

Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Wednesday, February 21, 2007 10:22 AM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Ed Riege; Jim Lieb; Cheryl Johnson
Subject: Sample Analysis 1Qtr 2007
Attachments: HALL NMED 1Q 2007.pdf

Hope and Carl,

Here is the quarterly sample analysis for the first quarter of 2007.

We did see an elevated benzene level in the NAPIS Effluent. sample.

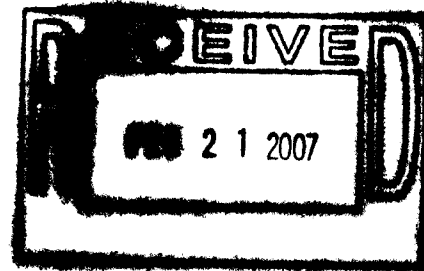
Ciniza's technical services manager tells us the Sour Water Stripper is expected to be in service in a couple of weeks. This will significantly reduce the load on the existing benzene strippers.

Additionally, the third benzene stripper is in place and it should be operational the first of April.

Between the Sour Water Stripper and the third benzene stripper, most of the benzene will be removed from refinery wastewater before it reaches the existing benzene strippers.

If you have any questions or concerns regarding this, please give me a call at: 505-722-0258.

Thanks, Steve Morris





COVER LETTER

Wednesday, February 14, 2007

Steve Morris
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833
FAX (505) 722-0210

RE: NMED Quarterly Water 1st Qtr 2007

Order No.: 0701363

Dear Steve Morris:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 1/31/2007 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

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

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

Sincerely,

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

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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



Hall Environmental Analysis Laboratory, Inc.

Date: 14-Feb-07

CLIENT: Giant Refining Co
Project: NMED Quarterly Water 1st Qtr 2007
Lab Order: 0701363

CASE NARRATIVE

Sample AL-2 to EP-1 notes:

The GRO/DRO results are reporting using only the water fraction of the sample. A small amount of product was on the top of the water (this was not analyzed).

Hall Environmental Analysis Laboratory, Inc.

Date: 14-Feb-07

CLIENT: Giant Refining Co
Lab Order: 0701363
Project: NMED Quarterly Water 1st Qtr 2007
Lab ID: 0701363-01

Client Sample ID: AL-2 to EP-1
Collection Date: 1/30/2007 10:00:00 AM
Date Received: 1/31/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						
Diesel Range Organics (DRO)	280	10		mg/L	1	2/7/2007 11:13:38 PM
Motor Oil Range Organics (MRO)	ND	50		mg/L	1	2/7/2007 11:13:38 PM
Surr: DNOP	124	58-140		%REC	1	2/7/2007 11:13:38 PM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	3.2	2.5		mg/L	50	2/2/2007 3:23:37 PM
Surr: BFB	106	79.2-121		%REC	50	2/2/2007 3:23:37 PM
EPA METHOD 7470: MERCURY						
Mercury	0.00087	0.00020		mg/L	1	2/7/2007
EPA 6010B: TOTAL RECOVERABLE METALS						
Arsenic	ND	0.050		mg/L	1	2/5/2007 10:36:14 AM
Barium	0.22	0.050		mg/L	1	2/5/2007 10:36:14 AM
Cadmium	ND	0.0050		mg/L	1	2/5/2007 10:36:14 AM
Chromium	ND	0.015		mg/L	1	2/5/2007 10:36:14 AM
Lead	0.021	0.012		mg/L	1	2/5/2007 10:36:14 AM
Selenium	ND	0.12		mg/L	1	2/5/2007 10:36:14 AM
Silver	ND	0.012		mg/L	1	2/5/2007 2:34:43 PM
EPA METHOD 8260B: VOLATILES						
Benzene	ND	50		µg/L	50	2/2/2007
Toluene	ND	50		µg/L	50	2/2/2007
Ethylbenzene	ND	50		µg/L	50	2/2/2007
Methyl tert-butyl ether (MTBE)	ND	75		µg/L	50	2/2/2007
1,2,4-Trimethylbenzene	420	50		µg/L	50	2/2/2007
1,3,5-Trimethylbenzene	110	50		µg/L	50	2/2/2007
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	2/2/2007
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	2/2/2007
Naphthalene	830	100		µg/L	50	2/2/2007
1-Methylnaphthalene	1100	200		µg/L	50	2/2/2007
2-Methylnaphthalene	1800	200		µg/L	50	2/2/2007
Acetone	ND	500		µg/L	50	2/2/2007
Bromobenzene	ND	50		µg/L	50	2/2/2007
Bromochloromethane	ND	50		µg/L	50	2/2/2007
Bromodichloromethane	ND	50		µg/L	50	2/2/2007
Bromoform	ND	50		µg/L	50	2/2/2007
Bromomethane	ND	100		µg/L	50	2/2/2007
2-Butanone	ND	500		µg/L	50	2/2/2007
Carbon disulfide	ND	500		µg/L	50	2/2/2007

Qualifiers:
 * Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

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

Hall Environmental Analysis Laboratory, Inc.

Date: 14-Feb-07

CLIENT:	Giant Refining Co	Client Sample ID:	AL-2 to EP-1
Lab Order:	0701363	Collection Date:	1/30/2007 10:00:00 AM
Project:	NMED Quarterly Water 1st Qtr 2007	Date Received:	1/31/2007
Lab ID:	0701363-01	Matrix:	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Carbon Tetrachloride	ND	100		µg/L	50	2/2/2007
Chlorobenzene	ND	50		µg/L	50	2/2/2007
Chloroethane	ND	100		µg/L	50	2/2/2007
Chloroform	ND	50		µg/L	50	2/2/2007
Chloromethane	ND	50		µg/L	50	2/2/2007
2-Chlorotoluene	ND	50		µg/L	50	2/2/2007
4-Chlorotoluene	ND	50		µg/L	50	2/2/2007
cis-1,2-DCE	ND	50		µg/L	50	2/2/2007
cis-1,3-Dichloropropene	ND	50		µg/L	50	2/2/2007
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	2/2/2007
Dibromochloromethane	ND	50		µg/L	50	2/2/2007
Dibromomethane	ND	100		µg/L	50	2/2/2007
1,2-Dichlorobenzene	ND	50		µg/L	50	2/2/2007
1,3-Dichlorobenzene	ND	50		µg/L	50	2/2/2007
1,4-Dichlorobenzene	ND	50		µg/L	50	2/2/2007
Dichlorodifluoromethane	ND	50		µg/L	50	2/2/2007
1,1-Dichloroethane	ND	100		µg/L	50	2/2/2007
1,1-Dichloroethene	ND	50		µg/L	50	2/2/2007
1,2-Dichloropropane	ND	50		µg/L	50	2/2/2007
1,3-Dichloropropane	ND	50		µg/L	50	2/2/2007
2,2-Dichloropropane	ND	100		µg/L	50	2/2/2007
1,1-Dichloropropene	ND	50		µg/L	50	2/2/2007
Hexachlorobutadiene	ND	100		µg/L	50	2/2/2007
2-Hexanone	ND	500		µg/L	50	2/2/2007
Isopropylbenzene	ND	50		µg/L	50	2/2/2007
4-Isopropyltoluene	63	50		µg/L	50	2/2/2007
4-Methyl-2-pentanone	ND	500		µg/L	50	2/2/2007
Methylene Chloride	ND	150		µg/L	50	2/2/2007
n-Butylbenzene	ND	50		µg/L	50	2/2/2007
n-Propylbenzene	ND	50		µg/L	50	2/2/2007
sec-Butylbenzene	ND	100		µg/L	50	2/2/2007
Styrene	ND	75		µg/L	50	2/2/2007
tert-Butylbenzene	ND	50		µg/L	50	2/2/2007
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	2/2/2007
1,1,2,2-Tetrachloroethane	ND	50		µg/L	50	2/2/2007
Tetrachloroethene (PCE)	ND	50		µg/L	50	2/2/2007
trans-1,2-DCE	ND	50		µg/L	50	2/2/2007
trans-1,3-Dichloropropene	ND	50		µg/L	50	2/2/2007
1,2,3-Trichlorobenzene	ND	50		µg/L	50	2/2/2007
1,2,4-Trichlorobenzene	ND	50		µg/L	50	2/2/2007
1,1,1-Trichloroethane	ND	50		µg/L	50	2/2/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 14-Feb-07

CLIENT: Giant Refining Co	Client Sample ID: AL-2 to EP-1
Lab Order: 0701363	Collection Date: 1/30/2007 10:00:00 AM
Project: NMED Quarterly Water 1st Qtr 2007	Date Received: 1/31/2007
Lab ID: 0701363-01	Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,1,2-Trichloroethane	ND	50		µg/L	50	2/2/2007
Trichloroethene (TCE)	ND	50		µg/L	50	2/2/2007
Trichlorofluoromethane	ND	50		µg/L	50	2/2/2007
1,2,3-Trichloropropane	ND	100		µg/L	50	2/2/2007
Vinyl chloride	ND	50		µg/L	50	2/2/2007
Xylenes, Total	ND	150		µg/L	50	2/2/2007
Surr: 1,2-Dichloroethane-d4	105	76.6-113		%REC	50	2/2/2007
Surr: 4-Bromofluorobenzene	104	77-117		%REC	50	2/2/2007
Surr: Dibromofluoromethane	113	72.3-121		%REC	50	2/2/2007
Surr: Toluene-d8	100	73-113		%REC	50	2/2/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 14-Feb-07

CLIENT:	Giant Refining Co	Client Sample ID:	Pilot T. C. Eff.
Lab Order:	0701363	Collection Date:	1/30/2007 10:30:00 AM
Project:	NMED Quarterly Water 1st Qtr 2007	Date Received:	1/31/2007
Lab ID:	0701363-02	Matrix:	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	22	3.0		mg/L	1	2/8/2007 12:21:17 AM
Motor Oil Range Organics (MRO)	17	15		mg/L	1	2/8/2007 12:21:17 AM
Surr: DNOP	113	58-140		%REC	1	2/8/2007 12:21:17 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: LMM
Gasoline Range Organics (GRO)	0.31	0.050		mg/L	1	2/2/2007 1:18:04 PM
Surr: BFB	124	79.2-121	S	%REC	1	2/2/2007 1:18:04 PM
EPA METHOD 7470: MERCURY						Analyst: MAP
Mercury	ND	0.00020		mg/L	1	2/7/2007
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: IC
Arsenic	ND	0.050		mg/L	1	2/5/2007 10:39:11 AM
Barium	ND	0.050		mg/L	1	2/5/2007 10:39:11 AM
Cadmium	ND	0.0050		mg/L	1	2/5/2007 10:39:11 AM
Chromium	ND	0.015		mg/L	1	2/5/2007 10:39:11 AM
Lead	ND	0.012		mg/L	1	2/5/2007 10:39:11 AM
Selenium	ND	0.12		mg/L	1	2/5/2007 10:39:11 AM
Silver	ND	0.012		mg/L	1	2/5/2007 2:37:03 PM
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	2/2/2007
Toluene	3.8	1.0		µg/L	1	2/2/2007
Ethylbenzene	ND	1.0		µg/L	1	2/2/2007
Methyl tert-butyl ether (MTBE)	ND	1.5		µg/L	1	2/2/2007
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/2/2007
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/2/2007
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/2/2007
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/2/2007
Naphthalene	ND	2.0		µg/L	1	2/2/2007
1-Methylnaphthalene	ND	4.0		µg/L	1	2/2/2007
2-Methylnaphthalene	ND	4.0		µg/L	1	2/2/2007
Acetone	180	100		µg/L	10	2/2/2007
Bromobenzene	ND	1.0		µg/L	1	2/2/2007
Bromochloromethane	ND	1.0		µg/L	1	2/2/2007
Bromodichloromethane	ND	1.0		µg/L	1	2/2/2007
Bromoform	ND	1.0		µg/L	1	2/2/2007
Bromomethane	ND	2.0		µg/L	1	2/2/2007
2-Butanone	ND	10		µg/L	1	2/2/2007
Carbon disulfide	ND	10		µg/L	1	2/2/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 14-Feb-07

CLIENT:	Giant Refining Co	Client Sample ID:	Pilot T. C. Eff.
Lab Order:	0701363	Collection Date:	1/30/2007 10:30:00 AM
Project:	NMED Quarterly Water 1st Qtr 2007	Date Received:	1/31/2007
Lab ID:	0701363-02	Matrix:	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Carbon Tetrachloride	ND	2.0		µg/L	1	2/2/2007
Chlorobenzene	ND	1.0		µg/L	1	2/2/2007
Chloroethane	ND	2.0		µg/L	1	2/2/2007
Chloroform	17	1.0		µg/L	1	2/2/2007
Chloromethane	ND	1.0		µg/L	1	2/2/2007
2-Chlorotoluene	ND	1.0		µg/L	1	2/2/2007
4-Chlorotoluene	ND	1.0		µg/L	1	2/2/2007
cis-1,2-DCE	ND	1.0		µg/L	1	2/2/2007
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/2/2007
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/2/2007
Dibromochloromethane	ND	1.0		µg/L	1	2/2/2007
Dibromomethane	ND	2.0		µg/L	1	2/2/2007
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/2/2007
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/2/2007
1,4-Dichlorobenzene	3.5	1.0		µg/L	1	2/2/2007
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/2/2007
1,1-Dichloroethane	ND	2.0		µg/L	1	2/2/2007
1,1-Dichloroethene	ND	1.0		µg/L	1	2/2/2007
1,2-Dichloropropane	ND	1.0		µg/L	1	2/2/2007
1,3-Dichloropropane	ND	1.0		µg/L	1	2/2/2007
2,2-Dichloropropane	ND	2.0		µg/L	1	2/2/2007
1,1-Dichloropropene	ND	1.0		µg/L	1	2/2/2007
Hexachlorobutadiene	ND	2.0		µg/L	1	2/2/2007
2-Hexanone	ND	10		µg/L	1	2/2/2007
Isopropylbenzene	ND	1.0		µg/L	1	2/2/2007
4-Isopropyltoluene	1.6	1.0		µg/L	1	2/2/2007
4-Methyl-2-pentanone	ND	10		µg/L	1	2/2/2007
Methylene Chloride	ND	3.0		µg/L	1	2/2/2007
n-Butylbenzene	ND	1.0		µg/L	1	2/2/2007
n-Propylbenzene	ND	1.0		µg/L	1	2/2/2007
sec-Butylbenzene	ND	2.0		µg/L	1	2/2/2007
Styrene	ND	1.5		µg/L	1	2/2/2007
tert-Butylbenzene	ND	1.0		µg/L	1	2/2/2007
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/2/2007
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	2/2/2007
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/2/2007
trans-1,2-DCE	ND	1.0		µg/L	1	2/2/2007
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/2/2007
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/2/2007
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/2/2007
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/2/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 14-Feb-07

CLIENT:	Giant Refining Co	Client Sample ID:	Pilot T. C. Eff.
Lab Order:	0701363	Collection Date:	1/30/2007 10:30:00 AM
Project:	NMED Quarterly Water 1st Qtr 2007	Date Received:	1/31/2007
Lab ID:	0701363-02	Matrix:	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/2/2007
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/2/2007
Trichlorofluoromethane	ND	1.0		µg/L	1	2/2/2007
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/2/2007
Vinyl chloride	ND	1.0		µg/L	1	2/2/2007
Xylenes, Total	ND	3.0		µg/L	1	2/2/2007
Surr: 1,2-Dichloroethane-d4	110	76.6-113		%REC	1	2/2/2007
Surr: 4-Bromofluorobenzene	103	77-117		%REC	1	2/2/2007
Surr: Dibromofluoromethane	115	72.3-121		%REC	1	2/2/2007
Surr: Toluene-d8	99.5	73-113		%REC	1	2/2/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 14-Feb-07

CLIENT: Giant Refining Co	Client Sample ID: NAPIS Eff.
Lab Order: 0701363	Collection Date: 1/30/2007 11:00:00 AM
Project: NMED Quarterly Water 1st Qtr 2007	Date Received: 1/31/2007
Lab ID: 0701363-03	Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						
Diesel Range Organics (DRO)	260	3.0		mg/L	1	2/8/2007 12:55:07 AM
Motor Oil Range Organics (MRO)	ND	15		mg/L	1	2/8/2007 12:55:07 AM
Surr: DNOP	119	58-140		%REC	1	2/8/2007 12:55:07 AM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	14	2.5		mg/L	50	2/2/2007 2:20:45 PM
Surr: BFB	104	79.2-121		%REC	50	2/2/2007 2:20:45 PM
EPA METHOD 8260B: VOLATILES						
Benzene	1800	50		µg/L	50	2/2/2007
Toluene	1900	50		µg/L	50	2/2/2007
Ethylbenzene	170	50		µg/L	50	2/2/2007
Methyl tert-butyl ether (MTBE)	ND	75		µg/L	50	2/2/2007
1,2,4-Trimethylbenzene	300	50		µg/L	50	2/2/2007
1,3,5-Trimethylbenzene	90	50		µg/L	50	2/2/2007
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	2/2/2007
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	2/2/2007
Naphthalene	550	100		µg/L	50	2/2/2007
1-Methylnaphthalene	1800	200		µg/L	50	2/2/2007
2-Methylnaphthalene	3000	200		µg/L	50	2/2/2007
Acetone	ND	500		µg/L	50	2/2/2007
Bromobenzene	ND	50		µg/L	50	2/2/2007
Bromochloromethane	ND	50		µg/L	50	2/2/2007
Bromodichloromethane	ND	50		µg/L	50	2/2/2007
Bromoform	ND	50		µg/L	50	2/2/2007
Bromomethane	ND	100		µg/L	50	2/2/2007
2-Butanone	ND	500		µg/L	50	2/2/2007
Carbon disulfide	ND	500		µg/L	50	2/2/2007
Carbon Tetrachloride	ND	100		µg/L	50	2/2/2007
Chlorobenzene	ND	50		µg/L	50	2/2/2007
Chloroethane	ND	100		µg/L	50	2/2/2007
Chloroform	ND	50		µg/L	50	2/2/2007
Chloromethane	ND	50		µg/L	50	2/2/2007
2-Chlorotoluene	ND	50		µg/L	50	2/2/2007
4-Chlorotoluene	ND	50		µg/L	50	2/2/2007
cis-1,2-DCE	ND	50		µg/L	50	2/2/2007
cis-1,3-Dichloropropene	ND	50		µg/L	50	2/2/2007
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	2/2/2007
Dibromochloromethane	ND	50		µg/L	50	2/2/2007
Dibromomethane	ND	100		µg/L	50	2/2/2007
1,2-Dichlorobenzene	ND	50		µg/L	50	2/2/2007

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

Hall Environmental Analysis Laboratory, Inc.

Date: 14-Feb-07

CLIENT: Giant Refining Co Client Sample ID: NAPIS Eff.
 Lab Order: 0701363 Collection Date: 1/30/2007 11:00:00 AM
 Project: NMED Quarterly Water 1st Qtr 2007 Date Received: 1/31/2007
 Lab ID: 0701363-03 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,3-Dichlorobenzene	ND	50		µg/L	50	2/2/2007
1,4-Dichlorobenzene	ND	50		µg/L	50	2/2/2007
Dichlorodifluoromethane	ND	50		µg/L	50	2/2/2007
1,1-Dichloroethane	ND	100		µg/L	50	2/2/2007
1,1-Dichloroethene	ND	50		µg/L	50	2/2/2007
1,2-Dichloropropane	ND	50		µg/L	50	2/2/2007
1,3-Dichloropropane	ND	50		µg/L	50	2/2/2007
2,2-Dichloropropane	ND	100		µg/L	50	2/2/2007
1,1-Dichloropropene	ND	50		µg/L	50	2/2/2007
Hexachlorobutadiene	ND	100		µg/L	50	2/2/2007
2-Hexanone	ND	500		µg/L	50	2/2/2007
Isopropylbenzene	ND	50		µg/L	50	2/2/2007
4-Isopropyltoluene	ND	50		µg/L	50	2/2/2007
4-Methyl-2-pentanone	ND	500		µg/L	50	2/2/2007
Methylene Chloride	ND	150		µg/L	50	2/2/2007
n-Butylbenzene	ND	50		µg/L	50	2/2/2007
n-Propylbenzene	ND	50		µg/L	50	2/2/2007
sec-Butylbenzene	ND	100		µg/L	50	2/2/2007
Styrene	ND	75		µg/L	50	2/2/2007
tert-Butylbenzene	ND	50		µg/L	50	2/2/2007
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	2/2/2007
1,1,2,2-Tetrachloroethane	ND	50		µg/L	50	2/2/2007
Tetrachloroethene (PCE)	ND	50		µg/L	50	2/2/2007
trans-1,2-DCE	ND	50		µg/L	50	2/2/2007
trans-1,3-Dichloropropene	ND	50		µg/L	50	2/2/2007
1,2,3-Trichlorobenzene	ND	50		µg/L	50	2/2/2007
1,2,4-Trichlorobenzene	ND	50		µg/L	50	2/2/2007
1,1,1-Trichloroethane	ND	50		µg/L	50	2/2/2007
1,1,2-Trichloroethane	ND	50		µg/L	50	2/2/2007
Trichloroethene (TCE)	ND	50		µg/L	50	2/2/2007
Trichlorofluoromethane	ND	50		µg/L	50	2/2/2007
1,2,3-Trichloropropane	ND	100		µg/L	50	2/2/2007
Vinyl chloride	ND	50		µg/L	50	2/2/2007
Xylenes, Total	1000	150		µg/L	50	2/2/2007
Surr: 1,2-Dichloroethane-d4	110	76.6-113		%REC	50	2/2/2007
Surr: 4-Bromofluorobenzene	107	77-117		%REC	50	2/2/2007
Surr: Dibromofluoromethane	119	72.3-121		%REC	50	2/2/2007
Surr: Toluene-d8	99.4	73-113		%REC	50	2/2/2007

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

QA/QC SUMMARY REPORT

Client: Giant Refining Co
 Project: NMED Quarterly Water 1st Qtr 2007

Work Order: 0701363

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8015

Sample ID: MB-12228 MBLK Batch ID: 12228 Analysis Date: 2/7/2007 8:57:50 PM

Diesel Range Organics (DRO) ND mg/L 1.0

Motor Oil Range Organics (MRO) ND mg/L 5.0

Sample ID: LCS-12228

LCSD

Batch ID: 12228 Analysis Date: 2/7/2007 9:31:52 PM

Diesel Range Organics (DRO) 5.664 mg/L 1.0 113

74 157

Sample ID: LCSD-12228

LCSD

Batch ID: 12228 Analysis Date: 2/7/2007 10:05:58 PM

Diesel Range Organics (DRO) 5.677 mg/L 1.0 114

74 157 0.236 23

Method: SW8015

Sample ID: 5ML RB MBLK Batch ID: R22332 Analysis Date: 1/31/2007 10:01:04 AM

Gasoline Range Organics (GRO) ND mg/L 0.050

Sample ID: 5ML RB

MBLK

Batch ID: R22359 Analysis Date: 2/2/2007 9:44:47 AM

Gasoline Range Organics (GRO) ND mg/L 0.050

Sample ID: 2.5UG GRO LCS

LCS

Batch ID: R22332 Analysis Date: 1/31/2007 12:01:36 PM

Gasoline Range Organics (GRO) 0.5354 mg/L 0.050 102

80 115

Sample ID: 2.5UG GRO LCS

LCS

Batch ID: R22359 Analysis Date: 2/2/2007 11:45:14 AM

Gasoline Range Organics (GRO) 0.4912 mg/L 0.050 93.4

80 115

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Giant Refining Co
 Project: NMED Quarterly Water 1st Qtr 2007

Work Order: 0701363

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8260B

Sample ID: 5ml reagent blank

MBLK

Batch ID: R22349

Analysis Date:

2/1/2007

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.5
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
1,2-Dichloroethane (EDC)	ND	µg/L	1.0
1,2-Dibromoethane (EDB)	ND	µg/L	1.0
Naphthalene	ND	µg/L	2.0
1-Methylnaphthalene	ND	µg/L	4.0
2-Methylnaphthalene	ND	µg/L	4.0
Acetone	ND	µg/L	10
Bromobenzene	ND	µg/L	1.0
Bromochloromethane	ND	µg/L	1.0
Bromodichloromethane	ND	µg/L	1.0
Bromoform	ND	µg/L	1.0
Bromomethane	ND	µg/L	2.0
2-Butanone	ND	µg/L	10
Carbon disulfide	ND	µg/L	10
Carbon Tetrachloride	ND	µg/L	2.0
Chlorobenzene	ND	µg/L	1.0
Chloroethane	ND	µg/L	2.0
Chloroform	ND	µg/L	1.0
Chloromethane	ND	µg/L	1.0
2-Chlorotoluene	ND	µg/L	1.0
4-Chlorotoluene	ND	µg/L	1.0
cis-1,2-DCE	ND	µg/L	1.0
cis-1,3-Dichloropropene	ND	µg/L	1.0
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0
Dibromochloromethane	ND	µg/L	1.0
Dibromomethane	ND	µg/L	2.0
1,2-Dichlorobenzene	ND	µg/L	1.0
1,3-Dichlorobenzene	ND	µg/L	1.0
1,4-Dichlorobenzene	ND	µg/L	1.0
Dichlorodifluoromethane	ND	µg/L	1.0
1,1-Dichloroethane	ND	µg/L	2.0
1,1-Dichloroethene	ND	µg/L	1.0
1,2-Dichloropropane	ND	µg/L	1.0
1,3-Dichloropropane	ND	µg/L	1.0
2,2-Dichloropropane	ND	µg/L	2.0
1,1-Dichloropropene	ND	µg/L	1.0
Hexachlorobutadiene	ND	µg/L	2.0
2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Giant Refining Co
Project: NMED Quarterly Water 1st Qtr 2007

Work Order: 0701363

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8260B

Sample ID: 5ml reagent blank

MBLK

Batch ID: R22349

Analysis Date:

2/1/2007

4-Isopropyltoluene	ND	µg/L	1.0
4-Methyl-2-pentanone	ND	µg/L	10
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	2.0
Styrene	ND	µg/L	1.5
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,2,2-Tetrachloroethane	ND	µg/L	1.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	3.0

Sample ID: b1

MBLK

Batch ID: R22363

Analysis Date:

2/2/2007

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.5
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
1,2-Dichloroethane (EDC)	ND	µg/L	1.0
1,2-Dibromoethane (EDB)	ND	µg/L	1.0
Naphthalene	ND	µg/L	2.0
1-Methylnaphthalene	ND	µg/L	4.0
2-Methylnaphthalene	ND	µg/L	4.0
Acetone	ND	µg/L	10
Bromobenzene	ND	µg/L	1.0
Bromochloromethane	ND	µg/L	1.0
Bromodichloromethane	ND	µg/L	1.0
Bromoform	ND	µg/L	1.0
Bromomethane	ND	µg/L	2.0
2-Butanone	ND	µg/L	10
Carbon disulfide	ND	µg/L	10
Carbon Tetrachloride	ND	µg/L	2.0
Chlorobenzene	ND	µg/L	1.0

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Giant Refining Co
 Project: NMED Quarterly Water 1st Qtr 2007

Work Order: 0701363

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8260B									
Sample ID: b1		MBLK			Batch ID: R22363	Analysis Date:			2/2/2007
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	2.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	2.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	2.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	2.0						
Styrene	ND	µg/L	1.5						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Giant Refining Co
 Project: NMED Quarterly Water 1st Qtr 2007

Work Order: 0701363

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8260B

Sample ID: b1 MBLK Batch ID: R22363 Analysis Date: 2/2/2007

Xylenes, Total ND µg/L 3.0

Sample ID: 100ng lcs LCS Batch ID: R22349 Analysis Date: 2/1/2007

Benzene 20.29 µg/L 1.0 101 75.6 111

Toluene 18.33 µg/L 1.0 91.6 69.6 113

Chlorobenzene 18.43 µg/L 1.0 92.1 79.7 112

1,1-Dichloroethene 22.00 µg/L 1.0 110 72.5 121

Trichloroethene (TCE) 21.26 µg/L 1.0 106 63.7 123

Sample ID: 100ng lcs LCS Batch ID: R22363 Analysis Date: 2/2/2007

Benzene 21.20 µg/L 1.0 106 75.6 111

Toluene 20.29 µg/L 1.0 101 69.6 113

Chlorobenzene 20.89 µg/L 1.0 104 79.7 112

1,1-Dichloroethene 21.69 µg/L 1.0 108 72.5 121

Trichloroethene (TCE) 22.36 µg/L 1.0 112 63.7 123

Method: SW7470

Sample ID: MB-12270 MBLK Batch ID: 12270 Analysis Date: 2/7/2007

Mercury ND mg/L 0.00020

Sample ID: LCS-12270 LCS Batch ID: 12270 Analysis Date: 2/7/2007

Mercury 0.005019 mg/L 0.00020 100 80 120

Method: SW6010A

Sample ID: MB-12247 MBLK Batch ID: 12247 Analysis Date: 2/5/2007 9:02:01 AM

Arsenic ND mg/L 0.020

Barium ND mg/L 0.020

Cadmium ND mg/L 0.0020

Chromium ND mg/L 0.0060

Lead ND mg/L 0.0050

Selenium ND mg/L 0.050

Sample ID: LCS-12247 LCS Batch ID: 12247 Analysis Date: 2/5/2007 9:05:06 AM

Arsenic 0.4868 mg/L 0.020 97.4 80 120

Barium 0.4813 mg/L 0.020 96.3 80 120

Cadmium 0.4705 mg/L 0.0020 94.1 80 120

Chromium 0.5264 mg/L 0.0060 105 80 120

Lead 0.4709 mg/L 0.0050 94.2 80 120

Selenium 0.4286 mg/L 0.050 85.7 80 120

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

1/31/2007

Work Order Number 0701363

Received by AT

Checklist completed by

[Signature]

Date

1/31/07

Matrix

Carrier name Client drop-off

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

Container/Temp Blank temperature?

6°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

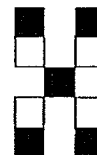
Corrective Action _____

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: *NMED Quarterly Water 1ST QTR. 2007*

Project #:

Project Manager:

Steve Morris

Phone #: *505 722 3833*

Sampler: *Steve Morris*

Fax #: *505 722 0210*

Sample Temperature: *6*

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	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)	B310 (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)	Air Bubbles or Headspace (Y or N)	
					HgCl ₂	HNO ₃															
<i>1-30-07</i>	<i>1000</i>	<i>H₂O</i>	<i>AL-2z EP-1</i>				<i>0701363</i>			<i>X</i>					<i>X</i>			<i>X</i>			
<i>"</i>	<i>1030</i>	<i>"</i>	<i>Pilot T.C. Eff.</i>							<i>X</i>					<i>X</i>			<i>X</i>			
<i>"</i>	<i>1100</i>	<i>"</i>	<i>NAPIS Eff.</i>							<i>X</i>								<i>X</i>			

Date: *1-31-07* Time: *0901* Relinquished By: (Signature) *Steve Morris*

Received By: (Signature) *[Signature]* *1/31/07*
Received By: (Signature) *[Signature]* *0901*

Remarks: