	ND	10		µg/L	10	11/16/2005
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2005
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2005
Dibromochloromethane	ND	10		µg/L	10	11/16/2005
Dibromomethane	ND	20		µg/L	10	11/16/2005
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2005
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2005
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2005
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2005
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2005
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2005
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2005

Qualifiers:
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Hall Environmental Analysis Laboratory

Date: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-03

Client Sample ID: EP-1 to EP-2
Collection Date: 11/10/2005 6:05:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2005
2,2-Dichloropropane	ND	10		µg/L	10	11/16/2005
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2005
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2005
2-Hexanone	ND	100		µg/L	10	11/16/2005
Isopropylbenzene	ND	10		µg/L	10	11/16/2005
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2005
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2005
Methylene Chloride	ND	30		µg/L	10	11/16/2005
n-Butylbenzene	ND	10		µg/L	10	11/16/2005
n-Propylbenzene	ND	10		µg/L	10	11/16/2005
sec-Butylbenzene	ND	10		µg/L	10	11/16/2005
Styrene	ND	10		µg/L	10	11/16/2005
tert-Butylbenzene	ND	10		µg/L	10	11/16/2005
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2005
1,1,2,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2005
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2005
trans-1,2-DCE	ND	10		µg/L	10	11/16/2005
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2005
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2005
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2005
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2005
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2005
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2005
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2005
Vinyl chloride	ND	10		µg/L	10	11/16/2005
Xylenes, Total	29	10		µg/L	10	11/16/2005
Surr: 1,2-Dichloroethane-d4	96.7	69.9-130		%REC	10	11/16/2005
Surr: 4-Bromofluorobenzene	96.1	71.2-123		%REC	10	11/16/2005
Surr: Dibromofluoromethane	105	73.9-134		%REC	10	11/16/2005
Surr: Toluene-d8	114	81.9-122		%REC	10	11/16/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **BL**
Acenaphthene	ND	50		µg/L	1	11/17/2005
Acenaphthylene	ND	50		µg/L	1	11/17/2005
Aniline	ND	100		µg/L	1	11/17/2005
Anthracene	ND	50		µg/L	1	11/17/2005
Azobenzene	ND	50		µg/L	1	11/17/2005
Benz(a)anthracene	ND	75		µg/L	1	11/17/2005
Benzo(a)pyrene	ND	75		µg/L	1	11/17/2005
Benzo(b)fluoranthene	ND	75		µg/L	1	11/17/2005
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/17/2005

Qualifiers:
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E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-03

Client Sample ID: EP-1 to EP-2
Collection Date: 11/10/2005 6:05:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Benzo(k)fluoranthene	ND	50		µg/L	1	11/17/2005
Benzoic acid	ND	250		µg/L	1	11/17/2005
Benzyl alcohol	ND	100		µg/L	1	11/17/2005
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/17/2005
Bis(2-chloroethyl)ether	ND	75		µg/L	1	11/17/2005
Bis(2-chloroisopropyl)ether	ND	75		µg/L	1	11/17/2005
Bis(2-ethylhexyl)phthalate	ND	75		µg/L	1	11/17/2005
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/17/2005
Butyl benzyl phthalate	ND	75		µg/L	1	11/17/2005
Carbazole	ND	50		µg/L	1	11/17/2005
4-Chloro-3-methylphenol	ND	100		µg/L	1	11/17/2005
4-Chloroaniline	ND	100		µg/L	1	11/17/2005
2-Chloronaphthalene	ND	50		µg/L	1	11/17/2005
2-Chlorophenol	ND	50		µg/L	1	11/17/2005
4-Chlorophenyl phenyl ether	ND	75		µg/L	1	11/17/2005
Chrysene	ND	75		µg/L	1	11/17/2005
Di-n-butyl phthalate	ND	50		µg/L	1	11/17/2005
Di-n-octyl phthalate	ND	75		µg/L	1	11/17/2005
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/17/2005
Dibenzofuran	ND	50		µg/L	1	11/17/2005
1,2-Dichlorobenzene	ND	50		µg/L	1	11/17/2005
1,3-Dichlorobenzene	ND	50		µg/L	1	11/17/2005
1,4-Dichlorobenzene	ND	50		µg/L	1	11/17/2005
3,3'-Dichlorobenzidine	ND	75		µg/L	1	11/17/2005
Diethyl phthalate	ND	50		µg/L	1	11/17/2005
Dimethyl phthalate	ND	50		µg/L	1	11/17/2005
2,4-Dichlorophenol	ND	50		µg/L	1	11/17/2005
2,4-Dimethylphenol	65	50		µg/L	1	11/17/2005
4,6-Dinitro-2-methylphenol	ND	250		µg/L	1	11/17/2005
2,4-Dinitrophenol	ND	250		µg/L	1	11/17/2005
2,4-Dinitrotoluene	ND	50		µg/L	1	11/17/2005
2,6-Dinitrotoluene	ND	50		µg/L	1	11/17/2005
Fluoranthene	ND	50		µg/L	1	11/17/2005
Fluorene	53	50		µg/L	1	11/17/2005
Hexachlorobenzene	ND	50		µg/L	1	11/17/2005
Hexachlorobutadiene	ND	50		µg/L	1	11/17/2005
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/17/2005
Hexachloroethane	ND	50		µg/L	1	11/17/2005
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/17/2005
Isophorone	ND	50		µg/L	1	11/17/2005
2-Methylnaphthalene	98	50		µg/L	1	11/17/2005
2-Methylphenol	ND	75		µg/L	1	11/17/2005

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: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-03

Client Sample ID: EP-1 to EP-2
Collection Date: 11/10/2005 6:05:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
3+4-Methylphenol	ND	100		µg/L	1	11/17/2005
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/17/2005
N-Nitrosodimethylamine	ND	50		µg/L	1	11/17/2005
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/17/2005
Naphthalene	ND	50		µg/L	1	11/17/2005
2-Nitroaniline	ND	250		µg/L	1	11/17/2005
3-Nitroaniline	ND	250		µg/L	1	11/17/2005
4-Nitroaniline	ND	100		µg/L	1	11/17/2005
Nitrobenzene	ND	50		µg/L	1	11/17/2005
2-Nitrophenol	ND	75		µg/L	1	11/17/2005
4-Nitrophenol	ND	250		µg/L	1	11/17/2005
Pentachlorophenol	ND	250		µg/L	1	11/17/2005
Phenanthrene	110	50		µg/L	1	11/17/2005
Phenol	67	50		µg/L	1	11/17/2005
Pyrene	ND	75		µg/L	1	11/17/2005
Pyridine	ND	150		µg/L	1	11/17/2005
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/17/2005
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/17/2005
2,4,6-Trichlorophenol	ND	75		µg/L	1	11/17/2005
Surr: 2,4,6-Tribromophenol	87.2	16.6-150		%REC	1	11/17/2005
Surr: 2-Fluorobiphenyl	72.4	19.6-134		%REC	1	11/17/2005
Surr: 2-Fluorophenol	46.8	9.54-113		%REC	1	11/17/2005
Surr: 4-Terphenyl-d14	78.1	22.7-145		%REC	1	11/17/2005
Surr: Nitrobenzene-d5	66.9	14.6-134		%REC	1	11/17/2005
Surr: Phenol-d5	35.4	10.7-80.3		%REC	1	11/17/2005
EPA METHOD 245.1: MERCURY						Analyst: **CMC**
Mercury	0.00097	0.00020		mg/L	1	11/14/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: **NMO**
Aluminum	0.37	0.020		mg/L	1	11/17/2005 11:25:32 AM
Antimony	ND	0.010		mg/L	1	11/17/2005 11:25:32 AM
Arsenic	ND	0.020		mg/L	1	11/17/2005 11:25:32 AM
Barium	0.081	0.020		mg/L	1	11/17/2005 11:25:32 AM
Beryllium	ND	0.0030		mg/L	1	11/17/2005 11:25:32 AM
Boron	0.22	0.040		mg/L	1	11/17/2005 11:25:32 AM
Cadmium	ND	0.0020		mg/L	1	11/17/2005 11:25:32 AM
Calcium	56	1.0		mg/L	1	11/17/2005 11:25:32 AM
Chromium	0.0074	0.0060		mg/L	1	11/17/2005 11:25:32 AM
Cobalt	ND	0.0060		mg/L	1	11/17/2005 11:25:32 AM
Copper	0.0067	0.0060		mg/L	1	11/17/2005 11:25:32 AM
Iron	6.2	1.0		mg/L	20	11/17/2005 1:08:12 PM
Lead	ND	0.0050		mg/L	1	11/17/2005 11:25:32 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: *22-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511125
Project: Split samples w/OCD on Old API Sep
Lab ID: 0511125-03

Client Sample ID: EP-1 to EP-2
Collection Date: 11/10/2005 6:05:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Magnesium	16	1.0		mg/L	1	11/17/2005 11:25:32 AM
Manganese	0.30	0.0020		mg/L	1	11/17/2005 11:25:32 AM
Molybdenum	ND	0.0080		mg/L	1	11/17/2005 11:25:32 AM
Nickel	0.016	0.010		mg/L	1	11/17/2005 11:25:32 AM
Potassium	40	1.0		mg/L	1	11/17/2005 11:25:32 AM
Selenium	ND	0.050		mg/L	1	11/17/2005 11:25:32 AM
Silver	ND	0.0050		mg/L	1	11/17/2005 11:25:32 AM
Sodium	800	20		mg/L	20	11/17/2005 1:08:12 PM
Thallium	ND	0.050		mg/L	1	11/17/2005 11:25:32 AM
Vanadium	ND	0.050		mg/L	1	11/17/2005 11:25:32 AM
Zinc	0.97	0.050		mg/L	1	11/17/2005 11:25:32 AM
Silica	20	5.4		mg/L	5	11/18/2005 12:51:39 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: 22-Nov-05

CLIENT: Giant Refining Co
Work Order: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT

Method Blank

Sample ID MB-9185 | Batch ID: 9185 | Test Code: SW8270C | Units: µg/L | Analysis Date 11/17/2005 | Prep Date 11/14/2005

Client ID: | Run ID: ELMO_051117A | SeqNo: 424365

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	20									
Anthracene	ND	10									
Azobenzene	ND	10									
Benz(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									
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									

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: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT
Method Blank

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
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	20
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

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: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT
Method Blank

2-Nitrophenol	ND	15						
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	145.7	0	200	0	72.9	16.6	150	0
Surr: 2-Fluorobiphenyl	70.68	0	100	0	70.7	19.6	134	0
Surr: 2-Fluorophenol	114.8	0	200	0	57.4	9.54	113	0
Surr: 4-Terphenyl-d14	88.34	0	100	0	88.3	22.7	145	0
Surr: Nitrobenzene-d5	67.28	0	100	0	67.3	14.6	134	0
Surr: Phenol-d5	73.12	0	200	0	36.6	10.7	80.3	0

Sample ID MB-9184 Batch ID: 9184 Test Code: SW7470 Units: mg/L Analysis Date 11/14/2005 Prep Date 11/14/2005
Client ID: Run ID: MI-LA254_051114A SeqNo: 422036

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

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: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT

Method Blank

Sample ID MB-9199 | Batch ID: 9199 | Test Code: SW6010A | Units: mg/L | Analysis Date 11/17/2005 11:00:56 A | Prep Date 11/15/2005

Client ID: | Run ID: ICP_051117A | SeqNo: 423291

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.02									
Antimony	ND	0.01									
Arsenic	ND	0.02									
Barium	ND	0.02									
Beryllium	ND	0.003									
Boron	0.009077	0.04									J
Cadmium	0.0003728	0.002									J
Calcium	ND	1									
Chromium	ND	0.006									
Cobalt	ND	0.006									
Copper	ND	0.006									
Iron	ND	0.05									
Lead	ND	0.005									
Magnesium	ND	1									
Manganese	0.0004479	0.002									J
Molybdenum	ND	0.008									
Nickel	ND	0.01									
Potassium	ND	1									
Selenium	ND	0.05									
Silver	0.0004823	0.005									J
Sodium	ND	1									
Thallium	ND	0.05									
Vanadium	ND	0.05									
Zinc	0.001187	0.05									J
Silica	ND	1.1									

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

Hall Environmental Analysis Laboratory

Date: 22-Nov-05

CLIENT: Giant Refining Co
Work Order: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT

Method Blank

Sample ID 5ml rb | Batch ID: R17297 | Test Code: SW8260B | Units: µg/L | Analysis Date 11/15/2005 | Prep Date

Client ID: | Run ID: THOR_051115A | SeqNo: 422319

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	0.506	1									J
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	2									
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 | I

CLIENT: Giant Refining Co
Work Order: 0511125
Project: Split samples w/OCD on Old API Sep

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
1,1,2,2-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

CLIENT: Giant Refining Co
Work Order: 0511125
Project: Split samples w/OCD on Old API Sep

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	10.46	0	10	0	105	69.9	130	0
Surr: 4-Bromofluorobenzene	10.26	0	10	0	103	71.2	123	0
Surr: Dibromofluoromethane	11.42	0	10	0	114	73.9	134	0
Surr: Toluene-d8	11.03	0	10	0	110	81.9	122	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

CLIENT: Giant Refining Co
Work Order: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT

Method Blank

Sample ID 5mL rb | Batch ID: R17344 | Test Code: SW8260B | Units: µg/L | Analysis Date 11/17/2005 | Prep Date
Client ID: | Run ID: NEPTUNE_051117A | SeqNo: 423631

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	2									
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									
cis-1,3-Dichloropropene	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

CLIENT: Giant Refining Co
Work Order: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT

Method Blank

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
1,1,2-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

CLIENT: Giant Refining Co
Work Order: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT

Method Blank

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	8.928	0	10	0	89.3	69.9	130	0
Surr: 4-Bromofluorobenzene	9.004	0	10	0	90.0	71.2	123	0
Surr: Dibromofluoromethane	8.604	0	10	0	86.0	73.9	134	0
Surr: Toluene-d8	9.728	0	10	0	97.3	81.9	122	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: 22-Nov-05

CLIENT: Giant Refining Co
Work Order: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID 100ng lcs | Batch ID: R17297 | Test Code: SW8260B | Units: µg/L | Analysis Date 11/15/2005 | Prep Date
Client ID: | Run ID: THOR_051115A | SeqNo: 422320

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.87	1	20	0	99.4	79.3	136	0			
Toluene	21.12	1	20	0	106	65.5	123	0			
Chlorobenzene	20.12	1	20	0	101	85.6	126	0			
1,1-Dichloroethene	22.63	1	20	0	113	72.7	135	0			
Trichloroethene (TCE)	20.67	1	20	0	103	85.6	119	0			

Sample ID 100ng lcsd | Batch ID: R17297 | Test Code: SW8260B | Units: µg/L | Analysis Date 11/16/2005 | Prep Date
Client ID: | Run ID: THOR_051115A | SeqNo: 422545

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.45	1	20	0	107	81.4	130	19.87	7.62	11	
Toluene	20.43	1	20	0	102	65.5	123	21.12	3.33	12.2	
Chlorobenzene	19.96	1	20	0	99.8	89.6	134	20.12	0.808	12	
1,1-Dichloroethene	22.16	1	20	0	111	75.1	120	22.63	2.07	19.3	
Trichloroethene (TCE)	19.96	1	20	0	99.8	75.8	110	20.67	3.52	15.5	

Sample ID 100ng lcs | Batch ID: R17344 | Test Code: SW8260B | Units: µg/L | Analysis Date 11/17/2005 | Prep Date
Client ID: | Run ID: NEPTUNE_051117A | SeqNo: 423632

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.77	1	20	0	104	79.3	136	0			
Toluene	20.54	1	20	0	103	65.5	123	0			
Chlorobenzene	20.81	1	20	0	104	85.6	126	0			
1,1-Dichloroethene	22.16	1	20	0	111	72.7	135	0			
Trichloroethene (TCE)	19.43	1	20	0	97.1	85.6	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

CLIENT: Giant Refining Co
Work Order: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **LCS-9185** Batch ID: **9185** Test Code: **SW8270C** Units: **µg/L** Analysis Date **11/17/2005** Prep Date **11/14/2005**
Client ID: Run ID: **ELMO_051117A** SeqNo: **424366**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	75.72	10	100	0	75.7	11	123	0			
4-Chloro-3-methylphenol	140.7	20	200	0	70.4	15.4	119	0			
2-Chlorophenol	141	10	200	0	70.5	12.2	122	0			
1,4-Dichlorobenzene	68.12	10	100	0	68.1	16.9	100	0			
2,4-Dinitrotoluene	71.96	10	100	0	72.0	13	138	0			
N-Nitrosodi-n-propylamine	68.28	10	100	0	68.3	9.93	122	0			
4-Nitrophenol	87.36	50	200	0	43.7	-20.5	87.4	0			
Pentachlorophenol	129.2	50	200	0	64.6	-0.355	114	0			
Phenol	76.18	10	200	0	38.1	7.53	73.1	0			
Pyrene	80.9	15	100	0	80.9	12.6	140	0			
1,2,4-Trichlorobenzene	66.78	10	100	0	66.8	17.4	98.7	0			

Sample ID **LCSD-9185** Batch ID: **9185** Test Code: **SW8270C** Units: **µg/L** Analysis Date **11/17/2005** Prep Date **11/14/2005**
Client ID: Run ID: **ELMO_051117A** SeqNo: **424368**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	75.94	10	100	0	75.9	11	123	75.72	0.290	30.5	
4-Chloro-3-methylphenol	145.9	20	200	0	72.9	15.4	119	140.7	3.60	28.6	
2-Chlorophenol	128.1	10	200	0	64.0	12.2	122	141	9.59	107	
1,4-Dichlorobenzene	59.16	10	100	0	59.2	16.9	100	68.12	14.1	62.1	
2,4-Dinitrotoluene	71.68	10	100	0	71.7	13	138	71.96	0.390	14.7	
N-Nitrosodi-n-propylamine	66.94	10	100	0	66.9	9.93	122	68.28	1.98	30.3	
4-Nitrophenol	56.1	50	200	0	28.1	12.5	87.4	87.36	43.6	36.3	R
Pentachlorophenol	74.34	50	200	0	37.2	3.55	114	129.2	53.9	49	R
Phenol	75.02	10	200	0	37.5	7.53	73.1	76.18	1.53	52.4	
Pyrene	82.6	15	100	0	82.6	12.6	140	80.9	2.08	16.3	
1,2,4-Trichlorobenzene	62.1	10	100	0	62.1	17.4	98.7	66.78	7.26	36.4	

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: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-9184 | Batch ID: 9184 | Test Code: SW7470 | Units: mg/L | Analysis Date 11/14/2005 | Prep Date 11/14/2005
Client ID: | Run ID: MI-LA254_051114A | SeqNo: 422037

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004712	0.0002	0.005	0	94.2	80	120	0			

Sample ID LCSD-9184 | Batch ID: 9184 | Test Code: SW7470 | Units: mg/L | Analysis Date 11/14/2005 | Prep Date 11/14/2005
Client ID: | Run ID: MI-LA254_051114A | SeqNo: 422051

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004592	0.0002	0.005	0	91.8	80	120	0.004712	2.59	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: Giant Refining Co
Work Order: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-9199 | Batch ID: 9199 | Test Code: SW6010A | Units: mg/L | Analysis Date 11/17/2005 11:03:34 A | Prep Date 11/15/2005
Client ID: | Run ID: ICP_051117A | SeqNo: 423292

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.4958	0.02	0.5	0	99.2	80	120	0			
Antimony	0.4905	0.01	0.5	0	98.1	80	120	0			
Arsenic	0.478	0.02	0.5	0	95.6	80	120	0			
Barium	0.467	0.02	0.5	0	93.4	80	120	0			
Beryllium	0.4998	0.003	0.5	0	100	80	120	0			
Boron	0.4865	0.04	0.5	0.009077	95.5	80	120	0			
Cadmium	0.4706	0.002	0.5	0.0003728	94.1	80	120	0			
Calcium	52.36	1	50	0	105	80	120	0			
Chromium	0.4743	0.006	0.5	0	94.9	80	120	0			
Cobalt	0.4658	0.006	0.5	0	93.2	80	120	0			
Copper	0.4923	0.006	0.5	0	98.5	80	120	0			
Iron	0.4631	0.05	0.5	0	92.6	80	120	0			
Lead	0.4736	0.005	0.5	0	94.7	80	120	0			
Magnesium	52.77	1	50	0	106	80	120	0			
Manganese	0.4631	0.002	0.5	0.0004479	92.5	80	120	0			
Molybdenum	0.4934	0.008	0.5	0	98.7	80	120	0			
Nickel	0.455	0.01	0.5	0	91.0	80	120	0			
Potassium	55.53	1	50	0	111	80	120	0			
Selenium	0.4616	0.05	0.5	0	92.3	80	120	0			
Silver	0.4803	0.005	0.5	0.0004823	96.0	80	120	0			
Sodium	56.54	1	50	0	113	80	120	0			
Thallium	0.5019	0.05	0.5	0	100	80	120	0			
Vanadium	0.4881	0.05	0.5	0	97.6	80	120	0			
Zinc	0.4585	0.05	0.5	0.001187	91.5	80	120	0			
Silica	4.802	1.1	5.35	0	89.8	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: Giant Refining Co
Work Order: 0511125
Project: Split samples w/OCD on Old API Sep

QC SUMMARY REPORT
Laboratory Control Spike Duplicate

Sample ID **LCSD-9199** Batch ID: **9199** Test Code: **SW6010A** Units: mg/L Analysis Date **11/17/2005 11:06:32 A** Prep Date **11/15/2005**
Client ID: Run ID: **ICP_051117A** SeqNo: **423293**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.5036	0.02	0.5	0	101	80	120	0.4958	1.58	20	
Antimony	0.483	0.01	0.5	0	96.6	80	120	0.4905	1.55	20	
Arsenic	0.4825	0.02	0.5	0	96.5	80	120	0.478	0.949	20	
Barium	0.4685	0.02	0.5	0	93.7	80	120	0.467	0.312	20	
Beryllium	0.4968	0.003	0.5	0	99.4	80	120	0.4998	0.604	20	
Boron	0.4937	0.04	0.5	0.009077	96.9	80	120	0.4865	1.47	20	
Cadmium	0.471	0.002	0.5	0.0003728	94.1	80	120	0.4706	0.0773	20	
Calcium	51.81	1	50	0	104	80	120	52.36	1.06	20	
Chromium	0.4733	0.006	0.5	0	94.7	80	120	0.4743	0.210	20	
Cobalt	0.4606	0.006	0.5	0	92.1	80	120	0.4658	1.13	20	
Copper	0.4937	0.006	0.5	0	98.7	80	120	0.4923	0.273	20	
Iron	0.4673	0.05	0.5	0	93.5	80	120	0.4631	0.891	20	
Lead	0.4725	0.005	0.5	0	94.5	80	120	0.4736	0.235	20	
Magnesium	52.4	1	50	0	105	80	120	52.77	0.688	20	
Manganese	0.4655	0.002	0.5	0.0004479	93.0	80	120	0.4631	0.505	20	
Molybdenum	0.4905	0.008	0.5	0	98.1	80	120	0.4934	0.585	20	
Nickel	0.456	0.01	0.5	0	91.2	80	120	0.455	0.224	20	
Potassium	55.08	1	50	0	110	80	120	55.53	0.809	20	
Selenium	0.4647	0.05	0.5	0	92.9	80	120	0.4616	0.672	20	
Silver	0.4843	0.005	0.5	0.0004823	96.8	80	120	0.4803	0.834	20	
Sodium	56.4	1	50	0	113	80	120	56.54	0.239	20	
Thallium	0.4935	0.05	0.5	0	98.7	80	120	0.5019	1.69	20	
Vanadium	0.4911	0.05	0.5	0	98.2	80	120	0.4881	0.615	20	
Zinc	0.4746	0.05	0.5	0.001187	94.7	80	120	0.4585	3.44	20	
Silica	4.866	1.1	5.35	0	91.0	80	120	4.802	1.32	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: 11/11/2005

Work Order Number 0511125

Received by AT

Checklist completed by

Signature

Date 11/11/05

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? 4° *4° C ± 2 Acceptable*
If given sufficient time to cool.

COMMENTS:

Client contacted Date contacted: Person contacted

Contacted by: Regarding

Comments:

Corrective Action

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other:

Client: Giant Refining Company - Ciniza
Address: Route 3 Box 7 Gallup, NM 87301
Phone #: 505 722 3833
Fax #: 505 722 0210

Project Name: Split Samples with OCD on Old API separator, AL-2 to EP-1, and EP-1 to EP-2
Project #:
Project Manager: Steve Morris
Sampler: Steve Morris
Sample Temperature: 4°

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3		HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA) (Base Neutral)	6010 Metals OCD	7470 Hg			Air Bubbles or Headspace (Y or N)
11-10-05	1720	H_2O	Old API Sep.	6 each				051125-1				X							X	X	X	X			
"	1735	"	AL-2 to EP-1	6 each				-2				X							X	X	X	X			
"	1805	"	EP-1 to EP-2	6 each				-3				X							X	X	X	X			

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	
11-11-05	1435	Steve Morris	[signature]	11/11/05
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	1435

Remarks: RUSH

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

November 21, 2005

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

RE: Water at Condensate Return Tank Order No.: 0511124

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 1 sample on 11/11/2005 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: *21-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511124
Project: Water at Condensate Return Tank
Lab ID: 0511124-01

Client Sample ID: Condensate Leak
Collection Date: 11/11/2005 10:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MAP**
Fluoride	ND	0.10		mg/L	1	11/12/2005
Chloride	0.11	0.10		mg/L	1	11/12/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/12/2005
Nitrogen, Nitrate (As N)	0.16	0.10		mg/L	1	11/12/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/12/2005
Sulfate	ND	0.50		mg/L	1	11/12/2005
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	ND	1.0		µg/L	1	11/16/2005
Toluene	ND	1.0		µg/L	1	11/16/2005
Ethylbenzene	ND	1.0		µg/L	1	11/16/2005
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/16/2005
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/16/2005
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/16/2005
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/16/2005
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/16/2005
Naphthalene	ND	2.0		µg/L	1	11/16/2005
1-Methylnaphthalene	ND	4.0		µg/L	1	11/16/2005
2-Methylnaphthalene	ND	4.0		µg/L	1	11/16/2005
Acetone	ND	10		µg/L	1	11/16/2005
Bromobenzene	ND	1.0		µg/L	1	11/16/2005
Bromochloromethane	ND	1.0		µg/L	1	11/16/2005
Bromodichloromethane	ND	1.0		µg/L	1	11/16/2005
Bromoform	ND	1.0		µg/L	1	11/16/2005
Bromomethane	ND	2.0		µg/L	1	11/16/2005
2-Butanone	ND	10		µg/L	1	11/16/2005
Carbon disulfide	ND	10		µg/L	1	11/16/2005
Carbon Tetrachloride	ND	2.0		µg/L	1	11/16/2005
Chlorobenzene	ND	1.0		µg/L	1	11/16/2005
Chloroethane	ND	2.0		µg/L	1	11/16/2005
Chloroform	ND	1.0		µg/L	1	11/16/2005
Chloromethane	ND	1.0		µg/L	1	11/16/2005
2-Chlorotoluene	ND	1.0		µg/L	1	11/16/2005
4-Chlorotoluene	ND	1.0		µg/L	1	11/16/2005
cis-1,2-DCE	ND	1.0		µg/L	1	11/16/2005
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/16/2005
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/16/2005
Dibromochloromethane	ND	1.0		µg/L	1	11/16/2005
Dibromomethane	ND	2.0		µg/L	1	11/16/2005
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/16/2005
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/16/2005

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: *21-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511124
Project: Water at Condensate Return Tank
Lab ID: 0511124-01

Client Sample ID: Condensate Leak
Collection Date: 11/11/2005 10:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/16/2005
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/16/2005
1,1-Dichloroethane	ND	1.0		µg/L	1	11/16/2005
1,1-Dichloroethene	ND	1.0		µg/L	1	11/16/2005
1,2-Dichloropropane	ND	1.0		µg/L	1	11/16/2005
1,3-Dichloropropane	ND	1.0		µg/L	1	11/16/2005
2,2-Dichloropropane	ND	1.0		µg/L	1	11/16/2005
1,1-Dichloropropene	ND	1.0		µg/L	1	11/16/2005
Hexachlorobutadiene	ND	1.0		µg/L	1	11/16/2005
2-Hexanone	ND	10		µg/L	1	11/16/2005
Isopropylbenzene	ND	1.0		µg/L	1	11/16/2005
4-Isopropyltoluene	ND	1.0		µg/L	1	11/16/2005
4-Methyl-2-pentanone	ND	10		µg/L	1	11/16/2005
Methylene Chloride	ND	3.0		µg/L	1	11/16/2005
n-Butylbenzene	ND	1.0		µg/L	1	11/16/2005
n-Propylbenzene	ND	1.0		µg/L	1	11/16/2005
sec-Butylbenzene	ND	1.0		µg/L	1	11/16/2005
Styrene	ND	1.0		µg/L	1	11/16/2005
tert-Butylbenzene	ND	1.0		µg/L	1	11/16/2005
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/16/2005
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	11/16/2005
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/16/2005
trans-1,2-DCE	ND	1.0		µg/L	1	11/16/2005
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/16/2005
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/16/2005
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/16/2005
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/16/2005
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/16/2005
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/16/2005
Trichlorofluoromethane	ND	1.0		µg/L	1	11/16/2005
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/16/2005
Vinyl chloride	ND	1.0		µg/L	1	11/16/2005
Xylenes, Total	ND	1.0		µg/L	1	11/16/2005
Surr: 1,2-Dichloroethane-d4	103	69.9-130		%REC	1	11/16/2005
Surr: 4-Bromofluorobenzene	107	71.2-123		%REC	1	11/16/2005
Surr: Dibromofluoromethane	104	73.9-134		%REC	1	11/16/2005
Surr: Toluene-d8	104	81.9-122		%REC	1	11/16/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	11/17/2005
Acenaphthylene	ND	10		µg/L	1	11/17/2005
Aniline	ND	20		µg/L	1	11/17/2005
Anthracene	ND	10		µg/L	1	11/17/2005

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: *21-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511124
Project: Water at Condensate Return Tank
Lab ID: 0511124-01

Client Sample ID: Condensate Leak
Collection Date: 11/11/2005 10:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Azobenzene	ND	10		µg/L	1	11/17/2005
Benz(a)anthracene	ND	15		µg/L	1	11/17/2005
Benzo(a)pyrene	ND	15		µg/L	1	11/17/2005
Benzo(b)fluoranthene	ND	15		µg/L	1	11/17/2005
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/17/2005
Benzo(k)fluoranthene	ND	10		µg/L	1	11/17/2005
Benzoic acid	ND	50		µg/L	1	11/17/2005
Benzyl alcohol	ND	20		µg/L	1	11/17/2005
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/17/2005
Bis(2-chloroethyl)ether	ND	15		µg/L	1	11/17/2005
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	11/17/2005
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	11/17/2005
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/17/2005
Butyl benzyl phthalate	ND	15		µg/L	1	11/17/2005
Carbazole	ND	10		µg/L	1	11/17/2005
4-Chloro-3-methylphenol	ND	20		µg/L	1	11/17/2005
4-Chloroaniline	ND	20		µg/L	1	11/17/2005
2-Chloronaphthalene	ND	10		µg/L	1	11/17/2005
2-Chlorophenol	ND	10		µg/L	1	11/17/2005
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	11/17/2005
Chrysene	ND	15		µg/L	1	11/17/2005
Di-n-butyl phthalate	ND	10		µg/L	1	11/17/2005
Di-n-octyl phthalate	ND	15		µg/L	1	11/17/2005
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/17/2005
Dibenzofuran	ND	10		µg/L	1	11/17/2005
1,2-Dichlorobenzene	ND	10		µg/L	1	11/17/2005
1,3-Dichlorobenzene	ND	10		µg/L	1	11/17/2005
1,4-Dichlorobenzene	ND	10		µg/L	1	11/17/2005
3,3'-Dichlorobenzidine	ND	15		µg/L	1	11/17/2005
Diethyl phthalate	ND	10		µg/L	1	11/17/2005
Dimethyl phthalate	ND	10		µg/L	1	11/17/2005
2,4-Dichlorophenol	ND	10		µg/L	1	11/17/2005
2,4-Dimethylphenol	ND	10		µg/L	1	11/17/2005
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	11/17/2005
2,4-Dinitrophenol	ND	50		µg/L	1	11/17/2005
2,4-Dinitrotoluene	ND	10		µg/L	1	11/17/2005
2,6-Dinitrotoluene	ND	10		µg/L	1	11/17/2005
Fluoranthene	ND	10		µg/L	1	11/17/2005
Fluorene	ND	10		µg/L	1	11/17/2005
Hexachlorobenzene	ND	10		µg/L	1	11/17/2005
Hexachlorobutadiene	ND	10		µg/L	1	11/17/2005
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/17/2005

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: *21-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511124
Project: Water at Condensate Return Tank
Lab ID: 0511124-01

Client Sample ID: Condensate Leak
Collection Date: 11/11/2005 10:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hexachloroethane	ND	10		µg/L	1	11/17/2005
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/17/2005
Isophorone	ND	10		µg/L	1	11/17/2005
2-Methylnaphthalene	ND	10		µg/L	1	11/17/2005
2-Methylphenol	ND	15		µg/L	1	11/17/2005
3+4-Methylphenol	ND	20		µg/L	1	11/17/2005
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/17/2005
N-Nitrosodimethylamine	ND	10		µg/L	1	11/17/2005
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/17/2005
Naphthalene	ND	10		µg/L	1	11/17/2005
2-Nitroaniline	ND	50		µg/L	1	11/17/2005
3-Nitroaniline	ND	50		µg/L	1	11/17/2005
4-Nitroaniline	ND	20		µg/L	1	11/17/2005
Nitrobenzene	ND	10		µg/L	1	11/17/2005
2-Nitrophenol	ND	15		µg/L	1	11/17/2005
4-Nitrophenol	ND	50		µg/L	1	11/17/2005
Pentachlorophenol	ND	50		µg/L	1	11/17/2005
Phenanthrene	ND	10		µg/L	1	11/17/2005
Phenol	ND	10		µg/L	1	11/17/2005
Pyrene	ND	15		µg/L	1	11/17/2005
Pyridine	ND	30		µg/L	1	11/17/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/17/2005
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/17/2005
2,4,6-Trichlorophenol	ND	15		µg/L	1	11/17/2005
Surr: 2,4,6-Tribromophenol	70.8	16.6-150		%REC	1	11/17/2005
Surr: 2-Fluorobiphenyl	61.1	19.6-134		%REC	1	11/17/2005
Surr: 2-Fluorophenol	49.0	9.54-113		%REC	1	11/17/2005
Surr: 4-Terphenyl-d14	76.1	22.7-145		%REC	1	11/17/2005
Surr: Nitrobenzene-d5	57.8	14.6-134		%REC	1	11/17/2005
Surr: Phenol-d5	32.4	10.7-80.3		%REC	1	11/17/2005
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	37	0.010		µmhos/cm	1	11/17/2005
EPA METHOD 245.1: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	11/14/2005
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	11/17/2005 11:16:14 AM
Barium	0.051	0.020		mg/L	1	11/17/2005 11:16:14 AM
Cadmium	ND	0.0020		mg/L	1	11/17/2005 11:16:14 AM
Calcium	4.6	1.0		mg/L	1	11/17/2005 11:16:14 AM
Chromium	ND	0.0060		mg/L	1	11/17/2005 11:16:14 AM
Lead	ND	0.0050		mg/L	1	11/17/2005 11:16:14 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: *21-Nov-05*

CLIENT: Giant Refining Co
Lab Order: 0511124
Project: Water at Condensate Return Tank
Lab ID: 0511124-01

Client Sample ID: Condensate Leak
Collection Date: 11/11/2005 10:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Magnesium	ND	1.0		mg/L	1	11/17/2005 11:16:14 AM
Potassium	ND	1.0		mg/L	1	11/17/2005 11:16:14 AM
Selenium	ND	0.050		mg/L	1	11/17/2005 11:16:14 AM
Silver	ND	0.0050		mg/L	1	11/17/2005 11:16:14 AM
Sodium	ND	1.0		mg/L	1	11/17/2005 11:16:14 AM
EPA METHOD 150.1: PH						Analyst: TES
pH	8.53	0.010		pH units	1	11/18/2005

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: 21-Nov-05

CLIENT: Giant Refining Co
Work Order: 0511124
Project: Water at Condensate Return Tank

QC SUMMARY REPORT

Method Blank

Sample ID **MBLK** Batch ID: **R17278** Test Code: **E300** Units: mg/L Analysis Date **11/11/2005** Prep Date

Client ID: Run ID: **LC_051111A** SeqNo: **421730**

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									
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

CLIENT: Giant Refining Co
Work Order: 0511124
Project: Water at Condensate Return Tank

QC SUMMARY REPORT

Method Blank

Sample ID **MB-9185** Batch ID: **9185** Test Code: **SW8270C** Units: **µg/L** Analysis Date **11/17/2005** Prep Date **11/14/2005**

Client ID: Run ID: **ELMO_051117A** SeqNo: **424365**

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	20									
Anthracene	ND	10									
Azobenzene	ND	10									
Benz(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									
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: Giant Refining Co
Work Order: 0511124
Project: Water at Condensate Return Tank

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	20
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

CLIENT: Giant Refining Co
Work Order: 0511124
Project: Water at Condensate Return Tank

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	145.7	0	200	0	72.9	16.6	150	0
Surr: 2-Fluorobiphenyl	70.68	0	100	0	70.7	19.6	134	0
Surr: 2-Fluorophenol	114.8	0	200	0	57.4	9.54	113	0
Surr: 4-Terphenyl-d14	88.34	0	100	0	88.3	22.7	145	0
Surr: Nitrobenzene-d5	67.28	0	100	0	67.3	14.6	134	0
Surr: Phenol-d5	73.12	0	200	0	36.6	10.7	80.3	0

Sample ID **MB-9184** Batch ID: **9184** Test Code: **SW7470** Units: **mg/L** Analysis Date **11/14/2005** Prep Date **11/14/2005**

Client ID: Run ID: **MI-LA254_051114A** SeqNo: **422036**

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

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: 0511124
Project: Water at Condensate Return Tank

QC SUMMARY REPORT

Method Blank

Sample ID MB-9199 | Batch ID: 9199 | Test Code: SW6010A | Units: mg/L | Analysis Date 11/17/2005 11:00:56 A | Prep Date 11/15/2005

Client ID: | Run ID: ICP_051117A | SeqNo: 423291

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	0.0003728	0.002									J
Calcium	ND	1									
Chromium	ND	0.006									
Lead	ND	0.005									
Magnesium	ND	1									
Potassium	ND	1									
Selenium	ND	0.05									
Silver	0.0004823	0.005									J
Sodium	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

Hall Environmental Analysis Laboratory

Date: 21-Nov-05

CLIENT: Giant Refining Co
Work Order: 0511124
Project: Water at Condensate Return Tank

QC SUMMARY REPORT

Method Blank

Sample ID 5ml rb | Batch ID: R17297 | Test Code: SW8260B | Units: µg/L | Analysis Date 11/15/2005 | Prep Date

Client ID: | Run ID: THOR_051115A | SeqNo: 422319

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	0.506	1									J
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	2									
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

CLIENT: Giant Refining Co
Work Order: 0511124
Project: Water at Condensate Return Tank

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
1,1,2,2-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

CLIENT: Giant Refining Co
Work Order: 0511124
Project: Water at Condensate Return Tank

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	10.46	0	10	0	105	69.9	130	0
Surr: 4-Bromofluorobenzene	10.26	0	10	0	103	71.2	123	0
Surr: Dibromofluoromethane	11.42	0	10	0	114	73.9	134	0
Surr: Toluene-d8	11.03	0	10	0	110	81.9	122	0

13/19

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: *21-Nov-05*

CLIENT: Giant Refining Co
Work Order: 0511124
Project: Water at Condensate Return Tank

QC SUMMARY REPORT

Sample Duplicate

Sample ID **0511124-01C DUP** Batch ID: **R17347** Test Code: **E150.1** Units: **pH units** Analysis Date **11/18/2005** Prep Date

Client ID: **Condensate Leak** Run ID: **WC_051117G** SeqNo: **423683**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	8.49	0.01	0	0	0	0	0	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: 21-Nov-05

CLIENT: Giant Refining Co
Work Order: 0511124
Project: Water at Condensate Return Tank

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-ST300-05023 Batch ID: R17278 Test Code: E300 Units: mg/L Analysis Date 11/11/2005 Prep Date
Client ID: Run ID: LC_051111A SeqNo: 421731

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4869	0.1	0.5	0	97.4	90	110	0			
Chloride	4.634	0.1	5	0	92.7	90	110	0			
Nitrogen, Nitrite (As N)	0.9198	0.1	1	0	92.0	90	110	0			
Nitrogen, Nitrate (As N)	2.388	0.1	2.5	0	95.5	90	110	0			
Phosphorus, Orthophosphate (As P)	4.837	0.5	5	0	96.7	90	110	0			
Sulfate	9.668	0.5	10	0	96.7	90	110	0			

Sample ID 100ng lcs Batch ID: R17297 Test Code: SW8260B Units: µg/L Analysis Date 11/15/2005 Prep Date
Client ID: Run ID: THOR_051115A SeqNo: 422320

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.87	1	20	0	99.4	79.3	136	0			
Toluene	21.12	1	20	0	106	65.5	123	0			
Chlorobenzene	20.12	1	20	0	101	85.6	126	0			
1,1-Dichloroethene	22.63	1	20	0	113	72.7	135	0			
Trichloroethene (TCE)	20.67	1	20	0	103	85.6	119	0			

Sample ID 100ng lcsd Batch ID: R17297 Test Code: SW8260B Units: µg/L Analysis Date 11/16/2005 Prep Date
Client ID: Run ID: THOR_051115A SeqNo: 422545

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.45	1	20	0	107	81.4	130	19.87	7.62	11	
Toluene	20.43	1	20	0	102	65.5	123	21.12	3.33	12.2	
Chlorobenzene	19.96	1	20	0	99.8	89.6	134	20.12	0.808	12	
1,1-Dichloroethene	22.16	1	20	0	111	75.1	120	22.63	2.07	19.3	
Trichloroethene (TCE)	19.96	1	20	0	99.8	75.8	110	20.67	3.52	15.5	

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: Giant Refining Co
Work Order: 0511124
Project: Water at Condensate Return Tank

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **LCS-9185** Batch ID: **9185** Test Code: **SW8270C** Units: **µg/L** Analysis Date **11/17/2005** Prep Date **11/14/2005**
Client ID: Run ID: **ELMO_051117A** SeqNo: **424366**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	75.72	10	100	0	75.7	11	123	0			
4-Chloro-3-methylphenol	140.7	20	200	0	70.4	15.4	119	0			
2-Chlorophenol	141	10	200	0	70.5	12.2	122	0			
1,4-Dichlorobenzene	68.12	10	100	0	68.1	16.9	100	0			
2,4-Dinitrotoluene	71.96	10	100	0	72.0	13	138	0			
N-Nitrosodi-n-propylamine	68.28	10	100	0	68.3	9.93	122	0			
4-Nitrophenol	87.36	50	200	0	43.7	-20.5	87.4	0			
Pentachlorophenol	129.2	50	200	0	64.6	-0.355	114	0			
Phenol	76.18	10	200	0	38.1	7.53	73.1	0			
Pyrene	80.9	15	100	0	80.9	12.6	140	0			
1,2,4-Trichlorobenzene	66.78	10	100	0	66.8	17.4	98.7	0			

Sample ID **LCSD-9185** Batch ID: **9185** Test Code: **SW8270C** Units: **µg/L** Analysis Date **11/17/2005** Prep Date **11/14/2005**
Client ID: Run ID: **ELMO_051117A** SeqNo: **424368**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	75.94	10	100	0	75.9	11	123	75.72	0.290	30.5	
4-Chloro-3-methylphenol	145.9	20	200	0	72.9	15.4	119	140.7	3.60	28.6	
2-Chlorophenol	128.1	10	200	0	64.0	12.2	122	141	9.59	107	
1,4-Dichlorobenzene	59.16	10	100	0	59.2	16.9	100	68.12	14.1	62.1	
2,4-Dinitrotoluene	71.68	10	100	0	71.7	13	138	71.96	0.390	14.7	
N-Nitrosodi-n-propylamine	66.94	10	100	0	66.9	9.93	122	68.28	1.98	30.3	
4-Nitrophenol	56.1	50	200	0	28.1	12.5	87.4	87.36	43.6	36.3	R
Pentachlorophenol	74.34	50	200	0	37.2	3.55	114	129.2	53.9	49	R
Phenol	75.02	10	200	0	37.5	7.53	73.1	76.18	1.53	52.4	
Pyrene	82.6	15	100	0	82.6	12.6	140	80.9	2.08	16.3	
1,2,4-Trichlorobenzene	62.1	10	100	0	62.1	17.4	98.7	66.78	7.26	36.4	

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: 0511124
Project: Water at Condensate Return Tank

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-9184 | Batch ID: 9184 | Test Code: SW7470 | Units: mg/L | Analysis Date 11/14/2005 | Prep Date 11/14/2005
Client ID: | Run ID: MI-LA254_051114A | SeqNo: 422037

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004712	0.0002	0.005	0	94.2	80	120	0			

Sample ID LCSD-9184 | Batch ID: 9184 | Test Code: SW7470 | Units: mg/L | Analysis Date 11/14/2005 | Prep Date 11/14/2005
Client ID: | Run ID: MI-LA254_051114A | SeqNo: 422051

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004592	0.0002	0.005	0	91.8	80	120	0.004712	2.59	0	

Sample ID LCS-9199 | Batch ID: 9199 | Test Code: SW6010A | Units: mg/L | Analysis Date 11/17/2005 11:03:34 A | Prep Date 11/15/2005
Client ID: | Run ID: ICP_051117A | SeqNo: 423292

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.478	0.02	0.5	0	95.6	80	120	0			
Barium	0.467	0.02	0.5	0	93.4	80	120	0			
Cadmium	0.4706	0.002	0.5	0.0003728	94.1	80	120	0			
Calcium	52.36	1	50	0	105	80	120	0			
Chromium	0.4743	0.006	0.5	0	94.9	80	120	0			
Lead	0.4736	0.005	0.5	0	94.7	80	120	0			
Magnesium	52.77	1	50	0	106	80	120	0			
Potassium	55.53	1	50	0	111	80	120	0			
Selenium	0.4616	0.05	0.5	0	92.3	80	120	0			
Silver	0.4803	0.005	0.5	0.0004823	96.0	80	120	0			
Sodium	56.54	1	50	0	113	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

CLIENT: Giant Refining Co
Work Order: 0511124
Project: Water at Condensate Return Tank

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-9199** Batch ID: **9199** Test Code: **SW6010A** Units: **mg/L** Analysis Date **11/17/2005 11:06:32 A** Prep Date **11/15/2005**

Client ID: Run ID: **ICP_051117A** SeqNo: **423293**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4825	0.02	0.5	0	96.5	80	120	0.478	0.949	20	
Barium	0.4685	0.02	0.5	0	93.7	80	120	0.467	0.312	20	
Cadmium	0.471	0.002	0.5	0.0003728	94.1	80	120	0.4706	0.0773	20	
Calcium	51.81	1	50	0	104	80	120	52.36	1.06	20	
Chromium	0.4733	0.006	0.5	0	94.7	80	120	0.4743	0.210	20	
Lead	0.4725	0.005	0.5	0	94.5	80	120	0.4736	0.235	20	
Magnesium	52.4	1	50	0	105	80	120	52.77	0.688	20	
Potassium	55.08	1	50	0	110	80	120	55.53	0.809	20	
Selenium	0.4647	0.05	0.5	0	92.9	80	120	0.4616	0.672	20	
Silver	0.4843	0.005	0.5	0.0004823	96.8	80	120	0.4803	0.834	20	
Sodium	56.4	1	50	0	113	80	120	56.54	0.239	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: 11/11/2005

Work Order Number 0511124

Received by AT

Checklist completed by Signature Date 11/11/05

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? 4° *4° C ± 2 Acceptable*
If given sufficient time to cool.

COMMENTS:

Client contacted Date contacted: Person contacted

Contacted by: Regarding

Comments:

Corrective Action

CHAIN-OF-CUSTODY RECORD

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 505.345.4107
www.hallenvironmental.com

Client: Giant Refining Company - Ciniza
Address: Route 3 Box 7
Gallup, NM 87301

Project Name: Water at Condensate Return Tank East of Tank 576
Project #:
Project Manager: Steve Morris
Sampler: Steve Morris
Sample Temperature: 4°C

Phone #: 505 722 3833
Fax #: 505 722 0210

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HNO_3	Preservative:	HEAL No.	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 Total	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	Gen Chem				Air Bubbles or Headspace (Y or N)
11-11-05	1030	H_2O	Condensate Tank					0511124-1								X			X	X	X				

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
11-11-05	1440	Steve Morris	11/11/05 1440
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks: RUSH
Gen Chem = Cations, Anions, pH, and Conductivity