



ENTERED

**GIANT**  
REFINING CO.

*Stu*

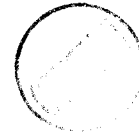
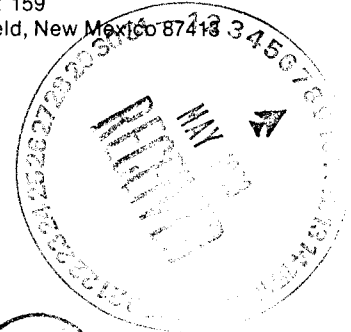
May 4, 1998

50 Road 4990  
P.O. Box 159  
Bloomfield, New Mexico 87413  
505  
632-8013

Mr. Warren Arthur (6EN-HX)  
USEPA Region VI  
1445 Ross Avenue, Suite 1200  
Dallas, Texas 75202-2733

**Re: Monthly Progress Report  
EPA ID No. NMD 089416416**

**Administrative Order on Consent  
U.S. EPA Docket No. VI-303-H**



Dear Mr. Arthur:

In accordance with VI.5.b. of the Order, Giant Refining Company - Bloomfield (GRC) submits this monthly progress report.

**Interim Measures (IM) Progress**

1. Interim Measures, including product recovery from onsite recovery wells, continues. Samples were taken in the new wells, a copy of which is attached. Bio-Stic's were purchased from Alpha Bioscience Company and were installed in the following wells: RW2, RW23, P3, MW11, MW26, MW27, MW28, MW33, MW34, MW35, MW36, MW37, MW38, and MW39. The Bio-Stic's are slotted PVC pipe that contains a biocatalyst that promotes the growth of naturally occurring bacteria. The biocatalyst contains no nitrogen or other potentially damaging material. The wells will be resampled after six months to see if measurable reductions in BTEX have occurred. These Bio-Stic's are currently being used by other companies in this area quite successfully. If you would like more information on this product, you may want to call Mr. Bob Durbin at (505) 325 5036.

**Corrective Measures Study (CMS)**

GRC is still waiting for the submission of the groundwater model for this facility.

If you require additional information, please contact me at (505) 632 8013.

Sincerely:

Lynn Shelton  
Environmental Manager  
Giant Refining Company - Bloomfield

TLS/tls

cc: John Stokes, Refinery Manager  
Roger Anderson, NMOCD  
Benito Garcia, NMED

March Report



**ANALYTICAL REPORT**

**TRACE ANALYSIS, INC.**

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296  
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443  
**CLIENT GIANT REFINING COMPANY**  
P.O. BOX 159 E-Mail: lab@traceanalysis.com  
BLOOMFIELD, NM 87347

806•794•1296 FAX 806•794•1298  
915•585•3443 FAX 915•585•4944  
**SAMPLE NO. : 980904**  
**INVOICE NO.: 22101797**  
**REPORT DATE: 03-25-98**  
**REVIEWED BY: [Signature]**  
**PAGE : 1 OF 2**

**CLIENT SAMPLE ID : MW-38**  
**SAMPLE TYPE .....: Water**  
**SAMPLED BY .....: LS**  
**SUBMITTED BY .....: LS**  
**SAMPLE SOURCE ....: --**  
**ANALYST .....: K. Costa**

**AUTHORIZED BY : L. SHELTON**  
**CLIENT P.O. : --**  
**SAMPLE DATE ...: 03-09-98**  
**SUBMITTAL DATE : 03-11-98**  
**EXTRACTION DATE: --**  
**ANALYSIS DATE .: 03-11-98**

**Petroleum Contaminants by 8020A**

**D A T A T A B L E**

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Detection Limit</u>
Benzene .....	<0.20	ug/L	0.20
Toluene .....	<0.20	ug/L	0.20
Ethylbenzene .....	3.7	ug/L	0.20
Total Xylenes .....	9.6	ug/L	0.20

ANALYTICAL RESULT(S) REPORTED HEREIN APPLY ONLY TO THE SAMPLE(S) TESTED. FURTHERMORE, THIS REPORT CAN ONLY BE COPIED IN ITS ENTIRETY.

(1) Copy to Client

*M. Pembill*  
MANAGING DIRECTOR

# TRACE ANALYSIS, INC.

## ANALYTICAL REPORT

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BLOOMFIELD, NM 87347

806•794•1296 FAX 806•794•1298  
915•585•3443 FAX 915•585•4944  
SAMPLE NO. : 980904  
INVOICE NO.: 22101797  
REPORT DATE: 03-25-98  
REVIEWED BY: *1/27*  
PAGE : 2 OF 2

### DATA TABLE (Cont.)

<u>Surrogate Information -</u>	<u>Percent Recovery</u>	<u>Range</u>
aaa Trifluorotoluene .....	110.0	77-120

6701 Aberdeen Avenue, Suite 9 4725 Ripley Avenue, Suite A	Lubbock, Texas 79424 El Paso, Texas 79922	800•378•1296 888•588•3443	806•794•1296 915•585•3443	FAX 806•794•1298 FAX 915•585•4944
<b>CLIENT GIANT REFINING COMPANY</b> P.O. BOX 159 BLOOMFIELD, NM 87347			E-Mail: lab@traceanalysis.com  <b>SAMPLE NO. : 980905</b> <b>INVOICE NO.: 22101797</b> <b>REPORT DATE: 03-25-98</b> <b>REVIEWED BY: <i>MJ</i></b> <b>PAGE : 1 OF 2</b>	

CLIENT SAMPLE ID : MW-37 SAMPLE TYPE .....: Water SAMPLED BY .....: LS SUBMITTED BY .....: LS SAMPLE SOURCE ....: -- ANALYST .....: K. Costa	AUTHORIZED BY : L. SHELTON CLIENT P.O. : -- SAMPLE DATE ...: 03-09-98 SUBMITTAL DATE : 03-11-98 EXTRACTION DATE: -- ANALYSIS DATE ..: 03-11-98
---	---

Petroleum Contaminants by 8020A

D A T A      T A B L E			
Parameter	Result	Unit	Detection Limit
Benzene .....	<0.20	ug/L	0.20
Toluene .....	<0.20	ug/L	0.20
Ethylbenzene .....	1.5	ug/L	0.20
Total Xylenes .....	13.	ug/L	0.20

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 \_\_\_\_\_  
 MANAGING DIRECTOR



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 915•585•3443 FAX 915•585•4944  
**SAMPLE NO. : 980905**  
**INVOICE NO. : 22101797**  
**REPORT DATE: 03-25-98**  
**REVIEWED BY: *WJ***  
**PAGE : 2 OF 2**

### D A T A T A B L E (Cont.)

<u>Surrogate Information -</u>	<u>Percent Recovery</u>	<u>Range</u>
aaa Trifluorotoluene .....	113.5	77-120

6701 Aberdeen Avenue, Suite 9 4725 Ripley Avenue, Suite A <b>CLIENT GIANT REFINING COMPANY</b> P.O. BOX 159 BLOOMFIELD, NM 87347	Lubbock, Texas 79424 800•378•1296 El Paso, Texas 79922 888•588•3443 E-Mail: lab@traceanalysis.com	806•794•1296 FAX 806•794•1298 915•585•3443 FAX 915•585•4944 <b>SAMPLE NO. : 980906</b> <b>INVOICE NO.: 22101797</b> <b>REPORT DATE: 03-25-98</b> <b>REVIEWED BY: <i>WJ</i></b> <b>PAGE : 1 OF 2</b>
--	---	---

<b>CLIENT SAMPLE ID : MW-36</b> <b>SAMPLE TYPE .....: Water</b> <b>SAMPLED BY .....: LS</b> <b>SUBMITTED BY ....: LS</b> <b>SAMPLE SOURCE ....: --</b> <b>ANALYST .....: K. Costa</b>	<b>AUTHORIZED BY : L. SHELTON</b> <b>CLIENT P.O. : --</b> <b>SAMPLE DATE ...: 03-09-98</b> <b>SUBMITTAL DATE : 03-11-98</b> <b>EXTRACTION DATE: --</b> <b>ANALYSIS DATE ..: 03-11-98</b>
--	---

**REMARKS -**

Detection limits raised due to matrix interference.

Petroleum Contaminants by 8020A

D A T A      T A B L E			
Parameter	Result	Unit	Detection Limit
Benzene .....	<1.0	ug/L	1.0
Toluene .....	<1.0	ug/L	1.0
Ethylbenzene .....	8.8	ug/L	1.0
Total Xylenes .....	37.	ug/L	1.0

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*M. Shelton*  
MANAGING DIRECTOR

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 915•585•3443 FAX 915•585•4944  
**SAMPLE NO. : 980906**  
**INVOICE NO.: 22101797**  
**REPORT DATE: 03-25-98**  
**REVIEWED BY: *WTT***  
**PAGE : 2 OF 2**

D A T A     T A B L E			(Cont.)
<u>Surrogate Information -</u>		<u>Percent</u>	
		<u>Recovery</u>	<u>Range</u>
aaa Trifluorotoluene .....	:	111.0	77-120

# TRACE ANALYSIS, INC.

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SAMPLE NO. : 980907  
INVOICE NO.: 22101797  
REPORT DATE: 03-25-98  
REVIEWED BY: *mw*  
PAGE : 1 OF 2

CLIENT SAMPLE ID : MW-35  
SAMPLE TYPE .....: Water  
SAMPLED BY .....: LS  
SUBMITTED BY .....: LS  
SAMPLE SOURCE ....: --  
ANALYST .....: K. Costa

AUTHORIZED BY : L. SHELTON  
CLIENT P.O. : --  
SAMPLE DATE ...: 03-09-98  
SUBMITTAL DATE : 03-11-98  
EXTRACTION DATE: --  
ANALYSIS DATE ..: 03-11-98

### Petroleum Contaminants by 8020A

#### D A T A T A B L E

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Detection Limit</u>
Benzene .....	6.1	ug/L	0.20
Toluene .....	<0.20	ug/L	0.20
Ethylbenzene .....	2.9	ug/L	0.20
Total Xylenes .....	54.	ug/L	0.20

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*M. Shelton*  
MANAGING DIRECTOR





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**BLOOMFIELD, NM 87347**

**SAMPLE NO. : 980907**  
**INVOICE NO. : 22101797**  
**REPORT DATE: 03-25-98**  
**REVIEWED BY: *WJ***  
**PAGE : 2 OF 2**

D A T A      T A B L E      (Cont.)

<u>Surrogate Information</u> -	<u>Percent</u>	<u>Range</u>
	<u>Recovery</u>	
aaa Trifluorotoluene .....	118.0	77-120



**ANALYTICAL REPORT**

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SAMPLE NO. : 980908  
INVOICE NO.: 22101797  
REPORT DATE: 03-20-98  
REVIEWED BY: *MG7*  
PAGE : 1 OF 2

CLIENT SAMPLE ID : MW-34  
SAMPLE TYPE .....: Water  
SAMPLED BY .....: LS  
SUBMITTED BY .....: LS  
SAMPLE SOURCE ....: --  
ANALYST .....: K. Costa

AUTHORIZED BY : L. SHELTON  
CLIENT P.O. : --  
SAMPLE DATE ...: 03-09-98  
SUBMITTAL DATE : 03-11-98  
EXTRACTION DATE: --  
ANALYSIS DATE ..: 03-11-98

Petroleum Contaminants by 8020A

D A T A T A B L E			
Parameter	Result	Unit	Detection Limit
Benzene .....	170	ug/L	2.0
Toluene .....	32.	ug/L	2.0
Ethylbenzene .....	20.	ug/L	2.0
Total Xylenes .....	220	ug/L	2.0

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**ANALYTICAL REPORT**

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**SAMPLE NO. : 980908**  
**INVOICE NO. : 22101797**  
**REPORT DATE: 03-20-98**  
**REVIEWED BY: *NAJ***  
**PAGE : 2 OF 2**

**D A T A T A B L E (Cont.)**

Surrogate Information -

	<u>Percent Recovery</u>	<u>Range</u>
aaa Trifluorotoluene .....	104.0	77-120

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--	---	---	--

CLIENT GIANT REFINING COMPANY	SAMPLE NO. : 980909
	INVOICE NO. : 22101797
	REPORT DATE: 03-25-98
	REVIEWED BY: <i>mt</i>
	PAGE : 1 OF 2

CLIENT SAMPLE ID : MW-11	AUTHORIZED BY : L. SHELTON
SAMPLE TYPE .....: Water	CLIENT P.O. : --
SAMPLED BY .....: LS	SAMPLE DATE ...: 03-09-98
SUBMITTED BY ....: LS	SUBMITTAL DATE : 03-11-98
SAMPLE SOURCE ...: --	EXTRACTION DATE: --
ANALYST .....: K. Costa	ANALYSIS DATE .: 03-17-98

Petroleum Contaminants by 8020A

D A T A     T A B L E			
Parameter	Result	Unit	Detection Limit
Benzene .....	4000	ug/L	20.0
Toluene .....	<2.0	ug/L	2.0
Ethylbenzene .....	360	ug/L	20.0
Total Xylenes .....	8600	ug/L	20.0

ANALYTICAL RESULT(S) REPORTED HEREIN APPLY ONLY TO THE SAMPLE(S) TESTED. FURTHERMORE, THIS REPORT CAN ONLY BE COPIED IN ITS ENTIRETY.

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*M. Shelton*  
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MANAGING DIRECTOR



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## ANALYTICAL REPORT

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**BLOOMFIELD, NM 87347**

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 915•585•3443 FAX 915•585•4944  
**SAMPLE NO. : 980909**  
**INVOICE NO. : 22101797**  
**REPORT DATE: 03-25-98**  
**REVIEWED BY: *WJ***  
**PAGE : 2 OF 2**

### D A T A T A B L E (Cont.)

<u>Surrogate Information -</u>	<u>Percent Recovery</u>	<u>Range</u>
aaa Trifluorotoluene .....	99.5	77-120

6701 Aberdeen Avenue, Suite 9 4725 Ripley Avenue, Suite A <b>CLIENT GIANT REFINING CO.</b> <b>P.O. BOX 159</b> <b>BLOOMFIELD, NM 87347</b>	Lubbock, Texas 79424 800•378•1296 El Paso, Texas 79922 888•588•3443 E-Mail: lab@traceanalysis.com	806•794•1296 FAX 806•794•1298 915•585•3443 FAX 915•585•4944 <b>SAMPLE NO. : 980910</b> <b>INVOICE NO. : 22101797</b> <b>REPORT DATE: 03-20-98</b> <b>REVIEWED BY: WA7</b> <b>PAGE : 1 OF 2</b>
--	---	--


<b>CLIENT SAMPLE ID : MW-12</b> <b>SAMPLE TYPE .....: Water</b> <b>SAMPLED BY .....: LS</b> <b>SUBMITTED BY ....: LS</b> <b>SAMPLE SOURCE ....: --</b> <b>ANALYST .....: K. Costa</b>	<b>AUTHORIZED BY : L. SHELTON</b> <b>CLIENT P.O. : --</b> <b>SAMPLE DATE ...: 03-09-98</b> <b>SUBMITTAL DATE : 03-11-98</b> <b>EXTRACTION DATE: --</b> <b>ANALYSIS DATE ..: 03-11-98</b>
--	---

Petroleum Contaminants by 8020A

D A T A T A B L E			
Parameter	Result	Unit	Detection Limit
Benzene .....	<1.0	ug/L	1.0
Toluene .....	<1.0	ug/L	1.0
Ethylbenzene .....	<1.0	ug/L	1.0
Total Xylenes .....	1.8	ug/L	1.0

ANALYTICAL RESULT(S) REPORTED HEREIN APPLY ONLY TO THE SAMPLE(S) TESTED. FURTHERMORE, THIS REPORT CAN ONLY BE COPIED IN ITS ENTIRETY.

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 MANAGING DIRECTOR



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## ANALYTICAL REPORT

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**CLIENT GIANT REFINING CO.**  
**P.O. BOX 159**  
**BLOOMFIELD, NM 87347**

E-Mail: lab@traceanalysis.com

**SAMPLE NO. : 980910**  
**INVOICE NO. : 22101797**  
**REPORT DATE: 03-20-98**  
**REVIEWED BY: *NSJ***  
**PAGE : 2 OF 2**

D A T A T A B L E			(Cont.)
<u>Surrogate Information -</u>		<u>Percent Recovery</u>	<u>Range</u>
aaa Trifluorotoluene	.....:	99.5	77-120

QUALITY CONTROL REPORT

QC IDENTIFIER .....: 31-031798-1  
 REFERENCE NOTEBOOK :  
 REFERENCE PAGE .....:

INSTRUMENT : HEWLETT PACKARD GC5890 PID/ELCD  
 ANALYZED BY : K. Costa  
 ANALYZED ON : 03-17-98

TEST DESCRIPTION ...: Petroleum Contaminants by 8020A

SAMPLES IN THIS RUN: 980902 980909 980921

CALIBRATION CHECK -

PARAMETER	UNIT	TRUE VALUE	FOUND VALUE	%RECOVERY
Benzene	ug/L	10	8.21	82.1
Toluene	ug/L	10	8.73	87.3
Ethylbenzene	ug/L	10	9.07	90.7
Total Xylenes	ug/L	30	27.6	92.0
Benzene	ug/L	10	10.1	101.0
Toluene	ug/L	10	10.4	104.0
Ethylbenzene	ug/L	10	10.3	103.0
Total Xylenes	ug/L	30	31.4	104.7
Benzene	ug/L	10	9.65	96.5
Toluene	ug/L	10	10.3	103.0
Ethylbenzene	ug/L	10	9.91	99.1
Total Xylenes	ug/L	30	29.9	99.7
Benzene	ug/L	10	9.80	98.0
Toluene	ug/L	10	9.67	96.7
Ethylbenzene	ug/L	10	9.68	96.8
Total Xylenes	ug/L	30	29.1	97.0

SPIKES -

SAMPLE NUMBER	PARAMETER	UNIT	SAMPLE RESULT	SPIKE CONC.	SAMPLE+SPIKE DUP1/DUP2	%REC	RPD%
980902	Ethylbenzene	ug/Kg	430	250.	1) 614. 2) 721.	73.6 116.4	45.1
980902	Toluene	ug/Kg	63.	250.	1) 286. 2) 330.	89.2 106.8	18.0
980902	Total Xylenes	ug/Kg	2100	750.	1) 2810 2) 3240.	94.7 152.0	46.5
980902	Benzene	ug/Kg	<50.	250.	1) 219. 2) 247.	87.6 98.8	12.0

BLANK SPIKES

PARAMETER	UNIT	SAMPLE RESULT	SPIKE CONC.	[- SAMPLE AND SPIKE -]		% REC1	% REC2	RPD%
				RESULT 1	RESULT 2			



**Benzene**  
**Toluene**

**ug/Kg**  
**ug/Kg**

**<50.**  
**<50.**

**250.**  
**250.**

**219.**  
**235.**

**87.6**  
**94.0**

QUALITY CONTROL REPORT

QC IDENTIFIER .....: 31-031798-1  
 REFERENCE NOTEBOOK :  
 REFERENCE PAGE .....:

INSTRUMENT : HEWLETT PACKARD GC5890 PID/ELCD  
 ANALYZED BY : K. Costa  
 ANALYZED ON : 03-17-98

BLANK SPIKES

PARAMETER	UNIT	SAMPLE RESULT	SPIKE CONC.	[- SAMPLE AND SPIKE -]		% REC1	% REC2	RPD%
				RESULT 1	RESULT 2			
Ethylbenzene	ug/Kg	<50.	250.	233.		93.2		
Total Xylenes	ug/Kg	<50.	750.	712.		94.9		
Benzene	ug/L	<1.0	10.	10.2		102.0		
Toluene	ug/L	<1.0	10.	10.3		103.0		
Ethylbenzene	ug/L	<1.0	10.	10.0		100.0		
Total Xylenes	ug/L	<1.0	30.	30.1		100.3		

METHOD BLANKS -

PARAMETER	UNIT	RESULT
Benzene	ug/Kg	<50.
Toluene	ug/Kg	<50.
Ethylbenzene	ug/Kg	<50.
Total Xylenes	ug/Kg	<50.
Benzene	ug/L	<1.0
Toluene	ug/L	<1.0
Ethylbenzene	ug/L	<1.0
Total Xylenes	ug/L	<1.0

NOTE -

- 1) NC: Not Calculable because result is < 5 times the MDL
- 2) NP: Not Practical because sample result is 4 times or more greater than spike added.
- 3) Percent Recovery is:

$$\frac{\text{Sample+Spike Result} - \text{Sample Result}}{\text{Spike Amount}} \times 100$$

- 4) Relative Percent Difference (RPD) is:

$$\frac{\text{Sample Result} - \text{Replicate Result}}{(\text{Sample Result} + \text{Replicate Result})/2} \times 100$$

QUALITY CONTROL REPORT

QC IDENTIFIER .....: 31-031198-1  
 REFERENCE NOTEBOOK :  
 REFERENCE PAGE .....

INSTRUMENT : HEWLETT PACKARD GC5890 PID/ELCD  
 ANALYZED BY : K. Costa  
 ANALYZED ON : 03-11-98

TEST DESCRIPTION ...: Petroleum Contaminants by 8020A

SAMPLES IN THIS RUN:   980896   980897   980904   980905   980906   980907   980908  
                           980909   980910   980913   980914   980915   980916   980917  
                           980918   980919   980920

CALIBRATION CHECK -

PARAMETER	UNIT	TRUE VALUE	FOUND VALUE	%RECOVERY
Benzene	ug/L	10	9.08	90.8
Toluene	ug/L	10	9.28	92.8
Ethylbenzene	ug/L	10	9.24	92.4
Total Xylenes	ug/L	30	27.8	92.7
Ethylbenzene	ug/L	20.	17.9	89.5
Toluene	ug/L	20.	17.9	89.5
Total Xylenes	ug/L	60.	53.7	89.5
Benzene	ug/L	20.	18.0	90.0
Benzene	ug/L	10	10.0	100.0
Toluene	ug/L	10	10.1	101.0
Ethylbenzene	ug/L	10	9.86	98.6
Total Xylenes	ug/L	30	29.8	99.3
Benzene	ug/L	10	11.1	111.0
Toluene	ug/L	10	11.3	113.0
Ethylbenzene	ug/L	10	10.7	107.0
Total Xylenes	ug/L	30	32.3	107.7
Benzene	ug/L	10	10.4	104.0
Toluene	ug/L	10	10.5	105.0
Ethylbenzene	ug/L	10	10.5	105.0
Total Xylenes	ug/L	30	31.6	105.3
Benzene	ug/L	10	10.1	101.0
Toluene	ug/L	10	10.2	102.0
Ethylbenzene	ug/L	10	10.1	101.0
Total Xylenes	ug/L	30	30.2	100.7

SPIKES -

SAMPLE NUMBER	PARAMETER	UNIT	SAMPLE RESULT	SPIKE CONC.	SAMPLE+SPIKE DUP1/DUP2	%REC	RPD%
980918	Ethylbenzene	ug/L	<1.0	50.	1) 43.6 2) 49.3	87.2 98.6	12.3
980918	Toluene	ug/L	<1.0	50.	1) 45.1 2) 50.6	90.2 101.2	11.5
980918	Total Xylenes	ug/L	<1.0	150.	1) 130.	86.7	

980918 Benzene

ug/L

<1.0

50.

2) 147.  
1) 42.7  
2) 47.7

98.0 12.2  
85.4  
95.4 11.1

QUALITY CONTROL REPORT

QC IDENTIFIER .....: 31-031198-1  
 REFERENCE NOTEBOOK :  
 REFERENCE PAGE .....:

INSTRUMENT : HEWLETT PACKARD GC5890 PID/ELCD  
 ANALYZED BY : K. Costa  
 ANALYZED ON : 03-11-98

SPIKES -

SAMPLE NUMBER	PARAMETER	UNIT	SAMPLE RESULT	SPIKE CONC.	SAMPLE+SPIKE DUP1/DUP2	%REC	RPD%
980917	Ethylbenzene	ug/L	<1.0	50.	1) 55.0 2) 54.4	110.0 108.8	1.1
980917	Toluene	ug/L	<1.0	50.	1) 56.1 2) 55.7	112.2 111.4	0.7
980917	Total Xylenes	ug/L	<1.0	150.	1) 165. 2) 163.	110.0 108.7	1.2
980917	Benzene	ug/L	<1.0	50.	1) 54.4 2) 53.7	108.8 107.4	1.3
980919	Ethylbenzene	ug/L	<1.0	50.	1) 51.8 2) 51.7	103.6 103.4	0.2
980919	Toluene	ug/L	<1.0	50.	1) 51.7 2) 52.8	103.4 105.6	2.1
980919	Total Xylenes	ug/L	<1.0	150.	1) 155. 2) 155.	103.3 103.3	0.0
980919	Benzene	ug/L	<1.0	50.	1) 50.8 2) 50.7	101.6 101.4	0.2

BLANK SPIKES

PARAMETER	UNIT	SAMPLE RESULT	SPIKE CONC.	[- SAMPLE AND SPIKE -]		% REC1	% REC2	RPD%
				RESULT 1	RESULT 2			
Benzene	ug/L	<1.0	10.	9.79		97.9		
Toluene	ug/L	<1.0	10.	10.0		100.0		
Ethylbenzene	ug/L	<1.0	10.	9.73		97.3		
Total Xylenes	ug/L	<1.0	30.	29.5		98.3		
Benzene	ug/L	<1.0	10.	10.1		101.0		
Toluene	ug/L	<1.0	10.	10.3		103.0		
Ethylbenzene	ug/L	<1.0	10.	10.1		101.0		
Total Xylenes	ug/L	<1.0	30.	30.3		101.0		

METHOD BLANKS -

PARAMETER	UNIT	RESULT
Benzene	ug/L	<1.0
Toluene	ug/L	<1.0
Ethylbenzene	ug/L	<1.0

Total Xylenes  
Benzene  
Toluene  
Ethylbenzene

ug/L  
ug/L  
ug/L  
ug/L

<1.0  
<1.0  
<1.0  
<1.0

QUALITY CONTROL REPORT

QC IDENTIFIER .....: 31-031198-1  
REFERENCE NOTEBOOK :  
REFERENCE PAGE .....:

INSTRUMENT : HEWLETT PACKARD GC5890 PID/ELCD  
ANALYZED BY : K. Costa  
ANALYZED ON : 03-11-98

METHOD BLANKS -

<u>PARAMETER</u>	<u>UNIT</u>	<u>RESULT</u>
Total Xylenes	ug/L	<1.0

NOTE -

- 1) NC: Not Calculable because result is < 5 times the MDL
- 2) NP: Not Practical because sample result is 4 times or more greater than spike added.
- 3) Percent Recovery is:

$$\frac{\text{Sample+Spike Result} - \text{Sample Result}}{\text{Spike Amount}} \times 100$$

- 4) Relative Percent Difference (RPD) is:

$$\frac{\text{Sample Result} - \text{Replicate Result}}{(\text{Sample Result} + \text{Replicate Result})/2} \times 100$$



# TRACE ANALYSIS, INC.

6701 Aberdeen Avenue

Lubbock, Texas 79424

806•794•1296

FAX 806•794•1298

SOLD TO

**GIANT REFINING**

**Attn: Lynn Shelton**

**PO Box 159**

**Bloomfield NM 87413**

**26497**

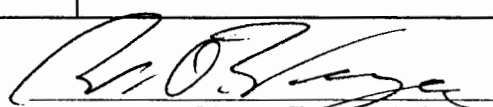
INVOICE **3/31/98**

DATE \_\_\_\_\_

PO # \_\_\_\_\_

TERMS: NET 30

PARAMETER	# SAMPLES	SAMPLE #S	PRICE/SAMPLE	TOTAL
BTEX 8020	1 Water	980903	45.00	45.00
8260	1 Water	980903	175.00	175.00
RCRA Metals	1 Water	980903	100.00	100.00
pH	1 Water	980903	7.00	7.00
Ca,K,Mg,Na	1 Water	980903	55.00	55.00
Carbonate	1 Water	980903	12.50	12.50
Bicarbonate	1 Water	980903	12.50	12.50
Chloride	1 Water	980903	12.50	12.50
Sulfate	1 Water	980903	12.50	12.50
TDS	1 Water	980903	9.00	9.00
Conductivity	1 Water	980903	7.00	7.00
		3/10/98		
<b>TOTAL</b>				<b>448.00</b>

  
 Director, TraceAnalysis, Inc.



# TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424  
 Tel (806) 794 1296 Fax (806) 794 1298  
 1 (800) 378 1296

## CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

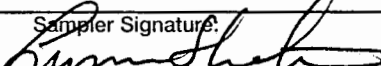
LAB Order ID # \_\_\_\_\_

Company Name: GIANT REFINING CO - BLOOMFIELD Phone #: (505) 632 8013  
 Address: P.O. Box 159 BLOOMFIELD 87413 Fax #: (505) 632 3911  
 Contact Person: LYNN SHELTON

### ANALYSIS REQUEST

(Circle or Specify Method No.)

Invoice to: (If different from above) SAME  
 Project #: \_\_\_\_\_ Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_ Sampler Signature: 

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING		MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	FCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Turn Around Time if different from standard	Hold	
				WATER	SOIL	AIR	SLUDGE	HCL	HNO3	ICE	NONE	DATE	TIME																	
980904	MW-38	3	40ml									3/9/98	940		X															
905	MW-37	3											1000		X															
906	MW-36	3											1025		X															
907	MW-35	3											1045		X															
908	MW-34	3											1100		X															
909	MW-11	3											1120		X															
910	MW-12	3											1145		X															
													1145		X															

Relinquished by: LYNN SHELTON Date: 3/10/98 Time: 4:00  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received at Laboratory by: [Signature] Date: 3-11-98 Time: 11:00

**LAB USE ONLY**  
 Intact  Y  N  
 Headspace  Y  N  
 Temp 5 °C  
 Log-in Review \_\_\_\_\_

REMARKS: \_\_\_\_\_