

EnSolutions, Inc.

66 Elm Street • Dover, NJ 07801 • Telephone 973-442-1320 • Fax 973-361-3204

To: Mark Tibbe – NYSDEC
From: Howard Fredericks
Subject: Owner / Contact for Stipulation Agreement
22-09 Queens Plaza North
Long Island City, NY
Date: October 29, 1998

Dear Mr. Tibbe:

As per our conversation, the following is the responsible party for the Stipulation Agreement for the above referenced facility:

Mr. Michael Melia
Petrocelli Electric Company Inc.
12-12 43rd Avenue
Long Island City, NY 11101

Telephone 718 937-1200
Direct line 718 937-1772
Fax 718 482-8607

Thank you again, and if you have any questions, please do not hesitate to contact me at (973) 442-1320.

Handwritten: 2093
22-09 Queens

**New York State Department of Environmental Conservation
Bureau of Spill Prevention and Response Field Office
222-34 96TH Avenue, Queens Village NY 11429
(718) 776-6080 FAX: (718) 740-6537**



John P. Cahill
Commissioner

October 30, 1998

Petrocelli Electric Company, Inc.
12-12 43rd Avenue
Long Island City, NY 11101

RE: SPILL #: 97-058567
22-09 Queens Plaza North
Long Island City, New York

Mr. Michael Melia,

The purpose of this letter is to obtain your commitment to cleanup and remove the discharge of petroleum which occurred at the site referenced above. In an effort to bring about the timely and appropriate cleanup of this discharge, we have enclosed a Stipulation agreement for your signature. This agreement delineates the work that needs to be done and a schedule for such work. This agreement also includes the required discharge or emission levels that would normally be required for this type of activity. If this agreement is signed, no separate permits will be required. This allows the remediation to start promptly without delays that may be caused by having to obtain Department permits.

By signing the Stipulation agreement, you are not admitting that you caused the discharge or admitting liability for this discharge under Article 12 of the Navigation Law. The sole purpose of the Stipulation is to effectuate the remediation of this discharge in an expeditious fashion. If you choose not to sign this agreement, the Department will hire a contractor to perform the required remediation. This will result in your being billed for the actual costs incurred by the State for this activity.

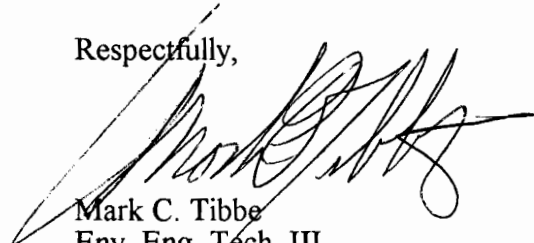
This agreement will not affect your right to pursue any claims you may have against other parties as a result of this discharge. Additionally, in the event that you are not a responsible party under Article 12 of the Navigation Law, this agreement will not prevent you from filing a claim against the New York Environmental Protection and Spill Compensation Fund.

**** You should be advised that your agreement to cleanup this discharge does not affect the Department's right to pursue any claims that the Department may have against you for penalties based on violations of the Navigation Law or the Environmental Conservation Law arising out of this discharge of petroleum. However, by signing this agreement, you have not waived any defenses you may have to any such claims. ****

TO: Michael Melia
DATE: 10\30\98
PAGE: Two

If you choose to perform the remediation of this discharge, please sign the attached Stipulation and return it to the undersigned. If we have not heard from you or received the signed Stipulation within 14 days, we will proceed, as discussed above, to hire a contractor to perform the required remediation. If you have any questions, please contact Mark C. Tibbe of the Spill Response Staff at 718-776-6080.

Respectfully,

A handwritten signature in black ink, appearing to read 'Mark C. Tibbe', is written over the typed name.

Mark C. Tibbe
Env. Eng. Tech. III
New York State Department of
Environmental Conservation

cc: Howard Fredricks, Ensolutions, Inc.
file

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**STIPULATION PURSUANT TO SECTION 17-0303 OF THE ENVIRONMENTAL
CONSERVATION LAW AND SECTION 176 OF THE NAVIGATION LAW BY:**
Petrocelli Electric Company, Inc., Respondent SPILL NO. 97-05856

1. The Department of Environmental Conservation is the agency responsible for the cleanup and removal of discharges of petroleum pursuant to Article 12 of the Navigation Law and Article 17 of the Environmental Conservation Law.
2. Respondent has agreed to cleanup and remove a discharge of petroleum which occurred on August 6, 1997 at 22-09 Queens Plaza North, Long Island City, New York by taking the steps and according to the conditions set forth in the Corrective Action Plan attached to this Stipulation.
3. This Stipulation does not affect the Department's right to pursue any claims that the Department may have against Respondent, including but not limited to, claims for alleged violations of the Navigation Law or the Environmental Conservation Law. This Stipulation does not affect any defenses that Respondent may have to any such claims.
4. Respondent, without admitting liability, consents to the issuance of this Stipulation, waives the right to notice and hearing with respect to the issuance and entry of this Stipulation as provided by law, and agrees to be bound by the terms of this Stipulation, including any attachments thereto.
5. This Stipulation is equivalent to an order pursuant to ECL §§17-0303 and a directive pursuant to NL §176 and is enforceable as such.
6. The Corrective Action Plan may be modified in writing as may be agreed between the parties. The Corrective Action Plan may be modified by the Department in the same manner as a Department permit.
7. The effective date of this Stipulation is the date it is signed by the Department.

Date

Respondent's signature*

Respondent's Title (if corporation)

Date

Regional Director or Regional Engineer, Region ____

* NOTE: If stipulation is with a corporation, the respondent must be an official, authorized corporate representative.

CORRECTIVE ACTION PLAN

CORRECTIVE ACTION PLAN FOR SPILL NUMBER: 97-05856

1. Respondent has submitted to the Department an accepted investigation into the nature and extent of the contamination caused by the spill.
2. Respondent has submitted to the Department a verbally accepted Remediation Plan. An acceptance letter is enclosed in this package.
3. Respondent has implemented the Remediation Plan but has not started the remediation system. Within 30 days of receipt of the signed Stipulation agreement, respondent should start the remediation system.
4. The approved Remediation Plan shall be made part of the Stipulation agreement between Respondent and the Department.

Any modifications to this Corrective Action Plan must be approved in advance in writing by the Department.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**STIPULATION PURSUANT TO SECTION 17-0303 OF THE ENVIRONMENTAL
CONSERVATION LAW AND SECTION 176 OF THE NAVIGATION LAW BY:**
Petrocelli Electric Company, Inc., Respondent SPILL NO. 97-05856

1. The Department of Environmental Conservation is the agency responsible for the cleanup and removal of discharges of petroleum pursuant to Article 12 of the Navigation Law and Article 17 of the Environmental Conservation Law.
2. Respondent has agreed to cleanup and remove a discharge of petroleum which occurred on August 6, 1997 at 22-09 Queens Plaza North, Long Island City, New York by taking the steps and according to the conditions set forth in the Corrective Action Plan attached to this Stipulation.
3. This Stipulation does not affect the Department's right to pursue any claims that the Department may have against Respondent, including but not limited to, claims for alleged violations of the Navigation Law or the Environmental Conservation Law. This Stipulation does not affect any defenses that Respondent may have to any such claims.
4. Respondent, without admitting liability, consents to the issuance of this Stipulation, waives the right to notice and hearing with respect to the issuance and entry of this Stipulation as provided by law, and agrees to be bound by the terms of this Stipulation, including any attachments thereto.
5. This Stipulation is equivalent to an order pursuant to ECL §§17-0303 and a directive pursuant to NL §176 and is enforceable as such.
6. The Corrective Action Plan may be modified in writing as may be agreed between the parties. The Corrective Action Plan may be modified by the Department in the same manner as a Department permit.
7. The effective date of this Stipulation is the date it is signed by the Department.

12/9/98
Date

Mikhail Mcha
Respondent's signature*

12/14/98
Date

Vice President
Respondent's Title (if corporation)
Paul W. Cat
Regional Director or Regional Engineer, Region 2

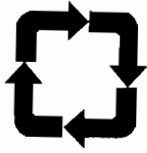
* NOTE: If stipulation is with a corporation, the respondent must be an official, authorized corporate representative.

CORRECTIVE ACTION PLAN

CORRECTIVE ACTION PLAN FOR SPILL NUMBER: 97-05856

1. Respondent has submitted to the Department an accepted investigation into the nature and extent of the contamination caused by the spill.
2. Respondent has submitted to the Department a verbally accepted Remediation Plan. An acceptance letter is enclosed in this package.
3. Respondent has implemented the Remediation Plan but has not started the remediation system. Within 30 days of receipt of the signed Stipulation agreement, respondent should start the remediation system.
4. The approved Remediation Plan shall be made part of the Stipulation agreement between Respondent and the Department.

Any modifications to this Corrective Action Plan must be approved in advance in writing by the Department.



EnSolutions, Inc.

66 Elm Street • Dover, NJ 07801 • Telephone 973-442-1320 • Fax 973-361-3204

January 2, 1999

Mark C. Tibbe
Environmental Engineer Technician III
New York State Department of Environmental Conservation
Bureau of Spill Prevention and Response Field Office
22-34 96TH Avenue
Queens Village, NY 11429

RE: Petrocelli Electric
22-09 Queens Plaza North
Long Island City, New York
Spill Number: ~~97-058567~~
97-05856

Dear Mr. Tibbe:

Please find enclosed as Attachment 1, an SVES data sheet for the referenced spill site. The SVES system at this site was started on December 16, 1998, after the receipt of a signed Stipulation Agreement.

At start up, the system was sampled. Samples were collected from three locations sample locations. These sample locations were, at the discharge of the SVES blower, between the two carbon canisters and at the discharge of the second carbon canister.

The samples collected were transported under Chain of Custody to Vapor Tech Services of Valencia, PA for analysis by gas chromatography. All three sample sets were analyzed for Benzene, Toluene, Ethylbenzene, Xylenes, and C-5 through C-10 hydrocarbons. The complete sample results are enclosed as Attachment 2.

As these results show, the carbon canisters are functioning as an effective air emission control, as the two sets of samples collected between the two carbon canisters and at the discharge of the second carbon canister were Non Detect for all analyte compounds.

The compounds detected in the extracted gas stream prior to carbon treatment are summarized in Table 1. As this Table illustrates, the total calculated hydrocarbon extraction rate, based on the capacity of the SVES system, is 0.99 pounds per hour or 2.38 pounds per day. The benzene extraction rate is 0.00155 pounds per hour at a concentration of 1.16 PPM_v. This concentration is below the guidance value of 3.8 PPM_v, interpolated from Figure 4 of the NYSDEC's Guidance Document for SVES emissions for a discharge stack height of 15 feet.

Additionally, the sample collected prior to carbon treatment was analyzed for permanent gases to assess the compounds of the subsurface atmosphere. These

results are presented in Table 2. As expected, the nitrogen concentration is essentially atmospheric. The carbon dioxide and methane levels are respectively 240 and 950 times greater than the concentrations for atmospheric air. The oxygen level was only 0.4 of the concentration expected in atmospheric air. These results confirm that aerobic biodegradation is occurring.

The low level of oxygen and elevated carbon dioxide indicate that oxygen is being consumed along with hydrocarbons to produce carbon dioxide and water. The elevated methane level is expected, as methane is the last step in the biodegradation process that converts complex hydrocarbons to simpler compounds before the final conversion step of reducing the hydrocarbon to carbon dioxide and water.

The operation of the SVES system will enhance this naturally occurring aerobic biodegradation by replenishing the oxygen content in the subsurface atmosphere. This additional and continuous recharge of oxygen will allow the aerobic bacteria to function without being limited by the available oxygen supply.

At this time, it is intended that the SVES equipment will operate without the air sparging component of the system. The SVES will continue to operate until such time as the soils of the vadose zone can not be further cleaned by SVES. At that time, the air sparging component of the system will be initiated. Again, the purpose of the air sparging is twofold. First to actively remove hydrocarbons from the ground water by "stripping" them from the ground water and to enhance aerobic biodegradation by supplying oxygen to the ground water medium.

The SVES system is monitored continuously by the built in instrumentation and a control computer. Additionally, a technician will make periodic system checks to download control computer data and confirm system operation.

The operational status of the equipment and remedial action progress will be reported to the Department on a quarterly basis, with Quarterly Progress Reports provided to the Department within 30 days of the end of each quarter. Quarterly Progress Reports will be submitted in April, July, October, and January.

If you have any questions or require additional information, please contact me directly at (973) 442-1320.

Sincerely,
EnSolutions, Inc.



R. Larry Lynch P.E.

EnSolutions, Inc.



TABLE 1

Petrocelli Electric Company, Inc.

22-09 Queens Plaza North

Long Island City, New York

Soil Vapor Extraction System

Case Number 97-058567

Air Flow Rate	112	SCFM
Inlet Temperature	65	Degrees F
Inlet Pressure	14.38	PSIA

Compound	PPMv	Mol. Wt.	Pounds per Hour
Pentane	45	72.15	5.57E-02
Hexane	13.92	86.17	2.06E-02
Heptane	8.44	100.19	1.45E-02
Octane	1.8	114.21	3.53E-03
Nonane	0.15	128.23	3.30E-04
Decane	ND	142.25	
Benzene	1.16	78.11	1.55E-03
Toluene	1.42	92.13	2.24E-03
Ethylbenzene	ND	106.16	
Xylene(Total)	0.47	106.16	8.56E-04

Total Pounds Per Hour	0.099
Total Pounds Per Day	2.38

Sample Date: December 16, 1998

EnSolutions, Inc.



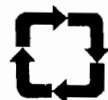
TABLE 2

Petrocelli Electric Company, Inc.
22-09 Queens Plaza North
Long Island City, New York
Case Number 97-058567

GAS	Normal Air Percent	Petrocelli SVE Percent	Ratio
N ₂	78	81	1
CO ₂	0.033	7.93	240
CO	0.0	ND	
O ₂	20.9	8.36	0.4
CH ₄	0.0002	0.19	950

Sample Date: December 16, 1998

EnSolutions, Inc.



ATTACHMENT 1

SVES Data Sheet

Petrocelli Electric
22-09 Queens Plaza North
Long Island City, New York
Spill Number: 97-058567

January 1999
Progress Report

EnSolutions, Inc.



TO: Mark C. Tibbe
Environmental Engineer Technician III
New York State Department of Environmental Conservation
Bureau of Spill Prevention and Response Field Office
22-34 96TH Avenue
Queens Village, NY 11429

FROM: R. Larry Lynch, PE
EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801

1. Reason For Submittal:

 X Notice of Operation
 Notice of Removal of Emission Control Equipment

2. Spill Name: Petrocelli Electric
Spill Location: 22-09 Queens Plaza North
Long Island City, New York

3. Spiller: Petrocelli Electric
Address: 22-09 Queens Plaza North
Long Island City, New York

4. Spill Number: 97-058567

5. Start Up Date: 12 / 16 / 98
mo. day year

6. Estimated Project Duration: Three (3) Years

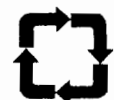
7. Emission Point:

- a) Emission ID Number: 001
- b) Ground Elevation Above Sea Level: 25 Feet
- c) Stack Height: 15 Feet
- d) Height Above Nearest Structure: N/A
- e) Stack Inside Dimensions: 2.067 Inches 0.17225 Feet
- f) Air Exit Temperature 75 °F
- g) Air Flow Rate: 100 CFM
- h) Air Exit Velocity: ≈72 Ft / Sec
- i) Benzene in Air Influent: 1.18 PPMv
- j) Distance From Base of Stack to Nearest On-Site Building: 40 Feet
- k) Distance From Base of Stack to Nearest Off-Site Building: 80 Feet

8. Operation Time

- a) Hours / Day: 24
- b) Days / Year: 365
- c) % Operation by Season: 25% Winter 25% Summer
25% Spring 25% Fall

EnSolutions, Inc.



9. Process Description

Soil vapor extraction to remove volatile compounds from the petroleum impacted soil with air sparging to provide oxygen for biodegradation of petroleum compounds in ground water. Extracted air is discharged to the atmosphere.

10. Emission Controls

☐ Not Needed Based on Analysis of Pilot Test Data

☐ Not Needed Based on Analysis of Operating Data

☒ Described Below

11. Control Equipment

- a) I.D. Number: 01
- b) Control Type: Activated Carbon Bed Adsorber, 2 each in Series
- c) Manufacturer's Name: Aqua Bella
- d) Model Number: AB-180-Vapor Phase
- e) Disposal of Collected Contaminates: Carbon beds are removed from the site and re-activated at a permitted facility. Re-activated carbon is recycled for reuse.
- f) Date Emission Control Operations Began: December 16, 1998
- g) Expected Useful Life: Estimated at 2 months

12. Contaminant

- a) Name: Benzene
- b) CAS Number: 71-43-2
- c) Control Equipment Input (=7i): 1.18 PPM_v
- d) Control Equipment Efficiency: 90%
- e) Control Equipment Output(=(1-12d.) x 12c.) 0.12 PPM_v
- f) Permissible Air Emission Rate: 3.8 PPM_v

13. Fuel for Combustion Vented to the Same Emission Point

- a) Fuel Used

☒ None



ATTACHMENT 2

SVES Analytical Data Package

Petrocelli Electric
22-09 Queens Plaza North
Long Island City, New York
Spill Number: 97-058567

January 1999
Progress Report

EnSolutions, Inc.





Analytical Laboratory & Geoprobe Sampling

12/22/98

Mr. Larry Lynch
Ensolutions Inc.
66 Elm Street
Dover, NJ 07801

Dear Larry:

Enclosed are the sample data report, chain of custody record and quality control data for the samples received on December 18 , 1998 for your project; Petrocelli-L1C.

Please give me a call if you have questions or I can be of further assistance. Thank you for using Vaportech Services.

Sincerely,

A handwritten signature in black ink, appearing to read 'David J. Masdea', written in a cursive style.

David J. Masdea

Enclosure:

VaporTech Services, Inc.

ENI7-982323

Ensolutions, Inc.
Project: Petrocelli-L1C

CONCENTRATIONS IN PPMV

COMPOUND	IN	C-1	C-2	MDL
PENTANE	45.00	ND	ND	0.07
HEXANE	13.92	ND	ND	0.07
HEPTANE	8.44	ND	ND	0.07
BENZENE	1.16	ND	ND	0.07
OCTANE	1.80	ND	ND	0.07
TOLUENE	1.42	ND	ND	0.07
NONANE	0.15	ND	ND	0.07
ETHYL BENZENE	ND	ND	ND	0.07
M&P XYLENE	0.39	ND	ND	0.07
O-XYLENE	0.08	ND	ND	0.07
DECANE	ND	ND	ND	0.07

FILE NAME	V4A4.68A	V4A4.69A	V4A4.70A
DATE SAMPLED	12/16/98	12/16/98	12/16/98
DATE RECEIVED	12/18/98	12/18/98	12/18/98
DATE ANALYZED	12/21/98	12/21/98	12/21/98

22-Dec-98

Reviewed by 

VaporTech Services, Inc.

ENI7-982323

Ensolutions, Inc.
Project: Petrocelli-L1C

CONCENTRATIONS IN PPMV %

COMPOUND	IN-PG	
CARBON DIOXIDE	7.93	0.02
OXYGEN	8.36	0.03
NITROGEN	81.18	0.10
METHANE	0.19	0.03
CARBON MONOXIDE	ND	0.10

FILE NAME	D4B.95A
DATE SAMPLED	12/16/98
DATE RECEIVED	12/18/98
DATE ANALYZED	12/20/98

MDL - Lower 'Method Detection Limit'

ND - 'Not Detected' above the lower method detection limit

22-Dec-98

Reviewed by



VaporTech Services, Inc.

ENI7-982323

Ensolutions, Inc. Project: Petrocelli-L1C

QUALITY CONTROL

CONTINUING CALIBRATION CHECK

STANDARDS: V21-R4 220
FILE NAME: V4A4.65A V4A4.56A

COMPOUND	KNOWN (PPMV)	RESULT (PPMV)	PERCENT DIFFERENCE
PENTANE	99.70	102.48	2.79
HEXANE	102.00	107.70	5.58
HEPTANE	0.98	0.88	10.20
BENZENE	1.25	1.18	5.60
OCTANE	0.86	0.82	4.30
TOLUENE	1.06	1.03	2.83
NONANE	0.76	0.74	2.63
ETHYL BENZENE	0.92	0.93	1.09
M&P XYLENE	1.84	1.85	0.33
O-XYLENE	0.92	0.96	4.02
DECANE	0.69	0.69	0.29

LABORATORY BLANK RESULTS

BLANK: He IN VIAL
FILE NAME: V4A4.64A

COMPOUND	METHOD DETECTION BLANK (PPMV)	LIMIT (PPMV)
PENTANE	ND	0.07
HEXANE	ND	0.07
HEPTANE	ND	0.07
BENZENE	ND	0.07
OCTANE	ND	0.07
TOLUENE	ND	0.07
NONANE	ND	0.07
ETHYL BENZENE	ND	0.07
M&P XYLENE	ND	0.07
O-XYLENE	ND	0.07
DECANE	ND	0.07
TOTAL C4-C12	ND	0.07

ND - denotes 'Not Detected' above the lower method detection limit

22-Dec-98

Reviewed by



VaporTech Services, Inc.

ENI7-982323

Ensolutions, Inc. Project: Petrocelli-L1C

QUALITY CONTROL

CONTINUING CALIBRATION CHECK

STANDARDS: "237"
FILE NAME: D4B.84A

COMPOUND	KNOWN (PPMV)	RESULT (PPMV)	PERCENT DIFFERENCE
CARBON DIOXIDE	15.00	15.09	0.60
OXYGEN	7.00	7.08	1.14
NITROGEN	66.49	66.71	0.33
METHANE	4.50	4.47	0.67
CARBON MONOXIDE	7.01	6.31	9.99

LABORATORY BLANK RESULTS

BLANK: He IN LOOP
FILE NAME: D4B.85A

COMPOUND	METHOD DETECTION BLANK (PPMV)	LIMIT (PPMV)
CARBON DIOXIDE	ND	0.02
OXYGEN	ND	0.03
NITROGEN	ND	0.10
METHANE	ND	0.03
CARBON MONOXIDE	ND	0.10

ND - denotes 'Not Detected' above the lower method detection limit

22-Dec-98

Reviewed by



CHAIN-OF-CUSTODY RECORD



1158 Pittsburgh Road • Suite 201 • Valencia, PA 16059
Tel: 724-898-2622 • Fax: 724-898-2633

Company Name: En Solutions, Inc
Address: 66 ELM Street
City: DOVER State: NJ Zip: 07801
Proj. Manager: L. LYNCH
Proj. Location: LONG ISLAND CITY
Proj. Number: ~~88~~ PETROCELLI - LIC
Phone #: 973-442-1320 Fax #: 973-361-3204
Sampler's signature: R. Lynch

Analysis Options:

Enter letters in Requested Analyses columns below.

* A	Light Hydrocarbons (C1 - C4)	F	Chlorinated HC
* B	Permanent Gases (CH4, CO, CO2, N2, O2)	G	601 & 602 Compounds
C	BTEX	H	C11 - C18 HC
D	BTEX & C5 - C10		
**E	TPH (C5 - C10) or (C4 - C12)	Other	Specify below

* Requires an additional container when requested in combination with another analysis.

** If analysis E is selected, scratch (option) NOT wanted.

Collection Date	Time	Number of Containers	Sample Type	Sample Identification	Requested Analyses (Other)				Remarks
12/16/98	0900	1	GAS	114 - PG	B				FROM GROUND
12/16/98	0905	1	GAS	1N	D				FROM GROUND
12/16/98	0910	1	GAS	C-1	D				CARBON 1 OUT
12/16/98	0915	1	GAS	C-2	D				CARBON 2 OUT

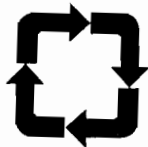
Results to: <u>L. LYNCH</u> <u>En Solutions</u> <u>973-361-3204</u>	Invoice to: <u>L. LYNCH</u> <u>En Solutions</u>
--	--

Relinquished by: <u>R. Lynch</u>	Company: <u>En Solutions</u>	Date: <u>12/16/98</u>	Time: <u>1000</u>	Received by: <u>[Signature]</u>	Company: <u>VaporTech</u>	Date: <u>12/18/98</u>	Time: <u>1500</u>
Relinquished by: <u> </u>	Company: <u> </u>	Date: <u> </u>	Time: <u> </u>	Received by: <u> </u>	Company: <u> </u>	Date: <u> </u>	Time: <u> </u>
Relinquished by: <u> </u>	Company: <u> </u>	Date: <u> </u>	Time: <u> </u>	Received by: <u> </u>	Company: <u> </u>	Date: <u> </u>	Time: <u> </u>

WHITE COPY : Laboratory to return.

YELLOW COPY : Laboratory

PINK COPY : Submitter



EnSolutions, Inc.

66 Elm Street • Dover, NJ 07801 • Telephone 973-442-1320 • Fax 973-361-3204

May 28, 1999

Mr. Mark Tibbe
New York State Department of Environmental Conservation
222-34 96th Avenue
Queens Village, NY 11420

RE: Progress Report
Petrocelli Facility
22-09 Queens Bridge Plaza North
Long Island City, NY
Spill # ~~97-058567~~
97-05856

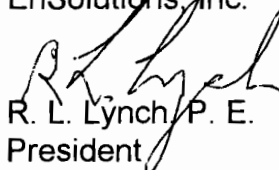
Dear Mr. Tibbe:

On behalf of Petrocelli Electric Company Inc. (Petrocelli), enclosed is the progress report for the remedial action at the above referenced facility prepared by EnSolutions, Inc. The purpose of this report is to provide the NYSDEC with the following information:

1. The status of the remedial action and remedial system at the site.
2. The analytical ground water sampling results performed in April 1999 at the site.
3. The analytical results of the vapor sampling performed in April 1999 at the site.
4. Conclusions and proposed actions items.

Thank you for all your assistance in this matter and if you require any additional information please do not hesitate to call us at (973) 442-1320.

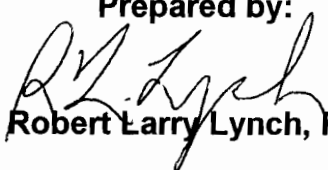
Sincerely,
EnSolutions, Inc.


R. L. Lynch, P. E.
President

cc: Michael Melia – Petrocelli Electric

**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

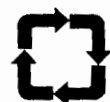
**Prepared for:
PETROCELLI ELECTRIC COMPANY, INC.**

Prepared by:

Robert Larry Lynch, P.E.

**EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801
(973) 442-1320**

MAY 1999

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

TABLE OF CONTENTS

SECTION I

- A. Introduction
- B. Area/Site Characterization
- C. Ground Water
- D. Installation of Ground Water Monitoring Wells – May 1998
- E. Implementation of SVE/AS Remedial System

SECTION II

- A. SVE System Startup
- B. Zone of Influence Test
- C. Remedial System Monitoring
- D. Ground Water Sampling – April 16, 1999
- E. Ground Water Analytical – April 16, 1999
- F. System Vapor Sampling - April 30, 1999
- G. Air Sparging System Startup

SECTION III

- A. Conclusions
- B. Action Items

SECTION IV

FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 April 1999 Benzene Isopleth Map
- Figure 4 April 1999 Total BTEX Isopleth Map
- Figure 5 April 1999 MTBE Isopleth Map



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

**TABLE OF CONTENTS
(continued)**

SECTION V

ATTACHMENTS

Attachment 1	Field Sampling Data – April 1999
Attachment 2	Ground Water Sampling Results Summary Table–April 1999
Attachment 3	Laboratory QA/QC Data – April 1999
Attachment 4	VaporTech Services Laboratory Data



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION I

A. INTRODUCTION

On behalf of Petrocelli Electric Company, Inc. (Petrocelli), EnSolutions, Inc. (EnSolutions) has prepared this Progress Report for the remedial actions implemented at the Petrocelli facility at 22-09 Queens Bridge Plaza North, Long Island City, New York.

This Progress Report is part of the approved Corrective Action Plan implemented following a release of petroleum hydrocarbons at the site as a result of the activities performed by Yellowstone Environmental Company for the prior property owner.

B. AREA/SITE CHARACTERIZATION

The site is currently under renovation and will become the administrative and maintenance facilities for the Petrocelli Electric Company, Inc. The site is at 22-09 Queens Plaza North, between 22nd and 23rd Streets, Long Island City, Queens County, New York. The area surrounding the site is primarily commercial with some residential units up-gradient of the site, east on 23rd Street. A site location map is included as Figure 1 in Section IV and a site plan illustrating all current site features is included as Figure 2 in Section IV.

The East River is the nearest surface water to the site and is located approximately 3,000 feet to the west of the facility.

The water source at the subject property and at all surrounding properties is currently from the public water supply.

C. GROUND WATER

Based upon the April 1999 quarterly monitoring well sampling events conducted on April 16, 1999, the depth to ground water ranged from 8.16 to 10.30 feet below grade in wells MW-1 through MW-6.



The direction of ground water flow is predicted to be toward the west, in the direction of the East River.

D. INSTALLATION OF GROUND WATER MONITORING WELLS – MAY 1998

As a result of the soil delineation and ground water sampling and analyses performed at the subject property in April 1998, Aquifer Drilling and Testing, Inc. (ADT) of Woodside, New York, installed six (6) ground water monitoring wells on the subject property in May 1998. The six (6) 4-inch ground water monitoring wells were installed as both soil vapor extraction points and as ground water monitoring points in order to address and monitor the ground water contamination at the subject property. The six (6) 4-inch monitoring wells are labeled as MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6 and are shown in the site plan, Figure 2 in Section IV.

The six ground water monitoring wells were constructed of 4-inch PVC pipe with 15 foot of .020 inch slotted screen, gravel packing, bentonite sealed and grouted to grade. The wells also include flush mounted road boxes with locking caps.

E. IMPLEMENTATION OF SVE/AS REMEDIAL SYSTEM

Based on the report submitted to the NYSDEC, which included the soil and ground water laboratory analytical data from the April 1998 sampling event and a Correction Action Plan, an approved Stipulation Agreement between Petrocelli and the NYSDEC, including an approved air permit, was issued for the site.

As part of the Correction Action Plan, EnSolutions installed a Soil Vapor Extraction / Air Sparging (SVE/AS) Remedial System to address the petroleum hydrocarbon soil and ground water contamination at the site.

The SVE was the initial remedial measure to be implemented at this site. SVE induces airflow in the subsurface using an above ground vacuum pump system. The induced airflow brings clean air in contact with the contaminated soil. The contaminated soil vapors drawn off by the SVE allows the soil matrix to re-establish the soil / pore moisture partitioning with the contaminants present.

The SVE methodology is the concept of an air envelope. The air envelope is the area from which air is drawn from and toward an extraction well. As air is extracted, air moves into the well from the area adjacent to the well screen. The air further from the well now moves in to replace the air withdrawn by the well. As the air, that is farther from the well, moves towards the well, the pressure differential becomes very small and is not often measured by contemporary pressure measurement devices.



The SVE installed is based upon a positive displacement vacuum pump that utilizes an electronic variable speed drive. The drive receives its speed command from a Programmable Logic Controller (PLC), which is a full-featured control computer capable of two-way communication. This PLC permits the monitoring of all control parameters, such as pump speed and vacuum level and also provides for the modification of system parameters.

All programs can be monitored and changed as necessary remotely or through a local interface. For protection, the system is password protected. The interface allows the operator to change parameters or view data by clicking on graphic symbols that represent the piece of equipment. Additionally, the equipment status is easily determined as this software allows for different colors to represent different states of operation, such as, green for on, red for stopped, and amber for ready to run.

The SVE component installed and operating at the site consists of an extraction unit with positive displacement blower, a programmable logic controller (PLC), two (2) activated carbon polishing drums, 2" extraction piping, and 4" extraction wells. The extraction points are connected to the system via a common 2" manifold that is equipped with gate valves to control the airflow to the individual wells.

The SVE is connected to six extraction points, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6, to address the levels of contaminants at the site.

The air sparging component of the remedial system provides oxygen to stimulate biological activity in the subsurface. The air sparging system is design to provide sufficient oxygen to stimulate bioactivity, while minimizing the mobilization of dissolved hydrocarbons. To maintain a closed loop circulation of air injected into the ground water, the air sparging points are located within 30 feet of the vapor extraction points, well within the zone of influence for the SVE system.

The sparge system utilizes the four (4) sparge points, SP-1, SP-2, SP-3 and SP-4, and each point is configured with a gate valve to control flow to each individual sparge point. This will allow the operation of the system to be changed as necessary to optimize air sparging.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION II

A. SVE SYSTEM STARTUP

Based upon the approval of the Stipulation Agreement between the NYSDEC and Petrocelli, the SVE segment of the remedial system was started in December 1998.

B. ZONE OF INFLUENCE TEST

A zone of influence test to evaluate the SVE system was performed during the first quarter of 1999 to determine the effectiveness of the remedial system at the subject site.

The test was conducted as follows for each extraction well:

1. Beginning with extraction well #3, the valve in the piping header, which connects this vapor extraction well to the SVE system, was opened. All other well valves were then closed.
2. The system was turned on to the desired operating vacuum.
3. The fittings from the wellhead were removed and attached to a vacuum gauge. Various vacuum gauges were utilized, ranging from as small as 0-1 inch of water to 0-100 inches of water vacuum, to cover readings over the entire range of vacuums that would be encountered during the test.
4. Vacuum readings were collected at the non-pumping wellheads by beginning with the vacuum gauge with the largest range and working down.
5. Readings were recorded at each of the non-pumping well heads. If no vacuum was noted, a zero vacuum was recorded.

Utilizing the data obtained from the zone of influence test, the pneumatic zone of influence that displays capture of the vadose zone was established for this site.



C. REMEDIAL SYSTEM MONITORING

During SVE /system operation, maintenance checks and hydrocarbon readings were taken to monitor contaminant levels using a Photo Ionization Detector (PID).

These readings were taken at various points in the system. The first reading was taken between the SVE system and the first carbon drum. The second reading was taken between the two carbon drums and the third was taken at the outlet or effluent of the second carbon drum in order to determine hydrocarbon breakthrough.

None of the PID readings, from the system startup through April 30, 1999, indicated contaminate breakthrough.

D. GROUND WATER SAMPLING - APRIL 16, 1999

Ground water samples were collected from all monitoring wells at the site on April 16, 1999. Prior to sampling, the monitor wells were purged of three well volumes with a pneumatic diaphragm pump attached to new, dedicated polyethylene tubing and a clean, dedicated brass foot-valve to allow representative groundwater to enter the well. The ground water samples were collected within two hours of purging with disposable, teflon samplers from approximately two feet below static water level. The samples were preserved with HCL, transported on ice to STL - Envirotech (NY Certification # 12543) in Edison, New Jersey for analyses and were accompanied with a chain of custody form, in accordance with quality control standards.

All monitor wells were analyzed for 8021p - Stars and MTBE. The April 16, 1999 field sampling data is included as Attachment 1 in Section V.

E. GROUND WATER ANALYTICAL RESULTS – APRIL 16, 1999

The laboratory results of the 8021p-STARs analyses for the six ground water samples obtained indicated:

1. Levels of Benzene exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-1 at 45 ppb and MW-4 at 77 ppb.
2. Levels of Ethylbenzene exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-1 at 58 ppb and MW-4 at 250 ppb.
3. Levels of Toluene exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-4 at 14 ppb.
4. Levels of Total Xylenes exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-1 at 30 ppb and MW-4 at 370 ppb.



5. Levels of MTBE exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-1 at 590 ppb, MW-2 at 520 ppb, MW-4 at 280 ppb and MW-6 at 6200 ppb.
6. Levels of Naphthalene exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-1 at 160 ppb and in MW-4 at 110 ppb.
7. Levels of other volatile components of the 8021p-STARS listing, n-Propylbenzene, Isopropylbenzene in MW-1 and MW-4, and 1,3,5 Trimethylbenzene and 1,2,4 Trimethylbenzene in MW-4 only, were above the NYSDEC ground water quality standards or guidance values.

A summary table of the results are show in Attachment 2 in Section V.

The laboratory QA/QC for the ground water analyses is included as Attachment V in Section V.

In addition, copies of the Benzene, Total BTEX and MTBE ground water Isopleth maps are included as Figures 3, 4 and 5, respectively, in Section IV.

F. SYSTEM VAPOR SAMPLING – APRIL 30, 1999

To confirm the effectiveness of the carbon polishers for the system and prior to a carbon change, a vapor sample of the outlet from the system prior to carbon drum #1, labeled as C-out, between the two carbon drums, labeled as C-middle, and at the outlet or effluent of carbon drum #2, labeled as C-sparge, were obtained on April 30, 1999 and sent to VaporTech Services, Inc. of Valencia, PA for analyses.

The results of the vapor test indicated that there was no contaminate breakthrough of the system. Copies of the laboratory data from VaporTech Services are included as Attachment 4 in Section V.

G. AIR SPARGING SYSTEM STARTUP

Based upon the analytical data reviewed, the air sparging system was started to enhance the remedial efforts on the site on May 6, 1999.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION III

A. CONCLUSIONS

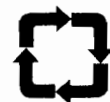
Based upon the information to date, the following conclusions have been determined at the site:

1. The analytical results of the soil and ground water sampling confirm a release from the former underground storage tank system at the subject property and the contamination of ground water at the site.
2. The startup of the air sparging system on May 6, 1999 will enhance the remedial efforts of the SVE system.
3. The results have shown declines since the SVE segments of the remedial system became operational in December 1998.

B. ACTION ITEMS

Based upon analytical data and system information reviewed, the following are the action items to be implemented at the site:

- A. The SVE / AS system will continue to be operational and monitored.
- B. The next round of ground water samples will be obtained in October 1999.
- C. The discharge from the SVE/AS system will continued to be monitored and another round of vapor samples from the system effluent will be done in October 1999, unless monitoring indicates vapor sampling and analysis.
- D. A progress report of the system operation and the analytical data obtained from this next round of samples will be sent to the NYSDEC case manager within 45 days of receipt of all analytical data, on or about December 15, 1999.



FIGURES

EnSolutions, Inc.



Figure 1
Site Location Map

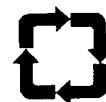


Figure 1 - Site Location Map



Figure 2

Site Plan

EnSolutions, Inc.




QUEENS PLAZA NORTH

22nd STREET



KEY	
	Monitor Well
	Sparge Point

DATE	EnSolutions Inc. 66 Elm Street Dover, NJ 07801 
MAY 1999	
DESCRIPTION	
FIGURE 2 PETROCELLI FACILITY SITE PLAN	
TITLE	
22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY	SCALE
S. KOTEEN	AS SHOWN

REMEDIAL
SYSTEM

MW-1

MW-2

MW-3

SP 2

SP 1

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

MW-4

Tank Farm

SP 3

SP 4

MW-5

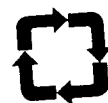
MW 6

0ft. 6ft. 10ft. 20ft.

Figure 3

April 1999 Benzene Isopleth Map

EnSolutions, Inc.



22nd STREET

QUEENS PLAZA NORTH

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

REMEDIAL
SYSTEM

Tank Farm

MW-1

MW-2

MW-3

SP 2

SP 1

MW-4

SP 3

SP 4

MW-5

MW 6



KEY

⊕ Monitor Well

■ Sparge Point

DATE

MAY 1999

**EnSolutions
Inc.**

66 Elm Street
Dover, NJ 07801



DESCRIPTION

FIGURE 3
PETROCELLI FACILITY
BENZENE ISOPLETH MAP

TITLE

22-09 Queens Bridge Plaza North
Long Island City, NY

DRAWN BY

S. KOTEEN

SCALE

As Shown

WELL NO.	BENZENE
MW 1	45
MW 2	ND
MW 3	ND
MW 4	77
MW 5	ND
MW 6	ND

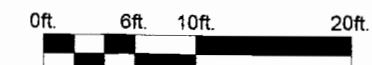
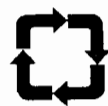


Figure 4

April 1999 Total BETX Isopleth Map



22nd STREET

QUEENS PLAZA NORTH

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

REMEDIAL
SYSTEM

MW-1

MW-2

MW-3

SP 2

SP 1

700

MW-4

100

Tank Farm

SP 3

SP 4

MW-5

MW 6



KEY

- Monitor Well
- Sparge Point

DATE	EnSolutions Inc.
MAY 1999	66 Elm Street Dover, NJ 07801
DESCRIPTION	
FIGURE 4 PETROCELLI FACILITY TOTAL BTEX ISOPLETH MAP	
TITLE	
22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY	SCALE
S. KOTEEN	As Shown

WELL NO.	BTEX
MW 1	133
MW 2	ND
MW 3	ND
MW 4	711
MW 5	ND
MW 6	ND

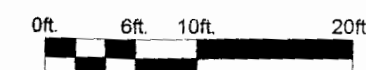
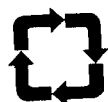


Figure 5

April 1999 MTBE Isopleth Map

EnSolutions, Inc.



QUEENS PLAZA NORTH

22nd STREET

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

REMEDIAL
SYSTEM

Tank Farm

600

MW-1

MW-2

MW-3

SP 2

SP 1

MW-4

SP 3

SP 4

MW-5

6000

MW 6

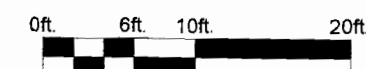


KEY

- Monitor Well
- Sparge Point

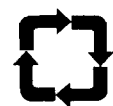
DATE	EnSolutions Inc. 66 Elm Street Dover, NJ 07801
MAY 1999	
DESCRIPTION <p align="center">FIGURE 5 PETROCELLI FACILITY MTBE ISOPLETH MAP</p>	
TITLE 22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY	SCALE
S. KOTEEN	As Shown

WELL NO.	MTBE
MW 1	590
MW 2	520
MW 3	22
MW 4	280
MW 5	ND
MW 6	6200



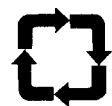
ATTACHMENTS

EnSolutions, Inc.



Attachment 1

Field Sampling Data - April 1999



PETROCELLI ELECTRIC

LONG ISLAND CITY, NY

SAMPLE POINT	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
TOTAL DEPTH	15.10	14.9	16.6	14.5	12.0	15.0
DEPTH TO WATER TOC (ft)	10.30	8.84	9.45	9.24	8.16	9.39
HEIGHT TO WATER COL (ft)	4.8	6.1	7.2	5.3	3.8	5.6
ONE CASING VOLUME (GAL)	3.1	3.9	4.7	3.4	2.5	3.7
THREE CASING VOLUME (GAL)	9.4	11.9	13.9	10.3	7.5	10.9
ACTUAL VOLUME PURGED GAL)	11.0	12.0	14.0	11.0	8.0	12.0
DATE SAMPLED	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99
TIME SAMPLED	1115	1130	1210	1155	1230	1245
FIELD PARAMETERS						
pH	6.62	6.04	6.51	6.57	7.24	6.75
SCOND um/cm	1250	1390	927	950	332	1560
TEMP C	14.2	14.4	14.4	14.2	13.0	14.2
DISSOLVED OXYGEN (ppm)	1.25	2.05	2.20	1.61	3.38	1.33
APPEARANCE	cloudy odor	cloudy odor	cloudy odor	cloudy odor	cloudy odor	clear odor
PURGE METHOD	PP	PP	PP	PP	PP	PP
SAMPLE METHOD	BT	BT	BT	BT	BT	BT

PP = PERISTALIC PUMPBP

BT = TEFLON BAILER

Attachment 2

Petrocelli Electric Company, Inc.

Ground Water Sampling Results Summary Table - April 1999

	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
VOLATILE COMPOUNDS (ug/l)						
Benzene	45	U	U	77	U	U
Toluene	U	U	U	14	U	U
Ethylbenzene	58	U	U	250	U	U
Isopropylbenzene	76	U	U	37	U	U
n-Propylbenzene	160	62	U	58	U	U
1,3,5-Trimethylbenzene	U	U	U	45	U	U
tert-Butylbenzene	U	U	U	U	U	U
1,2,4-Trimethylbenzene	U	U	U	120	U	U
sec-Butylbenzene	U	U	U	U	U	U
p-Isopropyltoluene	U	U	U	U	U	U
n-Butylbenzene	U	U	U	U	U	U
Naphthalene	160	U	U	110	U	U
MTBE	590	520	22	280	U	6200
Total Xylenes	30	U	U	370	U	U

Qualifiers

U - The compound was not detected at the indicated concentration.

EnSolutions, Inc.



Attachment 3

Laboratory QA/QC Package – April 1999

EnSolutions, Inc.





STL Envirotech
777 New Durham Road
Edison, NJ 08817
Tel: (732) 549-3900
Fax: (732) 549-3679
www.stl-inc.com

May 11, 1999

EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801

Attention: Mr. Steve Koteen

Re: Job No. N490 - Petrocelli Elec

Dear Mr. Koteen:

Enclosed are the results you requested for the following sample(s) received at our laboratory on April 14, 1999:

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
124787	MW-1	8021-NY STARS List
124788	MW-2	8021-NY STARS List
124789	MW-4	8021-NY STARS List
124790	MW-5	8021-NY STARS List
124791	MW-6	8021-NY STARS List
124792	MW-3	8021-NY STARS List
124793	Trip_Blank	8021-NY STARS List

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Brian Reddy, at (732) 549-3900.

Very truly yours,

Michael J. Urban
Laboratory Manager

Other Laboratory Locations:

- 149 Rangeway Road, North Billerica MA 01862
- 16203 Park Row, Suite 110, Houston TX 77084
- 200 Monroe Turnpike, Monroe CT 06468
- 120 Southcenter Court, Suite 300, Morrisville NC 27560

- 11 East Olive Road, Pensacola FL 32514
- Westfield Executive Park, 53 Southampton Road, Westfield MA 01085
- 628 Route 10, Whippany NJ 07981
- 55 South Park Drive, Colchester VT 05446

a part of
Severn Trent Services Inc



TABLE OF CONTENTS

	<u>Section</u>	<u>Page</u>
Analytical Results Summary	1	1
General Information	2	
Chain of Custody		8
Laboratory Chronicles		9
Methodology Review		10
Data Reporting Qualifiers		13
Non-Conformance Summary		14
GC/PID Forms and Data	3	
Results Summary and Chromatograms		16
Method Blank Results Summary		31
Standards Summary		37
Surrogate Compound Recovery Summary		55
Spike Recovery Summary		56



Client ID: MW-1
Site: Petrocelli Elec

Lab Sample No: 124787
Lab Job No: N490

Date Sampled: 04/14/99
Date Received: 04/14/99
Date Analyzed: 04/20/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5976.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

Parameter	Analytical Result	Quantitation
	Units: ug/l	Limit Units: ug/l
Benzene	45	25
Toluene	ND	25
Ethylbenzene	58	25
Isopropylbenzene	76	25
n-Propylbenzene	160	25
1,3,5-Trimethylbenzene	ND	25
tert-Butylbenzene	ND	25
1,2,4-Trimethylbenzene	ND	25
sec-Butylbenzene	ND	25
p-Isopropyltoluene	ND	25
n-Butylbenzene	ND	25
Naphthalene	160	25
MTBE	590	25
Total Xylenes	30	25



Client ID: MW-2
Site: Petrocelli Elec

Lab Sample No: 124788
Lab Job No: N490

Date Sampled: 04/14/99
Date Received: 04/14/99
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5959.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	25
Toluene	ND	25
Ethylbenzene	ND	25
Isopropylbenzene	ND	25
n-Propylbenzene	62	25
1,3,5-Trimethylbenzene	ND	25
tert-Butylbenzene	ND	25
1,2,4-Trimethylbenzene	ND	25
sec-Butylbenzene	ND	25
p-Isopropyltoluene	ND	25
n-Butylbenzene	ND	25
Naphthalene	ND	25
MTBE	520	25
Total Xylenes	ND	25



Client ID: MW-4
Site: Petrocelli Elec

Lab Sample No: 124789
Lab Job No: N490

Date Sampled: 04/14/99
Date Received: 04/14/99
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5960.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 10.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	77	10
Toluene	14	10
Ethylbenzene	250	10
Isopropylbenzene	37	10
n-Propylbenzene	58	10
1,3,5-Trimethylbenzene	45	10
tert-Butylbenzene	ND	10
1,2,4-Trimethylbenzene	120	10
sec-Butylbenzene	ND	10
p-Isopropyltoluene	ND	10
n-Butylbenzene	ND	10
Naphthalene	110	10
MTBE	280	10
Total Xylenes	370	10



Client ID: MW-5
Site: Petrocelli Elec

Lab Sample No: 124790
Lab Job No: N490

Date Sampled: 04/14/99
Date Received: 04/14/99
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5963.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0



Client ID: MW-6
Site: Petrocelli Elec

Lab Sample No: 124791
Lab Job No: N490

Date Sampled: 04/14/99
Date Received: 04/14/99
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5961.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 500.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u>		<u>Quantitation</u>
	<u>Units: ug/l</u>		<u>Limit</u>
			<u>Units: ug/l</u>
Benzene		ND	500
Toluene		ND	500
Ethylbenzene		ND	500
Isopropylbenzene		ND	500
n-Propylbenzene		ND	500
1,3,5-Trimethylbenzene		ND	500
tert-Butylbenzene		ND	500
1,2,4-Trimethylbenzene		ND	500
sec-Butylbenzene		ND	500
p-Isopropyltoluene		ND	500
n-Butylbenzene		ND	500
Naphthalene		ND	500
MTBE	6200		500
Total Xylenes		ND	500



Client ID: MW-3
Site: Petrocelli Elec

Lab Sample No: 124792
Lab Job No: N490

Date Sampled: 04/14/99
Date Received: 04/14/99
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5964.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	22	1.0
Total Xylenes	ND	1.0



Client ID: Trip Blank
Site: Petrocelli Elec

Lab Sample No: 124793
Lab Job No: N490

Date Sampled: 04/08/99
Date Received: 04/14/99
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5965.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0

CHAIN OF CUSTODY / ANALYSIS REQUEST

PAGE ___ OF ___

Name (for report and invoice)		Samplers Name (Printed) <i>AL PERNA</i>		Site/Project Identification <i>Petrocelli Elec Long Is. City NY</i>	
Company <i>ENSOLUTIONS</i>		P.O. #		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:	
Address		Analysis Turnaround Time Standard <input checked="" type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)	
City <i>Dover NJ</i> State		Phone <i>Steve Kotin</i>		LAB USE ONLY Project No: Job No: <i>N490</i> Sample Numbers	
Sample Identification	Date	Time	Matrix	No. of Cont.	
<i>MLW-1</i>	<i>4/14/99</i>	<i>1115</i>	<i>AG</i>	<i>3</i>	<i>3</i>
<i>MLW-2</i>	<i>4</i>	<i>1130</i>	<i>AG</i>	<i>3</i>	
<i>MLW-4</i>	<i>4</i>	<i>1155</i>	<i>AG</i>	<i>3</i>	
<i>MLW-5</i>	<i>4</i>	<i>1230</i>	<i>AG</i>	<i>3</i>	
<i>MLW-6</i>	<i>4</i>	<i>1245</i>	<i>AG</i>	<i>3</i>	
<i>MLW-3</i>	<i>4</i>	<i>1210</i>	<i>AG</i>	<i>3</i>	
<i>TB</i>	<i>4/8/99</i>	<i>—</i>	<i>AG</i>	<i>2</i>	
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH, 6 = Other, 7 = Other					
Soil: Water:					

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by 1) <i>[Signature]</i>	Company <i>Perna NOLA</i>	Date / Time <i>4/14/99 11420</i>	Received by 1) <i>[Signature]</i>	Company <i>STL - ENVIROTECH</i>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

Laboratory Certifications: New Jersey (12543), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Massachusetts (M-NJ312), North Carolina (No. 578)

777 New Durham Road, Edison, New Jersey
08817

Site: Petrocelli Elec

Client: EnSolutions, Inc.

8021Bp

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
<u>WATER</u>							
124787	4/14/1999	4/14/1999			4/19/99	SK	6751
124788	4/14/1999	4/14/1999					
124789	4/14/1999	4/14/1999					
124790	4/14/1999	4/14/1999					
124791	4/14/1999	4/14/1999					
124792	4/14/1999	4/14/1999					
124793	4/8/1999	4/14/1999					

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

- P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)
- A - Flame Atomic Absorption
- F - Furnace Atomic Absorption
- CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

Element	Water Test Method		Solid Test Method	
	Flame	Furnace	Flame	Furnace
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

- Ignitability - Method 1020A
- Corrosivity - Water pH Method 9040B
Soil pH Method 9045C
- Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release
- Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NON-CONFORMANCE SUMMARY

STL Envirotech Job Number: N490

Volatile Organics Analysis:

All data conforms with method requirements ✓; or
Analysis was not requested ; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements ; or
Analysis was not requested ; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements ; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Non-conformance Summary, Page 2 of 2
STL Envirotech Job Number: N440

Metals Analysis:

All data conforms with method requirements ____; or
Analysis was not requested /; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Total Petroleum Hydrocarbons:

All data conforms with method requirements ____; or
Analysis was not requested /; or
Non-conformance for the specific samples listed is as follows:

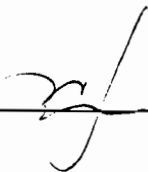
See continuation page if checked ()

General Chemistry/Disposal Parameters:

All data conforms with method requirements ____; or
Analysis was not requested /; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Signature of
Laboratory Manager:



Date:

5/12/99

Client ID: MW-1
Site: Petrocelli Elec

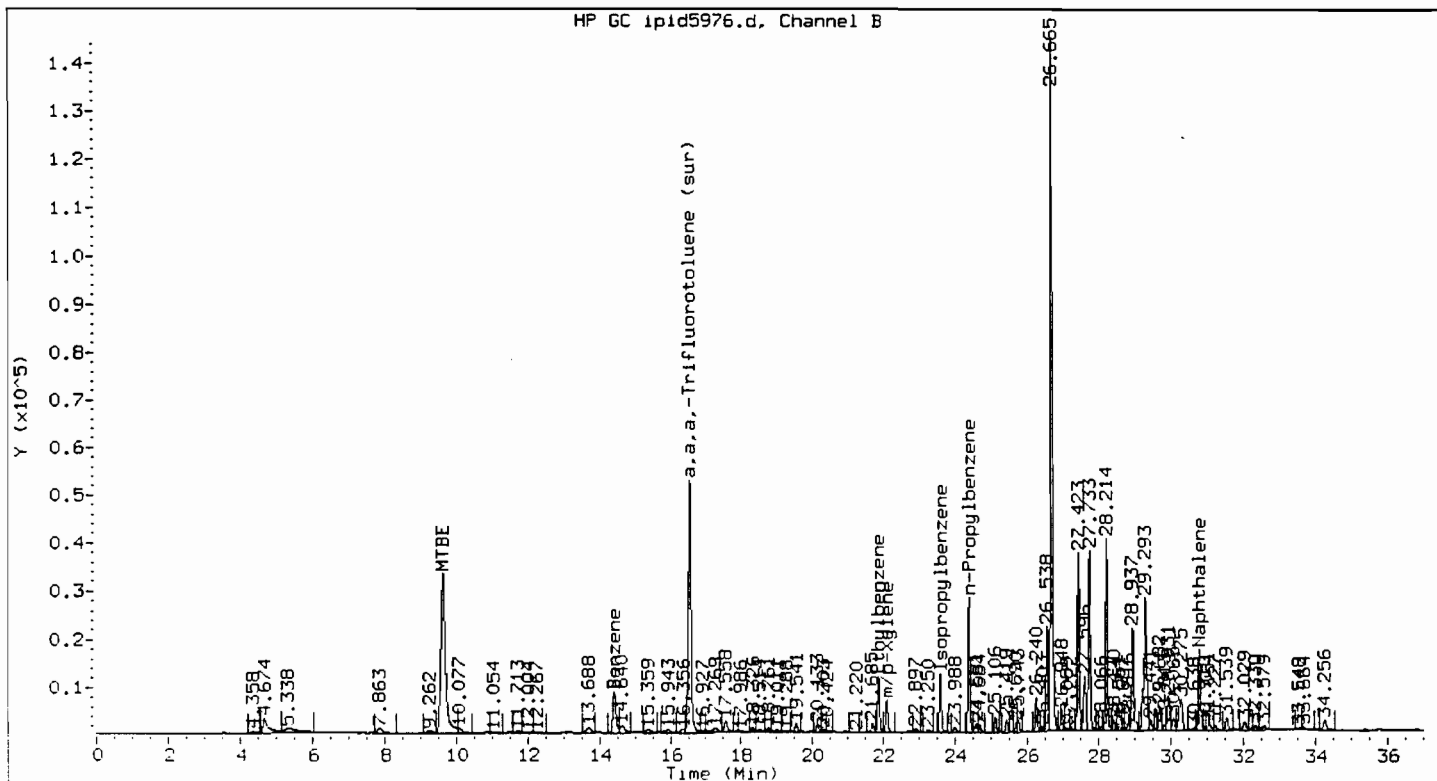
Lab Sample No: 124787
Lab Job No: N490

Date Sampled: 04/14/99
Date Received: 04/14/99
Date Analyzed: 04/20/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5976.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	45	25
Toluene	ND	25
Ethylbenzene	58	25
Isopropylbenzene	76	25
n-Propylbenzene	160	25
1,3,5-Trimethylbenzene	ND	25
tert-Butylbenzene	ND	25
1,2,4-Trimethylbenzene	ND	25
sec-Butylbenzene	ND	25
p-Isopropyltoluene	ND	25
n-Butylbenzene	ND	25
Naphthalene	160	25
MTBE	590	25
Total Xylenes	30	25



Method : /chem/VOAGC3.i/8021HIGH/04-09-99/19apr99A.b/8021H_99.m
 Sample Info : 124787;;25
 Lab ID : 124787
 Inj Date : 20-APR-1999 03:19
 Operator : sk
 Cpnd Sublist: stars

Inst ID : VOAGC3.i
 Dil Factor : 25
 Sample Matrix : WATER
 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
m/p-Xylene	22.087	22.050	0.036	146059	1.160	28.998
Benzene	14.409	14.371	0.038	265984	1.794	44.838
Ethylbenzene	21.855	21.826	0.029	244405	2.335	58.383
Isopropylbenzene	23.579	23.552	0.027	243031	3.063	76.576
n-Propylbenzene	24.374	24.347	0.027	526782	6.485	162.136
Naphthalene	30.783	30.746	0.037	380390	6.205	155.117
MTBE	9.625	9.587	0.037	1544790	23.676	591.900
Total Xylenes	24.600	24.600	0.000	146059	1.185	29.623
a,a,a,-Trifluorotoluene (sur	16.530	16.501	0.029	1421600	28.768	28.768

Client ID: MW-2
Site: Petrocelli Elec

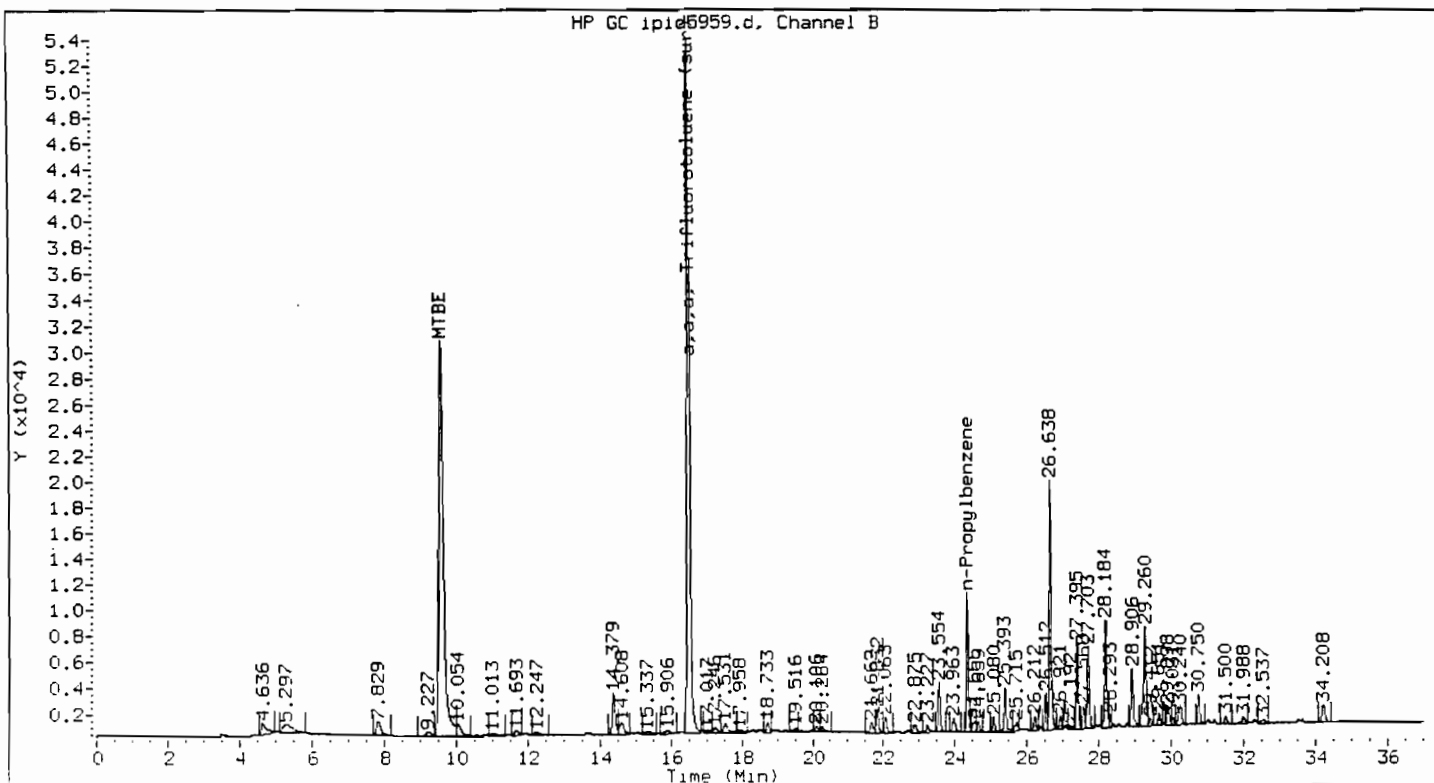
Lab Sample No: 124788
Lab Job No: N490

Date Sampled: 04/14/99
Date Received: 04/14/99
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5959.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	25
Toluene	ND	25
Ethylbenzene	ND	25
Isopropylbenzene	ND	25
n-Propylbenzene	62	25
1,3,5-Trimethylbenzene	ND	25
tert-Butylbenzene	ND	25
1,2,4-Trimethylbenzene	ND	25
sec-Butylbenzene	ND	25
p-Isopropyltoluene	ND	25
n-Butylbenzene	ND	25
Naphthalene	ND	25
MTBE	520	25
Total Xylenes	ND	25



Method : /chem/VOAGC3.i/8021HIGH/04-09-99/19apr99.b/8021H_99.m
 Sample Info : 124788;;25
 Lab ID : 124788
 Inj Date : 19-APR-1999 14:38
 Operator : sk
 Cpnd Sublist: stars

Inst ID : VOAGC3.i
 Dil Factor : 25
 Sample Matrix : WATER
 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
n-Propylbenzene	24.349	24.361	0.012	200757	2.472	61.790
MTBE	9.587	9.607	0.020	1370365	21.003	525.067
a,a,a,-Trifluorotoluene (sur	16.501	16.518	0.017	1434750	29.034	29.034

Client ID: MW-4
Site: Petrocelli Elec

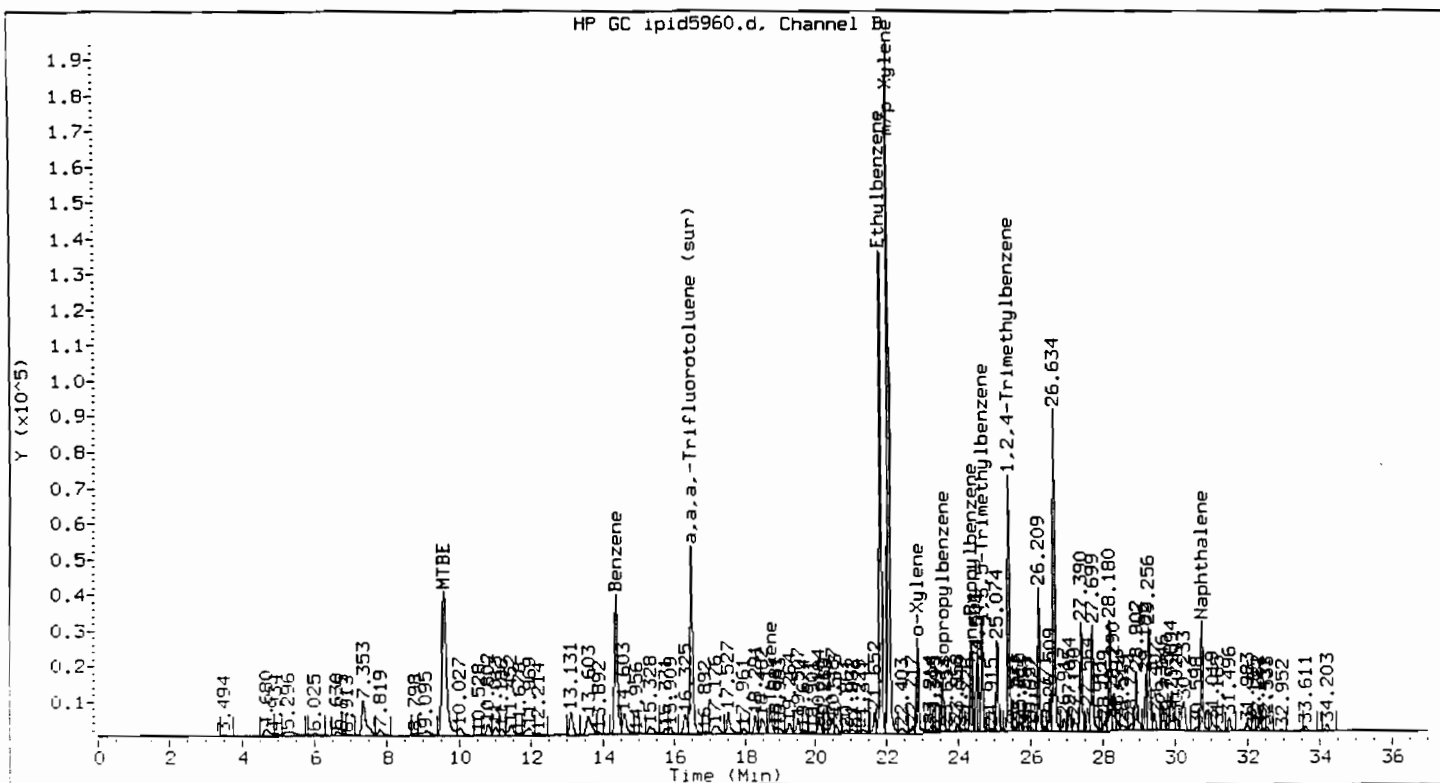
Lab Sample No: 124789
Lab Job No: N490

Date Sampled: 04/14/99
Date Received: 04/14/99
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5960.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 10.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	77	10
Toluene	14	10
Ethylbenzene	250	10
Isopropylbenzene	37	10
n-Propylbenzene	58	10
1,3,5-Trimethylbenzene	45	10
tert-Butylbenzene	ND	10
1,2,4-Trimethylbenzene	120	10
sec-Butylbenzene	ND	10
p-Isopropyltoluene	ND	10
n-Butylbenzene	ND	10
Naphthalene	110	10
MTBE	280	10
Total Xylenes	370	10



Method : /chem/VOAGC3.i/8021HIGH/04-09-99/19apr99.b/8021H_99.m
 Sample Info : 124789;;10
 Lab ID : 124789
 Inst ID : VOAGC3.i
 Inj Date : 19-APR-1999 15:22
 Dil Factor : 10
 Operator : sk
 Sample Matrix : WATER
 Cpnd Sublist: stars
 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
m/p-Xylene	22.046	22.065	0.018	3969566	31.524	315.238
o-Xylene	22.850	22.866	0.016	599659	5.084	50.838
Benzene	14.370	14.388	0.019	1136401	7.663	76.627
Toluene	18.723	18.736	0.013	206047	1.451	14.513
Ethylbenzene	21.823	21.840	0.017	2668006	25.493	254.932
Isopropylbenzene	23.549	23.566	0.017	291112	3.669	36.690
n-Propylbenzene	24.345	24.361	0.016	468359	5.766	57.662
1,3,5-Trimethylbenzene	24.652	24.669	0.017	566610	4.505	45.053
1,2,4-Trimethylbenzene	25.386	25.403	0.017	1312499	12.015	120.151

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
Naphthalene	30.741	30.764	0.023	690109	11.257	112.567
MTBE	9.582	9.607	0.026	1816875	27.846	278.461
Total Xylenes	24.600	24.600	0.000	4569225	37.068	370.678
1,3,5-Trifluorotoluene (sur	16.497	16.518	0.021	1447188	29.286	29.286

Client ID: MW-5
Site: Petrocelli Elec

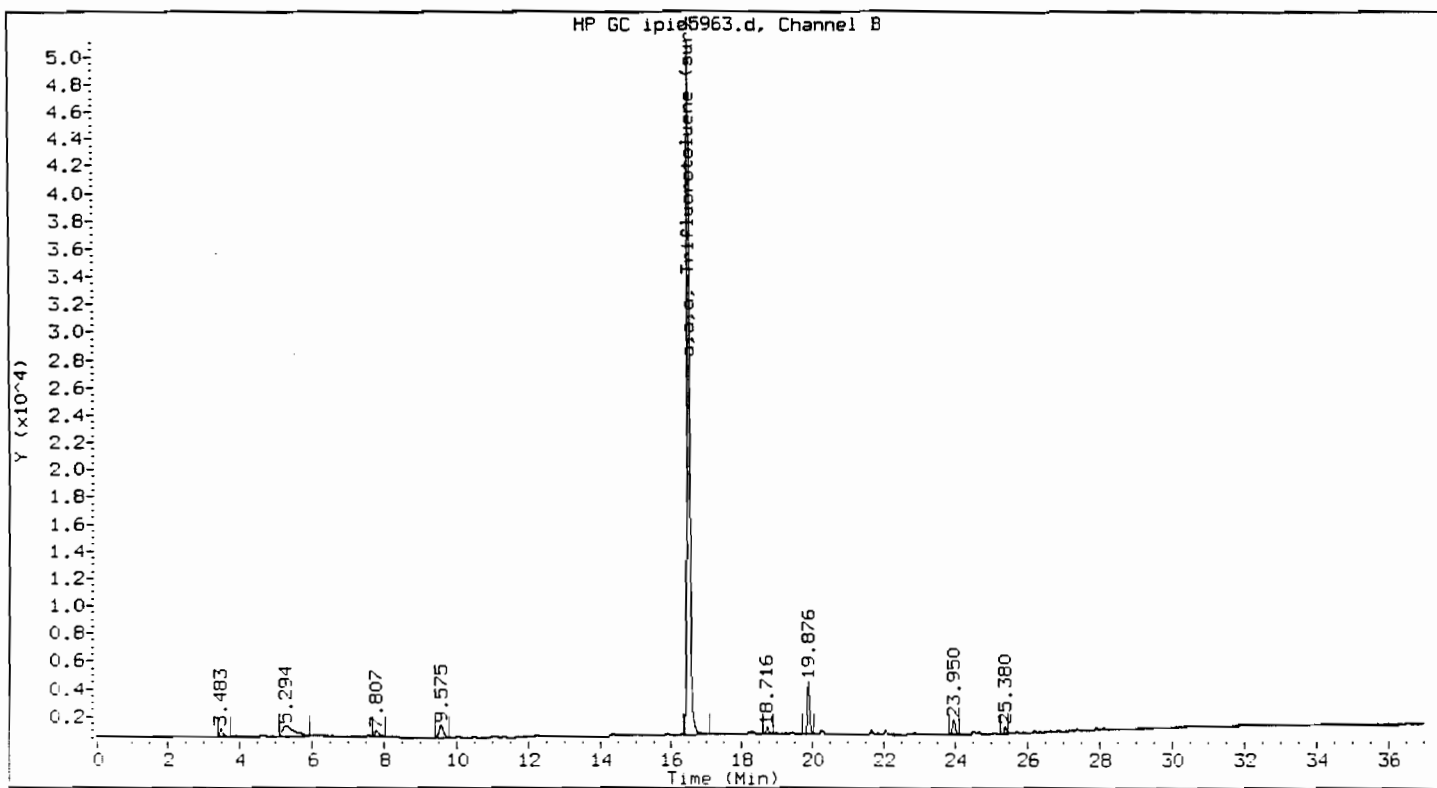
Lab Sample No: 124790
Lab Job No: N490

Date Sampled: 04/14/99
Date Received: 04/14/99
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5963.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0



Method : /chem/VOAGC3.i/8021HIGH/04-09-99/19apr99.b/8021H_99.m
Sample Info : 124790
Lab ID : 124790 Inst ID : VOAGC3.i
Inj Date : 19-APR-1999 17:44 Dil Factor : 1
Operator : sk Sample Matrix : WATER
Cpnd Sublist: stars Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
a,a,a,-Trifluorotoluene (sur)	16.483	16.518	0.035	1364906	27.621	27.621

Client ID: MW-6
Site: Petrocelli Elec

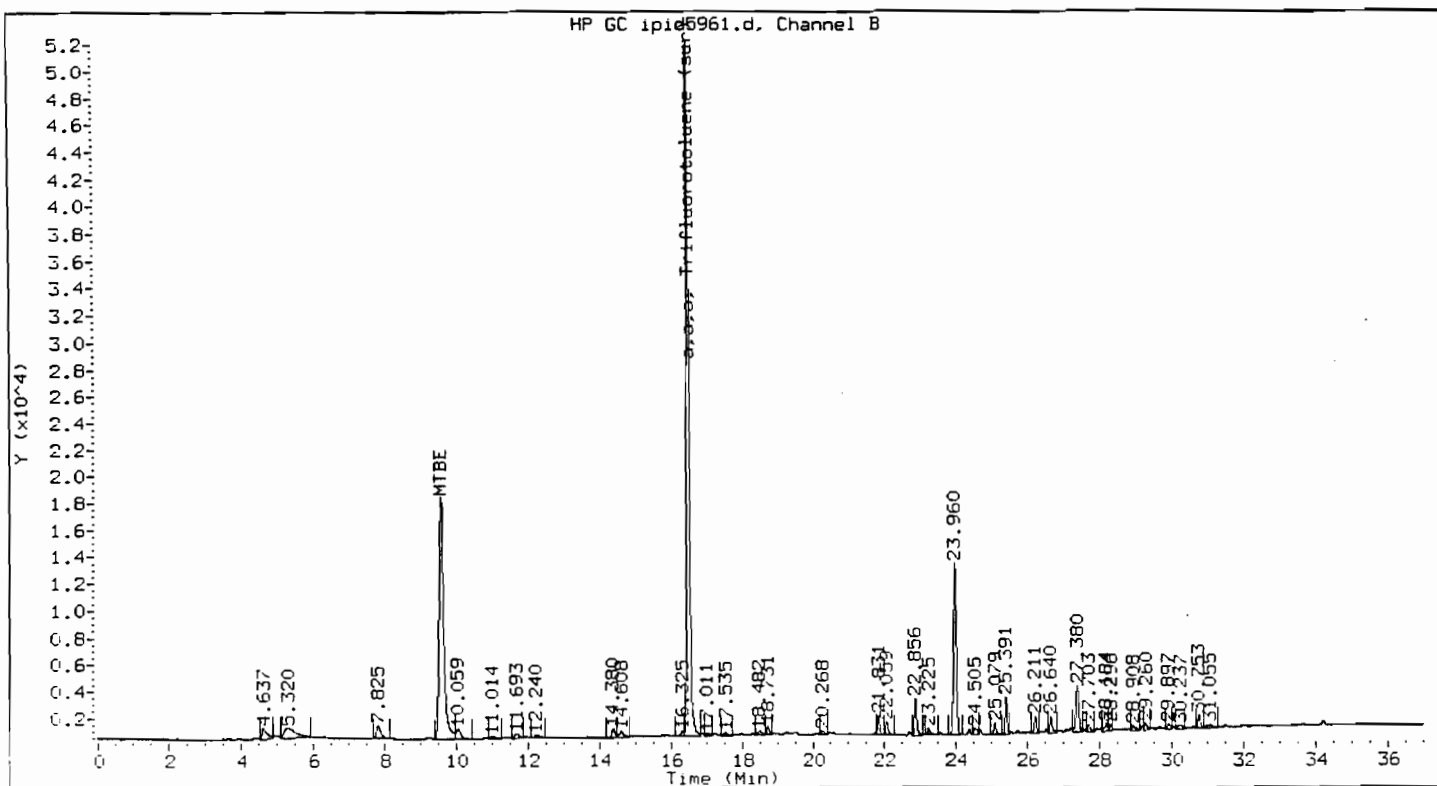
Lab Sample No: 124791
Lab Job No: N490

Date Sampled: 04/14/99
Date Received: 04/14/99
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5961.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 500.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	Analytical Result		Quantitation
	<u>Units: ug/l</u>		<u>Limit</u> <u>Units: ug/l</u>
Benzene		ND	500
Toluene		ND	500
Ethylbenzene		ND	500
Isopropylbenzene		ND	500
n-Propylbenzene		ND	500
1,3,5-Trimethylbenzene		ND	500
tert-Butylbenzene		ND	500
1,2,4-Trimethylbenzene		ND	500
sec-Butylbenzene		ND	500
p-Isopropyltoluene		ND	500
n-Butylbenzene		ND	500
Naphthalene		ND	500
MTBE	6200		500
Total Xylenes		ND	500



Method : /chem/VOAGC3.i/8021HIGH/04-09-99/19apr99.b/8021H_99.m
 Sample Info : 124791;;500
 Lab ID : 124791
 Inj Date : 19-APR-1999 16:07
 Operator : sk
 Cpnd Sublist: stars

Inst ID : VOAGC3.i
 Dil Factor : 500
 Sample Matrix : WATER
 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
MTBE	9.587	9.607	0.020	816262	12.510	6255.157
a,a,a,-Trifluorotoluene (sur	16.499	16.518	0.019	1393513	28.200	28.200

Client ID: MW-3
Site: Petrocelli Elec

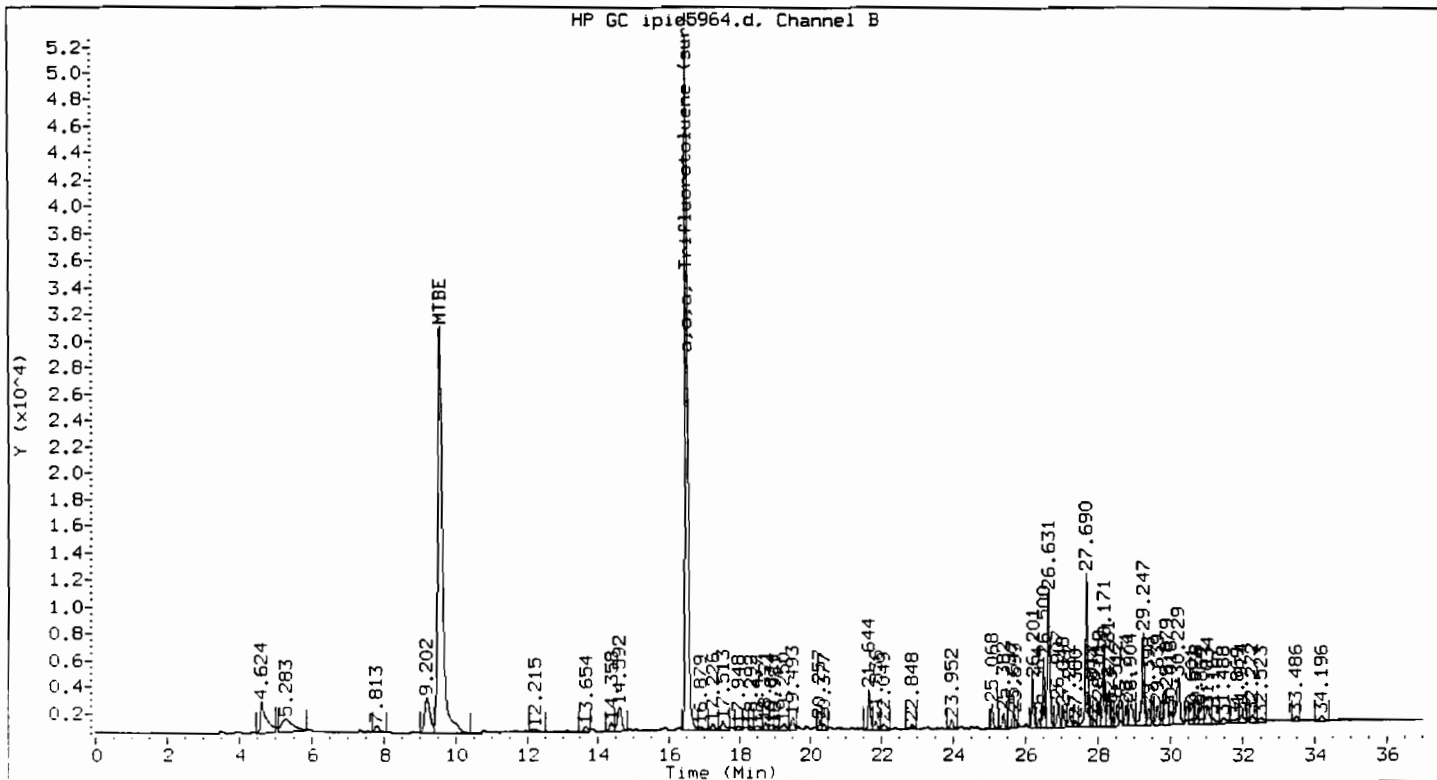
Lab Sample No: 124792
Lab Job No: N490

Date Sampled: 04/14/99
Date Received: 04/14/99
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5964.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	Analytical Result <u>Units: ug/l</u>	Quantitation
		Limit <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	22	1.0
Total Xylenes	ND	1.0



Method : /chem/VOAGC3.i/8021HIGH/04-09-99/19apr99.b/8021H_99.m
 Sample Info : 124792
 Lab ID : 124792
 Inj Date : 19-APR-1999 18:28
 Operator : sk
 Cpnd Sublist: stars

Inst ID : VOAGC3.i
 Dil Factor : 1
 Sample Matrix : WATER
 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
MTBE	9.570	9.607	0.037	1425548	21.848	21.848
a,a,a,-Trifluorotoluene (sur	16.487	16.518	0.031	1400658	28.344	28.344

Client ID: Trip Blank
Site: Petrocelli Elec

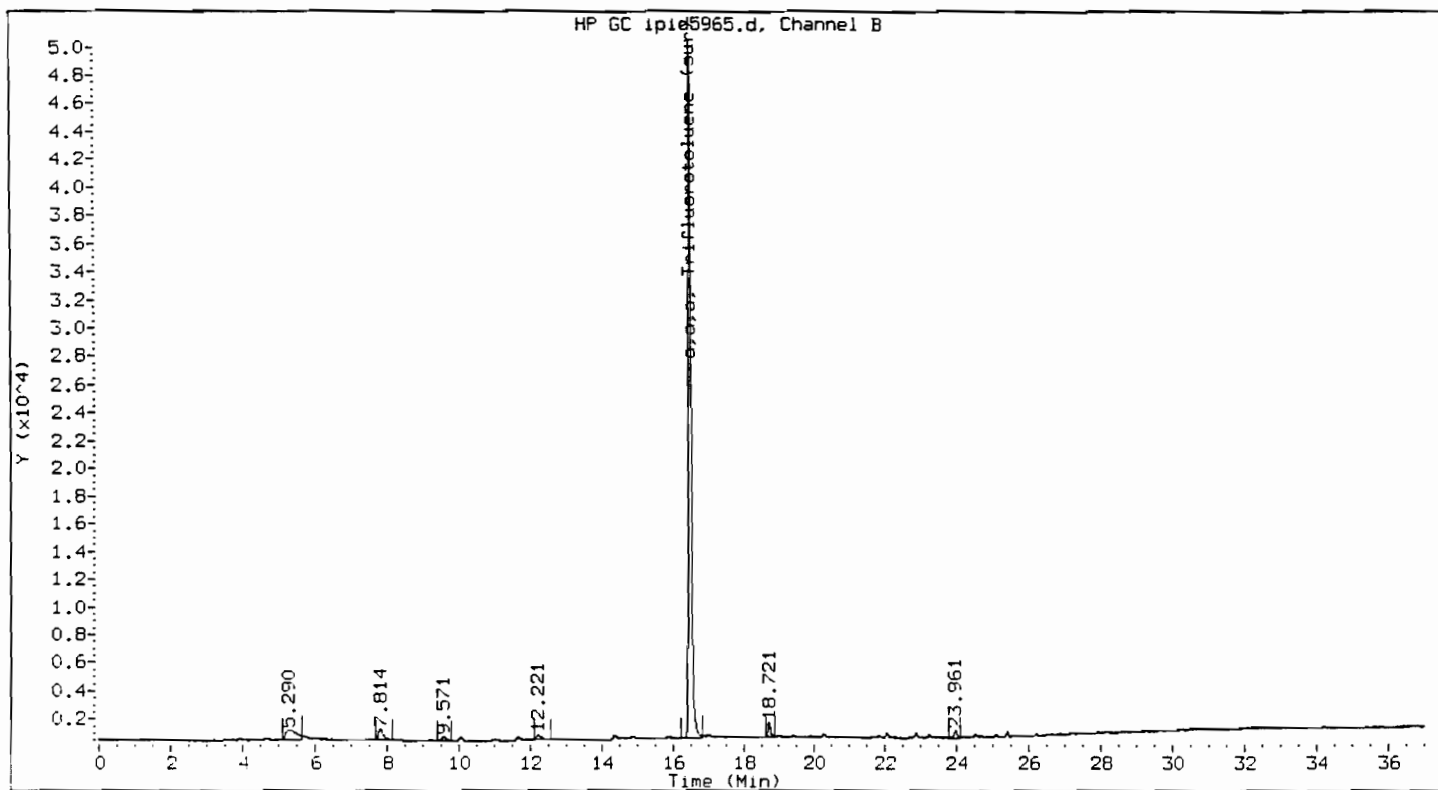
Lab Sample No: 124793
Lab Job No: N490

Date Sampled: 04/08/99
Date Received: 04/14/99
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5965.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

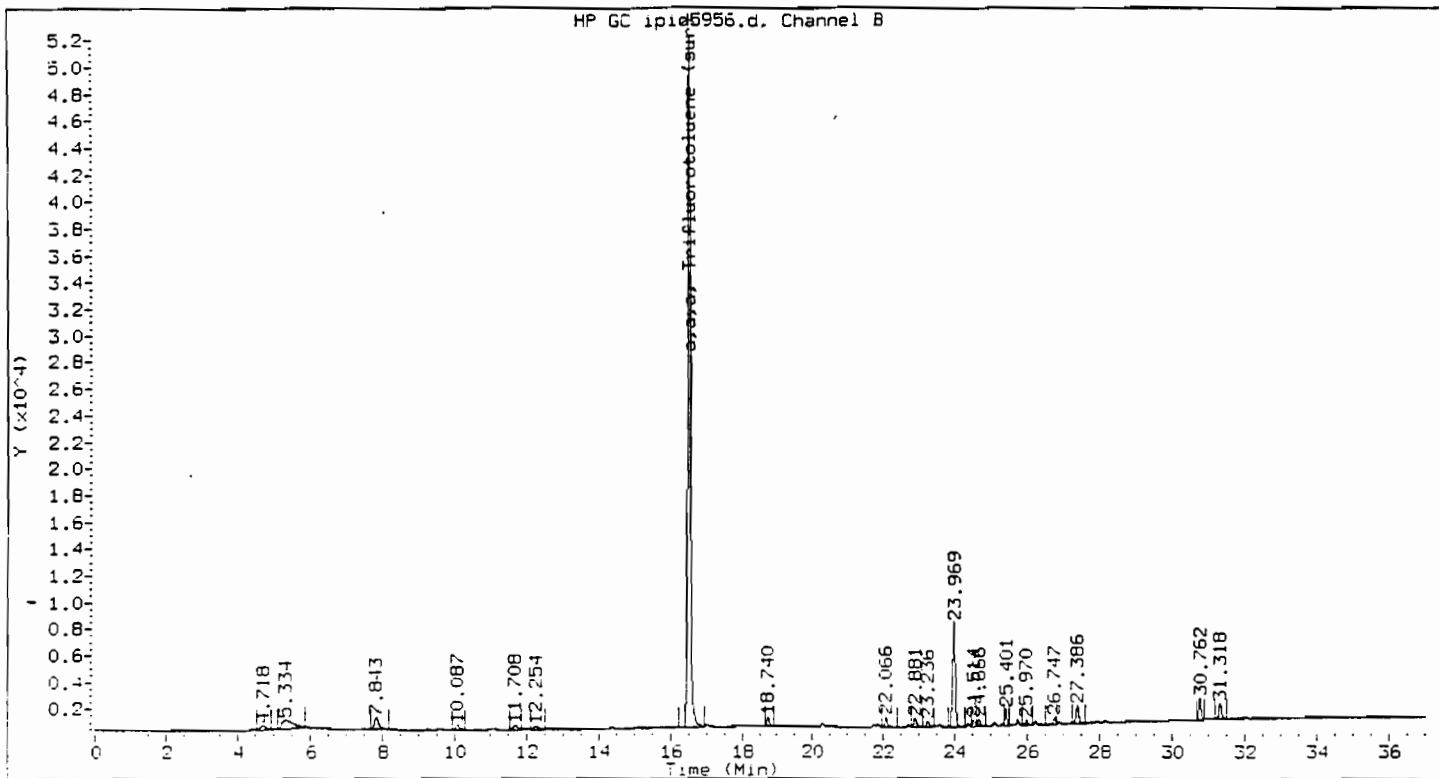
<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0



Method : /chem/VOAGC3.i/8021HIGH/04-09-99/19apr99.b/8021H_99.m
 Sample Info : 124793
 Lab ID : 124793
 Inj Date : 19-APR-1999 19:13
 Operator : sk
 Cpnd Sublist: stars

Inst ID : VOAGC3.i
 Dil Factor : 1
 Sample Matrix : WATER
 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
1,1,1-Trifluorotoluene (sur)	16.491	16.518	0.027	1348272	27.284	27.284



Method : /chem/VOAGC3.i/8021HIGH/04-09-99/19apr99.b/8021H_99.m
Sample Info : IG109
Lab ID : IG109
Inj Date : 19-APR-1999 12:25
Operator : sk
Cpnd Sublist: stars

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
a,a,a,-Trifluorotoluene (sur)	16.510	16.518	0.008	1396228	28.255	28.255

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG109C

Date Analyzed: 04/19/99

Instrument ID: VOAGC3

Time Analyzed: 2255

Lab File ID: IPID5970

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-1	124787	IPID5976	0319
02	MW-1MS	124787MS	IPID5977	0402
03	MW-1MSD	124787MSD	IPID5978	0446
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: IG109C
Site:

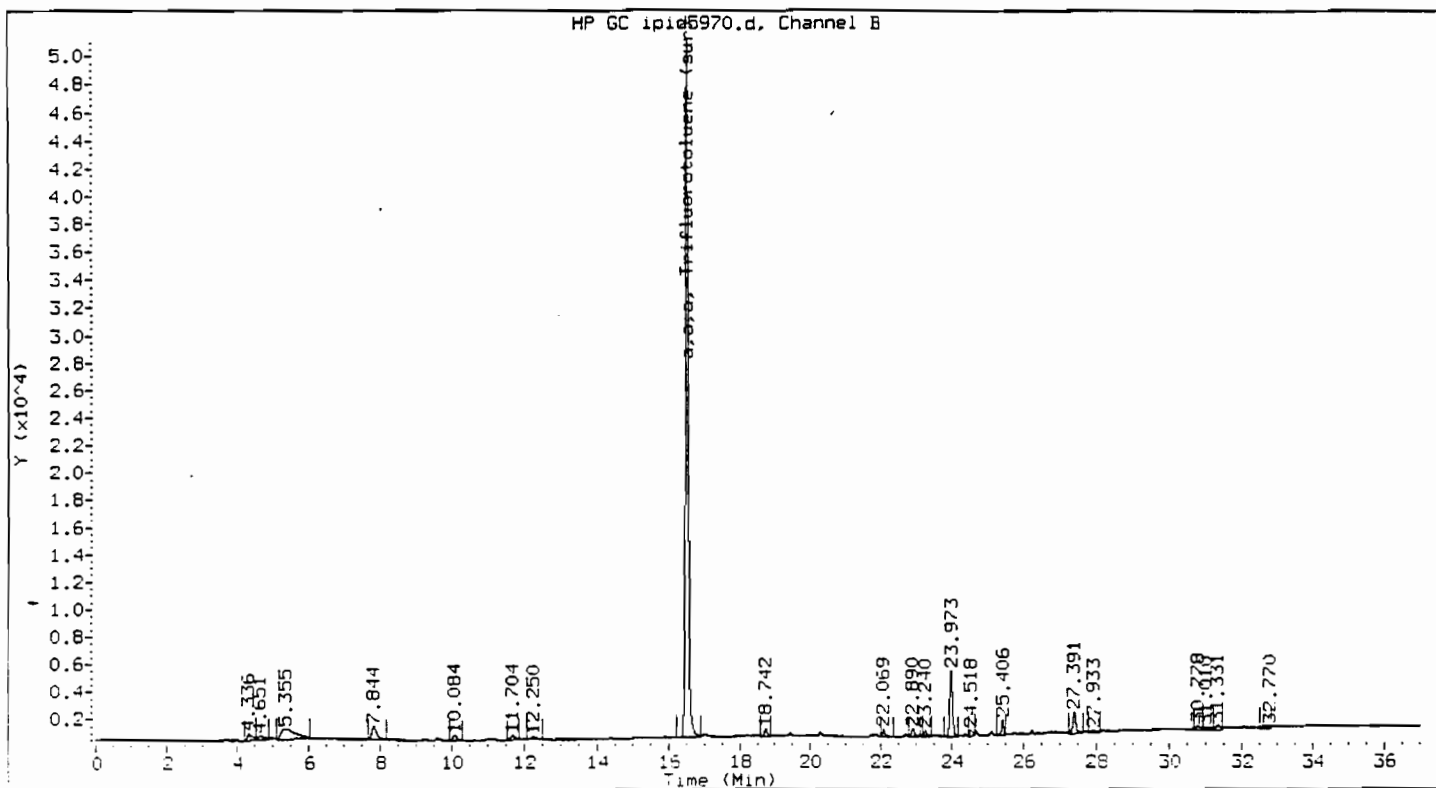
Lab Sample No: IG109C
Lab Job No: N490

Date Sampled: _____
Date Received: _____
Date Analyzed: 04/19/99
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid5970.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0



Method : /chem/VOAGC3.i/8021HIGH/04-09-99/19apr99A.b/8021H_99.m
 Sample Info : IG109C
 Lab ID : IG109C
 Inst ID : VOAGC3.i
 Inj Date : 19-APR-1999 22:55
 Dil Factor : 1
 Operator : sk
 Sample Matrix : WATER
 Cpnd Sublist: stars
 Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
a,a,a,-Trifluorotoluene (sur)	16.511	16.501	0.010	1367568	27.675	27.675

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

Calibration Date(s): 04/09/99 04/09/99

Calibration Time(s): 1020 1429

LAB FILE ID:	RRF1: IPID5843	RRF5: IPID5844	RRF10: IPID5845
	RRF20: IPID5842	RRF40: IPID5846	

COMPOUND	RRF1	RRF5	RRF10	RRF20	RRF40
=====	=====	=====	=====	=====	=====
Benzene	155572	149512	147204	144603	144620
Toluene	161264	142501	137842	134189	134085
Ethylbenzene	109135	104085	103745	103740	102572
Isopropylbenzene	83367	78673	78042	79520	77112
n-Propylbenzene	84714	80241	79773	81645	79753
1,3,5-Trimethylbenzene	136251	123716	123324	124827	120710
tert-Butylbenzene	69158	62750	63001	64859	56134
1,2,4-Trimethylbenzene	125869	106145	103012	104471	106690
sec-Butylbenzene	76346	67644	66381	68880	65171
p-Isopropyltoluene	75493	67746	66459	69156	65614
n-Butylbenzene	71933	67125	64128	67924	64505
Naphthalene	74013	60212	55170	58184	58955
MTBE	68797	63972	61472	65634	66361
Total Xylenes	134574	122208	121180	120539	117833
=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	50486	51418	49407	48176	47592

VOLATILE ORGANICS INITIAL CALIBRATION DATA

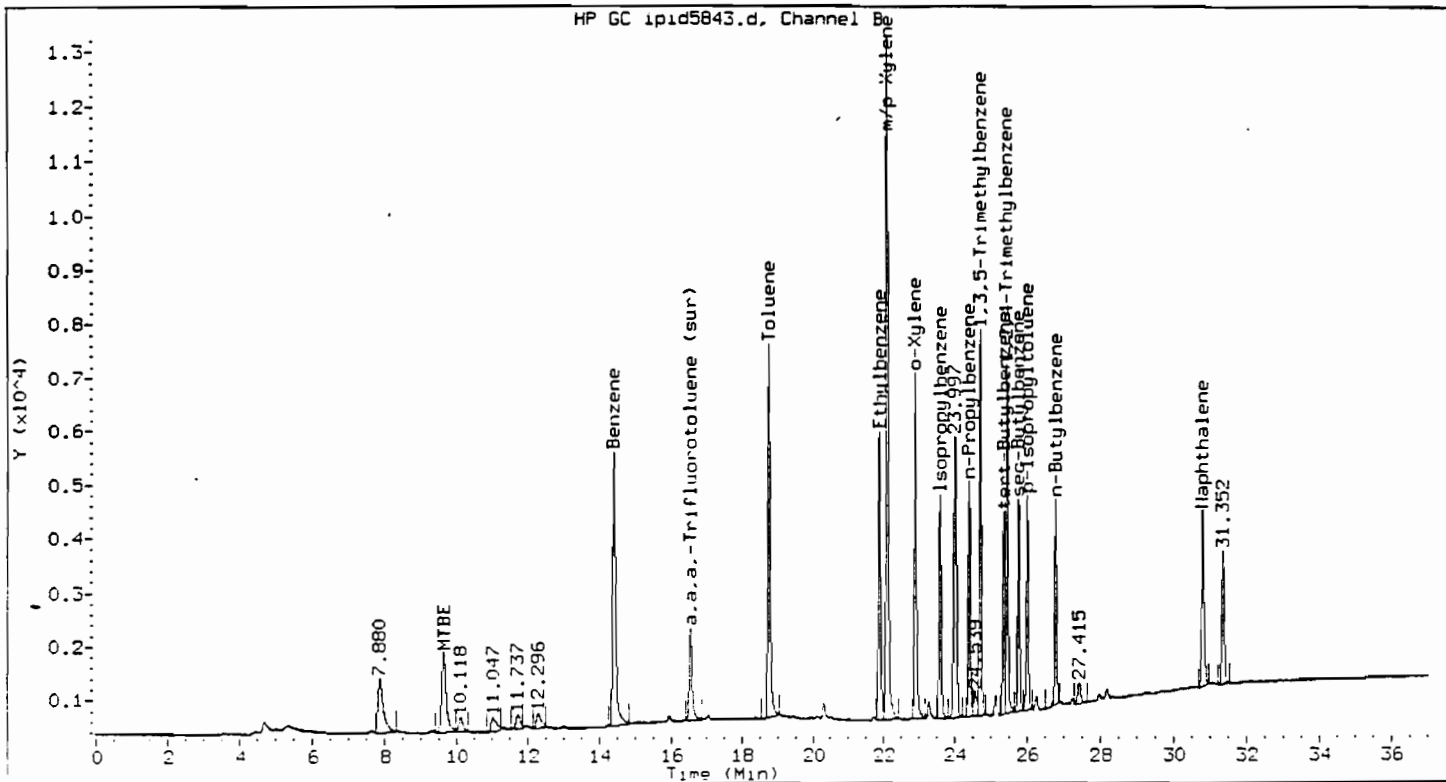
Instrument ID: VOAGC3

Calibration Date(s): 04/09/99 04/09/99

Calibration Time(s): 1020 1429

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
=====	=====	=====	=====
Benzene	AVRG	148302	3.1*
Toluene	AVRG	141976	8.0*
Ethylbenzene	AVRG	104656	2.4*
Isopropylbenzene	AVRG	79343	3.0*
n-Propylbenzene	AVRG	81225	2.6*
1,3,5-Trimethylbenzene	AVRG	125766	4.8*
tert-Butylbenzene	AVRG	63180	7.4*
1,2,4-Trimethylbenzene	AVRG	109237	8.6*
sec-Butylbenzene	AVRG	68884	6.4*
p-Isopropyltoluene	AVRG	68894	5.7*
n-Butylbenzene	AVRG	67123	4.7*
Naphthalene	AVRG	61307	12*
MTBE	AVRG	65247	4.2*
Total Xylenes	AVRG	123267	5.3*
=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	AVRG	49416	3.2*

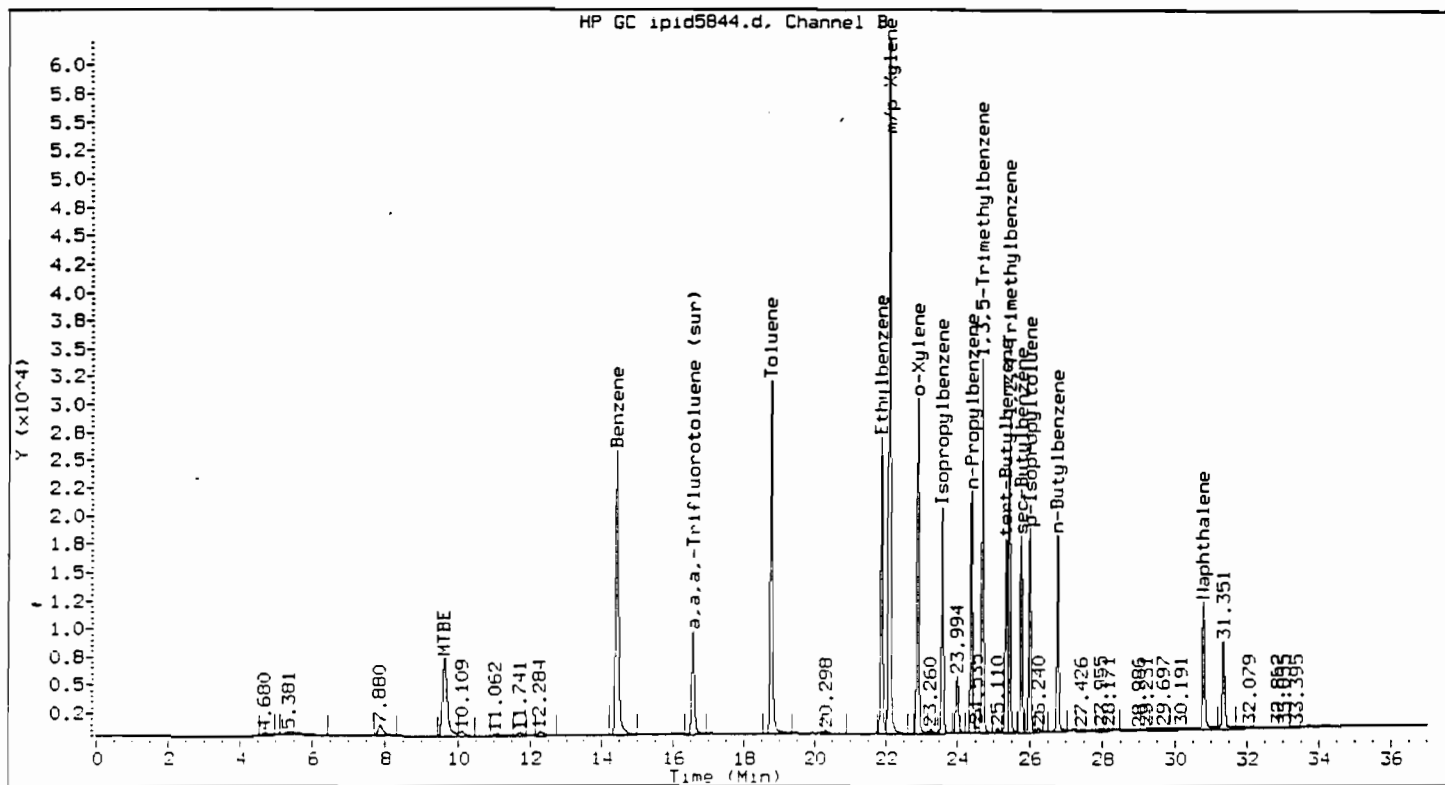
* Compounds with required maximum %RSD values.



Method : /chem/VOAGC3.i/8021HIGH/04-09-99/09apr99.b/8021H_99.m
Sample Info : ISTD001
Lab ID : ISTD001
Inst ID : VOAGC3.i
Inj Date : 09-APR-1999 12:17
Dil Factor : 1
Operator : sk
Sample Matrix : SOIL
Cpnd Sublist: stars
Sample Type: CALIB_1

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p-Xylene	22.086	22.095	0.009	269322	2.080	2.080
o-Xylene	22.888	22.897	0.008	134401	1.087	1.087
Benzene	14.421	14.427	0.007	155572	1.037	1.037
Toluene	18.762	18.768	0.005	161264	1.092	1.092
Ethylbenzene	21.863	21.871	0.007	109135	1.025	1.025
Isopropylbenzene	23.585	23.596	0.010	83367	1.024	1.024
n-Propylbenzene	24.383	24.391	0.008	84714	1.018	1.018
1,3,5-Trimethylbenzene	24.689	24.698	0.010	136251	1.044	1.044
tert-Butylbenzene	25.337	25.349	0.011	69158	1.032	1.032

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
-----	-----	-----	-----	-----	-----	-----
1,2,4-Trimethylbenzene	25.423	25.433	0.009	125869	1.093	1.093
sec-Butylbenzene	25.750	25.760	0.010	76346	1.051	1.051
p-Isopropyltoluene	25.993	26.002	0.009	75493	1.044	1.044
n-Butylbenzene	26.770	26.778	0.008	71933	1.029	1.029
Naphthalene	30.795	30.804	0.009	74013	1.120	1.120
MTBE	9.638	9.646	0.009	68797	1.024	1.024
Total Xylenes	24.600	24.600	0.000	403723	3.165	3.165
a,a,a,-Trifluorotoluene (sur	16.546	16.551	0.005	50486	1.023	1.023

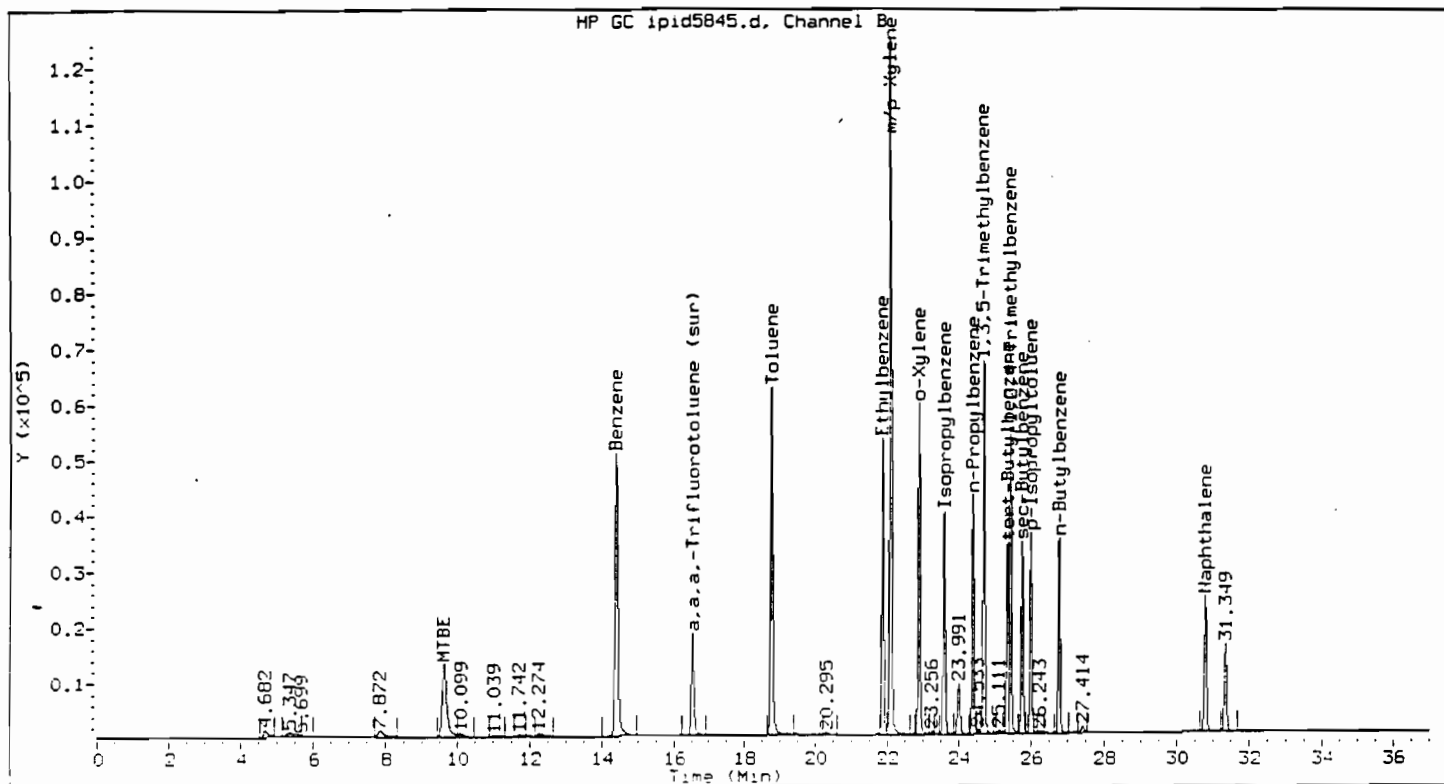


Method : /chem/VOAGC3.i/8021HIGH/04-09-99/09apr99.b/8021H_99.m
Sample Info : ISTD005
Lab ID : ISTD005
Inj Date : 09-APR-1999 13:01
Operator : sk
Cpnd Sublist: stars

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p-Xylene	22.082	22.095	0.012	1249904	9.766	9.766
o-Xylene	22.885	22.897	0.012	583216	4.806	4.806
Benzene	14.414	14.427	0.013	747560	4.987	4.987
Toluene	18.757	18.768	0.011	712506	4.881	4.881
Ethylbenzene	21.859	21.871	0.012	520427	4.926	4.926
Isopropylbenzene	23.583	23.596	0.012	393367	4.885	4.885
n-Propylbenzene	24.379	24.391	0.011	401205	4.881	4.881
1,3,5-Trimethylbenzene	24.686	24.698	0.012	618579	4.823	4.823
tert-Butylbenzene	25.336	25.349	0.012	313748	4.784	4.784

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
=====	=====	=====	=====	=====	(ug/Kg)	(ug/Kg)
-----	-----	-----	-----	-----	-----	-----
1,2,4-Trimethylbenzene	25.420	25.433	0.012	530723	4.732	4.732
-----	-----	-----	-----	-----	-----	-----
sec-Butylbenzene	25.748	25.760	0.013	338222	4.767	4.767
-----	-----	-----	-----	-----	-----	-----
p-Isopropyltoluene	25.990	26.002	0.012	338731	4.784	4.784
-----	-----	-----	-----	-----	-----	-----
n-Butylbenzene	26.767	26.778	0.012	335627	4.865	4.865
-----	-----	-----	-----	-----	-----	-----
Naphthalene	30.791	30.804	0.012	301061	4.694	4.694
-----	-----	-----	-----	-----	-----	-----
MTBE	9.632	9.646	0.014	319861	4.837	4.837
-----	-----	-----	-----	-----	-----	-----
Total Xylenes	24.600	24.600	0.000	1833120	14.575	14.575
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene (sur	16.539	16.551	0.012	257091	5.139	5.139
-----	-----	-----	-----	-----	-----	-----

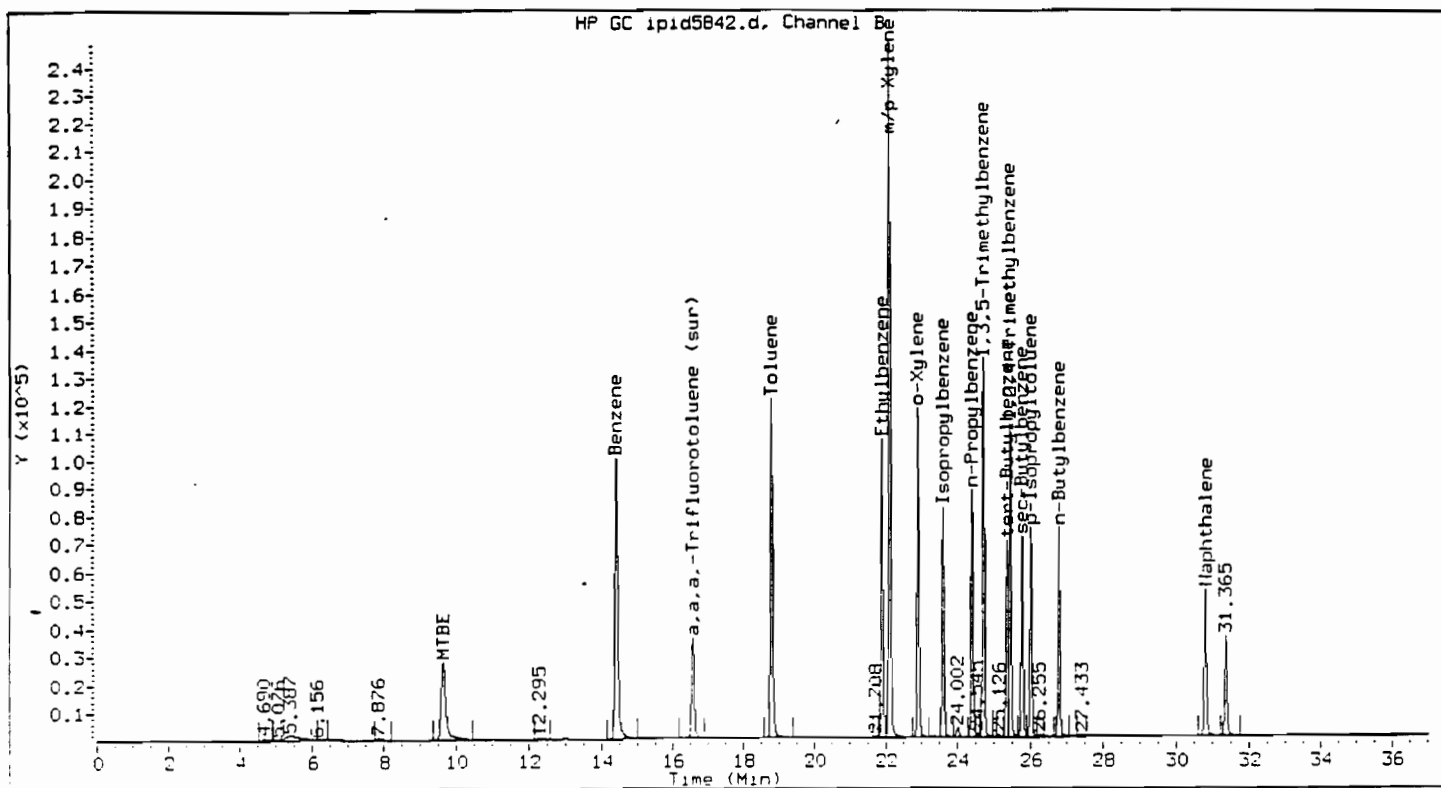


Method : /chem/VOAGC3.i/8021HIGH/04-09-99/09apr99.b/8021H_99.m
Sample Info : ISTD010
Lab ID : ISTD010 Inst ID : VOAGC3.i
Inj Date : 09-APR-1999 13:45 Dil Factor : 1
Operator : sk Sample Matrix : SOIL
Cpnd Sublist: stars Sample Type: CALIB_3

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p-Xylene	22.082	22.095	0.013	2489568	19.586	19.586
o-Xylene	22.884	22.897	0.012	1145826	9.576	9.576
Benzene	14.414	14.427	0.014	1472041	9.865	9.865
Toluene	18.755	18.768	0.013	1378417	9.576	9.576
Ethylbenzene	21.858	21.871	0.012	1037446	9.864	9.864
Isopropylbenzene	23.583	23.596	0.013	780424	9.767	9.767
n-Propylbenzene	24.379	24.391	0.012	797732	9.777	9.777
1,3,5-Trimethylbenzene	24.686	24.698	0.013	1233235	9.708	9.708
tert-Butylbenzene	25.336	25.349	0.013	630012	9.701	9.701

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
-----	-----	-----	-----	-----	-----	-----
1,2,4-Trimethylbenzene	25.420	25.433	0.012	1030122	9.375	9.375
sec-Butylbenzene	25.748	25.760	0.013	663810	9.508	9.508
p-Isopropyltoluene	25.990	26.002	0.012	664592	9.533	9.533
n-Butylbenzene	26.766	26.778	0.012	641283	9.462	9.462
Naphthalene	30.789	30.804	0.014	551703	8.914	8.914
MTBS	9.633	9.646	0.013	614717	9.462	9.462
Total Xylenes	24.600	24.600	0.000	3635394	29.171	29.171
a,a,a-Trifluorotoluene (sur	16.538	16.551	0.013	494074	9.907	9.907
-----	-----	-----	-----	-----	-----	-----

Report Date 04/12/1999 14:09

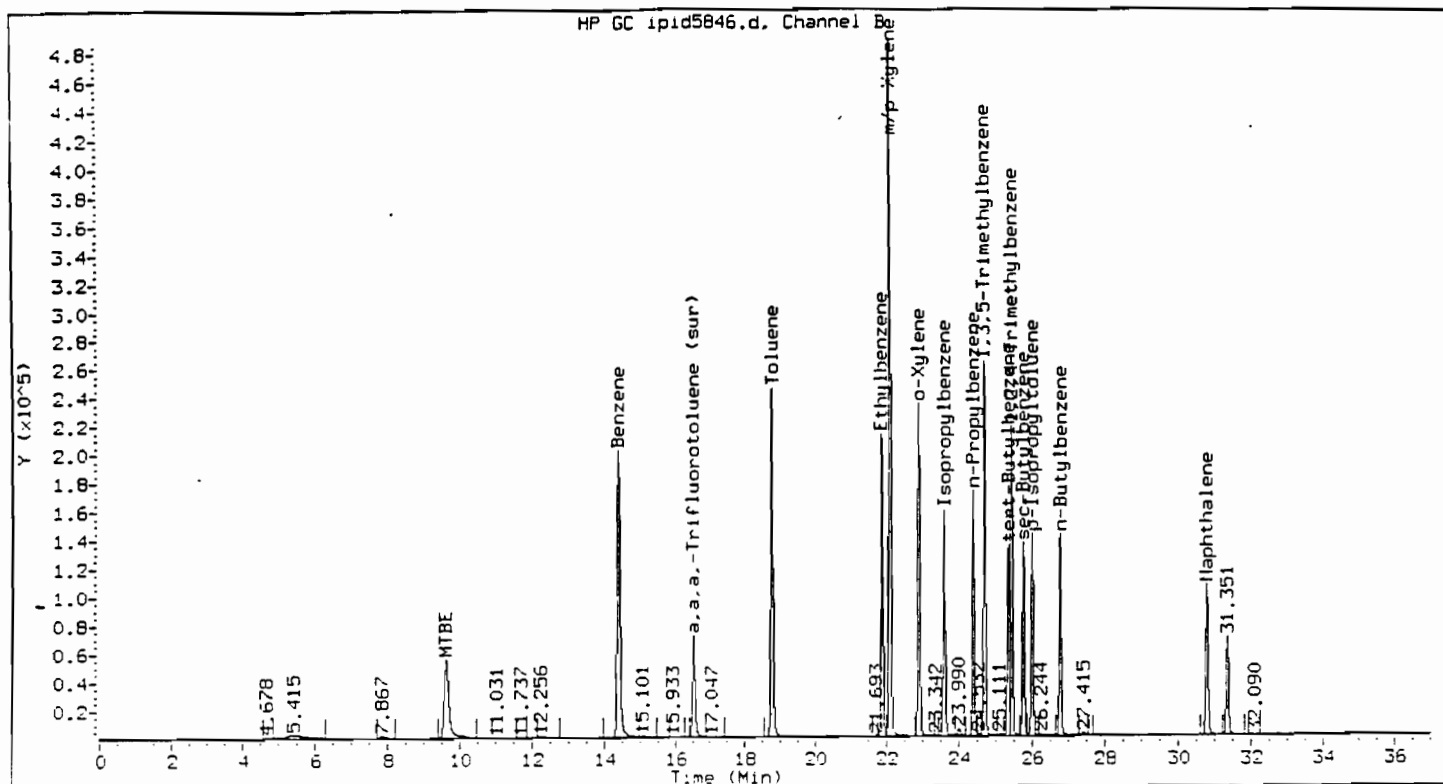


Method : /chem/VOAGC3.i/8021HIGH/04-09-99/09apr99.b/8021H_99.m
 Sample Info : ISTD020
 Lab ID : ISTD020
 Inj Date : 09-APR-1999 10:20
 Operator : sk
 Cpnd Sublist: stars

Inst ID : VOAGC3.i
 Dil Factor : 1
 Sample Matrix : SOIL
 Sample Type: CALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p-Xylene	22.095	22.095	0.000	4972716	40.000	40.000
o-Xylene	22.897	22.897	0.000	2259623	20.000	20.000
Benzene	14.427	14.427	0.000	2892067	20.000	20.000
Toluene	18.768	18.768	0.000	2683786	20.000	20.000
Ethylbenzene	21.871	21.871	0.000	2074811	20.000	20.000
Isopropylbenzene	23.596	23.596	0.000	1590397	20.000	20.000
n-Propylbenzene	24.391	24.391	0.000	1632898	20.000	20.000
1,3,5-Trimethylbenzene	24.698	24.698	0.000	2496534	20.000	20.000
tert-Butylbenzene	25.349	25.349	0.000	1297180	20.000	20.000

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
-----	-----	-----	-----	-----	-----	-----
1,2,4-Trimethylbenzene	25.433	25.433	0.000	2089416	20.000	20.000
sec-Butylbenzene	25.760	25.760	0.000	1377601	20.000	20.000
p-Isopropyltoluene	26.002	26.002	0.000	1383111	20.000	20.000
n-Butylbenzene	26.778	26.778	0.000	1358484	20.000	20.000
Naphthalene	30.804	30.804	0.000	1163672	20.000	20.000
MTBE	9.646	9.646	0.000	1312672	20.000	20.000
Total Xylenes	24.600	24.600	0.000	7232339	60.000	60.000
a,a,a,-Trifluorotoluene (sur	16.551	16.551	0.000	963510	20.000	20.000
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC3.i/8021HIGH/04-09-99/09apr99.b/8021H_99.m
Sample Info : ISTD040
Lab ID : ISTD040
Inj Date : 09-APR-1999 14:29
Operator : sk
Cpnd Sublist: stars

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_5

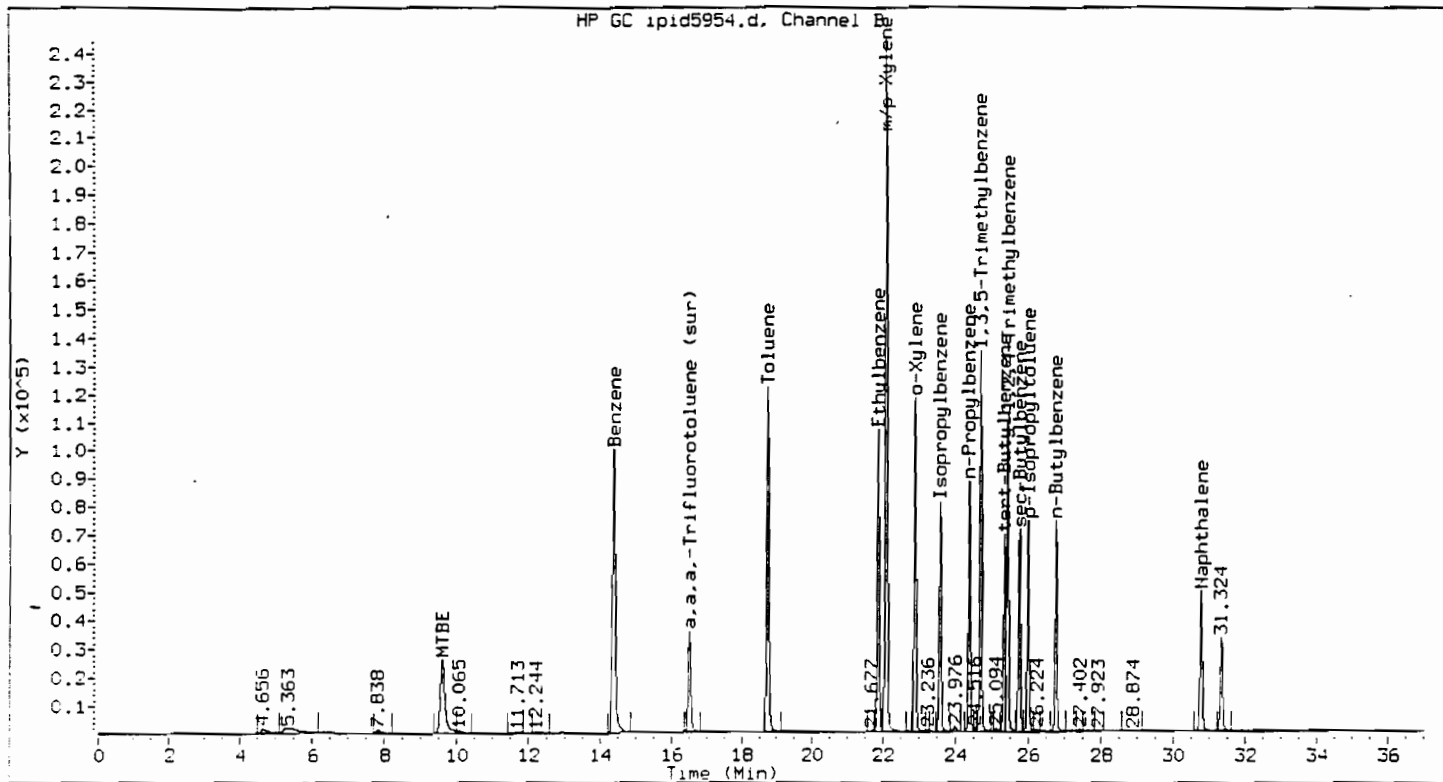
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p-Xylene	22.082	22.095	0.013	9693272	76.978	76.978
o-Xylene	22.884	22.897	0.013	4446642	37.698	37.698
Benzene	14.409	14.427	0.018	5784793	39.007	39.007
Toluene	18.754	18.768	0.014	5363407	37.777	37.777
Ethylbenzene	21.857	21.871	0.013	4102901	39.204	39.204
Isopropylbenzene	23.583	23.596	0.012	3084477	38.875	38.875
n-Propylbenzene	24.379	24.391	0.012	3190138	39.275	39.275
1,3,5-Trimethylbenzene	24.686	24.698	0.012	4828423	38.392	38.392
tert-Butylbenzene	25.337	25.349	0.011	2245362	35.539	35.539

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
-----	-----	-----	-----	-----	-----	-----
1,2,4-Trimethylbenzene	25.421	25.433	0.012	4267596	39.067	39.067
sec-Butylbenzene	25.749	25.760	0.012	2606845	37.844	37.844
p-Isopropyltoluene	25.991	26.002	0.011	2624567	38.096	38.096
n-Butylbenzene	26.767	26.778	0.012	2580186	38.440	38.440
Naphthalene	30.789	30.804	0.014	2358190	38.465	38.465
MTBE	9.628	9.646	0.018	2654444	40.683	40.683
Total Xylenes	24.600	24.600	0.000	14139914	114.710	114.710
a,a,a-Trifluorotoluene (sur	16.535	16.551	0.016	1903701	38.524	38.524

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC3 Calibration Date: 04/19/99 Time: 1034
 Lab File ID: IPID5954 Init. Calib. Date(s): 04/09/99 04/09/99
 Heated Purge: (Y/N) N Init. Calib. Times: 1020 1429

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Benzene	148302.25	144124.05		2.8	15.0
Toluene	141976.28	133437.70		6.0	15.0
Ethylbenzene	104655.61	103643.95		1.0	15.0
Isopropylbenzene	79342.91	78744.40		0.8	15.0
n-Propylbenzene	81225.31	81182.65		0.0	15.0
1,3,5-Trimethylbenzene	125765.52	124264.10		1.2	15.0
tert-Butylbenzene	63180.37	64530.15		-2.1	15.0
1,2,4-Trimethylbenzene	109237.30	104232.85		4.6	15.0
sec-Butylbenzene	68884.51	68497.35		0.6	15.0
p-Isopropyltoluene	68893.63	68690.35		0.3	15.0
n-Butylbenzene	67123.11	67351.60		-0.0	15.0
Naphthalene	61306.77	54482.10		11.1	15.0
MTBE	65247.12	60780.75		6.8	15.0
Total Xylenes	123266.75	119713.95		2.9	15.0
=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	49415.92	47858.55		3.2	15.0



Method : /chem/VOAGC3.i/8021HIGH/04-09-99/19apr99.b/8021H_99.m
Sample Info : ISTD020
Lab ID : ISTD020
Inst ID : VOAGC3.i
Inj Date : 19-APR-1999 10:34
Dil Factor : 1
Operator : sk
Sample Matrix : WATER
Cpd Sublist: stars
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
m/p-Xylene	22.065	22.065	0.000	4909982	38.992	38.992
o-Xylene	22.866	22.866	0.000	2272855	19.269	19.269
Benzene	14.388	14.388	0.000	2882481	19.437	19.437
Toluene	18.736	18.736	0.000	2668754	18.797	18.797
Ethylbenzene	21.840	21.840	0.000	2072879	19.807	19.807
Isopropylbenzene	23.566	23.566	0.000	1574888	19.849	19.849
n-Propylbenzene	24.361	24.361	0.000	1623653	19.989	19.989
1,3,5-Trimethylbenzene	24.669	24.669	0.000	2485282	19.761	19.761
tert-Butylbenzene	25.319	25.319	0.000	1290603	20.427	20.427

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
1,2,4-Trimethylbenzene	25.403	25.403	0.000	2084657	19.084	19.084
sec-Butylbenzene	25.730	25.730	0.000	1369947	19.888	19.888
p-Isopropyltoluene	25.973	25.973	0.000	1373807	19.941	19.941
n-Butylbenzene	26.748	26.748	0.000	1347032	20.068	20.068
Naphthalene	30.764	30.764	0.000	1089642	17.774	17.774
MTBE	9.607	9.607	0.000	1215615	18.631	18.631
Total Xylenes	24.600	24.600	0.000	7182837	58.271	58.271
a,a,a-Trifluorotoluene (sur	16.518	16.518	0.000	957171	19.370	19.370
-----	-----	-----	-----	-----	-----	-----

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC3

Calibration Date: 04/19/99 Time: 2042

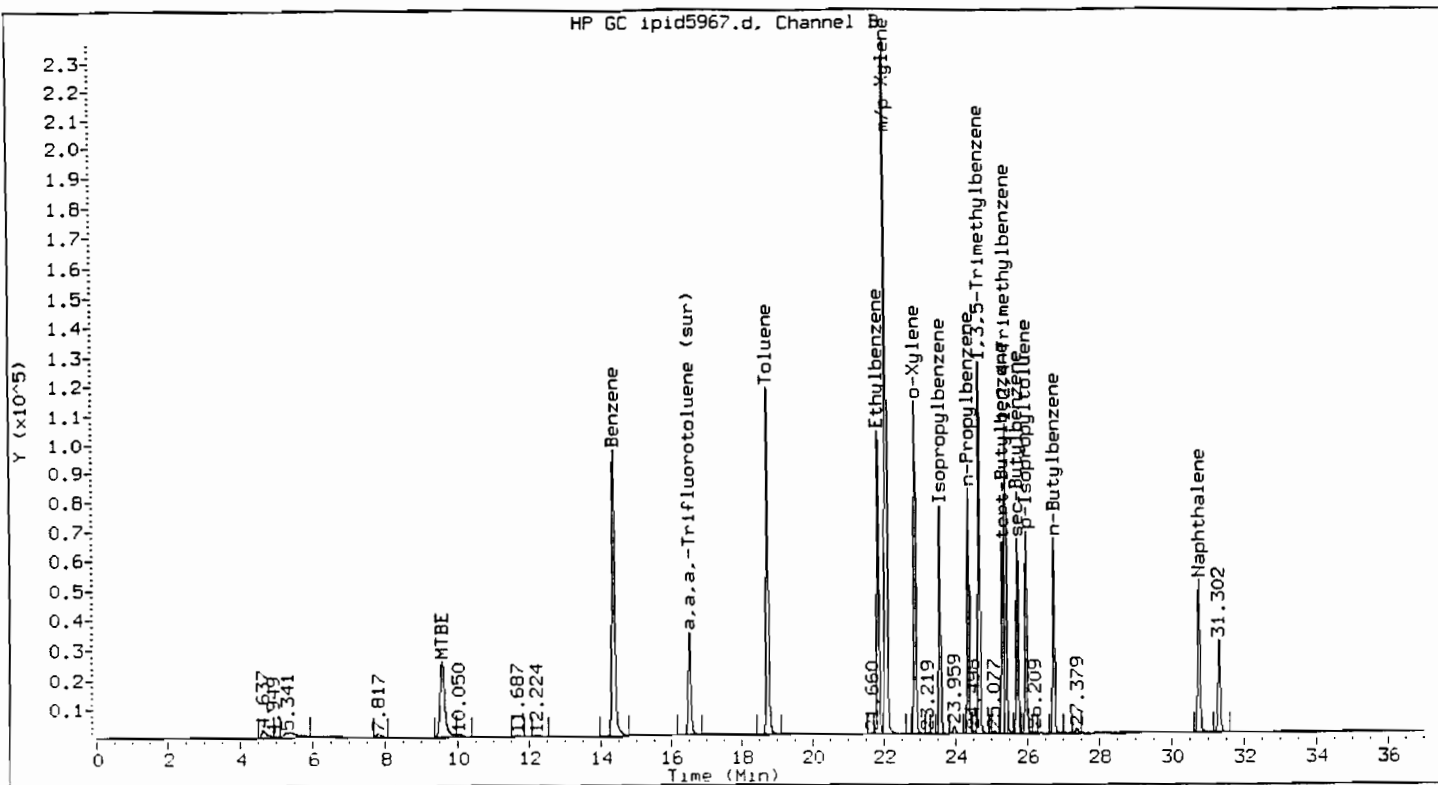
Lab File ID: IPID5967

Init. Calib. Date(s): 04/09/99 04/09/99

Heated Purge: (Y/N) N

Init. Calib. Times: 1020 1429

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Benzene	148302.25	140434.40		5.3	15.0
Toluene	141976.28	129778.95		8.6	15.0
Ethylbenzene	104655.61	99971.65		4.5	15.0
Isopropylbenzene	79342.91	74788.80		5.7	15.0
n-Propylbenzene	81225.31	76325.50		6.0	15.0
1,3,5-Trimethylbenzene	125765.52	116243.30		7.6	15.0
tert-Butylbenzene	63180.37	60200.10		4.7	15.0
1,2,4-Trimethylbenzene	109237.30	97461.20		10.8	15.0
sec-Butylbenzene	68884.51	62713.95		9.0	15.0
p-Isopropyltoluene	68893.63	62587.75		9.2	15.0
n-Butylbenzene	67123.11	59888.10		10.8	15.0
Naphthalene	61306.77	56908.35		7.2	15.0
MTBE	65247.12	58773.90		9.9	15.0
Total Xylenes	123266.75	114739.90		6.9	15.0
=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	49415.92	46904.70		5.1	15.0



```
Method       : /chem/VOAGC3.i/8021HIGH/04-09-99/19apr99A.b/8021H_99.m
Sample Info  : ISTD020A
Lab ID       : ISTD020A                      Inst ID      : VOAGC3.i
Inj Date     : 19-APR-1999 20:42             Dil Factor   : 1
Operator     : sk                           Sample Matrix : WATER
Cpnd Sublist: stars                        Sample Type  : CCALIB_4
```

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
m/p-Xylene	22.047	22.050	0.003	4708408	37.391	37.391
o-Xylene	22.849	22.852	0.003	2175986	18.448	18.448
Benzene	14.366	14.371	0.005	2808688	18.939	18.939
Toluene	18.716	18.720	0.004	2595579	18.282	18.282
Ethylbenzene	21.823	21.826	0.003	1999433	19.105	19.105
Isopropylbenzene	23.549	23.552	0.003	1495776	18.852	18.852
n-Propylbenzene	24.344	24.347	0.003	1526510	18.794	18.794
1,3,5-Trimethylbenzene	24.652	24.655	0.003	2324866	18.486	18.486
tert-Butylbenzene	25.301	25.305	0.003	1204002	19.057	19.057

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
1,2,4-Trimethylbenzene	25.386	25.389	0.003	1949224	17.844	17.844
ec-Butylbenzene	25.713	25.716	0.003	1254279	18.208	18.208
p-Isopropyltoluene	25.956	25.959	0.003	1251755	18.169	18.169
-Butylbenzene	26.731	26.734	0.003	1197762	17.844	17.844
Naphthalene	30.743	30.746	0.004	1138167	18.565	18.565
TBE	9.581	9.587	0.006	1175478	18.016	18.016
Total Xylenes	24.600	24.600	0.000	6884394	55.850	55.850
a,a,a,-Trifluorotoluene (sur	16.497	16.501	0.004	938094	18.984	18.984

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER Level: LOW Lab Job No: N490

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
	=====	=====	=====	=====	=====
01	IG109	94			0
02	124788	97			0
03	124789	97			0
04	124791	94			0
05	124790	92			0
06	124792	94			0
07	124793	91			0
08	IG109C	92			0
09	124787	97			0
10	124787MS	94			0
11	124787MSD	95			0
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

QC LIMITS

SMC1 = a,a,a,-Trifluorotoluen (61-135)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8021

Matrix: WATER

Matrix Spike - Lab Sample No.: 124787

Level: LOW

MS Sample from Lab Job No: N490

QA Batch: 6751

Compound	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
=====	=====	=====	=====	=====	=====
Benzene	500	45	610	113	66-138
Toluene	500	0.00	510	102	68-137
Ethylbenzene	500	58	580	104	66-142
Isopropylbenzene	500	76	570	99	82-126
n-Propylbenzene	500	160	660	100	70-145
1,3,5-Trimethylbenzene	500	0.00	500	100	65-147
tert-Butylbenzene	500	0.00	460	92	76-132
1,2,4-Trimethylbenzene	500	0.00	500	100	79-124
sec-Butylbenzene	500	29	530	100	73-145
p-Isopropyltoluene	500	0.00	490	98	67-156
n-Butylbenzene	500	0.00	520	104	71-150
Naphthalene	500	160	680	104	48-171
MTBE	500	590	1000	82	42-148
Total Xylenes	1500	30	1600	105	68-142

Compound	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS	
=====	=====	=====	=====	=====	=====	=====
Benzene	500	610	113	0	40	66-138
Toluene	500	510	102	0	40	68-137
Ethylbenzene	500	580	104	0	40	66-142
Isopropylbenzene	500	560	97	2	40	82-126
n-Propylbenzene	500	670	102	2	40	70-145
1,3,5-Trimethylbenzene	500	490	98	2	40	65-147
tert-Butylbenzene	500	490	98	6	40	76-132
1,2,4-Trimethylbenzene	500	470	94	6	40	79-124
sec-Butylbenzene	500	520	98	2	40	73-145
p-Isopropyltoluene	500	470	94	4	40	67-156
n-Butylbenzene	500	490	98	6	40	71-150
Naphthalene	500	680	104	0	40	48-171
MTBE	500	1000	82	0	40	42-148
Total Xylenes	1500	2000	131	23	40	68-142

Column to be used to flag recovery and RPD values with an asterik

* Values outside of QC limits

RPD: 0 out of 14 outside limits

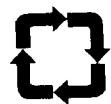
Spike Recovery: 0 out of 28 outside limits

COMMENTS:

Attachment 4

VaporTech Services Laboratory Data

EnSolutions, Inc.



VaporTech Services, Inc.

ENI10-992179

Ensolutions, Inc.
Project: PET-99-04-24 - Petrocelli

CONCENTRATIONS IN PPMV

COMPOUND	C-SPARGE	MDL
PENTANE	ND	0.07
HEXANE	ND	0.07
HEPTANE	ND	0.07
BENZENE	ND	0.07
OCTANE	ND	0.07
TOLUENE	ND	0.07
NONANE	ND	0.07
ETHYL BENZENE	ND	0.07
M&P XYLENE	ND	0.07
O-XYLENE	ND	0.07
DECANE	ND	0.07
TPH C4-C12	0.96	0.07
MTBE	0.08	0.07

FILE NAME	V6A1.91A
DATE SAMPLED	04/27/99
DATE RECEIVED	04/30/99
DATE ANALYZED	05/03/99

* Includes the total of all identified and unidentified compounds in the C4-C12 hydrocarbon range, calculated using the sensitivity of hexane

MDL - Lower 'Method Detection Limit'

ND - 'Not Detected' above the lower method detection limit

05-May-99

Reviewed by



VaporTech Services, Inc.

ENI11-992180

Ensolutions, Inc.
Project: LIC-99-04 -- Long Island City, NY

CONCENTRATIONS IN PPMV

COMPOUND	C-OUT	C-MIDDLE	MDL
PENTANE	0.20	0.17	0.07
HEXANE	0.11	0.12	0.07
HEPTANE	ND	ND	0.07
BENZENE	ND	ND	0.07
OCTANE	ND	ND	0.07
TOLUENE	ND	ND	0.07
NONANE	ND	ND	0.07
ETHYL BENZENE	ND	ND	0.07
M&P XYLENE	ND	ND	0.07
O-XYLENE	ND	ND	0.07
DECANE	ND	ND	0.07
TPH C4-C12	2.93	4.84	0.07
MTBE	0.21	0.29	0.07

FILE NAME	V6A1.92A	V6A1.93A
DATE SAMPLED	04/27/99	04/27/99
DATE RECEIVED	04/30/99	04/30/99
DATE ANALYZED	05/03/99	05/03/99

* Includes the total of all identified and unidentified compounds in the C4-C12 hydrocarbon range, calculated using the sensitivity of hexane

MDL - Lower 'Method Detection Limit'

ND - 'Not Detected' above the lower method detection limit

05-May-99

Reviewed by



VaporTech Services, Inc.

ENI11-992180

Ensolutions, Inc.
Project: LIC-99-04 -- Long Island City, NY

QUALITY CONTROL

CONTINUING CALIBRATION CHECK

STANDARDS: V21-R4 220 MTBE
FILE NAME: V6A1.86A V6A1.89A V6A1.88A

COMPOUND	KNOWN (PPMV)	RESULT (PPMV)	PERCENT DIFFERENCE
PENTANE	99.70	104.01	4.32
HEXANE	102.00	108.32	6.19
HEPTANE	0.98	0.94	4.18
BENZENE	1.25	1.21	3.60
OCTANE	0.86	0.83	3.72
TOLUENE	1.06	1.04	1.70
NONANE	0.76	0.75	1.71
ETHYL BENZENE	0.92	0.91	0.76
M&P XYLENE	1.84	1.82	0.98
O-XYLENE	0.92	0.92	0.11
DECANE	0.69	0.70	1.30
MTBE	17.67	17.79	0.68

ND - denotes 'Not Detected' above the lower method detection limit

LABORATORY BLANK RESULTS

BLANK: He IN VIAL
FILE NAME V6A1.85A

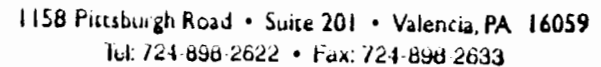
COMPOUND	BLANK (PPMV)	METHOD DETECTION LIMIT (PPMV)
PENTANE	ND	0.07
HEXANE	ND	0.07
HEPTANE	ND	0.07
BENZENE	ND	0.07
OCTANE	ND	0.07
TOLUENE	ND	0.07
NONANE	ND	0.07
ETHYL BENZENE	ND	0.07
M&P XYLENE	ND	0.07
O-XYLENE	ND	0.07
DECANE	ND	0.07
TPH C4-C12	ND	0.07
MTBE	ND	0.07

05-May-99

Reviewed by



992179



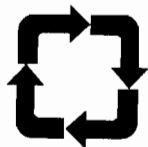
Analysis Options: Enter letters in Requested Analyses columns below.

- * Requires an additional container when requested in combination with another analysis.
- ** If analysis E is selected, scratch (option) NOT wanted.

Per Client Request
JN 5-4-99

Invoice to: ~~Spartan Oil Company~~
EnSolutions

Relinquished by : <i>W. W. W.</i>	Company : <i>EnSolutia</i>	Date : <i>4/27/99</i>	Time : <i>16:30</i>	Received by : <i>Joe Montone</i>	Company : <i>Saportech</i>	Date : <i>4/30/99</i>	Time : <i>AD 1430</i>
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :



EnSolutions, Inc.

66 Elm Street • Dover, NJ 07801 • Telephone 973-442-1320 • Fax 973-361-3204

November 15, 1999

Mr. Mark Tibbe
New York State Department of Environmental Conservation
222-34 96th Avenue
Queens Village, NY 11420

RE: Progress Report
Petrocelli Facility
22-09 Queens Bridge Plaza North
Long Island City, NY
Spill # ~~97-058567~~
97-05856

Dear Mr. Tibbe:

On behalf of Petrocelli Electric Company Inc. (Petrocelli), enclosed is the progress report for the remedial action at the above referenced facility prepared by EnSolutions, Inc. The purpose of this report is to provide the NYSDEC with the following information:

1. The status of the remedial action and remedial system at the site.
2. The analytical ground water sampling results performed in October 1999 at the site.
3. The analytical results of the vapor sampling performed in November 1999 at the site.
4. Conclusions and proposed actions items.

Thank you for all your assistance in this matter and if you require any additional information please do not hesitate to call us at (973) 442-1320.

Sincerely,
EnSolutions, Inc.


R. L. Lynch, P. E.
President

cc: Michael Melia – Petrocelli Electric

**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

**Prepared for:
PETROCELLI ELECTRIC COMPANY, INC.**

Prepared by:

Robert Larry Lynch, P.E.

**EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801
(973) 442-1320**

NOVEMBER 1999

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

TABLE OF CONTENTS

SECTION I

- A. Introduction
- B. Area/Site Characterization
- C. Ground Water
- D. Installation of Ground Water Monitoring Wells – May 1998
- E. Implementation of SVE/AS Remedial System

SECTION II

- A. SVE / AS System
- B. Remedial System Monitoring
- C. Ground Water Sampling – October 11, 1999
- D. System Vapor Sampling – November 2, 1999

SECTION III

- A. Ground Water Analytical Results – October 11, 1999
- B. System Vapor Sampling Results – November 2, 1999

SECTION IV

- A. Conclusions
- B. Action Items

SECTION V

FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 October 1999 Benzene Isopleth Map
- Figure 4 October 1999 Total BTEX Isopleth Map
- Figure 5 October 1999 MTBE Isopleth Map



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

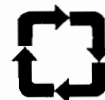
**TABLE OF CONTENTS
(continued)**

TABLES

Table 1	Historical Ground Water Sampling Results
Table 2	Vapor Sampling Data – November 2, 1999

ATTACHMENTS

Attachment 1	Field Sampling Data – October 1999
Attachment 2	Laboratory QA/QC Data – October 1999



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION I

A. INTRODUCTION

On behalf of Petrocelli Electric Company, Inc. (Petrocelli), EnSolutions, Inc. (EnSolutions) has prepared this Progress Report for the remedial actions implemented at the Petrocelli facility at 22-09 Queens Bridge Plaza North, Long Island City, New York.

This Progress Report is part of the approved Corrective Action Plan implemented at the site as a result of a petroleum hydrocarbon release by the prior property owner.

B. AREA/SITE CHARACTERIZATION

The site, currently under renovation, will become the administrative and maintenance facilities for the Petrocelli Electric Company, Inc. and is located at 22-09 Queens Plaza North, between 22nd and 23rd Streets, Long Island City, Queens County, New York. The area surrounding the site is primarily commercial, with some residential units up-gradient of the site, east on 23rd Street. A site location map is included as Figure 1 in Section V and a site plan illustrating all current site features is included as Figure 2 in Section V.

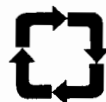
The East River is the nearest surface water to the site and is located approximately 3,000 feet to the west of the facility.

The water source at the subject property and at all surrounding properties is currently from the public water supply.

C. GROUND WATER

Based upon the October 11, 1999 ground water monitoring well sampling event, the depth to ground water ranged from 8.1 to 10.2 feet below grade in wells MW-1, MW-2, MW-4, MW-5 and MW-6. MW-3 was purged dry at less than 0.5 gallon per minute and could not be sampled.

EnSolutions, Inc.



The direction of ground water flow is predicted to be toward the west, in the direction of the East River.

D. INSTALLATION OF GROUND WATER MONITORING WELLS – MAY 1998

As a result of the soil delineation and ground water sampling and analyses performed at the subject property in April 1998, Aquifer Drilling and Testing, Inc. (ADT) of Woodside, New York, installed six (6) ground water monitoring wells on the subject property in May 1998. The six (6) 4-inch ground water monitoring wells were installed as both soil vapor extraction points and as ground water monitoring points in order to address and monitor the ground water contamination at the subject property. The six (6) 4-inch monitoring wells are labeled as MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6 and are shown in the site plan, Figure 2 in Section V.

E. IMPLEMENTATION OF SVE/AS REMEDIAL SYSTEM

Based on the report submitted to the NYSDEC, which included the soil and ground water laboratory analytical data from the April 1998 sampling event and a Corrective Action Plan, an approved Stipulation Agreement between Petrocelli and the NYSDEC, including an approved air permit, was issued for the site.

As part of the Correction Action Plan, EnSolutions installed a Soil Vapor Extraction / Air Sparging (SVE/AS) Remedial System to address the petroleum hydrocarbon soil and ground water contamination at the site.

SVE induces airflow in the subsurface using an above ground vacuum pump system. The induced airflow brings clean air in contact with the contaminated soil. The contaminated soil vapors drawn off by the SVE allows the soil matrix to re-establish the soil / pore moisture partitioning with the contaminants present.

The SVE methodology is the concept of an air envelope. The air envelope is the area from which air is drawn from and toward an extraction well. As air is extracted, air moves into the well from the area adjacent to the well screen. The air further from the well now moves in to replace the air withdrawn by the well. As the air, that is farther from the well, moves towards the well, the pressure differential becomes very small and is not often measured by contemporary pressure measurement devices.



The SVE installed is based upon a positive displacement vacuum pump that utilizes an electronic variable speed drive. The drive receives its speed command from a Programmable Logic Controller (PLC), which is a full-featured control computer capable of two-way communication. This PLC permits the monitoring of all control parameters, such as pump speed and vacuum level and also provides for the modification of system parameters.

All programs can be monitored and changed as necessary remotely or through a local interface. For protection, the system is password protected. The interface allows the operator to change parameters or view data by clicking on graphic symbols that represent the piece of equipment. Additionally, the equipment status is easily determined as this software allows for different colors to represent different states of operation, such as, green for on, red for stopped, and amber for ready to run.

The SVE component installed and operating at the site consists of an extraction unit with positive displacement blower, a programmable logic controller (PLC), two (2) activated carbon polishing drums, 2" extraction piping, and 4" extraction wells. The extraction points are connected to the system via a common 2" manifold that is equipped with gate valves to control the airflow to the individual wells.

The SVE is connected to six extraction points, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6, to address the levels of contaminants at the site.

In addition to the SVE system, the air sparging system of the remedial system provides oxygen to stimulate biological activity in the subsurface. The air sparging system is design to provide sufficient oxygen to stimulate bioactivity, while minimizing the mobilization of dissolved hydrocarbons. To maintain a closed loop circulation of air injected into the ground water, the air sparging points are located within 30 feet of the vapor extraction points, well within the zone of influence for the SVE system.

The sparge system utilizes the four (4) sparge points, SP-1, SP-2, SP-3 and SP-4, and each point is configured with a gate valve to control flow to each individual sparge point. This will allow the operation of the system to be changed as necessary to optimize air sparging.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION II

A. SVE / AS SYSTEM

Based upon the approval of the Stipulation Agreement between the NYSDEC and Petrocelli, the SVE segment of the remedial system has been operational since December 1998.

As part of the SVE operation, a zone of influence test to evaluate the SVE system was performed during the first quarter of 1999 to determine the effectiveness of the remedial system at the subject site. Utilizing the data obtained from the zone of influence test, the pneumatic zone of influence that displays capture of the vadose zone was established for this site.

In addition, based upon the April 1999 analytical data, the air sparging system has been operational to enhance the remedial efforts on the site since May 6, 1999.

B. REMEDIAL SYSTEM MONITORING

During SVE / AS system operation, maintenance checks and hydrocarbon readings are taken to monitor contaminant levels using a Photo Ionization Detector (PID).

These readings were taken at various points in the system. The first reading is taken between the SVE system and the first carbon drum. The second reading is taken between the two carbon drums and the third is taken at the outlet or effluent of the second carbon drum in order to determine hydrocarbon breakthrough.

C. GROUND WATER SAMPLING - OCTOBER 11, 1999

Ground water samples were collected from monitoring wells MW-1, MW-2, MW-4, MW-5 and MW-6 on October 11, 1999 at the site. MW-3 was not accessible due to a parked vehicle and could not be sampled. Prior to sampling, the monitor wells to be sampled were purged of three well volumes with a pneumatic diaphragm pump attached to new, dedicated polyethylene tubing and a clean, dedicated brass foot-valve to allow representative groundwater to enter the well. The ground water samples were collected within two hours of purging with disposable, teflon samplers from approximately two feet below static water level. The samples were preserved with



HCL, transported on ice to STL - Envirotech (NY Certification # 12543) in Edison, New Jersey for analyses and were accompanied with a chain of custody form, in accordance with quality control standards.

All monitor wells were analyzed for 8021p - Stars and MTBE. The October 11, 1999 field sampling data is included as Attachment 1 in Section V.

D. SYSTEM VAPOR SAMPLING – NOVEMBER 2, 1999

In addition to the PID monitoring, to confirm the effectiveness of the carbon polishers for the system and prior to a carbon change, a vapor sample at the outlet or effluent of carbon drum #2 was obtained on November 2, 1999 and sent to VaporTech Services, Inc. of Valencia, PA for analyses.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION III

A. GROUND WATER ANALYTICAL RESULTS – OCTOBER 11, 1999

The laboratory results of the 8021p-STARS and MTBE analyses for the five ground water samples obtained indicated:

1. Levels of Benzene exceed the NYSDEC ground water quality standards or guidance values for ground water in only MW-6 at 27 ppb.
2. Levels of MTBE exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-1 at 200 ppb, MW-2 at 2500 ppb, MW-4 at 450 ppb and MW-6 at 430 ppb.
3. Levels of Ethylbenzene, Isopropylbenzene, n-Propylbenzene, 1,2,4-Trimethylbenzene, sec-Butylbenzene, 1,3,5 Trimethylbenzene, Total Xylenes and Naphthalene, did not exceed the NYSDEC ground water quality standards or guidance values for ground water.
4. All other 8021p-Stars components analyzed were non detect for all wells.

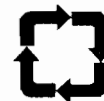
A summary table of the results, including the October 1999 results, is shown in Table 1 in Section V.

The laboratory QA/QC for the ground water analyses is included as Attachment 2 in Section V.

In addition, copies of the Benzene, Total BTEX and MTBE ground water Isopleth maps are included as Figures 3, 4 and 5, respectively, in Section V.

F. SYSTEM VAPOR SAMPLING RESULTS – NOVEMBER 2, 1999

The results of the vapor test indicated that there was no contaminate breakthrough of the carbon polishers of the remedial system. A copy of the laboratory data from VaporTech Services is included as Table 2 in Section V.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION IV

A. CONCLUSIONS

Based upon the information to date, the following conclusions have been determined at the site:

1. The analytical results of the soil and ground water sampling confirm a release from the former underground storage tank system at the subject property and the contamination of ground water at the site.
2. The October 11, 1999 ground water analytical results show declines since the SVE segment of the remedial system became operational in December 1998 and the AS segment of the remedial system in May 1999.

B. ACTION ITEMS

Based upon analytical data and system information reviewed, the following are the action items to be implemented at the site:

1. The SVE / AS system will continue to be operational and monitored.
2. The next round of ground water samples will be obtained in April 2000.
3. The discharge from the SVE/AS system will continued to be monitored and another round of vapor samples from the system effluent will be done in April 2000, unless PID monitoring indicates otherwise.
4. A progress report of the system operation and the analytical data obtained from this April 2000 round of samples will be sent to the NYSDEC case manager within 45 days of receipt of all analytical data, on or about May 15, 2000.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION IV

A. CONCLUSIONS

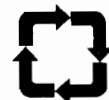
Based upon the information to date, the following conclusions have been determined at the site:

1. The analytical results of the soil and ground water sampling confirm a release from the former underground storage tank system at the subject property and the contamination of ground water at the site.
2. The October 11, 1999 ground water analytical results show declines since the SVE segment of the remedial system became operational in December 1998 and the AS segment of the remedial system in May 1999.

B. ACTION ITEMS

Based upon analytical data and system information reviewed, the following are the action items to be implemented at the site:

1. The SVE / AS system will continue to be operational and monitored.
2. The next round of ground water samples will be obtained in April 2000.
3. The discharge from the SVE/AS system will continued to be monitored and another round of vapor samples from the system effluent will be done in April 2000, unless PID monitoring indicates vapor sampling and analysis.
4. A progress report of the system operation and the analytical data obtained from this April 2000 round of samples will be sent to the NYSDEC case manager within 45 days of receipt of all analytical data, on or about May 15, 2000.



FIGURES



Figure 1
Site Location Map

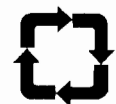


Figure 1 - Site Location Map

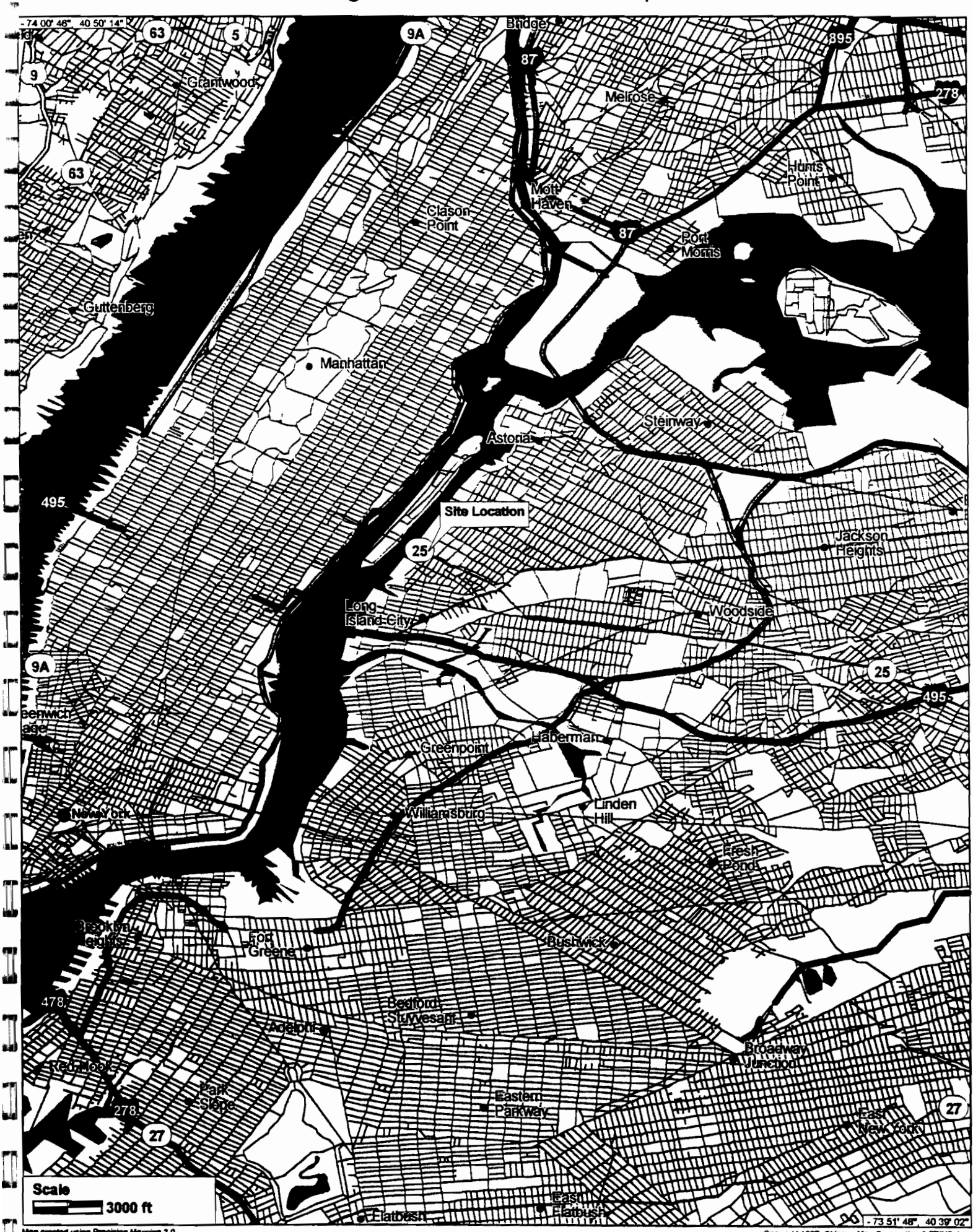


Figure 2

Site Plan



22nd STREET



REMEDIAL
SYSTEM

MW-1

MW-2

MW-3

SP 2

SP 1

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

MW-4

Tank Farm

SP 3

SP 4

MW-5

MW 6

KEY

⊕ Monitor Well

■ Sparge Point

DATE
MAY 1999

EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801



DESCRIPTION

FIGURE 2
PETROCELLI FACILITY
SITE PLAN

TITLE

22-09 Queens Bridge Plaza North
Long Island City, NY

DRAWN BY

S. KOTEN

SCALE

AS SHOWN



Figure 3
October 1999 Benzene Isopleth Map

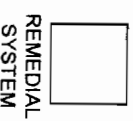


22nd STREET



KEY

- ⊕ Monitor Well
- Sparge Point



REMEDIAL
SYSTEM

MW-1 ⊕

MW-2 ⊕

MW-3 ⊕

■ SP 2

■ SP 1

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

MW-4 ⊕

Tank Farm

Benzene
30

■ SP 4

MW-5 ⊕

■ SP 3

MW 6 ⊕

DATE

October 1999

EnSolutions,
Inc.

66 Elm Street
Dover, NJ 07801

DESCRIPTION

FIGURE 3

PETROCELLI FACILITY

BENZENE ISOPLETH MAP

TITLE

22-09 Queens Bridge Plaza North

Long Island City, NY

DRAWN BY

S. KOTIEN

SCALE

As Shown

MW 1	ND	
MW 2	ND	
MW 3	ND	
MW 4	ND	
MW 5	ND	
MW 6	27	



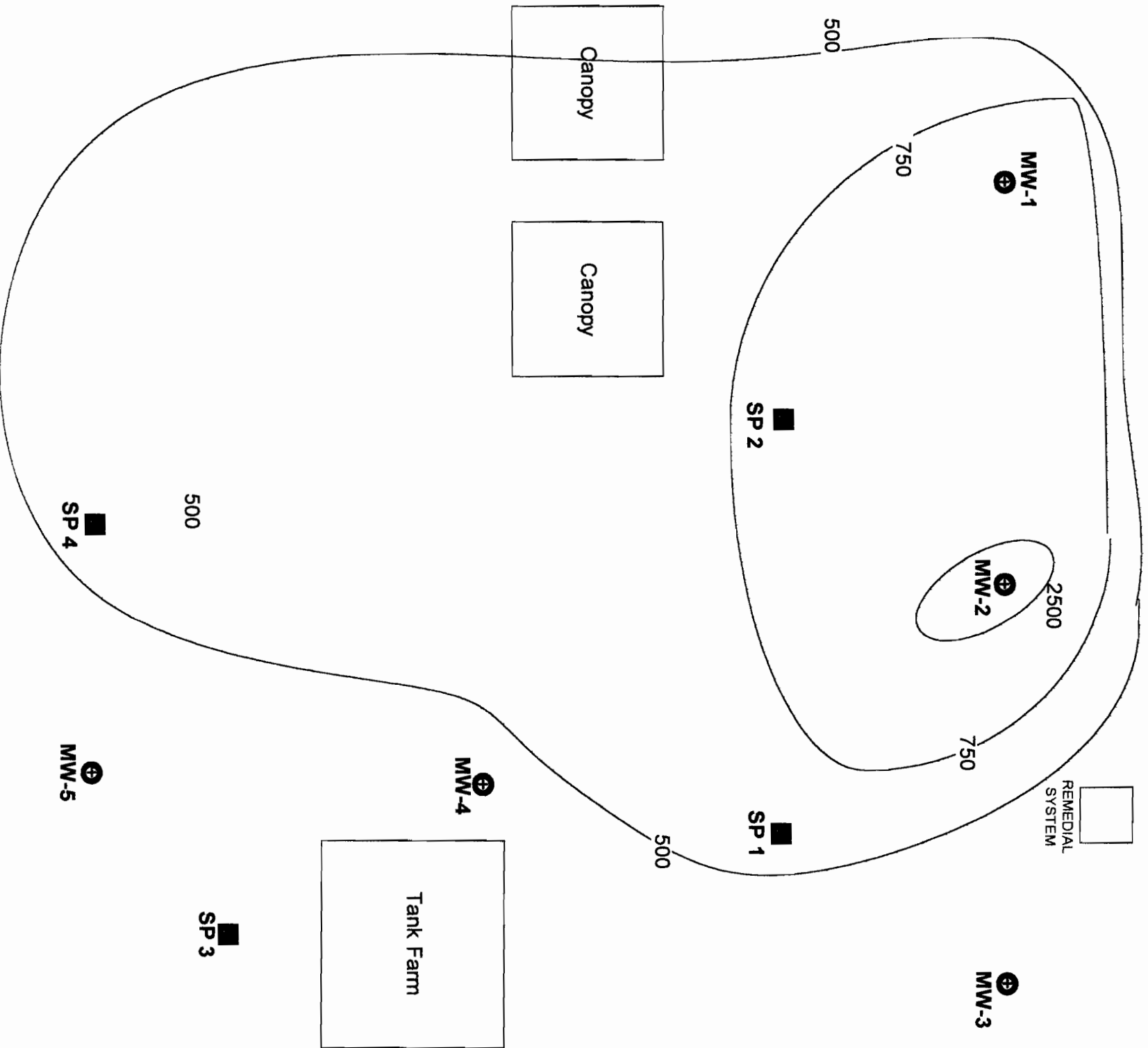
Figure 4
October 1999 Total BETX Isopleth Map



22nd STREET

QUEENS PLAZA NORTH

ONE STORY
COMMERCIAL
BUILDING



KEY

- ⊕ Monitor Well
- Sparge Point

DATE

OCTOBER 1999

EnSolutions,
Inc.

66 Elm Street
Dover, NJ 07801

DESCRIPTION

FIGURE 4

PETROCELLI FACILITY

TOTAL BTX ISOPLETH MAP

TITLE

22-09 Queens Bridge Plaza North
Long Island City, NY

DRAWN BY

S. KOTEN

SCALE

As Shown

BTX	
MW 1	734
MW 2	2500
MW 3	NS
MW 4	450
MW 5	ND
MW 6	498



Figure 5

October 1999 MTBE Isopleth Map



⊕ Monitor Well

Sparge Point

DATE _____

OCTOBER 1999

Inc.
66 Elm Street
Dover, NJ 07801




FIGURE 5

PETROCELLI FACILITY

MTBE ISOPLETH MAP

22-09 Queens Bridge Plaza North
Long Island City, NY

SCALE

As Shown

MMW 1	200
MMW 2	2500
MMW 3	NS
MMW 4	450
MMW 5	ND
MMW 6	430

**ONE STORY
COMMERCIAL
BUILDING**

200

MW-1

200

⊕
MW-2

2500

⊕
MM-3

REMEDIAL
SYSTEM

SP 2

SP 1

500

Canopy

Canopy

MW-4

Tank/Farm

500

500

SP 3

MW-5

SP 4

200

BMW 6

TABLES



Table 1

Historical Ground Water Sampling Results



TABLE 1

Petrocelli Electric Company, Inc.
Ground Water Sampling Results Summary Table

VOLATILE COMPOUNDS (ug/l)	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6	
	Apr-99	Oct-99	Apr-99	Oct-99	Apr-99	Oct-99	Apr-99	Oct-99	Apr-99	Oct-99	Apr-99	Oct-99
Benzene	45	U	U	U	U	NS	77	U	U	U	U	U
Toluene	U	U	U	U	U	NS	14	U	U	U	U	U
Ethylbenzene	58	27	U	U	U	NS	250	U	U	U	U	U
Isopropylbenzene	76	95	U	U	U	NS	37	U	U	U	U	U
n-Propylbenzene	160	250	62		U	NS	58	U	U	U	U	U
1,3,5-Trimethylbenzene	U	U	U	U	U	NS	45	U	U	U	U	U
tert-Butylbenzene	U	U	U	U	U	NS	U	U	U	U	U	U
1,2,4-Trimethylbenzene	U	15	U	U	U	NS	120	U	U	U	U	U
sec-Butylbenzene	U	27	U	U	U	NS	U	U	U	U	U	U
p-Isopropyltoluene	U	U	U	U	U	NS	U	U	U	U	U	U
n-Butylbenzene	U	U	U	U	U	NS	U	U	U	U	U	U
Naphthalene	160	120	U	U	U	NS	110	U	U	U	U	U
MTBE	590	200	520	2500	22	NS	280	450	U	U	6200	430
Total Xylenes	30	U	U	U	U	NS	370	U	U	U	U	41

Qualifiers

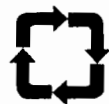
U - The compound was not detected at the indicated concentration.



EnSolutions, Inc.

Table 2

Vapor Sampling Data – November 2, 1999



ENI17-992476

Ensolutions, Inc.

CONCENTRATIONS IN PPMV

COMPOUND	PETROCELLI	MDL
PENTANE	ND	0.07
HEXANE	ND	0.07
HEPTANE	ND	0.07
BENZENE	ND	0.07
OCTANE	ND	0.07
TOLUENE	ND	0.07
NONANE	ND	0.07
ETHYL BENZENE	ND	0.07
M&P XYLENE	ND	0.07
O-XYLENE	ND	0.07
DECANE	ND	0.07
MTBE	ND	0.07

FILE NAME	V8A2.16A
DATE SAMPLED	11/02/99
DATE RECEIVED	11/04/99
DATE ANALYZED	11/06/99

MDL - Lower 'Method Detection Limit'

ND - 'Not Detected' above the lower method detection limit

09-Nov-99

Reviewed by _____

ATTACHMENTS



Attachment 1

Field Sampling Data – October 1999



PETROCELLI ELECTRIC

LONG ISLAND CITY, NY

SAMPLE POINT	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
TOTAL DEPTH	15.10	14.9	16.6	14.5	12.0	15.0
DEPTH TO WATER	10.20	9.00	---	9.01	8.10	9.71
HEIGHT TO WATER COL.(FT)	4.9	5.9	---	5.4	3.9	5.3
ONE CASING VOL. (GAL)	3.2	3.8	---	3.5	2.5	3.5
THREE CASING VOL (GAL)	9.5	11.5	---	10.6	7.6	10.3
ACTUAL VOL PURGED (GAL)	10.0	12.0	---	11.0	8.0	11.0
DATE SAMPLED	10/11/99	10/11/99	---	10/11/99	10/11/99	10/11/99
TIME SAMPLED	0915	0955	---	0945	1010	1050
FIELD PARAMETERS						
pH	6.80	6.22	---	6.32	7.18	7.05
SCOND um/cm	1636	1770	---	2970	312	1329
TEMP C	20.9	21.4	---	21.5	20.0	21.4
DISSOLVED OXYGEN (ppm)	1.30	1.09	---	1.40	3.14	0.55
APPEARANCE	CLOUDY ODOR	CLOUDY ODOR	---	CLOUDY ODOR	CLOUDY ODOR	CLEAR ODOR
PURGE METHOD	PP	PP	---	PP	PP	PP
SAMPLE METHOD	BT	BT	---	BT	BT	BT

PP = PERISTALIC PUMP

BT = BAILER TEFLON

* = well purged dry at less than 0.5 GPM

Attachment 2

Laboratory QA/QC Data – October 1999





STL Envirotech
777 New Durham Road
Edison, NJ 08817
Tel: (732) 549-3900
Fax: (732) 549-3679
www.stl-inc.com

November 8, 1999

Envirotech Solutions, Inc.
66 Elm Street
Dover, NJ 07801

Attention: Mr. Howard Fredericks

Re: Job No. U135 - Petrocelli Electric

Dear Mr. Fredericks:

Enclosed are the results you requested for the following sample(s) received at our laboratory on October 13, 1999:

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
161703	MW-1	8021p Stars List
161704	MW-2	8021p Stars List
161705	MW-4	8021p Stars List
161706	MW-5	8021p Stars List
161707	MW-6	8021p Stars List

If you have any questions please contact your Project Manager, Brian Reddy, at (732) 549-3900.

Very truly yours,

A handwritten signature in black ink, appearing to be 'Michael J. Urban'.

Michael J. Urban
Laboratory Manager

Other Laboratory Locations:

- 149 Rangeway Road, North Billerica MA 01862
- 16203 Park Row, Suite 110, Houston TX 77084
- 200 Monroe Turnpike, Monroe CT 06468
- 120 Southcenter Court, Suite 300, Morrisville NC 27560

- 11 East Olive Road, Pensacola FL 32514
- Westfield Executive Park, 53 Southampton Road, Westfield MA 01085
- 628 Route 10, Whippany NJ 07981
- 55 South Park Drive, Colchester VT 05446

a part of
Severn Trent Services Inc



TABLE OF CONTENTS

	<u>Section</u>	<u>Page</u>
Analytical Results Summary	1	1
General Information	2	
Chain of Custody		6
Laboratory Chronicles		7
Methodology Review		8
Data Reporting Qualifiers		11
Non-Conformance Summary		12
GC/PID Forms and Data	3	
Results Summary and Chromatograms		14
Method Blank Results Summary		24
Standards Summary		33
Surrogate Compound Recovery Summary		54
Spike Recovery Summary		55



Client ID: MW-1
Site: Petrocelli Electric

Lab Sample No: 161703
Lab Job No: U135

Date Sampled: 10/11/99
Date Received: 10/13/99
Date Analyzed: 10/15/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2412.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 10.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	10
Toluene	ND	10
Ethylbenzene	27	10
Isopropylbenzene	95	10
n-Propylbenzene	250	10
1,3,5-Trimethylbenzene	ND	10
tert-Butylbenzene	ND	10
1,2,4-Trimethylbenzene	15	10
sec-Butylbenzene	27	10
p-Isopropyltoluene	ND	10
n-Butylbenzene	ND	10
Naphthalene	120	10
MTBE	200	10
Total Xylenes	ND	10



Client ID: MW-2
Site: Petrocelli Electric

Lab Sample No: 161704
Lab Job No: U135

Date Sampled: 10/11/99
Date Received: 10/13/99
Date Analyzed: 10/19/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2463.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 100.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	100
Toluene	ND	100
Ethylbenzene	ND	100
Isopropylbenzene	ND	100
n-Propylbenzene	ND	100
1,3,5-Trimethylbenzene	ND	100
tert-Butylbenzene	ND	100
1,2,4-Trimethylbenzene	ND	100
sec-Butylbenzene	ND	100
p-Isopropyltoluene	ND	100
n-Butylbenzene	ND	100
Naphthalene	ND	100
MTBE	2500	100
Total Xylenes	ND	100



Client ID: MW-4
Site: Petrocelli Electric

Lab Sample No: 161705
Lab Job No: U135

Date Sampled: 10/11/99
Date Received: 10/13/99
Date Analyzed: 10/19/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2464.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 20.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	20
Toluene	ND	20
Ethylbenzene	ND	20
Isopropylbenzene	ND	20
n-Propylbenzene	ND	20
1,3,5-Trimethylbenzene	ND	20
tert-Butylbenzene	ND	20
1,2,4-Trimethylbenzene	ND	20
sec-Butylbenzene	ND	20
p-Isopropyltoluene	ND	20
n-Butylbenzene	ND	20
Naphthalene	ND	20
MTBE	450	20
Total Xylenes	ND	20



Client ID: MW-5
Site: Petrocelli Electric

Lab Sample No: 161706
Lab Job No: U135

Date Sampled: 10/11/99
Date Received: 10/13/99
Date Analyzed: 10/19/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2465.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0



Client ID: MW-6
Site: Petrocelli Electric

Lab Sample No: 161707
Lab Job No: U135

Date Sampled: 10/11/99
Date Received: 10/13/99
Date Analyzed: 10/16/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2426.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	27	25
Toluene	ND	25
Ethylbenzene	ND	25
Isopropylbenzene	ND	25
n-Propylbenzene	ND	25
1,3,5-Trimethylbenzene	ND	25
tert-Butylbenzene	ND	25
1,2,4-Trimethylbenzene	ND	25
sec-Butylbenzene	ND	25
p-Isopropyltoluene	ND	25
n-Butylbenzene	ND	25
Naphthalene	ND	25
MTBE	430	25
Total Xylenes	41	25

Phone: (908) 549-3900 Fax: (908) 549-3679

PAGE 1 OF 1

Special Instructions: *1 ONE COPY OF report bound one UNBOUND to ENSURE* Water Metals Filtered (Yes/No)?

Relinquished by 1) <i>[Signature]</i>	Company <i>[Signature]</i>	Date / Time 10-13-99 0900	Received by 1) <i>[Signature]</i>	STL-ENV WAYNE CLARK	Company S2 FOR
Relinquished by 2) <i>[Signature]</i>	Company STL-ENV WAYNE CLARK	Date / Time 10-13-99 1100	Received by 2) <i>[Signature]</i>		Company STC
Relinquished by 3)	Company	Date / Time 1	Received by 3)		Company
Relinquished by 4)	Company	Date / Time 1	Received by 4)		Company

**INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Envirotech**

777 New Durham Road, Edison, New Jersey
08817

Job No: U135

Site: Petrocelli Electric

Client: EnSolutions, Inc.

VOAGC

8021Bp

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
<u>WATER</u>							
161703	10/11/1999	10/13/1999			10/15/99	CK	6885
161704	10/11/1999	10/13/1999			10/19/99	SP	
161705	10/11/1999	10/13/1999					
161706	10/11/1999	10/13/1999					
161707	10/11/1999	10/13/1999			10/16/99	CIC	

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

- P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)
- A - Flame Atomic Absorption
- F - Furnace Atomic Absorption
- CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

Element	Water Test Method		Solid Test Method	
	Flame	Furnace	Flame	Furnace
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

Ignitability - Method 1020A

Corrosivity - Water pH Method 9040B
Soil pH Method 9045C

Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release

Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NON-CONFORMANCE SUMMARY

STL Envirotech Job Number: 0135

Volatile Organics Analysis:

All data conforms with method requirements ✓; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements ✓; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements ✓; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Non-conformance Summary, Page 2 of 2
STL Envirotech Job Number: 0135

Metals Analysis:

All data conforms with method requirements ____; or
Analysis was not requested /; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Total Petroleum Hydrocarbons:

All data conforms with method requirements ____; or
Analysis was not requested /; or
Non-conformance for the specific samples listed is as follows:

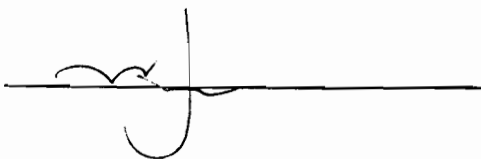
See continuation page if checked ()

General Chemistry/Disposal Parameters:

All data conforms with method requirements ____; or
Analysis was not requested /; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Signature of
Laboratory Manager:



Date:

11/11/99

Client ID: MW-1
Site: Petrocelli Electric

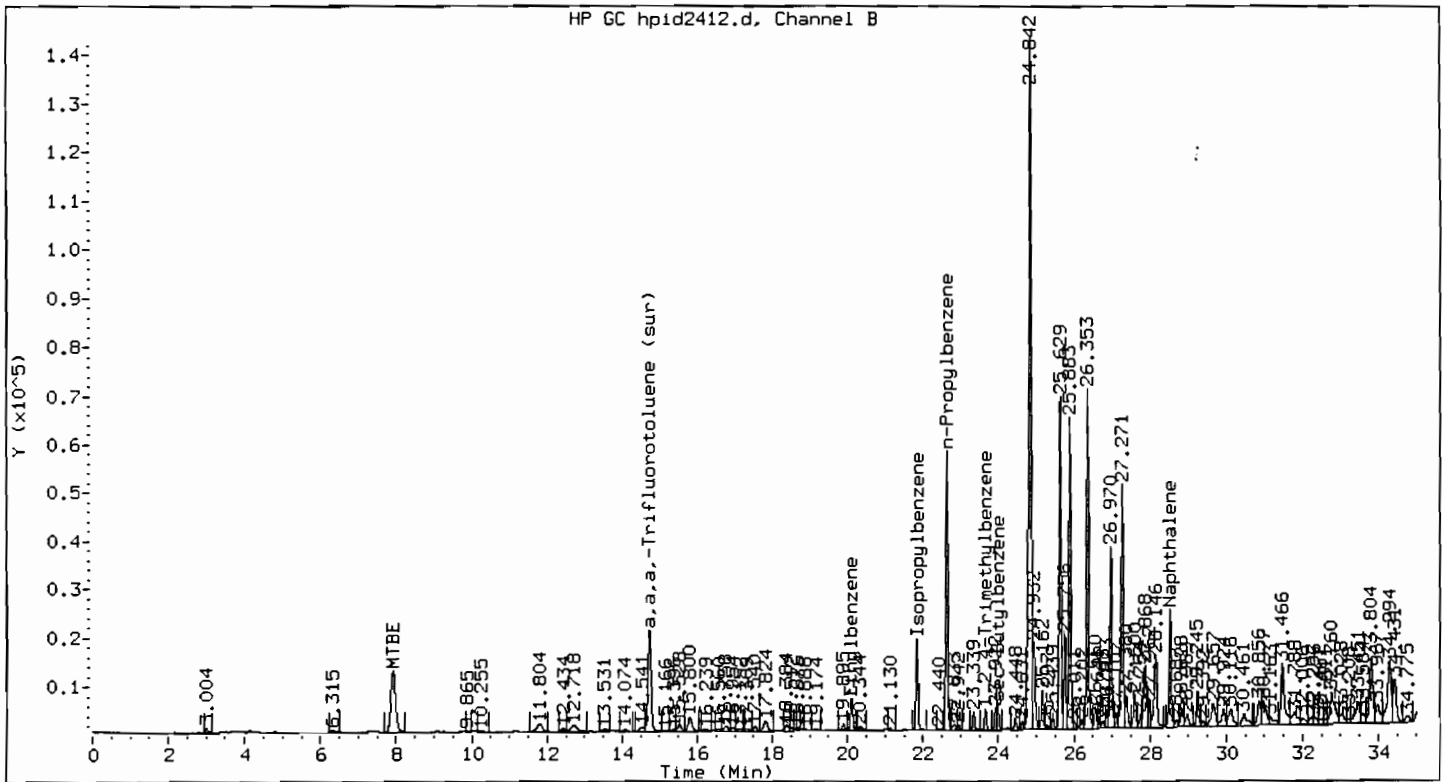
Lab Sample No: 161703
Lab Job No: U135

Date Sampled: 10/11/99
Date Received: 10/13/99
Date Analyzed: 10/15/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2412.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 10.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	10
Toluene	ND	10
Ethylbenzene	27	10
Isopropylbenzene	95	10
n-Propylbenzene	250	10
1,3,5-Trimethylbenzene	ND	10
tert-Butylbenzene	ND	10
1,2,4-Trimethylbenzene	15	10
sec-Butylbenzene	27	10
p-Isopropyltoluene	ND	10
n-Butylbenzene	ND	10
Naphthalene	120	10
MTBE	200	10
Total Xylenes	ND	10



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/15OCT99.b/8021H_99.m
Sample Info : 161703;;10
Lab ID : 161703
Inj Date : 15-OCT-1999 11:41
Operator : CK
Cpnd Sublist: stars

Inst ID : VOAGC2.i
Dil Factor : 10
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
Ethylbenzene	20.109	20.096	0.013	143105	2.723	27.229
-----	-----	-----	-----	-----	-----	-----
Isopropylbenzene	21.841	21.833	0.008	382321	9.538	95.382
-----	-----	-----	-----	-----	-----	-----
n-Propylbenzene	22.626	22.618	0.008	1084348	25.241	252.409
-----	-----	-----	-----	-----	-----	-----
1,2,4-Trimethylbenzene	23.653	23.646	0.007	85503	1.518	15.178
-----	-----	-----	-----	-----	-----	-----
sec-Butylbenzene	23.976	23.971	0.004	105389	2.725	27.249
-----	-----	-----	-----	-----	-----	-----
Naphthalene	28.523	28.522	0.001	488589	12.033	120.329
-----	-----	-----	-----	-----	-----	-----
MTBE	7.912	7.883	0.029	549084	20.405	204.048
-----	-----	-----	-----	-----	-----	-----
a,a,a,-Trifluorotoluene (sur	14.726	14.701	0.026	623814	29.874	29.874
-----	-----	-----	-----	-----	-----	-----

Client ID: MW-2
Site: Petrocelli Electric

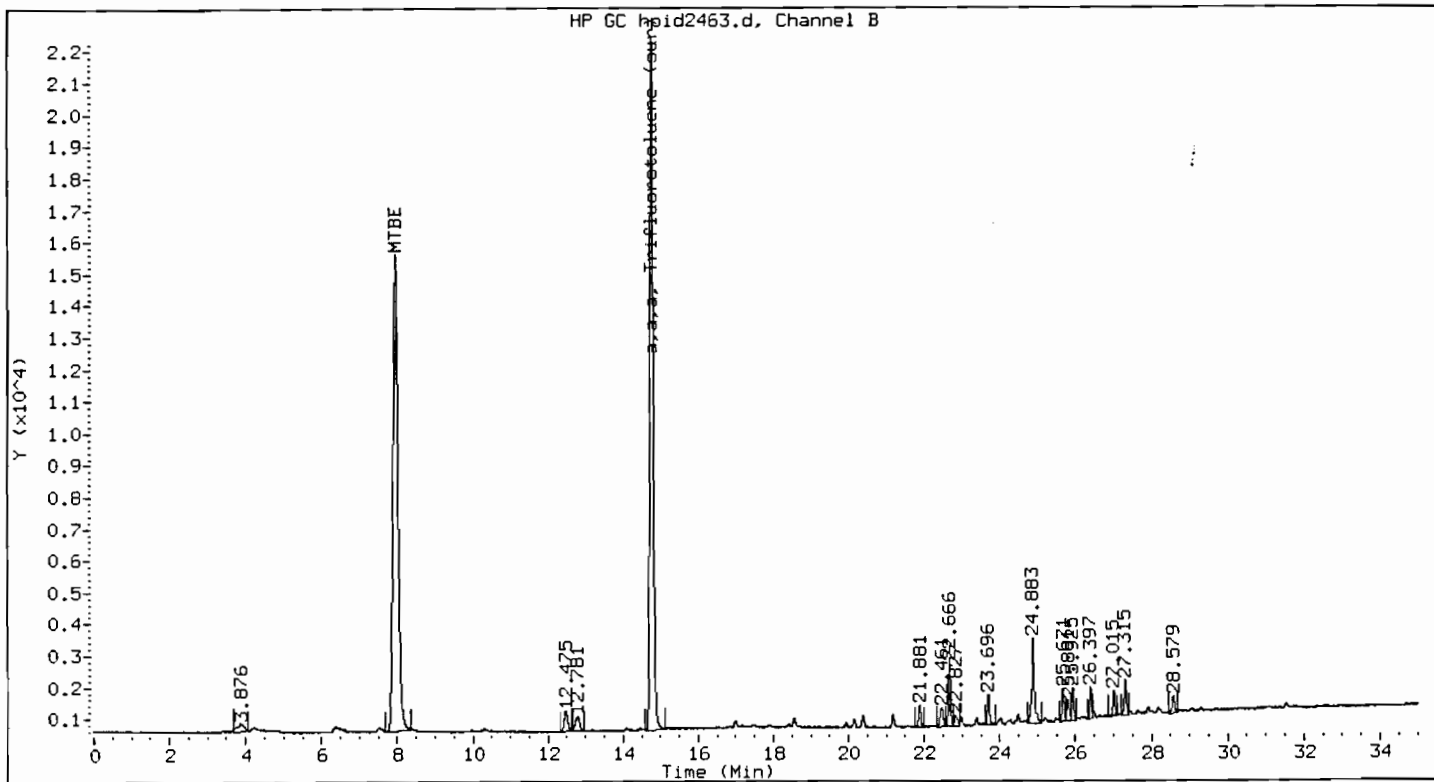
Lab Sample No: 161704
Lab Job No: U135

Date Sampled: 10/11/99
Date Received: 10/13/99
Date Analyzed: 10/19/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2463.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 100.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	Analytical Result <u>Units: ug/l</u>	Quantitation
		Limit <u>Units: ug/l</u>
Benzene	ND	100
Toluene	ND	100
Ethylbenzene	ND	100
Isopropylbenzene	ND	100
n-Propylbenzene	ND	100
1,3,5-Trimethylbenzene	ND	100
tert-Butylbenzene	ND	100
1,2,4-Trimethylbenzene	ND	100
sec-Butylbenzene	ND	100
p-Isopropyltoluene	ND	100
n-Butylbenzene	ND	100
Naphthalene	ND	100
MTBE	2500	100
Total Xylenes	ND	100



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/19OCT99.b/8021H_99.m
 Sample Info : 161704;;100
 Lab ID : 161704
 Inj Date : 19-OCT-1999 10:23
 Operator : SP
 Cpnd Sublist: stars

Inst ID : VOAGC2.i
 Dil Factor : 100
 Sample Matrix : WATER
 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
MTBE	7.955	7.962	0.006	680285	25.280	2528.039
a,a,a,-Trifluorotoluene (sur	14.764	14.780	0.016	645440	30.910	30.910

Client ID: MW-4
Site: Petrocelli Electric

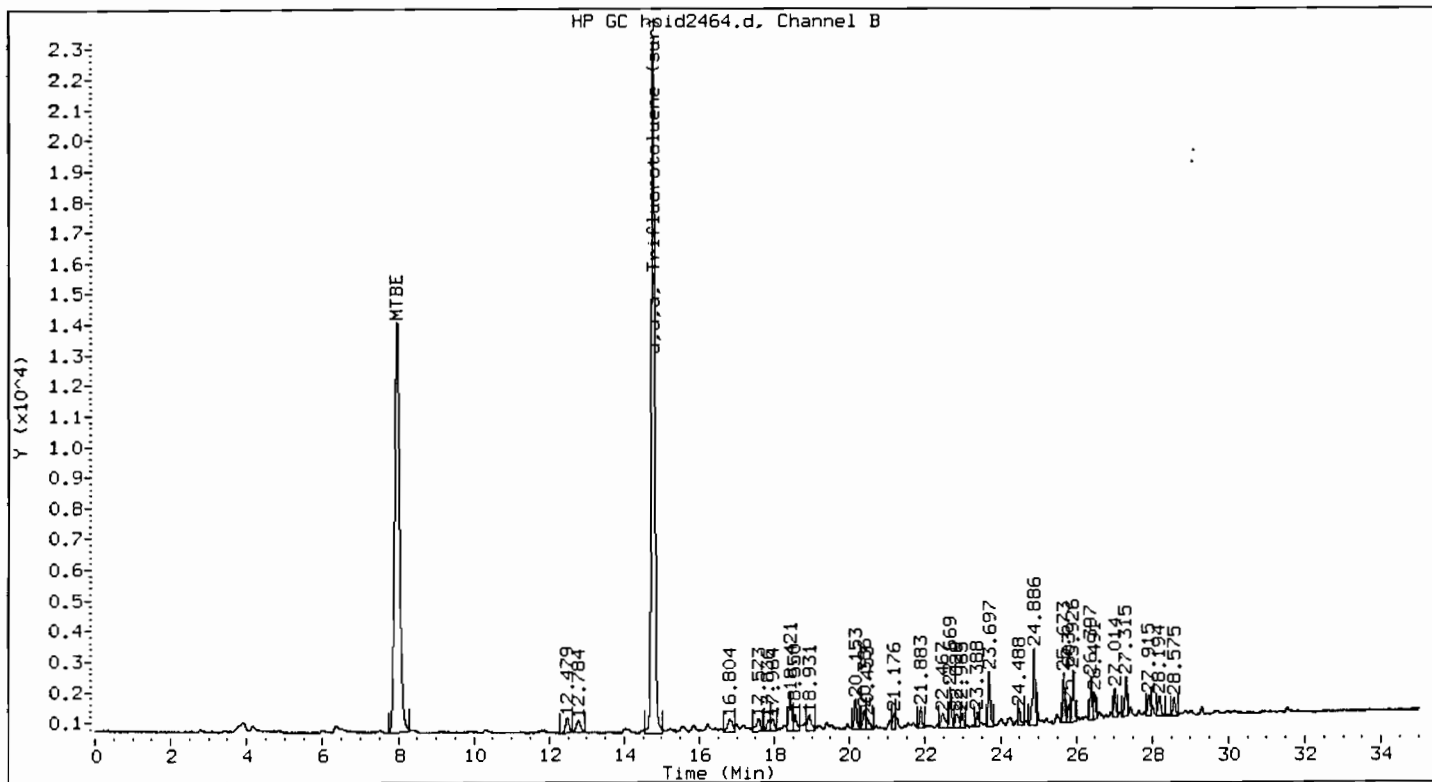
Lab Sample No: 161705
Lab Job No: U135

Date Sampled: 10/11/99
Date Received: 10/13/99
Date Analyzed: 10/19/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2464.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 20.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	20
Toluene	ND	20
Ethylbenzene	ND	20
Isopropylbenzene	ND	20
n-Propylbenzene	ND	20
1,3,5-Trimethylbenzene	ND	20
tert-Butylbenzene	ND	20
1,2,4-Trimethylbenzene	ND	20
sec-Butylbenzene	ND	20
p-Isopropyltoluene	ND	20
n-Butylbenzene	ND	20
Naphthalene	ND	20
MTBE	450	20
Total Xylenes	ND	20



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/19OCT99.b/8021H_99.m
 Sample Info : 161705;;20
 Lab ID : 161705
 Inj Date : 19-OCT-1999 11:03
 Operator : SP
 Cpnd Sublist: stars

Inst ID : VOAGC2.i
 Dil Factor : 20
 Sample Matrix : WATER
 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
MTBE	7.962	7.962	0.001	604641	22.469	449.387
a,a,a,-Trifluorotoluene (sur	14.769	14.780	0.011	677064	32.424	32.424

Client ID: MW-5
Site: Petrocelli Electric

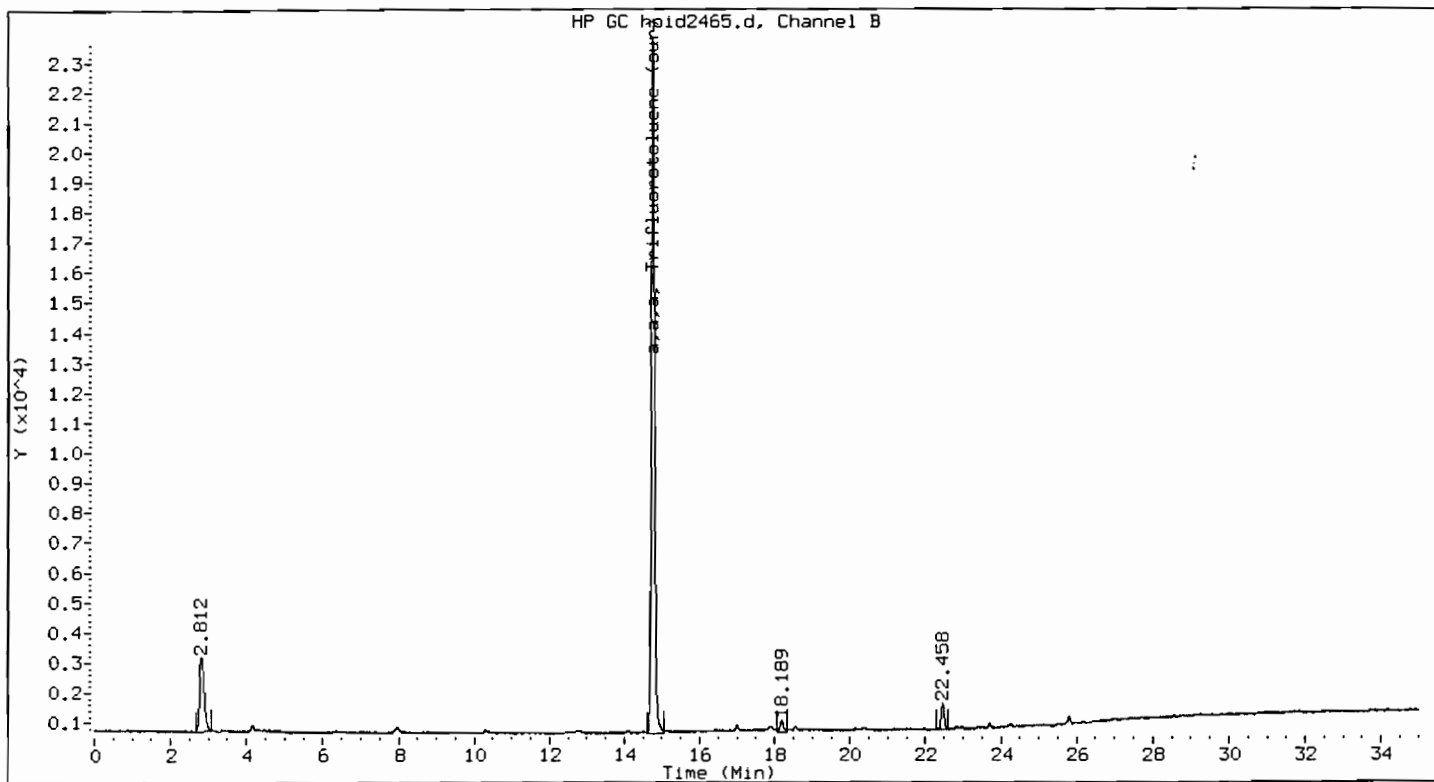
Lab Sample No: 161706
Lab Job No: U135

Date Sampled: 10/11/99
Date Received: 10/13/99
Date Analyzed: 10/19/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2465.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/19OCT99.b/8021H_99.m
 Sample Info : 161706
 Lab ID : 161706
 Inj Date : 19-OCT-1999 11:44
 Operator : SP
 Cpnd Sublist: stars

Inst ID : VOAGC2.i
 Dil Factor : 1
 Sample Matrix : WATER
 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/Kg)	(ug/L)
=====	=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	14.762	14.780	0.018	682472	32.683	32.683

Client ID: MW-6
Site: Petrocelli Electric

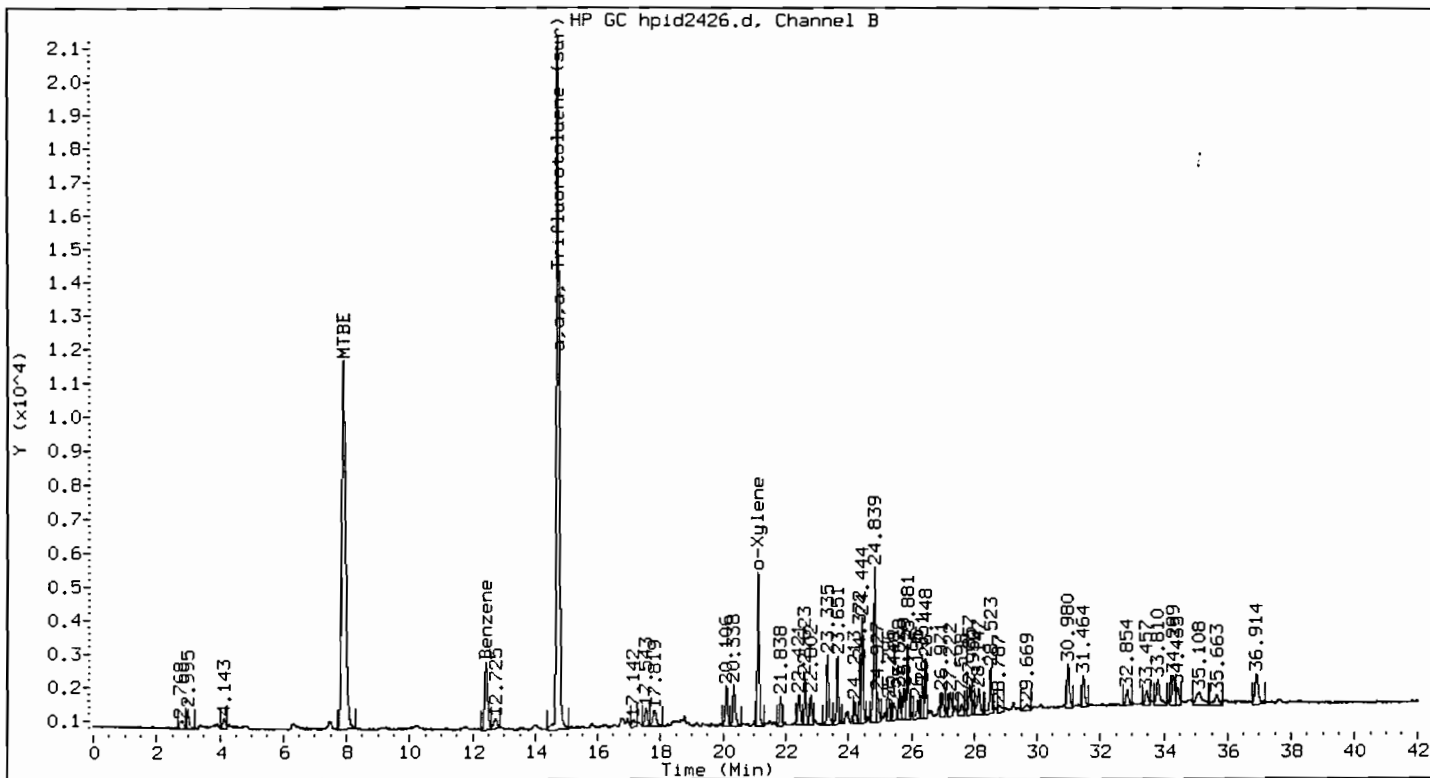
Lab Sample No: 161707
Lab Job No: U135

Date Sampled: 10/11/99
Date Received: 10/13/99
Date Analyzed: 10/16/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2426.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	27	25
Toluene	ND	25
Ethylbenzene	ND	25
Isopropylbenzene	ND	25
n-Propylbenzene	ND	25
1,3,5-Trimethylbenzene	ND	25
tert-Butylbenzene	ND	25
1,2,4-Trimethylbenzene	ND	25
sec-Butylbenzene	ND	25
p-Isopropyltoluene	ND	25
n-Butylbenzene	ND	25
Naphthalene	ND	25
MTBE	430	25
Total Xylenes	41	25



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/16OCT99.b/8021H_99.m
Sample Info : 161707;;25
Lab ID : 161707
Inj Date : 16-OCT-1999 09:40
Operator : CK
Cpnd Sublist: stars

Inst ID : VOAGC2.i
Dil Factor : 25
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
o-Xylene	21.125	21.122	0.002	96256	1.760	44.006
Benzene	12.426	12.416	0.010	65033	1.085	27.118
MTBE	7.900	7.891	0.009	467597	17.377	434.415
Total Xylenes	24.600	24.600	0.000	96256	1.646	41.146
a,a,a,-Trifluorotoluene (sur)	14.720	14.715	0.005	618084	29.599	29.599

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

HG288

Date Analyzed: 10/15/99

Instrument ID: VOAGC2

Time Analyzed: 0803

Lab File ID: HPID2407

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-1	161703	HPID2412	1141
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: **HG288**
Site:

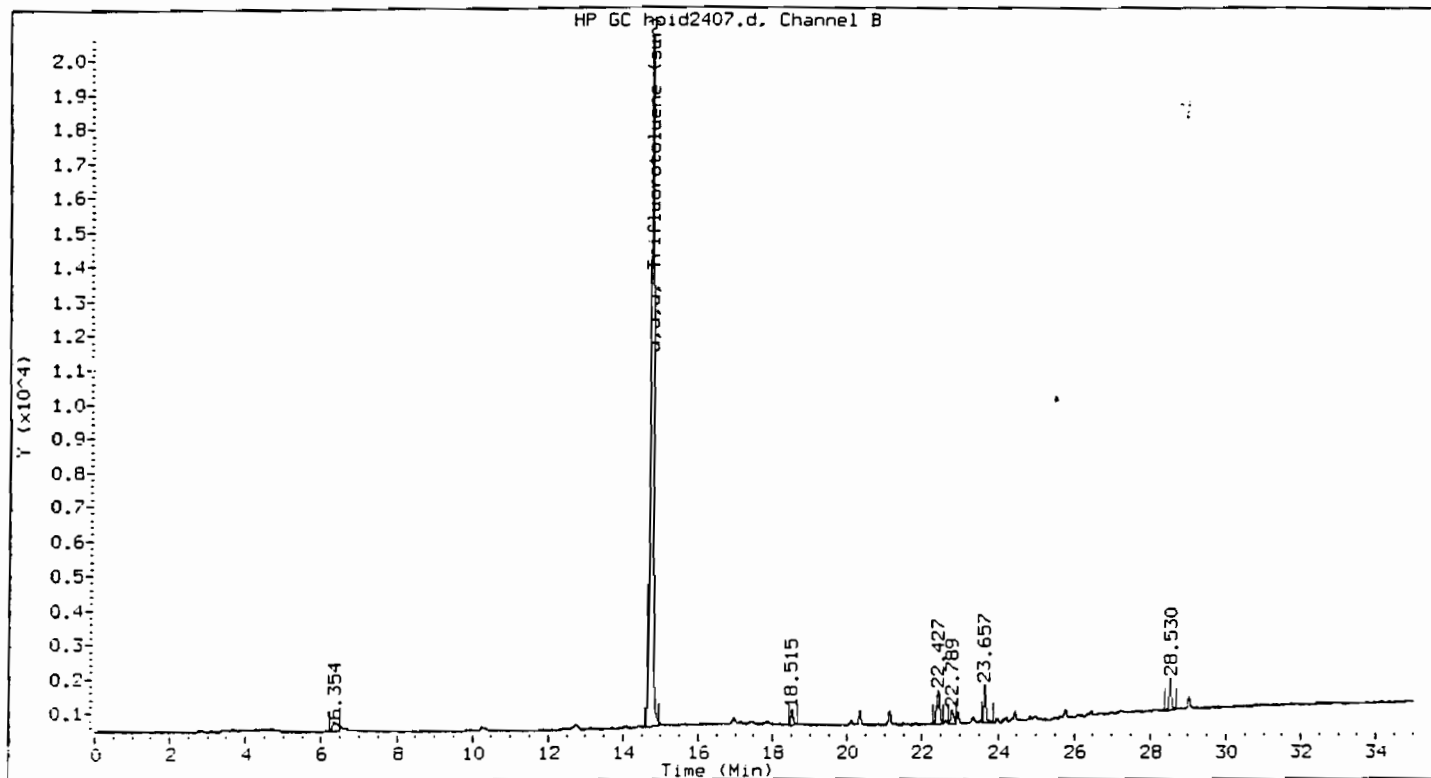
Lab Sample No: **HG288**
Lab Job No: U135

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/15/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2407.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/15OCT99.b/8021H_99.m
Sample Info : HG288
Lab ID : HG288
Inj Date : 15-OCT-1999 08:03
Operator : SP
Cpnd Sublist: stars

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
a,a,a,-Trifluorotoluene (sur)	14.729	14.701	0.028	593639	28.429	28.429

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

HG289

Date Analyzed: 10/16/99

Instrument ID: VOAGC2

Time Analyzed: 0719

Lab File ID: HPID2423

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	MW-6	161707	HPID2426	0940
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: **HG289**
Site:

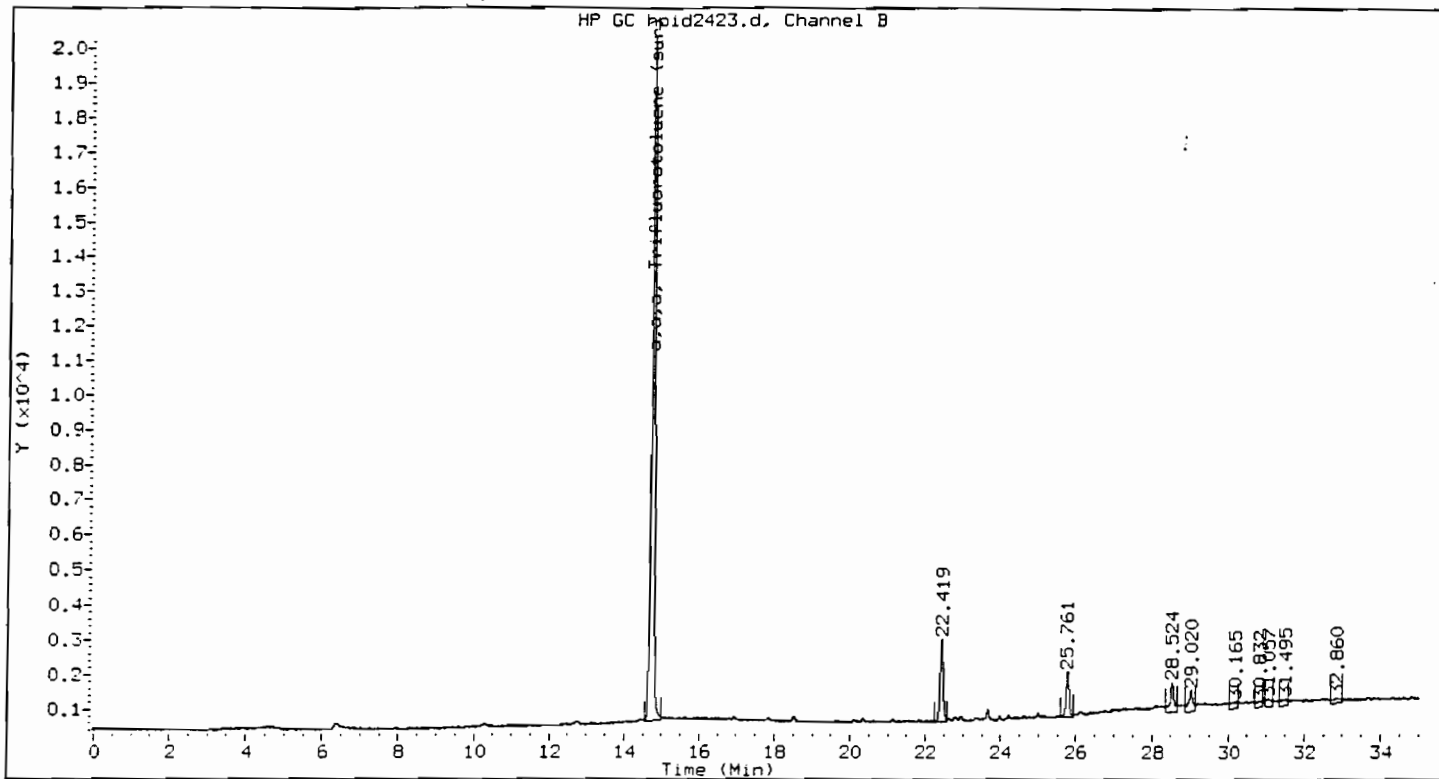
Lab Sample No: **HG289**
Lab Job No: U135

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/16/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2423.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/16OCT99.b/8021H_99.m
Sample Info : HG289
Lab ID : HG289
Inj Date : 16-OCT-1999 07:19
Operator : CK
Cpnd Sublist: stars

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur)	14.718	14.715	0.003	584371	27.985	27.985

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

HG292

Date Analyzed: 10/19/99

Instrument ID: VOAGC2

Time Analyzed: 0931

Lab File ID: HPID2462

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-2	161704	HPID2463	1023
02	MW-4	161705	HPID2464	1103
03	MW-5	161706	HPID2465	1144
04	MW-2MS	161704MS	HPID2471	1550
05	MW-2MSD	161704MSD	HPID2472	1631
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: **HG292**
Site:

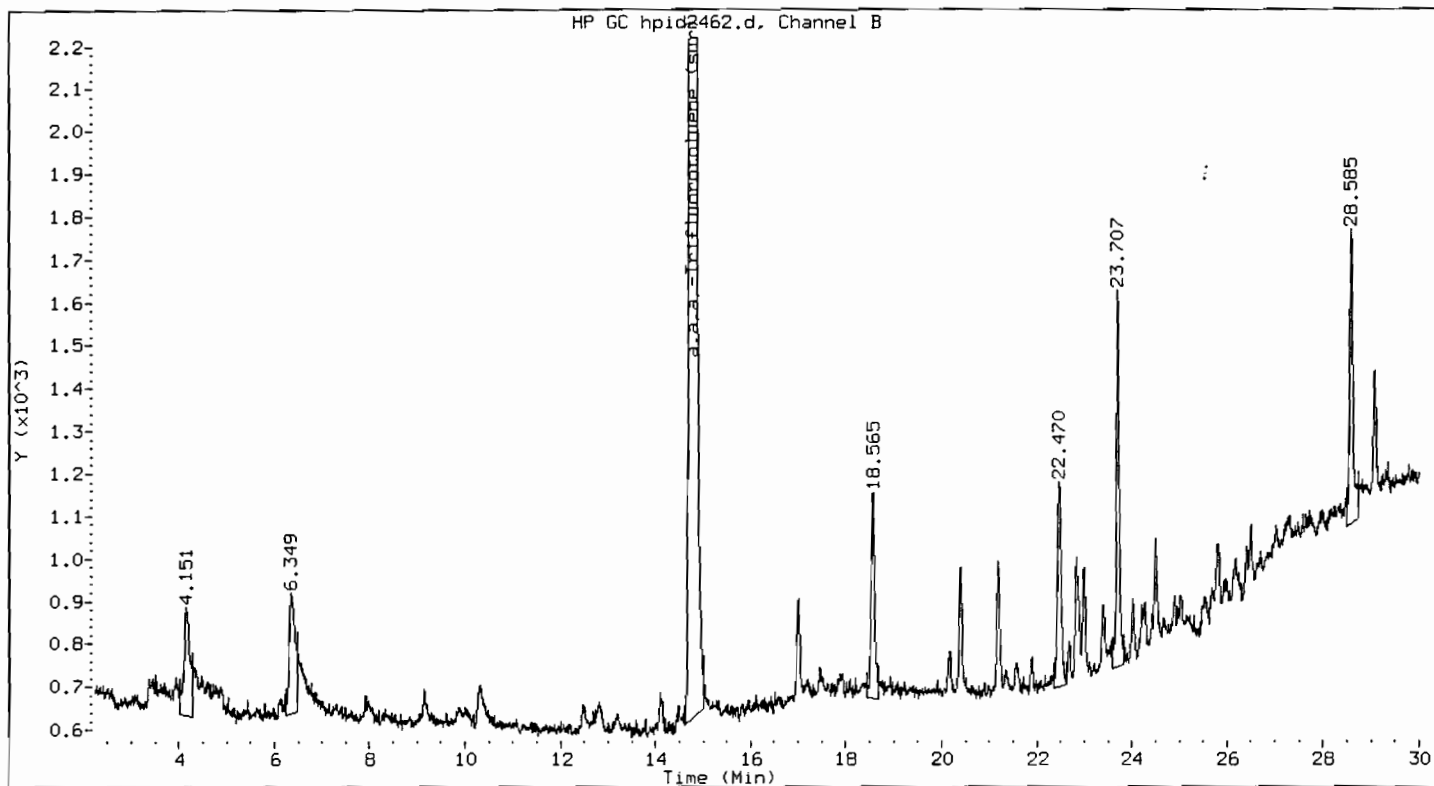
Lab Sample No: **HG292**
Lab Job No: U135

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/19/99
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2462.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/19OCT99.b/8021H_99.m
Sample Info : HG292
Lab ID : HG292
Inj Date : 19-OCT-1999 09:31
Operator : SP
Cpnd Sublist: stars

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
a,a,a,-Trifluorotoluene (sur	14.780	14.780	0.000	663523	31.776	31.776

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC2

Calibration Date(s): 10/06/99 10/06/99

Calibration Time(s): 1504 1749

LAB FILE ID:	RRF1: HPID2275	RRF5: HPID2276	RRF10: HPID2277		
	RRF20: HPID2274	RRF40: HPID2278			
COMPOUND	RRF1	RRF5	RRF10	RRF20	RRF40
=====	=====	=====	=====	=====	=====
Benzene	53917	63102	61729	61127	59895
Toluene	51939	60998	59218	58550	57539
Ethylbenzene	46595	55437	54003	53684	53059
Isopropylbenzene	31849	43062	42155	42052	41297
n-Propylbenzene	34613	45671	44957	44999	44559
1,3,5-Trimethylbenzene	58387	68771	66562	66695	65591
tert-Butylbenzene	27195	37174	36692	36732	36516
1,2,4-Trimethylbenzene	60463	58596	54689	54746	53167
sec-Butylbenzene	29251	41308	40941	41175	40708
p-Isopropyltoluene	30853	40733	40110	40473	39921
n-Butylbenzene	29187	40640	40520	40971	40829
Naphthalene	42741	41105	40238	40199	38739
MTBE	24142	29665	27892	28452	24397
Total Xylenes	52451	61552	59971	59494	58954
=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	22577	19883	21136	20726	20086

VOLATILE ORGANICS INITIAL CALIBRATION DATA

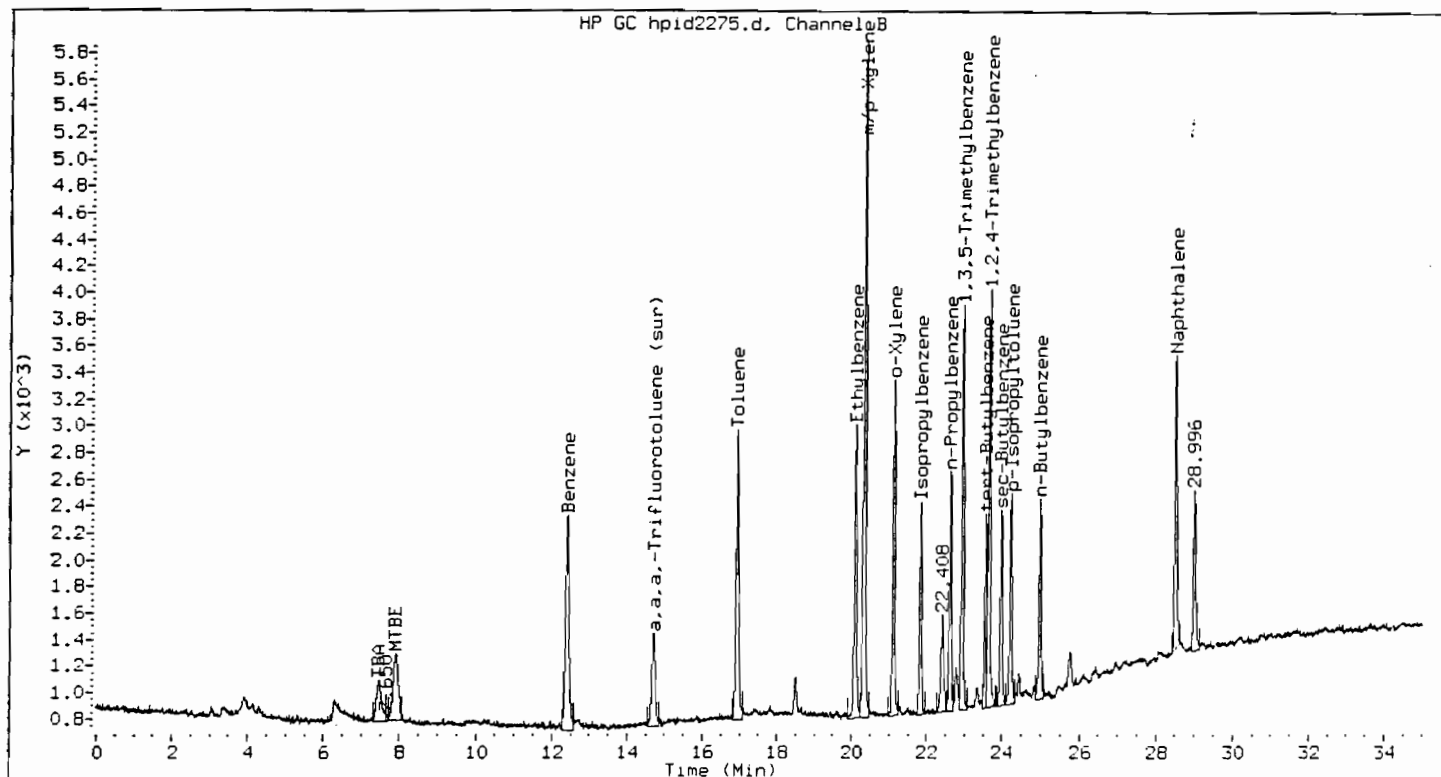
Instrument ID: VOAGC2

Calibration Date(s): 10/06/99 10/06/99

Calibration Time(s): 1504 1749

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
=====	=====	=====	=====
Benzene	AVRG	59954	5.9*
Toluene	AVRG	57649	6.0*
Ethylbenzene	AVRG	52556	6.6*
Isopropylbenzene	AVRG	40083	12*
n-Propylbenzene	AVRG	42960	11*
1,3,5-Trimethylbenzene	AVRG	65201	6.1*
tert-Butylbenzene	AVRG	34862	12*
1,2,4-Trimethylbenzene	AVRG	56332	5.4*
sec-Butylbenzene	AVRG	38677	14*
p-Isopropyltoluene	AVRG	38418	11*
n-Butylbenzene	AVRG	38429	13*
Naphthalene	AVRG	40604	3.6*
MTBE	AVRG	26910	9.3*
Total Xylenes	AVRG	58484	6.0*
=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	AVRG	20882	5.1*

* Compounds with required maximum %RSD values.



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/06OCT99.b/8021H_99.m
Sample Info : HSTD001
Lab ID : HSTD001
Inj Date : 06-OCT-1999 15:45
Operator : VOAMS 5
Cpnd Sublist: allTBA

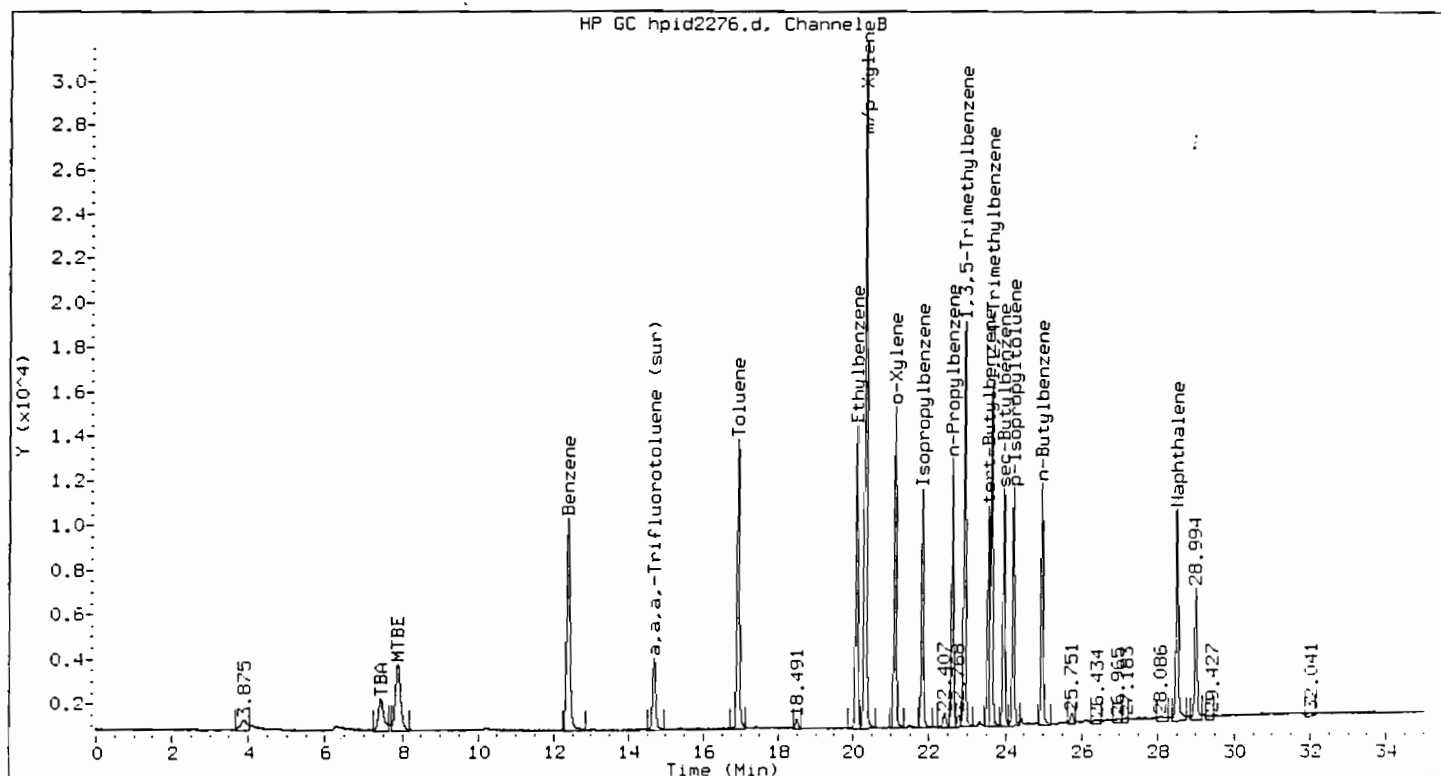
Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_1

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
o-Xylene	21.110	21.110	0.001	51180	0.963	0.963
m/p-Xylene	20.321	20.322	0.001	106174	1.850	1.850
Benzene	12.399	12.394	0.005	53917	0.937	0.937
Toluene	16.928	16.928	0.000	51939	0.940	0.940
Ethylbenzene	20.089	20.089	0.000	46595	0.929	0.929
Isopropylbenzene	21.825	21.824	0.000	31849	0.862	0.862
n-Propylbenzene	22.610	22.609	0.001	34613	0.870	0.870
1,3,5-Trimethylbenzene	22.927	22.926	0.000	58387	0.934	0.934
tert-Butylbenzene	23.553	23.554	0.001	27195	0.851	0.851

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
=====	=====	=====	=====	=====	=====	=====
1,2,4-Trimethylbenzene	23.637	23.636	0.001	60463	1.050	1.050
sec-Butylbenzene	23.962	23.961	0.001	29251	0.831	0.831
p-Isopropyltoluene	24.215	24.214	0.002	30853	0.865	0.865
n-Butylbenzene	24.972	24.971	0.001	29187	0.832	0.832
Naphthalene	28.506	28.505	0.002	42741	1.031	1.031
MIBE (M)	7.896	7.890	0.006	24142	0.918	0.918
Total Xylenes	24.600	24.600	0.000	157354	2.811	2.811
TBA (M)	7.451	7.444	0.007	14022	88.717	88.717
a,a,a,-Trifluorotoluene (sur	14.699	14.698	0.001	22577	1.043	1.043

COMMENTS:

M - Compound response manually integrated.

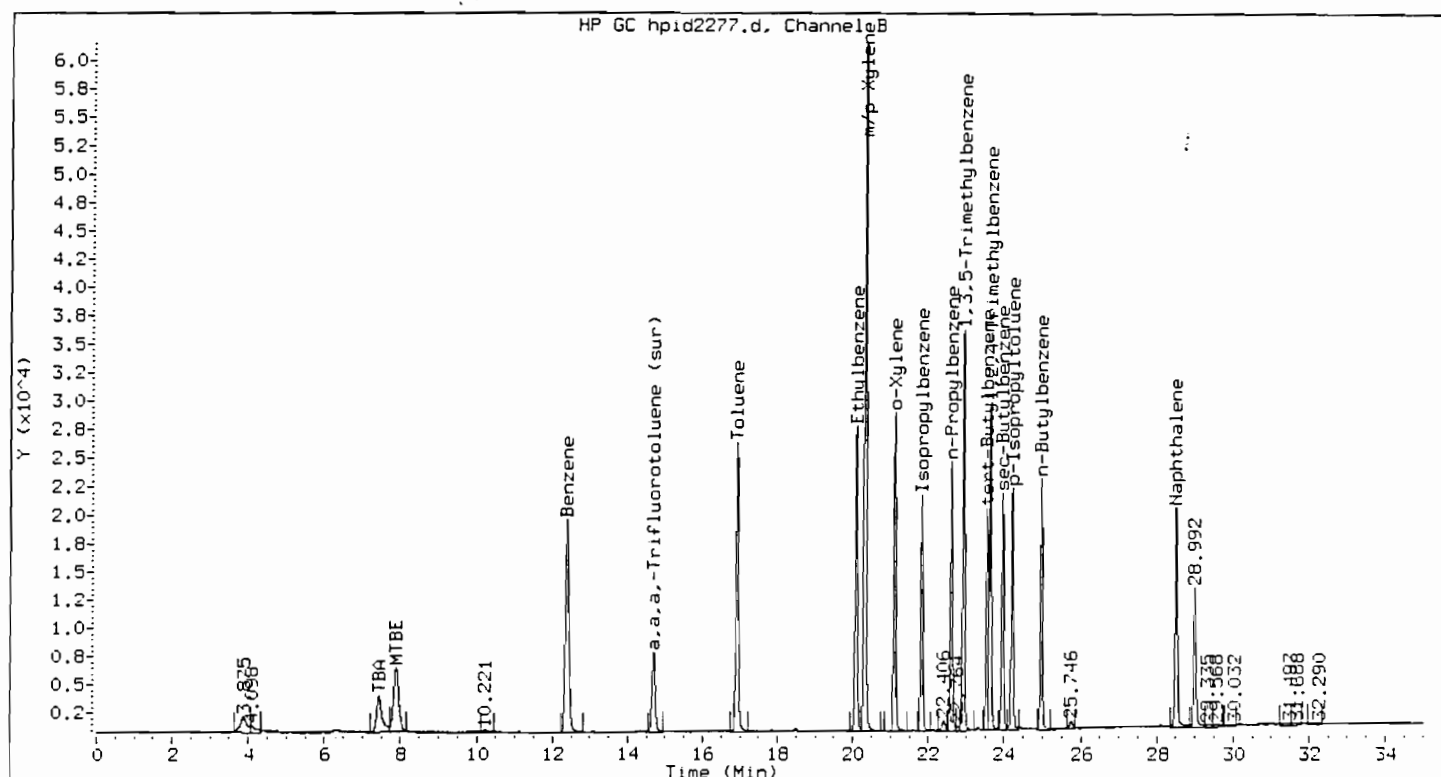


Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/06OCT99.b/8021H_99.m
Sample Info : HSTD005
Lab ID : HSTD005
Inj Date : 06-OCT-1999 16:26
Operator : SP
Cpnd Sublist: allTBA

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
o-Xylene	21.106	21.110	0.004	286379	5.252	5.252
m/p-Xylene	20.317	20.322	0.005	636904	10.707	10.707
Benzene	12.382	12.394	0.012	315508	5.313	5.313
Toluene	16.921	16.928	0.008	304988	5.335	5.335
Ethylbenzene	20.084	20.089	0.005	277183	5.340	5.340
Isopropylbenzene	21.820	21.824	0.004	215309	5.522	5.522
n-Propylbenzene	22.606	22.609	0.003	228357	5.468	5.468
1,3,5-Trimethylbenzene	22.923	22.926	0.003	343855	5.321	5.321
tert-Butylbenzene	23.551	23.554	0.003	185869	5.515	5.515

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
=====	=====	=====	=====	=====	=====	=====
1,2,4-Trimethylbenzene	23.634	23.636	0.003	292981	5.057	5.057
sec-Butylbenzene	23.959	23.961	0.002	206539	5.545	5.545
p-Isopropyltoluene	24.211	24.214	0.002	203666	5.452	5.452
n-Butylbenzene	24.968	24.971	0.002	203201	5.502	5.502
Naphthalene	28.503	28.505	0.002	205524	4.971	4.971
MTBE	7.881	7.890	0.009	148326	5.409	5.409
Total Xylenes	24.600	24.600	0.000	923283	15.965	15.965
TBA	7.434	7.444	0.010	70891	431.092	431.092
a,a,a,-Trifluorotoluene (sur	14.686	14.698	0.013	99414	4.720	4.720

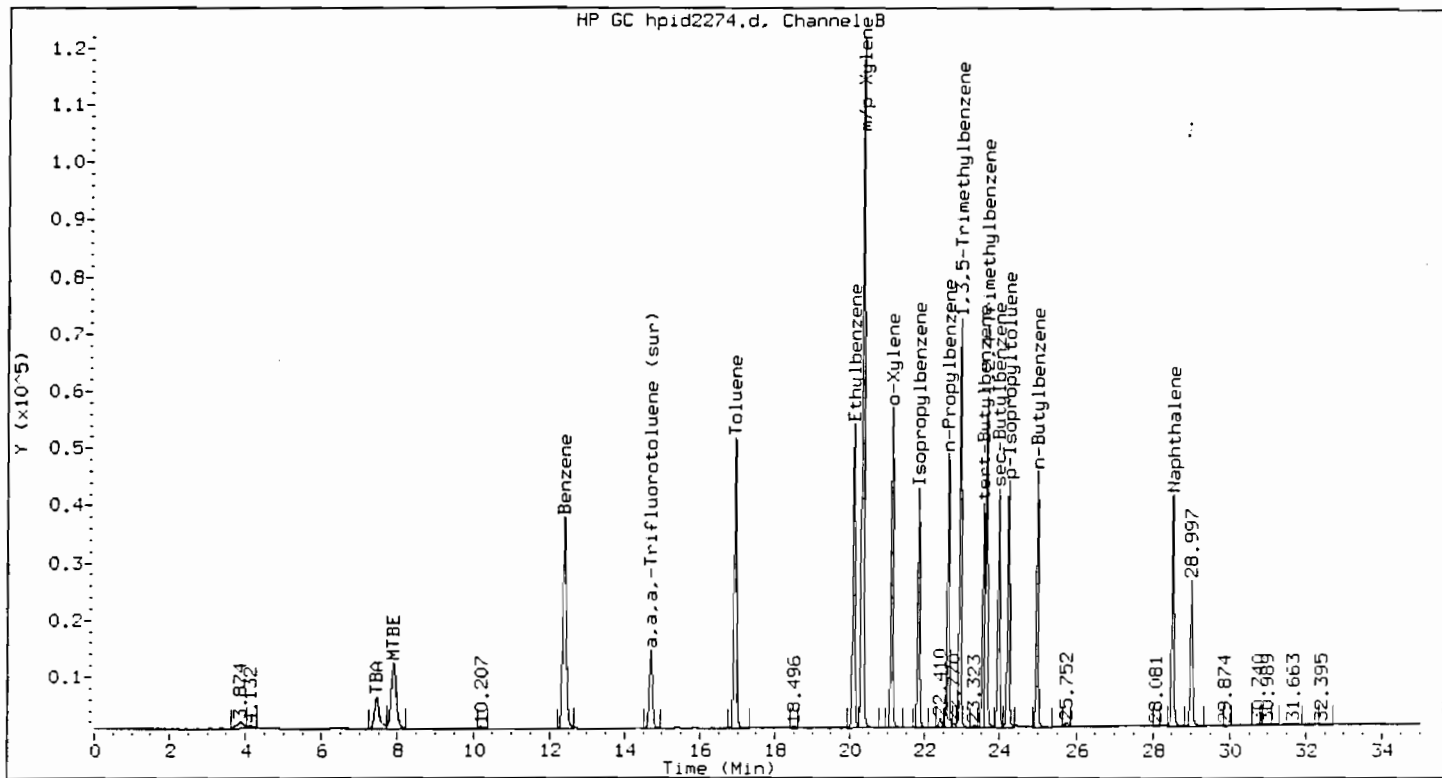


Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/06OCT99.b/8021H_99.m
Sample Info : HSTD010
Lab ID : HSTD010
Inj Date : 06-OCT-1999 17:08
Operator : SP
Cpnd Sublist: allTBA

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_3

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
o-Xylene	21.105	21.110	0.005	556226	10.150	10.150
m/p-Xylene	20.317	20.322	0.005	1242894	20.664	20.664
Benzene	12.386	12.394	0.008	617292	10.294	10.294
Toluene	16.923	16.928	0.006	592178	10.267	10.267
Ethylbenzene	20.084	20.089	0.005	540033	10.300	10.300
Isopropylbenzene	21.819	21.824	0.005	421549	10.597	10.597
n-Propylbenzene	22.605	22.609	0.004	449571	10.563	10.563
1,3,5-Trimethylbenzene	22.922	22.926	0.004	665623	10.224	10.224
tert-Butylbenzene	23.550	23.554	0.004	366919	10.651	10.651

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
=====	=====	=====	=====	=====	=====	=====
1,2,4-Trimethylbenzene	23.632	23.636	0.004	546893	9.574	9.574
sec-Butylbenzene	23.958	23.961	0.004	409411	10.726	10.726
p-Isopropyltoluene	24.210	24.214	0.004	401105	10.544	10.544
n-Butylbenzene	24.967	24.971	0.004	405199	10.711	10.711
Naphthalene	28.501	28.505	0.004	402377	9.797	9.797
MTBE	7.881	7.890	0.009	278918	10.129	10.129
Total Xylenes	24.600	24.600	0.000	1799120	30.824	30.824
TBA	7.433	7.444	0.011	158327	971.834	971.834
a,a,a,-Trifluorotoluene (sur	14.692	14.698	0.007	211358	10.026	10.026

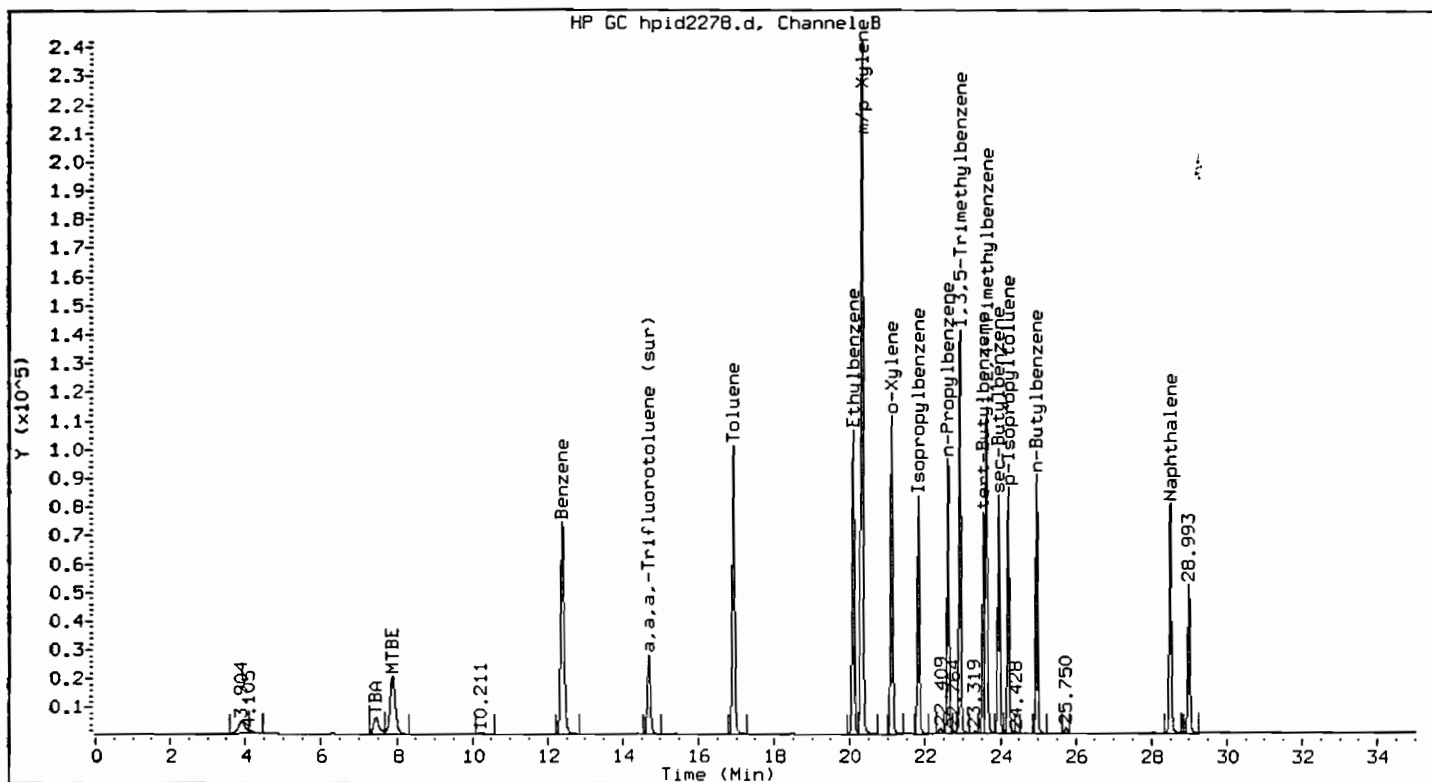


Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/06OCT99.b/8021H_99.m
Sample Info : HSTD020
Lab ID : HSTD020
Inj Date : 06-OCT-1999 15:04
Operator : SP
Cpnd Sublist: allTBA

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
o-Xylene	21.110	21.110	0.000	1102680	20.000	20.000
m/p-Xylene	20.322	20.322	0.000	2466947	40.000	40.000
Benzene	12.394	12.394	0.000	1222536	20.000	20.000
Toluene	16.928	16.928	0.000	1171007	20.000	20.000
Ethylbenzene	20.089	20.089	0.000	1073673	20.000	20.000
Isopropylbenzene	21.824	21.824	0.000	841043	20.000	20.000
n-Propylbenzene	22.609	22.609	0.000	899988	20.000	20.000
1,3,5-Trimethylbenzene	22.926	22.926	0.000	1333899	20.000	20.000
tert-Butylbenzene	23.554	23.554	0.000	734631	20.000	20.000

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
=====	=====	=====	=====	=====	(ug/Kg)	(ug/Kg)
-----	-----	-----	-----	-----	-----	-----
1,2,4-Trimethylbenzene	23.636	23.636	0.000	1094921	20.000	20.000
-----	-----	-----	-----	-----	-----	-----
sec-Butylbenzene	23.961	23.961	0.000	823496	20.000	20.000
-----	-----	-----	-----	-----	-----	-----
p-Isopropyltoluene	24.214	24.214	0.000	809456	20.000	20.000
-----	-----	-----	-----	-----	-----	-----
n-Butylbenzene	24.971	24.971	0.000	819429	20.000	20.000
-----	-----	-----	-----	-----	-----	-----
Naphthalene	28.505	28.505	0.000	803989	20.000	20.000
-----	-----	-----	-----	-----	-----	-----
MTBE	7.890	7.890	0.000	569038	20.000	20.000
-----	-----	-----	-----	-----	-----	-----
Total Xylenes	24.600	24.600	0.000	3569627	60.000	60.000
-----	-----	-----	-----	-----	-----	-----
TBA	7.444	7.444	0.000	263832	1500.000	1500.000
-----	-----	-----	-----	-----	-----	-----
a,a,a,-Trifluorotoluene (sur	14.698	14.698	0.000	414519	20.000	20.000
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/06OCT99.b/8021H_99.m
Sample Info : HSTD040
Lab ID : HSTD040
Inj Date : 06-OCT-1999 17:49
Operator : SP
Cpnd Sublist: allTBA

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : SOIL

Compounds	RT	RESPONSE	CONCENTRATIONS	
			ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
o-Xylene	21.107	2168181	39.65	40.00
m/p-Xylene	20.320	4906318	81.25	81.00
Benzene	12.390	2395802	39.96	40.00
Toluene	16.925	2301564	39.92	40.00
Ethylbenzene	20.087	2122359	40.38	40.00
Isopropylbenzene	21.822	1651887	41.21	41.00
n-Propylbenzene	22.607	1782351	41.49	41.00
1,3,5-Trimethylbenzene	22.924	2623640	40.24	40.00
tert-Butylbenzene	23.552	1460647	41.90	42.00
1,2,4-Trimethylbenzene	23.635	2126665	37.75	38.00
sec-Butylbenzene	23.960	1628340	42.10	42.00
p-Isopropyltoluene	24.212	1596831	41.56	42.00
n-Butylbenzene	24.969	1633145	42.50	42.00
Naphthalene	28.501	1549556	38.16	38.00
MTBE	7.887	975883	36.27	36.00
Total Xylenes	24.600	7074499	120.96	120.00
TBA	7.442	299206	1867.08	1900.00
a,a,a,-Trifluorotoluene (sur)	14.696	803456	38.48	38.00

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
-----	-----	-----	-----	-----	-----	-----
1,2,4-Trimethylbenzene	23.635	23.636	0.001	2126665	37.752	37.752
sec-Butylbenzene	23.960	23.961	0.001	1628340	42.101	42.101
p-Isopropyltoluene	24.212	24.214	0.001	1596831	41.565	41.565
n-Butylbenzene	24.969	24.971	0.002	1633145	42.497	42.497
Naphthalene	28.501	28.505	0.004	1549556	38.162	38.162
MTBE	7.887	7.890	0.003	975883	36.265	36.265
Total Xylenes	24.600	24.600	0.000	7074499	120.964	120.964
TBA	7.442	7.444	0.002	299206	1867.084	1867.084
a,a,a,-Trifluorotoluene (sur	14.696	14.698	0.002	803456	38.477	38.477
-----	-----	-----	-----	-----	-----	-----

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC2

Calibration Date: 10/15/99 Time: 0701

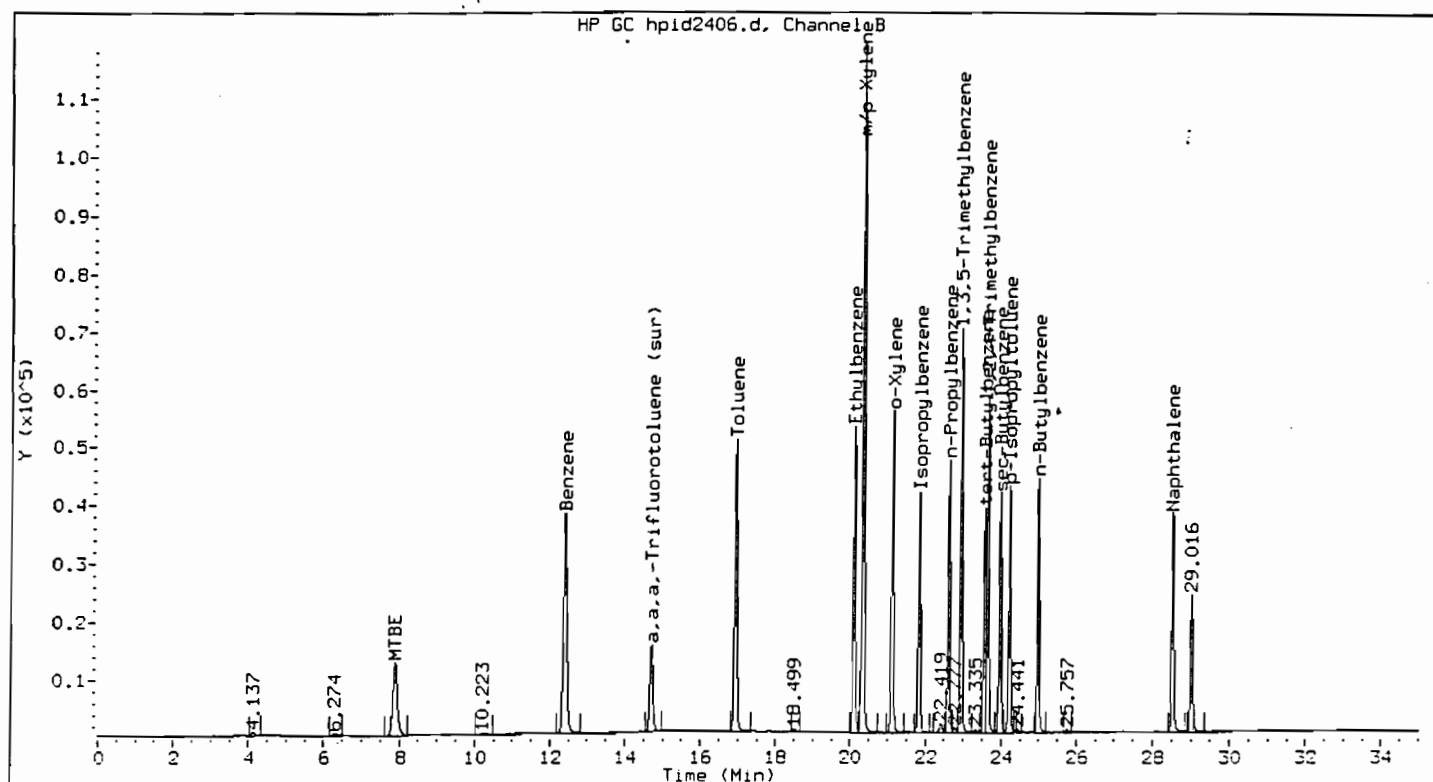
Lab File ID: HPID2406

Init. Calib. Date(s): 10/06/99 10/06/99

Heated Purge: (Y/N) N

Init. Calib. Times: 1504 1749

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Benzene	59953.93	61212.45		-1.9	15.0
Toluene	57648.77	58032.35		0.1	15.0
Ethylbenzene	52555.51	52755.15		-0.0	15.0
Isopropylbenzene	40083.01	41356.60		-3.0	15.0
n-Propylbenzene	42959.94	44019.15		-2.3	15.0
1,3,5-Trimethylbenzene	65201.25	65368.80		-0.0	15.0
tert-Butylbenzene	34861.69	36211.35		-3.7	15.0
1,2,4-Trimethylbenzene	56332.23	53901.90		4.3	15.0
sec-Butylbenzene	38676.64	40386.35		-4.4	15.0
p-Isopropyltoluene	38418.06	39635.85		-3.0	15.0
n-Butylbenzene	38429.43	39887.30		-3.6	15.0
Naphthalene	40604.37	37281.80		8.2	15.0
MTBE	26909.60	27630.00		-2.5	15.0
Total Xylenes	58484.43	58870.20		0.1	15.0
=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	20881.59	21902.95		-4.7	15.0

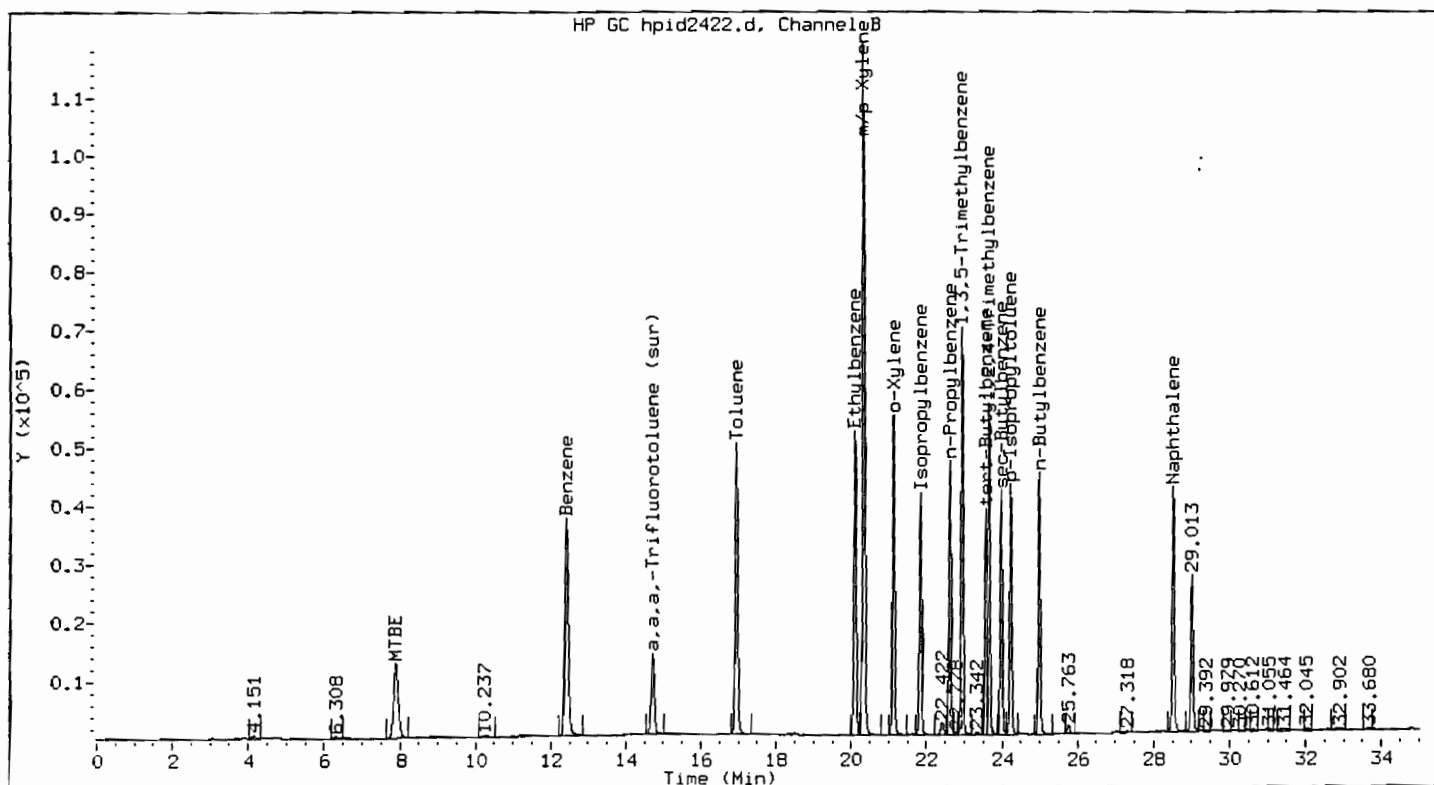


Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/15OCT99.b/8021H_99.m
Sample Info : HSTD020
Lab ID : HSTD020
Inj Date : 15-OCT-1999 07:01
Operator : SP
Cpnd Sublist: stars

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p-Xylene	20.329	20.329	0.000	2440598	40.417	40.417
o-Xylene	21.119	21.119	0.000	1091614	19.962	19.962
Benzene	12.397	12.397	0.000	1224249	20.420	20.420
Toluene	16.934	16.934	0.000	1160647	20.133	20.133
Ethylbenzene	20.096	20.096	0.000	1055103	20.076	20.076
Isopropylbenzene	21.833	21.833	0.000	827132	20.635	20.635
n-Propylbenzene	22.618	22.618	0.000	880383	20.493	20.493
1,3,5-Trimethylbenzene	22.935	22.935	0.000	1307376	20.051	20.051
tert-Butylbenzene	23.564	23.564	0.000	724227	20.774	20.774

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
=====	=====	=====	=====	=====	(ug/Kg)	(ug/Kg)
-----	-----	-----	-----	-----	-----	-----
1,2,4-Trimethylbenzene	23.646	23.646	0.000	1078038	19.137	19.137
-----	-----	-----	-----	-----	-----	-----
sec-Butylbenzene	23.971	23.971	0.000	807727	20.884	20.884
-----	-----	-----	-----	-----	-----	-----
p-Isopropyltoluene	24.223	24.223	0.000	792717	20.634	20.634
-----	-----	-----	-----	-----	-----	-----
n-Butylbenzene	24.981	24.981	0.000	797746	20.759	20.759
-----	-----	-----	-----	-----	-----	-----
Naphthalene	28.522	28.522	0.000	745636	18.363	18.363
-----	-----	-----	-----	-----	-----	-----
MTBE	7.883	7.883	0.000	552600	20.535	20.535
-----	-----	-----	-----	-----	-----	-----
Total Xylenes	24.600	24.600	0.000	3532212	60.396	60.396
-----	-----	-----	-----	-----	-----	-----
a,a,a,-Trifluorotoluene (sur	14.701	14.701	0.000	438059	20.978	20.978
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/16OCT99.b/8021H_99.m
Sample Info : HSTD020
Lab ID : HSTD020
Inj Date : 16-OCT-1999 05:15
Operator : CK
Cpnd Sublist: stars

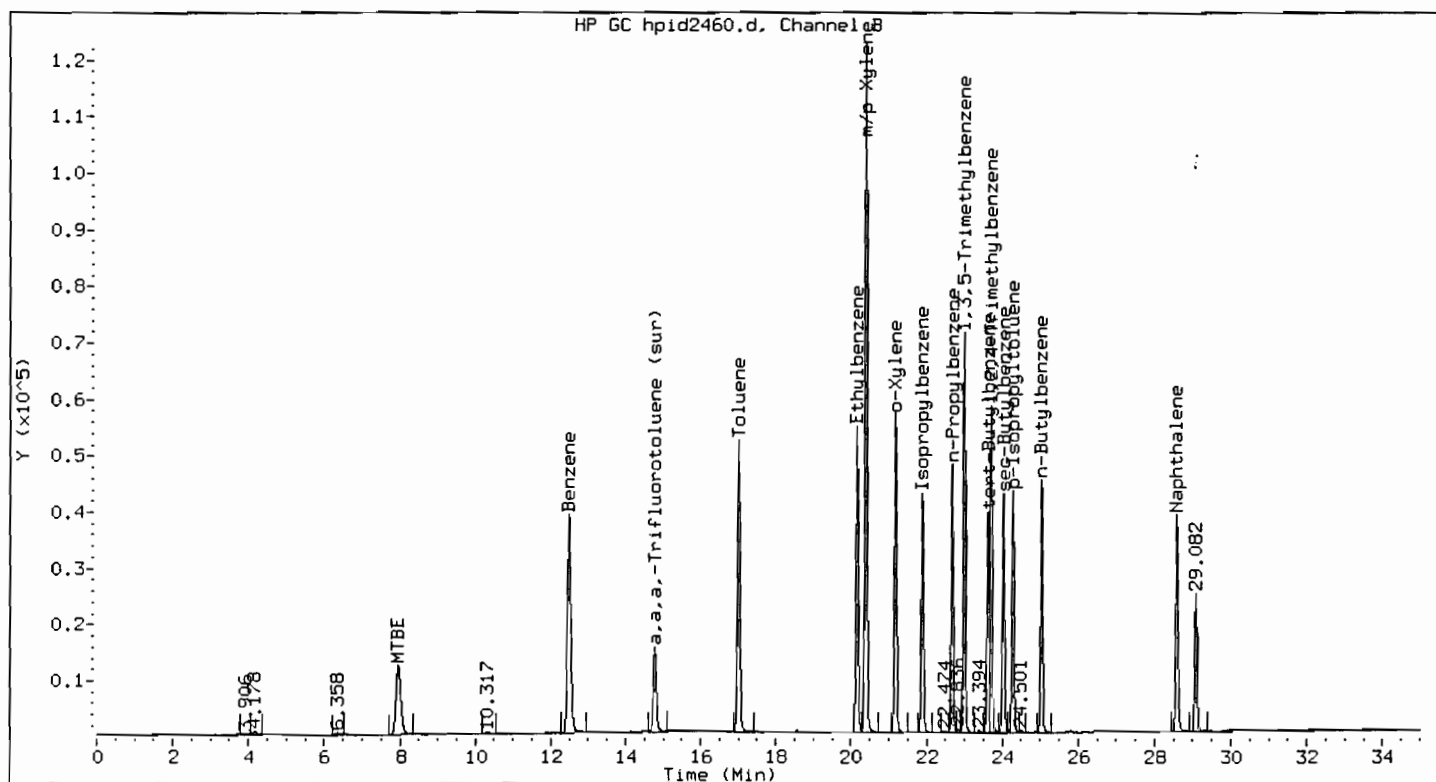
Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p-Xylene	20.334	20.334	0.000	2405294	39.833	39.833
o-Xylene	21.122	21.122	0.000	1073184	19.625	19.625
Benzene	12.416	12.416	0.000	1205777	20.112	20.112
Toluene	16.945	16.945	0.000	1140108	19.777	19.777
Ethylbenzene	20.101	20.101	0.000	1039993	19.788	19.788
Isopropylbenzene	21.837	21.837	0.000	822676	20.524	20.524
n-Propylbenzene	22.623	22.623	0.000	878876	20.458	20.458
1,3,5-Trimethylbenzene	22.939	22.939	0.000	1303544	19.993	19.993
tert-Butylbenzene	23.568	23.568	0.000	723977	20.767	20.767

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC2 Calibration Date: 10/19/99 Time: 0756
 Lab File ID: HPID2460 Init. Calib. Date(s): 10/06/99 10/06/99
 Heated Purge: (Y/N) N Init. Calib. Times: 1504 1749

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Benzene	59953.93	62819.95		-4.6	15.0
Toluene	57648.77	59497.50		-3.2	15.0
Ethylbenzene	52555.51	54450.45		-3.6	15.0
Isopropylbenzene	40083.01	42514.05		-5.9	15.0
n-Propylbenzene	42959.94	44885.40		-4.3	15.0
1,3,5-Trimethylbenzene	65201.25	66764.90		-2.2	15.0
tert-Butylbenzene	34861.69	36886.30		-5.8	15.0
1,2,4-Trimethylbenzene	56332.23	54644.40		3.0	15.0
sec-Butylbenzene	38676.64	41257.60		-6.5	15.0
p-Isopropyltoluene	38418.06	40512.70		-5.4	15.0
n-Butylbenzene	38429.43	41002.70		-6.5	15.0
Naphthalene	40604.37	37881.45		6.7	15.0
MTBE	26909.60	27760.70		-3.0	15.0
Total Xylenes	58484.43	60194.93		-2.9	15.0
=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	20881.59	22795.05		-9.0	15.0



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/19OCT99.b/8021H_99.m
Sample Info : HSTD020
Lab ID : HSTD020
Inj Date : 19-OCT-1999 07:56
Operator : SP
Cpnd Sublist: stars

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/Kg)	FINAL (ug/L)
m/p-Xylene	20.393	20.393	0.000	2494495	41.310	41.310
o-Xylene	21.181	21.181	0.000	1117201	20.430	20.430
Benzene	12.488	12.488	0.000	1256399	20.956	20.956
Toluene	17.008	17.008	0.000	1189950	20.641	20.641
Ethylbenzene	20.161	20.161	0.000	1089009	20.721	20.721
Isopropylbenzene	21.893	21.893	0.000	850281	21.213	21.213
n-Propylbenzene	22.678	22.678	0.000	897708	20.896	20.896
1,3,5-Trimethylbenzene	22.994	22.994	0.000	1335298	20.480	20.480
tert-Butylbenzene (M)	23.623	23.623	0.000	737726	21.162	21.162

Compounds		RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
						(ug/Kg)	(ug/L)
=====		=====	=====	=====	=====	=====	=====
1,2,4-Trimethylbenzene	(M)	23.705	23.705	0.000	1092888	19.401	19.401
sec-Butylbenzene		24.030	24.030	0.000	825152	21.335	21.335
p-Isopropyltoluene		24.282	24.282	0.000	810254	21.090	21.090
n-Butylbenzene		25.039	25.039	0.000	820054	21.339	21.339
Naphthalene		28.587	28.587	0.000	757629	18.659	18.659
MTBE		7.962	7.962	0.000	555214	20.633	20.633
Total Xylenes		24.600	24.600	0.000	3611696	61.755	61.755
a,a,a,-Trifluorotoluene (sur		14.780	14.780	0.000	455901	21.833	21.833

COMMENTS:

M - Compound response manually integrated.

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER Level: LOW Lab Job No: U135

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
	=====	=====	=====	=====	=====
01	HG288	95			0
02	161703	100			0
03	HG289	93			0
04	161707	99			0
05	HG292	106			0
06	161704	103			0
07	161705	108			0
08	161706	109			0
09	161704MS	105			0
10	161704MSD	105			0
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

QC LIMITS
SMC1 = a,a,a,-Trifluorotoluen (61-135)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8021

Matrix: WATER

Matrix Spike - Lab Sample No.: 161704

Level: LOW

MS Sample from Lab Job No: U135

QA Batch: 6885

Compound	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Benzene	2000	0.00	2200	110	66-138
Toluene	2000	0.00	2100	105	68-137
Ethylbenzene	2000	0.00	2100	105	66-142
Isopropylbenzene	2000	0.00	2200	110	82-126
n-Propylbenzene	2000	0.00	2400	120	70-145
1,3,5-Trimethylbenzene	2000	0.00	2200	110	65-147
tert-Butylbenzene	2000	0.00	2100	105	76-132
1,2,4-Trimethylbenzene	2000	0.00	2100	105	79-124
sec-Butylbenzene	2000	0.00	2300	115	73-145
p-Isopropyltoluene	2000	0.00	2200	110	67-156
n-Butylbenzene	2000	0.00	2200	110	71-150
Naphthalene	2000	0.00	1800	90	48-171
MTBE	2000	2500	4600	105	42-148
Total Xylenes	6000	0.00	6400	107	68-142

Compound	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Benzene	2000	2200	110	0	40	66-138
Toluene	2000	2100	105	0	40	68-137
Ethylbenzene	2000	2100	105	0	40	66-142
Isopropylbenzene	2000	2200	110	0	40	82-126
n-Propylbenzene	2000	2300	115	4	40	70-145
1,3,5-Trimethylbenzene	2000	2100	105	5	40	65-147
tert-Butylbenzene	2000	2100	105	0	40	76-132
1,2,4-Trimethylbenzene	2000	2000	100	5	40	79-124
sec-Butylbenzene	2000	2200	110	4	40	73-145
p-Isopropyltoluene	2000	2100	105	5	40	67-156
n-Butylbenzene	2000	2100	105	5	40	71-150
Naphthalene	2000	1800	90	0	40	48-171
MTBE	2000	4600	105	0	40	42-148
Total Xylenes	6000	6200	103	3	40	68-142

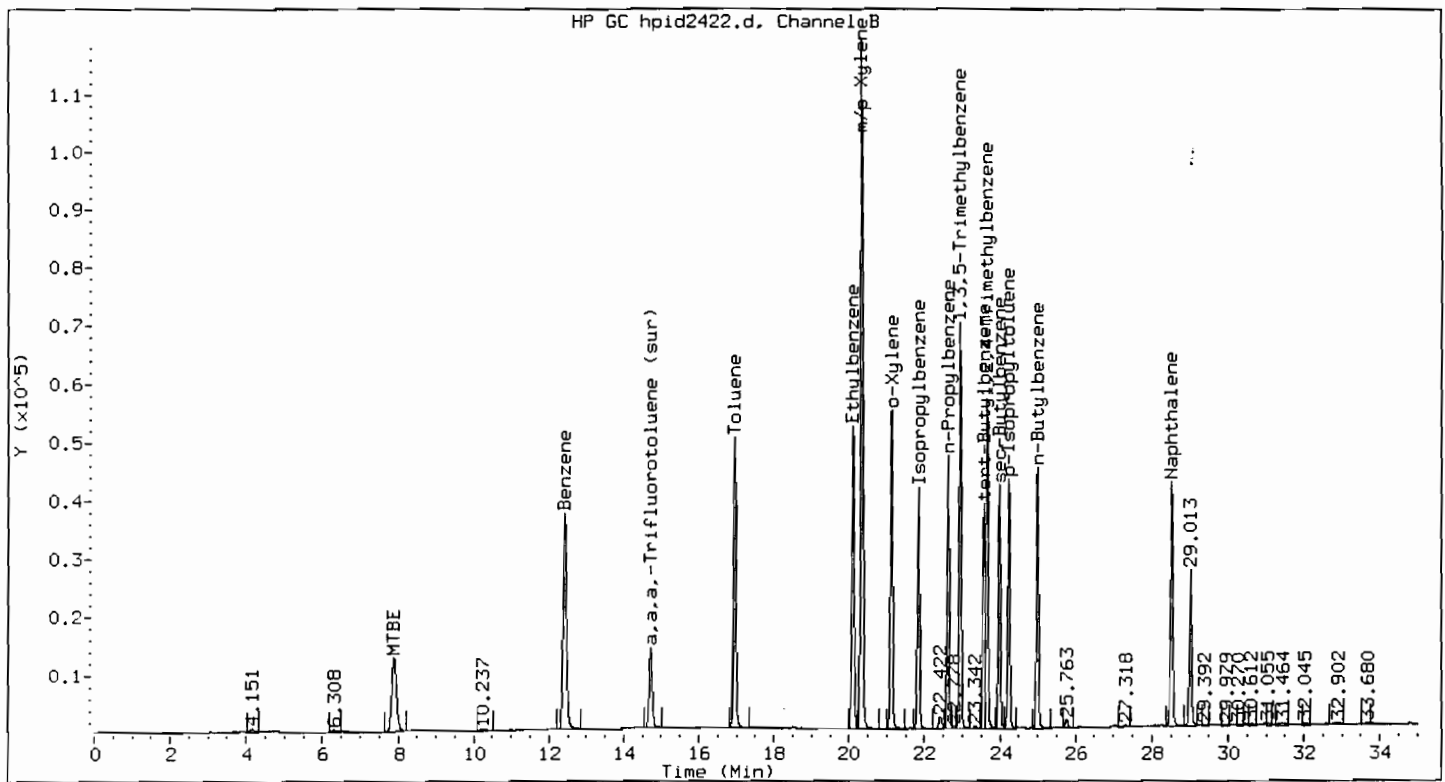
Column to be used to flag recovery and RPD values with an asterik

* Values outside of QC limits

RPD: 0 out of 14 outside limits

Spike Recovery: 0 out of 28 outside limits

COMMENTS:



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/16OCT99.b/8021H_99.m
Sample Info : HSTD020
Lab ID : HSTD020
Inj Date : 16-OCT-1999 05:15
Operator : CK
Cpnd Sublist: stars

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CCALIB_4

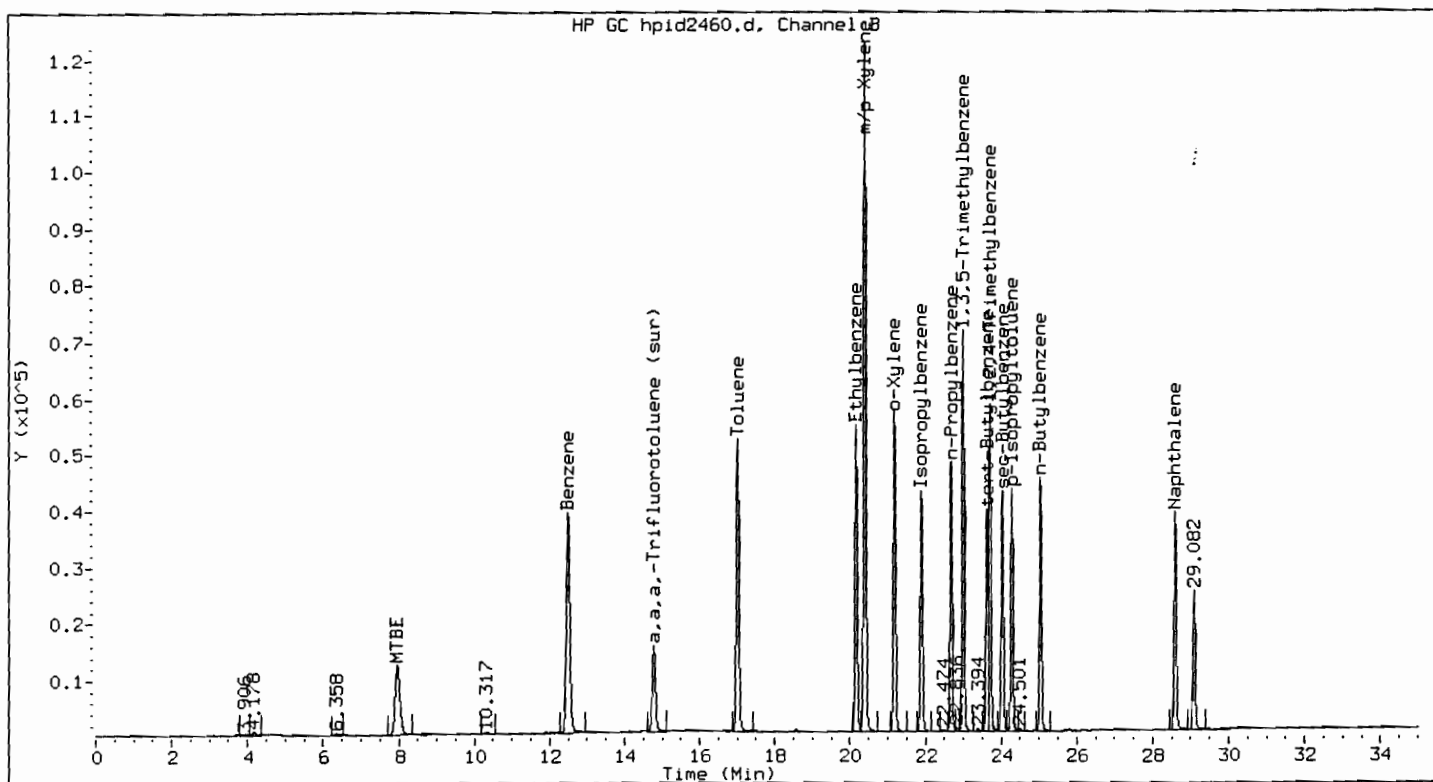
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/Kg)	(ug/Kg)
m/p-Xylene	20.334	20.334	0.000	2405294	39.833	39.833
o-Xylene	21.122	21.122	0.000	1073184	19.625	19.625
Benzene	12.416	12.416	0.000	1205777	20.112	20.112
Toluene	16.945	16.945	0.000	1140108	19.777	19.777
Ethylbenzene	20.101	20.101	0.000	1039993	19.788	19.788
Isopropylbenzene	21.837	21.837	0.000	822676	20.524	20.524
n-Propylbenzene	22.623	22.623	0.000	878876	20.458	20.458
1,3,5-Trimethylbenzene	22.939	22.939	0.000	1303544	19.993	19.993
tert-Butylbenzene	23.568	23.568	0.000	723977	20.767	20.767

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
=====	=====	=====	=====	=====	=====	=====
1,2,4-Trimethylbenzene	23.650	23.650	0.000	1063788	18.884	18.884
sec-Butylbenzene	23.975	23.975	0.000	814109	21.049	21.049
p-Isopropyltoluene	24.227	24.227	0.000	802078	20.878	20.878
n-Butylbenzene	24.984	24.984	0.000	820891	21.361	21.361
Naphthalene	28.520	28.520	0.000	834141	20.543	20.543
MTBE	7.891	7.891	0.000	548818	20.395	20.395
Total Xylenes	24.600	24.600	0.000	3478478	59.477	59.477
a,a,a,-Trifluorotoluene (sur	14.715	14.715	0.000	414055	19.829	19.829

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC2 Calibration Date: 10/19/99 Time: 0756
 Lab File ID: HPID2460 Init. Calib. Date(s): 10/06/99 10/06/99
 Heated Purge: (Y/N) N Init. Calib. Times: 1504 1749

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Benzene	59953.93	62819.95		-4.6	15.0
Toluene	57648.77	59497.50		-3.2	15.0
Ethylbenzene	52555.51	54450.45		-3.6	15.0
Isopropylbenzene	40083.01	42514.05		-5.9	15.0
n-Propylbenzene	42959.94	44885.40		-4.3	15.0
1,3,5-Trimethylbenzene	65201.25	66764.90		-2.2	15.0
tert-Butylbenzene	34861.69	36886.30		-5.8	15.0
1,2,4-Trimethylbenzene	56332.23	54644.40		3.0	15.0
sec-Butylbenzene	38676.64	41257.60		-6.5	15.0
p-Isopropyltoluene	38418.06	40512.70		-5.4	15.0
n-Butylbenzene	38429.43	41002.70		-6.5	15.0
Naphthalene	40604.37	37881.45		6.7	15.0
MTBE	26909.60	27760.70		-3.0	15.0
Total Xylenes	58484.43	60194.93		-2.9	15.0
=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	20881.59	22795.05		-9.0	15.0



Method : /chem/VOAGC2.i/8021PIDHIGH/10-06-99/19OCT99.b/8021H_99.m
Sample Info : HSTD020
Lab ID : HSTD020
Inj Date : 19-OCT-1999 07:56
Operator : SP
Cpnd Sublist: stars

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
m/p-Xylene	20.393	20.393	0.000	2494495	41.310	41.310
o-Xylene	21.181	21.181	0.000	1117201	20.430	20.430
Benzene	12.488	12.488	0.000	1256399	20.956	20.956
Toluene	17.008	17.008	0.000	1189950	20.641	20.641
Ethylbenzene	20.161	20.161	0.000	1089009	20.721	20.721
Isopropylbenzene	21.893	21.893	0.000	850281	21.213	21.213
n-Propylbenzene	22.678	22.678	0.000	897708	20.896	20.896
1,3,5-Trimethylbenzene	22.994	22.994	0.000	1335298	20.480	20.480
tert-Butylbenzene (M)	23.623	23.623	0.000	737726	21.162	21.162

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
1,2,4-Trimethylbenzene (M)	23.705	23.705	0.000	1092888	19.401	19.401
sec-Butylbenzene	24.030	24.030	0.000	825152	21.335	21.335
p-Isopropyltoluene	24.282	24.282	0.000	810254	21.090	21.090
n-Butylbenzene	25.039	25.039	0.000	820054	21.339	21.339
Naphthalene	28.587	28.587	0.000	757629	18.659	18.659
MTBE	7.962	7.962	0.000	555214	20.633	20.633
Total Xylenes	24.600	24.600	0.000	3611696	61.755	61.755
a,a,a,-Trifluorotoluene (sur	14.780	14.780	0.000	455901	21.833	21.833

COMMENTS:

M - Compound response manually integrated.

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER Level: LOW Lab Job No: U135

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
01	HG288	95			0
02	161703	100			0
03	HG289	93			0
04	161707	99			0
05	HG292	106			0
06	161704	103			0
07	161705	108			0
08	161706	109			0
09	161704MS	105			0
10	161704MSD	105			0
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

QC LIMITS

SMC1 = a,a,a,-Trifluorotoluen (61-135)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8021

Matrix: WATER

Matrix Spike - Lab Sample No.: 161704

Level: LOW

MS Sample from Lab Job No: U135

QA Batch: 6885

Compound	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
=====	=====	=====	=====	=====	=====
Benzene	2000	0.00	2200	110	66-138
Toluene	2000	0.00	2100	105	68-137
Ethylbenzene	2000	0.00	2100	105	66-142
Isopropylbenzene	2000	0.00	2200	110	82-126
n-Propylbenzene	2000	0.00	2400	120	70-145
1,3,5-Trimethylbenzene	2000	0.00	2200	110	65-147
tert-Butylbenzene	2000	0.00	2100	105	76-132
1,2,4-Trimethylbenzene	2000	0.00	2100	105	79-124
sec-Butylbenzene	2000	0.00	2300	115	73-145
p-Isopropyltoluene	2000	0.00	2200	110	67-156
n-Butylbenzene	2000	0.00	2200	110	71-150
Naphthalene	2000	0.00	1800	90	48-171
MTBE	2000	2500	4600	105	42-148
Total Xylenes	6000	0.00	6400	107	68-142

Compound	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
=====	=====	=====	=====	=====	=====	=====
Benzene	2000	2200	110	0	40	66-138
Toluene	2000	2100	105	0	40	68-137
Ethylbenzene	2000	2100	105	0	40	66-142
Isopropylbenzene	2000	2200	110	0	40	82-126
n-Propylbenzene	2000	2300	115	4	40	70-145
1,3,5-Trimethylbenzene	2000	2100	105	5	40	65-147
tert-Butylbenzene	2000	2100	105	0	40	76-132
1,2,4-Trimethylbenzene	2000	2000	100	5	40	79-124
sec-Butylbenzene	2000	2200	110	4	40	73-145
p-Isopropyltoluene	2000	2100	105	5	40	67-156
n-Butylbenzene	2000	2100	105	5	40	71-150
Naphthalene	2000	1800	90	0	40	48-171
MTBE	2000	4600	105	0	40	42-148
Total Xylenes	6000	6200	103	3	40	68-142

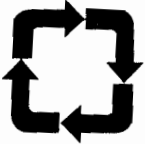
Column to be used to flag recovery and RPD values with an asterik

* Values outside of QC limits

RPD: 0 out of 14 outside limits

Spike Recovery: 0 out of 28 outside limits

COMMENTS:



EnSolutions, Inc.

66 Elm Street • Dover, NJ 07801 • Telephone 973-442-1320 • Fax 973-361-3204

April 28, 2000

Mr. Mark Tibbe
New York State Department of Environmental Conservation
222-34 96th Avenue
Queens Village, NY 11420

RE: Progress Report
Petrocelli Facility
22-09 Queens Bridge Plaza North
Long Island City, NY
Spill # ~~97-058567~~
97-05856

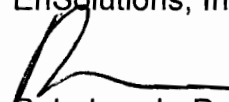
Dear Mr. Tibbe:

On behalf of Petrocelli Electric Company Inc. (Petrocelli), enclosed is the progress report for the remedial action at the above referenced facility prepared by EnSolutions, Inc. The purpose of this report is to provide the NYSDEC with the following information:

1. The status of the remedial action at the site.
2. The analytical ground water sampling results performed in March 2000 at the site.
3. Conclusions and proposed actions items.

Thank you for all your assistance in this matter and if you require any additional information please do not hesitate to call us at (973) 442-1320.

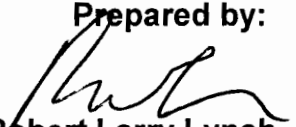
Sincerely,
EnSolutions, Inc.


R. L. Lynch, P. E.
President

cc: Michael Melia – Petrocelli Electric

**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

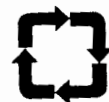
**Prepared for:
PETROCELLI ELECTRIC COMPANY, INC.**

Prepared by:

Robert Larry Lynch, P.E.

**EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801
(973) 442-1320**

APRIL 2000

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

TABLE OF CONTENTS

SECTION I

- A. Introduction
- B. Area/Site Characterization
- C. Ground Water
- D. SVE/AS Remedial System

SECTION II

- A. SVE / AS System Operation
- B. Remedial System Monitoring
- C. Ground Water Sampling – March 2000

SECTION III

- A. Ground Water Analytical Results – March 2000

SECTION IV

- A. Conclusions
- B. Action Items

SECTION V

FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 March 2000 Benzene Isopleth Map
- Figure 4 March 2000 Total BTEX Isopleth Map
- Figure 5 March 2000 MTBE Isopleth Map

TABLES

- Table 1 Ground Water Analytical Results Summary Table – March 2000

ATTACHMENTS

- Attachment 1 Laboratory QA/QC – March 2000



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION I

A. INTRODUCTION

On behalf of Petrocelli Electric Company, Inc. (Petrocelli), EnSolutions, Inc. (EnSolutions) has prepared this Progress Report for the remedial actions implemented at the Petrocelli facility at 22-09 Queens Bridge Plaza North, Long Island City, New York.

This Progress Report is part of the approved Corrective Action Plan implemented at the site as a result of a petroleum hydrocarbon release by the prior property owner.

B. AREA/SITE CHARACTERIZATION

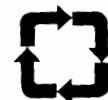
The site, the administrative and maintenance facilities for the Petrocelli Electric Company, Inc., is located at 22-09 Queens Plaza North, between 22nd and 23rd Streets, Long Island City, Queens County, New York. The area surrounding the site is primarily commercial, with some residential units up-gradient of the site, east on 23rd Street. A site location map is included as Figure 1 in Section V and a site plan illustrating all current site features is included as Figure 2 in Section V.

The East River is the nearest surface water to the site and is located approximately 3,000 feet to the west of the facility.

The water source at the subject property and at all surrounding properties is currently from the public water supply.

C. GROUND WATER

As a result of the soil delineation and ground water sampling and analyses performed at the subject property, six (6) ground water monitoring wells were installed on the subject property on May 1998. The six (6) 4-inch ground water monitoring wells were installed as both soil vapor extraction points and as ground water monitoring points in order to address and monitor the ground water contamination at the subject property. The six (6) 4-inch monitoring wells are labeled as MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6 and are shown in the site plan, Figure 2.



Based upon the March 23, 2000 ground water monitoring well sampling event, the depth to ground water ranged from 8.74 to 10.67 feet below grade in wells MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6.

The direction of ground water flow is predicted to be toward the west, in the direction of the East River.

D. SVE/AS REMEDIAL SYSTEM

Based on the site investigation activities implemented at the site and reported to the NYSDEC, which included the soil analytical data, ground water laboratory analytical data and a Corrective Action Plan, an approved Stipulation Agreement between Petrocelli and the NYSDEC, including an approved air permit, was issued for the site.

As part of the Correction Action Plan, a Soil Vapor Extraction / Air Sparging (SVE/AS) Remedial System was approved and is in operation to address the petroleum hydrocarbon soil and ground water contamination at the site.

SVE component of the remedial system will induce airflow in the subsurface using an above ground vacuum pump system. The induced airflow brings clean air in contact with the contaminated soil. The contaminated soil vapors drawn off by the SVE allows the soil matrix to re-establish the soil / pore moisture partitioning with the contaminants present.

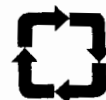
The SVE methodology is the concept of an air envelope. The air envelope is the area from which air is drawn from and toward an extraction well. As air is extracted, air moves into the well from the area adjacent to the well screen. The air further from the well now moves in to replace the air withdrawn by the well. As the air, that is farther from the well, moves towards the well, the pressure differential becomes very small and is not often measured by contemporary pressure measurement devices.

The SVE installed is based upon a positive displacement vacuum pump that utilizes an electronic variable speed drive. The drive receives its speed command from a Programmable Logic Controller (PLC), which is a full-featured control computer capable of two-way communication. This PLC permits the monitoring of all control parameters, such as pump speed and vacuum levels and also provides for the modification of system parameters.

All programs can be monitored and changed as necessary remotely or through a local interface. For protection, the system is password protected. The interface allows the operator to change parameters or view data by clicking on graphic symbols that represent the piece of equipment. Additionally, the equipment status is easily determined as this software allows for different colors to represent different states of operation, such as, green for on, red for stopped, and amber for ready to run.

The SVE component installed and operating at the site consists of an extraction unit with positive displacement blower, a programmable logic controller (PLC), two (2)

EnSolutions, Inc.



activated carbon polishing drums, 2" extraction piping, and 4" extraction wells. The extraction points are connected to the system via a common 2" manifold that is equipped with gate valves to control the airflow to the individual wells.

The SVE is connected to six extraction points, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6, to address the levels of contaminants at the site.

The air sparging components of the remedial system provides oxygen to stimulate biological activity in the subsurface. The air sparging system is design to provide sufficient oxygen to stimulate bioactivity, while minimizing the mobilization of dissolved hydrocarbons. To maintain a closed loop circulation of air injected into the ground water, the air sparging points are located within 30 feet of the vapor extraction points, well within the zone of influence for the SVE system.

The sparge system utilizes the four (4) sparge points, SP-1, SP-2, SP-3 and SP-4, and each point is configured with a gate valve to control flow to each individual sparge point. This will allow the operation of the system to be changed as necessary to optimize air sparging.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION II

A. SVE / AS SYSTEM OPERATION

Based upon the Stipulation Agreement between the NYSDEC and Petrocelli, the SVE segment of the remedial system has been in operation since December 1998. As part of the SVE operation, a zone of influence test to evaluate the SVE system was performed during the first quarter of 1999 to determine the effectiveness of the remedial system at the subject site. Utilizing the data obtained from the zone of influence test, the pneumatic zone of influence that displays capture of the vadose zone was established for this site.

The air sparging segment of the remedial system has been in operation to enhance the remedial efforts on the site since May 6, 1999.

B. REMEDIAL SYSTEM MONITORING

During SVE / AS system operation, maintenance checks and hydrocarbon readings are taken to monitor contaminant levels using a Photo Ionization Detector (PID).

These readings were taken at various points in the system. The first reading is taken between the SVE system and the first carbon drum. The second reading is taken between the two carbon drums and the third is taken at the outlet or effluent of the second carbon drum in order to determine hydrocarbon breakthrough.

C. GROUND WATER SAMPLING - MARCH 23, 2000

On March 23, 2000, Terra Nova Associates, under the supervision of EnSolutions, conducted the ground water sampling of the six (6) ground water monitoring wells at the site. All sampling was conducted in accordance with the standard field sampling practices of the NYSDEC and the USEPA.

Water levels and total depths were measured with a slope indicator electronic water level meter, Model 501, to the nearest 0.01-foot as measured from the top of the inner casing mark or adjacent to the lock, if no mark was present. The water level meter line was wiped with a DI water soaked paper towel as it was retracted from the well. The probe was then rinsed with DI water and paper towel dried. The well depth, depth to water, well diameter and purge water calculations were noted in the field log, and the well calculations to determine one standing column were based on the following:

EnSolutions, Inc.



Casing diameter – 4 inches

Gallons/Linear Foot – 0.652

The wells were evacuated with a whale pump. All sampling tubing in the wells was dedicated polyethylene drinking water grade tubing with dedicated Brady foot valves.

Field parameters were monitored before purging and after each casing volume. When three consecutive measurements of all parameters agreed within 10%, or if the well went dry or 5 volumes was reached, sampling began.

Prior to sampling, a depth to water measurement was taken. If there was sufficient volume in the well, sampling proceeded. If volume was not sufficient, the well was allowed to recover.

All wells were sampled with a laboratory cleaned dedicated Teflon bailer, constructed entirely of Teflon.

The field meters used for ground water measurements included the YSI 3500, which was used for temperature, pH and specific conductivity.

No problems were encountered in the field. Immediately after the sample collection, the pre-labeled sample bottles were placed in a cooler at 4 degrees C and transported on ice to ChemTech Consulting Group Inc. of Englewood, New Jersey, New York License # 106081, for analyses, accompanied by a chain of custody form, in accordance with the quality control standards. All samples, including field and trip blanks, were analyzed for Benzene, Toluene, Ethylbenzene, Total Xylenes, via EPA method 8021, and MTBE.

A summary of the field sampling parameters is as follow:

Sample Point	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
Total Depth	15.10	14.90	16.60	14.50	12.00	15.00
Depth To Water	10.67	9.13	9.50	9.32	8.74	9.97
Height To Water Col. (Ft.)	4.40	5.80	7.10	5.80	3.30	5.00
One Casing Vol.(Gal)	2.90	3.80	4.60	3.40	2.10	3.30
Three Casing Vol. (Gal)	8.70	11.20	13.80	10.10	6.40	9.80
Actual Volume Purged (Gal)	9.00	12.00	14.00	10.50	4*	10.00
Date Sampled	3/23/00	3/23/00	3/23/00	3/23/00	3/23/00	3/23/00
Time Sampled	1025	1030	1115	1055	1118	1145
Field Parameters						
Ph	6.83	6.64	6.39	6.92	6.85	7.05

EnSolutions, Inc.

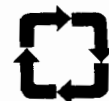


Sample Point	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
SCOND um/cm	1610	1220	1629	1940	1220	1290
Temp C	14.2	14.8	14.2	14.1	10.8	14.7
Dissolved Oxygen (Ppm)	0.53	4.86	2.38	3.51	4.66	0.93
Appearance	cloudy	cloudy	cloudy	cloudy	cloudy	clear
Odor	odor	odor	odor	odor	odor	odor
Purge Method	PP	PP	WP	PP	PP	PP
Sample Method	BT	BT	BT	BT	BT	BT

BT - BAILER TEFLON

WP - WHALE PUMP

*- well purged dry at less than 0.5 GPM



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION III

A. GROUND WATER ANALYTICAL RESULTS – MARCH 23, 2000

The laboratory results of the Benzene, Toluene, Ethylbenzene, Total Xylenes and MTBE analyses for the six ground water samples obtained indicated:

1. Levels of Benzene exceed the NYSDEC ground water quality standards or guidance values for ground water in only MW-2 at 59 ppb and MW-5 at 4.9.
2. Levels of MTBE exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-1 at 700 ppb, MW-2 at 690 ppb and MW-6 at 190 ppb.
3. Levels of Ethylbenzene, Toluene and Total Xylenes did not exceed any of the NYSDEC ground water quality standards or guidance values for ground water.

The analytical results summary are shown in the following table:

Volatile Organic (ug/kg)	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
Benzene	ND	59	ND	4.9	ND	ND
Ethylbenzene	1.9	14	22	2.8	ND	ND
MTBE	700	690	68	73	ND	190
Toluene	ND	ND	ND	ND	ND	ND
Total Xylenes	ND	ND	ND	18	ND	ND

(The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or guidance values, whichever is more stringent)

ND – Non Detect

A summary table of the historical analytical results, including the March 2000 results, is shown in Table 1 in Section V.

The laboratory QA/QC for the ground water analyses is included as Attachment 1 in Section V.

In addition, copies of the Benzene, Total BTEX and MTBE ground water Isopleth maps are included as Figures 3, 4 and 5, respectively, in Section V.

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION IV

A. CONCLUSIONS

Based upon the information to date, the following conclusions have been determined at the site:

1. The analytical results of the soil and ground water sampling confirm a release from the former underground storage tank system at the subject property and the contamination of ground water at the site.
2. The March 23, 2000 ground water analytical results show declines since the SVE segment of the remedial system became operational in December 1998 and the AS segment of the remedial system in May 1999.

B. ACTION ITEMS

Based upon analytical data and system information reviewed, the following are the action items to be implemented at the site:

1. The SVE / AS system will continue to be operational and monitored.
2. The next round of ground water samples will be obtained in September 2000
3. The discharge from the SVE/AS system will continued to be monitored.
4. In order to continue the current declining trends and promote increased oxygenation at the site, ORC socks will be added to the six monitoring wells at the site.
5. A progress report of the system operation and the analytical data obtained from this September 2000 round of samples will be sent to the NYSDEC case manager within 45 days of receipt of all analytical data, on or about November 1, 2000.



FIGURES



FIGURE 1 - SITE LOCATION MAP



22nd STREET

QUEENS PLAZA NORTH

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

Tank Farm

KEY

- Monitor Well
- Soil Boring / Groundwater Sampling Point
- Sparge Point

DATE

5/26/98

EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801

DESCRIPTION

FIGURE # 2
PETROCELL FACILITY
SITE PLAN

TITLE

22-09 Queens Bridge Plaza North
Long Island City, NY

DRAWN BY

M. Wiener

SCALE

As Shown

MW 6

SP 4

MW-5

SP 3

GW4
S4

MW-4

SP 1

GW1
S1

MW-2

GW2
S2
MW-3

GW3
S3

MW-1

SP 2

S7

S8

GW5
S5

GW6
S6

0ft 5ft 10ft 20ft

22nd STREET

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

SP 2

SP 1

4.9

Tank Farm

SP 3

SP 4

MW-5

MW 6

REMEDIAL
SYSTEM

MW-1

MW-2


MW-3

59

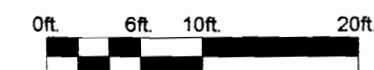


KEY

- Monitor Well
- Spargue Point

DATE	EnSolutions, Inc. 66 Elm Street Dover, NJ 07801
MARCH 2000	
DESCRIPTION	
<p>FIGURE 3 PETROCELLI FACILITY BENZENE ISOPLETH MAP</p>	
TITLE	
22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY	SCALE
S. KOTEEN	As Shown

MW 1	ND
MW 2	59
MW 3	ND
MW 4	4.9
MW 5	ND
MW 6	ND



QUEENS PLAZA NORTH

22nd STREET

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

Tank Farm

REMEDIAL
SYSTEM

MW-1

MW-2

MW-3

MW-4

SP 4

MW-5

MW 6

SP 2

SP 1

SP 3



KEY

- ⊕ Monitor Well
- Sparge Point

DATE

MARCH 2000

EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801



DESCRIPTION

FIGURE 4

PETROCELLI FACILITY

TOTAL BTEX ISOPLETH MAP

TITLE

22-09 Queens Bridge Plaza North
Long Island City, NY

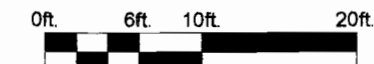
DRAWN BY

S. KOTEEN

SCALE

As Shown

	BTEX
MW 1	1.9
MW 2	73
MW 3	22
MW 4	7.7
MW 5	ND
MW 6	ND



22nd STREET

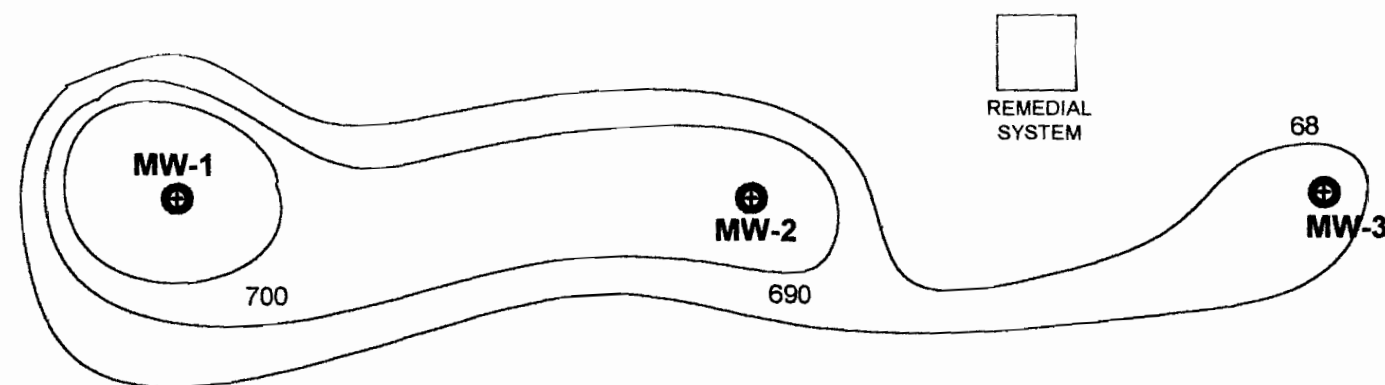
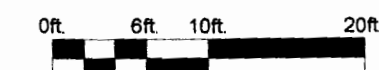


KEY

- Monitor Well
- Sparge Point

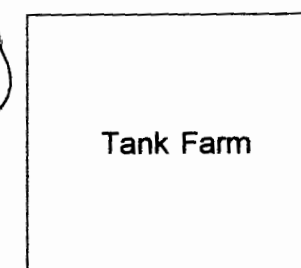
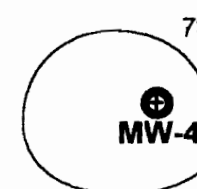
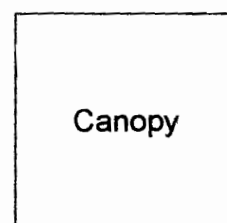
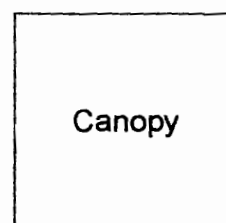
EnSolutions, Inc. 66 Elm Street Dover, NJ 07801	
DATE MARCH 2000	
DESCRIPTION FIGURE 5 PETROCELLI FACILITY MTBE ISOPLETH MAP	
TITLE 22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY S. KOTEEN	SCALE As Shown

MW 1	700
MW 2	690
MW 3	68
MW 4	73
MW 5	ND
MW 6	190



SP 2

SP 1



SP 3

SP 4

MW-5

MW 6

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

Tank Farm

QUEENS PLAZA NORTH

TABLES

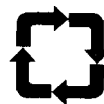


TABLE 1

Petrocelli Electric Company, Inc.
Ground Water Sampling Results Summary Table

VOLATILE COMPOUNDS (ug/l)	MW-1			MW-2			MW-3			MW-4			MW-5			MW-6		
	Apr-99	Oct-99	Mar-00	Apr-99	Oct-99	Mar-00	Apr-99	Oct-99	Mar-00	Apr-99	Oct-99	Mar-00	Apr-99	Oct-99	Mar-00	Apr-99	Oct-99	Mar-00
Benzene	45	ND	ND	ND	ND	59	ND	NS	ND	77	ND	4.9	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	NS	ND	14	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	58	27	1.9	ND	ND	14	ND	NS	22	250	ND	2.8	ND	ND	ND	ND	ND	ND
MTBE	590	200	700	520	2500	690	22	NS	68	280	450	73	ND	ND	ND	6200	430	190
Total Xylenes	30	ND	ND	ND	ND	ND	ND	NS	ND	370	ND	18	ND	ND	ND	ND	41	ND

Qualifiers

ND = The compound was not detected at the indicated concentration.

NS = Not sampled



TABLE 2

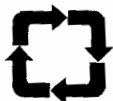
Petrocelli Electric Company, Inc.
Groundwater Sampling Results

Volatile Organics (ug/l)	March 24, 2000					
	MW1	MW2	MW3	MW4	MW5	MW6
Benzene	ND	59	ND	4.9	ND	ND
Ethylbenzene	1.9	14	22	2.8	ND	ND
MTBE	700	690	68	73	ND	190
Toluene	ND	ND	ND	ND	ND	ND
Total Xylenes	ND	ND	ND	18	ND	ND

The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

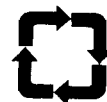
NS = Not sampled

ND = Non detect



EnSolutions, Inc.

ATTACHMENTS





205 Campus Plaza 1 • Raritan Center • Edison, NJ • 08837
Tel: 732.225.4111 Fax: 732.225.4110

DATA PACKAGE FOR RESULTS SUMMARY

PROJECT NAME: PETROCELLI ELEC

**EN SOLUTIONS
66 ELM STREET
DOVER, NJ 07801
973-442-1320**

**CHEMTECH PROJ#: L7557NJ
ATTENTION: LARRY LYNCH**

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: TRIP BLANK
LAB ID: 17454 TB
FILENAME: C:\TC4\DATA2\I5032912.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29/00
ANALYST: SR
DILUTION 1

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-1
LAB ID: 17453 5ML UG/L
FILENAME: C:\TC4\DATA2\IS032910, C033115.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29,3/31/2000
ANALYST: SR
DILUTION 1

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	1.9		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	700	D	5.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-2
LAB ID: 17452 5ML UG/L
FILENAME: C:\TC4\DATA2\S032909, S033004.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29, 3/30/2000
ANALYST: SR
DILUTION 1

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	59		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	14		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	690	D	10

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-3
LAB ID: 17456 5ML UG/L
FILENAME: C:\TC4\DATA2\S032914.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29/00
ANALYST: SR
DILUTION 1

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	22		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	68		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-4
LAB ID: 17455 5ML UG/L
FILENAME: C:\TC4\DATA2\S032913.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29/00
ANALYST: SR
DILUTION 1

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	4.9		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	2.8		1.0
	M&P XYLENES	18		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	73		1.0

MDL = METHOD DETECTION LIMIT

U =UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-5
LAB ID: 17458 5ML UG/L
FILENAME: C:\TC4\DATA2\S032916.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29/00
ANALYST: SR
DILUTION 1

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	U		1.0

MDL = METHOD DETECTION LIMIT

U =UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-6
LAB ID: 17457 5ML UG/L
FILENAME: C:\TC4\DATA2\S032915,S033006.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29,3/30/2000
ANALYST: SR
DILUTION 1

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	11		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	190	D	2.0

MDL = METHOD DETECTION LIMIT

U =UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION



205 Campus Plaza 1 • Raritan Center • Edison, NJ • 08837
Tel: 732.225.4111 Fax: 732.225.4110

DATA PACKAGE FOR VOLATILE ORGANICS

PROJECT NAME: PETROCELLI ELEC

**EN SOLUTIONS
66 ELM STREET
DOVER, NJ 07801
973-442-1320**

**CHEMTECH PROJ#: L7557NJ
ATTENTION: LARRY LYNCH**

CHEMTECH CONSULTING GROUP

COVER PAGE



205 Campus Plaza 1 • Raritan Center • Edison, NJ • 08837
Tel: 732.225.4111 Fax: 732.225.4110

COVER PAGE

Lab Name: Chemtech Consulting Group
Lab Code: CHEM Project No.: L7557NJ

Client: EN SOLUTIONS, INC.
Project Name: PETROCELLIELEC

Client Sample No.	Lab Sample ID
MW-2	17452
MW-1	17453
TB	17454
MW-4	17455
MW-3	17456
MW-6	17457
MW-5	17458

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designed, as verified by the following signature.

Signature: Mildred V. Reyes Name: MILDRED V. REYES

Date : 4/6/00 Title: QA/QC

CHEMTECH

LABORATORY REPORT

QA/QC DELIVERABLES CHECKLIST

Project Number: L7557NJ

THIS FORM HAS BEEN COMPLETED BY CHEMTECH LABORATORIES AND ACCOMPANIES ALL DATA DELIVERABLES PACKAGES.

The following laboratory deliverables are included in this analytical report. Any deviations from the accepted methodology and procedures, or performance values outside acceptable ranges are summarized in the Non-Conformance Summary.

	Yes	NA
I. Report Cover Page, Laboratory Certification and Field Sample to Lab Sample ID Cross Reference.	<input checked="" type="checkbox"/>	
II. Table of Contents	<input checked="" type="checkbox"/>	
III. Chain of Custody Documents	<input checked="" type="checkbox"/>	
IV. Methodology Summaries	<input checked="" type="checkbox"/>	
V. Laboratory Chronicle and Hold Time Checks	<input checked="" type="checkbox"/>	
VI. Non-Conformance Summary	<input checked="" type="checkbox"/>	
VII. Tabulated Analytical Results	<input checked="" type="checkbox"/>	
VIII. Initial and Continuing Calibration Information	<input checked="" type="checkbox"/>	
IX. Tune and Internal Standard Area Summaries (GC/MS)		<input checked="" type="checkbox"/>
X. Quality Control Summary Reports	<input checked="" type="checkbox"/>	
XI. Surrogate Recovery Summary	<input checked="" type="checkbox"/>	
XII. Raw Data Chromatograms, Blank, QCs and Samples	<input checked="" type="checkbox"/>	
XIII. Subcontract Information		<input checked="" type="checkbox"/>

Mildred V. Reyes
QA/QC Coordinator

4/6/00
Date

110 ROUTE 4
ENGELWOOD, NEW JERSEY 07631
PHONE: 201-567-6868 FAX: 201-567-1333
CHEMTECH
NYSDOH Certification No. 10624

205 CAMPUS PLAZA 1
EDISON, NEW JERSEY 08837
PHONE: 732-225-4111 FAX: 732-225-4110
CHEMTECH
NYSDOH Certification No. 11376
NJDEP Certification No. 12013



205 Campus Plaza 1 • Raritan Center • Edison, NJ • 08837
Tel: 732.225.4111 Fax: 732.225.4110

TABLE OF CONTENTS
PROJECT # L7557NJ

Chain of Custody	000001
Methodology Review	000004
Laboratory Chronicle	000006
Conformance/ Non-Conformance Summary	000008

Volatiles Data	000011
Results Summary	000012
Method Blank Results Summary	000020
Calibration Summary	000024
Surrogate Recovery Summary	000031
MS/ MSD Summary	000033
Chromatograms	000035

CHEMTECH CONSULTING GROUP

CHAIN OF CUSTODY
RECORDS

000001

CHAIN OF CUSTODY RECORD

Englewood, NJ 07631
(201) 567-6868
Fax (201) 567-1333

Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

Barnegat, NJ 08005
(609) 698-0199
Fax (609) 698-0910

CHEMTECH QUOTE NO.: 1755705

CLIENT INFORMATION				PROJECT INFORMATION				BILLING INFORMATION										
REPORT TO BE SENT TO:				PROJECT NAME: <u>Petrocelli Elec</u>				BILL TO: _____ PO #: _____										
COMPANY: <u>ENSOLUTIONS</u>				PROJECT NO.: _____				ADDRESS: _____										
ADDRESS: _____				PROJECT MANAGER: _____				CITY: _____ STATE: _____ ZIP: _____										
CITY: <u>Dover</u> STATE: <u>NJ</u> ZIP: _____				LOCATION: <u>2209 22nd St LI City</u>				ATTENTION: _____ PHONE: _____										
ATTENTION: _____				PHONE: _____ FAX: _____				ANALYSIS										
PHONE: <u>973 442 1320</u> FAX: _____																		
DATA TURNAROUND INFORMATION				DATA DELIVERABLE INFORMATION														
FAX: _____ DAYS *				<input type="checkbox"/> RESULTS ONLY <input type="checkbox"/> USEPA CLP <input type="checkbox"/> RESULTS + QC <input type="checkbox"/> NYS ASP "B" <input type="checkbox"/> NJ REDUCED <input type="checkbox"/> NYS ASP "A" <input type="checkbox"/> NJ CLP <input type="checkbox"/> EDD <input type="checkbox"/> EDD FORMAT: _____				BTEX COPY TO STATE SO21 + MBE										
HARD COPY: _____ DAYS *																		
EDD: _____ DAYS *																		
* TO BE APPROVED BY CHEMTECH																		
** NORMAL TURNAROUND TIME - 14 DAYS																		
CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME												
								1	2	3	4	5	6	7	8	9		
1. <u>17452</u>	<u>MW-2</u>	<u>AP</u>	<u>3/23/00</u>	<u>✓</u>	<u>3/23/00</u>	<u>1030</u>	<u>2</u>	<u>2</u>										← Specify Preservatives A - HCl B - HNO ₃ C - H ₂ SO ₄ D - NaOH E - ICE F - Other
2. <u>17453</u>	<u>MW-1</u>	<u>"</u>	<u>✓</u>	<u>"</u>	<u>1035</u>	<u>2</u>	<u>2</u>											
3. <u>17454</u>	<u>TB</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>-</u>	<u>2</u>	<u>2</u>											
4. <u>17455</u>	<u>MW-4</u>	<u>"</u>	<u>✓</u>	<u>"</u>	<u>1055</u>	<u>2</u>	<u>2</u>											
5. <u>17456</u>	<u>MW-3</u>	<u>"</u>	<u>✓</u>	<u>"</u>	<u>1115</u>	<u>2</u>	<u>2</u>											
6. <u>17457</u>	<u>MW-6</u>	<u>"</u>	<u>✓</u>	<u>"</u>	<u>1145</u>	<u>2</u>	<u>2</u>											
7. <u>17458</u>	<u>MW-5</u>	<u>"</u>	<u>✓</u>	<u>"</u>	<u>1118</u>	<u>2</u>	<u>2</u>											
8.																		
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY																		
RELINQUISHED BY SAMPLER:		DATE/TIME:		RECEIVED BY:		Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Temp. of Cooler <u>40</u> Comments: _____ Page _____ of _____ Shipment Complete: Yes _____ No _____												
1. <u>Alt. Rm</u>		<u>3/24/00 13:40</u>		<u>Bunny. Pate</u>														
RELINQUISHED BY:		DATE/TIME:		RECEIVED BY:														
2.				2.														
RELINQUISHED BY:		DATE/TIME:		RECEIVED FOR LAB BY:														
3.		<u>3/24/00</u>		<u>Bunny. Pate</u>														

DATA REPORTING QUALIFIERS - ORGANIC

For reporting results, the following "Results Qualifiers" are used:

VALUE - If the result is a value greater than or equal to the detection limit, report the value.

U - Indicates the compound was analyzed for, but was not detected. Report the minimum detection limit for the sample with the U, ie "10 U". This is not necessarily the instrument detection limit. The figure represents the minimum detection limit attainable for this particular sample based on any concentration or dilution that may have been required.

J - Indicates an estimated value. This flag is used:

- (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed).
- (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit but greater than zero. If the detection limit was 10 ug/L and a concentration of 3 ug/L was calculated, report as "3 J".

B - Indicates the analyte was found in the blank as well as the sample; report as "12 B".

E - Indicates the analyte's concentration exceeds the calibrated range of the GC/MS instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

P - This flag is used for a Pesticide/Aroclor target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".

N - This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.

000003

CHEMTECH CONSULTING GROUP

METHODOLOGY REVIEW

000004

METHODOLOGY

Volatile Organics by GC

*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition

** Method 8021

000005

CHEMTECH CONSULTING GROUP

LABORATORY CHRONICLE

000006

LABORATORY CHRONICLE

CLIENT: EN SOLUTIONS

DATE RECEIVED: 03/24/00

CLIENT PROJECT: PETROCELLI ELEC

LABORATORY PROJECT: L7557NJ

<u>SAMPLE DATE</u>	<u>ANALYSIS DATES</u>	<u>ANALYSIS</u>
03/24/00	03/29 & 03/30	VOLATILE ORGANICS

000007

CHEMTECH CONSULTING GROUP

CONFORMANCE / NON-
CONFORMANCE SUMMARY

000008

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

QB80M12S

NA NO YES

1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)

2. Standards Summary Submitted

3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis.

4. Blank Contamination - If yes, list compounds and concentrations in each blank:

VOA Fraction _____

Pesticides/PCB's _____

Other _____

5. Surrogate Recoveries Meet Criteria

If not met, list those compounds and their recoveries which fall outside the acceptable ranges

VOA Fraction _____

Pesticides/PCB's _____

Other _____

If not met, were the calculations checked and the results qualified as "estimated"

6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria.

If not met, list those compounds and their recoveries which fall outside the acceptable range.

VOA Fraction _____

Pesticides/PCB's _____

Other _____

000009

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

NA NO YES

7. Retention Time Shift Meet Criteria (if applicable)

_____ / _____

8. Extraction Holding Time Met

_____ / _____

If not met, list number of days exceeded for each sample: _____

9. Analysis Holding Time Met

_____ / _____

If not met, list number of days exceeded for each sample: _____

Additional Comments: _____

Analyst

Sm

Date

4/5/00

QA Review

Mildred U. Reyes

Date

4/6/00

000010

CHEMTECH

GC
DATA

000011

CHEMTECH

A

ANALYTICAL
RESULTS
SUMMARY

000012

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-2
LAB ID: 17452 5ML UG/L
FILENAME: C:\TC4\DATA2\S032909, S033004.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29, 3/30/2000
ANALYST: SR
DILUTION 1

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	59		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	14		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	690	D	10

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-1
LAB ID: 17453 5ML UG/L
FILENAME: C:\TC4\DATA2\IS032910, C033115.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29,3/31/2000
ANALYST: SR
DILUTION 1

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	1.9		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	700	D	5.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: TRIP BLANK
LAB ID: 17454 TB
FILENAME: C:\TC4\DATA2\S032912.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29/00
ANALYST: SR
DILUTION 1

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-4
LAB ID: 17455 5ML UG/L
FILENAME: C:\TC4\DATA2\IS032913.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29/00
ANALYST: SR
DILUTION 1

CAS # COMPOUNDS RESULTS (ug/L) QUALIFIER MDL (ug/L)

71-43-2	BENZENE	4.9		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	2.8		1.0
	M&P XYLENES	18		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	73		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-3
LAB ID: 17456 5ML UG/L
FILENAME: C:\TC4\DATA2\S032914.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29/00
ANALYST: SR
DILUTION 1

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	22		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	68		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-6
LAB ID: 17457 5ML UG/L
FILENAME: C:\TC4\DATA2\S032915,S033006.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29,3/30/2000
ANALYST: SR
DILUTION 1

CAS # COMPOUNDS RESULTS (ug/L) QUALIFIER MDL (ug/L)

71-43-2	BENZENE	11		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	190	D	2.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

000018

Tabulated Analytical Report
SW846 8021 Star List

PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-5
LAB ID: 17458 5ML UG/L
FILENAME: C:\TC4\DATA2\IS032916.RAW
LAB PROJECT: L7557NJ

MATRIX: AQUEOUS
DATE ANALYZED: 3/29/00
ANALYST: SR
DILUTION 1

CAS # COMPOUNDS RESULTS (ug/L) QUALIFIER MDL (ug/L)

71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

CHEMTECH

B

METHOD BLANK
RESULTS
SUMMARY

000020

SW846 8021

Method Blank

Batch: V:\TC4\DATA2\B032900.SEQ

Matrix: WATER

Filename: C:\TC4\DATA2\IS032902.F

Date: 3/29/00

CAS #	COMPOUNDS	RESULTS (ug/L)	MDL (ug/L)
75-35-4	1,1 DICHLOROETHENE	U	1.0
1634-04-4	MTBE	U	1.0
71-43-2	BENZENE	U	1.0
108-88-3	TOLUENE	U	1.0
100-41-4	ETHYLBENZENE	U	1.0
	M&P XYLENES	U	2.0
95-47-6	O-XYLENE	U	1.0
100-42-5	STYRENE	U	1.0
98-82-8	ISOPROPYLBENZENE	U	1.0
103-65-1	n-PROPYLBENZENE	U	1.0
	2-CHLORTOLUENE+P-ETHYLTOLUENE	U	2.0
	4-CHLORTOLUENE+1,3,5-TRIMETHBENZENE	U	2.0
98-06-6	TERT-BUTYLBENZENE	U	1.0
95-63-6	124TRIMETHYLBENZENE	U	1.0
135-98-8	SEC-BUTYLBENZENE	U	1.0
541-73-1	1,3 DICHLOROBENZENE	U	1.0
99-87-6	ISOPROPYLTOLUENE	U	1.0
106-46-7	1,4 DICHLOROBENZENE	U	1.0
104-51-8	n-BUTYLBENZENE	U	1.0
95-50-1	1,2 DICHLOROBENZENE	U	1.0
	1,2,4 TRICHLOROBENZENE	U	1.0
87-68-3	HEXACHLOROBUTADIENE	U	1.0
91-20-3	NAPHTHALENE	U	1.0

MDL - Method Detection Limit

U - Undetected below MDL

COMMENTS:

000021

SW846 8021

Method Blank

Batch: V:\TC4\DATA2\B033000.SEQ
Matrix: WATER

Filename: C:\TC4\DATA2\S033001.F

Date: 3/30/00

CAS #	COMPOUNDS	RESULTS (ug/L)	MDL (ug/L)
75-35-4	1,1 DICHLOROETHENE	U	1.0
1634-04-4	MTBE	U	1.0
71-43-2	BENZENE	U	1.0
108-88-3	TOLUENE	U	1.0
100-41-4	ETHYLBENZENE	U	1.0
	M&P XYLENES	U	2.0
95-47-6	O-XYLENE	U	1.0
100-42-5	STYRENE	U	1.0
98-82-8	ISOPROPYLBENZENE	U	1.0
103-65-1	n-PROPYLBENZENE	U	1.0
	2-CHLORTOLUENE+P-ETHYLTOLUENE	U	2.0
	4-CHLORTOLUENE+1,3,5-TRIMETHBENZENE	U	2.0
98-06-6	TERT-BUTYLBENZENE	U	1.0
95-63-6	124TRIMETHYLBENZENE	U	1.0
135-98-8	SEC-BUTYLBENZENE	U	1.0
541-73-1	1,3 DICHLOROBENZENE	U	1.0
99-87-6	ISOPROPYLTOLUENE	U	1.0
106-46-7	1,4 DICHLOROBENZENE	U	1.0
104-51-8	n-BUTYLBENZENE	U	1.0
95-50-1	1,2 DICHLOROBENZENE	U	1.0
	1,2,4 TRICHLOROBENZENE	U	1.0
87-68-3	HEXACHLOROBUTADIENE	U	1.0
91-20-3	NAPHTHALENE	U	1.0

MDL - Method Detection Limit

U - Undetected below MDL

COMMENTS:

000022

SW846 8021

Method Blank

Batch: V:\TC4\DATA2\B033000.SEQ
Matrix: WATER

Filename: C:\TC4\DATA2\S033022.F

Date: 3/31/00

CAS #	COMPOUNDS	RESULTS (ug/L)	MDL (ug/L)
75-35-4	1,1 DICHLOROETHENE	U	1.0
1634-04-4	MTBE	U	1.0
71-43-2	BENZENE	U	1.0
108-88-3	TOLUENE	U	1.0
100-41-4	ETHYLBENZENE	U	1.0
	M&P XYLENES	U	2.0
95-47-6	O-XYLENE	U	1.0
100-42-5	STYRENE	U	1.0
98-82-8	ISOPROPYLBENZENE	U	1.0
103-65-1	n-PROPYLBENZENE	U	1.0
	2-CHLORTOLUENE+P-ETHYLTOLUENE	U	2.0
	4-CHLORTOLUENE+1,3,5-TRIMETHBENZENE	U	2.0
98-06-6	TERT-BUTYLBENZENE	U	1.0
95-63-6	124TRIMETHYLBENZENE	U	1.0
135-98-8	SEC-BUTYLBENZENE	U	1.0
541-73-1	1,3 DICHLOROBENZENE	U	1.0
99-87-6	ISOPROPYLTOLUENE	U	1.0
106-46-7	1,4 DICHLOROBENZENE	U	1.0
104-51-8	n-BUTYLBENZENE	U	1.0
95-50-1	1,2 DICHLOROBENZENE	U	1.0
	1,2,4 TRICHLOROBENZENE	U	1.0
87-68-3	HEXACHLOROBUTADIENE	U	1.0
91-20-3	NAPHTHALENE	U	1.0

MDL - Method Detection Limit

U - Undetected below MDL

COMMENTS:

CHEMTECH

C

CALIBRATION
SUMMARY

000024

Initial and Continuing Calibration Summary
SW846 8021GC VOA Analysis
Detector: PID

Initial Calibration Date:	3/16/00									
	5 ppb	25 ppb	50 ppb	100 ppb	150 ppb					
Analyte	Cal Fac 1	Cal Fac 2	Cal Fac 3	Cal Fac 4	Cal Fac 5	Ave CF	Std Dev	% RSD	Flag	CORR COEFF
1,1 DICHLOROETHENE	156	130	201	213	219	184	39	21.3		0.9996
MTBE	215	132	194	208	203	190	34	17.7		0.9994
BENZENE	577	370	570	543	505	513	84	16.5		0.9978
TOLUENE	693	413	622	640	647	603	109	18.1		0.9996
ETHYLBENZENE	682	397	535	492	468	515	106	20.6		0.9988
M&P XYLENES	1489	888	1281	1153	1093	1181	223	18.9		0.9981
O-XYLENE	492	296	426	441	432	417	73	17.4		0.9996
STYRENE	1009	588	875	893	935	860	161	18.7		0.9992
ISOPROPYLBENZENE	543	336	486	438	423	445	77	17.3		0.9986
n-PROPYLBENZENE	546	329	497	481	465	464	81	17.5		0.9992
2-CHLORTOL+PETHYLTOLUE	1308	793	1151	1149	1222	1125	196	17.5		0.9990
4CHLORTOL+135TRIMETHBE	682	407	609	623	644	593	108	18.2		0.9995
TERT-BUTYLBENZENE	462	327	403	404	399	399	48	12.0		0.9995
124TRIMETBENZENE	578	393	401	343	371	417	93	22.3		0.9977
SEC-BUTYLBENZENE	399	300	360	350	344	351	35	10.1		0.9995
ISOPROPYLTOLUENE	404	311	366	360	406	369	39	10.5		0.9991
1,3 DICHLOROBENZENE	631	474	567	550	527	550	57	10.4		0.9971
1,4 DICHLOROBENZENE	691	500	565	585	561	580	69	11.9		0.9993
n-BUTYLBENZENE	363	269	312	304	359	321	40	17.2		0.9943
1,2 DICHLOROBENZENE	548	405	487	498	473	482	52	10.7		0.9989
1,2,4 TRICHLOROBENZENE	294	190	218	230	236	233	38	16.4		0.9993
HEXACHLOROBUTADIENE	295	238	269	239	233	255	27	10.5		0.9987
NAPHTHALENE	275	188	204	222	245	227	34	15.2		0.9971

Std	Filename
5	S031606
25	S031607
50	S031608
100	S031609
150	S031610

000025

Initial and Continuing Calibration Summary
SW846 8021GC VOA Analysis
Detector: PID

Continuing Control Verification	50 ppb Std	Filename: C:\TC4\DATA2\S032901.RAW						
Analysis Date	3/29/00			Conc		Lower	Upper	
Analyte	Cal Fac	% Diff	Flag	ug/L	% Rec	Limit	Limit	Flag
1,1 DICHLOROETHENE	184	0%		46	93	85	115	
MTBE	165	13%		43	87	85	115	
BENZENE	537	5%		52	105	85	115	
TOLUENE	564	6%		47	94	85	115	
ETHYLBENZENE	500	3%		51	103	85	115	
M&P XYLENES	1148	3%		97	97	85	115	
O-XYLENE	452	8%		54	108	85	115	
STYRENE	744	13%		43	87	85	115	
ISOPROPYLBENZENE	456	2%		51	102	85	115	
n-PROPYLBENZENE	498	7%		54	107	85	115	
2-CHLORTOL+PETHYLTOLUE	1188	6%		106	106	85	115	
4CHLORTOL+135TRIMETHBE	585	1%		99	99	85	115	
TERT-BUTYLBENZENE	413	4%		54	107	85	115	
124TRIMETBENZENE	415	0%		57	113	85	115	
SEC-BUTYLBENZENE	367	5%		54	109	85	115	
ISOPROPYLTOLUENE	398	8%		56	111	85	115	
1,3 DICHLOROBENZENE	552	0%		52	104	85	115	
1,4 DICHLOROBENZENE	551	5%		49	98	85	115	
n-BUTYLBENZENE	349	9%		56	112	85	115	
1,2 DICHLOROBENZENE	465	4%		50	100	85	115	
1,2,4 TRICHLOROBENZENE	250	7%		56	112	85	115	
HEXACHLOROBUTADIENE	264	4%		54	108	85	115	
NAPHTHALENE	232	2%		53	106	85	115	

000026

Initial and Continuing Calibration Summary
SW846 8021

Continuing Control Verification		50 ppb Std	Filename: C:\TC4\DATA2\IS032925.RAW					
Analysis Date		3/30/00						
Analyte	Cal Fac	% Diff	Flag	Conc ug/L	% Rec	Lower Limit	Upper Limit	Flag
1,1-DICHLOROETHENE	224	22% *		55	110	85	115	
MTBE	217	14%		57	114	85	115	
BENZENE	547	7%		53	107	85	115	
TOLUENE	571	5%		47	95	85	115	
ETHYLBENZENE	497	3%		51	102	85	115	
M&P XYLENES	1157	2%		98	98	85	115	
O-XYLENE	381	9%		46	92	85	115	
STYRENE	807	6%		47	94	85	115	
ISOPROPYLBENZENE	446	0%		50	100	85	115	
n-PROPYLBENZENE	467	1%		50	101	85	115	
2-CHLORTOL+PETHYLTOLUE	1126	0%		100	100	85	115	
4CHLORTOL+135TRIMETHBE	559	6%		94	94	85	115	
TERT-BUTYLBENZENE	430	8%		56	111	85	115	
124TRIMETBENZENE	372	11%		51	101	85	115	
SEC-BUTYLBENZENE	339	3%		50	100	85	115	
ISOPROPYLTOLUENE	363	2%		51	102	85	115	
1,3-DICHLOROBENZENE	536	3%		50	101	85	115	
1,4-DICHLOROBENZENE	543	6%		48	97	85	115	
n-BUTYLBENZENE	339	5%		55	109	85	115	
1,2-DICHLOROBENZENE	473	2%		51	101	85	115	
1,2,4-TRICHLOROBENZENE	251	7%		56	112	85	115	
HEXACHLOROBUTADIENE	218	15%		44	89	85	115	
NAPHTHALENE	254	12%		57	115	85	115	

000028

Initial and Continuing Calibration Summary
SW846 8021GC VOA Analysis
Detector: PID

Continuing Control Verification	50 ppb Std	Filename: C:\TC4\DATA2\S032911.RAW						
Analysis Date	3/29/00			Conc		Lower	Upper	
Analyte	Cal Fac	% Diff	Flag	ug/L	% Rec	Limit	Limit	Flag
1,1 DICHLOROETHENE	187	2%		47	94	85	115	
MTBE	166	13%		44	87	85	115	
BENZENE	582	14%		57	114	85	115	
TOLUENE	637	6%		53	106	85	115	
ETHYLBENZENE	544	6%		56	112	85	115	
M&P XYLENES	1251	6%		106	106	85	115	
O-XYLENE	450	8%		54	107	85	115	
STYRENE	871	1%		51	101	85	115	
ISOPROPYLBENZENE	486	9%		55	109	85	115	
n-PROPYLBENZENE	518	12%		56	112	85	115	
2-CHLORTOL+PETHYLTOLUE	1249	11%		111	111	85	115	
4CHLORTOL+135TRIMETHBE	624	5%		105	105	85	115	
TERT-BUTYLBENZENE	435	9%		56	113	85	115	
124TRIMETBENZENE	419	0%		57	114	85	115	
SEC-BUTYLBENZENE	372	6%		55	110	85	115	
ISOPROPYLTOLUENE	406	10%		57	114	85	115	
1,3 DICHLOROBENZENE	602	9%		57	113	85	115	
1,4 DICHLOROBENZENE	602	4%		54	107	85	115	
n-BUTYLBENZENE	345	8%		56	111	85	115	
1,2 DICHLOROBENZENE	499	4%		54	107	85	115	
1,2,4 TRICHLOROBENZENE	242	4%		54	109	85	115	
HEXACHLOROBUTADIENE	268	5%		55	109	85	115	
NAPHTHALENE	244	7%		55	110	85	115	

000027

Initial and Continuing Calibration Summary
SW846 8021

GC VOA Analysis
Detector: PID

Continuing Control Verification		50 ppb Std	Filename: C:\TC4\DATA2\S033021.RAW					
Analysis Date	3/31/00			Conc		Lower	Upper	
Analyte	Cal Fac	% Diff	Flag	ug/L	% Rec	Limit	Limit	Flag
1,1 DICHLOROETHENE	177	4%		45	90	85	115	
MTBE	164	14%		43	86	85	115	
BENZENE	558	9%		54	109	85	115	
TOLUENE	594	1%		49	99	85	115	
ETHYLBENZENE	523	2%		54	108	85	115	
M&P XYLENES	1204	2%		102	102	85	115	
O-XYLENE	433	4%		52	103	85	115	
STYRENE	781	9%		45	91	85	115	
ISOPROPYLBENZENE	461	4%		52	104	85	115	
n-PROPYLBENZENE	481	4%		52	104	85	115	
2-CHLORTOL+PETHYLTOLUE	1139	1%		101	101	85	115	
4CHLORTOL+135TRIMETHBE	578	2%		98	98	85	115	
TERT-BUTYLBENZENE	401	1%		52	104	85	115	
124TRIMETBENZENE	415	1%		57	113	85	115	
SEC-BUTYLBENZENE	350	0%		52	103	85	115	
ISOPROPYLTOLUENE	373	1%		52	105	85	115	
1,3 DICHLOROBENZENE	546	1%		51	103	85	115	
1,4 DICHLOROBENZENE	548	6%		49	98	85	115	
n-BUTYLBENZENE	341	6%		55	110	85	115	
1,2 DICHLOROBENZENE	470	3%		50	101	85	115	
1,2,4 TRICHLOROBENZENE	247	6%		55	111	85	115	
HEXACHLOROBUTADIENE	246	4%		50	100	85	115	
NAPHTHALENE	235	4%		54	107	85	115	

000029

Continuing Control Verification		50 ppb Std	Filename: C:\TC4\DATA2\S033112.RAW					
Analysis Date	3/31/00			Conc		Lower	Upper	
Analyte	Cal Fac	% Diff	Flag	ug/L	% Rec	Limit	Limit	Flag
1,1 DICHLOROETHENE	229	25%	*	56	113	85	115	
MTBE	201	6%		53	106	85	115	
BENZENE	530	3%		52	103	85	115	
TOLUENE	580	4%		48	96	85	115	
ETHYLBENZENE	506	2%		52	104	85	115	
M&P XYLENES	1135	4%		96	96	85	115	
O-XYLENE	434	4%		52	103	85	115	
STYRENE	748	13%		44	87	85	115	
ISOPROPYLBENZENE	458	3%		51	103	85	115	
n-PROPYLBENZENE	525	13%		57	113	85	115	
2-CHLORTOL+PETHYLTOLUE	1204	7%		107	107	85	115	
4CHLORTOL+135TRIMETHBE	580	2%		98	98	85	115	
TERT-BUTYLBENZENE	416	4%		54	108	85	115	
124TRIMETBENZENE	415	0%		57	113	85	115	
SEC-BUTYLBENZENE	377	7%		56	111	85	115	
ISOPROPYLTOLUENE	408	10%		57	114	85	115	
1,3 DICHLOROBENZENE	548	0%		52	103	85	115	
1,4 DICHLOROBENZENE	537	7%		48	96	85	115	
n-BUTYLBENZENE	354	10%		57	114	85	115	
1,2 DICHLOROBENZENE	480	1%		51	103	85	115	
1,2,4 TRICHLOROBENZENE	245	5%		55	110	85	115	
HEXACHLOROBUTADIENE	267	5%		54	109	85	115	
NAPHTHALENE	244	7%		55	111	85	115	

000030

CHEMTECH

D

SURROGATE
COMPOUND
RECOVERY
RESULTS
SUMMARY

000031

GC VOLATILES
 SURROGATE SUMMARY FORM

PROJECT PETROCELLI ELEC
 Matrix WATER
 Analyst SR

LAB SAMPLE ID	LAB FILENAME	DATE ANALYZED	TIME ANALYZED	BCB % REC	
✓ BLANK	AS033001.RAW	3/30/00	8:53	80%	
17458 MS	AS033015.RAW	3/30/00	21:45	106%	
17458 MSD	AS033016.RAW	3/30/00	22:41	105%	
✓ BLANK	AS032902.RAW	3/29/00	9:40	88%	
✓ BLANK	AS033022.RAW	3/31/00	4:12	97%	
17452 5ML UG/L	AS032909.RAW	3/29/00	16:06	102%	
17452 1:10 UG/L	AS033004.RAW	3/30/00	11:38	104%	
17453 5ML UG/L	AS032910.RAW	3/29/00	17:01	81%	
17453 1:5 UG/L	AS033115.RAW	3/31/00	20:55	62%	
17454 TB	AS032912.RAW	3/29/00	18:52	60%	
17455 5ML UG/L	AS032913.RAW	3/29/00	19:47	104%	
17456 5ML UG/L	AS032914.RAW	3/29/00	20:42	96%	
17457 5ML UG/L	AS032915.RAW	3/29/00	21:38	101%	
17457 1:2 UG/L	AS033006.RAW	3/30/00	13:29	80%	
17458 5ML UG/L	AS032916.RAW	3/29/00	22:33	101%	

BCB = Bromochlorobenzene
 LIMITS: 40-160
 * Values outside of QC limits

000032

CHEMTECH

E

MS/MSD
RESULTS
SUMMARY

000033

SW846 8021

QC MS/MSD 50PPB Spike

Sample spiked: 17458

Filename MS:S033015

Filename MSD:S033016

Sample ID:S032916

Batch:QB012A

Matrix:WATER

Date: 4/1/00

CAS #	Analyte	Spike	Sample	MS Conc		Flag	MSD Conc		Flag	RPD	Flag	RPD	
		Added	Conc (ppb)	ppb	% Rec		ppb	% Rec				Limits	Limits
75-35-4	1,1 DICHLOROETHENE	50	0	51	101		48	95		6		50	150
	MTBE	50	0	55	109		53	106		3		50	150
71-43-2	BENZENE	50	0	59	118		59	118		0		50	150
108-88-3	TOLUENE	50	0	54	108		53	107		1		50	150
100-41-4	ETHYLBENZENE	50	0	59	118		58	117		1		50	150
	M&P XYLENES	100	0	110	110		109	109		1		50	150
95-47-6	O-XYLENE	50	0	57	114		56	112		2		50	150
100-42-5	STYRENE	50	0	50	100		49	98		2		50	150
98-82-8	ISOPROPYLBENZENE	50	0	57	114		57	113		1		50	150
103-65-1	n-PROPYLBENZENE	50	0	59	119		59	117		1		50	150
	2-CHLORTOL+PETHYLTOLUE	100	0	115	115		112	112		3		50	150
	4CHLORTOL+135TRIMETHBE	100	0	110	110		107	107		3		50	150
98-06-6	TERT-BUTYLBENZENE	50	0	53	106		51	103		4		50	150
95-63-6	1,2,4-TRIMETHYLBENZENE	50	0	69	138		66	132		5		50	150
135-98-8	SEC-BUTYLBENZENE	50	0	60	121		57	114		6		50	150
541-73-1	1,3 DICHLOROBENZENE	50	0	58	117		56	113		3		50	150
99-87-6	ISOPROPYLTOLUENE	50	0	62	123		58	117		5		50	150
106-46-7	1,4 DICHLOROBENZENE	50	0	55	110		53	107		3		50	150
104-51-8	n-BUTYLBENZENE	50	0	67	133		62	125		6		50	150
95-50-1	1,2 DICHLOROBENZENE	50	9	60	101		57	96		5		50	150
	1,2,4 TRICHLOROBENZENE	50	0	67	135		64	128		5		50	150
87-68-3	HEXACHLOROBUTADIENE	50	0	60	120		56	113		7		50	150
91-20-3	NAPHTHALENE	50	0	64	128		63	126		2		50	150

* Denotes analyte outside control limits

000034

CHEMTECH

G

CHROMATOGRAMS

000035

Chromatogram

Sample Name : BLANK

FileName : C:\TC4\DATA2\S032902.RAW

Method :

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 4/6/00 09:17

Time of Injection: 3/29/00 09:40

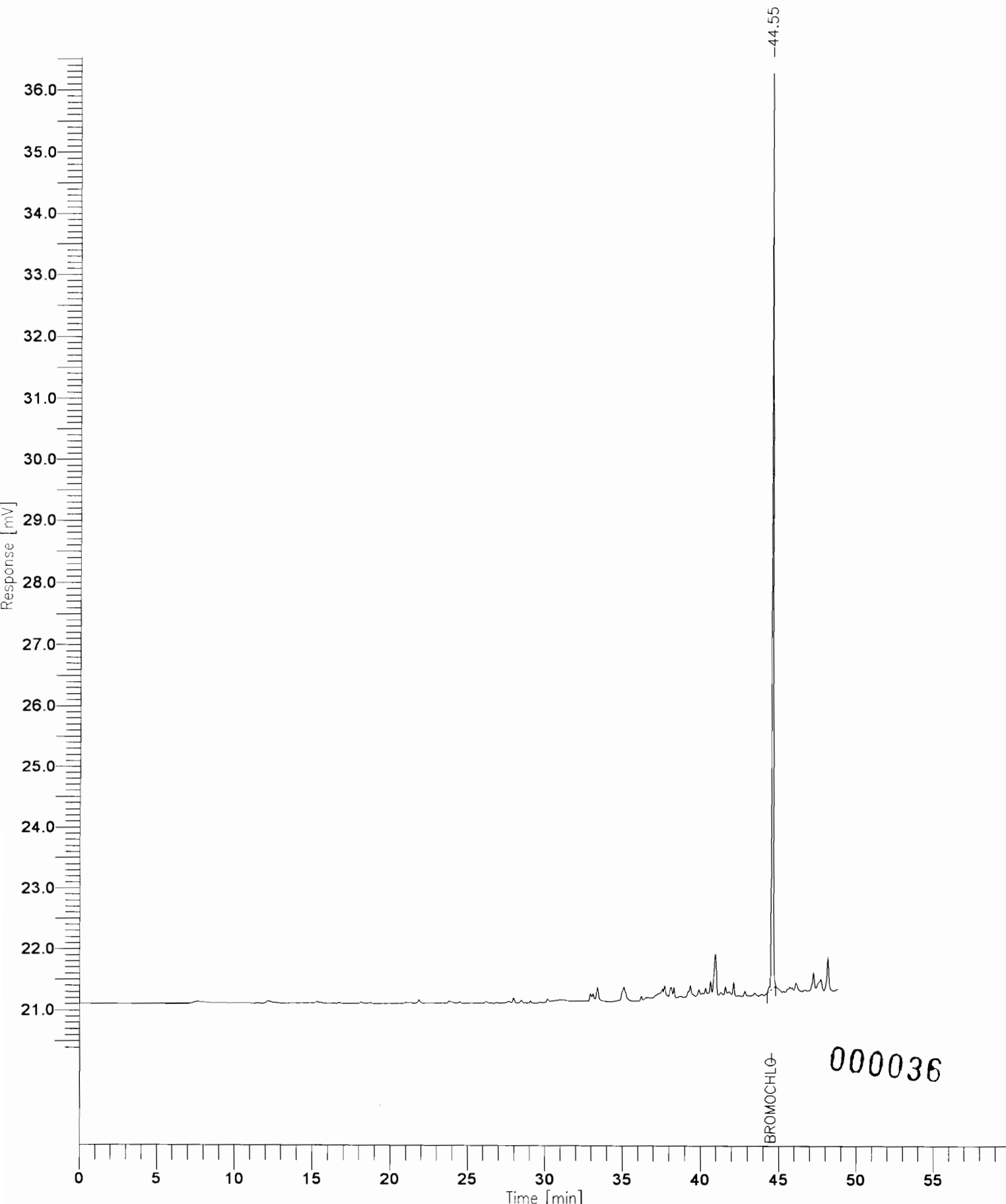
Low Point : 20.34 mV

Plot Scale: 16.2 mV

Page 1 of 1

09:40

High Point : 36.53 mV



000036

Software Version: 4.1<2F12>

Date: 4/6/00 09:17

Sample Name : BLANK

Data File : C:\TC4\DATA2\S032902.RAW Date: 3/29/00 09:40

Sequence File: V:\TC4\DATA2\B032900.SEQ Cycle: 2 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -4295/57 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

82 4/6

ANALAB INC. COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	BROMOCHLOROBENZENE	44.55	81481.34	15162.16	26.272	26.272
			81481.34	15162.16	26.272	26.272

Report stored in ASCII file: C:\TC4\DATA2\S032902.TX0

000037

Chromatogram

Sample Name : BLANK

File Name : C:\TC4\DATA2\S033001.RAW

Method :

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 4/6/00 09:17

Time of Injection: 3/30/00 08:53

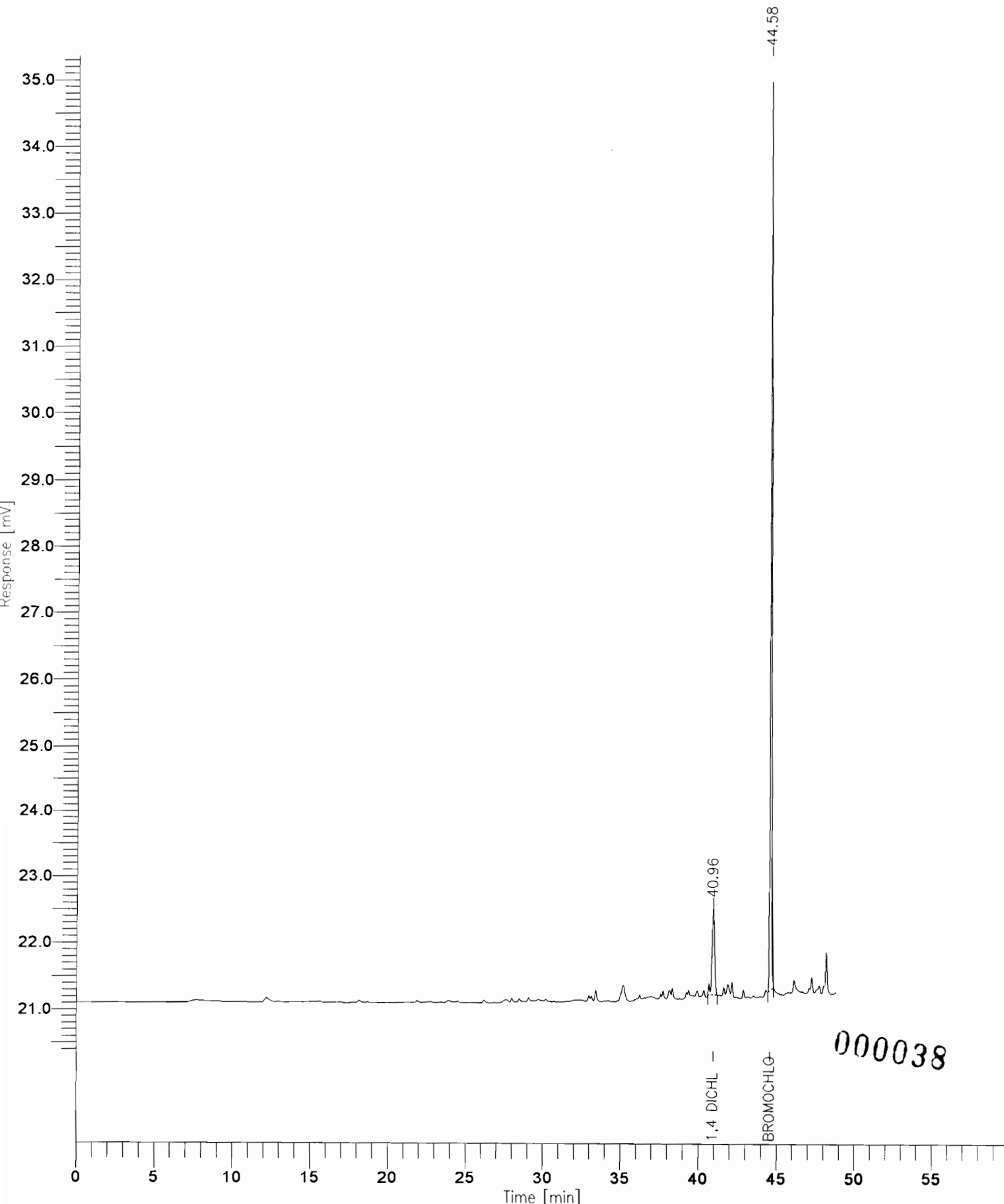
Low Point : 20.39 mV

Plot Scale: 15.0 mV

Page 1 of 1

08:53

High Point : 35.36 mV



Software Version: 4.1<2F12>
Date: 4/6/00 09:17
Sample Name : BLANK
Data File : C:\TC4\DATA2\S033001.RAW Date: 3/30/00 08:53
Sequence File: V:\TC4\DATA2\B033000.SEQ Cycle: 1 Channel : B
Instrument : HP5890S - 0:B Rack/Vial: -4294/58 Operator:
Sample Amount : 1.0000 Dilution Factor : 1.00

5-416

ANALAB INC. COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	1,4 DICHLOROBENZENE	40.96	15117.84	1302.51	5.397	5.397
2	BROMOCHLOROBENZENE	44.58	74179.59	14065.59	23.918	23.918
			89297.43	15368.10	29.315	29.315

Report stored in ASCII file: C:\TC4\DATA2\S033001.TX0

000039

Chromatogram

Sample Name : BLANK

FileName : C:\TC4\DATA2\S033022.RAW

Method :

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 4/6/00 09:17

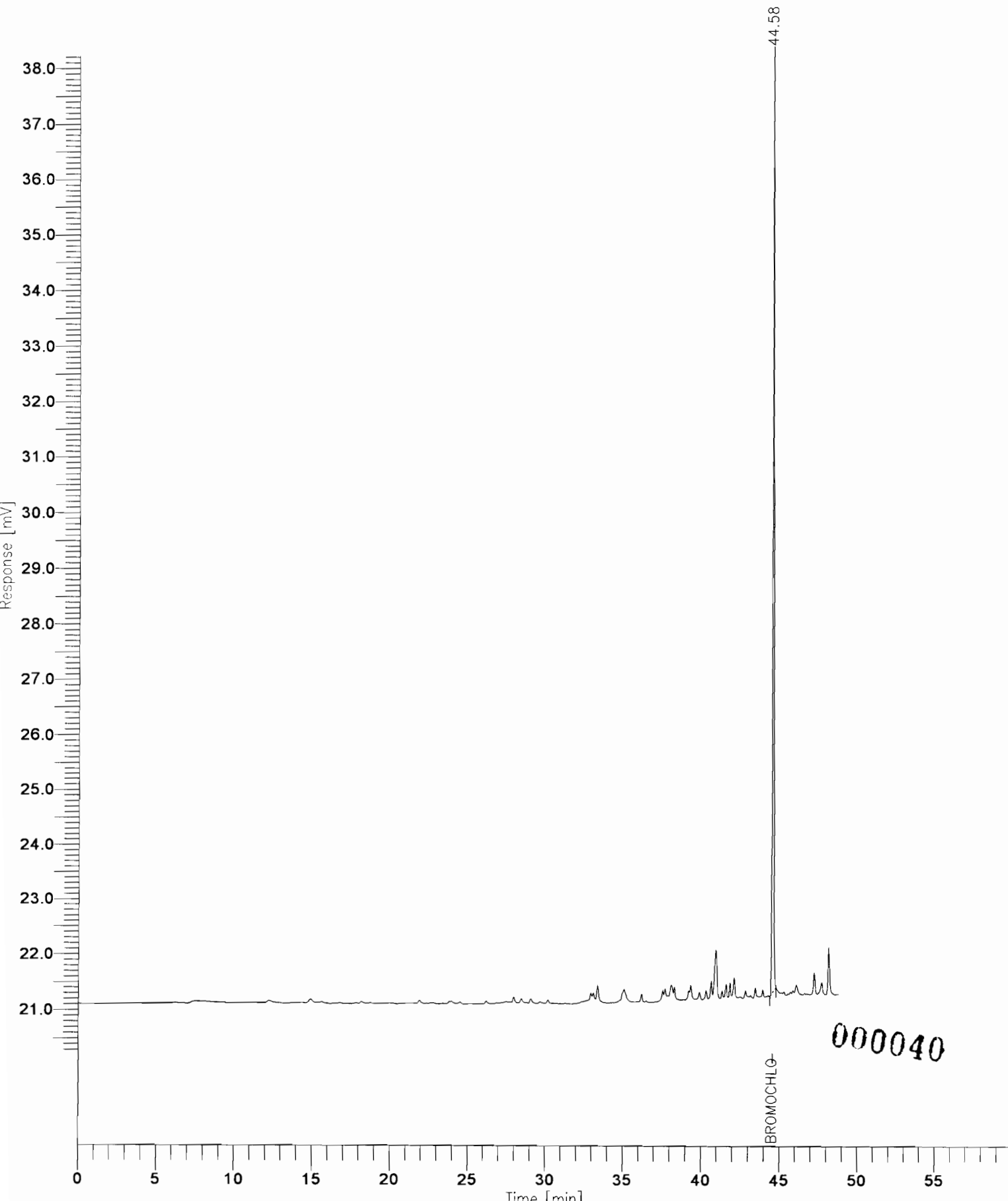
Time of Injection: 3/31/00 04:12

Low Point : 20.25 mV

Plot Scale: 18.0 mV

Page 1 of 1

High Point : 38.22 mV



Software Version: 4.1<2F12>

Date: 4/6/00 09:17

Sample Name : BLANK

Data File : C:\TC4\DATA2\S033022.RAW Date: 3/31/00 04:12

Sequence File: V:\TC4\DATA2\B033000.SEQ Cycle: 22 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -4294/58 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

Sm 4/6

ANALAB INC. COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	BROMOCHLOROBENZENE	44.58	90026.92	16896.86	29.027	29.027
			90026.92	16896.86	29.027	29.027

Report stored in ASCII file: C:\TC4\DATA2\S033022.TX0

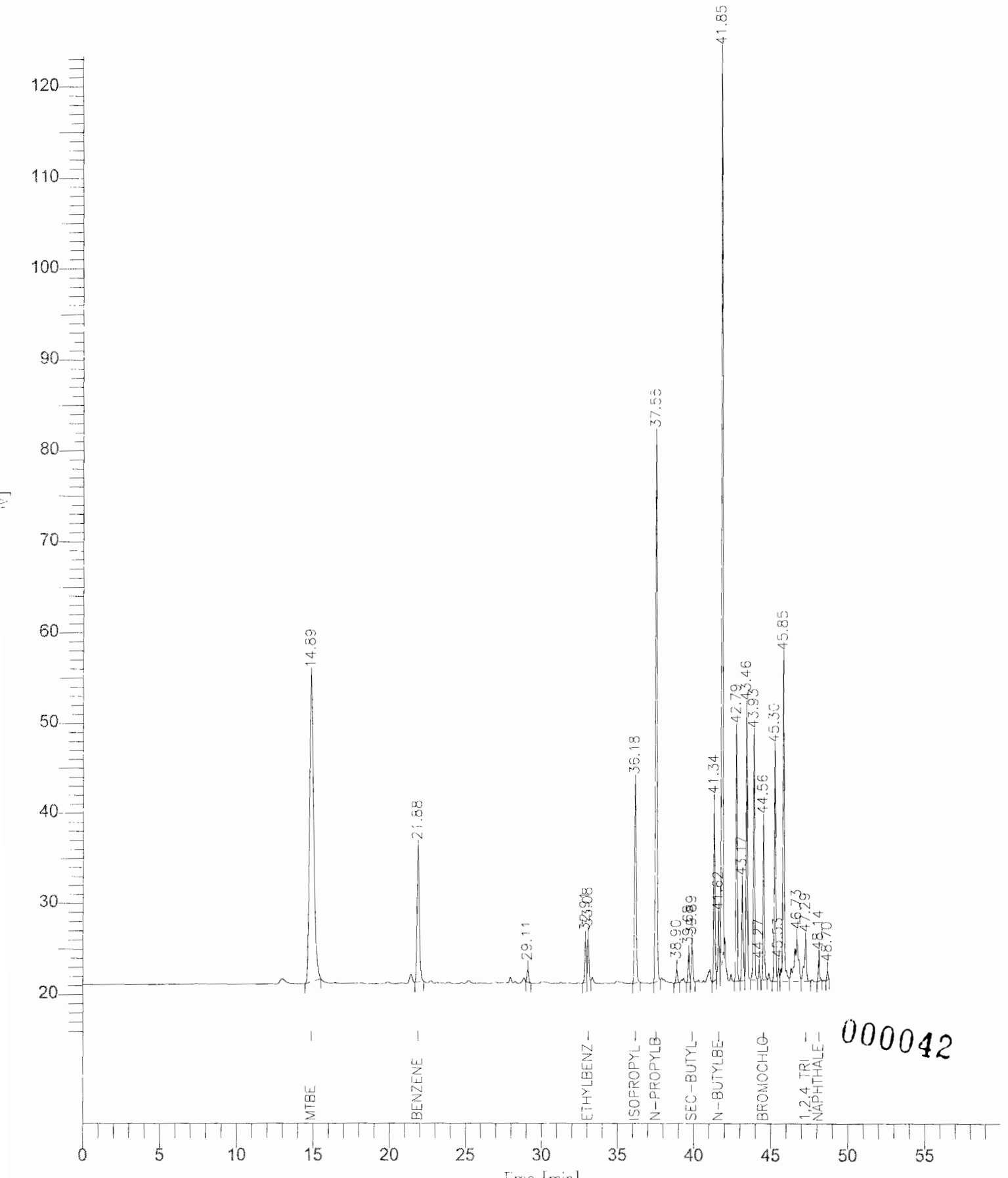
000041

Chromatogram

Sample Name : 17452 5ML UG/L
FileName : .\S032909.raw
Method : B030900
Start Time : 0.00 min
Scale Factor: 1.0

End Time : 60.00 min
Plot Offset: 16 mV

Sample #:
Date : 3/30/00 03:24 PM
Time of Injection: 3/29/00 04:06 PM
Low Point : 16.00 mV
Plot Scale: 107.3 mV
Page 1 of 1
High Point : 123.33 mV



000042

Software Version: 4.1<2F12>

Date: 3/30/00 03:24 PM

Sample Name : 17452 5ML UG/L

Data File : C:\TC4\DATA2\S032909.RAW Date: 3/29/00 04:06 PM

Sequence File: V:\TC4\DATA2\B032900.SEQ Cycle: 9 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: -4295/57 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

82415

ANALAB INC. COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	14.89	640304.27	33600.69	672.632	672.632
2	BENZENE	21.88	150410.68	14601.88	58.653	58.653
3		29.11	10812.21	1302.91	0.011	0.011
4		32.91	32549.97	4534.04	0.033	0.033
5	ETHYLBENZENE	33.08	36280.26	4973.67	13.650	13.650
6	ISOPROPYLBENZENE	36.18	166630.34	21943.56	74.830	74.830
7	n-PROPYLBENZENE	37.55	413428.75	59962.60	178.364	178.364
8		38.90	9958.13	1494.48	0.010	0.010
9		39.68	19526.55	3010.91	0.020	0.020
10	SEC-BUTYLBENZENE	39.89	27934.00	4100.48	16.500	16.500
11		41.34	115526.89	19554.63	0.116	0.116
12	n-BUTYLBENZENE	41.62	36620.84	6258.46	23.583	23.583
13		41.85	574762.78	99764.43	0.575	0.575
14		42.79	157450.54	27511.40	0.157	0.157
15		43.17	68304.73	10505.10	0.068	0.068
16		43.46	176926.81	29956.93	0.177	0.177
17		43.93	157010.40	26761.62	0.157	0.157
18		44.27	7246.84	1266.00	0.007	0.007
19	BROMOCHLOROBENZENE	44.56	94503.06	17265.75	30.470	30.470
20		45.30	147254.26	25332.75	0.147	0.147
21		45.53	9433.85	1534.14	0.009	0.009
22		45.85	235557.53	35536.62	0.236	0.236
23		46.73	90393.71	4618.02	0.090	0.090
24	1,2,4 TRICHLOROBENZENE	47.29	46821.55	4279.21	42.957	42.957
25	NAPHTHALENE	48.14	14947.68	2342.01	18.136	18.136
26		48.70	5440.03	939.34	0.005	0.005
			3446036.69	462951.63	1131.594	1131.594

Report stored in ASCII file: .\S032909.TX0

000043

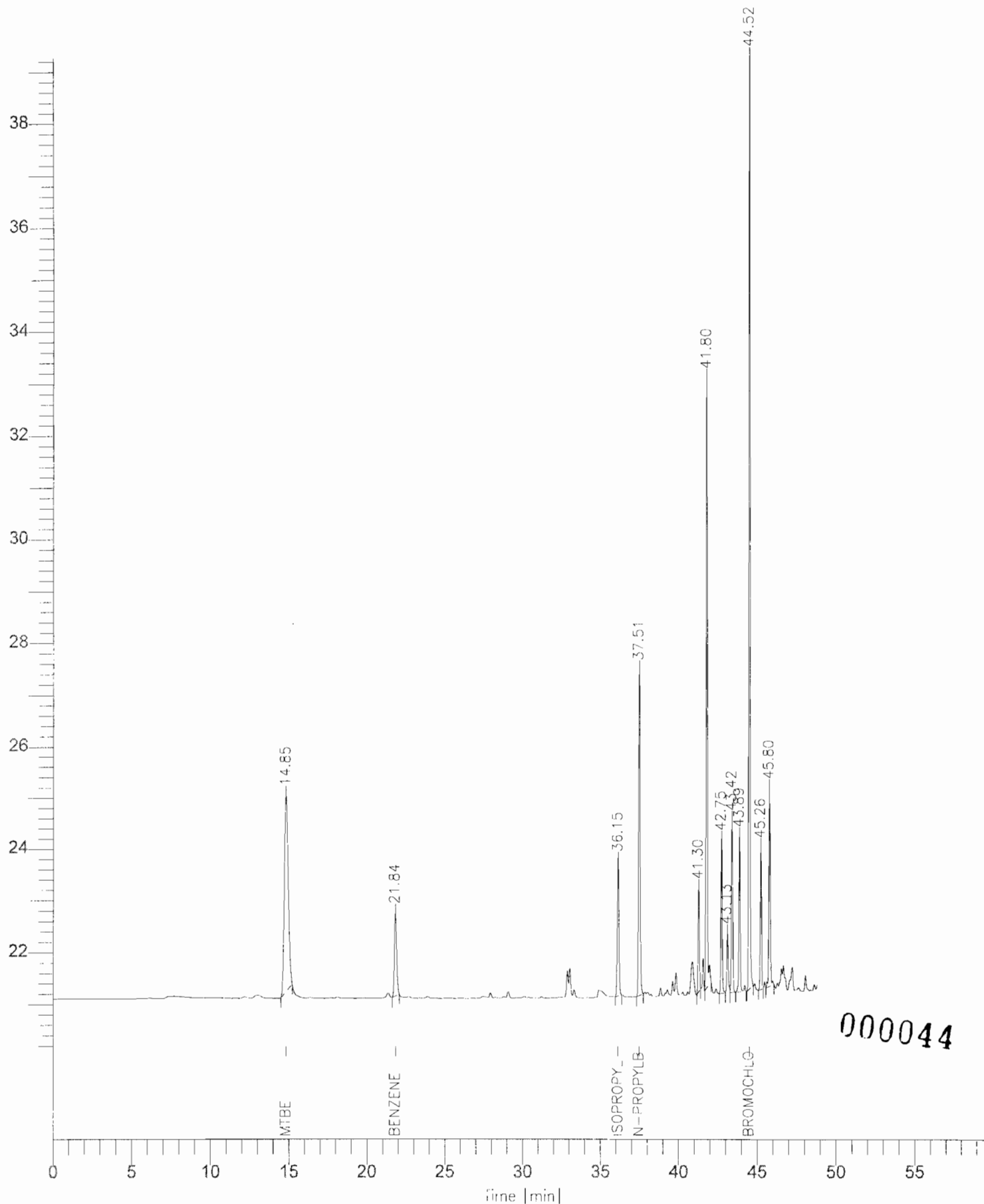
Chromatogram

Sample Name : 17452 1:10 UG/L
FileName : .\S033004.raw
Method : B030900
Start Time : 0.00 min
Scale Factor: 1.0

End Time : 60.00 min
Plot Offset: 20 mV

Sample #:
Date : 3/31/00 09:10 AM
Time of Injection: 3/30/00 11:38 AM
Low Point : 20.20 mV
Plot Scale: 19.1 mV
High Point : 39.27 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 3/31/00 09:10 AM

Sample Name : 17452 1:10 UG/L

Data File : C:\TC4\DATA2\S033004.RAW Date: 3/30/00 11:38 AM

Sequence File: V:\TC4\DATA2\B033000.SEQ Cycle: 4 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: -4294/58 Operator:

Sample Amount : 1.0000 Dilution Factor : 10.00

Sm 415

ANALAB INC. COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	14.85	65625.60	3790.09	68.939	689.389
2	BENZENE	21.84	15882.46	1572.12	6.193	61.934
3	ISOPROPYLBENZENE	36.15	19232.81	2584.90	8.637	86.370
4	n-PROPYLBENZENE	37.51	42834.25	6310.03	18.480	184.798
5		41.30	11292.50	1974.22	0.011	0.113
6		41.80	69165.17	11761.16	0.069	0.692
7		42.75	17179.60	2962.78	0.017	0.172
8		43.13	7361.62	1123.31	0.007	0.074
9		43.41	19493.04	3322.16	0.019	0.195
10		43.89	18108.90	2985.82	0.018	0.181
11	BROMOCHLOROBENZENE	44.52	96495.69	18024.95	31.113	311.130
12		45.26	15371.50	2729.43	0.015	0.154
13		45.80	23400.45	3825.90	0.023	0.234
			421443.60	62966.87	133.543	1335.435

Report stored in ASCII file: .\S033004.TX0

000045

Chromatogram

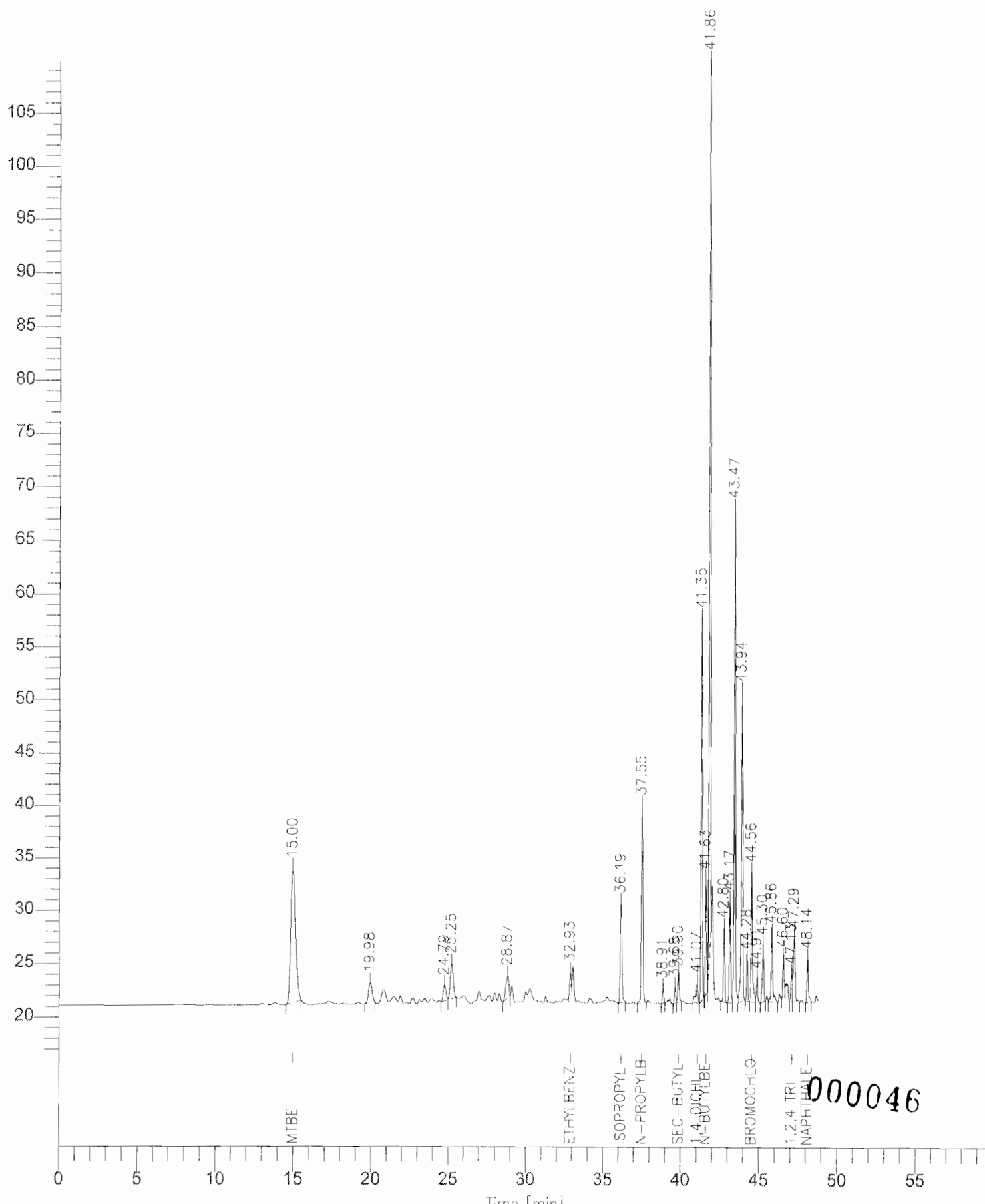
Sample Name : 17453 5ML UG/L
FileName : .\S032910.raw
Method : B030900
Start Time : 0.00 min
Scale Factor: 1.0

End Time : 60.00 min
Plot Offset: 17 mV

Sample #:
Date : 3/30/00 03:24 PM
Time of Injection: 3/29/00 05:01 PM
Low Point : 16.67 mV
Plot Scale: 93.3 mV

Page 1 of 1

High Point : 109.92 mV



000046

Software Version: 4.1<2F12>

Date: 3/30/00 03:24 PM

Sample Name : 17453 5ML UG/L

Data File : C:\TC4\DATA2\S032910.RAW Date: 3/29/00 05:01 PM

Sequence File: V:\TC4\DATA2\B032900.SEQ Cycle: 10 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: -4295/57 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

82 415

ANALAB INC. COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	15.00	251780.92	12659.65	264.493	264.493
2		19.98	29748.06	1836.19	0.030	0.030
3		24.79	17906.80	1410.05	0.018	0.018
4		25.25	42918.54	3203.39	0.043	0.043
5		28.87	27437.36	2015.46	0.027	0.027
6	ETHYLBENZENE	32.93	8661.22	1428.34	1.918	1.918
7	ISOPROPYLBENZENE	36.19	69858.02	9259.92	31.372	31.372
8	n-PROPYLBENZENE	37.55	128092.09	18591.68	55.262	55.262
9		38.91	7931.48	1270.60	0.008	0.008
10		39.68	9155.21	1448.20	0.009	0.009
11	SEC-BUTYLBENZENE	39.90	16274.73	2391.23	9.613	9.613
12	1,4 DICHLOROBENZENE	41.07	17072.22	1866.06	6.095	6.095
13		41.35	214651.65	36222.38	0.215	0.215
14	n-BUTYLBENZENE	41.63	56224.92	10774.55	36.208	36.208
15		41.85	478280.83	84377.99	0.478	0.478
16		42.80	39502.01	6885.61	0.040	0.040
17		43.17	59673.54	9590.66	0.060	0.060
18		43.47	280634.27	46476.43	0.281	0.281
19		43.94	179850.04	29186.26	0.180	0.180
20		44.27	20988.39	3826.35	0.021	0.021
21	BROMOCHLOROBENZENE	44.56	75131.73	12171.29	24.225	24.225
22		44.91	12339.82	2143.15	0.012	0.012
23		45.30	34769.02	5256.91	0.035	0.035
24		45.86	48017.87	6364.02	0.048	0.048
25		46.60	17050.95	3175.18	0.017	0.017
26	1,2,4 TRICHLOROBENZENE	47.13	16088.50	2484.19	17.367	17.367
27		47.29	49285.48	5907.97	0.047	0.049
28	NAPHTHALENE	48.14	27534.74	4002.93	28.301	28.301
					476.424	476.424

Report stored in ASCII file: .\S032910.TX0

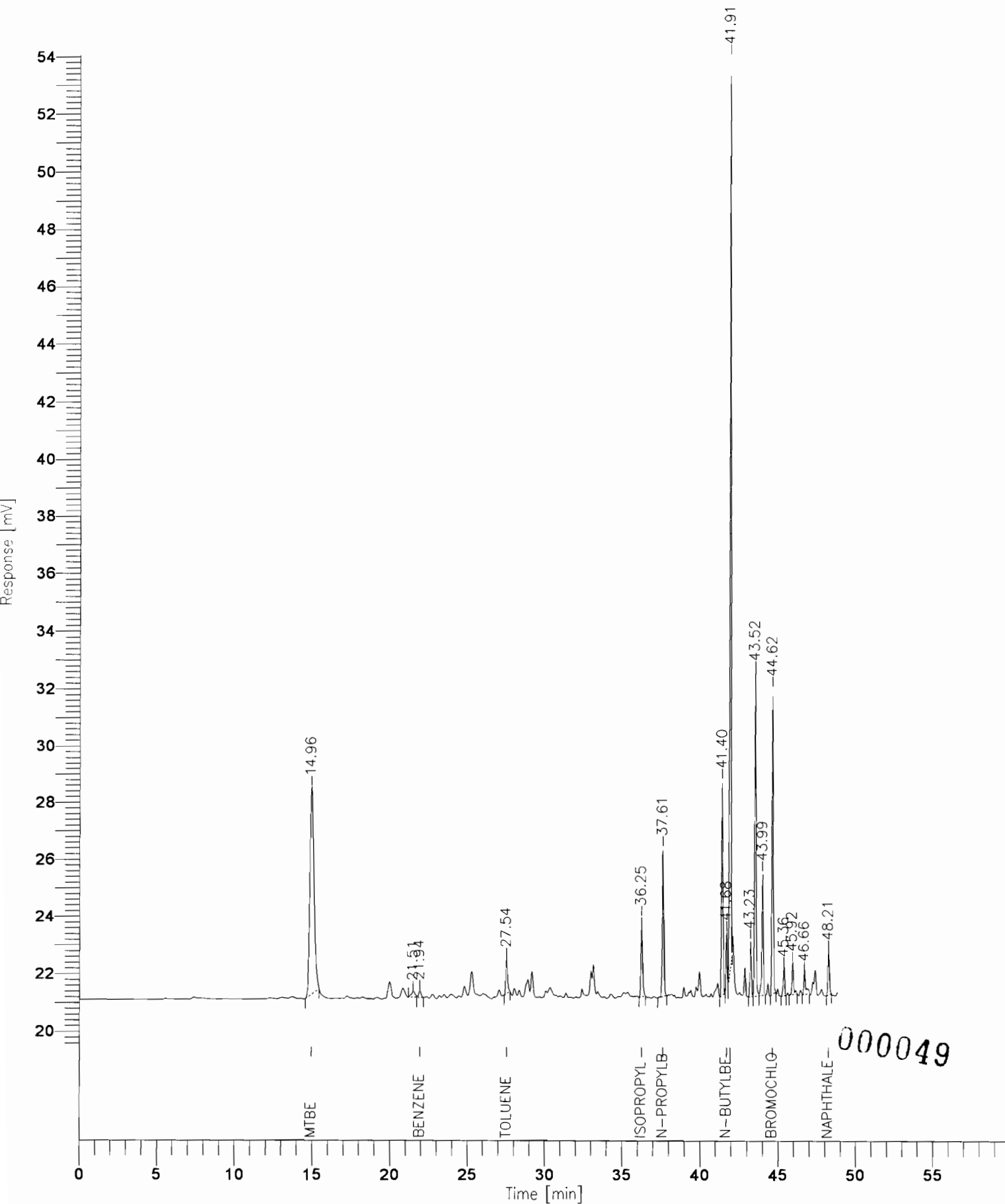
000048

Chromatogram

Sample Name : 17453 1:5 UG/L
FileName : C:\TC4\DATA2\S033115.raw
Method : B030900
Start Time : 0.00 min
Scale Factor: 1.0

End Time : 60.00 min
Plot Offset: 19 mV

Sample #:
Date : 4/3/00 08:39
Time of Injection: 3/31/00 20:55
Low Point : 19.46 mV
Plot Scale: 34.6 mV
High Point : 54.06 mV



Software Version: 4.1<2F12>

Date: 4/3/00 08:39

Sample Name : 17453 1:5 UG/L

Data File : C:\TC4\DATA2\S033115.RAW Date: 3/31/00 20:55

Sequence File: C:\TC4\DATA2\B033100.SEQ Cycle: 15 Channel : B

Instrument : HP5890S -_0:B Rack/Vial: -4293/59 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

8m 415/w

CHEMTECH INC. COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	14.96	133490.48	7288.01	140.230	140.230
2		21.51	3722.50	230.53	0.004	0.004
3	BENZENE	21.94	2794.10	257.99	1.090	1.090
4	TOLUENE	27.54	10017.43	1253.43	3.323	3.323
5	ISOPROPYLBENZENE	36.25	22105.74	2810.73	9.927	9.927
6	n-PROPYLBENZENE	37.61	38167.38	5244.23	16.466	16.466
7		41.40	45233.20	7596.52	0.045	0.045
8	n-BUTYLBENZENE	41.68	10993.06	2102.73	7.079	7.079
9	1,2 DICHLOROBENZENE	41.90	182349.75	32007.03	78.238	78.238
10		43.23	12284.46	2003.25	0.012	0.012
11		43.52	68320.25	11397.53	0.068	0.068
12		43.99	26662.58	4324.63	0.027	0.027
13	BROMOCHLOROBENZENE	44.62	57793.76	10818.18	18.634	18.634
14		45.36	6283.60	994.98	0.006	0.006
15		45.92	8051.71	1155.00	0.008	0.008
16		46.66	7141.32	791.35	0.007	0.007
17	NAPHTHALENE	48.21	10179.97	1547.09	14.286	14.286
			645591.26	91823.19	289.452	289.452

Report stored in ASCII file: C:\TC4\DATA2\S033115.TX0

000050

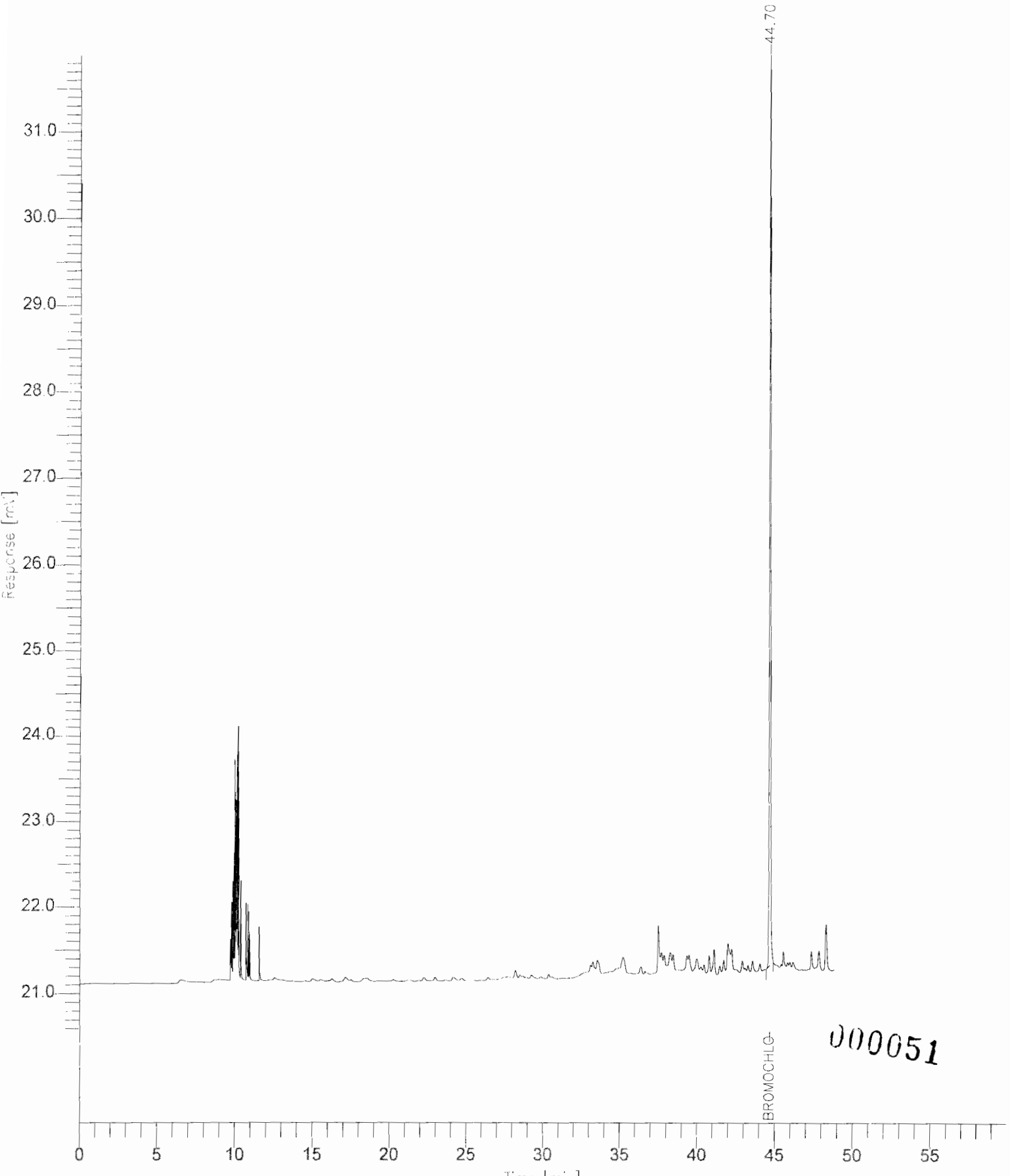
Chromatogram

Sample Name : 17454 TB
File Name : .\S032912.raw
Method : B030900
Start Time : 0.00 min
Scale Factor: 1.0

End Time : 60.00 min
Plot Offset: 21 mV

Sample #:
Date : 3/30/00 03:24 PM
Time of Injection: 3/29/00 06:52 PM
Low Point : 20.57 mV
Plot Scale: 11.3 mV

Page 1 of 1
High Point : 31.89 mV



Software Version: 4.1<2F12>

Date: 3/30/00 03:24 PM

Sample Name : 17454 TB

Data File : C:\TC4\DATA2\S032912.RAW Date: 3/29/00 06:52 PM

Sequence File: V:\TC4\DATA2\B032900.SEQ Cycle: 12 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: -4295/57 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

ANALAB INC. COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	BROMOCHLOROBENZENE	44.70	55803.80	10564.60	17.993	17.993
			55803.80	10564.60	17.993	17.993

Report stored in ASCII file: .\S032912.TX0

000052

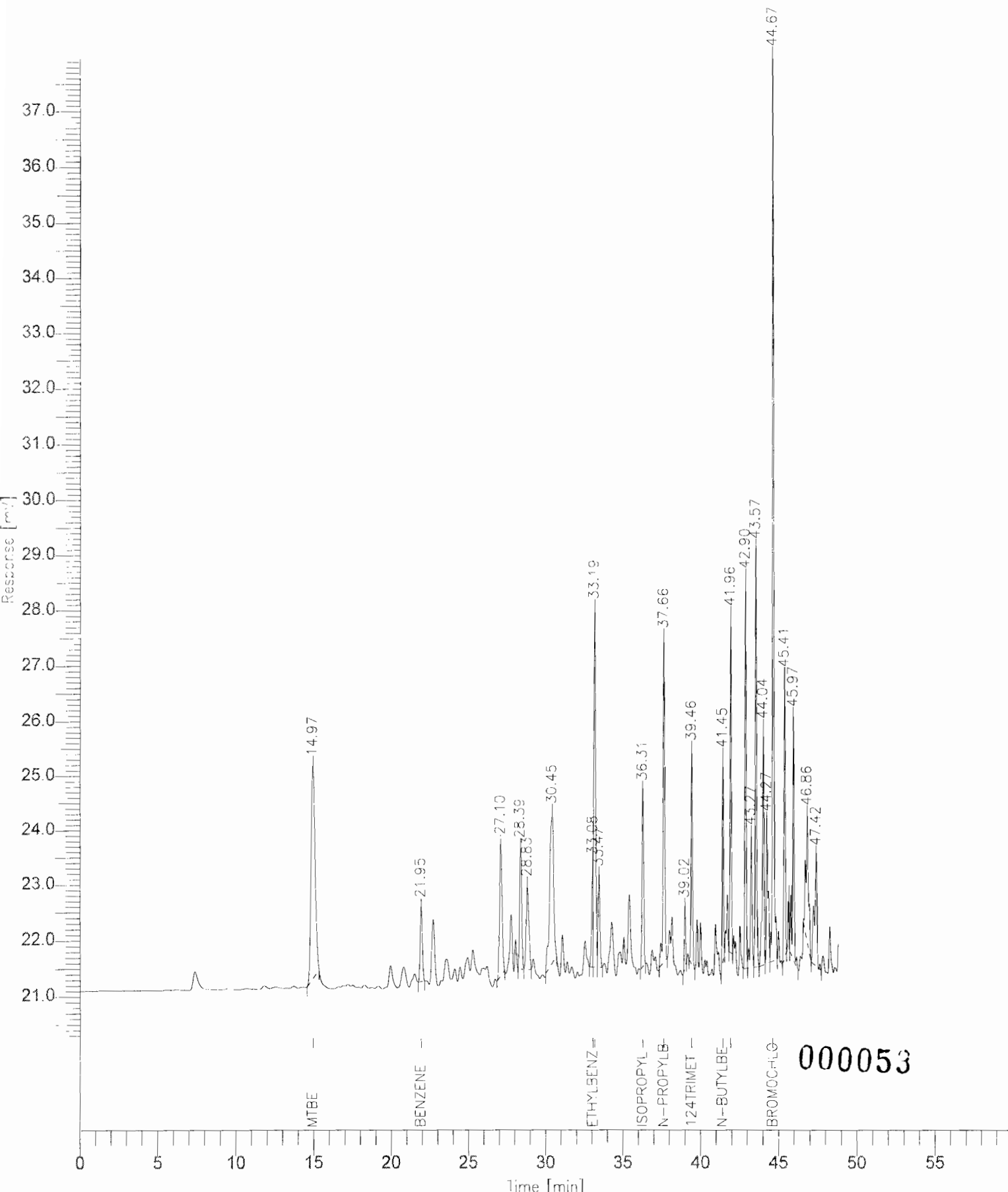
Chromatogram

Sample Name : 17455 5ML UG/L
File Name : .\S032913.raw
Method : B030900
Start Time : 0.00 min
Scale Factor : 1.0

End Time : 60.00 min
Plot Offset : 20 mV

Sample # :
Date : 3/30/00 03:24 PM
Time of Injection : 3/29/00 07:47 PM
Low Point : 20.26 mV
Plot Scale : 17.7 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 3/30/00 03:24 PM

Sample Name : 17455 5ML UG/L

Data File : C:\TC4\DATA2\S032913.RAW Date: 3/29/00 07:47 PM

Sequence File: V:\TC4\DATA2\B032900.SEQ Cycle: 13 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: -4295/57 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

5/4/5

ANALAB INC. COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	14.97	69133.26	3858.57	72.624	72.624
2	BENZENE	21.94	12602.29	1314.44	4.914	4.914
3		27.10	27691.41	2368.63	0.028	0.028
4		28.39	21052.83	2183.28	0.021	0.021
5		28.83	18473.29	1479.36	0.018	0.018
6		30.45	49236.70	2699.35	0.049	0.049
7	ETHYLBENZENE	33.08	10821.35	1833.22	2.835	2.835
8	M&P XYLENES	33.19	54453.49	6472.37	18.446	18.446
9		33.47	13027.82	1627.35	0.013	0.013
10	ISOPROPYLBENZENE	36.31	22825.05	3189.57	10.250	10.250
11	n-PROPYLBENZENE	37.66	42910.13	5869.80	18.513	18.513
12		39.02	6335.63	1056.22	0.006	0.006
13	1,2,4-TRIMETBENZENE	39.46	24375.37	3892.04	12.743	12.743
14	n-BUTYLBENZENE	41.45	20486.26	3719.41	13.193	13.193
15	1,2-DICHLOROBENZENE	41.96	33138.61	6112.22	14.218	14.218
16		42.90	40298.25	7060.00	0.040	0.040
17		43.27	17685.44	2396.35	0.018	0.018
18		43.57	47010.11	7575.39	0.047	0.047
19		44.04	29039.90	4299.96	0.029	0.029
20		44.27	20535.33	2569.79	0.021	0.021
21	BROMOCHLOROBENZENE	44.67	97072.28	16333.58	31.299	31.299
22		45.41	30855.05	5088.33	0.031	0.031
23		45.97	32327.19	4406.96	0.032	0.032
24		46.86	26997.03	2312.72	0.027	0.027
25		47.42	23292.20	1992.10	0.023	0.023
			791676.26	101711.03	199.438	199.438

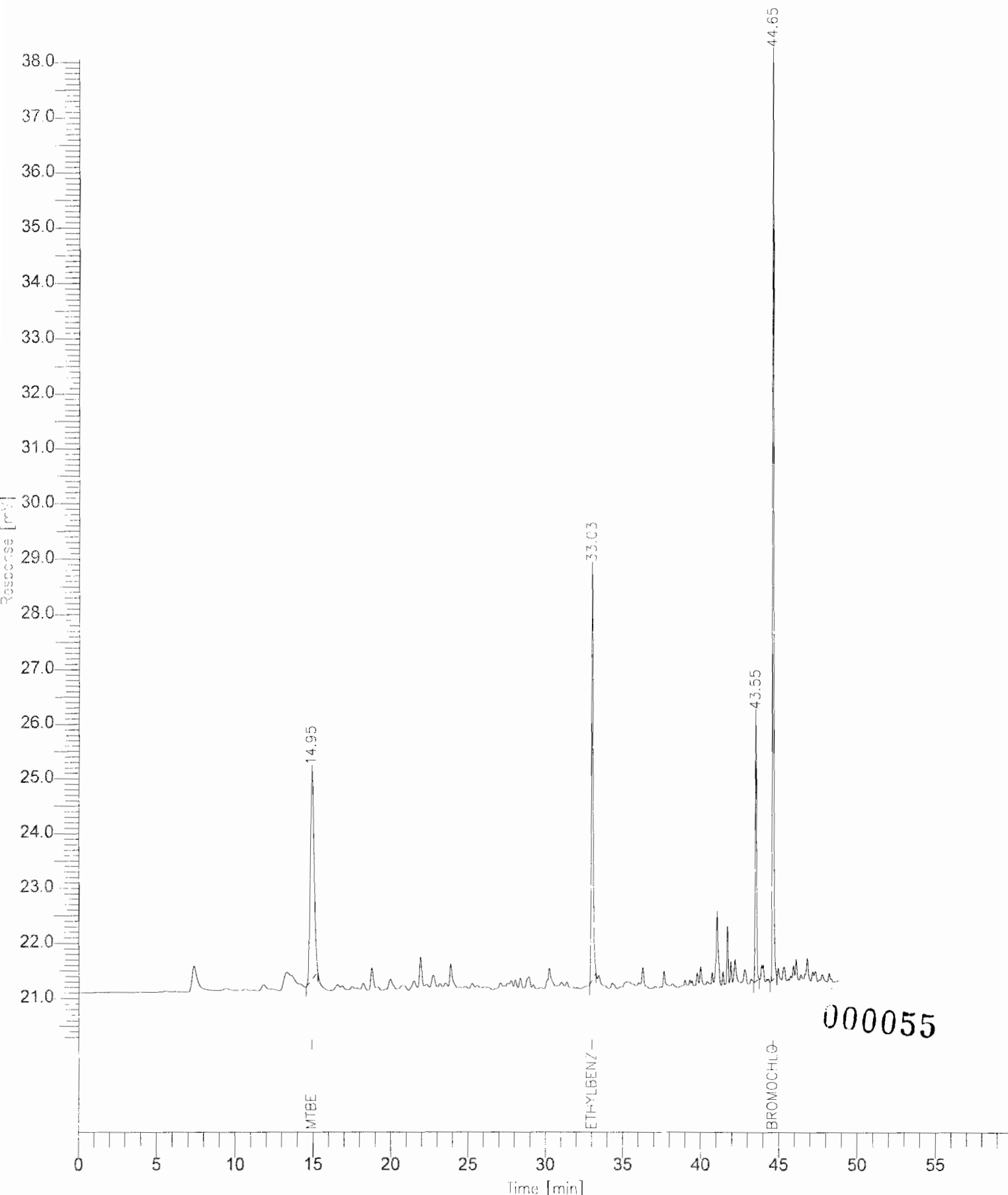
Chromatogram

Sample Name : 17456 5ML UG/L
File Name : .\S032914.raw
Method : B030900
Start Time : 0.00 min
Scale Factor : 1.0

End Time : 60.00 min
Plot Offset : 20 mV

Sample # :
Date : 3/30/00 03:24 PM
Time of Injection: 3/29/00 08:42 PM
Low Point : 20.25 mV
Plot Scale: 17.8 mV
High Point : 38.06 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 3/30/00 03:24 PM

Sample Name : 17456 5ML UG/L

Data File : C:\TC4\DATA2\S032914.RAW Date: 3/29/00 08:42 PM

Sequence File: V:\TC4\DATA2\B032900.SEQ Cycle: 14 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: -4295/57 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

SN 415

ANALAB INC. COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	14.95	64428.29	3721.85	67.681	67.681
2	ETHYLBENZENE	33.03	55091.21	7421.61	21.640	21.640
3		43.55	28104.23	4779.60	0.028	0.028
4	BROMOCHLOROBENZENE	44.64	89669.70	16742.19	28.912	28.912
			237293.44	32665.25	118.261	118.261

Report stored in ASCII file: .\S032914.TX0

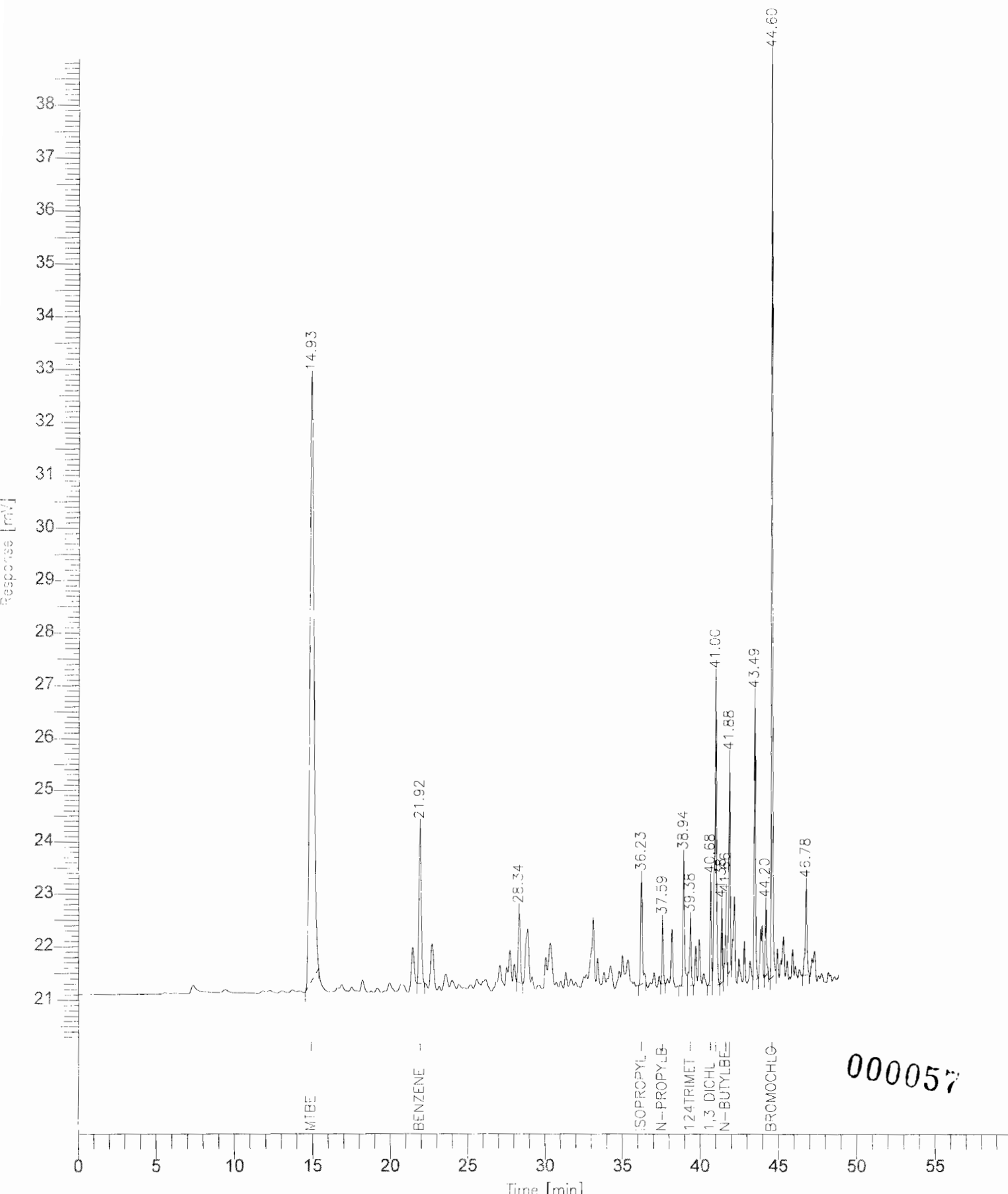
000056

Chromatogram

Sample Name : 17457 5ML UG/L
File Name : .\S032915.raw
Method : B030900
Start Time : 0.00 min
Scale Factor : 1.0

End Time : 60.00 min
Plot Offset: 20 mV

Sample #:
Date : 3/30/00 03:24 PM
Time of Injection: 3/29/00 09:38 PM
Low Point : 20.22 mV
Plot Scale: 18.7 mV
Page 1 of 1
High Point : 38.88 mV



Software Version: 4.1<2F12>

Date: 3/30/00 03:24 PM

Sample Name : 17457 5ML UG/L

Data File : C:\TC4\DATA2\S032915.RAW Date: 3/29/00 09:38 PM

Sequence File: V:\TC4\DATA2\B032900.SEQ Cycle: 15 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: -4295/57 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

415

ANALAB INC. COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	14.93	208100.75	11433.12	218.607	218.607
2	BENZENE	21.91	28941.07	2935.19	11.286	11.286
3		28.34	12195.02	1297.02	0.012	0.012
4	ISOPROPYLBENZENE	36.23	15468.08	1951.39	6.946	6.946
5	n-PROPYLBENZENE	37.59	7166.95	1104.38	3.092	3.092
6		38.94	17393.83	2385.29	0.017	0.017
7	124TRIMETBENZENE	39.38	9184.98	1180.87	4.341	4.341
8	1,3 DICHLOROBENZENE	40.68	11218.12	1936.36	4.225	4.225
9	1,4 DICHLOROBENZENE	41.00	48536.74	5837.95	17.328	17.328
10		41.38	8009.67	1410.49	0.008	0.008
11	n-BUTYLBENZENE	41.66	9501.10	1433.20	6.119	6.119
12	1,2 DICHLOROBENZENE	41.88	21775.68	4045.21	9.343	9.343
13		43.49	32907.87	5360.16	0.033	0.033
14		44.20	7276.05	1285.28	0.007	0.007
15	BROMOCHLOROBENZENE	44.60	94038.78	17516.31	30.321	30.321
16		46.78	13171.12	1654.50	0.013	0.013
			544885.81	62766.72	311.698	311.698

Report stored in ASCII file: .\S032915.TX0

000058

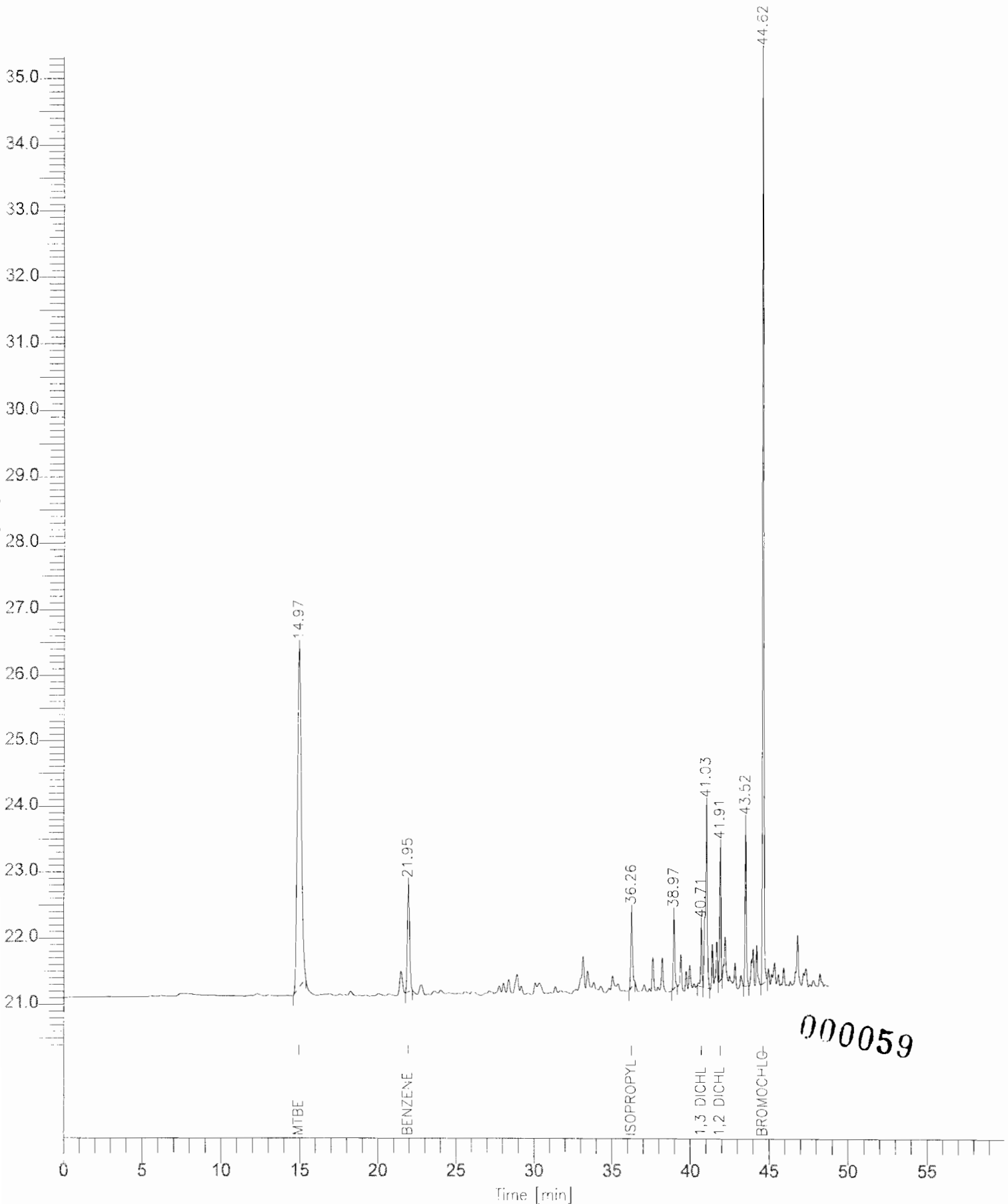
Chromatogram

Sample Name : 17457 1:2 UG/L
leName : .\S033006.raw
thod : B030900
art Time : 0.00 min
ale Factor: 1.0

End Time : 60.00 min
Plot Offset: 20 mV

Sample #:
Date : 3/31/00 09:10 AM
Time of Injection: 3/30/00 01:29 PM
Low Point : 20.39 mV
Plot Scale: 14.9 mV
High Point : 35.32 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 3/31/00 09:10 AM

Sample Name : 17457 1:2 UG/L

Data File : C:\TC4\DATA2\S033006.RAW Date: 3/30/00 01:29 PM

Sequence File: V:\TC4\DATA2\B033000.SEQ Cycle: 6 Channel : B

Instrument : HP5890S_-_0:B Rack/Vial: -4294/58 Operator:

Sample Amount : 1.0000 Dilution Factor : 2.00

Q-415

ANALAB INC. COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	14.97	90574.99	5123.63	95.148	190.296
2	BENZENE	21.95	15561.21	1566.61	6.068	12.136
3	ISOPROPYLBENZENE	36.26	8371.78	1086.02	3.760	7.519
4		38.97	7142.53	1064.02	0.007	0.014
5	1,3 DICHLOROBENZENE	40.71	5445.24	882.19	2.051	4.102
6		41.03	23069.90	2724.02	0.023	0.046
7	1,2 DICHLOROBENZENE	41.91	10958.62	1990.18	4.702	9.404
8		43.52	14911.27	2435.46	0.015	0.030
9	BROMOCHLOROBENZENE	44.62	74895.37	14032.97	24.148	48.297
			250930.92	30905.09	135.922	271.844

Report stored in ASCII file: .\S033006.TX0

000060

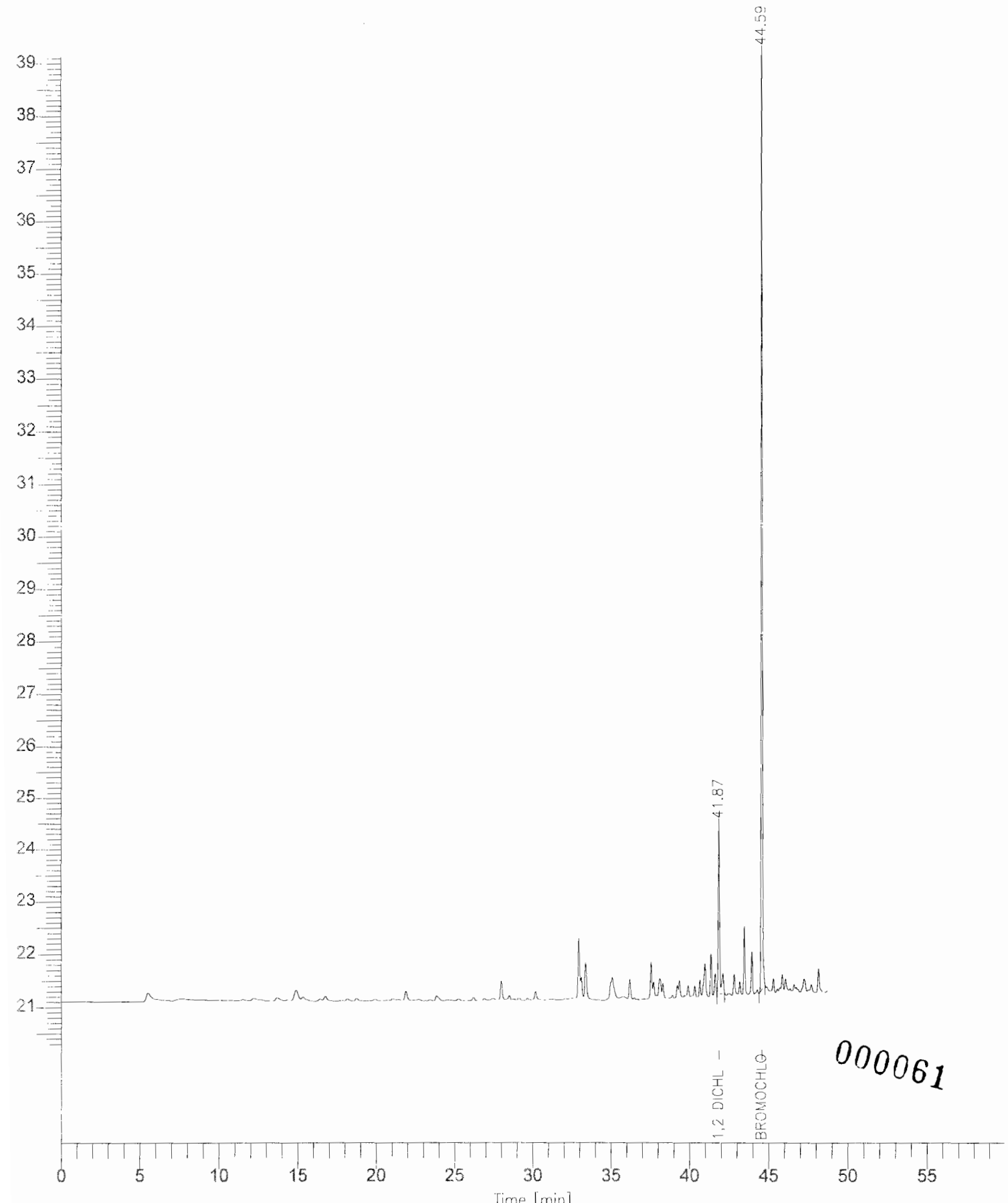
Chromatogram

Sample Name : 17458 5ML UG/L
Sample Name : .\S032916.raw
Method : B030900
Start Time : 0.00 min
Sample Factor: 1.0

End Time : 60.00 min
Plot Offset: 20 mV

Sample #:
Date : 3/30/00 03:24 PM
Time of Injection: 3/29/00 10:33 PM
Low Point : 20.20 mV
Plot Scale: 18.9 mV
High Point : 39.13 mV

Page 1 of 1



Software Version: 4.1<2F12>
Date: 3/30/00 03:24 PM
Sample Name : 17458 5ML UG/L
Data File : C:\TC4\DATA2\S032916.RAW Date: 3/29/00 10:33 PM
Sequence File: V:\TC4\DATA2\B032900.SEQ Cycle: 16 Channel : B
Instrument : HP5890S_-_0:B Rack/Vial: -4295/57 Operator:
Sample Amount : 1.0000 Dilution Factor : 1.00

Q 4/5

ANALAB INC. COMPOUND LISTINGS & RESULTS

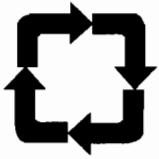
Rack	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	1,2 DICHLOROBENZENE	41.87	21106.20	3144.33	9.056	9.056
2	BROMOCHLOROBENZENE	44.59	94385.67	17823.96	30.433	30.433
			115491.87	20968.29	39.488	39.488

Report stored in ASCII file: .\S032916.TX0

000062

END OF ANALYTICAL REPORT

000063



EnSolutions, Inc.

1029 N. Florida Mango Rd., Suite #7 • West Palm Beach, FL 33409 • 561-684-9770 • Fax 561-684-9288

March 29, 2002

Mr. Randall Austin
New York State Department of Environmental Conservation
47-40 21st Street, Hunters Point Plaza
Long Island City, NY 11101

Re: Petrocelli Electric Co, Inc. Facility
22-09 Queens Plaza North
Long Island City, NY
Spill # 97-058567

Dear Mr. Austin:

As per our conversation, and due to Mark Tibbe status, enclosed is the latest semi annual progress report of the Petrocelli case for your action.

As instructed, the report contains the site history summary, a summary of all the ground water monitoring data and the graphical trend information, per monitoring well, to support the request to remove the remedial system, to continue our quarterly ground water monitoring, with semi-annual progress reports, and to implement natural attenuation as the remedial activity for the subject site.

In addition, we would appreciate if you could forward us the NYSDEC guidance documentation for a risk base assessment, which would be included in any future submission to support natural attenuation for this case.

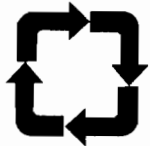
Based upon our current projects, we would appreciate if you forward all future correspondence to:

EnSolutions, Inc.
1029 North Florida Mango Road, Suite #7
West Palm Beach, FL 33409

Thank you for all of your assistance in this matter and please give Mark Tibbe my best.

Very truly yours,
EnSolutions, Inc.


Howard Fredericks



EnSolutions, Inc.

66 Elm Street • Dover, NJ 07801 • Telephone 973-442-1320 • Fax 973-361-3204

October 6, 2000

Mr. Mark Tibbe
New York State Department of Environmental Conservation
222-34 96th Avenue
Queens Village, NY 11420

RE: Progress Report
Petrocelli Electric Company Inc. Facility
22-09 Queens Bridge Plaza North
Long Island City, NY
Spill # ~~97-058567~~
97-05856


Dear Mr. Tibbe:

On behalf of Petrocelli Electric Company Inc. (Petrocelli), enclosed is the progress report for the remedial action at the above referenced facility prepared by EnSolutions, Inc. The purpose of this report is to provide the NYSDEC with the following information:

1. The status of the remedial action at the site.
2. The analytical ground water sampling results performed in September 2000 at the site.
3. Conclusions and proposed actions items.

Thank you for all your assistance in this matter and if you require any additional information please do not hesitate to call us at (973) 442-1320.

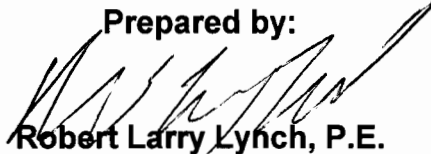
Sincerely,
EnSolutions, Inc.


R. L. Lynch, P. E.
President

cc: Michael Melia – Petrocelli Electric Co., Inc.

**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

**Prepared for:
PETROCELLI ELECTRIC COMPANY, INC.**

Prepared by:

Robert Larry Lynch, P.E.

**EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801
(973) 442-1320**

OCTOBER 2000

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION I

A. INTRODUCTION

On behalf of Petrocelli Electric Company Inc. (Petrocelli), EnSolutions, Inc. (EnSolutions) has prepared this Progress Report for the remedial actions implemented at the Petrocelli facility at 22-09 Queens Bridge Plaza North, Long Island City, New York.

This Progress Report is part of the approved Corrective Action Plan implemented at the site as a result of a petroleum hydrocarbon release that occurred under the prior property owner.

B. AREA / SITE CHARACTERIZATION

The site, the administrative and maintenance facilities for the Petrocelli Electric Company Inc., is located at 22-09 Queens Plaza North, between 22nd and 23rd Streets, Long Island City, Queens County, New York. The area surrounding the site is primarily commercial, with some residential units up-gradient of the site, east on 23rd Street. A site location map is included as Figure 1 in Section V and a site plan illustrating all site features is included as Figure 2 in Section V.

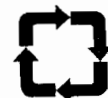
The East River is the nearest surface water to the site and is located approximately 3,000 feet to the west of the facility.

The water source at the subject property and at all surrounding properties is currently from the public water supply.

C. GROUND WATER

As a result of the soil delineation and ground water sampling and analyses performed at the subject property, six (6) ground water monitoring wells were installed on the subject property in May 1998. The six ground water monitoring wells were installed as both soil vapor extraction points and as ground water monitoring points in order to address and monitor the ground water contamination at the subject property. The six monitoring wells are labeled as MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6 and are shown in the site plan, Figure 2 in Section V.

EnSolutions, Inc.



Based upon the September 14, 2000 ground water monitoring well sampling event, the depth to ground water ranged from 9.22 to 10.43 feet below grade in wells MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6.

The direction of ground water flow is predicted to be toward the west, in the direction of the East River.

D. SVE/AS REMEDIAL SYSTEM

Based on the site investigation activities implemented at the site and reported to the NYSDEC, which included the soil analytical data, ground water laboratory analytical data and a Corrective Action Plan, an approved Stipulation Agreement between Petrocelli and the NYSDEC, including an approved air permit, was issued for the site.

As part of the Correction Action Plan, a Soil Vapor Extraction / Air Sparging (SVE/AS) Remedial System was approved and is in operation to address the petroleum hydrocarbon soil and ground water contamination at the site.

The SVE component of the remedial system will induce airflow in the subsurface using an above ground vacuum pump system. The induced airflow brings clean air in contact with the contaminated soil. The contaminated soil vapors drawn off by the SVE allows the soil matrix to re-establish the soil / pore moisture partitioning with the contaminants present.

The SVE methodology is the concept of an air envelope. The air envelope is the area from which air is drawn from and toward an extraction well. As air is extracted, air moves into the well from the area adjacent to the well screen. The air further from the well now moves in to replace the air withdrawn by the well. As the air, that is farther from the well, moves towards the well, the pressure differential becomes very small and is not often measured by contemporary pressure measurement devices.

The SVE installed is based upon a positive displacement vacuum pump that utilizes an electronic variable speed drive. The drive receives its speed command from a Programmable Logic Controller (PLC), which is a full-featured control computer capable of two-way communication. This PLC permits the monitoring of all control parameters, such as pump speed and vacuum level and also provides for the modification of system parameters.

All programs can be monitored and changed as necessary remotely or through a local interface. For protection, the system is password protected. The interface allows the operator to change parameters or view data by clicking on graphic symbols that represent the piece of equipment. Additionally, the equipment status is easily determined as this software allows for different colors to represent different states of operation, such as, green for on, red for stopped, and amber for ready to run.



The SVE component installed and operating at the site consists of an extraction unit with positive displacement blower, a programmable logic controller (PLC), two (2) activated carbon polishing drums, 2" extraction piping, and 4" extraction wells. The extraction points are connected to the system via a common 2" manifold that is equipped with gate valves to control the airflow to the individual wells.

The SVE is connected to six extraction points, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6, to address the levels of contaminants at the site.

The air sparging component of the remedial system provides oxygen to stimulate biological activity in the subsurface. The air sparging system is design to provide sufficient oxygen to stimulate bioactivity, while minimizing the mobilization of dissolved hydrocarbons. To maintain a closed loop circulation of air injected into the ground water, the air sparging points are located within 30 feet of the vapor extraction points, well within the zone of influence for the SVE system.

The sparge system utilizes the four (4) sparge points, SP-1, SP-2, SP-3 and SP-4, and each point is configured with a gate valve to control flow to each individual sparge point. This will allow the operation of the system to be changed as necessary to optimize air sparging.

E. SVE / AS SYSTEM OPERATION

Based upon the Stipulation Agreement between the NYSDEC and Petrocelli, the SVE segment of the remedial system has been in operation since December 1998. As part of the SVE operation, a zone of influence test to evaluate the SVE system was performed during the first quarter of 1999 to determine the effectiveness of the remedial system at the subject site. Utilizing the data obtained from the zone of influence test, the pneumatic zone of influence that displays capture of the vadose zone was established for this site.

The air sparging segment of the remedial system has been in operation to enhance the remedial efforts on the site since May 6, 1999.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION II

A. REMEDIAL SYSTEM MONITORING

During SVE / AS system operation, maintenance checks and hydrocarbon readings are taken to monitor contaminant levels using a Photo Ionization Detector (PID).

These readings were taken at various points in the system. The first reading is taken between the SVE system and the first carbon drum. The second reading is taken between the two carbon drums and the third is taken at the outlet or effluent of the second carbon drum in order to determine hydrocarbon breakthrough.

B. GROUND WATER SAMPLING - SEPTEMBER 14, 2000

On September 14, 2000, Terra Nova Associates, under the supervision of EnSolutions, conducted the ground water sampling of the six ground water monitoring wells at the site. All sampling was conducted in accordance with the standard field sampling practices of the NYSDEC and the USEPA.

Water levels and total depths were measured with a slope indicator electronic water level meter, Model 501, to the nearest 0.01-foot as measured from the top of the inner casing mark or adjacent to the lock, if no mark was present. The water level meter line was wiped with a DI water soaked paper towel as it was retracted from the well. The probe was then rinsed with DI water and paper towel dried. The well depth, depth to water, well diameter and purge water calculations were noted in the field log, and the well calculations to determine one standing column were based on the following:

Casing diameter – 4 inches

Gallons/Linear Foot – 0.652

The wells were evacuated with a whale pump. All sampling tubing in the wells was dedicated polyethylene drinking water grade tubing with dedicated Brady foot valves.

Field parameters were monitored before purging and after each casing volume. When three consecutive measurements of all parameters agreed within 10%, or if the well went dry, or 5 volumes was reached, sampling began.



Prior to sampling, a depth to water measurement was taken. If there was sufficient volume in the well, sampling proceeded. If volume was not sufficient, the well was allowed to recover.

All wells were sampled with a laboratory cleaned dedicated Teflon bailer, constructed entirely of Teflon.

The field meters used for ground water measurements included the YSI 3500, which was used for temperature, pH and specific conductivity.

No problems were encountered in the field. Immediately after the sample collection, the pre-labeled sample bottles were placed in a cooler at 4 degrees C and transported on ice to ChemTech Consulting Group Inc. of Englewood, New Jersey, New York License # 106081, for analyses, accompanied by a chain of custody form, in accordance with the quality control standards. All samples, including field and trip blanks, were analyzed for Benzene, Toluene, Ethylbenzene, Total Xylenes, (BTEX) via EPA method 8021, and MTBE.

A summary of the field sampling parameters is as follow:

Sample Point	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
Total Depth	15.10	14.90	16.60	14.50	12.00	15.00
Depth To Water	10.43	9.41	9.81	9.63	9.22	9.97
Height To Water Col. (Ft.)	4.7	5.5	6.8	4.9	2.8	5.1
One Casing Vol.(Gal)	3.0	3.6	4.4	3.2	1.8	3.3
Three Casing Vol. (Gal)	9.1	10.7	13.3	9.5	5.4	10.0
Actual Volume Purged (Gal)	9.5	11.0	14.0	10.0	4*	10.0
Date Sampled	9/14/00	9/14/00	9/14/00	9/14/00	9/14/00	9/14/00
Time Sampled	0915	0955	0905	0945	1010	1050
Field Parameters						
Ph	6.88	6.44	6.26	6.72	6.73	6.68
SCOND um/cm	1535	1069	899	1357	559	1422
Temp C	20.2	20.3	19.0	19.9	20.5	20.7
Dissolved Oxygen (Ppm)	0.47	1.92	0.92	1.06	0.74	0.88
Appearance	cloudy	cloudy	cloudy	cloudy	cloudy	clear
Odor	odor	odor	odor	odor	odor	odor
Purge Method	PP	PP	WP	PP	PP	PP
Sample Method	BT	BT	BT	BT	BT	BT

BT - BAILER TEFLON

WP - WHALE PUMP

PP- PERISTALTIC PUMP

*- well purged dry at less than 0.5 GPM

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION III

A. GROUND WATER ANALYTICAL RESULTS – SEPTEMBER 14, 2000

The laboratory results of the Benzene, Toluene, Ethylbenzene, Total Xylenes and MTBE analyses for the six ground water samples obtained indicated:

1. Levels of benzene exceed the NYSDEC ground water quality standards or guidance values for ground water in only MW-2 at 36 ppb, MW-4 at 9.2 ppb and MW-6 at 21.
2. Levels of MTBE exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-1 at 220 ppb, MW-2 at 650 ppb and MW-6 at 710 ppb.
3. Levels of Ethylbenzene, Toluene and Total Xylenes did not exceed any of the NYSDEC ground water quality standards or guidance values for ground water.

The analytical results summary are shown in the following table:

Volatile Organic (ug/kg)	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
Benzene	ND	36	ND	9.2	ND	21
Ethylbenzene	ND	ND	7.8	6.1	ND	4.7
MTBE	220	650	59	50	ND	710
Toluene	ND	ND	ND	ND	ND	ND
Total Xylenes	ND	ND	ND	ND	ND	ND

(The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or guidance values, whichever is more stringent)

ND – Non Detect



A summary table of the historical analytical results, including the September 2000 results, is shown in Table 1 in Section V.

The laboratory QA/QC for the ground water analyses is included as Attachment 1 in Section V.

In addition, copies of the benzene, Total BTEX and MTBE ground water isopleth maps are included as Figures 3, 4 and 5, respectively, in Section V.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION IV

A. CONCLUSIONS

Based upon the information to date, the following conclusions have been determined for the site:

1. The analytical results of the soil and ground water sampling confirm a release from the former underground storage tank system at the subject property and the contamination of ground water at the site.
2. The September 14, 2000 ground water analytical results show an improvement to the ground water quality since the SVE segment of the remedial system became operational in December 1998 and the AS segment of the remedial system became operational in May 1999.

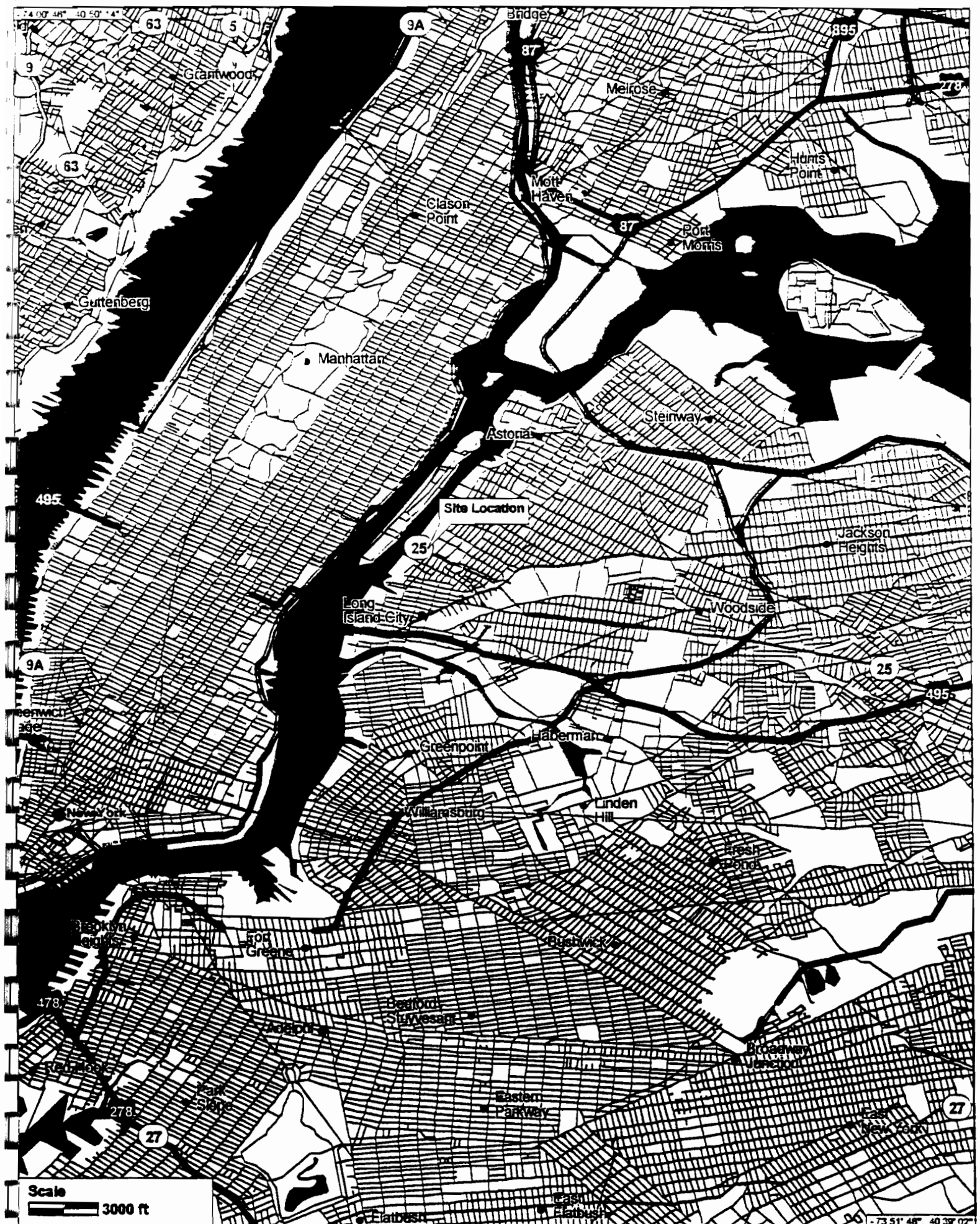
B. ACTION ITEMS

Based upon analytical data and system information reviewed, the following are the action items that will continued to be implemented at the site:

1. The SVE / AS system will continue to be operational and monitored.
2. The next round of ground water samples will be obtained in March 2001
3. The discharge from the SVE/AS system will continued to be monitored.
4. A progress report of the system operation and the analytical data obtained from this March 2001 round of samples will be sent to the NYSDEC case manager within 45 days of receipt of all analytical data, on or about May 1, 2001.



Figure 1 - Site Location Map



22nd STREET

QUEENS PLAZA NORTH

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

REMEDIAL
SYSTEM

MW-1

MW-2

MW-3

SP 2

SP 1

MW-4

Tank Farm

SP 3

SP 4

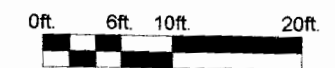
MW-5

MW 6



KEY	
	Monitor Well
	Sparge Point

DATE MAY 1999	EnSolutions, Inc. 66 Elm Street Dover, NJ 07801
DESCRIPTION FIGURE 2 PETROCELLI FACILITY SITE PLAN	
TITLE 22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY S. KOTEEN	SCALE AS SHOWN



22nd STREET

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

REMEDIAL
SYSTEM

MW-1

MW-2

MW-3

40

SP 2

SP 1

MW-4

10

Tank Farm

SP 3

SP 4

MW-5


MW 6

25

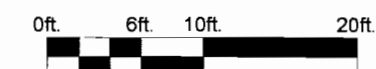


KEY

- Monitor Well
- Sparge Point

DATE	EnSolutions, Inc. 66 Elm Street Dover, NJ 07801
SEPTEMBER 2000	
DESCRIPTION	
<p>FIGURE 3 PETROCELLI FACILITY BENZENE ISOPLETH MAP</p>	
TITLE	
22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY	SCALE
S. KOTEEN	As Shown

MW1	ND
MW2	36
MW3	ND
MW4	9.2
MW5	ND
MW6	21



QUEENS PLAZA NORTH

22nd STREET

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

REMEDIAL
SYSTEM

Tank Farm

MW-1

36
MW-2

MW-3

SP 2

SP 1


MW-4



SP 3


SP 4

MW-5

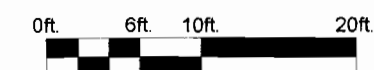
26
MW 6



KEY	
	Monitor Well
	Sparge Point

DATE SEPTEMBER 2000	EnSolutions, Inc. 66 Elm Street Dover, NJ 07801 
DESCRIPTION <p style="text-align: center;">FIGURE 4 PETROCELLI FACILITY TOTAL BTEX ISOPLETH MAP</p>	
TITLE 22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY S. KOTEEN	SCALE As Shown

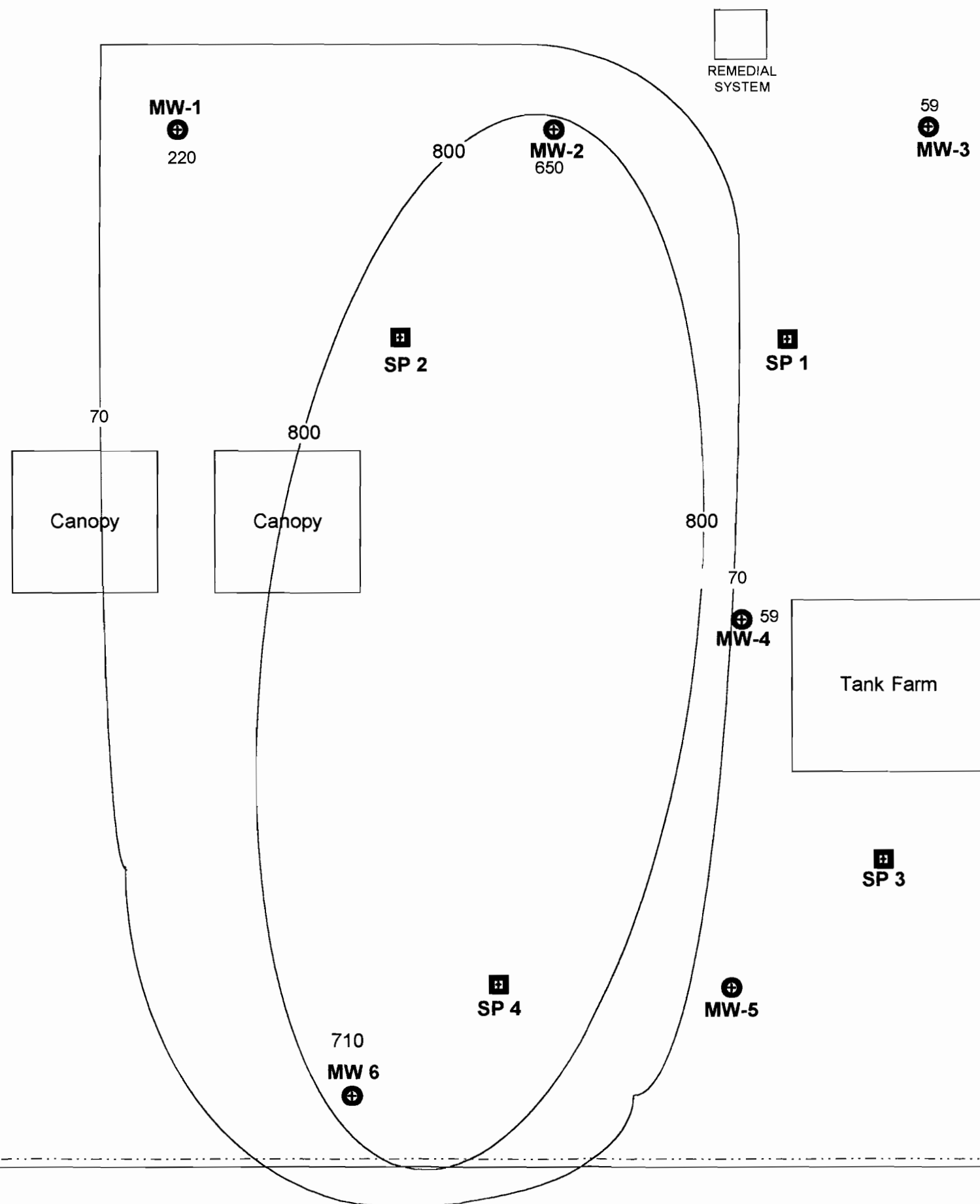
	BTEX
MW 1	ND
MW 2	36
MW 3	7.8
MW 4	15.3
MW 5	ND
MW 6	26



22nd STREET

QUEENS PLAZA NORTH

ONE STORY
COMMERCIAL
BUILDING

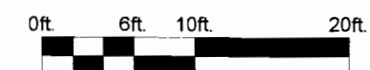


KEY

- Monitor Well
- Sparge Point

EnSolutions, Inc. 66 Elm Street Dover, NJ 07801	
DATE SEPTEMBER 2000	
DESCRIPTION FIGURE 5 PETROCELLI FACILITY MTBE ISOPLETH MAP	
TITLE 22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY S. KOTEEN	SCALE As Shown

MW 1	220
MW 2	650
MW 3	59
MW 4	50
MW 5	ND
MW 6	710



TABLES

EnSolutions, Inc.

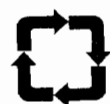


TABLE 1

Petrocelli Electric Company, Inc.
Ground Water Sampling Results Summary Table

VOLATILE COMPOUNDS (ug/l)	MW-1				MW-2				MW-3				MW-4				MW-5				MW-6			
	Apr-99	Oct-99	Mar-00	Sep-00	Apr-99	Oct-99	Mar-00	Sep-00	Apr-99	Oct-99	Mar-00	Sep-00	Apr-99	Oct-99	Mar-00	Sep-00	Apr-99	Oct-99	Mar-00	Sep-00	Apr-99	Oct-99	Mar-00	Sep-00
Benzene	45	ND	ND	ND	ND	ND	59	36	ND	NS	ND	ND	77	ND	4.9	9.2	ND	ND	ND	ND	ND	ND	ND	21
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.7
Ethylbenzene	58	27	1.9	ND	ND	ND	14	ND	ND	NS	22	7.8	250	ND	2.8	6.1	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	590	200	700	220	520	2500	690	650	22	NS	68	59	280	450	73	50	ND	ND	ND	ND	6200	430	190	710
Total Xylenes	30	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	370	ND	18	ND	ND	ND	ND	ND	ND	41	ND	ND

Qualifiers

ND = The compound was not detected at the indicated concentration.

NS = Not sampled

ATTACHMENTS



**DATA PACKAGE FOR
GC VOLATILE ORGANICS**

PROJECT NAME: PETROCELLI ELEC

**EN SOLUTIONS
66 ELM ST
DOVER, NJ 07801
973-442-1320**

**CHEMTECH PROJECT#: L1340NJ
ATTENTION: HOWARD FREDERICKS**

COVER PAGE

COVER PAGE

Order L1340

ProjectID: PETROCELLI ELEC.

CustomerName EN SOLUTIONS INC

LAB SAMPLE NO.

L1340-01

L1340-02

L1340-03

L1340-04

L1340-05

L1340-06

CLIENT SAMPLE NO

MW-1

MW-2

MW-3

MW-5

MW-6

MW-4

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: Mildred V. Reyes Name: Mildred V. Reyes
Date: 9/28/00 Title: QA/QC

QA/QC DELIVERABLES CHECKLISTProject Number: 21340 NJ

THIS FORM HAS BEEN COMPLETED BY CHEMTECH LABORATORY AND ACCOMPANIES ALL DATA DELIVERABLES PACKAGES.

The following laboratory deliverables are included in this analytical report. Any deviations from the accepted methodology and procedures, or performance values outside acceptable ranges are summarized in the Non-Conformance Summary.

	Yes	NA
I. Report Cover Page, Laboratory Certification and Field Sample to Lab Sample ID Cross Reference.	<u>✓</u>	
II. Table of Contents	<u>✓</u>	
III. Chain of Custody Documents	<u>✓</u>	
IV. Methodology Summaries	<u>✓</u>	
V. Laboratory Chronicle and Hold Time Checks	<u>✓</u>	
VI. Non-Conformance Summary	<u>✓</u>	
VII. Tabulated Analytical Results	<u>✓</u>	
VIII. Initial and Continuing Calibration Information	<u>✓</u>	<u> </u>
IX. Tune and Internal Standard Area Summaries (GC/MS)	<u>✓</u>	<u> </u>
X. Quality Control Summary Reports	<u>✓</u>	<u> </u>
XI. Surrogate Recovery Summary	<u>✓</u>	<u> </u>
XII. Raw Data Chromatograms, Blank, QCs and Samples	<u> </u>	<u>✓</u>
XIII. Subcontract Information	<u> </u>	<u> </u>

Carol Borling
QA/QC Coordinator

9/28/00
Date

TABLE OF CONTENTS
PROJECT NUMBER: L1340NJ

	<u>PAGE #</u>
CHAIN OF CUSTODY	01
METHOD SUMMARIES	04
LABORATORY CHRONICLE	06
CASE NARRATIVE / NON - CONFORMANCE SUMMARY	08
GC DATA	13
ANALYTICAL RESULTS SUMMARY	14
METHOD BLANK RESULTS SUMMARY	21
CALIBRATION SUMMARY	24
SURROGATE COMPOUND RECOVERY RESULTS SUMMARY	30
MS/MSD RESULTS SUMMARY	32
CHROMATOGRAMS	35

CHAIN OF CUSTODY RECORD

CHEMTECH

CHAIN OF CUSTODY RECORD

Please check one

☐ 110 Route 4
Englewood, NJ 07631
(201) 567-6868
Fax (201) 567-1333

☐ 205 Campus Plaza 1
Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

CHEMTECH JOB NO.:

CHEMTECH QUOTE NO.:

11340 NJ

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: ENSOLUTIONS
ADDRESS: 66 ELM ST
CITY: Dover STATE: NJ ZIP:
ATTENTION: Howard Fredericks
PHONE: 973 442-1320 FAX:

PROJECT INFORMATION

PROJECT NAME: Petrocelli Elec
PROJECT NO.:
PROJECT MANAGER:
LOCATION: Long Isl City NY
PHONE: FAX:

BILLING INFORMATION

BILL TO: PO #:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

FAX: DAYS *
HARD COPY: DAYS *
EDD: DAYS *

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT:

* TO BE APPROVED BY CHEMTECH

** NORMAL TURNAROUND TIME - 14 DAYS

BTEX+MTBE by
STARS 8021

1 2 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS		
			COMP	GRAB	DATE	TIME		A/E											← Specify Preservatives A - HCl B - HNO ₃ C - H ₂ SO ₄ D - NaOH E - ICE F - Other
1.	MW-1	AQ		✓	9/14/00	0855	2	2											
2.	MW-2	"		✓	"	0850	2	2											
3.	MW-3	"		✓	"	0905	2	2											
4.	MW-5	"		✓	"	0930	2	2											
5.	MW-6	"		✓	"	0935	2	2											
6.	MW-4	"		✓	"	0945	2	2											
7.																			
8.																			

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:
1. [Signature] DATE/TIME: 9/14/00
RELINQUISHED BY:
2. DATE/TIME:
RELINQUISHED BY:
3. client DATE/TIME: 9/14/00 1500

RECEIVED BY:
1. [Signature]
RECEIVED BY:
2.
RECEIVED FOR LAB BY:
3. Sunny-Rato.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler _____
Comments:

Page _____ of _____ Shipment Complete: Yes _____ No _____

DATA REPORTING QUALIFIERS - ORGANIC

For reporting results, the following "Results Qualifiers" are used:

VALUE - If the result is a value greater than or equal to the detection limit, report the value.

- U -** Indicates the compound was analyzed for, but was not detected. Report the minimum detection limit for the sample with the U, ie "10 U". This is not necessarily the instrument detection limit. The figure represents the minimum detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
- J -** Indicates an estimated value. This flag is used:
 - (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed).
 - (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit but greater than zero. If the detection limit was 10 ug/L and a concentration of 3 ug/L was calculated, report as "3 J".
- B -** Indicates the analyte was found in the blank as well as the sample; report as "12 B".
- E -** Indicates the analyte's concentration exceeds the calibrated range of the GC/MS instrument for that specific analysis.
- D -** This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- P -** This flag is used for a Pesticide/Aroclor target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- N -** This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.

METHODOLOGY REVIEW

CHEMTECH 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837

METHODOLOGY

Volatile Organics by GC

*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition

** Method 8021

LABORATORY CHRONICLE

CHEMTECH 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837

LABORATORY CHRONICLE

CLIENT: EN SOLUTIONS

CLIENT PROJECT: PETROCELLI ELEC

DATE RECEIVED: 09/14/00

LABORATORY PROJECT: L1340NJ

SAMPLE	ANALYSIS	
<u>DATE</u>	<u>DATES</u>	<u>ANALYSIS</u>
09/14/00	09/20&21	GC VOLATILE ORGANICS

CONFORMANCE/ NON- CONFORMANCE SUMMARY

CHEMTECH

205 CAMPUS PLAZA I. RARITAN CENTER EDISON NEW JERSEY 08837
NEW JERSEY LAB ID#: 12013 : NEW YORK LAB ID#: 11376

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT LAB NUMBER: L1340NJ

MATRIX: WATER

METHOD: 8021 BTEX+M+be

Q108045A

NA NO YES

1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)
2. Standards Summary Submitted
3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD

4. Blank Contamination - If yes, list compounds and concentrations in each blank:

VOA Fraction _____

Pesticides/PCB's _____

Other _____

- ## 5. Surrogate Recoveries Meet Criteria

If not met, list those compounds and their recoveries which fall outside the acceptable ranges

VOA Fraction

Pesticides/PCB's _____

Other _____

6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria.

If not met, list those compounds and their recoveries which fall outside the acceptable range.

VOA Fraction _____

Pesticides/PCB's

Other _____

CHEMTECH

205 CAMPUS PLAZA I, RARITAN CENTER EDISON NEW JERSEY 08837
NEW JERSEY LAB ID#: 12013 : NEW YORK LAB ID#: 11376

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY(CONTINUED)

NA NO YES

7. Retention Time Shift Meet Criteria (if applicable)

_____ ✓

8. Extraction Holding Time Met

✓ _____

If not met, list number of days exceeded for each sample: _____

9. Analysis Holding Time Met

_____ ✓

If not met, list number of days exceeded for each sample: _____

Additional Comments: _____

Analyst

SR

Date

9/26/00

QA REVIEW

Carol B. Lacy

Date

9/28/00

CHEMTECH

SOP ID: CKLST-GC-REV

DOC. CONTROL #: CKLST-GC-REV -1.0

REVISION # 1.0

Page 1 of 2

Date: 04/28/00

PEER REVIEW CHECKLIST FOR GC DATAFraction: 8021 BTEX+MTBE Project #: L1340NSSample Numbers: L1340NS-(1-6)QA DATA:

ITEM

Completed

Check instrument log for samples in batch. Highlights.
Make sure correct lab numbers are listed on all data.
Check Chain Custody and Login Sheet for project specific information.
Check that all manual integrations are initialed and dated.

BLANKS:

Check quant report for compounds called and quantitation.
Check if any compounds need to be flagged with a J.
Check that blank meets contamination criteria.
Check blank chromatograms to ensure that all peaks are accounted for.
Check that all compounds not called are crossed off, initialed and dated on quantitation Reports.

CALIBRATION:

Check that the proper initial and continuing calibration forms are included.
Compare initial curves to continuing curve to make sure correct curves are included.
Verify dates on curves.
Verify that extra compound initial and continuing curves are included.
Check that the criteria is met on the initial and continuing calibrations.

SURROGATES:

Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).
Check that surrogate recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.
Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-extracted and re-analyzed to prove matrix interference).
Verify surrogates reported to the quantitation reports.

SPIKES:

Check that appropriate samples is on the spike recovery form.
Verify that the correct spike sample is being reported for that batch.
Check that the spike recoveries are reported on the appropriate form (i.e. water, soil).
Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.
Verify spike recoveries to quantitation reports.
If any values outside of QC limits exist on MS/MSD, was Blank Spike used.

Non-conformances / Comments: _____

0011

CHEMTECH

SOP ID: CKLST-GC-REV

DOC. CONTROL #: CKLST-GC-REV -1.0

REVISION # 1.0

Page 2 of 2

Date: 04/28/00

SAMPLES:**ITEM****Completed**

Check that all manual integrations are initialed and dated.

Check that the correct sample matrix and units are on the result form.

Check quant report for targeted compounds called and verify quantitation
(be sure to take moisture and dilutions into account).Check to ensure that compounds which exceed the linear range have been, diluted,
re-analyzed, and quanted from the dilution.

Check that reporting limits are typical and if not (reason is not apparent) are footnoted.

Verify reporting limits for extra compounds.

Check chromatograms to ensure that all peaks are accounted for.

Check if any of the data requires a footnote.

Check that the samples were run / extracted within their holding time.

Non - Conformance / Comments:

Peer Review Signature:

Date:

TECHNICAL SUPERVISOR REVIEW:**ITEM****Completed**

Check for compliance with the Method and project specific requirements.

Check the report for completeness.

Check the information in the case narrative.

Check the results for reasonableness.

Technical Supervisor Review Signature:

Date:

chkst-gc-rev1.doc

0012

CHEMTECH

GC
DATA

CHEMTECH

A

ANALYTICAL
RESULTS
SUMMARY

0014

Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS INC

PROJECT: PETROCELLI ELEC

SAMPLE ID: MW-1

LAB ID: L1340-1 5ML UG/L

FILENAME: C:\TC4\DATA2\S092021, S092107.RAW

MATRIX: AQUEOUS

DATE ANALYZED: 9/21/00

ANALYST: SR

DILUTION 1x,2x

LAB PROJECT: L1340NJ

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	220	D	2.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...

...

Tabulated Analytical Report
SW846 8021 Star ListCLIENT: EN SOLUTIONS INC
PROJECT: PETROCELLI ELEC

SAMPLE ID: MW-2

LAB ID: L1340-2 5ML UG/L

FILENAME: C:\TC4\DATA2\S092022, S092108.RAW

MATRIX: AQUEOUS

DATE ANALYZED: 9/21/00

ANALYST: SR

DILUTION 1x,10x

LAB PROJECT: L1340NJ

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	36		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	650	D	10

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...

...

Tabulated Analytical Report
SW846 8021 Star ListCLIENT: EN SOLUTIONS INC
PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-3
LAB ID: L1340-3 5ML UG/L
FILENAME: C:\TC4\DATA2\S092015.RAWMATRIX: AQUEOUS
DATE ANALYZED: 9/20/00
ANALYST: SR
DILUTION 1
LAB PROJECT: L1340NJ

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	7.8		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	59		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...

...

Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS INC
PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-5
LAB ID: L1340-4 5ML UG/L
FILENAME: C:\TC4\DATA2\S092016.RAW

MATRIX: AQUEOUS
DATE ANALYZED: 9/20/00
ANALYST: SR
DILUTION 1
LAB PROJECT: L1340NJ

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	U		1.0

MDL = METHOD DETECTION LIMIT

U =UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...
...

Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS INC

PROJECT: PETROCELLI ELEC

SAMPLE ID: MW-6

LAB ID: L1340-5 5ML UG/L

FILENAME: C:\TC4\DATA2\IS092017, S092110.RAW

MATRIX: AQUEOUS

DATE ANALYZED: 9/21/00

ANALYST: SR

DILUTION 1x,10x

LAB PROJECT: L1340NJ

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	21		1.0
108-88-3	TOLUENE	4.7		1.0
100-41-4	ETHYLBENZENE	U		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	710	D	10

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...

...

Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS INC
PROJECT: PETROCELLI ELEC
SAMPLE ID: MW-4
LAB ID: L1340-6 5ML UG/L
FILENAME: C:\TC4\DATA2\S092018.RAW

MATRIX: AQUEOUS
DATE ANALYZED: 9/21/00
ANALYST: SR
DILUTION 1
LAB PROJECT: L1340NJ

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	9.2		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	6.1		1.0
	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	50		1.0

MDL = METHOD DETECTION LIMIT

U =UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...
...

CHEMTECH

B

METHOD BLANK
RESULTS
SUMMARY

SW846 8021

Method Blank

Batch:C:\TC4\DATA2\B091900.SEQ

Matrix:WATER

Filename: C:\TC4\DATA2\S091924.F

Date: 9/20/00

CAS #	COMPOUNDS	RESULTS (ug/L)	MDL (ug/L)
75-35-4	1,1 DICHLOROETHENE	U	1.0
1634-04-4	MTBE	U	1.0
71-43-2	BENZENE	U	1.0
108-88-3	TOLUENE	U	1.0
100-41-4	ETHYLBENZENE	U	1.0
	M&P XYLENES	U	2.0
95-47-6	O-XYLENE	U	1.0
100-42-5	STYRENE	U	1.0
98-82-8	ISOPROPYLBENZENE	U	1.0
103-65-1	n-PROPYLBENZENE	U	1.0
	2-CHLORTOLUENE+P-ETHYLTOLUENE	U	2.0
	4-CHLORTOLUENE+1,3,5-TRIMETHBENZENE	U	2.0
98-06-6	TERT-BUTYLBENZENE	U	1.0
95-63-6	124TRIMETHYLBENZENE	U	1.0
135-98-8	SEC-BUTYLBENZENE	U	1.0
541-73-1	1,3 DICHLOROBENZENE	U	1.0
99-87-6	ISOPROPYLTOLUENE	U	1.0
106-46-7	1,4 DICHLOROBENZENE	U	1.0
104-51-8	n-BUTYLBENZENE	U	1.0
95-50-1	1,2 DICHLOROBENZENE	U	1.0
120-82-1	1,2,4 TRICHLOROBENZENE	U	1.0
87-68-3	HEXACHLOROBUTADIENE	U	1.0
91-20-3	NAPHTHALENE	U	1.0

MDL - Method Detection Limit

U - Undetected below MDL

COMMENTS:

SW846 8021

GC Volatiles
DETECTOR: PID**Method Blank**

Batch: C:\TC4\DATA2\B092000.SEQ

Matrix: WATER

Filename: C:\TC4\DATA2\S092025.F

Date: 9/21/00

CAS #	COMPOUNDS	RESULTS (ug/L)	MDL (ug/L)
75-35-4	1,1 DICHLOROETHENE	U	1.0
1634-04-4	MTBE	U	1.0
71-43-2	BENZENE	U	1.0
108-88-3	TOLUENE	U	1.0
100-41-4	ETHYLBENZENE	U	1.0
	M&P XYLENES	U	2.0
95-47-6	O-XYLENE	U	1.0
100-42-5	STYRENE	U	1.0
98-82-8	ISOPROPYLBENZENE	U	1.0
103-65-1	n-PROPYLBENZENE	U	1.0
	2-CHLORTOLUENE+P-ETHYLTOLUENE	U	2.0
	4-CHLORTOLUENE+1,3,5-TRIMETHBENZENE	U	2.0
98-06-6	TERT-BUTYLBENZENE	U	1.0
95-63-6	124TRIMETHYLBENZENE	U	1.0
135-98-8	SEC-BUTYLBENZENE	U	1.0
541-73-1	1,3 DICHLOROBENZENE	U	1.0
99-87-6	ISOPROPYLTOLUENE	U	1.0
106-46-7	1,4 DICHLOROBENZENE	U	1.0
104-51-8	n-BUTYLBENZENE	U	1.0
95-50-1	1,2 DICHLOROBENZENE	U	1.0
120-82-1	1,2,4 TRICHLOROBENZENE	U	1.0
87-68-3	HEXACHLOROBUTADIENE	U	1.0
91-20-3	NAPHTHALENE	U	1.0

MDL - Method Detection Limit

U - Undetected below MDL

COMMENTS:

0023

CHEMTECH

C

CALIBRATION
SUMMARY

Initial and Continuing Calibration Summary
SW846 8021GC VOA Analysis
Detector: PID

Initial Calibration Date:	9/18/00									
	5 ppb	25 ppb	50 ppb	100 ppb	150 ppb					CORR
Analyte	Cal Fac 1	Cal Fac 2	Cal Fac 3	Cal Fac 4	Cal Fac 5	Ave CF	Std Dev	% RSD	Flag	COEFF
1,1 DICHLOROETHENE	147	162	152	170	166	160	10	6		0.9986
MTBE	137	140	154	195	193	164	28	17		0.9977
BENZENE	538	574	550	491	453	521	49	9		0.9960
TOLUENE	579	591	595	586	582	587	6	1		0.9994
ETHYLBENZENE	639	595	537	478	428	535	85	16		0.9943
M&P XYLENES	1380	1350	1205	1122	1014	1214	153	13		0.9956
O-XYLENE	474	470	430	409	438	444	28	6		0.9974
STYRENE	869	833	883	909	829	865	34	4		0.9978
ISOPROPYLBENZENE	515	505	474	429	392	463	52	11		0.9960
n-PROPYLBENZENE	594	554	541	486	438	522	61	12		0.9955
2-CHLORTOL+PETHYLTOLUE	1445	1324	1328	1282	1248	1326	74	6		0.9993
4CHLORTOL+135TRIMETHBE	722	665	664	656	632	668	33	5		0.9992
TERT-BUTYLBENZENE	452	419	446	388	399	421	28	7		0.9983
124TRIMETBENZENE	672	572	484	426	392	509	114	22		0.9952
SEC-BUTYLBENZENE	423	398	409	362	332	385	37	10		0.9962
ISOPROPYLTOLUENE	502	445	453	432	403	447	36	8		0.9958
1,3 DICHLOROBENZENE	668	613	622	544	497	589	68	12		0.9984
1,4 DICHLOROBENZENE	760	613	622	562	517	615	92	15		0.9972
n-BUTYLBENZENE	517	433	439	404	413	441	45	17		0.9991
1,2 DICHLOROBENZENE	583	534	541	481	440	516	56	11		0.9963
1,2,4 TRICHLOROBENZENE	447	352	357	306	272	347	66	19		0.9940
HEXACHLOROBUTADIENE	341	363	285	266	228	296	55	19		0.9928
NAPHTHALENE	563	492	371	315	293	407	117	29		0.9966

Std	Filename
5	S091806
25	S091805
50	S091804
100	S091803
150	S091802

0025

Initial and Continuing Calibration Summary
SW846 8021

Continuing Control Verification		50 ppb Std	Filename: C:\TC4\DATA2\IS091923.RAW					
Analysis Date	9/20/00	Cal Fac	% Diff	Flag	Conc	Lower	Upper	Flag
Analyte					ug/L	Limit	Limit	
1,1 DICHLOROETHENE	179		12%		56	112	85	115
MTBE	173		5%		49	98	85	115
BENZENE	542		4%		52	104	85	115
TOLUENE	547		7%		47	93	85	115
ETHYLBENZENE	510		5%		48	95	85	115
M&P XYLENES	1143		6%		94	94	85	115
O-XYLENE	420		5%		49	97	85	115
STYRENE	790		9%		45	91	85	115
ISOPROPYLBENZENE	442		4%		48	96	85	115
n-PROPYLBENZENE	476		9%		46	91	85	115
2-CHLORTOL+PETHYLTOLUE	1211		9%		91	91	85	115
4CHLORTOL+135TRIMETHBE	593		11%		89	89	85	115
TERT-BUTYLBENZENE	453		8%		54	108	85	115
124TRIMETBENZENE	414		19%	*	45	90	85	115
SEC-BUTYLBENZENE	362		6%		47	94	85	115
ISOPROPYLTOLUENE	404		10%		45	90	85	115
1,3 DICHLOROBENZENE	572		3%		49	97	85	115
1,4 DICHLOROBENZENE	558		9%		45	91	85	115
n-BUTYLBENZENE	391		11%		44	89	85	115
1,2 DICHLOROBENZENE	491		5%		48	95	85	115
1,2,4 TRICHLOROBENZENE	305		12%		44	88	85	115
HEXACHLOROBUTADIENE	262		12%		46	93	85	115
NAPHTHALENE	304		25%	*	44	88	85	115

0026

Initial and Continuing Calibration Summary
SW846 8021GC VOA Analysis
Detector: PID

Continuing Control Verification	50 ppb Std	Filename: C:\TC4\DATA2\S092010.RAW						
Analysis Date	9/20/00			Conc		Lower	Upper	
Analyte	Cal Fac	% Diff	Flag	ug/L	% Rec	Limit	Limit	Flag
1,1 DICHLOROETHENE	169	6%		45	90	85	115	
MTBE	182	11%		50	100	85	115	
BENZENE	588	13%		53	106	85	115	
TOLUENE	608	4%		52	104	85	115	
ETHYLBENZENE	518	3%		57	114	85	115	
M&P XYLENES	1175	3%		113	113	85	115	
O-XYLENE	504	13%		57	114	85	115	
STYRENE	807	7%		51	101	85	115	
ISOPROPYLBENZENE	486	5%		52	104	85	115	
n-PROPYLBENZENE	544	4%		54	108	85	115	
2-CHLORTOL+PETHYLTOLUE	1306	1%		102	102	85	115	
4CHLORTOL+135TRIMETHBE	655	2%		99	99	85	115	
TERT-BUTYLBENZENE	472	12%		57	114	85	115	
124TRIMETBENZENE	429	16%*		51	103	85	115	
SEC-BUTYLBENZENE	398	4%		54	107	85	115	
ISOPROPYLTOLUENE	438	2%		52	104	85	115	
1,3 DICHLORO BENZENE	604	3%		52	104	85	115	
1,4 DICHLORO BENZENE	585	5%		49	98	85	115	
n-BUTYLBENZENE	419	5%		54	108	85	115	
1,2 DICHLORO BENZENE	504	2%		50	100	85	115	
1,2,4 TRICHLORO BENZENE	322	7%		56	113	85	115	
HEXACHLOROBUTADIENE	269	9%		53	105	85	115	
NAPHTHALENE	297	27%*		51	103	85	115	

0027

Initial and Continuing Calibration Summary
SW846 8021GC VOA Analysis
Detector: PID

Continuing Control Verification		50 ppb Std	Filename: C:\TC4\DATA2\S092023.RAW					
Analysis Date	9/21/00			Conc		Lower	Upper	
Analyte	Cal Fac	% Diff	Flag	ug/L	% Rec	Limit	Limit	Flag
1,1 DICHLOROETHENE	183	15%		49	97	85	115	
MTBE	201	23%	*	55	110	85	115	
BENZENE	575	10%		52	104	85	115	
TOLUENE	597	2%		51	102	85	115	
ETHYLBENZENE	507	5%		56	111	85	115	
M&P XYLENES	1180	3%		114	114	85	115	
O-XYLENE	494	11%		56	111	85	115	
STYRENE	817	6%		51	103	85	115	
ISOPROPYLBENZENE	473	2%		50	101	85	115	
n-PROPYLBENZENE	539	3%		54	107	85	115	
2-CHLORTOL+PETHYLTOLUE	1333	1%		104	104	85	115	
4CHLORTOL+135TRIMETHBE	619	7%		94	94	85	115	
TERT-BUTYLBENZENE	466	11%		56	113	85	115	
124TRIMETBENZENE	466	9%		57	113	85	115	
SEC-BUTYLBENZENE	404	5%		54	109	85	115	
ISOPROPYLTOLUENE	460	3%		55	110	85	115	
1,3 DICHLOROBENZENE	619	5%		53	107	85	115	
1,4 DICHLOROBENZENE	596	3%		50	100	85	115	
n-BUTYLBENZENE	423	4%		55	109	85	115	
1,2 DICHLOROBENZENE	527	2%		52	105	85	115	
1,2,4 TRICHLOROBENZENE	321	7%		56	112	85	115	
HEXACHLOROBUTADIENE	274	8%		54	107	85	115	
NAPHTHALENE	319	22%	*	55	110	85	115	

Initial and Continuing Calibration Summary
SW846 8021GC VOA Analysis
Detector: PID

Continuing Control Verification		50 ppb Std		Filename: C:\TC4\DATA2\S092109.RAW				
Analysis Date	9/21/00			Conc		Lower	Upper	
Analyte	Cal Fac	% Diff	Flag	ug/L	% Rec	Limit	Limit	Flag
1,1 DICHLOROETHENE	181	13%		48	97	85	115	
MTBE	180	10%		49	98	85	115	
BENZENE	564	8%		51	102	85	115	
TOLUENE	569	3%		49	97	85	115	
ETHYLBENZENE	520	3%		57	115	85	115	
M&P XYLENES	1177	3%		114	114	85	115	
O-XYLENE	437	2%		48	97	85	115	
STYRENE	833	4%		52	105	85	115	
ISOPROPYLBENZENE	467	1%		50	100	85	115	
n-PROPYLBENZENE	524	0%		52	104	85	115	
2-CHLORTOL+PETHYLTOLUE	1241	6%		96	96	85	115	
4CHLORTOL+135TRIMETHBE	624	7%		94	94	85	115	
TERT-BUTYLBENZENE	437	4%		53	106	85	115	
124TRIMETBENZENE	440	14%		53	106	85	115	
SEC-BUTYLBENZENE	384	0%		52	103	85	115	
ISOPROPYLTOLUENE	432	3%		52	103	85	115	
1,3 DICHLOROBENZENE	588	0%		51	101	85	115	
1,4 DICHLOROBENZENE	573	7%		48	96	85	115	
n-BUTYLBENZENE	404	8%		52	104	85	115	
1,2 DICHLOROBENZENE	485	6%		48	96	85	115	
1,2,4 TRICHLOROBENZENE	321	7%		56	112	85	115	
HEXACHLOROBUTADIENE	251	15%*		49	98	85	115	
NAPHTHALENE	321	21%*		56	111	85	115	

0029

CHEMTECH

D

SURROGATE
COMPOUND
RECOVERY
RESULTS
SUMMARY

GC VOLATILES
SURROGATE SUMMARY FORM

PROJECT PETROCELLI ELEC
Matrix WATER
Analyst SR

[illegible]

BCB = Bromochlorobenzene

LIMITS: 40-160

* Values outside of QC limits

CHEMTECH

E

MS/MSD
RESULTS
SUMMARY

0032

QC Spike - 50 ppb Standard
Batch:QB045A

Filename:C:\TC4\DATA2\S092115.RAW
Date: 9/21/00

CAS #	Analyte	Spike Added	Sample	% Rec	Lower	Upper	Flag
		PPB	Conc		Limits	Limits	
75-35-4	1,1 DICHLOROETHENE	50	41	82	50	150	
1634-04-4	MTBE	50	52	104	50	150	
71-43-2	BENZENE	50	51	101	50	150	
108-88-3	TOLUENE	50	50	100	50	150	
100-41-4	ETHYLBENZENE	50	59	118	50	150	
	M&P XYLENES	100	118	118	50	150	
95-47-6	O-XYLENE	50	61	121	50	150	
100-42-5	STYRENE	50	48	97	50	150	
98-82-8	ISOPROPYLBENZENE	50	51	102	50	150	
103-65-1	n-PROPYLBENZENE	50	54	109	50	150	
	2-CHLORTOL+PETHYLTOLUENE	100	101	101	50	150	
	4CHLORTOL+135TRIMETHBENZENE	100	99	99	50	150	
98-06-6	TERT-BUTYLBENZENE	50	61	122	50	150	
95-63-6	1,2,4-TRIMETHYLBENZENE	50	49	99	50	150	
135-98-8	SEC-BUTYLBENZENE	50	53	106	50	150	
541-73-1	1,3 DICHLOROBENZENE	50	53	105	50	150	
99-87-6	ISOPROPYLTOLUENE	50	52	104	50	150	
106-46-7	1,4 DICHLOROBENZENE	50	51	101	50	150	
104-51-8	n-BUTYLBENZENE	50	54	108	50	150	
95-50-1	1,2 DICHLOROBENZENE	50	53	106	50	150	
120-82-1	1,2,4 TRICHLOROBENZENE	50	60	119	50	150	
87-68-3	HEXACHLOROBUTADIENE	50	53	106	50	150	
91-20-3	NAPHTHALENE	50	65	130	50	150	

Chemtech.

GC Volatiles
DETECTOR: PID

SW846 8021

QC MS/MSD 50PPB Spike

Sample spiked: L1354-1

Filename MS:S092113
Filename MSD:S092114
Sample ID:S092011Batch:QB045A
Matrix:WATER

Date: 9/21/00

CAS #	Analyte	Spike	Sample	MS Conc	% Rec	Flag	MSD Conc		MSD	RPD	Flag	RPD		
		Added	Conc (ppb)	ppb			ppb	% Rec	Flag			Limits	Limits	Limits
75-35-4	1,1 DICHLOROETHENE	50	0	43	86		40	80		7		50	150	<20%
1634-04-4	MTBE	50	0	49	98		46	92		6		50	150	<20%
71-43-2	BENZENE	50	0	51	103		49	99		4		50	150	<20%
108-88-3	TOLUENE	50	0	49	98		49	98		0		50	150	<20%
100-41-4	ETHYLBENZENE	50	0	59	118		59	118		0		50	150	<20%
	M&P XYLENES	100	0	119	119		116	116		3		50	150	<20%
95-47-6	O-XYLENE	50	0	53	107		62	123		14		50	150	<20%
100-42-5	STYRENE	50	0	52	104		45	90		14		50	150	<20%
98-82-8	ISOPROPYLBENZENE	50	0	51	102		50	100		2		50	150	<20%
103-65-1	n-PROPYLBENZENE	50	0	52	104		52	104		0		50	150	<20%
	2-CHLORTOL+PETHYLTOLUE	100	0	102	102		100	100		1		50	150	<20%
	4CHLORTOL+135TRIMETHBE	100	0	97	97		95	95		2		50	150	<20%
98-06-6	TERT-BUTYLBENZENE	50	0	56	112		61	123		9		50	150	<20%
95-63-6	1,2,4-TRIMETHYLBENZENE	50	0	55	111		48	96		15		50	150	<20%
135-98-8	SEC-BUTYLBENZENE	50	0	53	105		52	105		1		50	150	<20%
541-73-1	1,3 DICHLOROBENZENE	50	0	52	105		51	102		2		50	150	<20%
99-87-6	ISOPROPYLTOLUENE	50	0	52	104		52	104		0		50	150	<20%
106-46-7	1,4 DICHLOROBENZENE	50	0	50	99		49	98		1		50	150	<20%
104-51-8	n-BUTYLBENZENE	50	0	53	107		55	109		2		50	150	<20%
95-50-1	1,2 DICHLOROBENZENE	50	0	51	102		51	101		1		50	150	<20%
120-82-1	1,2,4 TRICHLOROBENZENE	50	0	56	112		56	112		0		50	150	<20%
87-68-3	HEXACHLOROBUTADIENE	50	0	50	100		52	104		4		50	150	<20%
91-20-3	NAPHTHALENE	50	0	54	108		55	109		2		50	150	<20%

* Denotes analyte outside control limits

0034

CHEMTECH

G

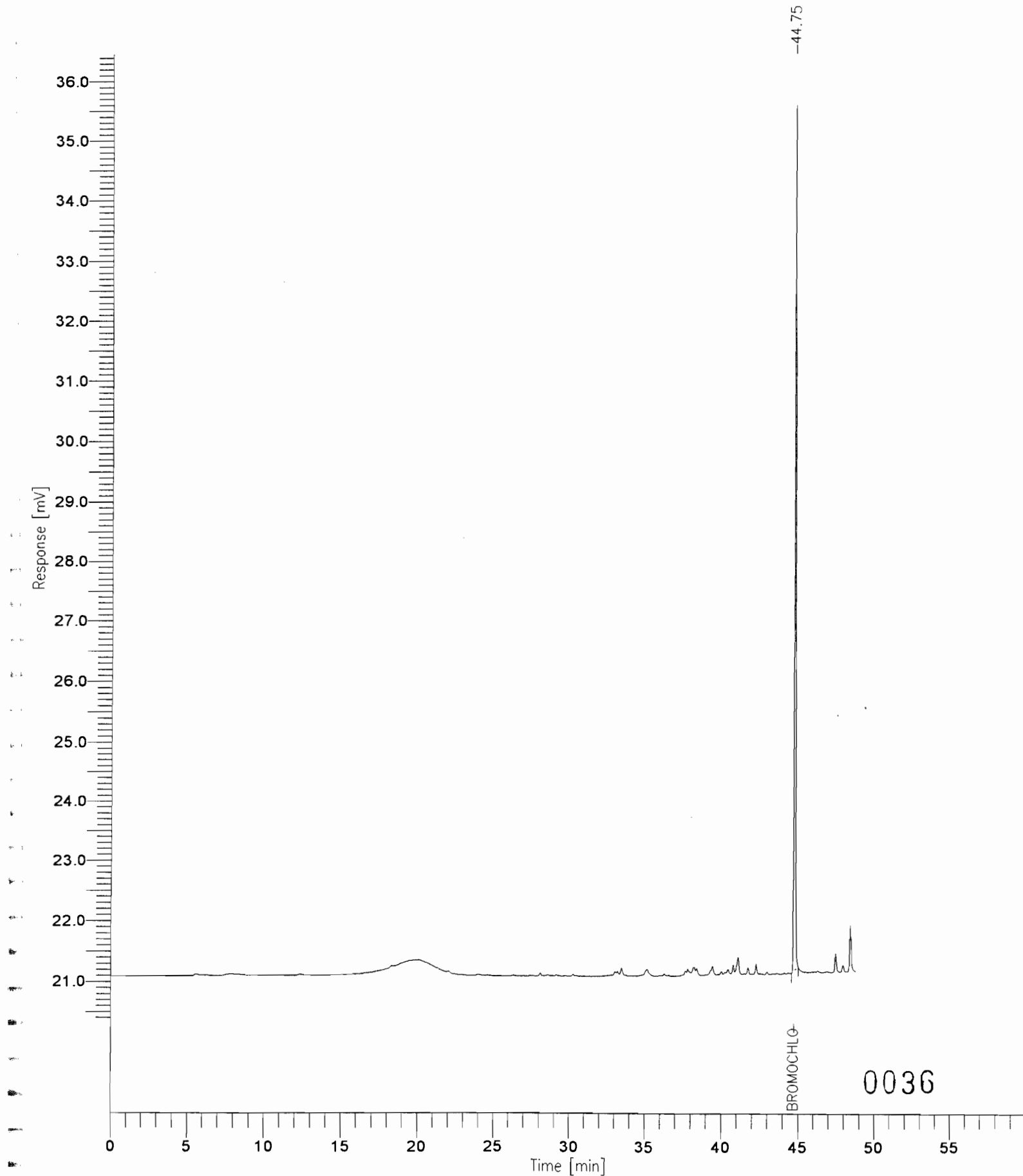
CHROMATOGRAMS

Chromatogram

Sample Name : BLANK
FileName : C:\TC4\DATA2\S091924.RAW
Method :
Start Time : 0.00 min End Time : 60.00 min
Scale Factor: 1.0 Plot Offset: 20 mV

Sample #:
Date : 9/26/00 14:58
Time of Injection: 9/20/00 07:10
Low Point : 20.32 mV High Point : 36.46 mV
Plot Scale: 16.1 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/26/00 14:58

Sample Name : BLANK

Data File : C:\TC4\DATA2\S091924.RAW Date: 9/20/00 07:10

Sequence File: C:\TC4\DATA2\B091900.SEQ Cycle: 24 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -191/65 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

SR 9/26/00

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	BROMOCHLOROBENZENE	44.75	83243.18	15266.09	24.727	24.727
			83243.18	15266.09	24.727	24.727

Report stored in ASCII file: C:\TC4\DATA2\S091924.TX0

Chromatogram

Sample Name : BLANK

FileName : C:\TC4\DATA2\S092025.RAW

Method :

Start Time : 0.00 min

End Time : 60.00 min

Scale Factor: 1.0

Plot Offset: 20 mV

Sample #:

Date : 9/26/00 14:58

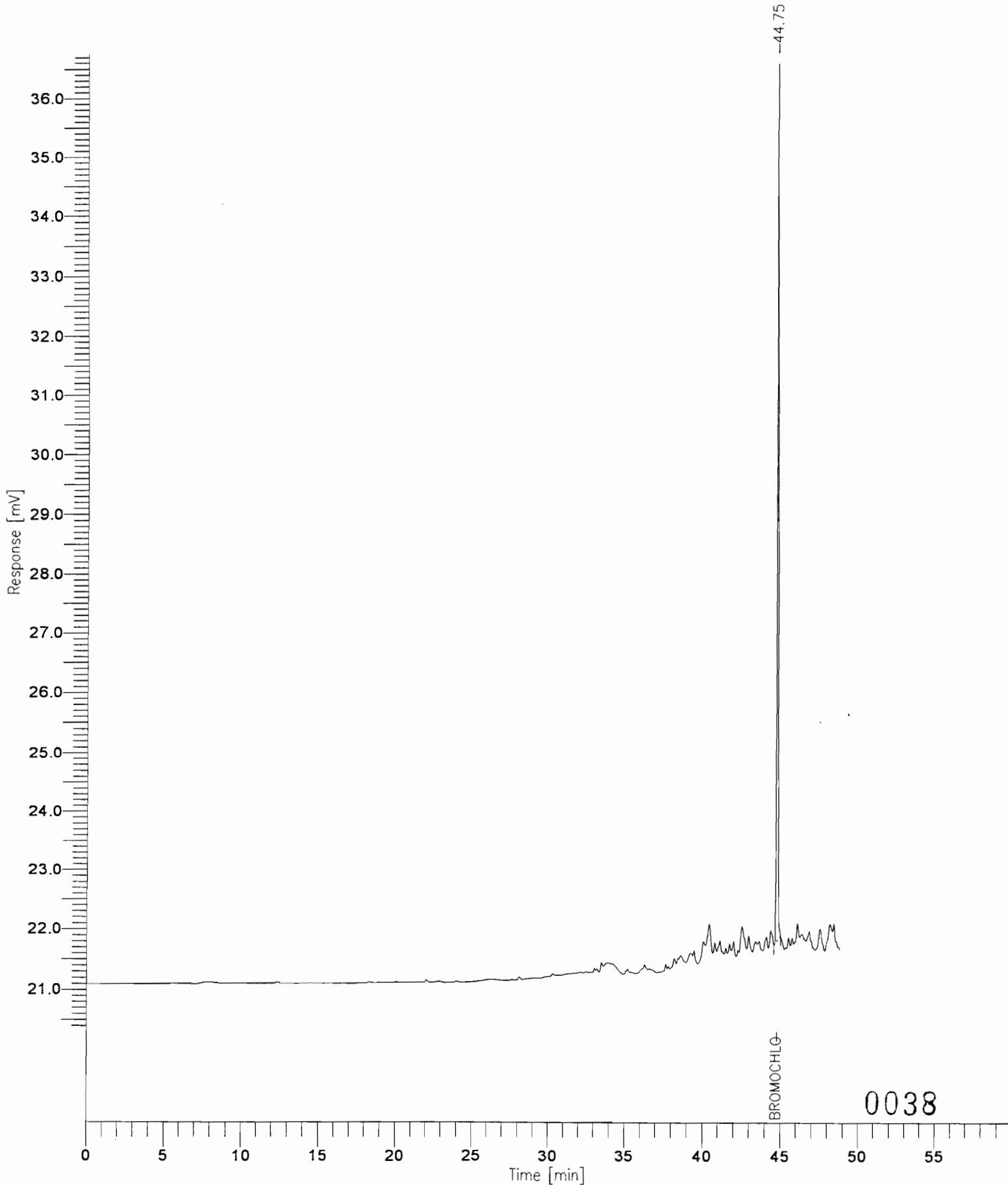
Time of Injection: 9/21/00 07:30

Low Point : 20.31 mV

High Point : 36.76 mV

Plot Scale: 16.4 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/26/00 14:58

Sample Name : BLANK

Data File : C:\TC4\DATA2\S092025.RAW Date: 9/21/00 07:30

Sequence File: C:\TC4\DATA2\B092000.SEQ Cycle: 25 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -190/66 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

SL 9/26/00

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	BROMOCHLOROBENZENE	44.75	81264.09	14944.48	34.540	34.540
			81264.09	14944.48	34.540	34.540

Report stored in ASCII file: C:\TC4\DATA2\S092025.TX0

Chromatogram

Sample Name : L1340-1 5ML UG/L

FileName : C:\TC4\DATA2\S092021.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 17 mV

Sample #:

Date : 9/21/00 09:32

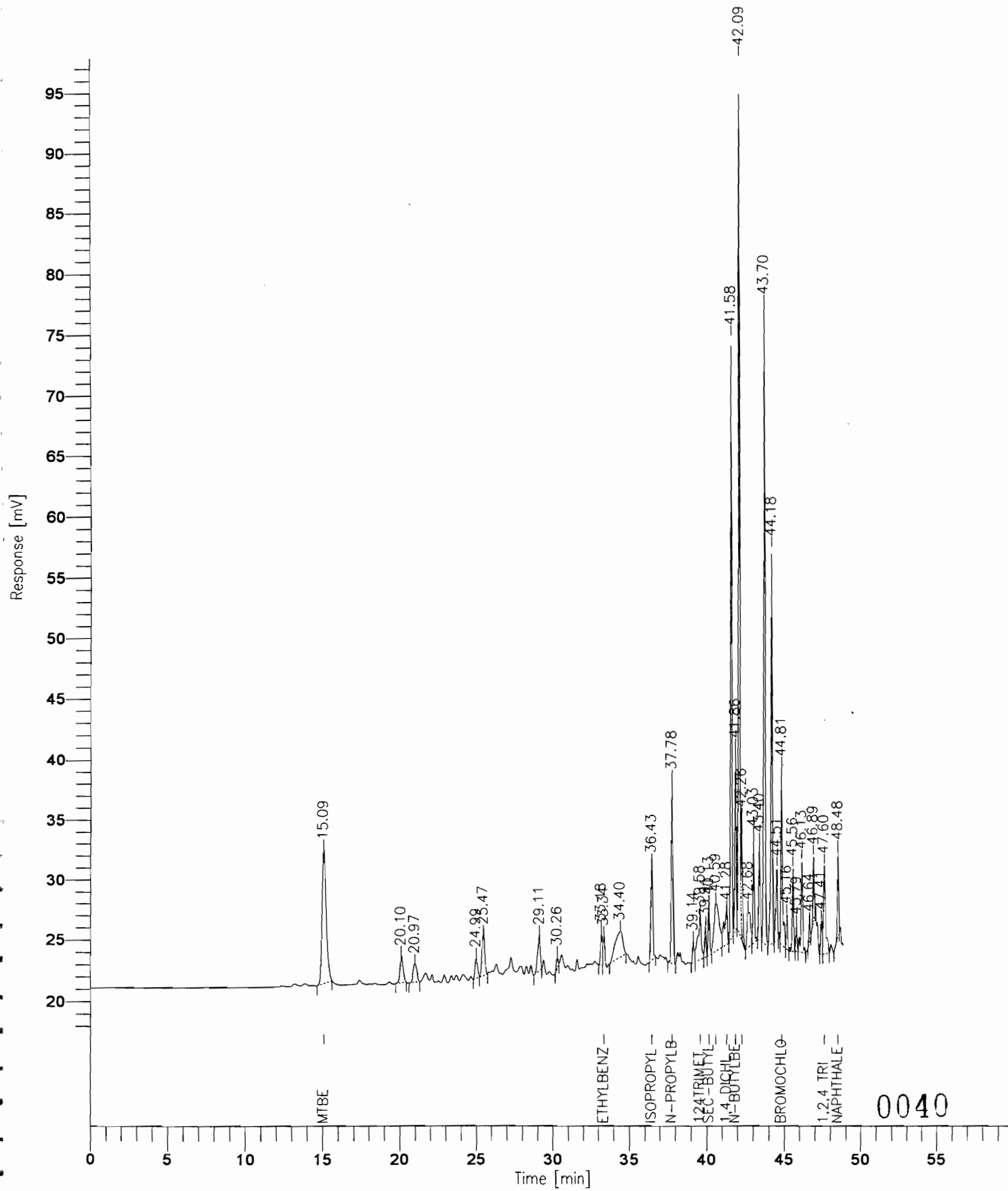
Time of Injection: 9/21/00 03:50

Low Point : 17.30 mV

Plot Scale: 80.6 mV

Page 1 of 1

High Point : 97.86 mV



Software Version: 4.1<2F12>

Date: 9/21/00 09:32

Sample Name : L1340-1 5ML UG/L

Data File : C:\TC4\DATA2\S092021.RAW Date: 9/21/00 03:50

Sequence File: C:\TC4\DATA2\B092000.SEQ Cycle: 21 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -190/66 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

See 9/28/00

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	15.09	204549.54	11122.70	224.127	224.127
2		20.10	30851.99	2182.12	0.031	0.031
3		20.97	24566.29	1481.20	0.025	0.025
4		24.99	19514.12	1674.91	0.020	0.020
5		25.47	42205.95	3340.11	0.042	0.042
6		29.11	35134.21	2912.50	0.035	0.035
7		30.26	7437.83	1012.72	0.007	0.007
8		33.18	22895.69	2728.48	0.023	0.023
9	ETHYLBENZENE	33.33	15397.50	2366.39	-2.163	-2.163
10		34.40	73161.12	2183.54	0.073	0.073
11	ISOPROPYLBENZENE	36.43	59676.71	8072.88	25.488	25.488
12	n-PROPYLBENZENE	37.78	104021.27	15214.69	41.335	41.335
13		39.14	12131.67	1753.42	0.012	0.012
14	124TRIMETBENZENE	39.58	55360.67	3739.32	21.032	21.032
15		39.91	16436.30	2556.45	0.016	0.016
16	SEC-BUTYLBENZENE	40.13	28640.06	4209.04	15.416	15.416
17	ISOPROPYLTOLUENE	40.59	94244.11	4087.15	44.937	44.937
18	1,4 DICHLOROBENZENE	41.28	40750.94	2841.32	13.616	13.616
19		41.58	302591.82	49915.85	0.303	0.303
20	n-BUTYLBENZENE	41.86	88138.74	15224.89	45.536	45.536
21		42.09	432233.49	72351.53	0.432	0.432
22	1,2 DICHLOROBENZENE	42.26	58745.60	9727.07	23.343	23.343
23		42.68	43704.18	3098.00	0.044	0.044
24		43.03	53181.63	8840.61	0.053	0.053
25		43.40	54120.63	8194.74	0.054	0.054
26		43.70	326308.74	52772.64	0.326	0.326
27		44.17	206456.15	32860.04	0.206	0.206
28		44.51	43723.72	6197.16	0.044	0.044
29	BROMOCHLOROBENZENE	44.81	103601.77	14809.27	44.034	44.034
30		45.16	17069.68	2974.65	0.017	0.017
31		45.56	50001.44	7106.71	0.050	0.050
32		45.79	12013.40	2182.12	0.012	0.012
33		46.13	60284.66	7737.37	0.060	0.060
34		46.63	9701.15	1661.96	0.010	0.010
35		46.89	29507.79	5521.05	0.030	0.030

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
36		47.41	20887.90	2855.20	0.021	0.021
37	1,2,4 TRICHLORO BENZENE	47.60	72490.65	7473.22	50.745	50.745
38	NAPHTHALENE	48.48	44406.28	7319.09	30.734	30.734
			2916145.36	392302.12	580.128	580.128

Report stored in ASCII file: C:\TC4\DATA2\S092021.TX0

Chromatogram

Sample Name : L1340-1 1:2 UG/L

FileName : C:\TC4\DATA2\S092107.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 19 mV

Sample #:

Date : 9/25/00 10:38

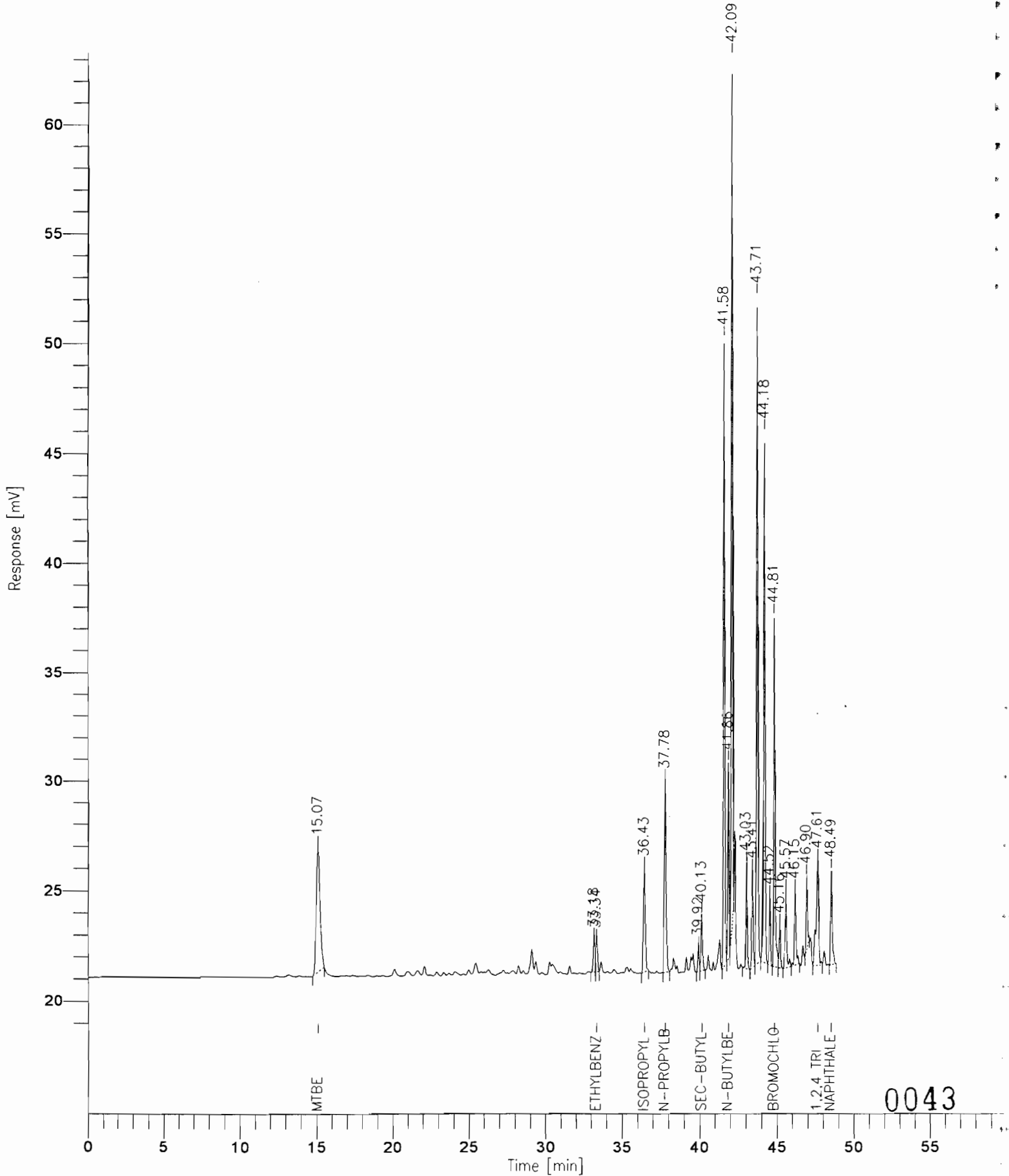
Time of Injection: 9/21/00 14:09

Low Point : 18.98 mV

Plot Scale: 44.3 mV

Page 1 of 1

High Point : 63.29 mV



Software Version: 4.1<2F12>

Date: 9/25/00 10:38

Sample Name : L1340-1 1:2 UG/L

Data File : C:\TC4\DATA2\S092107.RAW Date: 9/21/00 14:09

Sequence File: C:\TC4\DATA2\B092100.SEQ Cycle: 7 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -189/67 Operator:

Sample Amount : 1.0000 Dilution Factor : 2.00

8x9/26/0

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	15.07	100192.67	5737.89	109.689	109.689
2		33.18	12771.45	1594.67	0.013	0.013
3	ETHYLBENZENE	33.34	11569.36	1525.66	-4.151	-4.151
4	ISOPROPYLBENZENE	36.43	35119.64	4802.35	15.000	15.000
5	n-PROPYLBENZENE	37.78	60538.58	8844.25	24.056	24.056
6		39.92	7346.32	1165.88	0.007	0.007
7	SEC-BUTYLBENZENE	40.13	18825.83	2704.09	10.133	10.133
8		41.58	172777.24	28833.71	0.173	0.173
9	n-BUTYLBENZENE	41.86	50049.96	9055.41	25.858	25.858
10		42.09	223011.22	40054.18	0.223	0.223
11		43.03	28136.37	4846.35	0.028	0.028
12		43.41	29427.78	4472.29	0.029	0.029
13		43.71	183672.50	30649.83	0.184	0.184
14		44.18	147927.30	24462.28	0.148	0.148
15		44.52	17978.11	3182.11	0.018	0.018
16	BROMOCHLOROBENZENE	44.81	99773.40	16230.68	42.407	42.407
17		45.16	12300.46	2045.65	0.012	0.012
18		45.57	29054.09	3596.04	0.029	0.029
19		46.15	26455.81	3459.70	0.026	0.026
20		46.90	20889.78	3387.92	0.021	0.021
21	1,2,4 TRICHLOROBENZENE	47.61	54218.00	4846.77	37.954	37.954
22	NAPHTHALENE	48.49	31936.49	4385.61	22.103	22.103
			1373972.36	209883.32	283.962	283.962

Report stored in ASCII file: C:\TC4\DATA2\S092107.TX0

Chromatogram

Sample Name : L1340-2 5ML UG/L

FileName : C:\TC4\DATA2\S092022.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 18 mV

Sample #:

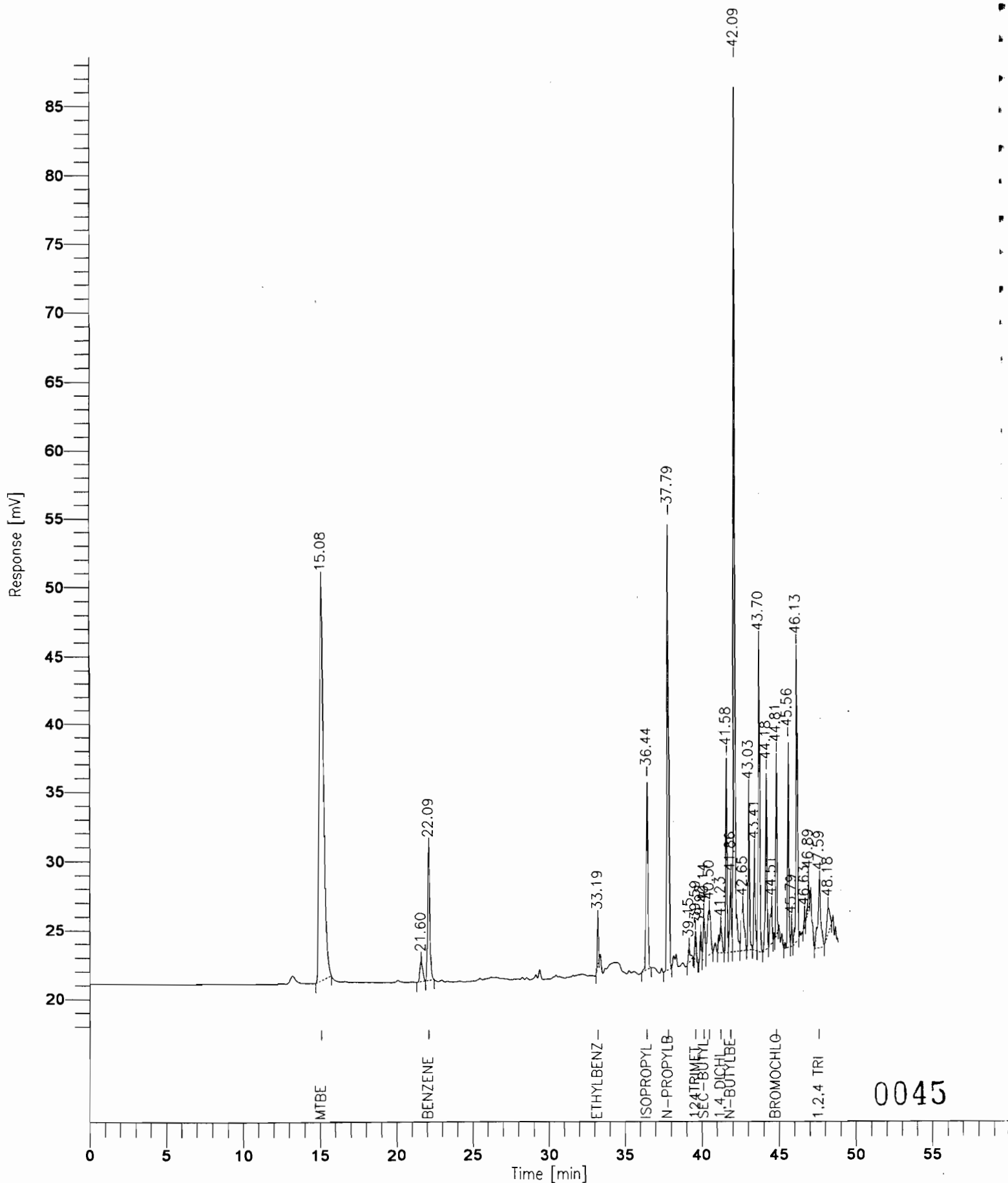
Date : 9/21/00 09:32

Time of Injection: 9/21/00 04:45

Low Point : 17.73 mV

Plot Scale: 70.8 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/00 09:32

Sample Name : L1340-2 5ML UG/L

Data File : C:\TC4\DATA2\S092022.RAW Date: 9/21/00 04:45

Sequence File: C:\TC4\DATA2\B092000.SEQ Cycle: 22 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -190/66 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

8/21/26/0

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	15.08	554015.30	29086.86	607.350	607.350
2		21.60	18607.38	1466.96	0.019	0.019
3	BENZENE	22.09	100816.51	9647.42	36.484	36.484
4	ETHYLBENZENE	33.19	20690.35	3328.16	0.586	0.586
5	ISOPROPYLBENZENE	36.44	105170.91	14019.00	44.919	44.919
6	n-PROPYLBENZENE	37.79	224038.37	33269.54	89.026	89.026
7		39.15	9717.92	1128.31	0.010	0.010
8	124TRIMETBENZENE	39.59	13312.62	2246.87	-3.513	-3.513
9		39.92	12662.46	2008.74	0.013	0.013
10	SEC-BUTYLBENZENE	40.14	27837.50	3377.41	14.984	14.984
11	ISOPROPYLTOLUENE	40.50	47870.44	3256.97	22.825	22.825
12	1,4 DICHLOROBENZENE	41.23	23383.01	1940.15	7.813	7.813
13		41.58	85281.30	14301.27	0.085	0.085
14	n-BUTYLBENZENE	41.85	39827.15	5118.89	20.576	20.576
15		42.09	408289.82	65413.98	0.408	0.408
16		42.65	45907.32	3231.46	0.046	0.046
17		43.03	69853.21	11661.90	0.070	0.070
18		43.41	48945.19	7307.86	0.049	0.049
19		43.70	142802.05	22714.55	0.143	0.143
20		44.18	86727.78	13081.74	0.087	0.087
21		44.51	26974.61	2761.51	0.027	0.027
22	BROMOCHLOROBENZENE	44.81	75555.92	13362.04	32.114	32.114
23		45.56	93373.37	15374.31	0.093	0.093
24		45.79	8312.01	1619.16	0.008	0.008
25		46.13	140417.63	21720.39	0.140	0.140
26		46.63	4617.51	899.16	0.005	0.005
27		46.89	12671.77	2080.56	0.013	0.013
28	1,2,4 TRICHLOROBENZENE	47.59	64909.76	4868.70	45.438	45.438
29		48.18	27571.40	2002.19	0.028	0.028
			2540160.56	312296.04	919.845	919.845

Chromatogram

Sample Name : L1340-2 1:10 UG/L

FileName : C:\TC4\DATA2\S092108.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 9/25/00 10:38

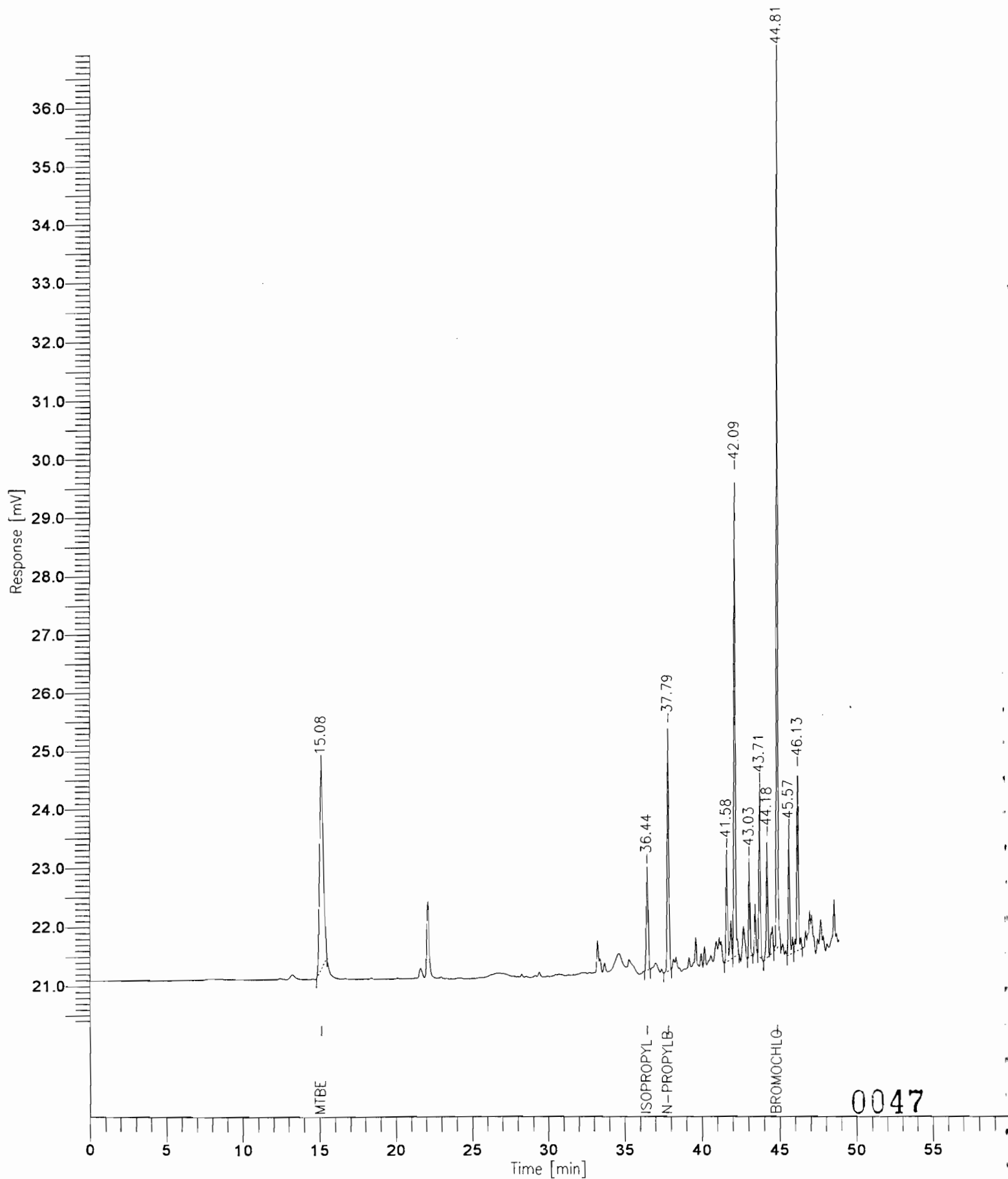
Time of Injection: 9/21/00 15:04

Low Point : 20.30 mV

Plot Scale: 16.6 mV

Page 1 of 1

High Point : 36.92 mV



Software Version: 4.1<2F12>

Date: 9/25/00 10:38

Sample Name : L1340-2 1:10 UG/L

Data File : C:\TC4\DATA2\S092108.RAW Date: 9/21/00 15:04

Sequence File: C:\TC4\DATA2\B092100.SEQ Cycle: 8 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -189/67 Operator:

Sample Amount : 1.0000

Dilution Factor : 10.00

SN 9/26/00

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	15.08	59044.25	3475.36	64.566	64.566
2	ISOPROPYLBENZENE	36.44	13474.33	1815.98	5.755	5.755
3	n-PROPYLBENZENE	37.79	29141.71	4248.71	11.580	11.580
4		41.58	16549.98	1938.81	0.017	0.017
5		42.09	50278.00	8374.14	0.050	0.050
6		43.03	10439.76	1716.26	0.010	0.010
7		43.70	18260.91	2975.86	0.018	0.018
8		44.18	16995.19	2075.13	0.017	0.017
9	BROMOCHLOROBENZENE	44.81	83126.23	15305.88	35.331	35.331
10		45.57	14492.14	2158.05	0.014	0.014
11		46.13	21785.15	3142.24	0.022	0.022
			333587.63	47226.42	117.381	117.381

Report stored in ASCII file: C:\TC4\DATA2\S092108.TX0

Chromatogram

Sample Name : L1340-3 5ML UG/L

FileName : C:\TC4\DATA2\S092015.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 9/21/00 09:31

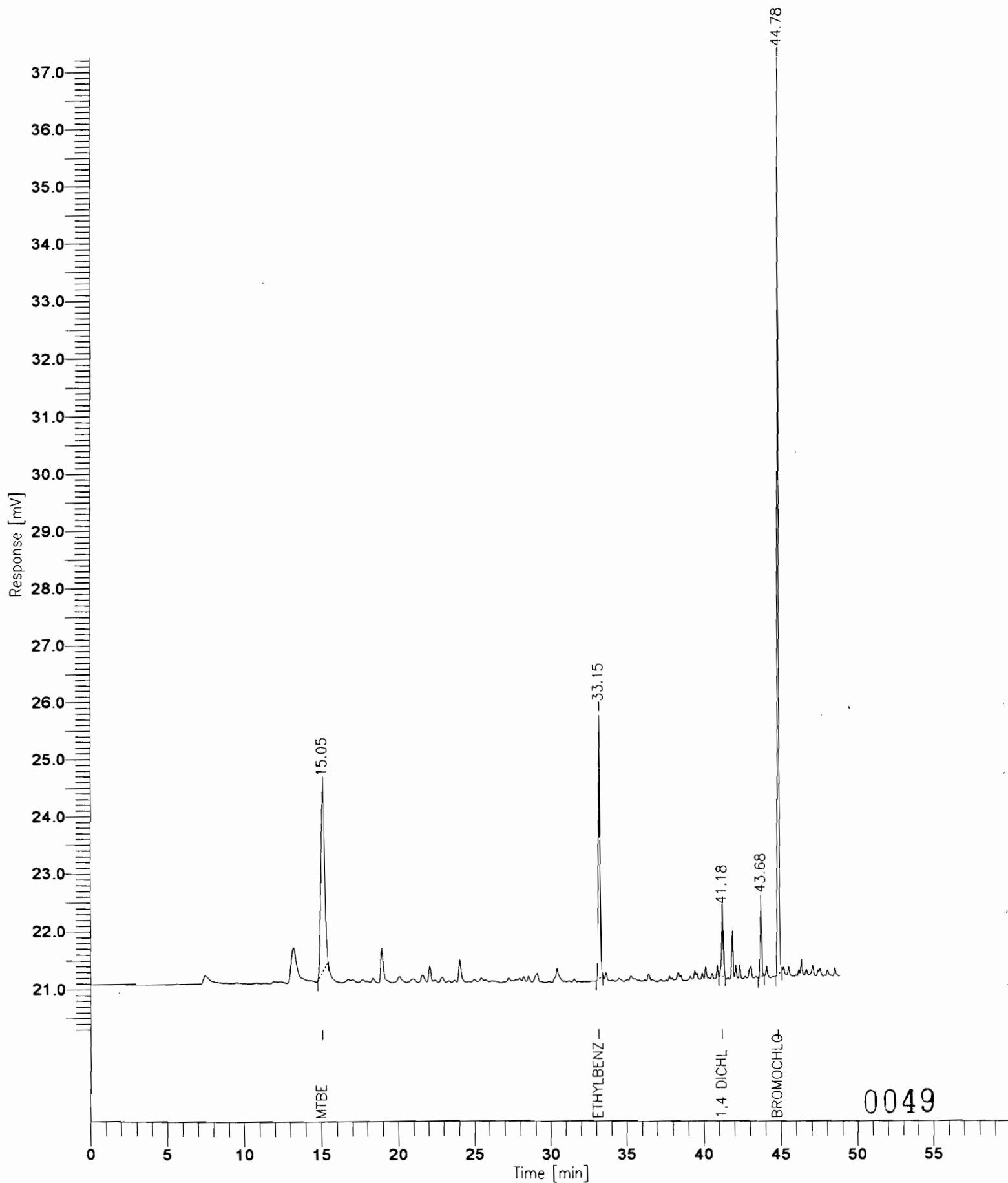
Time of Injection: 9/20/00 22:20

Low Point : 20.28 mV

Plot Scale: 17.0 mV

Page 1 of 1

High Point : 37.27 mV



Software Version: 4.1<2F12>

Date: 9/21/00 09:31

Sample Name : L1340-3 5ML UG/L

Data File : C:\TC4\DATA2\S092015.RAW Date: 9/20/00 22:20

Sequence File: C:\TC4\DATA2\B092000.SEQ Cycle: 15 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -190/66 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

8/21/26/00

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	15.05	54350.98	3225.50	59.419	59.419
2	ETHYLBENZENE	33.15	34631.54	4679.98	7.825	7.825
3	1,4 DICHLOROBENZENE	41.18	8394.64	1078.73	2.805	2.805
4		43.67	7915.79	1284.24	0.008	0.008
5	BROMOCHLOROBENZENE	44.78	88231.45	16110.53	37.501	37.501
			193524.41	26378.98	107.558	107.558

Report stored in ASCII file: C:\TC4\DATA2\S092015.TX0

Chromatogram

Sample Name : L1340-4 5ML UG/L

FileName : C:\TC4\DATA2\S092016.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 9/21/00 09:31

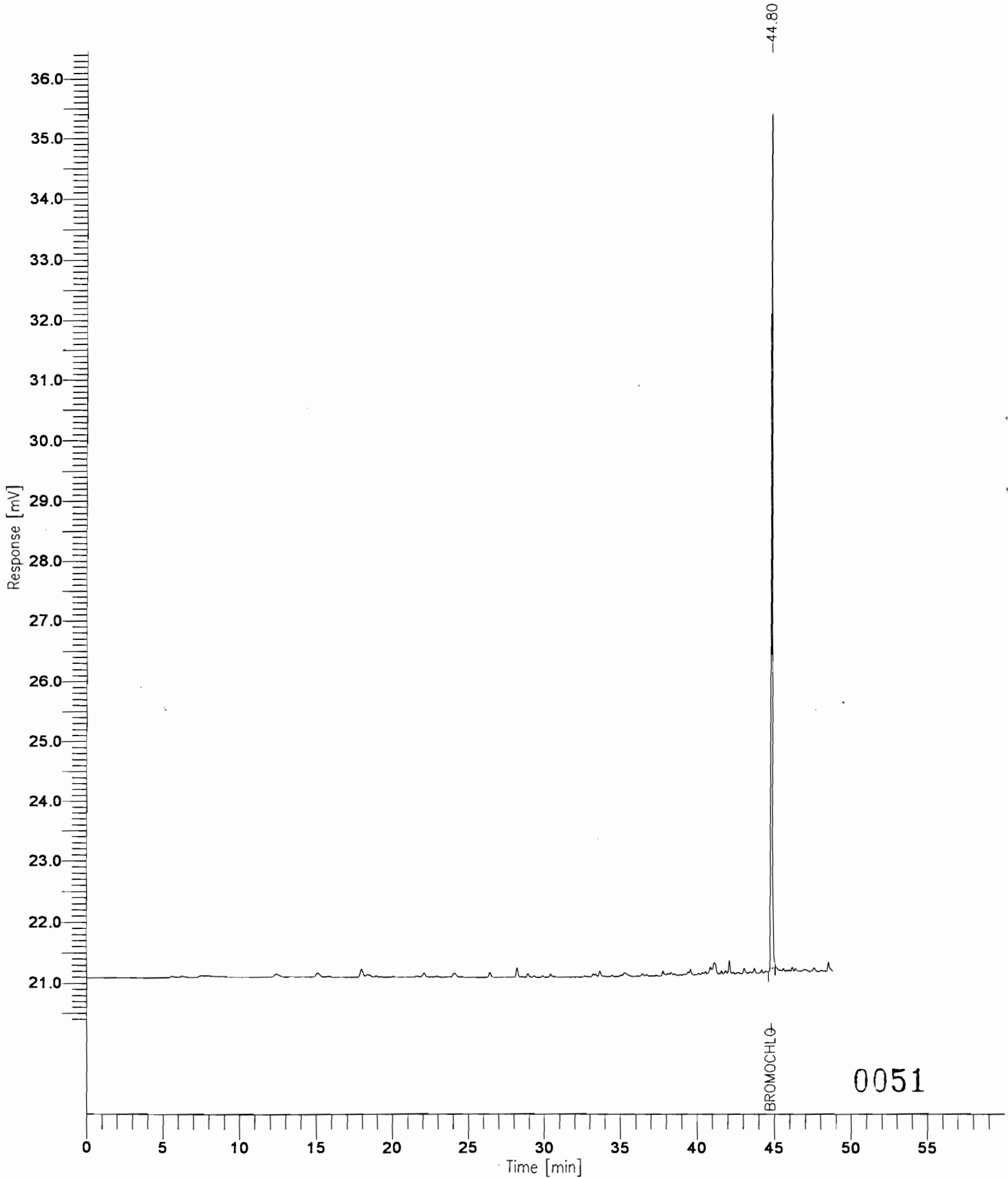
Time of Injection: 9/20/00 23:15

Low Point : 20.32 mV

Plot Scale: 16.1 mV

Page 1 of 1

High Point : 36.46 mV



Software Version: 4.1<2F12>

Date: 9/21/00 09:31

Sample Name : L1340-4 5ML UG/L

Data File : C:\TC4\DATA2\S092016.RAW Date: 9/20/00 23:15

Sequence File: C:\TC4\DATA2\B092000.SEQ Cycle: 16 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -190/66 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

829/28/a

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	BROMOCHLOROBENZENE	44.80	82251.00	15237.41	34.959	34.959
			82251.00	15237.41	34.959	34.959

Report stored in ASCII file: C:\TC4\DATA2\S092016.TX0

Chromatogram

Sample Name : L1340-5 5ML UG/L

FileName : C:\TC4\DATA2\S092017.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 19 mV

Sample #:

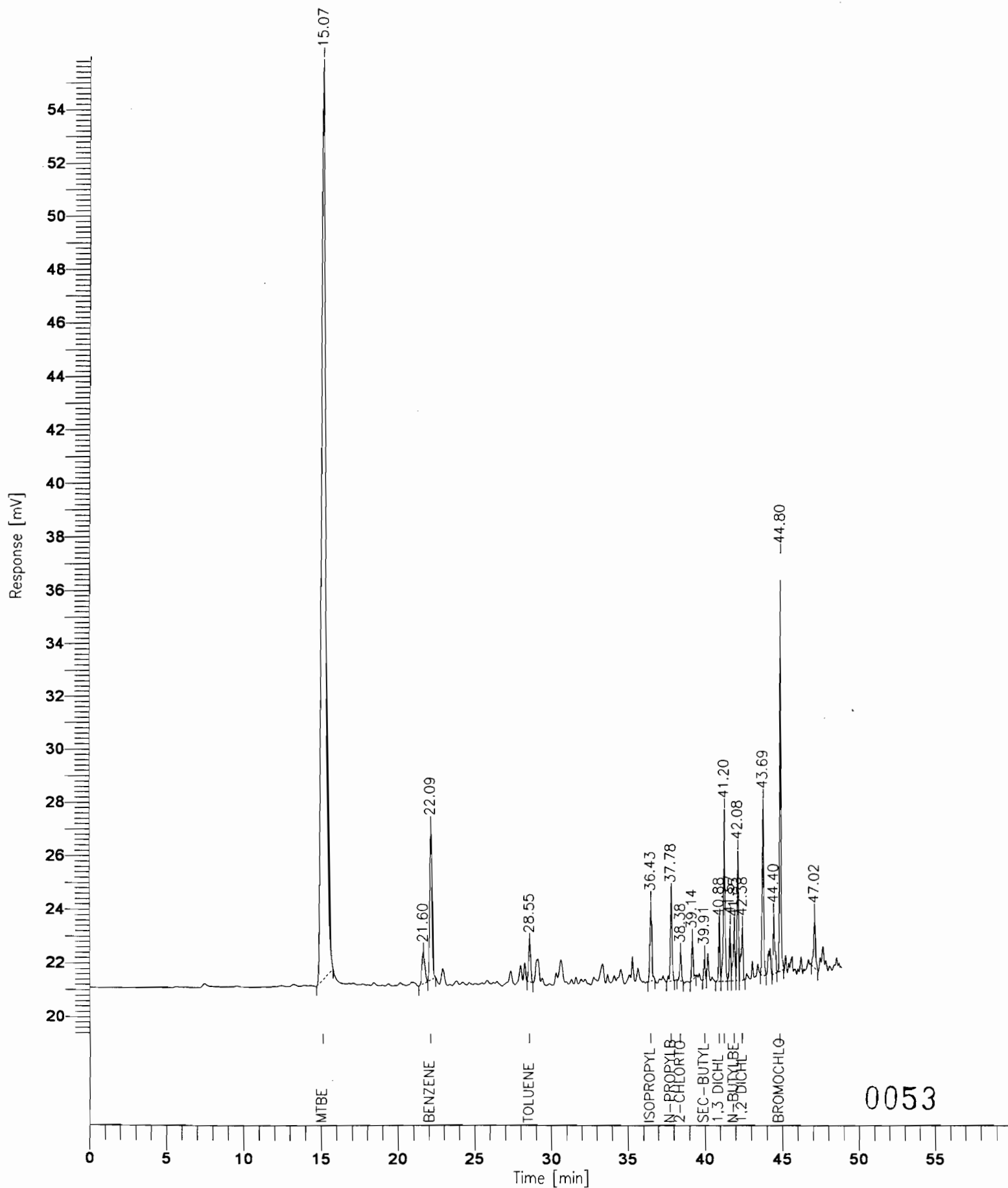
Date : 9/21/00 09:31

Time of Injection: 9/21/00 00:10

Low Point : 19.35 mV

Plot Scale: 36.6 mV

Page 1 of 1



0053

Software Version: 4.1<2F12>

Date: 9/21/00 09:31

Sample Name : L1340-5 5ML UG/L

Data File : C:\TC4\DATA2\S092017.RAW Date: 9/21/00 00:10

Sequence File: C:\TC4\DATA2\B092000.SEQ Cycle: 17 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -190/66 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

Sp 9/26/00

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	15.07	664030.85	34618.40	727.993	727.993
2		21.60	14988.89	1178.50	0.015	0.015
3	BENZENE	22.08	58206.73	5761.54	21.064	21.064
4	TOLUENE	28.55	13617.42	1446.31	4.650	4.650
5	ISOPROPYLBENZENE	36.43	22638.63	3000.70	9.669	9.669
6	n-PROPYLBENZENE	37.78	23664.95	3296.01	9.404	9.404
7	2-CHLORTOL+PETHYLTOLUE	38.38	7406.77	1056.22	2.304	2.304
8		39.14	10280.75	1540.29	0.010	0.010
9	SEC-BUTYLBENZENE	39.91	5527.74	912.40	2.975	2.975
10	1,3 DICHLOROBENZENE	40.88	12504.21	2052.73	4.304	4.304
11	1,4 DICHLOROBENZENE	41.20	45256.69	6460.87	15.122	15.122
12		41.57	13119.08	2113.56	0.013	0.013
13	n-BUTYLBENZENE	41.85	17146.87	2012.68	8.859	8.859
14		42.08	29616.65	4888.77	0.030	0.030
15	1,2 DICHLOROBENZENE	42.38	18819.22	2033.56	7.478	7.478
16		43.69	42143.02	6596.61	0.042	0.042
17		44.40	16983.75	2273.95	0.017	0.017
18	BROMOCHLOROBENZENE	44.80	88265.91	15756.96	37.516	37.516
19		47.02	16858.82	2030.97	0.017	0.017
			1121076.96	99031.03	851.481	851.481

Report stored in ASCII file: C:\TC4\DATA2\S092017.TX0

Chromatogram

Sample Name : L1340-5 1:10 UG/L

FileName : C:\TC4\DATA2\S092110.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 9/25/00 10:38

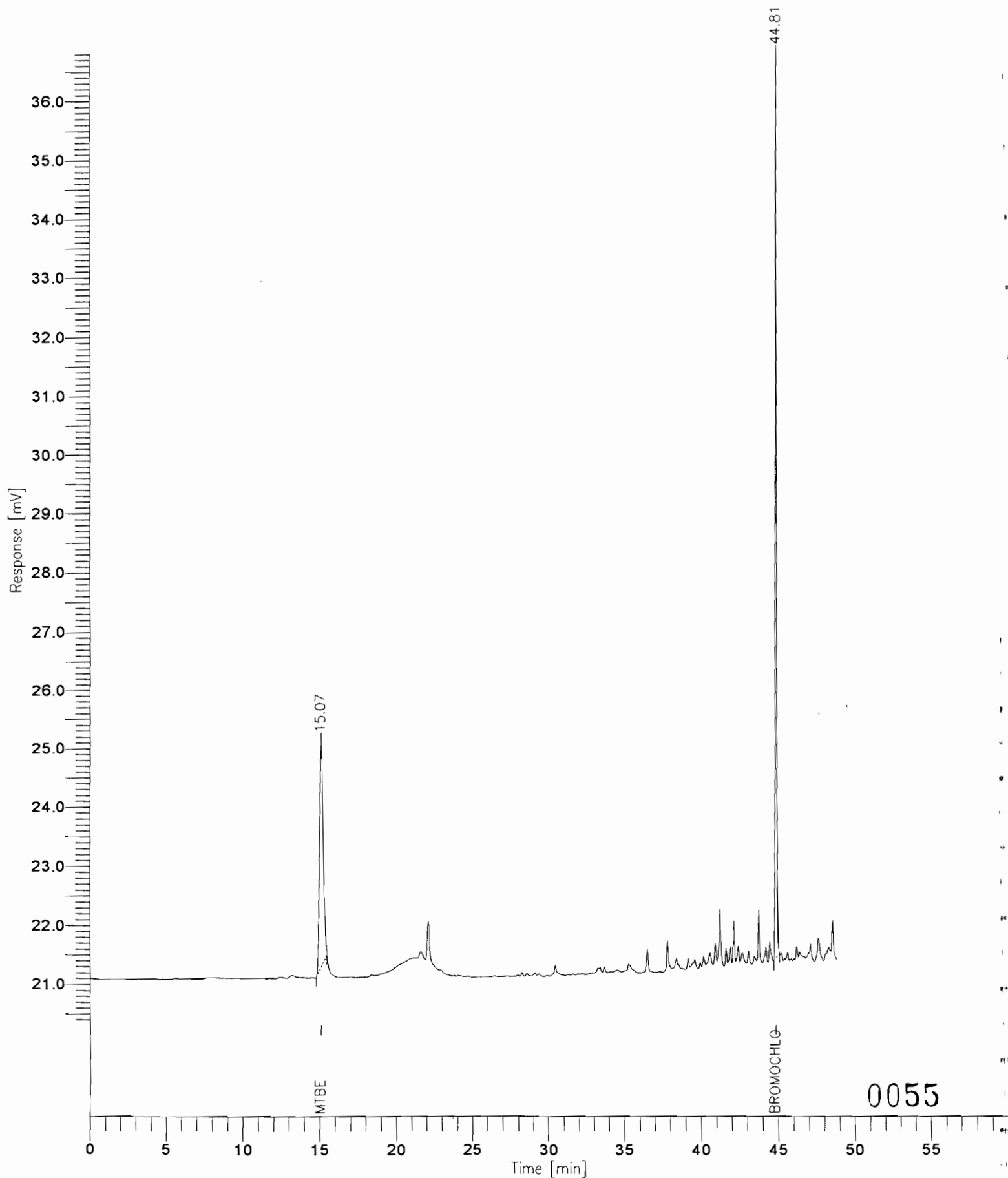
Time of Injection: 9/21/00 16:55

Low Point : 20.31 mV

Plot Scale: 16.5 mV

Page 1 of 1

High Point : 36.81 mV



Software Version: 4.1<2F12>

Date: 9/25/00 10:38

Sample Name : L1340-5 1:10 UG/L

Data File : C:\TC4\DATA2\S092110.RAW Date: 9/21/00 16:55

Sequence File: C:\TC4\DATA2\B092100.SEQ Cycle: 10 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -189/67 Operator:

Sample Amount : 1.0000 Dilution Factor : 10.00

SK 9/26/00.

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	15.07	65242.97	3817.66	71.363	71.363
2	BROMOCHLOROBENZENE	44.81	83538.13	15418.10	35.506	35.506
			148781.10	19235.76	106.870	106.870

Report stored in ASCII file: C:\TC4\DATA2\S092110.TX0

Chromatogram

Sample Name : L1340-6 5ML UG/L

FileName : C:\TC4\DATA2\S092018.raw

Method : B042100

Start Time : 0.00 min

End Time : 60.00 min

Scale Factor: 1.0

Plot Offset: 20 mV

Sample #:

Date : 9/21/00 09:31

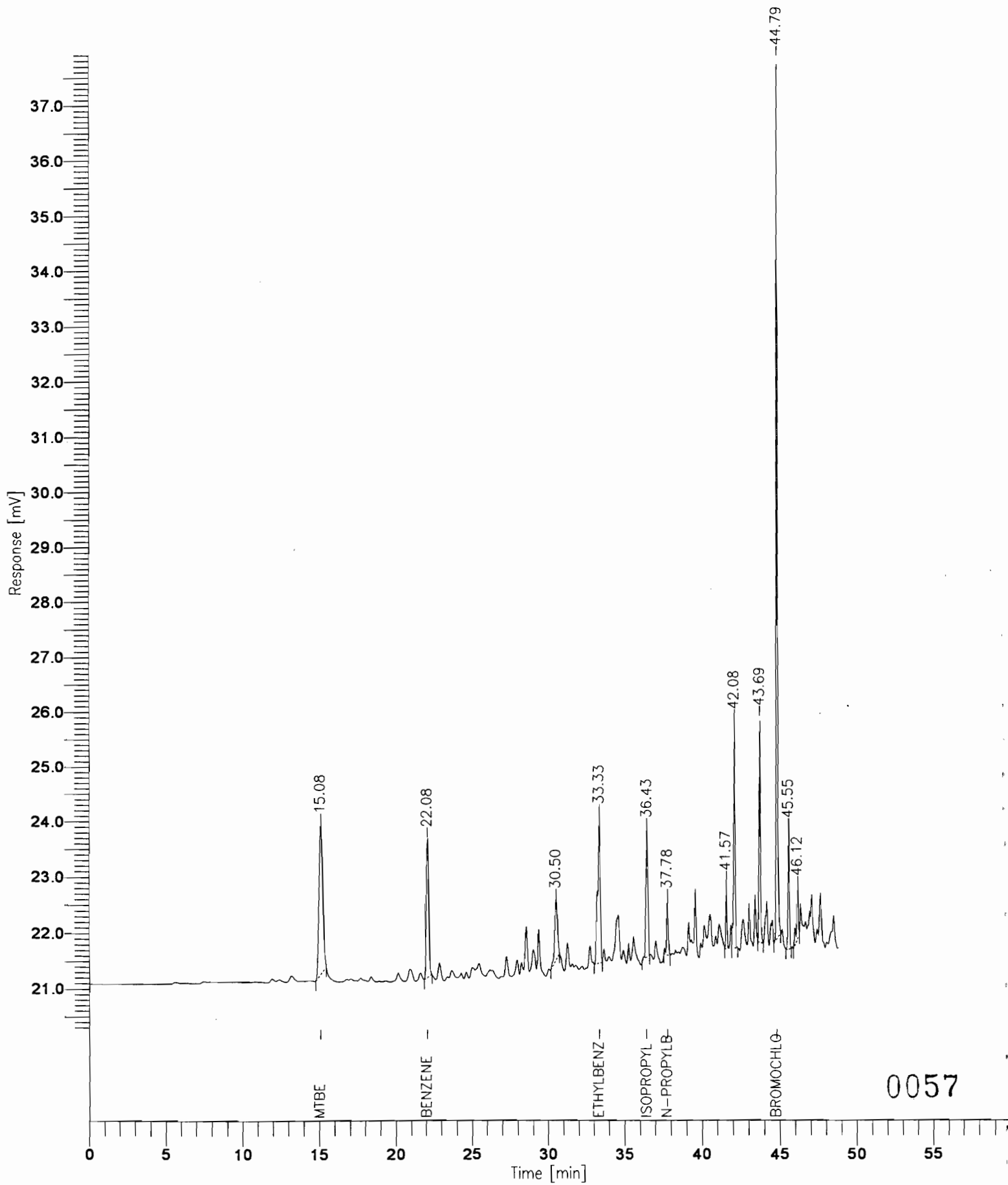
Time of Injection: 9/21/00 01:05

Low Point : 20.25 mV

Plot Scale: 17.7 mV

Page 1 of 1

High Point : 37.91 mV



Software Version: 4.1<2F12>

Date: 9/21/00 09:31

Sample Name : L1340-6 5ML UG/L

Data File : C:\TC4\DATA2\S092018.RAW Date: 9/21/00 01:05

Sequence File: C:\TC4\DATA2\B092000.SEQ Cycle: 18 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: -190/66 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

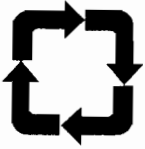
See 9/26/00

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	15.08	46215.26	2715.93	50.498	50.498
2	BENZENE	22.08	25496.67	2521.01	9.227	9.227
3		30.49	14080.94	1093.61	0.014	0.014
4	ETHYLBENZENE	33.33	31401.08	2684.00	6.147	6.147
5	ISOPROPYLBENZENE	36.43	17216.65	2316.60	7.353	7.353
6	n-PROPYLBENZENE	37.78	7260.43	1010.39	2.885	2.885
7		41.57	9482.15	1213.68	0.009	0.009
8		42.08	25719.97	4154.60	0.026	0.026
9		43.69	24745.72	4103.81	0.025	0.025
10	BROMOCHLOROBENZENE	44.79	89981.74	16040.98	38.245	38.245
11		45.55	13492.44	2171.06	0.013	0.013
12		46.12	7595.62	939.30	0.008	0.008
			312688.67	40964.97	114.450	114.450

Report stored in ASCII file: C:\TC4\DATA2\S092018.TX0

END OF ANALYTICAL REPORT



EnSolutions, Inc.

66 Elm Street • Dover, NJ 07801 • Telephone 973-442-1320 • Fax 973-361-3204

To: Mark Tibbe
From: Howie Fredericks
Subject: Petrocelli Report
Date: April 2, 2001

04-03-01A10:40 RCVD

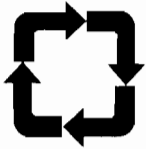
Dear Mark:

As per our discussion, attached is the Petrocelli Electric Co, Inc progress report requesting system shutdown and a natural attenuation program as describe for your review and, hopefully, assistance. The report has all the data, trends, isopleths, etc. that support the system shutdown, however, if you require any additional information, please do not hesitate to call.

Thanks for all your help.

Howie Fredericks

*Used actual
GW Flow.
Possibly a
downgradient well
for natural
attenuation*



EnSolutions, Inc.

66 Elm Street • Dover, NJ 07801 • Telephone 973-442-1320 • Fax 973-361-3204

March 30, 2001

Mr. Mark Tibbe
New York State Department of Environmental Conservation
222-34 96th Avenue
Queens Village, NY 11420

RE: Progress Report
Petrocelli Electric Company Inc. Facility
22-09 Queens Bridge Plaza North
Long Island City, NY
Spill # ~~97-058567~~
97-05856

Dear Mr. Tibbe:

On behalf of Petrocelli Electric Company Inc. (Petrocelli), enclosed is the progress report for the remedial action at the above referenced facility prepared by EnSolutions, Inc. The purpose of this report is to provide the NYSDEC with the following information:

1. The status of the remedial action at the site.
2. The analytical ground water sampling results performed in February 2001 at the site.
3. The request to discontinue active remediation based upon current levels at the site and the implementation of natural attenuation as the preferred remedial activity for the site.

Thank you for all your assistance in this matter and if you require any additional information please do not hesitate to call us at (973) 442-1320.

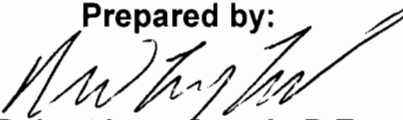
Sincerely,
EnSolutions, Inc.

R. L. Lynch, P. E.
President

cc: Michael Melia – Petrocelli Electric Co., Inc.

**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

**Prepared for:
PETROCELLI ELECTRIC COMPANY, INC.**

Prepared by:

Robert Larry Lynch, P.E.

**EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801
(973) 442-1320**

MARCH 2001

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

TABLE OF CONTENTS

SECTION I

- A. Introduction
- B. Area/Site Characterization
- C. Ground Water
- D. SVE/AS Remedial System
- E. SVE / AS System Operation

SECTION II

- A. Ground Water Sampling – February 2001

SECTION III

- A. Ground Water Analytical Results – February 2001

SECTION IV

- A. Conclusions
- B. Action Items

SECTION V

FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 February 2001 Benzene Isopleth Map
- Figure 4 February 2001 Total BTEX Isopleth Map
- Figure 5 February 2001 MTBE Isopleth Map
- Figure 6 Benzene Trend
- Figure 7 Total BTEX Trend
- Figure 8 MTBE Trend

TABLES

- Table 1 February 2001 Analytical Results Summary
- Table 2 Historical Ground Water Sampling Results

ATTACHMENTS

- Attachment 1 Laboratory QA/QC Data – February 2001



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION I

A. INTRODUCTION

On behalf of Petrocelli Electric Company Inc. (Petrocelli), EnSolutions, Inc. (EnSolutions) has prepared this Progress Report for the remedial actions implemented at the Petrocelli facility at 22-09 Queens Bridge Plaza North, Long Island City, New York.

This Progress Report is part of the approved Corrective Action Plan implemented at the site as a result of a petroleum hydrocarbon release that occurred under the prior property owner.

B. AREA / SITE CHARACTERIZATION

The site, the administrative and maintenance facilities for the Petrocelli Electric Company Inc., is located at 22-09 Queens Plaza North, between 22nd and 23rd Streets, Long Island City, Queens County, New York. The area surrounding the site is primarily commercial, with some residential units up-gradient of the site, east on 23rd Street. A site location map is included as Figure 1 in Section V and a site plan illustrating all site features is included as Figure 2 in Section V.

The water source at the subject property and at all surrounding properties is currently from the public water supply. The East River is the nearest surface water to the site and is located approximately 3,000 feet to the west of the facility.

C. GROUND WATER

As a result of the soil delineation and ground water sampling and analyses performed at the subject property, six (6) ground water monitoring wells were installed on the subject property in May 1998. The six ground water monitoring wells were installed as both soil vapor extraction points and as ground water monitoring points in order to address and monitor the ground water contamination at the subject property. The six monitoring wells are labeled as MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6 and are shown in the site plan, Figure 2 in Section V.

The direction of ground water flow is predicted to be toward the west, in the direction of the East River.

EnSolutions, Inc.



D. SVE/AS REMEDIAL SYSTEM

Based on the site investigation activities implemented at the site and reported to the NYSDEC, which included the soil analytical data, ground water laboratory analytical data and a Corrective Action Plan, an approved Stipulation Agreement between Petrocelli and the NYSDEC, including an approved air permit, was issued for the site.

As part of the Correction Action Plan, a Soil Vapor Extraction / Air Sparging (SVE/AS) Remedial System was approved and is in operation to address the petroleum hydrocarbon soil and ground water contamination at the site.

The SVE component of the remedial system will induce airflow in the subsurface using an above ground vacuum pump system. The induced airflow brings clean air in contact with the contaminated soil. The contaminated soil vapors drawn off by the SVE allows the soil matrix to re-establish the soil / pore moisture partitioning with the contaminants present.

The SVE installed utilizes a positive displacement vacuum pump that utilizes an electronic variable speed drive. The drive receives its speed command from a Programmable Logic Controller (PLC), which permits the monitoring of all control parameters, such as pump speed and vacuum level and also provides for the modification of system parameters.

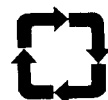
The SVE is connected to six extraction points, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6, to address the levels of contaminants at the site.

The air sparging component of the remedial system provides oxygen to stimulate biological activity in the subsurface. The air sparging system is design to provide sufficient oxygen to stimulate bioactivity, while minimizing the mobilization of dissolved hydrocarbons. To maintain a closed loop circulation of air injected into the ground water, the air sparging points are located within 30 feet of the vapor extraction points, well within the zone of influence for the SVE system.

The sparge system utilizes the four (4) sparge points, SP-1, SP-2, SP-3 and SP-4, and each point is configured with a gate valve to control flow to each individual sparge point. This will allow the operation of the system to be changed as necessary to optimize air sparging.

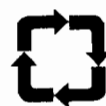
E. SVE / AS SYSTEM OPERATION

Based upon the Stipulation Agreement between the NYSDEC and Petrocelli, the SVE segment of the remedial system has been in operation since December 1998. As part of the SVE operation, a zone of influence test to evaluate the SVE system was performed during the first quarter of 1999 to determine the effectiveness of the remedial



system at the subject site. Utilizing the data obtained from the zone of influence test, the pneumatic zone of influence that displays capture of the vadose zone was established for this site.

The air sparging segment of the remedial system has been in operation to enhance the remedial efforts on the site since May 6, 1999.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION II

A. GROUND WATER SAMPLING - FEBRUARY 28, 2001

On February 28, 2001, Terra Nova Associates, under the supervision of EnSolutions, conducted the ground water sampling of the six ground water monitoring wells at the site. All sampling was conducted in accordance with the standard field sampling practices of the NYSDEC and the USEPA.

Water levels and total depths were measured with a slope indicator electronic water level meter, Model 501, to the nearest 0.01-foot as measured from the top of the inner casing mark or adjacent to the lock, if no mark was present. The water level meter line was wiped with a DI water soaked paper towel as it was retracted from the well. The probe was then rinsed with DI water and paper towel dried. The well depth, depth to water, well diameter and purge water calculations were noted in the field log, and the well calculations to determine one standing column were based on the following:

Casing diameter – 4 inches

Gallons/Linear Foot – 0.652

The wells were evacuated with a whale pump. All sampling tubing in the wells was dedicated polyethylene drinking water grade tubing with dedicated Brady foot valves.

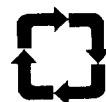
Field parameters were monitored before purging and after each casing volume. When three consecutive measurements of all parameters agreed within 10%, or if the well went dry, or 5 volumes was reached, sampling began.

Prior to sampling, a depth to water measurement was taken. If there was sufficient volume in the well, sampling proceeded. If volume was not sufficient, the well was allowed to recover.

All wells were sampled with a laboratory cleaned dedicated Teflon bailer, constructed entirely of Teflon.

The field meters used for ground water measurements included the YSI 3500, which was used for temperature, pH and specific conductivity.

EnSolutions, Inc.



No problems were encountered in the field. Immediately after the sample collection, the pre-labeled sample bottles were placed in a cooler at 4 degrees C and transported on ice to ChemTech Consulting Group Inc. of Englewood, New Jersey, New York License # 106081, for analyses, accompanied by a chain of custody form, in accordance with the quality control standards. All samples, including field and trip blanks, were analyzed for 8021p Stars and MTBE.

A summary of the field sampling parameters is as follow:

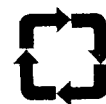
Sample Point	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
Total Depth	15.10	14.90	16.60	14.50	12.00	15.00
Depth To Water	10.45	8.43	8.69	8.72	8.16	9.75
Height To Water Col. (Ft.)	4.7	6.5	7.9	5.8	3.8	5.3
One Casing Vol. (Gal)	3.0	4.2	5.2	3.8	2.5	3.4
Three Casing Vol. (Gal)	9.1	12.7	15.5	11.3	57.5	10.3
Actual Volume Purged (Gal)	10.0	13.0	16.0	12.0	5*	11.0
Date Sampled	2/28/01	2/28/01	2/28/01	2/28/01	2/28/01	2/28/01
Time Sampled	0955	1010	1025	1035	1050	1105
Field Parameters						
Ph	6.75	6.55	6.37	6.33	6.68	6.74
SCOND um/cm	1528	1008	1164	1183	1704	1123
Temp C	11.7	11.8	12.1	10.5	7.40	12.0
Dissolved Oxygen (Ppm)	0.91	2.20	1.64	1.41	1.35	1.12
Appearance	clear	clear	cloudy	cloudy	cloudy	clear
Odor	odor	odor	odor	odor	no odor	odor
Purge Method	PP	PP	WP	PP	PP	PP
Sample Method	BT	BT	BT	BT	BT	BT

BT - BAILER TEFLON

WP - WHALE PUMP

PP- PERISTALTIC PUMP

*- well purged dry at less than 0.5 GPM



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION III

A. GROUND WATER ANALYTICAL RESULTS – FEBRUARY 28, 2001

The laboratory results of the 8021p-STARs and MTBE analyses for the six ground water samples obtained indicated:

1. Levels of benzene have declined significantly and now exceed the NYSDEC ground water quality standards or guidance values for ground water in only MW-3 at 20 ppb.
2. Levels of MTBE have declined significantly and now exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-3 at 270 ppb, MW-2 at 150 ppb and MW-4 at 52 ppb.
3. No other compounds from 8021p-STARs or MTBE exceed any the NYSDEC ground water quality standards or guidance values for ground water in any of the other monitor wells at the site.

The analytical results summary are shown in Table 1 in Section V:

A summary table of the historical analytical results, including the February 2001 results, is shown in Table 2 in Section V.

The laboratory QA/QC for the ground water analyses is included as Attachment 1 in Section V.

Copies of the benzene, Total BTEX and MTBE ground water isopleth maps are included as Figures 3, 4 and 5, respectively, in Section V.

In addition, the effectiveness of the remedial system was evaluated by plotting Benzene and MTBE concentrations versus time from the implementation of active remediation. These figures, Figure 6, Figure 7 and Figure 8, show that Benzene, Total BTEX and MTBE levels have declined over time.

Furthermore, Figure 6, Figure 7 and Figure 8 show this decline in Benzene, BTEX and MTBE concentrations in ground water to be at a declining rate, i.e., as the operating time of system operation continues, the amount of contaminated removed becomes smaller for a given time frame, or asymptotic.

EnSolutions, Inc.



Once a ground water remedial system has reached asymptotic operation, little or no additional improvements in ground water quality can be anticipated from further operation the system. At this point, the preferred technical option is to discontinue active remediation and allow the natural attenuation to complete the remedial action at the site.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION IV

A. CONCLUSIONS

The closure information and remedial investigation analytical results from the ground water sampling of February 28, 2001 indicates the active remedial efforts at the subject site have reached the asymptotic levels and further operation of an active remedial system at this site is not warranted. This is based upon the following:

- Figure 6, Figure 7 and Figure 8 demonstrate the asymptotic operation of the air sparge / SVE system.
- Benzene only exceeded the NYSDEC ground water quality standards or guidance values for ground water are in MW-3 at 20 ppb.
- Levels of MTBE have dropped significantly across the property and now exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-1 at 270 ppb, MW-2 at 150 ppb and MW-4 at 52 ppb.
- Levels of all other volatiles do not exceed any of the NYSDEC ground water quality standards or guidance values for ground water.

4.2 ACTION ITEMS

Based upon analytical data and a review of all information in regards to the site, the following are the action items that should be implemented at the site:

1. Active remediation utilizing the SVE / AS system should be discontinued.
2. Natural attenuation should be implemented as the remedial activity for the subject property.
3. To gather the necessary data to support the natural attenuation proposal, quarterly ground water monitoring of the six monitoring wells at the subject site will be implemented for eight quarters immediately following the cessation of active remediation.
4. A progress report of the ground water quality will be submitted semi-annually to NYSDEC case manager in the appropriate periods following the cessation of active remediation.

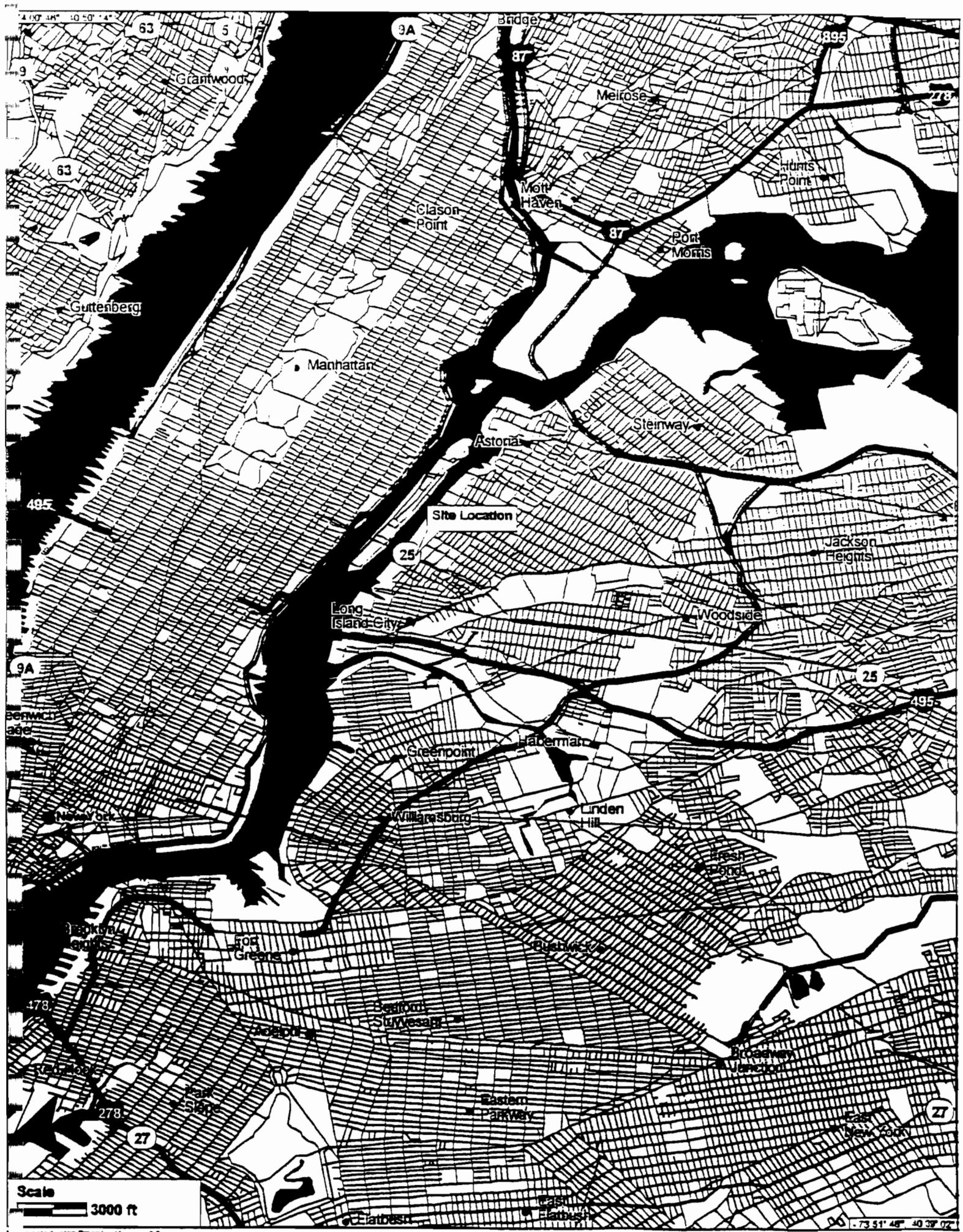
EnSolutions, Inc.



FIGURES



Figure 1 - Site Location Map



22nd STREET

QUEENS PLAZA NORTH

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

Tank Farm

REMEDIAL
SYSTEM

MW-1

MW-2

MW-3

SP 2

SP 1

MW-4

SP 3

SP 4

MW-5

MW 6



KEY	
	Monitor Well
	Sparge Point

DATE MAY 1999	EnSolutions, Inc. 66 Elm Street Dover, NJ 07801
DESCRIPTION FIGURE 2 PETROCELLI FACILITY SITE PLAN	
TITLE 22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY S. KOTEEN	SCALE AS SHOWN

0ft. 6ft. 10ft. 20ft.

QUEENS PLAZA NORTH

22nd STREET

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

REMEDIAL
SYSTEM

MW-1

MW-2

MW-3

SP 2

SP 1

MW-4
20

<0.7

Tank Farm

SP 3

SP 4

MW-5

MW 6

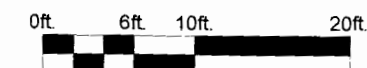


KEY

- ⊕ Monitor Well
- ⊞ Sparge Point

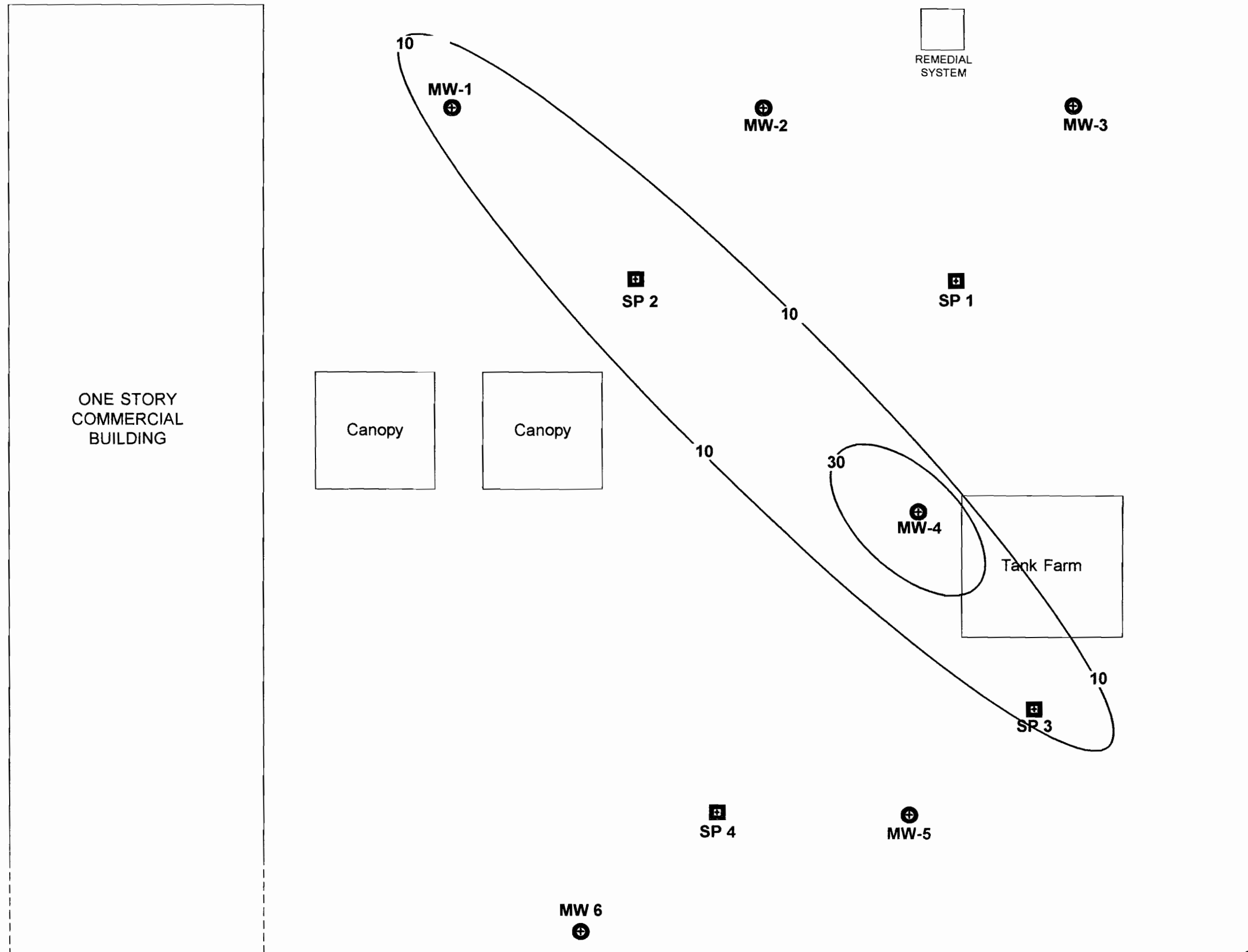
DATE	EnSolutions, Inc. 66 Elm Street Dover, NJ 07801
FEBRUARY 2001	
DESCRIPTION	
FIGURE 3 PETROCELLI FACILITY BENZENE ISOPLETH MAP	
TITLE	
22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY	SCALE
rl	As Shown

MW 1	ND
MW 2	ND
MW 3	ND
MW 4	20
MW 5	ND
MW 6	ND



QUEENS PLAZA NORTH

22nd STREET

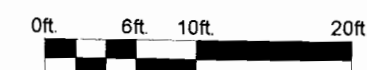


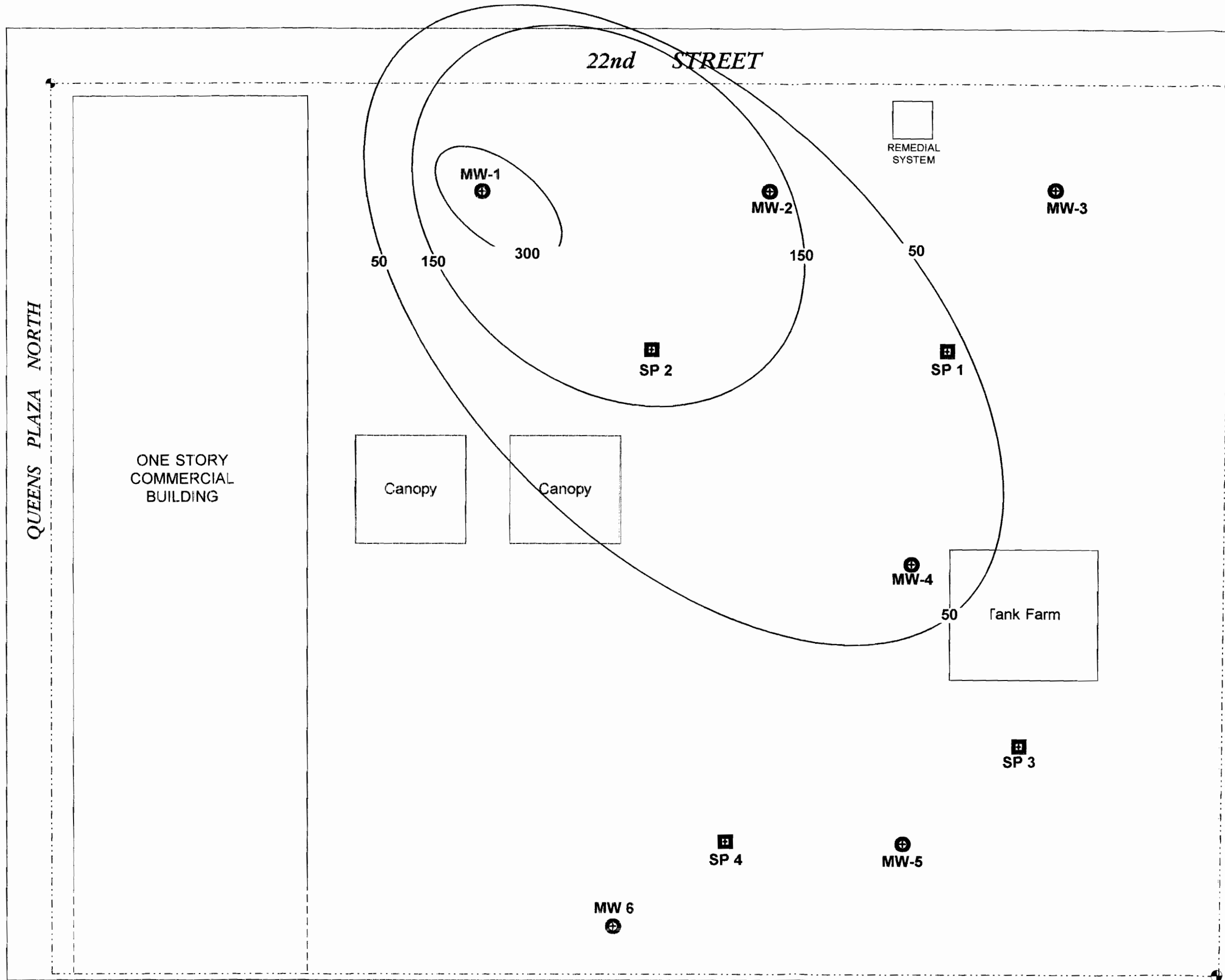
KEY

- Monitor Well
- Sparge Point

DATE	EnSolutions, Inc. 66 Elm Street Dover, NJ 07801
FEBRUARY 2001	
DESCRIPTION	
FIGURE 4 PETROCELLI FACILITY TOTAL BTEX ISOPLETH MAP	
TITLE	
22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY	SCALE
rl	As Shown

	BTEX
MW 1	9.4
MW 2	ND
MW 3	ND
MW 4	28.0
MW 5	ND
MW 6	ND





KEY

- ⊕ Monitor Well
- ⊞ Sparge Point

EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801

DATE

FEBRUARY
2001



DESCRIPTION

FIGURE 5
PETROCELLI FACILITY
MTBE ISOPLETH MAP

TITLE

22-09 Queens Bridge Plaza North
Long Island City, NY

DRAWN BY

rlj

SCALE

As Shown

GW-1	270
GW-2	150
GW-3	19
GW-4	52.0
GW-5	ND
GW-6	ND

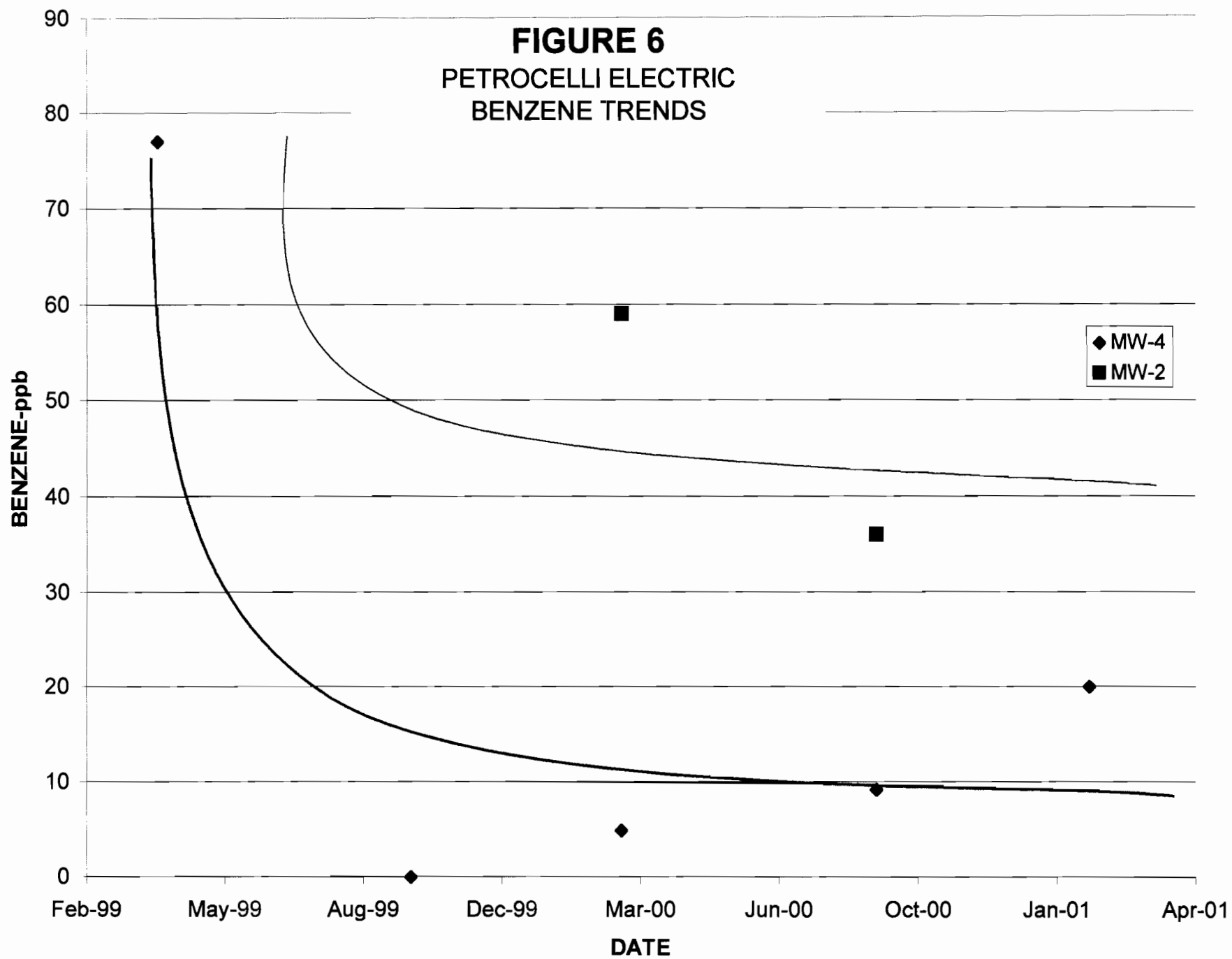
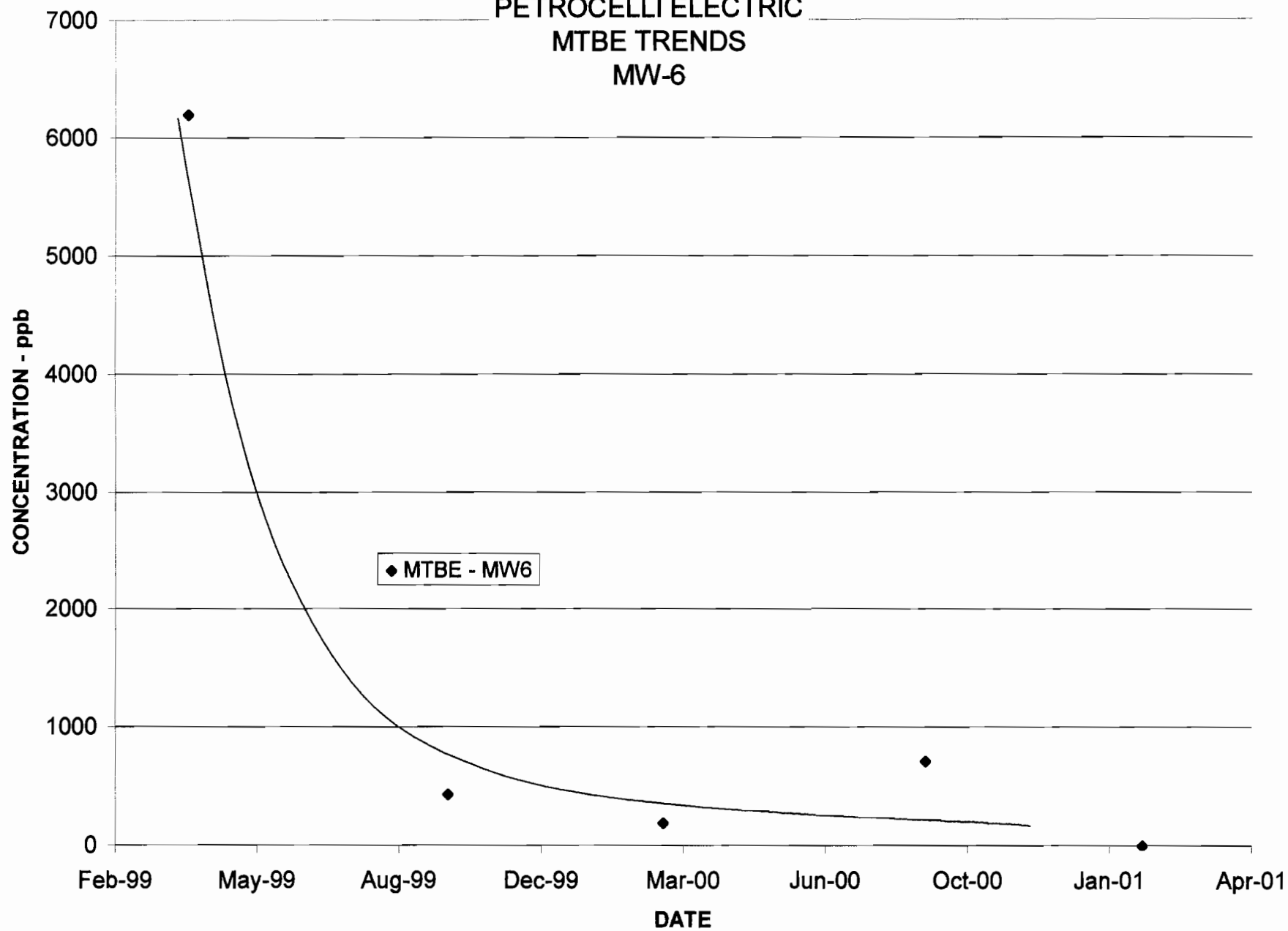


FIGURE 8
PETROCELLI ELECTRIC
MTBE TRENDS
MW-6



TABLES

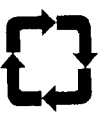


TABLE 1

Petrocelli Electric Co. - Long Island City, NY
Ground Water Sampling Results Summary Table
Sampling Date February 28, 2001

Client Sample ID		MW-1			MW-2			MW-3			MW-4			MW-5			MW-6		
Lab Sample ID		L3364-1			L3364-2			L3364-03			L3364-04			L3364-05			L3364-05		
Sample Collection Date		2/28/2001			2/28/2001			2/28/2001			2/28/2001			2/28/2001			2/28/2001		
Sample Receipt Date		2/28/2001			2/28/2001			2/28/2001			2/28/2001			2/28/2001			2/28/2001		
Sample Matrix		WATER			WATER			WATER			WATER			WATER			WATER		
Units		ug/L			ug/L			ug/L			ug/L			ug/L			ug/L		
		MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q
71-43-2	Benzene	1	ND		1	ND		1	ND		1	20		1	ND		1	ND	
108-88-3	Toluene	1	4.3		1	ND		1	ND		1	ND		1	ND		1	ND	
100-41-4	Ethylbenzene	1	5.1		1	ND		1	ND		1	8		1	ND		1	ND	
136777-61-2	M&P Xylenes	2	ND		2	ND		2	ND		2	ND		2	ND		2	ND	
95-47-6	O-Xylene	1	ND		1	ND		1	ND		1	ND		1	ND		1	ND	
98-82-8	Isopropylbenzene	1	20		1	ND		1	ND		1	ND		1	ND		1	ND	
103-65-1	n-propylbenzene	1	49		1	ND		1	ND		1	ND		1	ND		1	ND	
108-67-8	1,3,5-Trimethylbenzene	2	ND		2	ND		2	ND		2	ND		2	ND		2	ND	
98-06-6	Tert-Butylbenzene	1	ND		1	ND		1	ND		1	ND		1	ND		1	ND	
95-63-6	1,2,4-Trimethylbenzene	1	ND		1	ND		1	ND		1	ND		1	ND		1	ND	
135-98-8	Sec-Butylbenzene	1	20		1	ND		1	ND		1	ND		1	ND		1	ND	
99-87-6	Isopropyltoluene	1	ND		1	ND		1	ND		1	ND		1	ND		1	ND	
104-51-8	n-Butylbenzene	1	45		1	ND		1	ND		1	ND		1	ND		1	ND	
91-20-3	Naphthalene	1	22		1	ND		1	ND		1	ND		1	ND		1	ND	
1634-04-4	Methyl Tert Butyl Ether (MTBE)	5	270		2	150		1	19		1	52		1	ND		1	ND	



EnSolutions, Inc.

TABLE 2

Petrocelli Electric Company, Inc.
Ground Water Sampling Results Summary Table

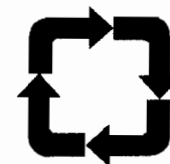
VOLATILE COMPOUNDS (ug/l)	MW-1					MW-2					MW-3				
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01
Benzene	45	ND	ND	ND	ND	ND	ND	59	36	ND	ND	NS	ND	ND	ND
Toluene	ND	ND	ND	ND	4.3	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
Ethylbenzene	58	27	1.9	ND	5.1	ND	ND	14	ND	ND	ND	NS	22	7.8	ND
MTBE	590	200	700	220	270	520	2500	690	650	ND	22	NS	68	59	ND
Total Xylenes	30	ND	ND	ND	ND	ND	ND	ND	ND	150	ND	NS	ND	ND	19

	MW-4					MW-5					MW-6				
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01
Benzene	77	ND	4.9	9.2	20	ND	ND	ND	ND	ND	ND	ND	ND	21	ND
Toluene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.7	ND
Ethylbenzene	250	ND	2.8	6.1	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	280	450	73	50	ND	ND	ND	ND	ND	ND	6200	430	190	710	ND
Total Xylenes	370	ND	18	ND	52	ND	ND	ND	ND	ND	ND	41	ND	ND	ND

Qualifiers

ND = The compound was not detected at the indicated concentration.

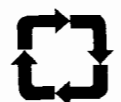
NS = Not sampled



EnSolutions, Inc.

ATTACHMENTS

EnSolutions, Inc.





205 Campus Plaza 1 • Edison, NJ 08837 Phone: 732.225.4111 Fax: 732.225.4110

DATA PACKAGE FOR RESULTS SUMMARY

PROJECT NAME: PETROCELLI ELEC

**EN SOLUTIONS
66 ELM STREET
DOVER, NJ 07801
973-442-1320**

**CHEMTECH PROJECT #
ATTENTION**

**L3364ASP
HOWARD FREDRICKS**

Tabulated Analytical Report
SW846 8021 Star ListCLIENT: EN SOLUTIONS
PROJECT: PETROCELLI ELEC.

SAMPLE ID: MW-1

LAB ID: L3364-1 5ML

FILENAME: J:\TC4\DATA2\S030520,S030208.RAW

BATCH: LB12329

MATRIX: AQUEOUS

DATE ANALYZED: 3/2,3/6/01

ANALYST: SR

DILUTION 1x, 5x

LAB PROJECT: L3364ASP

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	4.3		1.0
100-41-4	ETHYLBENZENE	5.1		1.0
136777-61-2	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
98-82-8	ISOPROPYLBENZENE	20		1.0
103-65-1	n-PROPYLBENZENE	49		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		2.0
98-06-6	TERT-BUTYLBENZENE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
135-98-8	SEC-BUTYLBENZENE	20		1.0
99-87-6	ISOPROPYLTOLUENE	U		1.0
104-51-8	n-BUTYLBENZENE	45		1.0
91-20-3	NAPHTHALENE	22		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	270	D	5.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Tabulated Analytical Report
SW846 8021 Star ListCLIENT: EN SOLUTIONS
PROJECT: PETROCELLI ELEC.

SAMPLE ID: MW-2

LAB ID: L3364-2 5ML

FILENAME: J:\TC4\DATA2\IS030209,S030519.RAW

BATCH: LB12329

MATRIX: AQUEOUS

DATE ANALYZED: 3/2, 3/6/01

ANALYST: SR

DILUTION 1x, 2x

LAB PROJECT: L3364ASP

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
136777-61-2	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
98-82-8	ISOPROPYLBENZENE	U		1.0
103-65-1	n-PROPYLBENZENE	U		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		2.0
98-06-6	TERT-BUTYLBENZENE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
135-98-8	SEC-BUTYLBENZENE	U		1.0
99-87-6	ISOPROPYLTOLUENE	U		1.0
104-51-8	n-BUTYLBENZENE	U		1.0
91-20-3	NAPHTHALENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	150	D	2.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...

...

Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS
PROJECT: PETROCELLI ELEC.
SAMPLE ID: MW-3
LAB ID: L3364-3 5ML
FILENAME: J:\TC4\DATA2\IS030210.RAW
BATCH: LB12329

MATRIX: AQUEOUS
DATE ANALYZED: 3/2/01
ANALYST: SR
DILUTION 1
LAB PROJECT: L3364ASP

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
136777-61-2	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
98-82-8	ISOPROPYLBENZENE	U		1.0
103-65-1	n-PROPYLBENZENE	U		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		2.0
98-06-6	TERT-BUTYLBENZENE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
135-98-8	SEC-BUTYLBENZENE	U		1.0
99-87-6	ISOPROPYLTOLUENE	U		1.0
104-51-8	n-BUTYLBENZENE	U		1.0
91-20-3	NAPHTHALENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	19		1.0

MDL = METHOD DETECTION LIMIT

U =UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...
...

Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS
PROJECT: PETROCELLI ELEC.
SAMPLE ID: MW-4
LAB ID: L3364-4 5ML
FILENAME: J:\TC4\DATA2\IS030211.RAW
BATCH: LB12329

MATRIX: AQUEOUS
DATE ANALYZED: 3/2/01
ANALYST: SR
DILUTION 1
LAB PROJECT: L3364ASP

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	20		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	8.0		1.0
136777-61-2	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
98-82-8	ISOPROPYLBENZENE	U		1.0
103-65-1	n-PROPYLBENZENE	U		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		2.0
98-06-6	TERT-BUTYLBENZENE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
135-98-8	SEC-BUTYLBENZENE	U		1.0
99-87-6	ISOPROPYLTOLUENE	U		1.0
104-51-8	n-BUTYLBENZENE	U		1.0
91-20-3	NAPHTHALENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	52		1.0

MDL = METHOD DETECTION LIMIT

U =UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...
...

Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS
PROJECT: PETROCELLI ELEC.
SAMPLE ID: MW-5
LAB ID: L3364-5 5ML
FILENAME: J:\TC4\DATA2\S030212.RAW
BATCH: LB12329

MATRIX: AQUEOUS
DATE ANALYZED: 3/2/01
ANALYST: SR
DILUTION 1
LAB PROJECT: L3364ASP

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
136777-61-2	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
98-82-8	ISOPROPYLBENZENE	U		1.0
103-65-1	n-PROPYLBENZENE	U		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		2.0
98-06-6	TERT-BUTYLBENZENE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
135-98-8	SEC-BUTYLBENZENE	U		1.0
99-87-6	ISOPROPYLTOLUENE	U		1.0
104-51-8	n-BUTYLBENZENE	U		1.0
91-20-3	NAPHTHALENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	U		1.0

MDL = METHOD DETECTION LIMIT

U =UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...

...

Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS
PROJECT: PETROCELLI ELEC.
SAMPLE ID: MW-6
LAB ID: L3364-6 5ML
FILENAME: J:\TC4\DATA2\S030214,S030518.RAW
BATCH: LB12329

MATRIX: AQUEOUS
DATE ANALYZED: 3/2, 3/6/01
ANALYST: SR
DILUTION 1x, 2x
LAB PROJECT: L3364ASP

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	5.1		1.0
108-88-3	TOLUENE	5.3		1.0
100-41-4	ETHYLBENZENE	U		1.0
136777-61-2	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
98-82-8	ISOPROPYLBENZENE	3.0		1.0
103-65-1	n-PROPYLBENZENE	U		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		2.0
98-06-6	TERT-BUTYLBENZENE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
135-98-8	SEC-BUTYLBENZENE	U		1.0
99-87-6	ISOPROPYLTOLUENE	U		1.0
104-51-8	n-BUTYLBENZENE	3.8		1.0
91-20-3	NAPHTHALENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	240	D	2.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE; DILUTION TO FOLLOW

D = DILUTION

...

...



205 Campus Plaza 1 • Edison, NJ 08837 Phone: 732.225.4111 Fax: 732.225.4110

DATA PACKAGE FOR GC VOLATILE ORGANICS

PROJECT NAME: PETROCELLI ELEC

**EN SOLUTIONS
66 ELM STREET
DOVER, NJ 07801
973-442-1320**

**CHEMTECH PROJECT #
ATTENTION**

**L3364ASP
HOWARD FREDRICKS**

Since 1967

COVER PAGE

Order L3364

ProjectID: PETROCELLI ELEC.

CustomerName En Solutions, Inc.

LAB SAMPLE NO.

L3364-01

L3364-02

L3364-03

L3364-04

L3364-05

L3364-06

CLIENT SAMPLE NO

MW-1

MW-2

MW-3

MW-4

MW-5

MW-6

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: Mildred V. Reyes Name: Mildred V. Reyes

Date: 3/13/01 Title: QA/QC

CASE NARRATIVE**ENSOLUTIONS****Project Name: PETROCELLI ELEC****Chemtech Project # L3364ASP****A. Number of Samples and Date of Receipt**

6 Aqueous Samples were delivered to the laboratory intact on 02/28/01.

B. Parameters

Test requested was GC Volatile Organics. This data package contains results for GC Volatile Organics.

C. Analytical Techniques:

Samples were analyzed for GC Volatile Organics according to Method 8021. The analyses were performed on instruments GCVOA 4, using GC column RTX 502.2 which is 60 meters, 0.53mm ID, 3.0mm df (crossbond 6% cyanopropylphenyl-94% dimethylpolysiloxane). The Purge Trap was supplied by Supelco, VO CARB 3000, Tekmar 3000.

D. QA/ QC Samples:

System Monitoring Compound recoveries met requirements. Blank Spike recoveries met requirements. MS/MSD recovery of MTBE did not meet requirements. RPDs met requirements. Internal Standard Areas and Retention Times met criteria. Calibrations met requirements. Blank analysis did not indicate the presence of contamination.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature Mildred V. Reyes

Name: Mildred V. Reyes

Date: 3/13/01

Title: QA/QC

DATA REPORTING QUALIFIERS - ORGANIC

For reporting results, the following "Results Qualifiers" are used:

VALUE - If the result is a value greater than or equal to the detection limit, report the value.

U - Indicates the compound was analyzed for, but was not detected. Report the minimum detection limit for the sample with the U, ie "10 U". This is not necessarily the instrument detection limit. The figure represents the minimum detection limit attainable for this particular sample based on any concentration or dilution that may have been required.

J - Indicates an estimated value. This flag is used:

- (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed).
- (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit but greater than zero. If the detection limit was 10 ug/L and a concentration of 3 ug/L was calculated, report as "3 J".

B - Indicates the analyte was found in the blank as well as the sample; report as "12 B".

E - Indicates the analyte's concentration exceeds the calibrated range of the GC/MS instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

P - This flag is used for a Pesticide/Aroclor target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".

N - This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.

CHEMTECH

GC
DATA

CHEMTECH

QC DATA

ANK	ANK	ANK SF	64-5 M	64-5 M
-----	-----	--------	--------	--------

Probe

QC

REC	87%
	76%

Method Blank

Batch:C:\TC4\DATA2\B030201.SEQ

Matrix:WATER

Filename: J:\TC4\DATA2\I030202.R

Date: 3/2/01

CAS #	COMPOUNDS	RESULTS (ug/L)	MDL (ug/L)
75-35-4	1,1 DICHLOROETHENE	U	1.0
1634-04-4	MTBE	U	1.0
71-43-2	BENZENE	U	1.0
108-88-3	TOLUENE	U	1.0
100-41-4	ETHYLBENZENE	U	1.0
136777-61	M&P XYLENES	U	2.0
95-47-6	O-XYLENE	U	1.0
100-42-5	STYRENE	U	1.0
98-82-8	ISOPROPYLBENZENE	U	1.0
103-65-1	n-PROPYLBENZENE	U	1.0
	2-CHLORTOLUENE+P-ETHYLTOLUENE	U	2.0
	4-CHLORTOLUENE+1,3,5-TRIMETHBENZENE	U	2.0
98-06-6	TERT-BUTYLBENZENE	U	1.0
95-63-6	124TRIMETHYLBENZENE	U	1.0
135-98-8	SEC-BUTYLBENZENE	U	1.0
541-73-1	1,3 DICHLOROBENZENE	U	1.0
99-87-6	ISOPROPYLTOLUENE	U	1.0
106-46-7	1,4 DICHLOROBENZENE	U	1.0
104-51-8	n-BUTYLBENZENE	U	1.0
95-50-1	1,2 DICHLOROBENZENE	U	1.0
120-82-1	1,2,4 TRICHLOROBENZENE	U	1.0
87-68-3	HEXACHLOROBUTADIENE	U	1.0
91-20-3	NAPHTHALENE	U	1.0
75-65-0	TERT BUTYL ALCOHOL	U	5.0

MDL - Method Detection Limit

U - Undetected below MDL

COMMENTS:

SW846 8021

GC Volatiles
DETECTOR: PID**Method Blank**

Batch: J:\TC4\DATA2\B030501.SEQ

Matrix: WATER

Filename: J:\TC4\DATA2\S030516.R

Date: 3/6/01

CAS #	COMPOUNDS	RESULTS (ug/L)	MDL (ug/L)
75-35-4	1,1 DICHLOROETHENE	U	1.0
1634-04-4	MTBE	U	1.0
71-43-2	BENZENE	U	1.0
108-88-3	TOLUENE	U	1.0
100-41-4	ETHYLBENZENE	U	1.0
136777-61	M&P XYLENES	U	2.0
95-47-6	O-XYLENE	U	1.0
100-42-5	STYRENE	U	1.0
98-82-8	ISOPROPYLBENZENE	U	1.0
103-65-1	n-PROPYLBENZENE	U	1.0
	2-CHLORTOLUENE+P-ETHYLTOLUENE	U	2.0
	4-CHLORTOLUENE+1,3,5-TRIMETHBENZENE	U	2.0
98-06-6	TERT-BUTYLBENZENE	U	1.0
95-63-6	124TRIMETHYLBENZENE	U	1.0
135-98-8	SEC-BUTYLBENZENE	U	1.0
541-73-1	1,3 DICHLOROBENZENE	U	1.0
99-87-6	ISOPROPYLTOLUENE	U	1.0
106-46-7	1,4 DICHLOROBENZENE	U	1.0
104-51-8	n-BUTYLBENZENE	U	1.0
95-50-1	1,2 DICHLOROBENZENE	U	1.0
120-82-1	1,2,4 TRICHLOROBENZENE	U	1.0
87-68-3	HEXACHLOROBUTADIENE	U	1.0
91-20-3	NAPHTHALENE	U	1.0
75-65-0	TERT BUTYL ALCOHOL	U	5.0

MDL - Method Detection Limit

U - Undetected below MDL

COMMENTS:

QC Spike - 50 ppb Standard
Batch: QB060A

Filename: J:\TC4\DATA2\IS030222.RAW
Date: 3/3/01

CAS #	Analyte	Spike Added	Sample	% Rec	Lower	Upper	Flag
		PPB	Conc		Limits	Limits	
75-35-4	1,1 DICHLOROETHENE	50	50	100	50	150	
1634-04-4	MTBE	50	55	110	50	150	
71-43-2	BENZENE	50	50	100	50	150	
108-88-3	TOLUENE	50	52	104	50	150	
100-41-4	ETHYLBENZENE	50	49	98	50	150	
136777-61-2	M&P XYLENES	100	90	90	50	150	
95-47-6	O-XYLENE	50	45	89	50	150	
100-42-5	STYRENE	50	47	94	50	150	
98-82-8	ISOPROPYLBENZENE	50	49	98	50	150	
103-65-1	n-PROPYLBENZENE	50	46	91	50	150	
	2-CHLORTOL+PETHYLTOLUENE	100	90	90	50	150	
	4CHLORTOL+135TRIMETHBENZENE	100	90	90	50	150	
98-06-6	TERT-BUTYLBENZENE	50	46	93	50	150	
95-63-6	1,2,4-TRIMETHYLBENZENE	50	50	101	50	150	
135-98-8	SEC-BUTYLBENZENE	50	53	106	50	150	
541-73-1	1,3 DICHLOROBENZENE	50	51	102	50	150	
99-87-6	ISOPROPYLTOLUENE	50	51	101	50	150	
106-46-7	1,4 DICHLOROBENZENE	50	51	103	50	150	
104-51-8	n-BUTYLBENZENE	50	51	102	50	150	
95-50-1	1,2 DICHLOROBENZENE	50	52	104	50	150	
120-82-1	1,2,4 TRICHLOROBENZENE	50	45	90	50	150	
87-68-3	HEXACHLOROBUTADIENE	50	43	87	50	150	
91-20-3	NAPHTHALENE	50	43	86	50	150	

Chemtech.

GC Volatiles
DETECTOR: PID

SW846 8021

QC MS/MSD 50PPB Spike

Sample spiked: L3364-5

Filename MS:S030218

Filename MSD:S030219

Sample ID:S030212

Batch:QB060A

Matrix:WATER

Date: 3/3/01

CAS #	Analyte	Spike Added	Sample Conc (ppb)	MS Conc ppb	% Rec	Flag	MSD Conc ppb	% Rec	Flag	MSD RPD	RPD Flag	Limits	Limits	RPD
75-35-4	1,1 DICHLOROETHENE	50	0	57	114		51	103		10		50	150	<20%
1634-04-4	MTBE	50	0	82	163	*	81	162	*	1		50	150	<20%
71-43-2	BENZENE	50	0	53	107		51	101		6		50	150	<20%
108-88-3	TOLUENE	50	0	55	109		52	104		4		50	150	<20%
100-41-4	ETHYLBENZENE	50	0	57	114		54	109		4		50	150	<20%
136777-61-2	M&P XYLENES	100	0	104	104		99	99		5		50	150	<20%
95-47-6	O-XYLENE	50	0	54	109		49	98		11		50	150	<20%
100-42-5	STYRENE	50	0	55	110		53	106		4		50	150	<20%
98-82-8	ISOPROPYLBENZENE	50	0	57	114		55	109		4		50	150	<20%
103-65-1	n-PROPYLBENZENE	50	0	54	109		50	100		8		50	150	<20%
	2-CHLORTOL+PETHYLTOLUE	100	0	104	104		98	98		6		50	150	<20%
	4CHLORTOL+135TRIMETHBE	100	0	105	105		100	100		5		50	150	<20%
98-06-6	TERT-BUTYLBENZENE	50	0	54	108		50	101		6		50	150	<20%
95-63-6	1,2,4-TRIMETHYLBENZENE	50	0	55	110		53	106		4		50	150	<20%
135-98-8	SEC-BUTYLBENZENE	50	0	59	117		57	113		3		50	150	<20%
541-73-1	1,3 DICHLOROBENZENE	50	0	59	118		57	113		4		50	150	<20%
99-87-6	ISOPROPYLTOLUENE	50	0	56	113		53	106		6		50	150	<20%
106-46-7	1,4 DICHLOROBENZENE	50	0	59	118		58	117		1		50	150	<20%
104-51-8	n-BUTYLBENZENE	50	0	57	114		53	105		7		50	150	<20%
95-50-1	1,2 DICHLOROBENZENE	50	0	61	122		58	117		4		50	150	<20%
120-82-1	1,2,4 TRICHLOROBENZENE	50	0	52	105		49	99		6		50	150	<20%
87-68-3	HEXACHLOROBUTADIENE	50	0	53	106		49	99		7		50	150	<20%
91-20-3	NAPHTHALENE	50	0	53	106		52	103		3		50	150	<20%

* Denotes analyte outside control limits

CHEMTECH

A

ANALYTICAL
RESULTS
SUMMARY

Tabulated Analytical Report
SW846 8021 Star ListCLIENT: EN SOLUTIONS
PROJECT: PETROCELLI ELEC.

SAMPLE ID: MW-1

LAB ID: L3364-1 5ML

FILENAME: J:\TC4\DATA2\S030520,S030208.RAW

BATCH: LB12329

MATRIX: AQUEOUS

DATE ANALYZED: 3/2,3/6/01

ANALYST: SR

DILUTION 1x, 5x

LAB PROJECT: L3364ASP

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIER	MDL (ug/L)
-------	-----------	----------------	-----------	------------

71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	4.3		1.0
100-41-4	ETHYLBENZENE	5.1		1.0
136777-61-2	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
98-82-8	ISOPROPYLBENZENE	20		1.0
103-65-1	n-PROPYLBENZENE	49		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		2.0
98-06-6	TERT-BUTYLBENZENE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
135-98-8	SEC-BUTYLBENZENE	20		1.0
99-87-6	ISOPROPYLTOLUENE	U		1.0
104-51-8	n-BUTYLBENZENE	45		1.0
91-20-3	NAPHTHALENE	22		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	270	D	5.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

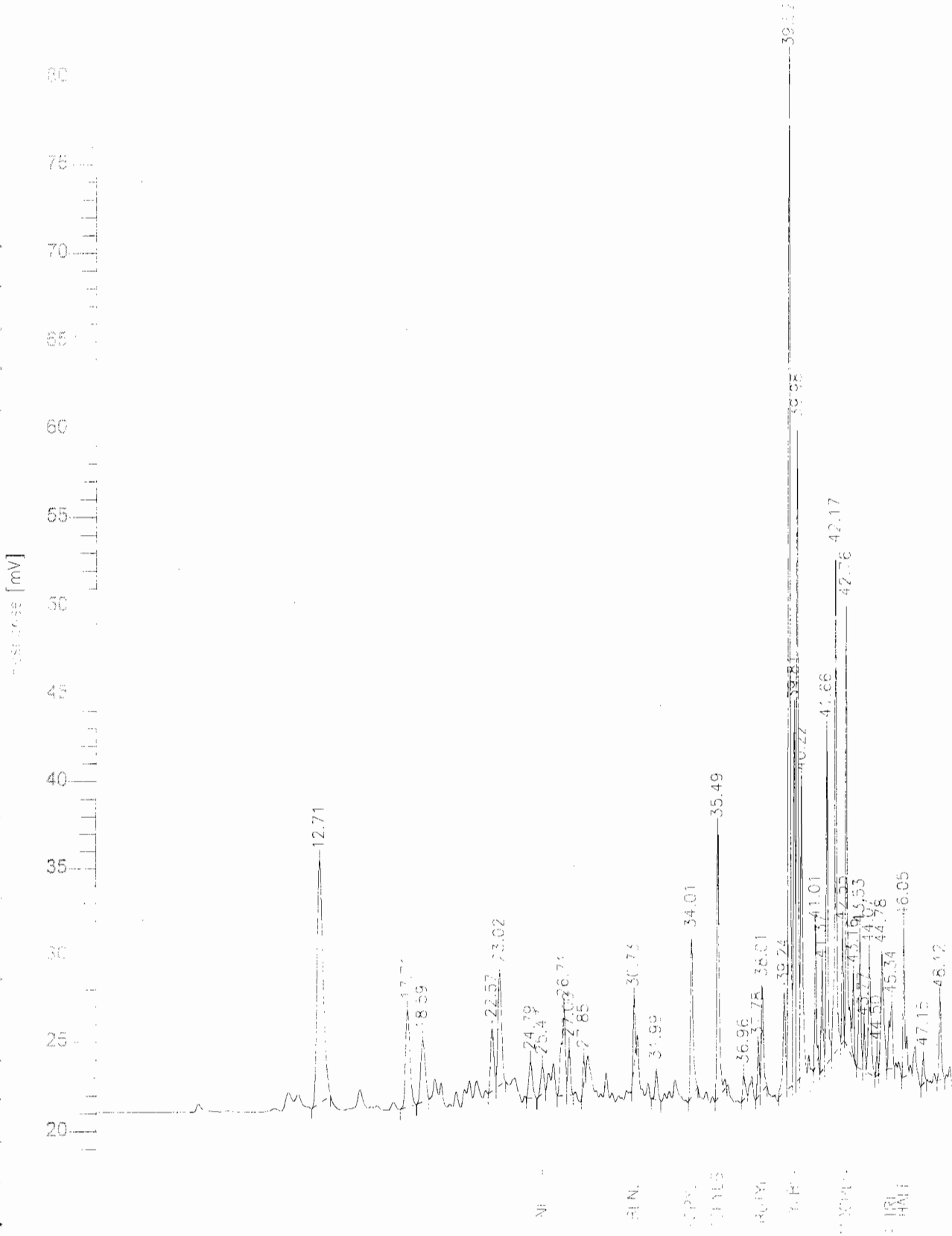
...

...

Chromatogram

Sample Name : L3364-1 5ML
 FileName : J:\TC4\DATA2\S030520.raw
 Method : B042100
 Start Time : 0.00 min End Time : 60.00 min
 Scale Factor: 1.0 Plot Offset: 18 mV

Sample #:
 Date : 3/7/01 10:56 AM
 Time of Injection: 3/6/01 05:39 AM
 Low Point : 18.07 mV High Point : 81.02 mV
 Plot Scale: 63.0 mV



Software Version: 4.1<2F12>

Date: 3/7/01 10:56 AM

Sample Name : L3364-1 5ML

Data File : J:\TC4\DATA2\S030520.RAW Date: 3/6/01 05:39 AM

Sequence File: J:\TC4\DATA2\B030501.SEQ Cycle: 20 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 1839/47 Operator: *Sh 3/11/01*

Sample Amount : 1.0000 Dilution Factor : 1.00

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	12.71	321095.34	13882.03	235.237	235.237
2		17.71	95241.41	5403.17	0.095	0.095
3		18.59	63879.42	3404.55	0.064	0.064
4		22.57	47288.60	3458.77	0.047	0.047
5		23.02	93732.42	6365.15	0.094	0.094
6		24.79	29116.59	2038.89	0.029	0.029
7	TOLUENE	25.47	18653.56	1523.85	4.261	4.261
8		26.71	79128.54	4868.55	0.079	0.079
9		27.00	26878.79	2588.89	0.027	0.027
10		27.85	10039.46	1277.98	0.010	0.010
11	ETHYLBENZENE	30.73	27383.23	3778.41	5.126	5.126
12		31.99	17716.00	1575.46	0.018	0.018
13	ISOPROPYLBENZENE	34.01	92145.62	8980.80	19.903	19.903
14	n-PROPYLBENZENE	35.49	145779.30	15449.60	49.429	49.429
15		36.96	13394.69	1346.40	0.013	0.013
16		37.78	20807.47	2743.24	0.021	0.021
17	SEC-BUTYLBENZENE	38.01	52472.96	5859.58	20.249	20.249
18		39.24	57536.86	5637.13	0.058	0.058
19		39.52	430608.14	58705.55	0.431	0.431
20	n-BUTYLBENZENE	39.81	151354.32	21349.16	44.991	44.991
21		39.98	268859.17	37194.26	0.269	0.269
22	1,2 DICHLOROBENZENE	40.22	151366.10	16916.94	35.743	35.743
23		41.01	50309.89	7822.97	0.050	0.050
24		41.37	43011.40	5807.81	0.043	0.043
25		41.66	141958.43	19267.99	0.142	0.142
26		42.17	215682.99	28438.86	0.216	0.216
27		42.55	36395.15	6433.71	0.036	0.036
28	BROMOCHLOROBENZENE	42.76	171869.34	25053.08	30.399	30.399
29		43.15	33373.56	4668.49	0.033	0.033
30		43.53	61354.67	7701.24	0.061	0.061
31		43.76	16878.39	2422.87	0.017	0.017

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32		44.06	71116.93	6847.09	0.071	0.071
33		44.50	8454.41	1340.06	0.008	0.008
34		44.78	81378.40	6746.46	0.081	0.081
35	1,2,4 TRICHLOROBENZENE	45.34	49003.57	3598.42	20.888	20.888
36	NAPHTHALENE	46.05	71432.83	8562.81	21.941	21.941
37		47.15	11079.27	1449.01	0.011	0.011
38		48.11	38881.57	4568.92	0.039	0.039
			3316658.78	365078.18	490.232	490.232

Report stored in ASCII file: .\S030520.TX0

Chromatogram

Sample Name : L3364-1 5x

FileName : C:\TC4\DATA2\S030208.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 3/5/01 12:50 PM

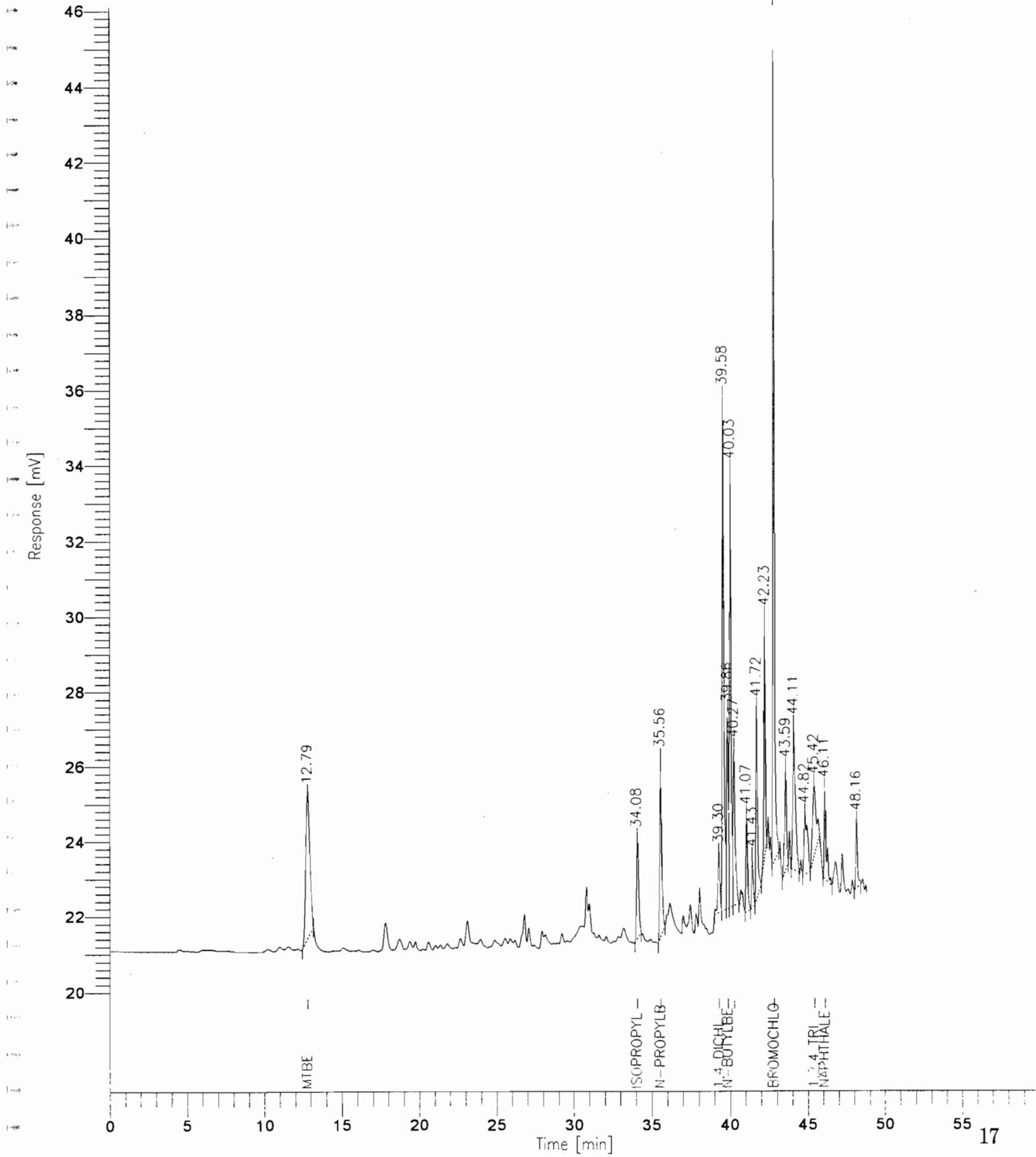
Time of Injection: 3/2/01 03:48 PM

Low Point : 19.83 mV

Plot Scale: 26.3 mV

Page 1 of 1

42.82



Software Version: 4.1<2F12>

Date: 3/5/01 12:50 PM

Sample Name : L3364-1 5x

Data File : J:\TC4\DATA2\S030208.RAW Date: 3/2/01 03:48 PM

Sequence File: C:\TC4\DATA2\B030201.SEQ Cycle: 8 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: 1837/45 Operator:

Sample Amount : 1.0000 Dilution Factor : 5.00

SR 3/12/01

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	12.79	72655.29	3855.10	53.228	53.228
2	ISOPROPYLBENZENE	34.08	26242.19	2687.27	5.668	5.668
3	n-PROPYLBENZENE	35.56	43164.14	4757.17	14.636	14.636
4	1,4 DICHLOROBENZENE	39.30	15134.25	1584.06	2.901	2.901
5		39.58	101743.01	13705.14	0.102	0.102
6	n-BUTYLBENZENE	39.86	38691.49	5240.67	11.501	11.501
7		40.03	88082.38	11645.64	0.088	0.088
8	1,2 DICHLOROBENZENE	40.27	40082.12	4191.58	9.465	9.465
9		41.07	18771.14	2589.97	0.019	0.019
10		41.43	9530.58	1362.66	0.010	0.010
11		41.72	37157.20	5126.51	0.037	0.037
12		42.23	39990.33	6457.15	0.040	0.040
13	BROMOCHLOROBENZENE	42.82	136188.81	22710.65	24.088	24.088
14		43.59	23616.49	2731.56	0.024	0.024
15		44.11	44329.47	3863.86	0.044	0.044
16		44.82	25383.99	1629.09	0.025	0.025
17	1,2,4 TRICHLOROBENZENE	45.42	31004.39	1894.41	13.216	13.216
18	NAPHTHALENE	46.11	21626.88	2429.08	6.643	6.643
19		48.16	15029.02	1793.19	0.015	0.015
			828423.18	100254.76	141.750	141.750

Report stored in ASCII file: C:\TC4\DATA2\S030208.TX0

Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS
PROJECT: PETROCELLI ELEC.
SAMPLE ID: MW-2
LAB ID: L3364-2 5ML
FILENAME: J:\TC4\DATA2\S030209,S030519.RAW
BATCH: LB12329

MATRIX: AQUEOUS
DATE ANALYZED: 3/2, 3/6/01
ANALYST: SR
DILUTION 1x, 2x
LAB PROJECT: L3364ASP

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
136777-61-2	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
98-82-8	ISOPROPYLBENZENE	U		1.0
103-65-1	n-PROPYLBENZENE	U		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		2.0
98-06-6	TERT-BUTYLBENZENE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
135-98-8	SEC-BUTYLBENZENE	U		1.0
99-87-6	ISOPROPYLTOLUENE	U		1.0
104-51-8	n-BUTYLBENZENE	U		1.0
91-20-3	NAPHTHALENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	150	D	2.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Chromatogram

Sample Name : L3364-2 5ML

FileName : C:\TC4\DATA2\S030209.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 3/5/01 12:50 PM

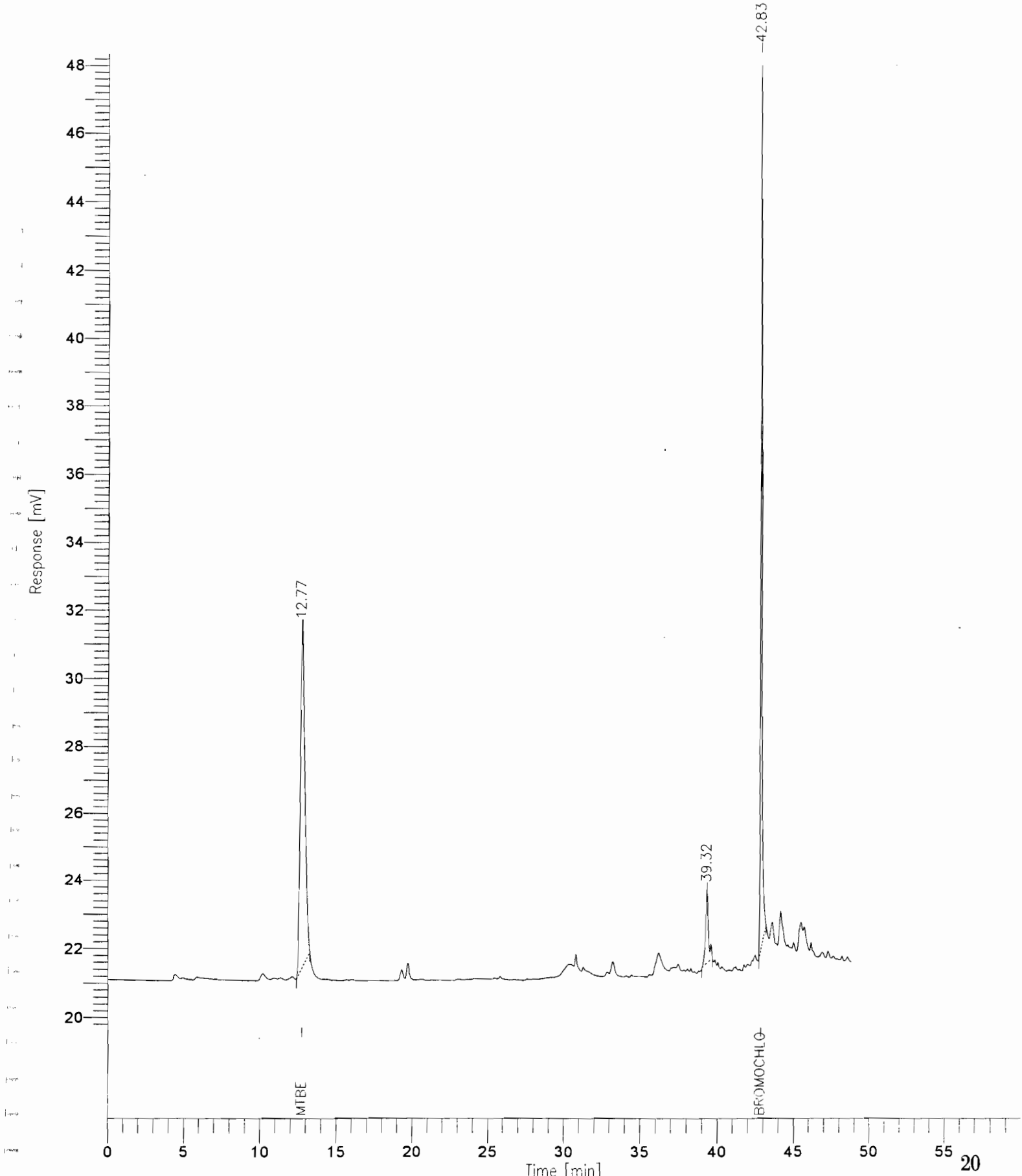
Time of Injection: 3/2/01 04:44 PM

Low Point : 19.71 mV

Plot Scale: 28.6 mV

Page 1 of 1

High Point : 48.34 mV



Software Version: 4.1<2F12>

Date: 3/5/01 12:50 PM

Sample Name : L3364-2 5ML

Data File : J:\TC4\DATA2\S030209.RAW Date: 3/2/01 04:44 PM

Sequence File: C:\TC4\DATA2\B030201.SEQ Cycle: 9 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: 1837/45 Operator:

Sample Amount : 1.0000

Dilution Factor : 1.00

See 3/12/01

CHEMTECH COMPOUND LISTINGS & RESULTS

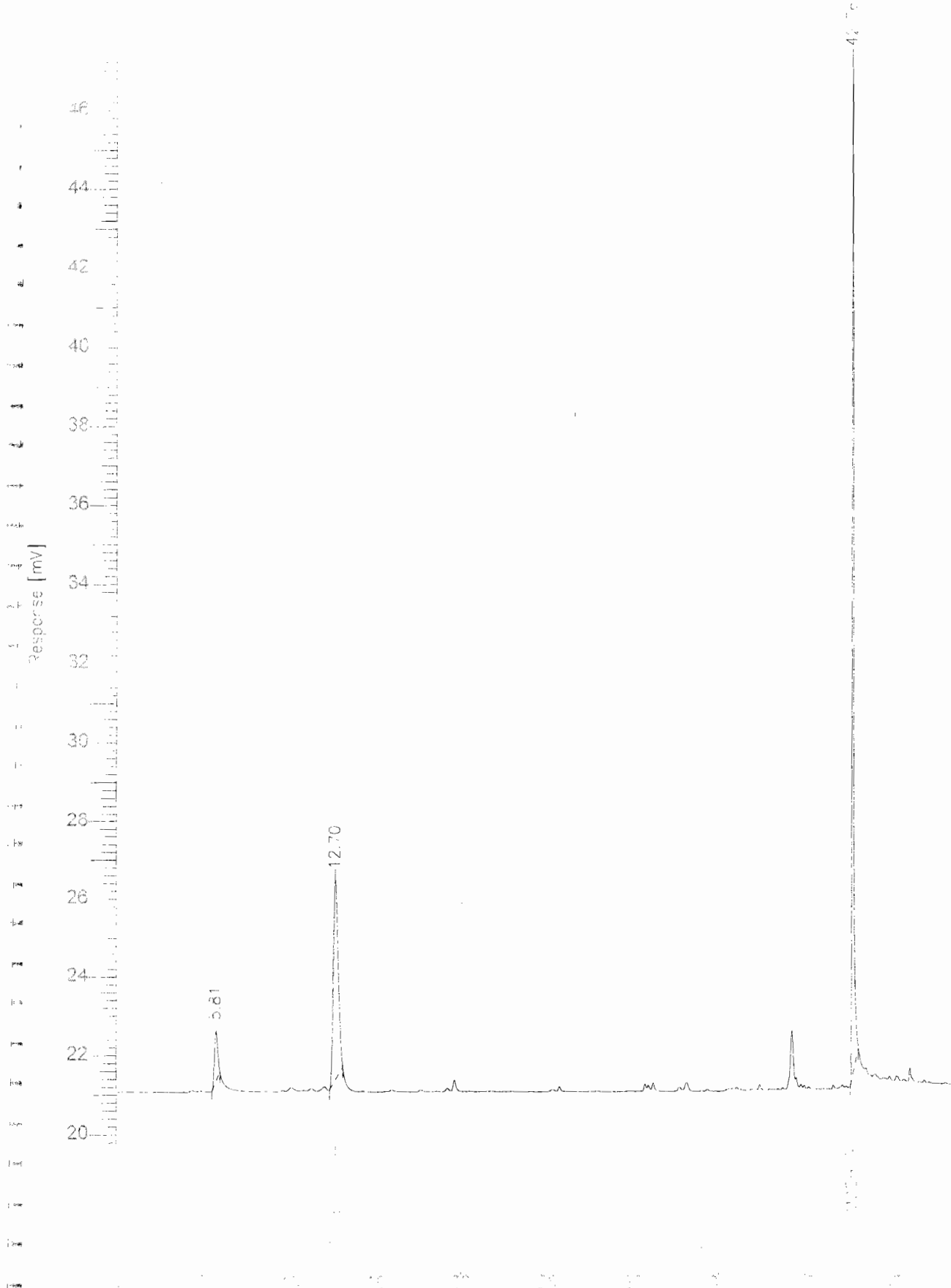
Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	12.77	214192.28	9996.53	156.919	156.919
2		39.32	28286.09	2094.77	0.028	0.028
3	BROMOCHLOROBENZENE	42.83	163781.99	26366.96	28.969	28.969
			406260.36	38458.26	185.916	185.916

Report stored in ASCII file: C:\TC4\DATA2\S030209.TX0

Chromatogram

Sample Name : L3364-2 2x
FileName : J:\TC4\DATA2\S030519.raw
Method : B042100
Start Time : 0.00 min End Time : 60.00 min
Scale Factor: 1.0 Plot Offset: 20 mV

Sample #:
Date : 3/7/01 10:56 AM
Time of Injection: 3/6/01 04:43 AM
Low Point : 19.76 mV High Point : 47.28 mV
Plot Scale: 27.5 mV



Software Version: 4.1<2F12>

Date: 3/7/01 10:56 AM

Sample Name : L3364-2 2x

Data File : J:\TC4\DATA2\S030519.RAW Date: 3/6/01 04:43 AM

Sequence File: J:\TC4\DATA2\B030501.SEQ Cycle: 19 Channel : B

Instrument : HP5890S_-_0:B Rack/Vial: 1839/47 Operator:

Sample Amount : 1.0000 Dilution Factor : 2.00

Sn 3/12/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		5.81	16086.77	1260.18	0.016	0.016
2	MTBE	12.70	101682.03	5100.39	74.493	74.493
3	BROMOCHLOROBENZENE	42.76	161098.29	25805.09	28.494	28.494
			278867.09	32165.66	103.003	103.003

Report stored in ASCII file: .\S030519.TX0

Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS
PROJECT: PETROCELLI ELEC.
SAMPLE ID: MW-3
LAB ID: L3364-3 5ML
FILENAME: J:\TC4\DATA2\S030210.RAW
BATCH: LB12329

MATRIX: AQUEOUS
DATE ANALYZED: 3/2/01
ANALYST: SR
DILUTION 1
LAB PROJECT: L3364ASP

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
136777-61-2	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
98-82-8	ISOPROPYLBENZENE	U		1.0
103-65-1	n-PROPYLBENZENE	U		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		2.0
98-06-6	TERT-BUTYLBENZENE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
135-98-8	SEC-BUTYLBENZENE	U		1.0
99-87-6	ISOPROPYLTOLUENE	U		1.0
104-51-8	n-BUTYLBENZENE	U		1.0
91-20-3	NAPHTHALENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	19		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...

...

Chromatogram

Sample Name : L3364-3 5ML

FileName : C:\TC4\DATA2\S030210.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 3/5/01 12:50 PM

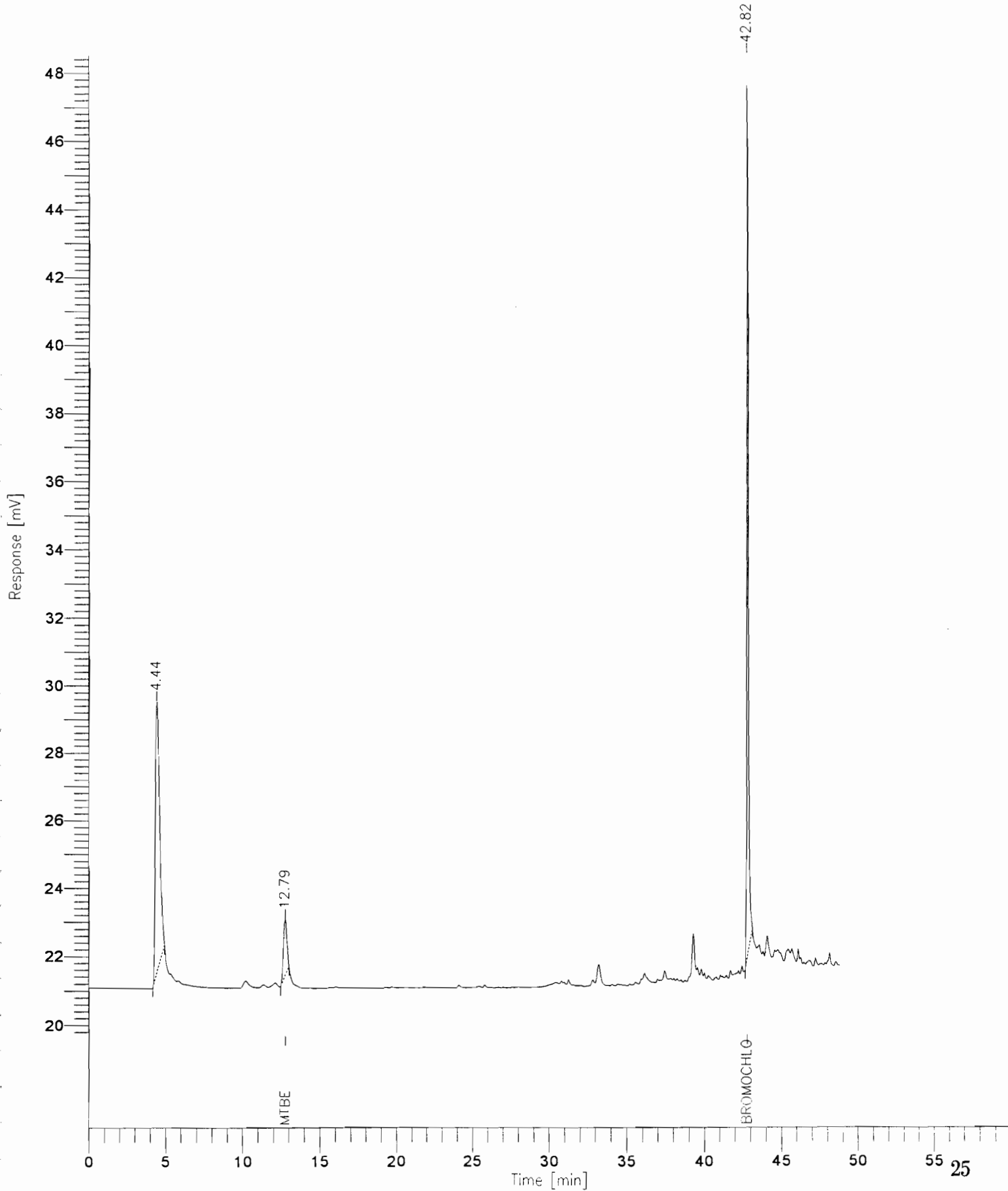
Time of Injection: 3/2/01 05:40 PM

Low Point : 19.69 mV

Plot Scale: 28.8 mV

Page 1 of 1

High Point : 48.51 mV



Software Version: 4.1<2F12>

Date: 3/5/01 12:50 PM

Sample Name : L3364-3 5ML

Data File : J:\TC4\DATA2\S030210.RAW Date: 3/2/01 05:40 PM

Sequence File: C:\TC4\DATA2\B030201.SEQ Cycle: 10 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: 1837/45 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

Sn 3/12/01

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		4.44	160276.15	8066.43	0.160	0.160
2	MTBE	12.79	26129.39	1640.68	19.143	19.143
3	BROMOCHLOROBENZENE	42.82	162370.08	26601.43	28.719	28.719
			348775.62	36308.54	48.022	48.022

Report stored in ASCII file: C:\TC4\DATA2\S030210.TX0

Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS
PROJECT: PETROCELLI ELEC.
SAMPLE ID: MW-4
LAB ID: L3364-4 5ML
FILENAME: J:\TC4\DATA2\IS030211.RAW
BATCH: LB12329

MATRIX: AQUEOUS
DATE ANALYZED: 3/2/01
ANALYST: SR
DILUTION 1
LAB PROJECT: L3364ASP

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	20		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	8.0		1.0
136777-61-2	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
98-82-8	ISOPROPYLBENZENE	U		1.0
103-65-1	n-PROPYLBENZENE	U		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		2.0
98-06-6	TERT-BUTYLBENZENE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
135-98-8	SEC-BUTYLBENZENE	U		1.0
99-87-6	ISOPROPYLTOLUENE	U		1.0
104-51-8	n-BUTYLBENZENE	U		1.0
91-20-3	NAPHTHALENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	52		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...

...

Chromatogram

Sample Name : L3364-4 5ML

FileName : C:\TC4\DATA2\S030211.raw

Method : 8042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 3/5/01 12:50 PM

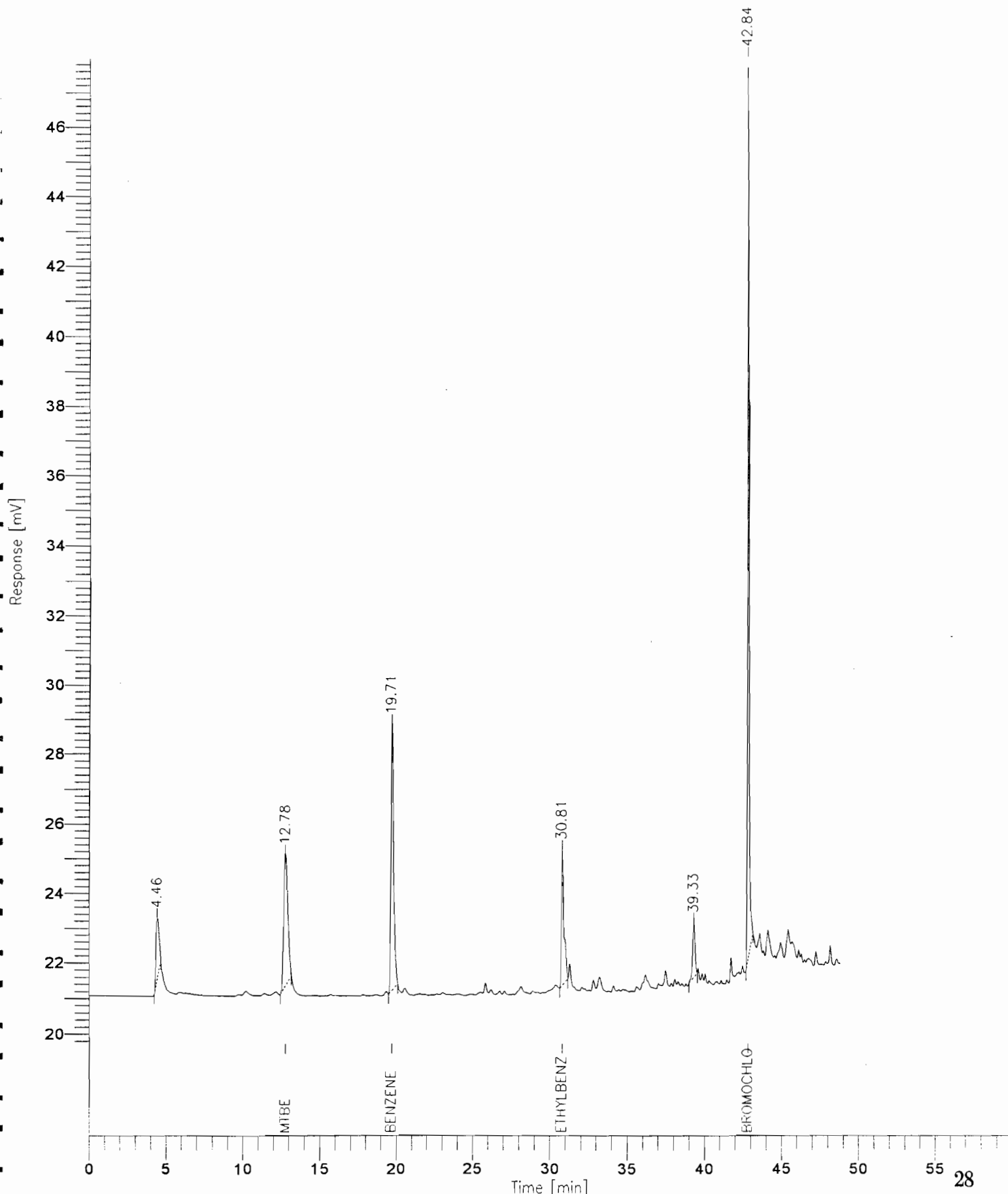
Time of Injection: 3/2/01 06:35 PM

Low Point : 19.72 mV

Plot Scale: 28.2 mV

Page 1 of 1

High Point : 47.95 mV



Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS
PROJECT: PETROCELLI ELEC.
SAMPLE ID: MW-5
LAB ID: L3364-5 5ML
FILENAME: J:\TC4\DATA2\I030212.RAW
BATCH: LB12329

MATRIX: AQUEOUS
DATE ANALYZED: 3/2/01
ANALYST: SR
DILUTION 1
LAB PROJECT: L3364ASP

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/L)</u>	<u>QUALIFIER</u>	<u>MDL (ug/L)</u>
71-43-2	BENZENE	U		1.0
108-88-3	TOLUENE	U		1.0
100-41-4	ETHYLBENZENE	U		1.0
136777-61-2	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
98-82-8	ISOPROPYLBENZENE	U		1.0
103-65-1	n-PROPYLBENZENE	U		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		2.0
98-06-6	TERT-BUTYLBENZENE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
135-98-8	SEC-BUTYLBENZENE	U		1.0
99-87-6	ISOPROPYLTOLUENE	U		1.0
104-51-8	n-BUTYLBENZENE	U		1.0
91-20-3	NAPHTHALENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...

...

Chromatogram

Sample Name : L3364-5 SML

FileName : C:\TC4\DATA2\S030212.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 3/5/01 12:50 PM

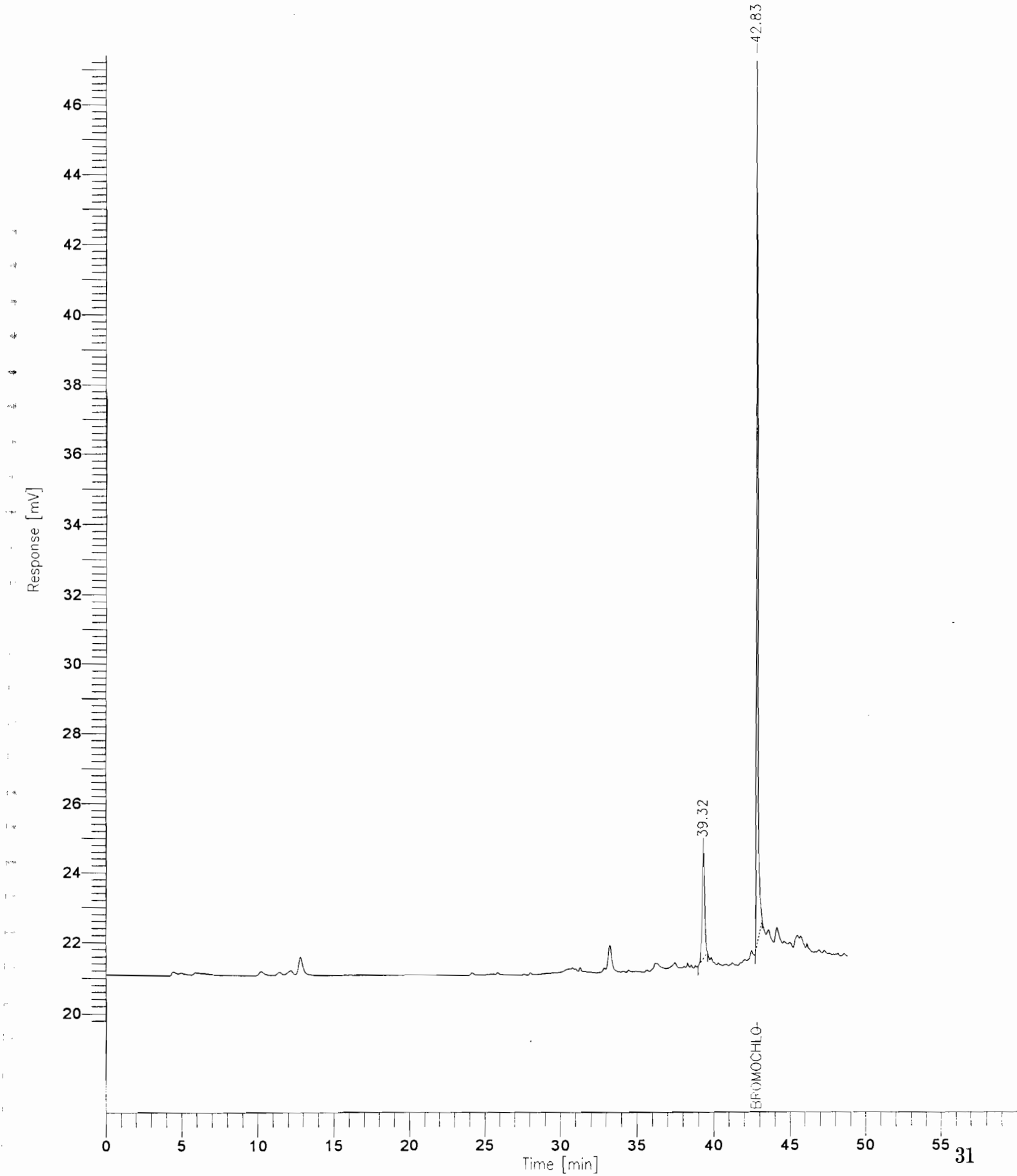
Time of Injection: 3/2/01 07:31 PM

Low Point : 19.75 mV

Plot Scale: 27.6 mV

Page 1 of 1

High Point : 47.39 mV



Software Version: 4.1<2F12>

Date: 3/5/01 12:50 PM

Sample Name : L3364-5 5ML

Data File : J:\TC4\DATA2\S030212.RAW Date: 3/2/01 07:31 PM

Sequence File: C:\TC4\DATA2\B030201.SEQ Cycle: 12 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: 1837/45 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

Sn 3/12/01

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		39.32	37764.25	3179.42	0.038	0.038
2	BROMOCHLOROBENZENE	42.83	159068.10	25470.82	28.135	28.135
			196832.35	28650.23	28.173	28.173

Report stored in ASCII file: C:\TC4\DATA2\S030212.TX0

Tabulated Analytical Report
SW846 8021 Star List

CLIENT: EN SOLUTIONS
PROJECT: PETROCELLI ELEC.
SAMPLE ID: MW-6
LAB ID: L3364-6 5ML
FILENAME: J:\TC4\DATA2\S030214,S030518.RAW
BATCH: LB12329

MATRIX: AQUEOUS
DATE ANALYZED: 3/2, 3/6/01
ANALYST: SR
DILUTION 1x, 2x
LAB PROJECT: L3364ASP

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIER	MDL (ug/L)
71-43-2	BENZENE	5.1		1.0
108-88-3	TOLUENE	5.3		1.0
100-41-4	ETHYLBENZENE	U		1.0
136777-61-2	M&P XYLENES	U		2.0
95-47-6	O-XYLENE	U		1.0
98-82-8	ISOPROPYLBENZENE	3.0		1.0
103-65-1	n-PROPYLBENZENE	U		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		2.0
98-06-6	TERT-BUTYLBENZENE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
135-98-8	SEC-BUTYLBENZENE	U		1.0
99-87-6	ISOPROPYLTOLUENE	U		1.0
104-51-8	n-BUTYLBENZENE	3.8		1.0
91-20-3	NAPHTHALENE	U		1.0
1634-04-4	METHYL TERT BUTYL ETHER (MTBE)	240	D	2.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

...

...

Chromatogram

Sample Name : L3364-6 5ML

FileName : C:\TC4\DATA2\S030214.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 3/5/01 12:50 PM

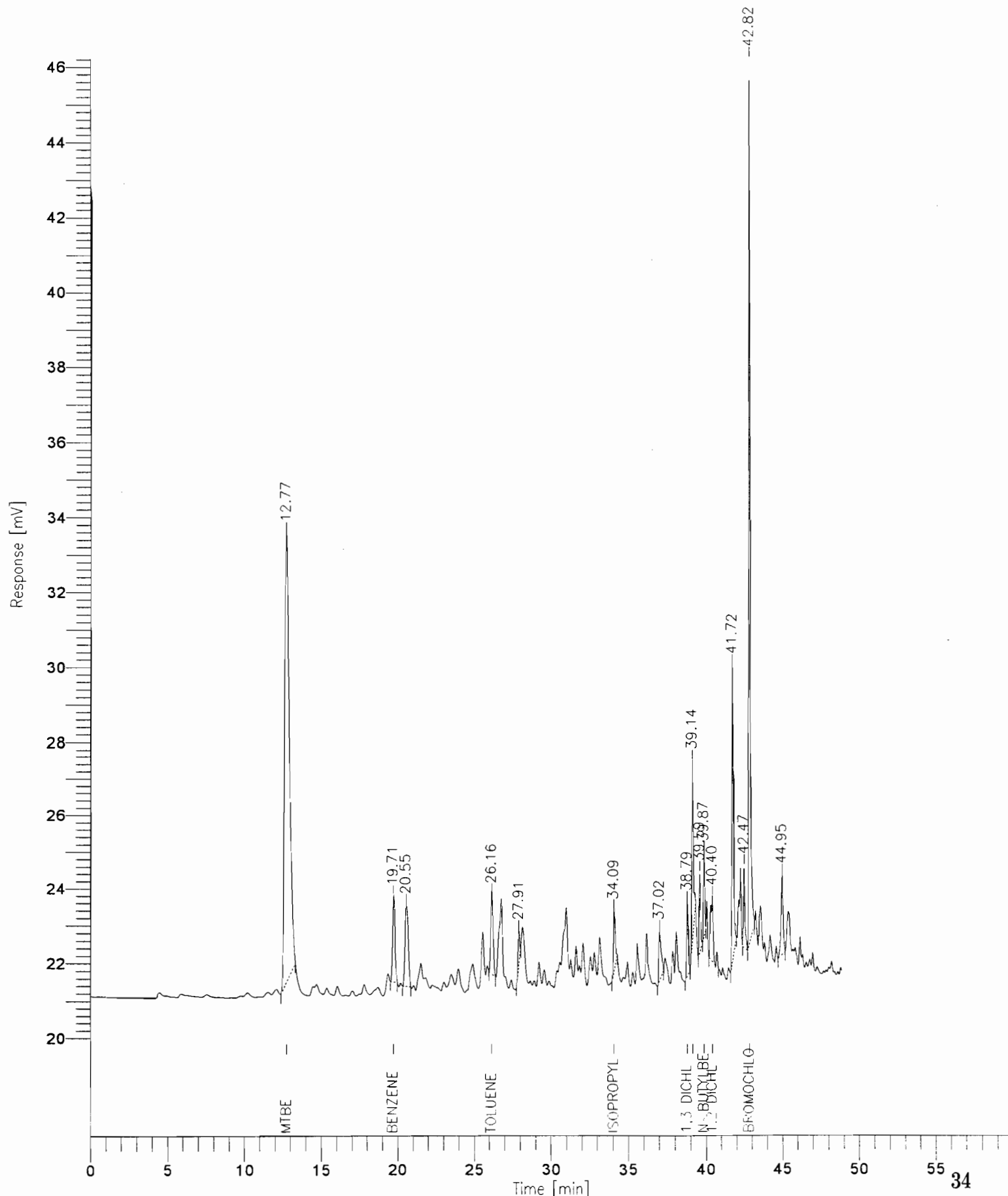
Time of Injection: 3/2/01 09:23 PM

Low Point : 19.84 mV

Plot Scale: 26.4 mV

Page 1 of 1

High Point : 46.21 mV



Software Version: 4.1<2F12>

Date: 3/5/01 12:50 PM

Sample Name : L3364-6 5ML

Data File : J:\TC4\DATA2\S030214.RAW Date: 3/2/01 09:23 PM

Sequence File: C:\TC4\DATA2\B030201.SEQ Cycle: 14 Channel : B

Instrument : HP5890S - 0:B Rack/Vial: 1837/45 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

Sn 3/11/01

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	12.77	267219.25	12095.03	195.767	195.767
2	BENZENE	19.71	24820.39	2309.10	5.093	5.093
3		20.55	31625.95	2209.67	0.032	0.032
4	TOLUENE	26.16	23309.61	2157.49	5.324	5.324
5		27.91	7162.74	925.70	0.007	0.007
6	ISOPROPYLBENZENE	34.09	13745.85	1624.84	2.969	2.969
7		37.02	12772.17	1327.52	0.013	0.013
8	1,3 DICHLOROBENZENE	38.79	13342.72	2008.62	2.681	2.681
9	1,4 DICHLOROBENZENE	39.14	31270.99	4807.45	5.995	5.995
10		39.59	13881.73	2185.07	0.014	0.014
11	n-BUTYLBENZENE	39.87	12669.47	2278.22	3.766	3.766
12	1,2 DICHLOROBENZENE	40.40	23627.71	1782.98	5.579	5.579
13		41.72	57354.34	8005.56	0.057	0.057
14		42.47	15643.53	2258.26	0.016	0.016
15	BROMOCHLOROBENZENE	42.82	148401.08	23766.63	26.248	26.248
16		44.95	19560.19	2178.10	0.020	0.020
			716407.73	71920.24	253.580	253.580

Report stored in ASCII file: C:\TC4\DATA2\S030214.TX0

Chromatogram

Sample Name : L3364-6 2x

FileName : J:\TC4\DATA2\S030518.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 3/7/01 10:55 AM

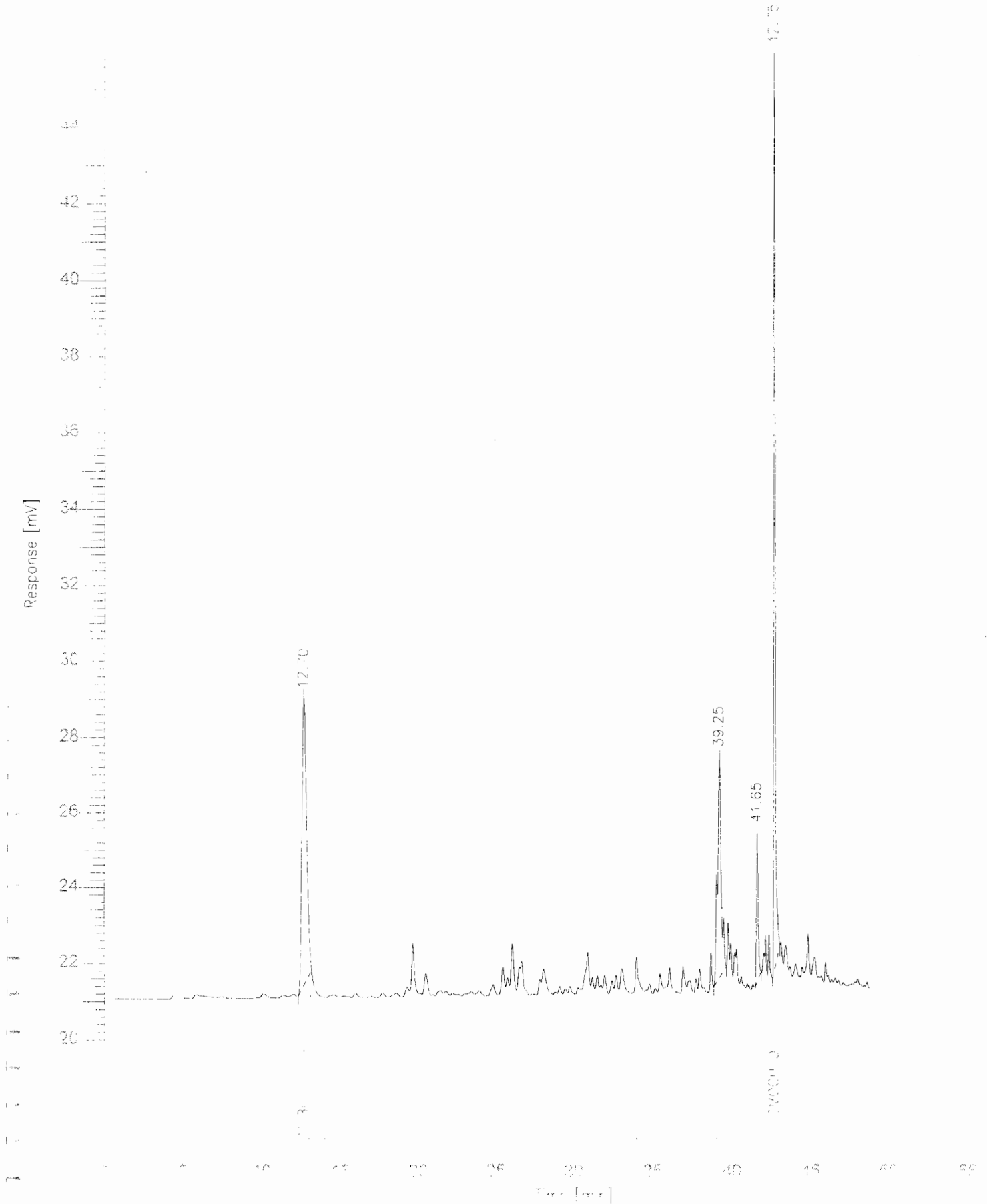
Time of Injection: 3/6/01 03:48 AM

Low Point : 19.83 mV

Plot Scale: 26.0 mV

Page 1 of 1

High Point : 45.86 mV



Software Version: 4.1<2F12>

Date: 3/7/01 10:55 AM

Sample Name : L3364-6 2x

Data File : J:\TC4\DATA2\S030518.RAW Date: 3/6/01 03:48 AM

Sequence File: J:\TC4\DATA2\B030501.SEQ Cycle: 18 Channel : B

Instrument : HP5890S_-_0:B Rack/Vial: 1839/47 Operator:

Sample Amount : 1.0000 Dilution Factor : 2.00

SR3/12 1.61

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	MTBE	12.70	161006.79	7587.49	117.955	117.955
2		39.25	97277.72	5870.23	0.097	0.097
3		41.65	29380.42	3960.41	0.029	0.029
4	BROMOCHLOROBENZENE	42.75	150895.65	24076.91	26.689	26.689
			438560.58	41495.04	144.771	144.771

Report stored in ASCII file: .\S030518.TX0

CHEMTECH

C

CALIBRATION
SUMMARY

Initial and Continuing Calibration Summary
SW846 8021

Initial Calibration Date:	2/15/01									
	5 ppb	25 ppb	50 ppb	100 ppb	150 ppb					CORR
Analyte	Cal Fac 1	Cal Fac 2	Cal Fac 3	Cal Fac 4	Cal Fac 5	Ave CF	Std Dev	% RSD	Flag	COEFF
1,1 DICHLOROETHENE	211	321	351	339	292	303	56	18		0.9928
MTBE	236	301	300	291	237	273	34	12		0.9874
BENZENE	1119	1095	986	844	831	975	135	14		0.9980
TOLUENE	1022	974	897	754	731	876	130	15		0.9974
ETHYLBENZENE	1411	1214	1024	886	806	1068	246	23		0.9957
M&P XYLENES	2925	2374	2235	1922	1781	2247	447	20		0.9969
O-XYLENE	780	722	652	519	522	639	117	18		0.9961
STYRENE	1425	1257	1267	1145	1084	1235	131	11		0.9985
ISOPROPYLBENZENE	1012	986	956	846	829	926	83	9		0.9988
n-PROPYLBENZENE	805	636	528	490	490	590	134	23		0.9994
2-CHLORTOL+PETHYLTOLUE	2214	1764	1625	1358	1347	1662	356	21		0.9980
4CHLORTOL+135TRIMETHBE	1620	1255	1140	1022	902	1188	275	23		0.9952
TERT-BUTYLBENZENE	665	559	517	453	418	522	97	18		0.9971
124TRIMETBENZENE	1127	942	837	746	719	874	166	19		0.9988
SEC-BUTYLBENZENE	611	559	513	483	425	518	71	14		0.9953
ISOPROPYLTOLUENE	649	620	575	511	494	570	67	12		0.9986
1,3 DICHLOROBENZENE	1045	1074	1036	929	893	995	79	8		0.9986
1,4 DICHLOROBENZENE	971	1288	1084	981	892	1043	153	15		0.9954
n-BUTYLBENZENE	792	705	671	593	603	673	81	17		0.9991
1,2 DICHLOROBENZENE	969	862	860	795	748	847	84	10		0.9986
1,2,4 TRICHLOROBENZENE	563	573	469	419	436	492	72	15		0.9991
HEXACHLOROBUTADIENE	587	659	504	423	457	526	97	18		0.9971
NAPHTHALENE	865	833	641	555	528	684	156	23		0.9982

Std	Filename
5	S021505
25	S021504
50	S021503
100	S021502
150	S021501

Turbochrom Method File : C:\TC4\DATA2\S0215.MTH

Created by : on : 2/16/01 01:37 PM

Edited by : CZ on : 2/17/01 01:59 PM

Description : 8021 pid calibration

Number of Times Edited : 2

Number of Times Calibrated : 1998

Global Information :

Default Sample Volume : 1.000 ul

Quantitation Units : ng

Void Time : 0.000 min

Correct amounts during calibration : YES

Reject outliers during calibration : NO

An External Standard calibration will be used

Unknown peaks will be quantitated using a response factor of 1.000000e+06

Component Information :

1,1 DICHLOROETHENE

Component Type : Single Peak Component

Retention Time : 10.570 min Search Window: 0.00 s, 3.85 %

Reference Component:

Find largest peak in window

Use Average Calibration Factor (Area / Amount)

User Values:

Label :

Value 1: 0.000000

Value 2: 0.000000

Value 3: 0.000000

Value 4: 0.000000

Value 5: 0.000000

Value 6: 299.551603

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	5285.27	370.19	-----	-----	1
2	25.0000	40149.59	2443.24	-----	-----	1
3	50.0000	87672.67	4516.29	-----	-----	1
4	100.0000	169726.95	8054.61	-----	-----	1
5	150.0000	218949.24	8305.81	-----	-----	1

Average Calibration Factor = 1514.684429 (%RSD = 18.41)

TBA

Component Type : Single Peak Component

Retention Time : 12.187 min Search Window: 0.00 s, 3.00 %

Reference Component:

Find peak closest to expected RT in window

Use Average Calibration Factor (Area / Amount)

User Values:

Label :

Value 1: 0.000000

Value 2: 0.000000

Value 3: 0.000000

Value 4: 0.000000

Value 5: 0.000000

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	25.0000	2846.17	211.37	-----	-----	1
2	100.0000	17136.21	1146.88	-----	-----	1
3	250.0000	37171.83	2295.11	-----	-----	1
4	500.0000	72041.03	4113.70	-----	-----	1
5	750.0000	86303.90	4814.42	-----	-----	1

Average Calibration Factor = 138.610040 (%RSD = 17.57)

MTBE

Component Type : Single Peak Component
 Retention Time : 12.796 min Search Window: 0.00 s, 3.80 %
 Reference Component:
 Find peak closest to expected RT in window
 Use Average Calibration Factor (Area / Amount)
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000
 Value 6: 358.005263

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	5898.28	368.16	-----	-----	1
2	25.0000	37621.88	2190.09	-----	-----	1
3	50.0000	75096.59	4161.74	-----	-----	1
4	100.0000	145458.35	7751.02	-----	-----	1
5	150.0000	177584.34	9374.35	-----	-----	1

Average Calibration Factor = 1364.988547 (%RSD = 12.34)

BENZENE

Component Type : Single Peak Component
 Retention Time : 19.693 min Search Window: 0.00 s, 1.90 %
 Reference Component:
 Find peak closest to expected RT in window
 Use Average Calibration Factor (Area / Amount)
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000
 Value 6: 35.827726

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	27965.35	2421.19	-----	-----	1
2	25.0000	136879.82	10864.74	-----	-----	1
3	50.0000	246435.65	19053.93	-----	-----	1
4	100.0000	421806.94	31486.90	-----	-----	1
5	150.0000	623030.17	45248.40	-----	-----	1

Average Calibration Factor = 4873.715847 (%RSD = 13.88)

TOLUENE

Component Type : Single Peak Component

Retention Time : 25.809 min Search Window: 0.00 s, 1.40 %

Reference Component:

Find peak closest to expected RT in window

Use Average Calibration Factor (Area / Amount)

User Values:

Label :

Value 1: 0.000000

Value 2: 0.000000

Value 3: 0.000000

Value 4: 0.000000

Value 5: 0.000000

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	25541.97	2717.53	-----	-----	1
2	25.0000	121777.01	12029.82	-----	-----	1
3	50.0000	224266.65	21254.30	-----	-----	1
4	100.0000	377144.61	34936.75	-----	-----	1
5	150.0000	548177.82	51070.74	-----	-----	1

Average Calibration Factor = 4378.154639 (%RSD = 14.80)

ETHYLBENZENE

Component Type : Single Peak Component

Retention Time : 30.968 min Search Window: 0.00 s, 0.80 %

Reference Component:

Find peak closest to expected RT in window

Calibrating Area versus Amount using a 1st Order Fit

Curve will ignore the origin

Amounts will not be scaled prior to the regression

Weighting factor for the regression: None

User Values:

Label :

Value 1: 0.000000

Value 2: 0.000000

Value 3: 0.000000

Value 4: 0.000000

Value 5: 0.000000

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	35278.95	3945.72	-----	-----	1
2	25.0000	151703.35	17138.79	-----	-----	1
3	50.0000	256028.21	32279.33	-----	-----	1
4	100.0000	443240.40	51619.24	-----	-----	1
5	150.0000	604855.69	68016.71	-----	-----	1

Calibration Curve : $y = (44072.557163) + (3850.738815)x + (0.000000)x^2 + (0.000000)x^3$
R-squared : 0.991445

M&P XYLENES

Component Type : Single Peak Component

Retention Time : 31.246 min Search Window: 0.00 s, 1.00 %

Reference Component:

Find peak closest to expected RT in window

Calibrating Area versus Amount using a 1st Order Fit

Curve will ignore the origin

Amounts will not be scaled prior to the regression

Weighting factor for the regression: None

User Values:

Label :

Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	10.0000	73132.06	7073.97	-----	-----	1
2	50.0000	296703.66	27887.91	-----	-----	1
3	100.0000	558639.72	52802.53	-----	-----	1
4	200.0000	961021.21	85915.02	-----	-----	1
5	300.0000	1335915.70	122012.39	-----	-----	1

Calibration Curve : $y = (77265.962743) + (4301.640209)x + (0.000000)x^2 + (0.000000)x^3$
 R-squared : 0.993778

O-XYLENE

Component Type : Single Peak Component
 Retention Time : 32.785 min Search Window: 0.00 s, 1.40 %
 Reference Component:
 Find peak closest to expected RT in window
 Use Average Calibration Factor (Area / Amount)
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	19507.27	3364.09	-----	-----	1
2	25.0000	90210.36	14045.38	-----	-----	1
3	50.0000	163076.79	25593.86	-----	-----	1
4	100.0000	259708.54	41923.90	-----	-----	1
5	150.0000	391349.07	60377.44	-----	-----	1

Average Calibration Factor = 3195.496693 (%RSD = 18.35)

STYRENE

Component Type : Single Peak Component
 Retention Time : 32.861 min Search Window: 0.00 s, 1.20 %
 Reference Component:
 Find peak closest to expected RT in window
 Use Average Calibration Factor (Area / Amount)
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	35612.64	4234.33	-----	-----	1
2	25.0000	157073.76	17941.30	-----	-----	1
3	50.0000	316731.46	33925.74	-----	-----	1
4	100.0000	572304.39	56598.20	-----	-----	1
5	150.0000	812713.92	81768.99	-----	-----	1

ISOPROPYLBENZENE

Component Type : Single Peak Component
 Retention Time : 34.049 min Search Window: 0.00 s, 3.00 %
 Reference Component:
 Find peak closest to expected RT in window
 Use Average Calibration Factor (Area / Amount)
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	25310.69	2700.98	-----	-----	1
2	25.0000	123297.24	12927.51	-----	-----	1
3	50.0000	238984.78	24179.89	-----	-----	1
4	100.0000	423144.03	40891.79	-----	-----	1
5	150.0000	621466.00	60261.34	-----	-----	1

Average Calibration Factor = 4629.654219 (%RSD = 9.01)

n-PROPYLBENZENE

Component Type : Single Peak Component
 Retention Time : 35.569 min Search Window: 0.80 s, 0.50 %
 Reference Component:
 Find peak closest to expected RT in window
 Calibrating Area versus Amount using a 1st Order Fit
 Curve will ignore the origin
 Amounts will not be scaled prior to the regression
 Weighting factor for the regression: None
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000
 Value 6: 96.618622

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	20115.86	3824.83	-----	-----	1
2	25.0000	79560.13	15622.77	-----	-----	1
3	50.0000	131906.33	26805.97	-----	-----	1
4	100.0000	245162.68	46976.73	-----	-----	1
5	150.0000	367629.32	66140.29	-----	-----	1

Calibration Curve : $y = (13668.466354) + (2351.612090)x + (0.000000)x^2 + (0.000000)x^3$
 R-squared : 0.998776

2-CHLORTOL+PETHYLTOLUE

Component Type : Single Peak Component
 Retention Time : 36.121 min Search Window: 0.00 s, 0.40 %
 Reference Component:
 Find peak closest to expected RT in window
 Calibrating Area versus Amount using a 1st Order Fit
 Curve will ignore the origin

Amounts will not be scaled prior to the regression

Weighting factor for the regression: None

User Values:

Label :

Value 1: 0.000000

Value 2: 0.000000

Value 3: 0.000000

Value 4: 0.000000

Value 5: 0.000000

Value 6: 175.477158

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	10.0000	55350.00	6144.20	-----	-----	1
2	50.0000	220501.59	24745.44	-----	-----	1
3	100.0000	406291.11	45951.80	-----	-----	1
4	200.0000	679103.58	77022.59	-----	-----	1
5	300.0000	1009892.28	114869.35	-----	-----	1

Calibration Curve : $y = (50709.944381) + (3208.467938)x + (0.000000)x^2 + (0.000000)x^3$

R-squared : 0.996101

4CHLORTOL+135TRIMETHBEN

Component Type : Single Peak Component

Retention Time : 36.304 min Search Window: 0.00 s, 0.40 %

Reference Component:

Find peak closest to expected RT in window

Calibrating Area versus Amount using a 1st Order Fit

Curve will ignore the origin

Amounts will not be scaled prior to the regression

Weighting factor for the regression: None

User Values:

Label :

Value 1: 0.000000

Value 2: 0.000000

Value 3: 0.000000

Value 4: 0.000000

Value 5: 0.000000

Value 6: 169.371852

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	10.0000	40508.20	4457.97	-----	-----	1
2	50.0000	156886.37	17736.32	-----	-----	1
3	100.0000	285056.51	32498.76	-----	-----	1
4	200.0000	510837.56	54495.70	-----	-----	1
5	300.0000	676624.02	78696.93	-----	-----	1

Calibration Curve : $y = (44949.880237) + (2189.641293)x + (0.000000)x^2 + (0.000000)x^3$

R-squared : 0.990451

TERT-BUTYLBENZENE

Component Type : Single Peak Component

Retention Time : 37.328 min Search Window: 0.00 s, 0.40 %

Reference Component:

Find peak closest to expected RT in window

Calibrating Area versus Amount using a 1st Order Fit

Curve will ignore the origin

Amounts will not be scaled prior to the regression

Weighting factor for the regression: None

User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000
 Value 6: 84.893575

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	16616.83	2356.08	-----	-----	1
2	25.0000	69870.96	10048.17	-----	-----	1
3	50.0000	129188.37	18145.75	-----	-----	1
4	100.0000	226305.99	30592.20	-----	-----	1
5	150.0000	313718.51	43784.49	-----	-----	1

Calibration Curve : $y = (17420.380318) + (2026.056836)x + (0.000000)x^2 + (0.000000)x^3$
 R-squared : 0.994243

124TRIMETBENZENE

Component Type : Single Peak Component
 Retention Time : 37.439 min Search Window: 0.00 s, 0.50 %
 Reference Component:
 Find peak closest to expected RT in window
 Calibrating Area versus Amount using a 1st Order Fit
 Curve will ignore the origin
 Amounts will not be scaled prior to the regression
 Weighting factor for the regression: None
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000
 Value 6: 86.345419

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	28170.36	3299.16	-----	-----	1
2	25.0000	117739.45	13577.98	-----	-----	1
3	50.0000	209280.79	24642.06	-----	-----	1
4	100.0000	373033.45	42384.75	-----	-----	1
5	150.0000	539383.16	64274.29	-----	-----	1

Calibration Curve : $y = (24652.660603) + (3467.708780)x + (0.000000)x^2 + (0.000000)x^3$
 R-squared : 0.997665

SEC-BUTYLBENZENE

Component Type : Single Peak Component
 Retention Time : 38.032 min Search Window: 0.00 s, 0.60 %
 Reference Component:
 Find peak closest to expected RT in window
 Use Average Calibration Factor (Area / Amount)
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000

Value 6: 88.332446

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	15281.50	1775.69	-----	-----	1
2	25.0000	69934.19	8299.09	-----	-----	1
3	50.0000	128291.74	15360.04	-----	-----	1
4	100.0000	241388.11	26434.71	-----	-----	1
5	150.0000	318523.51	38668.00	-----	-----	1

Average Calibration Factor = 2591.374672 (%RSD = 13.77)

ISOPROPYLTOLUENE

Component Type : Single Peak Component
Retention Time : 38.489 min Search Window: 0.00 s, 0.30 %

Reference Component:

Find peak closest to expected RT in window

Use Average Calibration Factor (Area / Amount).

User Values:

Label :
Value 1: 0.000000
Value 2: 0.000000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 102.922757

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	16219.85	2179.77	-----	-----	1
2	25.0000	77455.23	10214.99	-----	-----	1
3	50.0000	143704.99	19028.22	-----	-----	1
4	100.0000	255583.88	32837.23	-----	-----	1
5	150.0000	370310.73	49865.51	-----	-----	1

Average Calibration Factor = 2848.171274 (%RSD = 11.77)

1,3 DICHLOROBENZENE

Component Type : Single Peak Component
Retention Time : 38.761 min Search Window: 0.00 s, 0.30 %

Reference Component:

Find peak closest to expected RT in window

Use Average Calibration Factor (Area / Amount)

User Values:

Label :
Value 1: 0.000000
Value 2: 0.000000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 57.673716

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	26119.12	3613.87	-----	-----	1
2	25.0000	134263.20	18543.06	-----	-----	1
3	50.0000	258884.79	36391.03	-----	-----	1
4	100.0000	464642.05	64154.24	-----	-----	1
5	150.0000	669516.89	93413.53	-----	-----	1

Average Calibration Factor = 4976.382993 (%RSD = 7.97)

1,4 DICHLOROBENZENE

Component Type : Single Peak Component
 Retention Time : 39.106 min Search Window: 0.00 s, 0.50 %
 Reference Component:
 Find peak closest to expected RT in window
 Use Average Calibration Factor (Area / Amount)
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000
 Value 6: 71.576399

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	24287.13	3615.79	-----	-----	1
2	25.0000	161056.02	17445.69	-----	-----	1
3	50.0000	271071.28	34062.42	-----	-----	1
4	100.0000	490308.39	60783.94	-----	-----	1
5	150.0000	668807.34	89975.17	-----	-----	1

Average Calibration Factor = 5216.578152 (%RSD = 14.68)

n-BUTYLBENZENE

Component Type : Single Peak Component
 Retention Time : 39.810 min Search Window: 0.00 s, 0.40 %
 Reference Component:
 Find largest peak in window
 Use Average Calibration Factor (Area / Amount)
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000
 Value 6: 86.598512

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	19797.59	2687.29	-----	-----	1
2	25.0000	88172.69	12150.62	-----	-----	1
3	50.0000	167669.48	23070.24	-----	-----	1
4	100.0000	296731.32	39193.28	-----	-----	1
5	150.0000	451999.98	62954.33	-----	-----	1

Average Calibration Factor = 3364.092229 (%RSD = 12.09)

1,2 DICHLOROBENZENE

Component Type : Single Peak Component
 Retention Time : 40.275 min Search Window: 0.00 s, 0.60 %
 Reference Component:
 Find peak closest to expected RT in window
 Use Average Calibration Factor (Area / Amount)
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000

Value 5: 0.000000
Value 6: 62.076059

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	24237.12	3191.24	-----	-----	1
2	25.0000	107798.46	15422.15	-----	-----	1
3	50.0000	215039.73	30761.00	-----	-----	1
4	100.0000	397287.45	54196.70	-----	-----	1
5	150.0000	561189.76	79067.02	-----	-----	1

Average Calibration Factor = 4234.859495 (%RSD = 9.86)

BROMOCHLOROBENZENE

Component Type : Single Peak Component
Retention Time : 42.797 min Search Window: 0.00 s, 1.00 %
Reference Component:
Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
User Values:

Label :
Value 1: 0.000000
Value 2: 0.000000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	30.0000	156504.98	24499.41	-----	-----	1
3	30.0000	165135.40	26312.70	-----	-----	1
4	30.0000	169823.88	26896.23	-----	-----	1
5	30.0000	186985.49	29378.90	-----	-----	1

Average Calibration Factor = 5653.747930 (%RSD = 7.56)

1,2,4 TRICHLOROBENZENE

Component Type : Single Peak Component
Retention Time : 45.298 min Search Window: 0.00 s, 0.40 %
Reference Component:
Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
User Values:

Label :
Value 1: 0.000000
Value 2: 0.000000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 55.885064

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	14082.79	2036.53	-----	-----	1
2	25.0000	57320.02	8489.34	-----	-----	1
3	50.0000	117169.13	17944.39	-----	-----	1
4	100.0000	209506.42	33322.63	-----	-----	1
5	150.0000	327324.29	52314.46	-----	-----	1

Average Calibration Factor = 2245.993333 (%RSD = 11.94)

HEXACHLOROBUTADIENE

Component Type : Single Peak Component

Retention Time : 45.744 min Search Window: 0.00 s, 0.30 %
 Reference Component:
 Find peak closest to expected RT in window
 Use Average Calibration Factor (Area / Amount)
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000
 Value 6: 43.459152

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	14671.39	1780.98	-----	-----	1
2	25.0000	65937.94	8544.65	-----	-----	1
3	50.0000	125998.13	16612.25	-----	-----	1
4	100.0000	211365.79	27607.80	-----	-----	1
5	150.0000	343050.92	44148.78	-----	-----	1

Average Calibration Factor = 2498.484422 (%RSD = 12.70)

NAPHTHALENE

Component Type : Single Peak Component
 Retention Time : 46.084 min Search Window: 0.35 s, 0.90 %
 Reference Component:
 Find peak closest to expected RT in window
 Calibrating Area versus Amount using a 1st Order Fit
 Curve will ignore the origin
 Amounts will not be scaled prior to the regression
 Weighting factor for the regression: None
 User Values:

Label :
 Value 1: 0.000000
 Value 2: 0.000000
 Value 3: 0.000000
 Value 4: 0.000000
 Value 5: 0.000000
 Value 6: 67.522436

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	5.0000	21622.29	2781.05	-----	-----	1
2	25.0000	83266.30	10772.03	-----	-----	1
3	50.0000	160313.24	21560.09	-----	-----	1
4	100.0000	277631.12	37092.23	-----	-----	1
5	150.0000	396093.00	51622.67	-----	-----	1

Calibration Curve : $y = (19271.625602) + (2553.235807)x + (0.000000)x^2 + (0.000000)x^3$
 R-squared : 0.996312

Chromatogram

Sample Name : 5 PPB 8021 ICC

FileName : J:\TC4\DATA2\S021505.RAW

Method :

Start Time : 0.00 min

End Time : 60.00 min

Scale Factor: 1.0

Plot Offset: 20 mV

Sample #:

Page 1 of 1

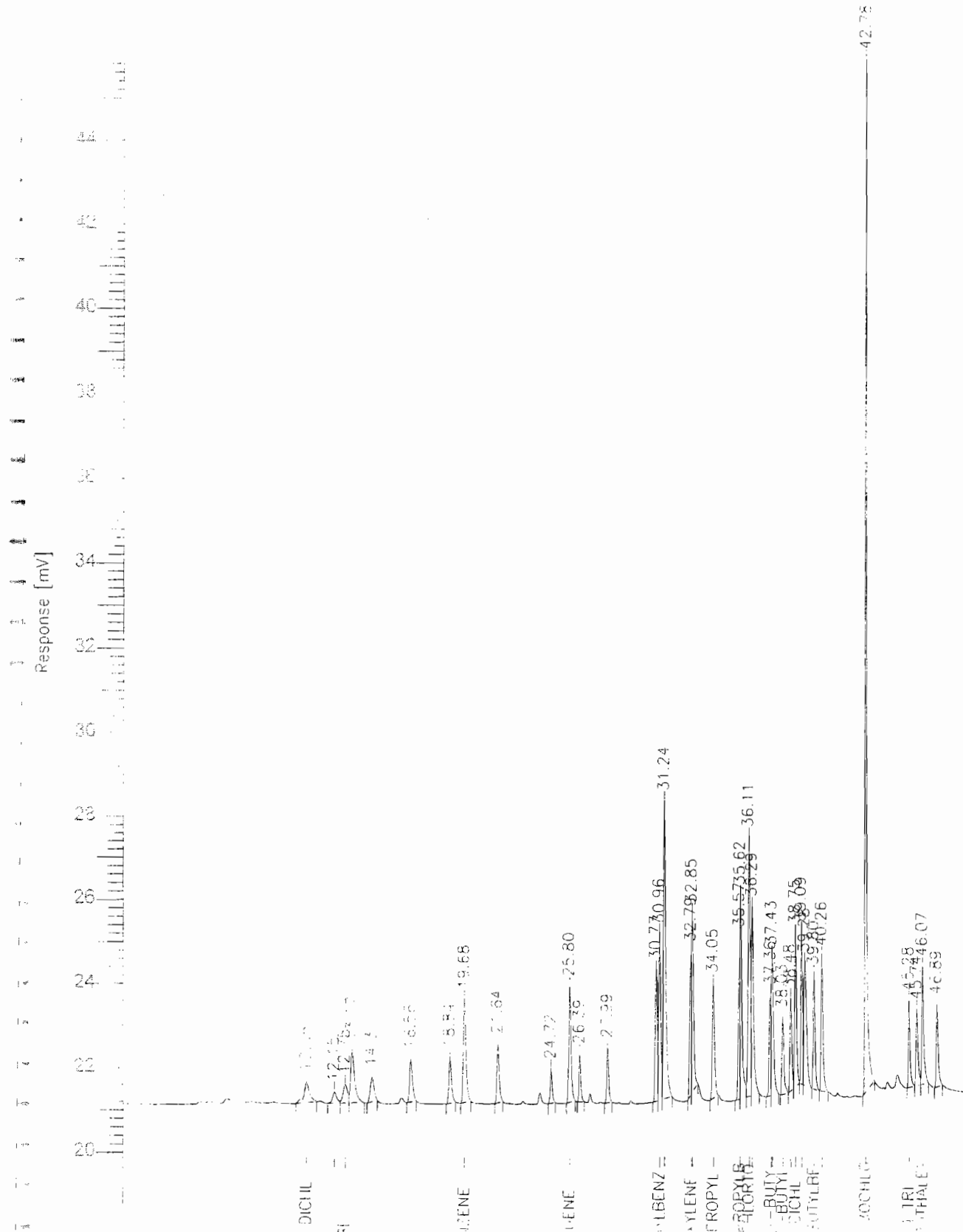
Date : 3/6/01 04:22 PM

Time of Injection: 2/15/01 08:16 PM

Low Point : 19.87 mV

High Point : 45.80 mV

Plot Scale: 25.9 mV



Software Version: 4.1<2F12>

Date: 3/6/01 04:23 PM

Sample Name : 5 PPB 8021 ICC

Data File : J:\TC4\DATA2\S021505.RAW Date: 2/15/01 08:16 PM

Sequence File: J:\TC4\DATA2\B021501.SEQ Cycle: 5 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 10021/37 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

51
3/12/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	1,1 DICHLOROETHENE	10.55	5285.27	370.19	3.489	3.489
2	TBA	12.15	2846.17	211.37	20.534	20.534
3	MTBE	12.75	5898.28	368.16	4.321	4.321
4		13.17	17167.21	1130.36	0.017	0.017
5		14.31	8941.47	566.98	0.009	0.009
6		16.55	12076.70	985.11	0.012	0.012
7		18.84	11593.03	1045.32	0.012	0.012
8	BENZENE	19.68	27965.35	2421.19	5.738	5.738
9		21.64	13079.68	1351.85	0.013	0.013
10		24.72	6445.24	781.88	0.006	0.006
11	TOLUENE	25.80	25541.97	2717.53	5.834	5.834
12		26.39	8373.22	1099.75	0.008	0.008
13		27.99	10619.07	1263.02	0.011	0.011
14		30.77	24388.44	3087.35	0.024	0.024
15	ETHYLBENZENE	30.96	35278.95	3945.72	6.604	6.604
16	M&P XYLENES	31.24	73132.06	7073.97	13.017	13.017
17	O-XYLENE	32.79	19507.27	3364.09	6.105	6.105
18	STYRENE	32.85	35612.64	4234.33	5.766	5.766
19	ISOPROPYLBENZENE	34.04	25310.69	2700.98	5.467	5.467
20	n-PROPYLBENZENE	35.57	20115.86	3824.83	6.821	6.821
21		35.62	38322.48	4816.16	0.038	0.038
22	2-CHLORTOL+PETHYLTOLUE	36.11	55350.00	6144.20	13.325	13.325
23	4CHLORTOL+135TRIMETHBE	36.29	40508.20	4457.97	13.640	13.640
24	TERT-BUTYLBENZENE	37.36	16616.83	2356.08	6.363	6.363
25	124TRIMETBENZENE	37.43	28170.36	3299.16	6.445	6.445
26	SEC-BUTYLBENZENE	38.02	15281.50	1775.69	5.897	5.897
27	ISOPROPYLTOLUENE	38.48	16219.85	2179.77	5.695	5.695
28	1,3 DICHLOROBENZENE	38.75	26119.12	3613.87	5.249	5.249
29	1,4 DICHLOROBENZENE	39.09	24287.13	3615.79	4.656	4.656
30		39.28	35918.88	2909.80	0.036	0.036
31	n-BUTYLBENZENE	39.80	19797.59	2687.29	5.885	5.885

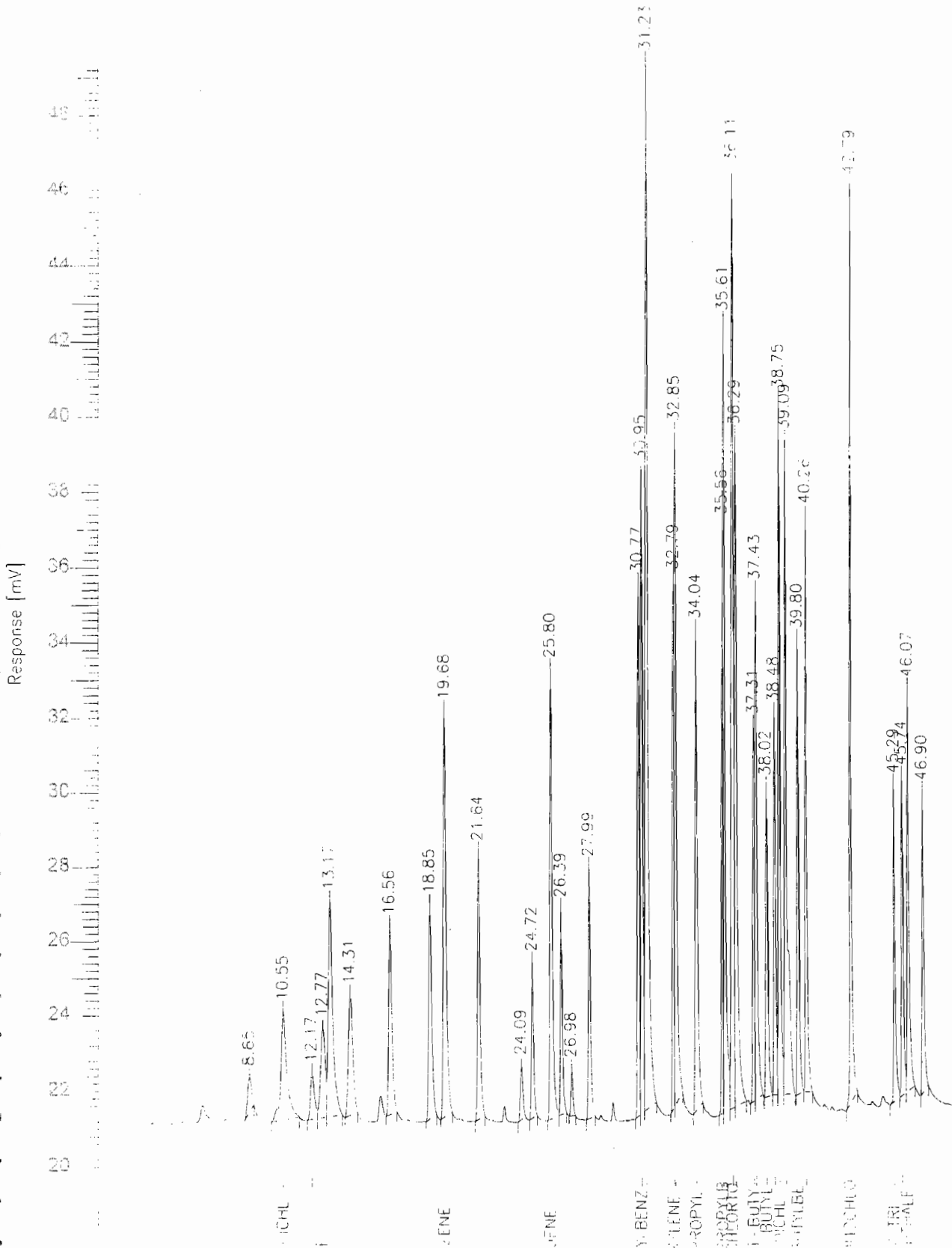
Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	1,2 DICHLOROBENZENE	40.26	24237.12	3191.24	5.723	5.723
33	BROMOCHLOROBENZENE	42.78	156504.98	24499.41	27.682	27.682
34	1,2,4 TRICHLOROBENZENE	45.28	14082.79	2036.53	6.003	6.003
35	HEXACHLOROBUTADIENE	45.73	14671.39	1780.98	5.872	5.872
36	NAPHTHALENE	46.07	21622.29	2781.05	6.641	6.641
37		46.89	15142.62	1930.39	0.015	0.015
			952031.67	116619.35	202.973	202.973

Report stored in ASCII file: .\S021505.TX0

Chromatogram

Sample Name : 25 PPB 8021 ICC
 FileName : J:\TC4\DATA2\S021504.RAW
 Method :
 Start Time : 0.00 min End Time :
 Scale Factor: 1.0 Plot 0

Sample #: Page 1 of 1
Date : 3/6/01 04:20 PM
Time of Injection: 2/15/01 07:20 PM
Low Point : 19.71 mV High Point : 49.34 mV
Plot Scale: 29.6 mV



Software Version: 4.1<2F12>

Date: 3/6/01 04:09 PM

Sample Name : 25 PPB 8021 ICC

Data File : J:\TC4\DATA2\S021504.RAW Date: 2/15/01 07:20 PM

Sequence File: J:\TC4\DATA2\B021501.SEQ Cycle: 4 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 10021/37 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

Sm 3/16/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		8.65	13792.52	911.15	0.014	0.014
2	1,1 DICHLOROETHENE	10.55	40149.59	2443.24	26.507	26.507
3	TBA	12.17	17136.21	1146.88	123.629	123.629
4	MTBE	12.77	37621.88	2190.09	27.562	27.562
5		13.17	89346.73	5500.06	0.089	0.089
6		14.31	55695.97	3186.03	0.056	0.056
7		16.56	65530.78	5029.99	0.066	0.066
8		18.85	67672.11	5714.67	0.068	0.068
9	BENZENE	19.68	136879.82	10864.74	28.085	28.085
10		21.64	73584.27	7160.77	0.074	0.074
11		24.09	14235.06	1406.80	0.014	0.014
12		24.72	35413.13	4150.57	0.035	0.035
13	TOLUENE	25.80	121777.01	12029.82	27.815	27.815
14		26.39	43458.69	5501.06	0.043	0.043
15		26.98	10611.51	1241.51	0.011	0.011
16		27.99	59522.14	6706.29	0.060	0.060
17		30.77	108287.88	14226.25	0.108	0.108
18	ETHYLBENZENE	30.95	151703.35	17138.79	27.951	27.951
19	M&P XYLENES	31.23	296703.66	27887.91	51.013	51.013
20	O-XYLENE	32.79	90210.36	14045.38	28.230	28.230
21	STYRENE	32.85	157073.76	17941.30	25.432	25.432
22	ISOPROPYLBENZENE	34.04	123297.24	12827.51	26.632	26.632
23	n-PROPYLBENZENE	35.56	79560.13	15622.77	28.020	28.020
24		35.61	170211.45	21010.90	0.170	0.170
25	2-CHLORTOL+PETHYLTOLUE	36.11	220501.59	24745.44	52.920	52.920
26	4CHLORTOL+135TRIMETHBE	36.29	156886.37	17736.32	51.121	51.121
27	TERT-BUTYLBENZENE	37.31	69870.96	10048.17	25.888	25.888
28	124TRIMETBENZENE	37.43	117739.45	13577.98	26.844	26.844
29	SEC-BUTYLBENZENE	38.02	69934.19	8299.09	26.987	26.987
30	ISOPROPYLTOLUENE	38.48	77455.23	10214.99	27.195	27.195
31	1,3 DICHLOROBENZENE	38.75	134263.20	18543.06	26.980	26.980

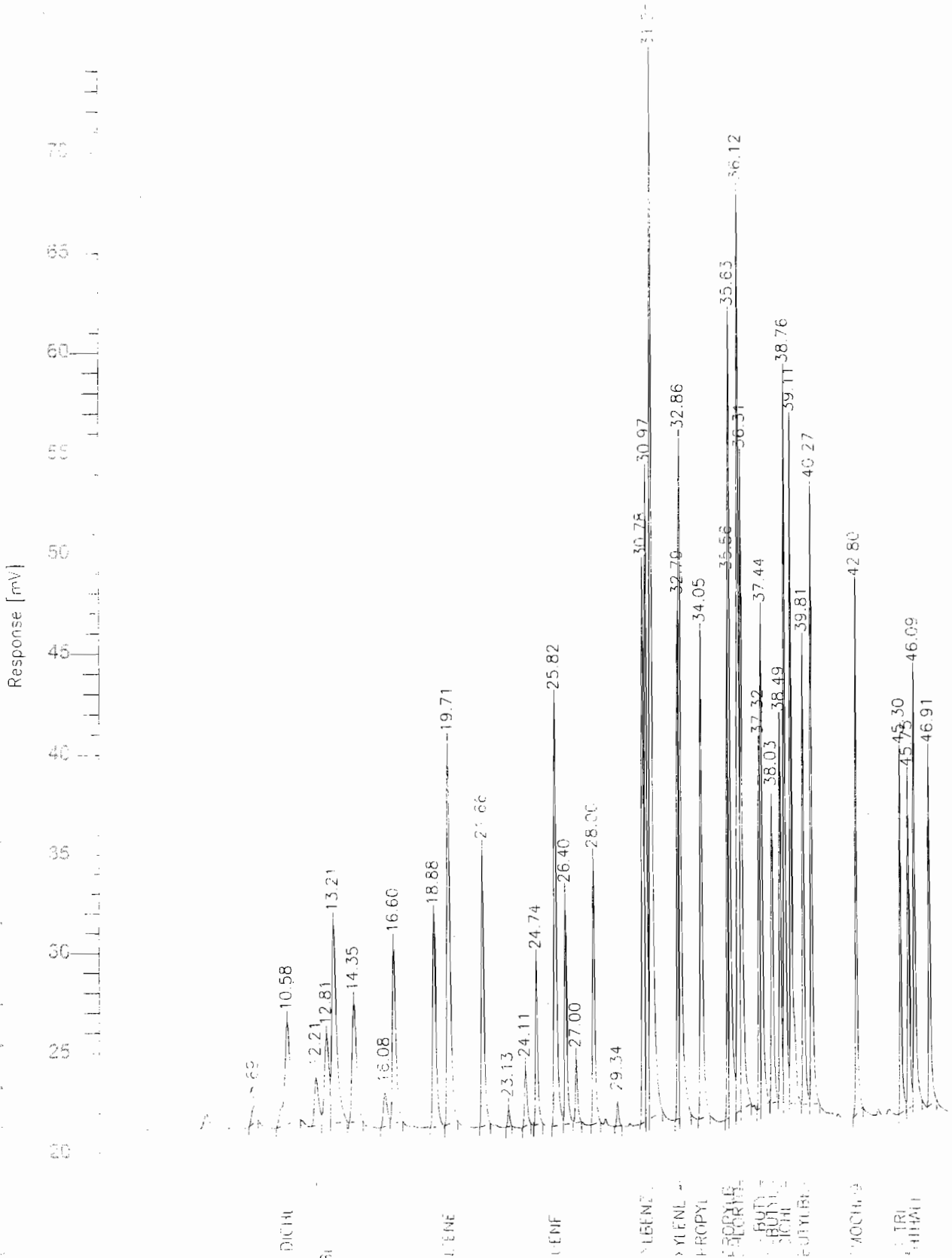
Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	1,4 DICHLOROBENZENE	39.09	161056.02	17445.69	30.874	30.874
33	n-BUTYLBENZENE	39.80	88172.69	12150.62	26.210	26.210
34	1,2 DICHLOROBENZENE	40.26	107798.46	15422.15	25.455	25.455
35	BROMOCHLOROBENZENE	42.79	154555.74	24514.35	27.337	27.337
36	1,2,4 TRICHLOROBENZENE	45.29	57320.02	8489.34	24.433	24.433
37	HEXACHLOROBUTADIENE	45.74	65937.94	8544.65	26.391	26.391
38	NAPHTHALENE	46.07	83266.30	10772.03	25.064	25.064
39		46.90	61533.72	8076.54	0.062	0.062
			3685767.15	424464.91	845.443	845.443

* Report stored in ASCII file: .\S021504.TX0

Chromatogram

Sample Name : 50 PPB 8021 ICC
 FileName : J:\TC4\DATA2\S021503.RAW
 Method :
 Start Time : 0.00 min End Time :
 Scale Factor: 1.0 Plot On

Sample #: Page 1 of 1
Date : 3/6/01 04:19 PM
Time of Injection: 2/15/01 06:25 PM
Low Point : 18.48 mV High Point : 74.42 mV
Plot Scale: 55.9 mV



Software Version: 4.1<2F12>

Date: 3/6/01 04:08 PM

Sample Name : 50 PPB 8021 ICC

Data File : J:\TC4\DATA2\S021503.RAW Date: 2/15/01 06:25 PM

Sequence File: J:\TC4\DATA2\B021501.SEQ Cycle: 3 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 10021/37 Operator:

Sample Amount : 1.0000

Dilution Factor : 1.00

5/3/12/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		8.69	12391.13	807.46	0.012	0.012
2	1,1 DICHLOROETHENE	10.58	87672.67	4516.29	57.882	57.882
3	TBA	12.21	37171.83	2295.11	268.176	268.176
4	MTBE	12.81	75096.59	4161.74	55.016	55.016
5		13.21	172078.50	9759.04	0.172	0.172
6		14.35	109131.88	5940.68	0.109	0.109
7		16.08	25636.04	1593.92	0.026	0.026
8		16.60	127021.19	8952.43	0.127	0.127
9		18.88	133730.65	10537.28	0.134	0.134
10	BENZENE	19.71	246435.65	19053.93	50.564	50.564
11		21.66	145489.32	13841.17	0.145	0.145
12		23.13	7218.28	853.95	0.007	0.007
13		24.11	29970.16	2830.22	0.030	0.030
14		24.74	71810.16	8160.66	0.072	0.072
15	TOLUENE	25.82	224266.65	21254.30	51.224	51.224
16		26.40	97061.58	11506.31	0.097	0.097
17		27.00	29187.54	3134.67	0.029	0.029
18		28.00	121430.36	13288.88	0.121	0.121
19		29.34	9155.34	1186.23	0.009	0.009
20		30.78	243587.71	27745.54	0.244	0.244
21	ETHYLBENZENE	30.97	256028.21	32279.33	55.043	55.043
22	M&P XYLENES	31.25	558639.72	52802.53	111.905	111.905
23	O-XYLENE	32.79	163076.79	25593.86	51.033	51.033
24	STYRENE	32.86	316731.46	33925.74	51.282	51.282
25	ISOPROPYLBENZENE	34.05	238984.78	24179.89	51.620	51.620
26	n-PROPYLBENZENE	35.56	131906.33	26805.97	50.279	50.279
27		35.63	340014.18	39960.12	0.340	0.340
28	2-CHLORTOL+PETHYLTOLUE	36.12	406291.11	45951.80	110.826	110.826
29	4CHLORTOL+135TRIMETHBE	36.31	285056.51	32498.76	109.656	109.656
30	TERT-BUTYLBENZENE	37.32	129188.37	18145.75	55.165	55.165
31	124TRIMETBENZENE	37.44	209280.79	24642.06	53.242	53.242

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	SEC-BUTYLBENZENE	38.03	128291.74	15360.04	49.507	49.507
33	ISOPROPYLTOLUENE	38.49	143704.99	19028.22	50.455	50.455
34	1,3 DICHLOOROBENZENE	38.76	258884.79	36391.03	52.023	52.023
35	1,4 DICHLOOROBENZENE	39.10	271071.28	34062.42	51.963	51.963
36	n-BUTYLBENZENE	39.81	167669.48	23070.24	49.841	49.841
37	1,2 DICHLOOROBENZENE	40.27	215039.73	30761.00	50.778	50.778
38	BROMOCHLOOROBENZENE	42.80	165135.40	26312.70	29.208	29.208
39	1,2,4 TRICHLOOROBENZENE	45.30	117169.13	17944.39	49.944	49.944
40	HEXACHLOOROBUTADIENE	45.74	125998.13	16612.25	50.430	50.430
41	NAPHTHALENE	46.09	160313.24	21560.09	55.240	55.240
42		46.91	130274.27	17617.78	0.130	0.130
			6924293.65	786925.80	1674.110	1674.110

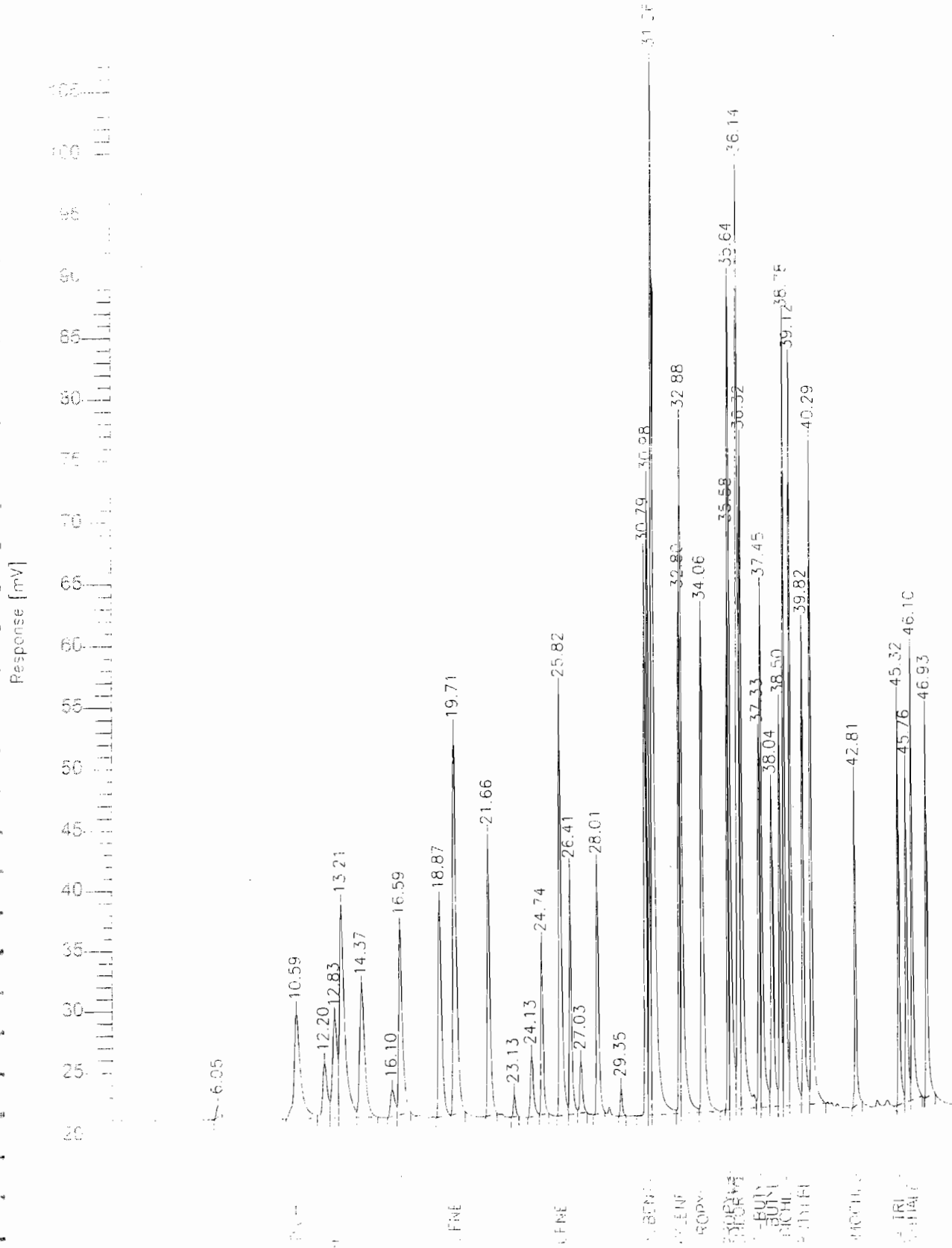
Report stored in ASCII file: .\S021503.TX0

Chromatogram

Sample Name : 100 PPB 8021 ICC
 FileName : J:\TC4\DATA2\S021502.RAW
 Method :
 Start Time : 0.00 min
 Scale Factor : 1.0

End Time : 60.00 min
 Plot Offset : 17 mV

Sample # :
 Date : 3/6/01 04:18 PM
 Time of Injection: 2/15/01 05:29 PM
 Low Point : 16.87 mV
 Plot Scale: 90.3 mV
 High Point : 107.22 mV



Software Version: 4.1<2F12>

Date: 3/6/01 04:08 PM

Sample Name : 100 PPB 8021 ICC

Data File : J:\TC4\DATA2\S021502.RAW Date: 2/15/01 05:29 PM

Sequence File: J:\TC4\DATA2\B021501.SEQ Cycle: 2 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 10021/37 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

SA 3/16/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		6.05	11404.51	875.96	0.011	0.011
2	1,1 DICHLOROETHENE	10.59	169726.95	8054.61	112.054	112.054
3	TBA	12.20	72041.03	4113.70	519.739	519.739
4	MTBE	12.82	145458.35	7751.02	106.564	106.564
5		13.21	337502.01	17114.40	0.338	0.338
6		14.36	201474.63	10242.41	0.201	0.201
7		16.10	37509.02	2104.17	0.038	0.038
8		16.59	232473.74	15387.01	0.232	0.232
9		18.87	233454.71	17706.64	0.233	0.233
10	BENZENE	19.70	421806.94	31486.90	86.547	86.547
11		21.66	248236.92	23000.72	0.248	0.248
12		23.13	15907.97	1711.44	0.016	0.016
13		24.13	60225.55	4857.98	0.060	0.060
14		24.74	128726.94	14042.37	0.129	0.129
15	TOLUENE	25.82	377144.61	34936.75	86.142	86.142
16		26.41	175405.80	20080.88	0.175	0.175
17		27.03	45873.82	4128.42	0.046	0.046
18		28.01	189747.05	20374.54	0.190	0.190
19		29.35	16959.92	2140.96	0.017	0.017
20		30.79	382053.62	45832.96	0.382	0.382
21	ETHYLBENZENE	30.98	443240.40	51619.24	103.660	103.660
22	M&P XYLENES	31.26	961021.21	85915.02	205.446	205.446
23	O-XYLENE	32.80	259708.54	41923.90	81.273	81.273
24	STYRENE	32.88	572304.99	56595.20	92.662	92.662
25	ISOPROPYLBENZENE	34.06	423144.03	40891.79	91.399	91.399
26	n-PROPYLBENZENE	35.58	245162.68	46976.73	98.441	98.441
27		35.64	560211.14	67865.20	0.560	0.560
28	2-CHLORTOL+PETHYLTOLUE	36.14	679103.58	77022.59	195.855	195.855
29	4CHLORTOL+135TRIMETHBE	36.32	510837.56	54495.70	212.769	212.769
30	TERT-BUTYLBENZENE	37.33	226305.99	30592.20	103.100	103.100
31	124TRIMETBENZENE	37.45	373033.45	42384.75	100.464	100.464

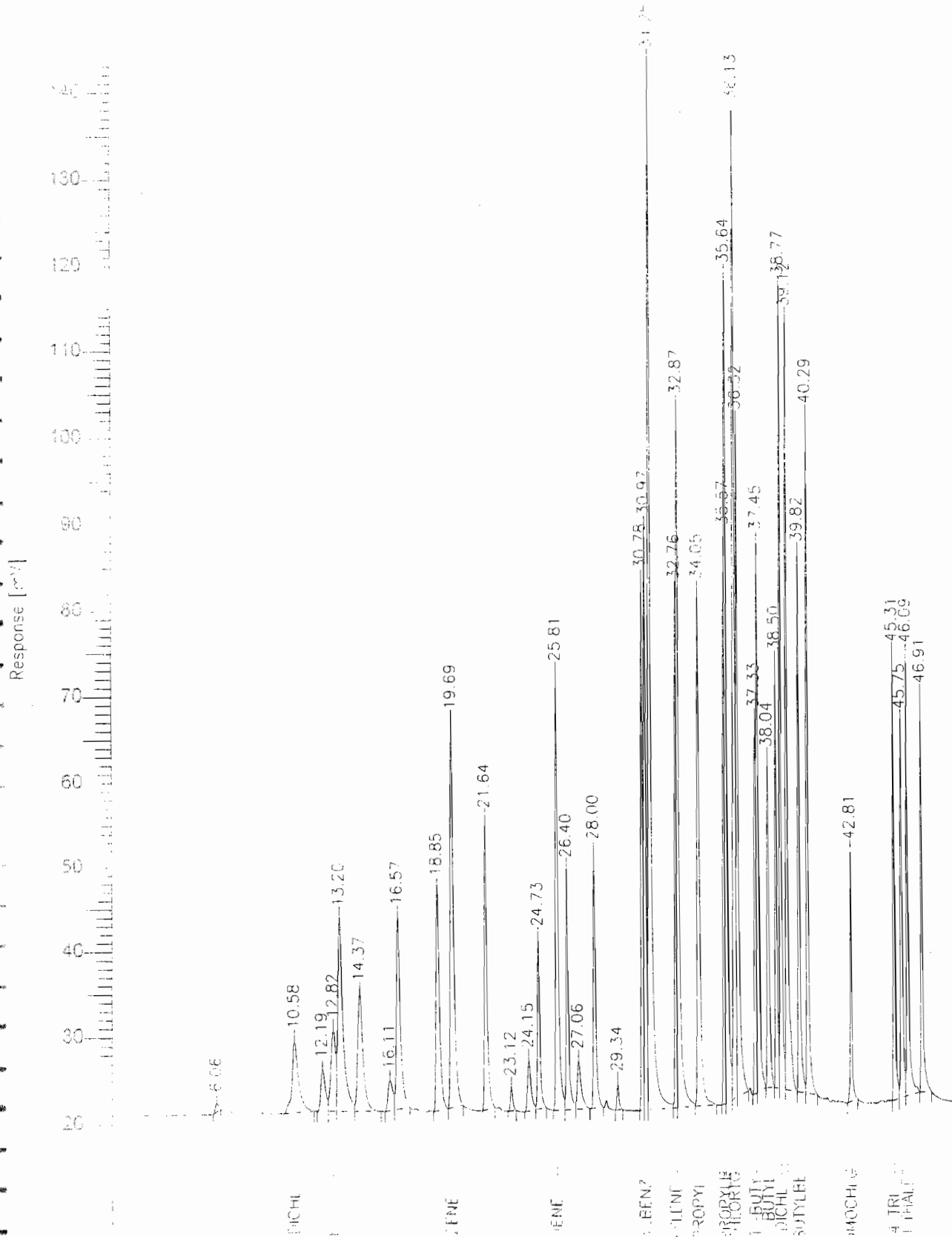
Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	SEC-BUTYLBENZENE	38.04	241388.11	26434.71	93.151	93.151
33	ISOPROPYLTOLUENE	38.50	255583.88	32837.23	89.736	89.736
34	1,3 DICHLOOROBENZENE	38.77	464642.05	64154.24	93.369	93.369
35	1,4 DICHLOOROBENZENE	39.12	490308.39	60783.94	93.990	93.990
36	n-BUTYLBENZENE	39.82	296731.32	39193.28	88.205	88.205
37	1,2 DICHLOOROBENZENE	40.29	397287.45	54196.70	93.814	93.814
38	BROMOCHLOOROBENZENE	42.81	169823.88	26896.23	30.037	30.037
39	1,2,4 TRICHLOOROBENZENE	45.31	209506.42	33322.63	89.304	89.304
40	HEXACHLOOROBUTADIENE	45.76	211365.79	27607.80	84.598	84.598
41	NAPHTHALENE	46.10	277631.12	37092.23	101.189	101.189
42		46.93	230960.07	31602.95	0.231	0.231
			12002436.14	1.32e+06	3056.617	3056.617

Report stored in ASCII file: .\S021502.TX0

Chromatogram

Sample Name : 150 PPB 8021 ICC
 FileName : J:\TC4\DATA2\S021501.RAW
 Method :
 Start Time : 0.00 min End Time : 60.00 min
 Scale Factor: 1.0 Plot Offset: 15 mV

Sample #:
 Date : 3/6/01 04:17 PM
 Time of Injection: 2/15/01 04:34 PM
 Low Point : 14.98 mV High Point : 143.36 mV
 Plot Scale: 128.4 mV



Software Version: 4.1<2F12>

Date: 3/6/01 04:08 PM

Sample Name : 150 PPB 8021 ICC

Data File : J:\TC4\DATA2\S021501.RAW Date: 2/15/01 04:34 PM

Sequence File: J:\TC4\DATA2\B021501.SEQ Cycle: 1 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 10021/37 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

5/2/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		6.06	12564.77	969.36	0.013	0.013
2	1,1 DICHLOROETHENE	10.58	218949.24	8305.81	144.551	144.551
3	TBA	12.19	86303.90	4814.42	622.638	622.638
4	MTBE	12.82	177584.34	9374.35	130.100	130.100
5		13.20	463433.13	22452.04	0.463	0.463
6		14.36	302088.90	13738.36	0.302	0.302
7		16.11	66106.59	3454.09	0.066	0.066
8		16.57	352914.14	22418.66	0.353	0.353
9		18.85	353667.54	26017.24	0.354	0.354
10	BENZENE	19.69	623030.17	45248.40	127.835	127.835
11		21.64	375871.35	33974.84	0.376	0.376
12		23.12	25255.54	2632.74	0.025	0.025
13		24.15	86148.44	5896.45	0.086	0.086
14		24.73	189904.04	19885.79	0.190	0.190
15	TOLUENE	25.81	548177.82	51070.74	125.208	125.208
16		26.40	261105.82	28096.16	0.261	0.261
17		27.06	90258.45	5624.56	0.090	0.090
18		28.00	288015.77	30189.33	0.288	0.288
19		29.34	25290.19	3111.55	0.025	0.025
20		30.78	488560.07	61960.67	0.489	0.489
21	ETHYLBENZENE	30.97	604855.69	68016.71	145.630	145.630
22	M&P XYLENES	31.25	1335915.70	122012.39	292.598	292.598
23	O-XYLENE	32.76	391349.07	60377.44	122.469	122.469
24	STYRENE	32.87	812713.92	81768.98	131.587	131.587
25	ISOPROPYLBENZENE	34.05	621466.00	60261.34	134.236	134.236
26	n-PROPYLBENZENE	35.57	367629.32	66140.29	150.518	150.518
27		35.64	816755.12	96423.21	0.817	0.817
28	2-CHLORTOL+PETHYLTOLUE	36.13	1009892.28	114869.35	298.953	298.953
29	4CHLORTOL+135TRIMETHBE	36.32	676624.02	78696.93	288.483	288.483
30	TERT-BUTYLBENZENE	37.32	313718.51	43784.49	146.244	146.244
31	124TRIMETBENZENE	37.45	539383.16	64274.29	148.435	148.435

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	SEC-BUTYLBENZENE	38.04	318523.51	38668.00	122.917	122.917
33	ISOPROPYLTOLUENE	38.50	370310.73	49865.51	130.017	130.017
34	1,3 DICHLOROBENZENE	38.77	669516.89	93413.53	134.539	134.539
35	1,4 DICHLOROBENZENE	39.12	668807.34	89975.17	128.208	128.208
36	n-BUTYLBENZENE	39.82	451999.98	62954.33	134.360	134.360
37	1,2 DICHLOROBENZENE	40.29	561189.76	79067.02	132.517	132.517
38	BROMOCHLOROBENZENE	42.81	186985.49	29378.90	33.073	33.073
39	1,2,4 TRICHLOROBENZENE	45.30	327324.29	52314.46	139.525	139.525
40	HEXACHLOROBUTADIENE	45.75	343050.92	44148.78	137.304	137.304
41	NAPHTHALENE	46.09	396093.00	51622.67	147.586	147.586
42		46.91	346063.73	46491.79	0.346	0.346
			17165398.67	1.89e+06	4254.073	4254.073

Report stored in ASCII file: .\S021501.TX0

Initial and Continuing Calibration Summary
SW846 8021GC VOA Analysis
Detector: PID

Continuing Control Verification	50 ppb Std	Filename: J:\TC4\DATA2\S030201.RAW						
Analysis Date	3/2/01			Conc		Lower	Upper	
Analyte	Cal Fac	% Diff	Flag	ug/L	% Rec	Limit	Limit	Flag
1,1 DICHLOROETHENE	323	6%		53	106	85	115	
MTBE	311	14%		57	114	85	115	
BENZENE	1022	5%		52	105	85	115	
TOLUENE	904	3%		52	103	85	115	
ETHYLBENZENE	1005	6%		47	94	85	115	
M&P XYLENES	2002	11%		89	89	85	115	
O-XYLENE	580	9%		45	91	85	115	
STYRENE	1088	12%		44	88	85	115	
ISOPROPYLBENZENE	890	4%		48	96	85	115	
n-PROPYLBENZENE	557	5%		47	95	85	115	
2-CHLORTOL+PETHYLTOLUE	1467	12%		88	88	85	115	
4CHLORTOL+135TRIMETHBE	1051	12%		88	88	85	115	
TERT-BUTYLBENZENE	493	6%		47	94	85	115	
124TRIMETBENZENE	761	13%		44	87	85	115	
SEC-BUTYLBENZENE	489	6%		47	94	85	115	
ISOPROPYLTOLUENE	526	8%		46	92	85	115	
1,3 DICHLOROBENZENE	955	4%		48	96	85	115	
1,4 DICHLOROBENZENE	931	11%		45	89	85	115	
n-BUTYLBENZENE	606	10%		45	90	85	115	
1,2 DICHLOROBENZENE	758	10%		45	90	85	115	
1,2,4 TRICHLOROBENZENE	463	6%		49	99	85	115	
HEXACHLOROBUTADIENE	518	2%		52	104	85	115	
NAPHTHALENE	604	12%		46	93	85	115	

Initial and Continuing Calibration Summary
SW846 8021GC VOA Analysis
Detector: PID

Continuing Control Verification	50 ppb Std	Filename: J:\TC4\DATA2\S030213.RAW						
Analysis Date	3/2/01			Conc		Lower	Upper	
Analyte	Cal Fac	% Diff	Flag	ug/L	% Rec	Limit	Limit	Flag
1,1 DICHLOROETHENE	318	5%		52	105	85	115	
MTBE	312	14%		57	114	85	115	
BENZENE	1016	4%		52	104	85	115	
TOLUENE	936	7%		53	107	85	115	
ETHYLBENZENE	1119	5%		52	105	85	115	
M&P XYLENES	2136	5%		95	95	85	115	
O-XYLENE	643	1%		50	101	85	115	
STYRENE	1184	4%		48	96	85	115	
ISOPROPYLBENZENE	947	2%		51	102	85	115	
n-PROPYLBENZENE	509	14%		43	86	85	115	
2-CHLORTOL+PETHYLTOLUE	1547	7%		93	93	85	115	
4CHLORTOL+135TRIMETHBE	1103	7%		93	93	85	115	
TERT-BUTYLBENZENE	511	2%		49	98	85	115	
124TRIMETBENZENE	802	8%		46	92	85	115	
SEC-BUTYLBENZENE	505	3%		49	97	85	115	
ISOPROPYLTOLUENE	549	4%		48	96	85	115	
1,3 DICHLOROBENZENE	1009	1%		51	101	85	115	
1,4 DICHLOROBENZENE	991	5%		48	95	85	115	
n-BUTYLBENZENE	634	6%		47	94	85	115	
1,2 DICHLOROBENZENE	820	3%		48	97	85	115	
1,2,4 TRICHLOROBENZENE	465	5%		50	99	85	115	
HEXACHLOROBUTADIENE	505	4%		51	101	85	115	
NAPHTHALENE	612	11%		47	94	85	115	

Initial and Continuing Calibration Summary
SW846 8021GC VOA Analysis
Detector: PID

Continuing Control Verification		50 ppb Std	Filename: J:\TC4\DATA2\S030223.RAW					
Analysis Date	3/3/01			Conc		Lower	Upper	
Analyte	Cal Fac	% Diff	Flag	ug/L	% Rec	Limit	Limit	Flag
1,1 DICHLOROETHENE	281	7%		46	93	85	115	
MTBE	287	5%		53	105	85	115	
BENZENE	937	4%		48	96	85	115	
TOLUENE	858	2%		49	98	85	115	
ETHYLBENZENE	1024	4%		48	96	85	115	
M&P XYLENES	1968	12%		88	88	85	115	
O-XYLENE	590	8%		46	92	85	115	
STYRENE	1069	13%		43	87	85	115	
ISOPROPYLBENZENE	862	7%		47	93	85	115	
n-PROPYLBENZENE	520	12%		44	88	85	115	
2-CHLORTOL+PETHYLTOLUE	1465	12%		88	88	85	115	
4CHLORTOL+135TRIMETHBE	1038	13%		87	87	85	115	
TERT-BUTYLBENZENE	491	6%		47	94	85	115	
124TRIMETBENZENE	837	4%		48	96	85	115	
SEC-BUTYLBENZENE	526	2%		51	102	85	115	
ISOPROPYLTOLUENE	558	2%		49	98	85	115	
1,3 DICHLOROBENZENE	997	0%		50	100	85	115	
1,4 DICHLOROBENZENE	1080	3%		52	103	85	115	
n-BUTYLBENZENE	658	2%		49	98	85	115	
1,2 DICHLOROBENZENE	850	0%		50	100	85	115	
1,2,4 TRICHLOROBENZENE	401	19%	*	43	85	85	115	
HEXACHLOROBUTADIENE	447	15%	*	45	89	85	115	
NAPHTHALENE	581	15%	*	45	89	85	115	

* Denotes outside control criteria: 20% RSD for initial calibration 15% drift for continuing calibration; CC > 0.99

Initial and Continuing Calibration Summary
SW846 8021GC VOA Analysis
Detector: PID

Continuing Control Verification		50 ppb Std		Filename: J:\TC4\DATA2\S030515.RAW				
Analysis Date	3/6/01			Conc		Lower	Upper	
Analyte	Cal Fac	% Diff	Flag	ug/L	% Rec	Limit	Limit	Flag
1,1 DICHLOROETHENE	326	8%		54	108	85	115	
MTBE	310	14%		57	114	85	115	
BENZENE	1055	8%		54	108	85	115	
TOLUENE	977	12%		56	112	85	115	
ETHYLBENZENE	1201	12%		56	112	85	115	
M&P XYLENES	2433	8%		108	108	85	115	
O-XYLENE	668	4%		52	104	85	115	
STYRENE	1405	14%		57	114	85	115	
ISOPROPYLBENZENE	1049	13%		57	113	85	115	
n-PROPYLBENZENE	620	5%		53	105	85	115	
2-CHLORTOL+PETHYLTOLUE	1671	1%		101	101	85	115	
4CHLORTOL+135TRIMETHBE	1232	4%		104	104	85	115	
TERT-BUTYLBENZENE	574	10%		55	110	85	115	
124TRIMETBENZENE	886	1%		51	101	85	115	
SEC-BUTYLBENZENE	596	15%		57	115	85	115	
ISOPROPYLTOLUENE	619	9%		54	109	85	115	
1,3 DICHLOROBENZENE	1115	12%		56	112	85	115	
1,4 DICHLOROBENZENE	976	6%		47	94	85	115	
n-BUTYLBENZENE	714	6%		53	106	85	115	
1,2 DICHLOROBENZENE	929	10%		55	110	85	115	
1,2,4 TRICHLOROBENZENE	473	4%		50	101	85	115	
HEXACHLOROBUTADIENE	557	6%		56	112	85	115	
NAPHTHALENE	726	6%		56	111	85	115	

Initial and Continuing Calibration Summary
SW846 8021GC VOA Analysis
Detector: PID

Continuing Control Verification		50 ppb Std		Filename: J:\TC4\DATA2\S030525.RAW				
Analysis Date	3/6/01			Conc		Lower	Upper	
Analyte	Cal Fac	% Diff	Flag	ug/L	% Rec	Limit	Limit	Flag
1,1 DICHLOROETHENE	324	7%		53	107	85	115	
MTBE	280	2%		51	102	85	115	
BENZENE	946	3%		49	97	85	115	
TOLUENE	887	1%		51	101	85	115	
ETHYLBENZENE	1099	3%		51	103	85	115	
M&P XYLENES	2221	1%		99	99	85	115	
O-XYLENE	594	7%		46	93	85	115	
STYRENE	1312	6%		53	106	85	115	
ISOPROPYLBENZENE	928	0%		50	100	85	115	
n-PROPYLBENZENE	568	4%		48	96	85	115	
2-CHLORTOL+PETHYLTOLUE	1590	4%		96	96	85	115	
4CHLORTOL+135TRIMETHBE	1272	7%		107	107	85	115	
TERT-BUTYLBENZENE	524	0%		50	100	85	115	
124TRIMETBENZENE	937	7%		54	107	85	115	
SEC-BUTYLBENZENE	587	13%		57	113	85	115	
ISOPROPYLTOLUENE	603	6%		53	106	85	115	
1,3 DICHLOROBENZENE	1057	6%		53	106	85	115	
1,4 DICHLOROBENZENE	909	13%		44	87	85	115	
n-BUTYLBENZENE	719	7%		53	107	85	115	
1,2 DICHLOROBENZENE	925	9%		55	109	85	115	
1,2,4 TRICHLOROBENZENE	447	9%		48	95	85	115	
HEXACHLOROBUTADIENE	491	7%		49	98	85	115	
NAPHTHALENE	629	8%		48	97	85	115	

Chromatogram

Sample Name : 50 PPB CHECK

FileName : J:\TC4\DATA2\S030201.RAW

Method :

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 19 mV

Sample #:

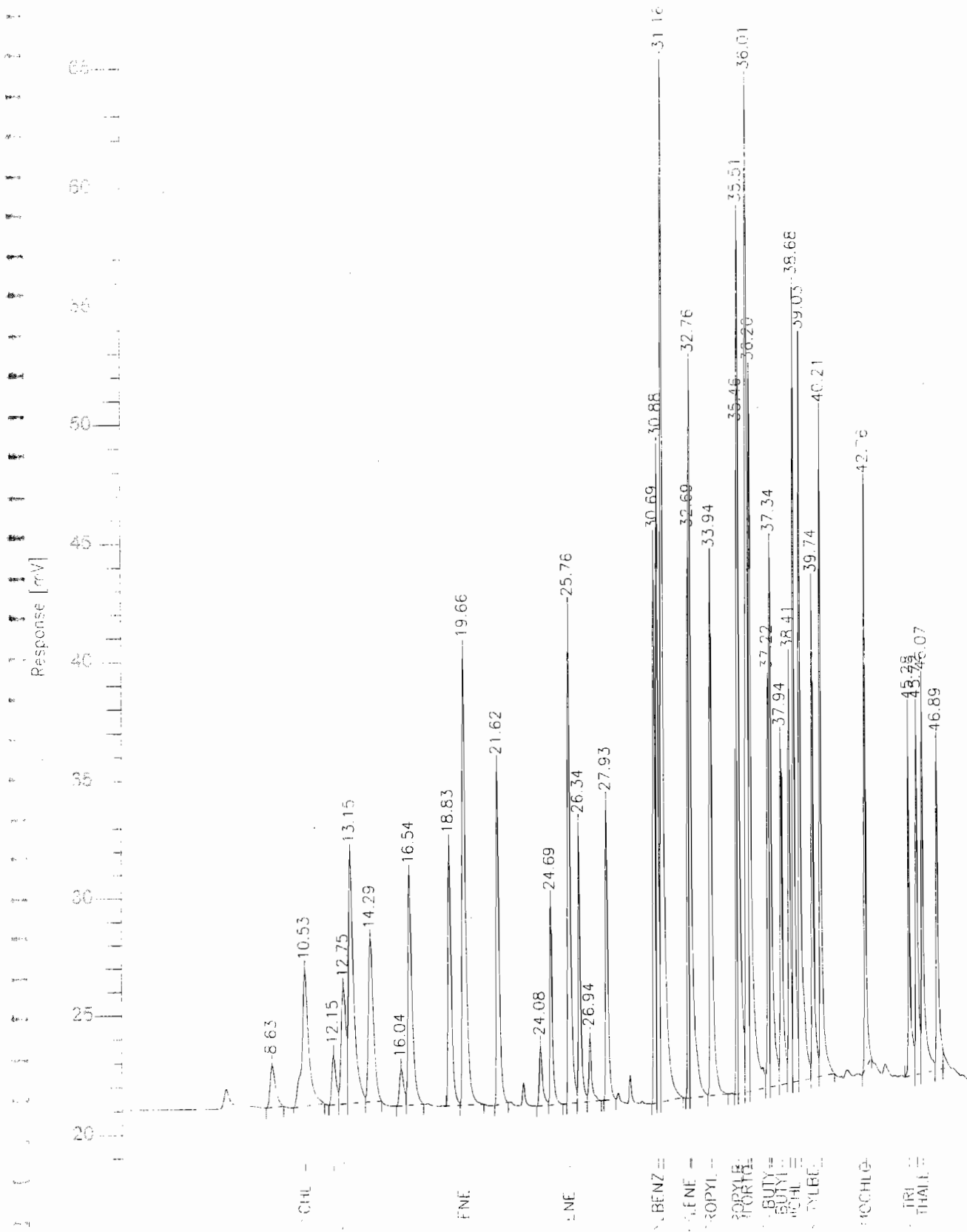
Date : 3/6/01 04:15 PM

Time of Injection: 3/2/01 08:20 AM

Low Point : 18.85 mV

Plot Scale: 46.3 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 3/6/01 04:13 PM

Sample Name : 50 PPB CHECK

Data File : J:\TC4\DATA2\S030201.RAW Date: 3/2/01 08:20 AM

Sequence File: C:\TC4\DATA2\B030201.SEQ Cycle: 1 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 1837/45 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

Sm 3/12/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		8.63	21833.68	1381.94	0.022	0.022
2	1,1 DICHLOROETHENE	10.53	80639.76	4515.35	53.239	53.239
3	TBA	12.15	34870.66	1994.19	251.574	251.574
4	MTBE	12.75	77643.11	4741.14	56.882	56.882
5		13.15	217243.52	10428.16	0.217	0.217
6		14.29	118456.23	6434.75	0.118	0.118
7		16.54	128698.57	9155.59	0.129	0.129
8		18.83	139313.04	10914.99	0.139	0.139
9	BENZENE	19.66	255420.19	18963.60	52.408	52.408
10		21.62	155836.29	14255.02	0.156	0.156
11		24.08	23309.96	2244.31	0.023	0.023
12		24.69	76118.98	8405.53	0.076	0.076
13	TOLUENE	25.76	226022.50	20887.23	51.625	51.625
14		26.34	94371.06	11373.75	0.094	0.094
15		26.94	21431.09	2344.32	0.021	0.021
16		27.92	116255.28	12489.17	0.116	0.116
17		30.69	186328.21	23752.24	0.186	0.186
18	ETHYLBENZENE	30.88	251289.96	27582.59	47.042	47.042
19	M&P XYLENES	31.16	500429.57	43802.32	89.070	89.070
20	O-XYLENE	32.69	145059.17	23012.35	45.395	45.395
21	STYRENE	32.76	272013.24	30177.65	44.042	44.042
22	ISOPROPYLBENZENE	33.94	222559.50	22408.72	48.073	48.073
23	n-PROPYLBENZENE	35.46	139362.16	27697.59	47.254	47.254
24		35.51	300216.03	36871.72	0.300	0.300
25	2-CHLORTOL+PETHYLTOLUE	36.01	366789.87	41819.53	88.299	88.299
26	4CHLORTOL+135TRIMETHBE	36.20	262775.04	29339.19	88.484	88.484
27	TERT-BUTYLBENZENE	37.22	123150.01	16526.61	47.160	47.160
28	124TRIMETBENZENE	37.34	190196.51	22164.25	43.512	43.512
29	SEC-BUTYLBENZENE	37.94	122238.72	13922.47	47.171	47.171
30	ISOPROPYLTOLUENE	38.41	131530.82	17057.56	46.181	46.181
31	1,3 DICHLOROBENZENE	38.68	238804.21	32815.83	47.988	47.988

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	1,4 DICHLOROBENZENE	39.03	232817.06	30355.11	44.630	44.630
33	n-BUTYLBENZENE	39.74	151474.14	20372.29	45.027	45.027
34	1,2 DICHLOROBENZENE	40.21	189569.62	27280.12	44.764	44.764
35	BROMOCHLOROBENZENE	42.76	149581.90	24615.71	26.457	26.457
36	1,2,4 TRICHLOROBENZENE	45.28	115773.15	15550.13	49.349	49.349
37	HEXACHLOROBUTADIENE	45.72	129384.65	15503.93	51.785	51.785
38	NAPHTHALENE	46.07	150976.90	16613.31	46.374	46.374
39		46.89	112358.29	13891.43	0.112	0.112
			6472142.67	713661.70	1505.496	1505.496

Report stored in ASCII file: J:\TC4\DATA2\S030201.TX0

Chromatogram

Sample Name : 50 PPB CHECK

· FileName : J:\TC4\DATA2\S030213.RAW

Method :

Start Time : 0.00 min

End Time : 60.00 min

Scale Factor: 1.0

Plot Offset: 18 mV

Sample #:

Page 1 of 1

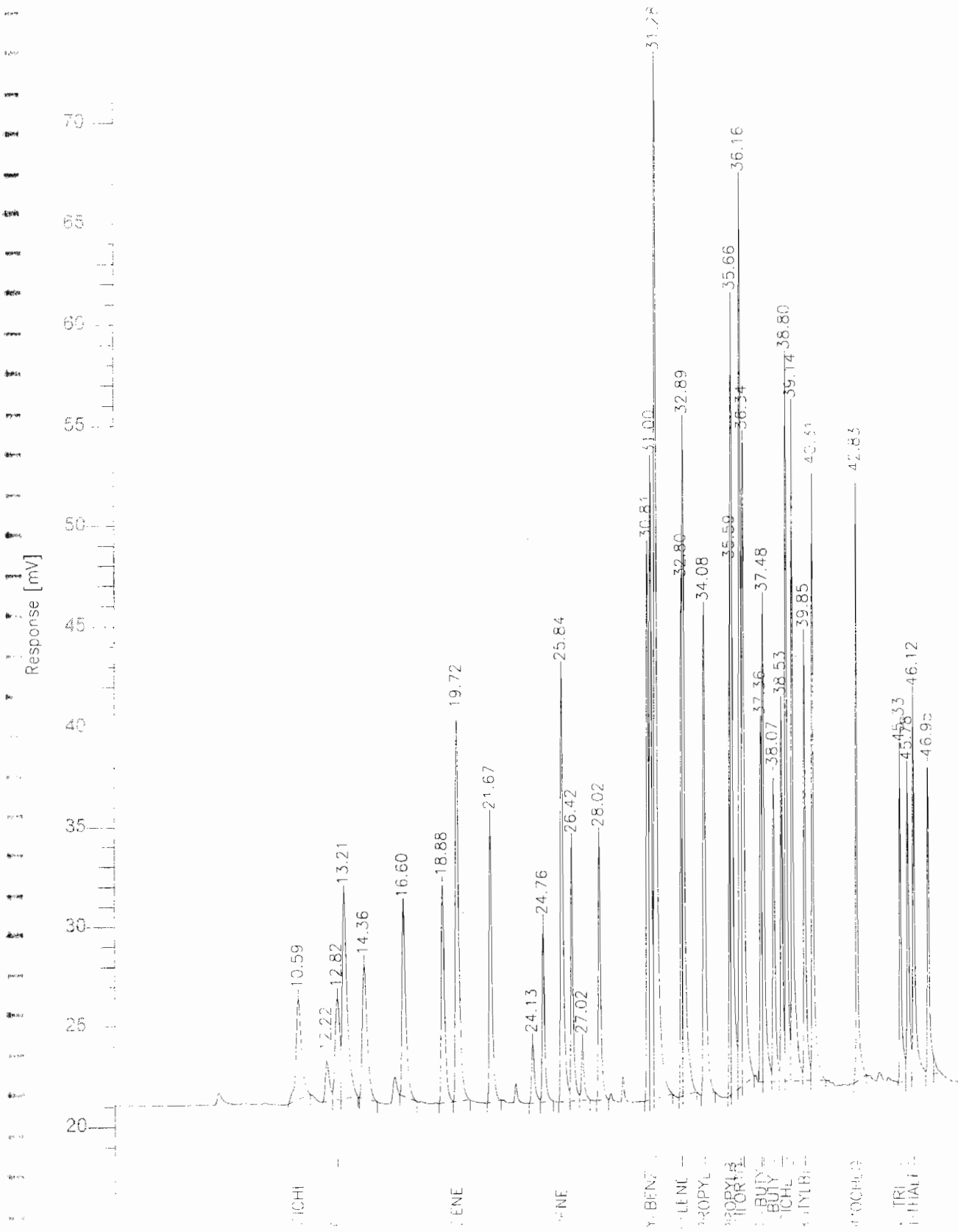
Date : 3/12/01 03:06 PM

Time of Injection: 3/2/01 08:27 PM

Low Point : 18.48 mV

High Point : 72.82 mV

Plot Scale: 54.3 mV



Software Version: 4.1<2F12>

Date: 3/12/01 02:36 PM

Sample Name : 50 PPB CHECK

Data File : J:\TC4\DATA2\S030213.RAW Date: 3/2/01 08:27 PM

Sequence File: C:\TC4\DATA2\B030201.SEQ Cycle: 13 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 1837/45 Operator:

Sample Amount : 1.0000

Dilution Factor : 1.00

5/3/12/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	1,1 DICHLOROETHENE	10.59	79443.56	4416.95	52.449	52.449
2	TBA	12.21	35112.28	1876.29	253.317	253.317
3	MTBE	12.82	77889.13	4905.05	57.062	57.062
4		13.21	194548.24	9922.93	0.195	0.195
5		14.36	117002.08	6390.30	0.117	0.117
6		16.60	128713.17	9167.07	0.129	0.129
7		18.88	135452.70	10641.43	0.135	0.135
8	BENZENE	19.72	253910.52	18860.95	52.098	52.098
9		21.67	150789.13	13947.84	0.151	0.151
10		24.13	28188.72	2696.16	0.028	0.028
11		24.76	78552.21	8638.15	0.079	0.079
12	TOLUENE	25.84	234048.53	21392.29	53.458	53.458
13		26.42	104473.24	12481.06	0.104	0.104
14		27.02	21105.24	2404.20	0.021	0.021
15		28.02	121364.58	13007.54	0.121	0.121
16		30.81	215556.94	27239.15	0.216	0.216
17	ETHYLBENZENE	31.00	279794.15	31289.80	52.378	52.378
18	M&P XYLENES	31.28	533952.46	50893.96	95.037	95.037
19	O-XYLENE	32.80	160679.29	24961.72	50.283	50.283
20	STYRENE	32.89	296091.66	32919.84	47.940	47.940
21	ISOPROPYLBENZENE	34.08	236782.77	23879.78	51.145	51.145
22	n-PROPYLBENZENE	35.59	127364.43	25996.81	43.186	43.186
23		35.66	343633.08	39309.69	0.344	0.344
24	2-CHLORTOL+PETHYLTOLUE	36.16	386649.59	44514.77	93.080	93.080
25	4CHLORTOL+135TRIMETHBE	36.34	275720.60	31464.20	92.843	92.843
26	TERT-BUTYLBENZENE	37.36	127718.66	17549.05	48.910	48.910
27	124TRIMETBENZENE	37.48	200623.02	23462.94	45.898	45.898
28	SEC-BUTYLBENZENE	38.07	126185.67	14761.35	48.694	48.694
29	ISOPROPYLTOLUENE	38.53	137365.64	18165.93	48.229	48.229
30	1,3 DICHLOROBENZENE	38.80	252199.04	35376.19	50.679	50.679
31	1,4 DICHLOROBENZENE	39.14	247831.27	32837.00	47.508	47.508

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	n-BUTYLBENZENE	39.85	158490.32	21503.32	47.112	47.112
33	1,2 DICHLOROBENZENE	40.31	205054.31	29587.78	48.421	48.421
34	BROMOCHLOROBENZENE	42.83	178916.19	29497.72	31.646	31.646
35	1,2,4 TRICHLOROBENZENE	45.33	116363.05	16434.34	49.601	49.601
36	HEXACHLOROBUTADIENE	45.78	126194.94	15357.01	50.509	50.509
37	NAPHTHALENE	46.12	152899.38	18914.15	46.964	46.964
38		46.95	106507.86	14905.89	0.107	0.107
			6753167.63	761570.64	1560.193	1560.193

Report stored in ASCII file: J:\TC4\DATA2\S030213.TX0

Chromatogram

Sample Name : 50 PPB CHECK

File Name : J:\TC4\DATA2\S030223.RAW

Method :

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 19 mV

Sample #:

Page 1 of 1

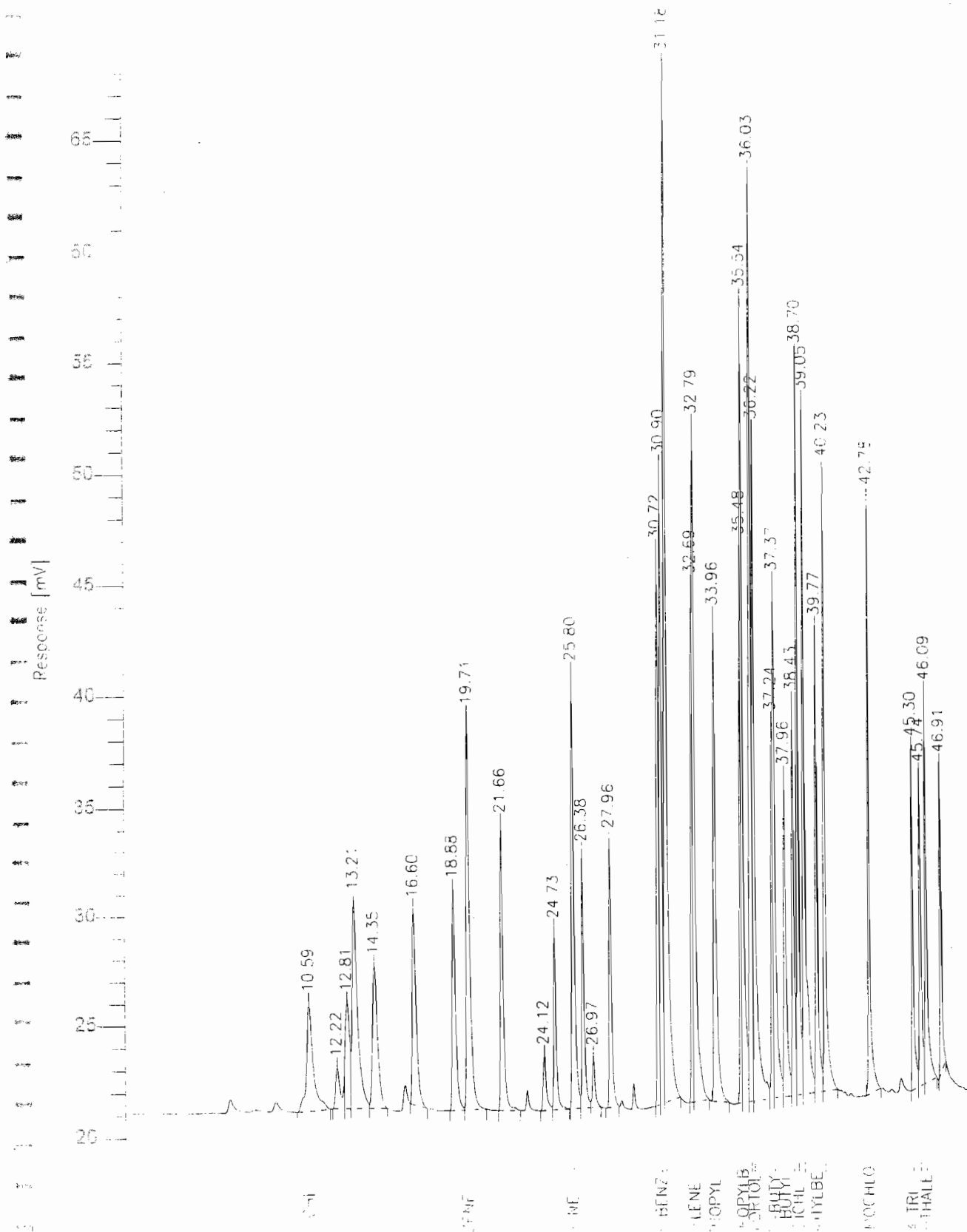
Date : 3/6/01 04:29 PM

Time of Injection: 3/3/01 05:44 AM

Low Point : 18.73 mV

High Point : 68.30 mV

Plot Scale: 49.6 mV



Software Version: 4.1<2F12>

Date: 3/6/01 04:32 PM

Sample Name : 50 PPB CHECK

Data File : J:\TC4\DATA2\S030223.RAW Date: 3/3/01 05:44 AM

Sequence File: C:\TC4\DATA2\B030201.SEQ Cycle: 23 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 1838/46 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

Gr 3/1/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	1,1 DICHLOROETHENE	10.59	70321.80	4009.17	46.427	46.427
2	TBA	12.22	33494.75	1711.49	241.647	241.647
3	MTBE	12.81	71664.46	4489.39	52.502	52.502
4		13.21	176776.91	9048.04	0.177	0.177
5		14.35	111924.91	6067.37	0.112	0.112
6		16.60	122649.06	8687.16	0.123	0.123
7		18.88	122807.93	9847.50	0.123	0.123
8	BENZENE	19.71	234275.41	17553.22	48.069	48.069
9		21.66	139235.12	12902.73	0.139	0.139
10		24.12	22293.53	2195.39	0.022	0.022
11		24.73	71048.83	7935.97	0.071	0.071
12	TOLUENE	25.80	214435.87	19636.14	48.979	48.979
13		26.38	92303.69	11232.46	0.092	0.092
14		26.97	16601.43	1929.46	0.017	0.017
15		27.96	111731.57	12083.46	0.112	0.112
16		30.72	196793.58	24985.77	0.197	0.197
17	ETHYLBENZENE	30.90	255960.89	28576.00	47.916	47.916
18	M&P XYLENES	31.18	491976.88	46322.80	87.566	87.566
19	O-XYLENE	32.69	147621.06	22994.97	46.197	46.197
20	STYRENE	32.79	267137.09	29947.72	43.252	43.252
21	ISOPROPYLBENZENE	33.96	215535.33	21698.07	46.555	46.555
22		35.48	129949.51	24962.31	0.130	0.130
23	n-PROPYLBENZENE	35.54	307873.00	36043.20	104.391	104.391
24	2-CHLORTOL+PETHYLTOLUE	36.03	366142.56	41186.43	88.143	88.143
25	4CHLORTOL+135TRIMETHBE	36.22	259624.24	29328.11	87.423	87.423
26	TERT-BUTYLBENZENE	37.24	122845.40	16630.85	47.044	47.044
27	124TRIMETBENZENE	37.36	209131.31	22924.00	47.844	47.844
28	SEC-BUTYLBENZENE	37.96	131535.91	14166.92	50.759	50.759
29	ISOPROPYLTOLUENE	38.43	139540.40	17465.24	48.993	48.993
30	1,3 DICHLOROBENZENE	38.70	249245.88	33062.06	50.086	50.086
31	1,4 DICHLOROBENZENE	39.05	269932.36	31020.42	51.745	51.745

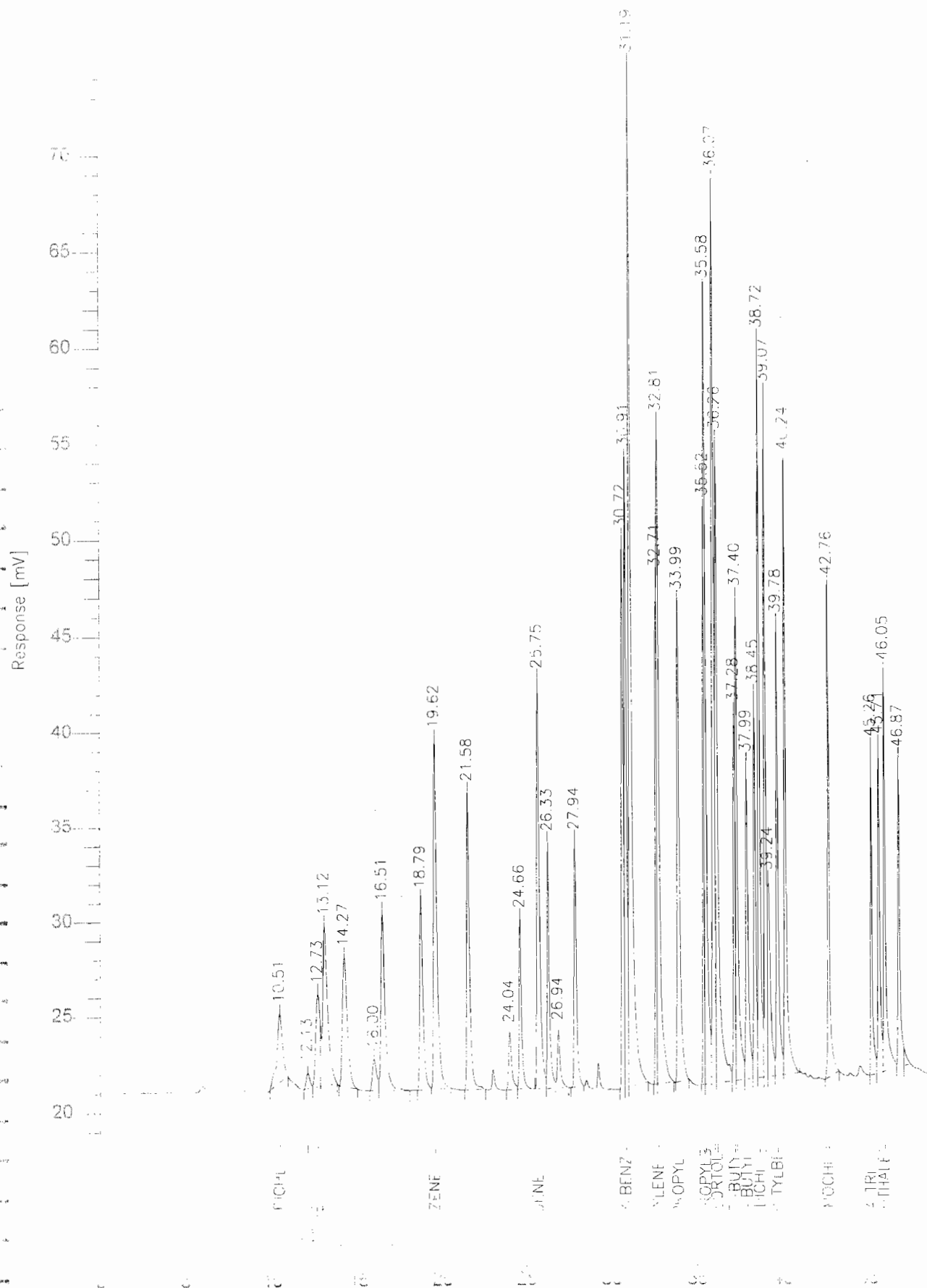
Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	n-BUTYLBENZENE	39.76	164514.22	20763.39	48.903	48.903
33	1,2 DICHLOROBENZENE	40.23	212481.30	27882.79	50.174	50.174
34	BROMOCHLOROBENZENE	42.78	168013.78	26716.07	29.717	29.717
35	1,2,4 TRICHLOROBENZENE	45.30	100174.70	15169.50	42.700	42.700
36	HEXACHLOROBUTADIENE	45.74	111640.89	13972.63	44.683	44.683
37	NAPHTHALENE	46.09	145345.78	17622.29	44.644	44.644
38		46.91	104209.47	14086.21	0.104	0.104
			6378790.79	706856.71	1547.779	1547.779

Report stored in ASCII file: J:\TC4\DATA2\S030223.TX0

Chromatogram

Sample Name : 50 PPB CHECK
 FileName : J:\TC4\DATA2\S030515.RAW
 Method :
 Start Time : 0.00 min End Time : 60.00 min
 Scale Factor: 1.0 Plot Offset: 18 mV

Sample #:
 Date : 3/12/01 04:34 PM
 Time of Injection: 3/6/01 01:00 AM
 Low Point : 18.39 mV High Point : 74.58 mV
 Plot Scale: 56.2 mV



Software Version: 4.1<2F12>

Date: 3/7/01 10:55 AM

Sample Name : 50 PPB CHECK

Data File : J:\TC4\DATA2\S030515.RAW Date: 3/6/01 01:00 AM

Sequence File: J:\TC4\DATA2\B030501.SEQ Cycle: 15 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 1839/47 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

Sn 3/12/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	1,1 DICHLOROETHENE	10.51	81435.78	3556.61	53.764	53.764
2	TBA	12.13	12052.00	797.01	86.949	86.949
3	MTBE	12.73	77465.19	4812.22	56.752	56.752
4		13.12	176135.01	8383.64	0.176	0.176
5		14.27	137285.21	6775.72	0.137	0.137
6		16.00	28236.32	1604.26	0.028	0.028
7		16.51	158627.25	9377.80	0.159	0.159
8		18.79	133783.05	9994.66	0.134	0.134
9	BENZENE	19.62	263723.70	18428.51	54.111	54.111
10		21.58	182906.80	15638.72	0.183	0.183
11		24.04	37445.81	2886.55	0.037	0.037
12		24.66	88171.44	8918.52	0.088	0.088
13	TOLUENE	25.74	244325.47	21516.54	55.806	55.806
14		26.33	120732.54	12906.15	0.121	0.121
15		26.94	34701.81	2927.33	0.035	0.035
16		27.94	127818.50	12938.14	0.128	0.128
17		30.72	228373.47	28759.50	0.228	0.228
18	ETHYLBENZENE	30.91	300288.66	32944.65	56.214	56.214
19	M&P XYLENES	31.19	608340.70	53313.76	108.277	108.277
20	O-XYLENE	32.71	166956.06	26478.70	52.247	52.247
21	STYRENE	32.81	351162.71	34603.36	56.857	56.857
22	ISOPROPYLBENZENE	33.99	262188.79	25166.16	56.632	56.632
23	n-PROPYLBENZENE	35.52	154878.05	30023.87	52.515	52.515
24		35.58	343893.32	41381.68	0.344	0.344
25	2-CHLORTOL+PETHYLTOLUE	36.07	417661.78	46717.23	100.546	100.546
26	4CHLORTOL+135TRIMETHBE	36.26	308037.07	33092.32	103.725	103.725
27	TERT-BUTYLBENZENE	37.28	143416.83	18904.05	54.922	54.922
28	124TRIMETBENZENE	37.40	221587.30	24783.30	50.694	50.694
29	SEC-BUTYLBENZENE	37.99	148998.56	16136.23	57.498	57.498
30	ISOPROPYLTOLUENE	38.45	154716.77	19700.78	54.321	54.321
31	1,3 DICHLOROBENZENE	38.72	278744.67	38107.12	56.014	56.014

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	1,4 DICHLOROBENZENE	39.07	244097.39	35257.21	46.793	46.793
33		39.24	114487.80	9778.66	0.114	0.114
34	n-BUTYLBENZENE	39.77	178396.32	23180.76	53.030	53.030
35	1,2 DICHLOROBENZENE	40.24	232233.04	31695.98	54.838	54.838
36	BROMOCHLOROBENZENE	42.76	177571.96	25814.83	31.408	31.408
37	1,2,4 TRICHLOROBENZENE	45.26	118225.46	17201.87	50.395	50.395
38	HEXACHLOROBUTADIENE	45.71	139353.89	17215.96	55.775	55.775
39	NAPHTHALENE	46.04	181396.49	21022.79	55.717	55.717
40		46.87	128083.75	16236.35	0.128	0.128
			7507936.71	808979.50	1517.840	1517.840

Report stored in ASCII file: .\S030515.TX0

Chromatogram

Sample Name : 50 PPB CHECK

FileName : J:\TC4\DATA2\S030525.RAW

Method :

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 19 mV

Sample #:

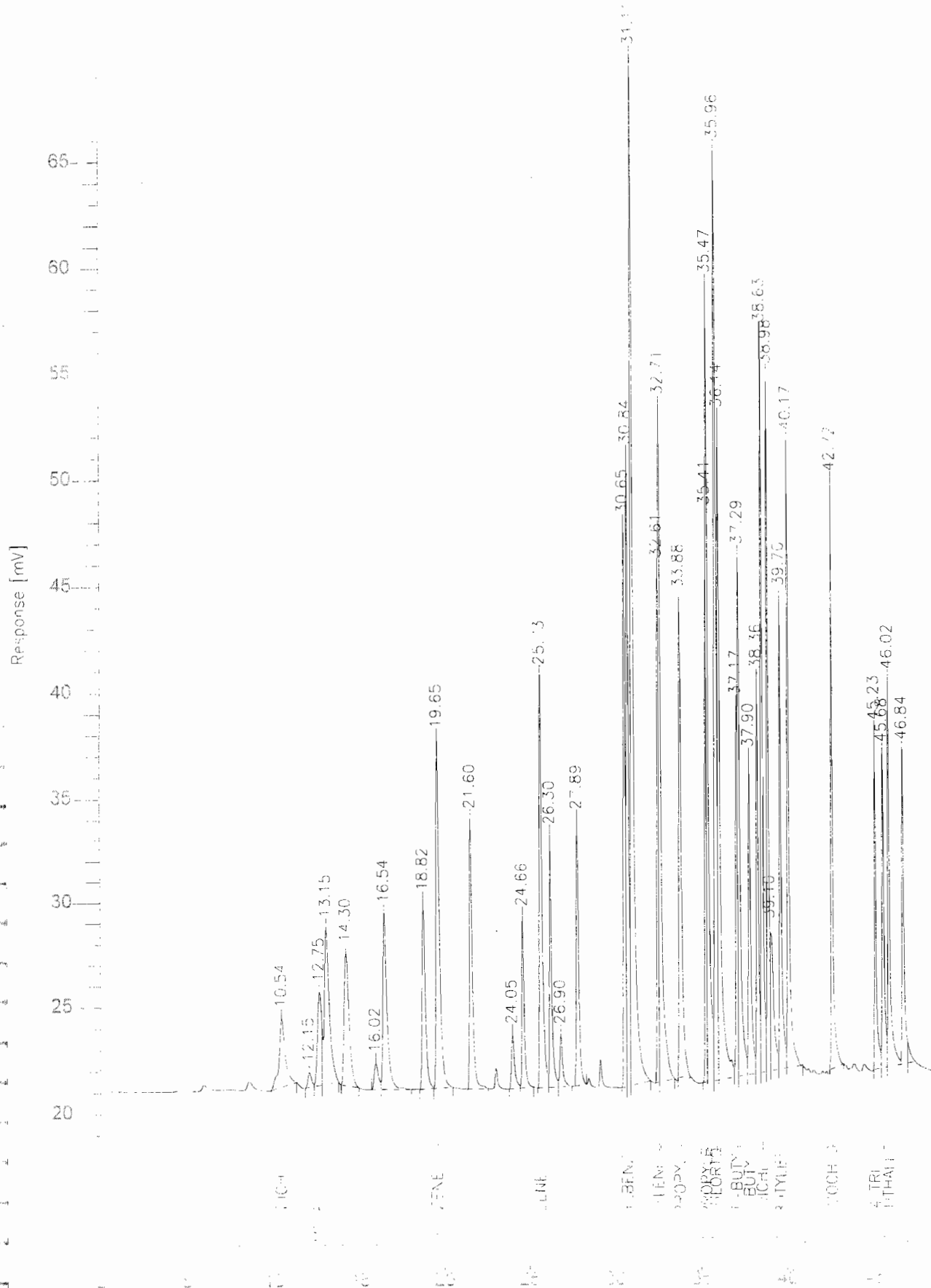
Date : 3/12/01 04:24 PM

Time of Injection: 3/6/01 10:17 AM

Low Point : 18.63 mV

Plot Scale: 51.2 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 3/12/01 04:24 PM

Sample Name : 50 PPB CHECK

Data File : J:\TC4\DATA2\S030525.RAW Date: 3/6/01 10:17 AM

Sequence File: J:\TC4\DATA2\B030501.SEQ Cycle: 25 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 1839/47 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

SP-3/12/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	1,1 DICHLOROETHENE	10.54	80944.18	3174.72	53.440	53.440
2	TBA	12.15	10128.04	672.67	73.069	73.069
3	MTBE	12.75	69916.01	4340.16	51.221	51.221
4		13.15	154400.55	7324.71	0.154	0.154
5		14.29	126067.43	6237.40	0.126	0.126
6		16.02	20785.63	1223.43	0.021	0.021
7		16.53	139805.52	8296.87	0.140	0.140
8		18.82	116719.46	8848.25	0.117	0.117
9	BENZENE	19.65	236445.96	16593.65	48.515	48.515
10		21.60	149309.08	12839.55	0.149	0.149
11		24.05	32031.81	2503.51	0.032	0.032
12		24.66	77651.24	8040.60	0.078	0.078
13	TOLUENE	25.73	221632.05	19540.23	50.622	50.622
14		26.30	110122.97	11992.62	0.110	0.110
15		26.90	29123.64	2406.98	0.029	0.029
16		27.89	123847.97	12652.76	0.124	0.124
17		30.65	208663.17	26596.43	0.209	0.209
18	ETHYLBENZENE	30.83	274724.55	29811.61	51.429	51.429
19	M&P XYLENES	31.11	555213.89	48593.73	98.821	98.821
20	O-XYLENE	32.61	148420.62	24308.57	46.447	46.447
21	STYRENE	32.71	327963.01	31914.09	53.101	53.101
22	ISOPROPYLBENZENE	33.88	232064.66	22679.91	50.126	50.126
23	n-PROPYLBENZENE	35.41	141904.12	26775.88	48.116	48.116
24		35.47	324209.80	37705.30	0.324	0.324
25	2-CHLORTOL+PETHYLTOLUE	35.96	397491.11	43993.60	95.690	95.690
26	4CHLORTOL+135TRIMETHBE	36.14	317927.19	31246.04	107.055	107.055
27	TERT-BUTYLBENZENE	37.17	130896.65	17616.55	50.127	50.127
28	124TRIMETBENZENE	37.29	234254.29	24665.06	53.592	53.592
29	SEC-BUTYLBENZENE	37.90	146815.80	15042.78	56.656	56.656
30	ISOPROPYLTOLUENE	38.36	150658.87	18679.44	52.897	52.897
31	1,3 DICHLOROBENZENE	38.63	264361.82	34930.83	53.123	53.823

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	1,4 DICHLOROBENZENE	38.98	227218.25	32925.82	43.557	43.557
33		39.10	86596.26	6661.34	0.087	0.087
34	n-BUTYLBENZENE	39.70	179730.08	22351.50	53.426	53.426
35	1,2 DICHLOROBENZENE	40.17	231335.11	29599.78	54.626	54.626
36	BROMOCHLOROBENZENE	42.72	184110.91	27778.96	32.564	32.564
37	1,2,4 TRICHLOROBENZENE	45.23	111782.43	16101.00	47.648	47.648
38	HEXACHLOROBUTADIENE	45.68	122706.09	14966.12	49.112	49.112
39	NAPHTHALENE	46.02	157281.09	18363.64	48.310	48.310
40		46.84	117243.71	14934.39	0.117	0.117
			6972505.03	744930.48	1425.105	1425.105

Report stored in ASCII file: J:\TC4\DATA2\S030525.TX0

CHEMTECH

G

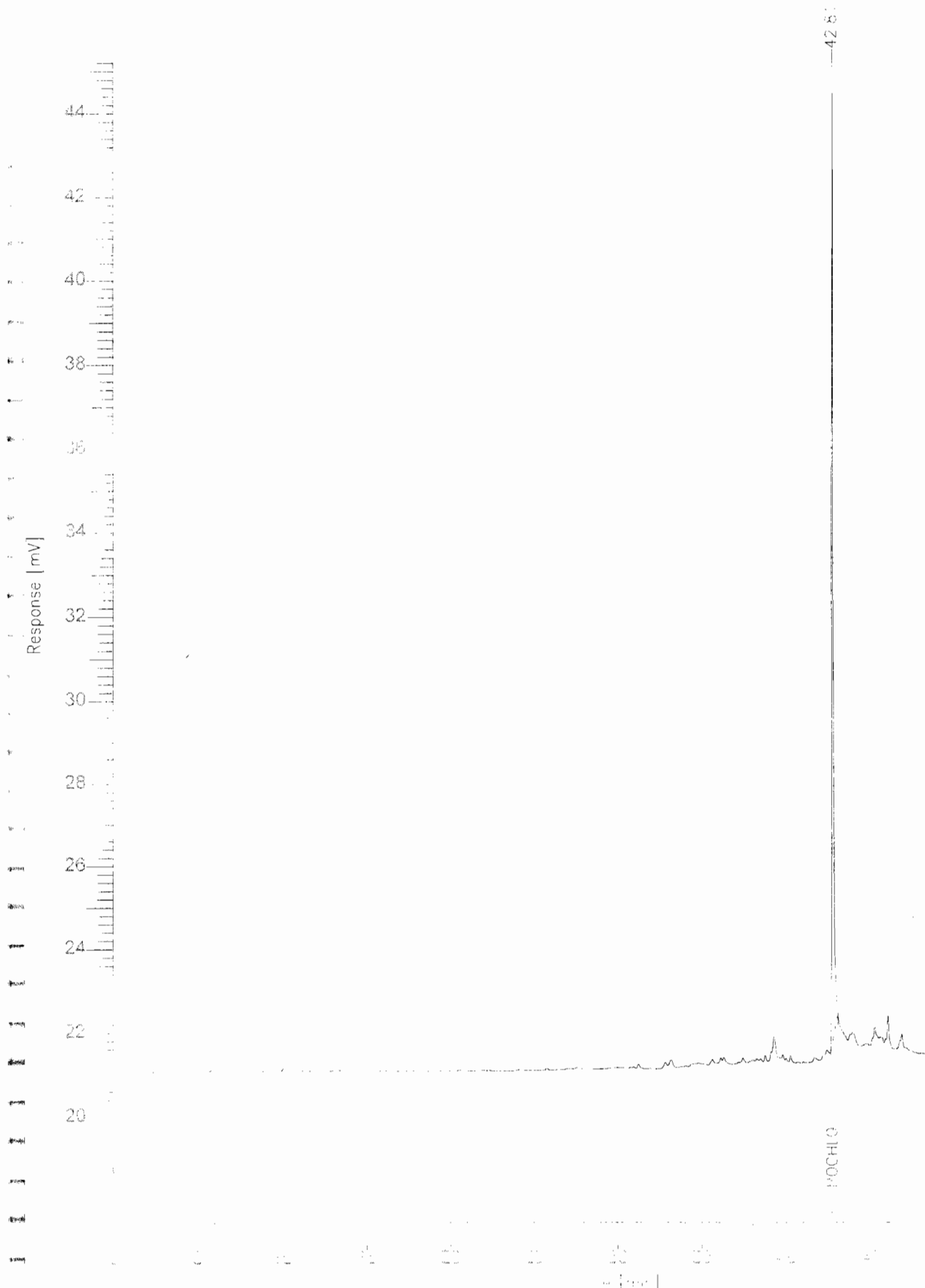
CHROMATOGRAMS

Chromatogram

Sample Name : BLANK
FileName : J:\TC4\DATA2\S030202.RAW
Method :
Start Time : 0.00 min End Time : 60.00 min
Scale Factor: 1.0 Plot Offset: 20 mV

Sample #:
Date : 3/12/01 04:20 PM
Time of Injection: 3/2/01 10:14 AM
Low Point : 19.85 mV High Point : 45.22 mV
Plot Scale: 25.4 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 3/12/01 04:20 PM

Sample Name : BLANK

Data File : J:\TC4\DATA2\S030202.RAW Date: 3/2/01 10:14 AM

Sequence File: C:\TC4\DATA2\B030201.SEQ Cycle: 2 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 1837/45 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

3/12/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	BROMOCHLOROBENZENE	42.81	146873.49	23530.28	25.978	25.978
			146873.49	23530.28	25.978	25.978

Report stored in ASCII file: J:\TC4\DATA2\S030202.TX0

Chromatogram

Sample Name : BLANK

FileName : J:\TC4\DATA2\S030516.raw

Method : B042100

Start Time : 0.00 min

Scale Factor: 1.0

End Time : 60.00 min

Plot Offset: 20 mV

Sample #:

Date : 3/7/01 10:55 AM

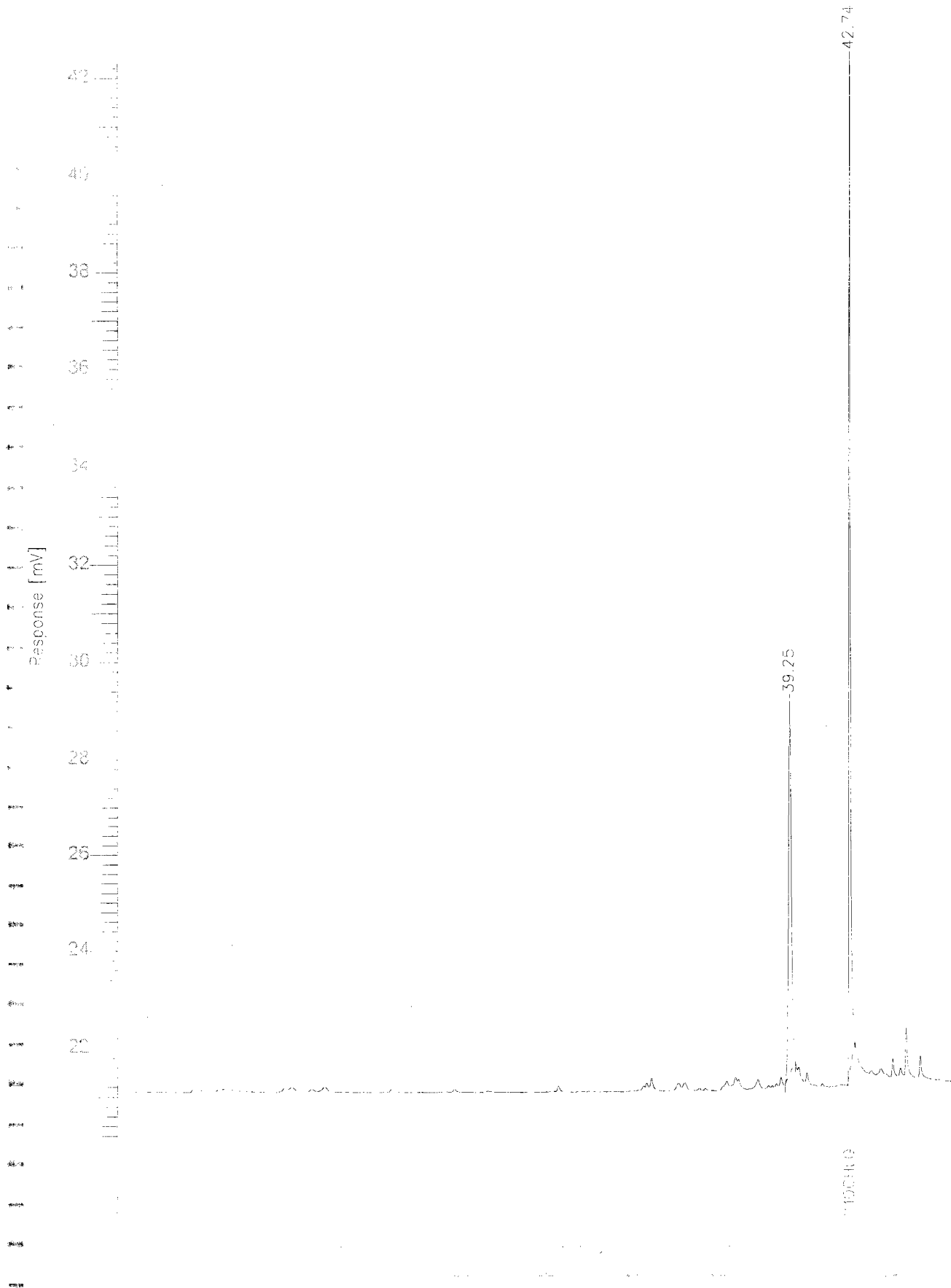
Time of Injection: 3/6/01 01:56 AM

Low Point : 20.01 mV

Plot Scale: 22.3 mV

Page 1 of 1

High Point : 42.32 mV



Software Version: 4.1<2F12>

Date: 3/7/01 10:55 AM

Sample Name : BLANK

Data File : J:\TC4\DATA2\S030516.RAW Date: 3/6/01 01:56 AM *3/12/01*

Sequence File: J:\TC4\DATA2\B030501.SEQ Cycle: 16 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 1839/47 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

COMPOUND LISTINGS & RESULTS

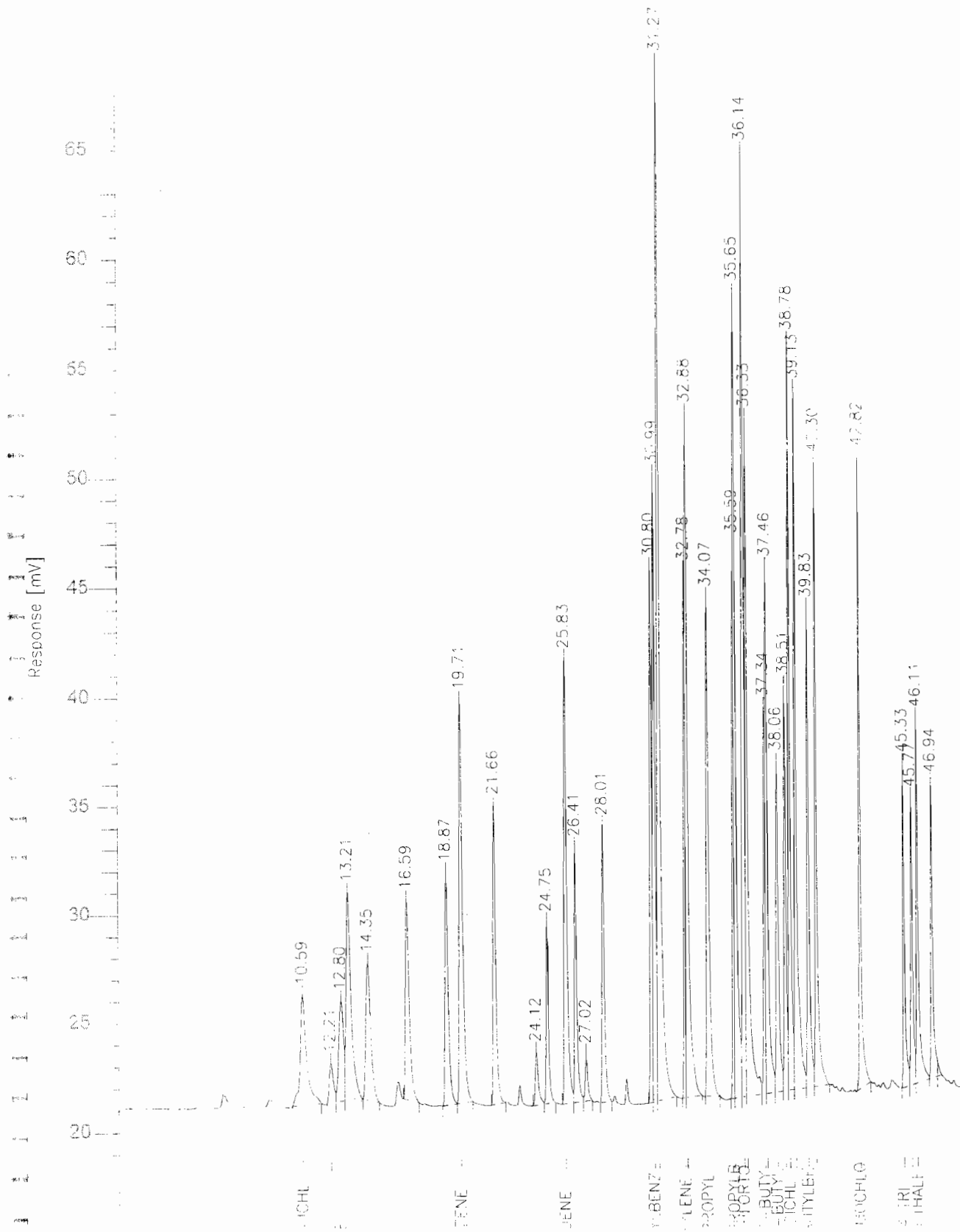
Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		39.25	94500.32	7647.82	0.095	0.095
2	BROMOCHLOROBENZENE	42.74	129197.73	20874.30	22.852	22.852
			223698.05	28522.12	22.946	22.946

Report stored in ASCII file: .\S030516.TX0

Chromatogram

Sample Name : BLANK SPIKE
 FileName : J:\TC4\DATA2\S030222.RAW
 Method :
 Start Time : 0.00 min End Time : 60.00 min
 Scale Factor: 1.0 Plot Offset: 19 mV

Sample #:
 Date : 3/12/01 02:53 PM
 Time of Injection: 3/3/01 04:48 AM
 Low Point : 18.71 mV High Point : 68.79 mV
 Plot Scale: 50.1 mV



Software Version: 4.1<2F12>

Date: 3/12/01 02:46 PM

Sample Name : BLANK SPIKE

Data File : J:\TC4\DATA2\S030222.RAW Date: 3/3/01 04:48 AM

Sequence File: C:\TC4\DATA2\B030201.SEQ Cycle: 22 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 1838/46 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

gr 3/12/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	1,1 DICHLOROETHENE	10.59	75846.83	4258.48	50.074	50.074
2	TBA	12.21	30854.89	1758.42	222.602	222.602
3	MTBE	12.80	75151.07	4445.86	55.056	55.056
4		13.21	182570.29	9333.26	0.183	0.183
5		14.35	109142.85	6013.93	0.109	0.109
6		16.59	128376.93	9021.24	0.128	0.128
7		18.87	132238.17	10521.62	0.132	0.132
8	BENZENE	19.71	244622.96	18300.75	50.192	50.192
9		21.66	148103.67	13667.61	0.148	0.148
10		24.12	22127.54	2165.20	0.022	0.022
11		24.74	73388.25	8154.97	0.073	0.073
12	TOLUENE	25.83	226637.82	20320.19	51.766	51.766
13		26.41	94216.10	11362.72	0.094	0.094
14		27.02	17165.95	1914.83	0.017	0.017
15		28.01	118563.11	12577.86	0.119	0.119
16		30.80	193599.76	24336.74	0.194	0.194
17	ETHYLBENZENE	30.99	262008.46	28400.72	49.048	49.048
18	M&P XYLENES	31.26	507009.23	46883.70	90.241	90.241
19	O-XYLENE	32.78	142464.31	23707.73	44.583	44.583
20	STYRENE	32.88	288857.94	30713.47	46.769	46.769
21	ISOPROPYLBENZENE	34.07	226522.90	22632.17	48.929	48.929
22	n-PROPYLBENZENE	35.59	134432.83	25165.79	45.582	45.582
23		35.65	319011.72	36587.93	0.319	0.319
24	2-CHLORTOL+PETHYLTOLUE	36.14	375725.16	42484.14	90.450	90.450
25	4CHLORTOL+135TRIMETHBE	36.33	267229.40	30083.99	89.984	89.984
26	TERT-BUTYLBENZENE	37.34	120949.71	17346.46	46.318	46.318
27	124TRIMETBENZENE	37.46	220718.62	23708.09	50.495	50.495
28	SEC-BUTYLBENZENE	38.05	137226.86	14835.89	52.955	52.955
29	ISOPROPYLTOLUENE	38.51	144134.31	18283.82	50.606	50.606
30	1,3 DICHLOROBENZENE	38.78	253954.37	34109.68	51.032	51.032
31	1,4 DICHLOROBENZENE	39.13	268045.71	31859.56	51.383	51.383

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	n-BUTYLBENZENE	39.83	172191.79	21784.22	51.185	51.185
33	1,2 DICHLOOROBENZENE	40.30	219806.22	28462.90	51.904	51.904
34	BROMOCHLOOROBENZENE	42.82	177123.30	28750.77	31.328	31.328
35	1,2,4 TRICHLOROBENZENE	45.33	105405.62	14873.41	44.930	44.930
36	HEXACHLOOROBUTADIENE	45.77	108455.18	13151.90	43.408	43.408
37	NAPHTHALENE	46.11	139817.26	16682.65	42.946	42.946
38		46.94	97101.76	13230.83	0.097	0.097
			6560798.86	721893.49	1505.404	1505.404

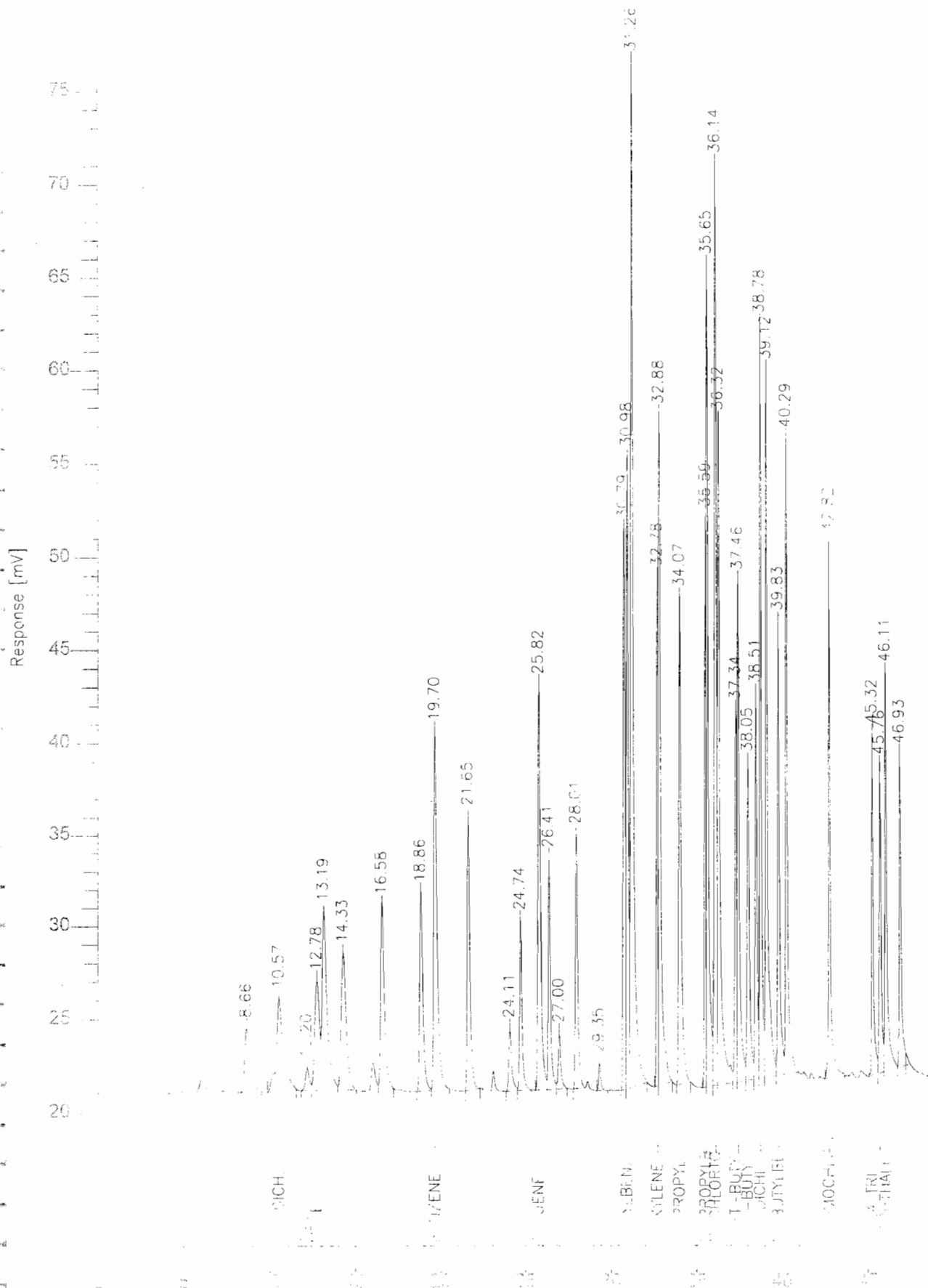
Report stored in ASCII file: J:\TC4\DATA2\S030222.TX0

Chromatogram

Sample Name : L3364-5 MS
 FileName : J:\TC4\DATA2\S030218.RAW
 Method :
 Start Time : 0.00 min
 Scale Factor: 1.0

End Time : 60.00 min
 Plot Offset: 18 mV

Sample #:
 Date : 3/12/01 03:03 PM
 Time of Injection: 3/3/01 01:05 AM
 Low Point : 18.30 mV
 Plot Scale: 58.1 mV
 High Point : 76.42 mV



Software Version: 4.1<2F12>

Date: 3/12/01 02:38 PM

Sample Name : L3364-5 MS

Data File : J:\TC4\DATA2\S030218.RAW Date: 3/3/01 01:05 AM

Sequence File: C:\TC4\DATA2\B030201.SEQ Cycle: 18 Channel : B

Instrument : HP5890S_0:B Rack/Vial: 1837/45 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

8/3/12/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		8.66	52845.11	2970.30	0.053	0.053
2	1,1 DICHLOROETHENE	10.57	86087.12	4079.01	56.835	56.835
3	TBA	12.20	18772.33	1154.04	135.433	135.433
4	MTBE	12.78	111575.17	5809.77	81.741	81.741
5		13.19	198990.21	9569.47	0.199	0.199
6		14.32	151369.66	7286.08	0.151	0.151
7		16.58	136112.48	9544.22	0.136	0.136
8		18.86	134120.30	10531.10	0.134	0.134
9	BENZENE	19.70	260440.96	19166.90	53.438	53.438
10		21.65	161414.38	14744.78	0.161	0.161
11		24.11	33300.87	3120.52	0.033	0.033
12		24.74	80778.61	8883.14	0.081	0.081
13	TOLUENE	25.82	238973.99	21796.81	54.583	54.583
14		26.41	102229.98	12130.28	0.102	0.102
15		27.00	23894.51	2662.54	0.024	0.024
16		28.01	130753.50	13691.80	0.131	0.131
17		29.35	11296.71	1422.50	0.011	0.011
18		30.79	235232.81	30134.61	0.235	0.235
19	ETHYLBENZENE	30.98	303298.15	33724.73	56.778	56.778
20	M&P XYLENES	31.26	585077.93	54643.70	104.137	104.137
21	O-XYLENE	32.78	173524.27	27302.83	54.303	54.303
22	STYRENE	32.88	340722.67	35900.63	55.167	55.167
23	ISOPROPYLBENZENE	34.07	263897.60	26097.74	57.002	57.002
24	n-PROPYLBENZENE	35.59	160289.09	30521.08	54.349	54.349
25		35.65	366308.04	43978.49	0.366	0.366
26	2-CHLORTOL+PETHYLTOLUE	36.14	433887.25	48907.12	104.452	104.452
27	4CHLORTOL+135TRIMETHBE	36.32	311390.63	34973.15	104.854	104.854
28	TERT-BUTYLBENZENE	37.34	140456.82	19538.42	53.788	53.788
29	124TRIMETBENZENE	37.46	241303.30	26473.26	55.204	55.204
30	SEC-BUTYLBENZENE	38.05	152140.66	16730.39	58.710	58.710
31	ISOPROPYLTOLUENE	38.51	160228.27	20434.64	56.257	56.257

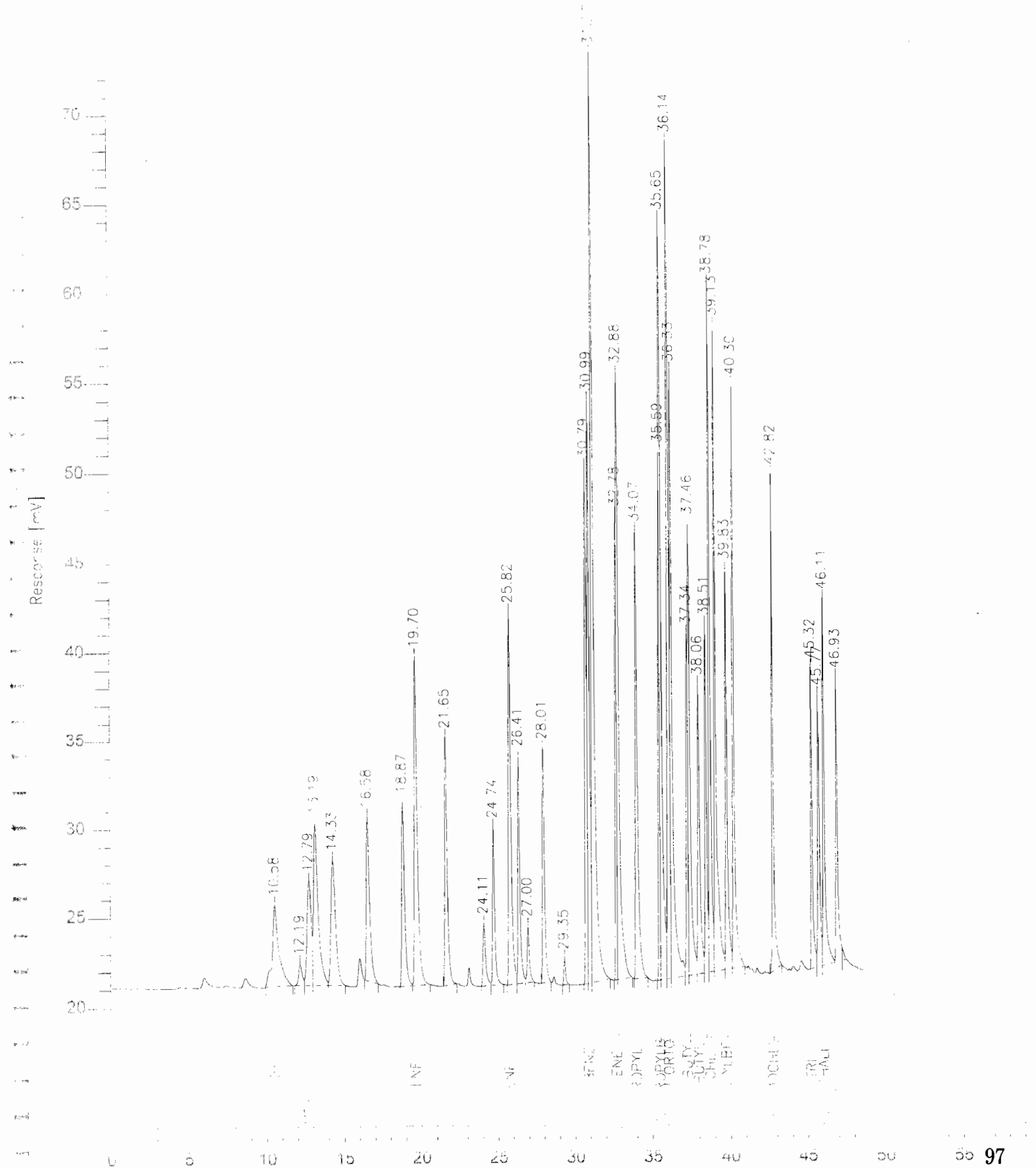
Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	1,3 DICHLOOROBENZENE	38.78	294460.75	40185.97	59.172	59.172
33	1,4 DICHLOOROBENZENE	39.12	307803.44	37754.53	59.005	59.005
34	n-BUTYLBENZENE	39.83	190940.65	24293.08	56.758	56.758
35	1,2 DICHLOOROBENZENE	40.29	257321.79	34030.73	60.763	60.763
36	BROMOCHLOOROBENZENE	42.82	180885.74	28563.01	31.994	31.994
37	1,2,4 TRICHLOOROBENZENE	45.32	122716.10	18289.70	52.309	52.309
38	HEXACHLOOROBUTADIENE	45.76	132703.56	16537.74	53.114	53.114
39	NAPHTHALENE	46.11	173239.28	21335.58	53.212	53.212
40		46.93	122920.13	16644.41	0.123	0.123
			7583704.83	835558.82	1625.297	1625.297

'Report stored in ASCII file: J:\TC4\DATA2\S030218.TX0

Chromatogram

Sample Name : L3364-5 MSD
FileName : J:\TC4\DATA2\S030219.RAW
Method :
Start Time : 0.00 min End Time : 60.00 min
Scale Factor: 1.0 Plot Offset: 18 mV

Sample #:
Date : 3/12/01 03:01 PM
Time of Injection: 3/3/01 02:01 AM
Low Point : 18.49 mV High Point : 73.15 mV
Plot Scale: 54.7 mV



Software Version: 4.1<2F12>

Date: 3/12/01 02:40 PM

Sample Name : L3364-5 MSD

Data File : J:\TC4\DATA2\S030219.RAW Date: 3/3/01 02:01 AM

Sequence File: C:\TC4\DATA2\B030201.SEQ Cycle: 19 Channel : B

Instrument : HP5890S_-0:B Rack/Vial: 1837/45 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

Sn 3/12/01

COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	1,1 DICHLOROETHENE	10.58	77664.55	3685.75	51.274	51.274
2	TBA	12.19	18198.91	1115.16	131.296	131.296
3	MTBE	12.79	110545.00	5755.78	80.986	80.986
4		13.19	186836.46	9022.57	0.187	0.187
5		14.33	143596.55	6955.98	0.144	0.144
6		16.58	128207.12	8969.04	0.128	0.128
7		18.86	128365.20	10134.11	0.128	0.128
8	BENZENE	19.70	246386.04	18254.88	50.554	50.554
9		21.65	150547.17	13826.54	0.151	0.151
10		24.11	34301.33	3212.33	0.034	0.034
11		24.74	77773.65	8582.55	0.078	0.078
12	TOLUENE	25.82	228737.28	20835.14	52.245	52.245
13		26.41	104294.34	12453.62	0.104	0.104
14		27.00	25346.72	2825.74	0.025	0.025
15		28.01	124285.94	13067.35	0.124	0.124
16		29.35	10741.82	1359.37	0.011	0.011
17		30.79	228097.36	28740.66	0.228	0.228
18	ETHYLBENZENE	30.98	290218.72	32275.05	54.329	54.329
19	M&P XYLENES	31.27	557968.60	51324.10	99.312	99.312
20	O-XYLENE	32.78	156126.87	25763.27	48.858	48.858
21	STYRENE	32.88	327510.43	33577.96	53.027	53.027
22	ISOPROPYLBENZENE	34.07	252662.68	24912.15	54.575	54.575
23	n-PROPYLBENZENE	35.59	147491.64	29321.47	50.010	50.010
24		35.65	354751.46	42210.23	0.355	0.355
25	2-CHLORTOL+PETHYLTOLUE	36.14	407468.27	46060.65	98.092	98.092
26	4CHLORTOL+135TRIMETHBE	36.33	296260.32	33021.71	99.760	99.760
27	TERT-BUTYLBENZENE	37.34	131780.33	18726.16	50.465	50.465
28	124TRIMETBENZENE	37.46	231283.35	24790.44	52.912	52.912
29	SEC-BUTYLBENZENE	38.05	146942.30	15843.03	56.704	56.704
30	ISOPROPYLTOLUENE	38.51	151486.63	19192.98	53.187	53.187
31	1,3 DICHLOROBENZENE	38.78	282033.59	38151.43	56.674	56.674

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
32	1,4 DICHLOROBENZENE	39.13	304024.73	35800.65	58.280	58.280
33	n-BUTYLBENZENE	39.83	177375.12	22283.49	52.726	52.726
34	1,2 DICHLOROBENZENE	40.30	247573.76	32536.37	58.461	58.461
35	BROMOCHLOROBENZENE	42.82	176269.31	27614.65	31.177	31.177
36	1,2,4 TRICHLOROBENZENE	45.32	115853.46	16915.76	49.384	49.384
37	HEXACHLOROBUTADIENE	45.77	123547.73	15216.20	49.449	49.449
38	NAPHTHALENE	46.11	167871.24	20510.94	51.563	51.563
39		46.93	115919.93	15656.59	0.116	0.116
			7186345.89	790501.84	1547.115	1547.115

Report stored in ASCII file: J:\TC4\DATA2\S030219.TX0

MISCELLANEOUS DATA

CHEMTECH

205 CAMPUS PLAZA I. RARITAN CENTER EDISON NEW JERSEY 08837
NEW JERSEY LAB ID#: 12013 : NEW YORK LAB ID#: 11376

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT LAB NUMBER: L3364ASP MATRIX: WATER
METHOD: 8021STARS QCB060A

- | | <u>NA</u> | <u>NO</u> | <u>YES</u> |
|--|-----------|-----------|------------|
| 1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks) | _____ | _____ | <u>✓</u> |
| 2. Standards Summary Submitted | _____ | _____ | <u>✓</u> |
| 3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD | _____ | _____ | <u>✓</u> |
| 4. Blank Contamination - If yes, list compounds and concentrations in each blank: | _____ | <u>✓</u> | _____ |
| VOA Fraction _____ | | | |
| Pesticides/PCB's _____ | | | |
| Other _____ | | | |
| 5. Surrogate Recoveries Meet Criteria | _____ | _____ | <u>✓</u> |
| If not met, list those compounds and their recoveries which fall outside the acceptable ranges | | | |
| VOA Fraction _____ | | | |
| Pesticides/PCB's _____ | | | |
| Other _____ | | | |
| 6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. | _____ | <u>✓</u> | _____ |
| If not met, list those compounds and their recoveries which fall outside the acceptable range. | | | |
| VOA Fraction <u>please see ms/msp table.</u> | | | |
| Pesticides/PCB's _____ | | | |
| Other _____ | | | |

CHEMTECH

205 CAMPUS PLAZA I. RARITAN CENTER EDISON NEW JERSEY 08837
NEW JERSEY LAB ID#: 12013 : NEW YORK LAB ID#: 11376

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY(CONTINUED)

NA NO YES

7. Retention Time Shift Meet Criteria (if applicable)

_____ ✓

8. Extraction Holding Time Met

✓ _____

If not met, list number of days exceeded for each sample: _____

9. Analysis Holding Time Met

_____ ✓

If not met, list number of days exceeded for each sample: _____

Additional Comments: _____

Analyst

SR

Date

3/12/01

QA REVIEW

Mildred V. Reyes

Date

3/13/01

CHEMTECH

SOP ID: CKLST-GC-REV

DOC. CONTROL #: CKLST-GC-REV -1.0

REVISION # 1.0

Page 1 of 2

Date: 04/28/00

PEER REVIEW CHECKLIST FOR GC DATAFraction: 8011STARsProject #: L3364 ASPSample Numbers: 1 3364(1-6) ASPQA DATA:

ITEM

Completed

Check instrument log for samples in batch. Highlights.

Make sure correct lab numbers are listed on all data.

Check Chain Custody and Login Sheet for project specific information.

Check that all manual integrations are initialed and dated.

BLANKS:

Check quant report for compounds called and quantitation.

Check if any compounds need to be flagged with a J.

Check that blank meets contamination criteria.

Check blank chromatograms to ensure that all peaks are accounted for.

Check that all compounds not called are crossed off, initialed and dated on quantitation Reports. —

CALIBRATION:

Check that the proper initial and continuing calibration forms are included.

Compare initial curves to continuing curve to make sure correct curves are included.

Verify dates on curves.

Verify that extra compound initial and continuing curves are included.

Check that the criteria is met on the initial and continuing calibrations.

SURROGATES:

Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).

Check that surrogate recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.

Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-extracted and re-analyzed to prove matrix interference).

Verify surrogates reported to the quantitation reports.

SPIKES:

Check that appropriate samples is on the spike recovery form.

Verify that the correct spike sample is being reported for that batch.

Check that the spike recoveries are reported on the appropriate form (i.e. water, soil).

Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.

Verify spike recoveries to quantitation reports.

If any values outside of QC limits exist on MS/MSD, was Blank Spike used.

Non-conformances / Comments:

CHEMTECH

SOP ID: CKLST-GC-REV

DOC. CONTROL #: CKLST-GC-REV -1.0

REVISION # 1.0

Page 2 of 2

Date: 04/23/00

SAMPLES:

ITEM

Completed

Check that all manual integrations are initialed and dated.

✓

Check that the correct sample matrix and units are on the result form.

✓

Check quant report for targeted compounds called and verify quantitation (be sure to take moisture and dilutions into account).

✓

Check to ensure that compounds which exceed the linear range have been, diluted, re-analyzed, and quanted from the dilution.

✓

Check that reporting limits are typical and if not (reason is not apparent) are footnoted.

✓

Verify reporting limits for extra compounds.

✓

Check chromatograms to ensure that all peaks are accounted for.

✓

Check if any of the data requires a footnote.

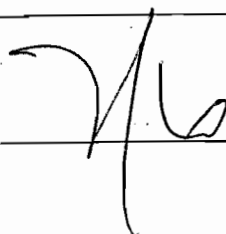
✓

Check that the samples were run / extracted within their holding time.

✓

Non - Conformance / Comments:

Peer Review Signature:



Date:

3/13/01

TECHNICAL SUPERVISOR REVIEW:

ITEM

Completed

Check for compliance with the Method and project specific requirements.

✓

Check the report for completeness.

✓

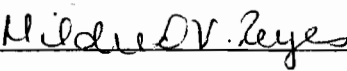
Check the information in the case narrative.

✓

Check the results for reasonableness.

✓

Technical Supervisor Review Signature:



Date:

3/13/01

chk1st-gc-rev1.doc

Daily Analysis Runlog For GC #: GCVOA 4Start Date: 3/2/01 End Date: 3/2/01 Analyst: *gcl* Review By: *BAJ*

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
CCC <i>802172</i> <i>10ppm</i>	<i>current 1058</i>	Spike Std.	
Surrogate Stds. <i>802172</i> <i>15ppm</i>	<i>1061</i>		
QC Check Std.		QC Batch:	<i>LB 12329</i>
Initial Calibration Stds.		<i>↓</i>	<i>LB 12330</i>

SR. #:	Sample ID	Data File Name	Method #:	Run Information	Comment/Sample pH
1	<i>50ppb check</i>	<i>3030201</i>	<i>8021</i>		
2	<i>Blank</i>	<i>2</i>			
3	<i>Blank</i>	<i>2</i>			
4	<i>L3335-2</i>	<i>4</i>		<i>SL</i> ✓	<i>LL</i>
5	<i>↓ -1</i>	<i>5</i>		<i>SL</i> <i>MDL</i> ✓	<i>LL</i>
6	<i>L3363-2</i>	<i>6</i>		<i>SL</i> ✓	<i>LL</i>
7	<i>↓ -3</i>	<i>7</i>		<i>SL</i> ✓	<i>LL</i>
8	<i>L3364-1</i>	<i>8</i>		<i>YS</i> <i>sample</i> ① <i>LL</i>	
9	<i>↓ -2</i>	<i>9</i>		<i>Sub</i> <i>run 1/2</i> ② <i>LL</i>	
10	<i>↓ -3</i>	<i>10</i>		<i>Sub</i> ✓	<i>LL</i>
11	<i>↓ -4</i>	<i>11</i>		<i>Sub</i> ✓	<i>LL</i>
12	<i>↓ -5</i>	<i>12</i>		<i>Sub</i> ✓	<i>LL</i>
13	<i>50ppb check</i>	<i>13</i>		✓	
14	<i>L3364-6</i>	<i>14</i>		<i>SL</i> <i>run 1/2</i> ③ <i>LL</i>	
15	<i>L3365-1</i>	<i>15</i>		<i>SL</i> <i>run 1/5</i> ④ <i>LL</i>	
16	<i>↓ -2</i>	<i>16</i>		<i>SL</i> ✓	<i>LL</i>
17	<i>↓ -3</i>	<i>17</i>		<i>SL</i> ✓	<i>LL</i>
18	<i>L3364-5</i> <i>ms</i>	<i>18</i>		<i>SL</i> ✓	<i>LL</i> <i>7</i> <i>L3364</i>
19	<i>↓ -5</i> <i>ms</i>	<i>19</i>		<i>SL</i> ✓	<i>LL</i> <i>7</i>
20	<i>L3365-2</i> <i>ms</i>	<i>20</i>		<i>SL</i> ✓	<i>LL</i> <i>7</i> <i>L3365</i>

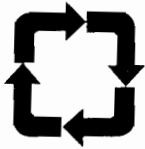
Daily Analysis Runlog For GC #: GCVOA 4Start Date: 3/5/01 End Date: 5/15/01 Analyst SR Review By: AS

<u>STD. NAME</u>	<u>STD REF. #:</u>	<u>STD NAME</u>	<u>STD REF. #:</u>
CCC ^{GRC} 10ppm	GCVOA 1066	Spike Std.	
Surrogate Stds. ^{TFI} 30ppm	1065		
QC Check Std. ^{501 Std} 10ppm	1058	QC Batch:	<u>LB12349</u>
Initial Calibration Stds. ^{502 Std} 10ppm	1061		

55 10347

<u>SR. #:</u>	<u>Sample ID</u>	<u>Data File Name</u>	<u>Method #:</u>	<u>Run Information</u>	<u>Comment/Sample pH</u>
1	20 ppb GRC	5030501	GRC		
2	150 ppb	2			
3	100	3			
4	50	4			
5	20	5			
6	5	6			
7	Blank	7			
8	Blank	8			
9	L3362 - 1	9		Sign	/
10	-2	10		Sign	/
11	-2 mg	11		Sign	/
12	-2 mg	12		Sign	/
13	Blank spike	13		—	/
14	Supp checker	14		—	/
15	Supp checker	15	5011	—	/
16	Blank	16	2	—	/ <u>PA</u>
17	L3365 - 1	17	3	Y5	/ <u>CL</u>
18	L3364 - 6	18	4	Y2	/ <u>CL</u>
19	-2	19	5	Y2	/ <u>CL</u>
20	-1	✓ 20	8	81.	/ <u>CL</u>

SHIPPING AND RECEIVING DOCUMENTATION



EnSolutions, Inc.

66 Elm Street • Dover, NJ 07801 • Telephone 973-442-1320 • Fax 973-361-3204

October 18, 2001

Mr. Randall Austin
New York State Department of Environmental Conservation
Hunters Point Plaza
47-40 21st Street
Long Island City, NY 11101

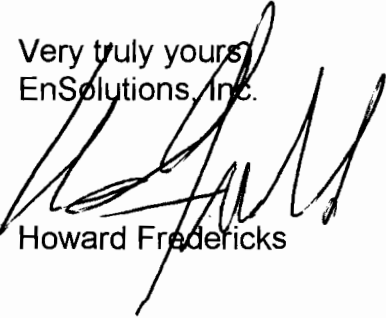
Re: Progress Report
Petrocelli Electric Co., Inc.
Spill # ~~97-058567~~
97-05856

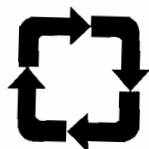
Dear Mr. Austin:

As instructed, since Mark Tibbe the case manager is on disability and Jennifer Rommel is assigned to the World Trade Center, enclosed please find the semi-annual progress report for the above reference site.

If you have any questions or require any additional information, please do not hesitate to contact us at (973) 442-1320.

Very truly yours,
EnSolutions, Inc.


Howard Fredericks



EnSolutions, Inc.

66 Elm Street • Dover, NJ 07801 • Telephone 973-442-1320 • Fax 973-361-3204

September 30, 2001

Mr. Mark Tibbe
New York State Department of Environmental Conservation
222-34 96th Avenue
Queens Village, NY 11420

RE: Progress Report
Petrocelli Electric Company Inc. Facility
22-09 Queens Bridge Plaza North
Long Island City, NY
Spill # 97-058567

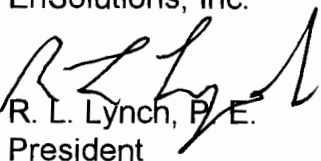
Dear Mr. Tibbe:

On behalf of Petrocelli Electric Company Inc. (Petrocelli), enclosed is the progress report for the remedial action at the above referenced facility prepared by EnSolutions, Inc. The purpose of this report is to provide the NYSDEC with the following information:

1. The installation of an additional ground water monitoring well as specified.
2. The analytical ground water sampling results performed in August 2001 at the site.
3. Conclusions
4. Action Items

Thank you for all your assistance in this matter and if you require any additional information please do not hesitate to call us at (973) 442-1320.


Sincerely,
EnSolutions, Inc.


R. L. Lynch, P.E.
President

cc: Michael Melia – Petrocelli Electric Co., Inc.

**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

**Prepared for:
PETROCELLI ELECTRIC COMPANY, INC.**

Prepared by:

Robert Larry Lynch, P.E.

**EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801
(973) 442-1320**

SEPTEMBER 2001

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION I

A. INTRODUCTION

On behalf of Petrocelli Electric Company Inc. (Petrocelli), EnSolutions, Inc. (EnSolutions) has prepared this Progress Report for the remedial actions implemented at the Petrocelli facility at 22-09 Queens Bridge Plaza North, Long Island City, New York.

This Progress Report is part of the approved Corrective Action Plan implemented at the site as a result of a petroleum hydrocarbon release that occurred under the prior property owner.

B. AREA / SITE CHARACTERIZATION

The site, the administrative and maintenance facilities for the Petrocelli Electric Company Inc., is located at 22-09 Queens Plaza North, between 22nd and 23rd Streets, Long Island City, Queens County, New York. The area surrounding the site is primarily commercial, with some residential units up-gradient of the site, east on 23rd Street. A site location map is included as Figure 1 in Section V and a site plan illustrating all site features is included as Figure 2 in Section V.

The water source at the subject property and at all surrounding properties is currently from the public water supply. The East River is the nearest surface water to the site and is located approximately 3,000 feet to the west of the facility.

C. GROUND WATER

As a result of the soil delineation and ground water sampling and analyses performed at the subject property, six (6) ground water monitoring wells were installed on the subject property in May 1998. The six ground water monitoring wells were installed as both soil vapor extraction points and as ground water monitoring points in order to address and monitor the ground water contamination at the subject property. The six monitoring wells are labeled as MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6 and are shown in the site plan, Figure 2 in Section V.

The direction of ground water flow is predicted to be toward the west, in the direction of the East River.

EnSolutions, Inc.



D. SVE/AS REMEDIAL SYSTEM

Based on the site investigation activities implemented at the site and reported to the NYSDEC, which included the soil analytical data, ground water laboratory analytical data and a Corrective Action Plan, an approved Stipulation Agreement between Petrocelli and the NYSDEC, including an approved air permit, was issued for the site.

As part of the Correction Action Plan, a Soil Vapor Extraction / Air Sparging (SVE/AS) Remedial System was approved and is in operation to address the petroleum hydrocarbon soil and ground water contamination at the site.

The SVE component of the remedial system will induce airflow in the subsurface using an above ground vacuum pump system. The induced airflow brings clean air in contact with the contaminated soil. The contaminated soil vapors drawn off by the SVE allows the soil matrix to re-establish the soil / pore moisture partitioning with the contaminants present.

The SVE installed utilizes a positive displacement vacuum pump that utilizes an electronic variable speed drive. The drive receives its speed command from a Programmable Logic Controller (PLC), which permits the monitoring of all control parameters, such as pump speed and vacuum level and also provides for the modification of system parameters.

The SVE is connected to six extraction points, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6, to address the levels of contaminants at the site.

The air sparging component of the remedial system provides oxygen to stimulate biological activity in the subsurface. The air sparging system is design to provide sufficient oxygen to stimulate bioactivity, while minimizing the mobilization of dissolved hydrocarbons. To maintain a closed loop circulation of air injected into the ground water, the air sparging points are located within 30 feet of the vapor extraction points, well within the zone of influence for the SVE system.

The sparge system utilizes the four (4) sparge points, SP-1, SP-2, SP-3 and SP-4, and each point is configured with a gate valve to control flow to each individual sparge point. This will allow the operation of the system to be changed as necessary to optimize air sparging.

E. SVE / AS SYSTEM OPERATION

Based upon the Stipulation Agreement between the NYSDEC and Petrocelli, the SVE segment of the remedial system has been in operation since December 1998. As part of the SVE operation, a zone of influence test to evaluate the SVE system was performed during the first quarter of 1999 to determine the effectiveness of the remedial

EnSolutions, Inc.



system at the subject site. Utilizing the data obtained from the zone of influence test, the pneumatic zone of influence that displays capture of the vadose zone was established for this site.

The air sparging segment of the remedial system has been in operation to enhance the remedial efforts on the site since May 6, 1999.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION II

2.1 INSTALLATION OF DOWN GRADIENT GROUND WATER MONITORING WELL

As part of the ground water investigation, and as specified by the NYSDEC, Aquifer Drilling and Testing, Inc. (ADT) of Woodside, New York, installed one (1) additional ground water monitoring well in the sidewalk of 22nd Street to confirm ground water direction and the extent of the ground water contamination at the site. The one (1) 4-inch monitoring well designated at MW-7 and is shown in Figure 2 in Section V.

The borings for the monitoring wells were completed using the air rotary methodology. The monitoring wells were constructed with Schedule 40 PVC casing and well screen. Well screen with 0.020-inch slot openings was installed from the base of the borings. Well casing was used to complete the wells to ground surface. No. 2 gravel was installed in the annular space between the well screen and borehole wall from the base of the boring to approximately 1 foot above the top of screen. Cement grout was installed above the gravel pack to ground surface and used to secure flush-mounted protective casing.

B. GROUND WATER SAMPLING - AUGUST 16, 2001

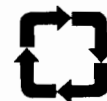
On August 16, 2001, Terra Nova Associates, under the supervision of EnSolutions, conducted the ground water sampling of the six ground water monitoring wells at the site. All sampling was conducted in accordance with the standard field sampling practices of the NYSDEC and the USEPA.

Water levels and total depths were measured with a slope indicator electronic water level meter, Model 501, to the nearest 0.01-foot as measured from the top of the inner casing mark or adjacent to the lock, if no mark was present. The water level meter line was wiped with a DI water soaked paper towel as it was retracted from the well. The probe was then rinsed with DI water and paper towel dried. The well depth, depth to water, well diameter and purge water calculations were noted in the field log, and the well calculations to determine one standing column were based on the following:

Casing diameter – 4 inches

Gallons/Linear Foot – 0.652

EnSolutions, Inc.



The wells were evacuated with a whale pump. All sampling tubing in the wells was dedicated polyethylene drinking water grade tubing with dedicated Brady foot valves.

Field parameters were monitored before purging and after each casing volume. When three consecutive measurements of all parameters agreed within 10%, or if the well went dry, or 5 volumes was reached, sampling began.

Prior to sampling, a depth to water measurement was taken. If there was sufficient volume in the well, sampling proceeded. If volume was not sufficient, the well was allowed to recover.

All wells were sampled with a laboratory cleaned dedicated Teflon bailer, constructed entirely of Teflon. The field meters used for ground water measurements included the YSI 3500, which was used for temperature, pH and specific conductivity.

Ground water monitoring well MW-5 was not accessible and could not be sampled. No other problems were encountered in the field with the sampling of all other monitoring wells. Immediately after the sample collection, the pre-labeled sample bottles were placed in a cooler at 4 degrees C and transported on ice to STL Laboratories of Edison, NJ for analyses, accompanied by a chain of custody form, in accordance with the quality control standards. All samples, including field and trip blanks, were analyzed for BTEX and MTBE.

A summary of the field sampling parameters is as follow:

Sample Point	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
Total Depth	15.10	14.90	16.60	14.50	12.00	15.00	15.00
Depth To Water	10.32	8.91	9.20	8.99	-	9.86	9.95
Height To Water Col. (Ft.)	4.8	6.0	7.4	5.5	-	5.1	4.4
One Casing Vol.(Gal)	3.1	3.9	4.8	3.6	-	3.3	0.7
Three Casing Vol. (Gal)	9.3	11.7	14.5	10.8	-	10.3	10.3
Actual Volume Purged (Gal)	10.0	12.0	15.0	11.0	-	11.0	11.0
Date Sampled	8/16/01	8/16/01	8/16/01	8/16/01	NS	8/16/01	8/16/01
Time Sampled	0918	1010	1025	1035	-	1105	1105
Field Parameters							
Ph	6.56	6.42	6.36	6.41	-	6.57	8.21
SCOND um/cm	1059	575	713	918	-	1747	829
Temp C	20.1	20.3	18.6	19.7	-	19.5	22.0
Dissolved Oxygen (Ppm)	0.66	1.74	1.90	0.80	-	0.97	0.16
Appearance	cloudy	cloudy	cloudy	cloudy	-	clear	turbid
Odor	odor	odor	no odor	odor	-	odor	odor
Purge Method	PP	PP	WP	PP	-	PP	PP
Sample Method	BT	BT	BT	BT	-	BT	BT

BT - BAILER TEFLON WP - WHALE PUMP PP- PERISTALTIC PUMP

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION III

A. GROUND WATER ANALYTICAL RESULTS – August 16, 2001

The laboratory results of the BTEX and MTBE analyses for the seven ground water samples obtained indicated:

1. Levels of benzene have declined significantly from the initial notice during closure activities and now appear to be at asymptotic levels with results ranging from 2.4 ppb to 25 ppb on the subject property and at 30 ppb in the additional monitoring well in 22nd Street at 30 ppb.
2. Levels of MTBE have declined and now exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-1 at 130 ppb, MW-3 at 240 ppb and MW-6 at 470 ppb. In addition, MTBE in the new MW-7 is only 771 ppb.
3. No other BTEX compounds or MTBE exceed any the NYSDEC ground water quality standards or guidance values for ground water in any of the other monitor wells at the site or the additional ground water monitoring well in the sidewalk in 22nd Street.

The analytical results summary are shown in Table 1 in Section V:

A summary table of the historical analytical results, including the August 2001 results, is shown in Table 2 in Section V.

The laboratory QA/QC for the ground water analyses is included as Attachment 1 in Section V.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION IV

A. CONCLUSIONS

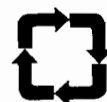
The closure information, the remedial investigation analytical results from the ground water sampling of August 16, 2001 and the low levels of contaminants in the new MW-7 down gradient in the sidewalk, indicates the active remedial efforts at the subject site have reached the asymptotic levels and further operation of an active remedial system at this site is not warranted. This is based upon the following:

- The previously submitted figures that demonstrated the asymptotic operation of the air sparge / SVE system.
- The lows levels of Benzene, 30 ppb or less, from the August 16, 2001 sampling of the ground water monitoring wells on the subject property and the additional down gradient well in the sidewalk on 22th Street.
- The historic decline in levels of MTBE and the low level, 71 ppb of MTBE from the additional down gradient monitoring well, MW-7.
- The levels of all other volatiles do not exceed any of the NYSDEC ground water quality standards or guidance values for ground water.

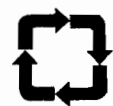
4.2 ACTION ITEMS

Based upon analytical data and a review of all information in regards to the site, the following are the action items that should be implemented at the site:

1. Active remediation utilizing the SVE / AS system should be discontinued.
2. Natural attenuation should be implemented as the remedial activity for the subject property.
3. To support the natural attenuation remedial recommendation for the site, upon approval, quarterly ground water monitoring of the seven monitoring wells at the subject site will be implemented for eight quarters immediately following the cessation of active remediation.



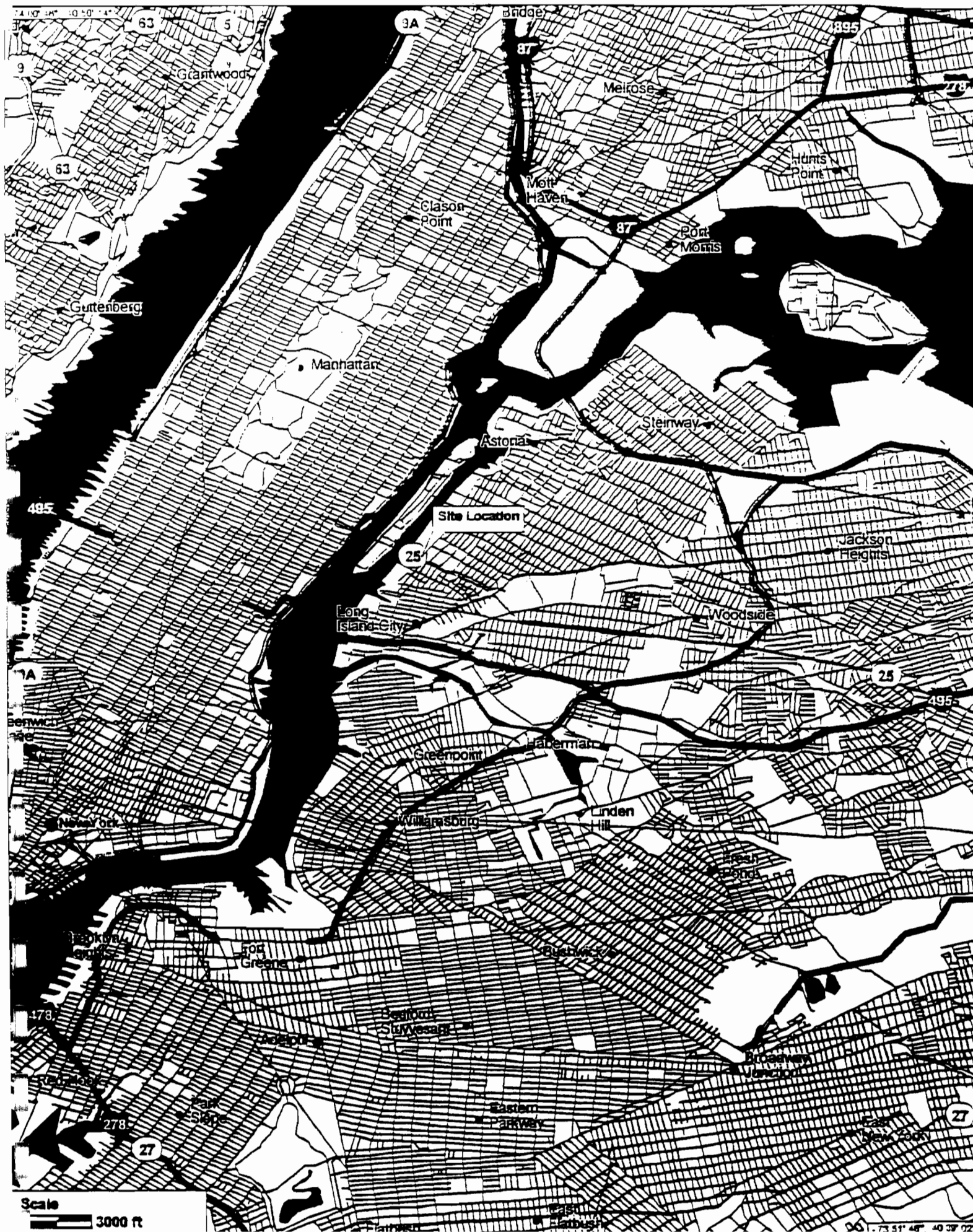
4. A progress report of the ground water quality will be submitted semi-annually to NYSDEC case manager in the appropriate periods following the cessation of active remediation.



FIGURES



Figure 1 - Site Location Map



22nd STREET SIDEWALK

MW-7

REMEDIAL
SYSTEM

MW-1

MW-2

MW-3

SP 2

SP 1

ONE STORY
COMMERCIAL
BUILDING

Canopy

Canopy

MW-4

Tank Farm

SP 3

SP 4

MW-5

MW 6



KEY	
	Monitor Well
	Sparge Point

DATE	EnSolutions, Inc. 66 Elm Street Dover, NJ 07801		
October 2001			
DESCRIPTION	FIGURE 2 PETROCELLI / FACILITY SITE PLAN		
TITLE	22-09 Queens Bridge Plaza North Long Island City, NY		
DRAWN BY	S. KOTEEN	SCALE	AS SHOWN



TABLES



Table 2
Petrocelli Electric Company, Inc.
Historic Groundwater BTEX and MTBE Sampling Results

BTEX/MTBE (ug/l)	MW1						MW2					
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01
	45	ND	ND	ND	ND	3.5	ND	ND	58	36	ND	2.4
Benzene	ND	ND	ND	ND	4.3	ND	ND	ND	ND	ND	ND	ND
Toluene	58	27	1.9	ND	5.1	5.9	ND	ND	14	ND	ND	ND
Ethylbenzene	590	200	700	220	270	130	520	2500	690	650	ND	32
MTBE	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	150	ND
Total Xylenes												

BTEX/MTBE (ug/l)	MW3						MW4					
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01
	ND	NS	ND	ND	ND	25	77	ND	4.9	9.2	20	5.1
Benzene	ND	NS	ND	ND	ND	ND	14	ND	ND	ND	ND	0.7
Toluene	ND	NS	22	7.8	ND	ND	250	ND	2.8	6.1	8	9.1
Ethylbenzene	22	NS	68	59	ND	240	280	460	73	50	ND	10
MTBE	ND	NS	ND	ND	19	ND	370	ND	18	ND	52	5.7
Total Xylenes												

BTEX/MTBE (ug/l)	MW5						MW6					
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01
	ND	ND	ND	ND	ND	NS	ND	ND	ND	21	ND	13
Benzene	ND	ND	ND	ND	ND	NS	ND	ND	ND	4.7	ND	ND
Toluene	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	NS	6200	430	190	710	ND	470
MTBE	ND	ND	ND	ND	ND	NS	ND	41	ND	ND	ND	ND
Total Xylenes												

BTEX/MTBE (ug/l)	MW7					
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01
	*	*	*	*	*	30
Benzene	*	*	*	*	*	31
Toluene	*	*	*	*	*	27
Ethylbenzene	*	*	*	*	*	71
MTBE	*	*	*	*	*	25
Total Xylenes						

ND - NON DETECT
 * - WELL DID NOT EXIST
 NS - NOT SAMPLED



TABLE 1

Petrocelli Electric Co. - Long Island City
Ground Water Sampling Results Summary Table
Sampling Date August 16, 2001

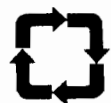
Client Sample ID	MW-1			MW-2			MW-3			MW-4			MW-5			MW-6			MW-7		
Sample Collection Date	08/16/2001			08/16/2001			08/16/2001			08/16/2001			08/16/2001			08/16/2001			08/16/2001		
Sample Receipt Date	08/16/2001			08/16/2001			08/16/2001			08/16/2001			08/16/2001			08/16/2001			08/16/2001		
Sample Matrix	WATER			WATER			WATER			WATER			WATER			WATER			WATER		
Units	ug/L			ug/L			ug/L			ug/L			ug/L			ug/L			ug/L		
	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q
Benzene	1	3.5	1	2.4	1	25	1	5.1		NS	1	13	1	30							
Toluene	1	1.3U	1	0.26U	1	5.2U	1	0.7		NS	1	6.5U	1	31							
Ethylbenzene	1	5.9	1	0.26U	1	5.2U	1	9.1		NS	1	6.5U	1	27							
Total Xylenes	2	1.2U	2	0.25U	2	5.0U	2	5.7		NS	2	6.2U	2	25							
MTBE	5	130	1	32	1	240	1	10		NS	25	470	20	71							



EnSolutions, Inc.

ATTACHMENTS

EnSolutions, Inc.



09/10/2001

EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801

Attention: Mr. Howard Fredericks

SEVERN
TRENT
SERVICES

STL Edison

777 New Durham Road
Edison, NJ 08817

Tel: 732-549-3900
Fax: 732-549-3679
www.stl-inc.com

Laboratory Results
Job No. N817 - Petrocelli Electric

Dear Mr. Fredericks:

Enclosed are the results you requested for the following sample(s) received at our laboratory on August 16, 2001.

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
295126	MW-1	BTEX GC w/MTBE
295127	MW-4	BTEX GC w/MTBE
295128	MW-2	BTEX GC w/MTBE
295129	MW-7	BTEX GC w/MTBE
295130	MW-6	BTEX GC w/MTBE
295143	MW-3	BTEX GC w/MTBE

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Robin Dean, at (732) 549-3900.

Very Truly Yours,



Michael J. Urban
Laboratory Director



Analytical Results Summary	1
General Information	8
Chain of Custody	8
Laboratory Chronicles	10
Methodology Review	12
Data Reporting Qualifiers	16
Non-Conformance Summary	18
GC/ PID Forms and Data	21
Results Summary and Chromatograms	21
Method Blank Results Summary	34
Standards Summary	44
Surrogate Compound Recovery Summary	78
Spike Recovery Summary	80
This is the Last Page of the Document	82

Analytical Results Summary

SEVERN

TRENT

SERVICES

Client ID: MW-1
Site: Petrocelli Electric

Lab Sample No: 295126
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1717.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	130	1.2
Benzene	3.5	1.4
Toluene	ND	1.3
Ethylbenzene	5.9	1.3
Xylene (Total)	ND	1.2

SEVERN

TRENT

SERVICES

Client ID: MW-4
Site: Petrocelli Electric

Lab Sample No: 295127
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1705.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	10	0.24
Benzene	5.1	0.28
Toluene	0.71	0.26
Ethylbenzene	9.1	0.26
Xylene (Total)	5.7	0.25

Client ID: MW-2
 Site: Petrocelli Electric

Lab Sample No: 295128
 Lab Job No: N817

Date Sampled: 08/16/01
 Date Received: 08/16/01
 Date Analyzed: 08/22/01
 GC Column: DB624
 Instrument ID: VOAGC3.i
 Lab File ID: ipid1711.d

Matrix: WATER
 Level: LOW
 Purge Volume: 5.0 ml
 Final Volume: 0.0 mL
 Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID
 METHOD 602**

<u>Parameter</u>	Analytical Result <u>Units: ug/l</u>	Method Detection Limit
		<u>Units: ug/l</u>
MTBE	32	0.24
Benzene	2.4	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25

SEVERN

TRENT

SERVICES

Client ID: MW-7
Site: Petrocelli Electric

Lab Sample No: 295129
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/26/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1790.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	71	1.2
Benzene	30	1.4
Toluene	31	1.3
Ethylbenzene	27	1.3
Xylene (Total)	35	1.2

SEVERN

TRENT

SERVICES

Client ID: MW-6
Site: Petrocelli Electric

Lab Sample No: 295130
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1713.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	470	6.0
Benzene	13	7.0
Toluene	ND	6.5
Ethylbenzene	ND	6.5
Xylene (Total)	ND	6.2

Client ID: MW-3
 Site: Petrocelli Electric

Lab Sample No: 295143
 Lab Job No: N817

Date Sampled: 08/16/01
 Date Received: 08/16/01
 Date Analyzed: 08/22/01
 GC Column: DB624
 Instrument ID: VOAGC3.i
 Lab File ID: ipid1716.d

Matrix: WATER
 Level: LOW
 Purge Volume: 5.0 ml
 Final Volume: 0.0 mL
 Dilution Factor: 20.0

VOLATILE ORGANICS - GC/PID
 METHOD 602

<u>Parameter</u>	Analytical Result		Method Detection	
	<u>Units: ug/l</u>		<u>Limit</u>	
MTBE	240		4.8	
Benzene	25		5.6	
Toluene	ND		5.2	
Ethylbenzene	ND		5.2	
Xylene (Total)	ND		5.0	

General Information

Chain of Custody

4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

PAGE 7 OF 7

Name (for report and invoice) Petrocelli Electric		Sample Name (Printed) Al Pleva Terra Nova		Site/Project Identification Petrocelli Electric LI City, NY																																																																																																									
Company ENSOLUTIONS		P.O. #		State (Location of site): NJ: <input type="checkbox"/> NY: <input type="checkbox"/> Other: <input type="checkbox"/>																																																																																																									
Address 66 ELM ST		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST) <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> GFAH/MTBE (HCL) </div> <div> <table border="1" style="width:100%; height: 100px; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> </div> </div>																																																																																																								LAB USE ONLY Project No: Job No: N817 Sample Numbers	
City Dover NJ State																																																																																																													
Phone 6. Fredericks Fax																																																																																																													
Sample Identification	Date	Time	Matrix	No. of Cont.																																																																																																									
MW-1	8/14/01	0918	AQ	3	3						295126																																																																																																		
MW-4	"	0935	AQ	3	3						295127																																																																																																		
MW-2	"	0955	AQ	7	3						295128																																																																																																		
MW-7	"	1000	AQ	3	3						295129																																																																																																		
MW-6	"	1015	water	3							295130																																																																																																		
MW-3	"	1025	↓	↓							295131																																																																																																		
MW-5	8/16																																																																																																												
Preservation Used: 1 = ICE, 2 = HO, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____																																																																																																													
Soil:																																																																																																													
Water:																																																																																																													

Special Instructions one copy of report bound, one unbound to H. Fredericks of ENSOLUTIONS Water Metals Filtered (Yes/No)?

Relinquished by 1) <i>Ch. Kim</i>	Company <i>Terra Nova</i>	Date / Time <i>8/16/01 15:05</i>	Received by <i>Wandy 9</i>	Company <i>STZ</i>
Relinquished by 2)	Company	Date / Time 1	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 1	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 1	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Laboratory Chronicles

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

**INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison**

777 New Durham Road, Edison, New Jersey
08817

Job No: N817

Site: Petrocelli Electric

Client: EnSolutions, Inc.

VOAGC

002

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
<u>WATER</u>							
295126	8/16/2001	8/16/2001			8/22/01	JXZ	7244
295127	8/16/2001	8/16/2001					
295128	8/16/2001	8/16/2001					
295129	8/16/2001	8/16/2001			8/24/01		
295130	8/16/2001	8/16/2001			8/22/01		
295143	8/16/2001	8/16/2001					

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

Element	Water Test Method		Solid Test Method	
	Flame	Furnace	Flame	Furnace
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

- Ignitability - Method 1020A
- Corrosivity - Water pH Method 9040B
Soil pH Method 9045C
- Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release
- Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

Data Reporting Qualifiers

DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

Analytical Results Summary

Client ID: MW-1
 Site: Petrocelli Electric

Lab Sample No: 295126
 Lab Job No: N817

Date Sampled: 08/16/01
 Date Received: 08/16/01
 Date Analyzed: 08/22/01
 GC Column: DB624
 Instrument ID: VOAGC3.i
 Lab File ID: ipid1717.d

Matrix: WATER
 Level: LOW
 Purge Volume: 5.0 ml
 Final Volume: 0.0 mL
 Dilution Factor: 5.0

**VOLATILE ORGANICS - GC/PID
 METHOD 602**

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	130	1.2
Benzene	3.5	1.4
Toluene	ND	1.3
Ethylbenzene	5.9	1.3
Xylene (Total)	ND	1.2

Client ID: MW-4
Site: Petrocelli Electric

Lab Sample No: 295127
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1705.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	Analytical Result <u>Units: ug/l</u>	Method Detection Limit <u>Units: ug/l</u>
MTBE	10	0.24
Benzene	5.1	0.28
Toluene	0.71	0.26
Ethylbenzene	9.1	0.26
Xylene (Total)	5.7	0.25

Client ID: MW-2
Site: Petrocelli Electric

Lab Sample No: 295128
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1711.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	32	0.24
Benzene	2.4	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25

SEVERN

TRENT

SERVICES

Client ID: MW-7
Site: Petrocelli Electric

Lab Sample No: 295129
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/26/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1790.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	71	1.2
Benzene	30	1.4
Toluene	31	1.3
Ethylbenzene	27	1.3
Xylene (Total)	35	1.2

Client ID: MW-6
Site: Petrocelli Electric

Lab Sample No: 295130
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1713.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	470	6.0
Benzene	13	7.0
Toluene	ND	6.5
Ethylbenzene	ND	6.5
Xylene (Total)	ND	6.2

SEVERN

TRENT

SERVICES

Client ID: MW-3
Site: Petrocelli Electric

Lab Sample No: 295143
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1716.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 20.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	240	4.8
Benzene	25	5.6
Toluene	ND	5.2
Ethylbenzene	ND	5.2
Xylene (Total)	ND	5.0

General Information

Chain of Custody

STL EDISON

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

PAGE 1 OF 1

Name (for report and invoice)		Samplers Name (Printed)		Site/Project Identification	
Petrocelli Electric		Terra Nova		Petrocelli Electric City, NY	
Company		P.O. #		State (Location of site): NJ: <input type="checkbox"/> NY: <input type="checkbox"/> Other: <input type="checkbox"/>	
Address		Analysis Turnaround Time		Regulatory Program:	
66 ELM ST		Standard <input type="checkbox"/>			
City		Rush Charges Authorized For:		LAB USE ONLY	
Dover NJ		2 Week <input type="checkbox"/>		Project No:	
Phone H. Fredericks		1 Week <input type="checkbox"/>		Job No:	
Fax		Other <input type="checkbox"/>		N817	
Sample Identification		Time		Sample Numbers	
MW-1	8/16/01	Ag	3	295126	
MW-4	"	Ag	3	295127	
MW-2	"	Ag	3	295128	
MW-7	"	Ag	3	295129	
MW-6	"	Water	3	295130	
MW-3	"	↓	↓	295131	
MW-5	8/16/01	↓	↓	295129	
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil:		295130	
6 = Other		Water:		295131	

Special Instructions: copy of report bound, one unbound to H. Fredericks of Ensolution Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
1) [Signature]	Terra Nova	8/16/01 15:05	Wangy 9	STZ
Relinquished by	Company	Date / Time	Received by	Company
2) [Signature]	Company	1	2)	Company
Relinquished by	Company	Date / Time	Received by	Company
3) [Signature]	Company	1	3)	Company
Relinquished by	Company	Date / Time	Received by	Company
4) [Signature]	Company	1	4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Laboratory Chronicles

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

**INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison**

777 New Durham Road, Edison, New Jersey
08817

Job No: N817

Site: Petrocelli Electric

Client: EnSolutions, Inc.

VOAGC

002

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
<u>WATER</u>							
295126	8/16/2001	8/16/2001			8/22/01	JXZ	7244
295127	8/16/2001	8/16/2001					
295128	8/16/2001	8/16/2001					
295129	8/16/2001	8/16/2001			8/24/01		
295130	8/16/2001	8/16/2001			8/22/01		
295143	8/16/2001	8/16/2001					

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

Element	Water Test Method		Solid Test Method	
	Flame	Furnace	Flame	Furnace
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

- Ignitability - Method 1020A
- Corrosivity - Water pH Method 9040B
Soil pH Method 9045C
- Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release
- Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

Data Reporting Qualifiers

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

Non-Conformance Summary

NON-CONFORMANCE SUMMARY

STL Edison Job Number: N817

Volatile Organics Analysis:

All data conforms with method requirements ✓; or

Analysis was not requested ; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements ; or

Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

PCBs and/or Organochlorine Pesticides:

All data conforms with method ~~requirements~~ ; or

Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Non-conformance Summary, Page 2 of 2
STL Edison Job Number: N817

Metals Analysis:

All data conforms with method requirements ____; or
Analysis was not requested /; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Total Petroleum Hydrocarbons:

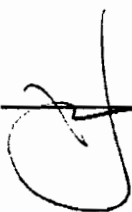
All data conforms with method requirements ____; or
Analysis was not requested /; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

General Chemistry/Disposal Parameters:

All data conforms with method requirements ____; or
Analysis was not requested /; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Signature of
Laboratory Manager: 

Date: 9/10/04

GC/PID Forms and Data

Results Summary and Chromatograms

Client ID: MW-1
Site: Petrocelli Electric

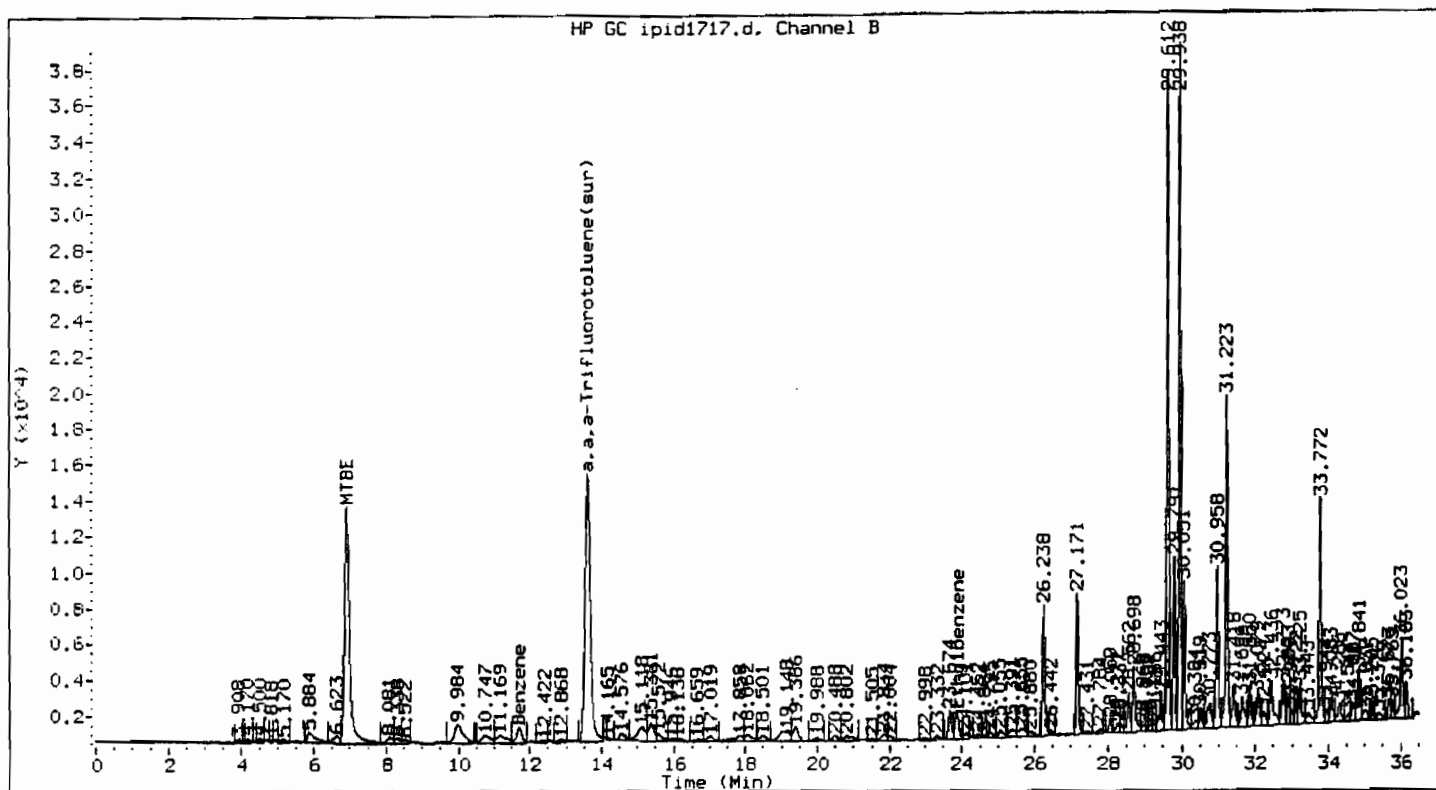
Lab Sample No: 295126
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1717.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	130	1.2
Benzene	3.5	1.4
Toluene	ND	1.3
Ethylbenzene	5.9	1.3
Xylene (Total)	ND	1.2



Method : /chem/VOAGC3.i/602/06-27-01/22aug01.b/602_01.m
Sample Info : 295126;;5
Lab ID : 295126
Inj Date : 22-AUG-2001 19:28
Operator : SP
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 5
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
MTBE	6.903	6.899	0.004	668673	25.313	126.565
Benzene	11.719	11.720	0.002	46754	0.699	3.494
Ethylbenzene	23.862	23.870	0.009	56173	1.189	5.943
a, a, a-Trifluorotoluene(sur)	13.590	13.594	0.004	801486	34.644	34.644

Client ID: MW-4
Site: Petrocelli Electric

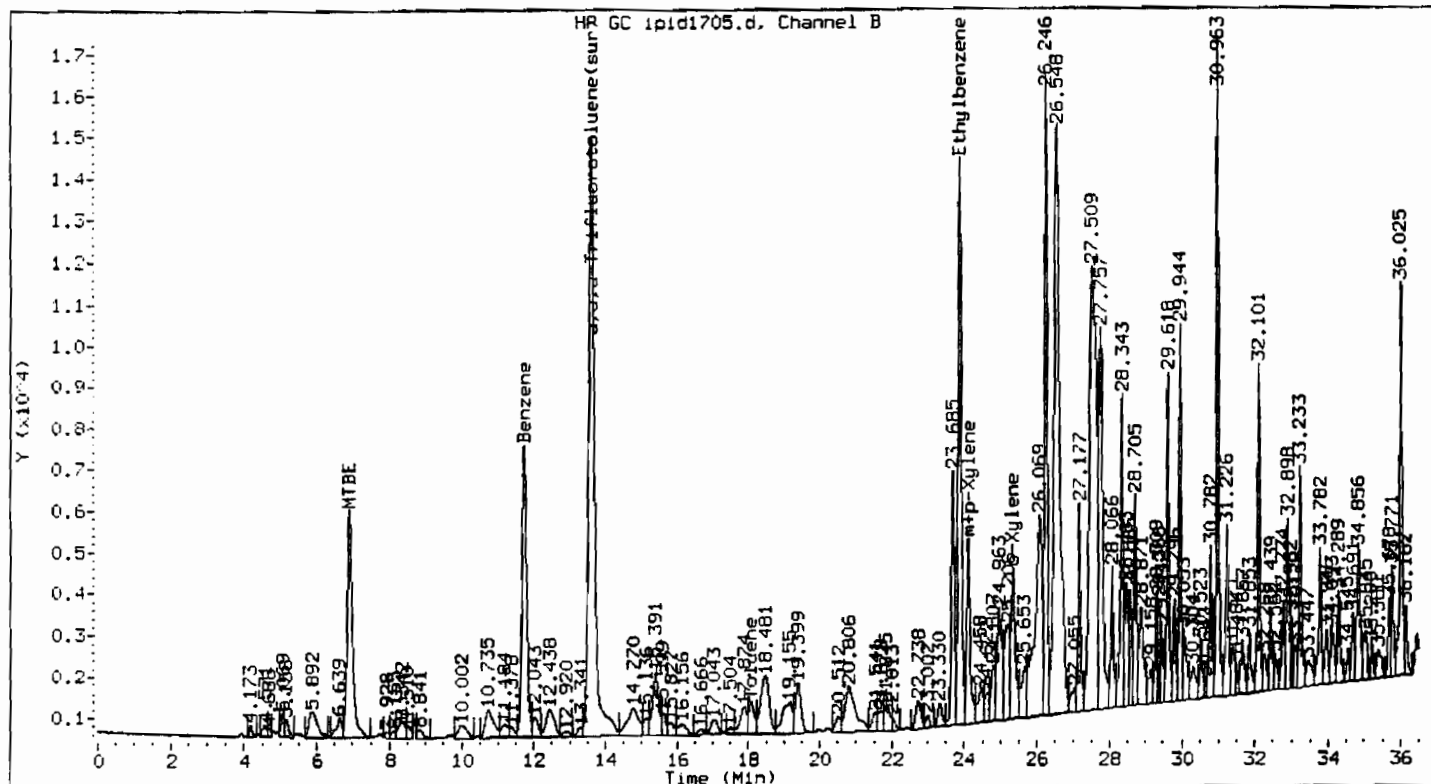
Lab Sample No: 295127
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1705.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	10	0.24
Benzene	5.1	0.28
Toluene	0.71	0.26
Ethylbenzene	9.1	0.26
Xylene (Total)	5.7	0.25



Method : /chem/VOAGC3.i/602/06-27-01/21aug01.b/602_01.m
Sample Info : 295127
Lab ID : 295127
Inj Date : 22-AUG-2001 10:06
Operator : SP
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.334	25.348	0.014	146453	3.104	3.104
m+p-Xylene	24.108	24.132	0.023	148934	2.765	2.765
MTBE	6.911	6.904	0.008	279672	10.587	10.587
Benzene	11.734	11.735	0.002	340043	5.083	5.083
Toluene	18.073	18.076	0.003	42686	0.709	0.709
Ethylbenzene	23.874	23.891	0.017	431544	9.131	9.131
Xylene (Total)	25.019	25.019	0.000	295387	5.721	5.721
a,a,a-Trifluorotoluene(sur)	13.604	13.613	0.010	834043	36.052	36.052

2

Client ID: MW-2
Site: Petrocelli Electric

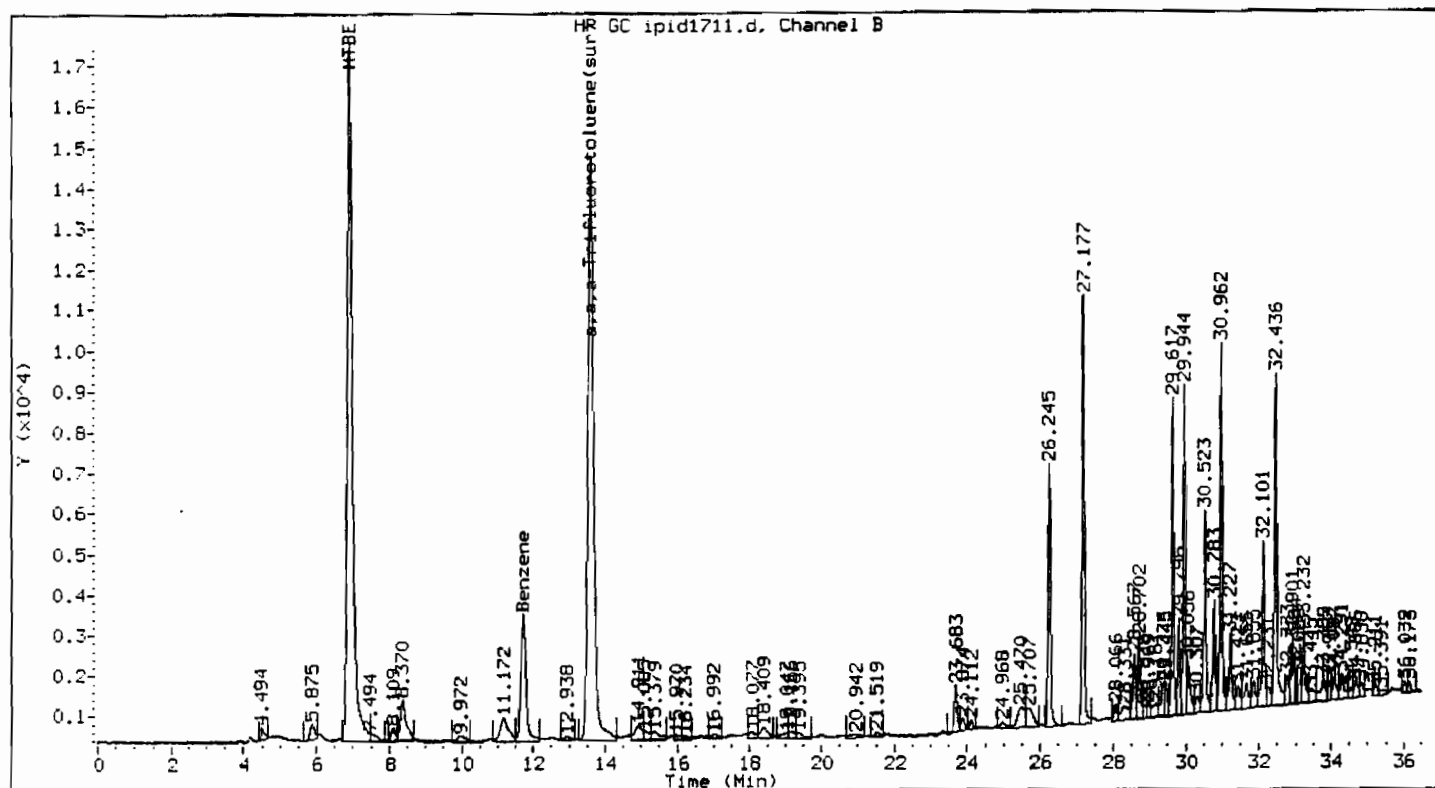
Lab Sample No: 295128
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1711.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	32	0.24
Benzene	2.4	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25



Method : /chem/VOAGC3.i/602/06-27-01/22aug01.b/602_01.m
Sample Info : 295128
Lab ID : 295128
Inj Date : 22-AUG-2001 15:26
Operator : SP
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

T x 2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.903	6.899	0.004	858367	32.494	32.494
Benzene	11.722	11.720	0.001	159915	2.390	2.390
a,a,a-Trifluorotoluene(sur)	13.593	13.594	0.000	792706	34.265	34.265

Client ID: MW-7
Site: Petrocelli Electric

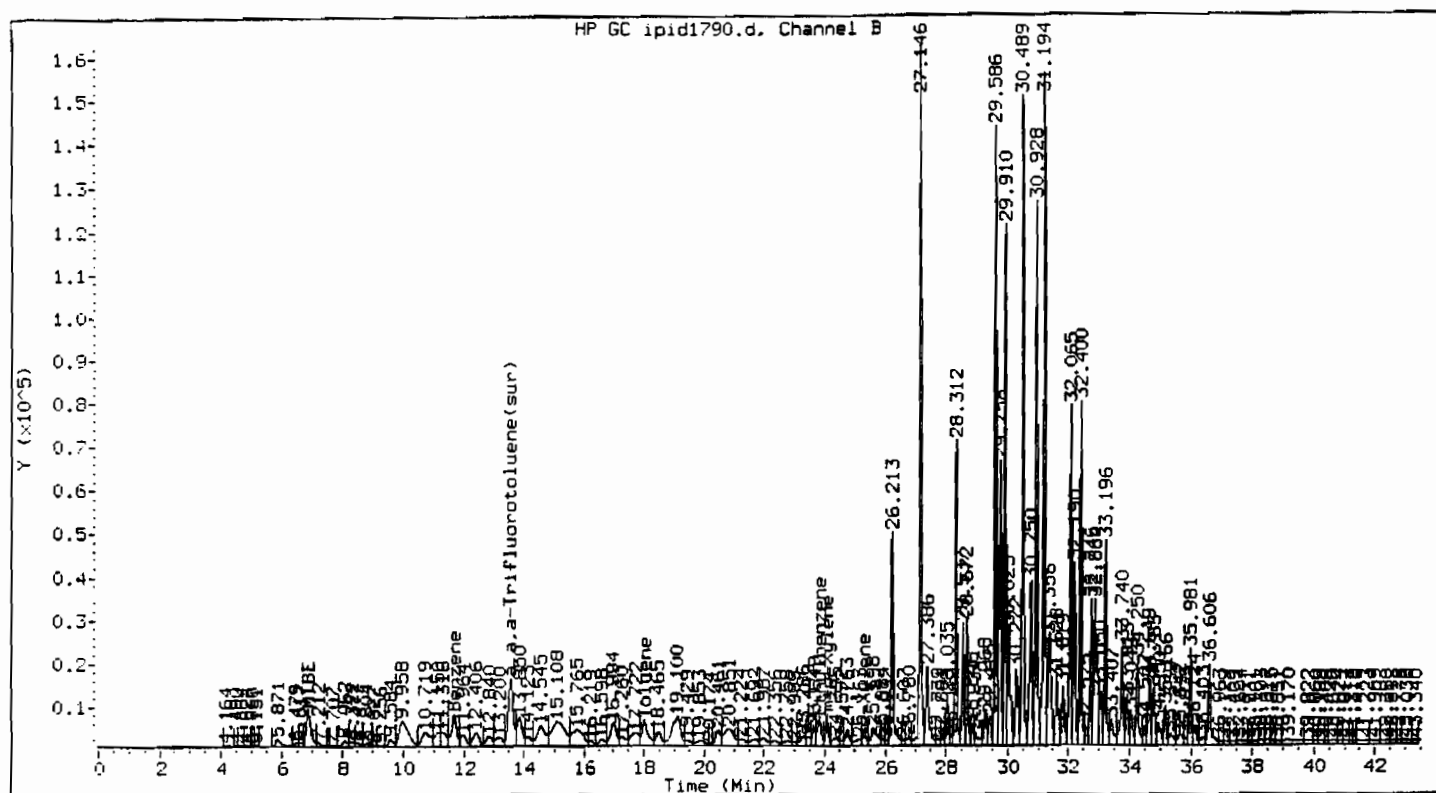
Lab Sample No: 295129
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/26/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1790.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	71	1.2
Benzene	30	1.4
Toluene	31	1.3
Ethylbenzene	27	1.3
Xylene (Total)	35	1.2



Method : /chem/VOAGC3.i/602/08-24-01/26aug01.b/602_01.m
Sample Info : 295129;;5
Lab ID : 295129
Inj Date : 26-AUG-2001 21:30
Operator : SP
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 5
Sample Matrix : WATER
Sample Type: SAMPLE

J x 2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.298	25.297	0.001	155766	2.835	14.175
m+p-Xylene	24.075	24.074	0.000	252338	4.157	20.784
MTBE	6.878	6.877	0.001	459419	14.211	71.056
Benzene	11.676	11.680	0.004	444492	5.967	29.835
Toluene	18.011	18.006	0.005	413271	6.268	31.340
Ethylbenzene	23.824	23.833	0.009	289152	5.471	27.353
Xylene (Total)	25.019	25.019	0.000	408104	6.942	34.712
a,a,a-Trifluorotoluene(sur)	13.550	13.552	0.002	901797	32.421	32.421

Client ID: MW-6
Site: Petrocelli Electric

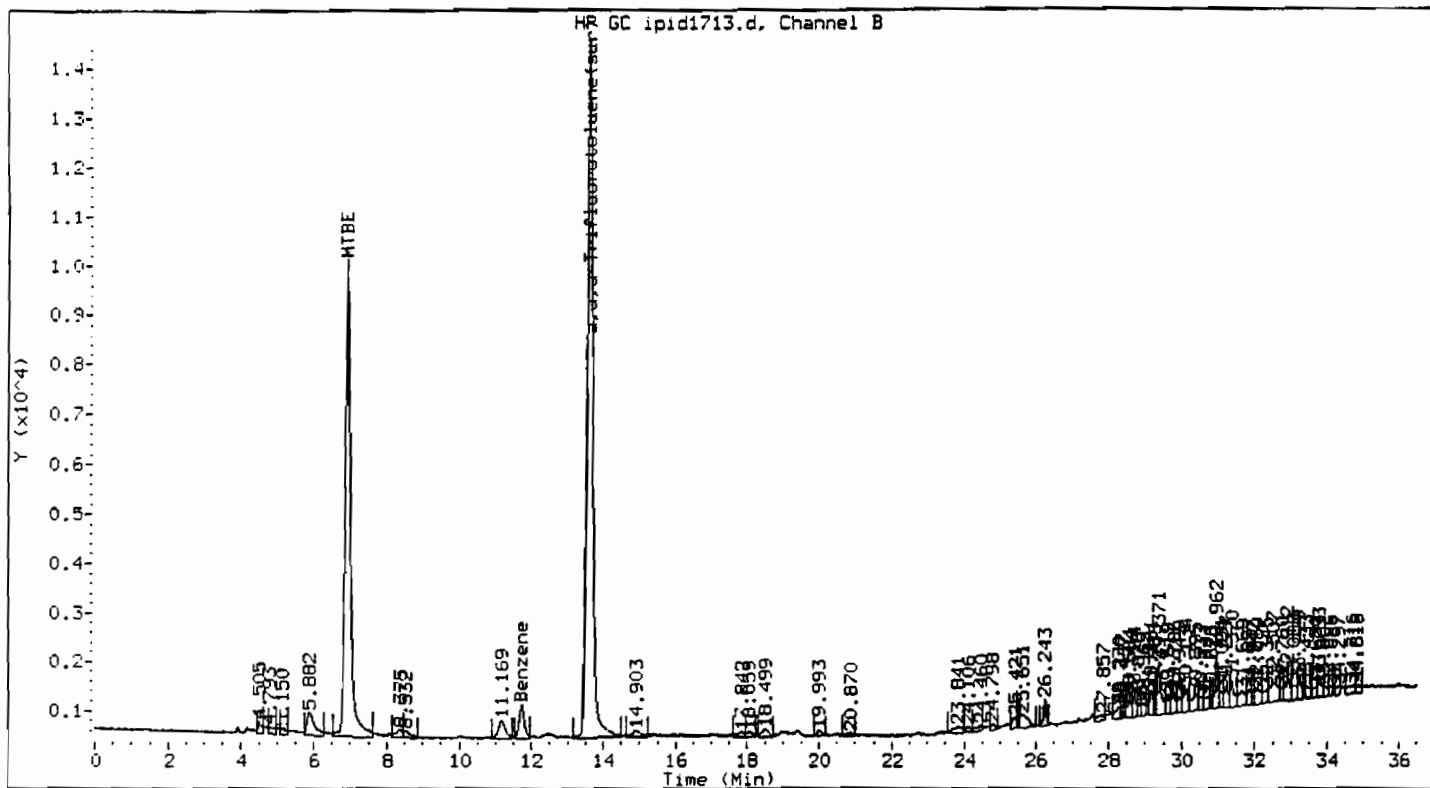
Lab Sample No: 295130
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1713.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	470	6.0
Benzene	13	7.0
Toluene	ND	6.5
Ethylbenzene	ND	6.5
Xylene (Total)	ND	6.2



5x2

Method : /chem/VOAGC3.i/602/06-27-01/22aug01.b/602_01.m
Sample Info : 295130;;25
Lab ID : 295130
Inj Date : 22-AUG-2001 16:47
Operator : SP
Cpnd Sublist: BTEXTMTBE
Inst ID : VOAGC3.i
Dil Factor : 25
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.907	6.899	0.008	494332	18.713	467.832
Benzene	11.724	11.720	0.004	34103	0.510	12.744
a, a, a-Trifluorotoluene (sur)	13.595	13.594	0.002	780184	33.724	33.724

Client ID: MW-3
Site: Petrocelli Electric

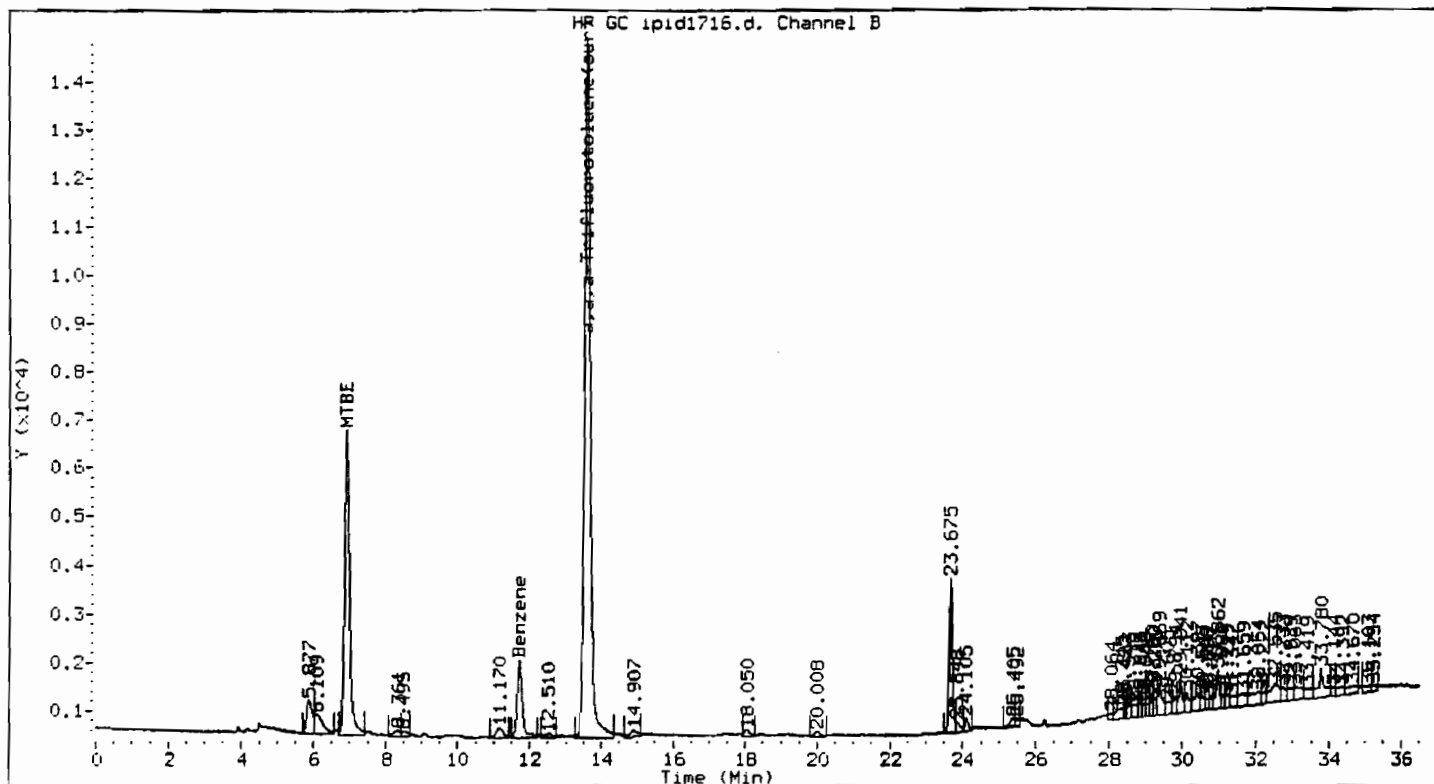
Lab Sample No: 295143
Lab Job No: N817

Date Sampled: 08/16/01
Date Received: 08/16/01
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1716.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 20.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	240	4.8
Benzene	25	5.6
Toluene	ND	5.2
Ethylbenzene	ND	5.2
Xylene (Total)	ND	5.0



Method : /chem/VOAGC3.i/602/06-27-01/22aug01.b/602_01.m
Sample Info : 295143;;20
Lab ID : 295143
Inj Date : 22-AUG-2001 18:47
Operator : SP
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 20
Sample Matrix : WATER
Sample Type: SAMPLE

J x 2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.904	6.899	0.006	313503	11.868	237.358
Benzene	11.721	11.720	0.001	82725	1.237	24.731
a, a, a-Trifluorotoluene(sur)	13.590	13.594	0.003	796950	34.448	34.448

Method Blank Results Summary

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG233A

Date Analyzed: 08/22/01

Instrument ID: VOAGC3

Time Analyzed: 0604

Lab File ID: IPID1699

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-4	295127	IPID1705	1006
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: IG233A
Site:

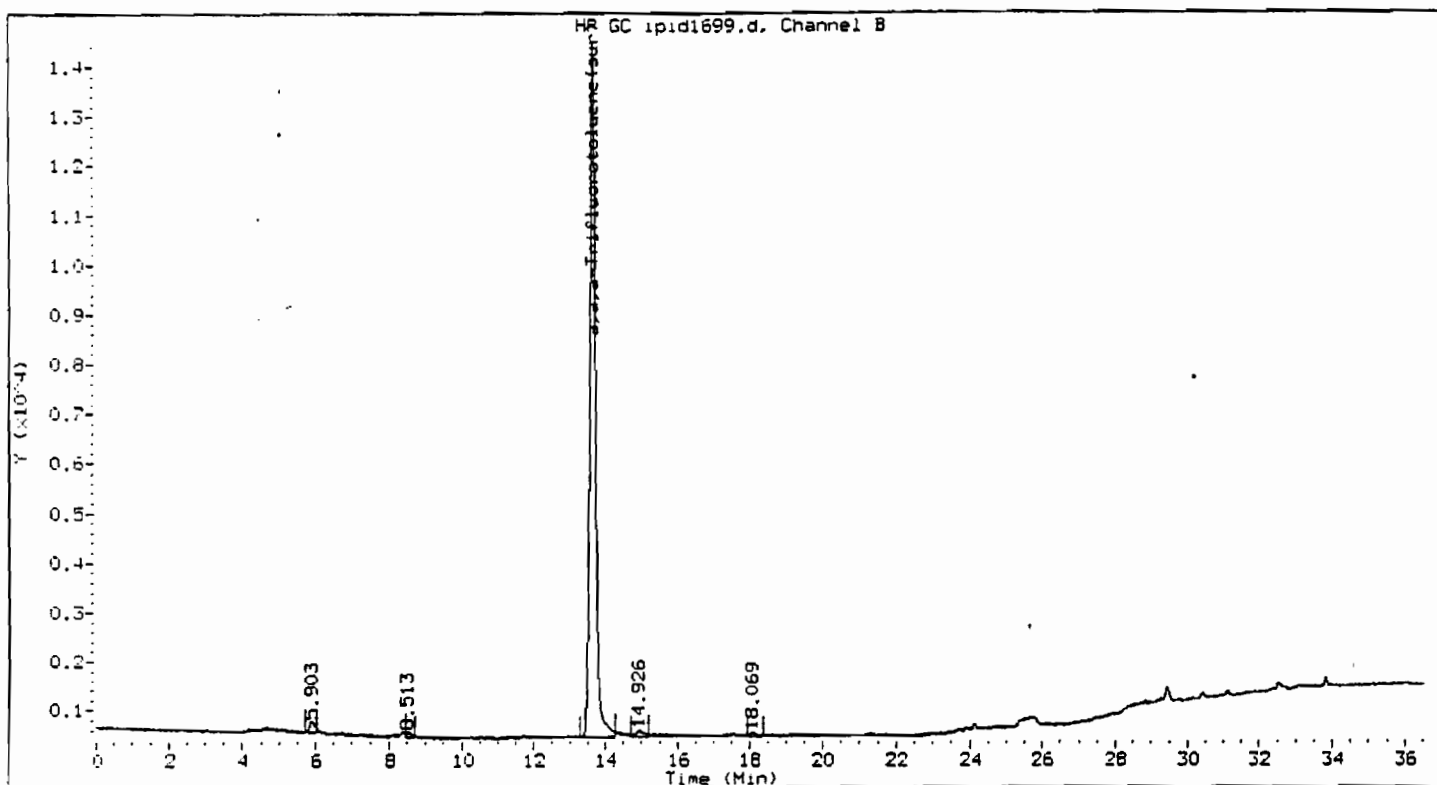
Lab Sample No: IG233A
Lab Job No: N817

Date Sampled: _____
Date Received: _____
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1699.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Chlorobenzene	ND	0.23
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25
1,3-Dichlorobenzene	ND	0.28
1,4-Dichlorobenzene	ND	0.25
1,2-Dichlorobenzene	ND	0.28



Method : /chem/VOAGC3.i/602/06-27-01/21aug01.b/602_01.m
Sample Info : IG233A
Lab ID : IG233A
Inj Date : 22-AUG-2001 06:04
Operator : SP
Cpnd Sublist: 602
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.621	13.613	0.008	784140	33.895	33.895

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG234

Date Analyzed: 08/22/01

Instrument ID: VOAGC3

Time Analyzed: 1414

Lab File ID: IPID1710

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-2	295128	IPID1711	1526
02	MW-6	295130	IPID1713	1647
03	MW-6MS	295130MS	IPID1714	1727
04	MW-6MSD	295130MSD	IPID1715	1807
05	MW-3	295143	IPID1716	1847
06	MW-1	295126	IPID1717	1928
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: IG234
Site:

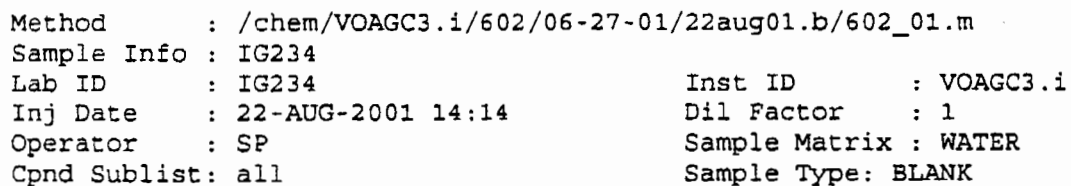
Lab Sample No: IG234
Lab Job No: N817

Date Sampled: _____
Date Received: _____
Date Analyzed: 08/22/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid1710.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u>
		<u>Limit</u> <u>Units: ug/l</u>
TBA	ND	18
MTBE	ND	0.24
DIPE	ND	0.22
Benzene	ND	0.28
Toluene	ND	0.26
Chlorobenzene	ND	0.23
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25
1,3-Dichlorobenzene	ND	0.28
1,4-Dichlorobenzene	ND	0.25
1,2-Dichlorobenzene	ND	0.28
Naphthalene	ND	0.21


$$\frac{1}{5} \times \frac{2}{3}$$

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
*****	*****	*****	*****	*****	*****	*****
a, a, a-Trifluorotoluene (sur)	13.592	13.594	0.001	778272	33.641	33.641

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG238

Date Analyzed: 08/26/01

Instrument ID: VOAGC3

Time Analyzed: 1346

Lab File ID: IPID1779

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-7	295129	IPID1790	2130
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: IG238
Site:

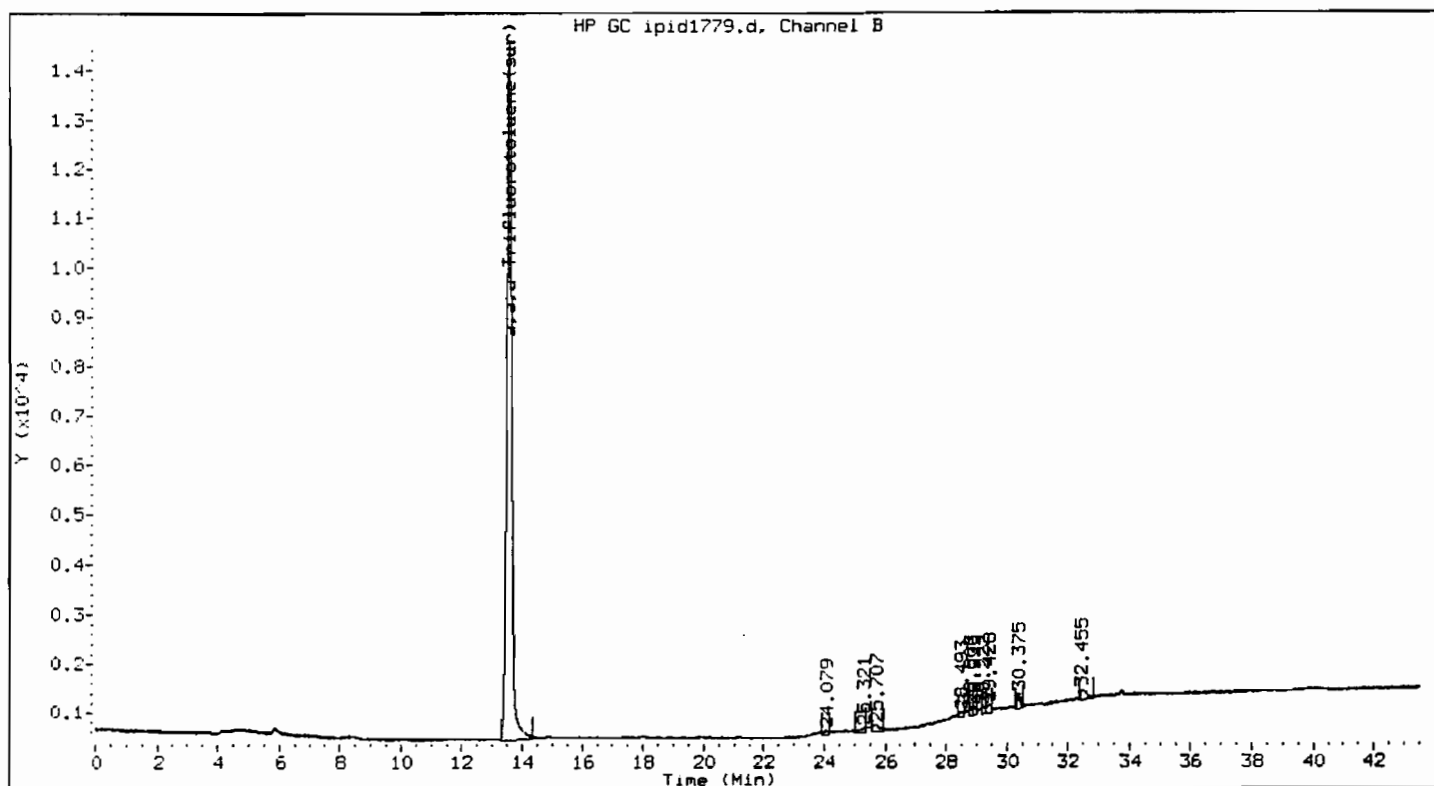
Lab Sample No: IG238
Lab Job No: N817

Date Sampled: _____
Date Received: _____
Date Analyzed: 08/26/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipidl779.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u>
		<u>Limit</u> <u>Units: ug/l</u>
TBA	ND	18
MTBE	ND	0.24
DIPE	ND	0.22
Benzene	ND	0.28
Toluene	ND	0.26
Chlorobenzene	ND	0.23
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25
1,3-Dichlorobenzene	ND	0.28
1,4-Dichlorobenzene	ND	0.25
1,2-Dichlorobenzene	ND	0.28
Naphthalene	ND	0.21



Method : /chem/VOAGC3.i/602/08-24-01/26aug01.b/602_01.m
Sample Info : IG238
Lab ID : IG238
Inj Date : 26-AUG-2001 13:46
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.531	13.552	0.021	784904	28.218	28.218

Standards Summary

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

Calibration Date(s): 06/27/01 06/27/01

Calibration Time(s): 1055 1336

LAB FILE ID:	RRF2: IPID1307	RRF5: IPID1308	RRF10: IPID1309		
	RRF20: IPID1310	RRF40: IPID1311			
COMPOUND	RRF2	RRF5	RRF10	RRF20	RRF40
=====	=====	=====	=====	=====	=====
TBA **	336	283	264	266	
MTBE	27702	26877	26088	26164	25250
DIPE	28172	27573	27042	27515	27080
Benzene	67678	67948	67138	66428	65302
Toluene	62770	60849	59773	59662	57978
Chlorobenzene	60732	58657	58092	57913	56309
Ethylbenzene	48496	47884	47446	46873	45613
Xylene (Total)	54064	52006	51327	50795	49973
1,3-Dichlorobenzene	45210	38689	36746	35666	34953
1,4-Dichlorobenzene	55450	43468	39952	38099	37056
1,2-Dichlorobenzene	44784	37035	31565	30097	29394
Naphthalene	37536	31183	29038	28910	28857
=====	=====	=====	=====	=====	=====
a, a, a-Trifluorotoluene (sur)	23838	22791	22936	23295	22812

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

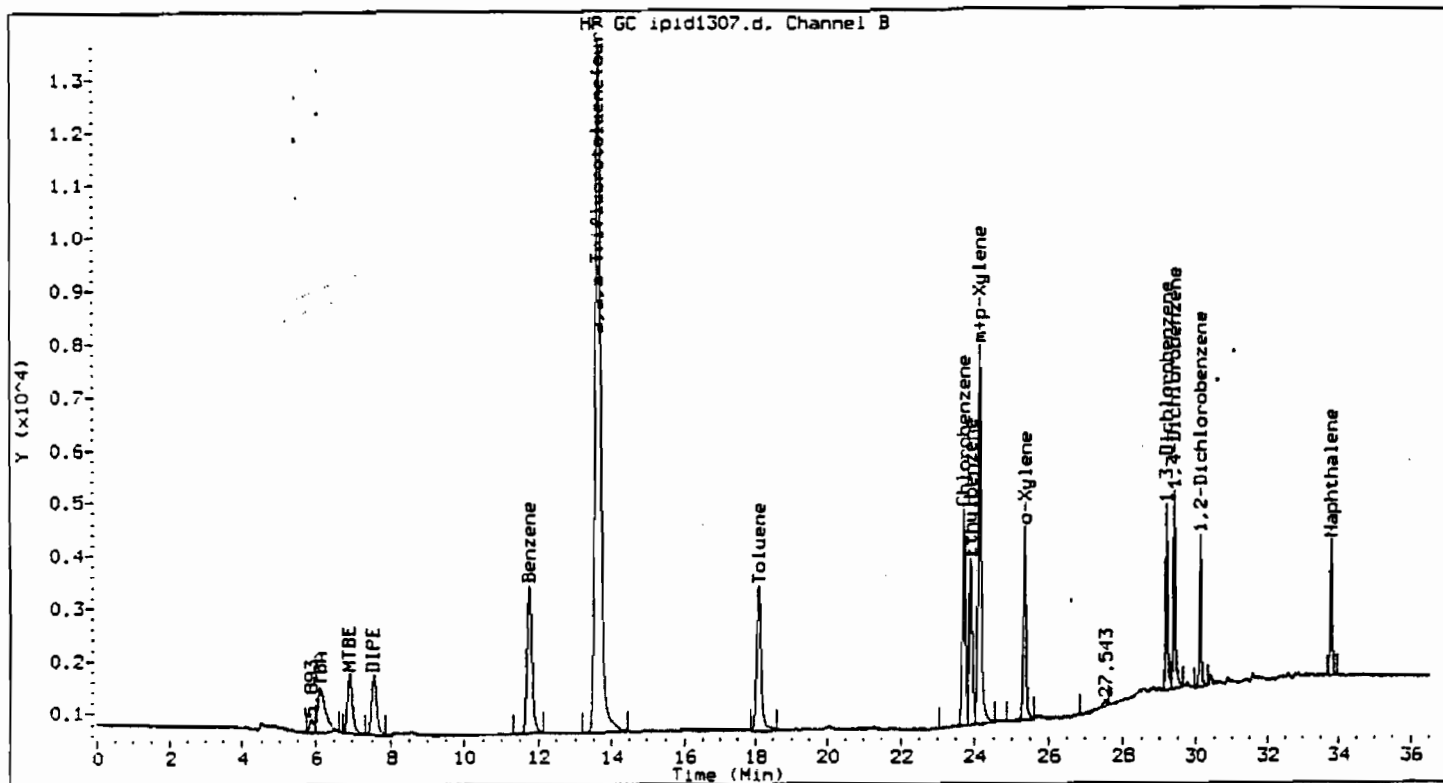
Calibration Date(s): 06/27/01 06/27/01

Calibration Time(s): 1055 1336

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
=====	=====	=====	=====
TBA **	AVRG	287	12*
MTBE	AVRG	26416	3.5*
DIPE	AVRG	27476	1.7*
Benzene	AVRG	66899	1.6*
Toluene	AVRG	60206	2.9*
Chlorobenzene	AVRG	58341	2.7*
Ethylbenzene	AVRG	47262	2.3*
Xylene (Total)	AVRG	51633	3.0*
1,3-Dichlorobenzene	AVRG	38253	11*
1,4-Dichlorobenzene	AVRG	42805	17*
1,2-Dichlorobenzene	AVRG	34575	19*
Naphthalene	AVRG	31105	12*
=====	=====	=====	=====
a,a,a-Trifluorotoluene (sur)	AVRG	23135	1.9*

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

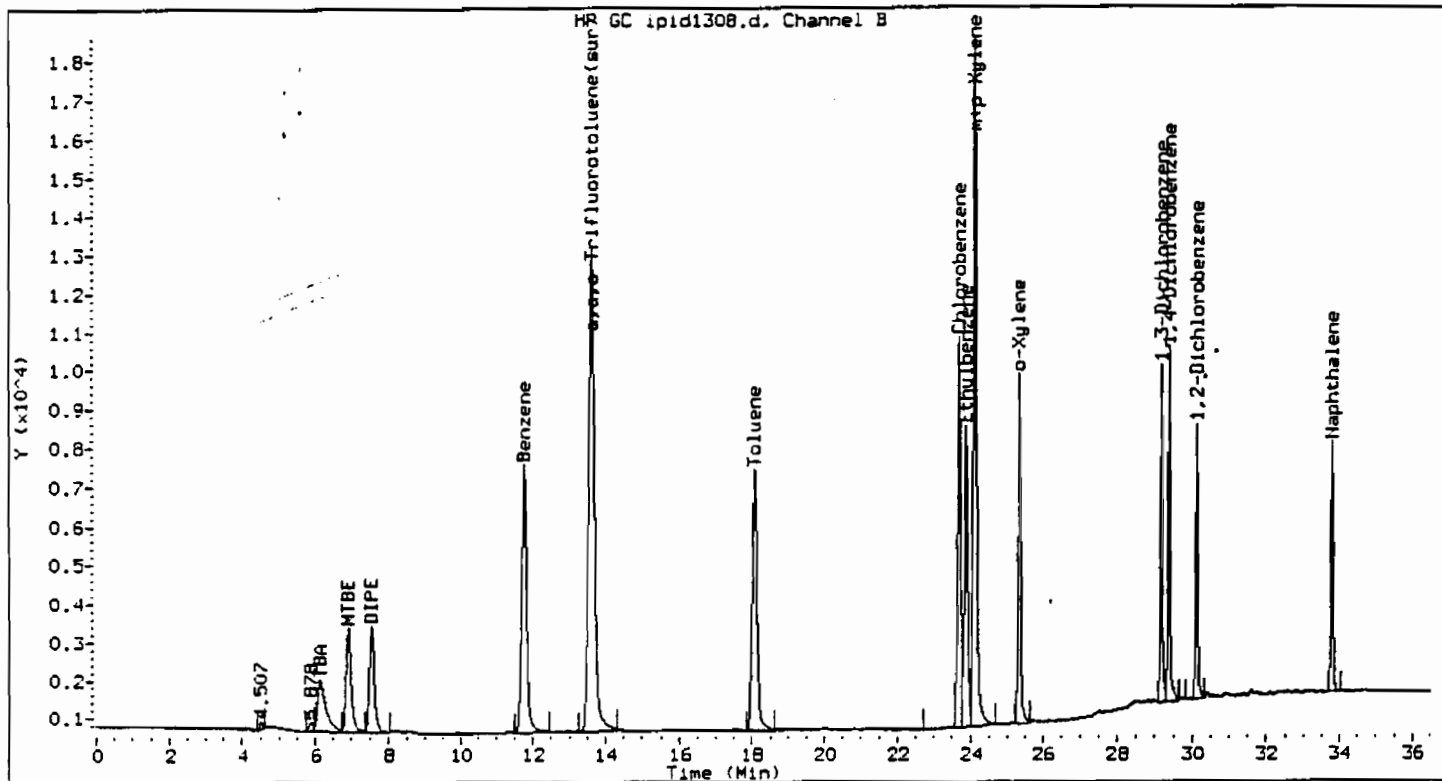
* Compounds with required maximum %RSD values.



Method : /chem/VOAGC3.i/602/06-27-01/27jun01.b/602_01.m
Sample Info : ISTD002
Lab ID : ISTD002
Inj Date : 27-JUN-2001 10:55
Operator : SP
Cpnd Sublist: all
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_1

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.348	25.329	0.019	97439	2.103	2.103
m+p-Xylene	24.131	24.109	0.022	218981	4.091	4.091
TBA	6.127	6.113	0.014	61509	219.760	219.760
MTBE	6.924	6.910	0.014	54252	2.063	2.063
DIPE	7.559	7.543	0.017	55910	2.038	2.038
Benzene	11.758	11.730	0.028	135356	2.023	2.023
Toluene	18.086	18.055	0.030	125539	2.085	2.085
Chlorobenzene	23.703	23.679	0.024	119662	2.060	2.060
Ethylbenzene	23.891	23.868	0.023	96102	2.040	2.040

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	316420	6.189	6.189
1,3-Dichlorobenzene	29.175	29.161	0.015	70519	2.030	2.030
1,4-Dichlorobenzene	29.386	29.371	0.015	78700	2.112	2.112
1,2-Dichlorobenzene	30.127	30.113	0.014	57251	2.016	2.016
Naphthalene	31.794	31.779	0.016	53536	1.957	1.957
a,a,a-Trifluorotoluene(sur)	13.630	13.599	0.031	715145	30.912	30.912



Method : /chem/VOAGC3.i/602/06-27-01/27jun01.b/602_01.m

Sample Info : ISTD005

Lab ID : ISTD005

Inj Date : 27-JUN-2001 11:35

Operator : SP

Cpnd Sublist: all

Inst ID : VOAGC3.i

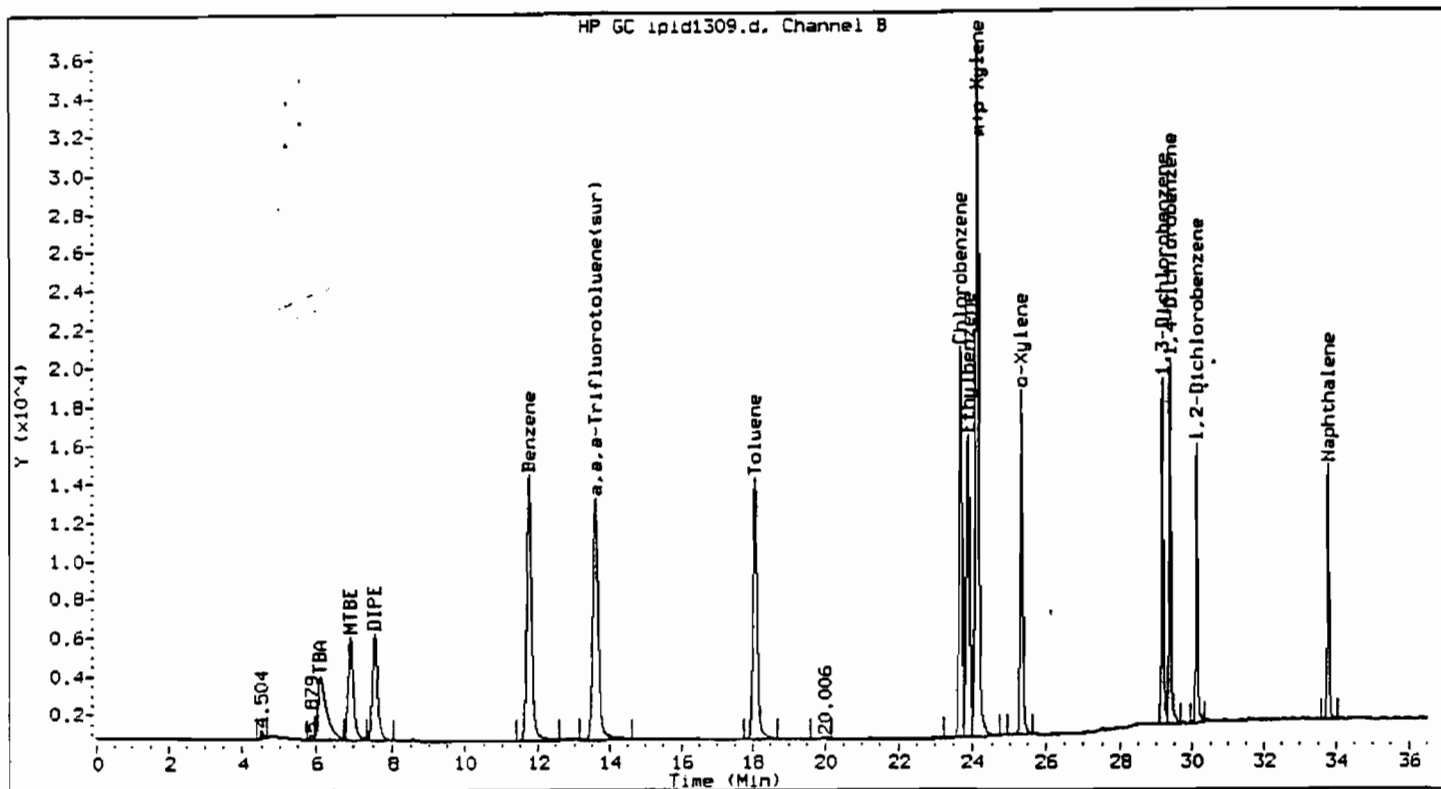
Dil Factor : 1

Sample Matrix : WATER

Sample Type: CALIB_2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.337	25.329	0.008	234200	5.055	5.055
m+p-Xylene	24.118	24.109	0.009	545893	10.199	10.199
TBA	6.125	6.113	0.012	113072	403.984	403.984
MTBE	6.919	6.910	0.009	134383	5.109	5.109
DIPE	7.554	7.543	0.011	137866	5.026	5.026
Benzene	11.742	11.730	0.012	339742	5.078	5.078
Toluene	18.068	18.055	0.013	304246	5.053	5.053
Chlorobenzene	23.689	23.679	0.010	291287	5.050	5.050
Ethylbenzene	23.878	23.868	0.010	239419	5.082	5.082

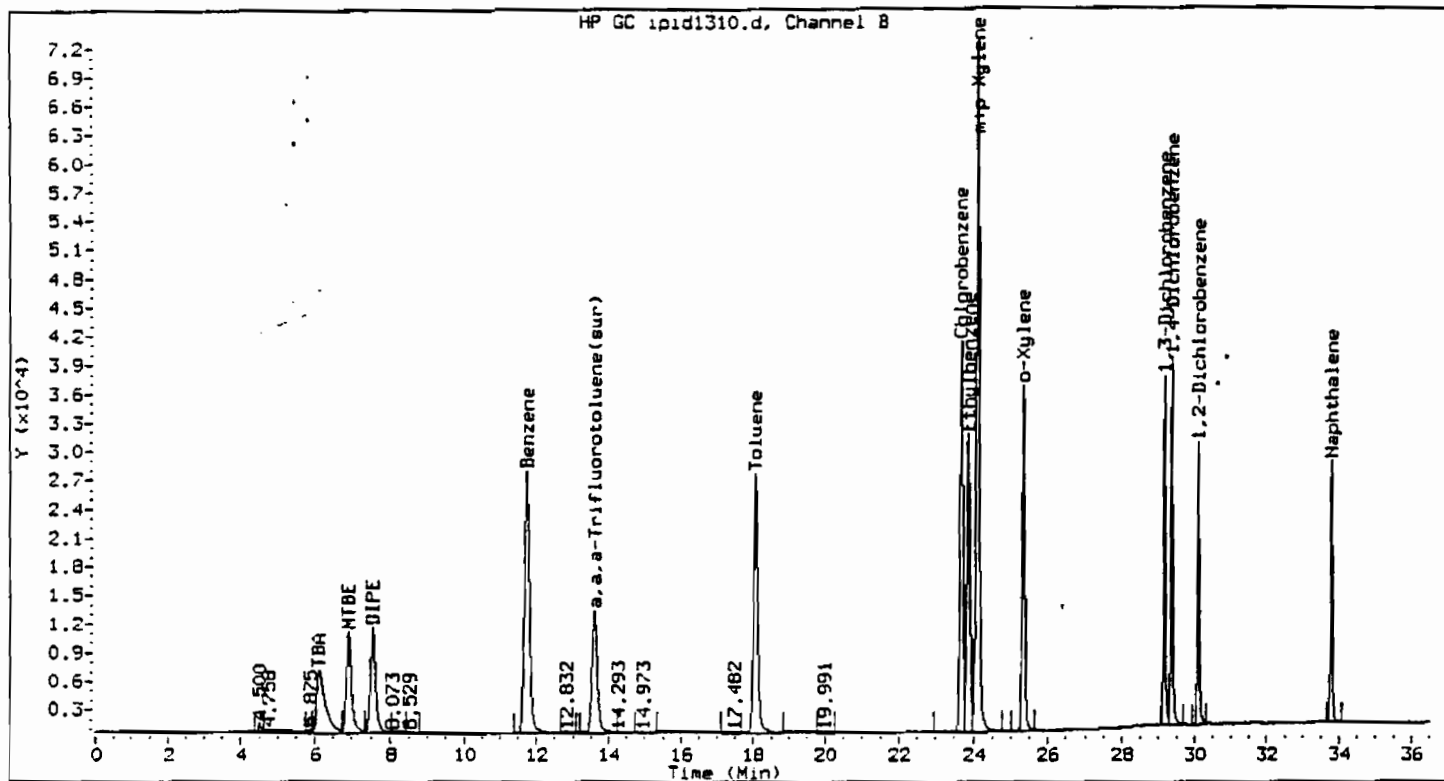
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	780093	15.258	15.258
1,3-Dichlorobenzene	29.168	29.161	0.007	173418	4.992	4.992
1,4-Dichlorobenzene	29.378	29.371	0.008	187152	5.023	5.023
1,2-Dichlorobenzene	30.120	30.113	0.007	142200	5.008	5.008
Naphthalene	33.788	33.779	0.009	134727	4.925	4.925
a,a,a-Trifluorotoluene(sur)	13.611	13.599	0.012	683737	29.555	29.555
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC3.i/602/06-27-01/27jun01.b/602_01.m
Sample Info : ISTD010
Lab ID : ISTD010
Inj Date : 27-JUN-2001 12:15
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_3

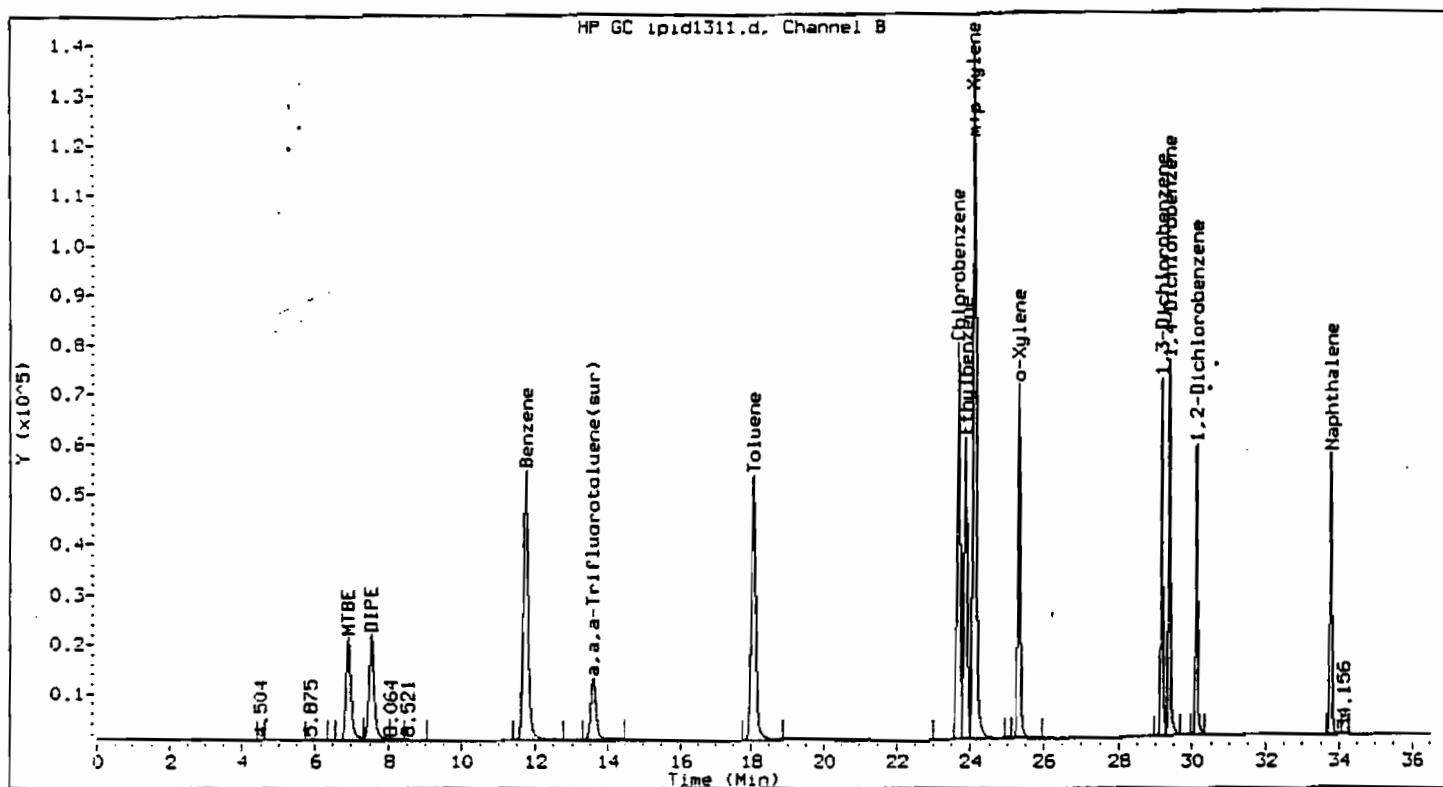
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.333	25.329	0.004	458250	9.891	9.891
m-p-Xylene	24.113	24.109	0.004	1070031	19.992	19.992
TBA	6.116	6.112	0.003	262610	941.828	941.828
MTBE	6.916	6.910	0.006	260880	9.919	9.919
DIPE	7.548	7.543	0.005	270421	9.857	9.857
Benzene	11.737	11.730	0.007	671377	10.036	10.036
Toluene	18.061	18.055	0.006	597730	9.928	9.928
Chlorobenzene	23.682	23.679	0.005	579892	9.985	9.985
Ethylbenzene	23.873	23.868	0.004	473488	10.050	10.050



Method : /chem/VOAGC3.i/602/06-27-01/27jun01.b/602_01.m
Sample Info : ISTD020
Lab ID : ISTD020
Inj Date : 27-JUN-2001 12:55
Operator : SP
Cpnd Sublist: all
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.329	25.329	0.000	908025	19.598	19.598
m+p-Xylene	24.109	24.109	0.000	2113636	39.490	39.490
TBA	6.113	6.113	0.000	531466	1898.825	1898.825
MTBE	6.910	6.910	0.000	523274	19.896	19.896
DIPE	7.543	7.543	0.000	550292	20.059	20.059
Benzene	11.730	11.730	0.000	1328564	19.859	19.859
Toluene	18.055	18.055	0.000	1193248	19.819	19.819
Chlorobenzene	23.679	23.679	0.000	1154426	19.878	19.878
Ethylbenzene	28.868	28.868	0.000	935160	19.849	19.849

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	3021661	59.102	59.102
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.161	29.161	0.000	693049	19.949	19.949
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.371	29.371	0.000	729036	19.567	19.567
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.113	30.113	0.000	566318	19.943	19.943
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.779	33.779	0.000	553763	20.244	20.244
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.599	13.599	0.000	698863	30.209	30.209
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC3.i/602/06-27-01/27jun01.b/602_01.m
Sample Info : ISTD040
Lab ID : ISTD040
Inj Date : 27-JUN-2001 13:36
Operator : SP
Cpnd Sublist: all
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_5

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.327	25.329	0.002	1794919	38.741	38.741
m+p-Xylene	24.107	24.109	0.002	4155130	77.632	77.632
MTBE	6.912	6.910	0.002	1010007	38.402	38.402
DIPE	7.542	7.543	0.000	1083217	39.486	39.486
Benzene	11.730	11.730	0.001	2612096	39.045	39.045
Toluene	18.053	18.055	0.002	2319121	38.519	38.519
Chlorobenzene	23.677	23.679	0.002	2246980	38.691	38.691
Ethylbenzene	23.866	23.868	0.002	1821093	38.653	38.653
Xylene (Total)	25.019	25.019	0.000	5950049	116.380	116.380

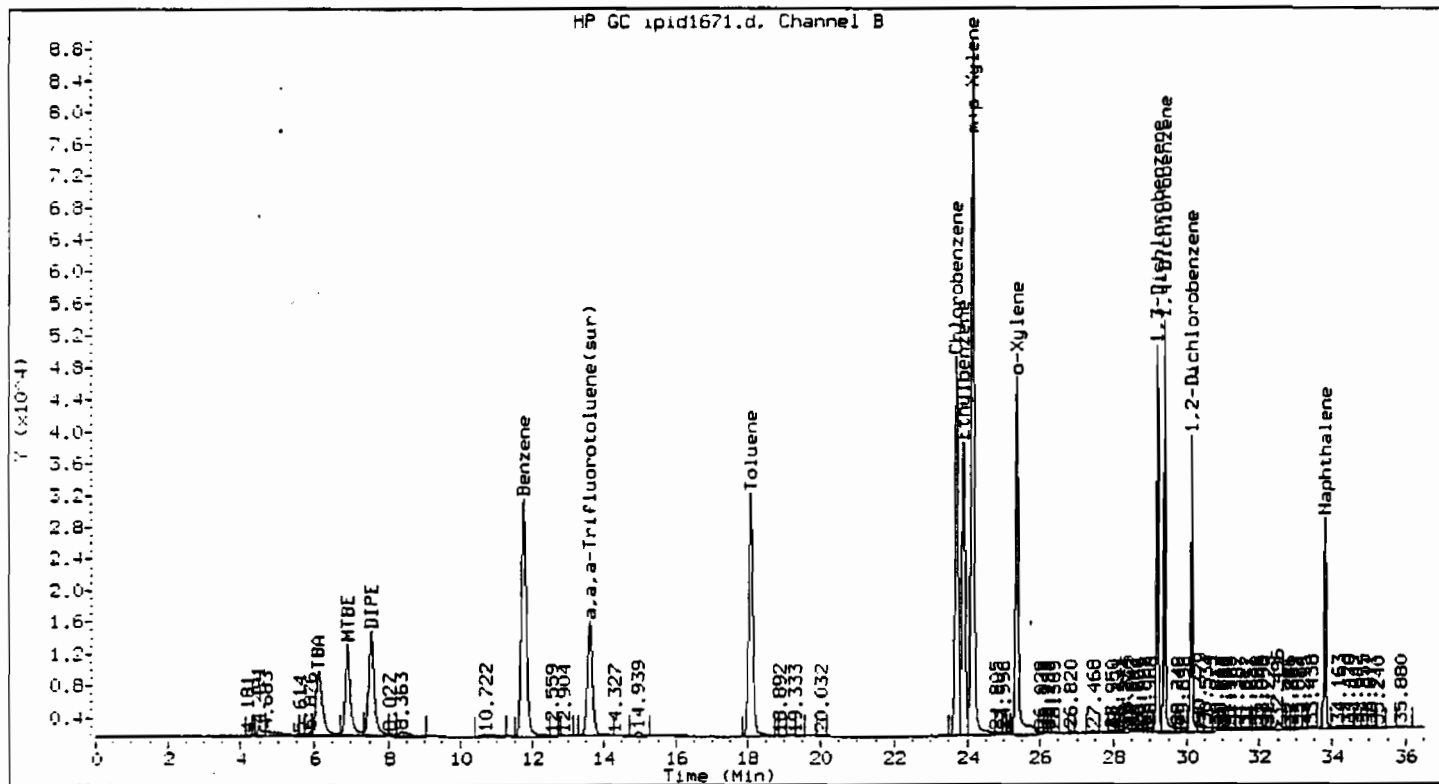
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
1,3-Dichlorobenzene	29.159	29.161	0.002	1373713	39.541	39.541
1,4-Dichlorobenzene	29.369	29.371	0.002	1445516	38.798	38.798
1,2-Dichlorobenzene	30.111	30.113	0.002	1131526	39.848	39.848
Naphthalene	33.777	33.779	0.002	1128474	41.254	41.254
a, a, a-Trifluorotoluene (sur)	13.597	13.599	0.001	684366	29.582	29.582

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC3 Calibration Date: 08/21/01 Time: 1005
 Lab File ID: IPID1671 Init. Calib. Date(s): 06/27/01 06/27/01
 Heated Purge: (Y/N) N Init. Calib. Times: 1055 1336

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
TBA **	286.94	276.61		3.6	40.0
MTBE	26416.10	30445.40		-15.2	40.0
DIPE	27476.46	35491.15		-29.2	40.0
Benzene	66898.94	73364.25		-9.7	23.0
Toluene	60206.42	67551.15		-12.2	22.5
Chlorobenzene	58340.79	67989.95		-16.5	19.5
Ethylbenzene	47262.33	54945.10		-16.2	37.0
Xylene (Total)	51633.14	64602.22		-25.1	40.0
1,3-Dichlorobenzene	38252.70	46035.20		-20.3	27.5
1,4-Dichlorobenzene	42805.33	49483.35		-15.6	30.5
1,2-Dichlorobenzene	34575.21	36254.70		-4.8	32.0
Naphthalene	31104.76	27207.90		12.5	40.0
=====	=====	=====	=====	=====	=====
a,a,a-Trifluorotoluene(sur)_	23134.64	25814.20		-11.6	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/06-27-01/21aug01.b/602_01.m
Sample Info : ISTD020
Lab ID : ISTD020
Inj Date : 21-AUG-2001 10:05
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.1
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.348	25.348	0.000	1287250	27.283	27.283
m,p-Xylene	24.132	24.132	0.000	2500083	48.068	48.068
TBA	6.108	6.108	0.000	553226	1928.015	1928.015
MTBE	6.904	6.904	0.000	608908	23.051	23.051
DIPE	7.538	7.538	0.000	709823	25.834	25.834
Benzene	11.735	11.735	0.000	1467285	21.933	21.933
Toluene	18.076	18.076	0.000	1351023	22.440	22.440
Chlorobenzene	23.701	23.701	0.000	1359799	23.308	23.308
Ethylbenzene	23.891	23.891	0.000	1098902	23.251	23.251

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	3876133	75.071	75.071
1,3-Dichlorobenzene	29.171	29.171	0.000	920704	24.069	24.069
1,4-Dichlorobenzene	29.381	29.381	0.000	989667	23.120	23.120
1,2-Dichlorobenzene	30.121	30.121	0.000	725094	20.971	20.971
Naphthalene	33.783	33.783	0.000	544158	17.494	17.494
a,a,a-Trifluorotoluene(sur)	13.613	13.613	0.000	774426	33.475	33.475
-----	-----	-----	-----	-----	-----	-----

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

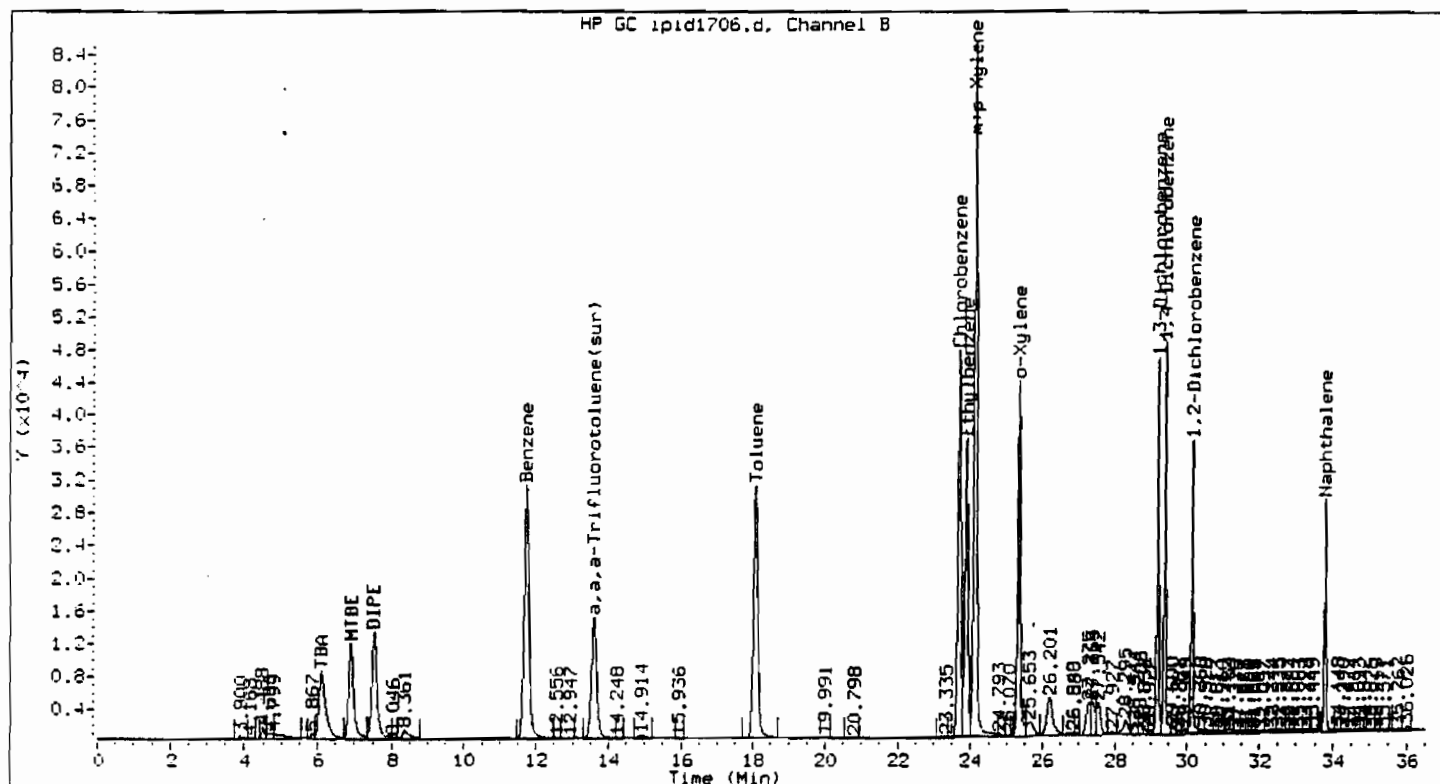
Instrument ID: VOAGC3 Calibration Date: 08/22/01 Time: 1114

Lab File ID: IPID1706 Init. Calib. Date(s): 06/27/01 06/27/01

Heated Purge: (Y/N) N Init. Calib. Times: 1055 1336

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
TBA **	286.94	280.71		2.2	40.0
MTBE	26416.10	29593.80		-12.0	40.0
DIPE	27476.46	33236.20		-21.0	40.0
Benzene	66898.94	74767.75		-11.8	23.0
Toluene	60206.42	67736.25		-12.5	22.5
Chlorobenzene	58340.79	67690.55		-16.0	19.5
Ethylbenzene	47262.33	54787.85		-15.9	37.0
Xylene (Total)	51633.14	61050.53		-18.2	40.0
1,3-Dichlorobenzene	38252.70	45086.00		-17.9	27.5
1,4-Dichlorobenzene	42805.33	45771.50		-6.9	30.5
1,2-Dichlorobenzene	34575.21	34920.45		-1.0	32.0
Naphthalene	31104.76	29239.65		6.0	40.0
=====	=====	=====	=====	=====	=====
a,a,a-Trifluorotoluene(sur)	23134.64	26844.43		-16.0	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/06-27-01/22aug01.b/602_01.m
Sample Info : ISTD020
Lab ID : ISTD020
Inj Date : 22-AUG-2001 11:14
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.331	25.331	0.000	1131731	23.987	23.987
m+p-Xylene	24.111	24.111	0.000	2531301	46.998	46.998
TBA	6.101	6.101	0.000	561417	1956.561	1956.561
MTBE	6.899	6.899	0.000	591876	22.406	22.406
DIPE	7.531	7.531	0.000	664724	24.192	24.192
Benzene	11.720	11.720	0.000	1495355	22.352	22.352
Toluene	18.054	18.054	0.000	1354725	22.501	22.501
Chlorobenzene	23.680	23.680	0.000	1353811	23.205	23.205
Ethylbenzene	23.870	23.870	0.000	1095757	23.185	23.185

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	3663032	70.943	70.943
1,3-Dichlorobenzene	29.158	29.158	0.000	901720	23.573	23.573
1,4-Dichlorobenzene	29.368	29.368	0.000	919430	21.386	21.386
1,2-Dichlorobenzene	30.109	30.109	0.000	698409	20.200	20.200
Naphthalene	33.771	33.771	0.000	584793	18.801	18.801
a,a,a-Trifluorotoluene(sur)	33.594	33.594	0.000	805333	34.811	34.811

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

Calibration Date(s): 08/24/01 08/24/01

Calibration Time(s): 1458 1739

LAB FILE ID:	RRF2: IPID1773	RRF5: IPID1772	RRF10: IPID1771		
	RRF20: IPID1770	RRF40: IPID1769			
COMPOUND	RRF2	RRF5	RRF10	RRF20	RRF40
TBA **	375	328	317	318	
MTBE	33066	32433	33180	32640	30320
DIPE	34634	34645	34985	35284	35823
Benzene	76448	74664	72936	73285	75119
Toluene	68646	66061	63769	64702	66490
Chlorobenzene	64220	64024	63604	65368	67547
Ethylbenzene	53107	52908	51517	52413	54337
Xylene (Total)	60231	58342	56780	58205	60359
1,3-Dichlorobenzene	45855	41715	41604	43584	45577
1,4-Dichlorobenzene	55612	47476	46066	46735	49054
1,2-Dichlorobenzene	40105	35726	34615	35692	37124
Naphthalene	37698	29748	29168	29550	27605
a,a,a-Trifluorotoluene(sur)	26990	27329	27814	28103	28841

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

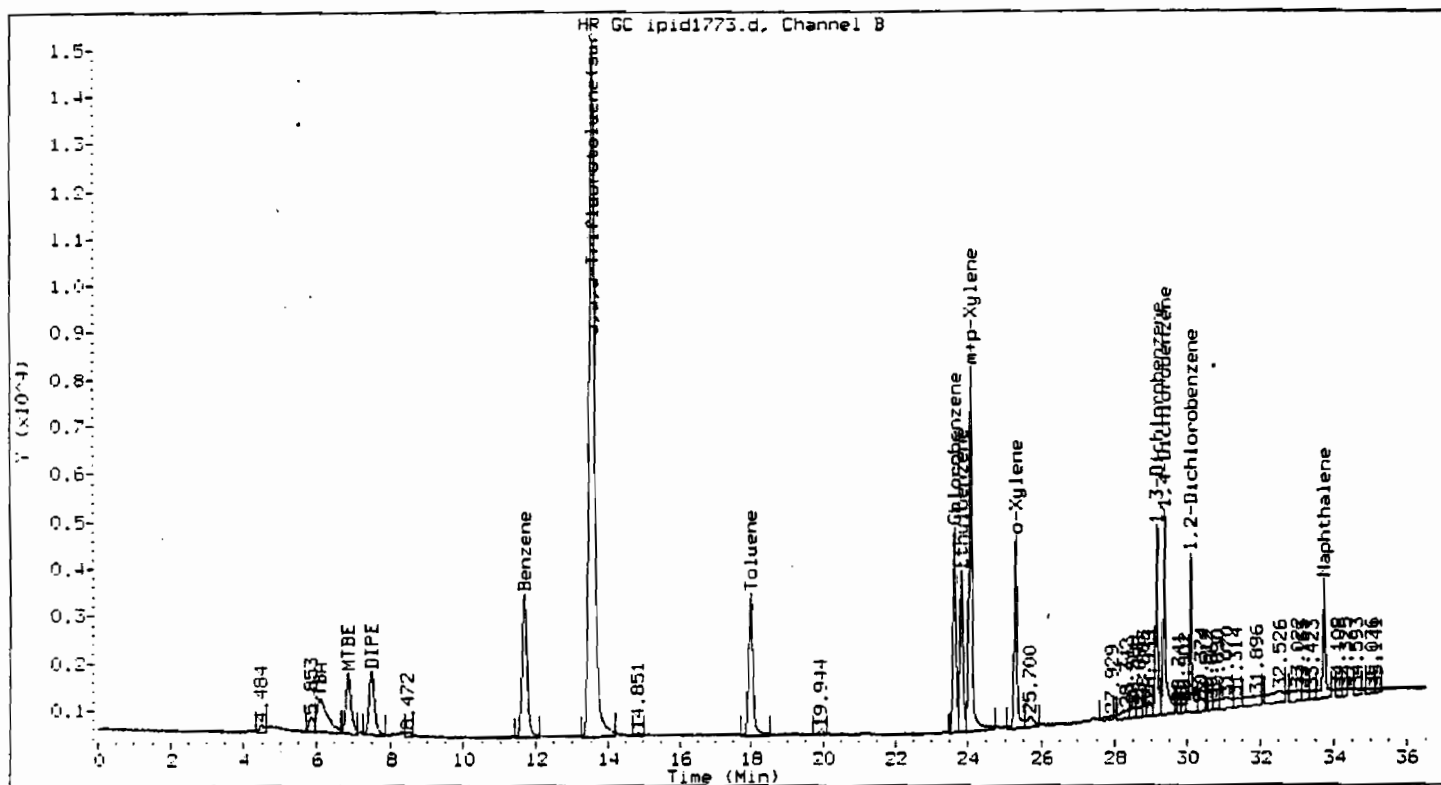
Calibration Date(s): 08/24/01 08/24/01

Calibration Time(s): 1458 1739

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
TBA **	AVRG	335	8.2*
MTBE	AVRG	32328	3.6*
DIPE	AVRG	35074	1.4*
Benzene	AVRG	74490	1.9*
Toluene	AVRG	65934	2.8*
Chlorobenzene	AVRG	64952	2.4*
Ethylbenzene	AVRG	52856	1.9*
Xylene (Total)	AVRG	58784	2.6*
1,3-Dichlorobenzene	AVRG	43667	4.6*
1,4-Dichlorobenzene	AVRG	48988	7.9*
1,2-Dichlorobenzene	AVRG	36652	5.8*
Naphthalene	AVRG	30754	13*
a,a,a-Trifluorotoluene (sur)	AVRG	27815	2.6*

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

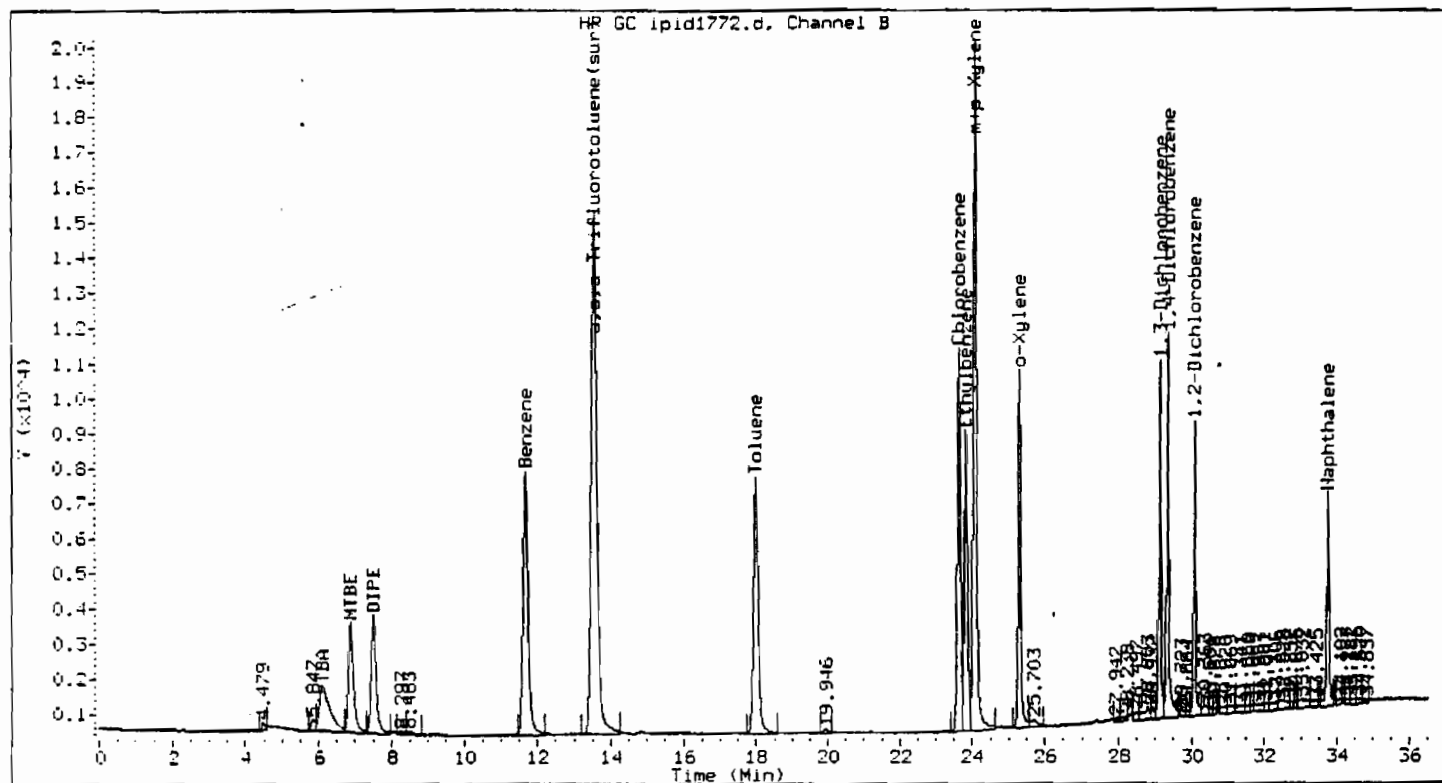
* Compounds with required maximum %RSD values.



Method : /chem/VOAGC3.i/602/08-24-01/24aug01.b/602_01.m
Sample Info : ISTD002
Lab ID : ISTD002
Inj Date : 24-AUG-2001 17:39
Operator : SP
Cpnd Sublist: all
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_1

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.286	25.292	0.005	114084	2.076	2.076
m+p-Xylene	24.061	24.067	0.006	247301	4.074	4.074
TBA	6.094	6.075	0.019	75040	224.227	224.227
MTBE	6.872	6.873	0.001	66131	2.046	2.046
DIPE	7.500	7.502	0.002	69267	1.975	1.975
Benzene	11.666	11.674	0.007	152896	2.053	2.053
Toluene	17.988	17.998	0.009	137293	2.082	2.082
Chlorobenzene	23.628	23.634	0.006	128441	1.977	1.977
Ethylbenzene	23.819	23.826	0.007	106214	2.009	2.009

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	361385	6.148	6.148
1,3-Dichlorobenzene	29.119	29.121	0.002	91710	2.100	2.100
1,4-Dichlorobenzene	29.330	29.330	0.001	111223	2.270	2.270
1,2-Dichlorobenzene	30.069	30.070	0.001	80210	2.188	2.188
Naphthalene	33.731	33.728	0.003	75396	2.452	2.452
a,a,a-Trifluorotoluene (sur)	13.536	13.544	0.008	809708	29.110	29.110
-----	-----	-----	-----	-----	-----	-----

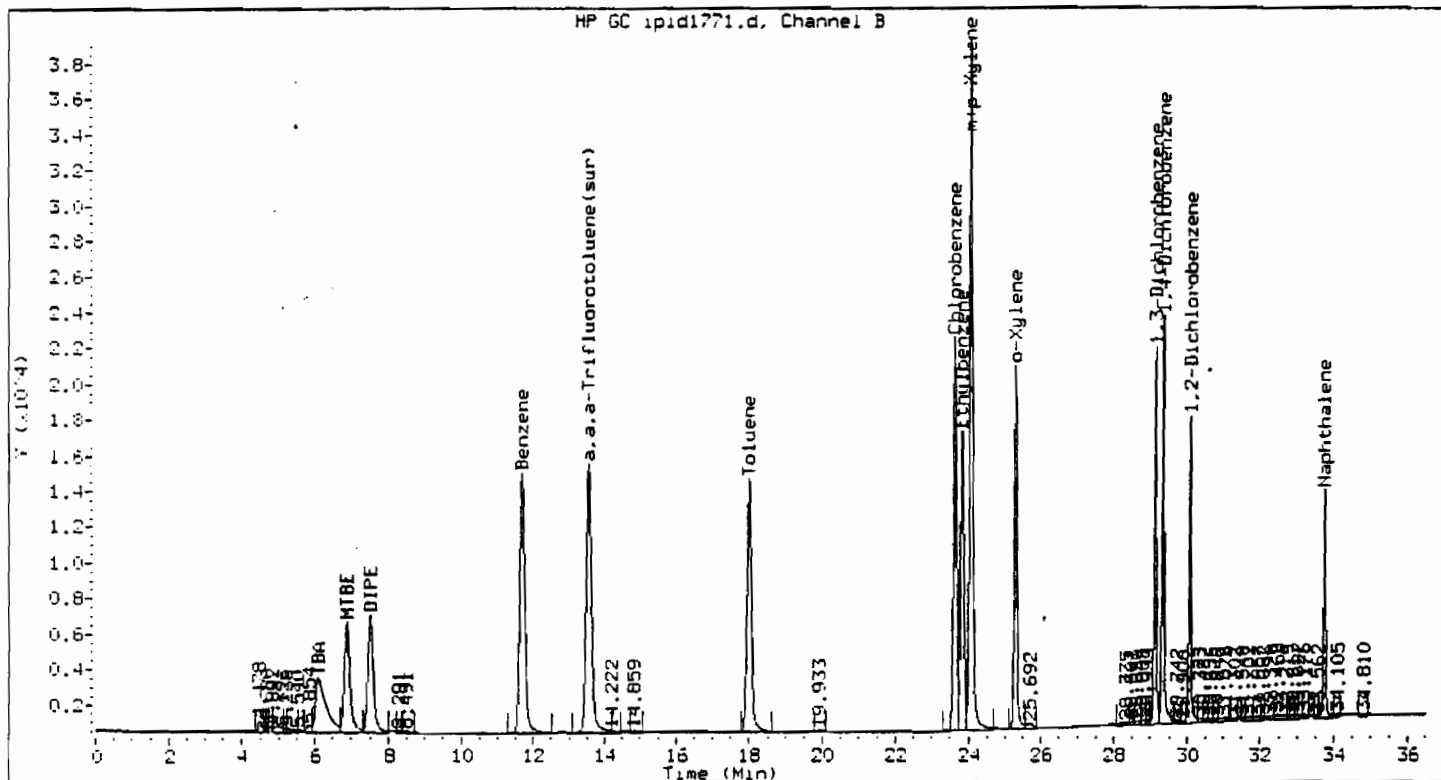


Method : /chem/VOAGC3.i/602/08-24-01/24aug01.b/602_01.m
Sample Info : ISTD005
Lab ID : ISTD005
Inj Date : 24-AUG-2001 16:59
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.1
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.286	25.292	0.006	271083	4.934	4.934
m+p-Xylene	24.061	24.067	0.007	604053	9.951	9.951
TBA	6.091	6.075	0.016	131190	392.009	392.009
MTBE	6.872	6.873	0.001	162163	5.016	5.016
DIPE	7.500	7.502	0.002	173224	4.939	4.939
Benzene	11.667	11.674	0.006	373322	5.012	5.012
Toluene	17.989	17.998	0.008	330303	5.010	5.010
Chlorobenzene	23.627	23.634	0.007	320118	4.928	4.928
Ethylbenzene	23.819	23.826	0.007	264541	5.005	5.005

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	875136	14.887	14.887
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.117	29.121	0.003	208575	4.776	4.776
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.328	29.330	0.003	237380	4.846	4.846
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.067	30.070	0.003	178630	4.874	4.874
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.728	33.728	0.001	148739	4.836	4.836
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.536	13.544	0.008	819876	29.476	29.476
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC3.i/602/08-24-01/24aug01.b/602_01.m

Sample Info : ISTD010

Lab ID : ISTD010

Inj Date : 24-AUG-2001 16:19

Operator : SP

Cpnd Sublist: all

Inst ID : VOAGC3.i

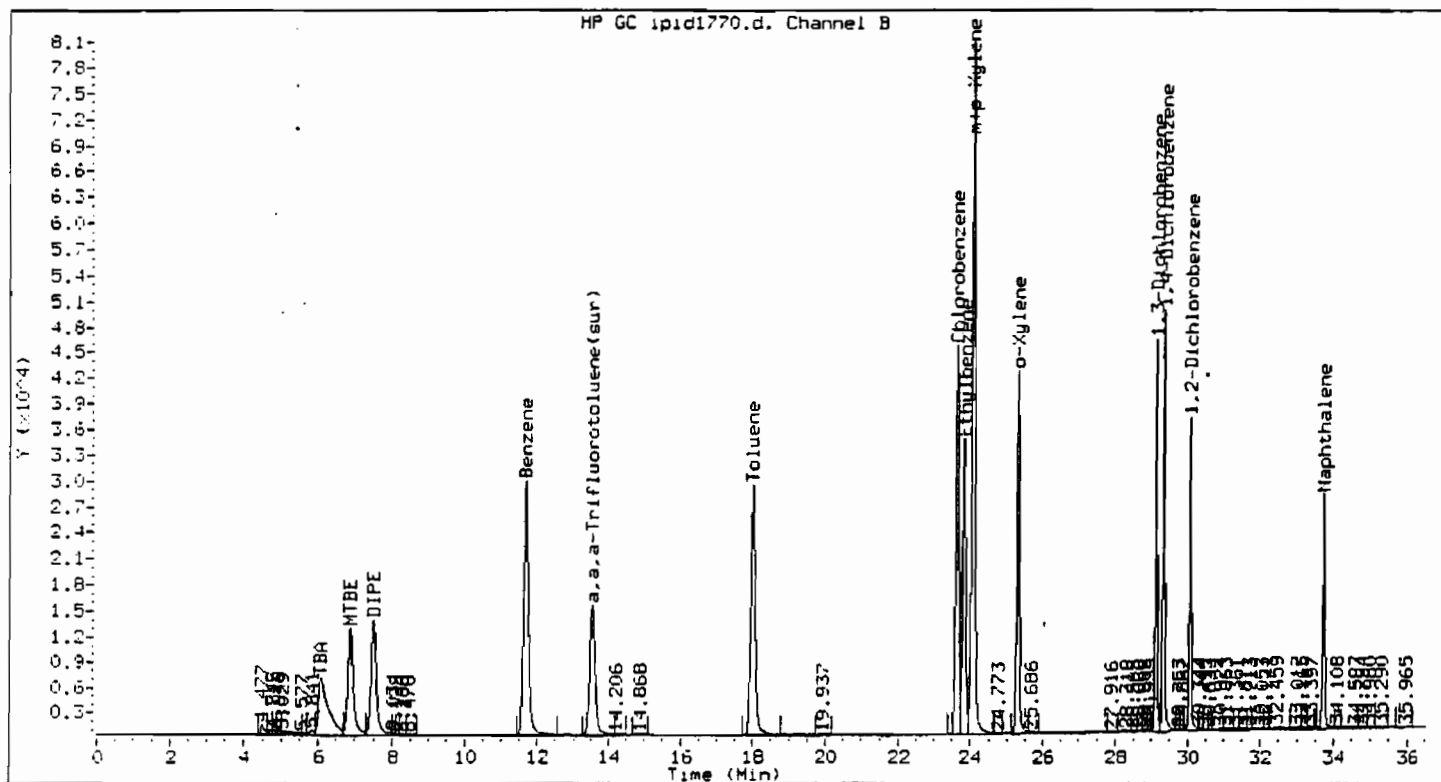
Dil Factor : 1

Sample Matrix : WATER

Sample Type: CALIB_3

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.288	25.292	0.003	529456	9.636	9.636
m,p-Xylene	24.064	24.067	0.003	1173944	19.339	19.339
TBA	6.086	6.075	0.011	317038	947.343	947.343
MTBE	6.873	6.873	0.000	331802	10.264	10.264
DIPE	7.502	7.502	0.000	349850	9.975	9.975
Benzene	11.671	11.674	0.003	729363	9.791	9.791
Toluene	17.993	17.998	0.005	637687	9.672	9.672
Chlorobenzene	23.630	23.634	0.004	636038	9.792	9.792
Ethylbenzene	23.822	23.826	0.005	515173	9.747	9.747

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	1703400	28.977	28.977
1,3-Dichlorobenzene	29.118	29.121	0.002	416043	9.528	9.528
1,4-Dichlorobenzene	29.328	29.330	0.002	460663	9.403	9.403
1,2-Dichlorobenzene	30.068	30.070	0.002	346154	9.444	9.444
Naphthalene	33.727	33.728	0.001	291677	9.484	9.484
a, a, a-Trifluorotoluene (sur)	13.540	13.544	0.004	834422	29.998	29.998



Method : /chem/VOAGC3.i/602/08-24-01/24aug01.b/602_01.m

Sample Info : ISTD020

Lab ID : ISTD020

Inj Date : 24-AUG-2001 15:39

Operator : SP

Cpnd Sublist: all

Inst ID : VOAGC3.i

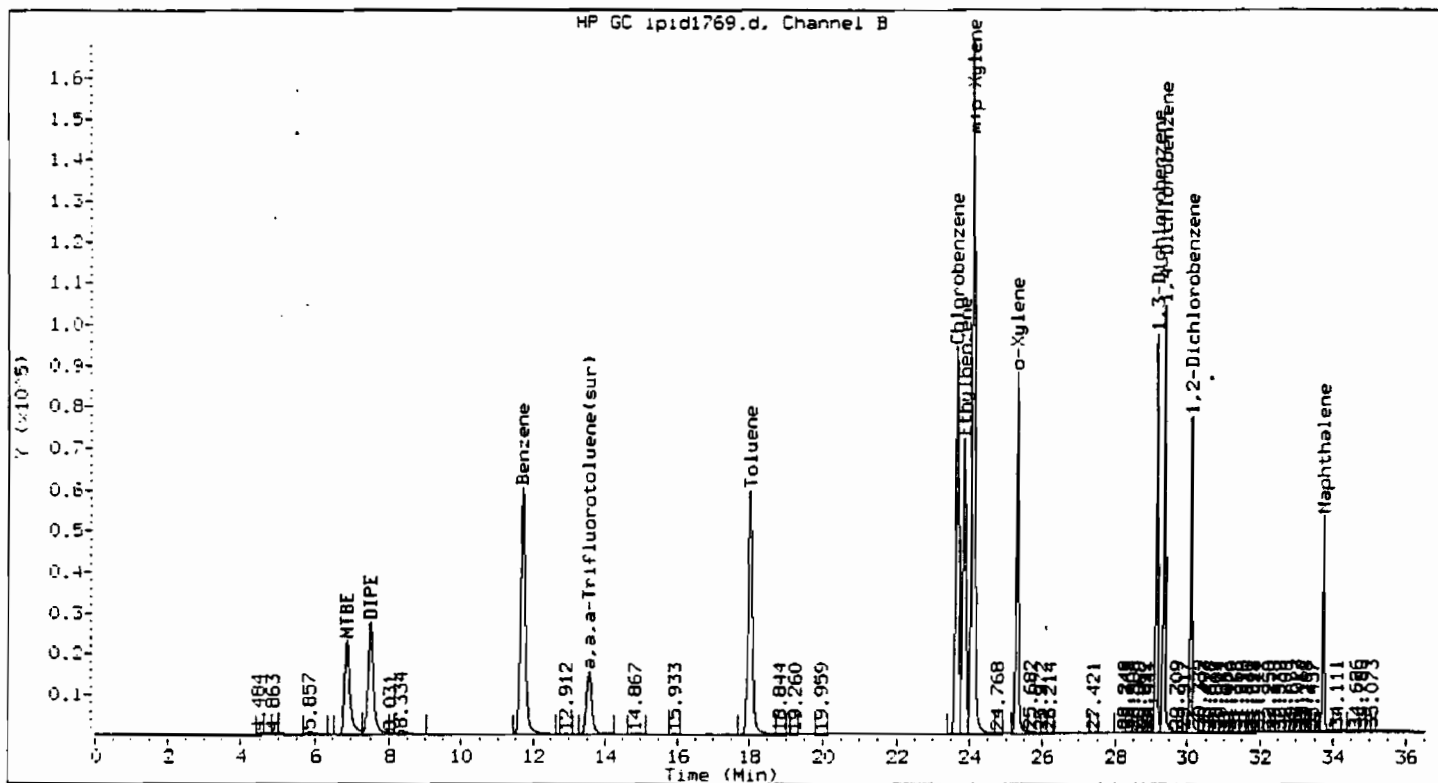
Dil Factor : 1

Sample Matrix : WATER

Sample Type: CALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.292	25.292	0.000	1085802	19.762	19.762
m,p-Xylene	24.067	24.067	0.000	2406496	39.643	39.643
TBA	6.075	6.075	0.000	636857	1902.995	1902.995
MTBE	6.873	6.873	0.000	652809	20.193	20.193
DIPS	7.502	7.502	0.000	705683	20.120	20.120
Benzene	11.674	11.674	0.000	1465698	19.676	19.676
Toluene	17.998	17.998	0.000	1294046	19.627	19.627
Chlorobenzene	23.634	23.634	0.000	1307356	20.128	20.128
Ethylbenzene	23.826	23.826	0.000	1048266	19.832	19.832

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	3492298	59.409	59.409
1,3-Dichlorobenzene	29.121	29.121	0.000	871675	19.962	19.962
1,4-Dichlorobenzene	29.330	29.330	0.000	934701	19.080	19.080
1,2-Dichlorobenzene	30.070	30.070	0.000	713832	19.476	19.476
Naphthalene	33.728	33.728	0.000	590998	19.217	19.217
a,a,a-Trifluorotoluene(sur)	13.544	13.544	0.000	843098	30.310	30.310
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC3.i/602/08-24-01/24aug01.b/602_01.m
Sample Info : ISTD040
Lab ID : ISTD040
Inj Date : 24-AUG-2001 14:58
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_5

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.301	25.292	0.010	2248951	40.932	40.932
m,p-Xylene	24.080	24.067	0.013	4994171	82.272	82.272
MTBE	6.879	6.873	0.007	1212803	37.516	37.516
DIPE	7.504	7.502	0.002	1432914	40.854	40.854
Benzene	11.681	11.674	0.008	3004749	40.337	40.337
Toluene	18.012	17.998	0.014	2659586	40.337	40.337
Chlorobenzene	23.646	23.634	0.012	2701881	41.598	41.598
Ethylbenzene	23.838	23.826	0.012	2173486	41.120	41.120
Xylene (Total)	25.019	25.019	0.000	7243122	123.217	123.217

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.127	29.121	0.006	1823072	41.749	41.749
1,4-Dichlorobenzene	29.337	29.330	0.006	1962162	40.053	40.053
1,2-Dichlorobenzene	30.076	30.070	0.006	1484969	40.515	40.515
Naphthalene	33.732	33.728	0.005	1104192	35.904	35.904
a,a,a-Trifluorotoluene(sur)	13.554	13.544	0.011	865219	31.106	31.106
-----	-----	-----	-----	-----	-----	-----

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC3

Calibration Date: 08/26/01 Time: 1026

Lab File ID: IPID1775

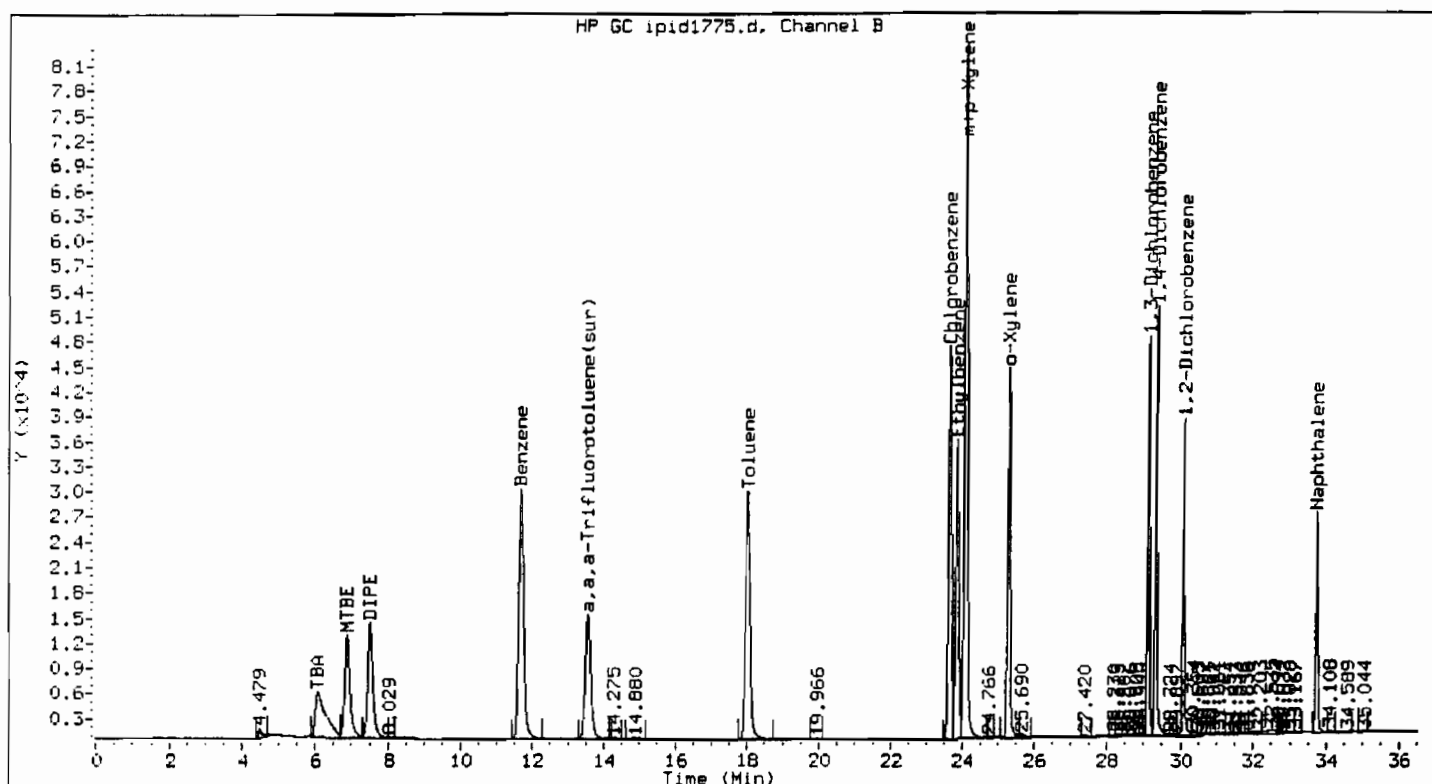
Init. Calib. Date(s): 08/24/01 08/24/01

Heated Purge: (Y/N) N

Init. Calib. Times: 1458 1739

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
TBA **	334.66	273.02		18.4	40.0
MTBE	32327.77	32050.15		0.8	40.0
DIPE	35074.06	35978.15		-2.6	40.0
Benzene	74490.46	74248.05		0.3	23.0
Toluene	65933.55	65811.40		0.2	22.5
Chlorobenzene	64952.54	67270.80		-3.6	19.5
Ethylbenzene	52856.59	53763.90		-1.7	37.0
Xylene (Total)	58783.51	59801.22		-1.7	40.0
1,3-Dichlorobenzene	43666.97	45393.25		-4.0	27.5
1,4-Dichlorobenzene	48988.58	48943.10		0.1	30.5
1,2-Dichlorobenzene	36652.44	36787.80		-0.4	32.0
Naphthalene	30753.64	28187.20		8.3	40.0
=====	=====	=====	=====	=====	=====
a,a,a-Trifluorotoluene(sur)	27815.49	27331.33		1.7	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/08-24-01/26aug01.b/602_01.m
Sample Info : ISTD020
Lab ID : ISTD020
Inj Date : 26-AUG-2001 10:26
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.297	25.297	0.000	1127476	20.521	20.521
m+p-Xylene	24.074	24.074	0.000	2460597	40.535	40.535
TBA	6.078	6.078	0.000	546045	1631.639	1631.639
MTBE	6.877	6.877	0.000	641003	19.828	19.828
DIPE	7.505	7.505	0.000	719563	20.516	20.516
Benzene	11.680	11.680	0.000	1484961	19.935	19.935
Toluene	18.006	18.006	0.000	1316228	19.963	19.963
Chlorobenzene	23.641	23.641	0.000	1345416	20.714	20.714
Ethylbenzene	23.833	23.833	0.000	1075278	20.343	20.343

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
Xylene (Total)	25.019	25.019	0.000	3588073	61.039	61.039
1,3-Dichlorobenzene	29.124	29.124	0.000	907865	20.791	20.791
1,4-Dichlorobenzene	29.334	29.334	0.000	978862	19.981	19.981
1,2-Dichlorobenzene	30.073	30.073	0.000	735756	20.074	20.074
Naphthalene	33.731	33.731	0.000	563744	18.331	18.331
a,a,a-Trifluorotoluene (sur)	13.552	13.552	0.000	819940	29.478	29.478

Surrogate Compound Recovery Summary

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER

Level: LOW

Lab Job No: N817

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
	=====	=====	=====	=====	=====
01	IG233A	113			0
02	295127	120			0
03	IG234	112			0
04	295128	114			0
05	295130	112			0
06	295130MS	118			0
07	295130MSD	114			0
08	295143	115			0
09	295126	115			0
10	IG238	94			0
11	295129	108			0
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

QC LIMITS

SMC1 = a,a,a-Trifluorotoluene (68-134)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Spike Recovery Summary

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Matrix Spike - Lab Sample No.: 295130

Level: LOW

MS Sample from Lab Job No: N817

QA Batch: 7244

Compound	MS % REC.	BS % REC.	LIMITS
=====	=====	=====	=====
Benzene	113	110	39-150
Toluene	112	105	46-148
Chlorobenzene	112	110	55-135
Ethylbenzene	110	105	32-160
1,3-Dichlorobenzene	108	105	50-141
1,4-Dichlorobenzene	104	100	42-143
1,2-Dichlorobenzene	98	95	37-154

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS: _____

This is the Last Page of the Document

**New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 2**

47-40 21ST Street, Long Island City, NY 11101-5407

Phone: (718) 482-4995 • **FAX:** (718) 482-6358

Website: www.dec.state.ny.us



Erin M. Crotty
Commissioner

October 26, 2001

Mr. Howard Fredericks
EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801

Re: Spill # 97-05856
Petrocelli Electric Inc.
Long Island City

Dear Mr. Fredericks:

I have reviewed your report dated September 2001 sent to Mr. Randall Austin of the Department of Environmental Conservation regarding the above mentioned site.

Based on the information supplied and the analytical data in the report I have determined that continuation of the SVE/AS system for a minimum of two (2) additional semi-annual sampling rounds is recommended. The MTBE levels reported in the August 2001 sampling event and the BTEX/MTBE found in the new MW-7 warrant continuation of the active remediation.

Your proposal to implement a monitored natural attenuation program at the conclusion of the active remedial process may be an appropriate next step. It is recommended that you contact the Mr. Randall Austin, Region 2 Spill Engineer, to develop a Monitored Natural Attenuation Work Plan for Department approval that can be implemented at the conclusion of the active remedial phase.

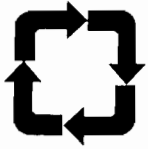
Finally, submittal of ground water quality progress reports must continue until otherwise directed by the Department.

If you have any questions, please call Mr. Randall Austin at 718-482-4929.

Sincerely,

Michael J. Hinton P.E.
Environmental Engineer II
Region 2

cc: Mr. Randall Austin, Regional Spill Engineer, Region 2



EnSolutions, Inc.

66 Elm Street • Dover, NJ 07801 • Telephone 973-442-1320 • Fax 973-361-3204

March 29, 2002

Mr. Mark Tibbe and Mr. Randall Austin
New York State Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101-5407

RE: Progress Report
Petrocelli Electric Company Inc. Facility
22-09 Queens Bridge Plaza North
Long Island City, NY
Spill # ~~97-058567~~
97-05856


Dear Mr. Tibbe and Mr. Austin:

On behalf of Petrocelli Electric Company Inc. (Petrocelli), enclosed is the progress report for the remedial action at the above referenced facility prepared by EnSolutions, Inc. The purpose of this report is to provide the NYSDEC with the following information:

1. The analytical ground water sampling results performed in December 2001 and February 2002 at the site.
2. Trends for the constituents of concern per monitoring well.
3. Conclusions
4. Action Items

Thank you for all your assistance in this matter and if you require any additional information please do not hesitate to call us at (973) 442-1320.

Sincerely,
EnSolutions, Inc.


R. L. Lynch, P. E.
President

cc: Michael Melia – Petrocelli Electric Co., Inc.

**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

**Prepared for:
PETROCELLI ELECTRIC COMPANY, INC.**

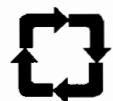
Prepared by:

Robert Larry Lynch, P.E.

**EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801
(973) 442-1320**

MARCH 2002

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

TABLE OF CONTENTS

SECTION I

- A. Introduction
- B. Area/Site Characterization
- C. Ground Water
- D. SVE/AS Remedial System
- E. SVE / AS System Operation

SECTION II

- A. Ground Water Sampling – December 2001
- B. Ground Water Sampling – February 2002

SECTION III

- A. Ground Water Analytical Results – December 2001
- B. Ground Water Analytical Results – February 2002

SECTION IV

- A. Trends of Constituents of Concern per Monitoring Well
- B. Conclusions
- C. Action Items

SECTION V

FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Plan

TABLES

- Table 1 December 2001 Analytical Results Summary
- Table 2 February 2002 Analytical Results Summary
- Table 3 Historical Ground Water Sampling Results



TRENDS

MW-1 and Historical Results Table

MW-2 and Historical Results Table

MW-3 and Historical Results Table

MW-4 and Historical Results Table

MW-5 and Historical Results Table

MW-6 and Historical Results Table

MW-7 and Historical Results Table

ATTACHMENTS

Attachment 1 Laboratory QA/QC Data – December 2001

Attachment 2 Laboratory QA/AC Data – February 2002

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION I

A. INTRODUCTION

On behalf of Petrocelli Electric Company Inc. (Petrocelli), EnSolutions, Inc. (EnSolutions) has prepared this Progress Report for the remedial actions implemented at the Petrocelli facility at 22-09 Queens Bridge Plaza North, Long Island City, New York.

This Progress Report is part of the approved Corrective Action Plan implemented at the site as a result of a petroleum hydrocarbon release that occurred under the prior property owner.

B. AREA / SITE CHARACTERIZATION

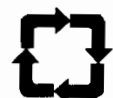
The site, the administrative and maintenance facilities for the Petrocelli Electric Company Inc., is located at 22-09 Queens Plaza North, between 22nd and 23rd Streets, Long Island City, Queens County, New York. The area surrounding the site is primarily commercial, with some residential units up-gradient of the site, east on 23rd Street. A site location map is included as Figure 1 in Section V and a site plan illustrating all site features is included as Figure 2 in Section V.

The water source at the subject property and at all surrounding properties is currently from the public water supply. The East River is the nearest surface water to the site and is located approximately 3,000 feet to the west of the facility.

C. GROUND WATER

As a result of the soil delineation and ground water sampling and analyses performed at the subject property, six (6) ground water monitoring wells were installed on the subject property in May 1998. The six ground water monitoring wells were installed as both soil vapor extraction points and as ground water monitoring points in order to address and monitor the ground water contamination at the subject property. The six monitoring wells are labeled as MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6 and are shown in the site plan, Figure 2 in Section V.

EnSolutions, Inc.



In addition, as part of the ground water investigation and as specified by the NYSDEC, one (1) additional ground water monitoring well was installed in the sidewalk of 22nd Street to confirm ground water direction and the extent of the ground water contamination at the site. This monitoring well was designated at MW-7 and is shown in Figure 2 in Section V.

The direction of ground water flow is predicted to be toward the west, in the direction of the East River.

D. SVE/AS REMEDIAL SYSTEM

Based on the site investigation activities implemented at the site and reported to the NYSDEC, which included the soil analytical data, ground water laboratory analytical data and a Corrective Action Plan, an approved Stipulation Agreement between Petrocelli and the NYSDEC, including an approved air permit, was issued for the site.

As part of the Correction Action Plan, a Soil Vapor Extraction / Air Sparging (SVE/AS) Remedial System was approved and is in operation to address the petroleum hydrocarbon contamination at the site.

The SVE was connected to six extraction points, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6, to address the levels of contaminants at the site. The SVE component of the remedial system induced airflow in the subsurface using an above ground vacuum pump system. The induced airflow brings clean air in contact with the contaminated soil. The contaminated soil vapors drawn off by the SVE allows the soil matrix to re-establish the soil / pore moisture partitioning with the contaminants present.

The SVE installed utilized a positive displacement vacuum pump that utilizes an electronic variable speed drive. The drive receives its speed command from a Programmable Logic Controller (PLC), which permits the monitoring of all control parameters, such as pump speed and vacuum level and also provides for the modification of system parameters.

The air sparging component of the remedial system provided oxygen to stimulate biological activity in the subsurface. The air sparging system was design to provide sufficient oxygen to stimulate bioactivity, while minimizing the mobilization of dissolved hydrocarbons. To maintain a closed loop circulation of air injected into the ground water, the air sparging points, SP-1, SP-2, SP-3 and SP-4, were located within 30 feet of the vapor extraction points, well within the zone of influence for the SVE system and configured with a gate valve to control flow to each individual sparge point in order to optimize air sparging.

EnSolutions, Inc.



E. SVE / AS SYSTEM OPERATION

Based upon the Stipulation Agreement between the NYSDEC and Petrocelli, the SVE segment of the remedial system has been in operation since December 1998. As part of the SVE operation, a zone of influence test to evaluate the SVE system was performed during the first quarter of 1999 to determine the effectiveness of the remedial system at the subject site. Utilizing the data obtained from the zone of influence test, the pneumatic zone of influence that displays capture of the vadose zone was established for this site.

The air sparging segment of the remedial system has been in operation to enhance the remedial efforts on the site since May 6, 1999.

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION II

2.1 GROUND WATER SAMPLING – DECEMBER 17, 2001

On December 17, 2001, Terra Nova Associates, under the supervision of EnSolutions, conducted the ground water sampling of the six ground water monitoring wells at the site. All sampling was conducted in accordance with the standard field sampling practices of the NYSDEC and the USEPA.

Water levels and total depths were measured with a slope indicator electronic water level meter, Model 501, to the nearest 0.01-foot as measured from the top of the inner casing mark or adjacent to the lock, if no mark was present. The water level meter line was wiped with a DI water soaked paper towel as it was retracted from the well. The probe was then rinsed with DI water and paper towel dried. The well depth, depth to water, well diameter and purge water calculations were noted in the field log, and the well calculations to determine one standing column were based on the following:

Casing diameter – 4 inches

Gallons/Linear Foot – 0.652

The wells were evacuated with a whale pump. All sampling tubing in the wells was dedicated polyethylene drinking water grade tubing with dedicated Brady foot valves.

Field parameters were monitored before purging and after each casing volume. When three consecutive measurements of all parameters agreed within 10%, or if the well went dry, or 5 volumes was reached, sampling began.

Prior to sampling, a depth to water measurement was taken. If there was sufficient volume in the well, sampling proceeded. If volume was not sufficient, the well was allowed to recover.

All wells were sampled with a laboratory cleaned dedicated Teflon bailer, constructed entirely of Teflon. The field meters used for ground water measurements included the YSI 3500, which was used for temperature, pH and specific conductivity.

Ground water monitoring well MW-5 was not accessible and could not be sampled. No other problems were encountered in the field with the sampling of all other monitoring wells. Immediately after the sample collection, the pre-labeled sample bottles were

EnSolutions, Inc.



placed in a cooler at 4 degrees C and transported on ice to STL Laboratories of Edison, NJ for analyses, accompanied by a chain of custody form, in accordance with the quality control standards. All samples, including field and trip blanks, were analyzed for BTEX and MTBE.

A summary of the field sampling parameters is as follow:

Sample Point	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
Total Depth	15.10	14.90	16.60	14.50	12.00	15.00	15.00
Depth To Water	11.00	10.06	10.40	10.10	-	10.69	10.60
Height To Water Col. (Ft.)	4.1	4.84	6.2	4.4	-	4.3	3.7
One Casing Vol.(Gal)	0.6	3.2	1.0	0.7	-	2.8	0.6
Three Casing Vol. (Gal)	1.8	9.5	3.0	2.2	-	8.4	1.8
Actual Volume Purged (Gal)	2.0	10.0	3.0	3.0	-	9.0	2.0
Date Sampled	12/17/01	12/17/01	12/17/01	12/17/01	NS	12/17/01	12/17/0
Time Sampled	0815	0845	0830	0840	-	0900	0825
Field Parameters							
Ph	6.76	6.67	6.58	6.58	-	6.69	7.20
SCOND um/cm	903	960	906	918	-	1606	1195
Temp C	17.1	16.6	17.3	17.8	-	17.7	14.9
Dissolved Oxygen (Ppm)	0.92	1.35	1.25	0.64	-	0.88	0.80
Appearance	cloudy	cloudy	cloudy	cloudy	-	clear	turbid
Odor	odor	odor	no odor	odor	-	odor	odor
Purge Method	PP	PP	WP	PP	-	PP	PP
Sample Method	BT	BT	BT	BT	-	BT	BT

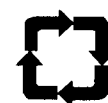
BT - BAILER TEFLON WP - WHALE PUMP PP- PERISTALTIC PUMP

2.2 GROUND WATER SAMPLING – FEBRUARY 25, 2002

On February 25, 2002, Terra Nova Associates, under the supervision of EnSolutions, conducted the ground water sampling of the six ground water monitoring wells at the site. All sampling was conducted in accordance with the standard field sampling practices of the NYSDEC and the USEPA.

Water levels and total depths were measured with a slope indicator electronic water level meter, Model 501, to the nearest 0.01-foot as measured from the top of the inner casing mark or adjacent to the lock, if no mark was present. The water level meter line was wiped with a DI water soaked paper towel as it was retracted from the well. The probe was then rinsed with DI water and paper towel dried. The well depth, depth to water, well diameter and purge water calculations were noted in the field log, and the well calculations to determine one standing column were based on the following:

EnSolutions, Inc.



Casing diameter – 4 inches

Gallons/Linear Foot – 0.652

The wells were evacuated with a whale pump. All sampling tubing in the wells was dedicated polyethylene drinking water grade tubing with dedicated Brady foot valves.

Field parameters were monitored before purging and after each casing volume. When three consecutive measurements of all parameters agreed within 10%, or if the well went dry, or 5 volumes was reached, sampling began.

Prior to sampling, a depth to water measurement was taken. If there was sufficient volume in the well, sampling proceeded. If volume was not sufficient, the well was allowed to recover.

All wells were sampled with a laboratory cleaned dedicated Teflon bailer, constructed entirely of Teflon. The field meters used for ground water measurements included the YSI 3500, which was used for temperature, pH and specific conductivity.

Ground water monitoring well MW-3 was not accessible due to a parked automobile and could not be sampled. No other problems were encountered in the field with the sampling of all other monitoring wells. Immediately after the sample collection, the pre-labeled sample bottles were placed in a cooler at 4 degrees C and transported on ice to STL Laboratories of Edison, NJ for analyses, accompanied by a chain of custody form, in accordance with the quality control standards. All samples, including field and trip blanks, were analyzed for Stars VO by 8021 and MTBE.

A summary of the field sampling parameters is as follow:

Sample Point	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
Total Depth	15.10	14.90	16.60	14.50	12.00	15.00	15.00
Depth To Water	10.64	9.78	-	10.09	9.80	10.39	10.37
Height To Water Col. (Ft.)	4.5	5.1	-	4.4	2.2	4.6	3.9
One Casing Vol.(Gal)	2.9	3.3	-	2.8	1.4	3.0	0.7
Three Casing Vol. (Gal)	8.7	10.0	-	8.6	4.3	9.0	2.0
Actual Volume Purged (Gal)	9.0	10.0	-	9.0	2.5*	9.0	1.0*
Date Sampled	2/25/02	2/25/02	NS	2/25/02	2/25/02	2/25/02	2/25/02
Time Sampled	0925	0905	-	0915	1000	0950	0940
Field Parameters							
Ph	7.00	6.77	-	6.71	6.72	6.90	7.41
SCOND um/cm	1101	929	-	1366	1282	1820	1616
Temp C	13.9	14.3	-	12.9	13.0	14.5	13.5
Dissolved Oxygen (Ppm)	1.22	2.47	-	1.66	2.42	1.06	0.29
Appearance	cloudy	cloudy	-	clear	cloudy	clear	turbid
Odor	odor	odor	-	odor	no odor	odor	odor
Purge Method	PP	PP	-	PP	PP	PP	PP
Sample Method	BT	BT	-	BT	BT	BT	BT

BT - BAILER TEFLON WP - WHALE PUMP PP- PERISTALTIC PUMP

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION III

3.1 GROUND WATER ANALYTICAL RESULTS – DECEMBER 17, 2001

The laboratory results of the BTEX and MTBE analyses for the seven ground water samples obtained indicated:

1. Levels of benzene have declined significantly from the initial notice during closure activities and now appear to be at asymptotic levels with results ranging from a high of 4.3 ppb to 1.9 ppb.
2. Levels of MTBE have declined and now exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-1 at 53 ppb, MW-3 at 250 ppb, MW-6 at 100 ppb and MW-7 at 57 ppb.
3. No other constituents of concern exceed any the NYSDEC ground water quality standards or guidance values for ground water in any of the other monitor wells at the site or the additional ground water monitoring well in the sidewalk in 22nd Street.

The analytical results summary are shown in Table 1 in Section V:

A summary table of the historical analytical results, including the December 2001 results, is shown in Table 3 in Section V.

The laboratory QA/QC for the ground water analyses is included as Attachment 1 in Section V.

3.2 GROUND WATER ANALYTICAL RESULTS – FEBRUARY 25, 2002

The laboratory results of the STARS VO and MTBE analyses for the seven ground water samples obtained indicated:

1. Levels of benzene continue to reflect asymptotic levels with results ranging from a high of 6.0 ppb in MW-4 to 2.0 ppb in MW-6. All other wells were non detect for Benzene.

EnSolutions, Inc.



2. Levels of MTBE have declined and now exceed the NYSDEC ground water quality standards or guidance values for ground water in MW-1 at 59 ppb, MW-2 at 330 ppb, MW-4 at 10 ppb, MW-6 at 74 ppb and MW-7 at 36 ppb.
3. No other constituents of concern exceed any the NYSDEC ground water quality standards or guidance values for ground water in any of the other monitor wells at the site or the additional ground water monitoring well in the sidewalk in 22nd Street.

The analytical results summary are shown in Table 2 in Section V:

A summary table of the historical analytical results, including the February 2002 results, is shown in Table 3 in Section V.

The laboratory QA/QC for the ground water analyses is included as Attachment 2 in Section V.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION IV

A. TRENDS OF CONSTITUENTS OF CONCERN PER MONITORING WELL

The ground water monitoring well results from the December 17, 2001 and February 25, 2002 sampling continue to show low levels of all potential constituents of concern at the subject property. These low levels of contaminants, including the results from the most recently installed off site MW-7, down gradient of the subject property, indicates the active remedial efforts at the subject site have reached the asymptotic levels and further operation of an active remedial system at this site is not warranted.

The attainment of the asymptotic levels at the subject site can be visualized by the graphical representation of the trends of all constituents of concern in each monitoring well, MW-1 through MW-6, on the subject property and the off-site, MW-7. The graphical representations, followed by a historical ground water monitoring results table, are included in Trends in Section V.

B. CONCLUSIONS

The closure information, the remedial investigation analytical results from the ground water sampling of December 17, 2001 and February 25, 2002, the low levels of contaminants in all monitoring wells associated with the site, and the graphical trends indicates the active remedial efforts at the subject site have reached the asymptotic levels and further operation of an active remedial system at this site is not warranted.

This is based upon the following:

- Levels of benzene have declined in:
 - MW-1 from an historical high of 156 ppb in August 1998 to Non Detect in February 2002;
 - MW-2 from an historic high of 93.3 ppb in August 1998 to Non Detect in February 2002;
 - MW-3 from an historic high of 45.2 ppb in August 1998 to Non Detect in December 2001;
 - MW-4 from an historic high of 77 ppb in August 1998 to 6 ppb in February 2002;
 - MW-5 remains at Non Detect;
 - MW-6 from an historic high of 264 ppb in August 1998 to 2 ppb in February 2002;

EnSolutions, Inc.



MW-7 from an historic high of 30 ppb in August 2001 to Non Detect in February 2002.

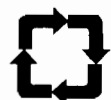
- Levels of MTBE have declined in:
 - MW-1 from an historical high of 2070 ppb in August 1998 to 59 ppb in February 2002;
 - MW-2 from an historic high of 2500 ppb in October 1999 to 330 ppb in February 2002;
 - MW-4 from an historic high of 460 ppb in October 1999 to 10 ppb in February 2002;
 - MW-5 from an historic high of 1600 ppb in August 1998 to 1.5 ppb in February 2002;
 - MW-6 from an historic high of 460 ppb in October 1999 to 74 ppb in February 2002;
 - MW-7 from an historic high of 71 ppb in August 2001 to 36 ppb in February 2002;
- Levels of all other constituents of concern do not exceed any the NYSDEC ground water quality standards or guidance values for ground water with ethylbenzene at 16 ppb in MW-4 as the highest result of any other constituent of concern in February 2002 at the subject property.

C. ACTION ITEMS

Based upon analytical data, the significant downward trends of all constituents of concern to their respective current low levels and a review of all information in regards to the site, the following are the action items that should be implemented at the site:

1. Active remediation utilizing the SVE / AS system should be discontinued.
2. Natural attenuation should be implemented as the remedial activity for the subject property.
3. To support the proposed no further action utilizing the natural attenuation remedial recommendation for the site, quarterly ground water monitoring of the seven monitoring wells at the subject site should continue for four additional quarters.
4. The next progress report, including the May 2002 and August 2002 ground water sampling will be submitted to the NYSDEC case manager on or before October 31, 2002.
5. A risk base assessment will be undertaken for inclusion in the March 2003 report requesting a no further action request supported the natural attenuation remedial recommendation.

EnSolutions, Inc.



FIGURES

EnSolutions, Inc.

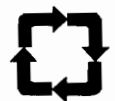


FIGURE 1
SITE LOCATION MAP

EnSolutions, Inc.



Figure 1 - Site Location Map

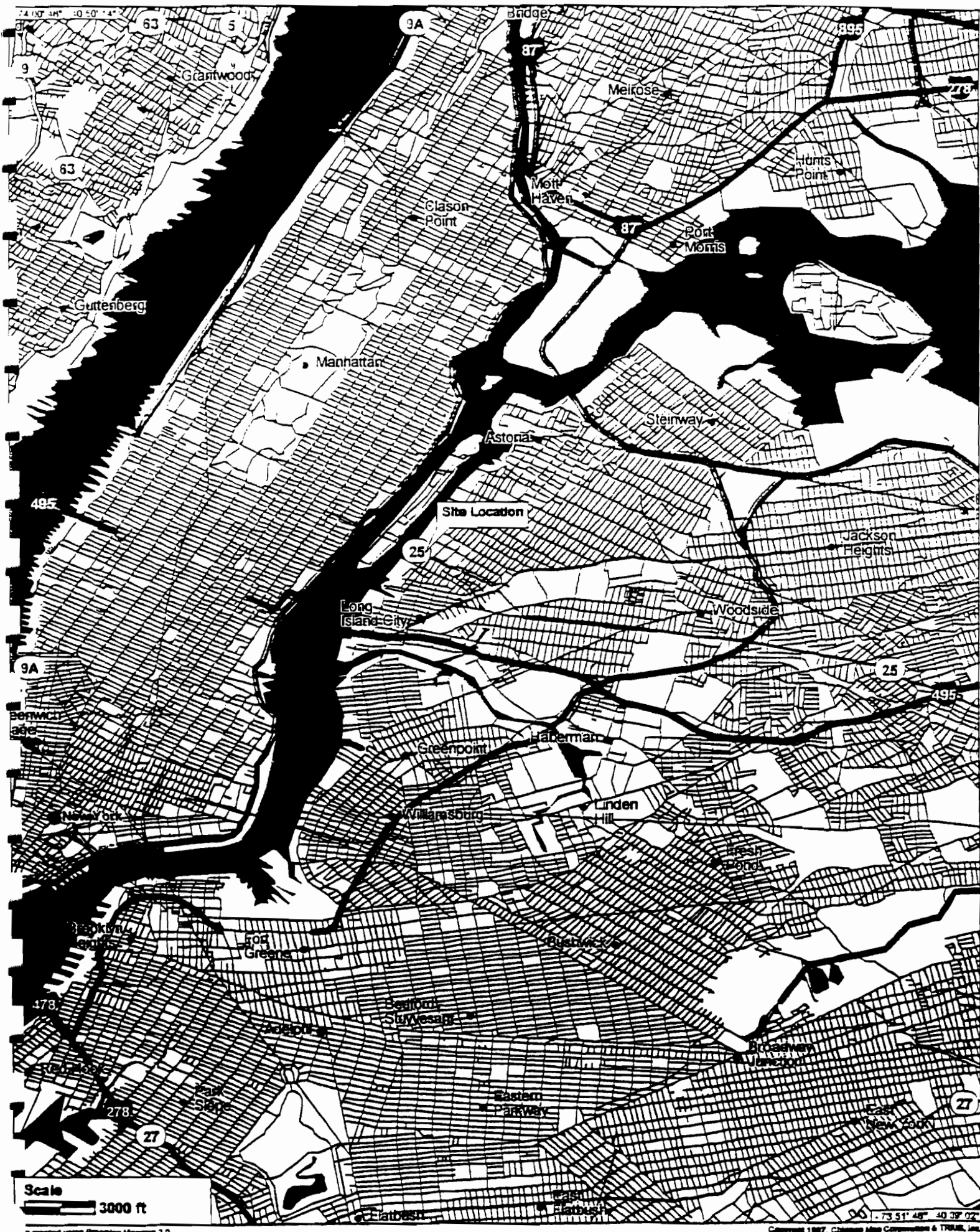
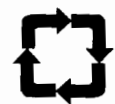


FIGURE 2
SITE PLAN

EnSolutions, Inc.



22nd STREET SIDEWALK

MW-7

MW-1

MW-2

MW-3

REMEDIAL
SYSTEM

SP 2

SP 1

Canopy

Canopy

ONE STORY
COMMERCIAL
BUILDING

Tank Farm

MW-4

SP 3

MW-5

SP 4

MW 6



KEY	
	Monitor Well
	Sparge Point

DATE	October 2001	ErSolutions, Inc. 66 Elm Street Dover, NJ 07801
DESCRIPTION	 FIGURE 2 PETROCELLI FACILITY SITE PLAN	
TITLE	22-09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY	S. KOTTEEN	SCALE
		AS SHOWN



TABLES

EnSolutions, Inc.



TABLE 1

DECEMBER 2001 ANALYTICAL RESULTS SUMMARY

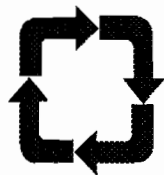
EnSolutions, Inc.



**Table 1 - Petrocelli Electric Co., Inc. - LIC, NY
December 2001 Groundwater Sampling Results**

**BTEX/MTBE
(ug/l)**

	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	Dec-01	Dec-01	Dec-01	Dec-01	Dec-01	Dec-01	Dec-01
Benzene	1.9	1.9	ND	3.9	NS	3	4.3
Toluene	1.2	ND	ND	0.67	NS	ND	3.5
Ethylbenzene	N	0.48	ND	3.5	NS	ND	4.9
MTBE	53	30	250	6.9	NS	100	57
Total Xylenes	ND	ND	ND	1.4	NS	ND	5



EnSolutions, Inc.

TABLE 2

FEBRUARY 2002 ANALYTICAL RESULTS SUMMARY



	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
Volatile Organics							
Benzene	ND	ND	NS	6	ND	2	ND
Toluene	ND	ND	NS	ND	ND	ND	ND
Ethylbenzene	3	ND	NS	16	ND	ND	4.3
Isopropylbenzene	15	31	NS	3.2	ND	6.2	31
n-Propylbenzene	18	34	NS	1.4	ND	ND	78
1,3,5-Trimethylbenzene	ND	ND	NS	ND	ND	ND	ND
tert-Butylbenzene	ND	ND	NS	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	ND	NS	3.6	ND	ND	5.8
sec-Butylbenzene	11	ND	NS	1.7	ND	4.6	21
p-Isopropyltoluene	ND	ND	NS	ND	ND	3.6	ND
n-Butylbenzene	ND	ND	NS	ND	ND	ND	ND
Naphthalene	21	ND	NS	1.7	ND	ND	14
MTBE	59	330	NS	10	1.5	74	36
Total Xylenes	ND	ND	NS	3.2	ND	ND	5

All results are in parts per billion – ppb

J – The result is less than the specified quantitation limit but greater than zero.

ND – undetected below MDL

TABLE 2
February 2002 Ground Water Sampling Results
Petrocelli Electric Co., Inc. LIC, NY

EnSolutions, Inc.



TABLE 3
HISTORICAL GROUND WATER SAMPLING RESULTS



Table 3 - Petrocelli Electric Co., Inc. - LIC, NY
Historic Groundwater BTEX and MTBE Sampling Results

BTEX/MTBE
(ug/l)

	MW1								MW2							
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02
Benzene	45	ND	ND	ND	ND	3.5	1.9	6	ND	ND	58	36	ND	2.4	1.9	ND
Toluene	ND	ND	ND	ND	4.3	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	58	27	1.9	ND	5.1	5.9	N	16	ND	ND	14	ND	ND	ND	0.48	ND
MTBE	590	200	700	220	270	130	53	10	520	2500	690	650	ND	32	30	330
Total Xylenes	30	ND	ND	ND	ND	ND	ND	3.2	ND	ND	ND	ND	150	ND	ND	ND

BTEX/MTBE
(ug/l)

	MW3								MW4							
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02
Benzene	ND	NS	ND	ND	ND	25	ND	NS	77	ND	4.9	9.2	20	5.1	3.9	6
Toluene	ND	NS	ND	ND	ND	ND	ND	NS	14	ND	ND	ND	ND	0.7	0.67	ND
Ethylbenzene	ND	NS	22	7.8	ND	ND	ND	NS	250	ND	2.8	6.1	8	9.1	3.5	16
MTBE	22	NS	68	59	ND	240	250	NS	280	460	73	50	ND	10	6.9	10
Total Xylenes	ND	NS	ND	ND	19	ND	ND	NS	370	ND	18	ND	52	5.7	1.4	3.2

BTEX/MTBE
(ug/l)

	MW5								MW6							
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02
Benzene	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	ND	21	ND	13	3	2
Toluene	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	ND	4.7	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ND	ND	ND	ND	ND	NS	NS	1.5	6200	430	190	710	ND	470	100	74
Total Xylenes	ND	ND	ND	ND	ND	NS	NS	ND	ND	41	ND	ND	ND	ND	ND	ND

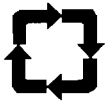
BTEX/MTBE
(ug/l)

	MW7							
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02
Benzene	*	*	*	*	*	30	4.3	ND
Toluene	*	*	*	*	*	31	3.5	ND
Ethylbenzene	*	*	*	*	*	27	4.9	4.3
MTBE	*	*	*	*	*	71	57	36
Total Xylenes	*	*	*	*	*	25	5	5

ND - NON DETECT
 * - WELL DID NOT EXIST
 NS - NOT SAMPLED



TRENDS



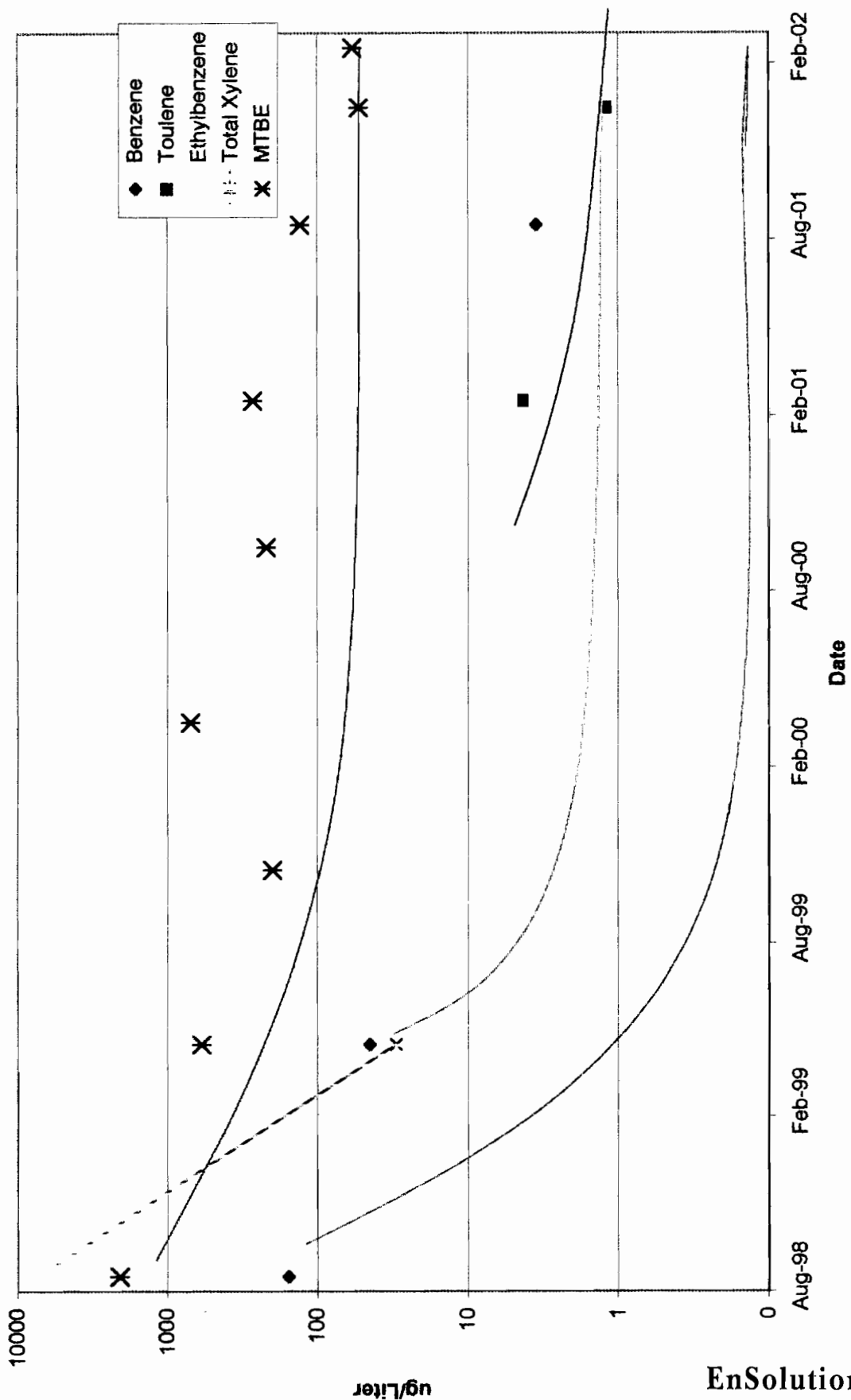
MW-1

TRENDS AND HISTORICAL RESULTS TABLE

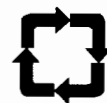
EnSolutions, Inc.



MW-1 Trends



EnSolutions, Inc.



MW-1					
	Benzene	Toulene	Ethylbenzene	Total Xylene	MTBE
Aug-98	156	ND	ND	7204	2070
Apr-99	45	ND	58	30	590
Oct-99	ND	ND	27	ND	200
Mar-00	ND	ND	1.9	ND	700
Sep-00	ND	ND	ND	ND	220
Feb-01	ND	4.3	5.1	ND	270
Aug-01	4	ND	5.9	ND	130
Dec-01	ND	1.2	ND	ND	53
Feb-02	ND	ND	3	ND	59



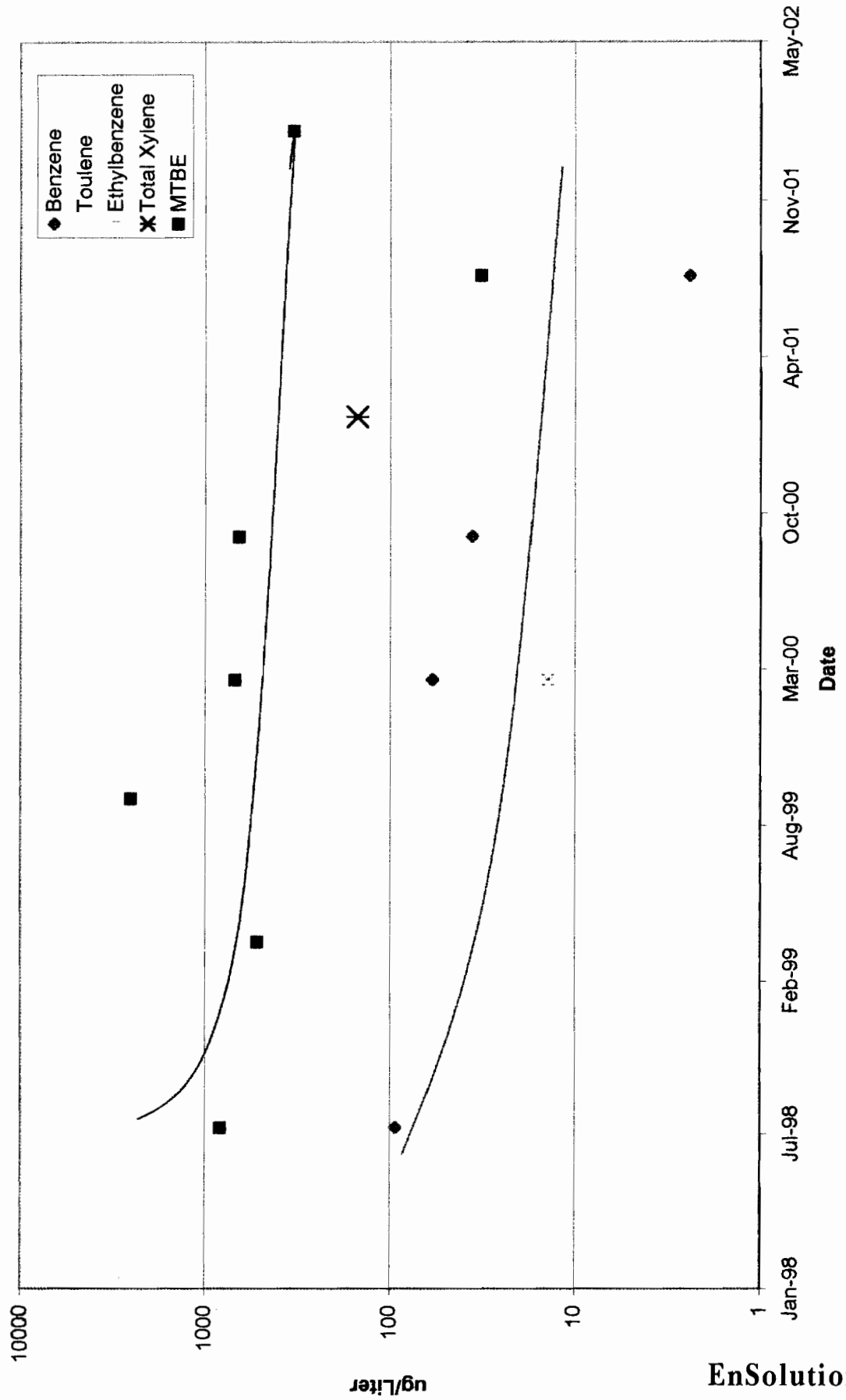
MW-2

TRENDS AND HISTORICAL RESULTS TABLE

EnSolutions, Inc.



MW-2 Trends



EnSolutions, Inc.



MW-2					
	Benzene	Toulene	Ethylbenzene	Total Xylene	MTBE
Aug-98	93.3	ND	ND	ND	822
Apr-99	ND	ND	ND	ND	520
Oct-99	ND	ND	ND	ND	2500
Mar-00	59	ND	14	ND	690
Sep-00	36	ND	ND	ND	650
Feb-01	ND	ND	ND	150	ND
Aug-01	2.4	ND	ND	ND	32.0
Dec-01	ND	ND	ND	ND	ND
Feb-02	ND	ND	ND	ND	330.0



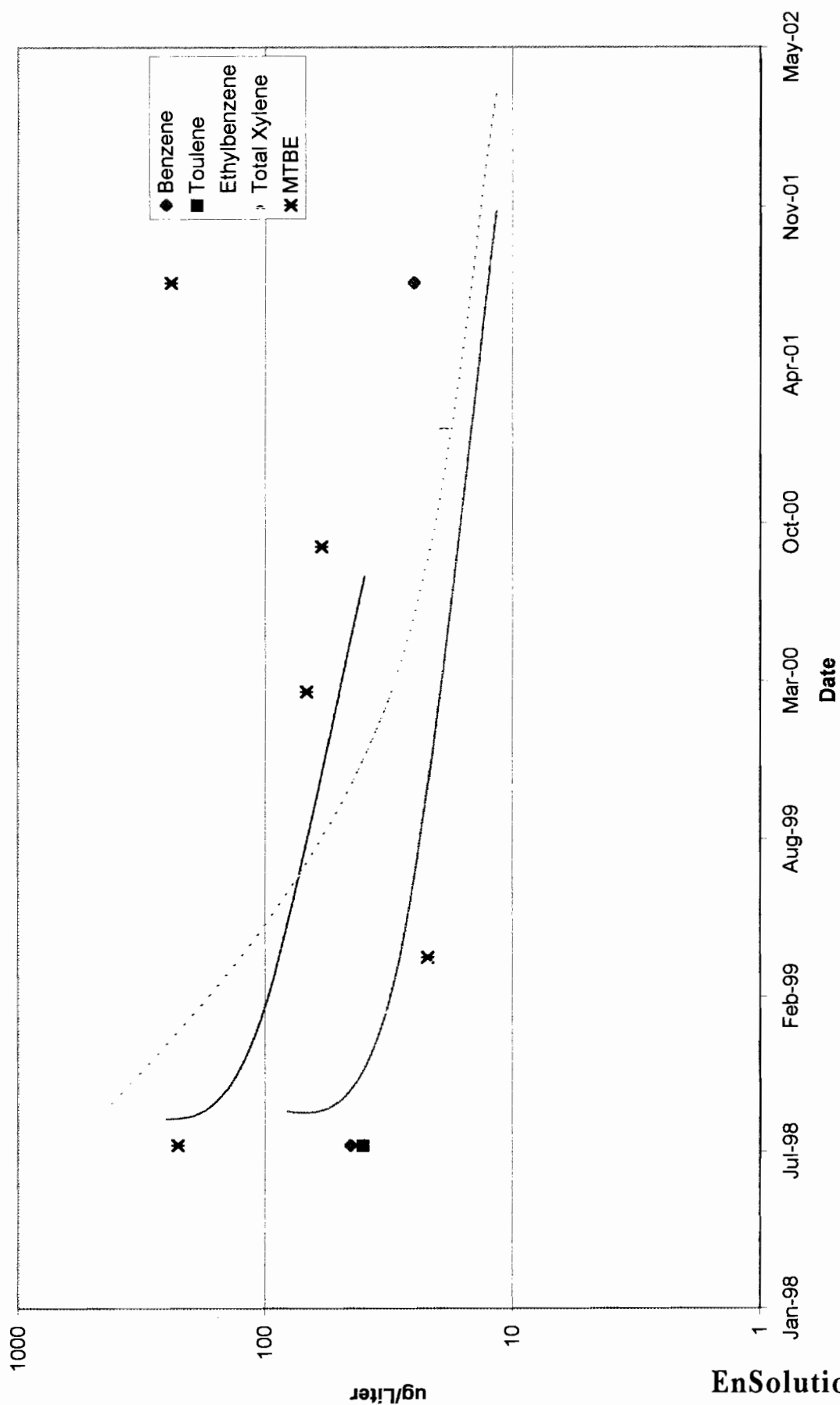
MW-3

TRENDS AND HISTORICAL RESULTS TABLE

EnSolutions, Inc.



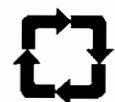
MW-3 Trends



EnSolutions, Inc.



MW-3					
	Benzene	Toulene	Ethylbenzene	Total Xylene	MTBE
Aug-98	45.2	40.0	645	587	225
Apr-99	ND	ND	ND	ND	22
Mar-00	ND	ND	22	ND	68
Sep-00	ND	ND	7.8	ND	59
Feb-01	ND	ND	ND	19	ND
Aug-01	25.0	ND	ND	ND	240
Dec-01	ND	ND	ND	ND	250
Feb-02	NS	NS	NS	NS	NS



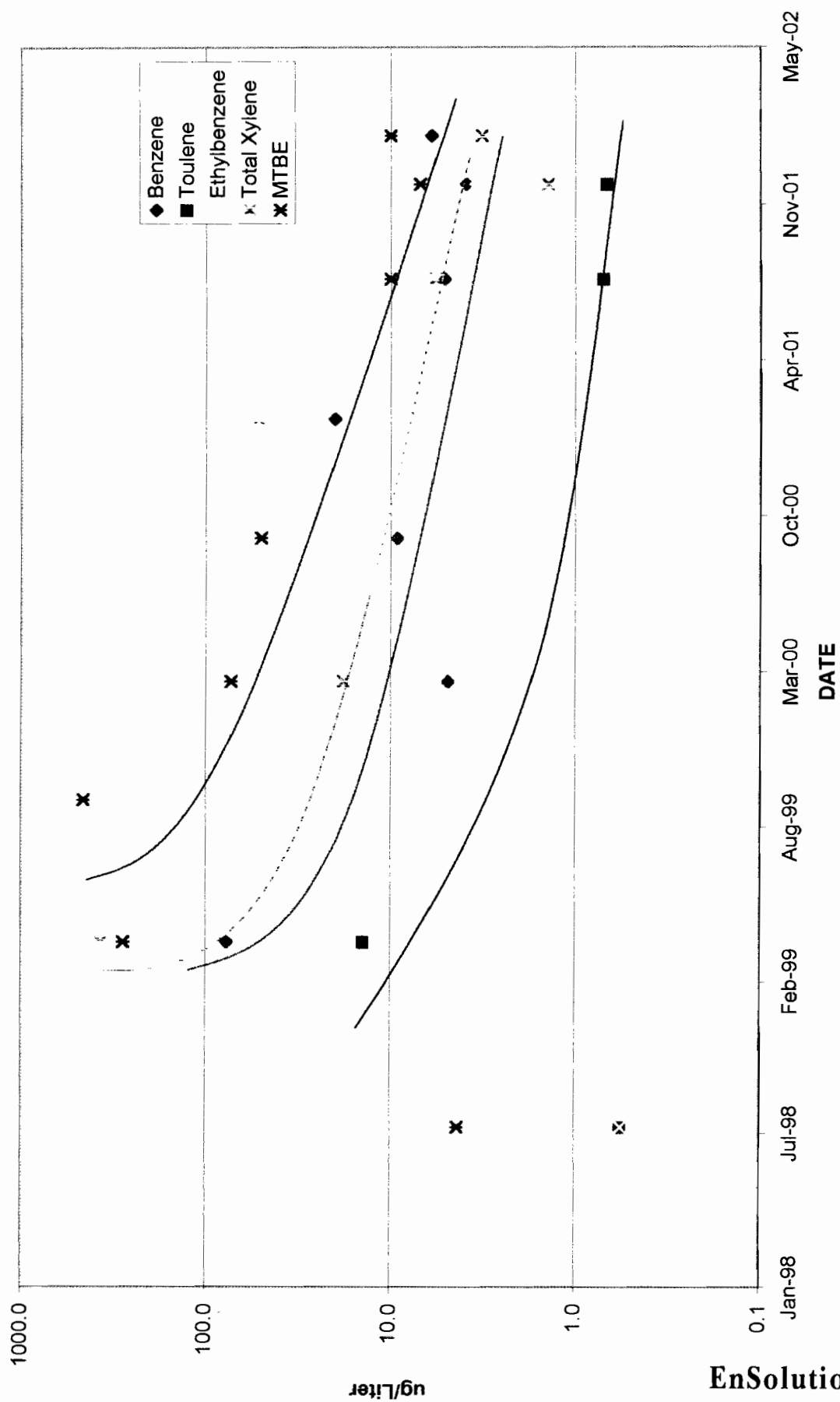
MW-4

TRENDS AND HISTORICAL RESULTS TABLE

EnSolutions, Inc.



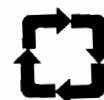
MW-4 TRENDS



EnSolutions, Inc.



MW-4					
	Benzene	Toulene	Ethylbenzene	Total Xylene	MTBE
Aug-98	ND	0.6	ND	0.6	4.3
Apr-99	77.0	14.0	250.0	370.0	280.0
Oct-99		ND	ND	ND	460.0
Mar-00	4.9	ND	2.8	18.0	73.0
Sep-00	9.2	ND	6.1	ND	50.0
Feb-01	20.0	ND	8.0	52.0	ND
Aug-01	5.1	0.7	9.1	5.7	10.0
Dec-01	3.9	0.7	3.5	1.4	6.9
Feb-02	6.0	ND	16.0	3.2	10.0



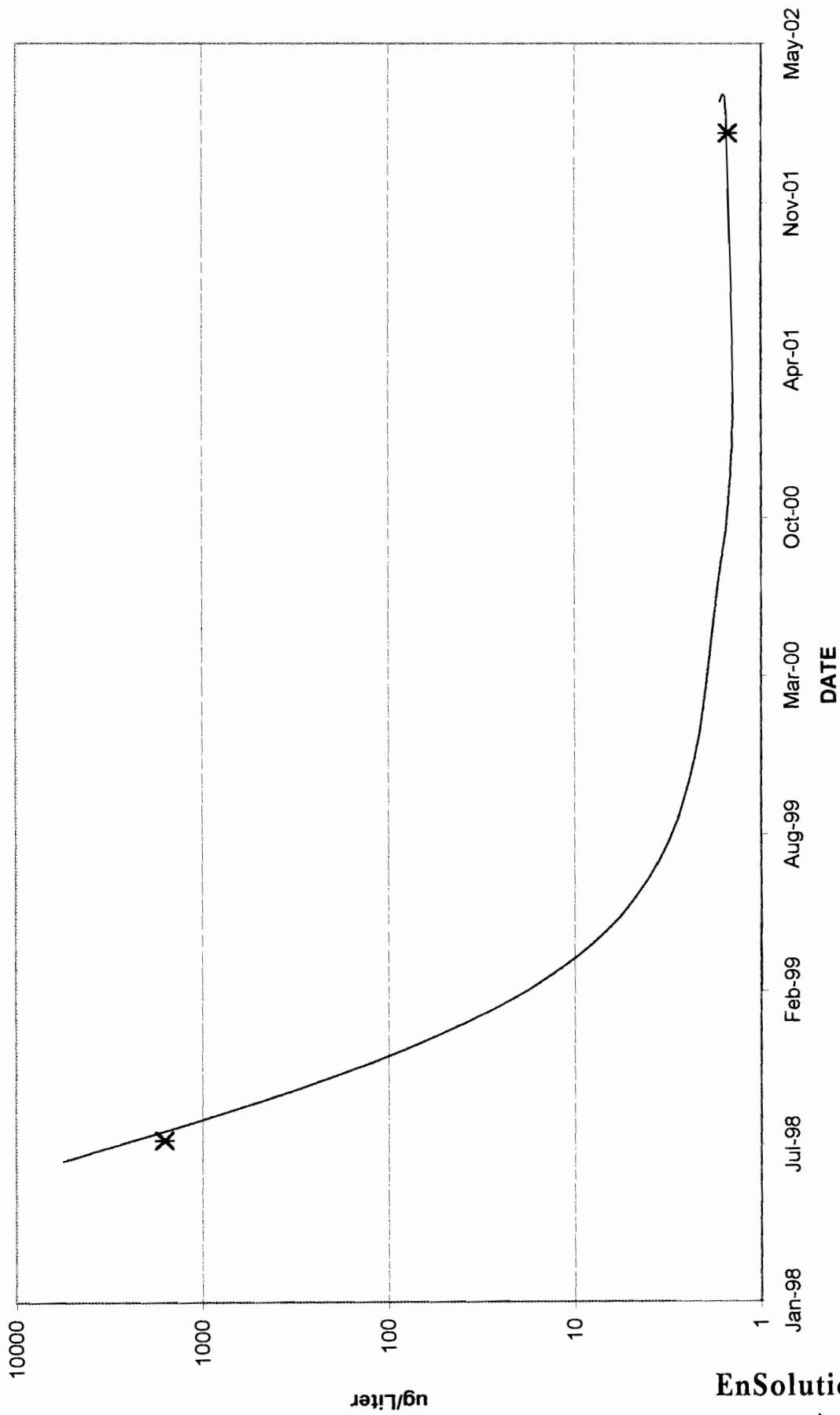
MW-5

TRENDS AND HISTORICAL RESULTS TABLE

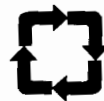
EnSolutions, Inc.



MW-5 TRENDS



EnSolutions, Inc.



MW-5					
	Benzene	Toulene	Ethylbenzene	Total Xylene	MTBE
Aug-98	ND	ND	ND	ND	1600
Apr-99	ND	ND	ND	ND	ND
Oct-99	ND	ND	ND	ND	ND
Mar-00	ND	ND	ND	ND	ND
Sep-00	ND	ND	ND	ND	ND
Feb-01	ND	ND	ND	ND	ND
Aug-01	NS	NS	NS	NS	NS
Dec-01	NS	NS	NS	NS	NS
Feb-02	ND	ND	ND	ND	1.5



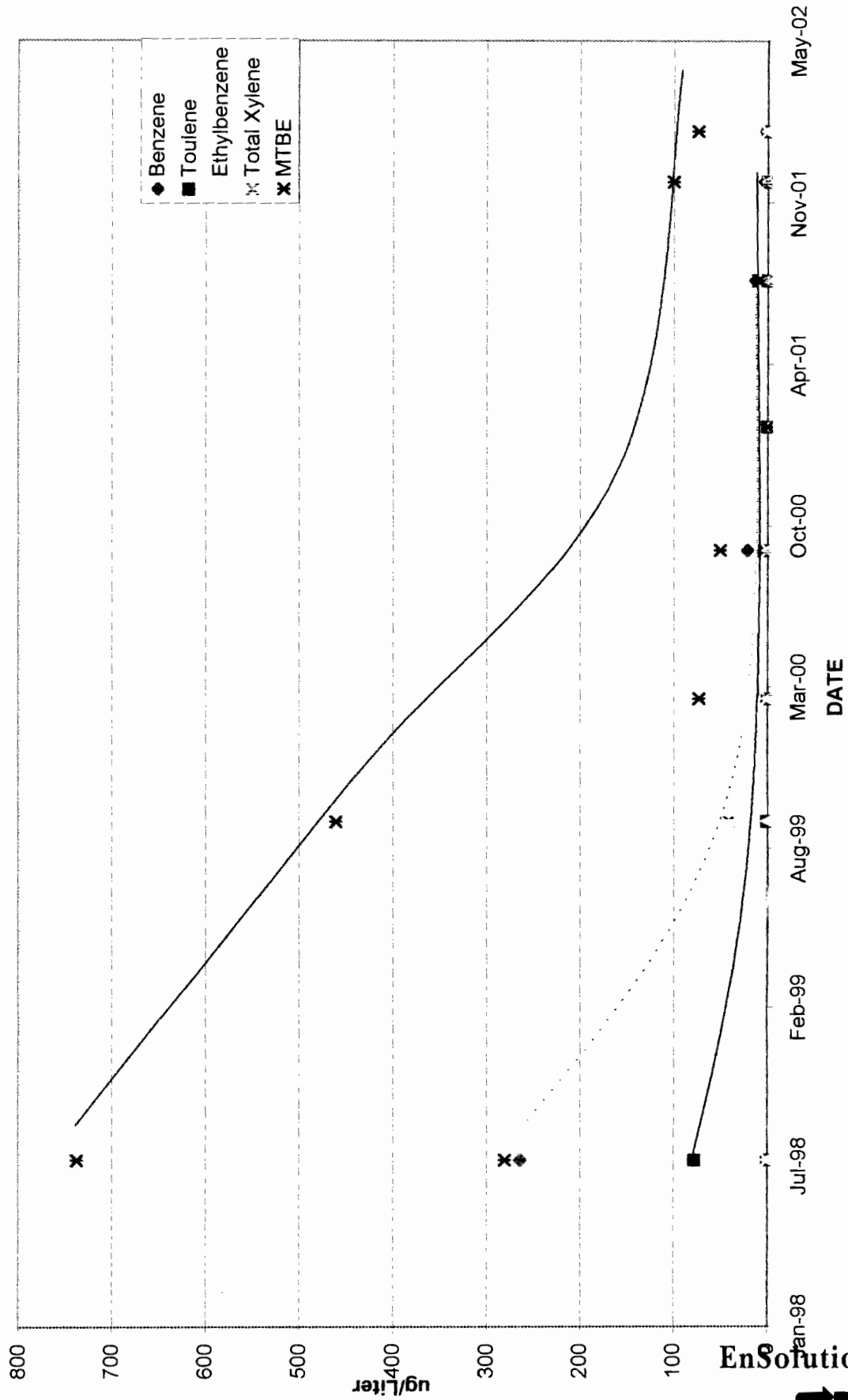
MW-6

TRENDS AND HISTORICAL RESULTS TABLE

EnSolutions, Inc.



MW-6 TRENDS



EnSolutions, Inc.



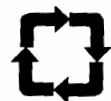
MW-6					
	Benzene	Toulene	Ethylbenzene	Total Xylene	MTBE
Aug-98	264	78	36	250	738
Aug-98	ND	ND	ND	ND	280
Oct-99	ND	ND	ND	41	460
Mar-00	ND	ND	ND	ND	73
Sep-00	21	4.7	ND	ND	50
Feb-01	ND	ND	ND	ND	ND
Aug-01	13	ND	ND	ND	10
Dec-01	3	ND	ND	ND	100
Feb-02	2	ND	ND	ND	74



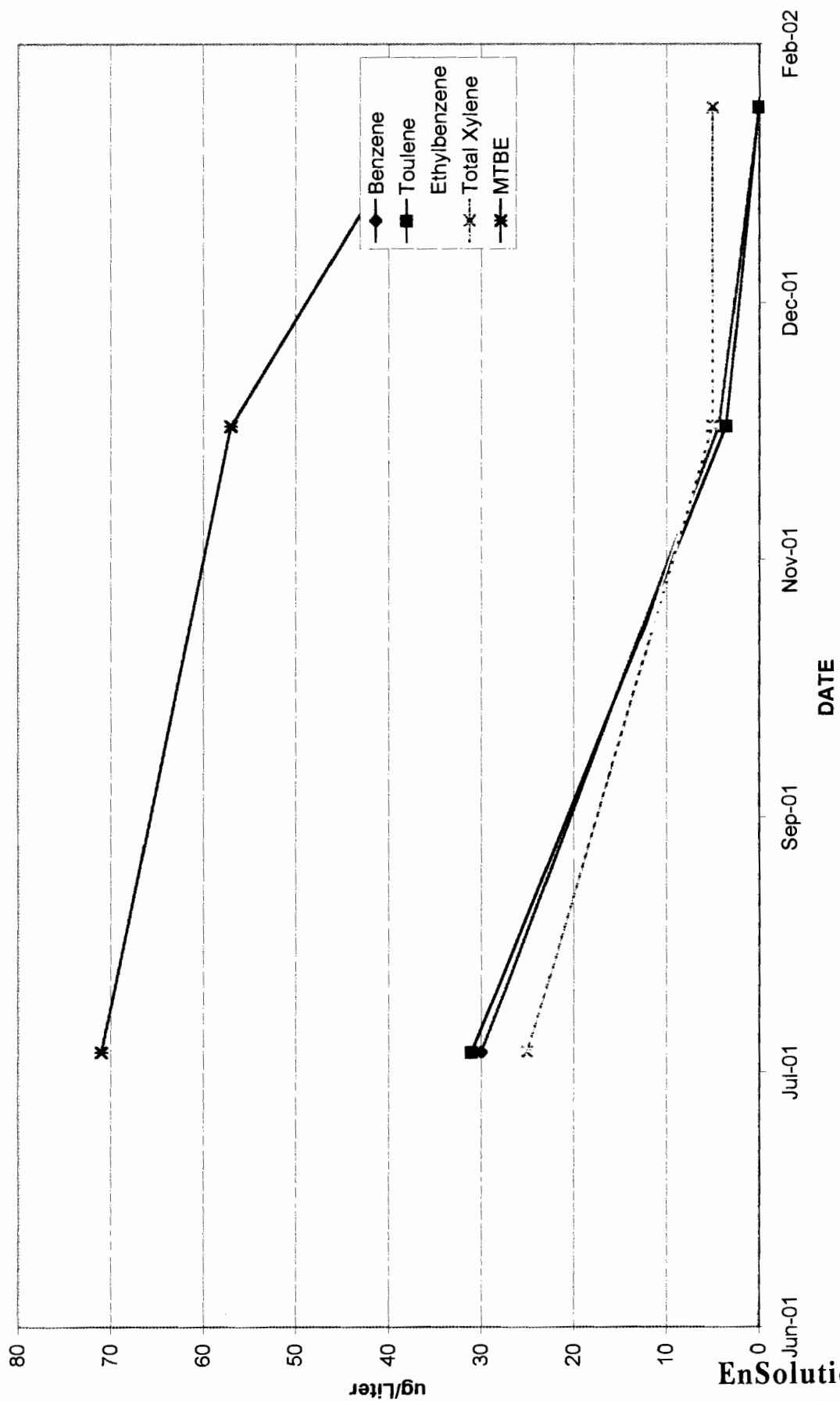
MW-7

TRENDS AND HISTORICAL RESULTS TABLE

EnSolutions, Inc.



MW-7 TRENDS



EnSolutions, Inc.



MW-7					
	Benzene	Toulene	Ethylbenzene	Total Xylene	MTBE
Aug-01	30	31	27	25	71
Dec-01	4.3	3.5	4.9	5.0	57.0
Feb-02	ND	ND	4.3	5.0	36.0

EnSolutions, Inc.



ATTACHMENTS

EnSolutions, Inc.



ATTACHMENT 1

LABORATORY QA/QC DATA – DECEMBER 2001

EnSolutions, Inc.



01/18/2002

EnSolutions, Inc.
1029 North Florida Mango Road
Suite #7
West Palm Beach, FL 33409

Attention: Mr. Howard Fredericks

SEVERN
TRENT
SERVICES

STL Edison

777 New Durham Road
Edison, NJ 08817

Tel: 732-549-3900
Fax: 732-549-3679
www.stl-inc.com

Laboratory Results
Job No. R996 - Petrocelli Electric

Dear Mr. Fredericks:

Enclosed are the results you requested for the following sample(s) received at our laboratory on December 17, 2001.

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
322227	MW-1	BTEX GC w/MTBE
322228	MW-7	BTEX GC w/MTBE
322229	MW-3	BTEX GC w/MTBE
322230	MW-4	BTEX GC w/MTBE
322231	MW-2	BTEX GC w/MTBE
322232	MW-6	BTEX GC w/MTBE

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Paul Nadzan, at (732) 549-3900.

Very Truly Yours,



Michael J. Urban
Laboratory Director



Analytical Results Summary	1
General Information	8
Chain of Custody	8
Laboratory Chronicles	10
Methodology Review	12
Data Reporting Qualifiers	16
Non-Conformance Summary	18
GC/ PID Forms and Data	21
Results Summary and Chromatograms	21
Method Blank Results Summary	34
Standards Summary	41
Surrogate Compound Recovery Summary	68
Spike Recovery Summary	70
This is the Last Page of the Document	72

Analytical Results Summary

Client ID: MW-1
Site: Petrocelli Electric

Lab Sample No: 322227
Lab Job No: R996

Date Sampled: 12/17/01
Date Received: 12/17/01
Date Analyzed: 12/23/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2592.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	Analytical Result <u>Units: ug/l</u>	Method Detection Limit
		<u>Units: ug/l</u>
MTBE	53	0.48
Benzene	1.9	0.56
Toluene	1.2	0.52
Ethylbenzene	ND	0.52
Xylene (Total)	ND	0.50

Client ID: MW-7
Site: Petrocelli Electric

Lab Sample No: 322228
Lab Job No: R996

Date Sampled: 12/17/01
Date Received: 12/17/01
Date Analyzed: 12/26/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2617.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	Analytical Result <u>Units: ug/l</u>	Method Detection
		Limit <u>Units: ug/l</u>
MTBE	57	0.48
Benzene	4.3	0.56
Toluene	3.5	0.52
Ethylbenzene	4.9	0.52
Xylene (Total)	5.0	0.50

Client ID: MW-3
Site: Petrocelli Electric

Lab Sample No: 322229
Lab Job No: R996

Date Sampled: 12/17/01
Date Received: 12/17/01
Date Analyzed: 12/26/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2618.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 10.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	250	2.4
Benzene	ND	2.8
Toluene	ND	2.6
Ethylbenzene	ND	2.6
Xylene (Total)	ND	2.5

Client ID: MW-4
Site: Petrocelli Electric

Lab Sample No: 322230
Lab Job No: R996

Date Sampled: 12/17/01
Date Received: 12/17/01
Date Analyzed: 12/23/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2591.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	6.9	0.24
Benzene	3.9	0.28
Toluene	0.67	0.26
Ethylbenzene	3.5	0.26
Xylene (Total)	1.4	0.25

Client ID: MW-2
Site: Petrocelli Electric

Lab Sample No: 322231
Lab Job No: R996

Date Sampled: 12/17/01
Date Received: 12/17/01
Date Analyzed: 12/23/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2597.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	30	0.24
Benzene	1.9	0.28
Toluene	ND	0.26
Ethylbenzene	0.48	0.26
Xylene (Total)	ND	0.25

Client ID: MW-6
Site: Petrocelli Electric

Lab Sample No: 322232
Lab Job No: R996

Date Sampled: 12/17/01
Date Received: 12/17/01
Date Analyzed: 12/26/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2619.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u>
		<u>Limit</u> <u>Units: ug/l</u>
MTBE	100	1.2
Benzene	3.0	1.4
Toluene	ND	1.3
Ethylbenzene	ND	1.3
Xylene (Total)	ND	1.2

General Information

Chain of Custody

SEVERN
TRENT
SERVICES

Severn Trent Laboratories, Inc.

Client	Enso Solutions	Project Manager	Howard Fredericks	Date	12/17/01	Chain of Custody Number	Q10092
Address	1029 N. Florida Mango Rd Suite 7	Telephone Number (Area Code)/Fax Number	561 684 9770	Lab Number		Page	of

City	West Palm Beach	State	Fla.	Zip Code	33409
Project Name and Location (State)					
Petracelli Electric Long Isc City, NY					
Site Contact			Carrier/Waybill Number		
Lab Contact Robin Dean					
Analysis (Attach list if more space is needed)					
Special Instructions/ Conditions of Receipt					
RGGC					

RG90
Special Instructions
Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H ₂ SO ₄	HNO ₃	HCl	NaOH	ZnAc/ NH ₄ OH	XRF
MW-1	12/17/01	0815		x						3			x
MW-7	"	0825		x						3			x
MW-3	"	0830		x						3			x
MW-4	"	0840		x						3			x
MW-2	"	0845		x						3			x
MW-6	"	0900		x						3			x

Sample Disposal

☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 3 months)

—

QC Requirements (Specify)

Turn Around Time Required

<input type="checkbox"/> 24 Hours	<input type="checkbox"/> 48 Hours	<input checked="" type="checkbox"/> 7 Days	<input type="checkbox"/> 14 Days	<input type="checkbox"/> 21 Days	<input checked="" type="checkbox"/> Other
-----------------------------------	-----------------------------------	--	----------------------------------	----------------------------------	---

STD

1. Relinquished By	Date	Time	1. Received By	Date	Time
<i>[Signature]</i>	12/17/01	12:50	<i>N. Venturavalle</i>	12/16/01	12:50
2. Relinquished By	Date	Time	2. Received By	Date	Time

3 Relinquished By	Date	Time	3. Received By	Date	Time
-------------------	------	------	----------------	------	------

Comments

DISTRIBUTION: WHITE - Slays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Laboratory Chronicles

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison

777 New Durham Road, Edison, New Jersey
08817

Job No: R996

Site: Petrocelli Electric

Client: EnSolutions, Inc.

VOAGC

602

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
WATER							
322227	12/17/2001	12/17/2001			12/23/2001	Zhang, John	7304
322228	12/17/2001	12/17/2001			12/26/2001	Zhang, John	7304
322229	12/17/2001	12/17/2001			12/26/2001	Zhang, John	7304
322230	12/17/2001	12/17/2001			12/23/2001	Zhang, John	7304
322231	12/17/2001	12/17/2001			12/23/2001	Zhang, John	7304
322232	12/17/2001	12/17/2001			12/26/2001	Zhang, John	7304

Methodology Review

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

Element	Water Test Method		Solid Test Method	
	Flame	Furnace	Flame	Furnace
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

Ignitability - Method 1020A

Corrosivity - Water pH Method 9040B
Soil pH Method 9045C

Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release

Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

Data Reporting Qualifiers

DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

Non-Conformance Summary

NON-CONFORMANCE SUMMARY

STL Edison Job Number: R996

Volatile Organics Analysis:

All data conforms with method requirements ✓; or

Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements ✓; or

Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements ✓; or

Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Non-conformance Summary, Page 2 of 2

STL Edison Job Number: 12997

Metals Analysis:

All data conforms with method requirements ☒; or

Analysis was not requested ☒; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Total Petroleum Hydrocarbons:

All data conforms with method requirements ☒; or

Analysis was not requested ☒; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

General Chemistry/Disposal Parameters:

All data conforms with method requirements ☒; or

Analysis was not requested ☒; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Signature of

Laboratory Manager: [Signature]

Date: 1/7/02

GC/PID Forms and Data

Results Summary and Chromatograms

Client ID: MW-1
Site: Petrocelli Electric

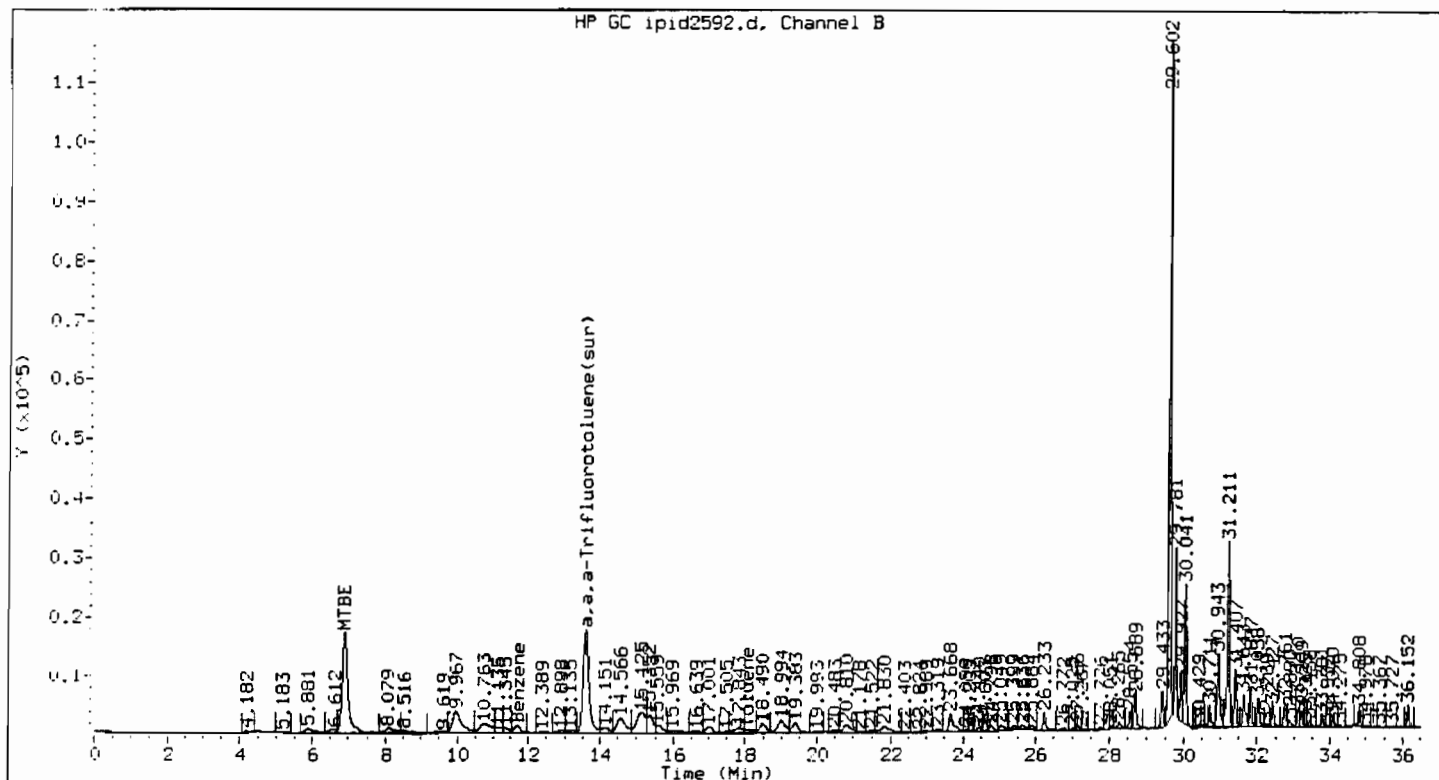
Lab Sample No: 322227
Lab Job No: R996

Date Sampled: 12/17/01
Date Received: 12/17/01
Date Analyzed: 12/23/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2592.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	53	0.48
Benzene	1.9	0.56
Toluene	1.2	0.52
Ethylbenzene	ND	0.52
Xylene (Total)	ND	0.50



Method : /chem/VOAGC3.i/602/10-17-01/22dec01.b/602_01.m
Sample Info : 322227;;2
Lab ID : 322227
Inj Date : 23-DEC-2001 11:57
Operator : SP
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 2
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.891	6.880	0.012	940115	26.396	52.793
Benzene	11.697	11.693	0.004	76819	0.959	1.918
Toluene	18.045	18.027	0.018	43396	0.624	1.248
α, α, α -Trifluorotoluene(sur)	13.579	13.568	0.011	1019402	32.142	32.142

Client ID: MW-7
Site: Petrocelli Electric

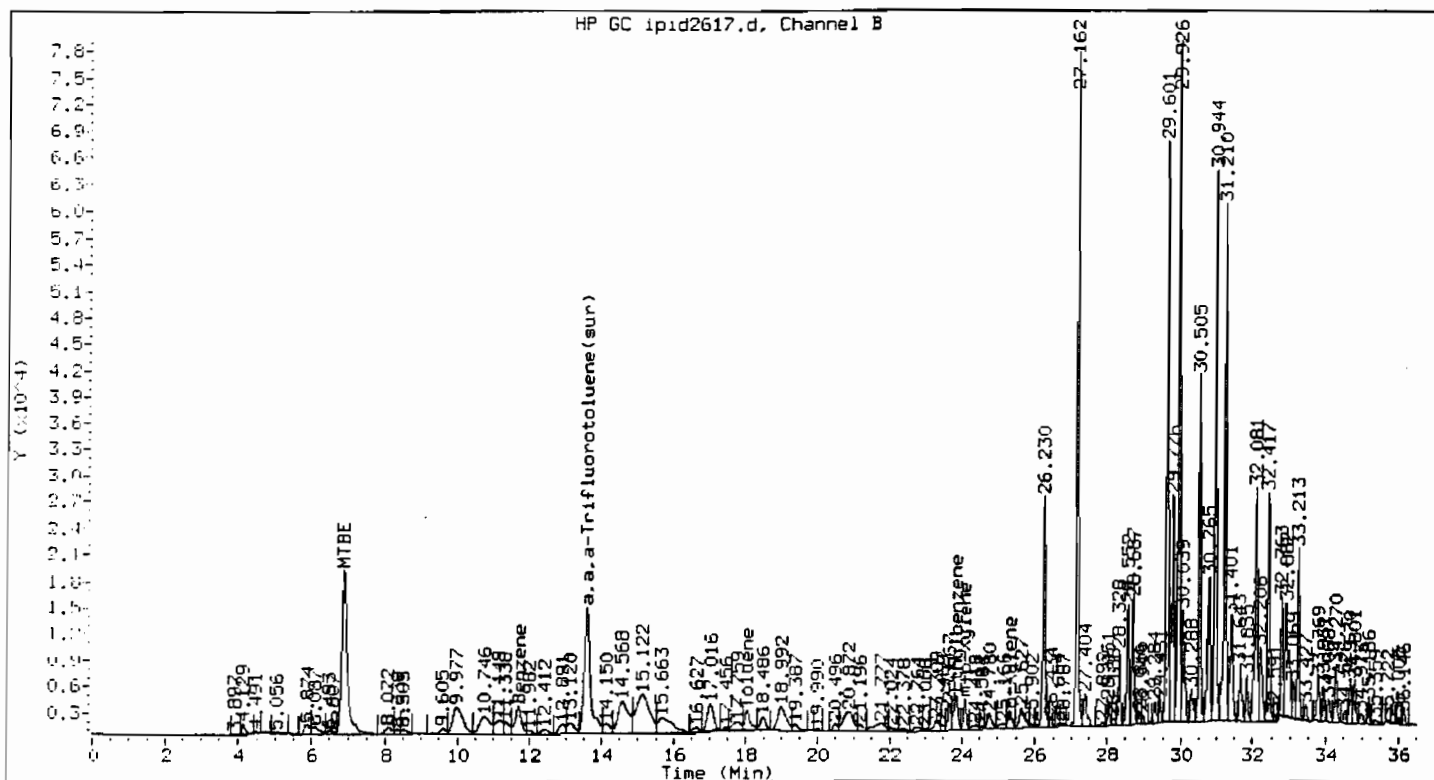
Lab Sample No: 322228
Lab Job No: R996

Date Sampled: 12/17/01
Date Received: 12/17/01
Date Analyzed: 12/26/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2617.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	57	0.48
Benzene	4.3	0.56
Toluene	3.5	0.52
Ethylbenzene	4.9	0.52
Xylene (Total)	5.0	0.50



JXZ

Method : /chem/VOAGC3.i/602/12-26-01/26dec01.b/602_01.m
Sample Info : 322228;;2
Lab ID : 322228
Inj Date : 26-DEC-2001 17:22
Operator : SP
Cpnd Sublist: BTEXMTBE
Inst ID : VOAGC3.i
Dil Factor : 2
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.322	25.314	0.008	69734	1.066	2.132
m+p-Xylene	24.096	24.093	0.004	104641	1.440	2.880
MTBE	6.888	6.882	0.006	1001422	28.565	57.130
Benzene	11.693	11.692	0.001	190250	2.172	4.345
Toluene	18.033	18.025	0.009	138987	1.774	3.549
Ethylbenzene	23.849	23.851	0.002	155142	2.446	4.891
Xylene (Total)	25.019	25.019	0.000	174375	2.482	4.964
a,a,a-Trifluorotoluene (sur)	13.571	13.565	0.006	923213	30.495	30.495

Client ID: MW-3
Site: Petrocelli Electric

Lab Sample No: 322229
Lab Job No: R996

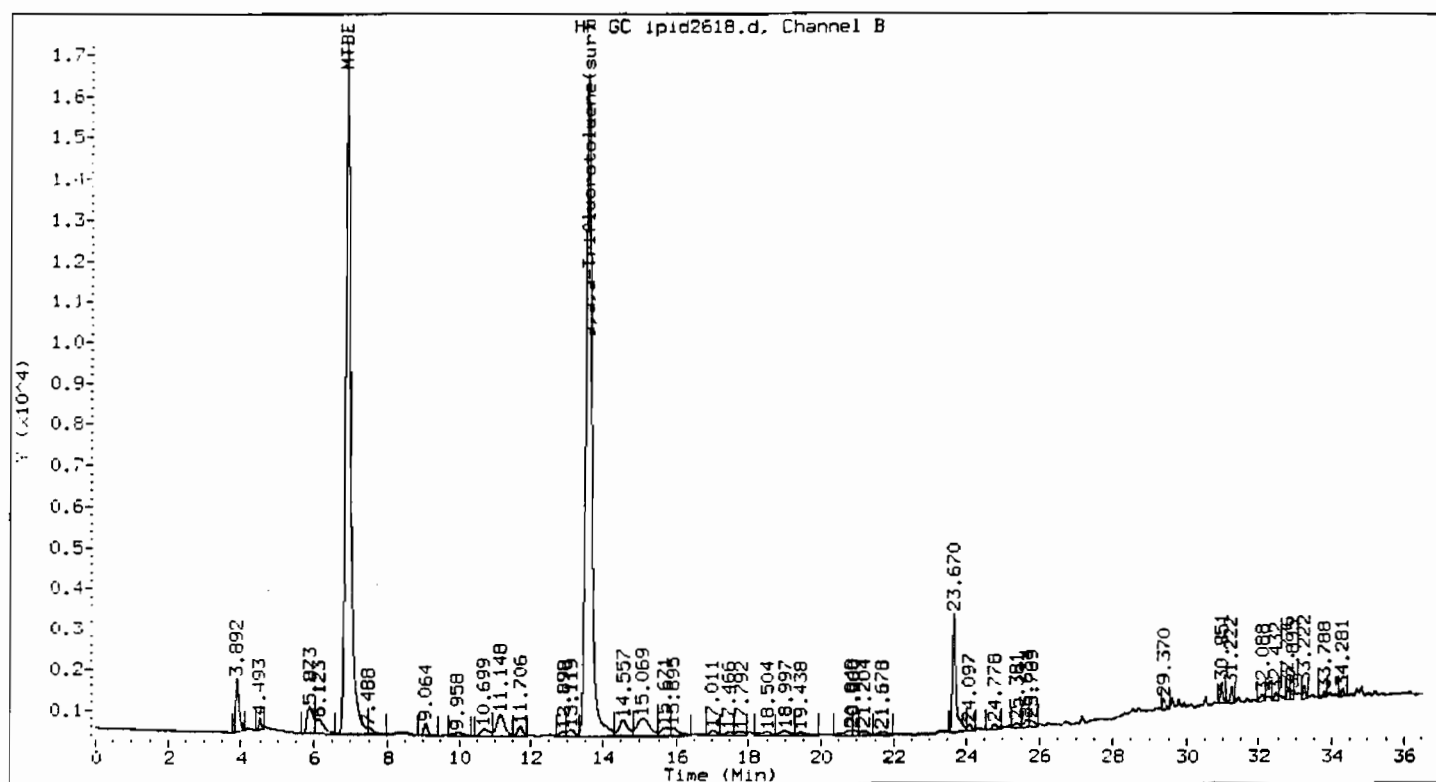
Date Sampled: 12/17/01
Date Received: 12/17/01
Date Analyzed: 12/26/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2618.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 10.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	250	2.4
Benzene	ND	2.8
Toluene	ND	2.6
Ethylbenzene	ND	2.6
Xylene (Total)	ND	2.5

Report Date 12/27/2001 13:48



Method : /chem/VOAGC3.i/602/12-26-01/26dec01.b/602_01.m

Sample Info : 322229;;10

Lab ID : 322229

Inj Date : 26-DEC-2001 18:02

Operator : SP

Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i

Dil Factor : 10

Sample Matrix : WATER

Sample Type: SAMPLE

Compound	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.890	6.882	0.008	872766	24.895	248.951
a,a,a-Trifluorotoluene(sur)	13.574	13.565	0.009	927295	30.630	30.630

Client ID: MW-4
Site: Petrocelli Electric

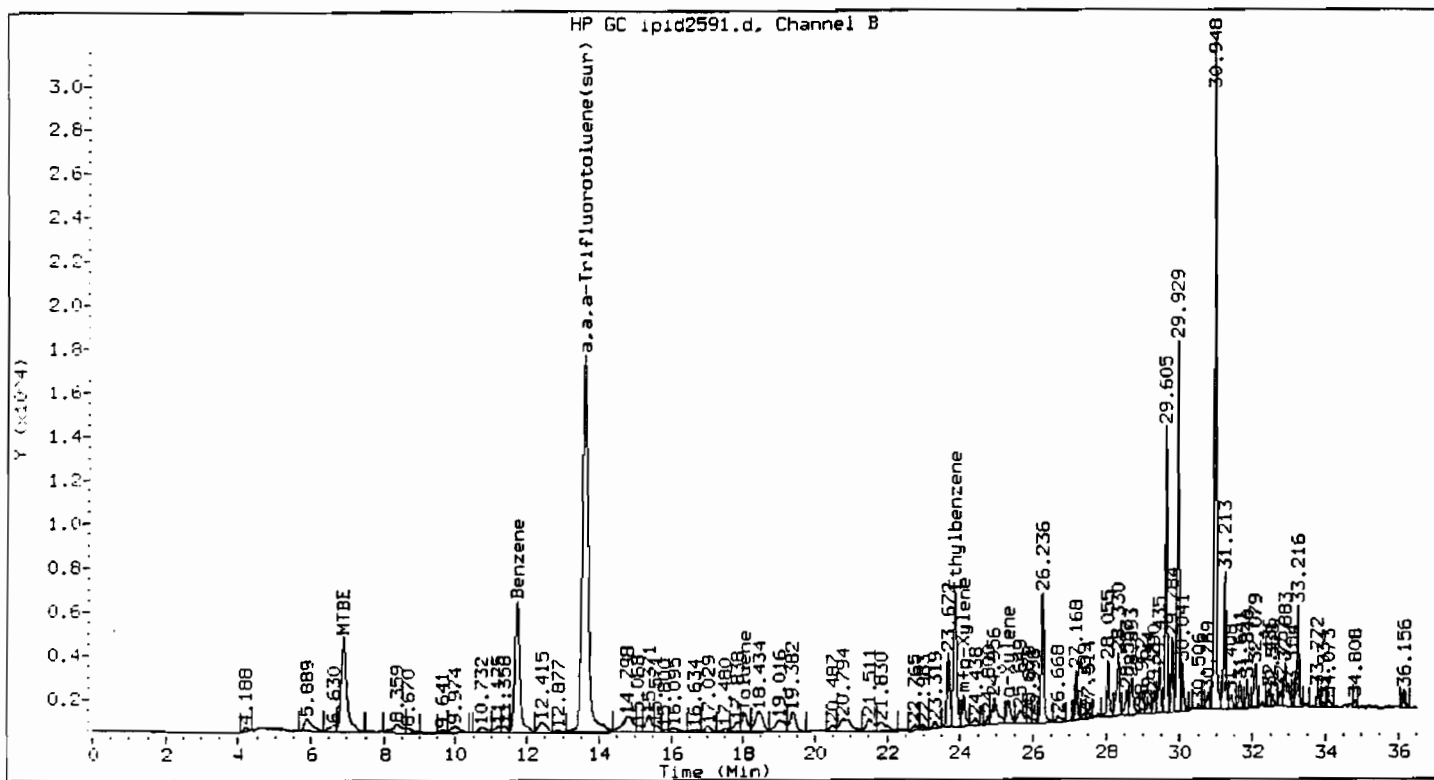
Lab Sample No: 322230
Lab Job No: R996

Date Sampled: 12/17/01
Date Received: 12/17/01
Date Analyzed: 12/23/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2591.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	6.9	0.24
Benzene	3.9	0.28
Toluene	0.67	0.26
Ethylbenzene	3.5	0.26
Xylene (Total)	1.4	0.25



Method : /chem/VOAGC3.i/602/10-17-01/22dec01.b/602_01.m
Sample Info : 322230
Lab ID : 322230
Inj Date : 23-DEC-2001 11:17
Operator : SP
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.336	25.313	0.022	37937	0.648	0.648
m+p-Xylene	24.098	24.092	0.006	48403	0.766	0.766
MTBE	6.894	6.880	0.014	245014	6.879	6.879
Benzene	11.707	11.693	0.014	316124	3.947	3.947
Toluene	18.044	18.027	0.017	46752	0.672	0.672
Ethylbenzene	23.860	23.851	0.009	198226	3.544	3.544
Xylene (Total)	25.019	25.019	0.000	86340	1.401	1.401
a,a,a-Trifluorotoluene(sur)	13.583	13.568	0.015	1007015	31.752	31.752

Client ID: MW-2
Site: Petrocelli Electric

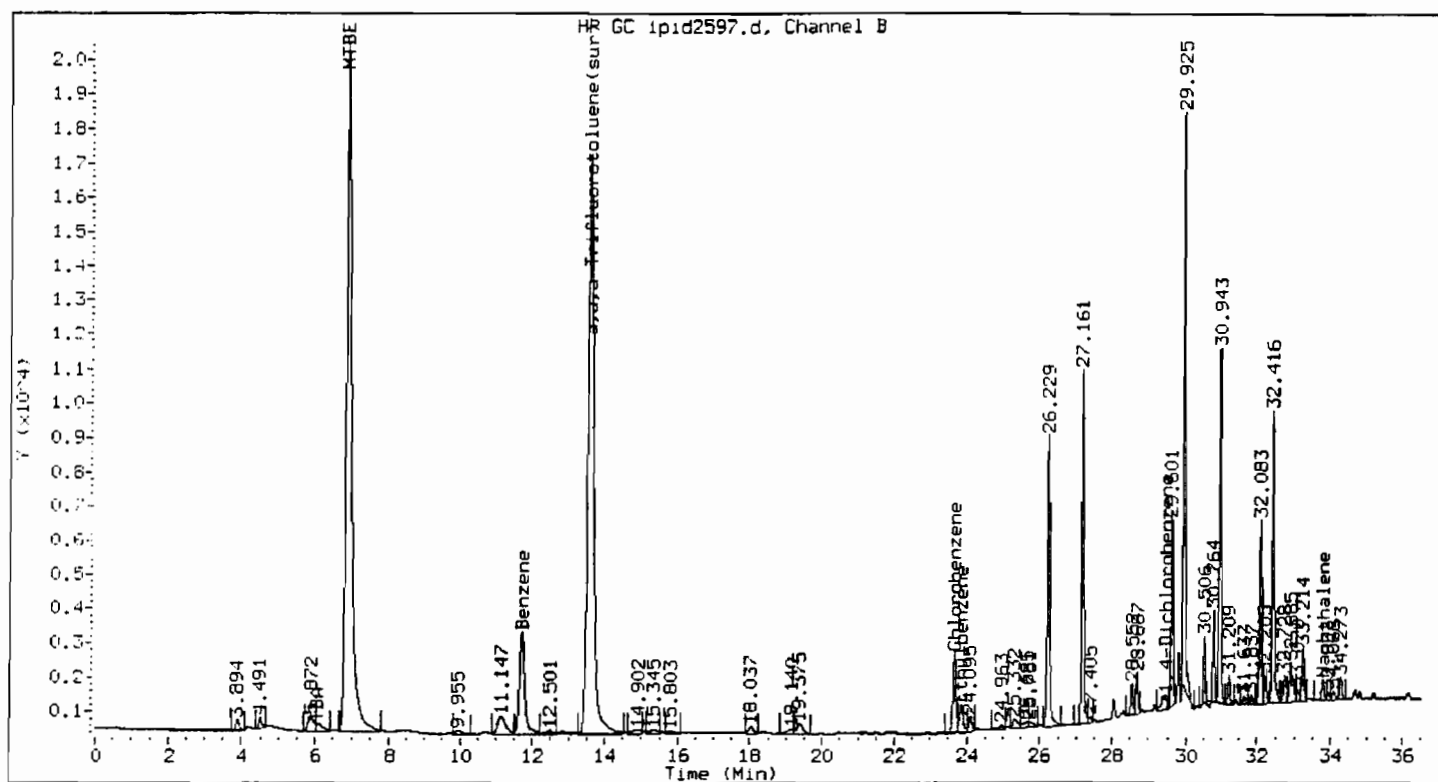
Lab Sample No: 322231
Lab Job No: R996

Date Sampled: 12/17/01
Date Received: 12/17/01
Date Analyzed: 12/23/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2597.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	30	0.24
Benzene	1.9	0.28
Toluene	ND	0.26
Ethylbenzene	0.48	0.26
Xylene (Total)	ND	0.25



Method : /chem/VOAGC3.i/602/10-17-01/22dec01.b/602_01.m
Sample Info : 322231
Lab ID : 322231
Inj Date : 23-DEC-2001 15:17
Operator : SP
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.887	6.880	0.008	1054083	29.596	29.596
Benzene	11.697	11.693	0.004	155815	1.945	1.945
Ethylbenzene	23.852	23.851	0.001	26689	0.477	0.477
a,a,a-Trifluorotoluene(sur)	13.569	13.568	0.001	960910	30.298	30.298

T X 2

Client ID: MW-6
Site: Petrocelli Electric

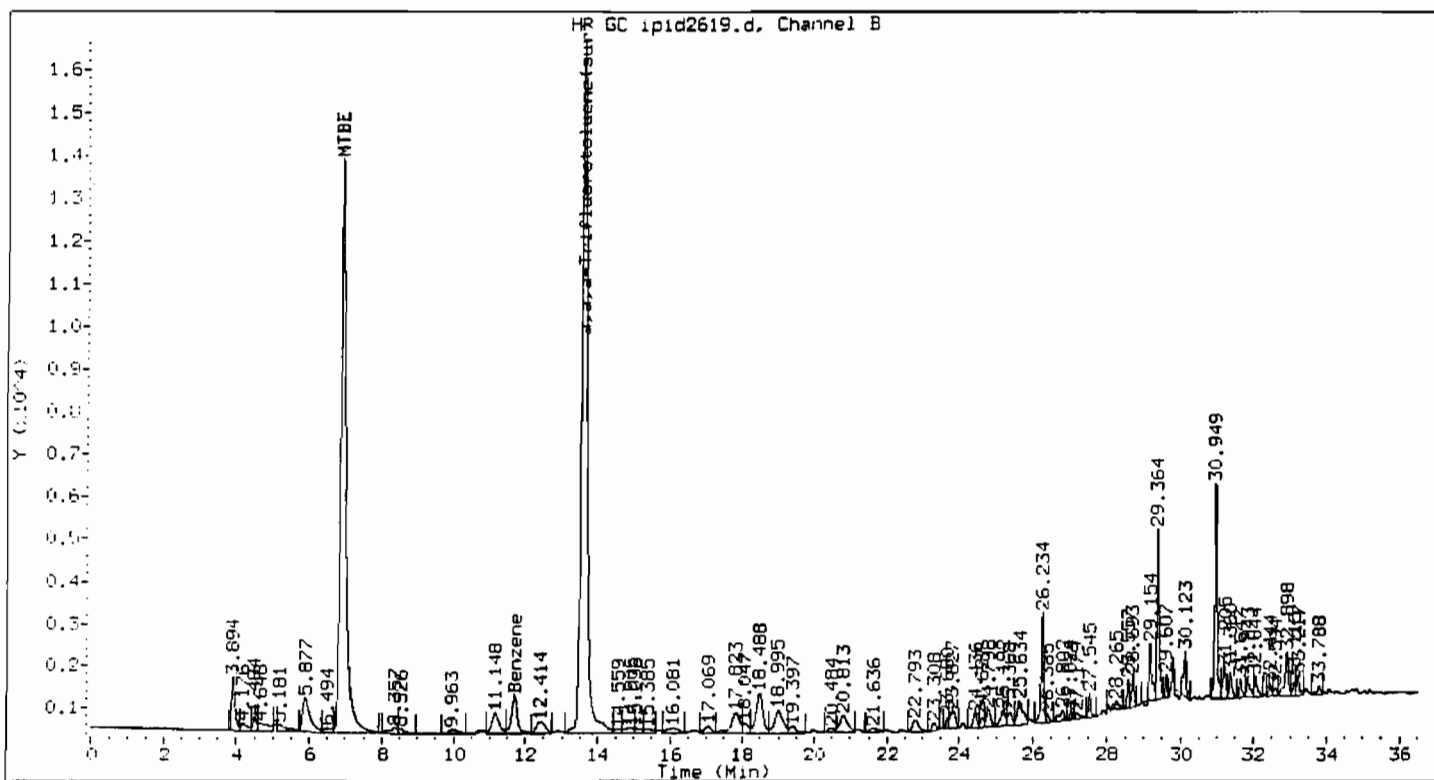
Lab Sample No: 322232
Lab Job No: R996

Date Sampled: 12/17/01
Date Received: 12/17/01
Date Analyzed: 12/26/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2619.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u>
		<u>Limit</u> <u>Units: ug/l</u>
MTBE	100	1.2
Benzene	3.0	1.4
Toluene	ND	1.3
Ethylbenzene	ND	1.3
Xylene (Total)	ND	1.2



Method : /chem/VOAGC3.i/602/12-26-01/26dec01.b/602_01.m
Sample Info : 322232;;5
Lab ID : 322232
Inj Date : 26-DEC-2001 18:42
Operator : SP
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 5
Sample Matrix : WATER
Sample Type: SAMPLE

MM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.891	6.882	0.009	712729	20.330	101.651
Benzene	11.701	11.692	0.010	52281	0.597	2.985
a,a,a-Trifluorotoluene(sur)	13.577	13.565	0.012	936216	30.924	30.924

Method Blank Results Summary

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG356A

Date Analyzed: 12/23/01

Instrument ID: VOAGC3

Time Analyzed: 0957

Lab File ID: IPID2589

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-4	322230	IPID2591	1117
02	MW-1	322227	IPID2592	1157
03	MW-2	322231	IPID2597	1517
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: IG356A
Site:

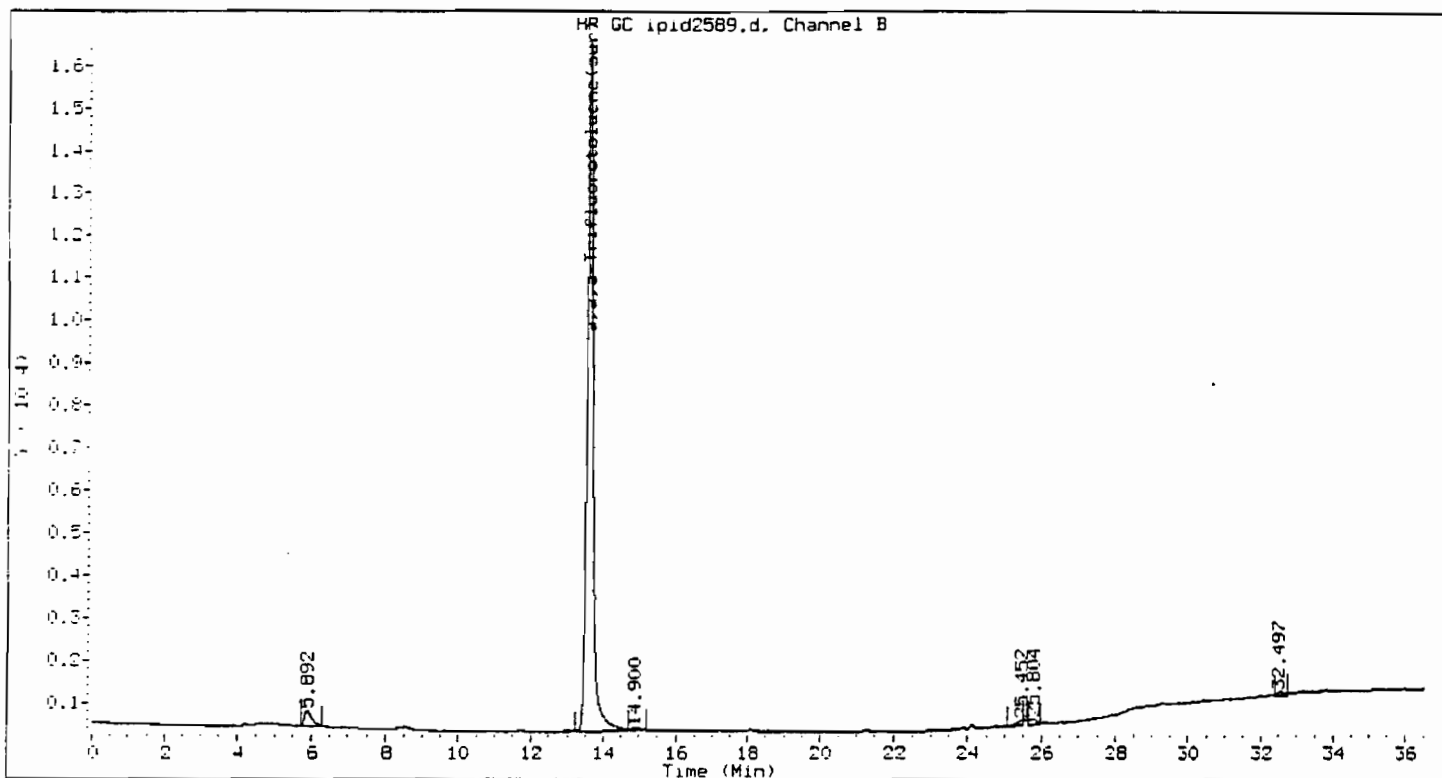
Lab Sample No: IG356A
Lab Job No: R996

Date Sampled: _____
Date Received: _____
Date Analyzed: 12/23/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2589.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	Analytical Result <u>Units: ug/l</u>	Method Detection
		Limit <u>Units: ug/l</u>
TBA	ND	18
MTBE	ND	0.24
DIPE	ND	0.22
Benzene	ND	0.28
Toluene	ND	0.26
Chlorobenzene	ND	0.23
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25
1,3-Dichlorobenzene	ND	0.28
1,4-Dichlorobenzene	ND	0.25
1,2-Dichlorobenzene	ND	0.28
Naphthalene	ND	0.21



Method : /chem/VOAGC3.i/602/10-17-01/22dec01.b/602_01.m
Sample Info : IG356A
Lab ID : IG356A
Inj Date : 23-DEC-2001 09:57
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

T x 2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.592	13.568	0.025	957013	30.175	30.175
-----	-----	-----	-----	-----	-----	-----

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG360

Date Analyzed: 12/26/01

Instrument ID: VOAGC3

Time Analyzed: 1602

Lab File ID: IPID2615

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-7	322228	IPID2617	1722
02	MW-3	322229	IPID2618	1802
03	MW-6	322232	IPID2619	1842
04	MW-3MS	322229MS	IPID2635	0523
05	MW-3MSD	322229MSD	IPID2636	0603
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: IG360
Site:

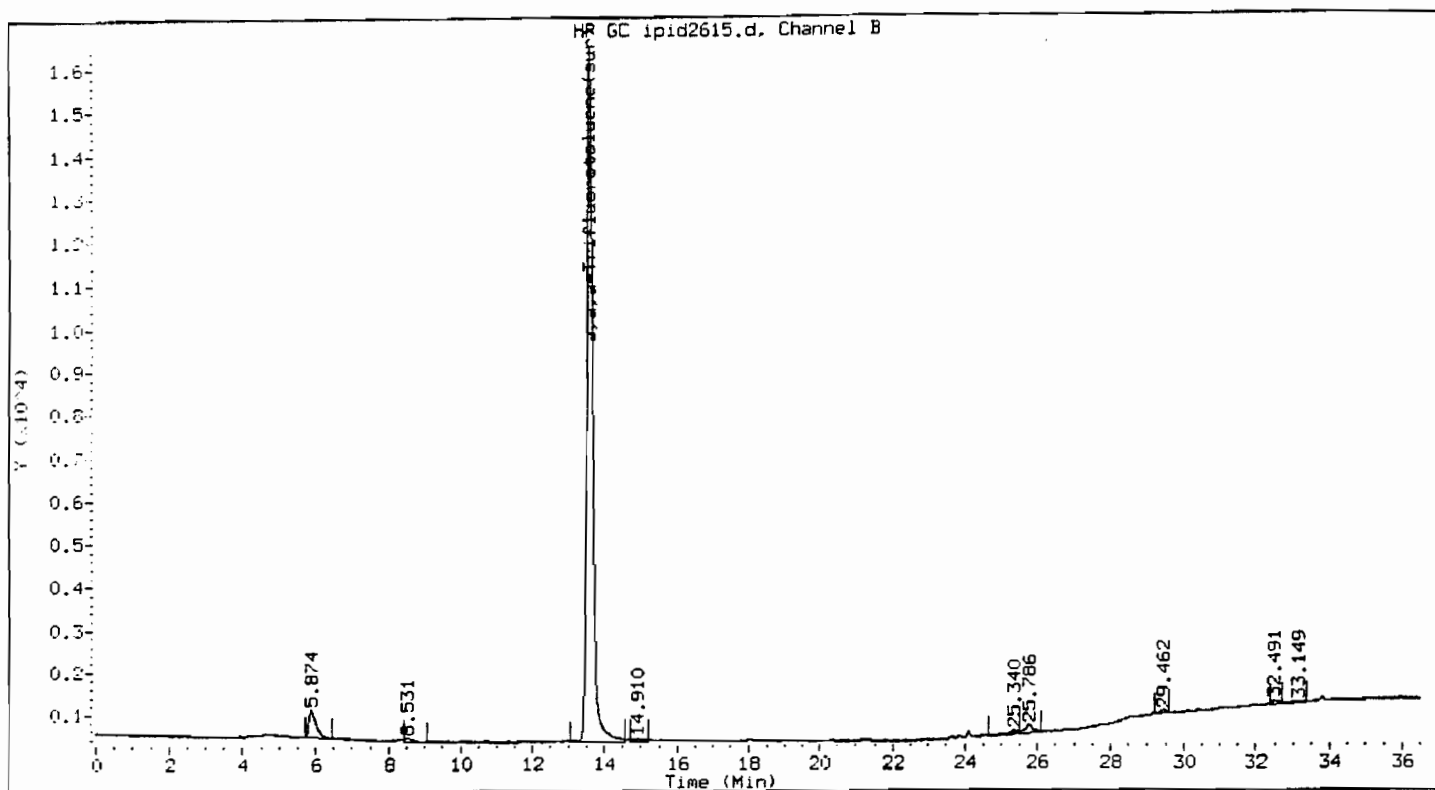
Lab Sample No: IG360
Lab Job No: R996

Date Sampled: _____
Date Received: _____
Date Analyzed: 12/26/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid2615.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
TBA	ND	18
MTBE	ND	0.24
DIPE	ND	0.22
Benzene	ND	0.28
Toluene	ND	0.26
Chlorobenzene	ND	0.23
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25
1,3-Dichlorobenzene	ND	0.28
1,4-Dichlorobenzene	ND	0.25
1,2-Dichlorobenzene	ND	0.28
Naphthalene	ND	0.21



```
Method       : /chem/VOAGC3.i/602/12-26-01/26dec01.b/602_01.m
Sample Info  : IG360
Lab ID       : IG360
Inst ID      : VOAGC3.i
Inj Date     : 26-DEC-2001 16:02
Dil Factor    : 1
Operator      : SP
Sample Matrix : WATER
Cpnd Sublist: all
Sample Type   : BLANK
```

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
a, a, a-Trifluorotoluene (sur)	13.575	13.565	0.010	932686	30.808	30.808

Standards Summary

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

Calibration Date(s): 10/17/01 10/17/01

Calibration Time(s): 1100 1340

LAB FILE ID:	RRF2: IPID2157	RRF5: IPID2156	RRF10: IPID2155		
	RRF20: IPID2154	RRF40: IPID2153			
COMPOUND	RRF2	RRF5	RRF10	RRF20	RRF40
TBA **	453	395	375	353	
MTBE	37916	35233	35268	35231	34429
DIPE	39173	36311	36548	37679	37351
Benzene	83794	79859	79115	78184	79526
Toluene	73959	69190	68280	67782	68563
Chlorobenzene	69080	68312	69503	69361	70268
Ethylbenzene	56790	55671	55764	55363	56039
Xylene (Total)	63608	61264	61146	60542	61618
1,3-Dichlorobenzene	40747	40950	43352	44915	45560
1,4-Dichlorobenzene	54230	51629	50045	48893	49312
1,2-Dichlorobenzene	31547	34255	35539	37486	37681
Naphthalene	30391	28866	28689	30836	29502
a,a,a-Trifluorotoluene(sur)	31293	31222	31820	31665	32577

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

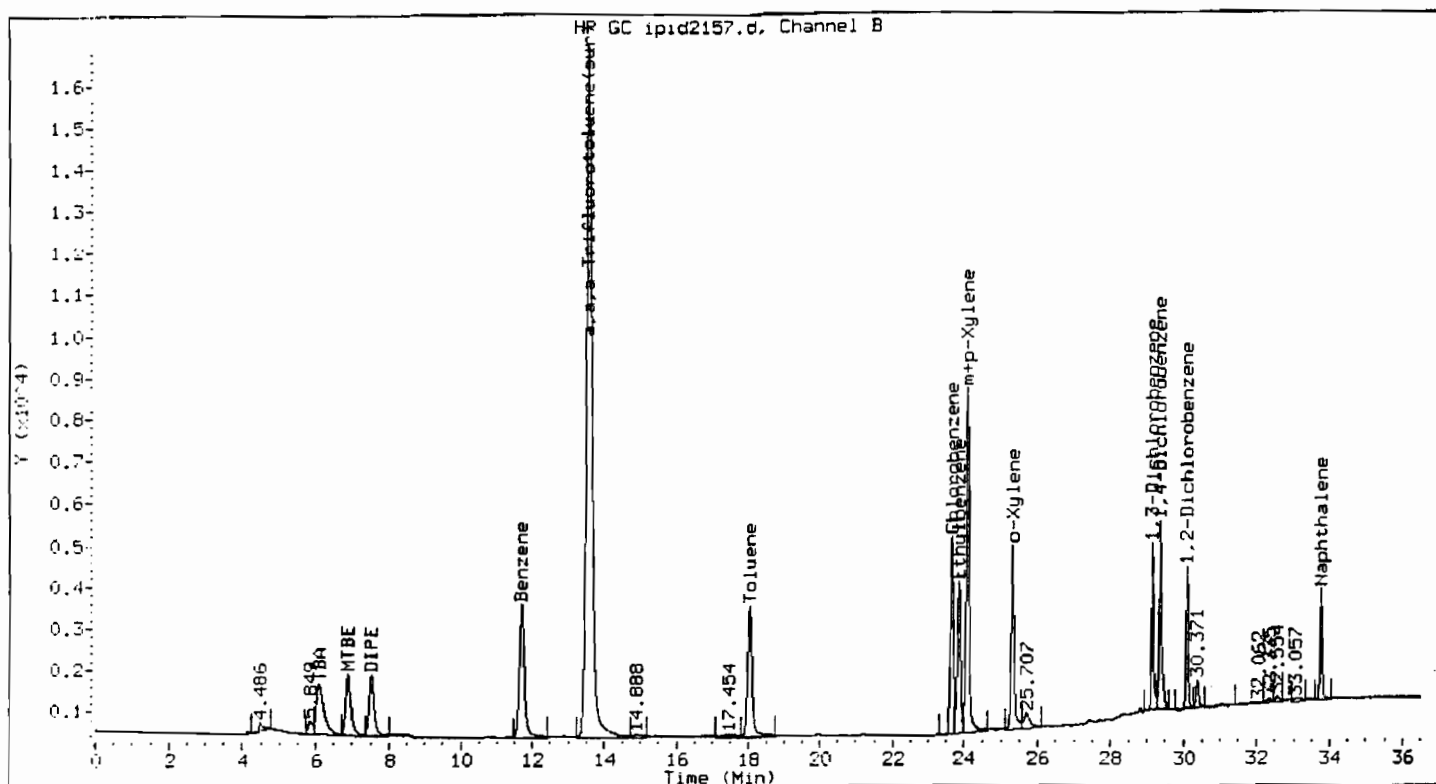
Calibration Date(s): 10/17/01 10/17/01

Calibration Time(s): 1100 1340

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
=====	=====	=====	=====
TBA **	AVRG	394	11*
MTBE	AVRG	35615	3.7*
DIPE	AVRG	37412	3.0*
Benzene	AVRG	80096	2.7*
Toluene	AVRG	69555	3.6*
Chlorobenzene	AVRG	69305	1.0*
Ethylbenzene	AVRG	55926	1.0*
Xylene (Total)	AVRG	61635	1.9*
1,3-Dichlorobenzene	AVRG	43105	5.1*
1,4-Dichlorobenzene	AVRG	50822	4.3*
1,2-Dichlorobenzene	AVRG	35302	7.2*
Naphthalene	AVRG	29657	3.2*
=====	=====	=====	=====
a,a,a-Trifluorotoluene(sur)	AVRG	31715	1.7*

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

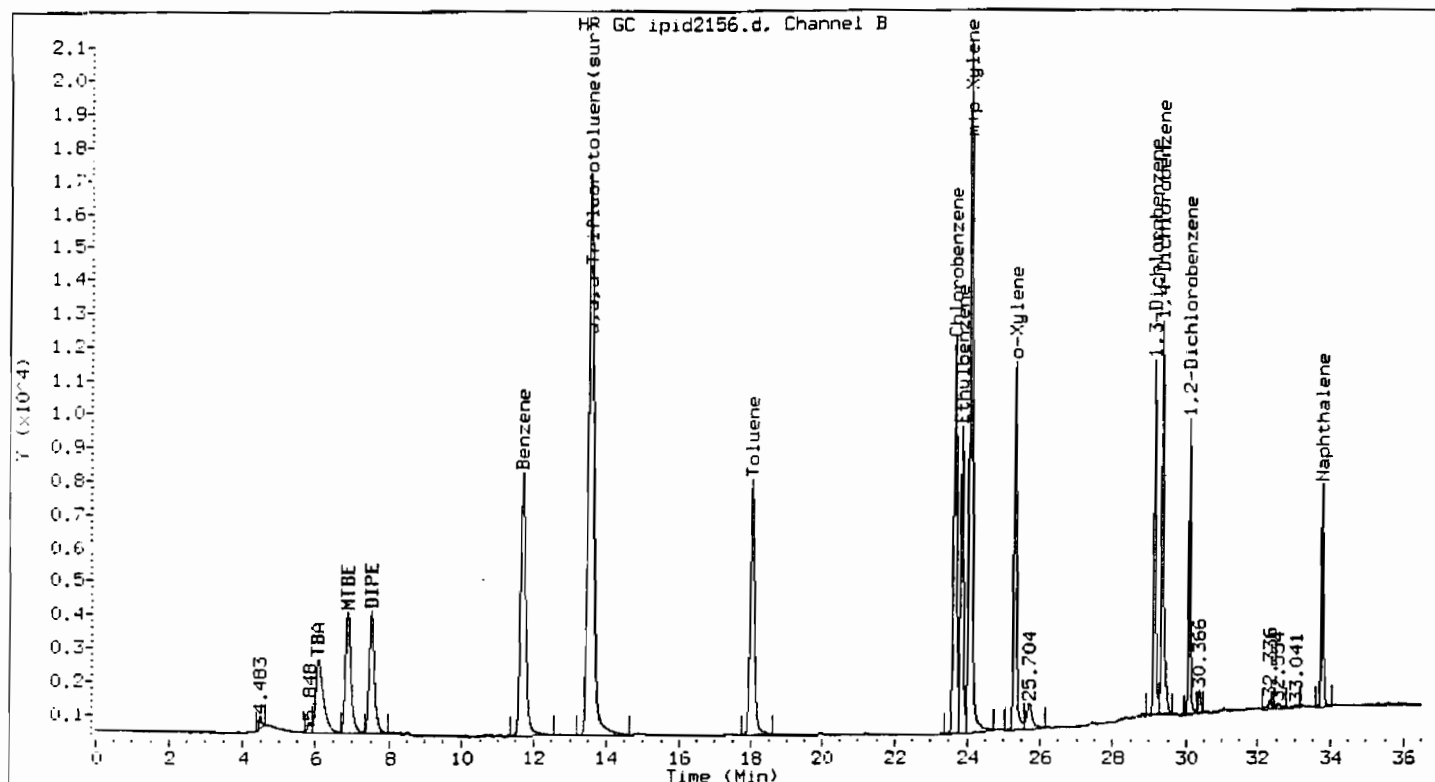
* Compounds with required maximum %RSD values.



Method : /chem/VOAGC3.i/602/10-17-01/17oct01.b/602_01.m
Sample Info : ISTD002
Lab ID : ISTD002
Inj Date : 17-OCT-2001 13:40
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.1
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_1

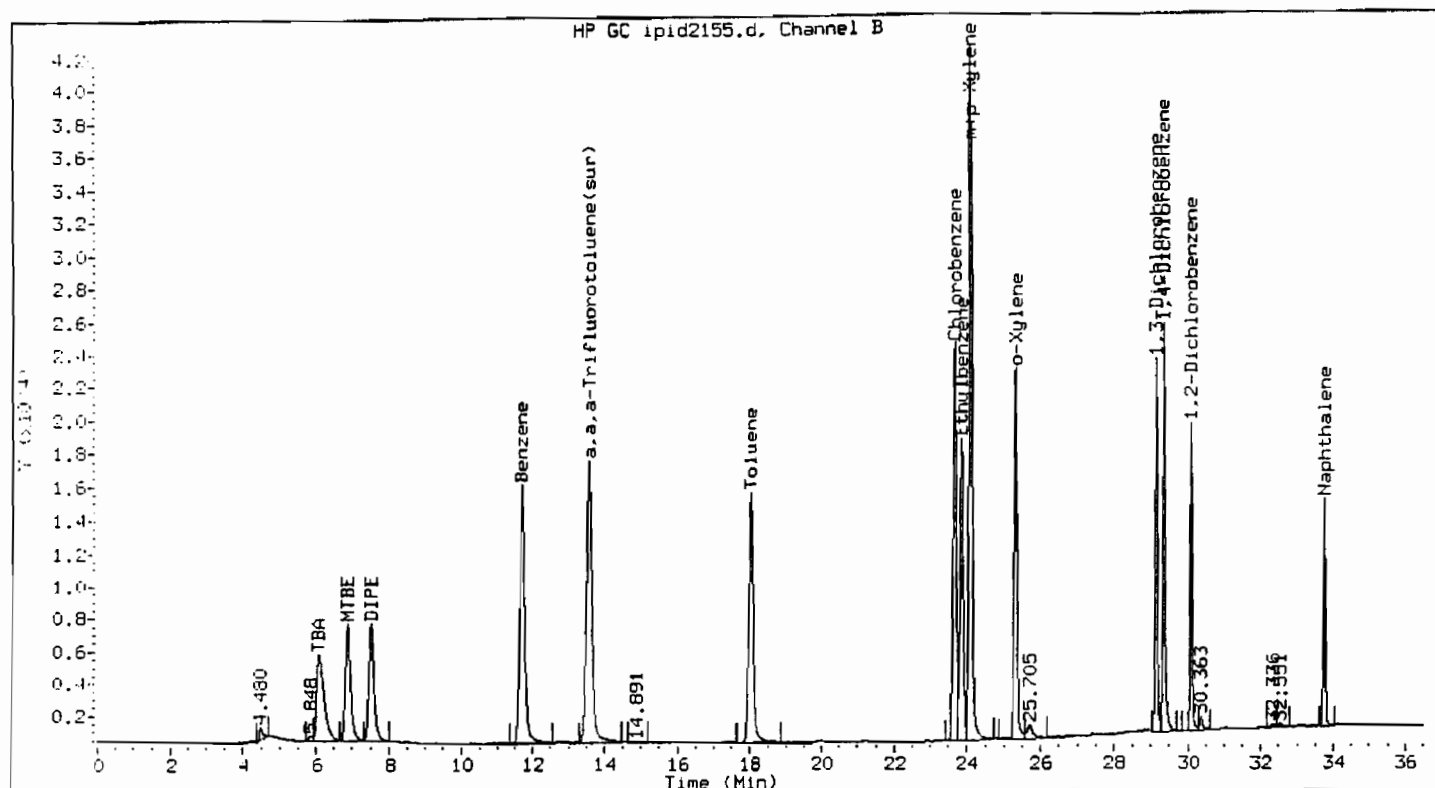
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.309	25.310	0.001	124339	2.123	2.123
m+p-Xylene	24.086	24.088	0.001	257307	4.074	4.074
TBA	6.086	6.081	0.005	90610	229.895	229.895
MTBE	6.880	6.876	0.004	75831	2.129	2.129
DIPE	7.512	7.509	0.003	78346	2.094	2.094
Benzene	11.690	11.688	0.001	167588	2.092	2.092
Toluene	18.019	18.019	0.000	147918	2.127	2.127
Chlorobenzene	23.654	23.655	0.001	138161	1.994	1.994
Ethylbenzene	23.845	23.846	0.000	113581	2.031	2.031



Method : /chem/VOAGC3.i/602/10-17-01/17oct01.b/602_01.m
Sample Info : ISTD005
Lab ID : ISTD005
Inj Date : 17-OCT-2001 13:00
Operator : SP
Cpnd Sublist: all
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.308	25.310	0.002	290478	4.959	4.959
m+p-Xylene	24.085	24.088	0.002	628475	9.950	9.950
TBA	6.078	6.081	0.004	158095	401.117	401.117
MTBE	6.882	6.876	0.006	176165	4.946	4.946
DIPE	7.507	7.509	0.002	181553	4.853	4.853
Benzene	11.687	11.688	0.002	399294	4.985	4.985
Toluene	18.017	18.019	0.002	345951	4.974	4.974
Chlorobenzene	23.652	23.655	0.003	341561	4.928	4.928
Ethylbenzene	23.844	23.846	0.002	278357	4.977	4.977

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	918953	14.909	14.909
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.137	29.137	0.001	204752	4.750	4.750
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.348	29.347	0.001	258144	5.079	5.079
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.088	30.088	0.000	171275	4.852	4.852
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.749	33.747	0.002	144329	4.867	4.867
-----	-----	-----	-----	-----	-----	-----
α,α,α-Trifluorotoluene(sur)	13.559	13.561	0.002	936647	29.533	29.533
-----	-----	-----	-----	-----	-----	-----

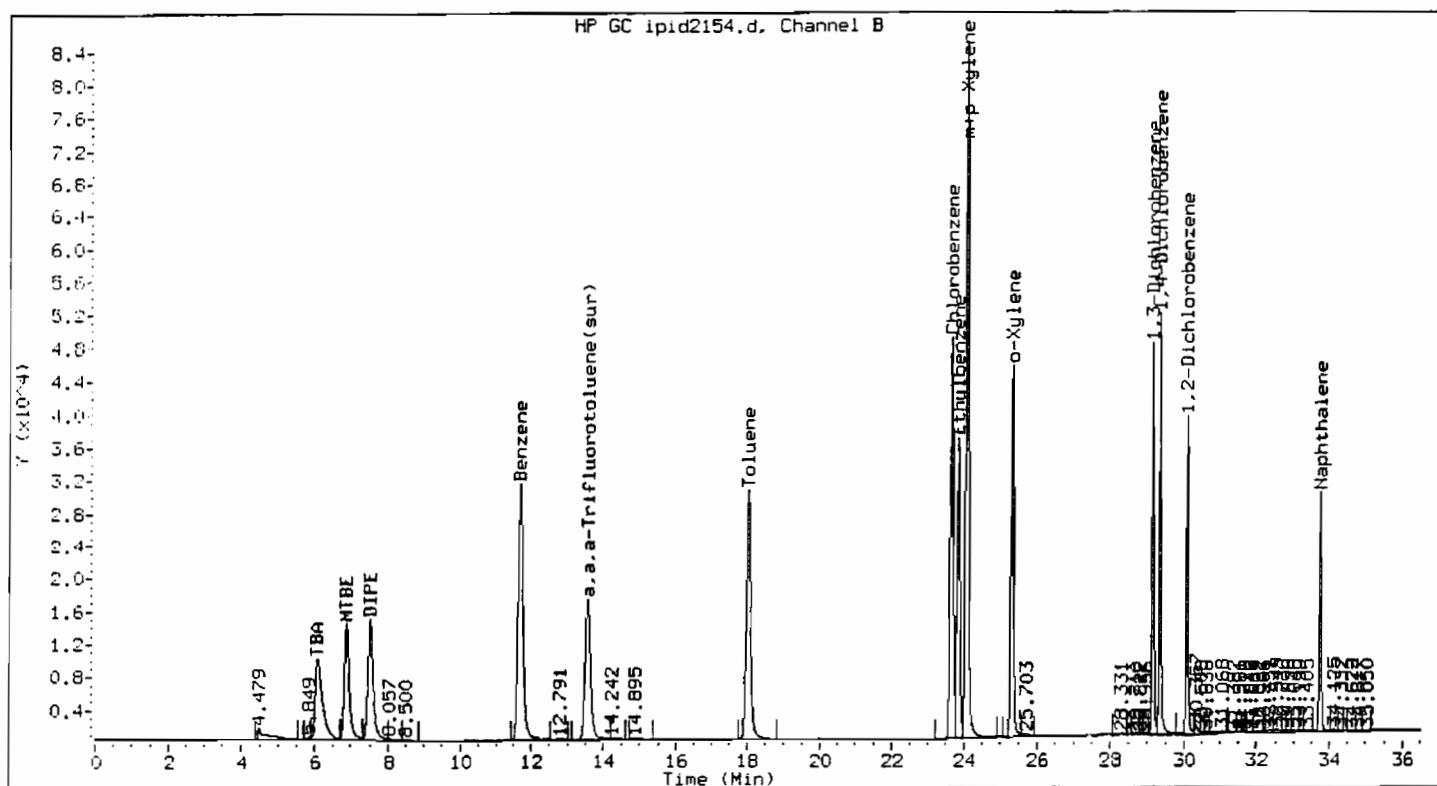


Method : /chem/VOAGC3.i/602/10-17-01/17oct01.b/602_01.m
Sample Info : ISTD010
Lab ID : ISTD010
Inj Date : 17-OCT-2001 12:20
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.1
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_3

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.309	25.310	0.001	580076	9.903	9.903
m+p-Xylene	24.087	24.088	0.000	1254303	19.857	19.857
TBA	6.083	6.081	0.002	375179	951.900	951.900
MTBE	6.881	6.876	0.005	352676	9.902	9.902
DIPE	7.511	7.509	0.002	365480	9.769	9.769
Benzene	11.690	11.688	0.002	791150	9.878	9.878
Toluene	18.020	18.019	0.001	682796	9.817	9.817
Chlorobenzene	23.655	23.655	0.000	695026	10.029	10.029
Ethylbenzene	23.846	23.846	0.000	557636	9.971	9.971

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	1834379	29.762	29.762
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.137	29.137	0.000	433521	10.057	10.057
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.348	29.347	0.001	500451	9.847	9.847
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.087	30.088	0.000	355393	10.067	10.067
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.748	33.747	0.000	286889	9.674	9.674
-----	-----	-----	-----	-----	-----	-----
a, a, a-Trifluorotoluene(sur)	13.563	13.561	0.001	954588	30.099	30.099
-----	-----	-----	-----	-----	-----	-----

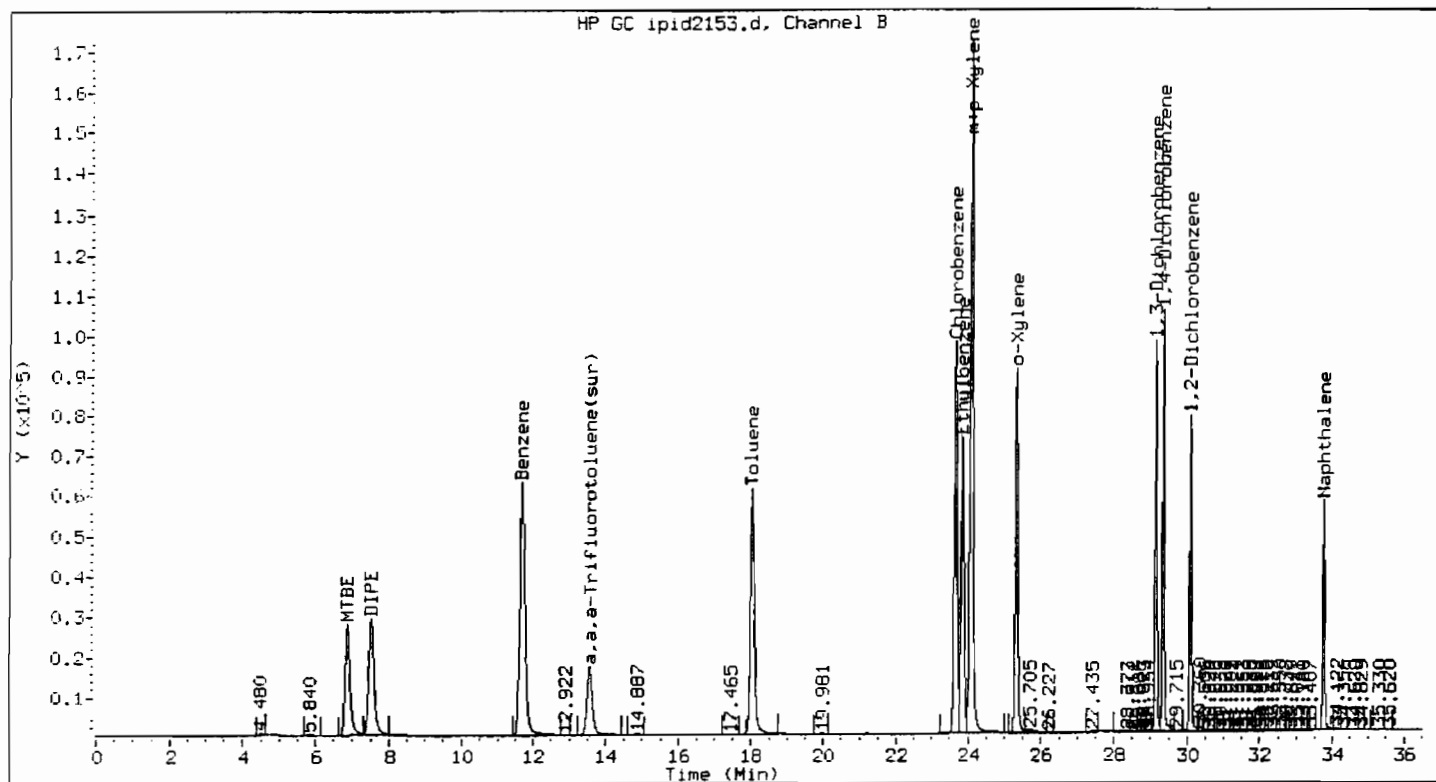


Method : /chem/VOAGC3.i/602/10-17-01/17oct01.b/602_01.m
Sample Info : ISTD020
Lab ID : ISTD020
Inj Date : 17-OCT-2001 11:40
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.310	25.310	0.000	1138078	19.430	19.430
m+p-Xylene	24.088	24.088	0.000	2494476	39.491	39.491
TBA	6.081	6.081	0.000	706164	1791.671	1791.671
MTBE	6.876	6.876	0.000	704614	19.784	19.784
DIPE	7.509	7.509	0.000	753575	20.142	20.142
Benzene	11.688	11.688	0.000	1563688	19.523	19.523
Toluene	18.019	18.019	0.000	1355649	19.490	19.490
Chlorobenzene	23.655	23.655	0.000	1387222	20.016	20.016
Ethylbenzene	23.846	23.846	0.000	1107258	19.799	19.799

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	3632554	58.936	58.936
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.137	29.137	0.000	898305	20.840	20.840
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.347	29.347	0.000	977854	19.241	19.241
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.088	30.088	0.000	749713	21.237	21.237
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.747	33.747	0.000	616713	20.795	20.795
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.561	13.561	0.000	949945	29.952	29.952
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC3.i/602/10-17-01/17oct01.b/602_01.m
Sample Info : ISTD040
Lab ID : ISTD040
Inj Date : 17-OCT-2001 11:00
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_5

Compounds	CONCENTRATIONS					
	RT	HXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.312	25.310	0.003	2307825	39.400	39.400
m+p-Xylene	24.092	24.088	0.004	5086305	80.523	80.523
MTBE	6.874	6.876	0.002	1377177	38.668	38.668
DIPE	7.507	7.509	0.003	1494055	39.935	39.935
Benzene	11.688	11.688	0.001	3181046	39.716	39.716
Toluene	18.024	18.019	0.004	2742526	39.430	39.430
Chlorobenzene	23.659	23.655	0.004	2810705	40.556	40.556
Ethylbenzene	23.850	23.846	0.004	2241574	40.081	40.081
Xylene (Total)	25.019	25.019	0.000	7394130	119.965	119.965

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.137	29.137	0.000	1822383	42.278	42.278
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.347	29.347	0.000	1972502	38.812	38.812
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.087	30.088	0.001	1507259	42.697	42.697
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.745	33.747	0.002	1180091	39.792	39.792
-----	-----	-----	-----	-----	-----	-----
m,a,a-Trifluorotoluene(sur)	13.564	13.561	0.003	977298	30.815	30.815
-----	-----	-----	-----	-----	-----	-----

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

Calibration Date(s): 12/26/01 12/26/01

Calibration Time(s): 1021 1402

LAB FILE ID:	RRF2: IPID2609	RRF5: IPID2608	RRF10: IPID2607		
	RRF20: IPID2612	RRF40: IPID2611			
COMPOUND	RRF2	RRF5	RRF10	RRF20	RRF40
TBA **	285	322	296	293	
MTBE	35392	35742	34576	34612	34965
DIPE	38570	38551	37734	37704	37357
Benzene	88748	90042	87663	86397	85051
Toluene	81054	79960	78250	76997	75362
Chlorobenzene	73990	75853	76512	76663	75753
Ethylbenzene	63285	64848	64691	62694	61676
Xylene (Total)	70682	71993	70923	69524	68135
1,3-Dichlorobenzene	42399	45877	49761	48857	49469
1,4-Dichlorobenzene	46526	49440	52720	51150	51889
1,2-Dichlorobenzene	34022	37122	39297	38778	39296
Naphthalene	23086	23146	24594	25894	27324
a,a,a-Trifluorotoluene (sur)	30559	31142	29724	29896	30050

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

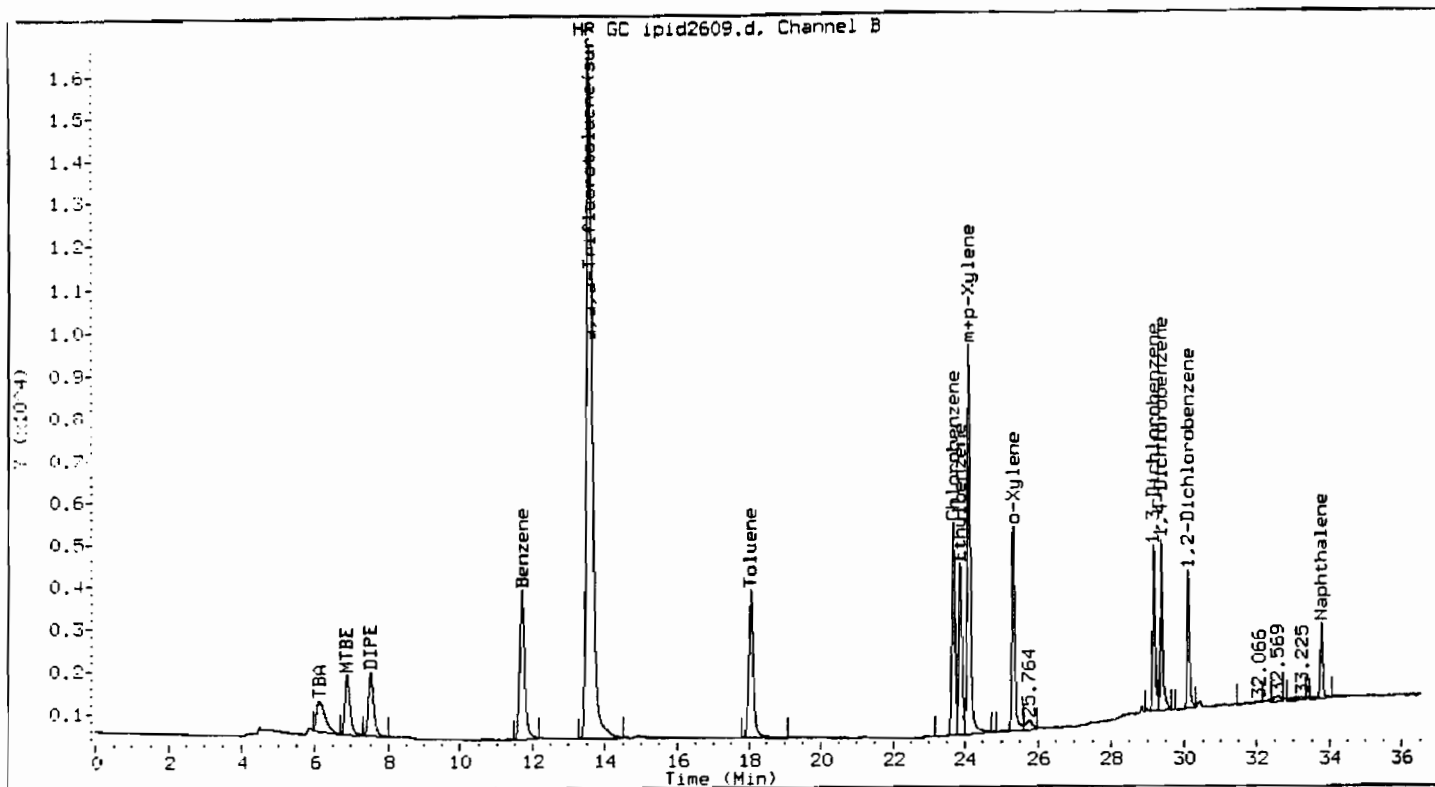
Calibration Date(s): 12/26/01 12/26/01

Calibration Time(s): 1021 1402

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
=====	=====	=====	=====
TBA **	AVRG	299	5.3*
MTBE	AVRG	35058	1.4*
DIPE	AVRG	37983	1.4*
Benzene	AVRG	87580	2.2*
Toluene	AVRG	78325	2.9*
Chlorobenzene	AVRG	75754	1.4*
Ethylbenzene	AVRG	63439	2.1*
Xylene (Total)	AVRG	70251	2.1*
1,3-Dichlorobenzene	AVRG	47272	6.6*
1,4-Dichlorobenzene	AVRG	50345	4.9*
1,2-Dichlorobenzene	AVRG	37703	5.9*
Naphthalene	AVRG	24809	7.3*
=====	=====	=====	=====
a,a,a-Trifluorotoluene (sur)	AVRG	30274	1.9*

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

* Compounds with required maximum %RSD values.

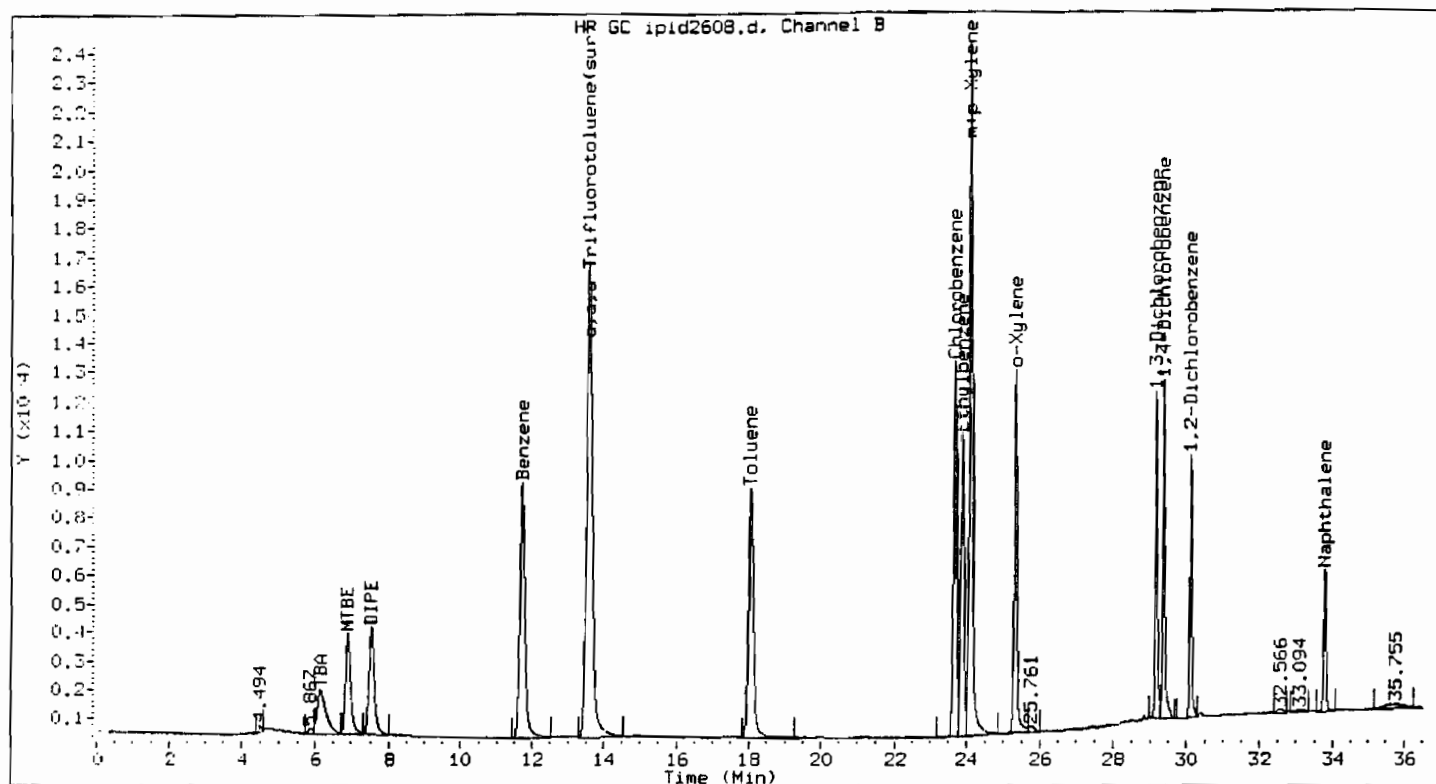


Method : /chem/VOAGC3.i/602/12-26-01/26dec01.b/602_01.m
Sample Info : ISTD002
Lab ID : ISTD002
Inj Date : 26-DEC-2001 11:42
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_1

Compound	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.321	25.314	0.007	134981	2.064	2.064
m+p-Xylene	24.101	24.093	0.008	289113	3.978	3.978
TBA	6.127	6.100	0.027	57014	190.674	190.674
MTBE	6.890	6.882	0.008	70785	2.019	2.019
DIPE	7.522	7.511	0.011	77139	2.031	2.031
Benzene	11.702	11.692	0.010	177496	2.027	2.027
Toluene	18.035	18.025	0.010	162109	2.070	2.070
Chlorobenzene	23.669	23.660	0.009	147979	1.953	1.953
Ethylbenzene	23.859	23.851	0.008	126570	1.995	1.995

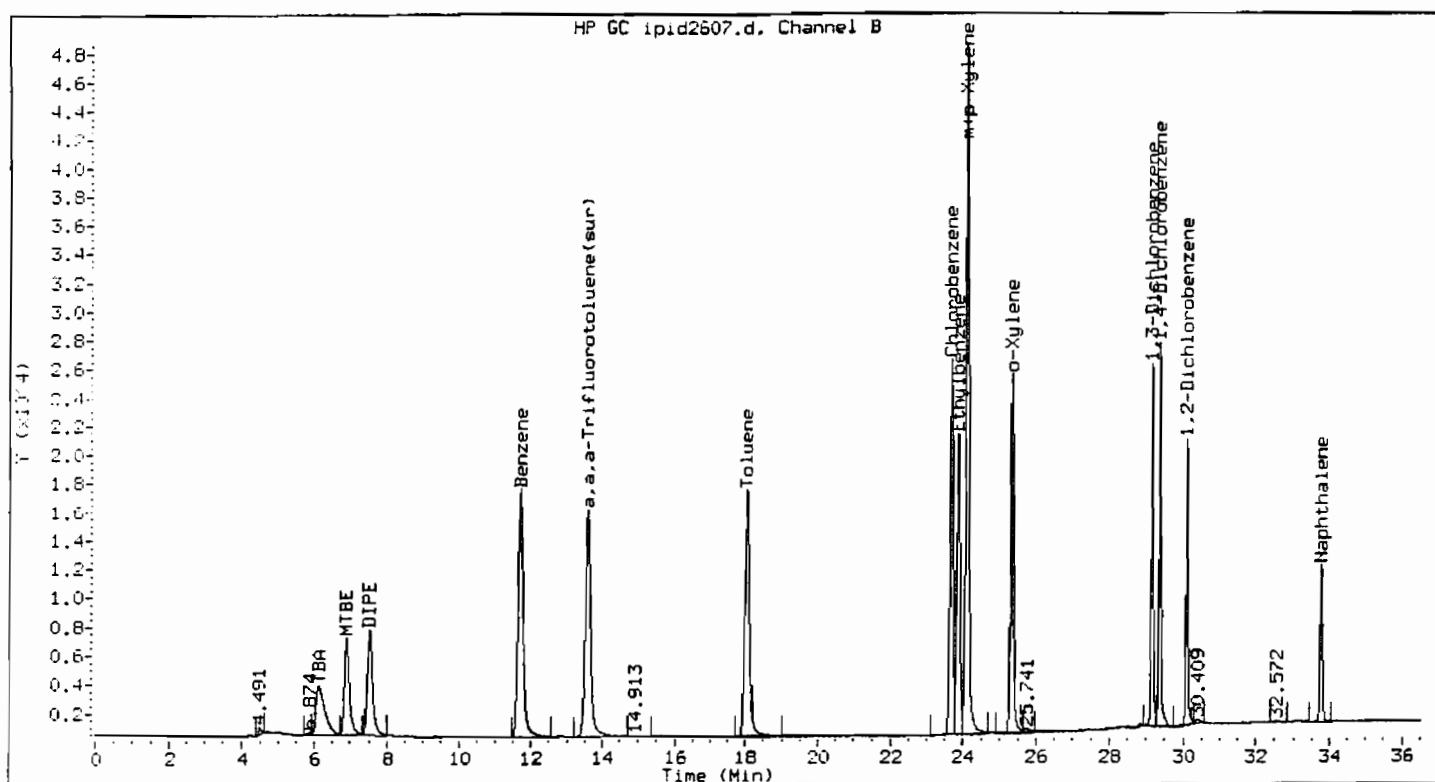
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
Xylene (Total)	25.019	25.019	0.000	424094	6.037	6.037
1,3-Dichlorobenzene	29.152	29.142	0.010	84798	1.794	1.794
1,4-Dichlorobenzene	29.363	29.353	0.010	93051	1.848	1.848
1,2-Dichlorobenzene	30.102	30.093	0.009	68044	1.805	1.805
Naphthalene	33.774	33.757	0.017	46171	1.861	1.861
a,a,a-Trifluorotoluene(sur)	13.577	13.565	0.012	916777	30.282	30.282



Method : /chem/VOAGC3.i/602/12-26-01/26dec01.b/602_01.m
Sample Info : ISTD005
Lab ID : ISTD005
Inj Date : 26-DEC-2001 11:01
Operator : SP
Cpnd Sublist: all
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.321	25.314	0.007	334351	5.112	5.112
m+p-Xylene	24.101	24.093	0.008	745541	10.258	10.258
TBA	6.130	6.100	0.030	128741	430.553	430.553
MTBE	6.892	6.882	0.010	178711	5.098	5.098
DIPE	7.522	7.511	0.011	192754	5.075	5.075
Benzene	11.703	11.692	0.012	450212	5.141	5.141
Toluene	18.036	18.025	0.011	399802	5.104	5.104
Chlorobenzene	23.669	23.660	0.009	379267	5.007	5.007
Ethylbenzene	23.860	23.851	0.009	324239	5.111	5.111

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	1079892	15.372	15.372
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	29.149	29.142	0.007	229383	4.852	4.852
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.360	29.353	0.007	247202	4.910	4.910
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.099	30.093	0.007	185608	4.923	4.923
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.769	33.757	0.012	115729	4.665	4.665
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.578	13.565	0.013	934265	30.860	30.860
-----	-----	-----	-----	-----	-----	-----

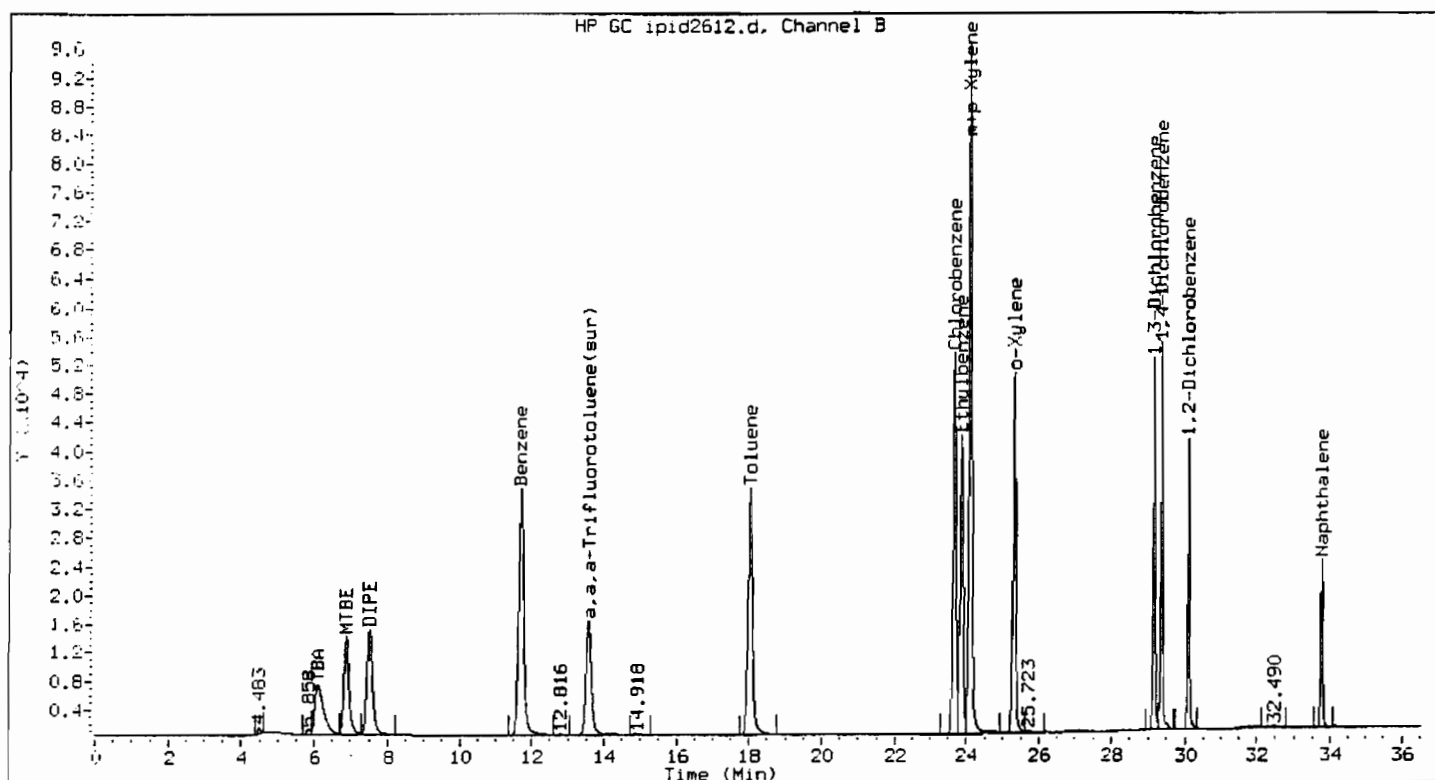


Method : /chem/VOAGC3.i/602/12-26-01/26dec01.b/602_01.m
Sample Info : ISTD010
Lab ID : ISTD010
Inj Date : 26-DEC-2001 10:21
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_3

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.322	25.314	0.008	659646	10.086	10.086
m+p-Xylene	24.102	24.093	0.009	1468043	20.200	20.200
TBA	6.126	6.100	0.026	296032	990.030	990.030
MTBE	6.891	6.882	0.009	345762	9.863	9.863
DIPE	7.522	7.511	0.011	377338	9.934	9.934
Benzene	11.704	11.692	0.012	876633	10.009	10.009
Toluene	18.038	18.025	0.014	782497	9.990	9.990
Chlorobenzene	23.670	23.660	0.011	765119	10.100	10.100
Ethylbenzene	23.860	23.851	0.010	646907	10.197	10.197

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
Xylene (Total)	25.019	25.019	0.000	2127689	30.287	30.287
1,3-Dichlorobenzene	29.149	29.142	0.006	497609	10.526	10.526
1,4-Dichlorobenzene	29.359	29.353	0.006	527198	10.472	10.472
1,2-Dichlorobenzene	30.099	30.093	0.006	392971	10.423	10.423
Naphthalene	33.766	33.757	0.009	245940	9.913	9.913
a,a,a-Trifluorotoluene(sur)	13.579	13.565	0.014	891728	29.455	29.455

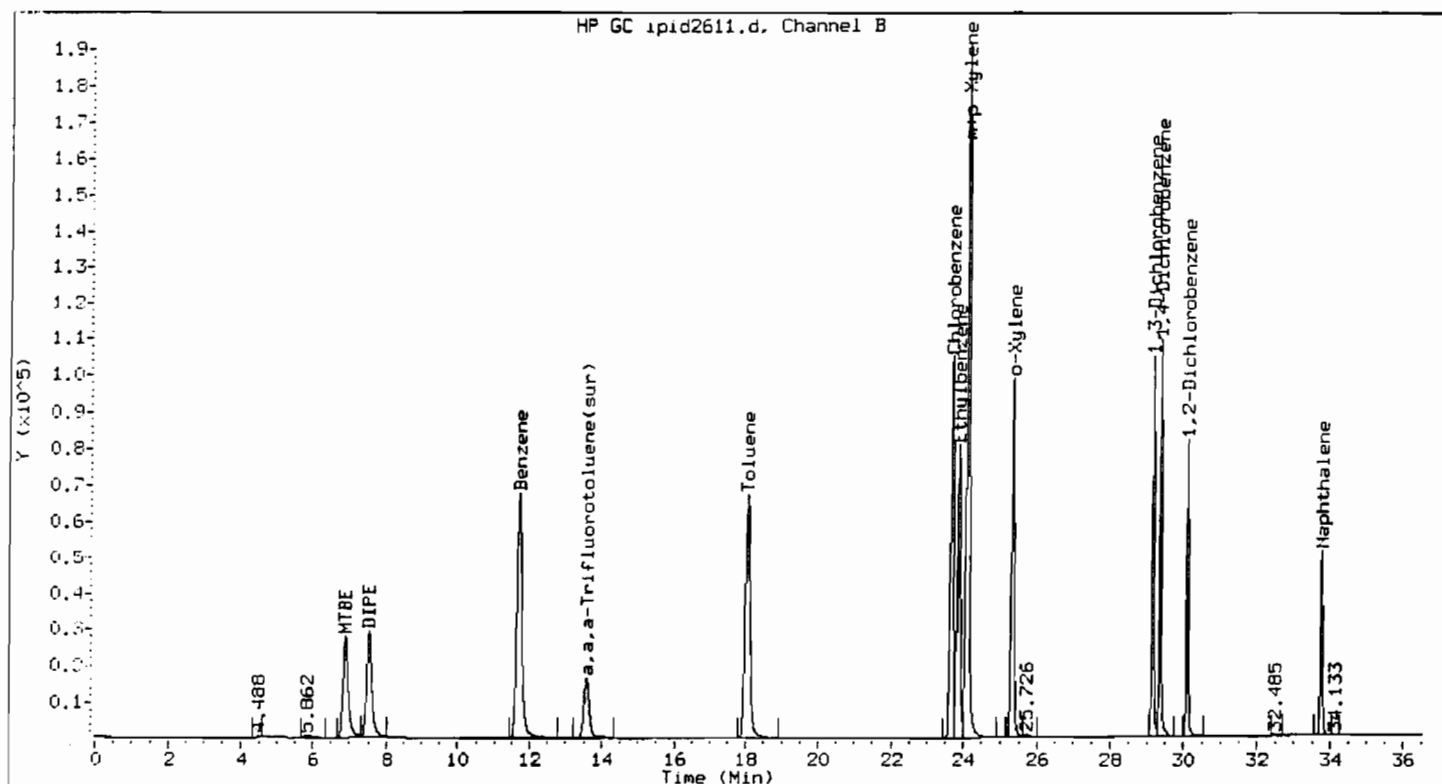


Method : /chem/VOAGC3.i/602/12-26-01/26dec01.b/602_01.m
Sample Info : ISTD020
Lab ID : ISTD020
Inj Date : 26-DEC-2001 14:02
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.314	25.314	0.000	1284220	19.636	19.636
m+p-Xylene	24.093	24.093	0.000	2887210	39.727	39.727
TBA	6.100	6.100	0.000	586196	1960.436	1960.436
MTBE	6.882	6.882	0.000	692251	19.746	19.746
DIPE	7.511	7.511	0.000	754072	19.853	19.853
Benzene	11.692	11.692	0.000	1727949	19.730	19.730
Toluene	18.025	18.025	0.000	1539942	19.661	19.661
Chlorobenzene	23.660	23.660	0.000	1533265	20.240	20.240
Ethylbenzene	23.851	23.851	0.000	1253881	19.765	19.765

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
=====	=====	=====	=====	=====	(ug/L)	(ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	4171430	59.379	59.379
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.142	29.142	0.000	977140	20.670	20.670
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.353	29.353	0.000	1022991	20.320	20.320
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.093	30.093	0.000	775559	20.570	20.570
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.757	33.757	0.000	517887	20.875	20.875
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(our)	13.565	13.565	0.000	896892	29.625	29.625
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC3.i/602/12-26-01/26dec01.b/602_01.m
Sample Info : ISTD040
Lab ID : ISTD040
Inj Date : 26-DEC-2001 13:22
Operator : SP
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_5

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.315	25.314	0.001	2498861	38.208	38.208
m+p-Xylene	24.095	24.093	0.002	5677353	78.118	78.118
MTBE	6.884	6.882	0.002	1398599	39.894	39.894
DIPE	7.515	7.511	0.004	1494280	39.341	39.341
Benzene	11.695	11.692	0.004	3402024	38.845	38.845
Toluene	18.026	18.025	0.001	3014461	38.487	38.487
Chlorobenzene	23.662	23.660	0.002	3030114	39.999	39.999
Ethylbenzene	23.853	23.851	0.002	2467031	38.888	38.888
Xylene (Total)	25.019	25.019	0.000	8176214	116.385	116.385

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
=====	=====	=====	=====	=====	=====	=====
1,3-Dichlorobenzene	29.142	29.142	0.000	1978763	41.859	41.859
1,4-Dichlorobenzene	29.352	29.353	0.000	2075545	41.227	41.227
1,2-Dichlorobenzene	30.092	30.093	0.000	1571827	41.690	41.690
Naphthalene	33.755	33.757	0.002	1092971	44.056	44.056
a,a,a-Trifluorotoluene(sur)	13.572	13.565	0.007	901488	29.777	29.777

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

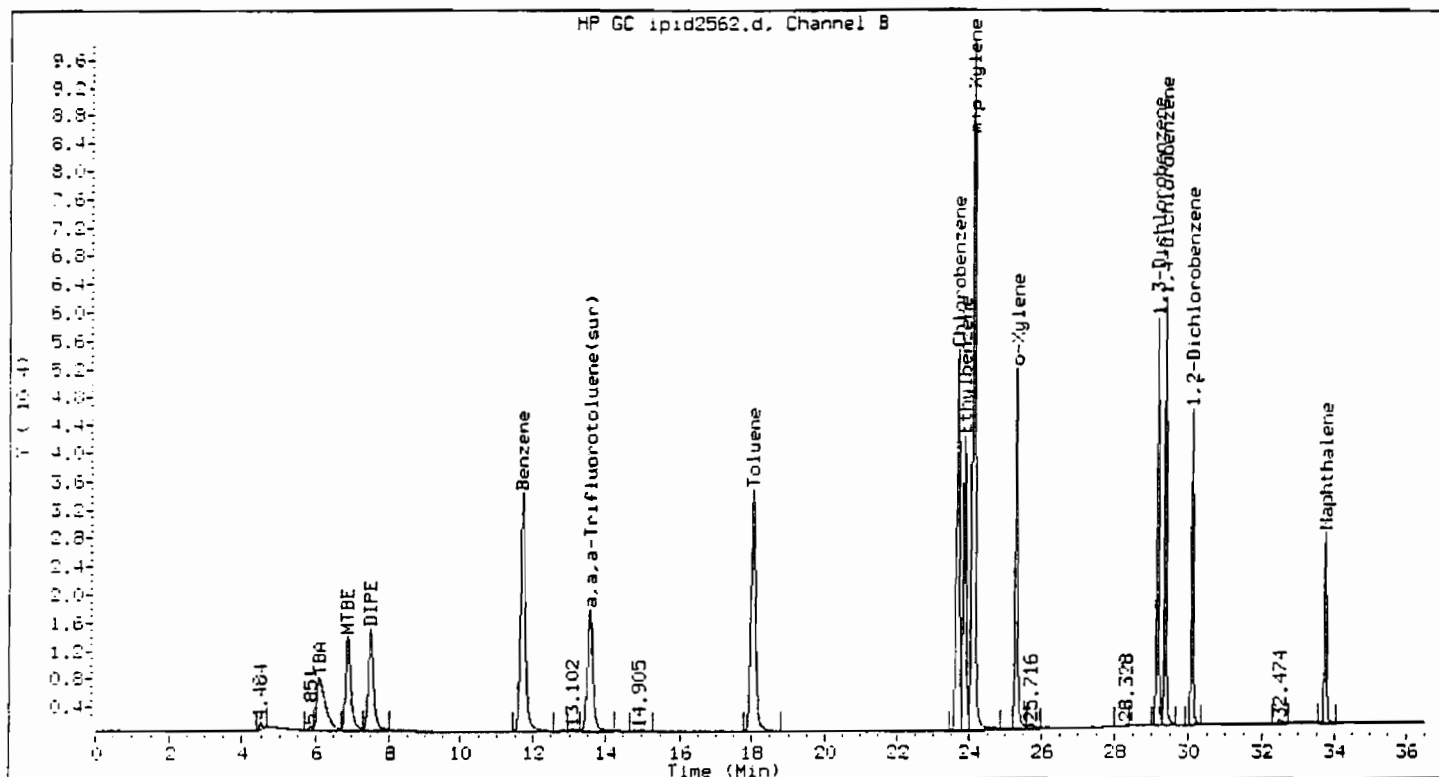
Instrument ID: VOAGC3 Calibration Date: 12/22/01 Time: 1544

Lab File ID: IPID2562 Init. Calib. Date(s): 10/17/01 10/17/01

Heated Purge: (Y/N) N Init. Calib. Times: 1100 1340

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
TBA **	394.14	327.76		16.8	40.0
MTBE	35615.24	34178.75		4.0	40.0
DIPE	37412.35	37241.50		0.4	40.0
Benzene	80095.67	86206.65		-7.6	23.0
Toluene	69554.88	77433.95		-11.3	22.5
Chlorobenzene	69304.80	78214.60		-12.8	19.5
Ethylbenzene	55925.55	63475.80		-13.5	37.0
Xylene (Total)	61635.50	71042.22		-15.3	40.0
1,3-Dichlorobenzene	43104.87	54445.75		-26.3	27.5
1,4-Dichlorobenzene	50821.83	56728.20		-11.6	30.5
1,2-Dichlorobenzene	35301.69	42605.35		-20.7	32.0
Naphthalene	29656.73	29018.15		2.2	40.0
=====	=====	=====	=====	=====	=====
a,a,a-Trifluorotoluene(sur)	31715.15	32301.73		-1.8	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/10-17-01/22dec01.b/602_01.m

Sample Info : ISTD020

Lab ID : ISTD020

Inj Date : 22-DEC-2001 15:44

Operator : SP

Cpnd Sublist: all

Inst ID : VOAGC3.i

Dil Factor : 1

Sample Matrix : WATER

Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.313	25.313	0.000	1339478	22.868	22.868
m,p-Xylene	24.092	24.092	0.000	2923055	46.276	46.276
TBA	6.090	6.090	0.000	655528	1663.198	1663.198
MTBE	6.880	6.880	0.000	683575	19.193	19.193
DIPE	7.512	7.512	0.000	744830	19.909	19.909
Benzene	11.693	11.693	0.000	1724133	21.526	21.526
Toluene	18.027	18.027	0.000	1548679	22.266	22.266
Chlorobenzene	23.660	23.660	0.000	1564292	22.571	22.571
Ethylbenzene	23.851	23.851	0.000	1269516	22.700	22.700

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
=====	=====	=====	=====	=====	(ug/L)	(ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	4262533	69.157	69.157
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.139	29.139	0.000	1088915	25.262	25.262
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.349	29.349	0.000	1134564	22.324	22.324
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.089	30.089	0.000	852107	24.138	24.138
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.751	33.751	0.000	580363	19.569	19.569
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.568	13.568	0.000	969052	30.555	30.555
-----	-----	-----	-----	-----	-----	-----

Surrogate Compound Recovery Summary

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER

Level: LOW

Lab Job No: R996

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
	=====	=====	=====	=====	=====
01	IG356A	100			0
02	322230	106			0
03	322227	107			0
04	322231	101			0
05	IG360	103			0
06	322228	102			0
07	322229	102			0
08	322232	103			0
09	322229MS	108			0
10	322229MSD	107			0
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

QC LIMITS

SMC1 = a,a,a-Trifluorotoluene (68-134)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Spike Recovery Summary

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Matrix Spike - Lab Sample No.: 322229

Level: LOW

MS Sample from Lab Job No: R996

QA Batch: 7304

Compound	MS % REC.	BS % REC.	LIMITS
=====	=====	=====	=====
Benzene	110	110	39-150
Toluene	110	110	46-148
Chlorobenzene	120	110	55-135
Ethylbenzene	110	115	32-160
1,3-Dichlorobenzene	115	120	50-141
1,4-Dichlorobenzene	115	110	42-143
1,2-Dichlorobenzene	115	120	37-154

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

This is the Last Page of the Document

ATTACHMENT 2

LABORATORY QA/QC DATA – FEBRUARY 2002

EnSolutions, Inc.



03/14/2002

EnSolutions, Inc.
1029 North Florida Mango Road
Suite #7
West Palm Beach, FL 33409

Attention: Mr. Howard Fredericks

STL Edison
777 New Durham Road
Edison, NJ 08817

Tel: 732-549-3900
Fax: 732-549-3679
www.stl-inc.com

Laboratory Results
Job No. T926 - Petrocelli Electric

Dear Mr. Fredericks:

Enclosed are the results you requested for the following sample(s) received at our laboratory on February 25, 2002.

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
334514	MW-2	8021-STARs LIST
334515	MW-4	8021-STARs LIST
334516	MW-1	8021-STARs LIST
334517	MW-7	8021-STARs LIST
334518	MW-6	8021-STARs LIST
334519	MW-5	8021-STARs LIST

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Paul Nadzan, at (732) 549-3900.

Very Truly Yours,



Michael J. Urban
Laboratory Director



Analytical Results Summary	1
General Information	8
Chain of Custody	8
Laboratory Chronicles	10
Methodology Review	12
Data Reporting Qualifiers	16
Non-Conformance Summary	18
GC/ PID Forms and Data	21
Results Summary and Chromatograms	21
Method Blank Results Summary	36
Calibration Summary	46
Surrogate Compound Recovery Summary	68
Spike Recovery Summary	70
This is the Last Page of the Document	72

Analytical Results Summary

Client ID: MW-2
Site: Petrocelli Electric

Lab Sample No: 334514
Lab Job No: T926

Date Sampled: 02/25/02
Date Received: 02/25/02
Date Analyzed: 02/28/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2169.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 20.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u>	<u>Quantitation</u>
	<u>Units: ug/l</u>	<u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	20
Toluene	ND	20
Ethylbenzene	ND	20
Isopropylbenzene	31	20
n-Propylbenzene	34	20
1,3,5-Trimethylbenzene	ND	20
tert-Butylbenzene	ND	20
1,2,4-Trimethylbenzene	ND	20
sec-Butylbenzene	ND	20
p-Isopropyltoluene	ND	20
n-Butylbenzene	ND	20
Naphthalene	ND	20
MTBE	330	20
Total Xylenes	ND	20

Client ID: MW-4
Site: Petrocelli Electric

Lab Sample No: 334515
Lab Job No: T926

Date Sampled: 02/25/02
Date Received: 02/25/02
Date Analyzed: 03/04/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2212.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	6.0	1.0
Toluene	ND	1.0
Ethylbenzene	16	1.0
Isopropylbenzene	3.2	1.0
n-Propylbenzene	1.4	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	3.6	1.0
sec-Butylbenzene	1.7	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	1.7	1.0
MTBE	10	1.0
Total Xylenes	3.2	1.0

Client ID: MW-1
Site: Petrocelli Electric

Lab Sample No: 334516
Lab Job No: T926

Date Sampled: 02/25/02
Date Received: 02/25/02
Date Analyzed: 03/04/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2213.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	2.0
Toluene	ND	2.0
Ethylbenzene	3.0	2.0
Isopropylbenzene	15	2.0
n-Propylbenzene	18	2.0
1,3,5-Trimethylbenzene	ND	2.0
tert-Butylbenzene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
sec-Butylbenzene	11	2.0
p-Isopropyltoluene	ND	2.0
n-Butylbenzene	ND	2.0
Naphthalene	21	2.0
MTBE	59	2.0
Total Xylenes	ND	2.0

Client ID: MW-7
Site: Petrocelli Electric

Lab Sample No: 334517
Lab Job No: T926

Date Sampled: 02/25/02
Date Received: 02/25/02
Date Analyzed: 03/10/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2318.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	2.0
Toluene	ND	2.0
Ethylbenzene	4.3	2.0
Isopropylbenzene	31	2.0
n-Propylbenzene	78	2.0
1,3,5-Trimethylbenzene	ND	2.0
tert-Butylbenzene	ND	2.0
1,2,4-Trimethylbenzene	5.8	2.0
sec-Butylbenzene	21	2.0
p-Isopropyltoluene	ND	2.0
n-Butylbenzene	ND	2.0
Naphthalene	14	2.0
MTBE	36	2.0
Total Xylenes	5.0	2.0

Client ID: MW-6
Site: Petrocelli Electric

Lab Sample No: 334518
Lab Job No: T926

Date Sampled: 02/25/02
Date Received: 02/25/02
Date Analyzed: 03/04/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2215.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	2.0	2.0
Toluene	ND	2.0
Ethylbenzene	ND	2.0
Isopropylbenzene	6.2	2.0
n-Propylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
tert-Butylbenzene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
sec-Butylbenzene	4.6	2.0
p-Isopropyltoluene	3.6	2.0
n-Butylbenzene	ND	2.0
Naphthalene	ND	2.0
MTBE	74	2.0
Total Xylenes	ND	2.0

Client ID: MW-5
Site: Petrocelli Electric

Lab Sample No: 334519
Lab Job No: T926

Date Sampled: 02/25/02
Date Received: 02/25/02
Date Analyzed: 02/28/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2174.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	1.5	1.0
Total Xylenes	ND	1.0

General Information

Chain of Custody

[illegible]

Special Instructions			Water Metals Filtered (Yes/No)?	
Relinquished by 1) <i>Phil Ren</i>	Company <i>Terra Nova</i>	Date / Time <i>2/25/21 12:30</i>	Received by 1) <i>Wanda</i>	Company <i>STZ-Edison</i>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Laboratory Chronicles

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison

777 New Durham Road, Edison, New Jersey
08817

Job No: T926

Site: Petrocelli Electric

Client: EnSolutions, Inc.

VOAGC

8021Bp

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
WATER							
334514	2/25/2002	2/25/2002			2/28/2002	Zhang, John	7327
334515	2/25/2002	2/25/2002			3/4/2002	Zhang, John	7327
334516	2/25/2002	2/25/2002			3/4/2002	Zhang, John	7327
334517	2/25/2002	2/25/2002			3/10/2002	Zhang, John	7327
334518	2/25/2002	2/25/2002			3/4/2002	Zhang, John	7327
334519	2/25/2002	2/25/2002			2/28/2002	Zhang, John	7327

Methodology Review

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

Element	Water Test Method		Solid Test Method	
	Flame	Furnace	Flame	Furnace
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

- Ignitability - Method 1020A
- Corrosivity - Water pH Method 9040B
Soil pH Method 9045C
- Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release
- Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

Data Reporting Qualifiers

DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

Non-Conformance Summary

NON-CONFORMANCE SUMMARY

STL Edison Job Number:

T926

Volatile Organics Analysis:

All data conforms with method requirements ☒; or

Analysis was not requested ☐; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked (☐)

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements ☒; or

Analysis was not requested ☐; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked (☐)

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements ☒; or

Analysis was not requested ☐; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked (☐)

Non-conformance Summary, Page 2 of 2
STL Edison Job Number: T926

Metals Analysis:

All data conforms with method requirements ☒; or
Analysis was not requested ☒; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Total Petroleum Hydrocarbons:

All data conforms with method requirements ☒; or
Analysis was not requested ☒; or
Non-conformance for the specific samples listed is as follows:


See continuation page if checked ()

General Chemistry/Disposal Parameters:

All data conforms with method requirements ☒; or
Analysis was not requested ☒; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Signature of

Laboratory Manager: 

Date: 3-14-02

GC/PID Forms and Data

Results Summary and Chromatograms

Client ID: MW-2
Site: Petrocelli Electric

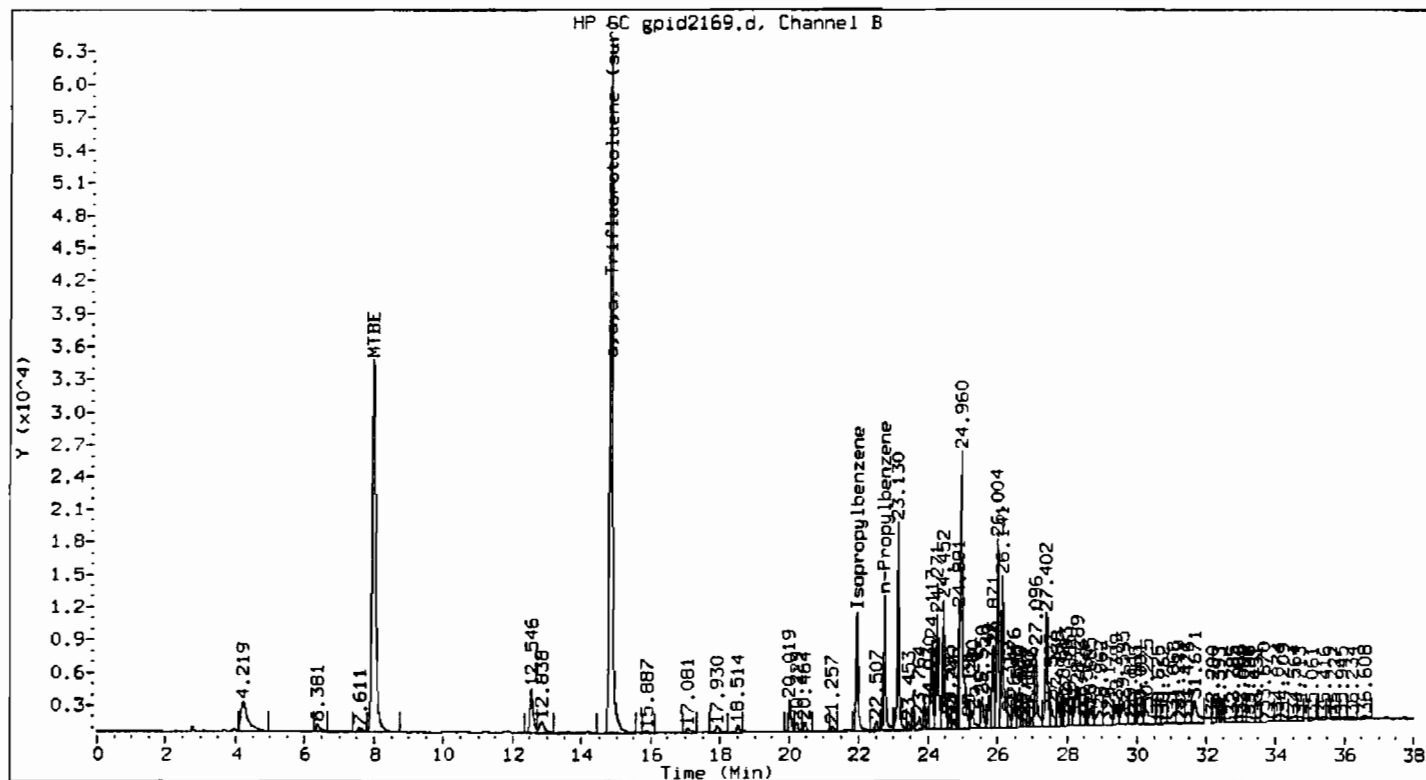
Lab Sample No: 334514
Lab Job No: T926

Date Sampled: 02/25/02
Date Received: 02/25/02
Date Analyzed: 02/28/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2169.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 20.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	20
Toluene	ND	20
Ethylbenzene	ND	20
Isopropylbenzene	31	20
n-Propylbenzene	34	20
1,3,5-Trimethylbenzene	ND	20
tert-Butylbenzene	ND	20
1,2,4-Trimethylbenzene	ND	20
sec-Butylbenzene	ND	20
p-Isopropyltoluene	ND	20
n-Butylbenzene	ND	20
Naphthalene	ND	20
MTBE	330	20
Total Xylenes	ND	20



Method : /chem/VOAGC1.i/8021HIGH/02-07-02/28feb02a.b/8021H_01.m
Sample Info : 334514;;20
Lab ID : 334514
Inj Date : 28-FEB-2002 18:22
Operator :
Cpnd Sublist: stars

Inst ID : VOAGC1.i
Dil Factor : 20
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
Isopropylbenzene	21.945	21.946	0.001	247575	1.530	30.610
n-Propylbenzene	22.734	22.735	0.001	266257	1.715	34.303
MTBE	7.975	7.986	0.011	1310739	16.569	331.382
a,a,a,-Trifluorotoluene (sur)	14.828	14.834	0.006	1862309	30.319	30.319

Client ID: MW-4
Site: Petrocelli Electric

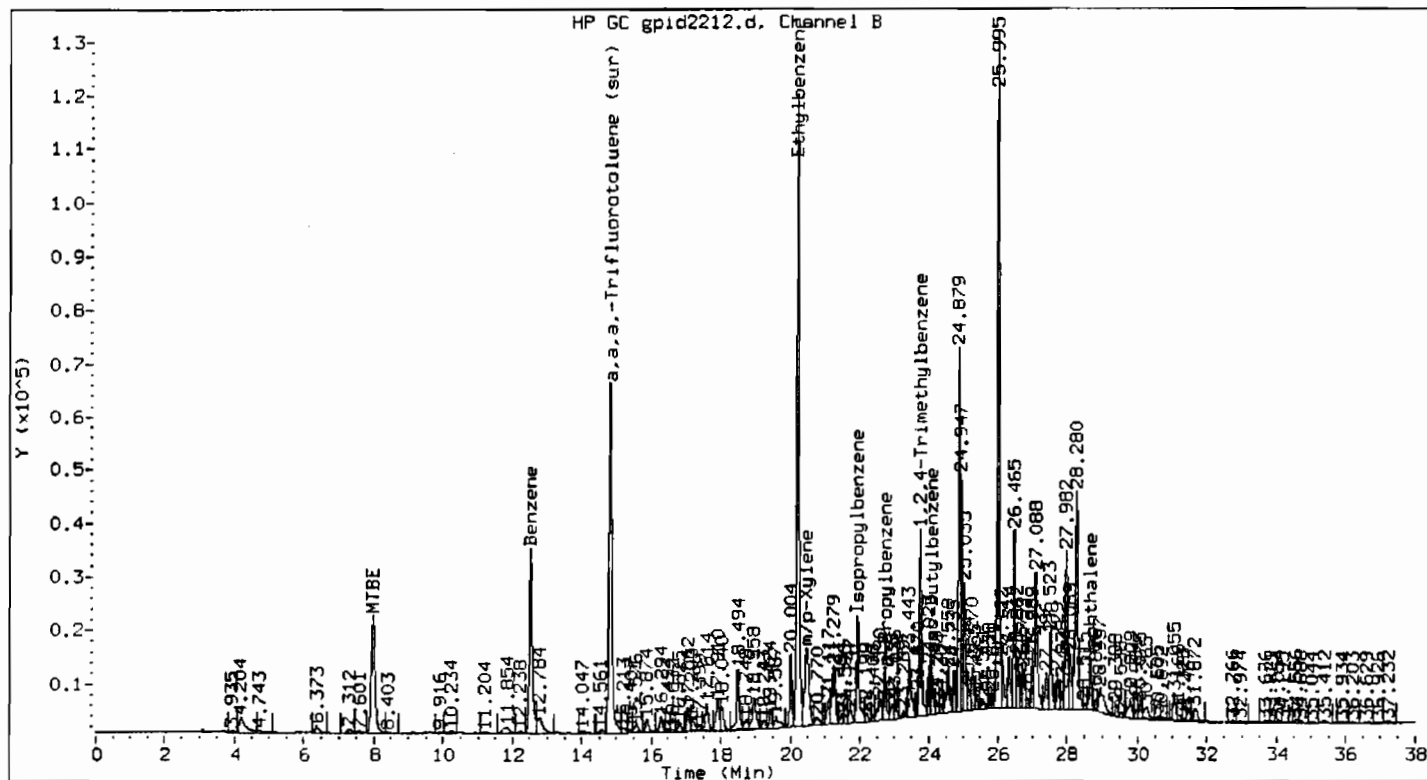
Lab Sample No: 334515
Lab Job No: T926

Date Sampled: 02/25/02
Date Received: 02/25/02
Date Analyzed: 03/04/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2212.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	6.0	1.0
Toluene	ND	1.0
Ethylbenzene	16	1.0
Isopropylbenzene	3.2	1.0
n-Propylbenzene	1.4	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	3.6	1.0
sec-Butylbenzene	1.7	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	1.7	1.0
MTBE	10	1.0
Total Xylenes	3.2	1.0



Method : /chem/VOAGC1.i/8021HIGH/02-07-02/04mar02.b/8021H_01.m
Sample Info : 334515
Lab ID : 334515
Inj Date : 04-MAR-2002 11:57
Operator :
Cpnd Sublist: stars

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
m/p-Xylene	20.461	20.435	0.026	649225	3.050	3.050
Benzene	12.527	12.528	0.000	1105804	5.957	5.957
Ethylbenzene	20.208	20.204	0.003	2654160	15.875	15.875
Isopropylbenzene	21.933	21.930	0.004	517380	3.198	3.198
n-Propylbenzene	22.725	22.718	0.007	215035	1.385	1.385
1,2,4-Trimethylbenzene	23.756	23.750	0.006	770497	3.646	3.646
sec Butylbenzene	24.077	24.074	0.003	279917	1.692	1.692
Naphthalene	28.670	28.663	0.006	201118	1.746	1.746
MTBE	7.970	7.976	0.007	826468	10.447	10.447

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Total Xylenes	24.600	24.600	0.000	649225	3.190	3.190
a,a,a,-Trifluorotoluene (sur	14.819	14.820	0.001	1919575	31.252	31.252
-----	-----	-----	-----	-----	-----	-----

Client ID: MW-1
Site: Petrocelli Electric

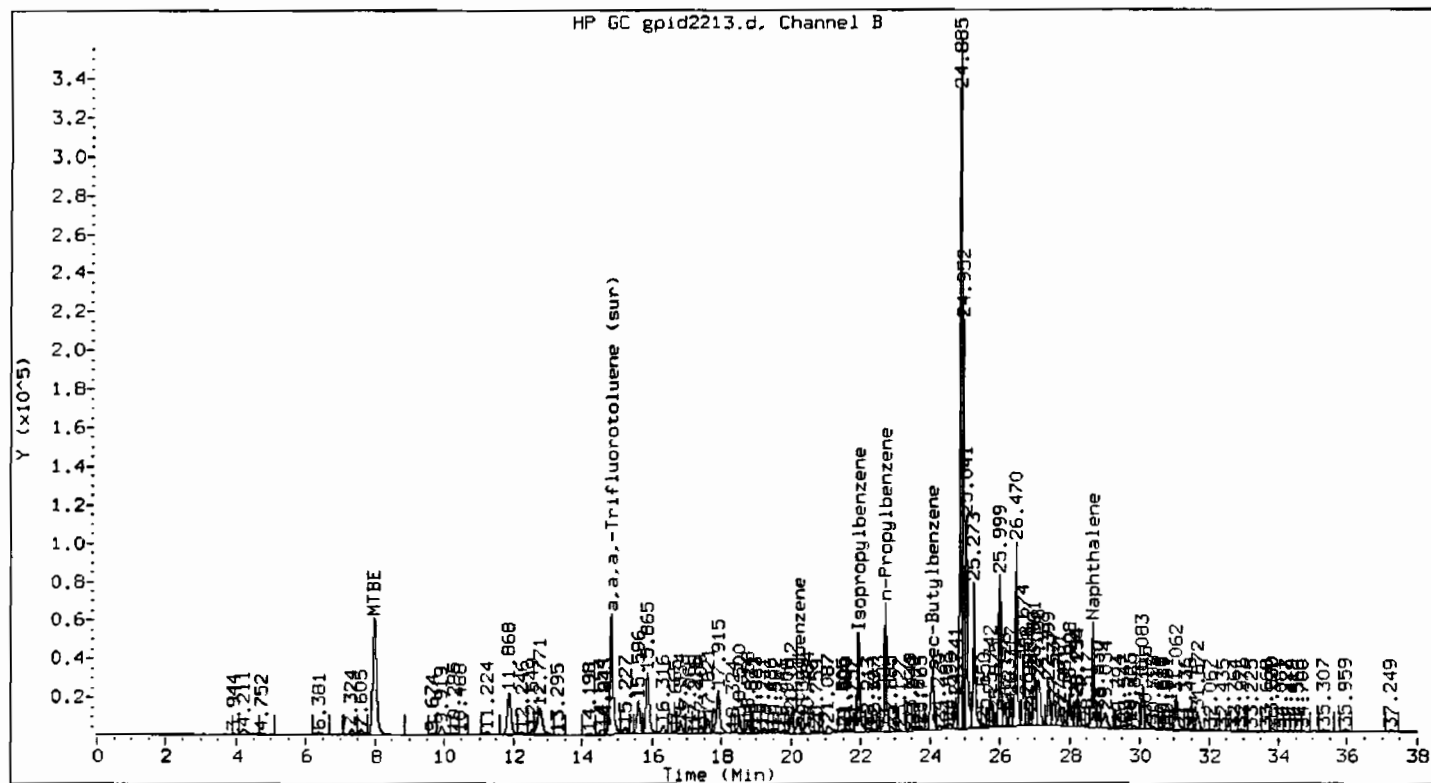
Lab Sample No: 334516
Lab Job No: T926

Date Sampled: 02/25/02
Date Received: 02/25/02
Date Analyzed: 03/04/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2213.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u>
		<u>Units: ug/l</u>
Benzene	ND	2.0
Toluene	ND	2.0
Ethylbenzene	3.0	2.0
Isopropylbenzene	15	2.0
n-Propylbenzene	18	2.0
1,3,5-Trimethylbenzene	ND	2.0
tert-Butylbenzene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
sec-Butylbenzene	11	2.0
p-Isopropyltoluene	ND	2.0
n-Butylbenzene	ND	2.0
Naphthalene	21	2.0
MTBE	59	2.0
Total Xylenes	ND	2.0



Method : /chem/VOAGC1.i/8021HIGH/02-07-02/04mar02.b/8021H_01.m
Sample Info : 334516;;2
Lab ID : 334516
Inj Date : 04-MAR-2002 12:41
Operator :
Cpnd Sublist: stars

Inst ID : VOAGC1.i
Dil Factor : 2
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON COLUMN (ug/Kg)	FINAL (ug/L)
Ethylbenzene	20.221	20.204	0.016	250487	1.498	2.996
Isopropylbenzene	21.938	21.930	0.009	1226755	7.584	15.167
n-Propylbenzene	22.728	22.718	0.011	1433500	9.234	18.469
sec Butylbenzene	24.082	24.074	0.008	944288	5.708	11.415
Naphthalene	28.675	28.663	0.011	1223906	10.627	21.254
MTBE	7.976	7.976	0.000	2323748	29.375	58.749
a,a,a,-Trifluorotoluene (sur)	14.826	14.820	0.006	1923854	31.321	31.321

Client ID: MW-7
Site: Petrocelli Electric

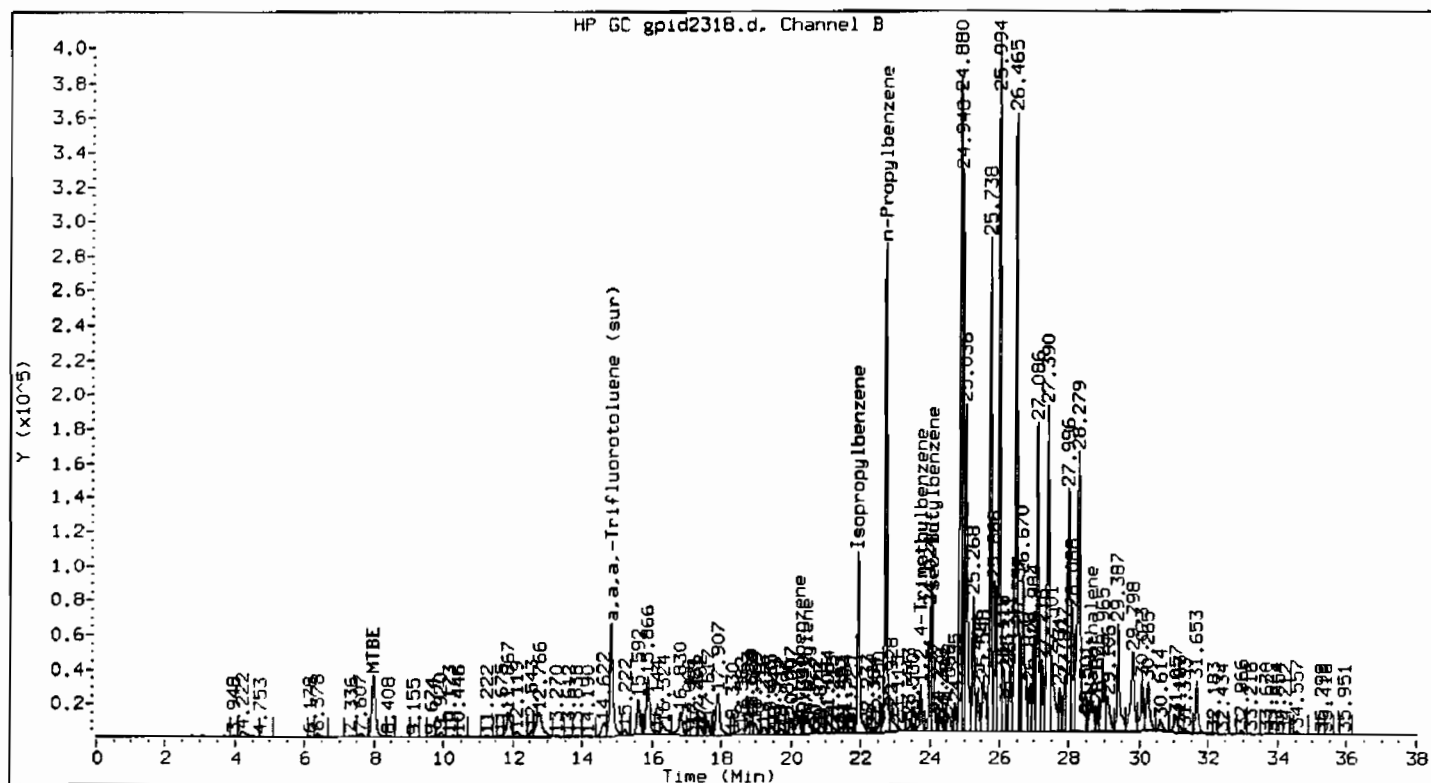
Lab Sample No: 334517
Lab Job No: T926

Date Sampled: 02/25/02
Date Received: 02/25/02
Date Analyzed: 03/10/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2318.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u>
		<u>Units: ug/l</u>
Benzene	ND	2.0
Toluene	ND	2.0
Ethylbenzene	4.3	2.0
Isopropylbenzene	31	2.0
n-Propylbenzene	78	2.0
1,3,5-Trimethylbenzene	ND	2.0
tert-Butylbenzene	ND	2.0
1,2,4-Trimethylbenzene	5.8	2.0
sec-Butylbenzene	21	2.0
p-Isopropyltoluene	ND	2.0
n-Butylbenzene	ND	2.0
Naphthalene	14	2.0
MTBE	36	2.0
Total Xylenes	5.0	2.0



Method : /chem/VOAGC1.i/8021HIGH/03-07-02/10mar02.b/8021H_01.m
Sample Info : 334517;;2
Lab ID : 334517
Inj Date : 10-MAR-2002 12:35
Operator :
Cpnd Sublist: stars

Inst ID : VOAGC1.i
Dil Factor : 2
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
m/p-Xylene	20.452	20.446	0.006	483128	2.381	4.762
Ethylbenzene	20.218	20.215	0.003	340580	2.155	4.311
Isopropylbenzene	21.934	21.941	0.007	2391373	15.719	31.439
n-Propylbenzene	22.722	22.728	0.006	5991720	39.027	78.053
1,2,4-Trimethylbenzene	23.757	23.760	0.004	594880	2.883	5.766
sec-Butylbenzene	24.073	24.085	0.012	1769728	10.564	21.128
Naphthalene	28.627	28.677	0.050	772351	6.960	13.920
MTBE	7.980	7.980	0.000	1392060	18.164	36.329
Total Xylenes	24.600	24.600	0.000	483128	2.484	4.969

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
a,a,a,-Trifluorotoluene (sur	14.822	14.829	0.007	2120285	35.928	35.928
-----	-----	-----	-----	-----	-----	-----

Client ID: MW-6
Site: Petrocelli Electric

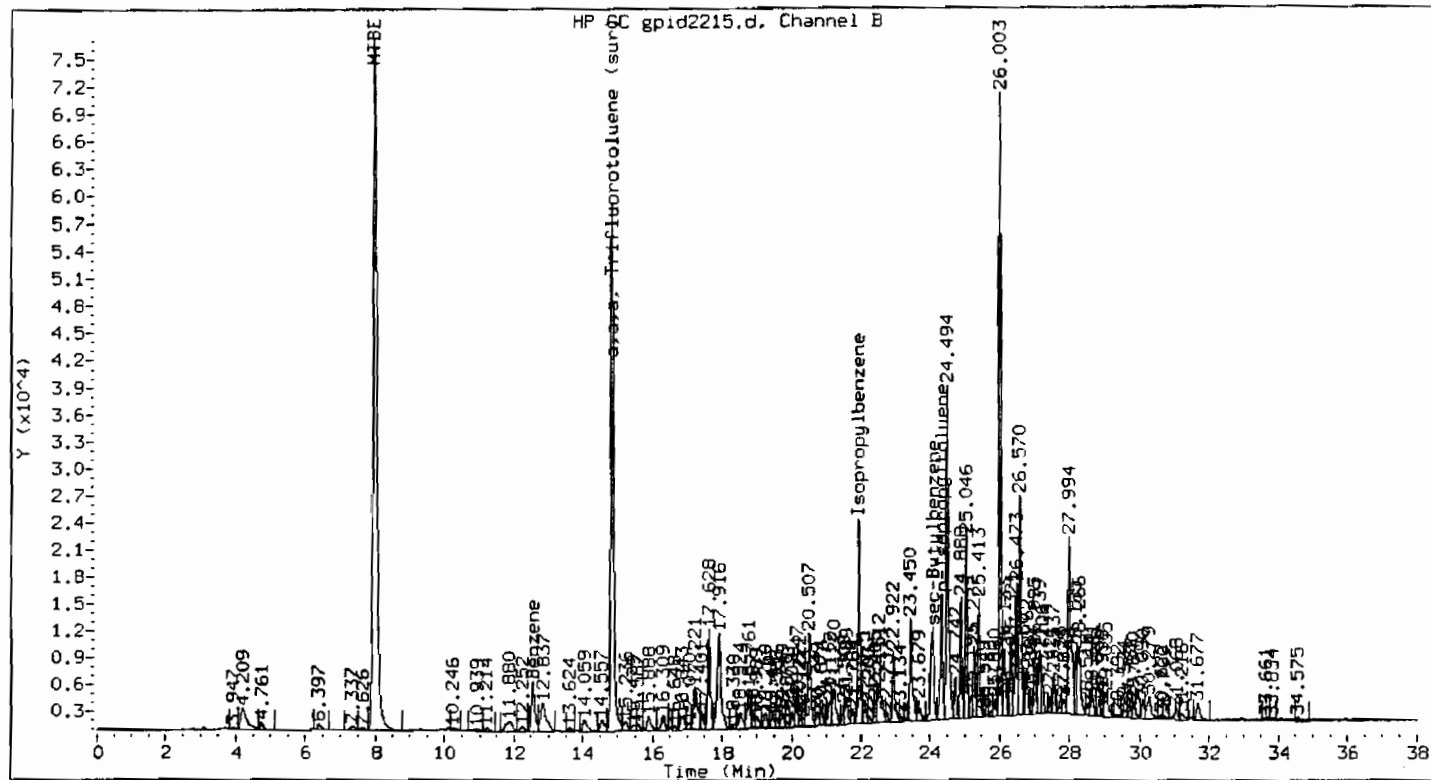
Lab Sample No: 334518
Lab Job No: T926

Date Sampled: 02/25/02
Date Received: 02/25/02
Date Analyzed: 03/04/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2215.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	2.0	2.0
Toluene	ND	2.0
Ethylbenzene	ND	2.0
Isopropylbenzene	6.2	2.0
n-Propylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
tert-Butylbenzene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
sec-Butylbenzene	4.6	2.0
p-Isopropyltoluene	3.6	2.0
n-Butylbenzene	ND	2.0
Naphthalene	ND	2.0
MTBE	74	2.0
Total Xylenes	ND	2.0



Method : /chem/VOAGC1.i/8021HIGH/02-07-02/04mar02.b/8021H_01.m
Sample Info : 334518;;2
Lab ID : 334518
Inj Date : 04-MAR-2002 14:08
Operator :
Cpnd Sublist: stars

Inst ID : VOAGC1.i
Dil Factor : 2
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
Benzene	12.549	12.547	0.002	190458	1.026	2.052
Isopropylbenzene	21.943	21.947	0.004	497554	3.076	6.152
sec-Butylbenzene	24.084	24.092	0.008	377736	2.283	4.566
p-Isopropyltoluene	24.334	24.344	0.010	314698	1.811	3.623
MTBE	7.980	7.991	0.011	2916999	36.874	73.748
a,a,a,-Trifluorotoluene (sur	14.832	14.838	0.007	1706120	27.776	27.776

Client ID: MW-5
Site: Petrocelli Electric

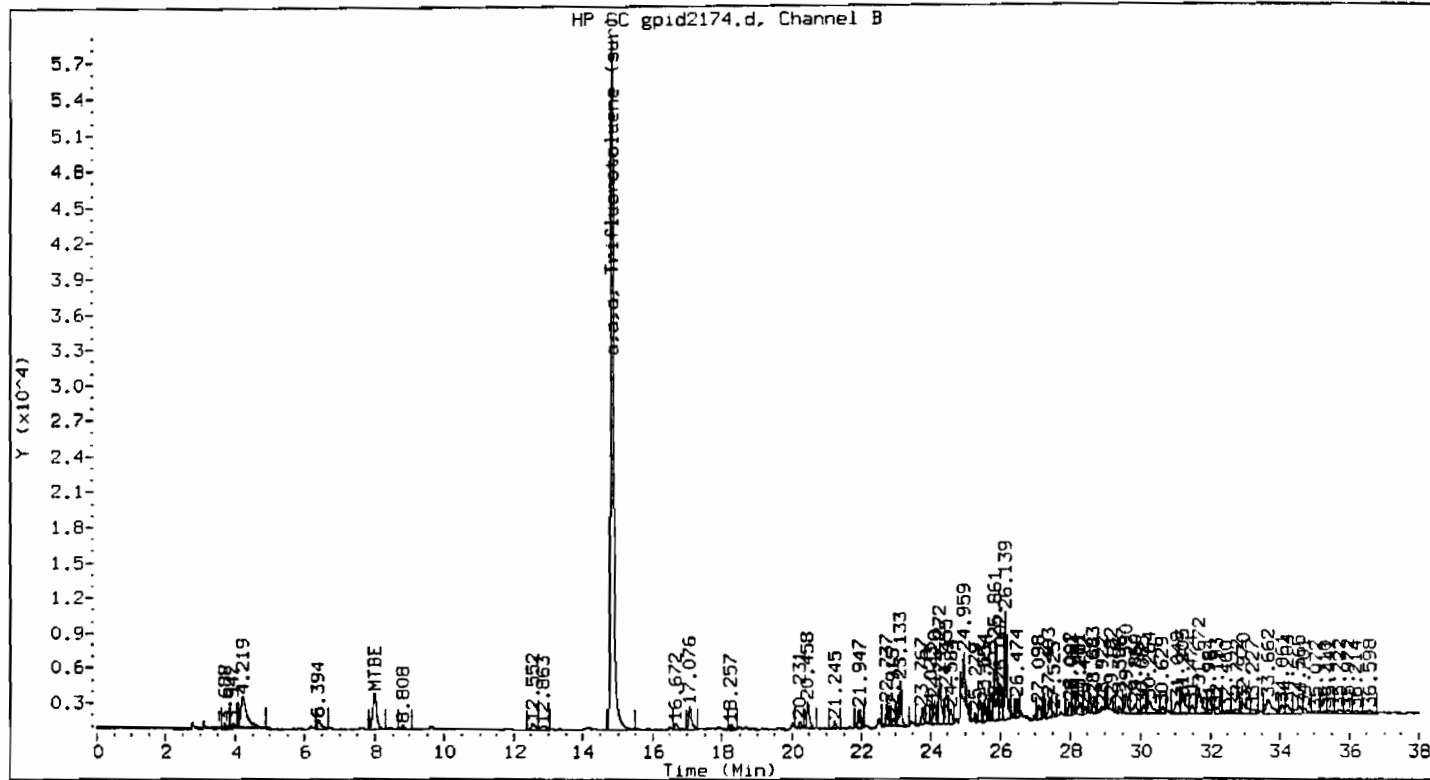
Lab Sample No: 334519
Lab Job No: T926

Date Sampled: 02/25/02
Date Received: 02/25/02
Date Analyzed: 02/28/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2174.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	1.5	1.0
Total Xylenes	ND	1.0



Method : /chem/VOAGC1.i/8021HIGH/02-07-02/28feb02a.b/8021H_01.m
Sample Info : 334519
Lab ID : 334519
Inj Date : 28-FEB-2002 22:01
Operator :
Cpnd Sublist: stars

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
MTBE	7.988	7.986	0.002	120221	1.520	1.520
a,a,a,-Trifluorotoluene (sur)	14.831	14.834	0.003	1711525	27.864	27.864

Method Blank Results Summary

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

GG059A

Date Analyzed: 02/28/02

Instrument ID: VOAGC1

Time Analyzed: 1723

Lab File ID: GPID2168

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-2	334514	GPID2169	1822
02	MW-5	334519	GPID2174	2201
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: GG059A
Site:

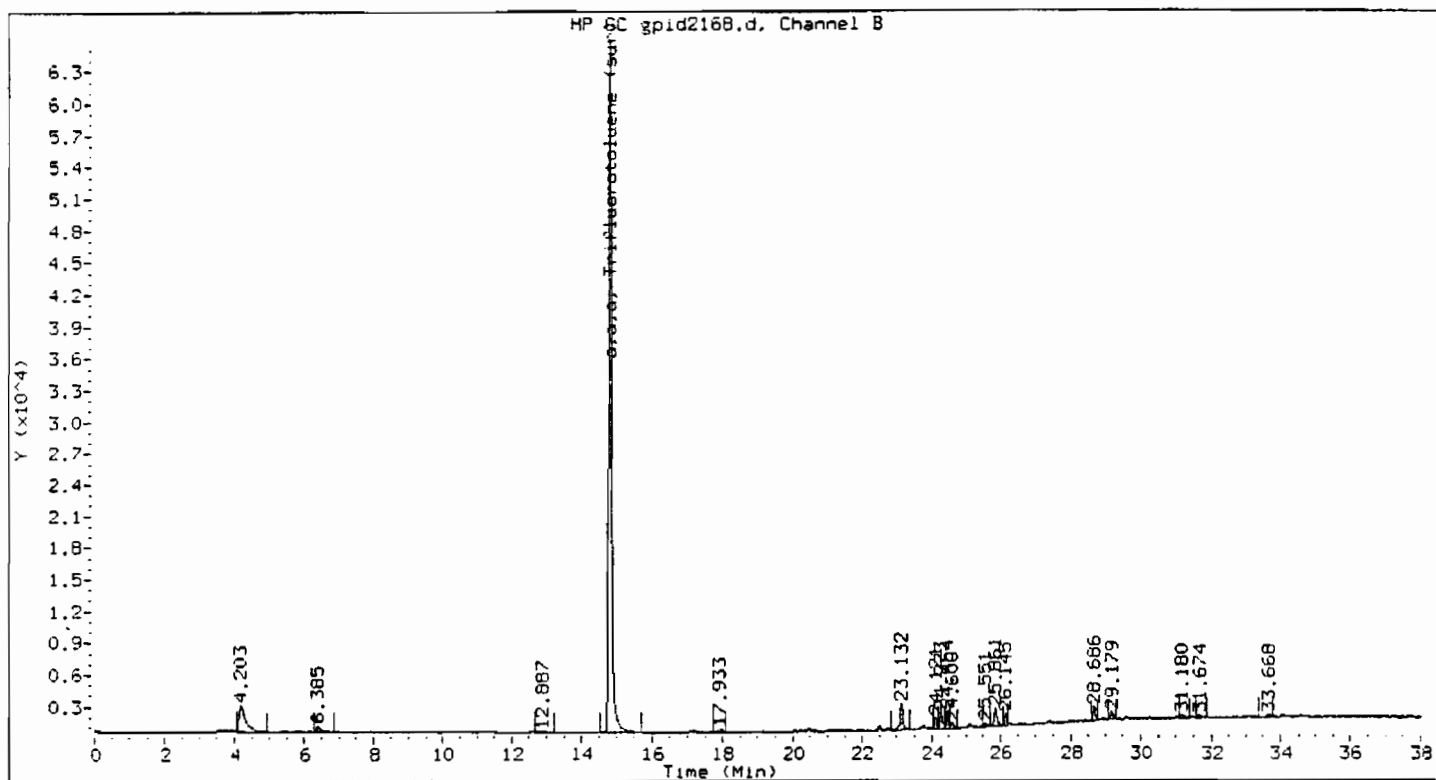
Lab Sample No: GG059A
Lab Job No: T926

Date Sampled: _____
Date Received: _____
Date Analyzed: 02/28/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2168.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0
TBA	ND	100
DIPE	ND	1.0
Chlorobenzene	ND	1.0



Method : /chem/VOAGC1.i/8021HIGH/02-07-02/28feb02a.b/8021H_01.m
Sample Info : GG059A
Lab ID : GG059A
Inj Date : 28-FEB-2002 17:23
Operator :
Cpnd Sublist: all

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
a,a,a-Trifluorotoluene (sur)	14.825	14.834	0.010	1911938	31.127	31.127

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

GG063

Date Analyzed: 03/04/02

Instrument ID: VOAGC1

Time Analyzed: 1113

Lab File ID: GPID2211

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	MW-4	334515	GPID2212	1157
02	MW-1	334516	GPID2213	1241
03	MW-6	334518	GPID2215	1408
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: GG063
Site:

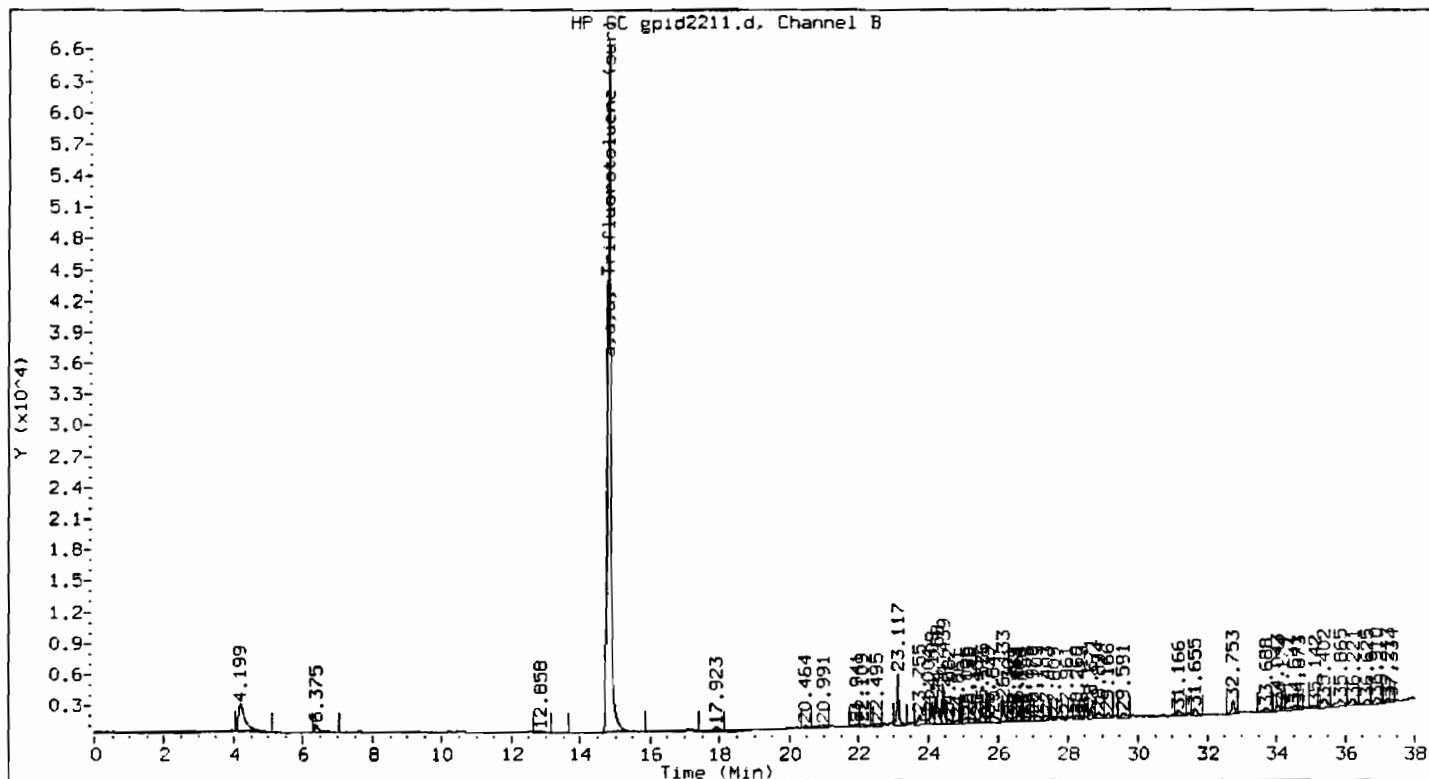
Lab Sample No: GG063
Lab Job No: T926

Date Sampled: _____
Date Received: _____
Date Analyzed: 03/04/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2211.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	Analytical Result <u>Units: ug/l</u>	Quantitation
		Limit <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0
TBA	ND	100
DIPE	ND	1.0
Chlorobenzene	ND	1.0



Method : /chem/VOAGC1.i/8021HIGH/02-07-02/04mar02.b/8021H_01.m
Sample Info : GG063
Lab ID : GG063
Inj Date : 04-MAR-2002 11:13
Operator :
Cpnd Sublist: all

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/Kg)	(ug/L)
a,a,a,-Trifluorotoluene (sur	14.811	14.838	0.028	1993722	32.459	32.459

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

GG069

Date Analyzed: 03/10/02

Instrument ID: VOAGC1

Time Analyzed: 1058

Lab File ID: GPID2316

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-7	334517	GPID2318	1235
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: GG069
Site:

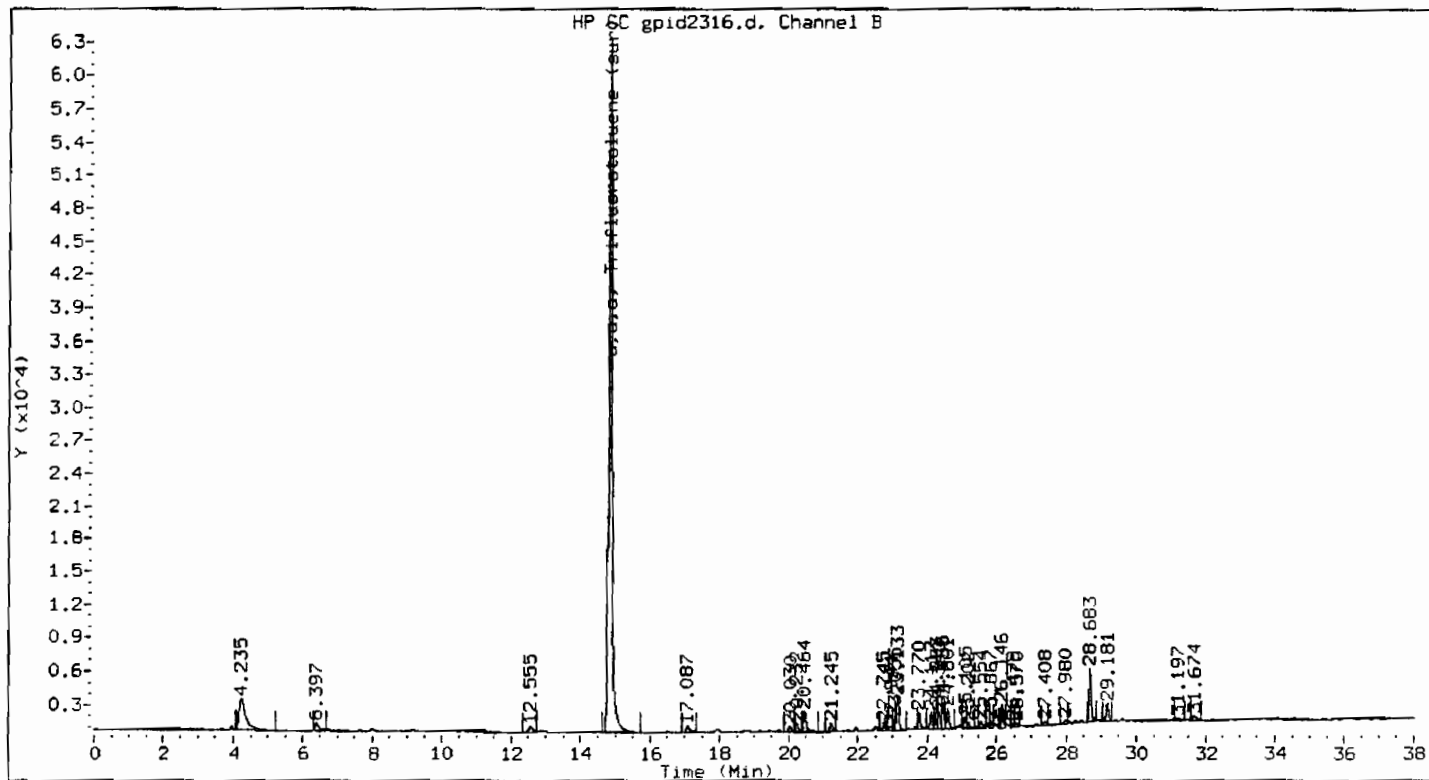
Lab Sample No: GG069
Lab Job No: T926

Date Sampled: _____
Date Received: _____
Date Analyzed: 03/10/02
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: gpid2316.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 8021B

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u>
		<u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Isopropylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
p-Isopropyltoluene	ND	1.0
n-Butylbenzene	ND	1.0
Naphthalene	ND	1.0
MTBE	ND	1.0
Total Xylenes	ND	1.0
TBA	ND	100
DIPE	ND	1.0
Chlorobenzene	ND	1.0



Method : /chem/VOAGC1.i/8021HIGH/03-07-02/10mar02.b/8021H_01.m
Sample Info : GG069
Lab ID : GG069
Inj Date : 10-MAR-2002 10:58
Operator :
Cpnd Sublist: all

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	D.L.T RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
a,a,a,-Trifluorotoluene (sur)	14.833	14.829	0.004	1881087	31.875	31.875

Calibration Summary

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC1

Calibration Date(s): 02/07/02 02/07/02

Calibration Time(s): 1102 1333

LAB FILE ID:	RRF1: GPID2076	RRF5: GPID2075	RRF10: GPID2074		
	RRF20: GPID2072	RRF40: GPID2073			
COMPOUND	RRF1	RRF5	RRF10	RRF20	RRF40
=====	=====	=====	=====	=====	=====
Benzene	159221	179902	189842	195359	203882
Toluene	157865	179939	191380	197019	204847
Ethylbenzene	136342	162112	175559	178461	183476
Isopropylbenzene	136788	155326	165757	174040	176896
n-Propylbenzene	126006	148397	165670	173643	162469
1,3,5-Trimethylbenzene	247363	256061	281436	282325	256790
tert-Butylbenzene	117041	130854	139769	134529	133036
1,2,4-Trimethylbenzene	184637	199019	218084	236451	218535
sec-Butylbenzene	149236	157840	174207	178698	167222
p-Isopropyltoluene	157279	165274	182898	191128	172119
n-Butylbenzene	116183	141009	152492	162914	150419
Naphthalene	128249	104218	120967	114420	107995
MTBE	68735	77831	81016	80425	87530
Total Xylenes	169941	195134	214858	220286	217288
TBA **					
DIPE					
Chlorobenzene					
=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	59276	59291	56387	67272	64890

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC1

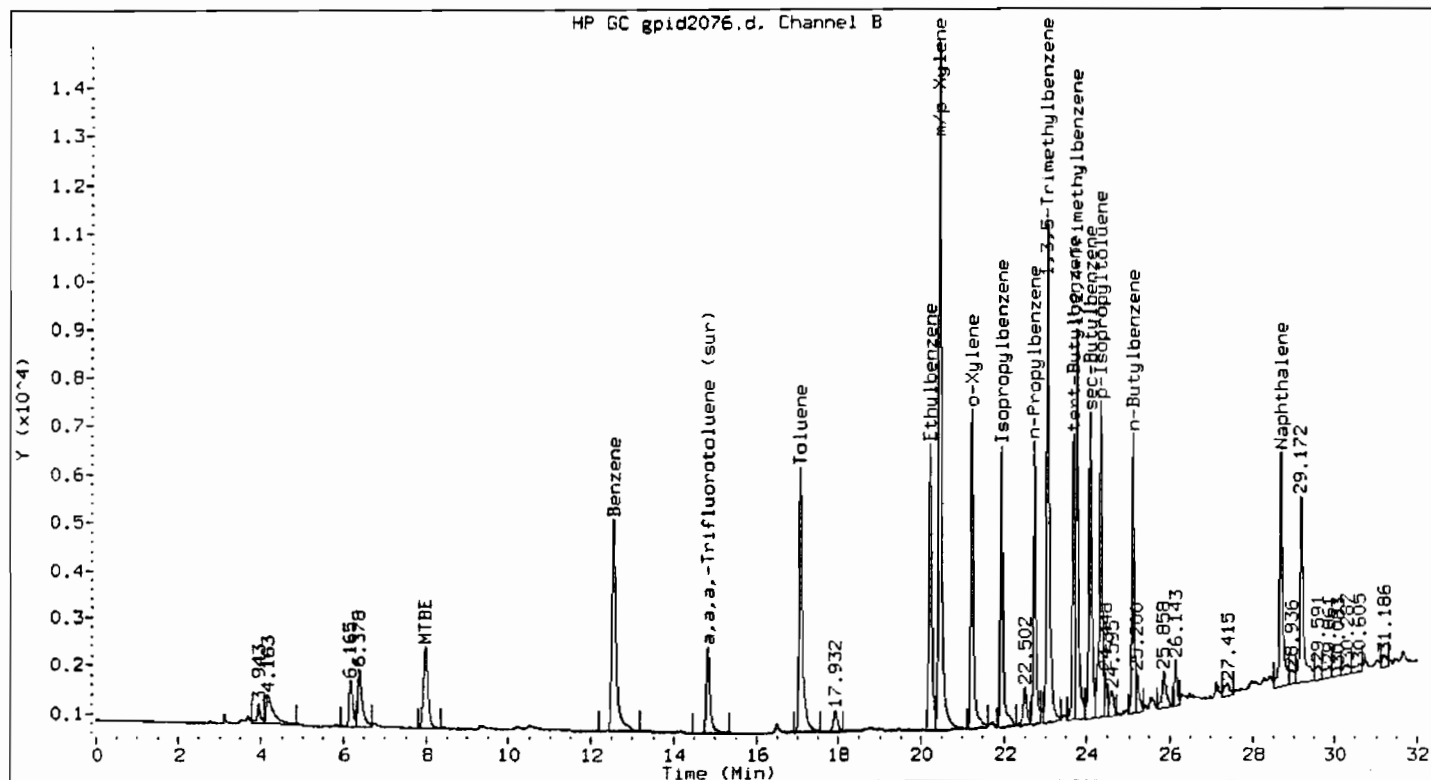
Calibration Date(s): 02/07/02 02/07/02

Calibration Time(s): 1102 1333

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
=====	=====	=====	=====
Benzene	AVRG	185641	9.2*
Toluene	AVRG	186210	9.8*
Ethylbenzene	AVRG	167190	11*
Isopropylbenzene	AVRG	161762	10*
n-Propylbenzene	AVRG	155237	12*
1,3,5-Trimethylbenzene	AVRG	264795	6.0*
tert-Butylbenzene	AVRG	131046	6.5*
1,2,4-Trimethylbenzene	AVRG	211345	9.4*
sec-Butylbenzene	AVRG	165441	7.2*
p-Isopropyltoluene	AVRG	173740	7.8*
n-Butylbenzene	AVRG	144603	12*
Naphthalene	AVRG	115170	8.4*
MTBE	AVRG	79107	8.6*
Total Xylenes	AVRG	203502	10*
TBA **	AVRG		
DIPE	AVRG		
Chlorobenzene	AVRG		
=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	AVRG	61423	7.3*

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

* Compounds with required maximum %RSD values.



Method : /chem/VOAGC1.i/8021HIGH/02-07-02/07feb02.b/8021H_01.m
Sample Info : GSTD001
Lab ID : GSTD001
Inj Date : 07-FEB-2002 13:33
Operator :
Cpnd Sublist: all

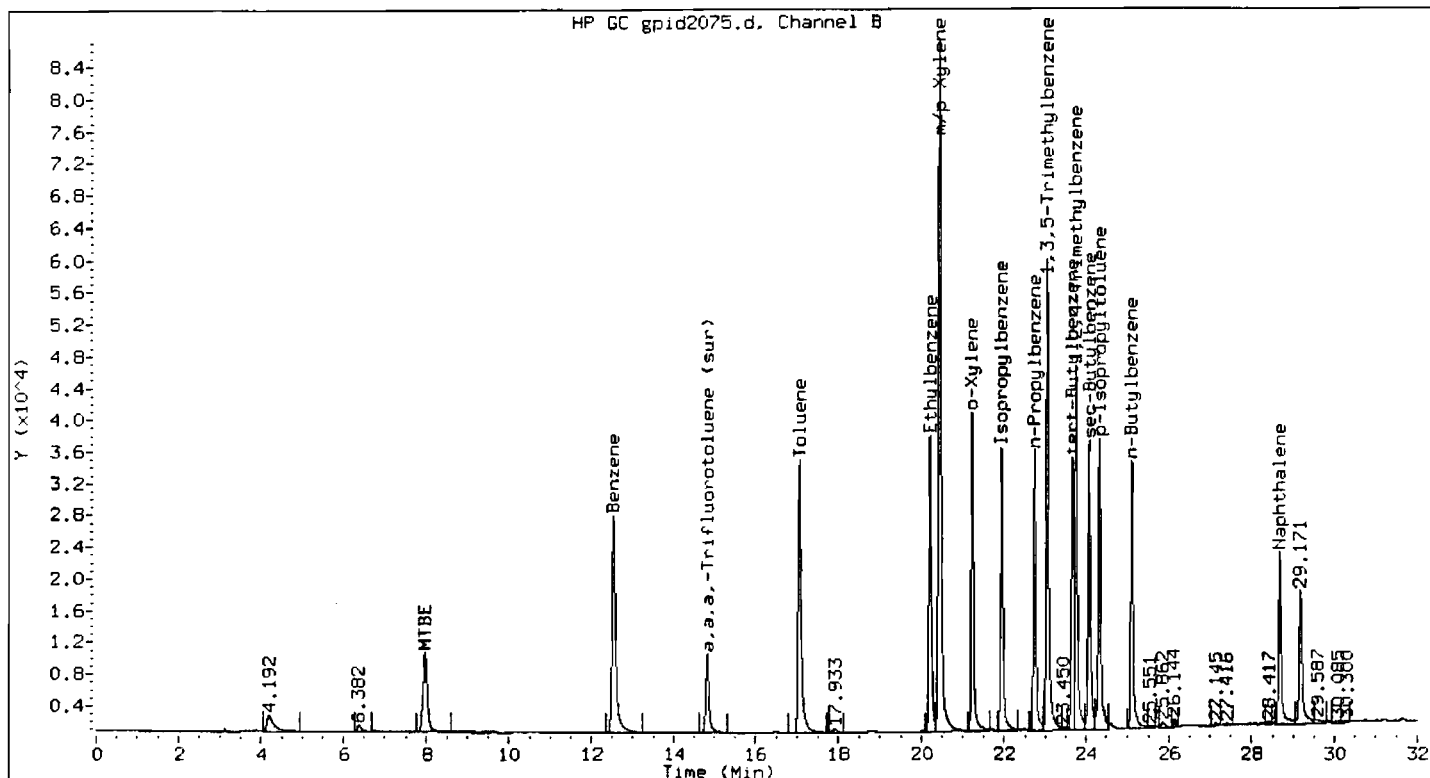
Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_1

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p-Xylene	20.449	20.434	0.014	353757	1.662	1.662
o-Xylene	21.233	21.220	0.013	156067	0.845	0.845
Benzene	12.540	12.519	0.021	159221	0.858	0.858
Toluene	17.067	17.048	0.019	157865	0.848	0.848
Ethylbenzene	20.220	20.203	0.016	136342	0.815	0.815
Isopropylbenzene (M)	21.941	21.929	0.012	136788	0.846	0.846
n Propylbenzene	22.731	22.717	0.014	126006	0.812	0.812
1,3,5 Trimethylbenzene	23.046	23.036	0.010	247363	0.934	0.934
tert-Butylbenzene	23.674	23.665	0.009	117041	0.893	0.893

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1,2,4-Trimethylbenzene	23.761	23.750	0.011	184637	0.874	0.874
sec-Butylbenzene	24.085	24.075	0.011	149236	0.902	0.902
p-Isopropyltoluene	24.336	24.327	0.009	157279	0.905	0.905
n-Butylbenzene	25.098	25.087	0.011	116183	0.803	0.803
Naphthalene	28.678	28.665	0.014	128249	1.114	1.114
MTBE	7.980	7.964	0.015	68735	0.869	0.869
Total Xylenes	24.600	24.600	0.000	509824	2.505	2.505
a,a,a, Trifluorotoluene (sur	14.835	14.814	0.021	59276	0.965	0.965

COMMENTS:

M Compound response manually integrated.

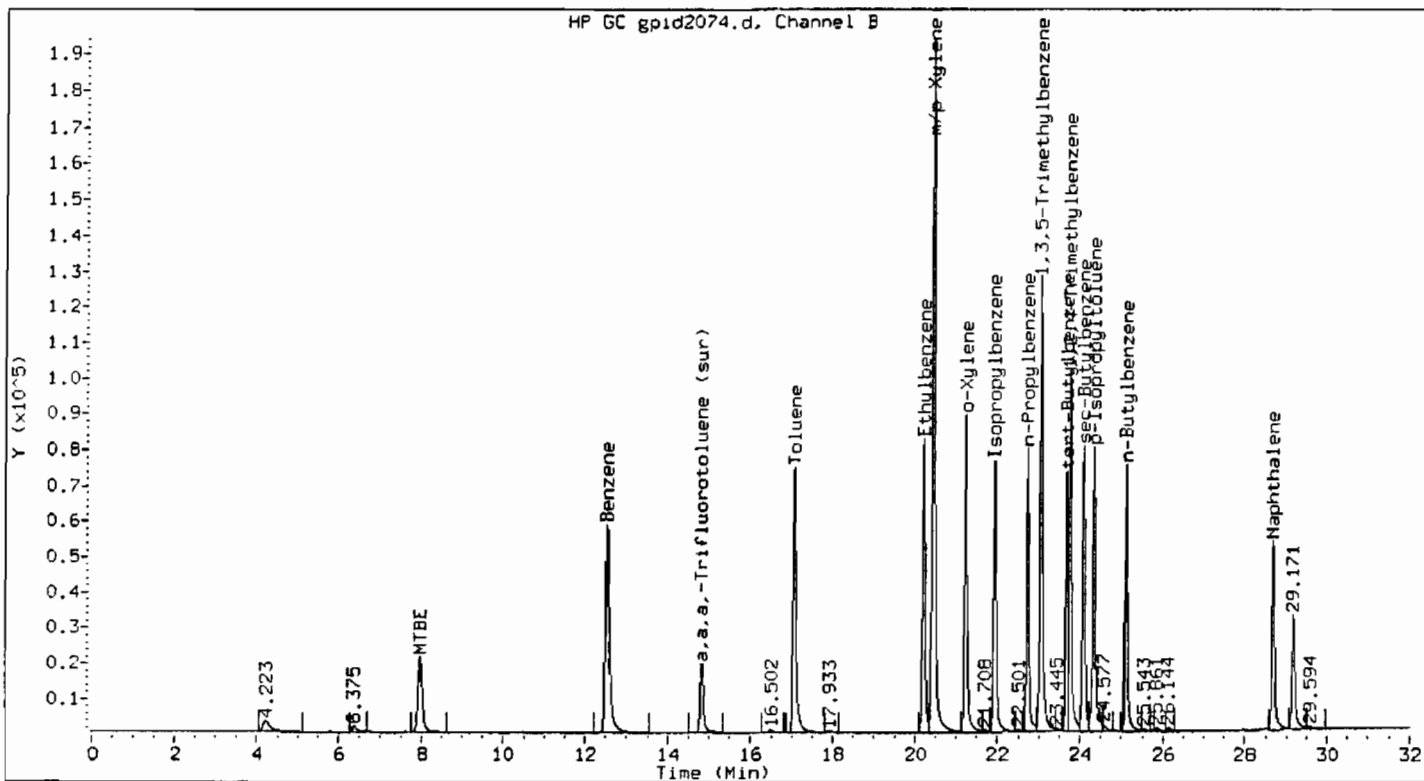


Method : /chem/VOAGC1.i/8021HIGH/02-07-02/07feb02.b/8021H_01.m
Sample Info : GSTD005
Lab ID : GSTD005
Inj Date : 07-FEB-2002 12:55
Operator :
Cpnd Sublist: all

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p-Xylene	20.445	20.434	0.011	2043322	9.600	9.600
o-Xylene	21.231	21.220	0.011	883696	4.782	4.782
Benzene	12.534	12.519	0.015	899512	4.845	4.845
Toluene	17.060	17.048	0.012	899693	4.832	4.832
Ethylbenzene	20.215	20.203	0.011	810559	4.848	4.848
Isopropylbenzene	21.939	21.929	0.010	776632	4.801	4.801
n Propylbenzene	22.728	22.717	0.011	741986	4.780	4.780
1,3,5-Trimethylbenzene	23.046	23.036	0.010	1280303	4.835	4.835
tert-Butylbenzene	23.673	23.665	0.008	654269	4.993	4.993

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
-----	-----	-----	-----	-----	-----	-----
1,2,4 Trimethylbenzene	23.760	23.750	0.010	995094	4.708	4.708
sec-Butylbenzene	24.084	24.075	0.010	789198	4.770	4.770
p-Isopropyltoluene	24.336	24.327	0.009	826371	4.756	4.756
n-Butylbenzene	25.096	25.087	0.009	705043	4.876	4.876
Naphthalene	28.676	28.665	0.011	521092	4.525	4.525
MTBE	7.976	7.964	0.011	389156	4.919	4.919
Total Xylenes	24.600	24.600	0.000	2927018	14.383	14.383
a,a,a,-Trifluorotoluene (sur	14.829	14.814	0.015	296456	4.826	4.826
-----	-----	-----	-----	-----	-----	-----

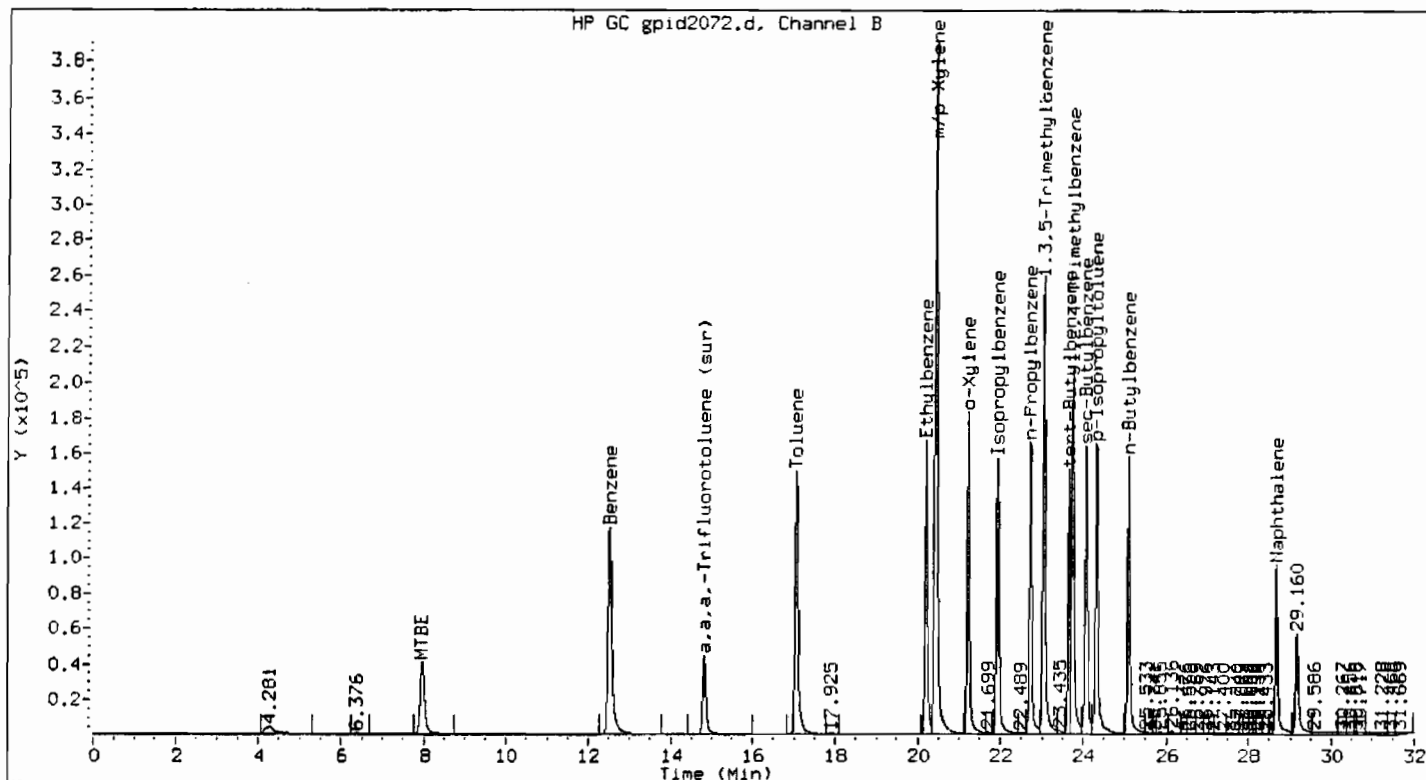


Method : /chem/VOAGC1.i/8021HIGH/02-07-02/07feb02.b/8021H_01.m
Sample Info : GSTD010
Lab ID : GSTD010
Inj Date : 07-FEB-2002 12:17
Operator :
Cpnd Sublist: all

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_3

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p Xylene	20.443	20.434	0.009	4511817	21.197	21.197
o-Xylene	21.229	21.220	0.009	1933939	10.466	10.466
Benzene	12.531	12.519	0.013	1898423	10.226	10.226
Toluene	17.058	17.048	0.010	1913804	10.278	10.278
Ethylbenzene	20.213	20.203	0.010	1755594	10.501	10.501
Isopropylbenzene	21.938	21.929	0.009	1657568	10.247	10.247
n-Propylbenzene	22.727	22.717	0.009	1656701	10.672	10.672
1,3,5-Trimethylbenzene	23.045	23.036	0.009	2814365	10.628	10.628
tert Butylbenzene	23.673	23.665	0.008	1397688	10.666	10.666

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1,2,4-Trimethylbenzene	23.759	23.750	0.009	2180836	10.319	10.319
sec-Butylbenzene	24.084	24.075	0.009	1742072	10.530	10.530
p-Isopropyltoluene	24.336	24.327	0.009	1828979	10.527	10.527
n-Butylbenzene	25.096	25.087	0.009	1524915	10.546	10.546
Naphthalene	28.675	28.665	0.011	1209669	10.503	10.503
MTBE	7.975	7.964	0.010	810155	10.241	10.241
Total Xylenes	24.600	24.600	0.000	6445756	31.674	31.674
a,a,a,-Trifluorotoluene (sur	14.827	14.814	0.013	563873	9.180	9.180

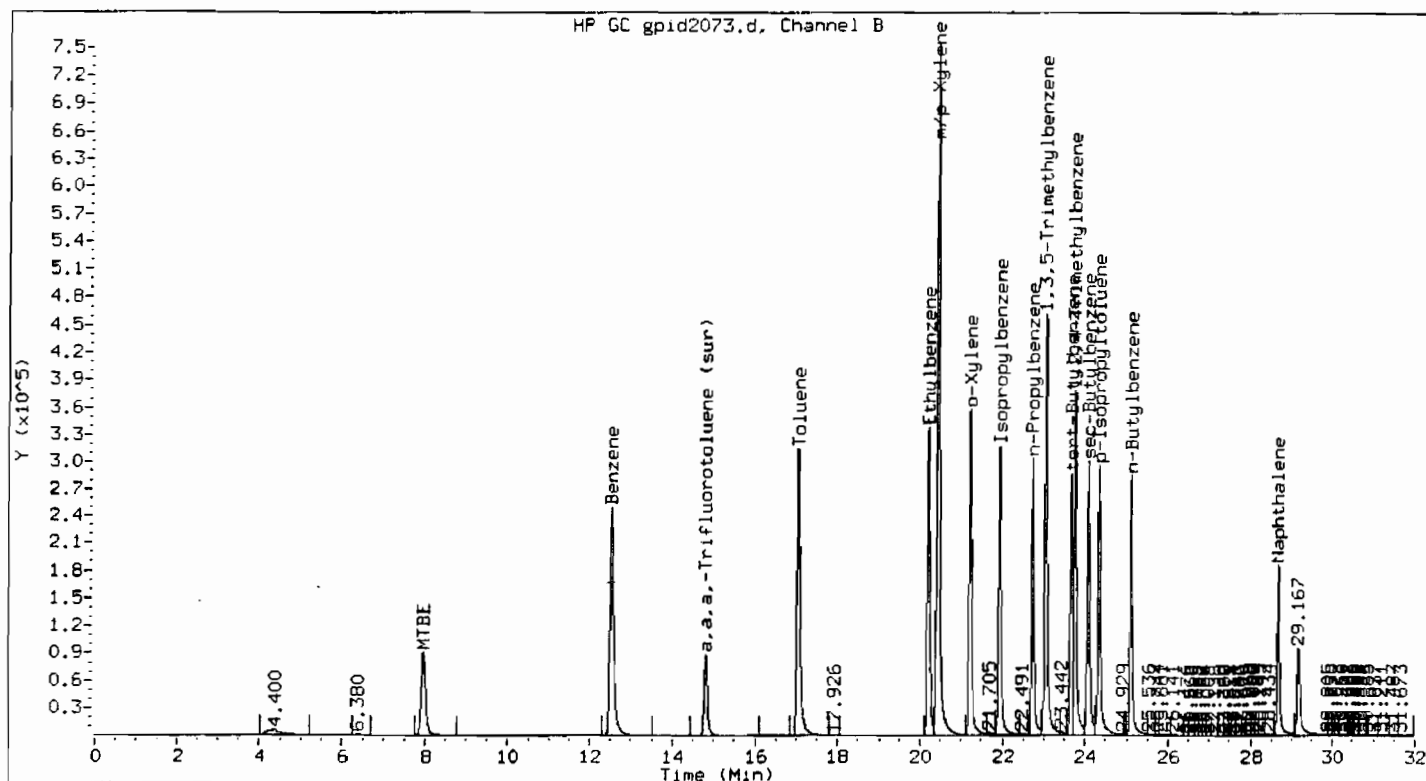


Method : /chem/VOAGC1.i/8021HIGH/02-07-02/07feb02.b/8021H_01.m
Sample Info : GSTD020
Lab ID : GSTD020
Inj Date : 07-FEB-2002 11:02
Operator :
Cpnd Sublist: all

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p-Xylene	20.434	20.434	0.000	9228246	43.354	43.354
o-Xylene	21.220	21.220	0.000	3988917	21.586	21.586
Benzene	12.519	12.519	0.000	3907176	21.047	21.047
Toluene	17.048	17.048	0.000	3940387	21.161	21.161
Ethylbenzene	20.203	20.203	0.000	3569223	21.348	21.348
Isopropylbenzene	21.929	21.929	0.000	3480809	21.518	21.518
n-Propylbenzene	22.717	22.717	0.000	3472856	22.371	22.371
1,3,5 Trimethylbenzene	23.036	23.036	0.000	5646503	21.324	21.324
tert Butylbenzene	23.665	23.665	0.000	2690575	20.532	20.532

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1,2,4-Trimethylbenzene	23.750	23.750	0.000	4729029	22.376	22.376
sec-Butylbenzene	24.075	24.075	0.000	3573966	21.603	21.603
p-Isopropyltoluene	24.327	24.327	0.000	3822568	22.002	22.002
n-Butylbenzene	25.087	25.087	0.000	3258270	22.532	22.532
Naphthalene	28.665	28.665	0.000	2288406	19.870	19.870
MTBE	7.964	7.964	0.000	1608503	20.333	20.333
Total Xylenes	24.600	24.600	0.000	13217163	64.949	64.949
a,a,a, Trifluorotoluene (sur	14.814	14.814	0.000	1345436	21.904	21.904



Method : /chem/VOAGC1.i/8021HIGH/02-07-02/07feb02.b/8021H_01.m
Sample Info : GSTD040
Lab ID : GSTD040
Inj Date : 07-FEB-2002 11:39
Operator :
Cpnd Sublist: all

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_5

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p-Xylene	20.442	20.434	0.008	18142049	85.231	85.231
o-Xylene	21.227	21.220	0.007	7932484	42.927	42.927
Benzene	12.522	12.519	0.004	8155277	43.930	43.930
Toluene	17.052	17.048	0.004	8193878	44.003	44.003
Ethylbenzene	20.209	20.203	0.006	7339059	43.896	43.896
Isopropylbenzene	21.936	21.929	0.006	7075861	43.743	43.743
n-Propylbenzene	22.725	22.717	0.007	6498749	41.863	41.863
1,3,5-Trimethylbenzene	23.045	23.036	0.009	10271596	38.791	38.791
tert-Butylbenzene	23.671	23.665	0.006	5321425	40.607	40.607

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON COLUMN (ug/Kg)	FINAL (ug/Kg)
1,2,4-Trimethylbenzene	23.758	23.750	0.008	8741398	41.361	41.361
sec-Butylbenzene	24.082	24.075	0.007	6688889	40.431	40.431
p-Isopropyltoluene	24.334	24.327	0.007	6884750	39.627	39.627
n-Butylbenzene	25.094	25.087	0.007	6016773	41.609	41.609
Naphthalene	28.671	28.665	0.006	4319813	37.508	37.508
MTBE	7.968	7.964	0.003	3501220	44.259	44.259
Total Xylenes	24.600	24.600	0.000	26074533	128.129	128.129
a,a,a,-Trifluorotoluene (sur	14.818	14.814	0.005	2595609	42.258	42.258

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC1

Calibration Date: 03/04/02 Time: 0819

Lab File ID: GPID2208

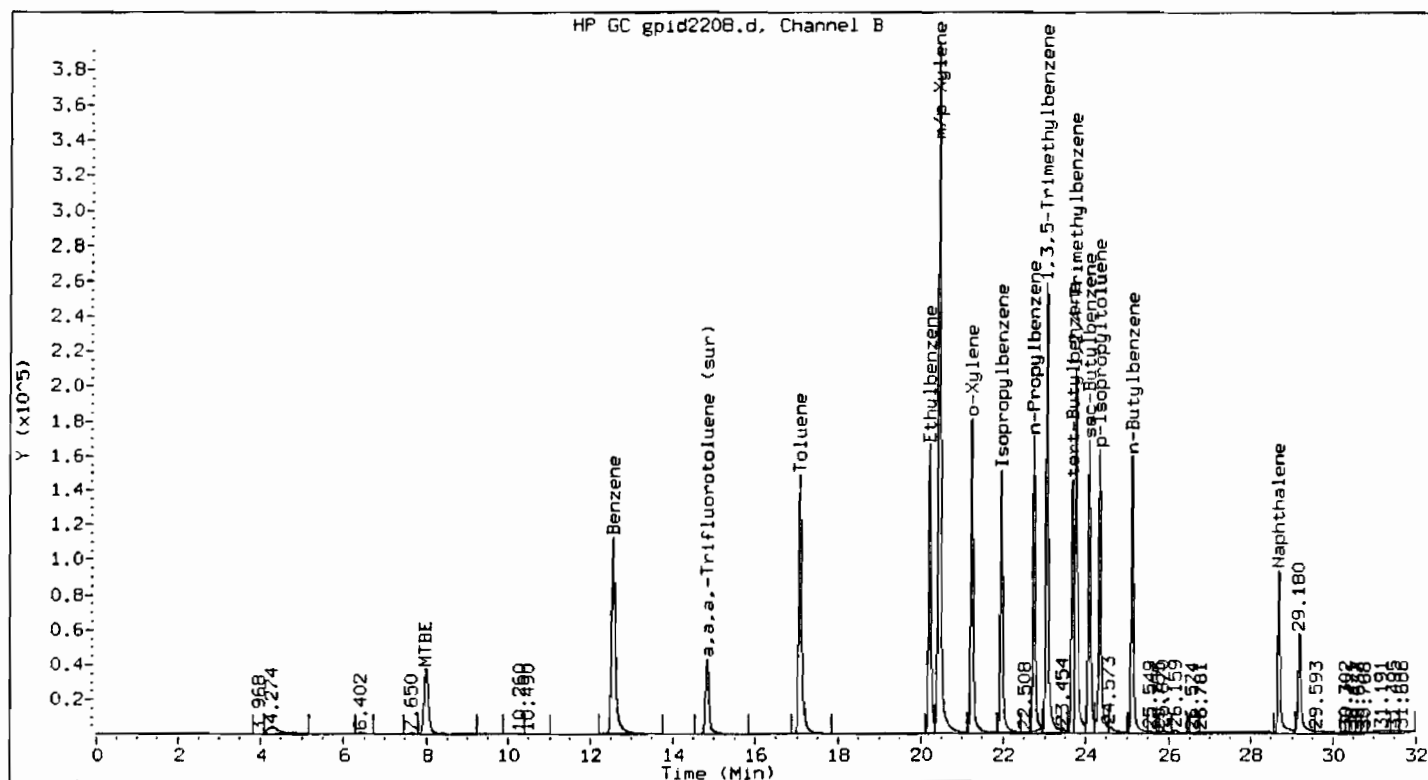
Init. Calib. Date(s): 02/07/02 02/07/02

Heated Purge: (Y/N) N

Init. Calib. Times: 1102 1333

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Benzene	185641.28	187368.95		-0.9	15.0
Toluene	186210.06	192308.25		-3.3	15.0
Ethylbenzene	167190.17	178259.95		-6.6	15.0
Isopropylbenzene	161761.63	163761.00		-1.2	15.0
n-Propylbenzene	155236.96	169932.50		-9.5	15.0
1,3,5-Trimethylbenzene	264795.03	284525.40		-7.4	15.0
tert-Butylbenzene	131045.59	129160.80		1.4	15.0
1,2,4-Trimethylbenzene	211345.16	237643.35		-12.4	15.0
sec-Butylbenzene	165440.66	184037.05		-11.2	15.0
p-Isopropyltoluene	173739.65	181203.20		-4.3	15.0
n-Butylbenzene	144603.18	165606.45		-14.5	15.0
Naphthalene	115169.98	111537.75		3.2	15.0
MTBE	79107.47	75414.95		4.7	15.0
Total Xylenes	203501.64	223952.05		-10.0	15.0
TBA **					15.0
DIPE					15.0
Chlorobenzene					15.0
=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	61423.30	65009.25		-5.8	15.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC1.i/8021HIGH/02-07-02/04mar02.b/8021H_01.m
Sample Info : GSTD063
Lab ID : GSTD063
Inj Date : 04-MAR-2002 08:19
Operator :
Cpnd Sublist: all

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
m/p-Xylene	20.453	20.453	0.000	9270941	43.555	43.555
o-Xylene	21.238	21.238	0.000	4166182	22.545	22.545
Benzene	12.547	12.547	0.000	3747379	20.186	20.186
Toluene	17.070	17.070	0.000	3846165	20.655	20.655
Ethylbenzene	20.222	20.222	0.000	3565199	21.324	21.324
Isopropylbenzene	21.947	21.947	0.000	3275220	20.247	20.247
n-Propylbenzene	22.735	22.735	0.000	3398650	21.893	21.893
1,3,5-Trimethylbenzene	23.053	23.053	0.000	5690508	21.490	21.490
tert-Butylbenzene	23.682	23.682	0.000	2583216	19.712	19.712

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON COLUMN (ug/Kg)	FINAL (ug/L)
1,2,4 Trimethylbenzene	23.767	23.767	0.000	4752867	22.489	22.489
sec-Butylbenzene	24.092	24.092	0.000	3680741	22.248	22.248
p-Isopropyltoluene	24.344	24.344	0.000	3624064	20.859	20.859
n-Butylbenzene	25.104	25.104	0.000	3312129	22.905	22.905
Naphthalene	28.684	28.684	0.000	2230755	19.369	19.369
MTBE	7.991	7.991	0.000	1508299	19.066	19.066
Total Xylenes	24.600	24.600	0.000	13437123	66.030	66.030
a,a,a,-Trifluorotoluene (sur	14.838	14.838	0.000	1300185	21.168	21.168

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

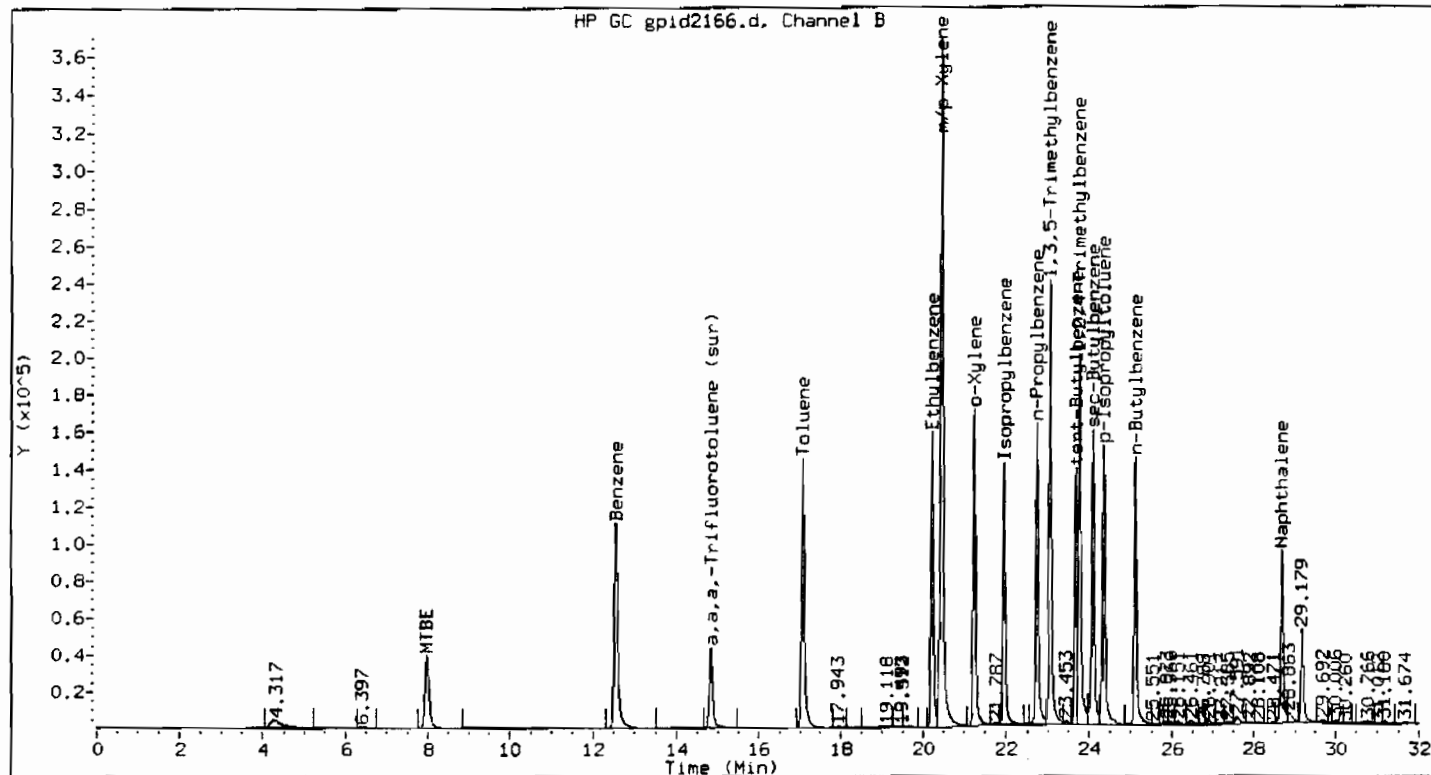
Instrument ID: VOAGC1 Calibration Date: 02/28/02 Time: 1517

Lab File ID: GPID2166 Init. Calib. Date(s): 02/07/02 02/07/02

Heated Purge: (Y/N) N Init. Calib. Times: 1102 1333

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Benzene	185641.28	178184.55		4.0	15.0
Toluene	186210.06	184128.40		1.1	15.0
Ethylbenzene	167190.17	170615.30		-2.0	15.0
Isopropylbenzene	161761.63	154555.95		4.4	15.0
n-Propylbenzene	155236.96	174530.60		-12.4	15.0
1,3,5-Trimethylbenzene	264795.03	254475.00		3.9	15.0
tert-Butylbenzene	131045.59	132623.70		-1.2	15.0
1,2,4-Trimethylbenzene	211345.16	225016.65		-6.5	15.0
sec-Butylbenzene	165440.66	178735.10		-8.0	15.0
p-Isopropyltoluene	173739.65	165828.55		4.6	15.0
n-Butylbenzene	144603.18	152037.15		-5.1	15.0
Naphthalene	115169.98	104230.30		9.5	15.0
MTBE	79107.47	74482.50		5.8	15.0
Total Xylenes	203501.64	204971.93		-0.7	15.0
TBA **					15.0
DIPE					15.0
Chlorobenzene					15.0
=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	61423.30	63162.25		-2.8	15.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC1.i/8021HIGH/02-07-02/28feb02a.b/8021H_01.m
Sample Info : GSTD059A
Lab ID : GSTD059A
Inj Date : 28-FEB-2002 15:17
Operator :
Cpnd Sublist: all

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
m/p-Xylene	20.452	20.452	0.000	8674270	40.752	40.752
o-Xylene	21.237	21.237	0.000	3624046	19.612	19.612
Benzene	12.542	12.542	0.000	3563691	19.197	19.197
Toluene	17.067	17.067	0.000	3682568	19.776	19.776
Ethylbenzene	20.222	20.222	0.000	3412306	20.410	20.410
Isopropylbenzene	21.946	21.946	0.000	3091119	19.109	19.109
n-Propylbenzene	22.735	22.735	0.000	3490612	22.486	22.486
1,3,5-Trimethylbenzene	23.052	23.052	0.000	5089500	19.221	19.221
tert-Butylbenzene	23.681	23.681	0.000	2652474	20.241	20.241

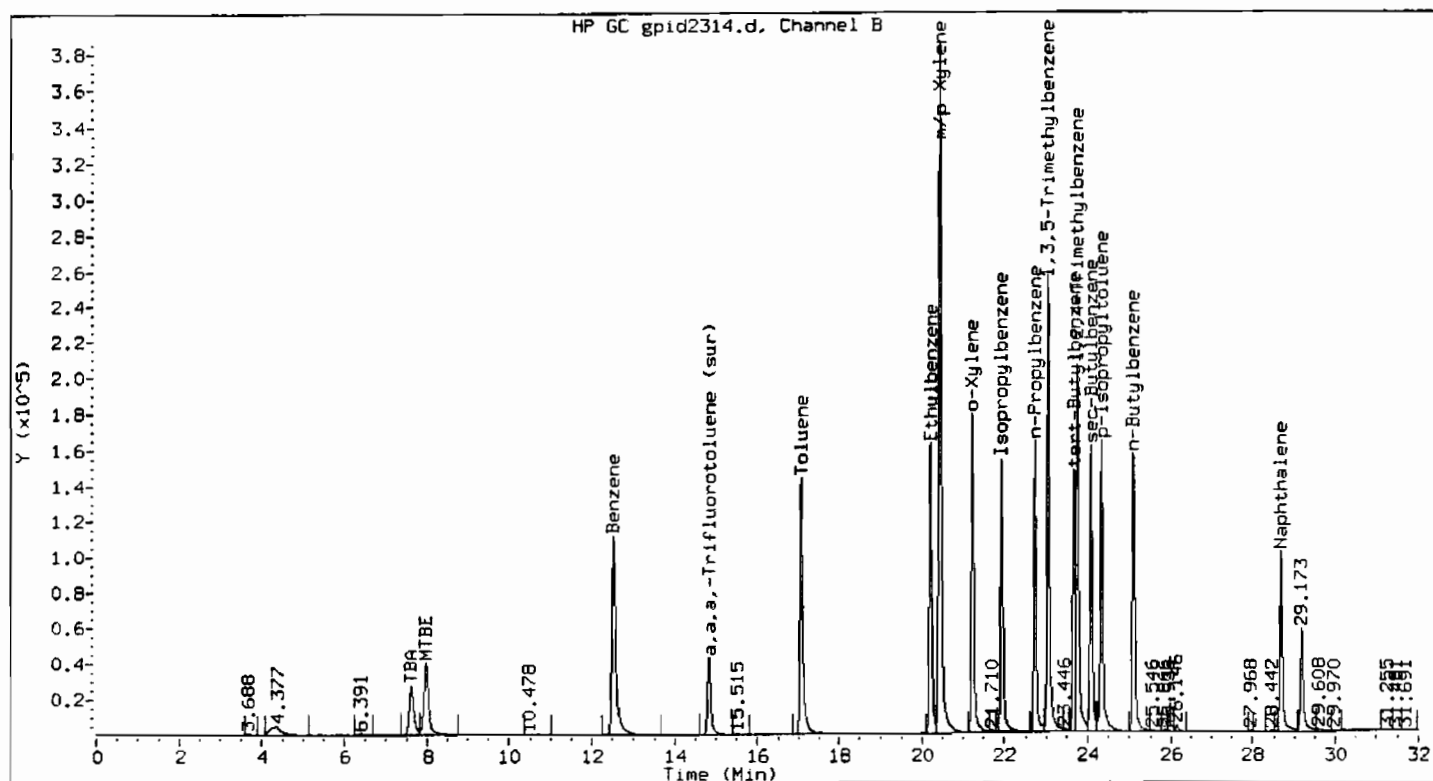
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1,2,4-Trimethylbenzene	23.767	23.767	0.000	4500333	21.294	21.294
sec-Butylbenzene	24.091	24.091	0.000	3574702	21.607	21.607
p-Isopropyltoluene	24.343	24.343	0.000	3316571	19.089	19.089
n-Butylbenzene	25.104	25.104	0.000	3040743	21.028	21.028
Naphthalene	28.683	28.683	0.000	2084606	18.100	18.100
MTBE	7.986	7.986	0.000	1489650	18.831	18.831
Total Xylenes	24.600	24.600	0.000	12298316	60.433	60.433
a,a,a,-Trifluorotoluene (sur	14.834	14.834	0.000	1263245	20.566	20.566

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC1 Calibration Date: 03/10/02 Time: 0943
 Lab File ID: GPID2314 Init. Calib. Date(s): 03/07/02 03/07/02
 Heated Purge: (Y/N) N Init. Calib. Times: 0907 1241

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Benzene	174687.75	186722.85		-6.9	15.0
Toluene	174624.55	189637.40		-8.6	15.0
Ethylbenzene	158022.47	174069.00		-10.2	15.0
Isopropylbenzene	152128.59	166484.00		-9.4	15.0
n-Propylbenzene	153529.02	169383.65		-10.3	15.0
1,3,5-Trimethylbenzene	259688.91	275175.75		-6.0	15.0
tert-Butylbenzene	123203.03	127159.55		-3.2	15.0
1,2,4-Trimethylbenzene	206358.13	236849.70		-14.8	15.0
sec-Butylbenzene	167525.75	174592.55		-4.2	15.0
p-Isopropyltoluene	173728.93	186135.70		-7.1	15.0
n-Butylbenzene	142271.73	159208.55		-11.9	15.0
Naphthalene	110969.39	117612.85		-6.0	15.0
MTBE	76636.44	83384.30		-8.8	15.0
Total Xylenes	194464.31	213142.98		-9.6	15.0
TBA **	749.16	735.29		1.8	15.0
DIPE					15.0
Chlorobenzene					15.0
=====	=====	=====	=====	=====	=====
a,a,a,-Trifluorotoluene (sur	59014.06	63803.10		-8.1	15.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC1.i/8021HIGH/03-07-02/10mar02.b/8021H_01.m
Sample Info : GSTD069
Lab ID : GSTD069
Inj Date : 10-MAR-2002 09:43
Operator :
Cpnd Sublist: all

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
m/p-Xylene	20.446	20.446	0.000	8945484	44.085	44.085
o-Xylene	21.231	21.231	0.000	3843095	21.644	21.644
Benzene	12.534	12.534	0.000	3734457	21.378	21.378
Toluene	17.062	17.062	0.000	3792748	21.719	21.719
Ethylbenzene	20.215	20.215	0.000	3481380	22.031	22.031
Isopropylbenzene (M)	21.941	21.941	0.000	3329680	21.887	21.887
n-Propylbenzene	22.728	22.728	0.000	3387673	22.065	22.065
1,3,5-Trimethylbenzene	23.047	23.047	0.000	5503515	21.193	21.193
tert-Butylbenzene	23.675	23.675	0.000	2543191	20.642	20.642

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/Kg)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
1,2,4-Trimethylbenzene	23.760	23.760	0.000	4736994	22.955	22.955
sec-Butylbenzene	24.085	24.085	0.000	3491851	20.844	20.844
p-Isopropyltoluene	24.337	24.337	0.000	3722714	21.428	21.428
n-Butylbenzene	25.098	25.098	0.000	3184171	22.381	22.381
Naphthalene	28.677	28.677	0.000	2352257	21.197	21.197
MTBE	7.980	7.980	0.000	1667686	21.761	21.761
Total Xylenes	24.600	24.600	0.000	12788579	65.763	65.763
TBA	7.618	7.618	0.000	1102933	1472.220	1472.220
a,a,a,-Trifluorotoluene (sur	14.829	14.829	0.000	1276062	21.623	21.623
-----	-----	-----	-----	-----	-----	-----

COMMENTS:

M - Compound response manually integrated.

Surrogate Compound Recovery Summary

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER Level: LOW Lab Job No: T926

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
	=====	=====	=====	=====	=====
01	GG059A	104			0
02	334514	101			0
03	334519	93			0
04	GG063	108			0
05	334515	104			0
06	334516	104			0
07	334518	92			0
08	GG069	106			0
09	334517	120			0
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

QC LIMITS

SMC1 = a,a,a,-Trifluorotoluen (65-135)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Spike Recovery Summary

VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8021

Matrix: WATER

Matrix Spike - Lab Sample No.: 334523

Level: LOW

MS Sample from Lab Job No: T927

QA Batch: 7327

Compound	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
=====	=====	=====	=====	=====	=====
Benzene	20	7.8	29	106	71-130
Toluene	20	0.00	21	105	76-124
Ethylbenzene	20	0.00	21	105	80-127
Isopropylbenzene	20	0.00	21	105	74-124
n-Propylbenzene	20	1.8	23	106	81-129
1,3,5-Trimethylbenzene	20	0.00	19	95	78-124
tert-Butylbenzene	20	0.00	19	95	79-118
1,2,4-Trimethylbenzene	20	0.00	20	100	77-127
sec-Butylbenzene	20	0.00	21	105	81-125
p-Isopropyltoluene	20	0.00	18	90	77-121
n-Butylbenzene	20	1.8	21	96	77-124
Naphthalene	20	0.00	18	90	63-138
MTBE	20	30	52	110	75-121
Total Xylenes	60	0.00	62	103	79-127

Compound	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS	
=====	=====	=====	=====	=====	=====	=====
Benzene	20	29	106	0	40	71-130
Toluene	20	20	100	5	40	76-124
Ethylbenzene	20	21	105	0	40	80-127
Isopropylbenzene	20	21	105	0	40	74-124
n-Propylbenzene	20	24	111	5	40	81-129
1,3,5-Trimethylbenzene	20	19	95	0	40	78-124
tert-Butylbenzene	20	19	95	0	40	79-118
1,2,4-Trimethylbenzene	20	20	100	0	40	77-127
sec-Butylbenzene	20	21	105	0	40	81-125
p-Isopropyltoluene	20	18	90	0	40	77-121
n-Butylbenzene	20	22	101	5	40	77-124
Naphthalene	20	20	100	11	40	63-138
MTBE	20	51	105	5	40	75-121
Total Xylenes	60	62	103	0	40	79-127

Column to be used to flag recovery and RPD values with an asterik

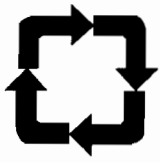
* Values outside of QC limits

RPD: 0 out of 14 outside limits

Spike Recovery: 0 out of 28 outside limits

COMMENTS:

This is the Last Page of the Document



EnSolutions, Inc.

1029 N. Florida Mango Rd., Suite #7 • West Palm Beach, FL 33409 • 561-684-9770 • Fax 561-684-9288

September 29, 2002

Mr. Mark Tibbe and Mr. Randall Austin
New York State Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101-5407

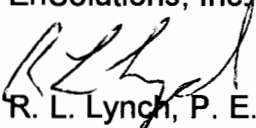
RE: Progress Report
Petrocelli Electric Company Inc. Facility
22-09 Queens Bridge Plaza North
Long Island City, NY
Spill # ~~97-058567~~
97-05856

Dear Mr. Tibbe and Mr. Austin:

On behalf of Petrocelli Electric Company Inc. (Petrocelli), enclosed is the progress report for the remedial action at the above referenced facility prepared by EnSolutions, Inc. The purpose of this report is to provide the NYSDEC with the following information:

1. The analytical ground water sampling results performed in May 2002 and the August 2002 at the site.
2. A ground water flow map.
3. Conclusions.
4. Action Items.

Thank you for all your assistance in this matter and if you require any additional information please do not hesitate to call us at (973) 442-1320.

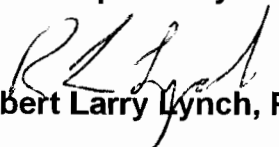
Sincerely,
EnSolutions, Inc.

R. L. Lynch, P. E.
President

cc: Michael Melia – Petrocelli Electric Co., Inc.

8245 NY 02-08-0002
010010360012

**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

**Prepared for:
PETROCELLI ELECTRIC COMPANY, INC.**

Prepared by:

Robert Larry Lynch, P.E.

**EnSolutions, Inc.
1029 North Florida Mango Road, Suite 7
West Palm Beach, FL 33409
(561) 684-9770**

September 2002

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

TABLE OF CONTENTS

SECTION I

- A. Introduction
- B. Area/Site Characterization
- C. Ground Water
- D. SVE/AS Remedial System
- E. SVE / AS System Operation

SECTION II

- A. Ground Water Sampling – May 2002
- B. Ground Water Sampling – August 2002

SECTION III

- A. Ground Water Analytical Results – May 2002
- B. Ground Water Analytical Results – August 2002

SECTION IV

- A. Trends
- B. Conclusions
- C. Action Items

SECTION V

FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 August 2002 Ground Water Flow Map

TABLES

- Table 1 May 2002 Analytical Results Summary
- Table 2 August 2002 Analytical Results Summary
- Table 3 Historical Ground Water Sampling Results

ATTACHMENTS

- Attachment 1 Laboratory QA/QC Data – May 2002
- Attachment 2 Laboratory QA/AC Data – August 2002



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION I

A. INTRODUCTION

On behalf of Petrocelli Electric Company Inc. (Petrocelli), EnSolutions, Inc. (EnSolutions) has prepared this Progress Report for the remedial actions implemented at the Petrocelli facility at 22-09 Queens Bridge Plaza North, Long Island City, New York.

This Progress Report is part of the approved Corrective Action Plan implemented at the site as a result of a petroleum hydrocarbon release that occurred under the prior property owner.

B. AREA / SITE CHARACTERIZATION

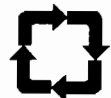
The site, the administrative and maintenance facilities for the Petrocelli Electric Company Inc., is located at 22-09 Queens Plaza North, between 22nd and 23rd Streets, Long Island City, Queens County, New York. The area surrounding the site is primarily commercial, with some residential units up-gradient of the site, east on 23rd Street. A site location map is included as Figure 1 in Section V and a site plan illustrating all site features is included as Figure 2 in Section V.

The water source at the subject property and at all surrounding properties is currently from the public water supply. The East River is the nearest surface water to the site and is located approximately 3,000 feet to the west of the facility.

C. GROUND WATER

As a result of the soil delineation and ground water sampling and analyses performed at the subject property, six (6) ground water monitoring wells were installed on the subject property in May 1998. The six ground water monitoring wells were installed as both soil vapor extraction points and as ground water monitoring points in order to address and monitor the ground water contamination at the subject property. The six monitoring wells are labeled as MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6 and are shown in the site plan, Figure 2 in Section V.

EnSolutions, Inc.



In addition, as part of the ground water investigation and, as specified by the NYSDEC, one (1) additional ground water monitoring well was installed in the sidewalk of 22nd Street to confirm ground water direction and the extent of the ground water contamination at the site. This monitoring well was designated at MW-7 and is shown in Figure 2 in Section V.

The direction of ground water flow is predicted to be toward the west, in the direction of the East River.

D. SVE/AS REMEDIAL SYSTEM

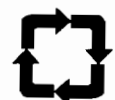
Based on the site investigation activities implemented at the site and reported to the NYSDEC, which included the soil analytical data, ground water laboratory analytical data and a Corrective Action Plan, an approved Stipulation Agreement between Petrocelli and the NYSDEC, including an approved air permit, was issued for the site.

As part of the Correction Action Plan, a Soil Vapor Extraction / Air Sparging (SVE/AS) Remedial System was approved and is in operation to address the petroleum hydrocarbon contamination at the site.

The SVE was connected to six extraction points, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6, to address the levels of contaminants at the site. The SVE component of the remedial system induced airflow in the subsurface using an above ground vacuum pump system. The induced airflow brings clean air in contact with the contaminated soil. The contaminated soil vapors drawn off by the SVE allows the soil matrix to re-establish the soil / pore moisture partitioning with the contaminants present.

The SVE installed utilized a positive displacement vacuum pump that utilizes an electronic variable speed drive. The drive receives its speed command from a Programmable Logic Controller (PLC), which permits the monitoring of all control parameters, such as pump speed and vacuum level and also provides for the modification of system parameters.

The air sparging component of the remedial system provided oxygen to stimulate biological activity in the subsurface. The air sparging system was design to provide sufficient oxygen to stimulate bioactivity, while minimizing the mobilization of dissolved hydrocarbons. To maintain a closed loop circulation of air injected into the ground water, the air sparging points, SP-1, SP-2, SP-3 and SP-4, were located within 30 feet of the vapor extraction points, well within the zone of influence for the SVE system and configured with a gate valve to control flow to each individual sparge point in order to optimize air sparging.

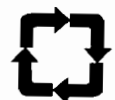


E. SVE / AS SYSTEM OPERATION

Based upon the Stipulation Agreement between the NYSDEC and Petrocelli, the SVE segment of the remedial system has been in operation since December 1998. As part of the SVE operation, a zone of influence test to evaluate the SVE system was performed during the first quarter of 1999 to determine the effectiveness of the remedial system at the subject site. Utilizing the data obtained from the zone of influence test, the pneumatic zone of influence that displays capture of the vadose zone was established for this site.

The air sparging segment of the remedial system has been in operation to enhance the remedial efforts on the site since May 6, 1999.

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION II

2.1 GROUND WATER SAMPLING – MAY 13, 2002

On May 13, 2002, Terra Nova Associates, under the supervision of EnSolutions, conducted the ground water sampling of the six ground water monitoring wells at the site. All sampling was conducted in accordance with the standard field sampling practices of the NYSDEC and the USEPA.

Water levels and total depths were measured with a slope indicator electronic water level meter, Model 501, to the nearest 0.01-foot as measured from the top of the inner casing mark or adjacent to the lock, if no mark was present. The water level meter line was wiped with a DI water soaked paper towel as it was retracted from the well. The probe was then rinsed with DI water and paper towel dried. The well depth, depth to water, well diameter and purge water calculations were noted in the field log, and the well calculations to determine one standing column were based on the following:

Casing diameter – 4 inches

Gallons/Linear Foot – 0.652

The wells were evacuated with a whale pump. All sampling tubing in the wells was dedicated polyethylene drinking water grade tubing with dedicated Brady foot valves.

Field parameters were monitored before purging and after each casing volume. When three consecutive measurements of all parameters agreed within 10%, or if the well went dry, or 5 volumes was reached, sampling began.

Prior to sampling, a depth to water measurement was taken. If there was sufficient volume in the well, sampling proceeded. If volume was not sufficient, the well was allowed to recover.

All wells were sampled with a laboratory cleaned dedicated Teflon bailer, constructed entirely of Teflon. The field meters used for ground water measurements included the YSI 3500, which was used for temperature, pH and specific conductivity.

Ground water monitoring well MW-5 was under water and could not be open for a water level measurement or sampling. In addition, the laboratory noted that the sample from

EnSolutions, Inc.



MW-3, though accepted at the laboratory and signed for in the chain of custody, was misplaced and was not analyzed.

No other problems were encountered in the field with the sampling of all other monitoring wells. Immediately after the sample collection, the pre-labeled sample bottles were placed in a cooler at 4 degrees C and transported on ice to STL Laboratories of Edison, NJ for analyses, accompanied by a chain of custody form, in accordance with the quality control standards. All samples, including field and trip blanks, were analyzed for BTEX and MTBE.

A summary of the field sampling parameters is as follow:

Sample Point	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
Total Depth	15.10	14.90	16.60	14.50	12.00	15.00	15.00
Depth To Water	10.21	9.03	9.45	9.42	-	9.65	9.74
Height To Water Col. (Ft.)	4.9	5.9	7.2	5.1	-	5.4	4.6
One Casing Vol.(Gal)	3.2	3.8	4.7	3.3	-	3.5	0.7
Three Casing Vol. (Gal)	9.6	11.5	14	9.9	-	10.5	2.2
Actual Volume Purged (Gal)	10	12	23	10	-	11	2.5
Date Sampled	5/13/02	5/13/02	5/13/02	5/13/02	NS	5/13/02	5/13/02
Time Sampled	0925	0930	1005	0940	-	1000	0950
Field Parameters							
Ph	6.87	6.48	6.56	6.60	-	6.80	6.95
SCOND um/cm	1119	736	740	1153	-	1490	1751
Temp C	15.0	14.8	15.0	14.6	-	15.2	15.0
Dissolved Oxygen (Ppm)	1.54	1.57	1.67	1.63	-	1.22	3.30
Appearance	cloudy	cloudy	cloudy	cloudy	-	clear	turbid
Odor	odor	odor	no odor	odor	-	odor	odor
Purge Method	PP	PP	SP	PP	-	PP	PP
Sample Method	BT	BT	BT	BT	-	BT	BT

BT - BAILER TEFLON WP - WHALE PUMP PP- PERISTALTIC PUMP

2.2 GROUND WATER SAMPLING – AUGUST 22, 2002

On August 22, 2002, Terra Nova Associates, under the supervision of EnSolutions, conducted the ground water sampling of the six ground water monitoring wells at the

EnSolutions, Inc.



site. All sampling was conducted in accordance with the standard field sampling practices of the NYSDEC and the USEPA.

Water levels and total depths were measured with a slope indicator electronic water level meter, Model 501, to the nearest 0.01-foot as measured from the top of the inner casing mark or adjacent to the lock, if no mark was present. The water level meter line was wiped with a DI water soaked paper towel as it was retracted from the well. The probe was then rinsed with DI water and paper towel dried. The well depth, depth to water, well diameter and purge water calculations were noted in the field log, and the well calculations to determine one standing column were based on the following:

Casing diameter – 4 inches Gallons/Linear Foot – 0.652

The wells were evacuated with a whale pump. All sampling tubing in the wells was dedicated polyethylene drinking water grade tubing with dedicated Brady foot valves.

Field parameters were monitored before purging and after each casing volume. When three consecutive measurements of all parameters agreed within 10%, or if the well went dry, or 5 volumes was reached, sampling began.

Prior to sampling, a depth to water measurement was taken. If there was sufficient volume in the well, sampling proceeded. If volume was not sufficient, the well was allowed to recover.

All wells were sampled with a laboratory cleaned dedicated Teflon bailer, constructed entirely of Teflon. The field meters used for ground water measurements included the YSI 3500, which was used for temperature, pH and specific conductivity.

Ground water monitoring well MW-5 was not accessible due to a parked automobile and could not be sampled. No other problems were encountered in the field with the sampling of all other monitoring wells.

Immediately after the sample collection, the pre-labeled sample bottles were placed in a cooler at 4 degrees C and transported on ice to STL Laboratories of Edison, NJ for analyses, accompanied by a chain of custody form, in accordance with the quality control standards. All samples, including field and trip blanks, were analyzed for Stars VO by 8021 and MTBE.

A summary of the field sampling parameters is as follow:

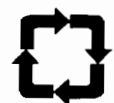
EnSolutions, Inc.



Sample Point	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
Total Depth	15.10	14.90	16.60	14.50	12.00	15.00	15.00
Depth To Water	10.66	9.67	10.07	9.92	-	10.23	10.30
Height To Water Col. (Ft.)	4.4	5.2	6.5	4.6	-	4.8	4.0
One Casing Vol.(Gal)	2.9	3.4	4.3	3.0	-	3.1	0.7
Three Casing Vol. (Gal)	8.7	10.2	12.8	9.0	-	9.3	2.0
Actual Volume Purged (Gal)	9.0	11.0	13.0	9.0	-	10.0	2.5
Date Sampled	8/22/02	8/22/02	8/22/02	8/25/02	NS	8/22/02	8/22/02
Time Sampled	0950	0940	0955	0935	-	0925	1000
Field Parameters							
Ph	6.64	6.47	6.58	6.58	-	6.66	6.76
SCOND um/cm	1183	1032	825	1251	-	1621	2100
Temp C	20.4	20.5	19.9	20.6	-	22.9	21.7
Dissolved Oxygen (Ppm)	0.86	0.85	2.57	1.41	-	1.48	2.83
Appearance	cloudy	cloudy	cloudy	cloudy	-	clear	cloudy
Odor	odor	odor	no odor	odor	-	odor	odor
Purge Method	PP	PP	WP	PP	-	PP	PP
Sample Method	BT	BT	BT	BT	-	BT	BT

BT - BAILER TEFLON WP - WHALE PUMP PP- PERISTALTIC PUMP

EnSolutions, Inc.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION III

3.1 GROUND WATER ANALYTICAL RESULTS – MAY 13, 2002

The laboratory results of the BTEX and MTBE analyses for the ground water samples obtained indicated:

1. Levels of benzene continue to reflect asymptotic levels for the site, including the down gradient well along 22nd Street.
2. Levels of MTBE continue to reflect asymptotic levels for the subject property.
3. No other constituents of concern exceed any the NYSDEC ground water quality standards or guidance values for ground water on the subject property or the additional ground water monitoring well in the sidewalk in 22nd Street.

The analytical results summary are shown in Table 1 in Section V:

A summary table of the historical analytical results, including the May 2002 results, is shown in Table 3 in Section V.

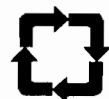
The laboratory QA/QC for the ground water analyses is included as Attachment 1 in Section V.

3.2 GROUND WATER ANALYTICAL RESULTS – AUGUST 22, 2002

The laboratory results of the BTEX and MTBE analyses for the ground water samples obtained indicated:

1. Levels of benzene have declined significantly from the initial notice during closure activities and appear to be at asymptotic levels.
2. The down gradient off site well, MW-7 located in the sidewalk on 22nd Street shows no constituents of concern above any NYSDEC ground water quality standards or guidance values for ground water.
3. The analytical results of the most up gradient monitoring well, MW-6, on the edge of the Petrocelli property along 23rd Street, is indicative of contamination coming on to the Petrocelli site, and the laboratory results from this monitoring

EnSolutions, Inc.



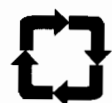
- well show contamination greater than any other monitoring well results on the subject property or in the down gradient well along 22nd Street.
4. Levels of MTBE have declined from historical levels at the subject site, however, MW-6, the up gradient well at the subject property, now shows the greatest concentration of MTBE on the subject property.
 5. No other constituents of concern exceed any the NYSDEC ground water quality standards or guidance values for ground water in any of the other monitor wells at the site or the additional ground water monitoring well in the sidewalk on 22nd Street, with the exception of MW-6, the up gradient well by 23rd Street.

The analytical results summary are shown in Table 2 in Section V:

A ground water flow map is included as Figure 3 in Section V.

A summary table of the historical analytical results, including the August 2002 results, is shown in Table 3 in Section V.

The laboratory QA/QC for the ground water analyses is included as Attachment 2 in Section V.



**PROGRESS REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION IV

A. TRENDS

The ground water monitoring well results from the May 13, 2002 and August 22, 2002 sampling continue to show low levels of all potential constituents of concern at the subject property, with the exception of MW-6, the up gradient well along 23rd Street. These low levels of contaminants, including the results from the most recently installed off site MW-7, down gradient of the subject property, indicates the active remedial efforts at the subject site have reached the asymptotic levels and further operation of an active remedial system at this site is not warranted.

However, based upon the August 22, 2002 results from MW-6, the up gradient monitoring well along 23rd Street, off site contamination is impacting the subject property at levels in excess of any on site monitoring well results.

B. CONCLUSIONS

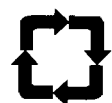
The closure information, the remedial investigation analytical results from the ground water sampling of May 13, 2002 and August 22, 2002, the low levels of contaminants in the monitoring wells associated with the site, with the exception of the up gradient MW-6 along 23rd Street, and the trends indicates the active remedial efforts at the subject site have reached the asymptotic levels and further operation of an active remedial system at this site is not warranted.

C. ACTION ITEMS

Based upon analytical data, the downward trends of all constituents of concern to their respective current low levels, the analytical results from the up gradient well, MW-6 along 23rd Street and a review of all information in regards to the site, the following are the action items that should be implemented at the site:

1. Active remediation utilizing the SVE / AS system should be discontinued.
2. Natural attenuation should be implemented as the remedial activity for the subject property.

EnSolutions, Inc.



3. To support the proposed no further action utilizing the natural attenuation remedial recommendation for the site, quarterly ground water monitoring of the seven monitoring wells at the subject site should continue for two additional quarters, the seventh and eighth quarters of the two year quarterly monitoring period.
4. The next report, including the November 2002 and February 2003 ground water sampling, the seventh and eighth quarterly monitoring as part of a no further action by natural attenuation, will be submitted to the NYSDEC case manager on or before April 30, 2003.
5. A exposure assessment to support the natural attenuation remedial recommendation will be undertaken for inclusion in the April 2003 report requesting a no further action.

EnSolutions, Inc.



FIGURES

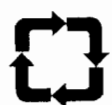


FIGURE 1
SITE LOCATION MAP

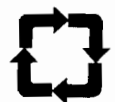


Figure 1 - Site Location Map

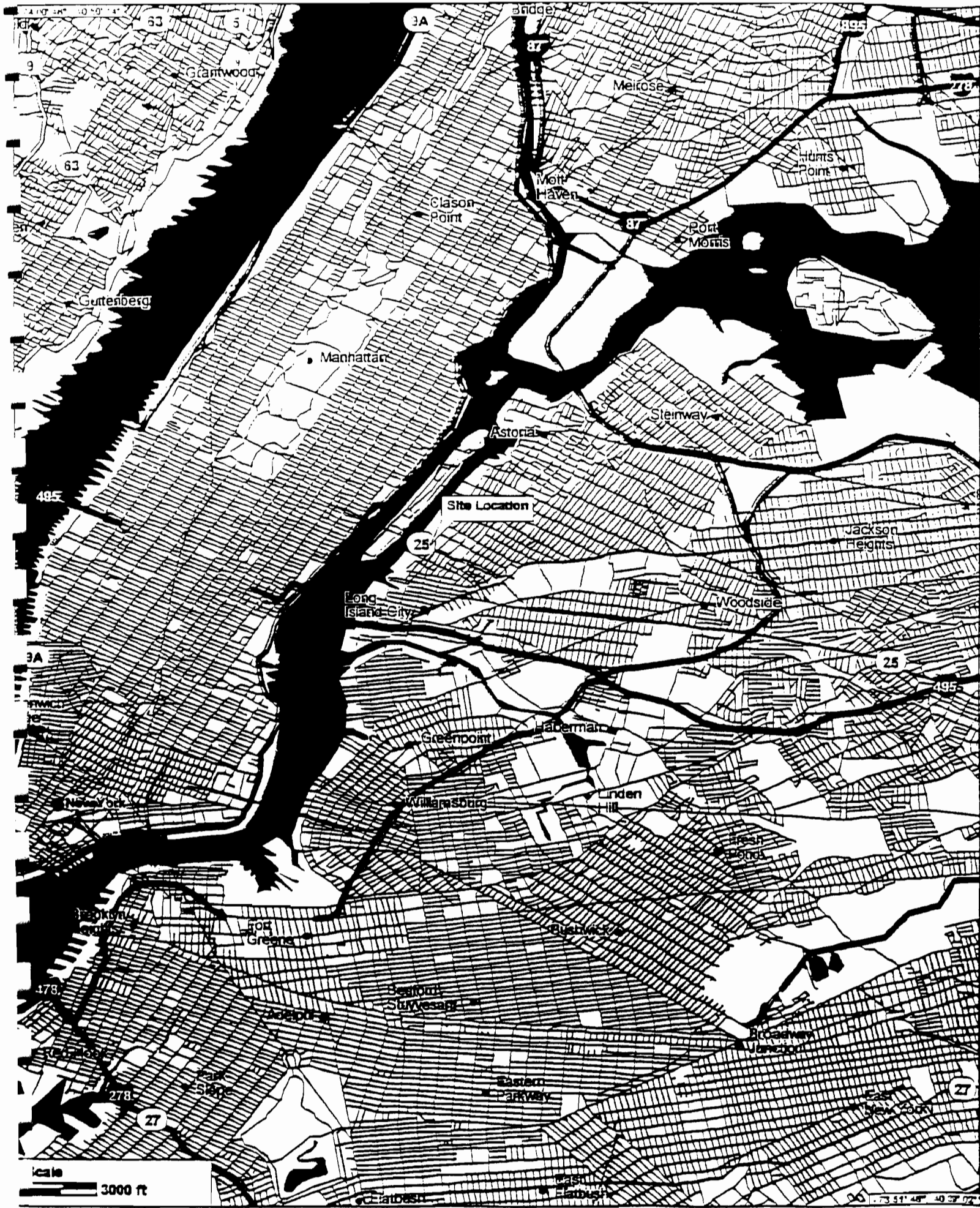
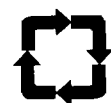


FIGURE 2
SITE PLAN

EnSolutions, Inc.



22nd STREET

QUEENS PLAZA NORTH

ONE STORY
COMMERCIAL
BUILDING

MW-7

MW-1

MW-2

SVE/
SPARGE
SYSTEM

MW-3

SP 2

SP 1

MW-4

Tank Farm

Canopy

Canopy

SP 3

MW-5

SP 4

MW 6



KEY



Monitor Well



Sparge Point

DATE

5/26/98

EnSolutions, Inc.
66 Elm Street
Dover, NJ 07801



DESCRIPTION

FIGURE 2
PETROCELLI FACILITY
SITE PLAN

TITLE

22-09 Queens Bridge Plaza North
Long Island City, NY

DRAWN BY

M. Winer

SCALE

1 in. = 14 ft.

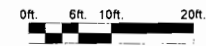
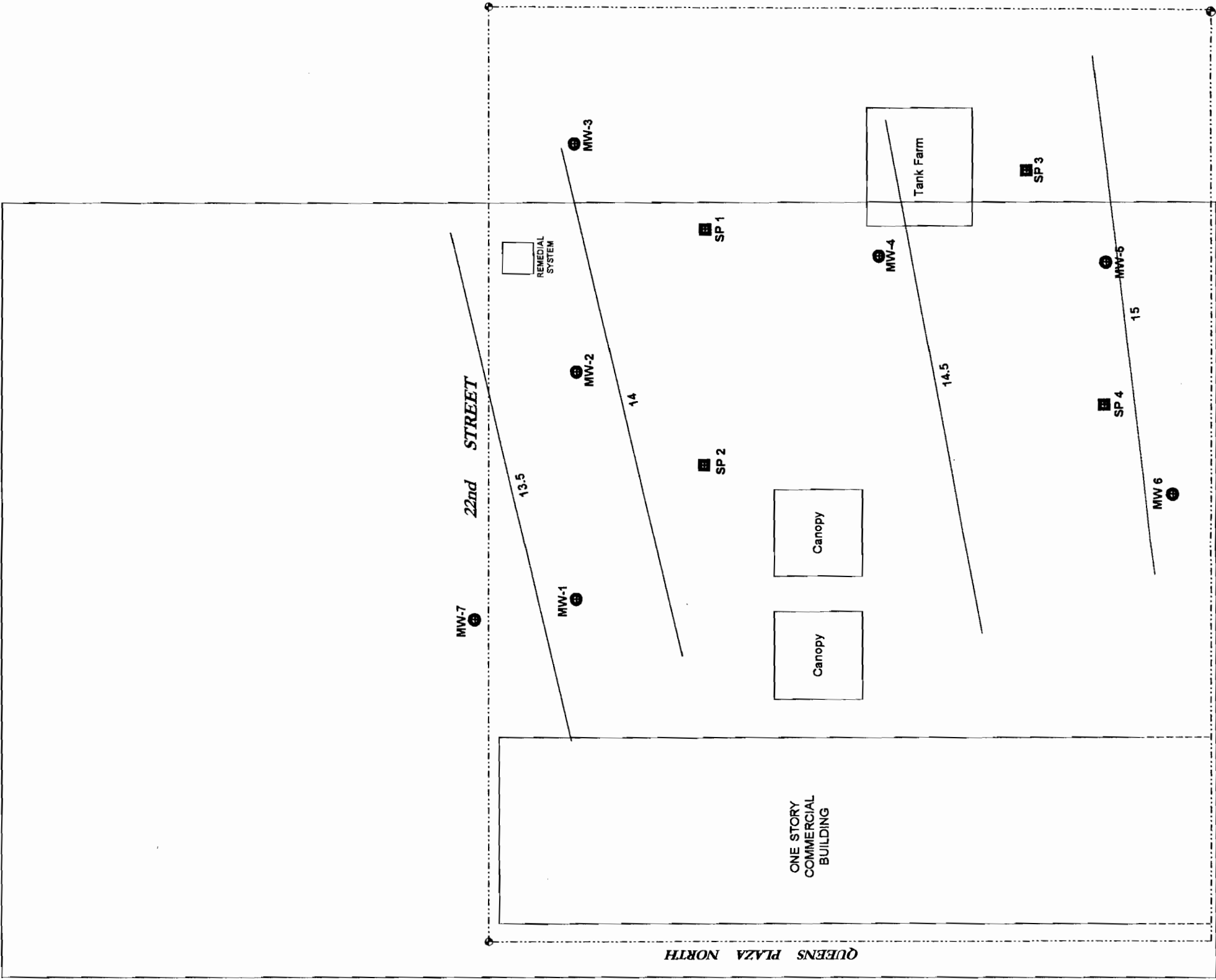


FIGURE 3

GROUND WATER FLOW MAP





KEY	
	Monitor Well
	Sparge Point

EnSolutions, Inc. 88 Elm Street Dover, NJ 07801	
DATE 9/27/2002	
DESCRIPTION FIGURE 3 PETROCELLI FACILITY Ground Water Flow August 22, 2002	
TITLE 22-08 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY	SCALE
11	As Shown

GW-1	13.67
GW-2	13.88
GW-3	14.11
GW-4	14.46
GW-5	14.97
GW-6	15.23
GW-7	13.38



TABLES

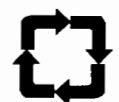


TABLE 1

MAY 2002 ANALYTICAL RESULTS SUMMARY



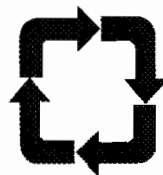
Table 1 - Petrocelli Electric Co., Inc. - LIC, NY
May 2002 Groundwater Sampling Results

BTEX/MTBE

(ug/l)

	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	May-02	May-02	May-02	May-02	May-02	May-02	May-02
Benzene	0.97	ND	NS	5.4	NS	2.9	1.2
Toluene	ND	ND	NS	0.72	NS	0.64	0.5
Ethylbenzene	3.8	ND	NS	7.8	NS	1.9	1.6
MTBE	34	3.1	NS	4.9	NS	22	36
Total Xylenes	ND	ND	NS	3.2	NS	1.4	0.42

NS - Not Sampled



EnSolutions, Inc.

TABLE 2

AUGUST 2002 ANALYTICAL RESULTS SUMMARY

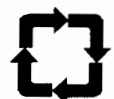
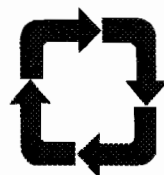


Table 2 - Petrocelli Electric Co., Inc. - LIC, NY
August 2002 Groundwater Sampling Results

BTEX/MTBE

	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
(ug/l)	Aug-02	Aug-02	Aug-02	Aug-02	Aug-02	Aug-02	Aug-02
Benzene	2.2	23	4.1	6.9	NS	73	0.39
Toluene	2.3	ND	ND	2.8	NS	400	0.69
Ethylbenzene	4.3	1.8	ND	25	NS	87	0.05
MTBE	86	350	160	9	NS	160	5.1
Total Xylenes	ND	ND	ND	9.2	NS	480	0.42

NS-Not Sampled



EnSolutions, Inc.

TABLE 3

**HISTORICAL GROUND WATER SAMPLING
RESULTS**



**Table 3 - Petrocelli Electric Co., Inc. - LIC, NY
Historic Groundwater BTEX and MTBE Sampling Results**

BTEX/MTBE (ug/l)	MW1									
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02
Benzene	45	ND	ND	ND	ND	3.5	1.9	6	0.97	2.2
Toluene	ND	ND	ND	ND	4.3	ND	1.2	ND	ND	2.3
Ethylbenzene	58	27	1.9	ND	5.1	5.9	N	16	3.8	4.3
MTBE	590	200	700	220	270	130	53	10	34	86
Total Xylenes	30	ND	ND	ND	ND	ND	ND	3.2	ND	ND

BTEX/MTBE (ug/l)	MW2									
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02
Benzene	ND	ND	58	36	ND	2.4	1.9	ND	ND	23
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	14	ND	ND	ND	0.48	ND	ND	1.8
MTBE	520	2500	690	650	ND	32	30	330	3.1	350
Total Xylenes	ND	ND	ND	ND	150	ND	ND	ND	ND	ND

BTEX/MTBE (ug/l)	MW3									
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02
Benzene	ND	NS	ND	ND	ND	25	ND	NS	NS	4.1
Toluene	ND	NS	ND	ND	ND	ND	ND	NS	NS	ND
Ethylbenzene	ND	NS	22	7.8	ND	ND	ND	NS	NS	ND
MTBE	22	NS	68	59	ND	240	250	NS	NS	160
Total Xylenes	ND	NS	ND	ND	19	ND	ND	NS	NS	ND

D - NON DETECT
ELL DID NOT EXIST
S - NOT SAMPLED

**Table 3 - Petrocelli Electric Co., Inc. - LIC, NY
Historic Groundwater BTEX and MTBE Sampling Results**

BTEX/MTBE (ug/l)	MW4									
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02
Benzene	77	ND	4.9	9.2	20	5.1	3.9	6	5.4	6.9
Toluene	14	ND	ND	ND	ND	0.7	0.67	ND	7.8	2.8
Ethylbenzene	250	ND	2.8	6.1	8	9.1	3.5	16	0.72	25
MTBE	280	460	73	50	ND	10	6.9	10	4.9	9
Total Xylenes	370	ND	18	ND	52	5.7	1.4	3.2	3.2	9.2

BTEX/MTBE (ug/l)	MW5									
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02
Benzene	ND	ND	ND	ND	ND	NS	NS	ND	NS	NS
Toluene	ND	ND	ND	ND	ND	NS	NS	ND	NS	NS
Ethylbenzene	ND	ND	ND	ND	ND	NS	NS	ND	NS	NS
MTBE	ND	ND	ND	ND	ND	NS	NS	1.5	NS	NS
Total Xylenes	ND	ND	ND	ND	ND	NS	NS	ND	NS	NS

BTEX/MTBE (ug/l)	MW6									
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02
Benzene	ND	ND	ND	21	ND	13	3	2	2.9	73
Toluene	ND	ND	ND	4.7	ND	ND	ND	ND	1.9	400
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	0.84	87
MTBE	6200	430	190	710	ND	470	100	74	22	160
Total Xylenes	ND	41	ND	ND	ND	ND	ND	ND	1.4	480

ND - NON DETECT
 * - WELL DID NOT EXIST
 NS - NOT SAMPLED

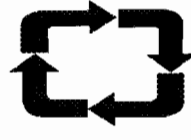
**Table 3 - Petrocelli Electric Co., Inc. - LIC, NY
Historic Groundwater BTEX and MTBE Sampling Results**

BTEX/MTBE (ug/l)	MW7									
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02
Benzene	*	*	*	*	*	30	4.3	ND	1.2	0.39
Toluene	*	*	*	*	*	31	3.5	ND	1.6	0.69
Ethylbenzene	*	*	*	*	*	27	4.9	4.3	0.5	0.5
MTBE	*	*	*	*	*	71	57	36	36	5.1
Total Xylenes	*	*	*	*	*	25	5	5	0.42	0.42

ND - NON DETECT

* - WELL DID NOT EXIST

NS - NOT SAMPLED



EnSolutions, Inc.

ATTACHMENTS

EnSolutions, Inc.



ATTACHMENT 1

LABORATORY QA/C – MAY 2002

EnSolutions, Inc.



06/10/2002

EnSolutions, Inc.
1029 North Florida Mango Road
Suite #7
West Palm Beach, FL 33409

Attention: Mr. Howard Fredericks

SEVERN

TRENT

SERVICES

STL Edison

777 New Durham Road
Edison, NJ 08817

Tel: 732-549-3900

Fax: 732-549-3679

www.stl-inc.com

Laboratory Results
Job No. W361 - Petrocelli Electric

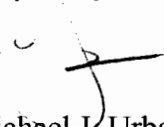
Dear Mr. Fredericks:

Enclosed are the results you requested for the following sample(s) received at our laboratory on May 13, 2002.

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
349883	MW-1	BTEX GC w/MTBE
349884	MW-2	BTEX GC w/MTBE
349885	MW-4	BTEX GC w/MTBE
349886	MW-7	BTEX GC w/MTBE
349887	MW-6	BTEX GC w/MTBE

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Paul Nadzan, at (732) 549-3900.

Very Truly Yours,


Michael J. Urban
Laboratory Manager

Analytical Results Summary	1
General Information	7
Chain of Custody	7
Laboratory Chronicles	9
Methodology Review	11
Data Reporting Qualifiers	15
Non-Conformance Summary	17
GC/PID Forms and Data	20
Results Summary and Chromatograms	20
Method Blank Results Summary	31
Standards Summary	38
Surrogate Compound Recovery Summary	66
Spike Recovery Summary	68
This is the Last Page of the Document	70

Analytical Results Summary

Client ID: MW-1
Site: Petrocelli Electric

Lab Sample No: 349883
Lab Job No: W361

Date Sampled: 05/13/02
Date Received: 05/13/02
Date Analyzed: 05/20/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3412.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	34	0.10
Benzene	0.97	0.22
Toluene	ND	0.24
Ethylbenzene	3.8	0.18
Xylene (Total)	ND	0.20

Client ID: MW-2
Site: Petrocelli Electric

Lab Sample No: 349884
Lab Job No: W361

Date Sampled: 05/13/02
Date Received: 05/13/02
Date Analyzed: 05/17/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3393.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	3.1	0.10
Benzene	ND	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Client ID: MW-4
Site: Petrocelli Electric

Lab Sample No: 349885
Lab Job No: W361

Date Sampled: 05/13/02
Date Received: 05/13/02
Date Analyzed: 05/17/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3394.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u>
		<u>Limit</u> <u>Units: ug/l</u>
MTBE	4.9	0.10
Benzene	5.4	0.22
Toluene	0.72	0.24
Ethylbenzene	7.8	0.18
Xylene (Total)	3.2	0.20

Client ID: MW-7
Site: Petrocelli Electric

Lab Sample No: 349886
Lab Job No: W361

Date Sampled: 05/13/02
Date Received: 05/13/02
Date Analyzed: 05/20/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3413.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u>
		<u>Limit</u> <u>Units: ug/l</u>
MTBE	36	0.10
Benzene	1.2	0.22
Toluene	0.50	0.24
Ethylbenzene	1.6	0.18
Xylene (Total)	0.42	0.20

Client ID: MW-6
Site: Petrocelli Electric

Lab Sample No: 349887
Lab Job No: W361

Date Sampled: 05/13/02
Date Received: 05/13/02
Date Analyzed: 05/17/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3396.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u>
		<u>Limit</u> <u>Units: ug/l</u>
MTBE	22	0.10
Benzene	2.9	0.22
Toluene	0.64	0.24
Ethylbenzene	1.9	0.18
Xylene (Total)	1.4	0.20

General Information

Chain of Custody

STL EDISON

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

Petrocelli Electric

PAGE 1 OF 1

Name (for report and invoice) ENSOLUTIONS		Samplers Name (Printed) APWA/C. May / M. PENA OFTNT		Site/Project Identification Petrocelli Electric Long Isl City NY	
Company of H. Fredericks		P.O. #		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:	
Address West Palm Beach Fla		Analysis Turnaround Time Standard <input checked="" type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)	
City Haward Fredericks		State			
Phone 561 684 9770		Fax			
Sample Identification		Date	Time	Matrix	No. of Cont.
MW-1	5/13/02	0925	AP	3	3
MW-2	"	0930	AP	3	3
MW-4	"	0940	AP	3	3
MW-7	"	0950	AP	3	3
MW-6	"	1000	AP	3	3
MW-3	"	1005	AP	3	3
LAB USE ONLY		Project No: W361			
Job No:		W361			
Sample Numbers		349883 349884 349885 349886 349887			
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil:			
6 = Other, 7 = Other		Water:			

Not recia

Special Instructions one copy of report bound one unbound to ENSOLUTIONS

Water Metals Filtered (Yes/No)?

Relinquished by 1) [Signature]	Company Terra Nova	Date / Time 5/13/02 1333	Received by 1) [Signature]	Company SR
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Laboratory Chronicles

10/1/77

10/2/77

10/3/77

10/4/77
10/5/77
10/6/77
10/7/77
10/8/77
10/9/77
10/10/77
10/11/77
10/12/77
10/13/77
10/14/77
10/15/77
10/16/77
10/17/77
10/18/77
10/19/77
10/20/77
10/21/77
10/22/77
10/23/77
10/24/77
10/25/77
10/26/77
10/27/77
10/28/77
10/29/77
10/30/77
10/31/77

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison

777 New Durham Road, Edison, New Jersey
08817

Job No: W361

Site: Petrocelli Electric

Client: EnSolutions, Inc.

VOAGC

602

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
WATER							
349883	5/13/2002	5/13/2002			5/20/2002	Zhang, John	7366
349884	5/13/2002	5/13/2002			5/17/2002	Khuu, Vivian	7366
349885	5/13/2002	5/13/2002			5/17/2002	Khuu, Vivian	7366
349886	5/13/2002	5/13/2002			5/20/2002	Zhang, John	7366
349887	5/13/2002	5/13/2002			5/17/2002	Khuu, Vivian	7366

Methodology Review

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

Element	Water Test Method		Solid Test Method	
	Flame	Furnace	Flame	Furnace
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

Ignitability - Method 1020A

Corrosivity - Water pH Method 9040B
Soil pH Method 9045C

Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release

Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

Data Reporting Qualifiers

DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

Non-Conformance Summary

NON-CONFORMANCE SUMMARY

STL Edison Job Number: W361

Volatile Organics Analysis:

All data conforms with method requirements ✓; or

Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements ✓; or

Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements ✓; or

Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Page 1 of 2

Non-conformance Summary, Page 2 of 2

STL Edison Job Number: W36T

Metals Analysis:

All data conforms with method requirements ____; or

Analysis was not requested ☒; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Total Petroleum Hydrocarbons:

All data conforms with method requirements ____; or

Analysis was not requested ☒; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

General Chemistry/Disposal Parameters:

All data conforms with method requirements ____; or

Analysis was not requested ☒; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Signature of
Laboratory Manager:

 Date: 6.5.02

GC/PID Forms and Data

Results Summary and Chromatograms

Client ID: MW-1
Site: Petrocelli Electric

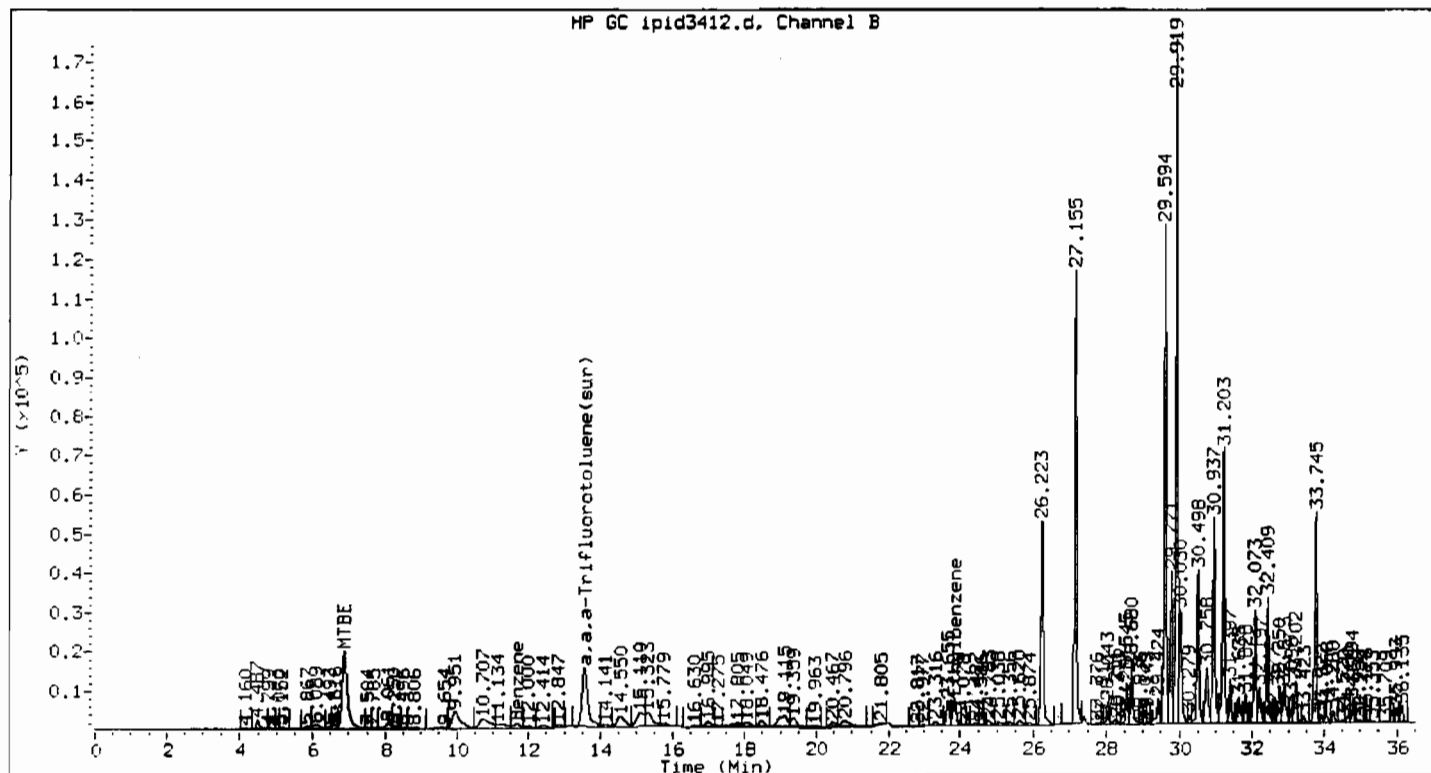
Lab Sample No: 349883
Lab Job No: W361

Date Sampled: 05/13/02
Date Received: 05/13/02
Date Analyzed: 05/20/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3412.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	34	0.10
Benzene	0.97	0.22
Toluene	ND	0.24
Ethylbenzene	3.8	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m

Sample Info : 349883

Lab ID : 349883

Inj Date : 20-MAY-2002 16:50

Operator :

Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i

Dil Factor : 1

Sample Matrix : WATER

Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.883	6.879	0.004	1000043	33.944	33.944
Benzene	11.688	11.693	0.005	76625	0.974	0.974
Ethylbenzene	23.843	23.847	0.005	221940	3.841	3.841
a,a,a-Trifluorotoluene(sur)	13.563	13.565	0.001	832999	30.936	30.936

Client ID: MW-2
Site: Petrocelli Electric

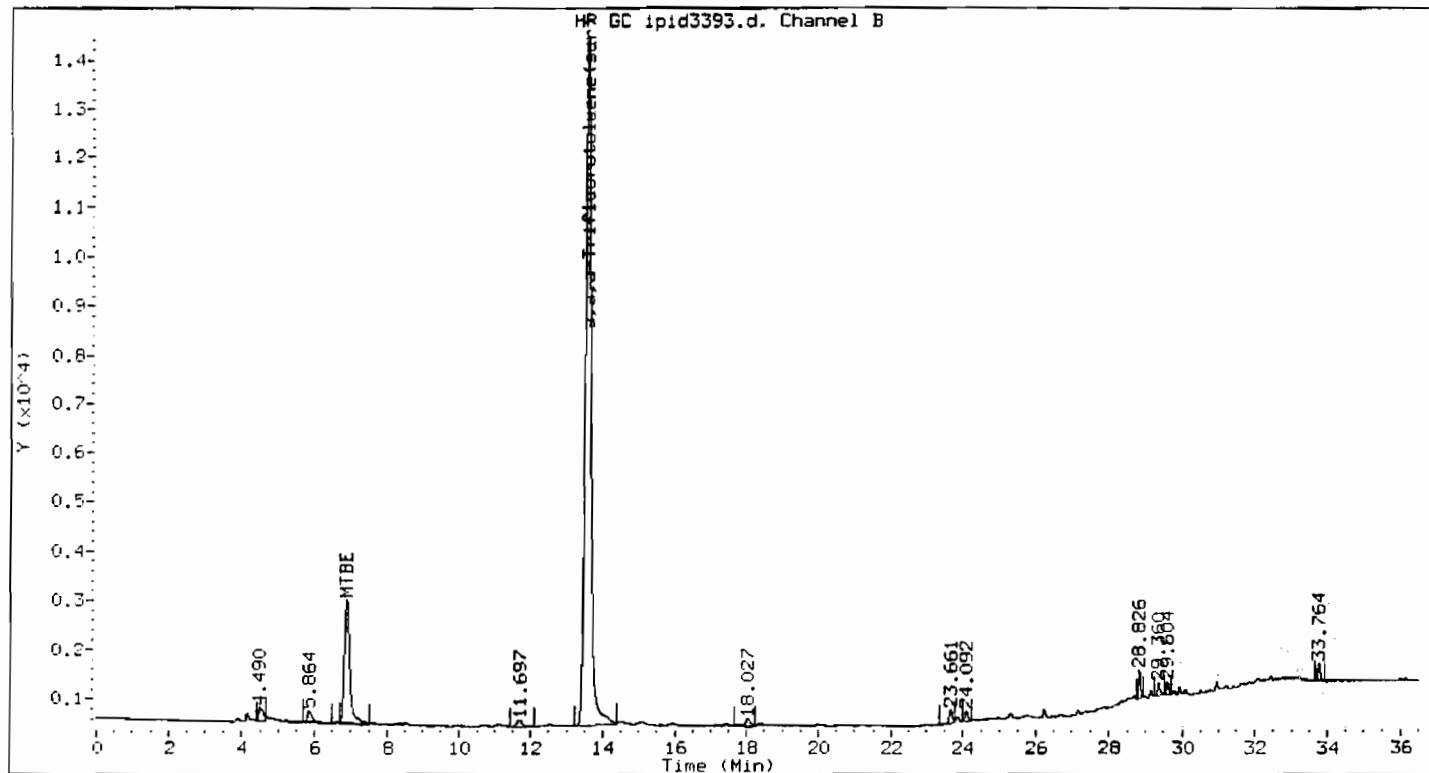
Lab Sample No: 349884
Lab Job No: W361

Date Sampled: 05/13/02
Date Received: 05/13/02
Date Analyzed: 05/17/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3393.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u>
		<u>Limit</u> <u>Units: ug/l</u>
MTBE	3.1	0.10
Benzene	ND	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/04-15-02/17may02.b/602_02.m
Sample Info : 349884
Lab ID : 349884
Inj Date : 17-MAY-2002 17:41
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

J x 2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.885	6.873	0.011	127039	3.074	3.074
a, a, a-Trifluorotoluene (sur)	13.566	13.555	0.010	770984	24.980	24.980

Client ID: MW-4
Site: Petrocelli Electric

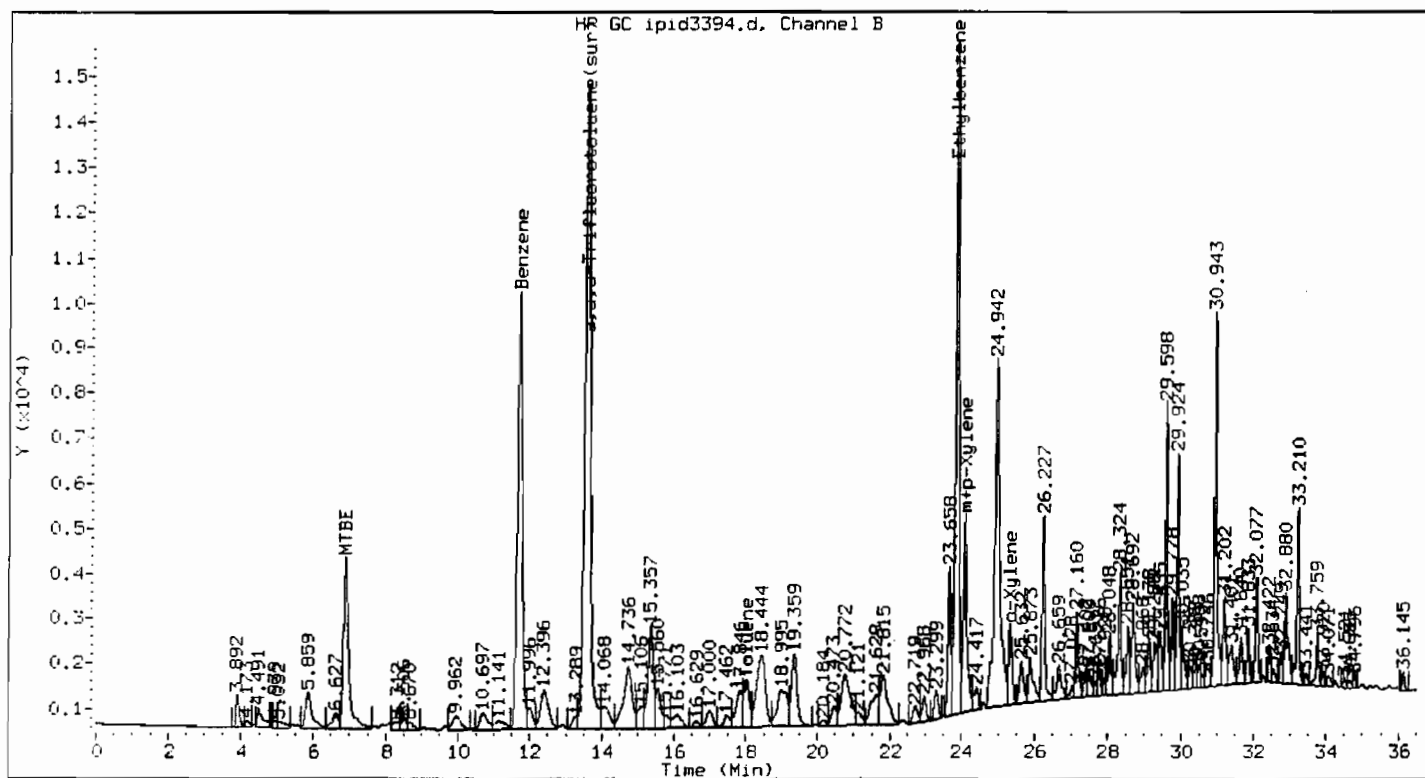
Lab Sample No: 349885
Lab Job No: W361

Date Sampled: 05/13/02
Date Received: 05/13/02
Date Analyzed: 05/17/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3394.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	4.9	0.10
Benzene	5.4	0.22
Toluene	0.72	0.24
Ethylbenzene	7.8	0.18
Xylene (Total)	3.2	0.20



Method : /chem/VOAGC3.i/602/04-15-02/17may02.b/602_02.m
Sample Info : 349885
Lab ID : 349885
Inj Date : 17-MAY-2002 18:22
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

丁 x 2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.323	25.304	0.019	61943	0.977	0.977
m+p-Xylene	24.083	24.081	0.002	155706	2.248	2.248
MTBE	6.885	6.873	0.011	202879	4.909	4.909
Benzene	11.696	11.683	0.013	460108	5.371	5.371
Toluene	18.024	18.013	0.012	54271	0.716	0.716
Ethylbenzene	23.847	23.840	0.007	473663	7.785	7.785
Xylene (Total)	25.019	25.019	0.000	217649	3.233	3.233
a,a,a-Trifluorotoluene(sur)	13.566	13.555	0.010	782317	25.347	25.347

Client ID: MW-7
Site: Petrocelli Electric

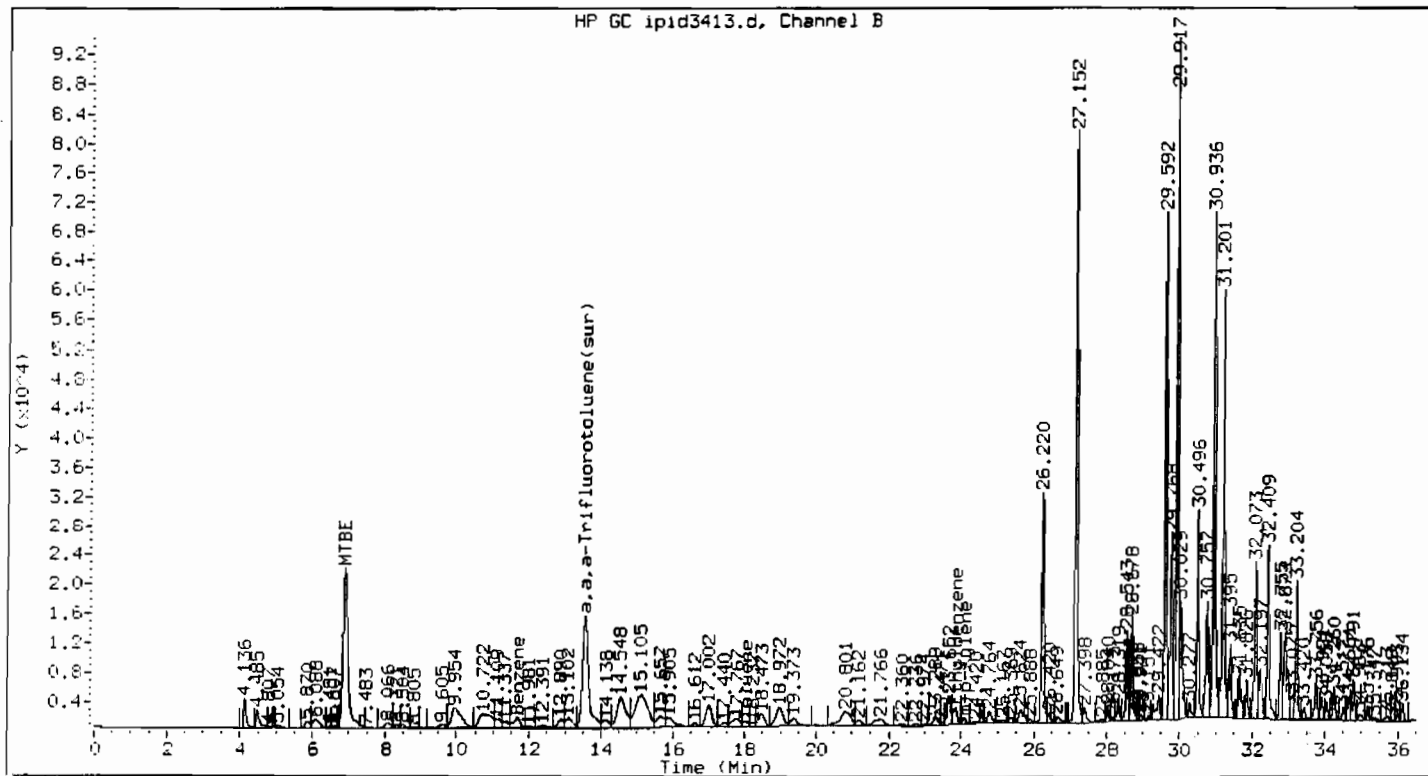
Lab Sample No: 349886
Lab Job No: W361

Date Sampled: 05/13/02
Date Received: 05/13/02
Date Analyzed: 05/20/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3413.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	36	0.10
Benzene	1.2	0.22
Toluene	0.50	0.24
Ethylbenzene	1.6	0.18
Xylene (Total)	0.42	0.20



Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m ✓
Sample Info : 349886
Lab ID : 349886
Inj Date : 20-MAY-2002 17:30
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
m+p-Xylene	24.079	24.089	0.009	27691	0.397	0.397
MTBE	6.882	6.879	0.003	1076982	36.556	36.556
Benzene	11.678	11.693	0.015	92941	1.181	1.181
Toluene	18.019	18.023	0.004	35705	0.504	0.504
Ethylbenzene	23.832	23.847	0.015	91936	1.591	1.591
Xylene (Total)	25.019	25.019	0.000	27691	0.420	0.420
a, a, a-Trifluorotoluene (sur)	13.560	13.565	0.005	926904	34.423	34.423

Client ID: MW-6
Site: Petrocelli Electric

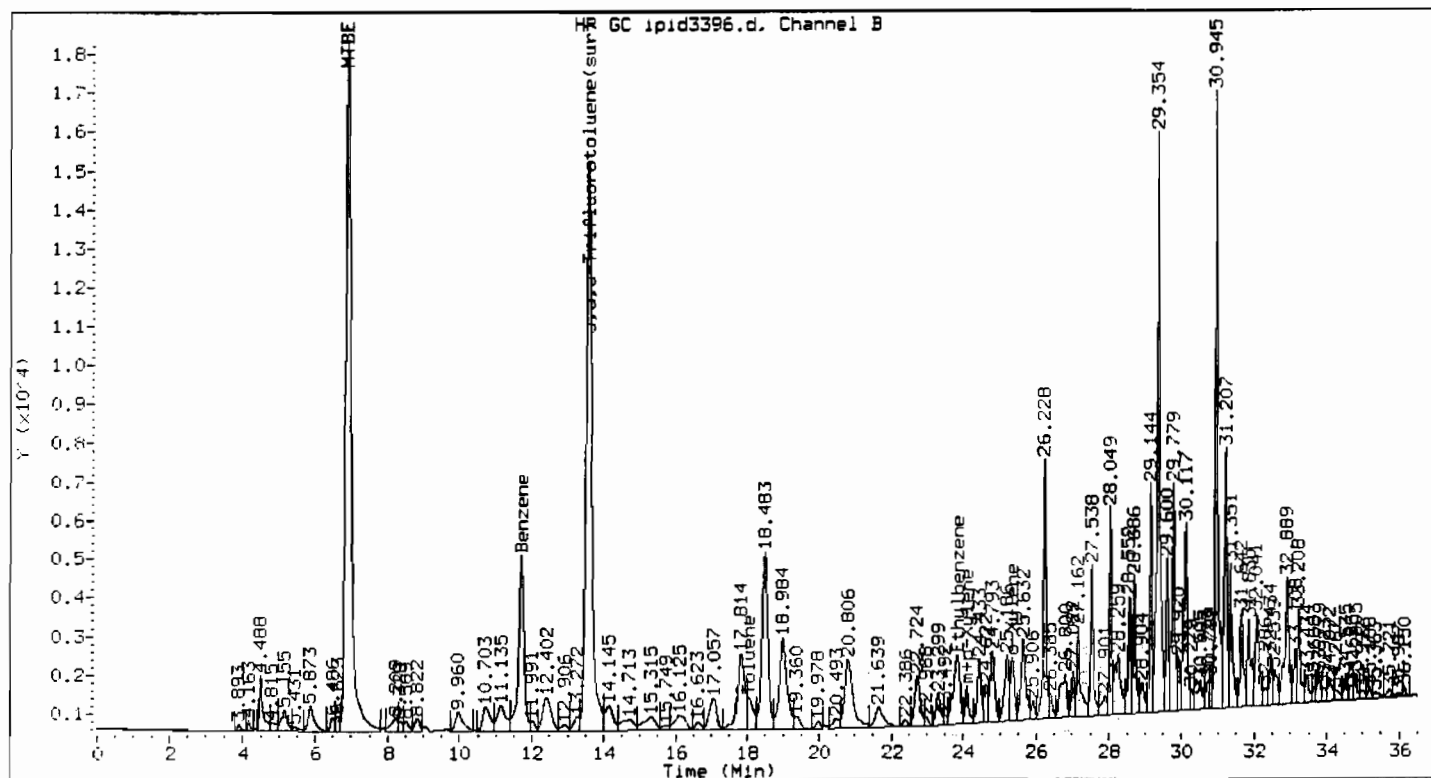
Lab Sample No: 349887
Lab Job No: W361

Date Sampled: 05/13/02
Date Received: 05/13/02
Date Analyzed: 05/17/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3396.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u>
		<u>Limit</u> <u>Units: ug/l</u>
MTBE	22	0.10
Benzene	2.9	0.22
Toluene	0.64	0.24
Ethylbenzene	1.9	0.18
Xylene (Total)	1.4	0.20



Method : /chem/VOAGC3.i/602/04-15-02/17may02.b/602_02.m
Sample Info : 349887
Lab ID : 349887
Inj Date : 17-MAY-2002 19:42
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

7x2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.330	25.304	0.026	63306	0.999	0.999
m+p-Xylene	24.089	24.081	0.008	31488	0.455	0.455
MTBE	6.886	6.873	0.013	898242	21.733	21.733
Benzene	11.698	11.683	0.014	246669	2.879	2.879
Toluene	18.022	18.013	0.009	48773	0.643	0.643
Ethylbenzene	23.829	23.840	0.011	116722	1.918	1.918
Xylene (Total)	25.019	25.019	0.000	94794	1.408	1.408
a,a,a-Trifluorotoluene(sur)	13.570	13.555	0.014	835242	27.062	27.062

Method Blank Results Summary

Method Blank Results Summary

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG137

Date Analyzed: 05/17/02

Instrument ID: VOAGC3

Time Analyzed: 1253

Lab File ID: IPID3386

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-1MS	349883MS	IPID3391	1621
02	MW-1MSD	349883MSD	IPID3392	1701
03	MW-2	349884	IPID3393	1741
04	MW-4	349885	IPID3394	1822
05	MW-6	349887	IPID3396	1942
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: IG137
Site:

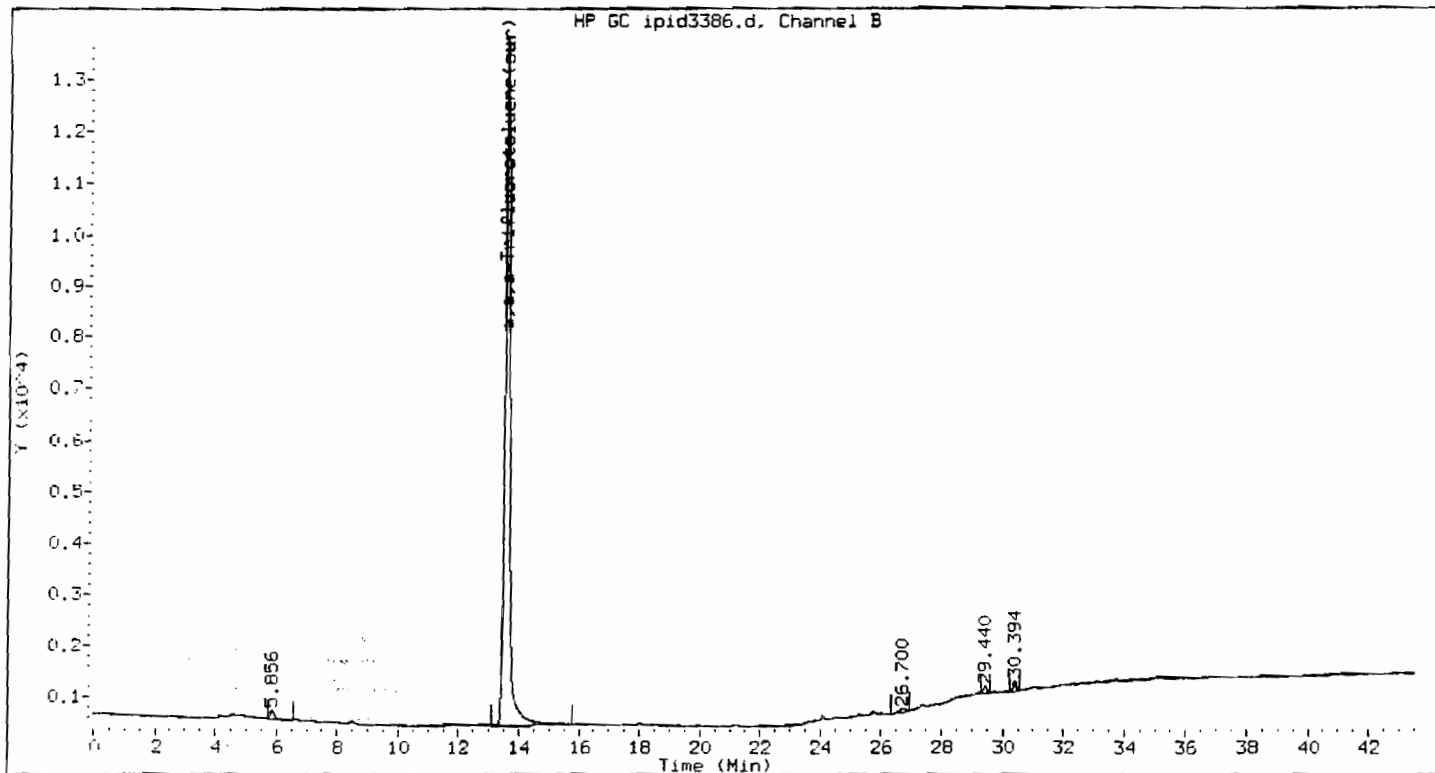
Lab Sample No: IG137
Lab Job No: W361

Date Sampled: _____
Date Received: _____
Date Analyzed: 05/17/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3386.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
TBA	ND	19
MTBE	ND	0.10
DIPE	ND	0.13
Benzene	ND	0.22
Toluene	ND	0.24
Chlorobenzene	ND	0.17
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20
1,3-Dichlorobenzene	ND	0.18
1,4-Dichlorobenzene	ND	0.21
1,2-Dichlorobenzene	ND	0.20
Naphthalene	ND	0.22



Method : /chem/VOAGC3.i/602/04-15-02/17may02.b/602_02.m
 Sample Info : IG137
 Lab ID : IG137
 Inj Date : 17-MAY-2002 12:53
 Operator :
 Cpnd Sublist: all

Inst ID : VOAGC3.i
 Dil Factor : 1
 Sample Matrix : WATER
 Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
a,a,a-Trifluorotoluene(sur)	13.555	13.555	0.000	770045	24.950	24.950

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG140

Date Analyzed: 05/20/02

Instrument ID: VOAGC3

Time Analyzed: 1530

Lab File ID: IPID3410

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	MW-1	349883	IPID3412	1650
02	MW-7	349886	IPID3413	1730
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: IG140
Site:

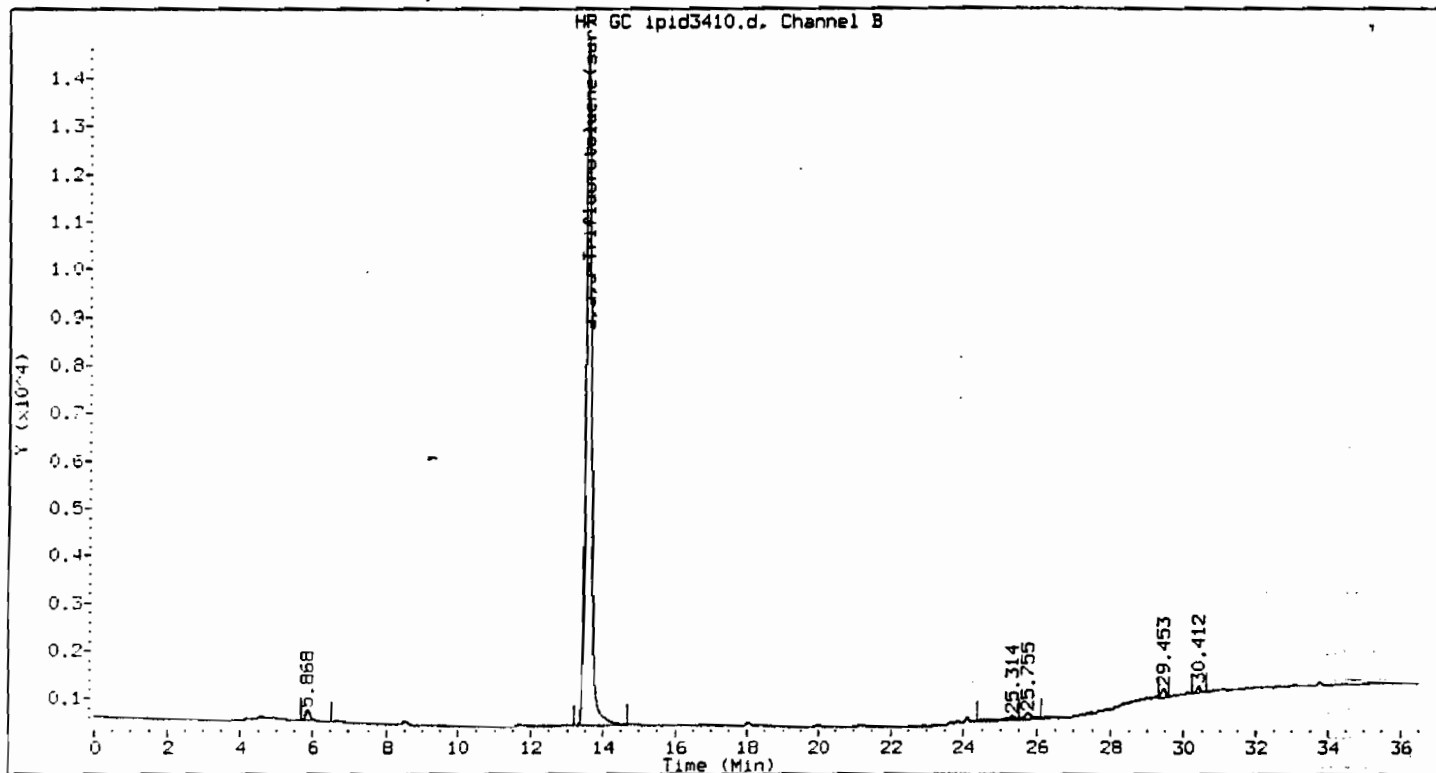
Lab Sample No: IG140
Lab Job No: W361

Date Sampled: _____
Date Received: _____
Date Analyzed: 05/20/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3410.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	Analytical Result <u>Units: ug/l</u>	Method Detection
		Limit <u>Units: ug/l</u>
TBA	ND	19
MTBE	ND	0.10
DIPE	ND	0.13
Benzene	ND	0.22
Toluene	ND	0.24
Chlorobenzene	ND	0.17
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20
1,3-Dichlorobenzene	ND	0.18
1,4-Dichlorobenzene	ND	0.21
1,2-Dichlorobenzene	ND	0.20
Naphthalene	ND	0.22



Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : IG140
Lab ID : IG140
Inj Date : 20-MAY-2002 15:30
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.567	13.565	0.003	792516	29.433	29.433

Standards Summary

1. The first standard is that the student should be able to identify the main idea of a passage. This is a skill that is essential for reading comprehension. It involves understanding the overall purpose of the text and the central theme or message. This skill is often tested in reading comprehension questions.

2. The second standard is that the student should be able to identify the supporting details of a passage. This involves understanding the specific facts, examples, and evidence that are used to support the main idea. This skill is also often tested in reading comprehension questions.

3. The third standard is that the student should be able to identify the author's purpose for writing a passage. This involves understanding the author's intent and the reasons for writing the text. This skill is often tested in reading comprehension questions.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

Calibration Date(s): 04/15/02 04/15/02

Calibration Time(s): 1231 1519

LAB FILE ID:	RRF2: IPID3187	RRF5: IPID3188	RRF10: IPID3189		
	RRF20: IPID3190	RRF40: IPID3191			
COMPOUND	RRF2	RRF5	RRF10	RRF20	RRF40
=====	=====	=====	=====	=====	=====
TBA **	410	417	404	375	
MTBE	56478	38635	42199	34672	34674
DIPE	53518	45830	46253	44071	44559
Benzene	91258	87950	84893	82432	81813
Toluene	79770	77125	75437	74096	72784
Chlorobenzene	73940	76092	76587	75609	74864
Ethylbenzene	62964	61572	60686	60437	58548
Xylene (Total)	70067	67988	66800	66513	65197
1,3-Dichlorobenzene	45629	50023	48128	50374	49802
1,4-Dichlorobenzene	54429	54460	49238	52096	50562
1,2-Dichlorobenzene	33514	41093	37843	40392	39342
Naphthalene	16656	22118	20060	21957	23302
=====	=====	=====	=====	=====	=====
a,a,a-Trifluorotoluene (sur)	30898	30590	31157	30584	31090

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

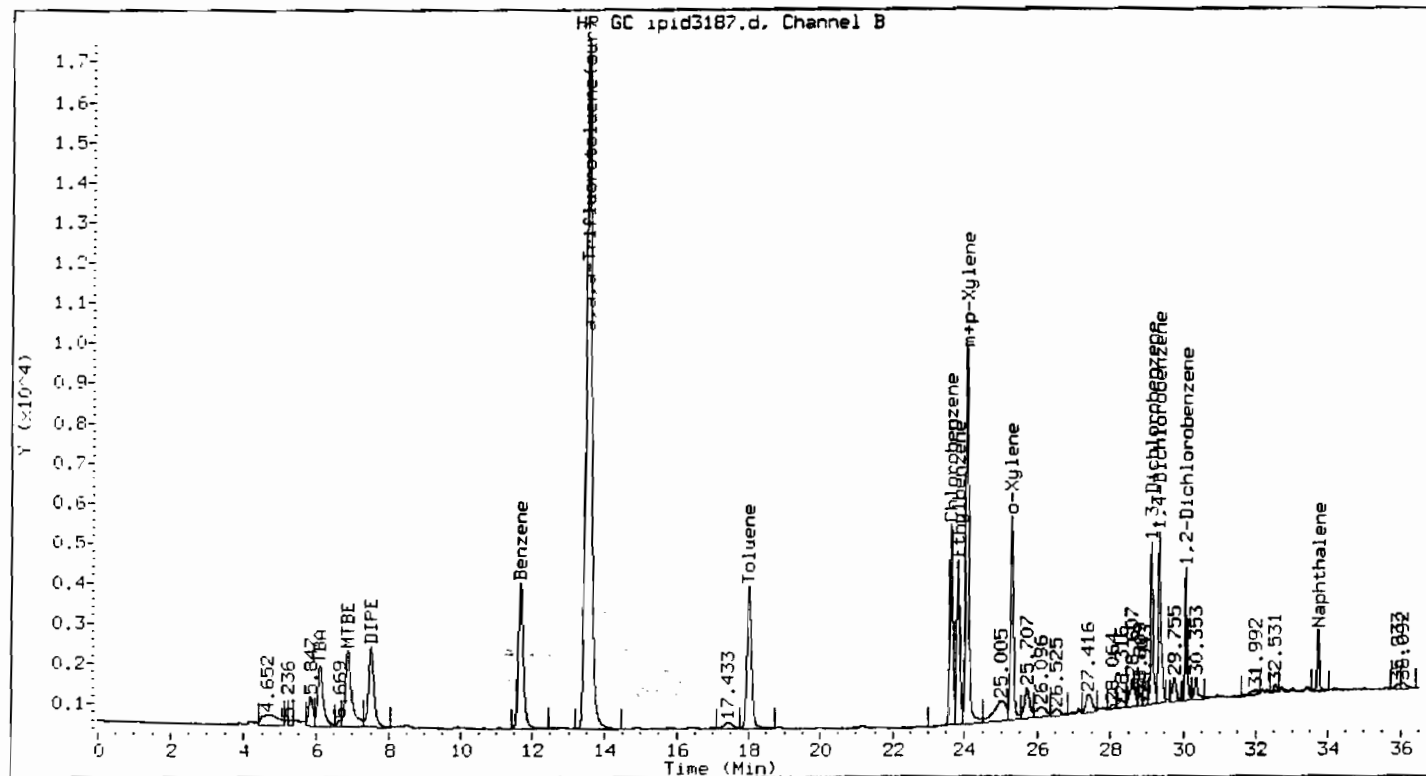
Calibration Date(s): 04/15/02 04/15/02

Calibration Time(s): 1231 1519

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
TBA **	AVRG	402	4.6*
MTBE	AVRG	41331	22*
DIPE	AVRG	46846	8.2*
Benzene	AVRG	85669	4.6*
Toluene	AVRG	75842	3.6*
Chlorobenzene	AVRG	75419	1.4*
Ethylbenzene	AVRG	60841	2.7*
Xylene (Total)	AVRG	67313	2.7*
1,3-Dichlorobenzene	AVRG	48791	4.0*
1,4-Dichlorobenzene	AVRG	52157	4.4*
1,2-Dichlorobenzene	AVRG	38437	7.8*
Naphthalene	AVRG	20819	12*
a,a,a-Trifluorotoluene (sur)	AVRG	30864	0.9*

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

* Compounds with required maximum %RSD values.

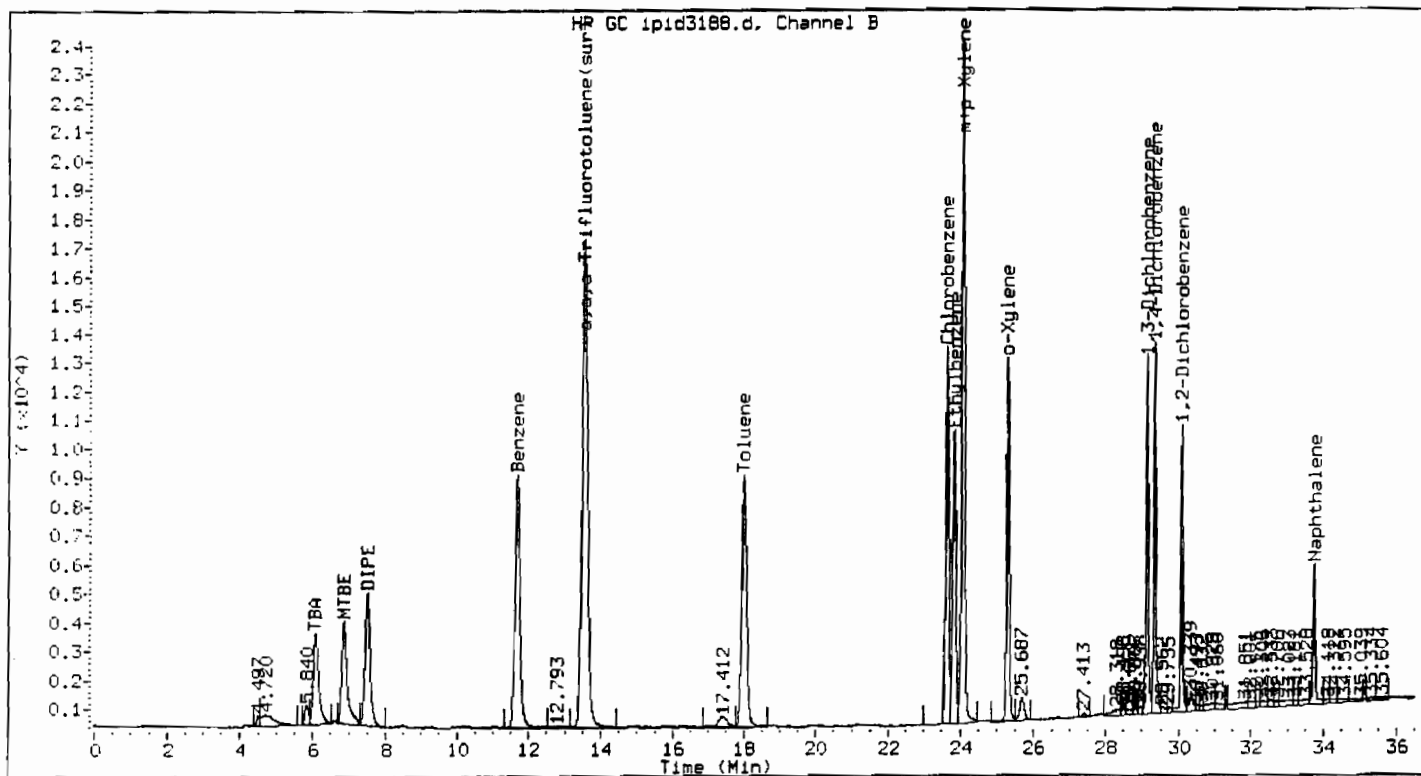


Method : /chem/VOAGC3.i/602/04-15-02/15apr02.b/602_02.m
Sample Info : ISTD002
Lab ID : ISTD002
Inj Date : 15-APR-2002 12:31
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_1

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.295	25.281	0.015	135479	2.137	2.137
m+p-Xylene	24.072	24.054	0.018	284923	4.113	4.113
TBA	6.103	6.053	0.050	82054	204.205	204.205
MTBE	6.879	6.848	0.031	112955	2.733	2.733
DIPE	7.507	7.480	0.027	107035	2.285	2.285
Benzene	11.676	11.650	0.027	182516	2.130	2.130
Toluene	18.000	17.975	0.024	159539	2.104	2.104
Chlorobenzene	23.639	23.619	0.019	147881	1.961	1.961
Ethylbenzene	23.830	23.812	0.018	125927	2.070	2.070

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	420402	6.245	6.245
1,3-Dichlorobenzene	29.130	29.113	0.016	91258	1.870	1.870
1,4-Dichlorobenzene	29.342	29.324	0.019	108858	2.087	2.087
1,2-Dichlorobenzene	30.079	30.063	0.016	67028	1.744	1.744
Naphthalene	33.740	33.722	0.018	33312	1.600	1.600
a,a,a-Trifluorotoluene (sur)	13.546	13.519	0.027	926956	30.034	30.034
-----	-----	-----	-----	-----	-----	-----

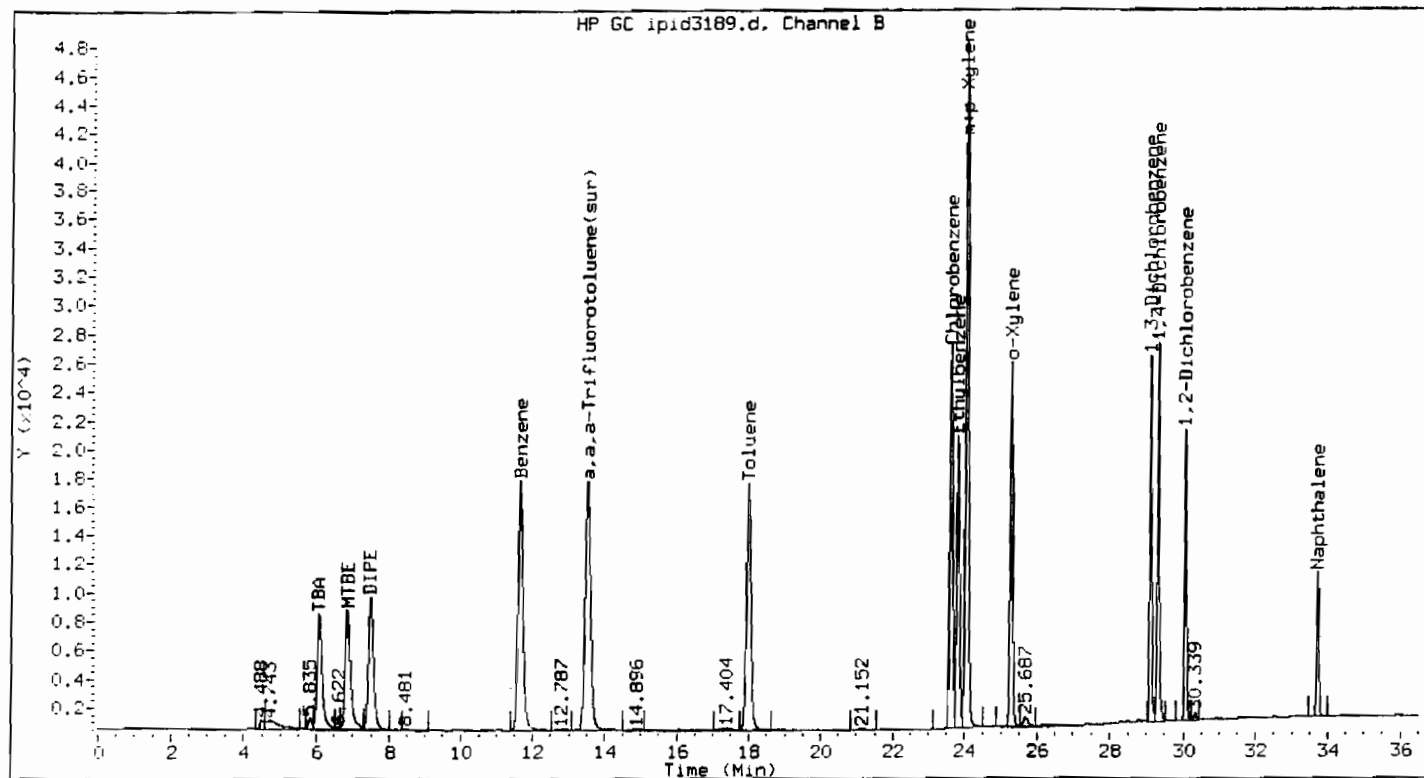


Method : /chem/VOAGC3.i/602/04-15-02/15apr02.b/602_02.m
Sample Info : ISTD005
Lab ID : ISTD005
Inj Date : 15-APR-2002 13:18
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_2

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.290	25.281	0.009	321048	5.065	5.065
m+p-Xylene	24.065	24.054	0.011	698773	10.087	10.087
TBA	6.080	6.053	0.027	166915	415.396	415.396
MTBE	6.868	6.848	0.020	193175	4.674	4.674
DIPE	7.497	7.480	0.017	229152	4.892	4.892
Benzene	11.669	11.650	0.019	439748	5.133	5.133
Toluene	17.992	17.975	0.017	385626	5.085	5.085
Chlorobenzene	23.632	23.619	0.012	380462	5.045	5.045
Ethylbenzene	23.824	23.812	0.012	307859	5.060	5.060

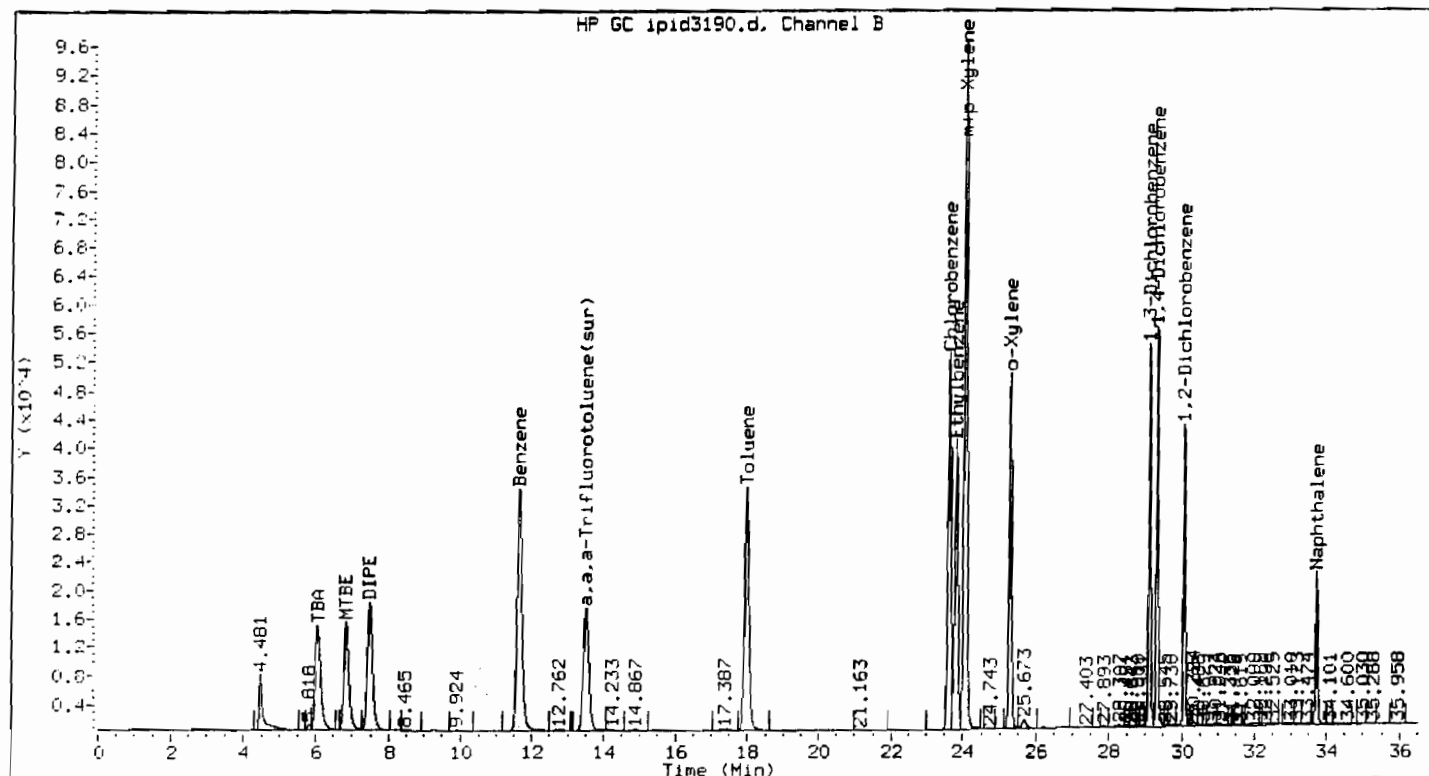
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	1019821	15.150	15.150
1,3-Dichlorobenzene	29.122	29.113	0.008	250115	5.126	5.126
1,4-Dichlorobenzene	29.333	29.324	0.009	272301	5.221	5.221
1,2-Dichlorobenzene	30.072	30.063	0.008	205467	5.346	5.346
Naphthalene	33.730	33.722	0.008	110592	5.312	5.312
a,a,a-Trifluorotoluene(sur)	13.537	13.519	0.018	917706	29.734	29.734



Method : /chem/VOAGC3.i/602/04-15-02/15apr02.b/602_02.m
Sample Info : ISTD010
Lab ID : ISTD010
Inj Date : 15-APR-2002 13:58
Operator :
Cpnd Sublist: all
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_3

Compound	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.285	25.281	0.004	628140	9.909	9.909
m+p-Xylene	24.059	24.054	0.005	1375873	19.861	19.861
TBA	6.075	6.053	0.022	404551	1006.792	1006.792
MTBE	6.866	6.848	0.017	421987	10.210	10.210
DIPE	7.495	7.480	0.014	462529	9.873	9.873
Benzene	11.662	11.650	0.012	848928	9.909	9.909
Toluene	17.984	17.975	0.009	754368	9.947	9.947
Chlorobenzene	23.625	23.619	0.006	765873	10.155	10.155
Ethylbenzene	23.817	23.812	0.005	606861	9.974	9.974

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	2004013	29.772	29.772
1,3-Dichlorobenzene	29.117	29.113	0.004	481277	9.864	9.864
1,4-Dichlorobenzene	29.328	29.324	0.004	492380	9.440	9.440
1,2-Dichlorobenzene	30.068	30.063	0.004	378427	9.845	9.845
Naphthalene	33.726	33.722	0.004	200598	9.635	9.635
a,a,a-Trifluorotoluene(sur)	13.530	13.519	0.011	934715	30.285	30.285
-----	-----	-----	-----	-----	-----	-----

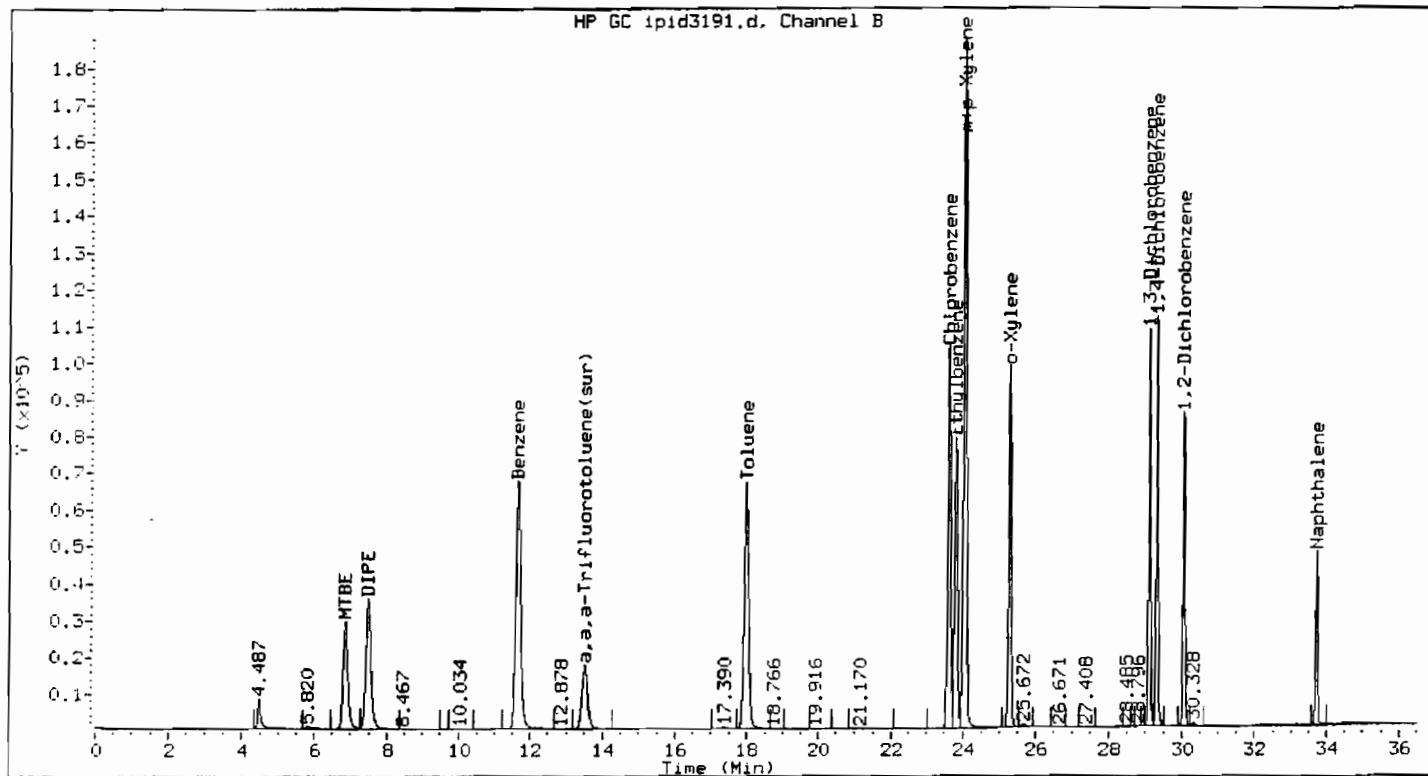


Method : /chem/VOAGC3.i/602/04-15-02/15apr02.b/602_02.m
Sample Info : ISTD020
Lab ID : ISTD020
Inj Date : 15-APR-2002 14:39
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.281	25.281	0.000	1237379	19.521	19.521
m+p-Xylene	24.054	24.054	0.000	2753386	39.746	39.746
TBA	6.053	6.053	0.000	750357	1867.388	1867.388
MTBE	6.848	6.848	0.000	693433	16.777	16.777
DIPE	7.480	7.480	0.000	881420	18.815	18.815
Benzene	11.650	11.650	0.000	1648640	19.244	19.244
Toluene	17.975	17.975	0.000	1481917	19.539	19.539
Chlorobenzene	23.619	23.619	0.000	1512182	20.051	20.051
Ethylbenzene	23.812	23.812	0.000	1208744	19.867	19.867

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	3990765	59.287	59.287
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.113	29.113	0.000	1007475	20.649	20.649
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.324	29.324	0.000	1041916	19.977	19.977
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.063	30.063	0.000	807830	21.017	21.017
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.722	33.722	0.000	439149	21.094	21.094
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene (sur)	13.519	13.519	0.000	917522	29.728	29.728
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC3.i/602/04-15-02/15apr02.b/602_02.m
Sample Info : ISTD040
Lab ID : ISTD040
Inj Date : 15-APR-2002 15:19
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_5

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.279	25.281	0.002	2412398	38.057	38.057
m+p-Xylene	24.053	24.054	0.001	5411244	78.112	78.112
MTBE	6.849	6.848	0.001	1386940	33.557	33.557
DIPE	7.481	7.480	0.001	1782379	38.047	38.047
Benzene	11.651	11.650	0.001	3272527	38.200	38.200
Toluene	17.974	17.975	0.001	2911366	38.387	38.387
Chlorobenzene	23.618	23.619	0.002	2994559	39.706	39.706
Ethylbenzene	23.811	23.812	0.001	2341929	38.492	38.492
Xylene (Total)	25.019	25.019	0.000	7823642	116.228	116.228

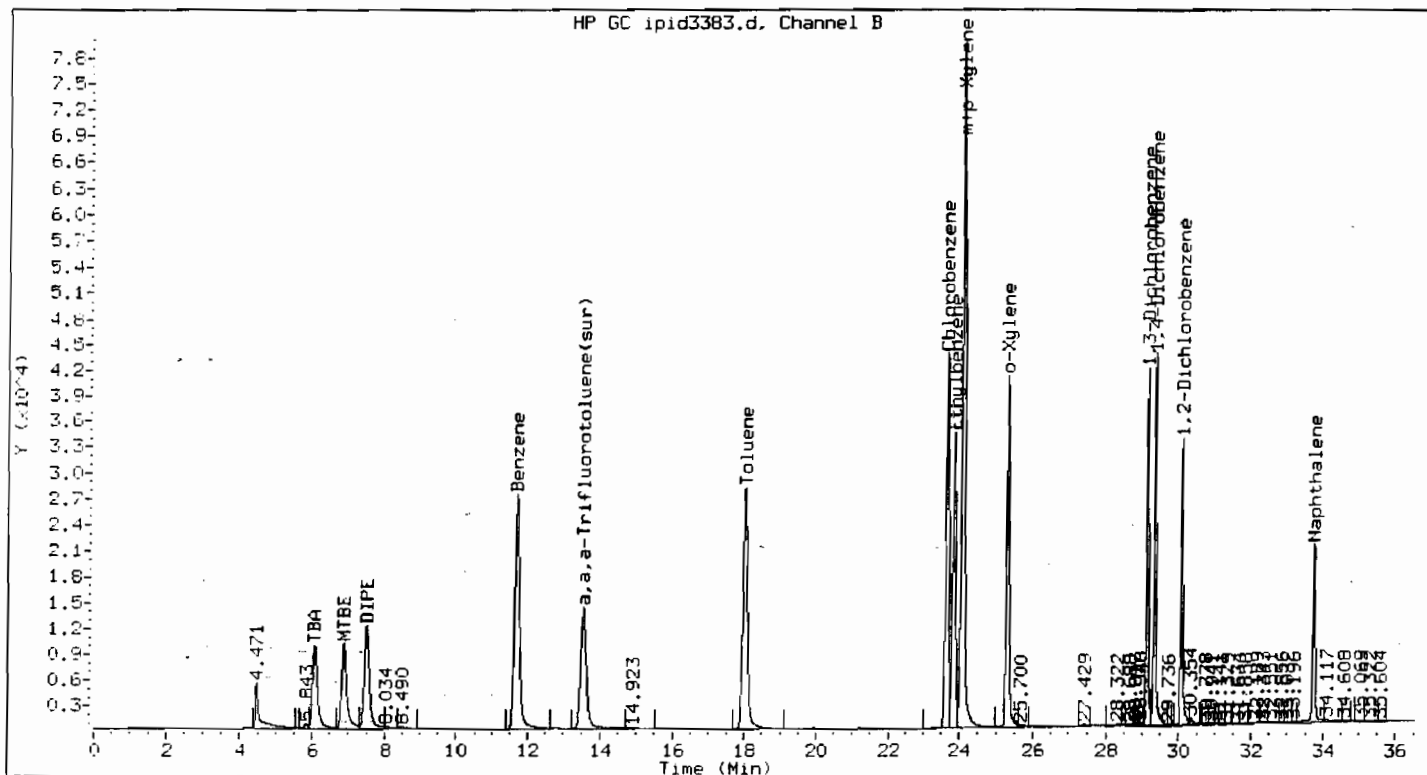
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.111	29.113	0.003	1992073	40.829	40.829
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.321	29.324	0.002	2022494	38.777	38.777
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.061	30.063	0.002	1573672	40.942	40.942
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.718	33.722	0.004	932081	44.771	44.771
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.519	13.519	0.000	932706	30.220	30.220
-----	-----	-----	-----	-----	-----	-----

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC3 Calibration Date: 05/17/02 Time: 1039
 Lab File ID: IPID3383 Init. Calib. Date(s): 04/15/02 04/15/02
 Heated Purge: (Y/N) N Init. Calib. Times: 1231 1519

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
TBA **	401.82	241.99		39.8	40.0
MTBE	41331.27	25326.15		38.7	40.0
DIPE	46846.26	30389.60		35.1	40.0
Benzene	85669.12	66314.60		22.6	23.0
Toluene	75842.30	62102.55		18.1	22.5
Chlorobenzene	75418.66	62537.95		17.1	19.5
Ethylbenzene	60841.36	52086.80		14.4	37.0
Xylene (Total)	67313.05	57733.48		14.2	40.0
1,3-Dichlorobenzene	48791.05	40682.75		16.6	27.5
1,4-Dichlorobenzene	52157.07	43366.30		16.8	30.5
1,2-Dichlorobenzene	38436.68	33840.25		12.0	32.0
Naphthalene	20818.73	24857.65		-19.4	40.0
=====	=====	=====	=====	=====	=====
a,a,a-Trifluorotoluene (sur)	30864.03	25960.17		15.9	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/04-15-02/17may02.b/602_02.m
Sample Info : ISTD137
Lab ID : ISTD137
Inj Date : 17-MAY-2002 10:39
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.304	25.304	0.000	1063067	16.771	16.771
m,p-Xylene	24.081	24.081	0.000	2400942	34.658	34.658
TBA	6.076	6.076	0.000	483986	1204.479	1204.479
MTBE	6.873	6.873	0.000	506523	12.255	12.255
DIPE	7.504	7.504	0.000	607792	12.974	12.974
Benzene	11.683	11.683	0.000	1326292	15.482	15.482
Toluene	18.013	18.013	0.000	1242051	16.377	16.377
Chlorobenzene	23.649	23.649	0.000	1250759	16.584	16.584
Ethylbenzene	23.840	23.840	0.000	1041736	17.122	17.122

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
Xylene (Total)	25.019	25.019	0.000	3464009	51.461	51.461
1,3-Dichlorobenzene	29.132	29.132	0.000	813655	16.676	16.676
1,4-Dichlorobenzene	29.342	29.342	0.000	867326	16.629	16.629
1,2-Dichlorobenzene	30.082	30.082	0.000	676805	17.608	17.608
Naphthalene	33.740	33.740	0.000	497153	23.880	23.880
a,a,a-Trifluorotoluene(sur)	13.555	13.555	0.000	778805	25.233	25.233

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

Calibration Date(s): 05/20/02 05/20/02

Calibration Time(s): 0913 1217

LAB FILE ID: RRF2: IPID3406 RRF5: IPID3405 RRF10: IPID3404
 RRF20: IPID3402 RRF40: IPID3403

COMPOUND	RRF2	RRF5	RRF10	RRF20	RRF40
TBA **	324	283	260	240	
MTBE	32652	30279	29019	27743	27614
DIPE	36356	34840	33676	34027	33683
Benzene	80736	79492	78386	76330	78378
Toluene	71722	71175	70164	70651	70597
Chlorobenzene	64370	66774	67795	69280	70007
Ethylbenzene	57006	57930	57760	57761	58485
Xylene (Total)	64853	64283	63862	63778	73125
1,3-Dichlorobenzene	42801	41977	43060	43810	44990
1,4-Dichlorobenzene	50478	46862	46231	46030	47710
1,2-Dichlorobenzene	39372	35697	38064	35298	36025
Naphthalene	33695	23219	24284	21783	25518
a,a,a-Trifluorotoluene(sur)	26762	26665	27038	27027	27141

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

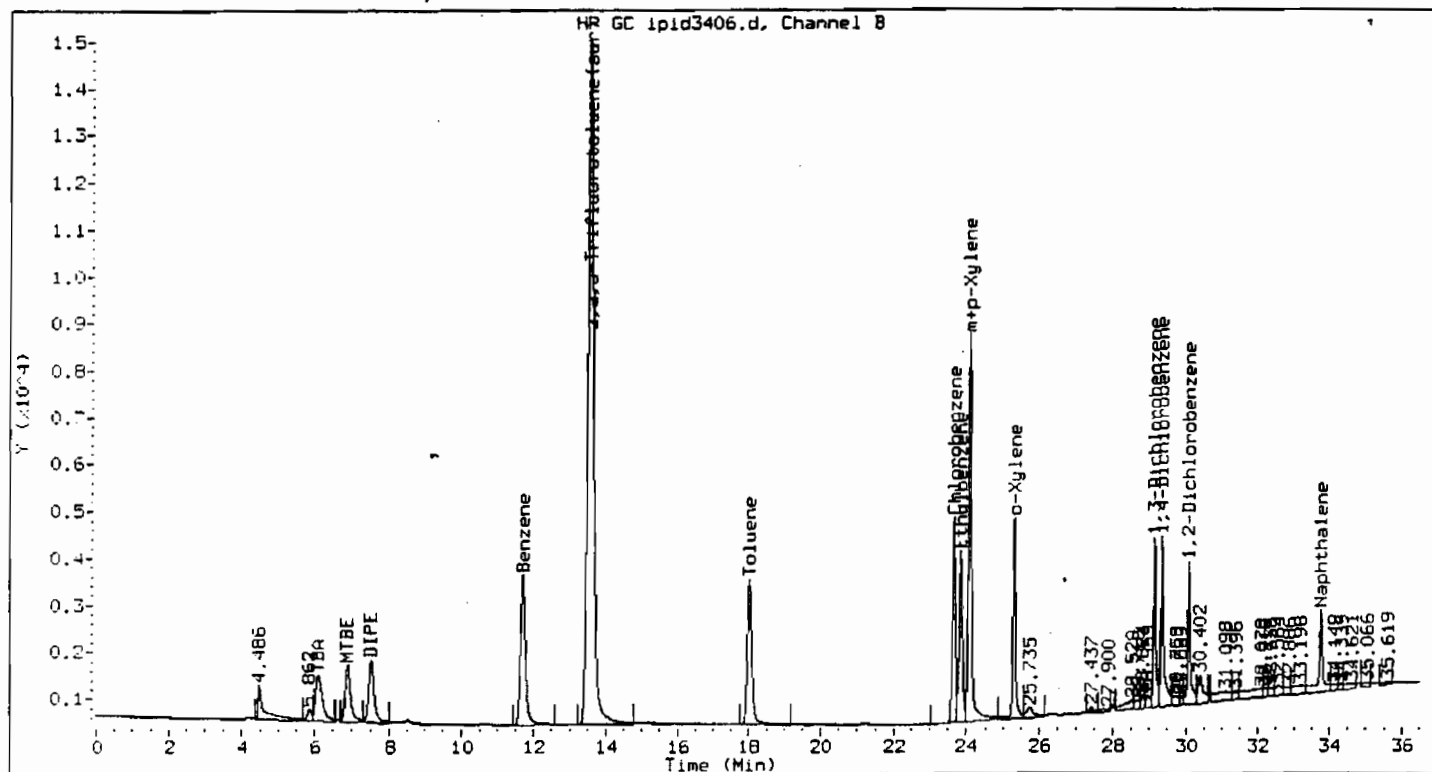
Calibration Date(s): 05/20/02 05/20/02

Calibration Time(s): 0913 1217

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
TBA **	AVRG	276	13*
MTBE	AVRG	29461	7.1*
DIPE	AVRG	34516	3.3*
Benzene	AVRG	78664	2.1*
Toluene	AVRG	70862	0.8*
Chlorobenzene	AVRG	67645	3.3*
Ethylbenzene	AVRG	57788	0.9*
Xylene (Total)	AVRG	65980	6.1*
1,3-Dichlorobenzene	AVRG	43328	2.6*
1,4-Dichlorobenzene	AVRG	47462	3.8*
1,2-Dichlorobenzene	AVRG	36891	4.7*
Naphthalene	AVRG	25700	18*
a,a,a-Trifluorotoluene (sur)	AVRG	26926	0.8*

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

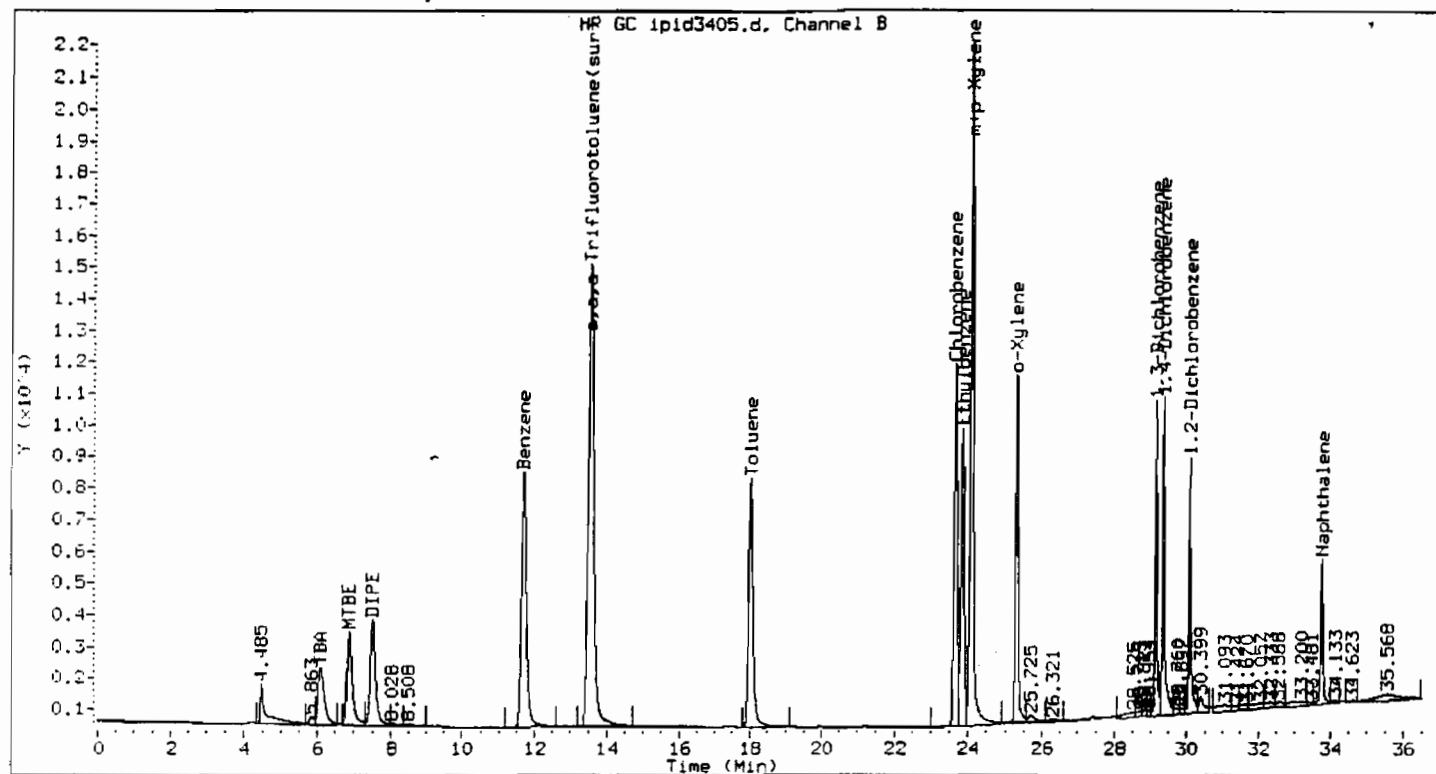
* Compounds with required maximum %RSD values.



Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD002
Lab ID : ISTD002
Inj Date : 20-MAY-2002 12:17
Operator :
Cpnd Sublist: all
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_1

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.310	25.310	0.000	120406	2.054	2.054
m+p-Xylene	24.088	24.089	0.001	268713	3.857	3.857
TBA	6.105	6.082	0.023	64838	234.447	234.447
MTBE	6.886	6.879	0.007	65305	2.217	2.217
DIPE	7.516	7.510	0.007	72713	2.107	2.107
Benzene	11.694	11.693	0.002	161472	2.053	2.053
Toluene	18.022	18.023	0.001	143444	2.024	2.024
Chlorobenzene	23.656	23.657	0.000	128740	1.903	1.903
Ethylbenzene	23.846	23.847	0.001	114013	1.973	1.973

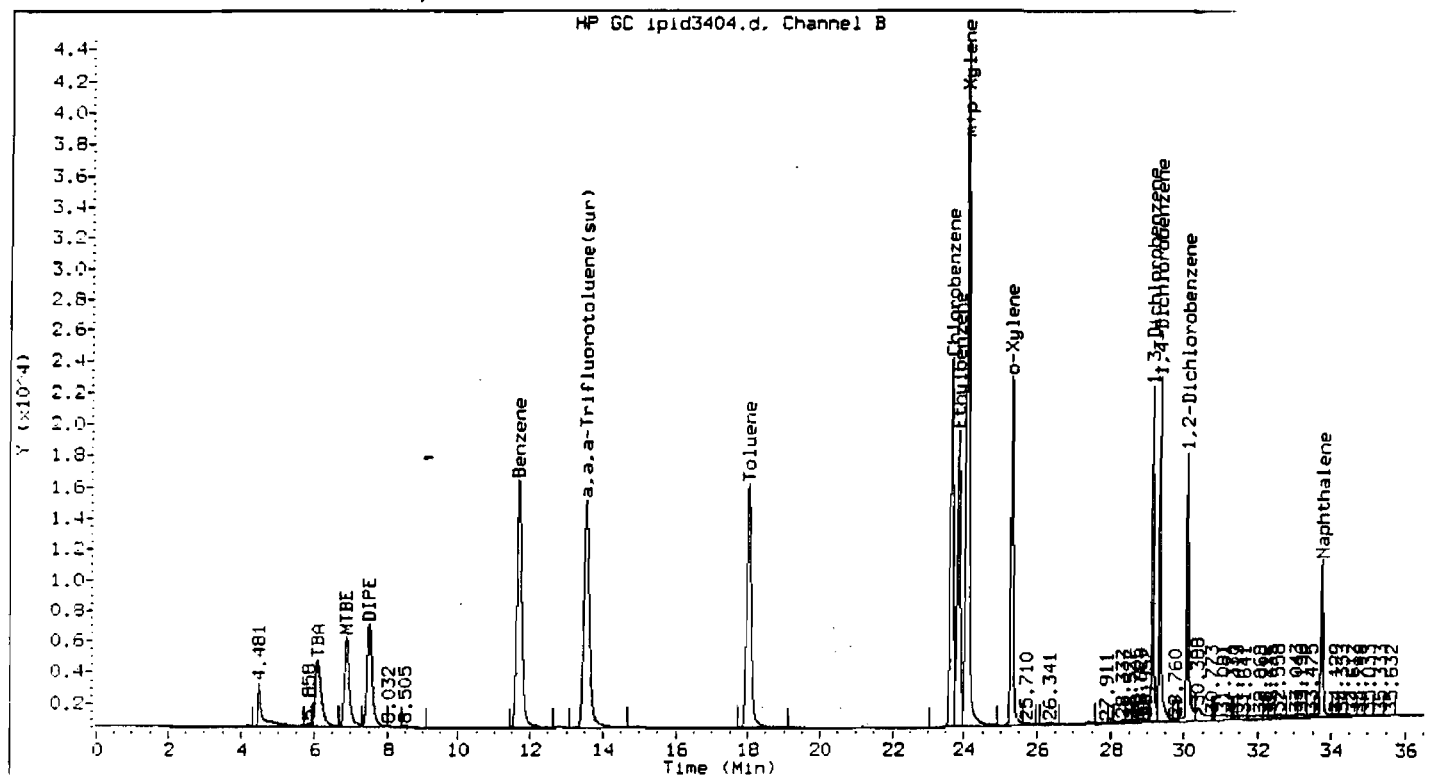
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	389119	5.898	5.898
1,3-Dichlorobenzene	29.141	29.136	0.005	85602	1.976	1.976
1,4-Dichlorobenzene	29.352	29.346	0.006	100957	2.127	2.127
1,2-Dichlorobenzene	30.092	30.086	0.006	78743	2.134	2.134
Naphthalene	33.759	33.745	0.014	67390	2.622	2.622
a,a,a-Trifluorotoluene(sur)	13.565	13.565	0.001	802852	29.816	29.816
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD005
Lab ID : ISTD005
Inj Date : 20-MAY-2002 11:37
Operator :
Cpnd Sublist: all
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.308	25.310	0.002	292794	4.996	4.996
m+p-Xylene	24.086	24.089	0.003	671450	9.638	9.638
TBA	6.102	6.082	0.020	113163	409.186	409.186
MTBE	6.884	6.879	0.005	151394	5.139	5.139
DIPE	7.515	7.510	0.005	174201	5.047	5.047
Benzene	11.693	11.693	0.000	397459	5.053	5.053
Toluene	18.021	18.023	0.002	355875	5.022	5.022
Chlorobenzene	23.654	23.657	0.003	333869	4.936	4.936
Ethylbenzene	23.844	23.847	0.003	289648	5.012	5.012

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	964244	14.614	14.614
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.137	29.136	0.002	209885	4.844	4.844
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.348	29.346	0.002	234312	4.937	4.937
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.088	30.086	0.002	178484	4.838	4.838
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.753	33.745	0.008	116094	4.517	4.517
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.564	13.565	0.001	799942	29.708	29.708
-----	-----	-----	-----	-----	-----	-----

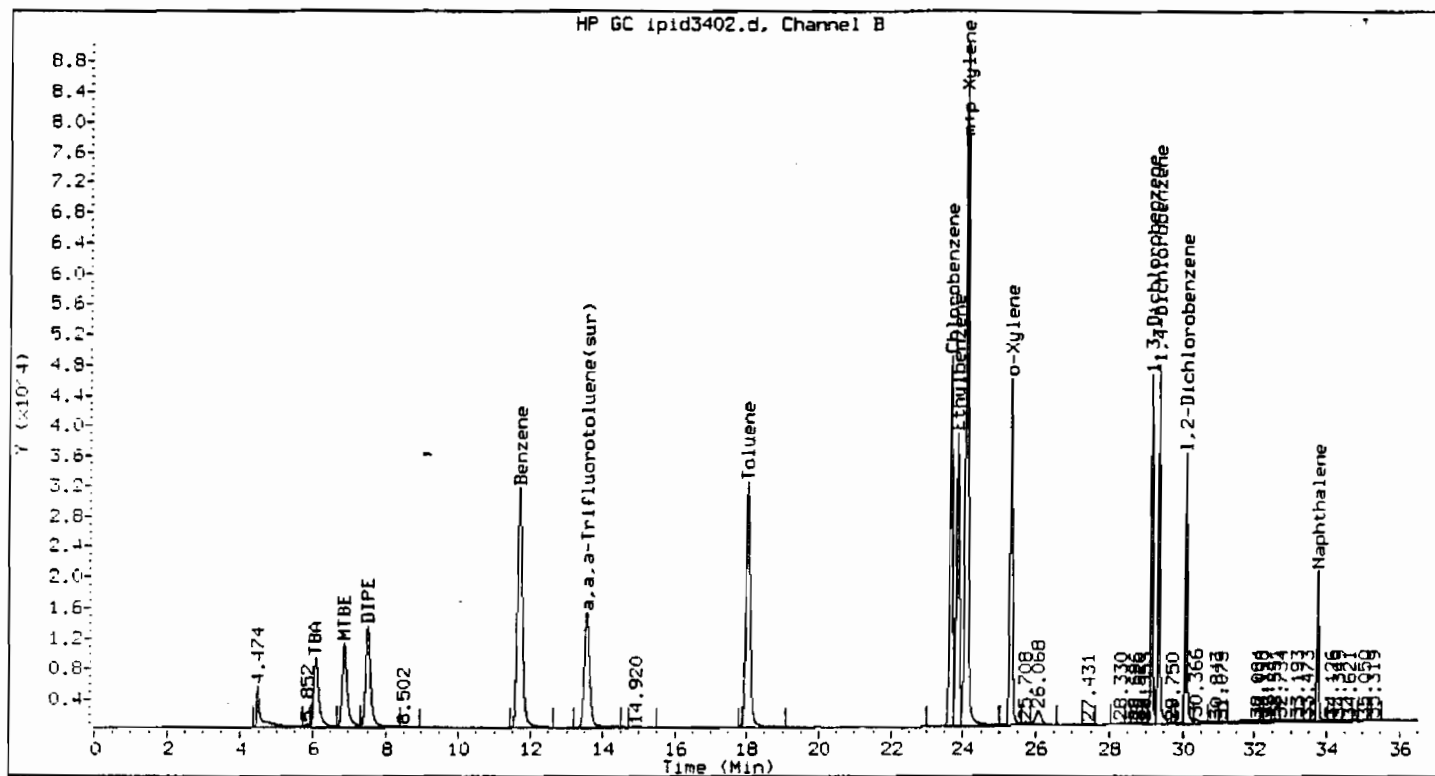


Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD010
Lab ID : ISTD010
Inj Date : 20-MAY-2002 10:57
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_3

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.308	25.310	0.002	582542	9.940	9.940
m+p-Xylene	24.086	24.089	0.003	1333317	19.139	19.139
TBA	6.091	6.082	0.009	259596	938.672	938.672
MTBE	6.881	6.879	0.002	290190	9.850	9.850
DIPE	7.512	7.510	0.002	336760	9.756	9.756
Benzene	11.692	11.693	0.001	783860	9.965	9.965
Toluene	18.020	18.023	0.003	701639	9.902	9.902
Chlorobenzene	23.654	23.657	0.003	677948	10.022	10.022
Ethylbenzene	23.844	23.847	0.003	577604	9.995	9.995

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	1915859	29.037	29.037
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.136	29.136	0.000	430600	9.938	9.938
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.346	29.346	0.000	462309	9.741	9.741
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.086	30.086	0.000	380642	10.318	10.318
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.749	33.745	0.004	242838	9.449	9.449
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.564	13.565	0.001	811145	30.124	30.124
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m

Sample Info : ISTD020

Lab ID : ISTD020

Inj Date : 20-MAY-2002 09:13

Operator :

Cpnd Sublist: all

Inst ID : VOAGC3.i

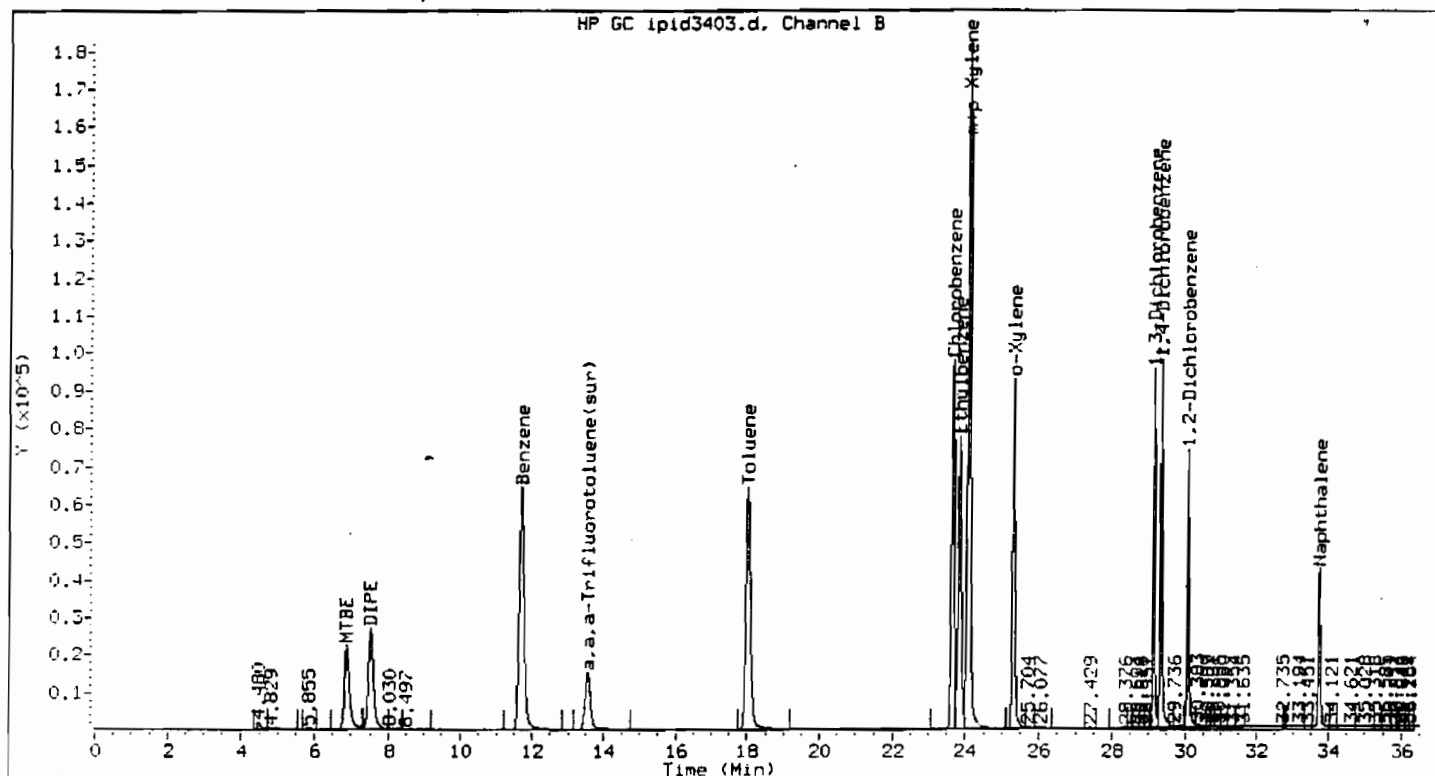
Dil Factor : 1

Sample Matrix : WATER

Sample Type: CALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.310	25.310	0.000	1160670	19.804	19.804
m+p-Xylene	24.089	24.089	0.000	2666022	38.268	38.268
TBA	6.082	6.082	0.000	479066	1732.253	1732.253
MTBE	6.879	6.879	0.000	554856	18.833	18.833
DIPE	7.510	7.510	0.000	680538	19.716	19.716
Benzene	11.693	11.693	0.000	1526611	19.407	19.407
Toluene	18.023	18.023	0.000	1413022	19.941	19.941
Chlorobenzene	23.657	23.657	0.000	1385594	20.483	20.483
Ethylbenzene	23.847	23.847	0.000	1155218	19.990	19.990

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	3826692	57.998	57.998
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.136	29.136	0.000	876204	20.223	20.223
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.346	29.346	0.000	920610	19.397	19.397
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.086	30.086	0.000	705953	19.136	19.136
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.745	33.745	0.000	435657	16.952	16.952
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.565	13.565	0.000	810803	30.112	30.112
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD040
Lab ID : ISTD040
Inj Date : 20-MAY-2002 10:17
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_5

Compounds	RT	RXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.309	25.310	0.001	2319648	39.579	39.579
m,p-Xylene	24.088	24.089	0.001	6455347	92.661	92.661
MTBE	6.881	6.879	0.002	1104550	37.491	37.491
DIPE	7.511	7.510	0.002	1347331	39.034	39.034
Benzene	11.693	11.693	0.000	3135123	39.854	39.854
Toluene	18.023	18.023	0.000	2823868	39.850	39.850
Chlorobenzene	23.656	23.657	0.001	2800275	41.397	41.397
Ethylbenzene	23.846	23.847	0.001	2339417	40.482	40.482
Xylene (Total)	25.019	25.019	0.000	8774995	132.994	132.994

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.134	29.136	0.002	1799606	41.535	41.535
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.344	29.346	0.002	1908381	40.208	40.208
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.083	30.086	0.002	1441000	39.061	39.061
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.742	33.745	0.003	1020718	39.717	39.717
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.566	13.565	0.001	814242	30.239	30.239
-----	-----	-----	-----	-----	-----	-----

Surrogate Compound Recovery Summary

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER

Level: LOW

Lab Job No: W361

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
	=====	=====	=====	=====	=====
01	IG137	83			0
02	349883MS	86			0
03	349883MSD	87			0
04	349884	83			0
05	349885	84			0
06	349887	90			0
07	IG140	98			0
08	349883	103			0
09	349886	115			0
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

SMC1 QC LIMITS
 = a,a,a-Trifluorotoluene (63-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Spike Recovery Summary

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Matrix Spike - Lab Sample No.: 349883

Level: LOW

MS Sample from Lab Job No: W361

QA Batch: 7366

Compound	MS % REC.	BS % REC.	LIMITS
=====	=====	=====	=====
Benzene	95	80	39-150
Toluene	100	80	46-148
Chlorobenzene	95	80	55-135
Ethylbenzene	97	85	32-160
1,3-Dichlorobenzene	90	80	50-141
1,4-Dichlorobenzene	90	85	42-143
1,2-Dichlorobenzene	110	90	37-154

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

This is the Last Page of the Document

ATTACHMENT 2

LABORATORY QA/C – AUGUST 2002

EnSolutions, Inc.



09/11/2002

EnSolutions, Inc.
1029 North Florida Mango Road
Suite #7
West Palm Beach, FL 33409

Attention: Mr. Howard Fredericks

**SEVERN
TRENT
SERVICES**

STL Edison
777 New Durham Road
Edison, NJ 08817

Tel: 732-549-3900
Fax: 732-549-3679
www.stl-inc.com

Laboratory Results
Job No. Z708 - Petrocelli Electric

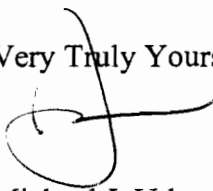
Dear Mr. Fredericks:

Enclosed are the results you requested for the following sample(s) received at our laboratory on August 22, 2002.

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
370830	MW-6	BTEX GC w/MTBE
370831	MW-4	BTEX GC w/MTBE
370832	MW-2	BTEX GC w/MTBE
370833	MW-3	BTEX GC w/MTBE
370834	MW-1	BTEX GC w/MTBE
370835	MW-7	BTEX GC w/MTBE

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Paul Nadzan, at (732) 549-3900.

Very Truly Yours,


Michael J. Urban
Laboratory Manager



STL Edison is a part of Severn Trent Laboratories, Inc.

Analytical Results Summary	1
General Information	8
Chain of Custody	8
Laboratory Chronicles	10
Methodology Review	12
Data Reporting Qualifiers	16
Non-Conformance Summary	18
GC/ PID Forms and Data	21
Results Summary and Chromatograms	21
Method Blank Results Summary	34
Standards Summary	41
Surrogate Compound Recovery Summary	60
Spike Recovery Summary	62
This is the Last Page of the Document	64

Analytical Results Summary

Client ID: MW-6
Site: Petrocelli Electric

Lab Sample No: 370830
Lab Job No: Z708

Date Sampled: 08/22/02
Date Received: 08/22/02
Date Analyzed: 08/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4023.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 20.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	160	2.0
Benzene	73	4.4
Toluene	400	4.8
Ethylbenzene	87	3.6
Xylene (Total)	480	4.0

Client ID: MW-4
Site: Petrocelli Electric

Lab Sample No: 370831
Lab Job No: Z708

Date Sampled: 08/22/02
Date Received: 08/22/02
Date Analyzed: 08/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4024.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	Analytical Result <u>Units: ug/l</u>	Method Detection
		Limit <u>Units: ug/l</u>
MTBE	9.0	0.10
Benzene	6.9	0.22
Toluene	2.8	0.24
Ethylbenzene	25	0.18
Xylene (Total)	9.2	0.20

Client ID: MW-2
Site: Petrocelli Electric

Lab Sample No: 370832
Lab Job No: Z708

Date Sampled: 08/22/02
Date Received: 08/22/02
Date Analyzed: 08/25/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4036.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 10.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	350	1.0
Benzene	23	2.2
Toluene	ND	2.4
Ethylbenzene	1.8	1.8
Xylene (Total)	ND	2.0

Client ID: MW-3
Site: Petrocelli Electric

Lab Sample No: 370833
Lab Job No: Z708

Date Sampled: 08/22/02
Date Received: 08/22/02
Date Analyzed: 08/25/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4037.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	160	0.50
Benzene	4.1	1.1
Toluene	ND	1.2
Ethylbenzene	ND	0.90
Xylene (Total)	ND	1.0

Client ID: MW-1
Site: Petrocelli Electric

Lab Sample No: 370834
Lab Job No: Z708

Date Sampled: 08/22/02
Date Received: 08/22/02
Date Analyzed: 08/25/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4038.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	86	0.50
Benzene	2.2	1.1
Toluene	2.3	1.2
Ethylbenzene	4.3	0.90
Xylene (Total)	ND	1.0

Client ID: MW-7
Site: Petrocelli Electric

Lab Sample No: 370835
Lab Job No: Z708

Date Sampled: 08/22/02
Date Received: 08/22/02
Date Analyzed: 08/25/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4039.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	5.1	0.10
Benzene	0.39	0.22
Toluene	0.69	0.24
Ethylbenzene	0.50	0.18
Xylene (Total)	0.42	0.20

General Information

Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

PAGE OF

Special Instructions one copy of report bound one unbound to EN50100 Water Metals Filtered (Yes/No)?

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

10

Laboratory Chronicles

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison

777 New Durham Road, Edison, New Jersey
08817

Job No: Z708

Site: Petrocelli Electric

Client: EnSolutions, Inc.

VOAGC

602

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
WATER							
370830	8/22/2002	8/22/2002			8/24/2002	Zhang, Yannong	7407
370831	8/22/2002	8/22/2002			8/24/2002	Zhang, Yannong	7407
370832	8/22/2002	8/22/2002			8/25/2002	Zhang, John	7407
370833	8/22/2002	8/22/2002			8/25/2002	Zhang, John	7407
370834	8/22/2002	8/22/2002			8/25/2002	Zhang, John	7407
370835	8/22/2002	8/22/2002			8/25/2002	Zhang, John	7407

Methodology Review

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

<u>Element</u>	<u>Water Test Method</u>		<u>Solid Test Method</u>	
	<u>Flame</u>	<u>Furnace</u>	<u>Flame</u>	<u>Furnace</u>
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

- Ignitability - Method 1020A
- Corrosivity - Water pH Method 9040B
Soil pH Method 9045C
- Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release
- Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

Data Reporting Qualifiers

DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

Non-Conformance Summary

NON-CONFORMANCE SUMMARY

STL Edison Job Number: 2708

Volatile Organics Analysis:

All data conforms with method requirements ✓; or
Analysis was not requested ; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements ; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements ; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Page 1 of 2

Non-conformance Summary, Page 2 of 2
STL Edison Job Number: 2708

Metals Analysis:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Total Petroleum Hydrocarbons:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

General Chemistry/Disposal Parameters:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Signature of
Laboratory Manager: _____

Date: 9/10/02

GC/PID Forms and Data

Results Summary and Chromatograms

Client ID: MW-6
Site: Petrocelli Electric

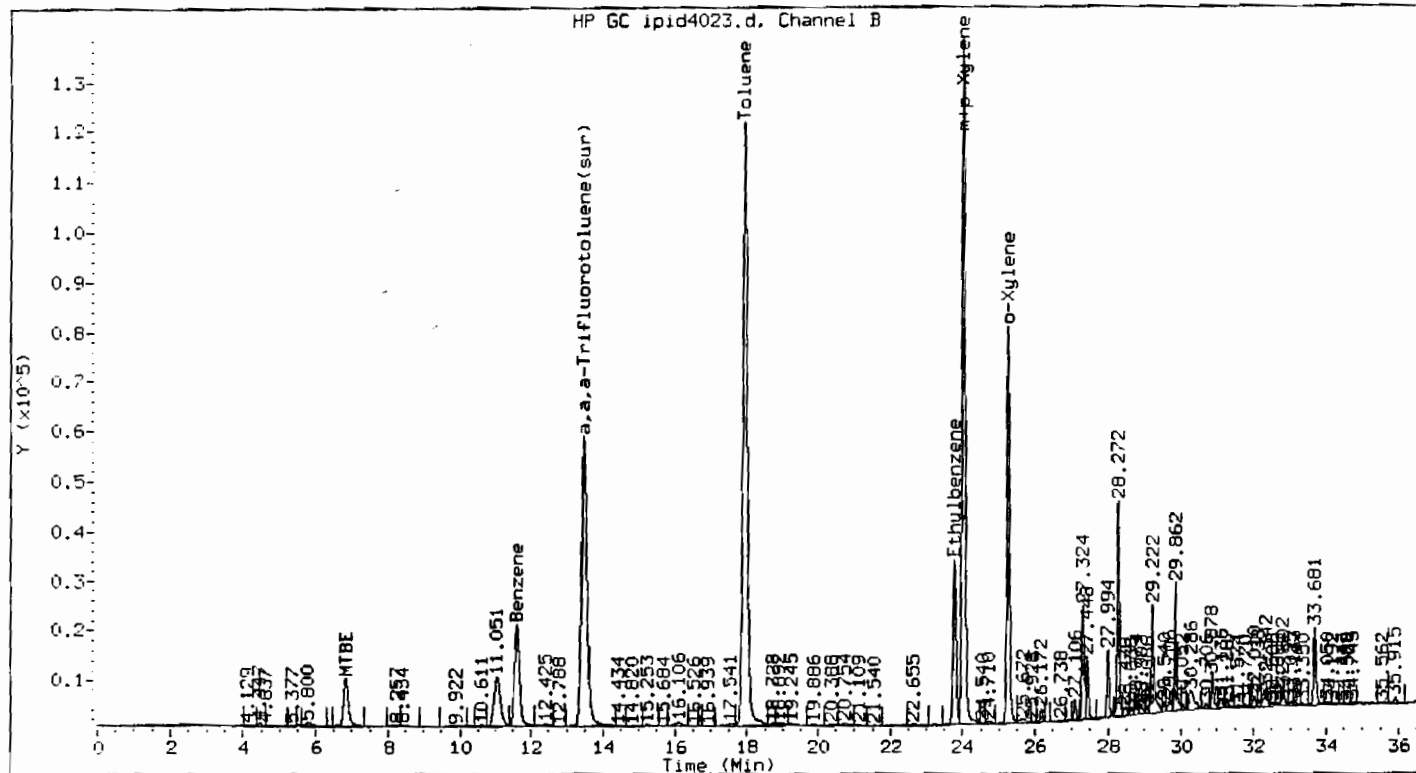
Lab Sample No: 370830
Lab Job No: Z708

Date Sampled: 08/22/02
Date Received: 08/22/02
Date Analyzed: 08/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4023.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 20.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	160	2.0
Benzene	73	4.4
Toluene	400	4.8
Ethylbenzene	87	3.6
Xylene (Total)	480	4.0



Method : /chem/VOAGC3.i/602/08-19-02/24aug02.b/602_02.m
Sample Info : 370830;;20
Lab ID : 370830
Inj Date : 24-AUG-2002 14:35
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 20
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.252	25.257	0.005	2059866	8.356	167.122
m+p-Xylene	24.025	24.028	0.003	4124733	15.723	314.465
MTBE	6.825	6.824	0.001	467587	7.977	159.536
Benzene	11.609	11.609	0.001	1005289	3.667	73.331
Toluene	17.934	17.940	0.006	5387108	20.134	402.674
Ethylbenzene	23.778	23.785	0.006	1013915	4.357	87.134
Xylene (Total)	25.019	25.019	0.000	6184599	24.059	481.181
a,a,a-Trifluorotoluene(sur)	13.480	13.483	0.003	3146903	30.156	30.156

Client ID: MW-4
Site: Petrocelli Electric

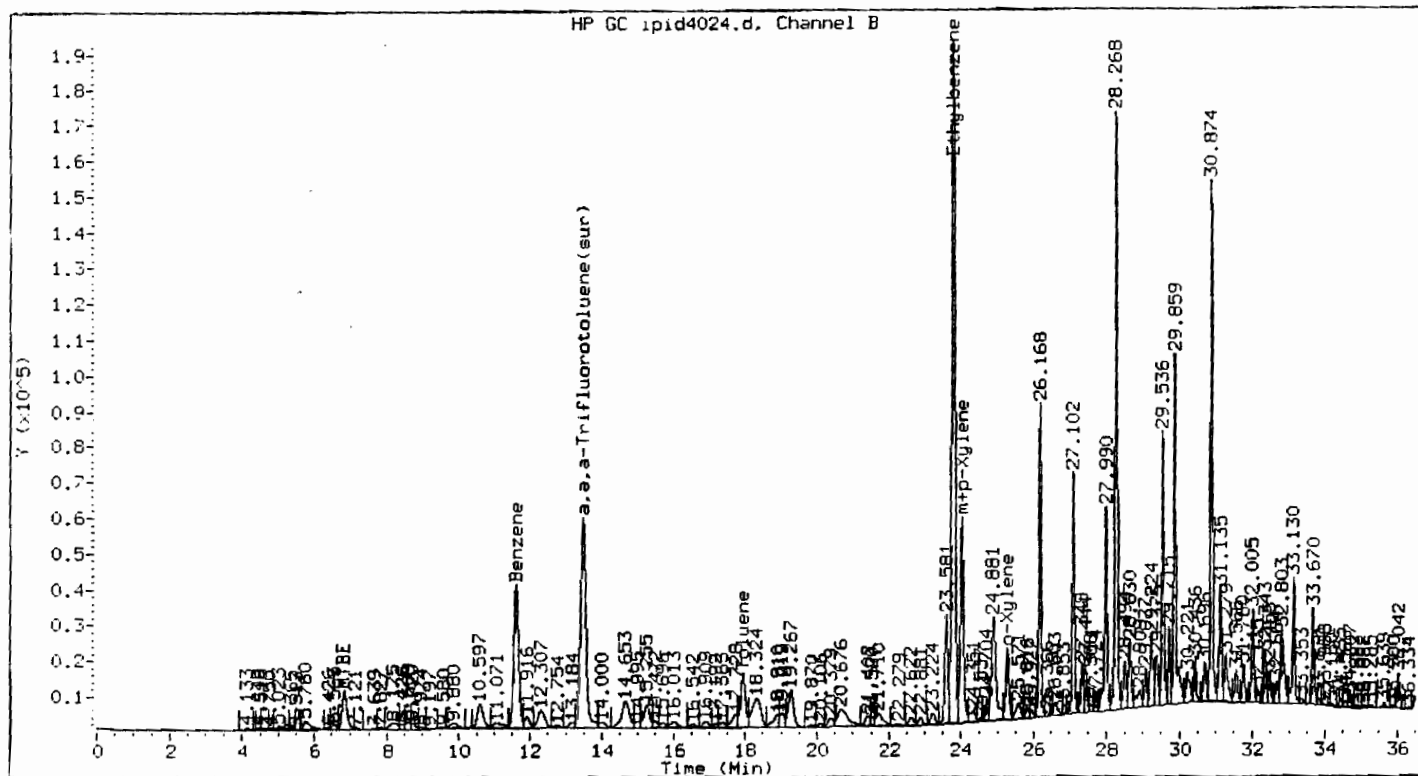
Lab Sample No: 370831
Lab Job No: Z708

Date Sampled: 08/22/02
Date Received: 08/22/02
Date Analyzed: 08/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4024.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	9.0	0.10
Benzene	6.9	0.22
Toluene	2.8	0.24
Ethylbenzene	25	0.18
Xylene (Total)	9.2	0.20



Method : /chem/VOAGC3.i/602/08-19-02/24aug02.b/602_02.m
Sample Info : 370831
Lab ID : 370831
Inj Date : 24-AUG-2002 15:15
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.258	25.257	0.001	624252	2.532	2.532
m+p-Xylene	24.014	24.028	0.014	1739848	6.632	6.632
MTBE	6.824	6.824	0.000	525180	8.959	8.959
Benzene	11.606	11.609	0.003	1891418	6.898	6.898
Toluene	17.931	17.940	0.009	749497	2.801	2.801
Ethylbenzene	23.775	23.785	0.010	5873561	25.238	25.238
Xylene (Total)	25.019	25.019	0.000	2364100	9.197	9.197
a, a, a-Trifluorotoluene(sur)	13.477	13.483	0.007	3214576	30.804	30.804

Client ID: MW-2
Site: Petrocelli Electric

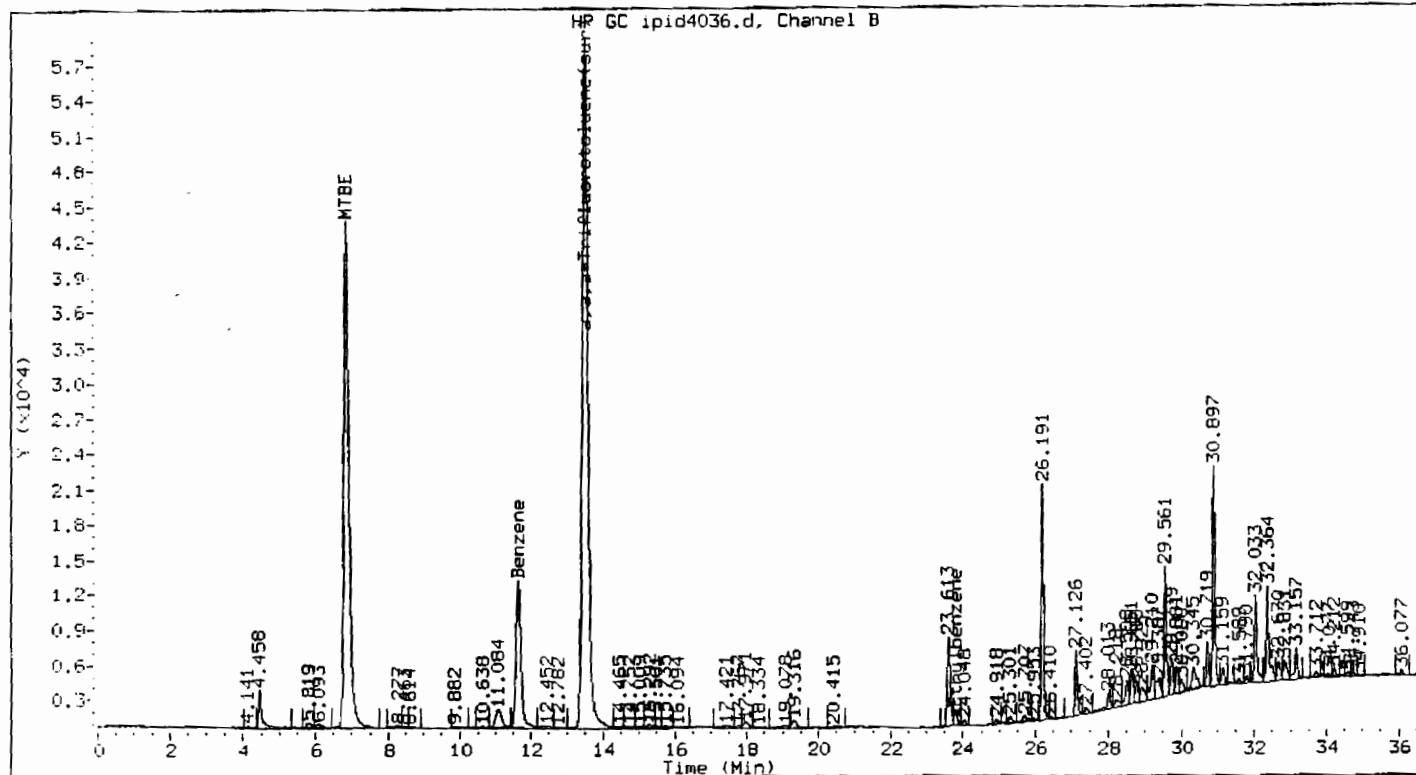
Lab Sample No: 370832
Lab Job No: Z708

Date Sampled: 08/22/02
Date Received: 08/22/02
Date Analyzed: 08/25/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4036.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 10.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	350	1.0
Benzene	23	2.2
Toluene	ND	2.4
Ethylbenzene	1.8	1.8
Xylene (Total)	ND	2.0



Method : /chem/VOAGC3.i/602/08-19-02/25aug02.b/602_02.m
Sample Info : 370832;;10
Lab ID : 370832
Inj Date : 25-AUG-2002 12:06
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 10
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.846	6.841	0.004	2064800	35.224	352.245
Benzene	11.638	11.631	0.006	621893	2.268	22.682
Ethylbenzene	23.802	23.804	0.002	42919	0.184	1.844
a,a,a-Trifluorotoluene(sur)	13.511	13.507	0.005	3168498	30.363	30.363

Client ID: MW-3
Site: Petrocelli Electric

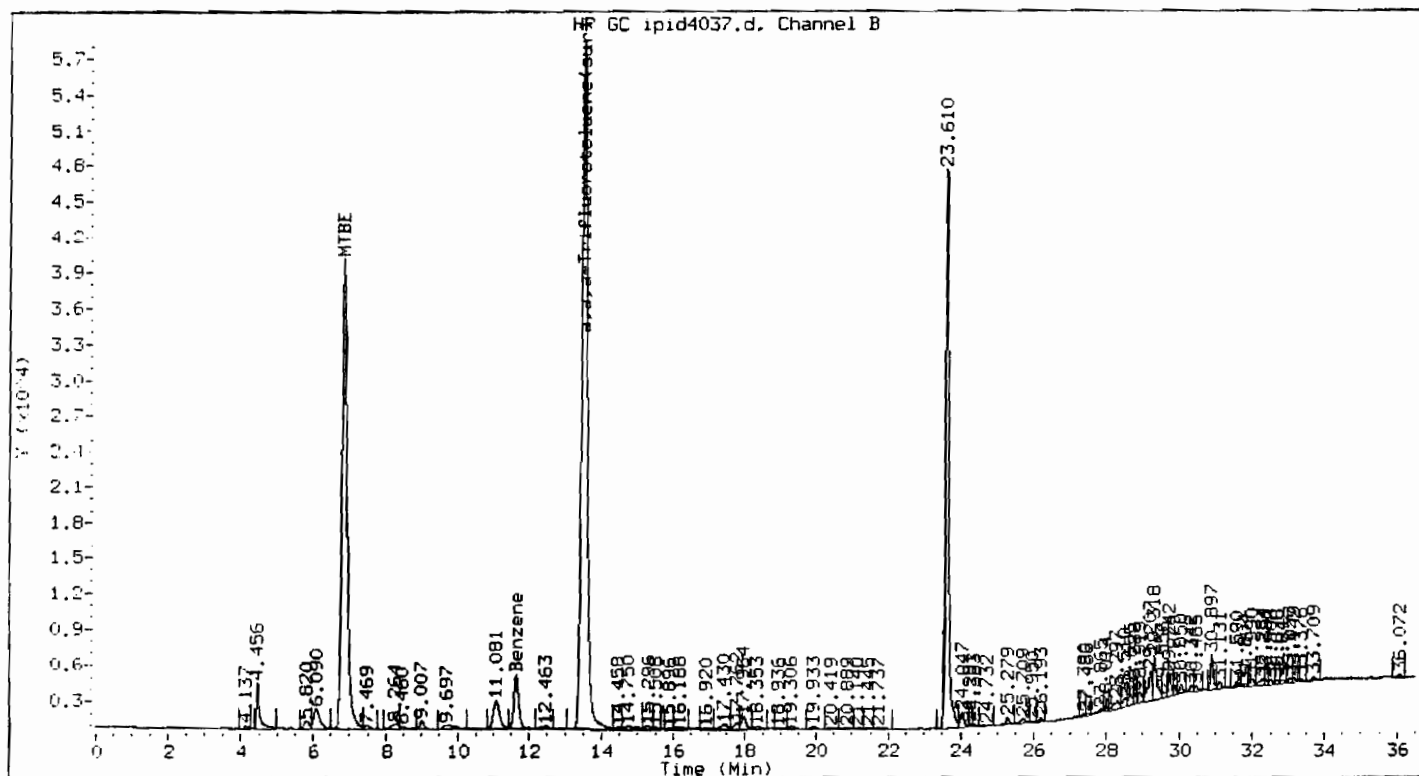
Lab Sample No: 370833
Lab Job No: Z708

Date Sampled: 08/22/02
Date Received: 08/22/02
Date Analyzed: 08/25/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4037.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	160	0.50
Benzene	4.1	1.1
Toluene	ND	1.2
Ethylbenzene	ND	0.90
Xylene (Total)	ND	1.0



Method : /chem/VOAGC3.i/602/08-19-02/25aug02.b/602_02.m
Sample Info : 370833;;5
Lab ID : 370833
Inj Date : 25-AUG-2002 12:46
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 5
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.844	6.841	0.002	1879167	32.058	160.288
Benzene	11.636	11.631	0.005	222636	0.812	4.060
a,a,a-Trifluorotoluene (sur)	13.510	13.507	0.003	3125058	29.947	29.947

Handwritten signature

Client ID: MW-1
Site: Petrocelli Electric

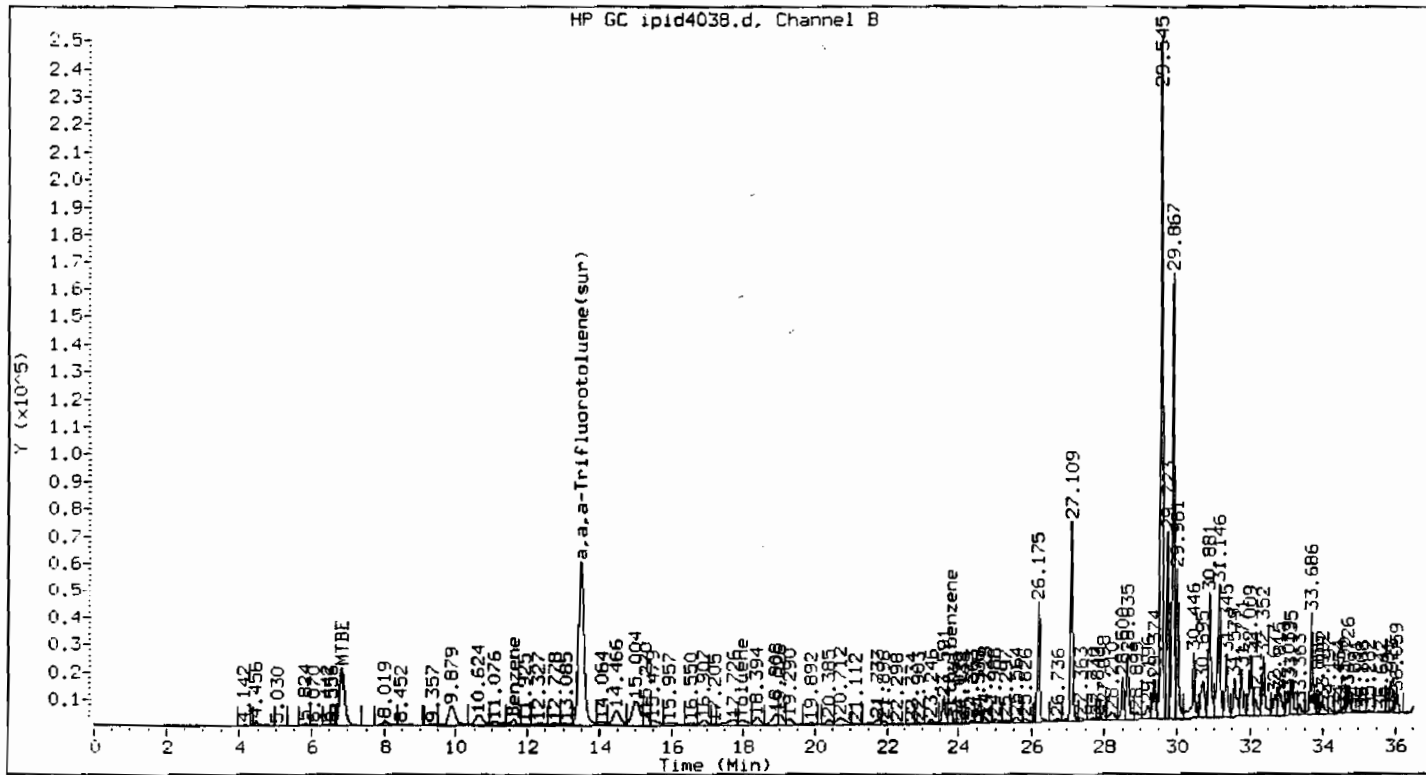
Lab Sample No: 370834
Lab Job No: Z708

Date Sampled: 08/22/02
Date Received: 08/22/02
Date Analyzed: 08/25/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4038.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	86	0.50
Benzene	2.2	1.1
Toluene	2.3	1.2
Ethylbenzene	4.3	0.90
Xylene (Total)	ND	1.0



Method : /chem/VOAGC3.i/602/08-19-02/25aug02.b/602_02.m
Sample Info : 370834;;5
Lab ID : 370834
Inj Date : 25-AUG-2002 13:26
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 5
Sample Matrix : WATER
Sample Type: SAMPLE

Compounde	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.836	6.841	0.006	1004884	17.143	85.714
Benzene	11.614	11.631	0.017	120023	0.438	2.189
Toluene	17.965	17.964	0.001	123569	0.462	2.309
Ethylbenzene	23.780	23.804	0.024	199247	0.856	4.281
a,a,a-Trifluorotoluene(sur)	13.488	13.507	0.018	3238690	31.036	31.036

Client ID: MW-7
Site: Petrocelli Electric

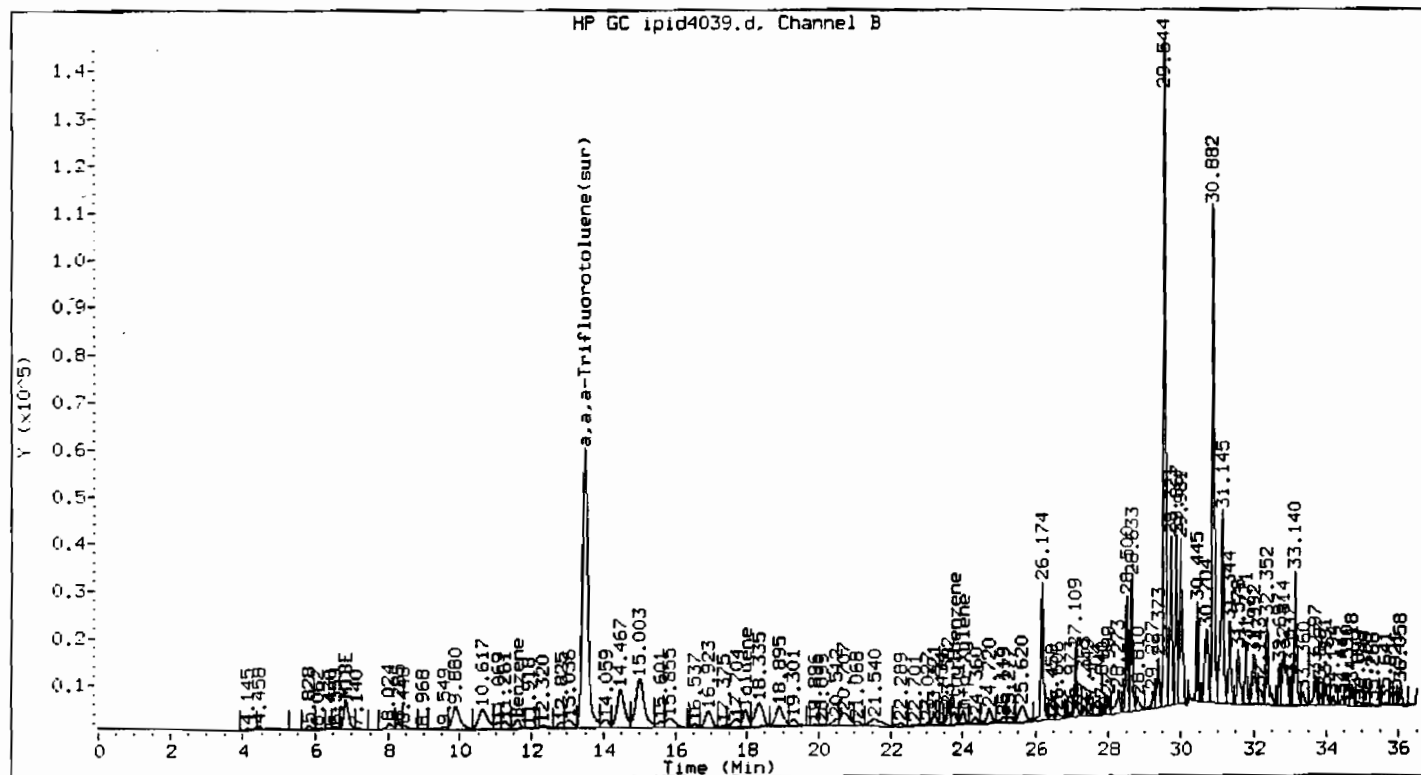
Lab Sample No: 370835
Lab Job No: Z708

Date Sampled: 08/22/02
Date Received: 08/22/02
Date Analyzed: 08/25/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4039.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u>
		<u>Limit</u> <u>Units: ug/l</u>
MTBE	5.1	0.10
Benzene	0.39	0.22
Toluene	0.69	0.24
Ethylbenzene	0.50	0.18
Xylene (Total)	0.42	0.20



```
Method       : /chem/VOAGC3.1/602/08-19-02/25aug02.b/602_02.m
Sample Info  : 370835
Lab ID       : 370835                      Inst ID      : VO
Inj Date     : 25-AUG-2002 14:06           Dil Factor   : 1
Operator     :                             Sample Matrix : WA
Cpnd Sublist: BTEXMTBE                    Sample Type: SAMPLE
```

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

۱۲۸

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
m+p-Xylene	24.013	24.046	0.034	109278	0.417	0.417
MTBE	6.835	6.841	0.006	298836	5.098	5.098
Benzene	11.610	11.631	0.022	108071	0.394	0.394
Toluene	17.943	17.964	0.021	185568	0.694	0.694
Ethylbenzene	23.771	23.804	0.033	116804	0.502	0.502
Xylene (Total)	25.019	25.019	0.000	109278	0.425	0.425
a, a, a-Trifluorotoluene (sur)	13.487	13.507	0.020	3270316	31.339	31.339

Method Blank Results Summary

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG236

Date Analyzed: 08/24/02

Instrument ID: VOAGC3

Time Analyzed: 1154

Lab File ID: IPID4021

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-6	370830	IPID4023	1435
02	MW-4	370831	IPID4024	1515
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

page 1 of 1

Client ID: IG236
Site:

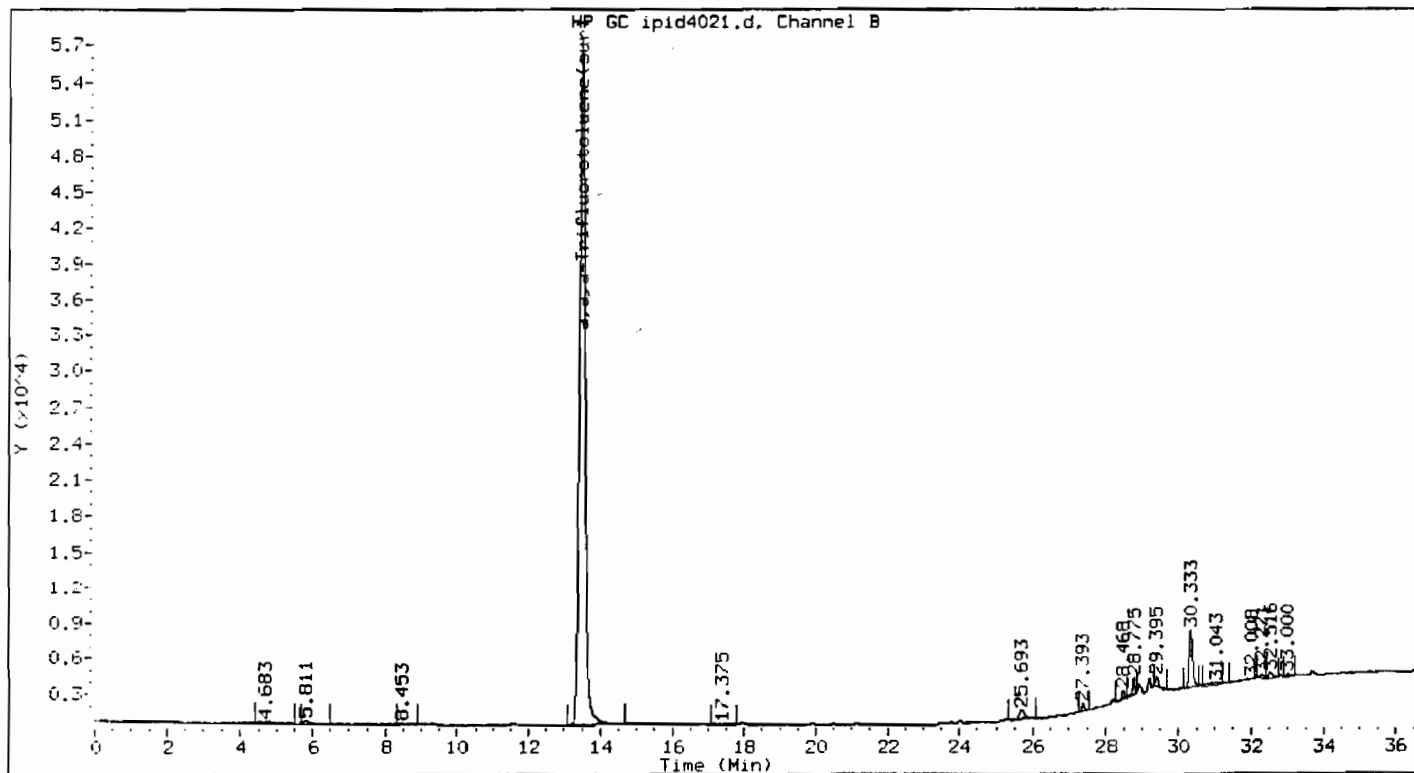
Lab Sample No: IG236
Lab Job No: Z708

Date Sampled: _____
Date Received: _____
Date Analyzed: 08/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4021.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
TBA	ND	19
MTBE	ND	0.10
DIPE	ND	0.13
Benzene	ND	0.22
Toluene	ND	0.24
Chlorobenzene	ND	0.17
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20
1,3-Dichlorobenzene	ND	0.18
1,4-Dichlorobenzene	ND	0.21
1,2-Dichlorobenzene	ND	0.20
Naphthalene	ND	0.22



Method : /chem/VOAGC3.i/602/08-19-02/24aug02.b/602_02.m
Sample Info : IG236
Lab ID : IG236
Inj Date : 24-AUG-2002 11:54
Operator :
Cpnd Sublist: all
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
a, a, a-Trifluorotoluene(sur)	13.483	13.483	0.000	3051793	29.245	29.245
-----	-----	-----	-----	-----	-----	-----

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG237

Date Analyzed: 08/25/02

Instrument ID: VOAGC3

Time Analyzed: 1126

Lab File ID: IPID4035

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	MW-2	370832	IPID4036	1206
02	MW-3	370833	IPID4037	1246
03	MW-1	370834	IPID4038	1326
04	MW-7	370835	IPID4039	1406
05	MW-2MS	370832MS	IPID4040	1447
06	MW-2MSD	370832MSD	IPID4041	1527
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

page 1 of 1

Client ID: IG237
Site:

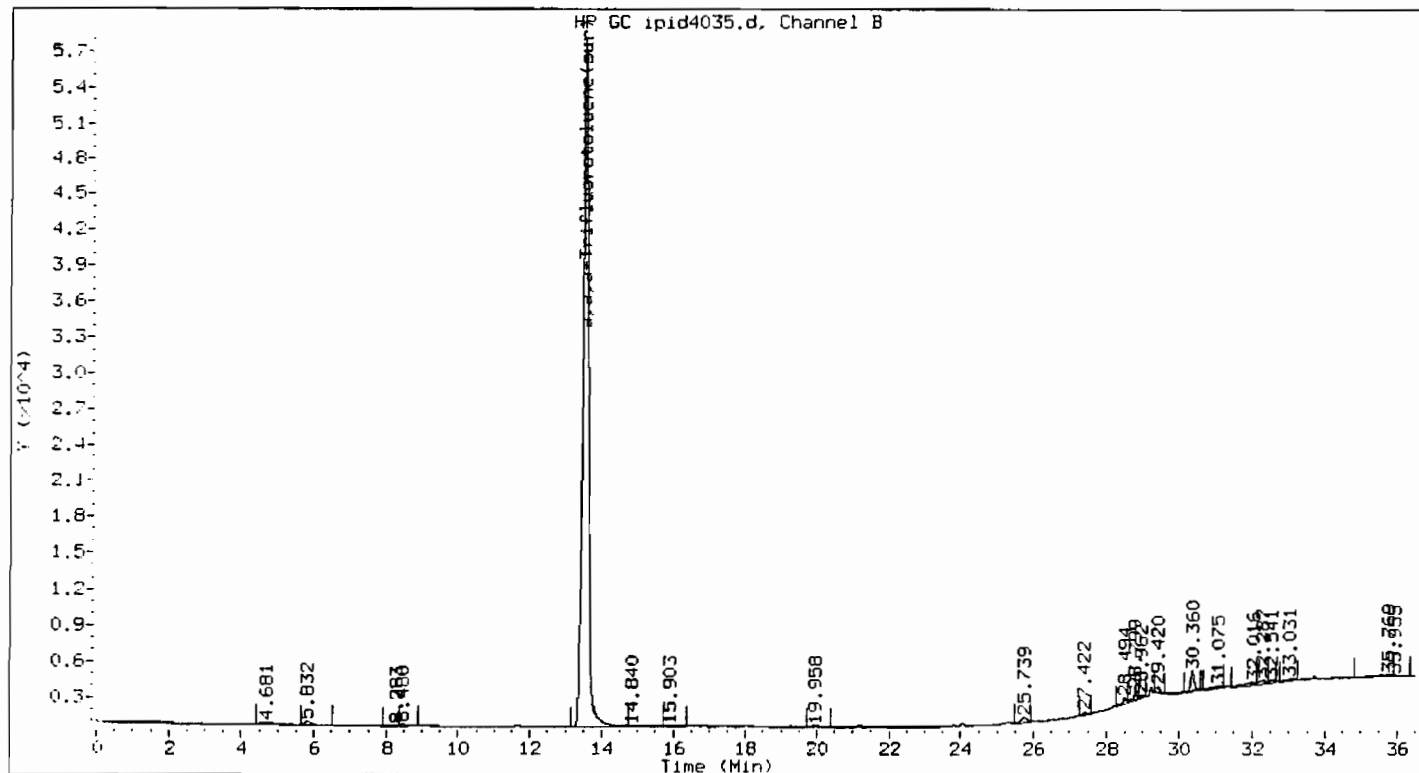
Lab Sample No: IG237
Lab Job No: Z708

Date Sampled: _____
Date Received: _____
Date Analyzed: 08/25/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4035.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
TBA	ND	19
MTBE	ND	0.10
DIPE	ND	0.13
Benzene	ND	0.22
Toluene	ND	0.24
Chlorobenzene	ND	0.17
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20
1,3-Dichlorobenzene	ND	0.18
1,4-Dichlorobenzene	ND	0.21
1,2-Dichlorobenzene	ND	0.20
Naphthalene	ND	0.22



Method : /chem/VOAGC3.i/602/08-19-02/25aug02.b/602_02.m
Sample Info : IG237
Lab ID : IG237
Inj Date : 25-AUG-2002 11:26
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
a, a, a-Trifluorotoluene (sur)	13.517	13.507	0.010	3154866	30.232	30.232

Standards Summary

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

Calibration Date(s): 08/19/02 08/19/02

Calibration Time(s): 0926 1245

LAB FILE ID:	RRF2: IPID3958	RRF5: IPID3957	RRF10: IPID3956		
	RRF20: IPID3954	RRF40: IPID3955			
COMPOUND	RRF2	RRF5	RRF10	RRF20	RRF40
=====	=====	=====	=====	=====	=====
TBA **	594	560	521	616	
MTBE	57511	57279	57672	62143	58487
DIPE	63150	64335	66381	73220	71451
Benzene	275428	273081	271731	275987	274674
Toluene	269926	266267	265880	268594	267166
Chlorobenzene	266730	272106	276039	275468	277918
Ethylbenzene	228352	230293	231896	238616	234475
Xylene (Total)	253369	254612	258186	263426	255701
1,3-Dichlorobenzene	224504	227544	248973	250462	245385
1,4-Dichlorobenzene	289806	265261	292327	269802	256858
1,2-Dichlorobenzene	178066	185422	192413	203127	195830
Naphthalene	139834	139548	145880	160363	151003
=====	=====	=====	=====	=====	=====
a,a,a-Trifluorotoluene(sur)	100669	103345	105366	106150	106240

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

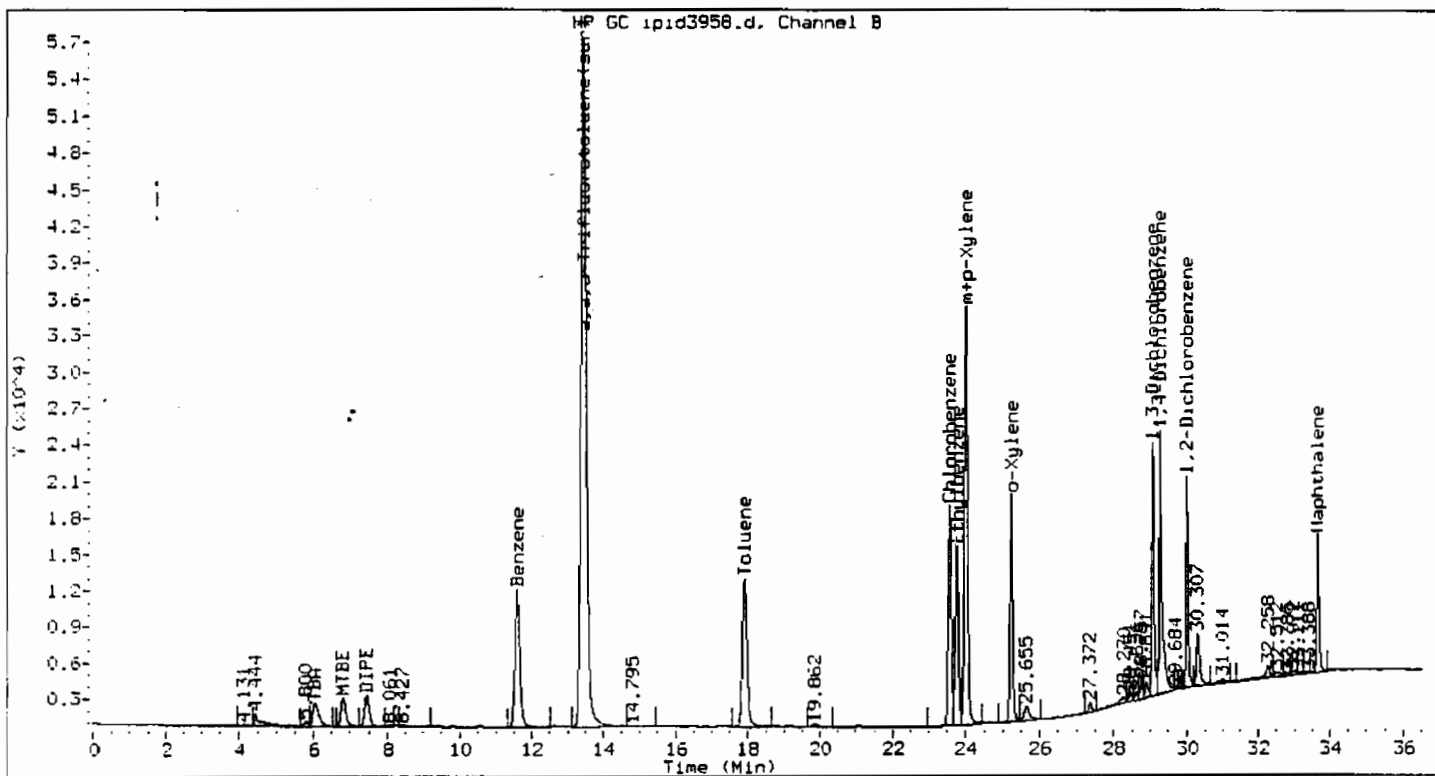
Calibration Date(s): 08/19/02 08/19/02

Calibration Time(s): 0926 1245

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
=====	=====	=====	=====
TBA **	AVRG	573	7.2*
MTBE	AVRG	58618	3.4*
DIPE	AVRG	67707	6.5*
Benzene	AVRG	274180	0.6*
Toluene	AVRG	267566	0.6*
Chlorobenzene	AVRG	273652	1.6*
Ethylbenzene	AVRG	232726	1.7*
Xylene (Total)	AVRG	257059	1.5*
1,3-Dichlorobenzene	AVRG	239374	5.2*
1,4-Dichlorobenzene	AVRG	274811	5.7*
1,2-Dichlorobenzene	AVRG	190971	5.0*
Naphthalene	AVRG	147326	5.9*
=====	=====	=====	=====
a,a,a-Trifluorotoluene (sur)	AVRG	104354	2.3*

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

* Compounds with required maximum %RSD values.

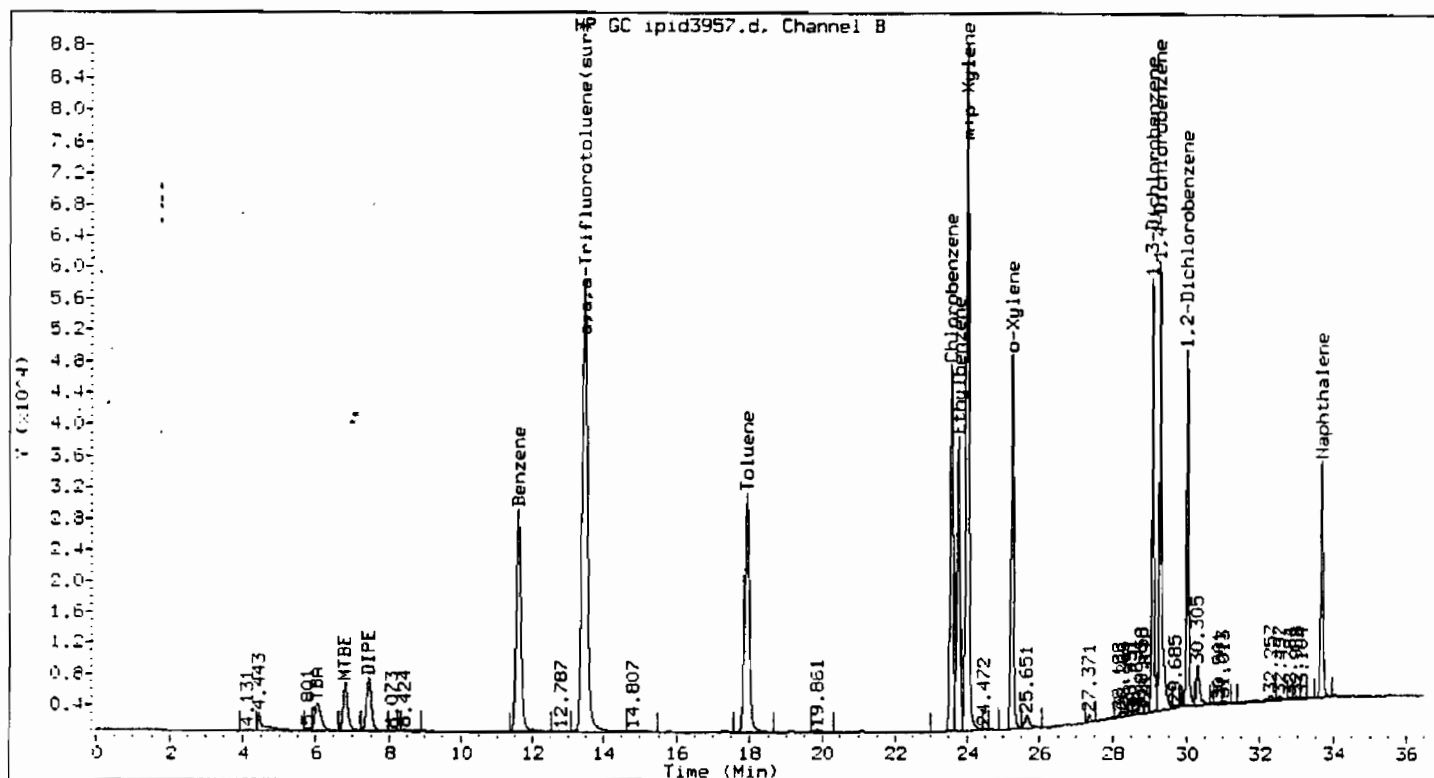


Method : /chem/VOAGC3.i/602/08-19-02/19aug02.b/602_02.m
Sample Info : ISTD002
Lab ID : ISTD002
Inj Date : 19-AUG-2002 12:45
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_1

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.235	25.232	0.003	488492	1.982	1.982
m+p-Xylene	24.002	23.999	0.003	1031720	3.933	3.933
TBA	6.043	6.010	0.033	118708	207.279	207.279
MTBE	6.818	6.803	0.016	115022	1.962	1.962
DIPE	7.444	7.428	0.017	126300	1.865	1.865
Benzene	11.592	11.578	0.014	550855	2.009	2.009
Toluene	17.910	17.903	0.007	539852	2.018	2.018
Chlorobenzene	23.564	23.560	0.004	533461	1.949	1.949
Ethylbenzene	23.758	23.755	0.003	456705	1.962	1.962

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	1520212	5.914	5.914
1,3-Dichlorobenzene	29.070	29.064	0.006	449008	1.876	1.876
1,4-Dichlorobenzene	29.281	29.274	0.007	579613	2.109	2.109
1,2-Dichlorobenzene	30.017	30.010	0.006	356131	1.865	1.865
Naphthalene	33.664	33.651	0.013	279668	1.898	1.898
a,a,a-Trifluorotoluene(sur)	13.459	13.449	0.010	3020077	28.941	28.941
-----	-----	-----	-----	-----	-----	-----

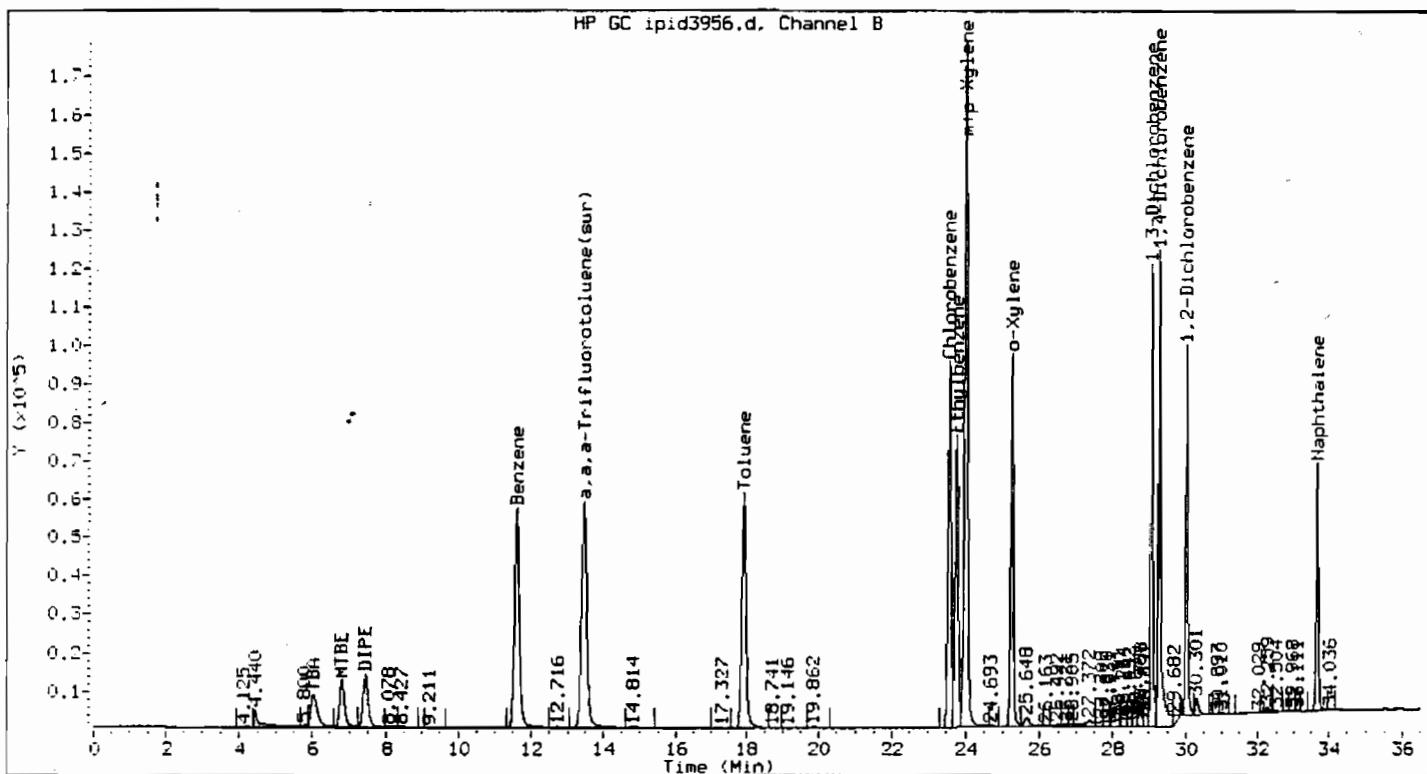


Method : /chem/VOAGC3.i/602/08-19-02/19aug02.b/602_02.m
Sample Info : ISTD005
Lab ID : ISTD005
Inj Date : 19-AUG-2002 12:04
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.236	25.232	0.003	1220903	4.953	4.953
m+p-Xylene	24.003	23.999	0.004	2598285	9.905	9.905
TBA	6.041	6.010	0.030	223918	390.989	390.989
MTBE	6.818	6.803	0.016	286395	4.886	4.886
DIPB	7.444	7.428	0.017	321675	4.751	4.751
Benzene	11.593	11.578	0.015	1365406	4.980	4.980
Toluene	17.911	17.903	0.008	1331335	4.976	4.976
Chlorobenzene	23.565	23.560	0.005	1360532	4.972	4.972
Ethylbenzene	23.759	23.755	0.004	1151467	4.948	4.948

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	3819188	14.857	14.857
1,3-Dichlorobenzene	29.070	29.064	0.006	1137722	4.753	4.753
1,4-Dichlorobenzene	29.280	29.274	0.006	1326305	4.826	4.826
1,2-Dichlorobenzene	30.017	30.010	0.006	927108	4.855	4.855
Naphthalene	33.662	33.651	0.011	697742	4.736	4.736
a,a,a-Trifluorotoluene(sur)	13.461	13.449	0.012	3100358	29.710	29.710



Method : /chem/VOAGC3.i/602/08-19-02/19aug02.b/602_02.m

Sample Info : ISTD010

Lab ID : ISTD010

Inj Date : 19-AUG-2002 11:24

Operator :

Cpnd Sublist: all

Inst ID : VOAGC3.i

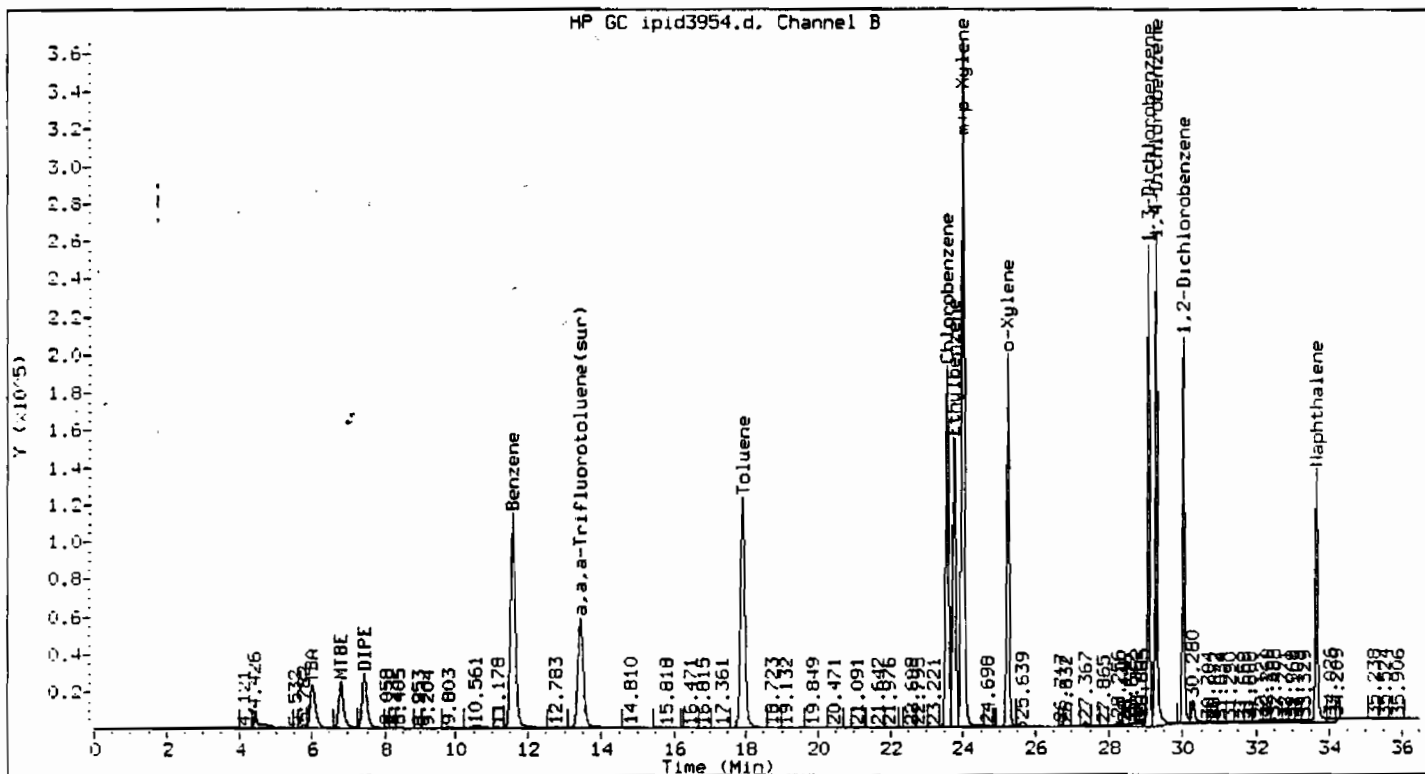
Dil Factor : 1

Sample Matrix : WATER

Sample Type: CALIB_3

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.237	25.232	0.005	2469334	10.017	10.017
m+p-Xylene	24.005	23.999	0.006	5276261	20.113	20.113
TBA	6.035	6.010	0.025	521435	910.492	910.492
MTBE	6.818	6.803	0.016	576717	9.839	9.839
DIPB	7.443	7.428	0.015	663809	9.804	9.804
Benzene	11.593	11.578	0.015	2717308	9.911	9.911
Toluene	17.913	17.903	0.010	2658799	9.937	9.937
Chlorobenzene	23.567	23.560	0.007	2760392	10.087	10.087
Ethylbenzene	23.761	23.755	0.006	2318959	9.964	9.964

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	7745595	30.132	30.132
1,3-Dichlorobenzene	29.070	29.064	0.006	2489730	10.401	10.401
1,4-Dichlorobenzene	29.280	29.274	0.006	2923274	10.637	10.637
1,2-Dichlorobenzene	30.017	30.010	0.007	1924131	10.075	10.075
Naphthalene	33.661	33.651	0.009	1458798	9.902	9.902
a,a,a-Trifluorotoluene(sur)	13.462	13.449	0.013	3160984	30.291	30.291
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC3.i/602/08-19-02/19aug02.b/602_02.m

Sample Info : ISTD020

Lab ID : ISTD020

Inj Date : 19-AUG-2002 09:26

Operator :

Cpnd Sublist: all

Inst ID : VOAGC3.i

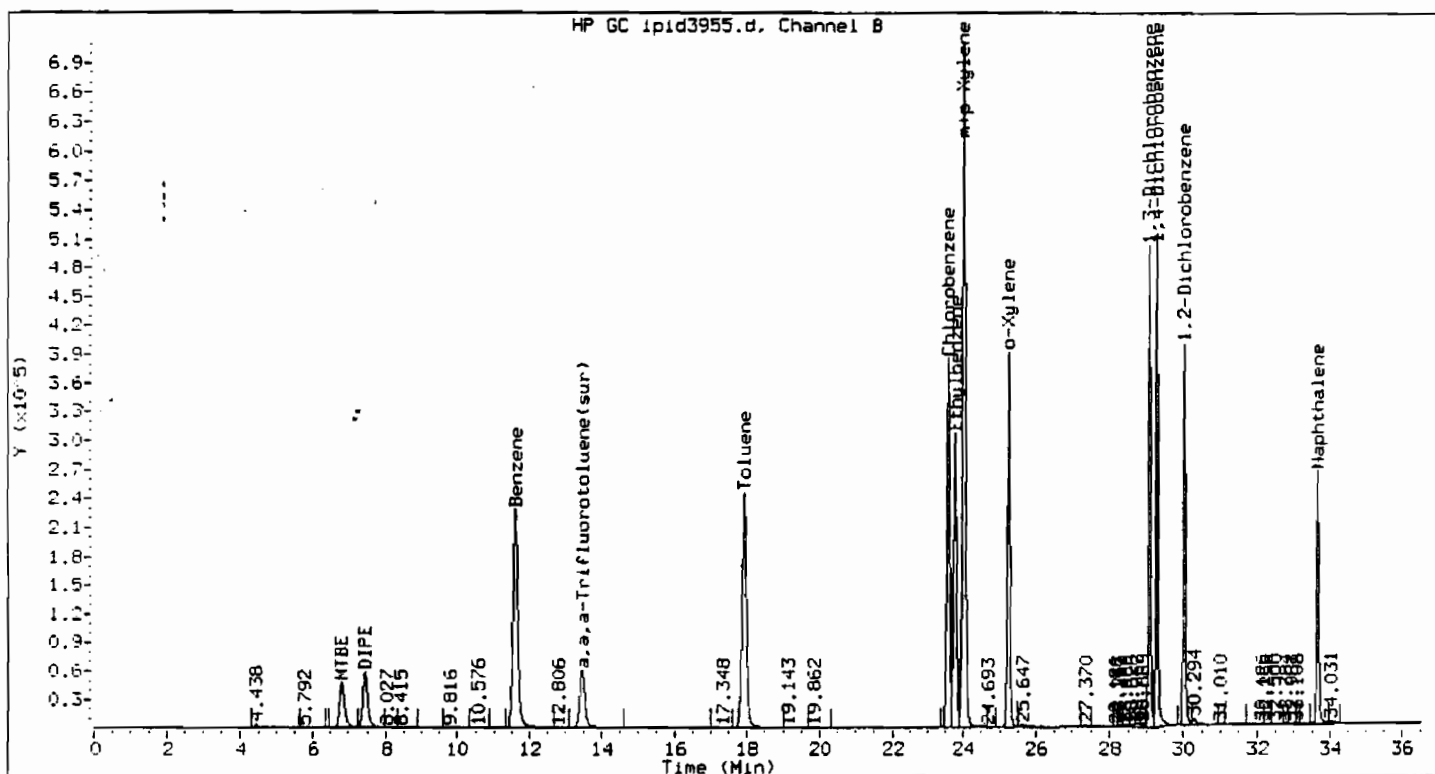
Dil Factor : 1

Sample Matrix : WATER

Sample Type: CALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.232	25.232	0.000	5029747	20.404	20.404
m,p-Xylene	23.999	23.999	0.000	10775809	41.077	41.077
TBA	6.010	6.010	0.000	1232029	2151.279	2151.279
MTBE	6.803	6.803	0.000	1242855	21.202	21.202
DIPE	7.428	7.428	0.000	1464392	21.628	21.628
Benzene	11.578	11.578	0.000	5519738	20.132	20.132
Toluene	17.903	17.903	0.000	5371871	20.077	20.077
Chlorobenzene	23.560	23.560	0.000	5509365	20.133	20.133
Ethylbenzene	23.755	23.755	0.000	4772314	20.506	20.506

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	15805556	61.486	61.486
1,3-Dichlorobenzene	29.064	29.064	0.000	5009251	20.926	20.926
1,4-Dichlorobenzene	29.274	29.274	0.000	5396038	19.635	19.635
1,2-Dichlorobenzene	30.010	30.010	0.000	4062541	21.273	21.273
Naphthalene	33.651	33.651	0.000	3207252	21.770	21.770
a,a,a-Trifluorotoluene(sur)	13.449	13.449	0.000	3184496	30.516	30.516
-----	-----	-----	-----	-----	-----	-----



```
Method       : /chem/VOAGC3.i/602/08-19-02/19aug02.b/602_02.m
Sample Info  : ISTD040
Lab ID       : ISTD040                      Inst ID      : VOAGC3.i
Inj Date     : 19-AUG-2002 10:44           Dil Factor   : 1
Operator     :                             Sample Matrix : WATER
Cpnd Sublist: all                         Sample Type  : CALIB_5
```

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.238	25.232	0.006	9828097	39.869	39.869
m+p-Xylene	24.007	23.999	0.008	20856005	79.502	79.502
MTBE	6.813	6.803	0.010	2339491	39.911	39.911
DIPE	7.438	7.428	0.010	2858040	42.212	42.212
Benzene	11.589	11.578	0.011	10986956	40.072	40.072
Toluene	17.913	17.903	0.010	10686627	39.940	39.940
Chlorobenzene	23.568	23.560	0.007	11116739	40.624	40.624
Ethylbenzene	23.763	23.755	0.007	9379008	40.301	40.301
Xylene (Total)	25.019	25.019	0.000	30684102	119.366	119.366

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
1,3-Dichlorobenzene	29.069	29.064	0.005	9815402	41.004	41.004
1,4-Dichlorobenzene	29.278	29.274	0.004	10274320	37.387	37.387
1,2-Dichlorobenzene	30.015	30.010	0.005	7833206	41.018	41.018
Naphthalene	33.656	33.651	0.005	6040110	40.998	40.998
a,a,a-Trifluorotoluene(sur)	13.459	13.449	0.010	3187211	30.542	30.542

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC3

Calibration Date: 08/24/02

Time: 0858

Lab File ID: IPID4017

Init. Calib. Date(s): 08/19/02

08/19/02

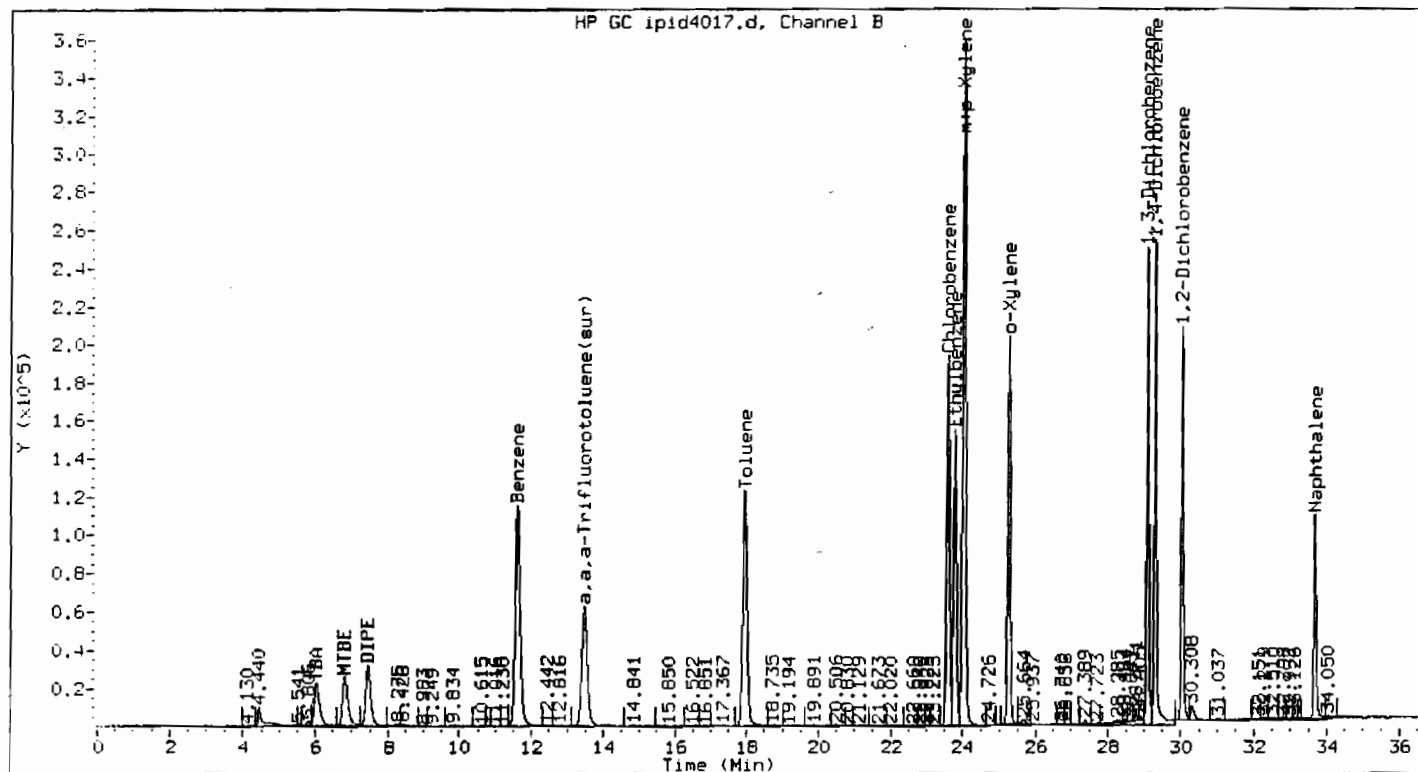
Heated Purge: (Y/N) N

Init. Calib. Times: 0926

1245

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
TBA **	572.70	646.56		-12.9	40.0
MTBE	58618.35	67515.30		-15.2	40.0
DIPE	67707.30	80597.60		-19.0	40.0
Benzene	274180.06	283720.60		-3.5	23.0
Toluene	267566.43	271932.30		-1.6	22.5
Chlorobenzene	273652.57	281178.40		-2.8	19.5
Ethylbenzene	232726.54	238912.95		-2.6	37.0
Xylene (Total)	257058.90	264235.47		-2.8	40.0
1,3-Dichlorobenzene	239373.80	250740.45		-4.7	27.5
1,4-Dichlorobenzene	274810.96	279441.35		-1.7	30.5
1,2-Dichlorobenzene	190971.48	204548.70		-7.1	32.0
Naphthalene	147325.51	140076.70		4.9	40.0
a,a,a-Trifluorotoluene (sur)	104354.17	115594.87		-10.8	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/08-19-02/24aug02.b/602_02.m
Sample Info : ISTD236
Lab ID : ISTD236
Inj Date : 24-AUG-2002 08:58
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.257	25.257	0.000	5168866	20.968	20.968
m+p-Xylene	24.028	24.028	0.000	10685262	40.732	40.732
TBA	6.034	6.034	0.000	1293125	2257.960	2257.960
MTBE	6.824	6.824	0.000	1350306	23.036	23.036
DIPE	7.450	7.450	0.000	1611952	23.808	23.808
Benzene	11.609	11.609	0.000	5674412	20.696	20.696
Toluene	17.940	17.940	0.000	5438646	20.326	20.326
Chlorobenzene	23.590	23.590	0.000	5623568	20.550	20.550
Ethylbenzene	23.785	23.785	0.000	4778259	20.532	20.532

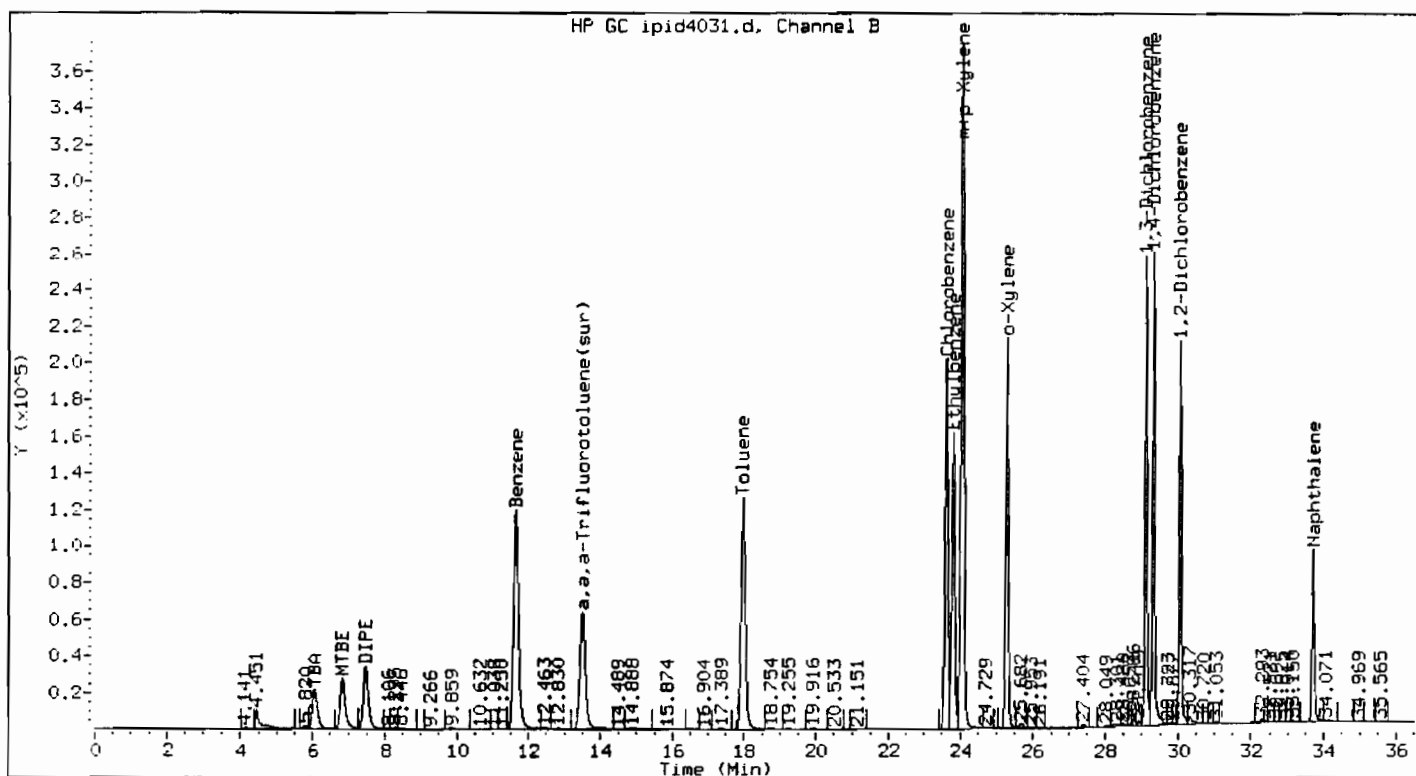
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
Xylene (Total)	25.019	25.019	0.000	15854128	61.675	61.675
1,3-Dichlorobenzene	29.084	29.084	0.000	5014809	20.950	20.950
1,4-Dichlorobenzene	29.294	29.294	0.000	5588827	20.337	20.337
1,2-Dichlorobenzene	30.030	30.030	0.000	4090974	21.422	21.422
Naphthalene	33.675	33.675	0.000	2801534	19.016	19.016
a,a,a-Trifluorotoluene (sur)	13.483	13.483	0.000	3467846	33.232	33.232

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC3 Calibration Date: 08/25/02 Time: 0817
 Lab File ID: IPID4031 Init. Calib. Date(s): 08/19/02 08/19/02
 Heated Purge: (Y/N) N Init. Calib. Times: 0926 1245

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
TBA **	572.70	571.15		0.3	40.0
MTBE	58618.35	69140.65		-18.0	40.0
DIPE	67707.30	84647.30		-25.0	40.0
Benzene	274180.06	295757.95		-7.9	23.0
Toluene	267566.43	282549.05		-5.6	22.5
Chlorobenzene	273652.57	297080.60		-8.6	19.5
Ethylbenzene	232726.54	247111.40		-6.2	37.0
Xylene (Total)	257058.90	274511.85		-6.8	40.0
1,3-Dichlorobenzene	239373.80	255821.00		-6.9	27.5
1,4-Dichlorobenzene	274810.96	266432.60		3.0	30.5
1,2-Dichlorobenzene	190971.48	212542.65		-11.3	32.0
Naphthalene	147325.51	111954.85		24.0	40.0
a,a,a-Trifluorotoluene (sur)	104354.17	117326.97		-12.4	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/08-19-02/25aug02.b/602_02.m
Sample Info : ISTD237
Lab ID : ISTD237
Inj Date : 25-AUG-2002 08:17
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.274	25.274	0.000	5390005	21.865	21.865
m,p-Xylene	24.046	24.046	0.000	11080706	42.239	42.239
TBA	6.055	6.055	0.000	1142300	1994.601	1994.601
MTBE	6.841	6.841	0.000	1382813	23.590	23.590
DIPE	7.467	7.467	0.000	1692946	25.004	25.004
Benzene	11.631	11.631	0.000	5915159	21.574	21.574
Toluene	17.964	17.964	0.000	5650981	21.120	21.120
Chlorobenzene	23.610	23.610	0.000	5941612	21.712	21.712
Ethylbenzene	23.804	23.804	0.000	4942228	21.236	21.236

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	16470711	64.074	64.074
1,3-Dichlorobenzene	29.100	29.100	0.000	5116420	21.374	21.374
1,4-Dichlorobenzene	29.310	29.310	0.000	5328652	19.390	19.390
1,2-Dichlorobenzene	30.046	30.046	0.000	4250853	22.259	22.259
Naphthalene	33.695	33.695	0.000	2239097	15.198	15.198
a,a,a-Trifluorotoluene (sur)	13.507	13.507	0.000	3519809	33.729	33.729
-----	-----	-----	-----	-----	-----	-----

Surrogate Compound Recovery Summary

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER

Level: LOW

Lab Job No: Z708

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
	=====	=====	=====	=====	=====
01	IG236	97			0
02	370830	100			0
03	370831	103			0
04	IG237	101			0
05	370832	101			0
06	370833	100			0
07	370834	103			0
08	370835	104			0
09	370832MS	102			0
10	370832MSD	101			0
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

QC LIMITS

SMC1 = a,a,a-Trifluorotoluene (63-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Spike Recovery Summary

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Matrix Spike - Lab Sample No.: 370832

Level: LOW

MS Sample from Lab Job No: Z708

QA Batch: 7407

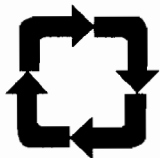
Compound	MS % REC.	BS % REC.	LIMITS
Benzene	104	100	39-150
Toluene	95	100	46-148
Chlorobenzene	85	100	55-135
Ethylbenzene	95	100	32-160
1,3-Dichlorobenzene	90	95	50-141
1,4-Dichlorobenzene	80	90	42-143
1,2-Dichlorobenzene	100	100	37-154

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

This is the Last Page of the Document



EnSolutions, Inc.

1029 N. Florida Mango Rd., Suite #7 • West Palm Beach, FL 33409 • 561-684-9770 • Fax 561-684-9288

March 31, 2003

Mr. Timothy DeMeo
New York State Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101-5407
Attention: PBS Unit

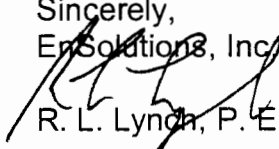
RE: Investigation Report
Petrocelli Electric Company Inc. Facility
22-09 Bridge Plaza North
Long Island City, NY
Spill # 0211175 PBS # 2-606379

Dear Mr. DeMeo:

On behalf of Petrocelli Electric Company Inc. (Petrocelli), EnSolutions, Inc. has prepared the enclosed Investigation Report for spill # 0211175 in regards to the tank test failure, subsequent testing and investigation activities, spill, at the above referenced facility. The purpose of this report is to provide the NYSDEC with the following information:

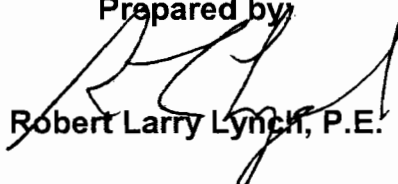
1. The results of the comprehensive testing of the underground storage tank system at the Petrocelli facility.
2. The results investigation activities at the at the subject facility in regards to spill # 0211175.
3. The historical monitoring results at the subject site for the ongoing case, spill # 058567, NYSDEC case manager, Mr. Mark Tibbe.
4. The presence of diesel / #2 free product in up gradient monitoring well MW-6.
5. The significant increase in dissolved contaminate levels in the up gradient monitoring well MW-6.
6. A survey of facilities up gradient of the Petrocelli property.
7. A ground water flow map.
8. Conclusions.
9. Based upon the investigation activities, a request for the closure of spill number 0211175.

Thank you for all your assistance in this matter and if you require any additional information please do not hesitate to call us at (561) 684-9770

Sincerely,
EnSolutions, Inc.

R. L. Lynch, P. E.

**INVESTIGATION REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 0211175**

**Prepared for:
PETROCELLI ELECTRIC COMPANY, INC.**

Prepared by:

Robert Larry Lynch, P.E.

**EnSolutions, Inc.
1029 North Florida Mango Road, Suite 7
West Palm Beach, FL 33409
(561) 684-9770**

March 2003

EnSolutions, Inc.



**INVESTIGATION REPORT
PETROCELLI ELECTRIC COMPANY
22-09 BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

TABLE OF CONTENTS

SECTION I - INTRODUCTION

- A. Spill # 0211175
- B. Area/Site Characterization
- C. Ground Water

SECTION II – SITE INVESTIGATION ACTIVITIES

- A. Ground Water Sampling – February 2003
- B. Free product in Up Gradient Monitoring Well MW-6
- C. Free Product Fingerprinting Analysis
- D. Survey of Up Gradient Facilities of Petrocelli Electric
- E. Removal of Free Product in MW-6
- F. Comprehensive Underground Storage Tank System Testing

SECTION III – SITE INVESTIGATION RESULTS

- A. Results of Comprehensive Underground Storage Tank System Testing
- B. Ground Water Monitoring Results – February 2003
- C. Results of Laboratory Fingerprinting of Free Product in MW-6
- D. Results of Up Gradient Survey
- E. Results of Product Removal – MW-6

SECTION IV – CONCLUSIONS AND RECOMMENDATIONS

- A. Site Investigation Conclusions
- B. Recommendations

SECTION V

FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 February 2003 Ground Water Flow Map
- Figure 4 Up Gradient Survey Map

TABLES

- Table 1 February 2003 Analytical Results Summary
- Table 2 Historical Ground Water Sampling Results



ATTACHMENTS

Attachment 1	NYSDEC Letter of February 7, 2003
Attachment 2	Final Tank Testing Results – A-1 Crown Leak, Inc.
Attachment 3	Laboratory QA/AC Data – February 2003
Attachment 4	Laboratory QA/QC – Fingerprint of Free Product in MW-6
Attachment 5	MW-6 Disposal Manifest
Attachment 6	No Further Action Report – Spill # 97-058567

EnSolutions, Inc.



**INVESTIGATION REPORT
PETROCELLI ELECTRIC COMPANY
22-09 BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 0211175**

SECTION I - INTRODUCTION

A. SPILL # 0211175

On behalf of Petrocelli Electric Company Inc. (Petrocelli), EnSolutions, Inc. (EnSolutions) has prepared this Investigation Report for the underground storage tank system at the Petrocelli facility at 22-09 Queens Bridge Plaza North, Long Island City, New York.

This Investigation Report is required as per the NYSDEC's letter of February 7, 2003, Attachment 1 in Section V, for spill # 0211175, and is result of a discrepancy in the Veeder Root electronic monitoring system and the subsequent initial tank test failure on February 6, 2003 of the underground storage tank containing regular unleaded gasoline due to a stage II vapor recovery line at the Petrocelli facility.

In addition, the site investigation activities were implemented in conjunction with the on going remedial activities, under spill number 97-058567, NYSDEC case manager Mr. Mark Tibbe, under an approved Corrective Action Plan and Stipulation Agreement between Petrocelli and the NYSDEC.

B. AREA / SITE CHARACTERIZATION

The site, the administrative and maintenance facilities for the Petrocelli Electric Company Inc., is located at 22-09 Queens Plaza North, between 22nd and 23rd Streets, Long Island City, Queens County, New York. The area surrounding the site is primarily commercial, with some residential units up-gradient of the site, east on 23rd Street. A site location map is included as Figure 1 in Section V and a site plan illustrating all site features is included as Figure 2 in Section V.

The water source at the subject property and at all surrounding properties is currently from the public water supply. The East River is the nearest surface water to the site and is located approximately 3,000 feet to the west of the facility.

C. GROUND WATER

As a result of a previous spill at the site from the prior owner, spill # 97-058567, on going remediation and ground water monitoring exist at the subject site. This includes quarterly ground water sampling and laboratory analyses which was performed at the

EnSolutions, Inc.



site's seven (7) ground water monitoring wells on February 5, 2003. The seven monitoring wells are labeled as MW-1, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7 and are shown in the site plan, Figure 2 in Section V.

The direction of ground water flow is predicted to be toward the west, in the direction of the East River.



**INVESTIGATION REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 0211175**

SECTION II – SITE INVESTIGATION ACTIVITIES

A. GROUND WATER SAMPLING – FEBRUARY 2003

On February 5, 2003, Terra Nova Associates, under the supervision of EnSolutions, conducted the ground water sampling of the seven ground water monitoring wells at the site. All sampling was conducted in accordance with the standard field sampling practices of the NYSDEC and the USEPA.

Water levels and total depths were measured with a slope indicator electronic water level meter, Model 501, to the nearest 0.01-foot as measured from the top of the inner casing mark or adjacent to the lock, if no mark was present. The water level meter line was wiped with a DI water soaked paper towel as it was retracted from the well. The probe was then rinsed with DI water and paper towel dried. The well depth, depth to water, well diameter and purge water calculations were noted in the field log, and the well calculations to determine one standing column were based on the following:

Casing diameter – 4 inches Gallons/Linear Foot – 0.652

The wells were evacuated with a whale pump. All sampling tubing in the wells was dedicated polyethylene drinking water grade tubing with dedicated Brady foot valves.

Field parameters were monitored before purging and after each casing volume. When three consecutive measurements of all parameters agreed within 10%, or if the well went dry, or 5 volumes was reached, sampling began.

Prior to sampling, a depth to water measurement was taken. If there was sufficient volume in the well, sampling proceeded. If volume was not sufficient, the well was allowed to recover.

All wells were sampled with a laboratory cleaned dedicated Teflon bailer, constructed entirely of Teflon. The field meters used for ground water measurements included the YSI 3500, which was used for temperature, pH and specific conductivity.

Ground water monitoring well MW-5 was not accessible due to frozen water and mud. Product was detected after purging began in well MW-6 and was then checked with an interface probe. The product measured 3.78 feet. The depth to water was measured

EnSolutions, Inc.



13.18 feet and the depth to product was 9.00 feet. No other problems were encountered in the field with the sampling of all other monitoring wells.

Immediately after the sample collection, the pre-labeled sample bottles were placed in a cooler at 4 degrees C and transported on ice to STL Laboratories of Edison, NJ for analyses, accompanied by a chain of custody form, in accordance with the quality control standards. All samples, including field and trip blanks, were analyzed for BTEX and MTBE.

A summary of the field sampling parameters is as follow:

Sample Point	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
Total Depth	15.10	14.90	16.60	14.50	12.0	15.00	15.00
Depth To Water	10.66	9.67	10.07	9.92	-	10.23	10.30
Height To Water Col. (Ft.)	4.4	5.2	6.5	4.6	-	4.8	4.0
One Casing Vol.(Gal)	2.9	3.4	4.3	3.0	-	3.1	0.7
Three Casing Vol. (Gal)	8.7	10.2	12.8	9.0	-	9.3	2.0
Actual Volume Purged (Gal)	9.0	11.0	13.0	9.0	-	10.0	2.5
Date Sampled	2/05/03	2/05/03	2/05/03	2/05/03	NS	2/05/03	2/05/03
Time Sampled	0950	0940	0955	0935	-	0925	1000
Field Parameters							
Ph	6.64	6.47	6.58	6.58	-	6.66	6.76
SCOND um/cm	1183	1032	825	1251	-	1621	2100
Temp C	20.4	20.5	19.9	20.6	-	22.9	21.7
Dissolved Oxygen (Ppm)	0.86	0.85	2.57	1.41	-	1.48	2.83
Appearance	Cloudy	Cloudy	cloudy	cloudy	-	clear	Cloudy
Odor	Odor	Odor	no odor	odor	-	odor	Odor
Purge Method	PP	PP	WP	PP	-	PP	PP
Sample Method	BT	BT	BT	BT	-	BT	BT

BT - BAILER TEFLON WP - WHALE PUMP PP- PERISTALTIC PUMP

B. FREE PRODUCT IN UP GRADIENT MONITORING WELL MW-6

As noted during the ground water sampling, monitoring well MW-6, the most up gradient well at the subject site, and the closest monitoring well to eastern boundary of the Petrocelli facility on 23rd Street was observed to contain free product after purging of this monitoring well was implemented.

Monitoring well MW-6 was checked with an interface probe, and the product in the monitoring well measured 3.78 feet. The depth to water was measured at 13.18 feet and the depth to product was 9.00 feet.

In addition, based upon the product's consistency, the viscosity, the dark color, and an olfactory observation, it appeared that the product was either diesel or #2 heating oil, and not gasoline or other hydrocarbon product.

EnSolutions, Inc.



C. FREE PRODUCT FINGERPRINTING ANALYSIS

To confirm that the free product was either diesel or #2 heating oil, and not gasoline or other hydrocarbon product, a sample of the free product was obtained from MW-6. This sample was placed in a pre-labeled sample bottle, put in a cooler at 4 degrees C and transported on ice to STL Laboratories of Edison, NJ for a fingerprint analysis of the free product, accompanied by a chain of custody form, in accordance with the quality control standards.

D. SURVEY OF UP GRADIENT FACILITIES OF PETROCELLI ELECTRIC

As instructed by Mr. Mark Tibbe, case manager for the Petrocelli facility, spill number 97-058567, a survey of the up gradient area, east, northeast, and northwest, was conducted on March 21, 2003 by Mr. Larry Lynch of EnSolutions to determine the potential for an off site source of hydrocarbons impacting MW-6 at the Petrocelli facility.

E. REMOVAL OF FREE PRODUCT IN MW-6

On March 21, 2003, Earthcare Co. of New York of Deer Park, NY, under the supervision of EnSolutions, Inc. was contracted to pump MW-6 of product and oily water and to transport and dispose of this material at an approved facility.

F. COMPREHENSIVE UNDERGROUND STORAGE TANK SYSTEM TESTING

As required by the NYSDEC letter of November 7, 2003 regarding the new spill # 0211175, Petrocelli contracted A-1 Crown Leak Inc. 366 N. Broadway Suite 410, Jericho, New York 11753, to implement a comprehensive precision test of all underground storage tanks and piping at the Petrocelli facility. This test was implemented to determine if there was a tank failure at the site and to determine, if a failure occurred, the potential for a release of petroleum product.



**INVESTIGATION REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 0211175**

SECTION III – SITE INVESTIGATION RESULTS

**A. RESULTS OF COMPREHENSIVE UNDERGROUND STORAGE TANK
SYSTEM TESTING**

A-1 Crown Leak Inc. of 366 N. Broadway Suite 410 Jericho, New York 11753, performed a comprehensive tightness test on all underground storage tanks and product lines at the Petrocelli facility on March 7, 2003.

This comprehensive precision testing was required due to the underground storage tank containing regular unleaded gasoline that initially did not initially pass the tightness test due to a stage II vapor recovery line that was connected during the original test.

The results of this comprehensive testing showed all underground storage tanks and products lines to be at the Petrocelli passing the required tightness tests.

A copy of the final tank testing report from A-1 Crown Leak Inc., 366 N. Broadway, Suite 410 Jericho, New York 11753, is included as Attachment 2 in Section V.

B. GROUND WATER ANALYTICAL RESULTS – February 5, 2003

The laboratory results of the BTEX and MTBE analyses for the ground water samples obtained indicated:

1. The analytical results of the most up gradient monitoring well, MW-6, on the edge of the Petrocelli property along 23rd Street, is indicative of contamination coming onto the Petrocelli site. The laboratory results from this monitoring well show contamination greater than any other monitoring well results on the subject property or in the down gradient well along 22nd Street.
2. Levels of benzene in all other monitoring wells have declined significantly from the initial notice and appear to be at asymptotic levels.
3. The down gradient off site well, MW-7 located in the sidewalk on 22nd Street shows no constituents of concern above any NYSDEC ground water quality standards or guidance values for ground water.
4. Levels of MTBE have declined from historical levels at the subject site, however, MW-6, the up gradient well at the subject property, now shows the greatest concentration of MTBE on the subject property.
5. With the exception of the up gradient MW-6, no other constituents of concern exceed any the NYSDEC ground water quality standards or guidance values for

EnSolutions, Inc.



ground water in any of the other monitor wells at the site and the additional ground water monitoring well in the sidewalk on 22nd Street.

The analytical results summary are shown in Table 1 in Section V:

A summary table of the historical analytical results, including the August 2002 results, is shown in Table 2 in Section V.

A ground water flow map is included as Figure 3 in Section V.

The laboratory QA/QC for the ground water analyses is included as Attachment 3 in Section V.

C. RESULTS OF LABORATORY FINGERPRINTING OF PRODUCT IN MW-6

The laboratory results of fingerprint analysis of the free product obtained from MW-6 confirmed that this product most closely resembles a Diesel / #2 Fuel Oil.

A copy of the laboratory report and QA/QC for the fingerprint analysis is included as Attachment 4 in Section V.

D. RESULTS OF UP GRADIENT SURVEY

The results of the up gradient survey performed by EnSolutions on March 21, 2003 indicate three potential off site sources up gradient and / or adjacent to the Petrocelli property.

These potential sources are:

1. A retail petroleum sales outlet, Cyprian, located at the NE Corner of 23rd Street and 41st Avenue. Products stored and sold at this location include:

Unleaded regular gasoline
Unleaded premium gasoline
Diesel Fuel
2. The building at 22-19 41st Avenue that has a vent and fill pipe attached to the eastside of this building. The fill pipe has a raised #2 on the surface.
3. The building at 41-9 23rd Street that has a vent pipe and fill cap located in the sidewalk in front of the building. The vent and fill cap are consistent with those used for # 2 fuel oil.

These potential sources are shown up gradient survey map, Figure 4 in Section V.
The results of the up gradient survey performed by EnSolutions on March 21, 2003

EnSolutions, Inc.



E. RESULTS OF PRODUCT REMOVAL – MW-6

On March 21, 2003, Earthcare Co. of New York of Deer Park, NY, under the supervision of EnSolutions, Inc. was contracted to pump MW-6 of product and oily water and to transport and dispose of this material at an approved facility.

A one (1) inch diameter probe was sealed in place at the free product water interface and a vacuum was applied to MW-6. The probe was gradually lowered as the free product / water mixture was pulled from the well. In all, a total of 234 gallons of product / water mixture was removed from the well for off site disposal.

Copies of the disposal manifest are included as Attachment 5 in Section V.

EnSolutions, Inc.



**INVESTIGATION REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 0211175**

SECTION IV – CONCLUSIONS AND RECOMMENDATIONS

A. SITE INVESTIGATION CONCLUSIONS

The results of the site investigation activities confirm that the underground storage tank system at the Petrocelli facility is intact, and soil and ground water have not been impacted. This is based upon the results of the following site investigation activities:

1. The passing results of the comprehensive precision testing of the underground storage tank system at the Petrocelli.
2. There is no indication of a release of gasoline or diesel product from the underground storage tank system at the subject site.
3. It was determined that during the initial tank test, the stage II vapor recovery line was improperly sealed by the technician which caused the initial tank failure results.
4. Soil and ground water have not been impacted at the subject property due to the comprehensive precision test results of the underground storage tank system at the subject site.
5. Diesel / #2 fuel oil has impacted the MW-6, the up gradient monitoring well along 23rd Street at the subject site. This has been confirmed by a laboratory finger print analysis.
6. There is an increase in dissolved phase contamination in up gradient MW-6, the up gradient monitoring well along 23rd Street at the subject site.
7. An off site survey indicates three potential off site sources up gradient and / or adjacent to the Petrocelli property.
8. The is no free product and historically low levels of dissolved phase contamination in all other monitoring wells associated with the site, especially in MW-4 that is located in the vicinity of the tank farm. This has been confirmed by the February 2003 ground water monitoring results.
9. Free product has been removed and properly disposed from the up gradient MW-6, the up gradient monitoring well along 23rd Street at the subject site.



B. RECOMMENDATIONS

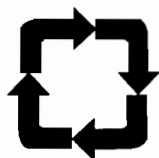
Therefore, based upon:

- the results of the comprehensive precision testing of the underground storage tank system at the subject property,
- the fingerprint analyses of the free product in the up gradient MW-6,
- the initial tank test failure of the gasoline underground storage tank,
- all prior analytical data,
- the downward trends of all constituents of concern to their respective current low levels on the subject site prior to the impact of the up gradient MW-6 from an off site source,
- a review of all information in regards to the site, and
- the off site source of contamination in the up gradient MW-6 at the subject property,

Petrocelli is requesting No Further Action and closure of spill # 02-11175 for the subject site.

A copy of that No Further Action Report for spill # 97-058567, sent to Mr. Mark Tibbe of the NYSDEC, is included as Attachment 6 in Section V.





EnSolutions, Inc.

1029 N. Florida Mango Rd., Suite #7 • West Palm Beach, FL 33409 • 561-684-9770 • Fax 561-684-9288

March 31, 2003

Mr. Mark Tibbe
New York State Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101-5407

RE: Request for No Further Action
Petrocelli Electric Company Inc. Facility
22-09 Queens Bridge Plaza North
Long Island City, NY
Spill # ~~97-058567~~
97-05856

Dear Mr. Tibbe:

On behalf of Petrocelli Electric Company Inc. (Petrocelli), enclosed is the request for no further remedial action at the above referenced facility prepared by EnSolutions, Inc. The purpose of this report is to provide the NYSDEC with the following:

1. The analytical ground water monitoring results from November 2002.
2. Information of the new spill number, 0211175, based upon the results of the initial integrity tank test of the gasoline tank at the Petrocelli facility.
3. The results of a comprehensive tank testing of the underground storage tank system at the subject facility.
4. The diesel / #2 free product in up gradient monitoring well MW-6.
5. The analytical ground water monitoring results from February 2003.
6. The significant increase of dissolved contaminate levels in the up gradient monitoring well MW-6.
7. A potential source survey of facilities up gradient of the Petrocelli property.
8. A ground water flow map.
9. Conclusions.
10. Based upon all information, data and off site source, a request for closure of the existing case for spill number 058567 and a copy of the request for closure of the new case for spill number 0211175.

Thank you for all your assistance in this matter and if you require any additional information please do not hesitate to call us at (561) 684-9770

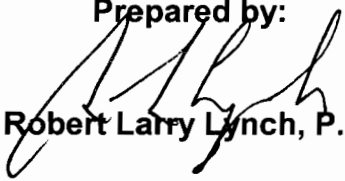
Sincerely,
EnSolutions, Inc.


R. L. Lynch, P. E.

Handwritten notes:
Close
97-05867
and all
wells
2/28/03
546

**NO FURTHER ACTION REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

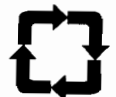
**Prepared for:
PETROCELLI ELECTRIC COMPANY, INC.**

Prepared by:

Robert Larry Lynch, P.E.

**EnSolutions, Inc.
1029 North Florida Mango Road, Suite 7
West Palm Beach, FL 33409
(561) 684-9770**

March 2003

EnSolutions, Inc.



**NO FURTHER ACTION REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

TABLE OF CONTENTS

SECTION I

- A. Introduction
- B. Area/Site Characterization
- C. Ground Water
- D. SVE/AS Remedial System
- E. SVE / AS System Operation

SECTION II

- A. Ground Water Sampling – November 2002
- B. Failure of Initial Tank Integrity Testing and New Spill # 0211175
- C. Free product in Up Gradient Monitoring Well MW-6
- D. Ground Water Sampling – February 2003
- E. Free Product Fingerprinting Analysis
- F. Survey of Up Gradient Facilities of Petrocelli Electric
- G. Removal of Free Product in MW-6
- H. Comprehensive Underground Storage Tank System Testing

SECTION III

- A. Ground Water Analytical Results – November 2002
- B. Ground Water Analytical Results – February 2003
- C. Results of Laboratory Fingerprinting of Free Product in MW-6
- D. Results of Comprehensive Underground Storage Tank System Testing
- E. Results of Up Gradient Survey

SECTION IV

- A. Trends
- B. Conclusions
- C. Request For No Further Action and Closure of Spill # 97-058567
- D. Request For No Further Action and Closure of Spill # 0211175

SECTION V

FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 February 2003 Ground Water Flow Map
- Figure 4 Up Gradient Survey Map

EnSolutions, Inc.



TABLES

Table 1	November 2002 Analytical Results Summary
Table 2	February 2003 Analytical Results Summary
Table 3	Historical Ground Water Sampling Results

ATTACHMENTS

Attachment 1	Laboratory QA/QC Data – November 2002
Attachment 2	Laboratory QA/QC Data – February 2003
Attachment 3	Laboratory QA/QC – Fingerprint of Free Product in MW-6
Attachment 4	A-1 Crown Leak Inc. Tank Testing Report
Attachment 5	MW-6 Water Disposal Manifest
Attachment 6	Supplementary Report – Spill # 0211175



**NO FURTHER ACTION REPORT
PETROCELLI ELECTRIC COMPANY
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION I

A. INTRODUCTION

On behalf of Petrocelli Electric Company Inc. (Petrocelli), EnSolutions, Inc. (EnSolutions) has prepared this No Further Action Report for the remedial actions implemented at the Petrocelli facility at 22-09 Queens Bridge Plaza North, Long Island City, New York.

This No Further Action Report is part of the approved Corrective Action Plan implemented at the site as a result of a petroleum hydrocarbon release that occurred under the prior property owner.

B. AREA / SITE CHARACTERIZATION

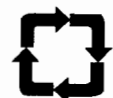
The site, the administrative and maintenance facilities for the Petrocelli Electric Company Inc., is located at 22-09 Queens Plaza North, between 22nd and 23rd Streets, Long Island City, Queens County, New York. The area surrounding the site is primarily commercial, with some residential units up-gradient of the site, east on 23rd Street. A site location map is included as Figure 1 in Section V, and a site plan illustrating all site features is included as Figure 2 in Section V.

The water source at the subject property and at all surrounding properties is currently from the public water supply. The East River is the nearest surface water to the site and is located approximately 3,000 feet to the west of the facility.

C. GROUND WATER

As a result of the soil delineation and ground water sampling and analyses performed at the subject property, six (6) ground water monitoring wells were installed on the subject property in May 1998. The six ground water monitoring wells were installed as both soil vapor extraction points and as ground water monitoring points in order to address and monitor the ground water contamination at the subject property. The six monitoring wells are labeled as MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6 and are shown in the site plan, Figure 2 in Section V.

EnSolutions, Inc.



In addition, as part of the ground water investigation and, as specified by the NYSDEC, one (1) additional ground water monitoring well was installed in the sidewalk of 22nd Street to confirm ground water direction and the extent of the ground water contamination at the site. This monitoring well was designated at MW-7 and is shown in Figure 2 in Section V.

The direction of ground water flow is predicted to be toward the west, in the direction of the East River.

D. SVE/AS REMEDIAL SYSTEM

Based on the site investigation activities implemented at the site and reported to the NYSDEC, which included the soil analytical data, ground water laboratory analytical data and a Corrective Action Plan, an approved Stipulation Agreement between Petrocelli and the NYSDEC, including an approved air permit, was issued for the site.

As part of the Correction Action Plan, a Soil Vapor Extraction / Air Sparging (SVE/AS) Remedial System was approved and was in operation to address the petroleum hydrocarbon contamination at the site.

The SVE was connected to six extraction points, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6, to address the levels of contaminants at the site. The SVE component of the remedial system induced airflow in the subsurface using an above ground vacuum pump system. The induced airflow brings clean air in contact with the contaminated soil. The contaminated soil vapors drawn off by the SVE allows the soil matrix to re-establish the soil / pore moisture partitioning with the contaminants that were present.

The SVE installed utilized a positive displacement vacuum pump that utilizes an electronic variable speed drive. The drive received its speed command from a Programmable Logic Controller (PLC), which permits the monitoring of all control parameters, such as pump speed and vacuum level and also provided for the modification of system parameters.

The air sparge component of the remedial system provided oxygen to stimulate biological activity in the subsurface. The air sparging system was design to provide sufficient oxygen to stimulate bioactivity, while minimizing the mobilization of dissolved hydrocarbons. To maintain a closed loop circulation of air injected into the ground water, the air sparging points, SP-1, SP-2, SP-3 and SP-4, were located within 30 feet of the vapor extraction points. These points were well within the zone of influence for the SVE system and were configured with a gate valve to control flow to each individual sparge point in order to optimize air sparging.

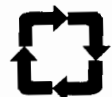


E. SVE / AS SYSTEM OPERATION

Based upon the Stipulation Agreement between the NYSDEC and Petrocelli, the SVE segment of the remedial system started operation in December 1998. As part of the SVE operation, a zone of influence test to evaluate the SVE system was performed during the first quarter of 1999 to determine the effectiveness of the remedial system at the subject site. Utilizing the data obtained from the zone of influence test, the pneumatic zone of influence that displays capture of the vadose zone was established for this site.

The air sparge segment of the remedial system to enhance the remedial efforts on the site became operational on May 6, 1999.

EnSolutions, Inc.



**NO FURTHER ACTION REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97- 058567**

SECTION II

A. GROUND WATER SAMPLING – November 25, 2002

On November 25, 2002, Terra Nova Associates, under the supervision of EnSolutions, conducted the ground water sampling of the seven ground water monitoring wells at the site. All sampling was conducted in accordance with the standard field sampling practices of the NYSDEC and the USEPA.

Water levels and total depths were measured with a slope indicator electronic water level meter, Model 501, to the nearest 0.01-foot as measured from the top of the inner casing mark or adjacent to the lock, if no mark was present. The water level meter line was wiped with a DI water soaked paper towel as it was retracted from the well. The probe was then rinsed with DI water and paper towel dried. The well depth, depth to water, well diameter and purge water calculations were noted in the field log, and the well calculations to determine one standing column were based on the following:

Casing diameter – 4 inches

Gallons/Linear Foot – 0.652

The wells were evacuated with a whale pump. All sampling tubing in the wells was dedicated polyethylene drinking water grade tubing with dedicated Brady foot valves.

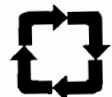
Field parameters were monitored before purging and after each casing volume. When three consecutive measurements of all parameters agreed within 10%, or if the well went dry, or 5 volumes was reached, sampling began.

Prior to sampling, a depth to water measurement was taken. If there was sufficient volume in the well, sampling proceeded. If volume was not sufficient, the well was allowed to recover.

All wells were sampled with a laboratory cleaned dedicated Teflon bailer, constructed entirely of Teflon. The field meters used for ground water measurements included the YSI 3500, which was used for temperature, pH and specific conductivity.

Ground water monitoring well MW-5 was under water and could not be open for a water level measurement or sampling. In addition, the laboratory noted that the sample from

EnSolutions, Inc.



MW-3, though accepted at the laboratory and signed for in the chain of custody, was misplaced and was not analyzed.

No problems were encountered in the field with the sampling the other monitoring wells sampled. Immediately after the sample collection, the pre-labeled sample bottles were placed in a cooler at 4 degrees C and transported on ice to STL Laboratories of Edison, NJ for analyses, accompanied by a chain of custody form, in accordance with the quality control standards. All samples, including field and trip blanks, were analyzed for BTEX and MTBE.

A summary of the field sampling parameters is as follow:

Sample Point	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
Total Depth	15.10	14.90	16.60	14.50	12.00	15.00	15.00
Depth To Water	9.83	8.35	8.83	8.62	7.46	10.87	9.55
Height To Water Col. (Ft.)	5.3	6.6	7.8	5.9	4.5	4.1	4.8
One Casing Vol.(Gal)	3.4	4.3	5.1	3.8	3.0	2.7	0.8
Three Casing Vol. (Gal)	10.3	12.8	15.1	11.5	8.9	8.152.3	2.3
Actual Volume Purged (Gal)	11	13	25	12	4*	8.5	2.5
Date Sampled	11/25/02	11/25/02	11/25/02	11/25/02	11/25/02	11/25/02	11/25/02
Time Sampled	0840	0855	0920	0845	0935	0925	0905
Field Parameters							
Ph	6.85	6.57	6.64	6.60	7.72	6.68	6.74
SCOND um/cm	942	418	771	1136	257	1275	1096
Temp C	17.1	16.6	16.6	15.9	14.2	18.0	16.5
Dissolved Oxygen (Ppm)	1.42	1.22	1.88	1.17	0.62	0.86	2.13
Appearance	clear	Cloudy	cloudy	cloudy	cloudy	clear	cloudy
Odor	odor	Odor	no odor	odor	odor	odor	odor
Purge Method	PP	PP	WP	PP	PP	PP	PP
Sample Method	BT	BT	BT	BT	BT	BT	BT

BT - BAILER TEFLON WP - WHALE PUMP PP- PERISTALTIC PUMP

B. FAILURE OF INITIAL TANK INTEGRITY TESTING - NEW SPILL # 0211175

On February 6, 2003, based upon a discrepancy in the Veedor Root electronic monitoring system and the subsequent initial test failure of the underground storage tank containing regular unleaded gasoline due to a stage II vapor recovery line, the NYSDEC was notified and the site was assigned spill # 0211175.

EnSolutions, Inc.



C. GROUND WATER SAMPLING – FEBRUARY 2003

On February 5, 2003, Terra Nova Associates, under the supervision of EnSolutions, conducted the ground water sampling of the seven ground water monitoring wells at the site. All sampling was conducted in accordance with the standard field sampling practices of the NYSDEC and the USEPA.

Water levels and total depths were measured with a slope indicator electronic water level meter, Model 501, to the nearest 0.01-foot as measured from the top of the inner casing mark or adjacent to the lock, if no mark was present. The water level meter line was wiped with a DI water soaked paper towel as it was retracted from the well. The probe was then rinsed with DI water and paper towel dried. The well depth, depth to water, well diameter and purge water calculations were noted in the field log, and the well calculations to determine one standing column were based on the following:

Casing diameter – 4 inches Gallons/Linear Foot – 0.652

The wells were evacuated with a whale pump. All sampling tubing in the wells was dedicated polyethylene drinking water grade tubing with dedicated Brady foot valves.

Field parameters were monitored before purging and after each casing volume. When three consecutive measurements of all parameters agreed within 10%, or if the well went dry, or 5 volumes was reached, sampling began.

Prior to sampling, a depth to water measurement was taken. If there was sufficient volume in the well, sampling proceeded. If volume was not sufficient, the well was allowed to recover.

All wells were sampled with a laboratory cleaned dedicated Teflon bailer, constructed entirely of Teflon. The field meters used for ground water measurements included the YSI 3500, which was used for temperature, pH and specific conductivity.

Ground water monitoring well MW-5 was not accessible due to frozen water and mud. Product was detected after purging began in well MW-6 and was then checked with an interface probe. The product measured 3.78 feet. The depth to water was measured at 13.18 feet and the depth to product was 9.00 feet. No other problems were encountered in the field with the sampling of all other monitoring wells.

Immediately after the sample collection, the pre-labeled sample bottles were placed in a cooler at 4 degrees C and transported on ice to STL Laboratories of Edison, NJ for analyses, accompanied by a chain of custody form, in accordance with the quality control standards. All samples, including field and trip blanks, were analyzed for BTEX and MTBE.

A summary of the field sampling parameters is as follow:

EnSolutions, Inc.



Sample Point	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
Total Depth	15.10	14.90	16.60	14.50	12.0	15.00
Depth To Water	10.40	9.32	9.77	9.49	-	13.18
Height To Water Col. (Ft.)	4.7	5.6	6.8	5.0	-	1.8
One Casing Vol.(Gal)	3.1	3.6	4.4	3.0	-	1.2
Three Casing Vol. (Gal)	9.0	10.9	13.3	9.8	-	3.6
Actual Volume Purged (Gal)	10.0	11.0	15.0	10.0	-	1.5
Date Sampled	2/05/03	2/05/03	2/05/03	2/05/03	NS	2/05/03
Time Sampled	1010	1230	1245	1015	-	1030
Field Parameters						
Ph	6.66	6.45	6.47	6.50	-	6.38
SCOND um/cm	850	620	657	945	-	1450
Temp C	12.3	13.0	12.4	12.5	-	12.4
Dissolved Oxygen (Ppm)	2.42	3.31	2.03	1.27	-	0.44
Appearance	cloudy	cloudy	cloudy	cloudy	-	cloudy
Odor	odor	odor	odor	odor	-	odor
Purge Method	PP	PP	WP	PP	-	PP
Sample Method	BT	BT	BT	BT	-	BT

BT - BAILER TEFLON WP - WHALE PUMP PP- PERISTALTIC PUMP

D. FREE PRODUCT IN UP GRADIENT MONITORING WELL MW-6

As noted during the ground water sampling, monitoring well MW-6, the most up gradient well at the subject site, and the closest monitoring well to eastern boundary of the Petrocelli facility on 23rd Street was observed to contain free product after purging of this monitoring well was implemented.

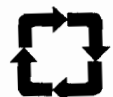
Monitoring well MW-6 was checked with an interface probe, and the product in the monitoring well measured 3.78 feet. The depth to water was measured at 13.18 feet and the depth to product was 9.00 feet.

In addition, based upon the product's consistency, the viscosity, the dark color, and an olfactory observation, it appeared that the product was either diesel or #2 heating oil, and not gasoline or other hydrocarbon product.

E. FREE PRODUCT FINGERPRINTING ANALYSIS

To confirm that the free product was either diesel or #2 heating oil, and not gasoline or other hydrocarbon product, a sample of the free product was obtained from MW-6. This sample was placed in a pre-labeled sample bottle, put in a cooler at 4 degrees C and transported on ice to STL Laboratories of Edison, NJ for a fingerprint analysis of the free product, accompanied by a chain of custody form, in accordance with the quality control standards.

EnSolutions, Inc.



F. SURVEY OF UP GRADIENT FACILITIES OF PETROCELLI ELECTRIC

As instructed by Mr. Mark Tibbe, case manager for the Petrocelli facility, spill number 97-058567, a survey of the up gradient area, east, northeast, and northwest, was conducted on March 21, 2003 by Mr. Larry Lynch of EnSolutions to determine the potential for an off site source of hydrocarbons impacting MW-6 at the Petrocelli facility.

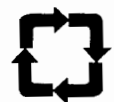
G. REMOVAL OF FREE PRODUCT IN MW-6

On March 21, 2003, Earthcare Co. of New York of Deer Park, NY, under the supervision of EnSolutions, Inc. was contracted to pump MW-6 of product and oily water and to transport and dispose of this material at an approved facility.

H. COMPREHENSIVE UNDERGROUND STORAGE TANK SYSTEM TESTING

As required by the NYSDEC letter of November 7, 2003 in regards to the new spill # 0211175, Petrocelli contracted A-1 Crown Leak Inc. 366 N. Broadway Suite 410, Jericho, New York 11753, to implement a comprehensive precision test of all underground storage tanks, piping and other components at the Petrocelli facility. This test was implemented to determine if there was a tank failure at the site and to determine, if a failure occurred, the potential for a release of petroleum product.

EnSolutions, Inc.



**NO FURTHER ACTION REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY
SPILL # 97-058567**

SECTION III

A. GROUND WATER ANALYTICAL RESULTS – November 25, 2002

The laboratory results of the BTEX and MTBE analyses for the ground water samples obtained indicated:

1. MW-6, the most up gradient well that is closest to the eastern side of the subject property, appears to be impacted from an off site source. The results show levels of benzene increased from 2.9 ppb in May 2002 to 120 ppb in November 2002, total xylenes increased from 1.4 ppb in May 2002 to 1300 ppb in November 2002, toluene increased from 1.9 ppb in May 2002 to 580 ppb in November 2002 and ethylbenzene increased from 0.64 ppb in May 2002 to 330 ppb in November 2002.
2. However, levels of benzene continue to reflect asymptotic levels at all other monitoring wells on the site, with the highest contaminate level in MW-1 of 6.4 ppb and non detect results for the down gradient well along 22nd Street.
3. Levels of MTBE continue to reflect asymptotic levels for the subject property.
4. With the exception of the up gradient MW-6, no other constituents of concern exceed any the NYSDEC ground water quality standards or guidance values for ground water on the subject property or the additional ground water monitoring well in the sidewalk in 22nd Street.

The analytical results summary are shown in Table 1 in Section V:

A summary table of the historical analytical results, including the November 2002 results, is shown in Table 3 in Section V.

The laboratory QA/QC for the ground water analyses is included as Attachment 1 in Section V.

B. GROUND WATER ANALYTICAL RESULTS – February 5, 2003

The laboratory results of the BTEX and MTBE analyses for the ground water samples obtained indicated:

1. The analytical results of the most up gradient monitoring well, MW-6, on the edge of the Petrocelli property along 23rd Street, is indicative of contamination

EnSolutions, Inc.



coming onto the Petrocelli site. The laboratory results from this monitoring well show contamination greater than any other monitoring well results on the subject property or in the down gradient well along 22nd Street.

2. Levels of benzene in all other monitoring wells have declined significantly from the initial notice and appear to be at asymptotic levels.
3. The down gradient off site well, MW-7 located in the sidewalk on 22nd Street shows no constituents of concern above any NYSDEC ground water quality standards or guidance values for ground water.
4. Levels of MTBE have declined from historical levels at the subject site, however, MW-6, the up gradient well at the subject property, now shows the greatest concentration of MTBE on the subject property.
5. With the exception of the up gradient MW-6, no other constituents of concern exceed any the NYSDEC ground water quality standards or guidance values for ground water in any of the other monitor wells at the site and the additional ground water monitoring well in the sidewalk on 22nd Street.

The analytical results summary are shown in Table 2 in Section V:

A summary table of the historical analytical results, including the August 2002 results, is shown in Table 3 in Section V.

A ground water flow map is included as Figure 3 in Section V.

The laboratory QA/QC for the ground water analyses is included as Attachment 2 in Section V.

C. RESULTS OF LABORATORY FINGERPRINTING OF PRODUCT IN MW-6

The laboratory results of fingerprint analysis of the free product obtained from MW-6 confirmed that this product most closely resembles a Diesel / #2 Fuel Oil.

A copy of the laboratory report and QA/QC for the fingerprint analysis is included as Attachment 3 in Section V.

D. RESULTS OF PRECISION UNDERGROUND STORAGE TANK TESTING

A-1 Crown Leak Inc. of 366 N. Broadway Suite 410 Jericho, New York 11753, performed a comprehensive tightness test on all underground storage tanks and product lines at the Petrocelli facility on March 7, 2003.

This comprehensive precision testing was required due to the underground storage tank containing regular unleaded gasoline that initially did not initially pass the tightness test due to a stage II vapor recovery line that was connected during the original test.

The results of this comprehensive testing showed all underground storage tanks and products lines to be at the Petrocelli passing the required tightness tests.

EnSolutions, Inc.



A copy of the final report from A-1 Crown Leak Inc., 366 N. Broadway, Suite 410 Jericho, New York 11753, is included as Attachment 4 in Section V.

E. RESULTS OF UP GRADIENT SURVEY

The results of the up gradient survey performed by EnSolutions on March 21, 2003 indicate three potential off site sources up gradient and / or adjacent to the Petrocelli property.

These potential sources are:

1. A retail petroleum sales outlet, Cyprian, located at the NE Corner of 23rd Street and 41st Avenue. Products stored and sold at this location include:

Unleaded regular gasoline
Unleaded premium gasoline
Diesel Fuel
2. The building at 22-19 41st Avenue that has a vent and fill pipe attached to the east side of this building. The fill pipe has a raised #2 on the surface.
3. The building at 41-9 23rd Street that has a vent pipe and fill cap located in the sidewalk in front of the building. The vent and fill cap are consistent with those used for # 2 fuel oil.

No P.B.S.
No P.B.S.

These potential sources are shown up gradient survey map, Figure 4 in Section V.

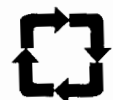
F. RESULTS OF FREE PRODUCT REMOVAL – MW-6

On March 21, 2003, Earthcare Co. of New York of Deer Park, NY, under the supervision of EnSolutions, Inc. was contracted to pump MW-6 of product and oily water and to transport and dispose of this material at an approved facility.

A one (1) inch diameter probe was sealed in place at the free product water interface and a vacuum was applied to MW-6. The probe was gradually lowered as the free product / water mixture was pulled from the well. In all, a total of 234 gallons of product / water mixture was removed from the well for off site disposal.

Copies of the disposal manifest are included as Attachment 5 in Section V.

EnSolutions, Inc.



**NO FURTHER ACTION REPORT
PETROCELLI ELECTRIC COMPANY, INC.
22-09 QUEENS BRIDGE PLAZA NORTH
LONG ISLAND CITY, NY**

SECTION IV

A. TRENDS

The ground water monitoring well results, from the November 25, 2002 and February 6, 2003, sampling continued to show low levels of all potential constituents of concern at the subject property, with the exception of MW-6, the up gradient well along 23rd Street and the monitoring well that contained diesel / #2 free product.

The low levels of contaminants at all the other site wells and from the off site MW-7, down gradient of the subject property, indicates the active remedial efforts at the subject site have reached the asymptotic levels and further operation of an active remedial system at this site is not warranted.

However, based upon the increasing contaminate results from November 25, 2002 to February 6, 2003 of all BTEX constituents of concern and also MTBE in the up gradient MW-6, it is apparent that an off site source of contamination is impacting the subject property with free product and dissolved phase contamination.

B. CONCLUSIONS

Based upon:

- The initial site closure information,
- the remedial investigation analytical results from the ground water sampling of November 25, 2002 and February 6, 2003,
- the free product in the up gradient MW-6 being diesel,
- the initial tank testing failure was from the gasoline underground storage tank
- the passing of the comprehensive follow up precision testing of the underground storage tank system at the subject site,
- the increasing dissolved phase contamination in up gradient MW-6,
- the low levels of contaminants in the other monitoring wells associated with the site, especially MW-4 in the vicinity of the tank farm
- the very small levels of contaminants in the off site down gradient well, MW-7, and
- the trends prior to the impact from an off site up gradient source,

EnSolutions, Inc. believes that active remedial efforts at the subject site had reached asymptotic levels and further active remedial system at this site is not warranted.

EnSolutions, Inc.



C. REQUEST FOR NO FURTHER ACTION & CLOSURE OF SPILL # 97-058567

Therefore, based upon analytical data, the downward trends of all constituents of concern to their respective current low levels on the subject site, the up gradient source of contamination impacting the subject property, and a review of all information and data in regards to the site, and the precision tank testing results, Petrocelli is requesting No Further Action and closure of spill # 97-058567 for the subject site.

D. REQUEST FOR NO FURTHER ACTION & CLOSURE OF SPILL # 0211175

In addition, based upon:

- the results of the comprehensive precision testing of the underground storage tank system at the subject property,
- the fingerprint analyses of the free product in the up gradient MW-6,
- the initial tank test failure of the gasoline underground storage tank,
- all prior analytical data,
- the downward trends of all constituents of concern to their respective current low levels on the subject site prior to the impact of the up gradient MW-6 from an off site source, and
- a review of all information in regards to the site,

Petrocelli will be submitting a supplementary report to Mr. Tim DeMeo requesting No Further Action and closure of spill # 0211175.

A copy of that supplementary report for spill # 0211175, sent to Mr. Timothy DeMeo of the NYSDEC, is included as Attachment 6 in Section V.

EnSolutions, Inc.



Figure 1 - Site Location Map

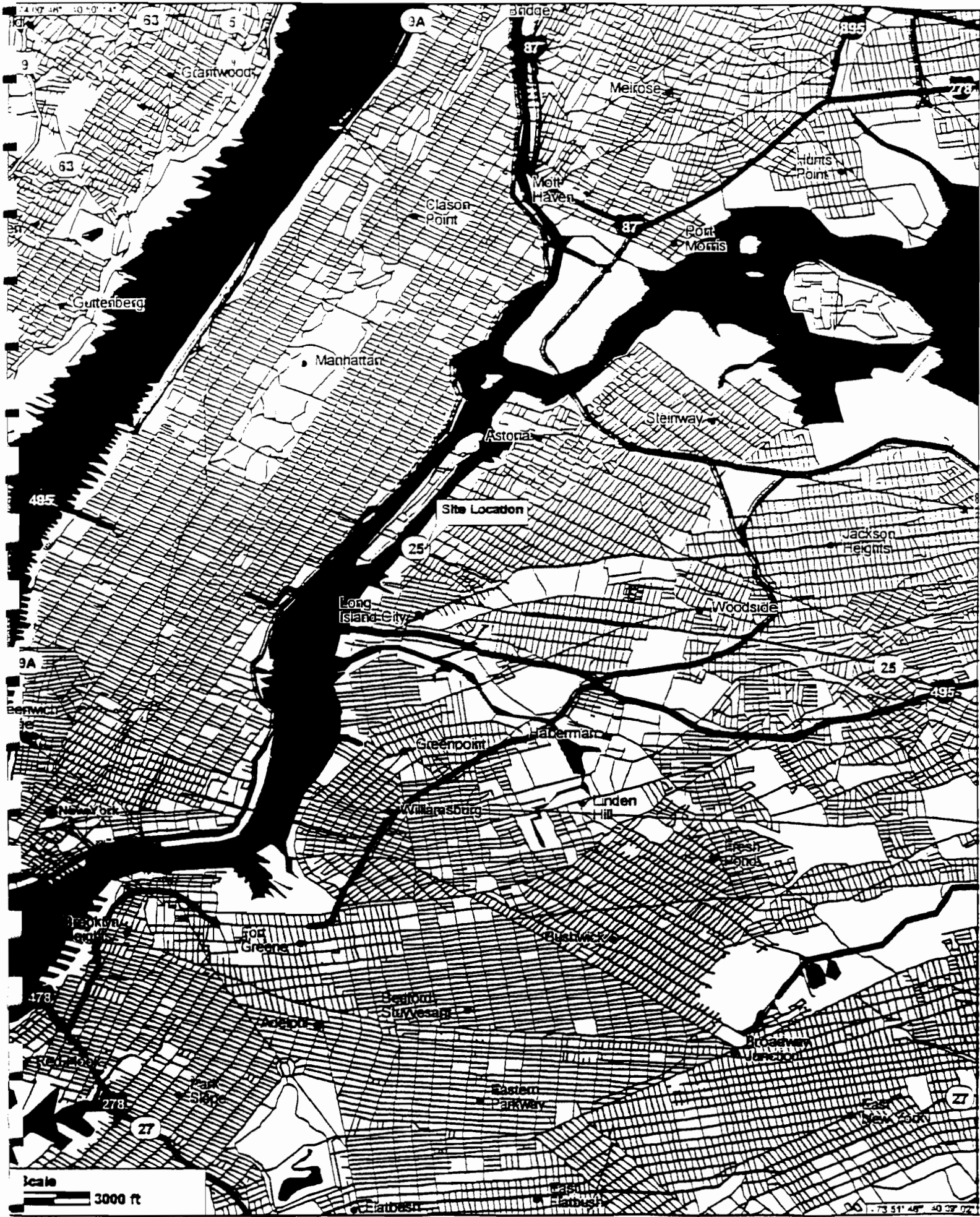


FIGURE 2
SITE PLAN



22nd STREET SIDEWALK

MW-7

MW-1

MW-2

MW-3

REMEDIAL
SYSTEM

SP 2

SP 1

Canopy

Canopy

ONE STORY
COMMERCIAL
BUILDING

Tank Farm



MW-4


SP 4

MW-5

SP 3

MW 6

KEY	
	Monitor Well
	Spargue Point

DATE	October 2001	EnSolutions, Inc. 66 Elm Street Dover, NJ 07803
DESCRIPTION	 FIGURE 2 PETROCELLI FACILITY SITE PLAN	
TITLE	22.09 Queens Bridge Plaza North Long Island City, NY	
DRAWN BY	S. KOTEN	SCALE AS SHOWN

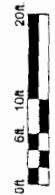
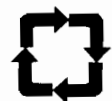


FIGURE 3

FEBRUARY 2003 GROUND WATER FLOW MAP



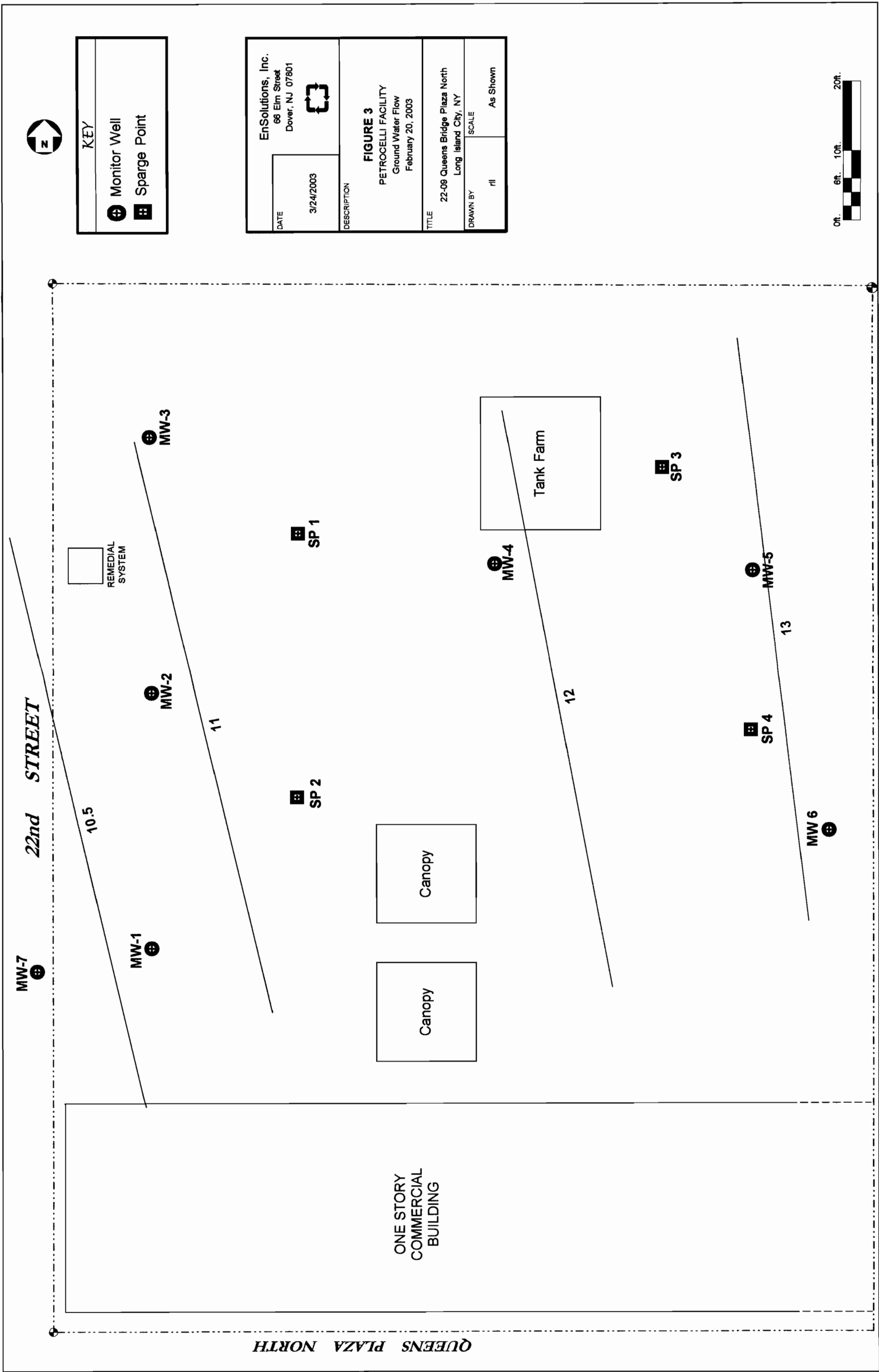
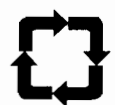
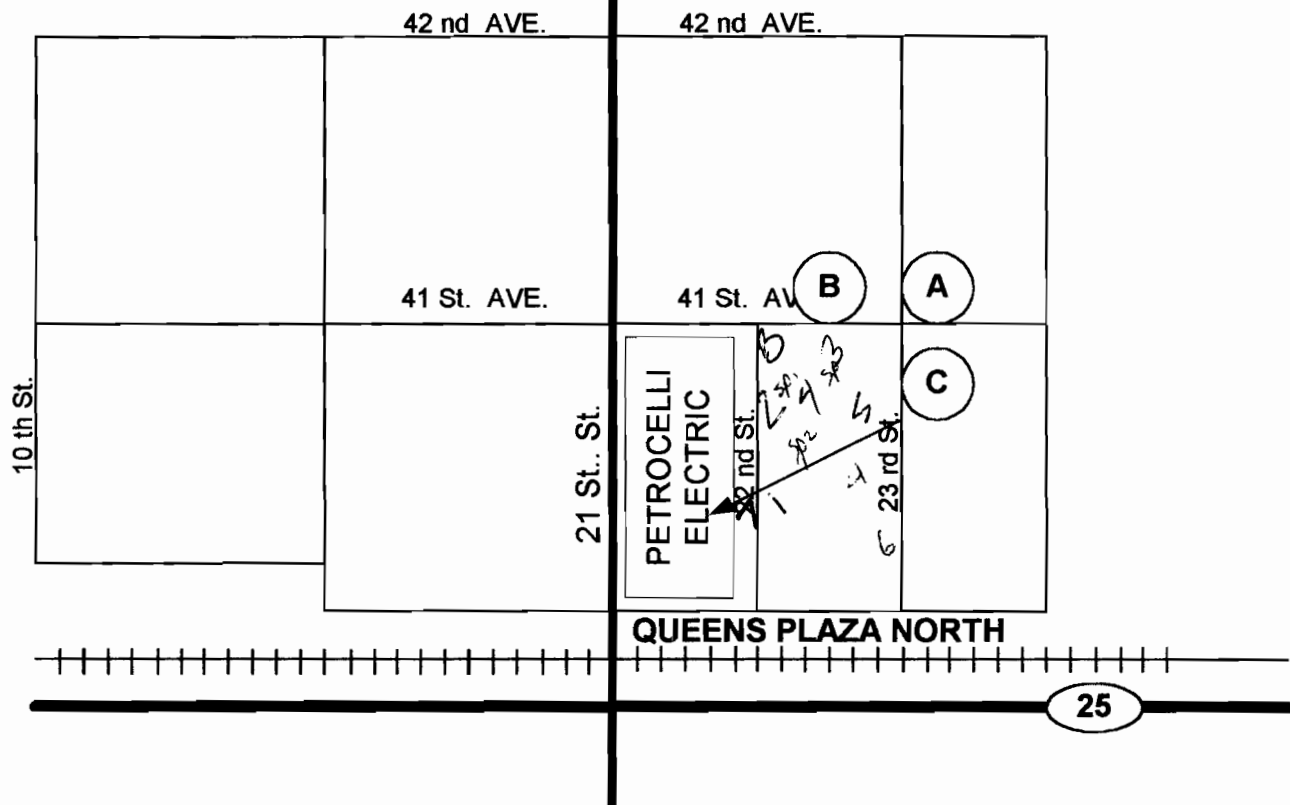


FIGURE 4

UP GRADIENT SURVEY MAP





C
Building
41-09 23rd Street
Products
Vent Line and Fill Line
Fill Cap Consistent with # 2 Fuel Oil

← GROUND WATER FLOW DIRECTION

<p>EnSolutions, Inc. 66 Elm Street Dover, NJ 07801</p>	<p>DATE 3/25/03</p>
<p>DESCRIPTION</p> <p align="center"> FIGURE 2 Spill # 97-058567 Spill # 02-11175 PETROCELLI ELECTRIC AREA SURVEY March 21, 2003 </p>	

TABLES

EnSolutions, Inc.



TABLE 1

NOVEMBER 2002 ANALYTICAL RESULTS SUMMARY

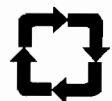


Table 1
Ground Water Monitoring Results
November 25, 2002

Petrocelli Electric
2209 22nd Street
Long Island City, NY

All results in parts per billion - ppb

BTEX/MTBE (ug/l)	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	Nov-02	Nov-02	Nov-02	Nov-02	Nov-02	Nov-02	Nov-02
Benzene	6.2	3.4	3.1	0.57	2.4	120	ND
Toluene	153	10	ND	ND	20	580	ND
Ethylbenzene	11	0.98	ND	0.51	11	330	ND
MTBE	24	3.2	170	5	2.5	ND	0.85
Total Xylenes	11	5.2	ND	0.81	65	1300	0.25

ND-Non Detect

EnSolutions, Inc.



TABLE 2

FEBRAURY 2003 ANALYTICAL RESULTS SUMMARY



Table 2
Ground Water Monitoring Results
February 5, 2003

Petrocelli Electric
2209 22nd Street
Long Island City, NY

All results in parts per billion - ppb

BTEX/MTBE (ug/l)	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	Feb-03	Feb-03	Feb-03	Feb-03	Feb-03	Feb-03	Feb-03
Benzene	ND	4.8	ND	11	2.4	100	ND
Toluene	7	ND	ND	3.6	20	670	ND
Ethylbenzene	6.7	ND	ND	54	11	320	0.55
MTBE	330	160	85	38	2.5	430	0.42
Total Xylenes	ND	ND	ND	14	65	1600	ND

ND-Non Detect

EnSolutions, Inc.

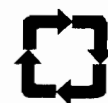


TABLE 3

HISTORICAL GROUND WATER SAMPLING RESULTS



Table 3
Petrocelli Electric
2209 Queens Plaza North
Long Island City, NY

Historical BTEX / MTBE Summary Table

ND – Non Detect

NS – Not Sampled

* Well Did Not Exist

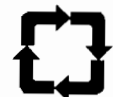
BTEX/MTBE (ug/l)	MW-1											
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02	Nov-02	Feb-03
Benzene	45	ND	ND	ND	ND	3.5	1.9	6	0.97	2.2	6.2	ND
Toluene	ND	ND	ND	ND	4.3	ND	1.2	ND	ND	2.3	153	7
Ethylbenzene	58	27	1.9	ND	5.1	5.9	N	16	3.8	4.3	11	6.7
MTBE	590	200	700	220	270	130	53	10	34	86	24	330
Total Xylenes	30	ND	ND	ND	ND	ND	ND	3.2	ND	ND	11	ND
BTEX/MTBE (ug/l)	MW-2											
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02	Nov-02	Feb-03
Benzene	ND	ND	58	36	ND	2.4	1.9	ND	ND	23	3.4	4.8
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	ND
Ethylbenzene	ND	ND	14	ND	ND	ND	0.48	ND	ND	1.8	0.98	ND
MTBE	520	2500	690	650	ND	32	30	330	3.1	350	3.2	160
Total Xylenes	ND	ND	ND	ND	150	ND	ND	ND	ND	ND	5.2	ND
BTEX/MTBE (ug/l)	MW-3											
	Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02	Nov-02	Feb-03
Benzene	ND	NS	ND	ND	ND	25	ND	NS	NS	4.1	3.1	ND
Toluene	ND	NS	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND
Ethylbenzene	ND	NS	22	7.8	ND	ND	ND	NS	NS	ND	0.51	ND
MTBE	22	NS	68	59	ND	240	250	NS	NS	160	5	85
Total Xylenes	ND	NS	ND	ND	19	ND	ND	NS	NS	ND	0.81	ND

EnSolutions, Inc.



BTEX/MTBE (ug/l)		MW-4											
		Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02	Nov-02	Feb-03
Benzene		77	ND	4.9	9.2	20	5.1	3.9	6	5.4	6.9	0.57	11
Toluene		14	ND	ND	ND	ND	0.7	0.67	ND	7.8	2.8	ND	3.6
Ethylbenzene		250	ND	2.8	6.1	8	9.1	3.5	16	0.72	25	0.51	54
MTBE		280	460	73	50	ND	10	6.9	10	4.9	9	5	38
Total Xylenes		370	ND	18	ND	52	5.7	1.4	3.2	3.2	9.2	0.81	14
BTEX/MTBE (ug/l)		MW-5											
		Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02	Nov-02	Feb-03
Benzene		ND	ND	ND	ND	ND	NS	NS	ND	NS	NS	2.4	2.4
Toluene		ND	ND	ND	ND	ND	NS	NS	ND	NS	NS	20	20
Ethylbenzene		ND	ND	ND	ND	ND	NS	NS	ND	NS	NS	11	11
MTBE		ND	ND	ND	ND	ND	NS	NS	1.5	NS	NS	2.5	2.5
Total Xylenes		ND	ND	ND	ND	ND	NS	NS	ND	NS	NS	65	65
BTEX/MTBE (ug/l)		MW-6											
		Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02	Nov-02	Feb-03
Benzene		ND	ND	ND	21	ND	13	3	2	2.9	73	120	100
Toluene		ND	ND	ND	4.7	ND	ND	ND	ND	1.9	400	580	670
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	0.64	87	330	320
MTBE		6200	430	190	710	ND	470	100	74	22	160	ND	430
Total Xylenes		ND	41	ND	ND	ND	ND	ND	ND	1.4	480	1300	1600
BTEX/MTBE (ug/l)		MW-7											
		Apr-99	Oct-99	Mar-00	Sep-00	Feb-01	Aug-01	Dec-01	Feb-02	May-02	Aug-02	Nov-02	Feb-03
Benzene		*	*	*	*	*	30	4.3	ND	1.2	0.39	ND	ND
Toluene		*	*	*	*	*	31	3.5	ND	1.6	0.69	ND	ND
Ethylbenzene		*	*	*	*	*	27	4.9	4.3	0.5	0.5	ND	0.55
MTBE		*	*	*	*	*	71	57	36	36	5.1	0.85	.042
Total Xylenes		*	*	*	*	*	25	5	5	0.42	0.42	0.25	ND

EnSolutions, Inc.



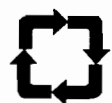
ATTACHMENTS



ATTACHMENT 1

LABORATORY QA/QC DATA
NOVEMBER 2002

EnSolutions, Inc.





STL

12/26/2002

EnSolutions, Inc.
1029 North Florida Mango Road
Suite #7
West Palm Beach, FL 33409

Attention: Mr. Howard Fredericks

Laboratory Results
Job No. D242 - Petrocelli Electric

Dear Mr. Fredericks:

Enclosed are the results you requested for the following sample(s) received at our laboratory on November 25, 2002.

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
393346	MW-1	BTEX GC w/MTBE
393347	MW-4	BTEX GC w/MTBE
393348	MW-2	BTEX GC w/MTBE
393349	MW-7	BTEX GC w/MTBE
393350	MW-3	BTEX GC w/MTBE
393351	MW-6	BTEX GC w/MTBE
393352	MW-5	BTEX GC w/MTBE

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Paul Nadzan, at (732) 549-3900.

Very Truly Yours,

Michael J. Urban
Laboratory Manager

Analytical Results Summary	1
General Information	9
Chain of Custody	9
Laboratory Chronicles	11
Methodology Review	13
Data Reporting Qualifiers	17
Non-Conformance Summary	19
GC/ PID Forms and Data	22
Results Summary and Chromatograms	22
Method Blank Results Summary	37
Standards Data	44
Surrogate Compound Recovery Summary	60
Spike Recovery Summary	62
This is the Last Page of the Document	64

Analytical Results Summary

Client ID: MW-1
Site: Petrocelli Electric

Lab Sample No: 393346
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/02/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5807.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	24	0.20
Benzene	6.2	0.44
Toluene	15	0.48
Ethylbenzene	11	0.36
Xylene (Total)	11	0.40

Client ID: MW-4
Site: Petrocelli Electric

Lab Sample No: 393347
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/01/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5784.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	5.0	0.10
Benzene	0.57	0.22
Toluene	ND	0.24
Ethylbenzene	0.51	0.18
Xylene (Total)	0.81	0.20

Client ID: MW-2
Site: Petrocelli Electric

Lab Sample No: 393348
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/01/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5785.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID
METHOD 602**

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	3.2	0.10
Benzene	3.4	0.22
Toluene	10	0.24
Ethylbenzene	0.98	0.18
Xylene (Total)	5.2	0.20

Client ID: MW-7
Site: Petrocelli Electric

Lab Sample No: 393349
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/01/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5786.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID
METHOD 602**

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	0.85	0.10
Benzene	ND	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	0.25	0.20

Client ID: MW-3
Site: Petrocelli Electric

Lab Sample No: 393350
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/02/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5805.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	170	0.50
Benzene	3.1	1.1
Toluene	ND	1.2
Ethylbenzene	ND	0.90
Xylene (Total)	ND	1.0

Client ID: MW-6
Site: Petrocelli Electric

Lab Sample No: 393351
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/01/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5789.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	ND	2.5
Benzene	120	5.5
Toluene	580	6.0
Ethylbenzene	330	4.5
Xylene (Total)	1300	5.0

Client ID: MW-5
Site: Petrocelli Electric

Lab Sample No: 393352
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/02/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5806.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	2.5	0.10
Benzene	2.4	0.22
Toluene	20	0.24
Ethylbenzene	11	0.18
Xylene (Total)	65	0.20

General Information

Chain of Custody

CHAIN OF CUSTODY / ANALYSIS REQUEST

PAGE 01 OF 01

Name (for report and invoice) ENSolutions		Samplers Name (Printed) A. Rivera & Terra Nova		Site/Project Identification Peterson's Electric Long Island City, NY	
Company 1029 N Fla. Mango Rd Suite 7		P.O. #		State (Location of site): NJ: <input type="checkbox"/> NY: <input type="checkbox"/> Other: <input type="checkbox"/>	
Address West Palm Beach Fla		Analysis Turnaround Time Standard <input checked="" type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input type="checkbox"/>		Regulatory Program:	
City Howard Fredericks		State		LAB USE ONLY Project No:	
Phone (561) 684 9770		Fax		Job No: D242	
Sample Identification	Date	Time	Matrix	No. of Cont.	Sample Numbers
MW-1	11/25/02	0840	AP	3	393346
MW-4	"	0845	AP	3	393347
MW-2	"	0855	AP	3	393348
MW-7	"	0910	AP	3	393349
MW-3	"	0920	AP	3	393350
MW-6	"	0925	AP	3	393351
MW-5	"	0935	AP	3	393352
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH, 6 = Other, 7 = Other		Soil:		Water:	

Special Instructions: one copy of report bound one unbound to H. Fredericks

Water Metals Filtered (Yes/No)?

Relinquished by Ed Rivera	Company Terra Nova	Date / Time 11/25/02 1300	Received by S. Curcio	Company
Relinquished by	Company	Date / Time	Received by	Company
Relinquished by	Company	Date / Time	Received by	Company
Relinquished by	Company	Date / Time	Received by	Company
Relinquished by	Company	Date / Time	Received by	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Laboratory Chronicles

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison

777 New Durham Road, Edison, New Jersey
08817

Job No: D242

Site: Petrocelli Electric

Client: EnSolutions, Inc.

VOAGC

602

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
WATER							
393346	11/25/2002	11/25/2002			12/2/2002	Hillier, Brian	7438
393347	11/25/2002	11/25/2002			12/1/2002	Zhang, Yannong	7438
393348	11/25/2002	11/25/2002			12/1/2002	Zhang, Yannong	7438
393349	11/25/2002	11/25/2002			12/1/2002	Zhang, Yannong	7438
393350	11/25/2002	11/25/2002			12/2/2002	Hillier, Brian	7438
393351	11/25/2002	11/25/2002			12/1/2002	Zhang, Yannong	7438
393352	11/25/2002	11/25/2002			12/2/2002	Hillier, Brian	7438

Methodology Review

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

Element	Water Test Method		Solid Test Method	
	<u>Flame</u>	<u>Furnace</u>	<u>Flame</u>	<u>Furnace</u>
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

- Ignitability - Method 1020A
- Corrosivity - Water pH Method 9040B
Soil pH Method 9045C
- Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release
- Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

Data Reporting Qualifiers

DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

Non-Conformance Summary

NON-CONFORMANCE SUMMARY

STL Edison Job Number: D242

Volatile Organics Analysis:

All data conforms with method requirements ✓; or

Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements ✓; or

Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements ✓; or

Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Page 1 of 2

Non-conformance Summary, Page 2 of ²
STL Edison Job Number: D242

Metals Analysis:

All data conforms with method requirements ✓; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Total Petroleum Hydrocarbons:

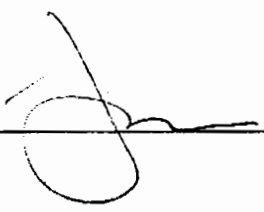
All data conforms with method requirements ✓; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

General Chemistry/Disposal Parameters:

All data conforms with method requirements ✓; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Signature of
Laboratory Manager: 

Date: 12/20/02

GC/PID Forms and Data

Results Summary and Chromatograms

Client ID: MW-1
Site: Petrocelli Electric

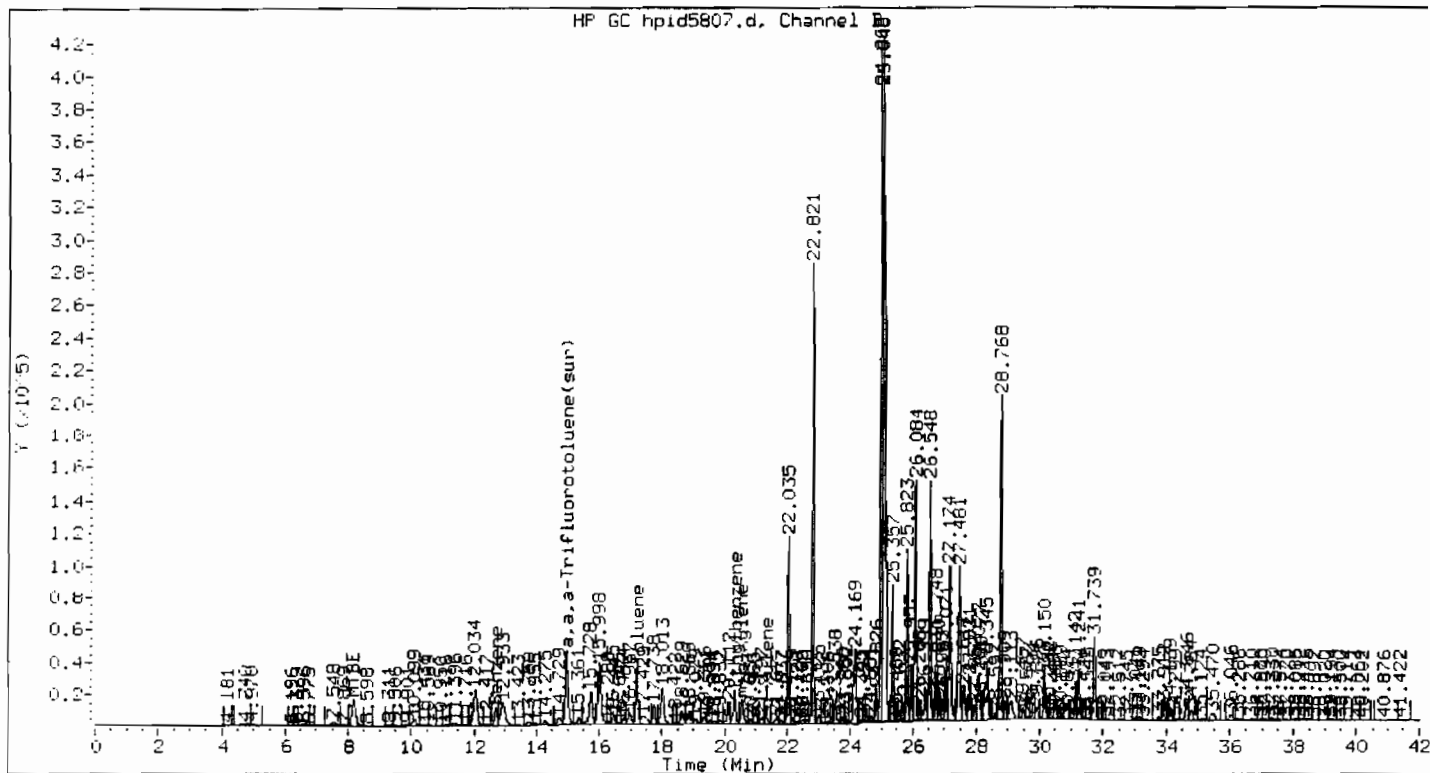
Lab Sample No: 393346
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/02/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5807.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	24	0.20
Benzene	6.2	0.44
Toluene	15	0.48
Ethylbenzene	11	0.36
Xylene (Total)	11	0.40



Client ID: MW-4
Site: Petrocelli Electric

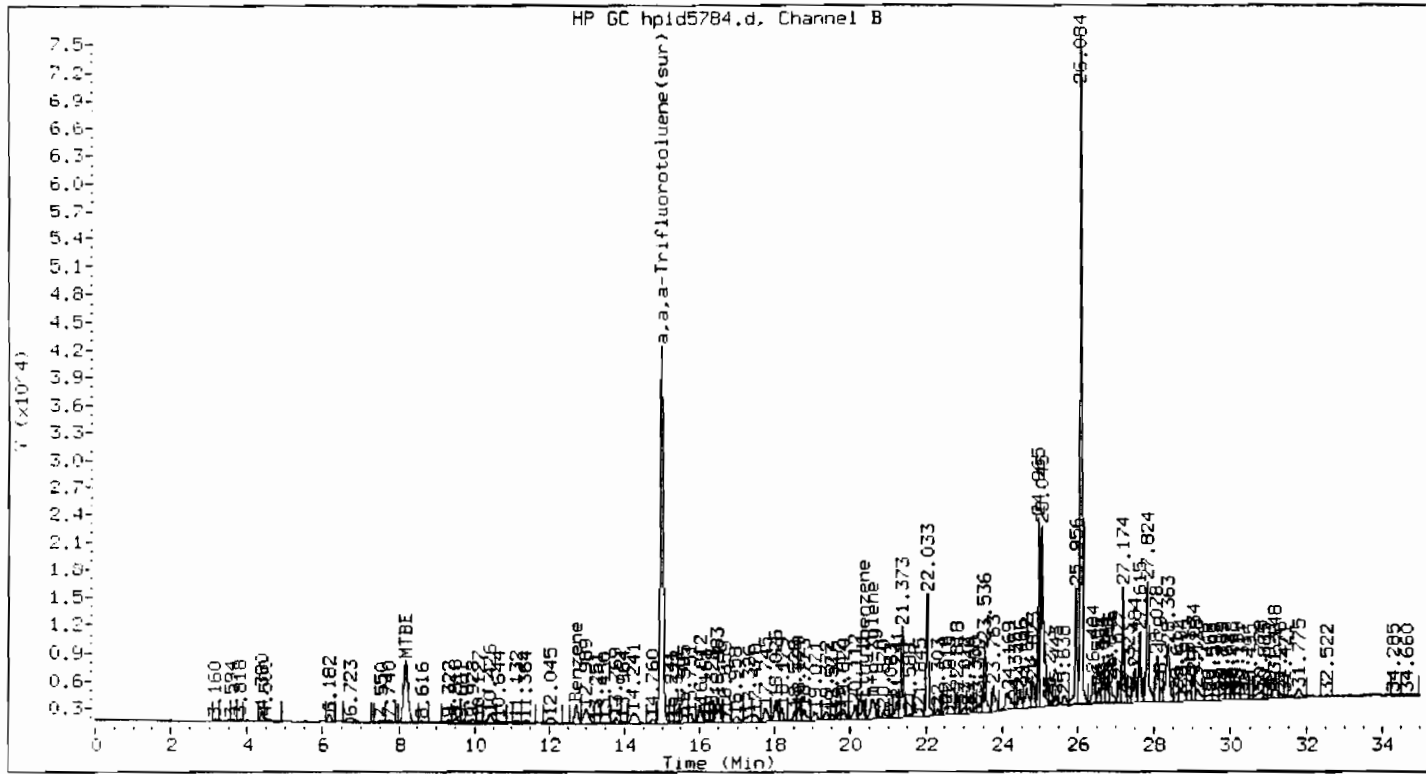
Lab Sample No: 393347
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/01/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5784.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	5.0	0.10
Benzene	0.57	0.22
Toluene	ND	0.24
Ethylbenzene	0.51	0.18
Xylene (Total)	0.81	0.20



Method : /chem/VOAGC2.i/602/11-30-02/30Nov02.b/602_02.m
Sample Info : 393347
Lab ID : 393347
Inj Date : 01-DEC-2002 00:11
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
m,p-Xylene	20.559	20.515	0.044	91377	0.771	0.771
MTBE	8.184	8.144	0.040	283554	4.973	4.973
Benzene	12.722	12.679	0.043	64903	0.567	0.567
Ethylbenzene	20.317	20.287	0.030	52456	0.514	0.514
Xylene (Total)	25.019	25.019	0.000	91377	0.806	0.806
a, a, a-Trifluorotoluene (sur)	14.980	14.945	0.035	1121928	29.798	29.798

Client ID: MW-2
Site: Petrocelli Electric

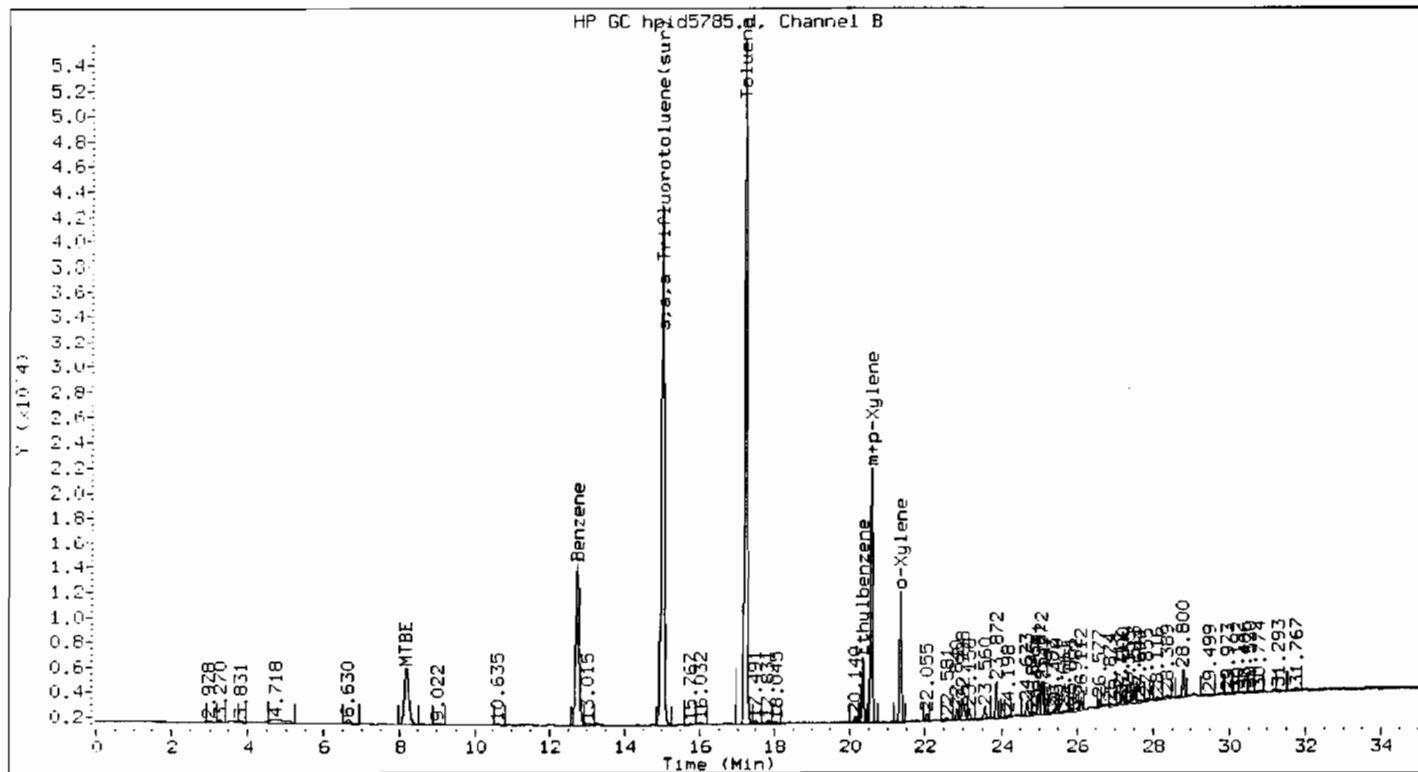
Lab Sample No: 393348
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/01/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5785.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	3.2	0.10
Benzene	3.4	0.22
Toluene	10	0.24
Ethylbenzene	0.98	0.18
Xylene (Total)	5.2	0.20



Method : /chem/VOAGC2.i/602/11-30-02/30Nov02.b/602_02.m
Sample Info : 393348
Lab ID : 393348
Inj Date : 01-DEC-2002 00:52
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
o-Xylene	21.352	21.301	0.051	194030	1.883	1.883
m+p-Xylene	20.563	20.515	0.048	392134	3.308	3.308
MTBE	8.201	8.144	0.057	184423	3.234	3.234
Benzene	12.746	12.679	0.067	383808	3.351	3.351
Toluene	17.220	17.167	0.054	1179680	10.543	10.543
Ethylbenzene	20.337	20.287	0.050	99777	0.977	0.977
Xylene (Total)	25.019	25.019	0.000	586164	5.171	5.171
a, a, a-Trifluorotoluene(sur)	15.002	14.945	0.057	1131136	30.043	30.043

Client ID: MW-7
Site: Petrocelli Electric

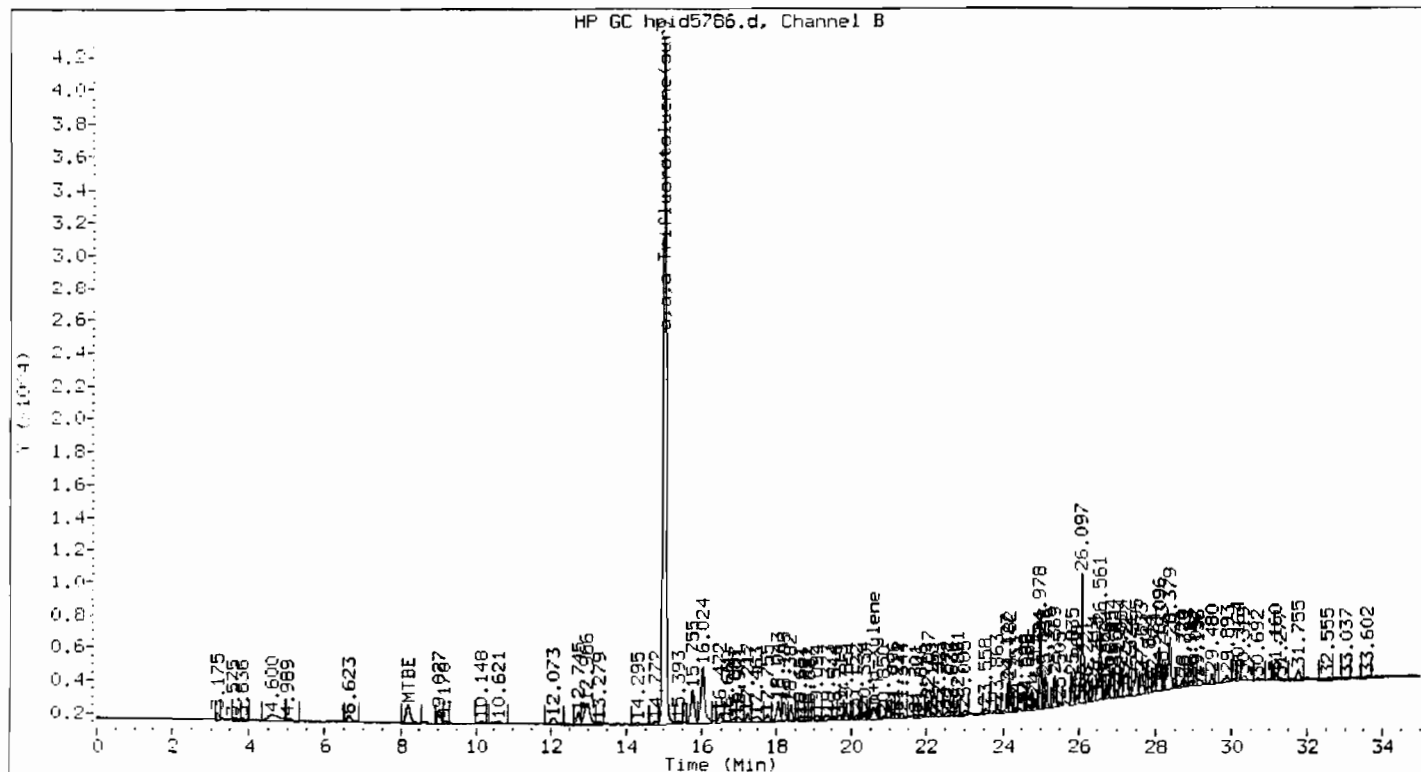
Lab Sample No: 393349
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/01/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5786.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	0.85	0.10
Benzene	ND	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	0.25	0.20



Method : /chem/VOAGC2.i/602/11-30-02/30Nov02.b/602_02.m
Sample Info : 393349
Lab ID : 393349
Inj Date : 01-DEC-2002 01:33
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
m+p-Xylene	20.563	20.515	0.048	28602	0.241	0.241
MTBE	8.206	8.144	0.062	48549	0.851	0.851
Xylene (Total)	25.019	25.019	0.000	28602	0.252	0.252
a,a,a-Trifluorotoluene(eur)	14.997	14.945	0.052	1142424	30.343	30.343

Client ID: MW-3
Site: Petrocelli Electric

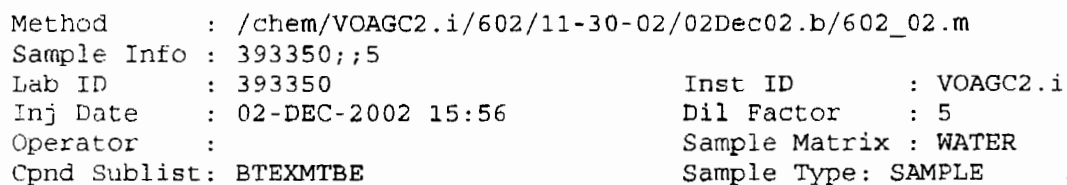
Lab Sample No: 393350
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/02/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5805.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	170	0.50
Benzene	3.1	1.1
Toluene	ND	1.2
Ethylbenzene	ND	0.90
Xylene (Total)	ND	1.0



Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	8.191	8.183	0.007	1965101	34.462	172.309
Benzene	12.738	12.726	0.012	71035	0.620	3.101
a, a, a-Trifluorotoluene (sur)	14.991	14.983	0.008	1218804	32.371	32.371

Client ID: MW-6
Site: Petrocelli Electric

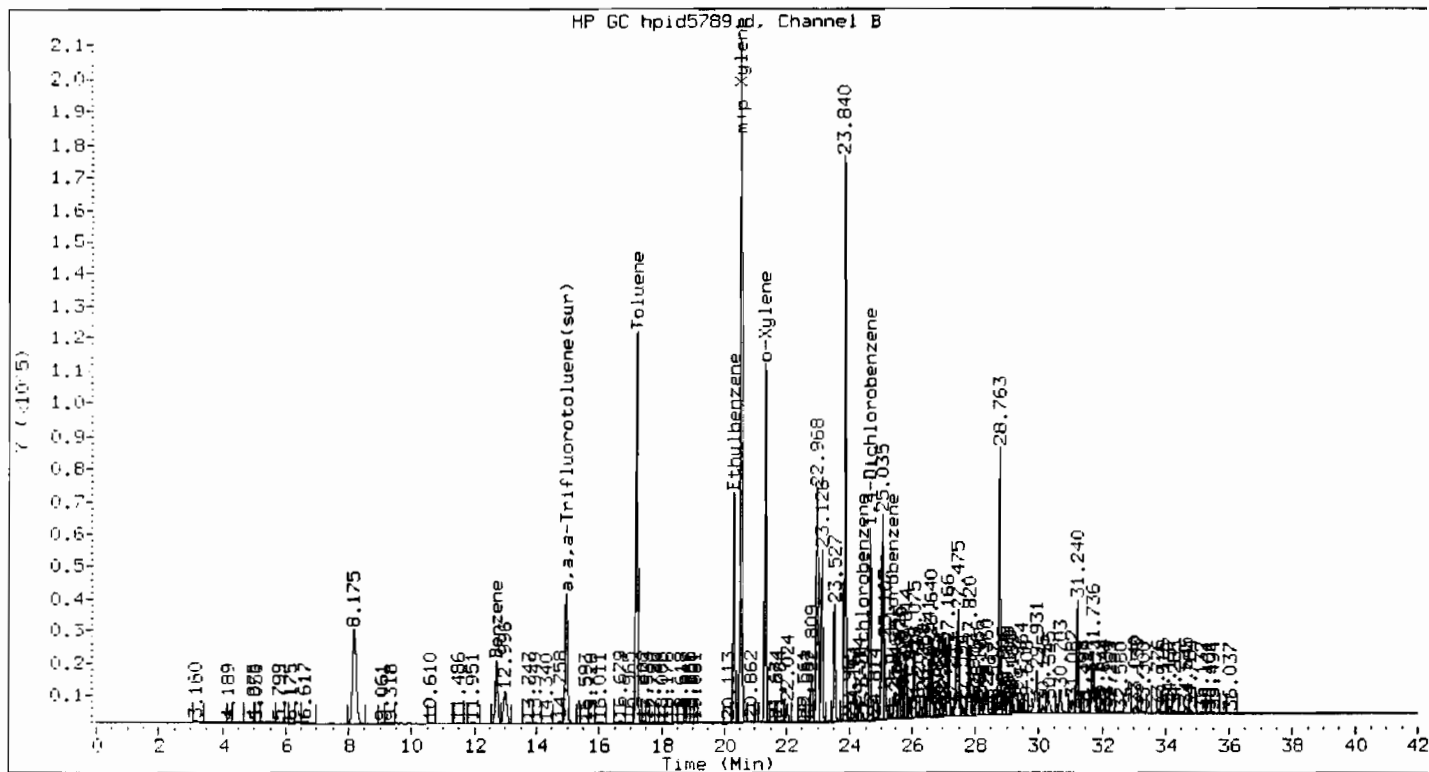
Lab Sample No: 393351
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/01/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5789.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

**VOLATILE ORGANICS - GC/PID
METHOD 602**

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	ND	2.5
Benzene	120	5.5
Toluene	580	6.0
Ethylbenzene	330	4.5
Xylene (Total)	1300	5.0



Method : /chem/VOAGC2.i/602/11-30-02/30Nov02.b/602_02.m
Sample Info : 393351;;25
Lab ID : 393351
Inj Date : 01-DEC-2002 03:51
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC2.i
Dil Factor : 25
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	21.321	21.301	0.020	2037971	19.777	494.417
m+p-Xylene	20.533	20.515	0.018	4017576	33.896	847.406
Benzene	12.714	12.679	0.035	563126	4.917	122.913
Toluene	17.189	17.167	0.023	2600856	23.245	581.130
Ethylbenzene	20.308	20.287	0.021	1338956	13.112	327.806
Xylene (Total)	25.019	25.019	0.000	6055547	53.415	1335.387
a,a,a-Trifluorotoluene(sur)	14.971	14.945	0.026	1100020	29.217	29.217

Client ID: MW-5
Site: Petrocelli Electric

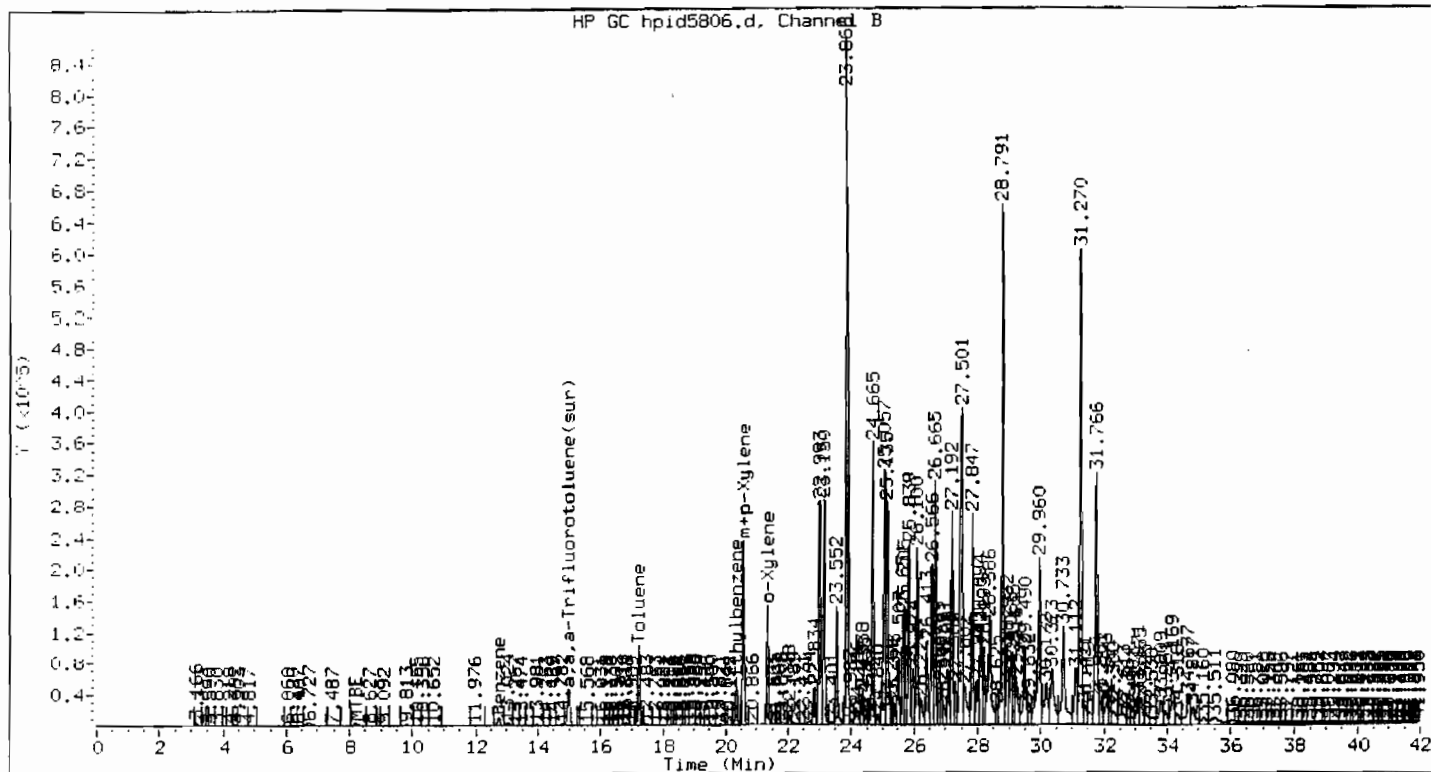
Lab Sample No: 393352
Lab Job No: D242

Date Sampled: 11/25/02
Date Received: 11/25/02
Date Analyzed: 12/02/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5806.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	Analytical Result <u>Units: ug/l</u>	Method Detection
		Limit <u>Units: ug/l</u>
MTBE	2.5	0.10
Benzene	2.4	0.22
Toluene	20	0.24
Ethylbenzene	11	0.18
Xylene (Total)	65	0.20



Method : /chem/VOAGC2.i/602/11-30-02/02Dec02.b/602_02.m
Sample Info : 393352
Lab ID : 393352
Inj Date : 02-DEC-2002 16:37
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	21.346	21.337	0.009	2849912	27.656	27.656
m+p-Xylene	20.557	20.551	0.006	4562902	38.497	38.497
MTBE	8.195	8.183	0.012	142527	2.499	2.499
Benzene	12.740	12.726	0.014	272431	2.379	2.379
Toluene	17.215	17.204	0.011	2229514	19.926	19.926
Ethylbenzene	20.332	20.324	0.009	1174144	11.498	11.498
Xylene (Total)	25.019	25.019	0.000	7412814	65.388	65.388
a,a,a-Trifluorotoluene(sur)	14.995	14.983	0.011	1259602	33.455	33.455

Method Blank Results Summary

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

HG334

Date Analyzed: 11/30/02

Instrument ID: VOAGC2

Time Analyzed: 1635

Lab File ID: HPID5774

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-4	393347	HPID5784	0011
02	MW-2	393348	HPID5785	0052
03	MW-7	393349	HPID5786	0133
04	MW-6	393351	HPID5789	0351
05	MW-6MS	393351MS	HPID5790	0440
06	MW-6MSD	393351MSD	HPID5791	0528
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: HG334
Site:

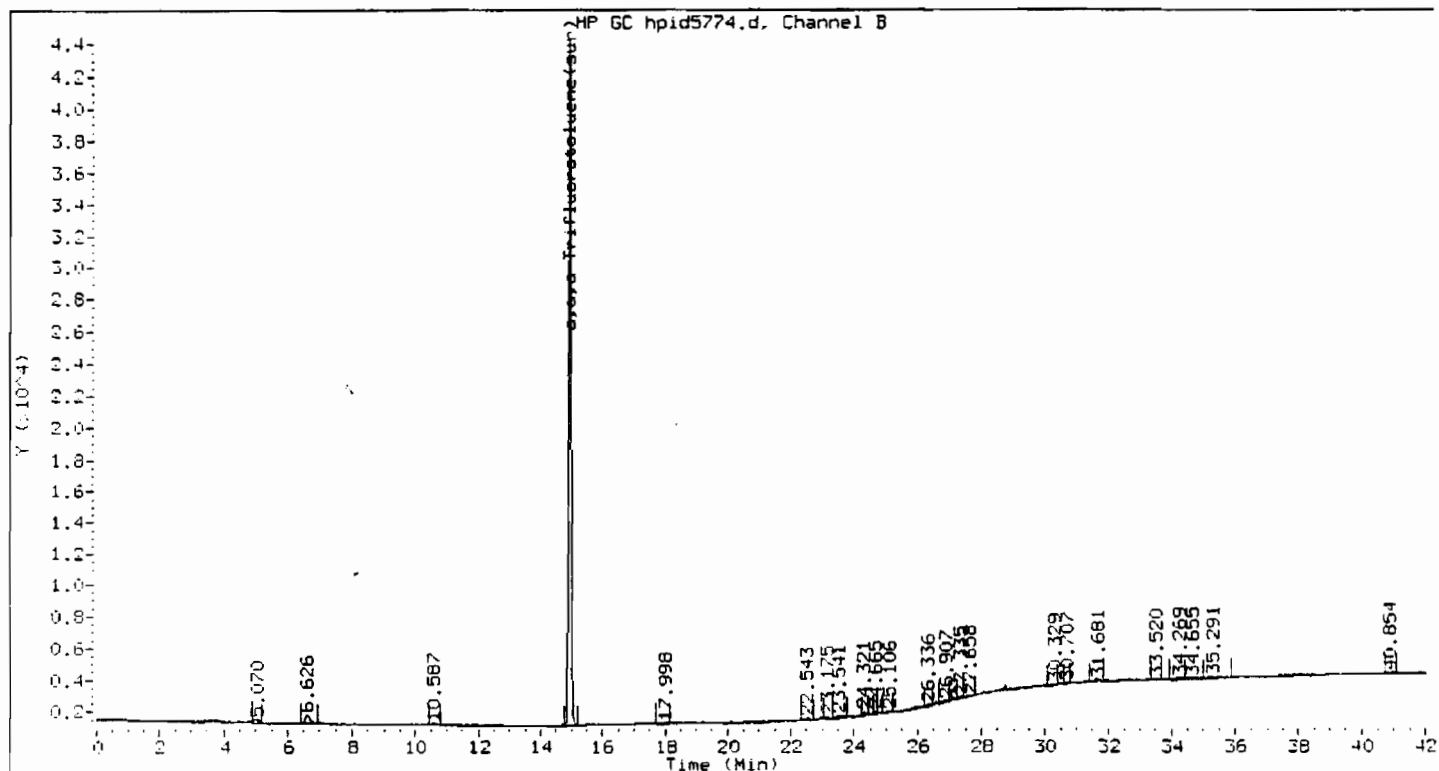
Lab Sample No: HG334
Lab Job No: D242

Date Sampled: _____
Date Received: _____
Date Analyzed: 11/30/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5774.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID
METHOD 602**

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
TBA	ND	19
MTBE	ND	0.10
DIPE	ND	0.13
Benzene	ND	0.22
Toluene	ND	0.24
Chlorobenzene	ND	0.17
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20
1,3-Dichlorobenzene	ND	0.18
1,4-Dichlorobenzene	ND	0.21
1,2-Dichlorobenzene	ND	0.20
Naphthalene	ND	0.22



Method : /chem/VOAGC2.i/602/11-30-02/30Nov02.b/602_02.m
Sample Info : HG334
Lab ID : HG334
Inj Date : 30-NOV-2002 16:35
Operator :
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	14.946	14.945	0.001	1178574	31.303	31.303

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

HG336

Date Analyzed: 12/02/02

Instrument ID: VOAGC2

Time Analyzed: 1310

Lab File ID: HPID5801

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-3	393350	HPID5805	1556
02	MW-5	393352	HPID5806	1637
03	MW-1	393346	HPID5807	1725
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

page 1 of 1

Client ID: HG336
Site:

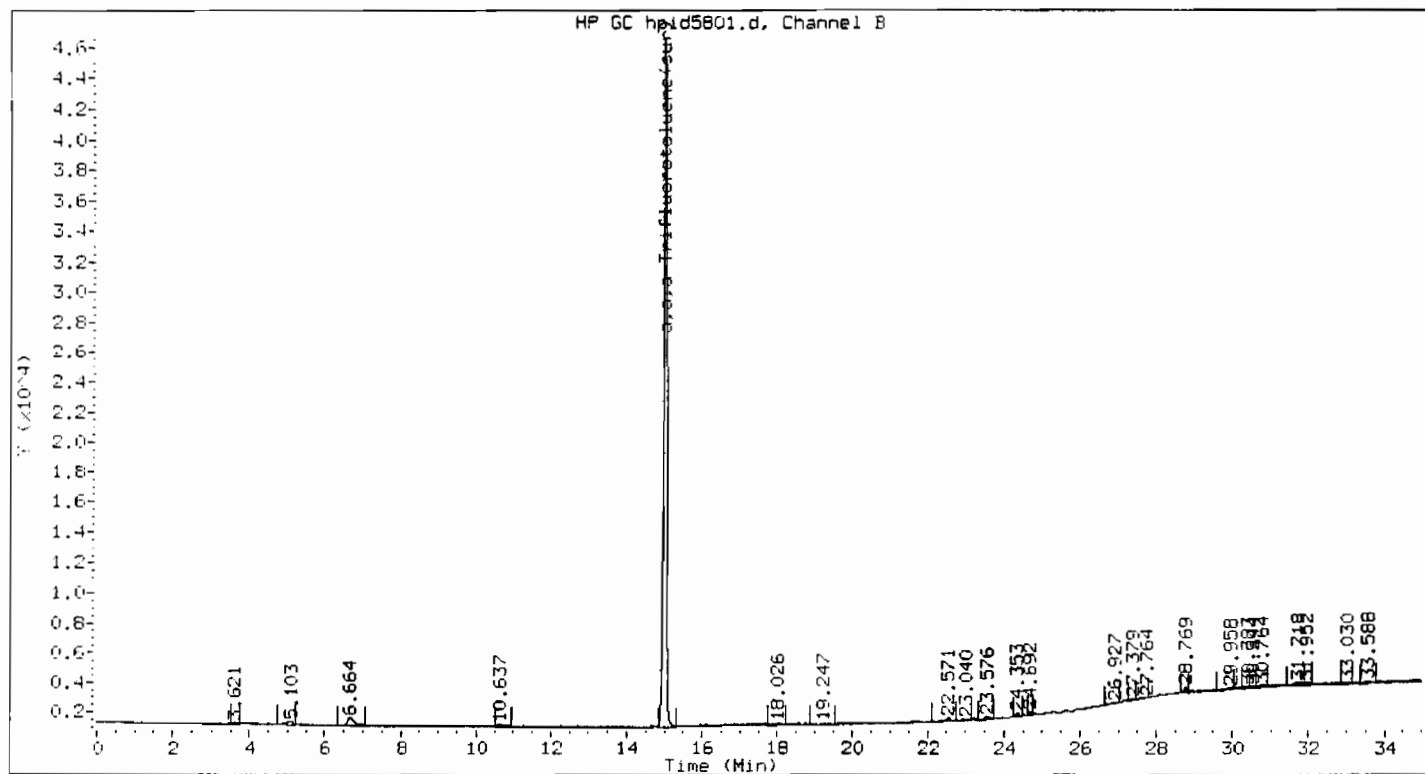
Lab Sample No: HG336
Lab Job No: D242

Date Sampled: _____
Date Received: _____
Date Analyzed: 12/02/02
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid5801.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
TBA	ND	19
MTBE	ND	0.10
DIPE	ND	0.13
Benzene	ND	0.22
Toluene	ND	0.24
Chlorobenzene	ND	0.17
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20
1,3-Dichlorobenzene	ND	0.18
1,4-Dichlorobenzene	ND	0.21
1,2-Dichlorobenzene	ND	0.20
Naphthalene	ND	0.22



Method : /chem/VOAGC2.i/602/11-30-02/02Dec02.b/602_02.m
Sample Info : HG336
Lab ID : HG336
Inj Date : 02-DEC-2002 13:10
Operator :
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
a, a, a-Trifluorotoluene (sur)	14.988	14.983	0.005	1237713	32.874	32.874

Standards Data

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC2

Calibration Date(s): 11/30/02 11/30/02

Calibration Time(s): 1009 1401

LAB FILE ID:	RRF2: HPID5771	RRF5: HPID5770	RRF10: HPID5769		
	RRF20: HPID5766	RRF40: HPID5768			
COMPOUND	RRF2	RRF5	RRF10	RRF20	RRF40
TBA **					
MTBE	59165	56668	56558	56519	56203
DIPE	61224	58821	59190	59064	58447
Benzene	117114	113509	115121	114536	112409
Toluene	113375	111177	111900	111553	111433
Chlorobenzene	124410	119615	120795	120866	120707
Ethylbenzene	102440	100680	103214	102802	101438
Xylene (Total)	112907	110312	112323	119130	112162
1,3-Dichlorobenzene	114536	110127	111143	111654	111624
1,4-Dichlorobenzene	109601	104079	106521	108107	110586
1,2-Dichlorobenzene	93678	89187	92722	94002	94338
Naphthalene	129568	103364	111667	105876	103764
a,a,a-Trifluorotoluene(sur)	37210	37292	38051	37853	37849

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC2

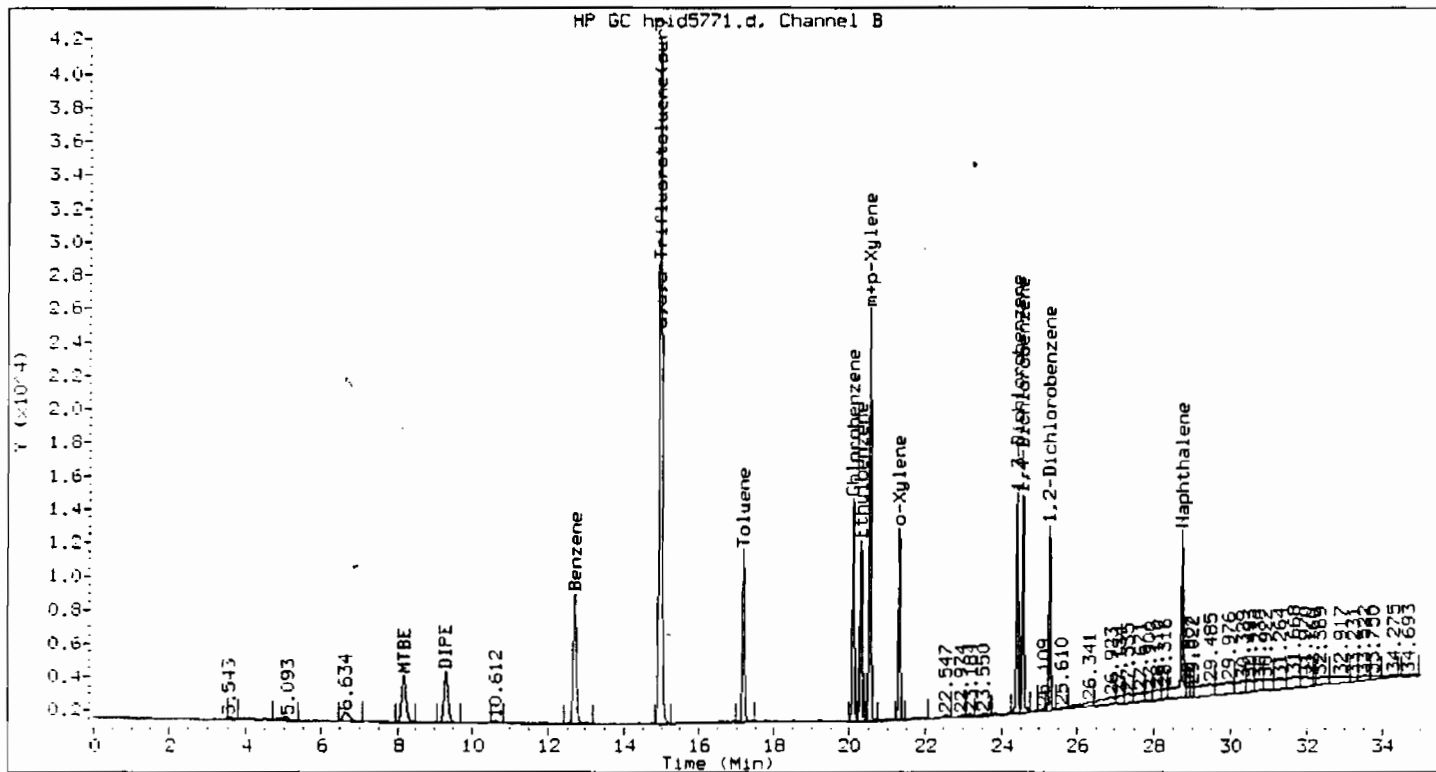
Calibration Date(s): 11/30/02 11/30/02

Calibration Time(s): 1009 1401

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
=====	=====	=====	=====
TBA **	AVRG		
MTBE	AVRG	57022	2.1*
DIPE	AVRG	59349	1.8*
Benzene	AVRG	114538	1.5*
Toluene	AVRG	111888	0.8*
Chlorobenzene	AVRG	121278	1.5*
Ethylbenzene	AVRG	102115	1.0*
Xylene (Total)	AVRG	113367	3.0*
1,3-Dichlorobenzene	AVRG	111817	1.5*
1,4-Dichlorobenzene	AVRG	107779	2.4*
1,2-Dichlorobenzene	AVRG	92785	2.3*
Naphthalene	AVRG	110848	9.9*
=====	=====	=====	=====
a,a,a-Trifluorotoluene (sur)	AVRG	37651	1.0*

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

* Compounds with required maximum %RSD values.

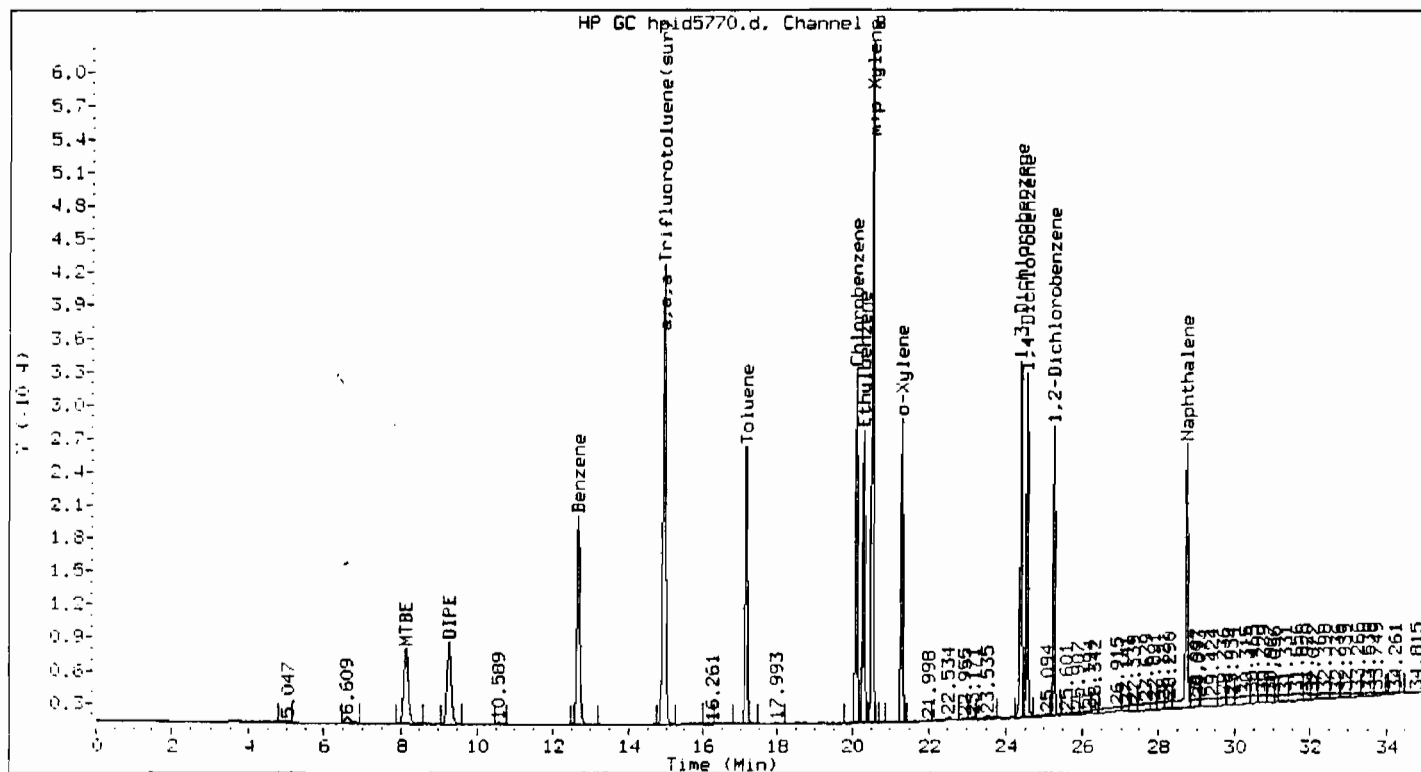


Method : /chem/VOAGC2.i/602/11-30-02/30Nov02.b/602_02.m
Sample Info : HSTD002
Lab ID : HSTD002
Inj Date : 30-NOV-2002 14:01
Operator :
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_1

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	21.314	21.301	0.013	210740	2.045	2.045
m+p-Xylene	20.527	20.515	0.012	466700	3.938	3.938
MTBE	8.168	8.144	0.024	118330	2.075	2.075
DIPR	9.311	9.290	0.022	122447	2.063	2.063
Benzene	12.701	12.679	0.022	234229	2.045	2.045
Toluene	17.181	17.167	0.015	226750	2.027	2.027
Chlorobenzene	20.101	20.087	0.014	248819	2.052	2.052
Ethylbenzene	20.300	20.287	0.013	204879	2.006	2.006
Xylene (Total)	25.019	25.019	0.000	677440	5.976	5.976

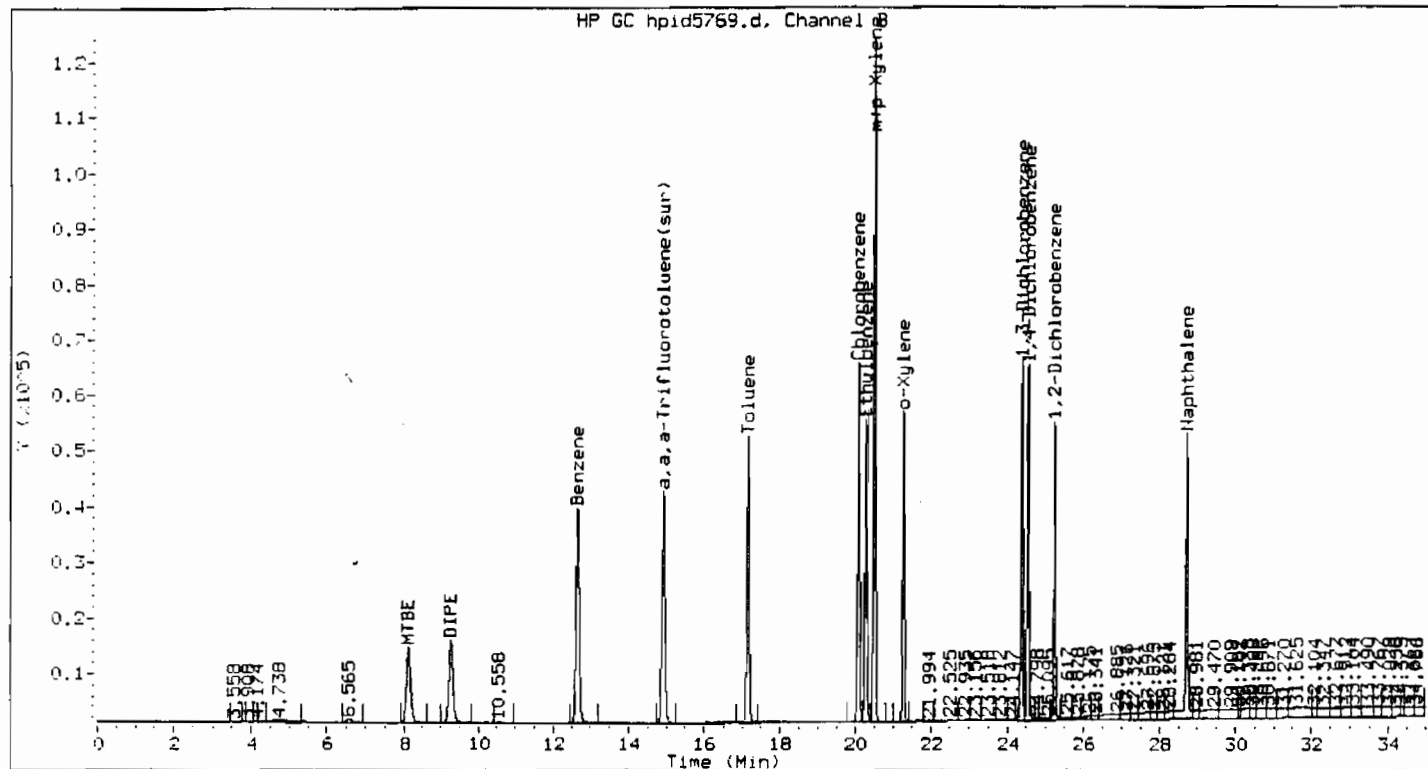
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	24.406	24.393	0.013	229071	2.049	2.049
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	24.566	24.553	0.013	219202	2.034	2.034
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	25.270	25.256	0.014	187357	2.019	2.019
-----	-----	-----	-----	-----	-----	-----
Naphthalene	28.750	28.736	0.014	259136	2.338	2.338
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	14.960	14.945	0.015	1116285	29.649	29.649
-----	-----	-----	-----	-----	-----	-----



Method : /chem/VOAGC2.i/602/11-30-02/30Nov02.b/602_02.m
Sample Info : HSTD005
Lab ID : HSTD005
Inj Date : 30-NOV-2002 13:19
Operator :
Cpnd Sublist: all
Inst ID : VOAGC2.1
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	21.297	21.301	0.004	508364	4.933	4.933
m+p-Xylene	20.511	20.515	0.004	1146320	9.671	9.671
MTBE	8.140	8.144	0.004	283341	4.969	4.969
DIPE	9.284	9.290	0.005	294104	4.955	4.955
Benzene	12.676	12.679	0.003	567544	4.955	4.955
Toluene	17.162	17.167	0.005	555887	4.968	4.968
Chlorobenzene	20.083	20.087	0.003	598073	4.931	4.931
Ethylbenzene	20.284	20.287	0.003	503400	4.930	4.930
Xylene (Total)	25.019	25.019	0.000	1654684	14.596	14.596

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
1,3-Dichlorobenzene	24.391	24.393	0.001	550635	4.924	4.924
1,4-Dichlorobenzene	24.552	24.553	0.001	520396	4.828	4.828
1,2-Dichlorobenzene	25.256	25.256	0.000	445935	4.806	4.806
Naphthalene	28.736	28.736	0.000	516821	4.662	4.662
a,a,a-Trifluorotoluene(sur)	14.940	14.945	0.004	1118749	29.714	29.714



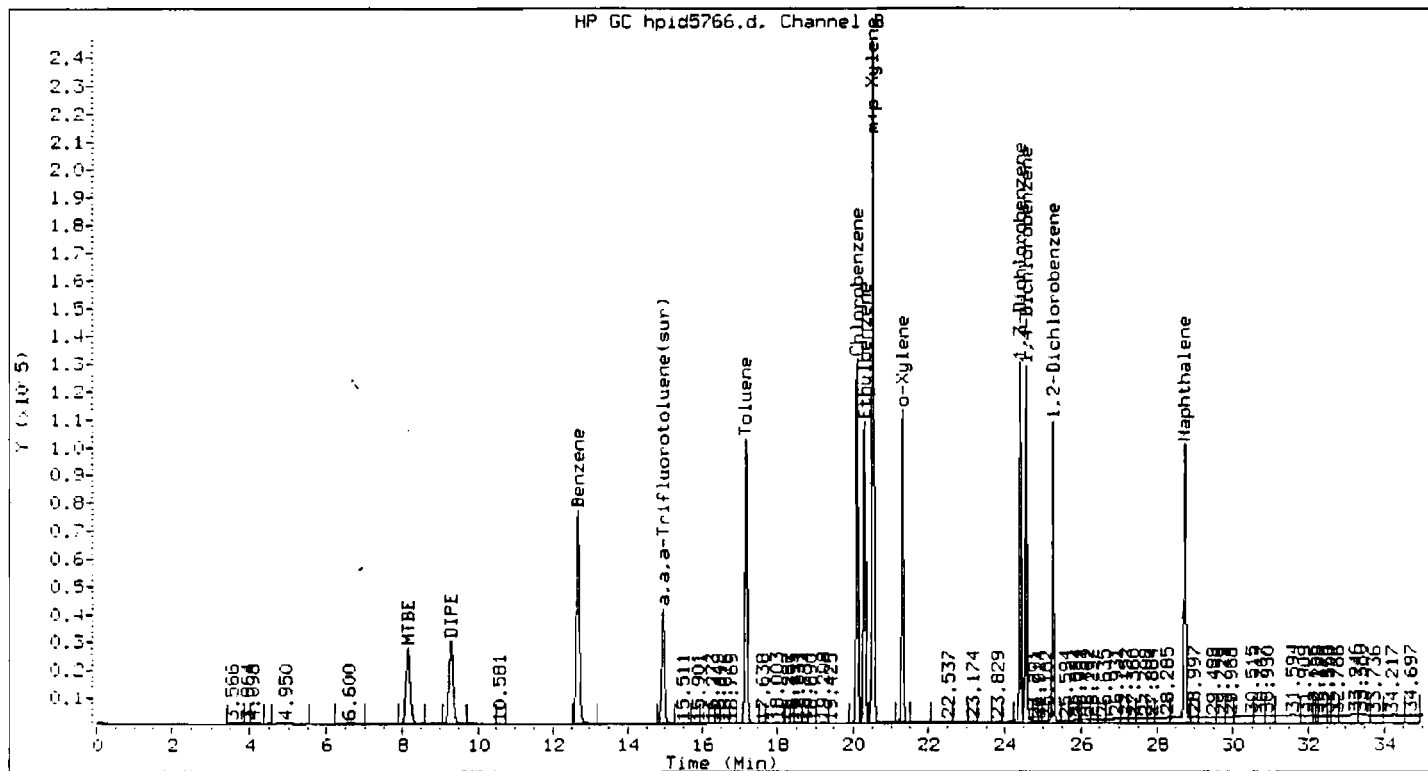
Method : /chem/VOAGC2.i/602/11-30-02/30Nov02.b/602_02.m
Sample Info : HSTD010
Lab ID : HSTD010
Inj Date : 30-NOV-2002 12:38
Operator :
Cpnd Sublist: all
Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_3

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	21.285	21.301	0.016	1026931	9.965	9.965
m+p-Xylene	20.499	20.515	0.016	2342759	19.766	19.766
MTBE	8.128	8.144	0.016	565577	9.918	9.918
DIPE	9.272	9.290	0.017	591898	9.973	9.973
Benzene	12.661	12.679	0.018	1151213	10.051	10.051
Toluene	17.149	17.167	0.017	1119005	10.001	10.001
Chlorobenzene	20.071	20.087	0.016	1207953	9.960	9.960
Ethylbenzene	20.271	20.287	0.016	1032144	10.108	10.108
Xylene (Total)	25.019	25.019	0.000	3369690	29.724	29.724

Compounds		RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
						(ug/L)	(ug/L)
1,3-Dichlorobenzene	(M)	24.377	24.393	0.016	1111430	9.940	9.940
1,4-Dichlorobenzene	(M)	24.537	24.553	0.015	1065208	9.883	9.883
1,2-Dichlorobenzene	(M)	25.242	25.256	0.015	927215	9.993	9.993
Naphthalene		28.718	28.736	0.018	1116669	10.074	10.074
a,a,a-Trifluorotoluene(sur)		14.925	14.945	0.020	1141521	30.319	30.319

COMMENTS:

M - Compound response manually integrated.



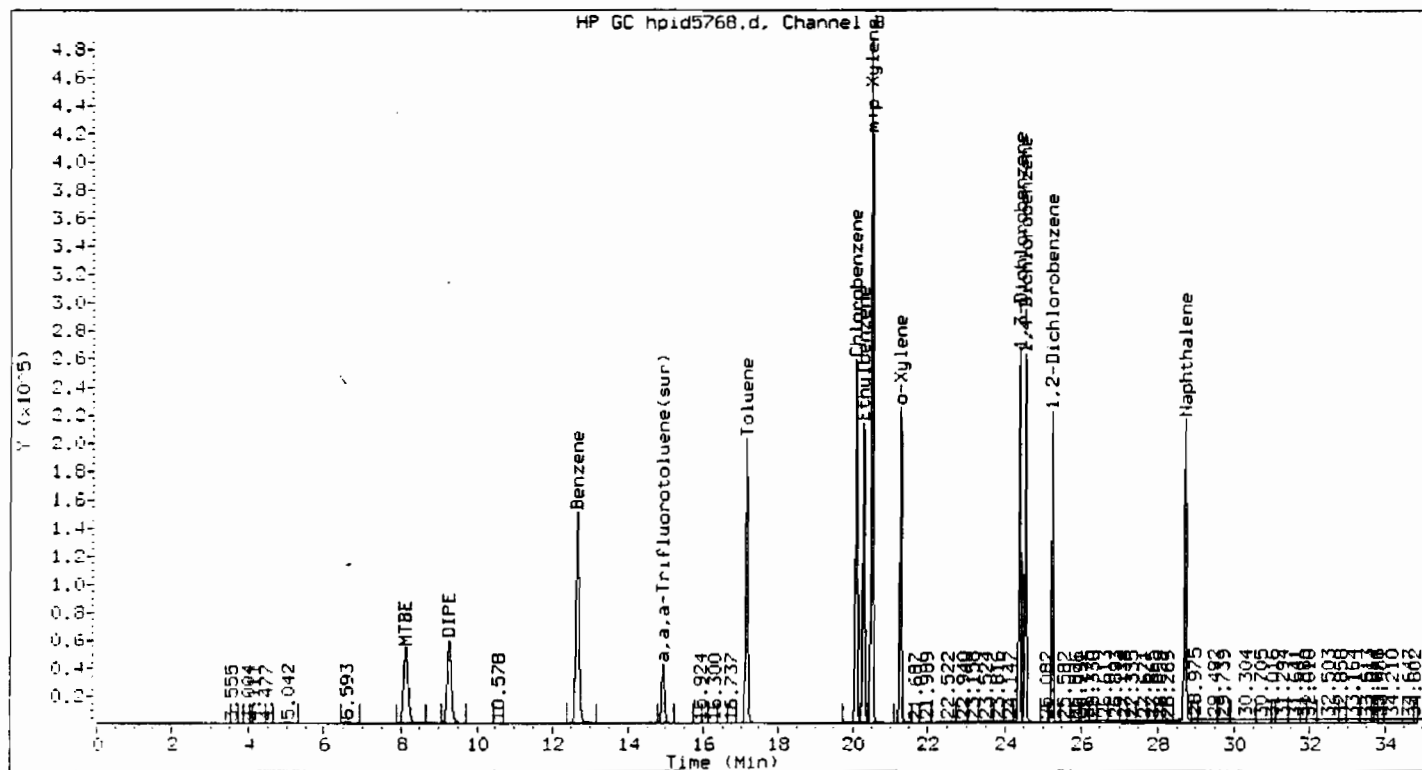
```
Method       : /chem/VOAGC2.i/602/11-30-02/30Nov02.b/602_02.m
Sample Info  : HSTD020
Lab ID       : HSTD020
Inst ID      : VOAGC2.i
Inj Date     : 30-NOV-2002 10:09
Dil Factor    : 1
Operator     :
Sample Matrix : WATER
Cpnd Sublist: all
Sample Type   : CALIB 4
```

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	21.301	21.301	0.000	2045636	19.851	19.851
m+p-Xylene	20.515	20.515	0.000	5102195	43.047	43.047
MTBE	8.144	8.144	0.000	1130377	19.823	19.823
DIPE (M)	9.290	9.290	0.000	1181281	19.904	19.904
Benzene (M)	12.679	12.679	0.000	2290716	20.000	20.000
Toluene (M)	17.167	17.167	0.000	2231059	19.940	19.940
Chlorobenzene	20.087	20.087	0.000	2417324	19.932	19.932
Ethylbenzene	20.287	20.287	0.000	2056044	20.135	20.135
Xylene (Total)	25.019	25.019	0.000	7147831	63.050	63.050

Compounds		RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
						(ug/L)	(ug/L)
1,3-Dichlorobenzene	(M)	24.393	24.393	0.000	2233088	19.971	19.971
1,4-Dichlorobenzene	(M)	24.553	24.553	0.000	2162132	20.061	20.061
1,2-Dichlorobenzene	(M)	25.256	25.256	0.000	1880038	20.262	20.262
Naphthalene	(M)	28.736	28.736	0.000	2117512	19.103	19.103
a,a,a-Trifluorotoluene(sur)	(M)	14.945	14.945	0.000	1135578	30.161	30.161

COMMENTS:

M - Compound response manually integrated.



Method : /chem/VOAGC2.i/602/11-30-02/30Nov02.b/602_02.m
Sample Info : HSTD040
Lab ID : HSTD040
Inj Date : 30-NOV-2002 11:56
Operator :
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_5

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	21.286	21.301	0.014	4129132	40.070	40.070
m+p-Xylene	20.501	20.515	0.014	9330298	78.720	78.720
MTBE	8.134	8.144	0.010	2248114	39.425	39.425
DIPE	9.279	9.290	0.011	2337876	39.392	39.392
Benzene (M)	12.668	12.679	0.011	4496356	39.257	39.257
Toluene	17.153	17.167	0.013	4457328	39.837	39.837
Chlorobenzene	20.073	20.087	0.014	4828276	39.811	39.811
Ethylbenzene	20.273	20.287	0.014	4057519	39.735	39.735
Xylene (Total)	25.019	25.019	0.000	13459430	118.725	118.725

Compounds		RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
						(ug/L)	(ug/L)
1,3-Dichlorobenzene	(M)	24.377	24.393	0.015	4464958	39.931	39.931
1,4-Dichlorobenzene	(M)	24.538	24.553	0.015	4423442	41.042	41.042
1,2-Dichlorobenzene	(M)	25.241	25.256	0.015	3773515	40.669	40.669
Naphthalene		28.716	28.736	0.020	4150550	37.444	37.444
a,a,a-Trifluorotoluene(sur)		14.931	14.945	0.014	1135461	30.158	30.158

COMMENTS:

M - Compound response manually integrated.

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

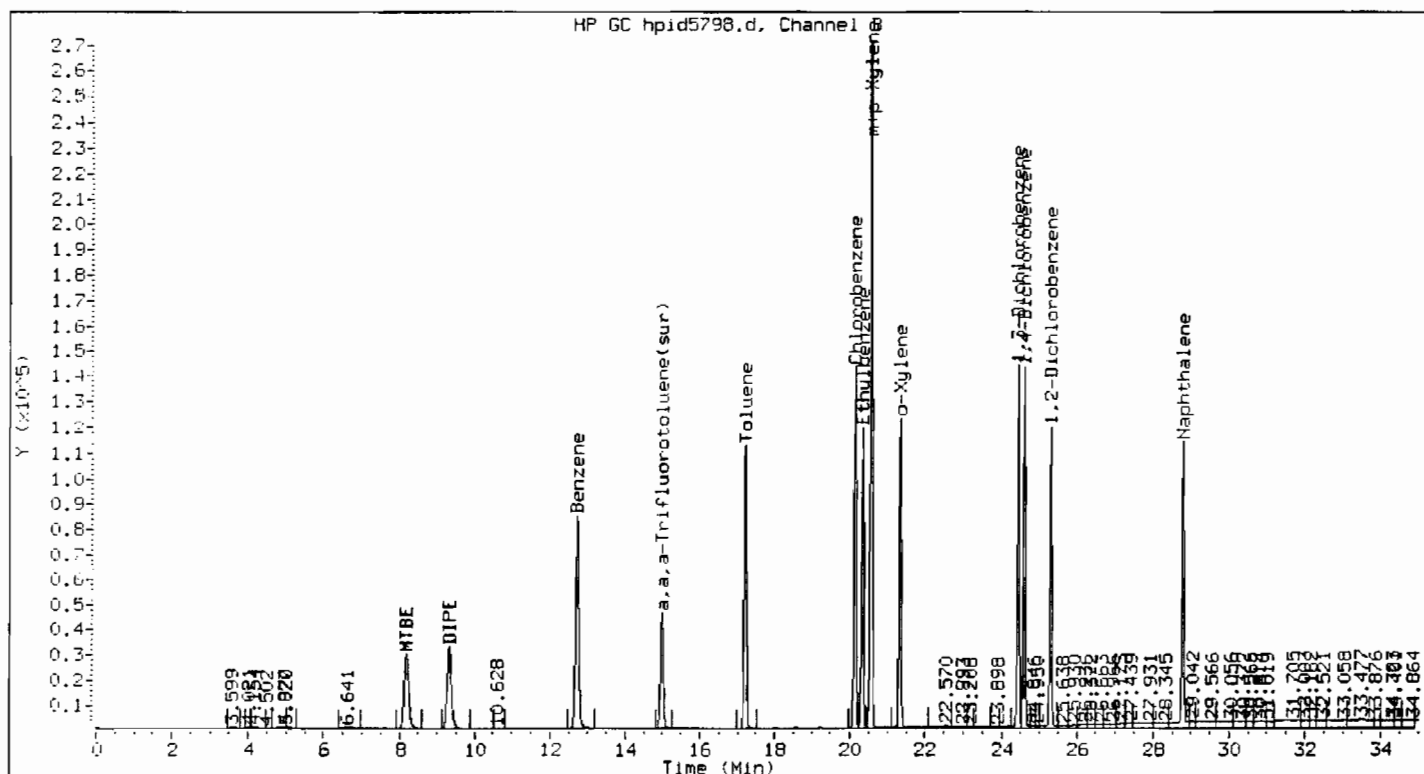
Instrument ID: VOAGC2 Calibration Date: 12/02/02 Time: 1050

Lab File ID: HPID5798 Init. Calib. Date(s): 11/30/02 11/30/02

Heated Purge: (Y/N) N Init. Calib. Times: 1009 1401

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
TBA **					40.0
MTBE	57022.52	62264.20		-9.2	40.0
DIPE	59349.01	64896.65		-9.3	40.0
Benzene	114537.86	125836.15		-9.9	23.0
Toluene	111887.81	121628.90		-8.7	22.5
Chlorobenzene	121278.50	132101.15		-8.9	19.5
Ethylbenzene	102114.82	113286.50		-10.9	37.0
Xylene (Total)	113366.88	128078.02		-13.0	40.0
1,3-Dichlorobenzene	111816.77	123043.45		-10.0	27.5
1,4-Dichlorobenzene	107778.73	118908.55		-10.3	30.5
1,2-Dichlorobenzene	92785.36	105315.10		-13.5	32.0
Naphthalene	110847.69	117219.85		-5.7	40.0
a,a,a-Trifluorotoluene(sur)	37650.63	41705.73		-10.8	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC2.i/602/11-30-02/02Dec02.b/602_02.m
Sample Info : HSTD336
Lab ID : HSTD336
Inj Date : 02-DEC-2002 10:50
Operator :
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

Compound	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	21.337	21.337	0.000	2511017	24.367	24.367
m+p-Xylene	20.551	20.551	0.000	5173664	43.650	43.650
MTBE	8.183	8.183	0.000	1245284	21.838	21.838
DIPE	9.329	9.329	0.000	1297933	21.869	21.869
Benzene	12.726	12.726	0.000	2516723	21.973	21.973
Toluene	17.204	17.204	0.000	2432578	21.741	21.741
Chlorobenzene	20.124	20.124	0.000	2642023	21.785	21.785
Ethylbenzene	20.324	20.324	0.000	2265730	22.188	22.188
Xylene (Total)	25.019	25.019	0.000	7684681	67.786	67.786

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
1,3-Dichlorobenzene	24.431	24.431	0.000	2460869	22.008	22.008
1,4-Dichlorobenzene	24.591	24.591	0.000	2378171	22.065	22.065
1,2-Dichlorobenzene	25.296	25.296	0.000	2106302	22.701	22.701
Naphthalene	28.781	28.781	0.000	2344397	21.150	21.150
a,a,a-Trifluorotoluene(aur)	14.983	14.983	0.000	1251172	33.231	33.231
-----	-----	-----	-----	-----	-----	-----

Surrogate Compound Recovery Summary

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER

Level: LOW

Lab Job No: D242

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
	=====	=====	=====	=====	=====
01	HG334	104			0
02	393347	99			0
03	393348	100			0
04	393349	101			0
05	393351	97			0
06	393351MS	99			0
07	393351MSD	98			0
08	HG336	110			0
09	393350	108			0
10	393352	112			0
11	393346	122			0
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

QC LIMITS

SMC1 = a,a,a-Trifluorotoluene (63-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Spike Recovery Summary

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Matrix Spike - Lab Sample No.: 393351

Level: LOW

MS Sample from Lab Job No: D242

QA Batch: 7438

Compound	MS % REC.	BS % REC.	LIMITS
=====	=====	=====	=====
Benzene	76	80	39-150
Toluene	72	85	46-148
Chlorobenzene	88	90	55-135
Ethylbenzene	82	90	32-160
1,3-Dichlorobenzene	92	90	50-141
1,4-Dichlorobenzene	44	95	42-143
1,2-Dichlorobenzene	94	95	37-154

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

This is the Last Page of the Document

ATTACHMENT 2

LABORATORY QA/QC DATA
FEBRUARY 2003

EnSolutions, Inc.





02/27/2003

EnSolutions, Inc.
1029 North Florida Mango Road
Suite #7
West Palm Beach, FL 33409

Attention: Mr. Howard Fredericks

Laboratory Results
Job No. F529 - Petrocelli Electric

Dear Mr. Fredericks:

Enclosed are the results you requested for the following sample(s) received at our laboratory on February 6, 2003.

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
407736	MW-1	BTEX GC w/MTBE
407737	MW-4	BTEX GC w/MTBE
407738	MW-2	BTEX GC w/MTBE
407739	MW-6	BTEX GC w/MTBE
407740	MW-7	BTEX GC w/MTBE
407741	MW-3	BTEX GC w/MTBE

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Paul Nadzan, at (732) 549-3900.

Very Truly Yours,

Michael J. Urban
Laboratory Manager

Analytical Results Summary	1
General Information	8
Chain of Custody	8
Laboratory Chronicles	10
Methodology Review	12
Data Reporting Qualifiers	16
Non-Conformance Summary	18
GC/ PID Forms and Data	20
Results Summary and Chromatograms	20
Method Blank Results Summary	39
Standards Summary	46
Surrogate Compound Recovery Summary	65
Spike Recovery Summary	67
This is the Last Page of the Document	69

Analytical Results Summary

Client ID: MW-1
Site: Petrocelli Electric

Lab Sample No: 407736
Lab Job No: F529

Date Sampled: 02/05/03
Date Received: 02/06/03
Date Analyzed: 02/14/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4915.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	330	2.5
Benzene	ND	5.5
Toluene	7.0	6.0
Ethylbenzene	6.7	4.5
Xylene (Total)	ND	5.0

Client ID: MW-4
Site: Petrocelli Electric

Lab Sample No: 407737
Lab Job No: F529

Date Sampled: 02/05/03
Date Received: 02/06/03
Date Analyzed: 02/14/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4916.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

**VOLATILE ORGANICS - GC/PID
METHOD 602**

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	38	0.50
Benzene	11	1.1
Toluene	3.6	1.2
Ethylbenzene	54	0.90
Xylene (Total)	14	1.0

Client ID: MW-2
Site: Petrocelli Electric

Lab Sample No: 407738
Lab Job No: F529

Date Sampled: 02/05/03
Date Received: 02/06/03
Date Analyzed: 02/16/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4944.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	160	0.50
Benzene	4.8	1.1
Toluene	ND	1.2
Ethylbenzene	ND	0.90
Xylene (Total)	ND	1.0

Client ID: MW-6
Site: Petrocelli Electric

Lab Sample No: 407739
Lab Job No: F529

Date Sampled: 02/05/03
Date Received: 02/06/03
Date Analyzed: 02/14/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4917.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 50.0

**VOLATILE ORGANICS - GC/PID
METHOD 602**

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	430	5.0
Benzene	100	11
Toluene	670	12
Ethylbenzene	320	9.0
Xylene (Total)	1600	10

Client ID: MW-7
Site: Petrocelli Electric

Lab Sample No: 407740
Lab Job No: F529

Date Sampled: 02/05/03
Date Received: 02/06/03
Date Analyzed: 02/16/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4943.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	0.42	0.10
Benzene	ND	0.22
Toluene	ND	0.24
Ethylbenzene	0.55	0.18
Xylene (Total)	ND	0.20

Client ID: MW-3
Site: Petrocelli Electric

Lab Sample No: 407741
Lab Job No: F529

Date Sampled: 02/05/03
Date Received: 02/06/03
Date Analyzed: 02/16/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4945.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	85	0.50
Benzene	ND	1.1
Toluene	ND	1.2
Ethylbenzene	ND	0.90
Xylene (Total)	ND	1.0

General Information

Chain of Custody

Laboratory Chronicles

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison

777 New Durham Road, Edison, New Jersey
08817

Job No: F529

Site: Petrocelli Electric

Client: EnSolutions, Inc.

VOAGC

602

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
WATER							
407736	2/5/2003	2/06/2003			2/14/2003	Zhang, Yannong	7457
407737	2/5/2003	2/06/2003			2/14/2003	Zhang, Yannong	7457
407738	2/5/2003	2/06/2003			2/16/2003	Zhang, Yannong	7457
407739	2/5/2003	2/06/2003			2/14/2003	Zhang, Yannong	7457
407740	2/5/2003	2/06/2003			2/16/2003	Zhang, Yannong	7457
407741	2/5/2003	2/06/2003			2/16/2003	Zhang, Yannong	7457

Methodology Review

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2 Rev 4.1. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

- P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)
- A - Flame Atomic Absorption
- F - Furnace Atomic Absorption
- CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method - 200.7/SW846 6010B and for solid matrix - 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1/7470A and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

<u>Element</u>	<u>Water Test Method</u> <u>Furnace</u>	<u>Solid Test Method</u> <u>Furnace</u>
Antimony	200.9	7041
Arsenic	200.9	7060A
Cadmium	200.9	7131A
Lead	200.9	7421
Selenium	200.9	7740
Thallium	200.9	7841

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in water and solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

- Ignitability - Method 1020A
- Corrosivity - Water pH Method 9040B
Soil pH Method 9045C
- Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release
- Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

Data Reporting Qualifiers

DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

Non-Conformance Summary



STL

Nonconformance Summary

STL Edison Job Number: F529

Client: EnSolutions, Inc.

Date: 2/26/2003

Sample Receipt:

Sample delivery conforms with requirements.

Volatile Organic Analysis (GC):

All data conforms with method requirements.

I certify that the test results contained in this data package meet all requirements of NELAC both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

A handwritten signature in black ink that reads "Michael J. Urban".

Michael J. Urban
Laboratory Manager

GC/PID Forms and Data

Results Summary and Chromatograms

Client ID: MW-1
Site: Petrocelli Electric

Lab Sample No: 407736
Lab Job No: F529

Date Sampled: 02/05/03
Date Received: 02/06/03
Date Analyzed: 02/14/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4915.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	330	2.5
Benzene	ND	5.5
Toluene	7.0	6.0
Ethylbenzene	6.7	4.5
Xylene (Total)	ND	5.0

Data File: /chem/VOAGC3.i/602/12-26-02/14Feb03.b/ipid4915.d
Report Date: 18-Feb-2003 12:30

STL Edison

Data file : /chem/VOAGC3.i/602/12-26-02/14Feb03.b/ipid4915.d
Lab Smp Id: 407736 Client Smp ID: MW-1
Inj Date : 14-FEB-2003 14:17
Operator : Inst ID: VOAGC3.i
Smp Info : 407736;;25
Misc Info : F529;7457;;YZ
Comment :
Method : /chem/VOAGC3.i/602/12-26-02/14Feb03.b/602 02.m
Meth Date : 18-Feb-2003 12:29 johnz Quant Type: ESTD
Cal Date : 26-DEC-2002 12:21 Cal File: ipid4725.d
Als bottle: 1
Dil Factor: 25.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: hpd2

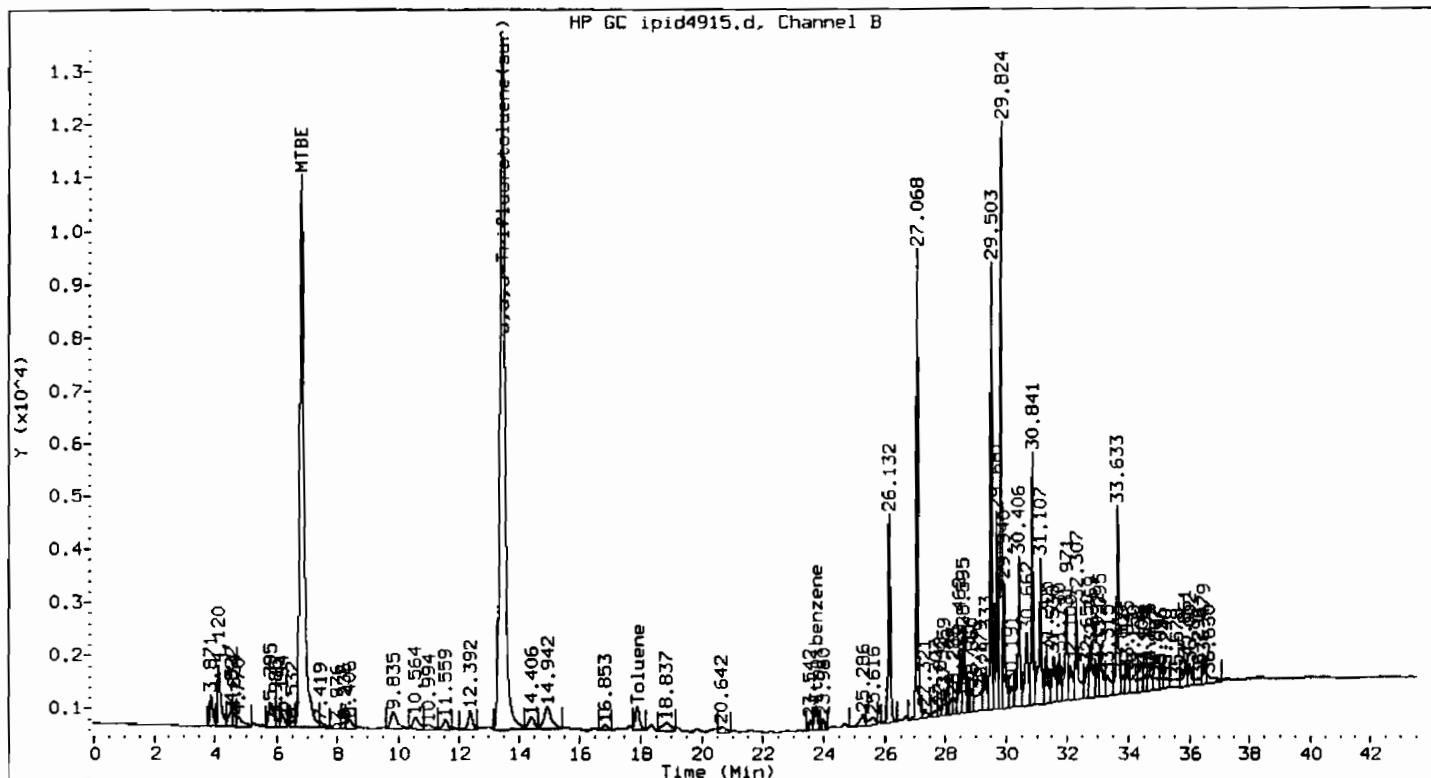
Compound Sublist: BTEXMTBE.sub

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	25.00000	Dilution Factor
Vo	5.00000	Initial Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
2 MTBE	6.802	6.793	0.009	527964	13.3621	330
4 Benzene	Compound Not Detected.					
\$ 5 a,a,a-Trifluorotoluene(sur)	13.429	13.431	-0.002	738435	26.4460	26
6 Toluene	17.882	17.882	0.000	20802	0.27998	7.0
8 Ethylbenzene	23.734	23.738	-0.004	16028	0.26811	6.7
10 m,p-Xylene	Compound Not Detected.					
M 9 Xylene (Total)	Compound Not Detected.					
11 o-Xylene	Compound Not Detected.					



Method : /chem/VOAGC3.i/602/12-26-02/14Feb03.b/602_02.m
Sample Info : 407736;;25
Lab ID : 407736
Inj Date : 14-FEB-2003 14:17
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 25
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.802	6.793	0.009	527964	13.362	334.052
Toluene	17.882	17.882	0.000	20802	0.280	7.000
Ethylbenzene	23.734	23.738	0.004	16028	0.268	6.703
a,a,a-Trifluorotoluene(sur)	13.429	13.431	0.002	738435	26.446	26.446

Client ID: MW-4
Site: Petrocelli Electric

Lab Sample No: 407737
Lab Job No: F529

Date Sampled: 02/05/03
Date Received: 02/06/03
Date Analyzed: 02/14/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4916.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	38	0.50
Benzene	11	1.1
Toluene	3.6	1.2
Ethylbenzene	54	0.90
Xylene (Total)	14	1.0

Data File: /chem/VOAGC3.i/602/12-26-02/14Feb03.b/ipid4916.d
Report Date: 18-Feb-2003 12:30

STL Edison

Data file : /chem/VOAGC3.i/602/12-26-02/14Feb03.b/ipid4916.d
Lab Smp Id: 407737 Client Smp ID: MW-4
Inj Date : 14-FEB-2003 15:04
Operator : Inst ID: VOAGC3.i
Smp Info : 407737;;5
Misc Info : F529;7457;;YZ
Comment :
Method : /chem/VOAGC3.i/602/12-26-02/14Feb03.b/602 02.m
Meth Date : 18-Feb-2003 12:29 johnz Quant Type: ESTD
Cal Date : 26-DEC-2002 12:21 Cal File: ipid4725.d
Als bottle: 1
Dil Factor: 5.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: hpd2

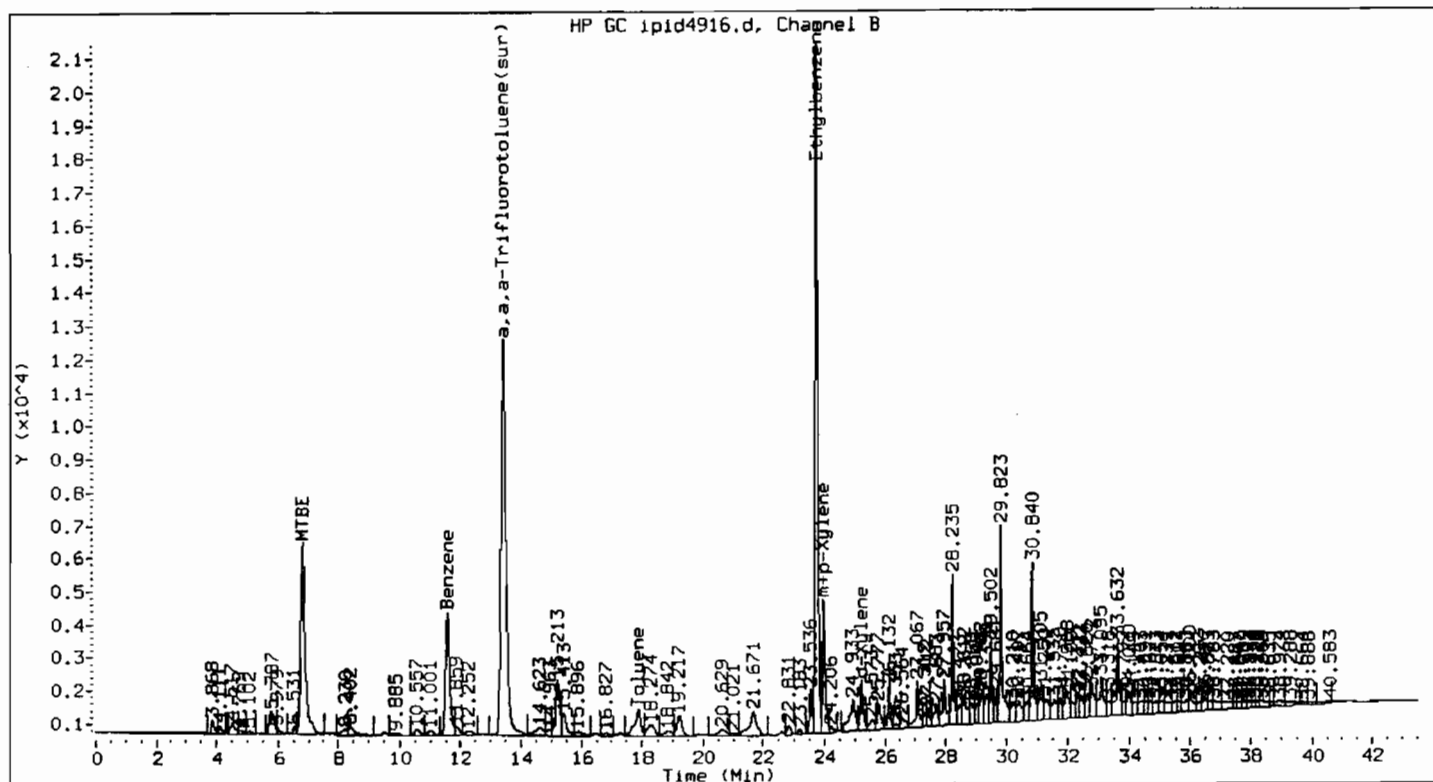
Compound Sublist: BTEXMTBE.sub

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Vo	5.00000	Initial Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
2 MTBE	6.802	6.793	0.009	302860	7.66499	38
4 Benzene	11.560	11.560	0.000	185827	2.13811	11
\$ 5 a,a,a-Trifluorotoluene(sur)	13.428	13.431	-0.003	686920	24.6010	25
6 Toluene	17.874	17.882	-0.008	54345	0.73145	3.6
8 Ethylbenzene	23.731	23.738	-0.007	648802	10.8530	54
10 m+p-Xylene	23.972	23.982	-0.010	134871	2.00652	10
M 9 Xylene (Total)				186713	2.87364	14
11 o-Xylene	25.213	25.215	-0.002	51842	0.85703	4.3



Method : /chem/VOAGC3.i/602/12-26-02/14Feb03.b/602_02.m

Sample Info : 407737;;5

Lab ID : 407737

Inj Date : 14-FEB-2003 15:04

Operator :

Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i

Dil Factor : 5

Sample Matrix : WATER

Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.213	25.215	0.002	51842	0.857	4.285
m+p-Xylene	23.972	23.982	0.010	134871	2.007	10.033
MTBE	6.802	6.793	0.009	302860	7.665	38.325
Benzene	11.560	11.560	0.001	185827	2.138	10.691
Toluene	17.874	17.882	0.008	54345	0.731	3.657
Ethylbenzene	23.731	23.738	0.006	648802	10.853	54.265
Xylene (Total)	25.019	25.019	0.000	186713	2.874	14.368
a,a,a-Trifluorotoluene(sur)	13.428	13.431	0.003	686920	24.601	24.601

Client ID: MW-2
Site: Petrocelli Electric

Lab Sample No: 407738
Lab Job No: F529

Date Sampled: 02/05/03
Date Received: 02/06/03
Date Analyzed: 02/16/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4944.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	160	0.50
Benzene	4.8	1.1
Toluene	ND	1.2
Ethylbenzene	ND	0.90
Xylene (Total)	ND	1.0

Data File: /chem/VOAGC3.i/602/12-26-02/16Feb03.b/ipid4944.d
Report Date: 18-Feb-2003 12:33

STL Edison

Data file : /chem/VOAGC3.i/602/12-26-02/16Feb03.b/ipid4944.d
Lab Smp Id: 407738 Client Smp ID: MW-2
Inj Date : 16-FEB-2003 18:26
Operator : Inst ID: VOAGC3.i
Smp Info : 407738;;5
Misc Info : F529;7457;;JXZ
Comment :
Method : /chem/VOAGC3.i/602/12-26-02/16Feb03.b/602 02.m
Meth Date : 18-Feb-2003 12:32 johnz Quant Type: ESTD
Cal Date : 26-DEC-2002 12:21 Cal File: ipid4725.d
Als bottle: 1
Dil Factor: 5.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: hpd2

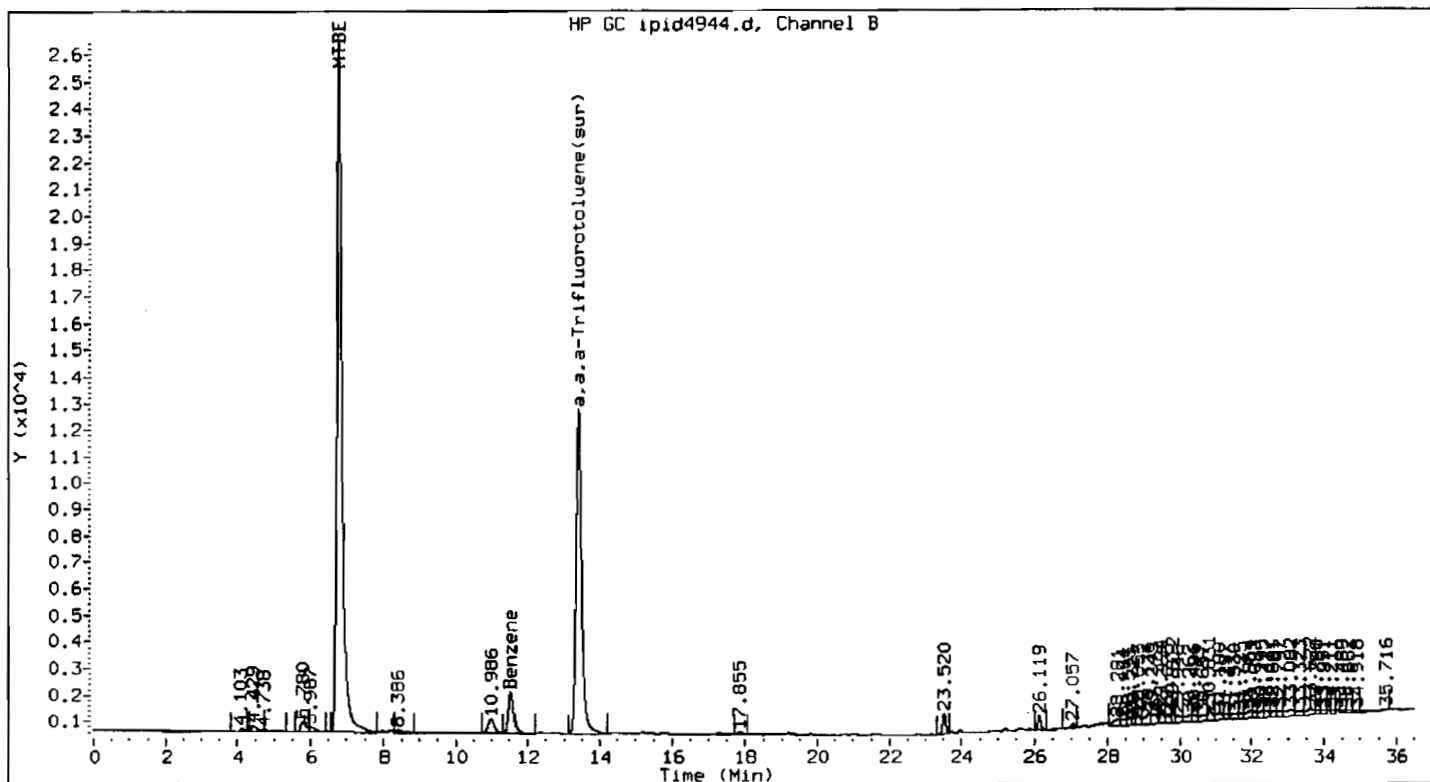
Compound Sublist: BTEXMTBE.sub

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Vo	5.00000	Initial Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
2 MTBE	6.788	6.783	0.005	1291533	32.6870	160
4 Benzene	11.542	11.540	0.002	83378	0.95934	4.8
5 a,a,a-Trifluorotoluene(sur)	13.409	13.409	0.000	698404	25.0123	25
6 Toluene				Compound Not Detected.		
8 Ethylbenzene				Compound Not Detected.		
10 m+p-Xylene				Compound Not Detected.		
M 9 Xylene (Total)				Compound Not Detected.		
11 o-Xylene				Compound Not Detected.		



Method : /chem/VOAGC3.i/602/12-26-02/16Feb03.b/602_02.m

Sample Info : 407738;;5

Lab ID : 407738

Inj Date : 16-FEB-2003 18:26

Operator :

Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i

Dil Factor : 5

Sample Matrix : WATER

Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.788	6.783	0.005	1291533	32.687	163.435
Benzene	11.542	11.540	0.001	83378	0.959	4.797
a,a,a-Trifluorotoluene (sur)	13.409	13.409	0.000	698404	25.012	25.012

Client ID: MW-6
Site: Petrocelli Electric

Lab Sample No: 407739
Lab Job No: F529

Date Sampled: 02/05/03
Date Received: 02/06/03
Date Analyzed: 02/14/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4917.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 50.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	430	5.0
Benzene	100	11
Toluene	670	12
Ethylbenzene	320	9.0
Xylene (Total)	1600	10

Data File: /chem/VOAGC3.i/602/12-26-02/14Feb03.b/iped4917.d
 Report Date: 18-Feb-2003 12:30

STL Edison

Data file : /chem/VOAGC3.i/602/12-26-02/14Feb03.b/iped4917.d
 Lab Smp Id: 407739 Client Smp ID: MW-6
 Inj Date : 14-FEB-2003 15:51
 Operator : Inst ID: VOAGC3.i
 Smp Info : 407739;;50
 Misc Info : F529;7457;;YZ
 Comment :
 Method : /chem/VOAGC3.i/602/12-26-02/14Feb03.b/602 02.m
 Meth Date : 18-Feb-2003 12:29 johnz Quant Type: ESTD
 Cal Date : 26-DEC-2002 12:21 Cal File: iped4725.d
 Als bottle: 1
 Dil Factor: 50.00000
 Integrator: HP Genie
 Target Version: 3.50
 Processing Host: hpd2

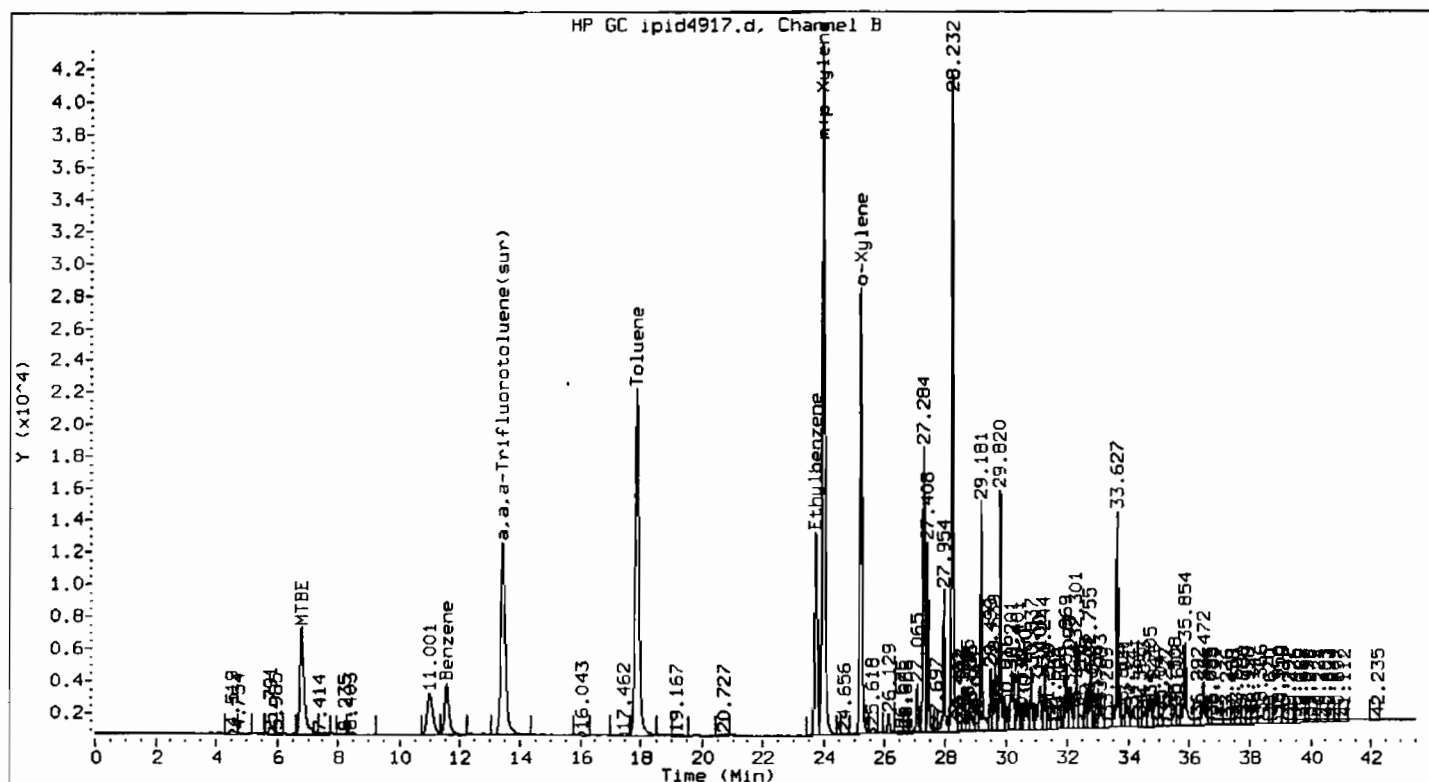
Compound Sublist: BTEXMTBE.sub

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Vo	5.00000	Initial Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
2 MTBE	6.800	6.793	0.007	342416	8.66610	430
4 Benzene	11.559	11.560	-0.001	175932	2.02426	100
\$ 5 a,a,a-Trifluorotoluene(sur)	13.425	13.431	-0.006	677639	24.2686	24
6 Toluene	17.871	17.882	-0.011	996061	13.4064	670
8 Ethylbenzene	23.728	23.738	-0.010	389438	6.51442	320
10 m+p-Xylene	23.974	23.982	-0.008	1293521	19.2441	960
M 9 Xylene (Total)				2018402	31.0645	1600
11 o-Xylene	25.207	25.215	-0.008	724881	11.9834	600



Method : /chem/VOAGC3.i/602/12-26-02/14Feb03.b/602_02.m

Sample Info : 407739;;50

Lab ID : 407739

Inj Date : 14-FEB-2003 15:51

Operator :

Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i

Dil Factor : 50

Sample Matrix : WATER

Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.207	25.215	0.008	724881	11.983	599.168
m,p-Xylene	23.974	23.982	0.008	1293521	19.244	962.207
MTBE	6.800	6.793	0.008	342416	8.666	433.305
Benzene	11.559	11.560	0.001	175932	2.024	101.213
Toluene	17.871	17.882	0.010	996061	13.406	670.322
Ethylbenzene	23.728	23.738	0.009	389438	6.514	325.721
Xylene (Total)	25.019	25.019	0.000	2018402	31.065	1553.227
a,a,a-Trifluorotoluene(sur)	13.425	13.431	0.005	677639	24.269	24.269

Client ID: MW-7
Site: Petrocelli Electric

Lab Sample No: 407740
Lab Job No: F529

Date Sampled: 02/05/03
Date Received: 02/06/03
Date Analyzed: 02/16/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4943.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID
METHOD 602**

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	0.42	0.10
Benzene	ND	0.22
Toluene	ND	0.24
Ethylbenzene	0.55	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/12-26-02/16Feb03.b/ipid4943.d
Report Date: 18-Feb-2003 12:33

STL Edison

Data file : /chem/VOAGC3.i/602/12-26-02/16Feb03.b/ipid4943.d
Lab Smp Id: 407740 Client Smp ID: MW-7
Inj Date : 16-FEB-2003 17:39
Operator : Inst ID: VOAGC3.i
Smp Info : 407740
Misc Info : F529;7457;;JXZ
Comment :
Method : /chem/VOAGC3.i/602/12-26-02/16Feb03.b/602 02.m
Meth Date : 18-Feb-2003 12:32 johnz Quant Type: ESTD
Cal Date : 26-DEC-2002 12:21 Cal File: ipid4725.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: hpd2

Compound Sublist: BTEXMTBE.sub

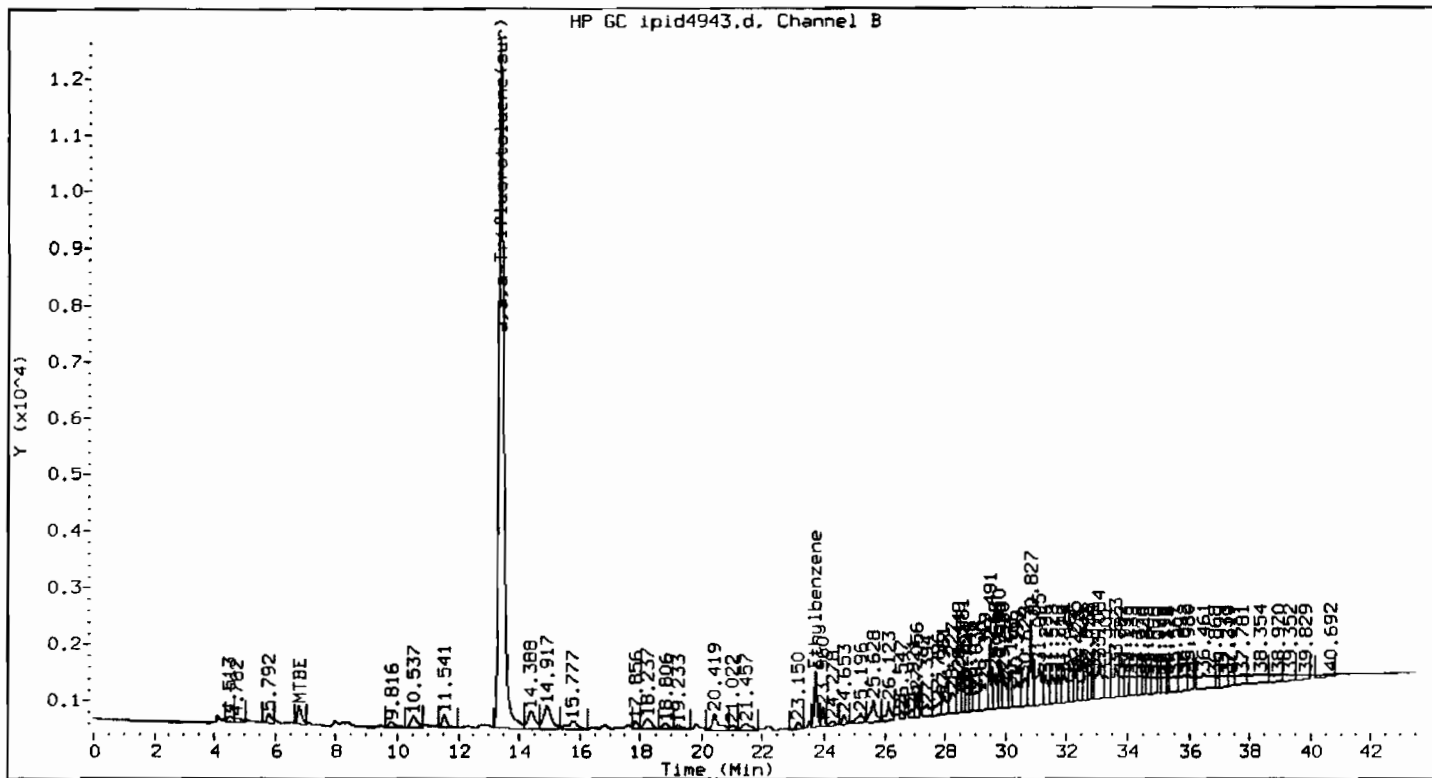
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	5.00000	Initial Volume

Cpnd Variable

Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
2 MTBE	6.791	6.783	0.008	16504	0.41769	0.42
4 Benzene				Compound Not Detected.		
\$ 5 a,a,a-Trifluorotoluene(sur)	13.408	13.409	-0.001	699557	25.0536	25
6 Toluene				Compound Not Detected.		
8 Ethylbenzene	23.716	23.718	-0.002	33091	0.55354	0.55
10 m+p-Xylene				Compound Not Detected.		
M 9 Xylene (Total)				Compound Not Detected.		
11 o-Xylene				Compound Not Detected.		



Method : /chem/VOAGC3.i/602/12-26-02/16Feb03.b/602_02.m
Sample Info : 407740
Lab ID : 407740
Inj Date : 16-FEB-2003 17:39
Operator :
Cpnd Sublist: BTEXMTBE

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.791	6.783	0.008	16504	0.418	0.418
Ethylbenzene	23.716	23.718	0.002	33091	0.554	0.554
a,a,a-Trifluorotoluene(sur)	13.408	13.409	0.001	699557	25.054	25.054

Client ID: MW-3
Site: Petrocelli Electric

Lab Sample No: 407741
Lab Job No: F529

Date Sampled: 02/05/03
Date Received: 02/06/03
Date Analyzed: 02/16/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4945.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
MTBE	85	0.50
Benzene	ND	1.1
Toluene	ND	1.2
Ethylbenzene	ND	0.90
Xylene (Total)	ND	1.0

Data File: /chem/VOAGC3.i/602/12-26-02/16Feb03.b/iped4945.d
Report Date: 18-Feb-2003 12:34

STL Edison

Data file : /chem/VOAGC3.i/602/12-26-02/16Feb03.b/iped4945.d
Lab Smp Id: 407741 Client Smp ID: MW-3
Inj Date : 16-FEB-2003 19:06
Operator : Inst ID: VOAGC3.i
Smp Info : 407741;;5
Misc Info : F529;7457;;JXZ
Comment :
Method : /chem/VOAGC3.i/602/12-26-02/16Feb03.b/602_02.m
Meth Date : 18-Feb-2003 12:32 johnz Quant Type: ESTD
Cal Date : 26-DEC-2002 12:21 Cal File: iped4725.d
Als bottle: 1
Dil Factor: 5.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: hpd2

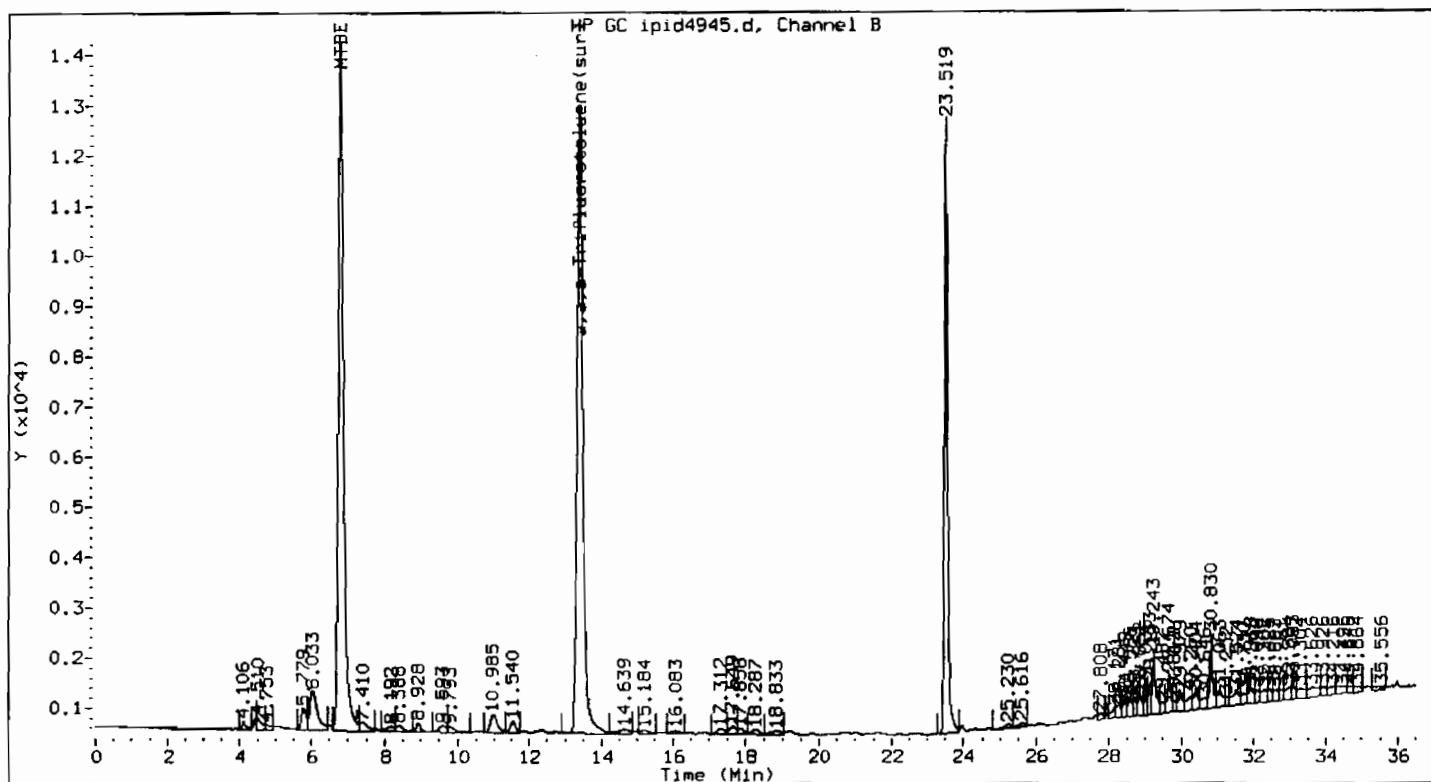
Compound Sublist: BTEXMTBE.sub

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Vo	5.00000	Initial Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
2 MTBE	6.789	6.783	0.006	674496	17.0706	85
4 Benzene				Compound Not Detected.		
\$ 5 a,a,a-Trifluorotoluene(sur)	13.408	13.409	-0.001	705605	25.2702	25
6 Toluene				Compound Not Detected.		
8 Ethylbenzene				Compound Not Detected.		
10 m+p-Xylene				Compound Not Detected.		
M 9 Xylene (Total)				Compound Not Detected.		
11 o-Xylene				Compound Not Detected.		



Method : /chem/VOAGC3.i/602/12-26-02/16Feb03.b/602_02.m
Sample Info : 407741;;5
Lab ID : 407741
Inj Date : 16-FEB-2003 19:06
Operator :
Cpnd Sublist: BTEXMTBE
Inst ID : VOAGC3.i
Dil Factor : 5
Sample Matrix : WATER
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
MTBE	6.789	6.783	0.005	674496	17.071	85.353
a,a,a-Trifluorotoluene(sur)	13.408	13.409	0.001	705605	25.270	25.270

Method Blank Results Summary

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG045

Date Analyzed: 02/14/03

Instrument ID: VOAGC3

Time Analyzed: 1137

Lab File ID: IPID4911

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	MW-1	407736	IPID4915	1417
02	MW-4	407737	IPID4916	1504
03	MW-6	407739	IPID4917	1551
04	MW-6MS	407739MS	IPID4930	0039
05	MW-6MSD	407739MSD	IPID4931	0119
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: IG045
Site:

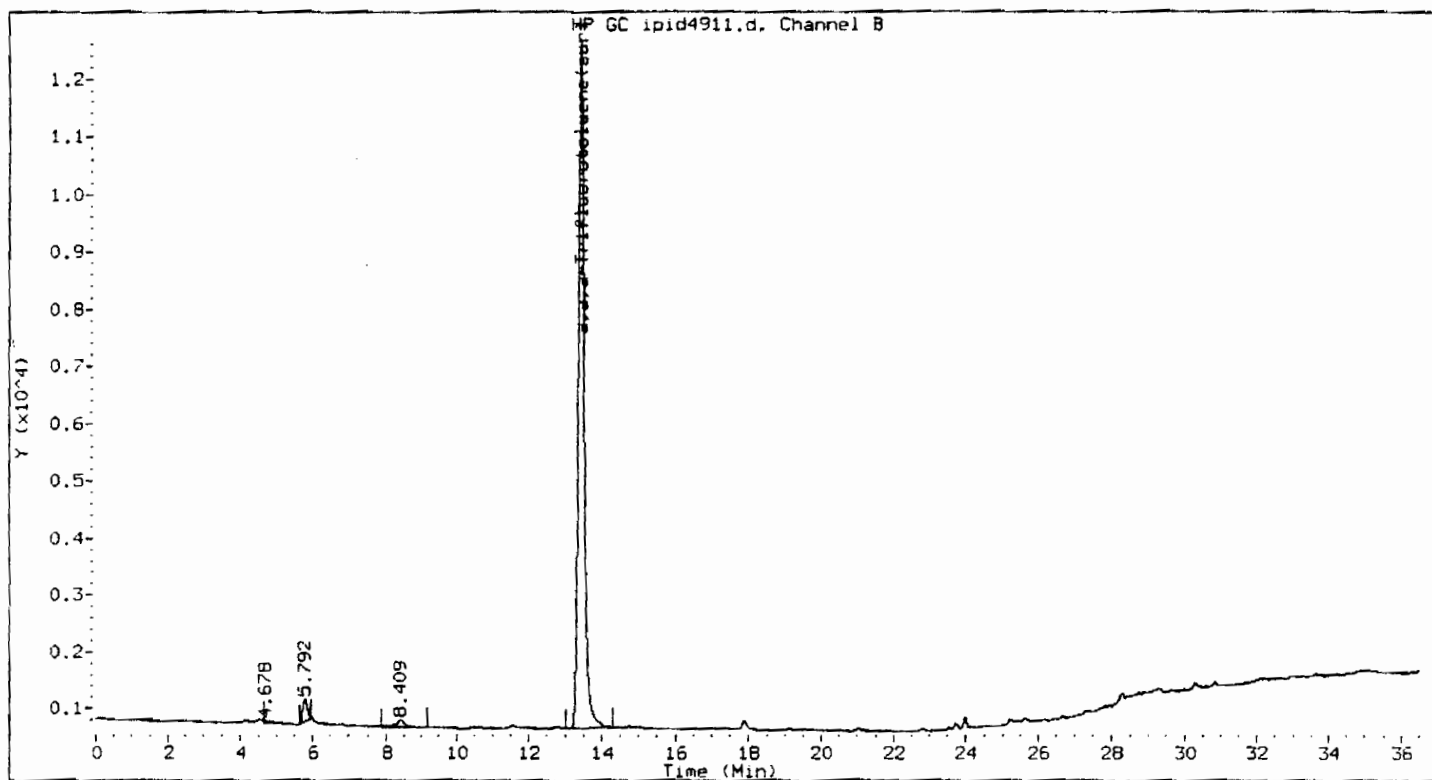
Lab Sample No: IG045
Lab Job No: F529

Date Sampled: _____
Date Received: _____
Date Analyzed: 02/14/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4911.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
TBA	ND	19
MTBE	ND	0.10
DIPE	ND	0.13
Benzene	ND	0.22
Toluene	ND	0.24
Chlorobenzene	ND	0.17
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20
1,3-Dichlorobenzene	ND	0.18
1,4-Dichlorobenzene	ND	0.21
1,2-Dichlorobenzene	ND	0.20
Naphthalene	ND	0.22



Method : /chem/VOAGC3.i/602/12-26-02/14Feb03.b/602_02.m

Sample Info : IG045

Lab ID : IG045

Inj Date : 14-FEB-2003 11:37

Operator :

Cpnd Sublist: all

Inst ID : VOAGC3.i

Dil Factor : 1

Sample Matrix : WATER

Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.425	13.431	0.005	677670	24.270	24.270

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG047

Date Analyzed: 02/16/03

Instrument ID: VOAGC3

Time Analyzed: 1652

Lab File ID: IPID4942

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-7	407740	IPID4943	1739
02	MW-2	407738	IPID4944	1826
03	MW-3	407741	IPID4945	1906
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: IG047
Site:

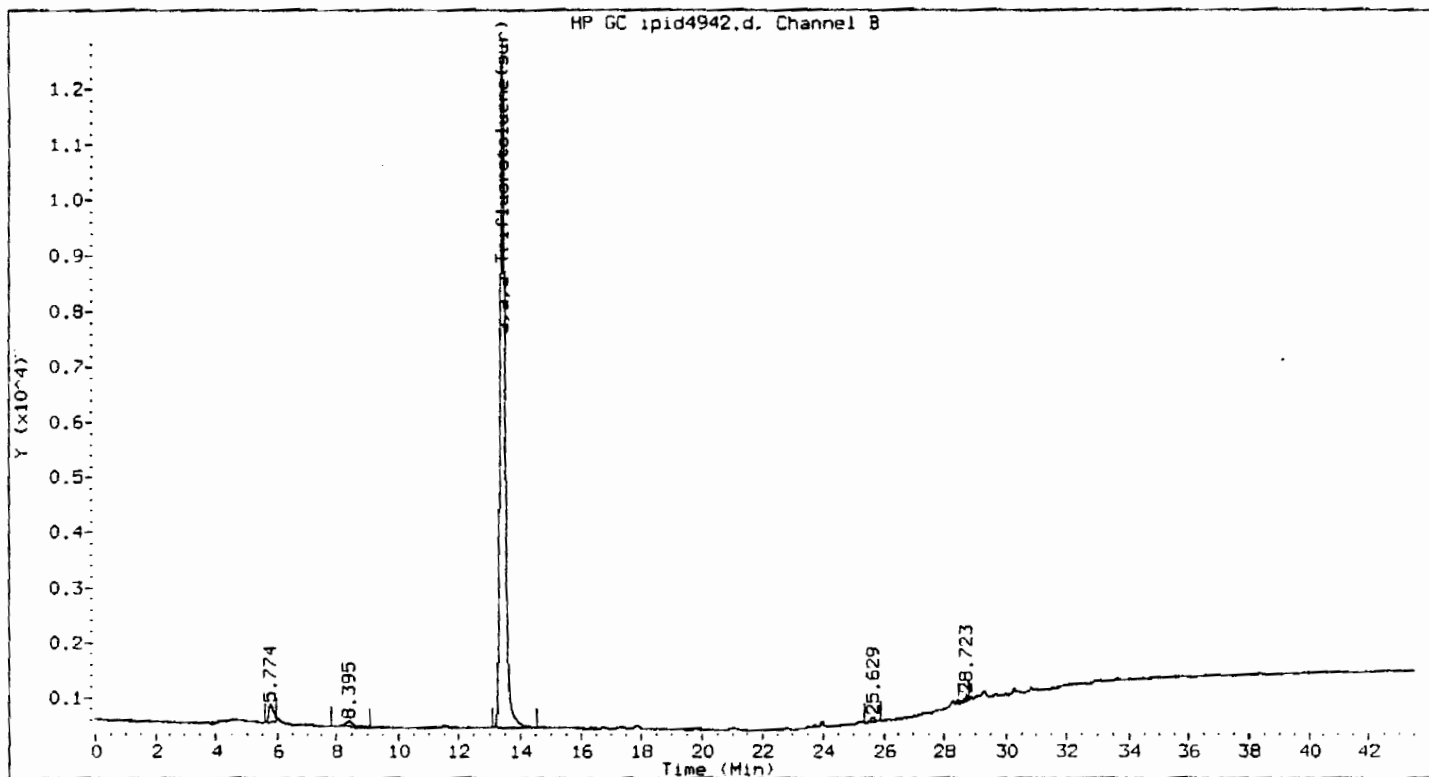
Lab Sample No: IG047
Lab Job No: F529

Date Sampled: _____
Date Received: _____
Date Analyzed: 02/16/03
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid4942.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
TBA	ND	19
MTBE	ND	0.10
DIPE	ND	0.13
Benzene	ND	0.22
Toluene	ND	0.24
Chlorobenzene	ND	0.17
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20
1,3-Dichlorobenzene	ND	0.18
1,4-Dichlorobenzene	ND	0.21
1,2-Dichlorobenzene	ND	0.20
Naphthalene	ND	0.22



Method : /chem/VOAGC3.i/602/12-26-02/16Feb03.b/602_02.m
Sample Info : IG047
Lab ID : IG047
Inj Date : 16-FEB-2003 16:52
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.407	13.409	0.002	713494	25.553	25.553

Standards Summary

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

Calibration Date(s): 12/26/02 12/26/02

Calibration Time(s): 0941 1221

LAB FILE ID:	RRF2: IPID4725	RRF5: IPID4724	RRF10: IPID4723		
	RRF20: IPID4721	RRF40: IPID4722			
COMPOUND	RRF2	RRF5	RRF10	RRF20	RRF40
TBA **	328	305	301	303	
MTBE	43180	40492	38254	38830	36805
DIPE	48530	47530	45572	47203	46127
Benzene	97804	87994	81584	85220	81957
Toluene	77142	74766	71376	77230	70973
Chlorobenzene	72662	71273	68200	73228	68683
Ethylbenzene	61864	60343	57944	60672	58081
Xylene (Total)	66659	65071	62736	67147	63259
1,3-Dichlorobenzene	55448	53446	51402	58563	53482
1,4-Dichlorobenzene	54398	53211	51398	60937	55726
1,2-Dichlorobenzene	42200	43352	41237	47055	43696
Naphthalene	32655	32500	30702	32827	32585
a,a,a-Trifluorotoluene(sur)	26922	27699	27689	28853	28448

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

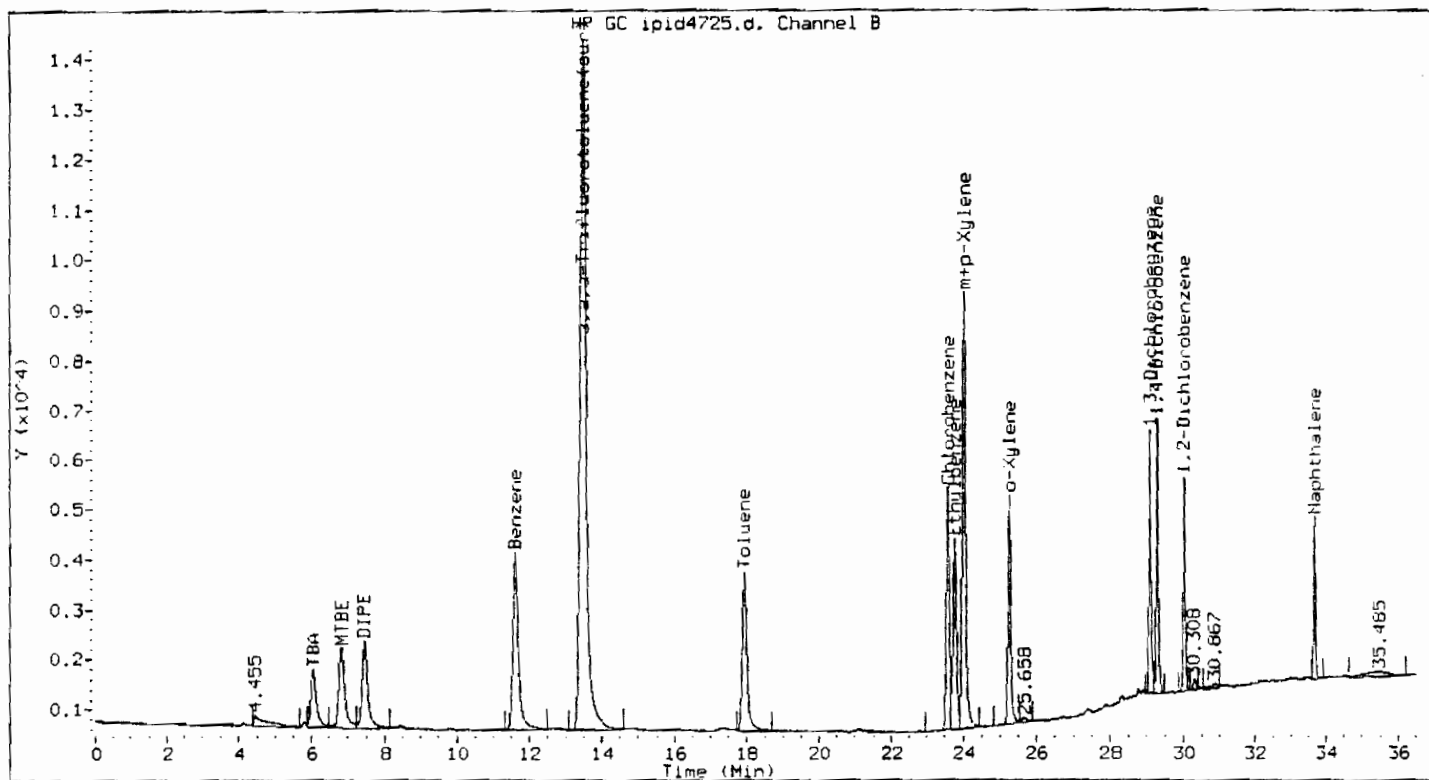
Calibration Date(s): 12/26/02 12/26/02

Calibration Time(s): 0941 1221

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
=====	=====	=====	=====
TBA **	AVRG	309	4.0*
MTBE	AVRG	39512	6.2*
DIPE	AVRG	46992	2.5*
Benzene	AVRG	86912	7.6*
Toluene	AVRG	74297	4.1*
Chlorobenzene	AVRG	70809	3.2*
Ethylbenzene	AVRG	59781	2.9*
Xylene (Total)	AVRG	64974	3.0*
1,3-Dichlorobenzene	AVRG	54468	5.0*
1,4-Dichlorobenzene	AVRG	55134	6.6*
1,2-Dichlorobenzene	AVRG	43508	5.1*
Naphthalene	AVRG	32254	2.7*
=====	=====	=====	=====
a,a,a-Trifluorotoluene(sur)	AVRG	27922	2.7*

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

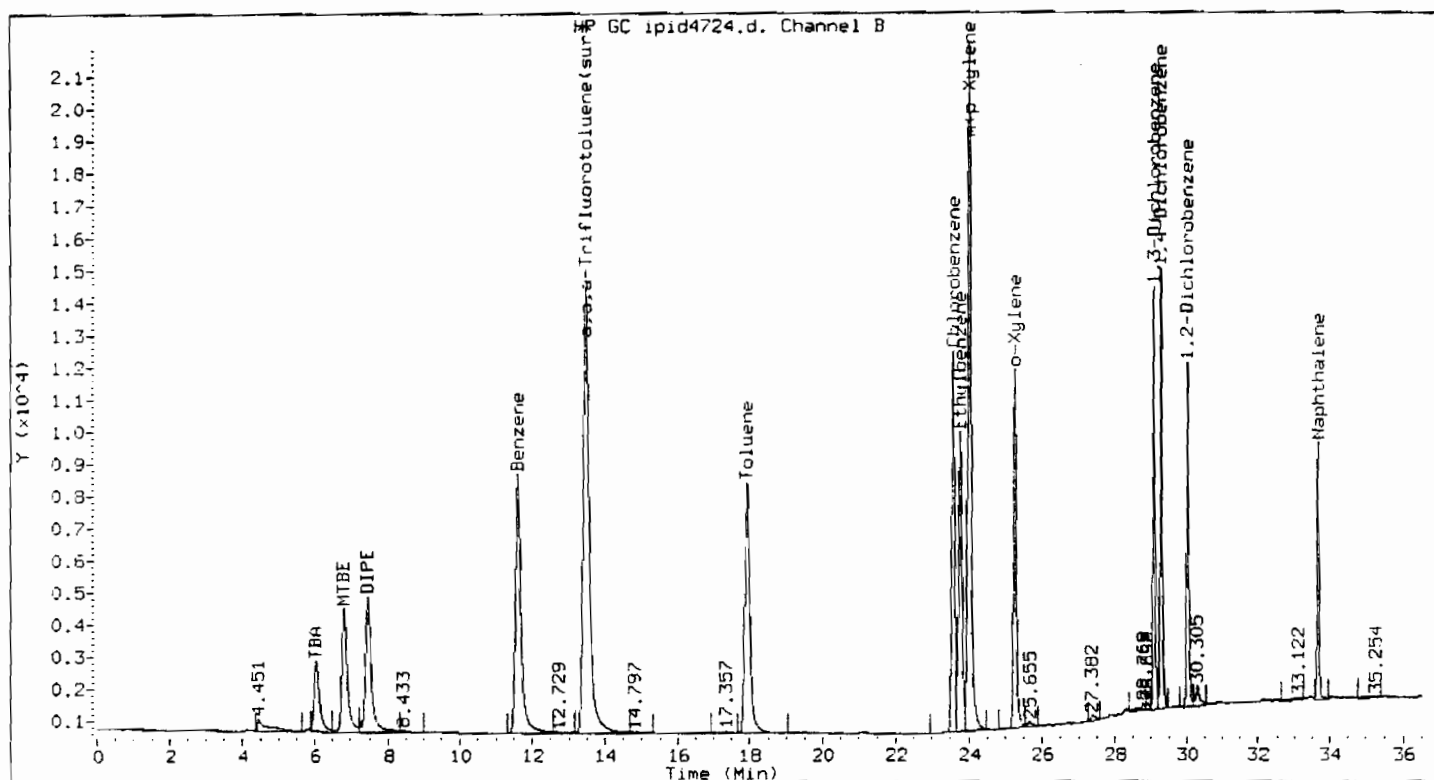
* Compounds with required maximum %RSD values.



Method : /chem/VOAGC3.i/602/12-26-02/26Dec02.b/602_02.m
Sample Info : ISTD002
Lab ID : ISTD002
Inj Date : 26-DEC-2002 12:21
Operator :
Cpnd Sublist: all
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_1

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.247	25.261	0.014	124588	2.060	2.060
m+p-Xylene	24.017	24.034	0.017	275367	4.097	4.097
TBA	6.049	6.044	0.005	65513	211.871	211.871
MTBE	6.825	6.836	0.011	86359	2.186	2.186
DIPE	7.451	7.462	0.011	97060	2.065	2.065
Benzene	11.607	11.623	0.017	195609	2.251	2.251
Toluene	17.926	17.950	0.024	154283	2.077	2.077
Chlorobenzene	23.579	23.597	0.018	145325	2.052	2.052
Ethylbenzene	23.773	23.790	0.017	123728	2.070	2.070

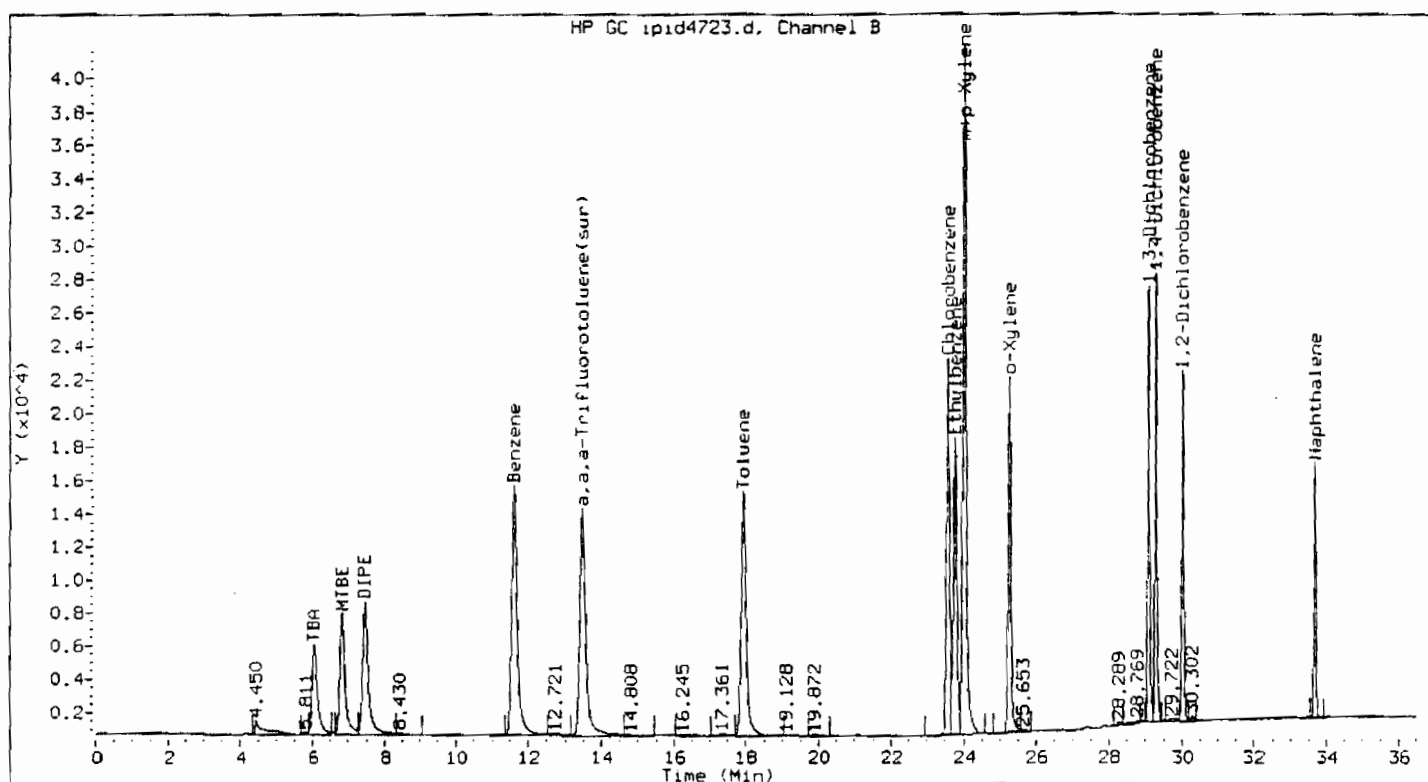
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	399955	6.156	6.156
1,3-Dichlorobenzene	29.078	29.087	0.009	110897	2.036	2.036
1,4-Dichlorobenzene	29.287	29.296	0.009	108797	1.973	1.973
1,2 Dichlorobenzene	30.025	30.034	0.008	84399	1.940	1.940
Naphthalene	33.671	33.677	0.007	65310	2.025	2.025
a,a,a-Trifluorotoluene(sur)	13.474	13.495	0.021	807667	28.925	28.925



Method : /chem/VOAGC3.i/602/12-26-02/26Dec02.b/602_02.m
Sample Info : ISTD005
Lab ID : ISTD005
Inj Date : 26-DEC-2002 11:41
Operator :
Cpnd Sublist: all
Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.247	25.261	0.014	301699	4.988	4.988
m+p-Xylene	24.017	24.034	0.016	674364	10.033	10.033
TBA	6.047	6.044	0.003	122126	394.959	394.959
MTBE	6.824	6.836	0.012	202459	5.124	5.124
DIPE	7.450	7.462	0.012	237649	5.057	5.057
Benzene	11.606	11.623	0.017	439968	5.062	5.062
Toluene	17.927	17.950	0.023	373828	5.032	5.032
Chlorobenzene	23.580	23.597	0.017	356363	5.033	5.033
Ethylbenzene	23.774	23.790	0.017	301717	5.047	5.047

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	976063	15.022	15.022
1,3-Dichlorobenzene	29.078	29.087	0.008	267229	4.906	4.906
1,4-Dichlorobenzene	29.288	29.296	0.008	266053	4.826	4.826
1,2-Dichlorobenzene	30.026	30.034	0.007	216759	4.982	4.982
Naphthalene	33.671	33.677	0.006	162501	5.038	5.038
a,a,a-Trifluorotoluene(sur)	13.475	13.495	0.021	830979	29.760	29.760

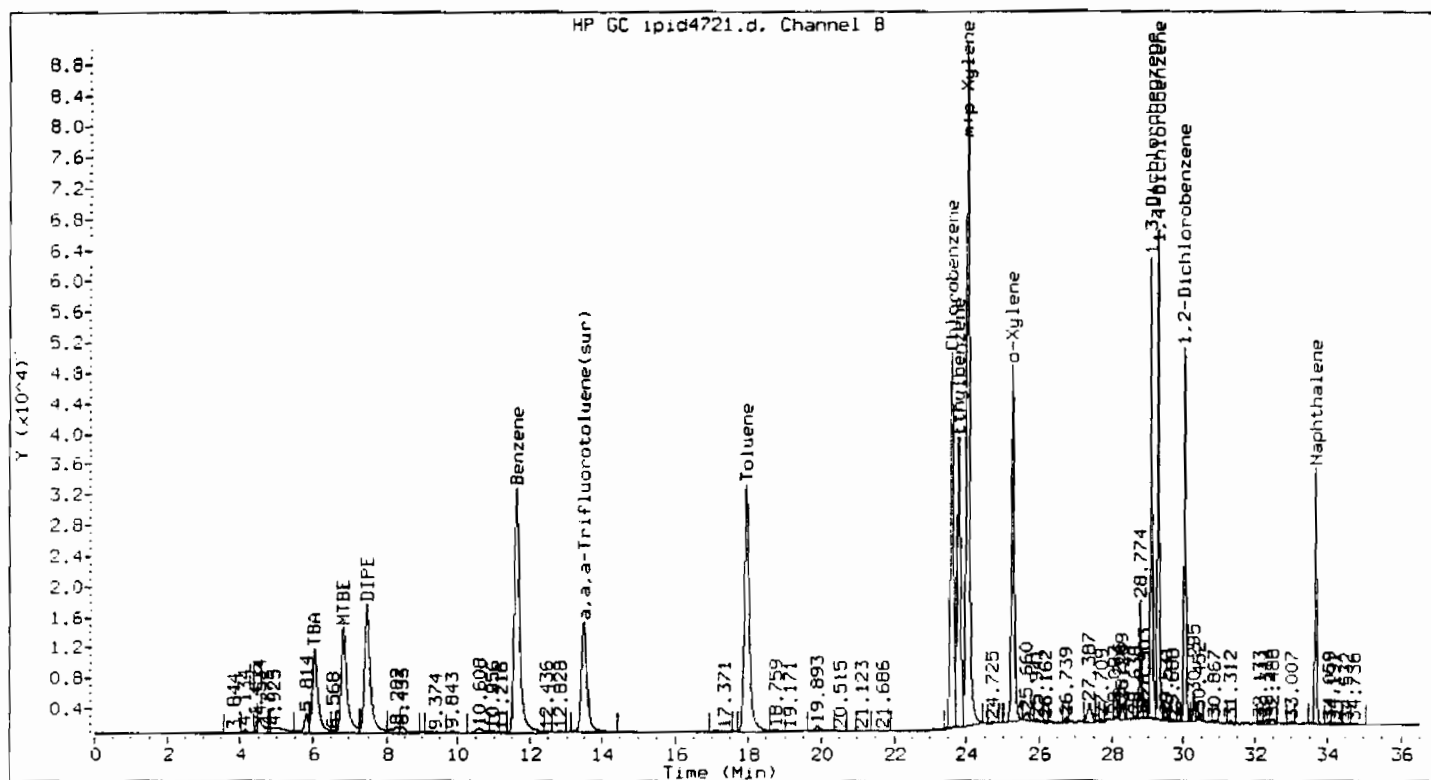


Method : /chem/VOAGC3.i/602/12-26-02/26Dec02.b/602_02.m
Sample Info : ISTD010
Lab ID : ISTD010
Inj Date : 26-DEC-2002 11:01
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_3

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.247	25.261	0.014	579808	9.585	9.585
m+p-Xylene	24.017	24.034	0.016	1302283	19.374	19.374
TBA	6.045	6.044	0.001	300818	972.853	972.853
MTBE	6.826	6.836	0.010	382544	9.682	9.682
DIPE	7.451	7.462	0.011	455718	9.698	9.698
Benzene	11.607	11.623	0.017	815844	9.387	9.387
Toluene	17.928	17.950	0.023	713761	9.607	9.607
Chlorobenzene	23.580	23.597	0.017	682000	9.632	9.632
Ethylbenzene	23.774	23.790	0.017	579443	9.693	9.693

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	1882091	28.967	28.967
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.078	29.087	0.009	514023	9.437	9.437
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.288	29.296	0.009	513975	9.322	9.322
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.025	30.034	0.008	412366	9.478	9.478
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.671	33.677	0.006	307025	9.519	9.519
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.475	13.495	0.020	930664	29.749	29.749
-----	-----	-----	-----	-----	-----	-----

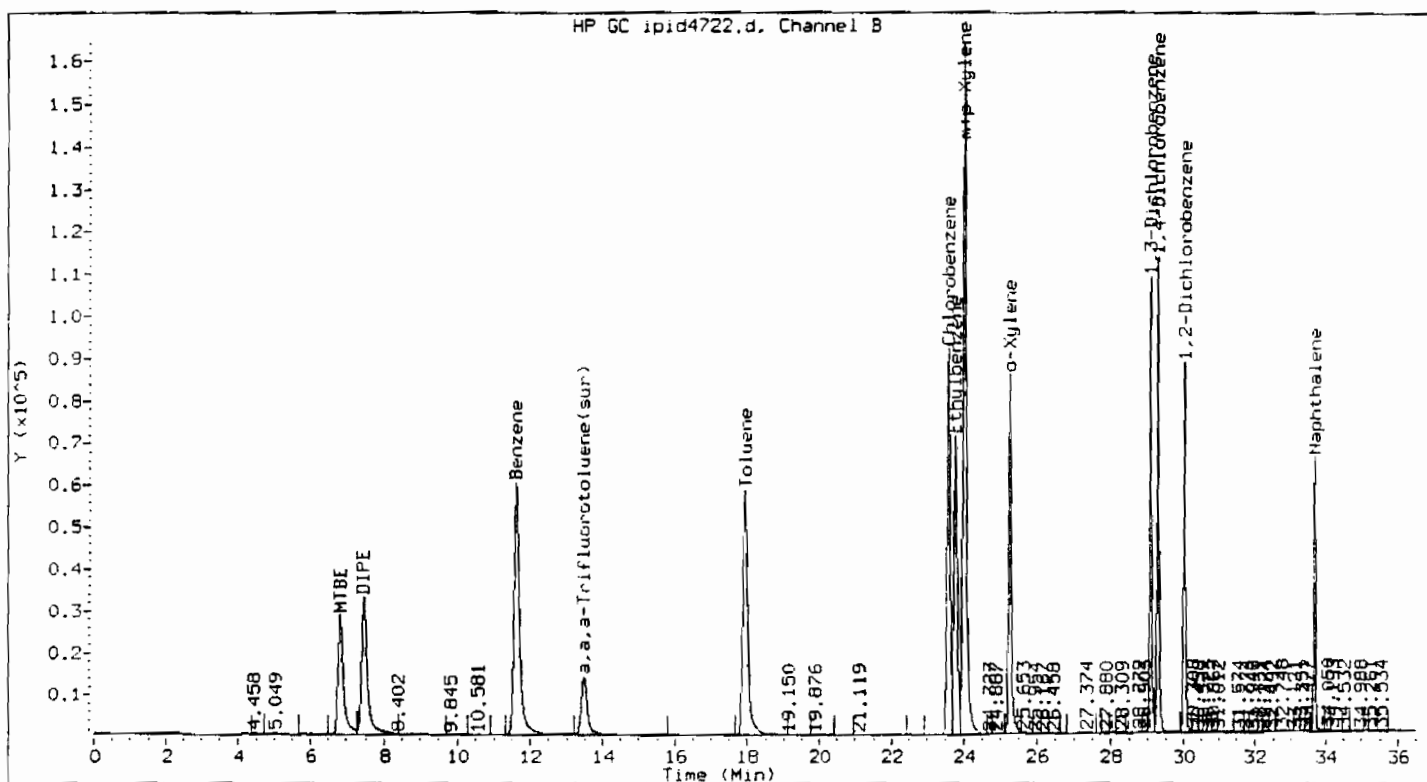


Method : /chem/VOAGC3.i/602/12-26-02/26Dec02.b/602_02.m
Sample Info : ISTD020
Lab ID : ISTD020
Inj Date : 26-DEC-2002 09:41
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.261	25.261	0.000	1270162	20.998	20.998
m,p-Xylene	24.034	24.034	0.000	2758669	41.042	41.042
TBA	6.044	6.044	0.000	606301	1960.793	1960.793
MTBE	6.836	6.836	0.000	776600	19.655	19.655
DIPE	7.462	7.462	0.000	944059	20.090	20.090
Benzene	11.623	11.623	0.000	1704392	19.611	19.611
Toluene	17.950	17.950	0.000	1544607	20.790	20.790
Chlorobenzene	23.597	23.597	0.000	1464557	20.683	20.683
Ethylbenzene	23.790	23.790	0.000	1213443	20.298	20.298

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	4028831	62.006	62.006
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.087	29.087	0.000	1171266	21.504	21.504
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.296	29.296	0.000	1218741	22.105	22.105
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.034	30.034	0.000	941107	21.631	21.631
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.677	33.677	0.000	656543	20.355	20.355
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.495	13.495	0.000	865595	31.000	31.000
-----	-----	-----	-----	-----	-----	-----



```
Method       : /chem/VOAGC3.i/602/12-26-02/26Dec02.b/602_02.m
Sample Info  : ISTD040
Lab ID       : ISTD040
Inj Date     : 26-DEC-2002 10:21
Operator      :
Cpnd Sublist: all
Inst ID      : VOAGC3.i
Dil Factor    : 1
Sample Matrix : WATER
Sample Type   : CALIB 5
```

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.251	25.261	0.010	2333221	38.572	38.572
m+p-Xylene	24.022	24.034	0.011	5257830	78.222	78.222
MTBE	6.830	6.836	0.006	1472195	37.259	37.259
DIPE	7.456	7.462	0.006	1845088	39.264	39.264
Benzene	11.612	11.623	0.012	3278272	37.720	37.720
Toluene	17.933	17.950	0.017	2838907	38.210	38.210
Chlorobenzene	23.584	23.597	0.013	2747327	38.799	38.799
Ethylbenzene	23.778	23.790	0.012	2323237	38.862	38.862
Xylene (Total)	25.019	25.019	0.000	7591051	116.831	116.831

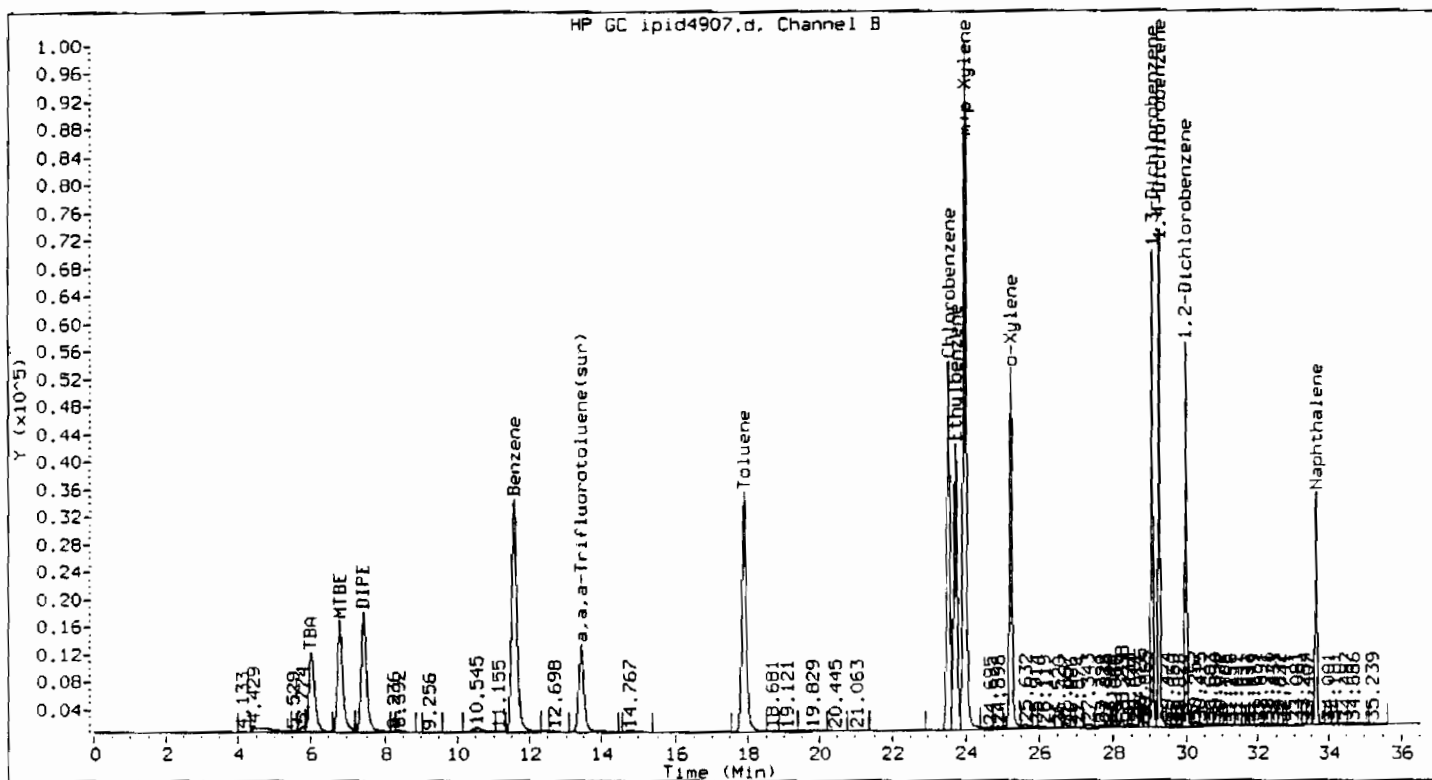
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.081	29.087	0.006	2139297	39.276	39.276
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.291	29.296	0.006	2229036	40.429	40.429
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	30.029	30.034	0.005	1747823	40.173	40.173
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.673	33.677	0.004	1303413	40.411	40.411
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.481	13.495	0.014	853457	30.565	30.565
-----	-----	-----	-----	-----	-----	-----

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC3 Calibration Date: 02/14/03 Time: 0839
 Lab File ID: IPID4907 Init. Calib. Date(s): 12/26/02 12/26/02
 Heated Purge: (Y/N) N Init. Calib. Times: 0941 1221

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
TBA **	309.21	330.46		-6.9	40.0
MTBE	39512.12	40184.75		-1.7	40.0
DIPE	46992.35	45588.80		3.0	40.0
Benzene	86911.78	85399.85		1.7	23.0
Toluene	74297.25	78764.80		-6.0	22.5
Chlorobenzene	70809.23	79064.30		-11.6	19.5
Ethylbenzene	59780.95	64579.05		-8.0	37.0
Xylene (Total)	64974.47	72519.38		-11.6	40.0
1,3-Dichlorobenzene	54468.46	64384.45		-18.2	27.5
1,4-Dichlorobenzene	55133.91	66252.45		-20.2	30.5
1,2-Dichlorobenzene	43507.77	52110.25		-19.8	32.0
Naphthalene	32254.03	33424.60		-3.6	40.0
a,a,a-Trifluorotoluene (sur)	27922.41	23495.30		15.8	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/12-26-02/14Feb03.b/602_02.m

Sample Info : ISTD045

Lab ID : ISTD045

Inj Date : 14-FEB-2003 08:39

Operator :

Cpnd Sublist: all

Inst ID : VOAGC3.i

Dil Factor : 1

Sample Matrix : WATER

Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.215	25.215	0.000	1366465	22.590	22.590
m+p-Xylene	23.982	23.982	0.000	2984698	44.404	44.404
TBA	6.009	6.009	0.000	660913	2137.410	2137.410
MTBE	6.793	6.793	0.000	803695	20.340	20.340
DIPE	7.417	7.417	0.000	911776	19.403	19.403
Benzene	11.560	11.560	0.000	1707997	19.652	19.652
Toluene	17.882	17.882	0.000	1575296	21.203	21.203
Chlorobenzene	23.542	23.542	0.000	1581286	22.332	22.332
Ethylbenzene	23.738	23.738	0.000	1291581	21.605	21.605

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN	FINAL
					(ug/L)	(ug/L)
-----	-----	-----	-----	-----	-----	-----
Xylene (Total)	25.019	25.019	0.000	4351163	66.967	66.967
-----	-----	-----	-----	-----	-----	-----
1,3-Dichlorobenzene	29.044	29.044	0.000	1287689	23.641	23.641
-----	-----	-----	-----	-----	-----	-----
1,4-Dichlorobenzene	29.253	29.253	0.000	1325049	24.033	24.033
-----	-----	-----	-----	-----	-----	-----
1,2-Dichlorobenzene	29.990	29.990	0.000	1042205	23.954	23.954
-----	-----	-----	-----	-----	-----	-----
Naphthalene	33.627	33.627	0.000	668492	20.726	20.726
-----	-----	-----	-----	-----	-----	-----
a,a,a-Trifluorotoluene(sur)	13.431	13.431	0.000	704859	25.243	25.243
-----	-----	-----	-----	-----	-----	-----

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC3

Calibration Date: 02/16/03 Time: 1352

Lab File ID: IPID4938

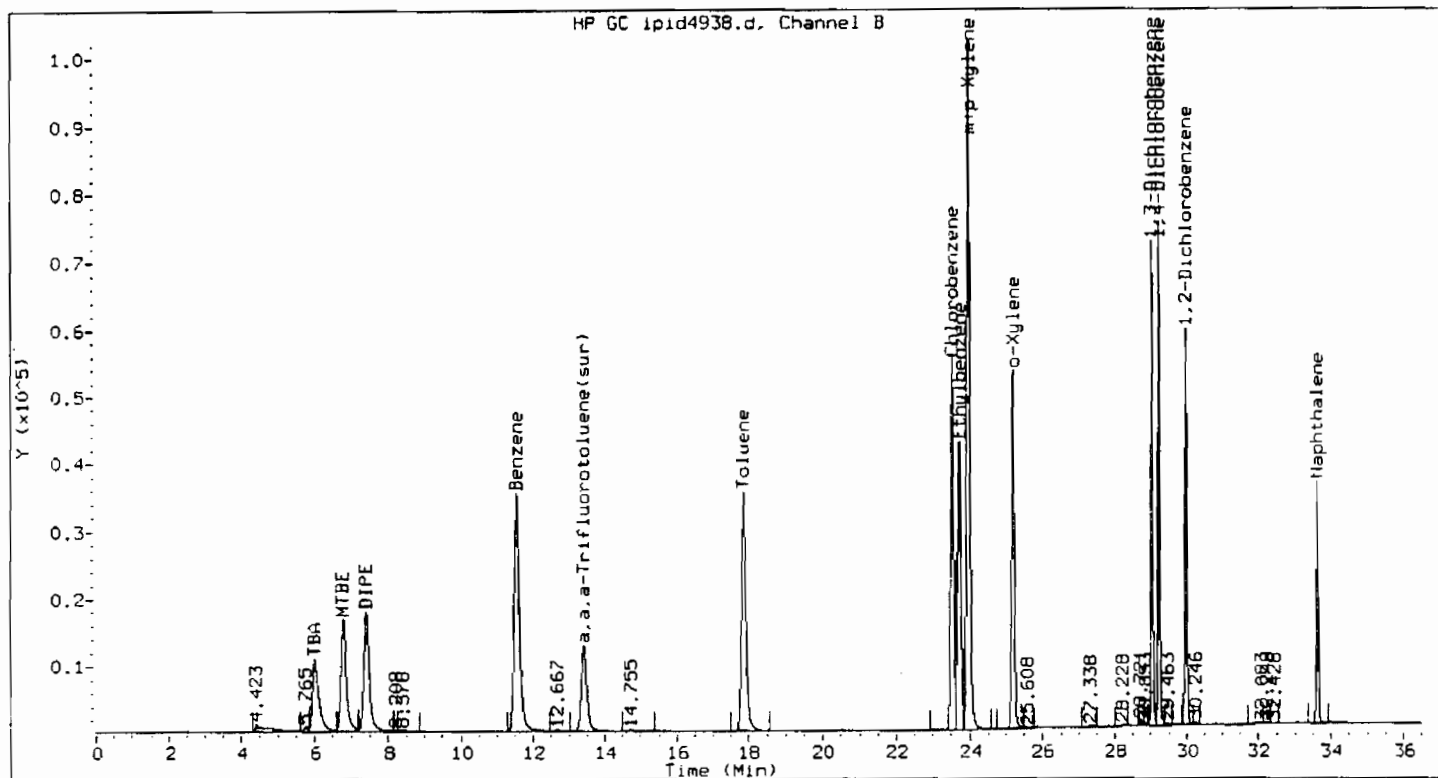
Init. Calib. Date(s): 12/26/02 12/26/02

Heated Purge: (Y/N) N

Init. Calib. Times: 0941 1221

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
TBA **	309.21	333.87		-8.0	40.0
MTBE	39512.12	41673.30		-5.5	40.0
DIPE	46992.35	47395.85		-0.8	40.0
Benzene	86911.78	89727.35		-3.2	23.0
Toluene	74297.25	80963.80		-9.0	22.5
Chlorobenzene	70809.23	81872.80		-15.6	19.5
Ethylbenzene	59780.95	66968.75		-12.0	37.0
Xylene (Total)	64974.47	73850.12		-13.7	40.0
1,3-Dichlorobenzene	54468.46	66709.25		-22.5	27.5
1,4-Dichlorobenzene	55133.91	67334.40		-22.1	30.5
1,2-Dichlorobenzene	43507.77	54453.60		-25.2	32.0
Naphthalene	32254.03	34941.20		-8.3	40.0
a,a,a-Trifluorotoluene(sur)	27922.41	24388.60		12.6	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/12-26-02/16Feb03.b/602_02.m
Sample Info : ISTD047
Lab ID : ISTD047
Inj Date : 16-FEB-2003 13:52
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.198	25.198	0.000	1367933	22.614	22.614
m+p-Xylene	23.963	23.963	0.000	3063074	45.570	45.570
TBA	6.003	6.003	0.000	667734	2159.469	2159.469
MTBE	6.783	6.783	0.000	833466	21.094	21.094
DIPE	7.406	7.406	0.000	947917	20.172	20.172
Benzene	11.540	11.540	0.000	1794547	20.648	20.648
Toluene	17.858	17.858	0.000	1619276	21.795	21.795
Chlorobenzene	23.522	23.522	0.000	1637456	23.125	23.125
Ethylbenzene	23.718	23.718	0.000	1339375	22.405	22.405

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	4431007	68.196	68.196
1,3-Dichlorobenzene	29.030	29.030	0.000	1334185	24.495	24.495
1,4-Dichlorobenzene	29.239	29.239	0.000	1346688	24.426	24.426
1,2-Dichlorobenzene	29.975	29.975	0.000	1089072	25.032	25.032
Naphthalene	33.612	33.612	0.000	698824	21.666	21.666
a,a,a-Trifluorotoluene (sur)	13.409	13.409	0.000	731658	26.203	26.203

Surrogate Compound Recovery Summary

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER

Level: LOW

Lab Job No: F529

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
	=====	=====	=====	=====	=====
01	IG045	81			0
02	407736	88			0
03	407737	82			0
04	407739	81			0
05	407739MS	85			0
06	407739MSD	86			0
07	IG047	85			0
08	407740	84			0
09	407738	83			0
10	407741	84			0
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

QC LIMITS

SMC1 = a,a,a-Trifluorotoluene (63-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Spike Recovery Summary

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Matrix Spike - Lab Sample No.: 407739

Level: LOW

MS Sample from Lab Job No: F529

QA Batch: 7457

Compound	MS % REC.	BS % REC.	LIMITS
=====	=====	=====	=====
Benzene	82	85	39-150
Toluene	93	95	46-148
Chlorobenzene	100	105	55-135
Ethylbenzene	98	100	32-160
1,3-Dichlorobenzene	100	110	50-141
1,4-Dichlorobenzene	120	110	42-143
1,2-Dichlorobenzene	120	115	37-154

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

This is the Last Page of the Document

ATTACHMENT 3

LABORATORY QA/QC DATA FINGERPRINT OF FREE PRODUCT – MW-6

EnSolutions, Inc.





02/14/2003

EnSolutions, Inc.
1029 North Florida Mango Road
Suite #7
West Palm Beach, FL 33409

Attention: Mr. Howard Fredericks

Laboratory Results
Job No. F530 - Petrocelli Electric

Dear Mr. Fredericks:

Enclosed are the results you requested for the following sample(s) received at our laboratory on February 6, 2003.

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
407742	Product	GC Fingerprint

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Paul Nadzan, at (732) 549-3900.

Very Truly Yours,

A handwritten signature in black ink that reads "Michael J. Urban".

Michael J. Urban
Laboratory Manager



STL

02/14/2003

EnSolutions, Inc.
1029 North Florida Mango Road
Suite #7
West Palm Beach, FL 33409

Attention: Mr. Howard Fredericks

Laboratory Results
Job No. F530 - Petrocelli Electric

Dear Mr. Fredericks:

Enclosed are the results you requested for the following sample(s) received at our laboratory on February 6, 2003.

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
407742	Product	GC Fingerprint

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Paul Nadzan, at (732) 549-3900.

Very Truly Yours,

Michael J. Urban
Laboratory Manager

Analytical Results Summary	1
General Information	3
Chain of Custody	3
Laboratory Chronicles	5
Methodology Review	7
Data Reporting Qualifiers	11
GC/PID Forms and Data	13
Results Summary and Chromatograms	13
This is the Last Page of the Document	34

Analytical Results Summary

Site: Petrocelli Electric

Lab Job No: F530

Date Sampled: 02/05/03

Date Extracted: 02/10/03

Date Received: 02/06/03

Date Analyzed: 02/10/03

Matrix: Organic

GC/FID FINGERPRINT

STL Edison
Sample #

Client ID

Product I.D.

407742

Product


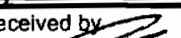


Most closely resembles
a Diesel/#2 Fuel oil.

General Information

Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

PAGE OF

Special Instructions		Identity - fuel oil #2, Diesel etc		Water Metals Filtered (Yes/No)?	
Relinquished by 1) 	Company Terra Nova	Date / Time 02.06.03 10:55	Received by 1) 	Company	
Relinquished by 2) 	Company	Date / Time 02.06.03 11:45	Received by 2) 	Company STC	
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company	
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company	

STL-6003

Laboratory Chronicles

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison

777 New Durham Road, Edison, New Jersey
08817

Job No: F530

Site: Petrocelli Electric

Client: EnSolutions, Inc.

BNAGC

FINGERPRINTS

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
<u>ORGANIC</u>							
407742	2/5/2003	2/06/2003	2/10/2003	Winters, Ann	2/10/2003	Winters, Ann	

Methodology Review

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2 Rev 4.1. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

- P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)
- A - Flame Atomic Absorption
- F - Furnace Atomic Absorption
- CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method - 200.7/SW846 6010B and for solid matrix - 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1/7470A and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

<u>Element</u>	<u>Water Test Method</u> <u>Furnace</u>	<u>Solid Test Method</u> <u>Furnace</u>
Antimony	200.9	7041
Arsenic	200.9	7060A
Cadmium	200.9	7131A
Lead	200.9	7421
Selenium	200.9	7740
Thallium	200.9	7841

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in water and solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

- Ignitability - Method 1020A
- Corrosivity - Water pH Method 9040B
Soil pH Method 9045C
- Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release
- Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

Data Reporting Qualifiers

DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

GC/PID Forms and Data

Results Summary and Chromatograms

Site: Petrocelli Electric

Lab Job No: F530

Date Sampled: 02/05/03

Date Extracted: 02/10/03

Date Received: 02/06/03

Date Analyzed: 02/10/03

Matrix: Organic

GC/FID FINGERPRINT

STL Edison

Sample #

Client ID

Product I.D.

407742

Product

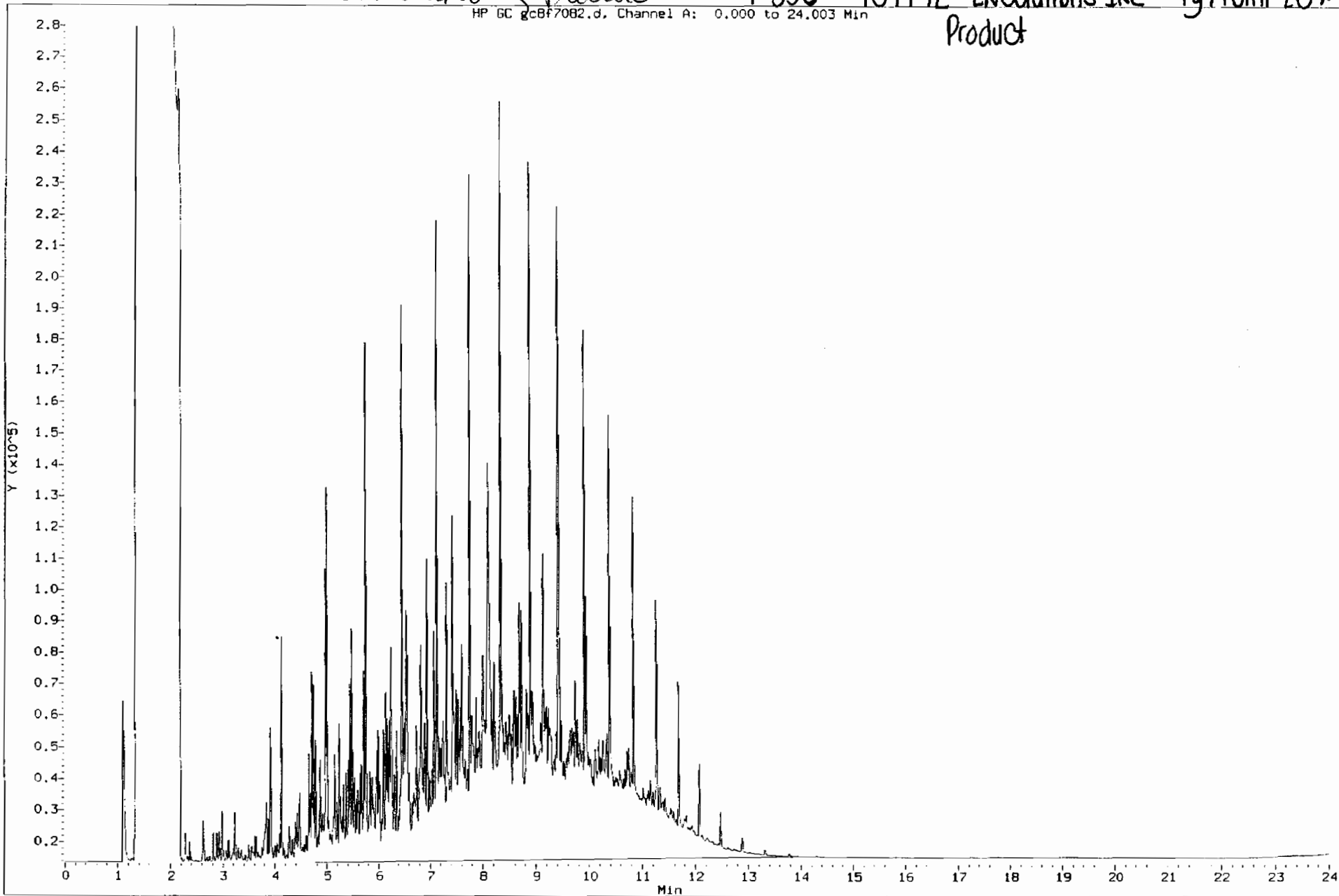
Most closely resembles
a Diesel/#2 Fuel oil.

Data File: /chem/BNAGCB.i/fingerprint/02-11-03/gc8f7082.d
Injection Date: 11-FEB-2003 14:12
Instrument: BNAGCB.i
Client Sample ID: 407742:1:10:20 F530

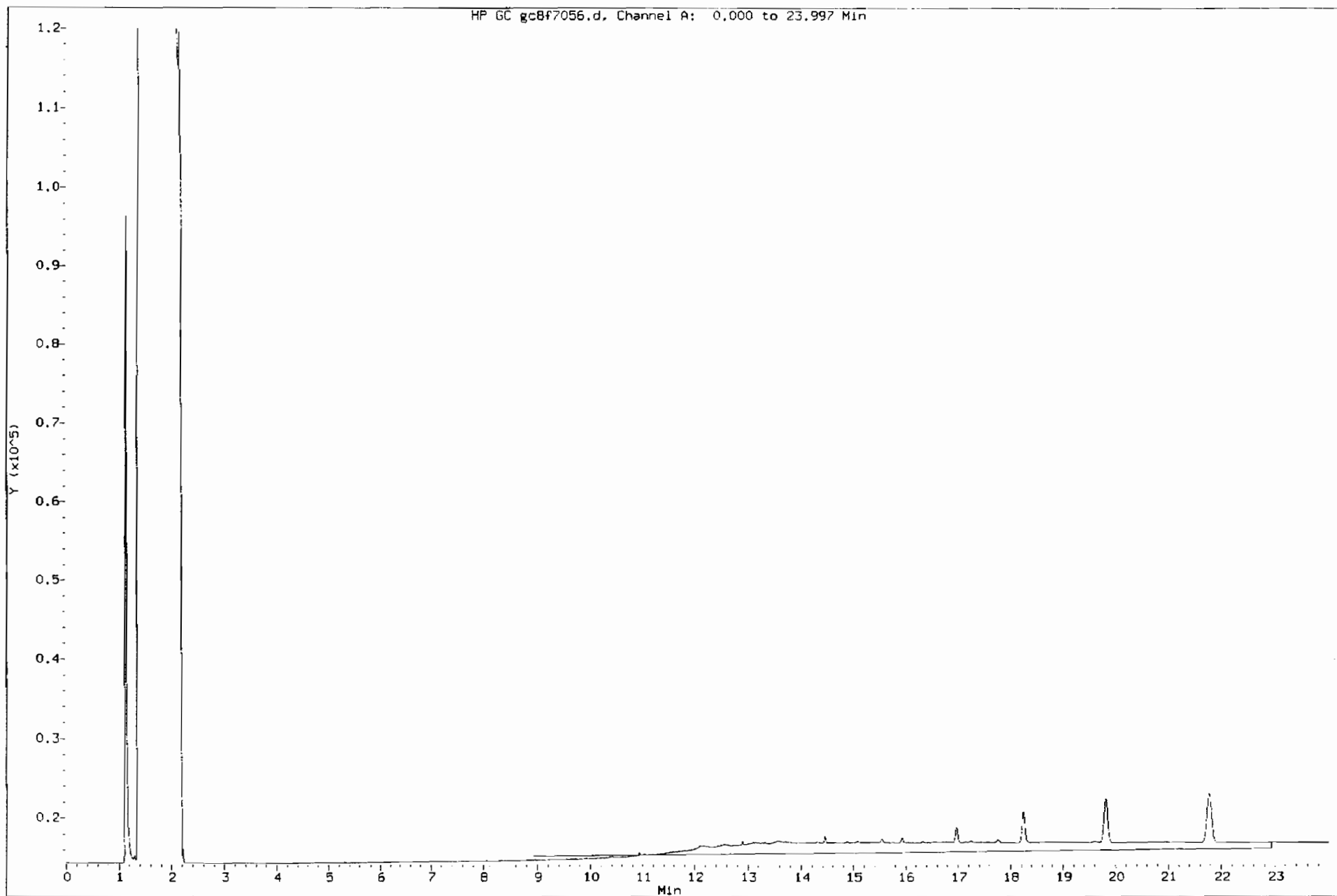
En solution; Product

F530 - 407742 EN Solutions Inc 1g/10ml 20X
Product

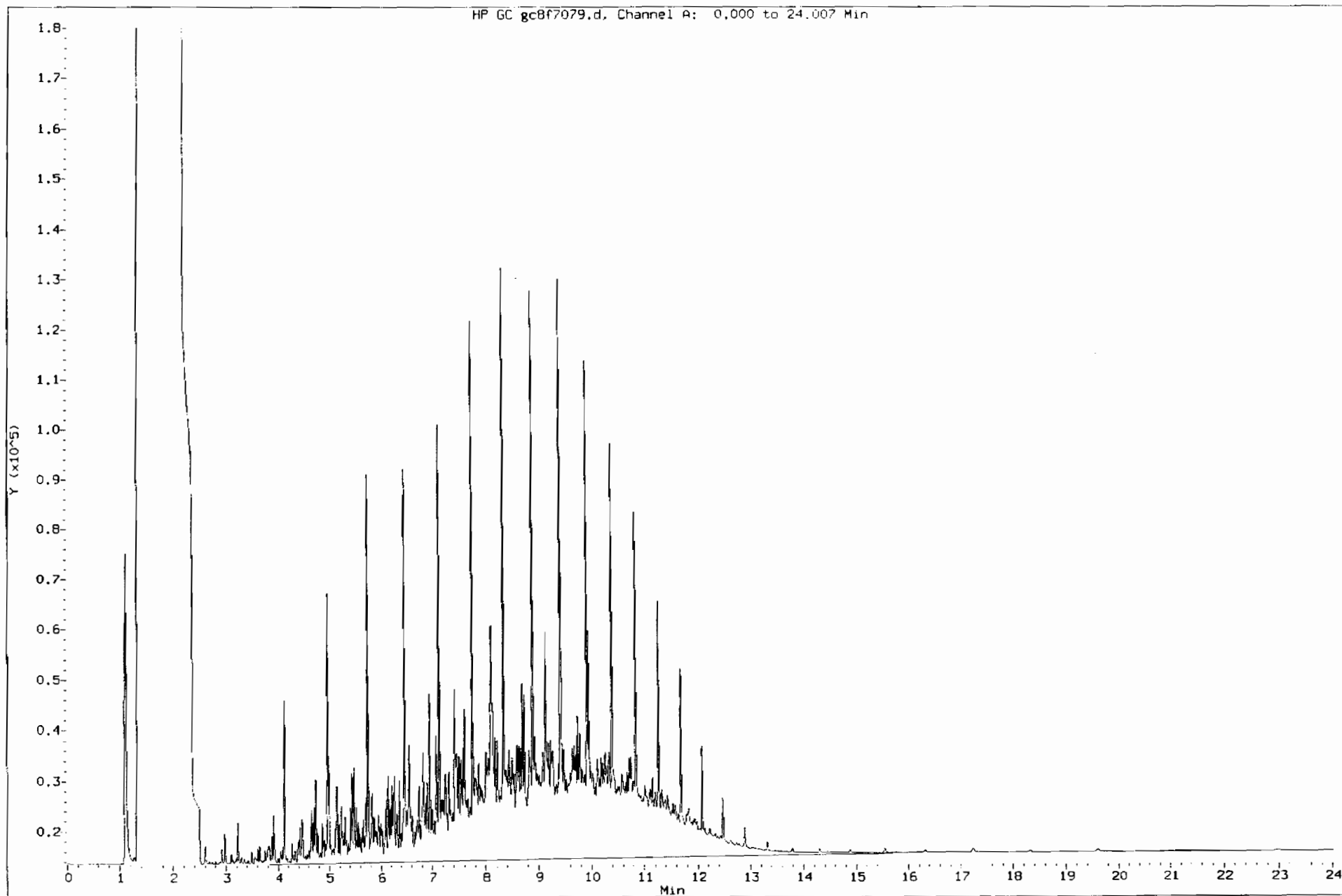
HP GC gc8f7082.d, Channel A: 0.000 to 24.003 Min



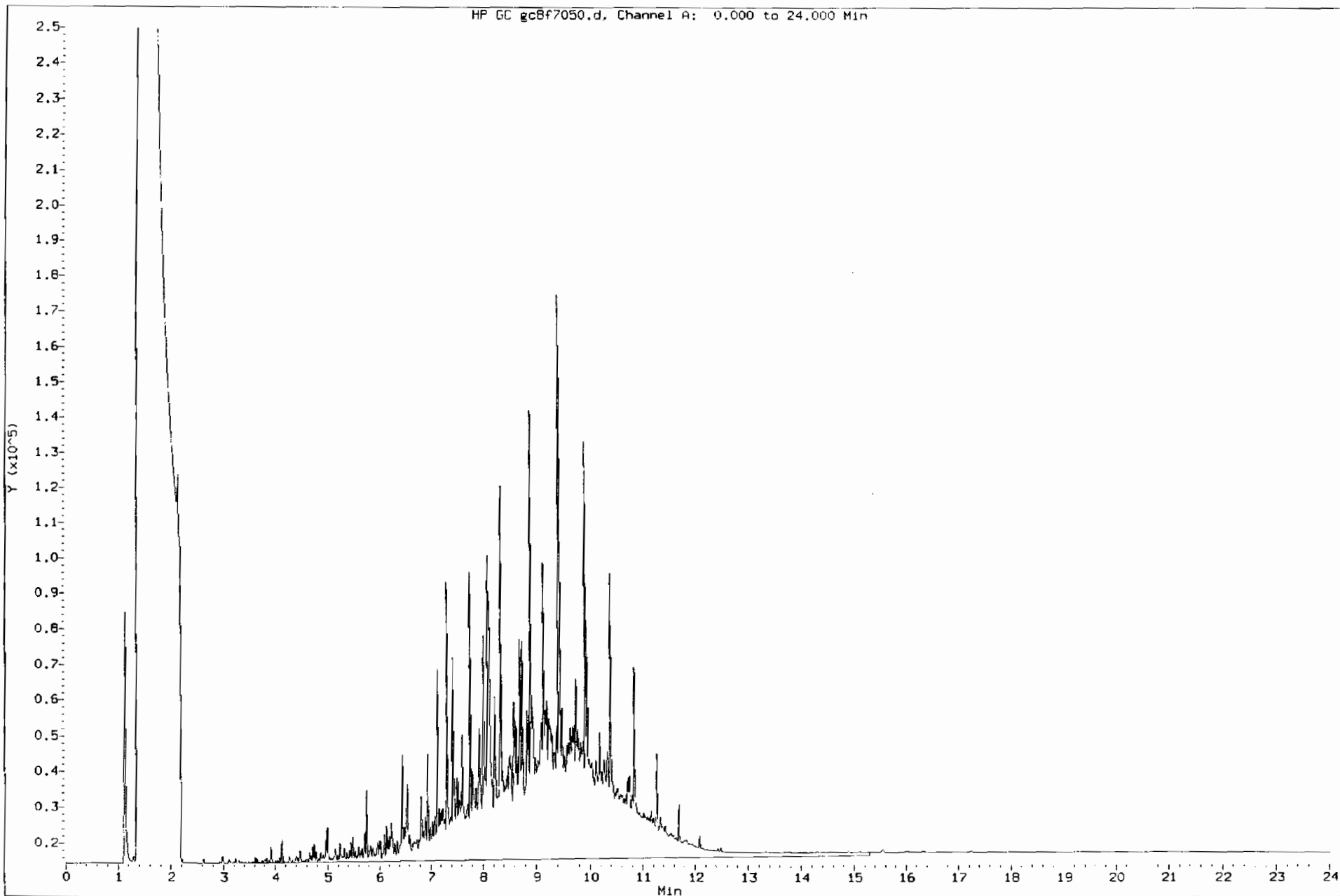
Data File: /chem/BNAGCB.i/fingerprint/02-10-03/gc8f7056.d
Injection Date: 10-FEB-2003 20:26
Instrument: BNAGCB.i
Client Sample ID: DB041;10:10:1



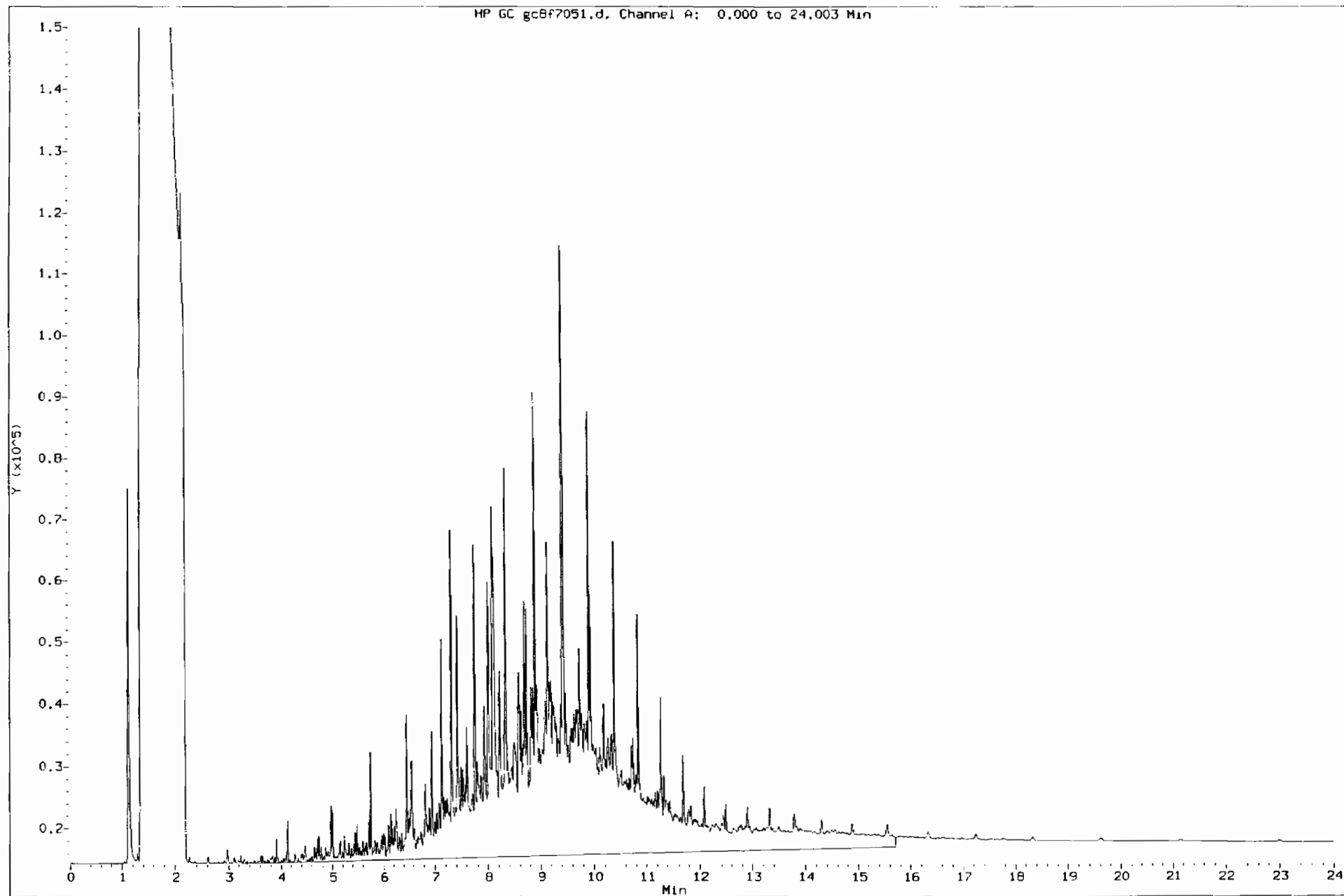
Data File: /chem/BNAGCB.i/fingerprint/02-11-03/gc8f7079.d
Injection Date: 11-FEB-2003 12:31
Instrument: BNAGCB.i
Client Sample ID: DIESEL



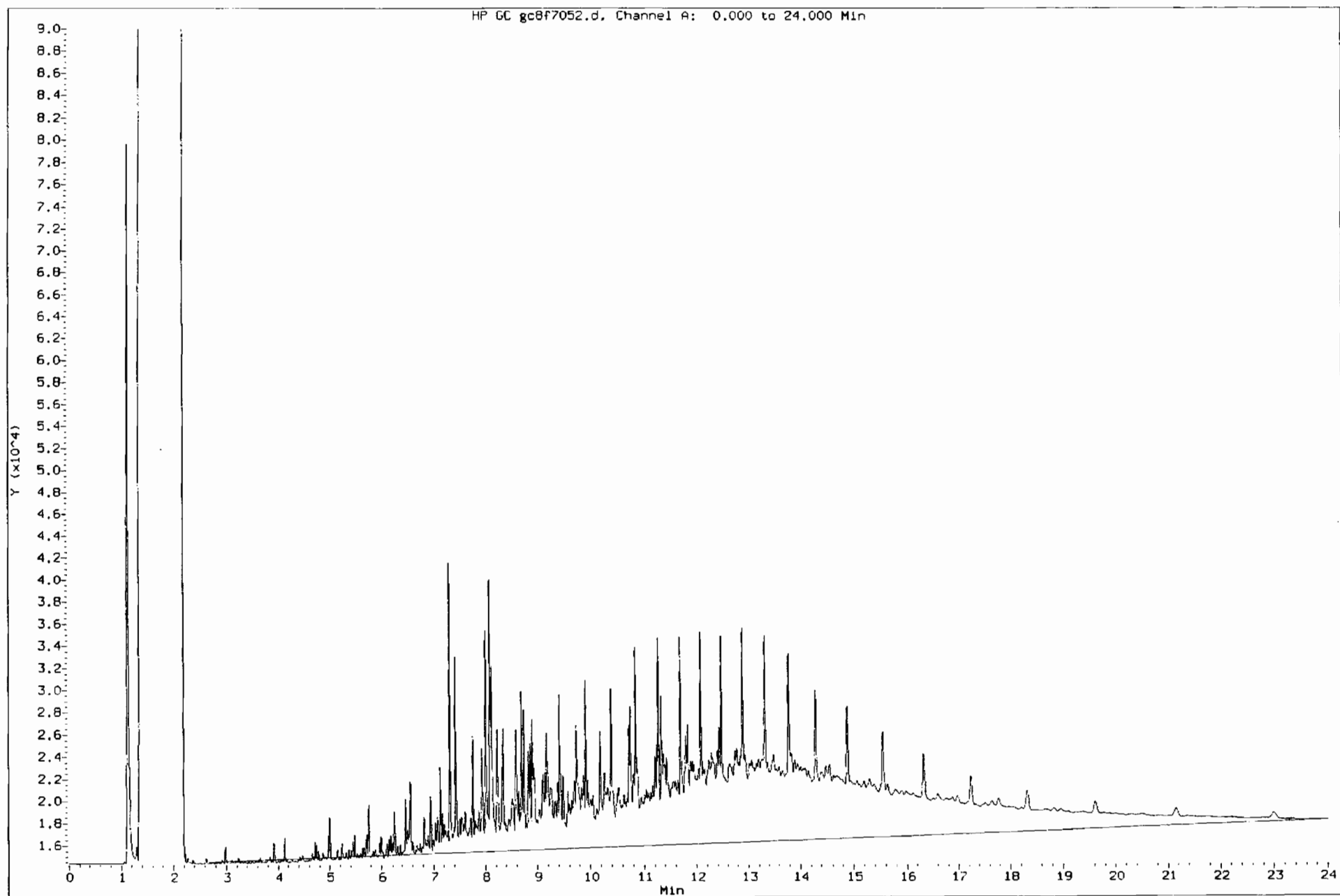
Data File: /chem/BNAGCB.1/fingerprint/02-10-03/gc8f7050.d
Injection Date: 10-FEB-2003 17:16
Instrument: BNAGCB.1
Client Sample ID: #2 FUEL OIL



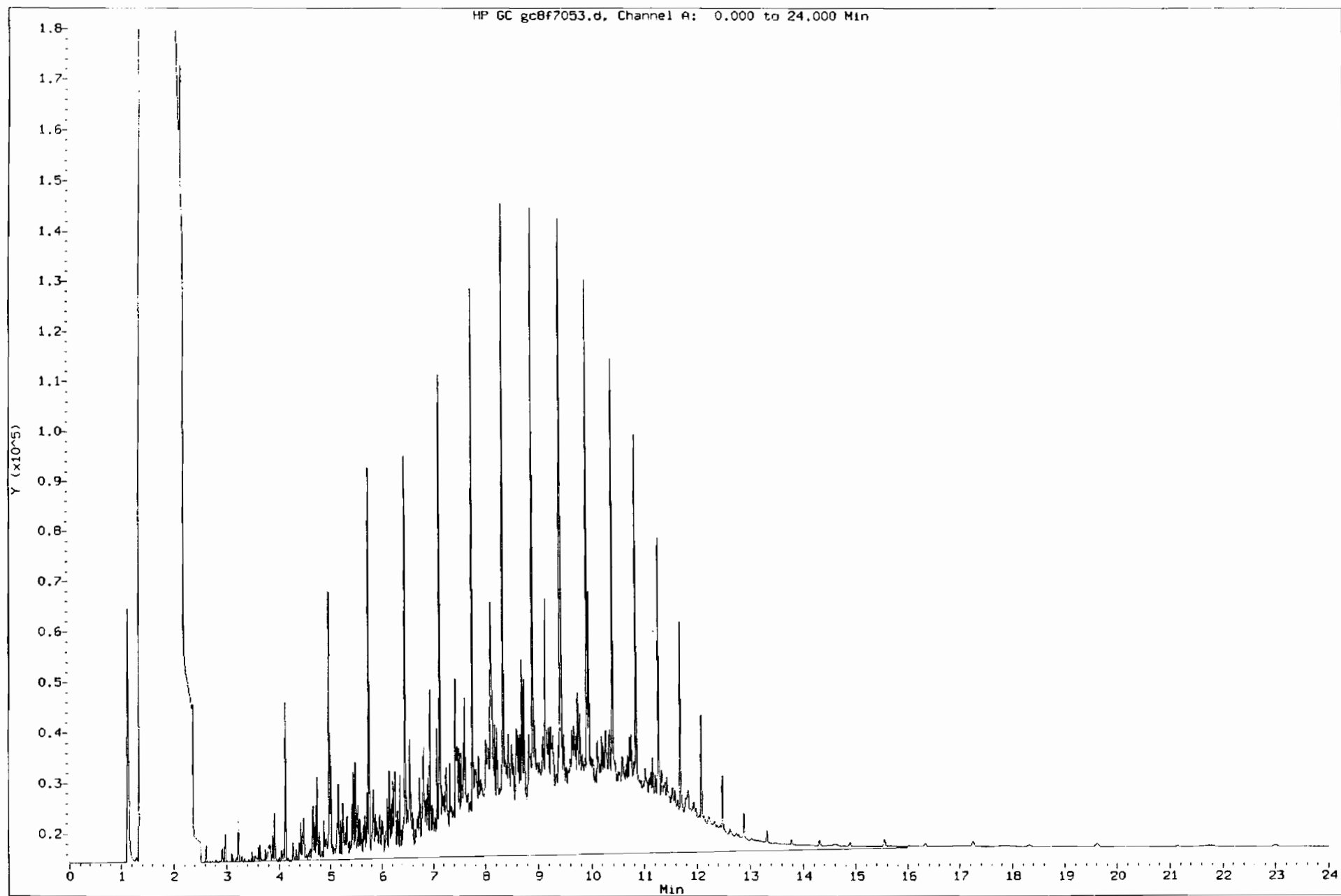
Data File: /chem/BNAGCB.i/fingerprint/02-10-03/gc8f7051.d
Injection Date: 10-FEB-2003 17:47
Instrument: BNAGCB.i
Client Sample ID: #4 FUEL OIL



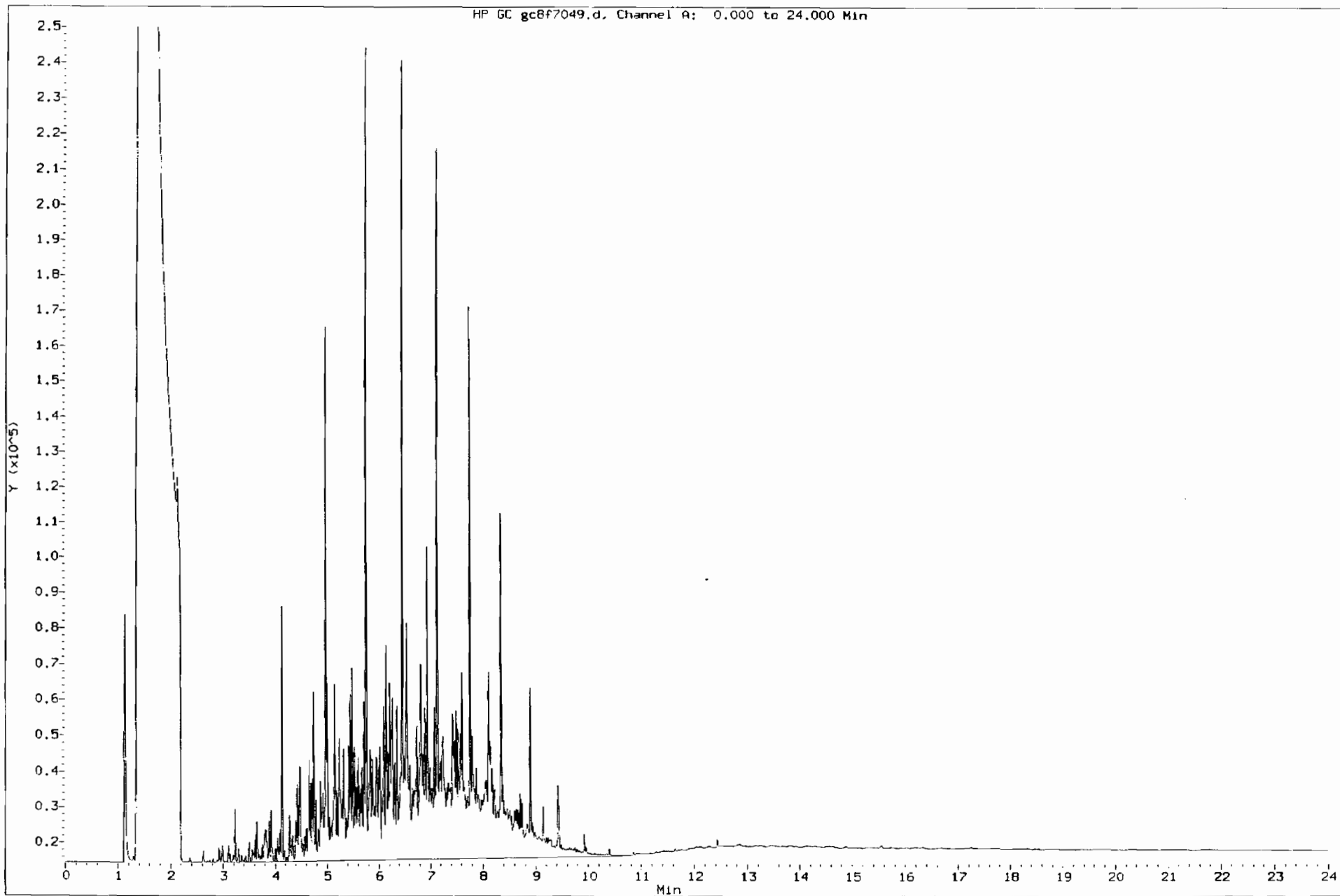
Data File: /chem/BNAGC8.1/fingerprint/02-10-03/gc8f7052.d
Injection Date: 10-FEB-2003 18:19
Instrument: BNAGC8.1
Client Sample ID: #6 FUEL OIL



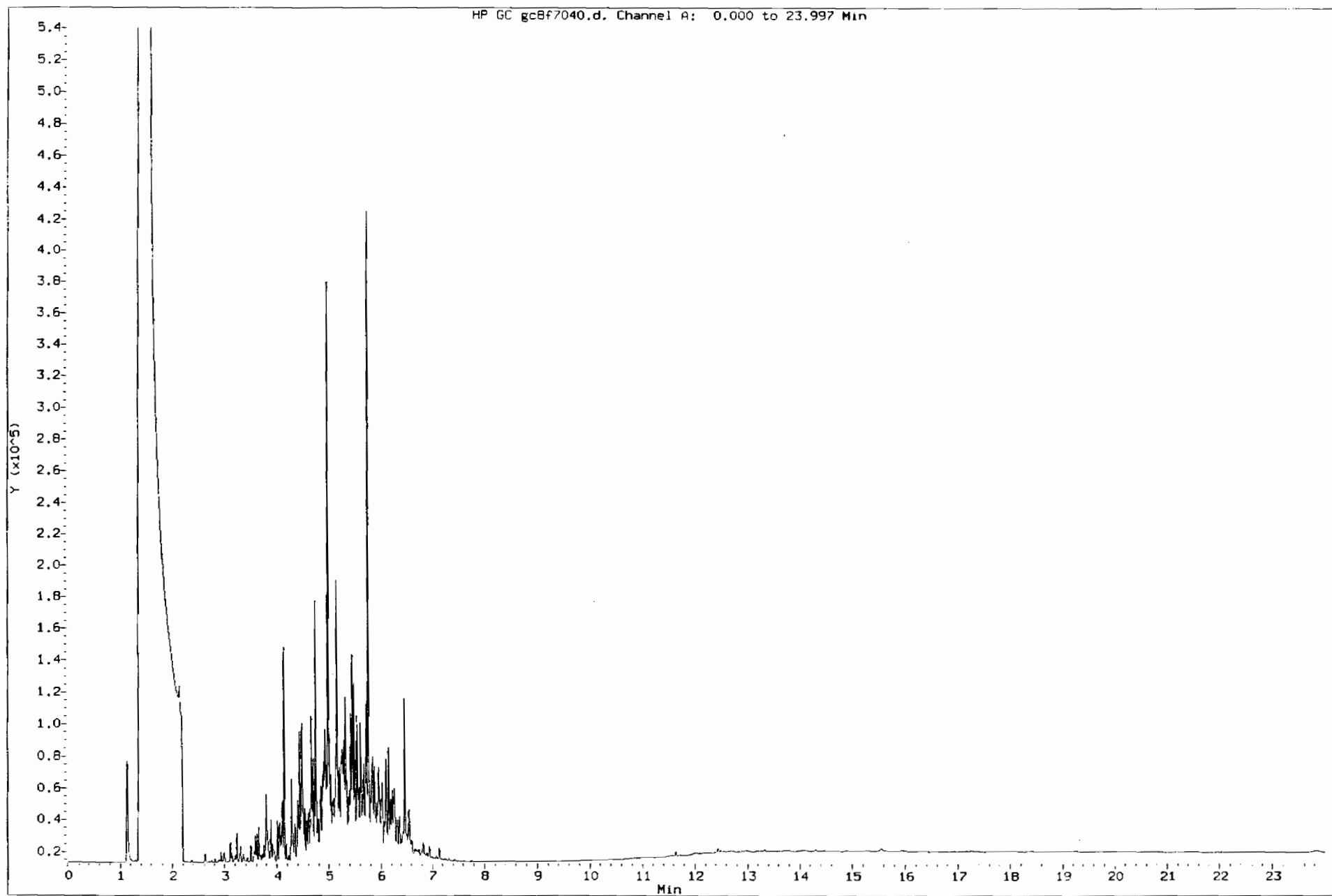
Data File: /chem/BNAGC8.1/fingerprint/02-10-03/gc8f7053.d
Injection Date: 10-FEB-2003 18:51
Instrument: BNAGC8.1
Client Sample ID: DIESEL



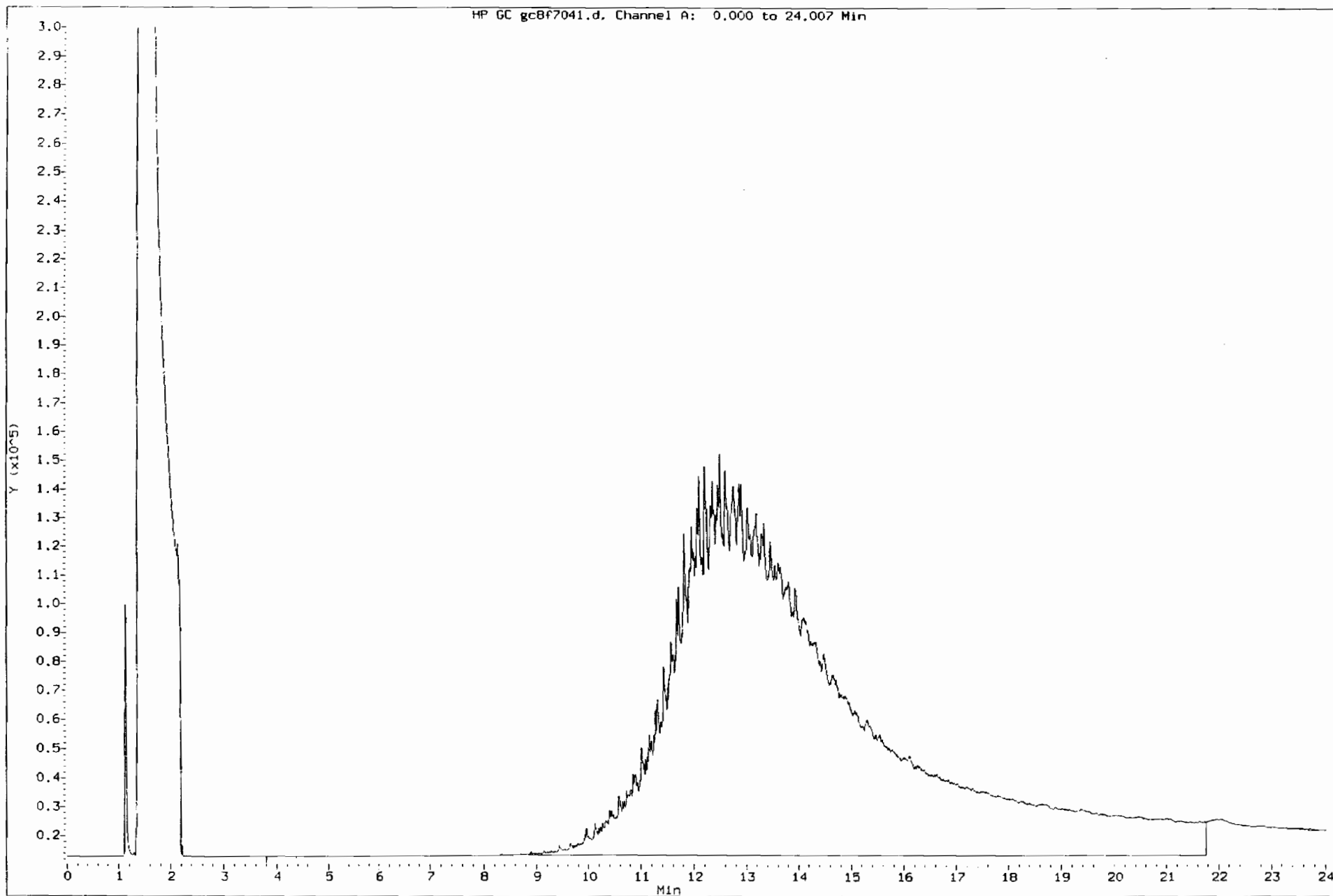
Data File: /chem/BNAGCB.i/fingerprint/02-10-03/gc8f7049.d
Injection Date: 10-FEB-2003 16:44
Instrument: BNAGCB.i
Client Sample ID: KEROSENE



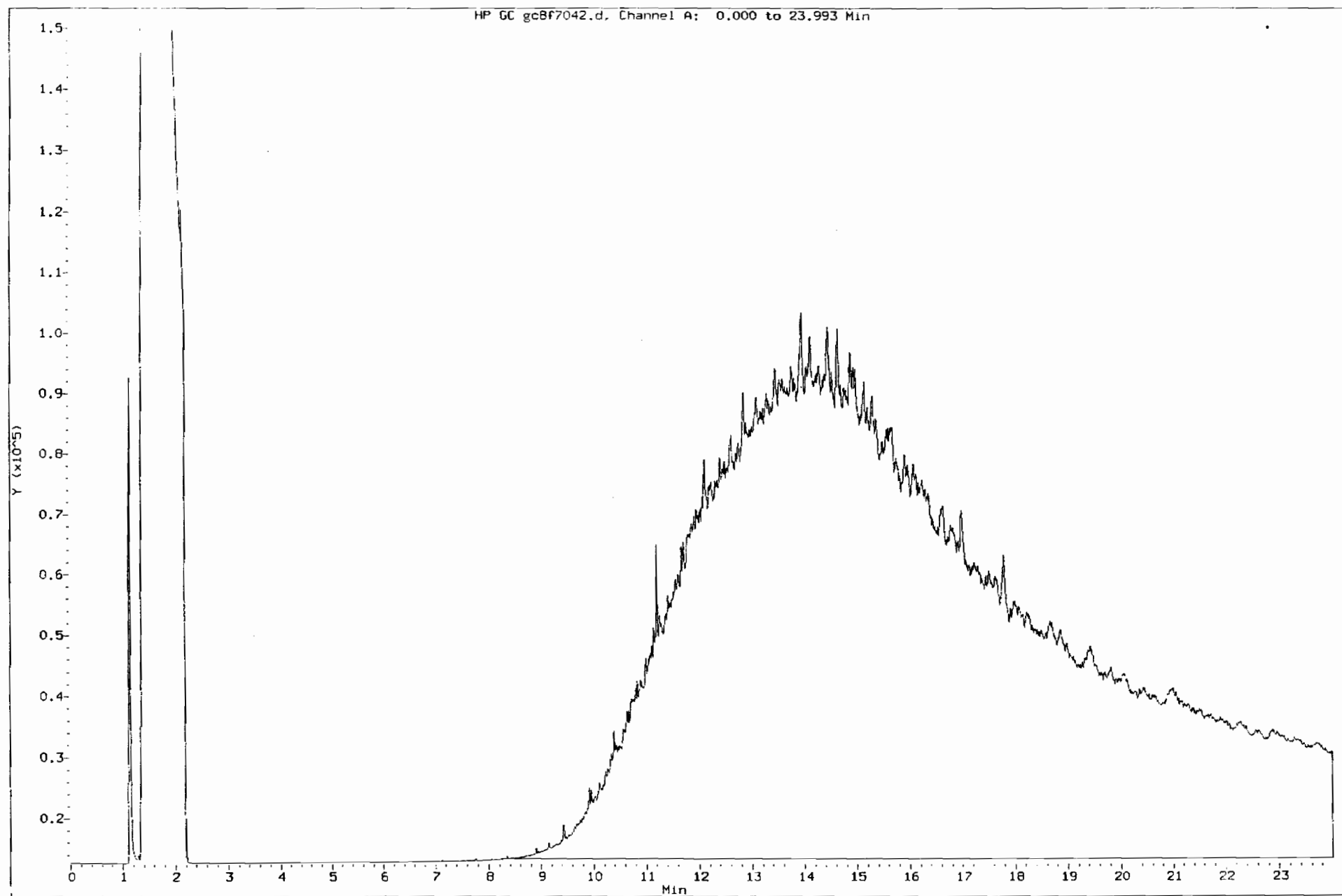
Data File: /chem/BNAGC8.1/fingerprint/02-10-03/gcBf7040.d
Injection Date: 10-FEB-2003 11:59
Instrument: BNAGC8.1
Client Sample ID: MINERAL SPIRITS



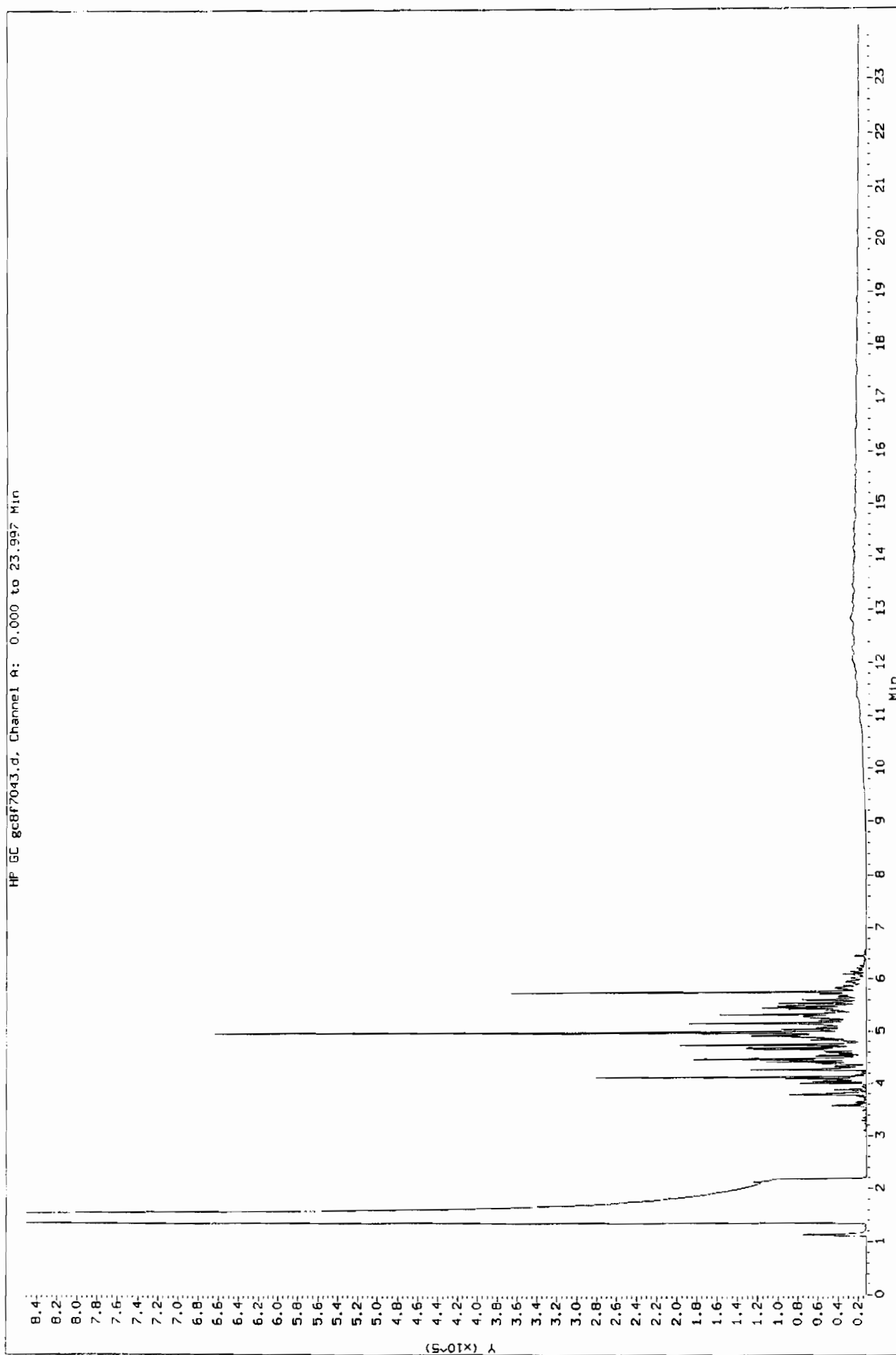
Data File: /chem/BNAGC8.1/fingerprint/02-10-03/gc8f7041.d
Injection Date: 10-FEB-2003 12:31
Instrument: BNAGC8.1
Client Sample ID: MINERAL OIL LGHT



Data File: /chem/BNAGC8.1/fingerprint/02-10-03/gc8f7042.d
Injection Date: 10-FEB-2003 13:02
Instrument: BNAGC8.1
Client Sample ID: MINERAL OI HVY

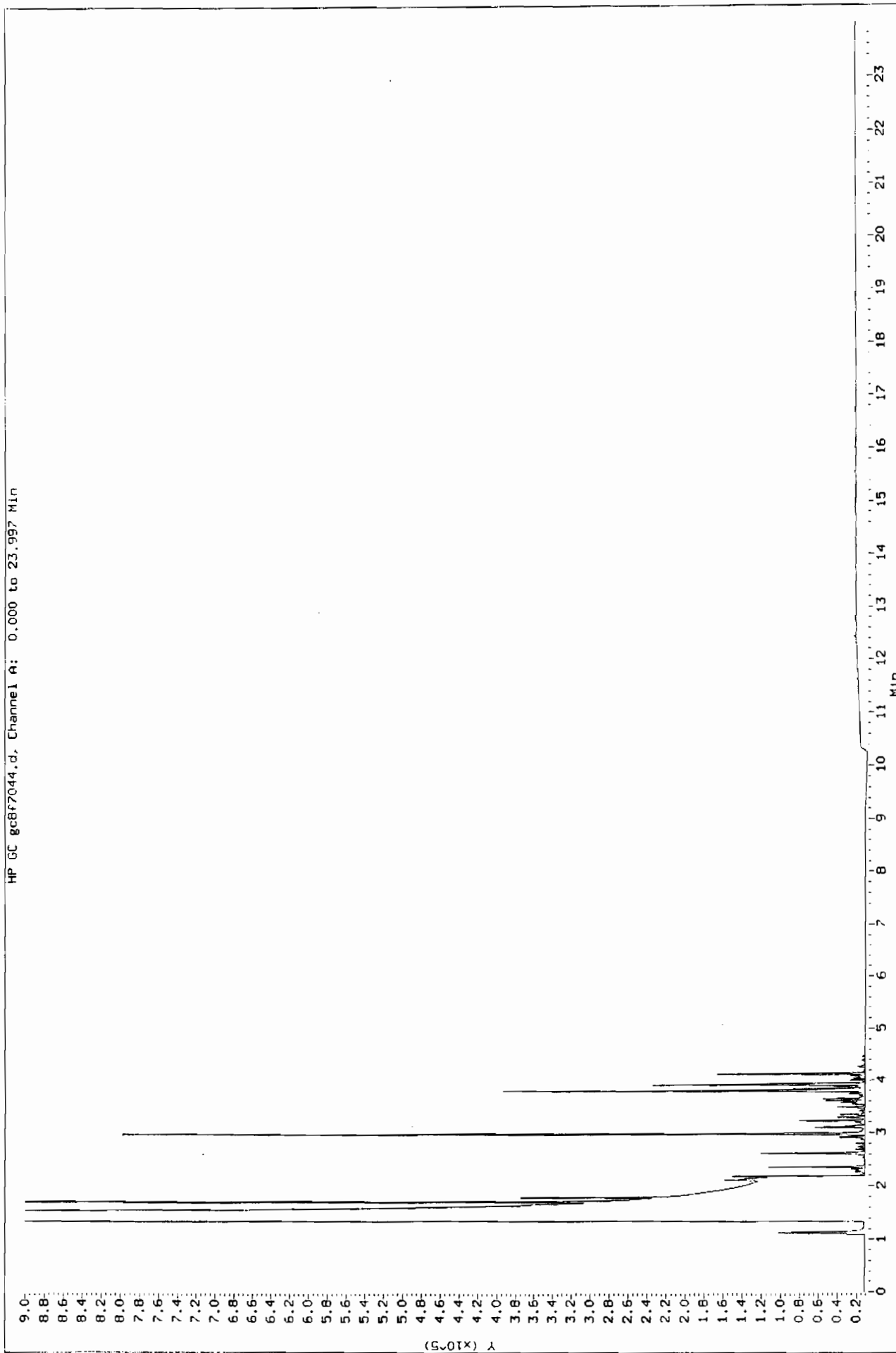


Data File: /chem/BHAGCB.i/fingerprint/02-10-03/gc8f7043.d
Injection Date: 10-FEB-2003 13:34
Instrument: BHAGCB.i
Client Sample ID: VARSOL

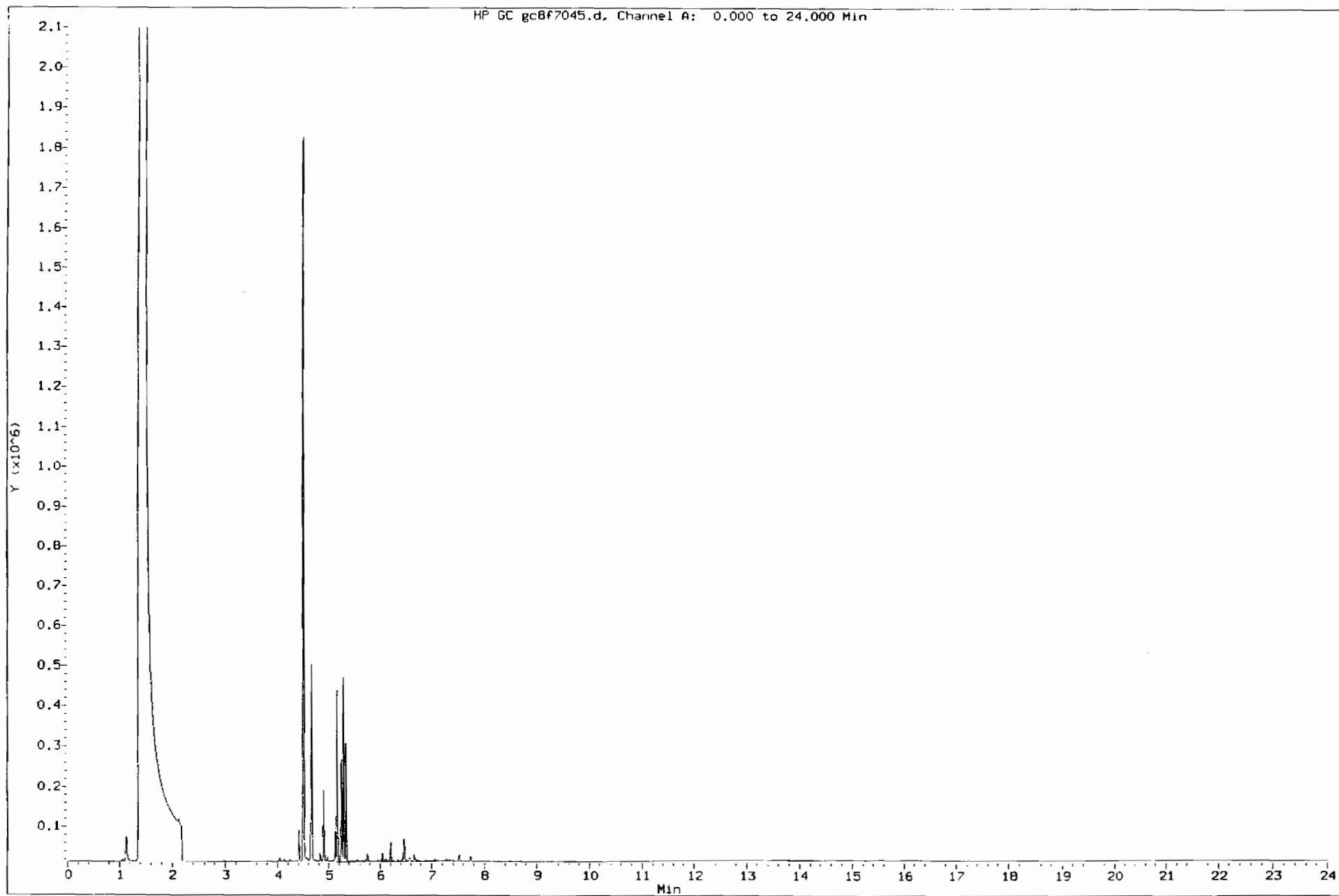


Data File: /chem/BNAGCB.i/fingerprint/02-10-03/gc8f7044.d
 Injection Date: 10-FEB-2003 14:05
 Instrument: BNAGCB.i
 Client Sample ID: LACQUER THINNER

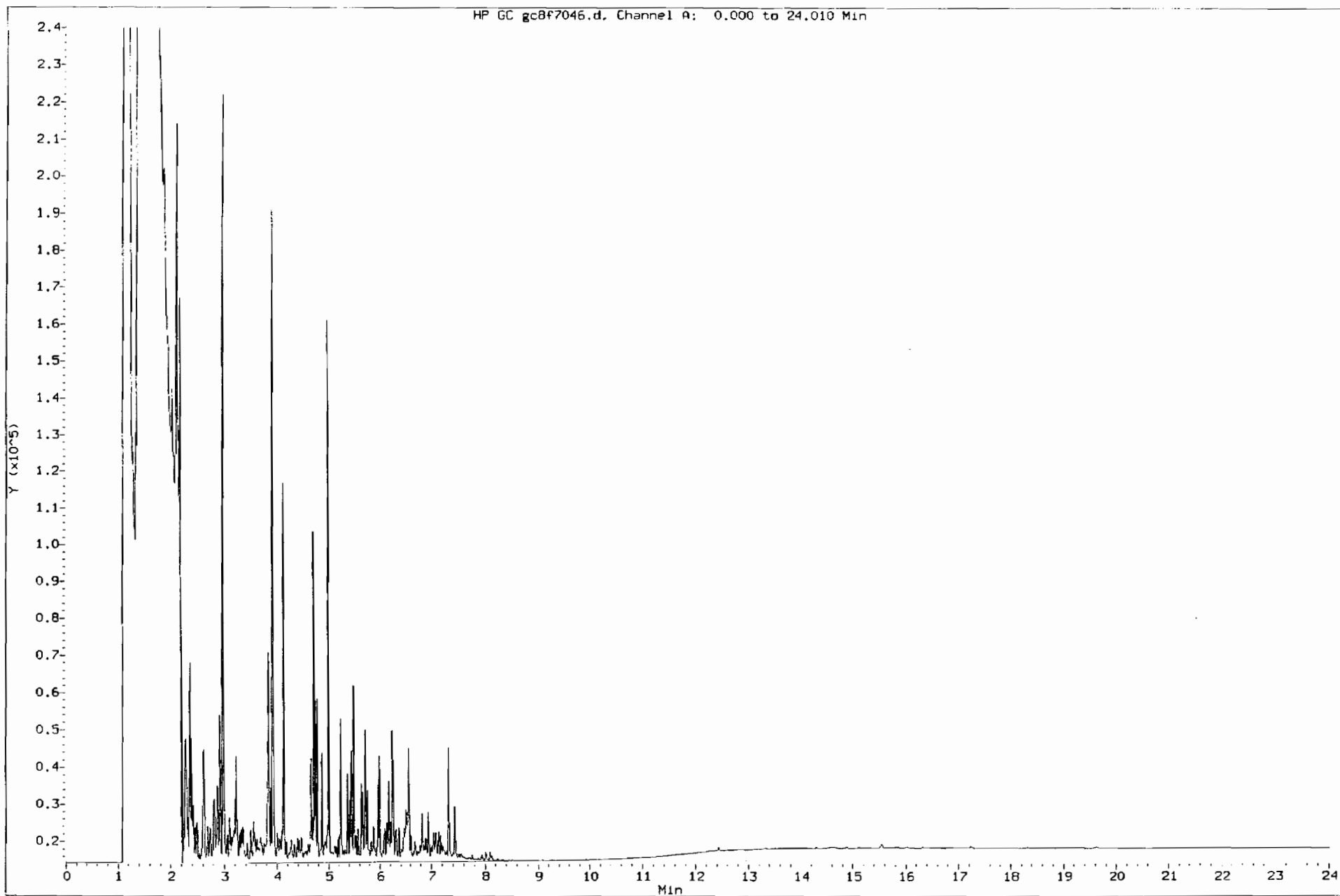
HP GC gc8f7044.d, Channel A: 0.000 to 23.997 Min



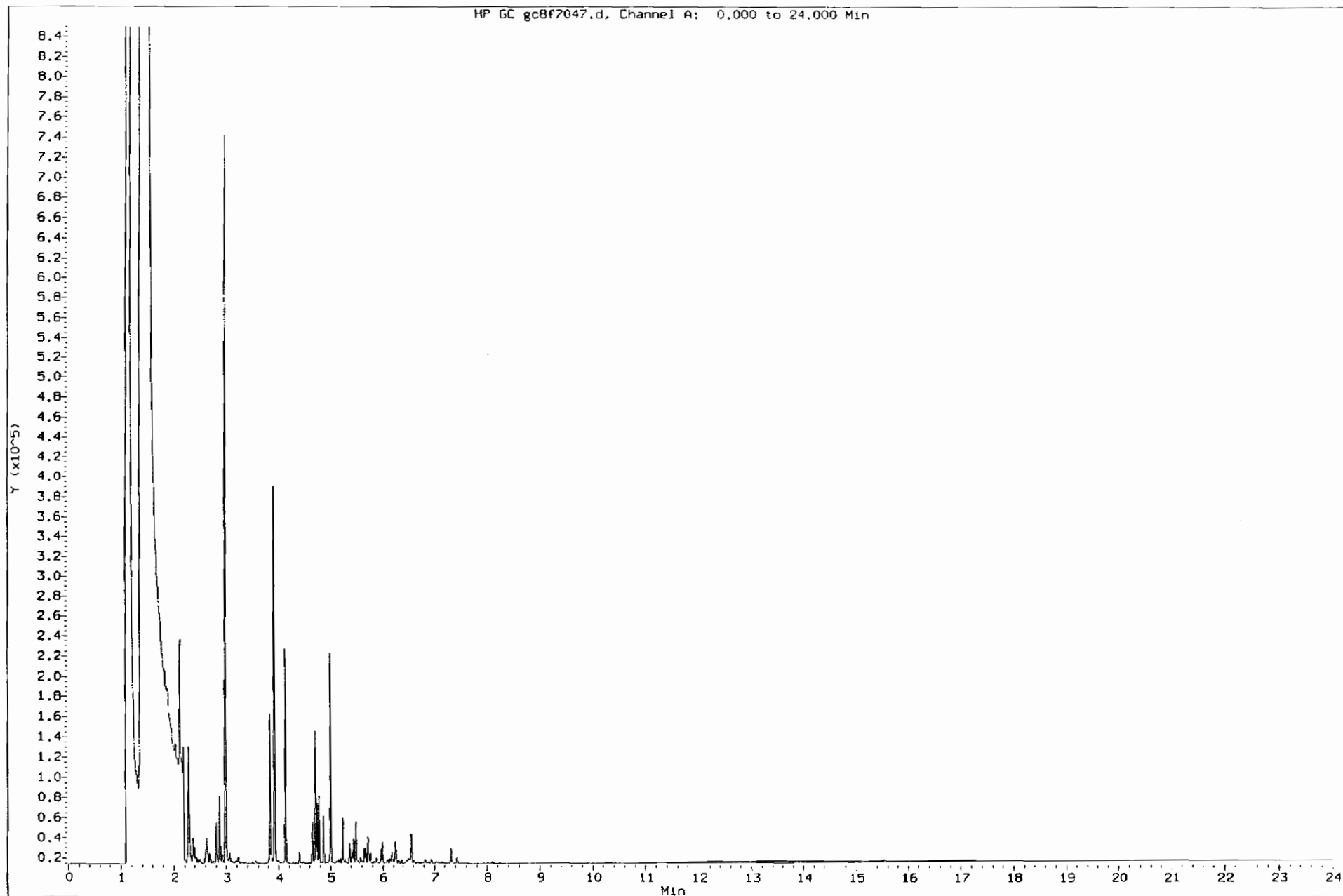
Data File: /chem/BNAGCB.i/fingerprint/02-10-03/gcBf7045.d
Injection Date: 10-FEB-2003 14:37
Instrument: BNAGCB.i
Client Sample ID: TURPENTINE



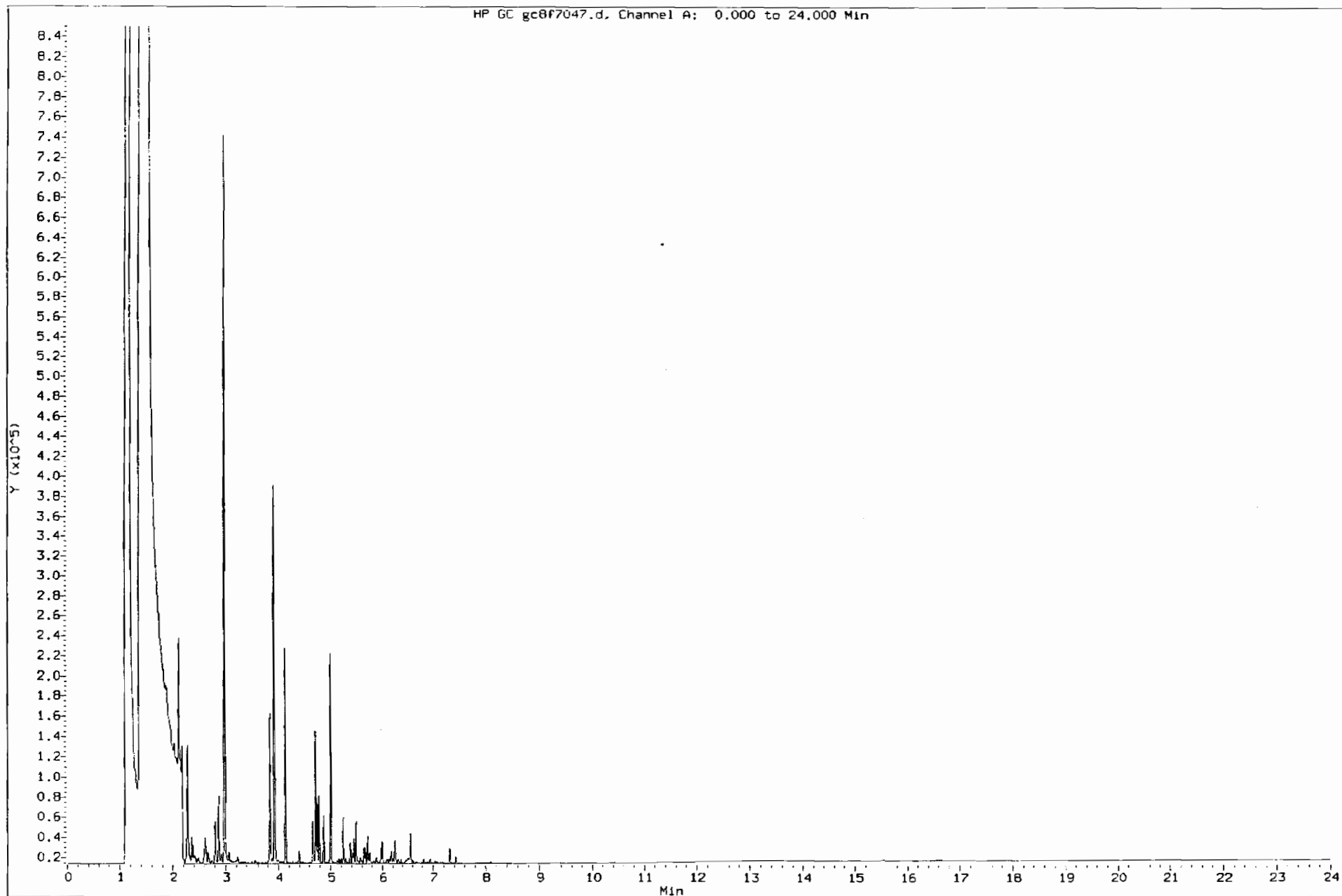
Data File: /chem/BNAGCB.1/fingerprint/02-10-03/gc8f7046.d
Injection Date: 10-FEB-2003 15:09
Instrument: BNAGCB.1
Client Sample ID: REG. GAS



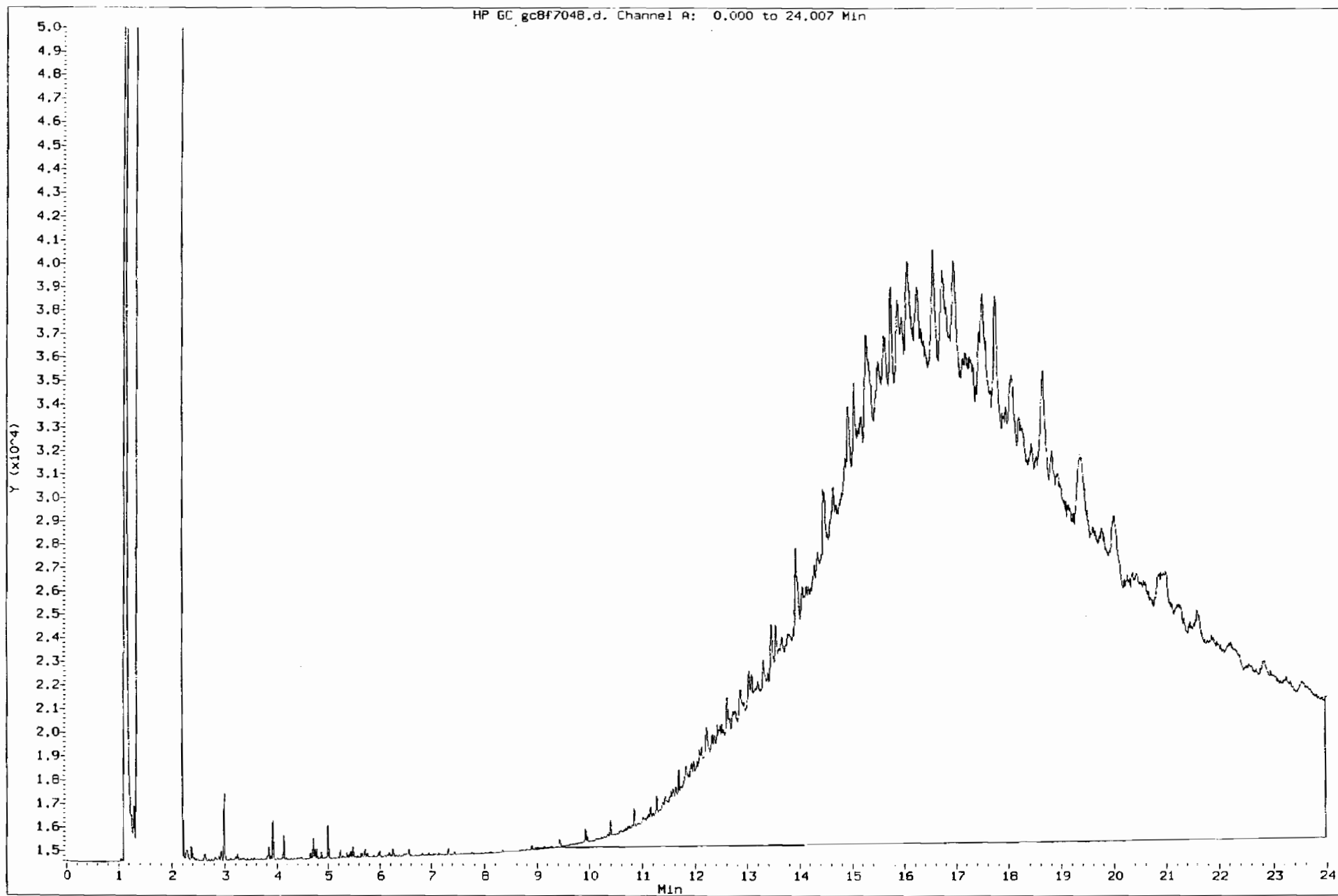
Data File: /chem/BNAGCB.i/fingerprint/02-10-03/gc8f7047.d
 Injection Date: 10-FEB-2003 15:40
 Instrument: BNAGCB.i
 Client Sample ID: PREM. GAS



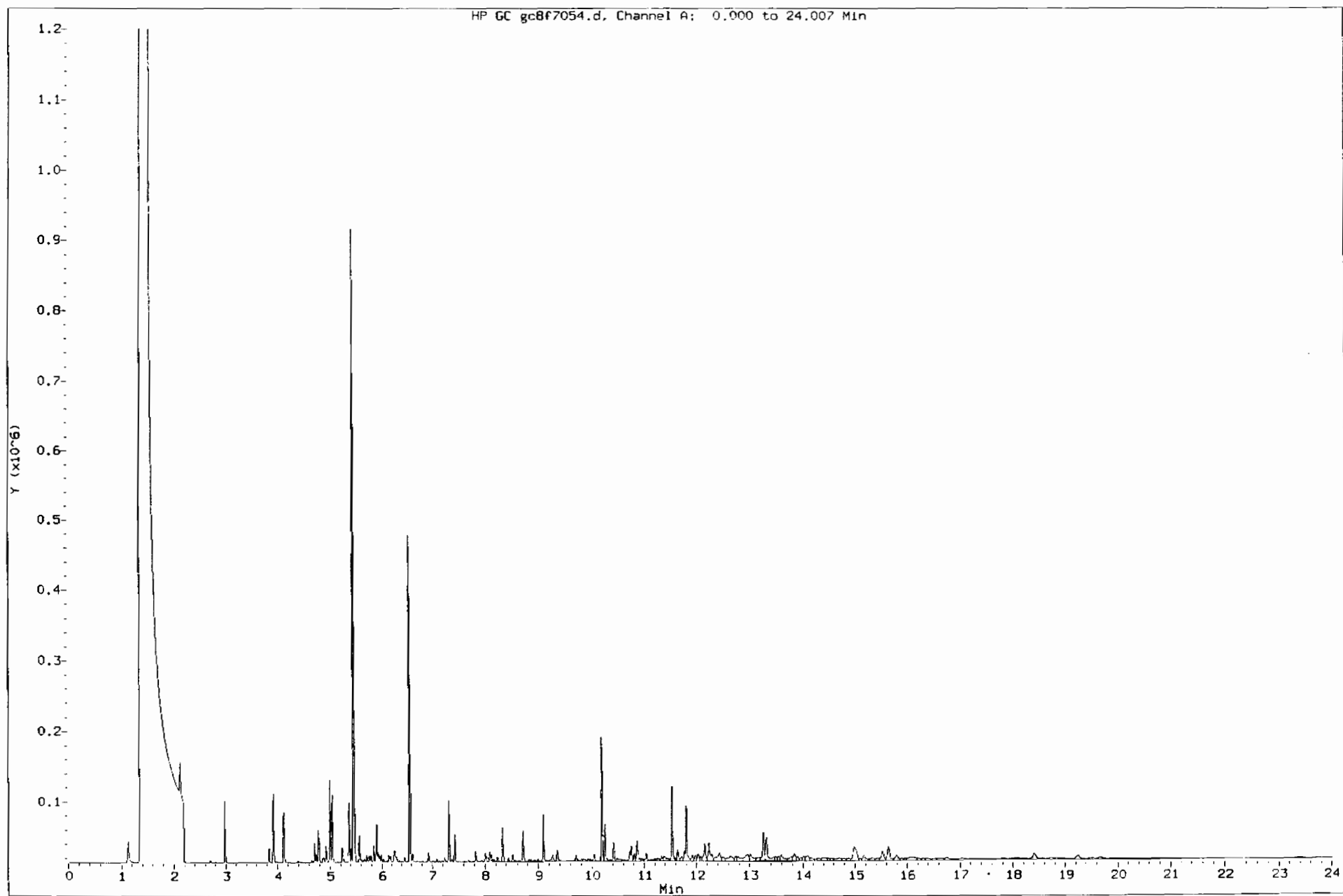
Data File: /chem/BNAGCB.i/fingerprint/02-10-03/gc8f7047.d
Injection Date: 10-FEB-2003 15:40
Instrument: BNAGCB.i
Client Sample ID: PREM, GAS



Data File: /chem/BNAGCB.1/fingerprint/02-10-03/gc8f7048.d
Injection Date: 10-FEB-2003 16:12
Instrument: BNAGCB.1
Client Sample ID: SAE 30W



Data File: /chem/BNAGC8.1/fingerprint/02-10-03/gc8f7054.d
Injection Date: 10-FEB-2003 19:23
Instrument: BNAGC8.1
Client Sample ID: COAL TAR 200PPM



This is the Last Page of the Document

ATTACHMENT 4

A-1 CROWN LEAK INC. TANK TESTING REPORT

EnSolutions, Inc.



Test Date 3-7-03

Work Order # 50184

Address: 22-025 Bridge Plaza North
Long Beach City, CA

Comments

G
A
P
A
G
E
F
R
O
N
T

Diesel
Gas

Diesel
Gas

Diesel
Gas

Diesel

Diesel

Regular

Station: Belleville Electric
Address: 2200 Bridge Plaza North
Long Island City, NY

Crompton Corporation
Test Date: 3.7.03
Work Order# 50184

Petro Tite Leak Detector Test

Leak Detector Number: 1
Grade: Rebel
Make: Red
Model: FX IV
Serial#: 4001270
☒ Mechanical ☐ Electronic

Result: ☒ Pass ☐ Fail ☐ Inconclusive

Retest:

Make: _____
Model: _____
Serial#: _____
Result: ☐ Pass ☐ Fail ☐ Inconclusive

Leak detector testing is based on a 3gph leak rate at 10
psi.

Petro Tite Leak Detector Test

Leak Detector Number: _____
Grade: _____
Make: _____
Model: _____
Serial#: _____
☐ Mechanical ☐ Electronic

Result: ☐ Pass ☐ Fail ☐ Inconclusive

Retest:

Make: _____
Model: _____
Serial#: _____
Result: ☐ Pass ☐ Fail ☐ Inconclusive

Leak detector testing is based on a 3gph leak rate at 10
psi.

Petro Tite Leak Detector Test

Leak Detector Number: _____
Grade: _____
Make: _____
Model: _____
Serial#: _____
☐ Mechanical ☐ Electronic

Result: ☐ Pass ☐ Fail ☐ Inconclusive

Retest:

Make: _____
Model: _____
Serial#: _____
Result: ☐ Pass ☐ Fail ☐ Inconclusive

Leak detector testing is based on a 3gph leak rate at 10
psi.

Petro Tite Leak Detector Test

Leak Detector Number: _____
Grade: _____
Make: _____
Model: _____
Serial#: _____
☐ Mechanical ☐ Electronic

Result: ☐ Pass ☐ Fail ☐ Inconclusive

Retest:

Make: _____
Model: _____
Serial#: _____
Result: ☐ Pass ☐ Fail ☐ Inconclusive

Leak detector testing is based on a 3gph leak rate at 10
psi.

Work Order# 53487

Result: ☒ Pass ☐ Fail ☐ Inconclusive

Result ☐ Pass ☐ Fail ☐ inconclusive

[illegible]

EZY 3 LOCATOR PLUS

MANUFACTURED BY: ESTABROOK'S INC. 1-877-368-7215

PRESSURE CALCULATION & WATER SENSOR CALIBRATION DATA SHEET

DATE 02/06/03
TOTAL TANK VOL. 4000
PRODUCT VOL. 2508
ULLAGE VOL. 1492
PRODUCT TYPE Diesel

PBS # (NEW YORK) _____
TANK # _____
LOCATION 22-09 Bridge Plaza North
Queens, NY
Petrocelli Electric

PRESSURE SENSOR CALCULATION

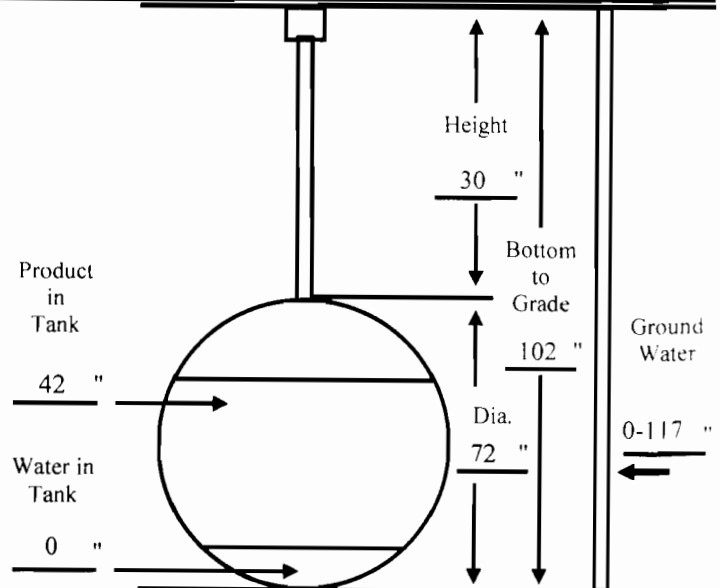
42 X .031 = 1.302 PSI (1)
INCHES OF PRODUCT WEIGHT OF PRODUCT
0 X .036 = 0 PSI (2)
INCHES OF WATER IN TANK
Line 1 + Line 2 = Total Positive Head Pressure In Tank = 1.302 PSI (3)
0 X .036 = 0 PSI (4)
INCHES OF WATER OUTSIDE TANK
Total Head Pressure Minus Outside Water Pressure = 1.302 +/- PSI (5)
Always add .5 PSI + .50 PSI (6)
NOTE: if line 6 is less Than .5 PSA line 7 Shall be .5 PSI
TEST PRESSURE = 1.802 +/- PSI (7)

	TIME	PRESSURE
Blower Started:	<u>18:35</u>	
Test Pressure Reached:	<u>19:32</u>	<u>1.95</u>
Blower Turned off:	<u>19:40</u>	<u>1.93</u>
Test Began:	<u>19:40</u>	<u>1.93</u>
Test Ended:	<u>20:00</u>	<u>1.89</u>

Depth of Groundwater Determined:
By: Monitor Well
Where: There are a few monitor wells on this
Site. Checked the ones around tank(s)

WATER SENSOR CALIBRATION

Added: _____
Cal #1 Cal #2 Cal #3
Average: _____
Water Intrusion Test Period: Began: _____
Ended: _____
Calculation for Test Period:
_____ ÷ 3780 = _____ ÷ .05 = _____
Ave. Cal. "A" Factor Time of Test



Always add .5 PSI

+ .50 PSI (6)

NOTE: if line 6 is less Than .5 PSA line 7 Shall be .5 PSI

TEST PRESSURE

= 1.652 +/- PSI (7)

	TIME	PRESSURE
Blower Started:	<u>18:35</u>	
Test Pressure Reached:	<u>19:30</u>	<u>1.88</u>
Blower Turned off:	<u>19:40</u>	<u>1.85</u>
Test Began:	<u>19:40</u>	<u>1.85</u>
Test Ended:	<u>20:01</u>	<u>1.84</u>

Depth of Groundwater Determined:

By: Monitor Well (s)

Where: There are a few monitor wells near Tanks, Checked them and found water @ 117"

WATER SENSOR CALIBRATION

Added: _____

Cal #1 Cal #2 Cal #3

Average: _____

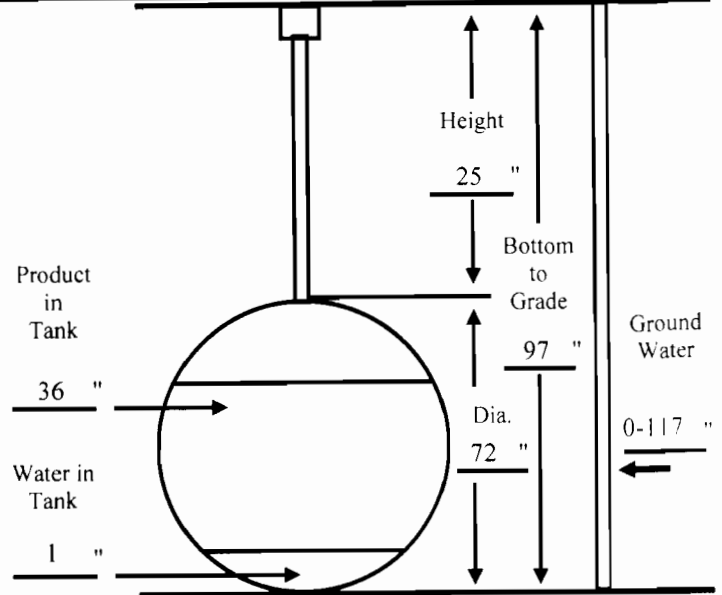
Water Intrusion Test Period: Began: _____

Ended: _____

Calculation for Test Period:

Dry hole
_____ ÷ 3780 = _____ ÷ .05 = _____

Ave. Cal. "A" Factor Time of Test



WATER SENSOR INDICATES: (CHECK ONLY ONE)

NO WATER INTRUSION _____ WATER INTRUSION _____ NOT APPLICABLE ☒

Operator Name: Print DAVE FAZIN Sign [Signature]
Certification # 58-7948 Expiration Date 01/05

Testing Firm: A-1 Crown Leak Inc. Address 366 North Broadway Suite 410
Telephone # 516-939-2959 Jericho, NY 11753

NEW YORK STATE REQUIREMENT: A DIAGRAM OF THE TANK SYSTEM MUST BE SUBMITTED TO THE STATE WITH THIS REPORT

EQUIPMENT SERIAL NUMBERS & CALIBRATION EXPIRATION DATES:

	Serial Number	Calibration Expiration Date
Water Sensor Display		<u>01/04</u>
Water Sensor Probe		<u>01/04</u>
Acoustic Signal Processor	<u>ELP0043</u>	<u>01/04</u>
In-Tank Microphone	<u>0032228</u>	<u>01/04</u>
Pressure Sensor	<u>0973233</u>	<u>01/04</u>

EZY 3 LOCATOR PLUS

MANUFACTURED BY: ESTABROOK'S INC. 1-877-368-7215

PRESSURE CALCULATION & WATER SENSOR CALIBRATION DATA SHEET

DATE **02/06/03**

PBS # (NEW YORK) _____

TOTAL TANK VOL. **4000**

TANK # _____

PRODUCT VOL. **1082**

LOCATION **22-09 Bridge Plaza North**

ULLAGE VOL. **2918**

Queens, NY

PRODUCT TYPE **Regular Gasoline**

Petrocelli Electric

PRESSURE SENSOR CALCULATION

<u>22</u>	X	<u>.026</u>	=	<u>.572</u>	PSI (1)
INCHES OF PRODUCT		WEIGHT OF PRODUCT			
<u>0</u>	X	<u>.036</u>	=	<u>0</u>	PSI (2)
INCHES OF WATER IN TANK					
Line 1 + Line 2 = Total Positive Head Pressure In Tank			=	<u>.572</u>	PSI (3)
<u>0</u>	X	<u>.036</u>	=	<u>0</u>	PSI (4)
INCHES OF WATER OUTSIDE TANK					
Total Head Pressure Minus Outside Water Pressure			=	<u>.572</u>	+/- PSI (5)
Always add .5 PSI			+	<u>.50</u>	PSI (6)
NOTE: if line 6 is less Than .5 PSA line 7 Shall be .5 PSI					
TEST PRESSURE			=	<u>1.07</u>	+/- PSI (7)

	TIME	PRESSURE
Blower Started:	<u>20:30</u>	_____
Test Pressure Reached:	<u>21:02</u>	<u>1.17</u>
Blower Turned off:	<u>21:10</u>	<u>1.17</u>
Test Began:	<u>21:10</u>	<u>1.17</u>
Test Ended:	<u>21:22</u>	<u>.89</u>

Depth of Groundwater Determined:

By: Monitor Wells

Where: Monitor wells around tank pad had
Water @ 117"

WATER SENSOR CALIBRATION

Added: _____

Cal #1 Cal #2 Cal #3

Average: _____

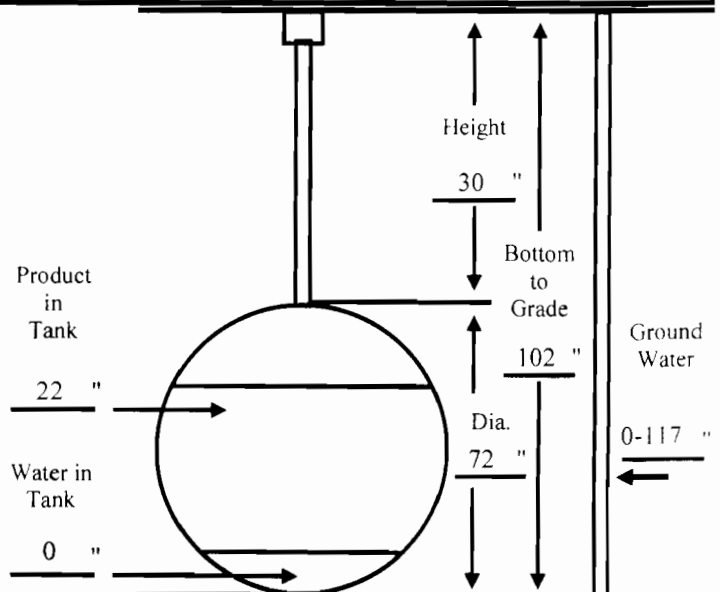
Water Intrusion Test Period: Began: _____

Ended: _____

Calculation for Test Period:

_____ ÷ 3780 = _____ ÷ .05 = _____

Ave. Cal. "A" Factor Time of Test



EZY 3 LOCATOR PLUS

FINAL REPORT

MANUFACTURED BY: ESTABROOK'S INC. 1-877-368-7215

DATE 02/06/03

PBS # (NEW YORK) _____

TOTAL TANK VOL. 4000

TANK # _____

PRODUCT VOL. 1082

LOCATION 22-09 Bridge Plaza North

ULLAGE VOL. 2918

Queens, NY

PRODUCT TYPE Regular Gasoline

Petrocelli Electric

THE ACOUSTIC CHARACTERISTIC OF A LEAK REVEALS: (CHECK ONLY ONE)

Please see NOTE
On MAP

TIGHT TANK ONLY

THIS UNDERGROUND STORAGE TANK ONLY PASSES THE CRITERIA SET FORTH BY THE U.S. E.P.A.

TIGHT TANK & SYSTEM (Please note if there is anything less than a complete system)

THIS UNDERGROUND STORAGE TANK & SYSTEM PASSES THE CRITERIA SET FORTH BY THE U.S. E.P.A.

ULLAGE (DRY) PORTION LEAK

THIS UNDERGROUND STORAGE TANK FAILS THE CRITERIA SET FORTH BY THE U.S. E.P.A.

BELOW PRODUCT LEVEL (WET) PORTION LEAK

THIS UNDERGROUND STORAGE TANK FAILS THE CRITERIA SET FORTH BY THE U.S. E.P.A.

WATER SENSOR INDICATES: (CHECK ONLY ONE)

 NO WATER INTRUSION WATER INTRUSION NOT APPLICABLE ✓

Operator Name: Print Steve A. T. N. Sign [Signature]

Certification # 58-7948

Expiration Date 01/05

Testing Firm: A-1 Crown Leak Inc. Address 366 North Broadway Suite 410

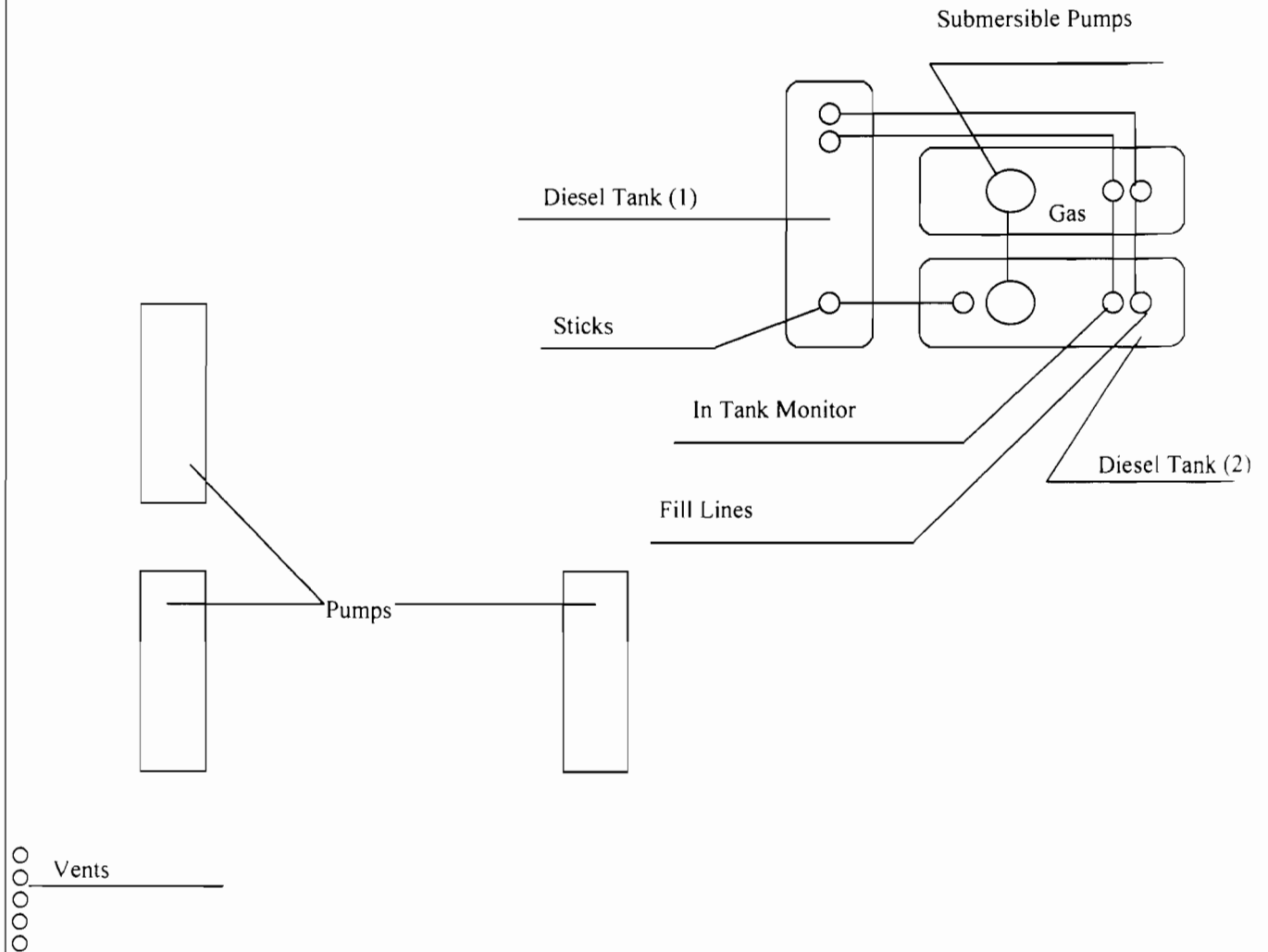
Telephone # 516-939-2959 Jericho, NY 11753

NEW YORK STATE REQUIREMENT: A DIAGRAM OF THE TANK SYSTEM MUST BE SUBMITTED TO THE STATE WITH THIS REPORT

EQUIPMENT SERIAL NUMBERS & CALIBRATION EXPIRATION DATES:

	Serial Number	Calibration Expiration Date
Water Sensor Display		01/04
Water Sensor Probe		01/04
Acoustic Signal Processor	ELP0043	01/04
In-Tank Microphone	0032228	01/04
Pressure Sensor	0973233	01/04

22nd St



“NOTE”

When testing Regular gasoline we could only pull one quarter of a pound of vacuum due to Stage 2 Vapor lines still attached to tank . Stage 2 lines could not be plugged during time of test after test had already started.

North

EZY 3 LOCATOR PLUS

MANUFACTURED BY: ESTABROOK'S INC. 1-877-368-7215

PRESSURE CALCULATION & WATER SENSOR CALIBRATION DATA SHEET

DATE 02/27/03

PBS # (NEW YORK) _____

TOTAL TANK VOL. 4000

TANK # _____

PRODUCT VOL. 1003

LOCATION 22-09 Bridge Plaza North

ULLAGE VOL. 2997

Queens, NY

PRODUCT TYPE Regular Gasoline

Petrocelli Electric

PRESSURE SENSOR CALCULATION

21 X .026 = .54 PSI (1)

INCHES OF PRODUCT WEIGHT OF PRODUCT

0 X .036 = 0 PSI (2)

INCHES OF WATER IN TANK

Line 1 + Line 2 = Total Positive Head Pressure In Tank = .54 PSI (3)

0 X .036 = 0 PSI (4)

INCHES OF WATER OUTSIDE TANK

Total Head Pressure Minus Outside Water Pressure = .54 +/- PSI (5)

Always add .5 PSI + .50 PSI (6)

NOTE: if line 6 is less Than .5 PSA line 7 Shall be .5 PSI

TEST PRESSURE = 1.04 +/- PSI (7)

TIME PRESSURE

Blower Started: 10:20

Test Pressure Reached: 10:49 1.25

Blower Turned off: 11:00 1.20

Test Began: 11:00 1.19

Test Ended: 11:20 1.14

Depth of Groundwater Determined:

By: Monitor Well

Where: There are a few Monitor Wells on
This site. Checked the ones around tank

Pad and found water @ 120"

WATER SENSOR CALIBRATION

Added: _____

Cal #1 Cal #2 Cal #3

Average: _____

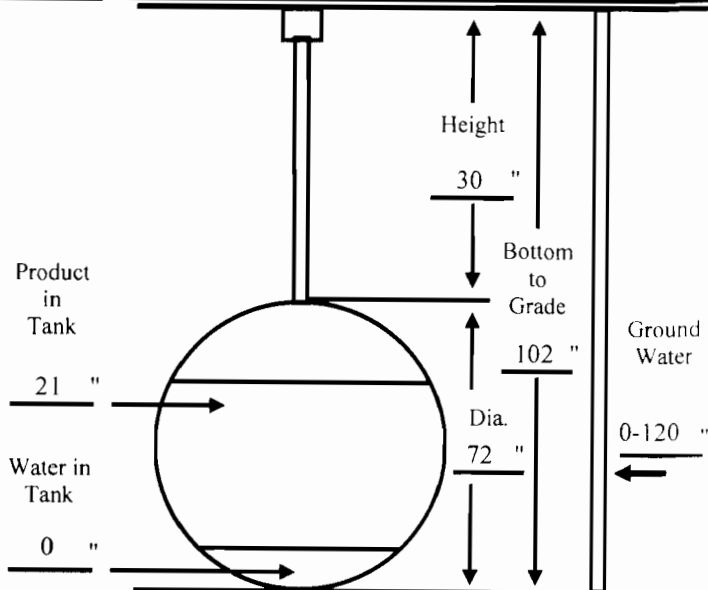
Water Intrusion Test Period: Began: _____

Ended: _____

Calculation for Test Period:

Div hole
_____ ÷ 3780 = _____ ÷ .05 = _____

Ave. Cal. "A" Factor Time of Test



EZY 3 LOCATOR PLUS

MANUFACTURED BY: ESTABROOK'S INC. 1-877-368-7215

FINAL REPORT

DATE 02/27/03

PBS # (NEW YORK) _____

TOTAL TANK VOL. 4000

TANK # _____

PRODUCT VOL. 1003

LOCATION 22-09 Bridge Plaza North

ULLAGE VOL. 2997

Queens, NY 11101

PRODUCT TYPE Regualr Gasoline

Petrocelli Electric

THE ACOUSTIC CHARACTERISTIC OF A LEAK REVEALS:

(CHECK ONLY ONE)

TIGHT TANK ONLY

THIS UNDERGROUND STORAGE TANK ONLY PASSES THE CRITERIA SET FORTH BY THE U.S. E.P.A.

✓ TIGHT TANK & SYSTEM LESS Product Line (Please note if there is anything less then a complete system)

THIS UNDERGROUND STORAGE TANK & SYSTEM PASSES THE CRITERIA SET FORTH BY THE U.S. E.P.A

ULLAGE (DRY) PORTION LEAK

THIS UNDERGROUND STORAGE TANK FAILS THE CRITERA SET FORTH BY THE U.S. E.P.A.

BELOW PRODUCT LEVEL (WET) PORTION LEAK

THIS UNDERGROUND STORAGE TANK FAILS THE CRITERA SET FORTH BY THE U.S. E.P.A.

WATER SENDOR INDICATES:

(CHECK ONLY ONE)

NO WATER INTRUSION WATER INTRUSION NOT APPLICABLE ✓

Operator Name: Print David Azin

Sign [Signature]

Certification # 58-7948

Expiration Date 01/05

Testing Firm: A-1 Crown Leak Inc.

Address 366 North Broadway Suite 410

Telephone # 516-939-2959

Jericho, NY 11753

NEW YORK STATE REQUIREMENT: A DIAGRAM OF THE TANK SYSTEM MUST BE SUBMITTED TO THE STATE WITH THIS REPORT

EQUIPMENT SERIAL NUMBERS & CALIBRATION EXPIRATION DATES:

	Serial Number	Calibration Expiration Date
Water Sensor Display	<u>0132228A</u>	<u>01/04</u>
Water Sensor Probe	<u>0132228B</u>	<u>01/04</u>
Acoustic Signal Processor	<u>ELP0043</u>	<u>01/04</u>
In-Tank Microphone	<u>0032228</u>	<u>01/04</u>
Pressure Sensor	<u>0973233</u>	<u>01/04</u>

ATTACHMENT 5

MW-6 WATER DISPOSAL MANIFEST

EnSolutions, Inc.



DAILY JOB REPORT

Name: E.V. SOLUTIONS INC. Date: 3-21-03
 Job Name: RETROFIT ELECTION Weather: CLOUDY
 Job Location: 22-09 BRIDGE PLAZA

Leave Yard/Office AM: <u>7:00</u>	Arrive At Site <u>8:00</u>
Leave Site: <u>11:00</u>	Back In Yard/Office: Home PM:

Work Performed: pump on 4' well removed A TOTAL 2349AL

Personnel On Site: TOM T

Remarks (Changes, additional work, pick up material, problems with equipment, etc...):

Subcontractors on site:

Equipment (trucks, excavator, pump truck etc.)	Time In.	Time Out
<u>1 VAC TRUCK OPERATOR</u>	<u>8:00</u>	<u>11:00</u>

Client Signature: X [Signature] AARCO Signature: X _____

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Doc. No.

2. Page 1
of

3. Generator's Name and Mailing Address

PETROBRAS S.A.
22-09 DE OUTUBRO
RIO DE JANEIRO RJ

4. Generator's Phone ()

21 CITY NY

5. Transporter 1 Company Name

AARCO ENVIRONMENTAL SERVICES CORP

6. US EPA ID Number

NY R 0 9 0 1 0 7 3 2 6

A. Transporter's Phone

631-462-0540

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address

NY 01 ROSSNY
94 HESSMAN ST
BRONX NY

10. US EPA ID Number

C. Facility's Phone

11. Waste Shipping Name and Description

12. Containers

No.

Type

13. Total
Quantity

14. Unit
Wt/Vol

a. USED 1500 GAL. WASTE MIXTURE

600 57 00.234 gal

b.

c.

d.

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

EMERGENCY PHONE # 631-462-0540

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

✓ ROBERT LINDH

Signature

✓ [Signature]

Month Day Year

02 11 03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

T. J. TINSLEY

Signature

[Signature]

Month Day Year

03 21 03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Month Day Year

GENERATOR

TRANSPORTER

FACILITY

ATTACHMENT 6

SUPPLEMENTARY REPORT – SPILL # 02111756

stored separately

EnSolutions, Inc.



New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 2
Hazardous Waste and Petroleum Remediation Section
47-40 21st Street, Long Island City, NY 11101
Phone: (718) 482-4097 FAX: (718) 482-4098
E-mail: mctibbe@gw.dec.state.ny.us
Website: www.dec.state.ny.us



August 26, 2003

Michael Melia
Petrocelli Electric Company Inc.
22-09 Queens Bridge Plaza North
Long Island City, NY 11101

RE: Spill # 97-05856
Petrocelli Electric Company Inc.
22-09 Queens Bridge Plaza North
Long Island City, New York

Mr. Michael Melia,


Based on the submitted documentation provided to date, no further investigation or response will be required concerning this site, with regard to spill number referenced above. Due the appearance of separate phase product in monitoring well MW-6, apparently from an upgradient source, all wells associated with this project should be closed according to the Department's "Groundwater Monitoring Well Decommissioning Procedures" except for MW-5 and MW-6. These wells are to be maintained in good work order to be used to investigate the apparent new spill which has been assigned spill number 03-30001.

Notwithstanding this approval, the Department hereby reserves all of its rights concerning, and such forbearance shall not extend to, any further investigation or remedial action the Department deems necessary:

- I. Due to the off-site migration of petroleum contaminants that was not addressed by this evaluation.
- II. Due to environmental conditions related to the Site which were unknown to the Department at the time of this approval.
- III. Due to information received, in whole or part, after the Department's approval for inactivation, which indicates that inactivation decision and/or corrective action is not sufficiently protective of human health for the reasonably anticipated use of the site.
- IV. Due to fraud in obtaining this approval for inactivation.

Please be advised that you should maintain a permanent file of all documentation and correspondence regarding this release for future property transactions, refinancing, etc. The Department's files regarding this release may not be maintained indefinitely. If there are any questions concerning this issue, please call me at (718) 482-4097.

Sincerely,


Mark C. Tibbe
Env. Program Specialist I

cc: Howard Fredericks, EnSolutions, Inc.
File