Oakland
All-America City
1993

CITY OF OAKLAND

DALZIEL BUILDING • 250 FRANK H. OGAWA PLAZA, SUITE 5301 • OAKLAND, CALIFORNIA 94612-2034

Public Works Agency
Environmental Services

FAX (510) 238-7286
TDD (510) 238-7644

APR 10 2002

April 5, 2002

**Mr. Barney Chan**
**Alameda County Environmental Health Services**
**1131 Harbor Bay Parkway**
**Alameda, California 94502-6577**

**Subject:** **Report for the Removal of Underground Fuel Pipeline at Oakland Municipal Service Center, 7101 Edgewater Drive Oakland, California**

Dear Mr. Chan:

Enclosed are copies of the above report prepared by our consultants, Uribe & Associates for the City of Oakland Municipal Service Center at 7101 Edgewater Drive.

Please call me at 238-6259, if you have any questions or require additional information.

Sincerely,

Joseph Cotton, R.G.
Environmental Program Specialist

cc: Diane Heinz, Port of Oakland, 530 Water St., Oakland, CA 94604
Xinggang Tong, URS Corporation, 500 12th St., Suite 200, Oakland, CA 94607

**Uribe & Associates**
447 29th Street
Suite Two Hundred
Oakland, California 94609-3532
☎ 510-832-2233 Fax 510-832-2237

Engineering and Environmental Services

APR 10 2002

April 2, 2002

Mr. Joseph Cotton
City of Oakland
Public Works Agency, Environmental Services Division
250 Frank Ogawa Plaza, Suite 5301
Oakland, CA 94612

**Subject:** **Report for the Removal of Underground Fuel Pipelines at Oakland Municipal Service Center**
**U&A Project Number 291-05**

Dear Mr. Cotton:

Uribe & Associates (U&A) is pleased to present this letter report for the removal of the fuel pipelines and impacted soils at the Oakland Municipal Service Center (Site) located at 7101 Edgewater Drive in Oakland. A table and figures, site specific health and safety plan, analytical data for soil samples, and a shipping manifest and invoice are also included as attachments.

Two fuel pipelines were discovered within a metal vault at the surface during well installation activities conducted by U&A. It was initially suspected that the product pipelines might be fill lines connected to an unknown underground storage tank (UST) in the vicinity of the vault. The fuel pipelines were located in an area known as the "bone yard," an asphalt paved parking area used to park inoperable police cars, trucks, and machinery (Figure 1, Attachment A). Each pipeline was capped with a double-closing check valve. Upon removal of the valves, it was noted that each pipeline extended vertically down approximately 2 feet below the surface and turned at a right angle towards the east. A metal "snake" was pushed through each pipeline approximately 67 feet towards the east. Some residual fuel was found within the pipelines. The odors suggested that one pipeline contained diesel and the other gasoline.

With this discovery, it was decided that an investigation with the intent of the removal of the pipelines and any associated USTs be undertaken. California Utility Surveys was initially contracted to conduct a survey of the suspected UST site on December 13, 2001; however, the survey was not complete due to the presence of vehicles overlying some of the piping areas and due to the abundance of metallic machinery surrounding the investigation area. U&A provided Mr. Joseph Cotton, representative of the City of Oakland Public Works Agency, Environmental Services Division (OPWA ESD) a proposed scope of work to complete a pipeline/UST investigation and removal. The scope was divided into three tasks, Pre-Field Activities, Field Activities, and Reporting. This report discusses the successful completion of the tasks.

**Pre-Field Activities**

Prior to any work occurring at the Site, U&A prepared a brief Site Specific Health and Safety Plan. The plan identified potential hazards and emergency procedures. This plan was present on Site during all field activities and is included as Attachment B.

On January 18, 2002, Bill White, a Project Manager with U&A, met with Chris Wabuzoh from Sequoia Environmental (Sequoia) who was contracted to conduct the excavation and soil disposal activities. The purpose of the visit was to familiarize each party with the site layout and anticipated operations for field activities. The potential location for the excavation was marked at this time.

California Utility Surveys was contracted to conduct a second survey of the Site on January 23, 2002. The disabled motor vehicles and other equipment had been removed from the area prior to this survey. The utility locator confirmed the extent of the pipelines in the easterly direction as previously suspected. A junction in the pipeline was also defined approximately 30 feet from the vault heading in a northerly direction. The signal on this suspected branch was weak, and the extent defined by the surveyor was approximately 10 feet to the north. During the previous utility location survey, the surveyor outlined a suspected tank in the area of the vault. Upon completion of this survey, he determined that it was unlikely that a UST was present in the area. The presence of the metal objects surrounding the area had apparently interfered with the instruments during the first survey. The surveyor also cleared the area for buried utilities, identifying power lines running between the lamp posts located around the perimeter of the proposed excavation area. U&A also notified Underground Services Alert (USA) of the proposed excavation location.

**Field Activities**

Mark Cruickshank, a U&A project geologist, provided oversight of Sequoia during all field activities. Excavation activities began on January 28, 2002. With the aid of a jackhammer, Sequoia cut the asphalt along the area where the pipelines had been outlined. This was done throughout the investigation to minimize the disturbance to the surrounding asphalt. Using a backhoe, Sequoia began digging around the vault (Figure 2, Attachment A). Two fiberglass pipelines were unearthed at a depth of approximately 2 ½ feet below ground surface (bgs). A strong hydrocarbon odor was present less then 6 inches below the asphalt. It was decided that it was impossible to segregate "clean" from "dirty" soil. All of the excavated material was placed on plastic sheeting and covered at the end of each workday. Each pipeline contained a small amount of residual fuel, one diesel and the other gasoline. A 6-foot deep trench was dug on the west side and underneath the vault to confirm that no UST was present in the vicinity of the vault. Approximately 3 feet of fill material was uncovered around the vault. Beneath the fill material, native soils extended to the bottom of the excavation at 6 feet bgs. No UST was found. The lack of a UST and the termination of the fuel lines within the vault with double check valves suggest that the fuel lines were used for dispensing fuel.

Sequoia continued to uncover the pipelines in a northerly direction. Approximately 32 ½ feet from the vault location, a "T" intersection was found. Both lines continued in an easterly

direction, and also branched off in a northerly direction. This branch in the fuel lines was aligned with the former fuel island approximately 60 feet to the north. Following the initial path of the fuel lines to the east, the excavation was completed 67 feet from the position of the vault. The ends of the pipelines were sealed with metal caps. The endcaps showed no signs of significant corrosion or leakage. A 6-foot deep excavation was dug beneath the area where the fuel lines were capped. No backfill material was encountered below 3 feet, and no UST was found. The fuel lines heading north towards the former fuel island extended approximately 60 feet from the junction. The fuel lines terminated approximately 3 feet under the cement pad that was presumably installed when the fuel island was removed. The lines were not capped in this area.

Once the entire length of the fuel lines were uncovered, they were removed and the excavation was dug to a depth of 4 feet bgs. The backfill material was removed along with approximately 6 inches of native soil (clay).

Soil samples were collected from the floor of the excavation at 20-foot intervals along the fuel line corridors. A total of seven soil samples were collected (T-1 through T-7). Figure 2 illustrates the sample locations. Table 1 (Attachment A) summarizes the analytical data for the samples collected in the excavation. One composite soil sample (Comp-1) was collected from the soil stockpile. The samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tert-butyl ether (MTBE), and total petroleum hydrocarbons (TPH) as diesel (TPH-d), as gasoline (TPH-g), as motor oil (TPH-mo), and lead. Analytical results are included as Attachment C.

After completion of the excavation, it was backfilled with imported material. Pea gravel was placed from the bottom of the excavation to approximately 8 inches bgs and compacted using a tamper. Base rock was used to fill the excavation to within 4 inches of the surface after tamping. The jagged asphalt surrounding the excavation was saw cut, and new asphalt was laid to match the surrounding surface.

About 62.5 tons of excavated soil was trucked to the Vasco Road Landfill on March 8, 2002. A copy of the shipping manifest and an invoice showing the amount of disposed soil are included as Attachment D.

We greatly appreciated the opportunity to work on this project. Please call me at (510) 587-4244 if you have any questions or need additional assistance.

Sincerely,

Stephanie Knott

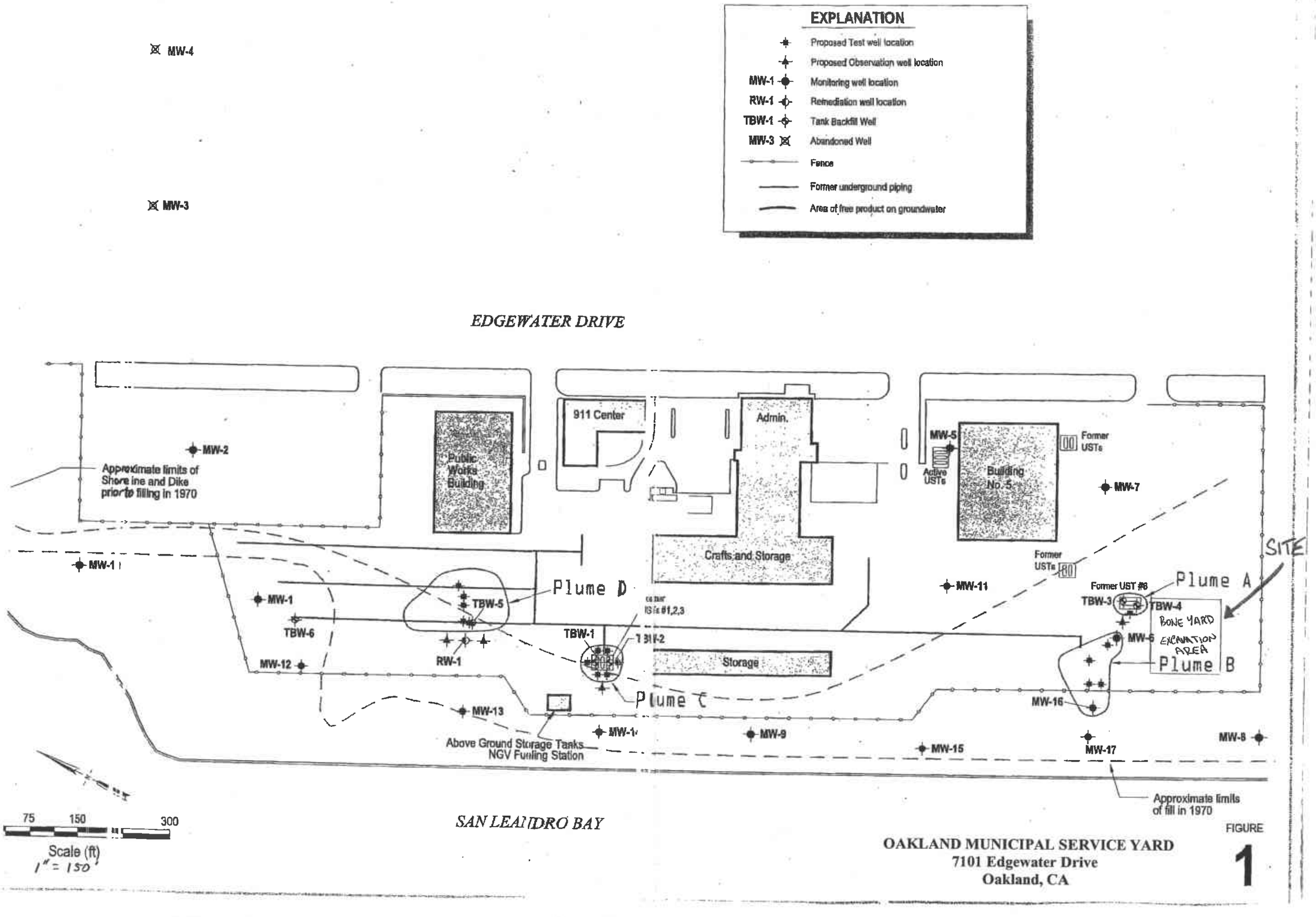
Stephanie Knott, R.G.
Project Manager

Attachments

**TABLE 1**
**SUMMARY OF ANALYTICAL RESULTS**

| SAMPLE I.D. | ANALYTES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | MTBE (mg/kg) | BENZENE (mg/kg) | TOLUENE (mg/kg) | ETHYL-BENZENE (mg/kg) | TOTAL XYLENES (mg/kg) | TPH-d (mg/kg) | TPH-g (mg/kg) | TPH-mo (mg/kg) | Lead (mg/kg) |
| T-1 | ND (0.5) | ND (0.13) | 0.45 | 1.4 | 2.3 | 140 LY | 190 | ND (5.0) | 15 |
| T-2 | ND (0.5) | 0.67 C | 0.79 | 3.3 C | 1.3 | 6,900 | 420 | ND (200) | 10 |
| T-3 | ND (0.5) | ND (0.13) | ND (0.13) | ND (0.13) | 1.1 C | 5,900 | 290 | ND (99) | 9.4 |
| T-4 | ND (0.01) * | 0.26 C | 0.15 C | 0.23 | 0.244 C | 4,400 | 130 | ND (100) | 8.4 |
| T-5 | ND (0.23) * | 0.52 C | 0.39 C | 0.67 | 1.26 | 6,300 | 180 | ND (99) | 9.7 |
| T-6 | ND (0.1) | ND (0.03) | ND (0.03) | ND (0.03) | ND (0.03) | 720 | 160 | 170 L | 10 |
| T-7 | ND (0.1) | 0.13 C | 0.12 | 0.52 | 0.83 C | 870 L | 86 | ND (15) | 12 |

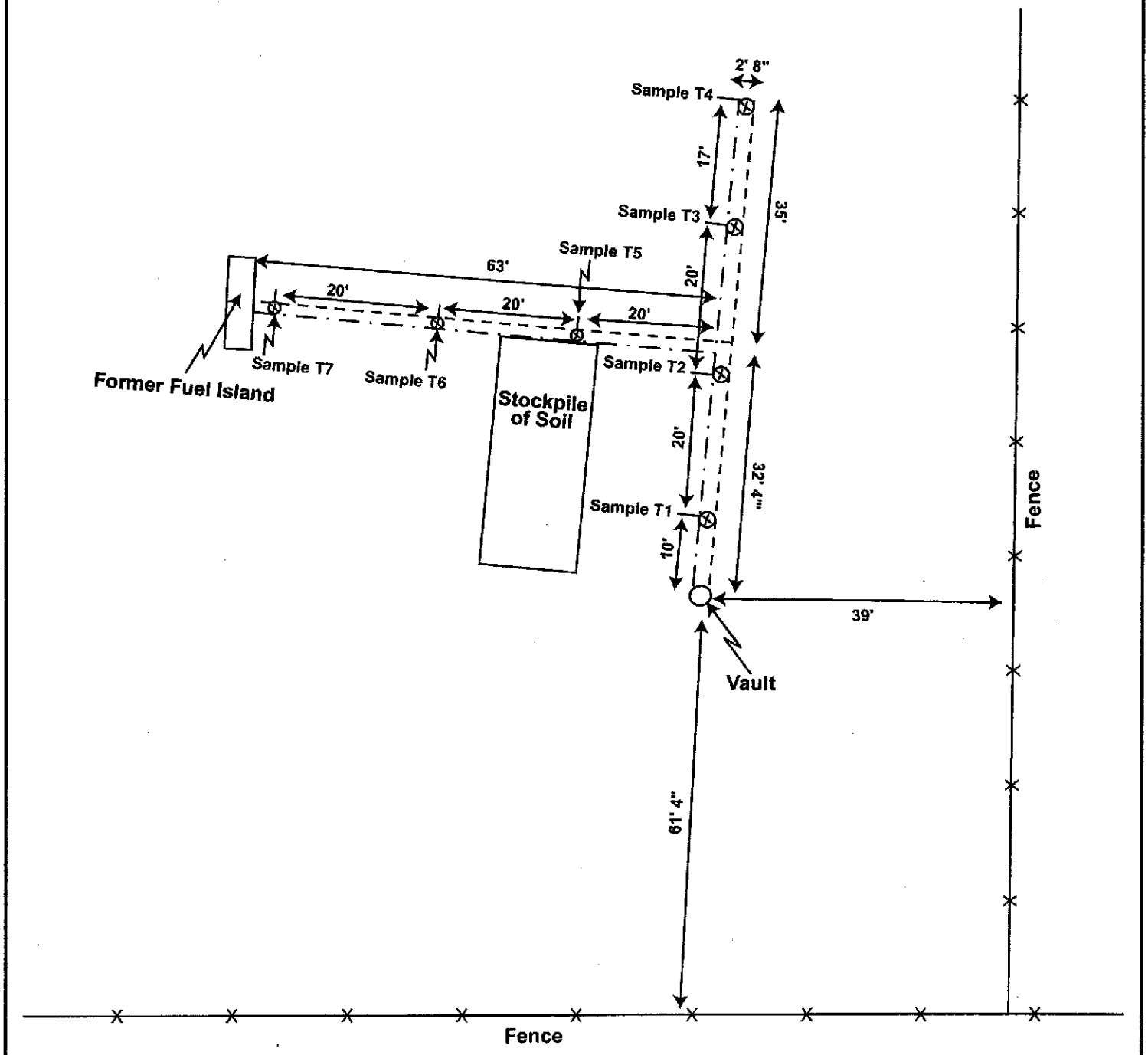
ND (20) = Non Detect (Detection Limits).
MTBE = methyl tert-butyl ether
TPH - d = total petroleum hydrocarbons as diesel
TPH-g = total petroleum hydrocarbons as gasoline
TPH- mo = total petroleum hydrocarbons as motor oil
mg/kg = milligrams per kilogram
C = presence confirmed, but confirmation concentration differed by more than a factor of two
L = lighter hydrocarbons contributed to the quantitation
Y = sample exhibits fuel pattern which does not resemble standard
* = samples flagged for MTBE using EPA sample method 8021B, samples reanalyzed using EPA sample method 8260B




FIGURE

**1**

**OAKLAND MUNICIPAL SERVICE YARD**
**7101 Edgewater Drive**
**Oakland, CA**




**LEGEND**

— · — · Former Gasoline Pipeline

- - - - - Former Diesel Pipeline

N

NOT TO SCALE

URIBE & ASSOCIATES
Engineering & Environmental Services

# FIGURE 2

**Oakland Municipal Service Yard**
**Fuel Line Removal**
**February 4, 2002**

F:\291-05 UST Removal\Figure.ai 3/6/02 sk

## Attachment B

## Site Specific Health and Safety Plan

# Site Safety and Health Plan

## City of Oakland Municipal Service Yard

## Oakland, California

## December 2001

Uribe & Associates
447 29th Street
Oakland, CA 94609

**Approval**

**U&A Health & Safety Officer:** _____

[Name] Kent D. Baugh

Site: City of Oakland Municipal Service Yard Project no 291-05
Location: 7101 Edgewater
Oakland, California Prepared by: M. Cruickshank

Client contact: Joseph Cotton
Project objectives: Investigate and remove possible UST and fuel pipelines

Scheduled activities and time period: Scheduled for January, 2002.

**Waste Type(s)/Characteristics**

Liquid ☐ Solid - Impacted soils ☒ Sediment ☒ Gas ☐
Corrosive ☐ Ignitable ☐ Reactive ☐ Volatile ☐
Toxic ☐ Radioactive ☐ Unknown ☐ Other ☐

Special considerations and comments: TPH-g, TPH-d, BTEX, and MTBE in soil and groundwater.

**Facility Description**

Size: Buildings and structures: The service yard has multiple buildings with parking facilities for municipal workers.
Topography and access: Flat, paved parking lot, site access restricted by security check point.

Status (active): Investigating possible UST attached to fuel lines that come to surface.
History: Site has had numerous USTs and fuel lines removed.

**Hazard Evaluation**

**Chemical Exposure**: Gasoline including BTEX, and Diesel fuel may be encountered. Benzene is of primary toxicological significance for worker exposure. Inhalation is the primary benzene exposure route. The permissible benzene exposure limit in air is 1 ppm - gasoline contains up to 5% benzene by volume. Symptoms of benzene exposure include irritation to the eyes, skin, nose, and respiratory system, headache, and nausea. Exposure to other petroleum, compounds and PCBs occurs by skin contact and inhalation. Reduce skin contact by wearing protective gloves and ingestion hazards by washing hands prior to eating or drinking.
**Heavy Equipment:**: Be aware of hazards associated with heavy equipment and tripping hazards related to excavation in work space. Use 'good housekeeping' practices to reduce potential tripping hazards.
**Open Excavations**: Use caution tape to mark areas of open excavations. Expected depth of excavation is not to exceed 6 feet bgs.
**Vehicle Traffic:** Use safety cones to delineate work areas.
**Heat:** Allow equipment to cool or wear insulated gloves when working around hot surfaces.
**Pressure and Fire**: Compressed gasses and petroleum vapors are highly explosive. Multipurpose fire extinguisher must be available at all times.

**Operations Plan**

Map or site sketch attached as exhibit
Site control (for vehicles, workers, the public, etc.) Traffic cones will delineate work area.
Zones of contamination: ☐ Known ☐ Projected ☒ Unknown
Excavation, drilling, or sampling method: Back hoe with front end loader

**Safety Equipment and Procedures**
Level of protection: ☐ A ☐ B ☐ C ☒ D

Additions and modifications: level D PPE required at all times while on-site. Level D PPE includes hard hat and steel toed boots. If contact with soil is anticipated use nitrile gloves.

Special surveillance equipment and materials: Monitor breathing zone with PID calibrated to 100 ppm isobutylene standard. If PID readings consistently exceed 50 ppm use respirator with organic vapor cartrige. Cease work if PID reading consistently exceed 250 ppm and relocate upwind.

Decontamination procedures: Decontaminate sampling equipment with high pressure/high temperature water. Decon fluids and excavated soil will be stored on site pending analysis.

**Emergency Procedures**

| Acute exposure symptom(s): | First aid: |
|---|---|
| 1) Muscle spasm/cramps shallow breathing dizziness | relocate to cool shaded area and drink fluids |
| | |
| | |
| | |

2. Nausea, no perspiration, strong rapid pulse, confusion - dangerous heat exposure call emergency medical facility.
3. Eye nose throat irritation - relocate to upwind position use respiratory protection.
4. Headache & nausea - relocate to upwind position use respiratory protection.

Hospitals/emergency medical center (address/phone no.) See attached map (Map 1) with directions.
1. San Leandro Hospital 13855 E 14th St, San Leandro, CA 94578 (510-357-6500

Emergency transportation (fire, ambulance, police):
1. 911

Emergency routes:

1. See Attached Map with directions to the hospital

**Safety/Health Equipment Check-out List**

General Safety:

| | | | |
|---|---|---|---|
| First aid kit | ☒ | Eye wash station | ☐ |
| Safety glasses/face shield | ☒ | Drinking water | ☒ |
| Safety shoes/gloves | ☒ | Nitrile gloves | ☒ |
| Personal clothing change | ☐ | Hearing protection | ☒ |
| Wash/decontamination materials | ☒ | Other | ☐ |

Specific Safety Equipment:

- ☐ Respirator: type (dust, cartridge, SCBA, etc.)_
- ☐ Combustible gas/explosimeter
- ☐ Oxygen indicator
- ☐ Dosimeter badge(s)
- ☐ Draeger/Sensidyne pump and benzene, chlorinated solvent detector tubes
- ☒ Duct tape, brushes, buckets, water, soap, paper towels, caution tape, traffic cones
- ☒ Photoionization detector
- ☒ Fire extinguisher
- ☐ _____

Special conditions and comments:

**Reporting**

Daily Health & Safety Report (see Appendix A)

Incident Report (see Appendix B)

**Note:** This H&S plan has been developed for the use of Uribe and Associates personnel only. Uribe and Associates makes this plan available for review by other personnel on a work site; however, this plan does not cover the employees of any other employer on the work site.

Date: 12-21-2001

Project Manager: William White

HOSPITAL DIRECTIONS



# Driving Directions Results

HELP ?

**Driving Directions Options**

- Get New Driving Directions
- Locations Along the Way

**Sponsors**


**FROM:**

**7101 EDGEWATER DR OAKLAND, CA 94621-3001 US**

Save this Address

**TO:**

[redacted]

Save this Address

**Total Distance:** 5.7 miles ( 9.1 km)

**Total Estimated Time:** 14 minutes

PRINT | DOWNLOAD TO PDA | E-MAIL | REVERSE DIRECTIONS

FASTEST ROUTE | SHORTEST ROUTE | AVOID HIGHWAYS

| MAP | DIRECTIONS | DISTANCE |
|---|---|---|
|  ©2001 MapQuest.com, Inc.; ©2001 Navigation Technologies | 1: Start out going Southeast on EDGEWATER DR towards HEGENBERGER RD. | 1.1 miles ( 1.8 km) |
|  ©2001 MapQuest.com, Inc.; ©2001 Navigation Technologies | 2: Turn LEFT onto HEGENBERGER RD. | 0.0 miles ( 0.1 km) |
|  ©2001 MapQuest.com, Inc.; ©2001 Navigation Technologies | 3: Take the I-880 S ramp towards SAN JOSE. | 0.3 miles ( 0.5 km) |
|  ©2001 MapQuest.com, Inc.; ©2001 Navigation Technologies | 4: Merge onto I-880 S. | 2.3 miles ( 3.7 km) |
|  ©2001 MapQuest.com, Inc.; ©2001 Navigation Technologies | 5: Take the MARINA BLVD EAST exit. | 0.2 miles ( 0.4 km) |
|  | 6: Merge onto MARINA BLVD. | 0.9 miles ( 1.4 km) |

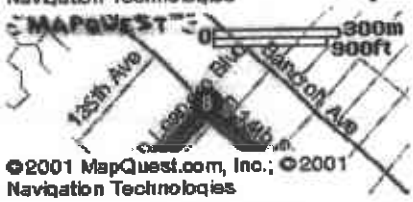
Live Tr
- Sa

Yellow
Search
Hosp

City Gu
- Sa
- Sa
- Sa
- Sa



| | |
|---|---|
| 7: Turn RIGHT onto SAN LEANDRO BLVD. | 0.7 miles ( 1.2 km) |

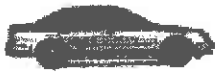


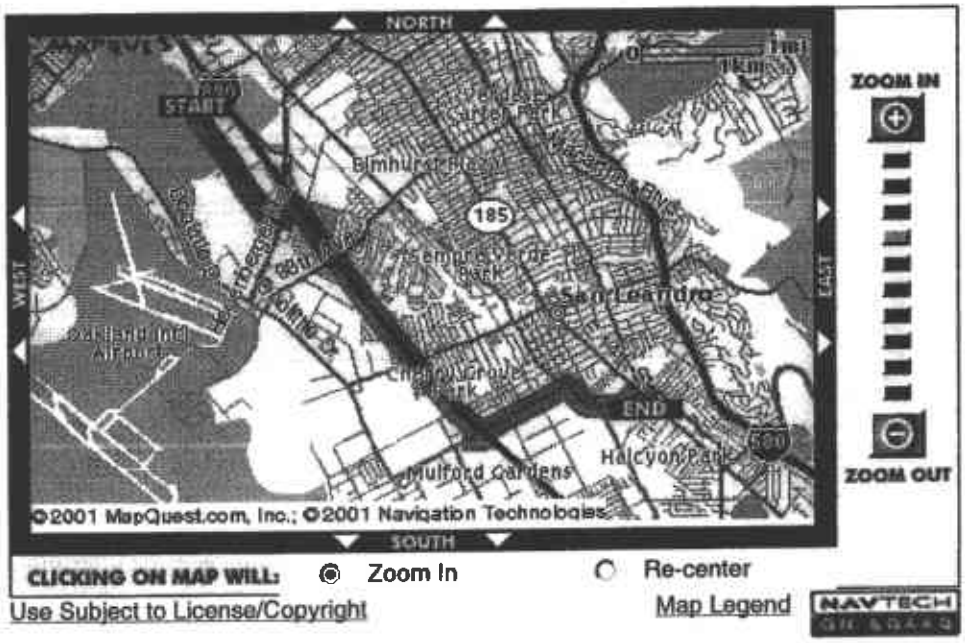

| | |
|---|---|
| 8: Turn RIGHT onto E 14TH ST/CA-185. | 0.1 miles ( 0.1 km) |

**TOTAL ESTIMATED TIME: 14 minutes**

**TOTAL DISTANCE: 5.7 miles ( 9.1km)**








CLICKING ON MAP WILL: ◉ Zoom In ○ Re-center

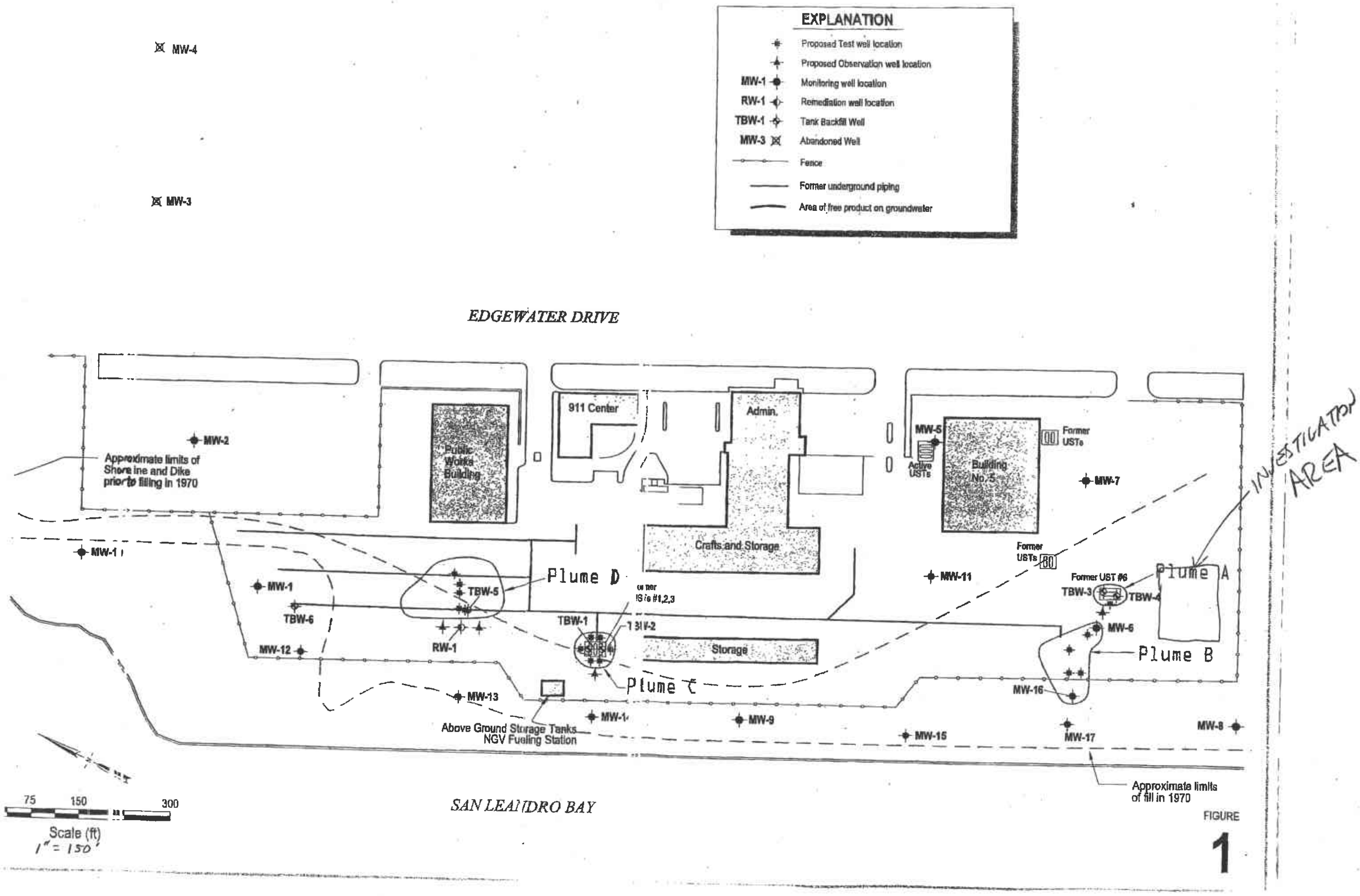
Use Subject to License/Copyright

Map Legend

NAVTECH

**TO:**

**San Leandro Hospital**
**13855 E 14th St San Leandro, CA 94578 US**


EXPLANATION
Proposed Test well location
Proposed Observation well location
MW-1 Monitoring well location
RW-1 Remediation well location
TBW-1 Tank Backfill Well
MW-3 Abandoned Well
Fence
Former underground piping
Area of free product on groundwater
MW-4
MW-3
EDGEWATER DRIVE
MW-2
Approximate limits of Shore line and Dike prior to filling in 1970
Public Works Building
911 Center
Admin.
Crafts and Storage
MW-5
Active USTs
Building No. 5
Former USTs
MW-7
Former USTs
MW-11
Former UST #6
TBW-3
TBW-4
Plume A
MW-6
Plume B
MW-16
MW-17
MW-8
MW-15
MW-1
TBW-5
Plume D
TBW-1
TBW-2
TBW-6
RW-1
MW-12
Storage
Plume C
MW-13
MW-10
MW-9
Above Ground Storage Tanks
NGV Fueling Station
Approximate limits of fill in 1970
INVESTIGATION AREA
75 150 300
Scale (ft)
1" = 150'
SAN LEANDRO BAY

FIGURE

**1**

# APPENDIX A

# DAILY HEALTH AND SAFETY REPORT

USA | OFFICE & ASSOCIATES ENVIRONMENTAL CONSULTING SERVICES

PROJECT NO.:

# DAILY HEALTH & SAFETY FORM

| | | |
|---|---|---|
| PROJECT NAME: | | DATE: |
| LOCATION: | SITE NAME/NO.: | SITE SAFETY OFFICER: |
| ADDRESS: | | WEATHER CONDITIONS: |

DESCRIPTION OF SITE ACTIVITIES INCLUDING LEVEL OF PROTECTION:

PERSONNEL ON SITE INCLUDING SUBCONTRACTORS:

DID DAILY HEALTH & SAFETY MEETING TAKE PLACE? ❑ NO ❑ YES
PROVIDE BRIEF SUMMARY DESCRIPTION OF MEETING:

DID ANY ACCIDENTS OR INJURIES OCCUR? ❑ NO ❑ YES
IF YES, WAS DA FORM 285 COMPLETED? ❑ NO ❑ YES
DATE SUBMITTED: _____
WAS USAEC SAFETY OFFICE NOTIFIED? ❑ NO ❑ YES
WAS WORKERS COMPENSATION FORM COMPLETED? ❑ NO ❑ YES

PROVIDE LIST OF SPECIAL EQUIPMENT OPERATION WITHIN THE EXCLUSION ZONE:

LIST AIR MONITORING EQUIPMENT AND CALIBRATION DATES:

ATTACH PLAN DRAWING OF SITE AND EXCLUSION ZONE(S) OR DESCRIBE.

LIST ANY CONDITIONS OR ACTIONS THAT WERE NOT CONSISTENT WITH THE H&SP:

LIST ANY CHANGES IN THE OPERATION:

WAS SITE SAFETY OFFICER INFORMED OF NON-COMPLIANCE WITH H&SP? ❑ NO ❑ YES
PROVIDE EXPLANATION:

WAS CORRECTIVE ACTION IMPLEMENTED? ❑ NO ❑ YES
PROVIDE EXPLANATION:

LIST ANY CHANGES IN LEVEL OF PROTECTION:

COMMENTS INCLUDING DESCRIPTIONS OF ANY UNUSUAL OCCURRENCE OR PHYSICAL COMPLAINTS. LIST H&S MEETING ATTENDEES:

SIGNATURE DATE

# APPENDIX B

# INCIDENT REPORT

# INCIDENT REPORT FORM

1. What type of incident took place (check all that apply)?

_____ Injury – On-site First Aid Treatment only  _____ Injury – Off-site Medical Treatment  _____ Automobile Accident (on company business)

_____ Near Miss  _____ Property Damage  _____ Equipment Damage

2. Date: _____ Time: _____ a.m. p.m. Supervisor: _____

3. Name of injured: _____ Occupation: _____

4. Exactly where did the incident occur? (Describe specific machinery or equipment involved, if applicable)

_____

_____

5. How did the incident take place? (Describe what was being done at the time of the incident)

_____

_____

6. Nature and extent of injury or damage: _____

_____

_____

If injury, describe first aid or medical attention provided: _____

Who provided the first aid or medical attention:

Name: _____ Employer: _____

Telephone Number: _____

Medical Attention documentation attached: ☐ Yes ☐ No

If No, explain: _____

7. Witnesses? _____ Yes _____ No

Names of witnesses (attach any witness statements to this report) _____

_____

_____

8. Describe the training the person received for this task, and when: _____

_____

_____

# INCIDENT REPORT FORM

U&A

9. Is the person experienced at this task? _____ Yes _____ No

   Approximate time in months: _____

10. Describe any "UNSAFE ACTS" that contributed to this incident:

    a. _____

    b. _____

    c. _____

11. Describe any "UNSAFE CONDITIONS" that contributed to this incident:

    a. _____

    b. _____

    c. _____

12. What "BASIC CAUSES" were contributing factors to this incident?

    a. _____

    b. _____

    c. _____

13. Add any additional information related to this incident: _____

    _____

    _____

    _____

14. Actions taken to prevent a reoccurrence of this incident? _____

    _____

    _____

Person completing report: _____ _____

Print Name Signature

_____

Date

THIS REPORT MUST BE DELIVERED TO THE URIBE HEALTH AND SAFETY OFFICER WITHIN 24 HOURS OF THE INCIDENT FOR MEDICAL TREATMENT CASES AND WITHIN FIVE DAYS FOR OTHER INCIDENTS.

# Attachment C

# Analytical Results

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# A N A L Y T I C A L  R E P O R T

Prepared for:

Uribe & Associates
447 29th Street
Suite 200
Oakland, CA 94609

Date: 13-FEB-02
Lab Job Number: 156743
Project ID: N/A
Location: Oakland Service Yard

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by: Tracy Babjack
Project Manager

Reviewed by:
Operations Manager

Curtis & Tompkins, Ltd.

Laboratory Numbers: **156743**
Client: **Uribe & Associates**
Location: **Oakland Service Yard**

Sampled Date: **01/29/02**
Received Date: **01/29/02**

## CASE NARRATIVE

This hardcopy data package contains samples and QC results for eight soil samples, which were received from the site referenced above on January 29, 2002. The samples were received cold and intact. On February 13, 2002 Bill White requested additional analysis in order to confirm MTBE.

**TVH (EPA 8015B(M)):**
High surrogate recoveries were observed for many of the samples as a result of hydrocarbons coeluting with the surrogate peaks. High MTBE spike recoveries were observed for the LCS from batch# 69825 and the blank spikes from batch# 69887. The high bias should not affect the quality of the results because the samples associated with these batches were not detected (ND) for MTBE. No other analytical problems were encountered.

**TEH (EPA 8015B(M)):**
Many samples were analyzed at dilutions causing the surrogates to be diluted out (DO). No other analytical problems were encountered.

**VOCs (EPA 8260B):**
Samples T-4 (CT# 156743-004) and T-5 (CT# 156743-005) were analyzed outside of the EPA recommend hold time, at the clients request, therefore the compounds are flagged with a "b". No other analytical problems were encountered.

**Metals (EPA 6010B):**
No analytical problems were encountered.

**URIBE & ASSOCIATES**
ENGINEERING AND ENVIRONMENTAL SERVICES

# CHAIN-OF-CUSTODY RECORD

156743

Page 1 of 1

| Project No.: | Project Name: |
|---|---|
| | OAKLAND SERVICE YARD TANK Rm |

**REPORT RESULTS TO**

| | |
|---|---|
| Name: | |
| Company: | URIBE & ASSOCIATES |
| Mailing Address: | ~~2000 LAKESHORE AVENUE, SUITE 200~~ 447 29TH |
| City, State, Zip: | OAKLAND, CA ~~94610-3674~~ 94609 |
| Telephone No.: | 510-832-2233 Telefax No.: 510-832-2237 |

**SEND INVOICE TO**

| | |
|---|---|
| Purchase Order Number: | |
| Name: | |
| Company: | Dept: |
| Mailing Address: | |
| City, State, Zip: | |

Turn-Around Time: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ 5 day ☒ 10 day (Standard)

Rush Charges Authorized? ☐ Yes ☐ No

Phone Results ☐ Fax Results ☐

Special Instructions:

CALL IMMEDIATLY IF MTBE DETECTED

| No. | Date | Time | Matrix/Medium | Sample Identification Number | # OF CONTAINERS | BTEX & TPH-g (8260) | TPH-d & mo (8015) | LEAD |
|---|---|---|---|---|---|---|---|---|
| 1 | 1/29/02 | 0720 | SOIL | T-1 | 1 | X | X | X |
| 2 | | 0730 | | T-2 | 1 | X | X | X |
| 3 | | 0735 | | T-3 | 1 | X | X | X |
| 4 | | 0745 | | T-4 | 1 | X | X | X |
| 5 | | 1045 | | T-5 | 1 | X | X | X |
| 6 | | 1120 | | T-6 | 1 | X | X | X |
| 7 | | 1200 | | T-7 | 1 | X | X | X |
| 8 | | 1400 | | COMP-1 | 1 | X | X | X |

Remarks: * PLEASE CALL IMMEDIATLY IF MTBE IS DETECTED BILL WINTE: 1-510-587-4209*

Analyzed for 48hr Rush Results on Feb 1, 2002 per Bill Winte 1/30/02

**CHAIN OF CUSTODY**

Collected by: MARK CRUICKSHANK 1/29/02 1415 (Print) Date: Time:

Relinquished by: 1-29-02 1415 Date: Time:

Relinquished by: Date: Time:

Collector's Signature:

Received by: 1/29/02 1420 Date: Time:

Received by: Date: Time:

Sample Condition Upon Receipt: ☐ Acceptable ☐ Other (explain)

Method of Shipment:

Original (White) Laboratory Copy (Yellow) Field Copy (Pink)

P:\98 310\COC form 12/30/98 QK DYU

# CURTIS & TOMPKINS, LTD. BERKELEY LOGIN CHANGE FORM

Reason for change: X Client Request: By: Bill White Date/Time: 2/13/02 Initials: TM

_____ Login Review _____ Data Review

| Current Lab ID | Previous Lab ID | Client ID | Matrix | Add/Cancel | Analysis | Duedate |
|---|---|---|---|---|---|---|
| 156743-004 | | T-4 | Soil | Add | MTBE by 8260 | |
| -005 | | T-5 | Soil | Add | MTBE by 8260 | |
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Curtis & Tompkins, Ltd.

Curtis & Tompkins, Ltd.

## Gasoline by GC/FID CA LUFT

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | 8015B(M) |
| Matrix: | Soil | Batch#: | 69825 |
| Units: | mg/Kg | Sampled: | 01/29/02 |
| Basis: | as received | Received: | 01/29/02 |

Field ID: T-1
Type: SAMPLE
Lab ID: 156743-001
Diln Fac: 25.00
Analyzed: 01/31/02

| Analyte | Result | RL |
|---|---|---|
| Gasoline C7-C12 | 190 H | 25 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (FID) | 124 | 62-138 |
| Bromofluorobenzene (FID) | 113 | 46-150 |

Field ID: T-2
Type: SAMPLE
Lab ID: 156743-002
Diln Fac: 25.00
Analyzed: 01/31/02

| Analyte | Result | RL |
|---|---|---|
| Gasoline C7-C12 | 420 H | 25 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (FID) | 224 * | >LR b 62-138 |
| Bromofluorobenzene (FID) | 133 | 46-150 |

Field ID: T-3
Type: SAMPLE
Lab ID: 156743-003
Diln Fac: 25.00
Analyzed: 01/31/02

| Analyte | Result | RL |
|---|---|---|
| Gasoline C7-C12 | 290 H | 25 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (FID) | 147 * | 62-138 |
| Bromofluorobenzene (FID) | 117 | 46-150 |

Field ID: T-4
Type: SAMPLE
Lab ID: 156743-004
Diln Fac: 5.000
Analyzed: 01/31/02

| Analyte | Result | RL |
|---|---|---|
| Gasoline C7-C12 | 130 H | 5.0 |

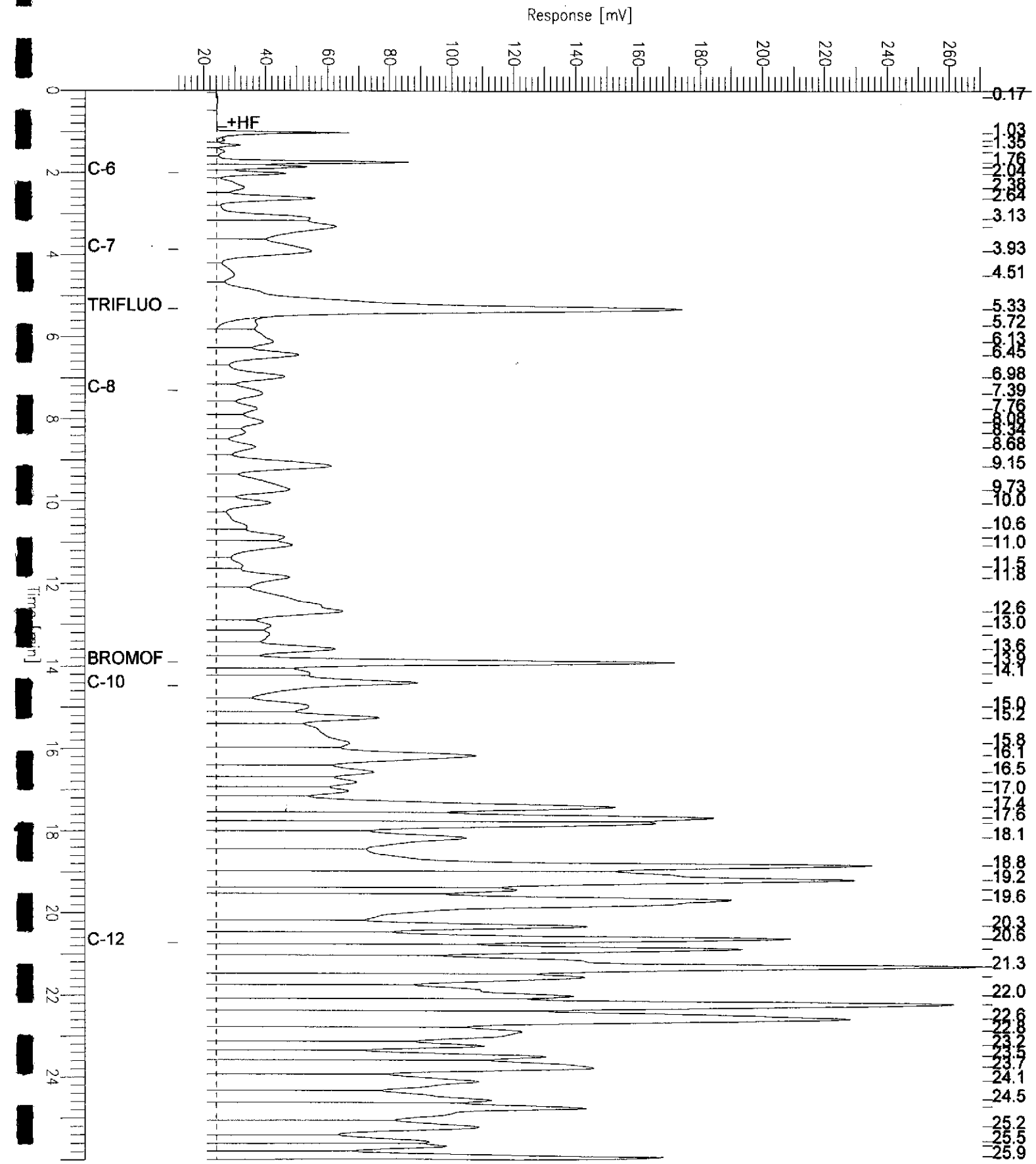
| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (FID) | 226 * | >LR b 62-138 |
| Bromofluorobenzene (FID) | 118 | 46-150 |

*= Value outside of QC limits; see narrative
H= Heavier hydrocarbons contributed to the quantitation
b= See narrative
ND= Not Detected
RL= Reporting Limit
>LR= Response exceeds instrument's linear range

# GC07 TVH 'A' Data File RTX 502

Sample Name : 156743-003,69825
FileName : G:\GC07\DATA\031A016.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 12 mV

Sample #: a Page 1 of 1
Date : 2/1/02 12:11 PM
Time of Injection: 1/31/02 08:25 PM
Low Point : 11.82 mV High Point : 270.77 mV
Plot Scale: 259.0 mV

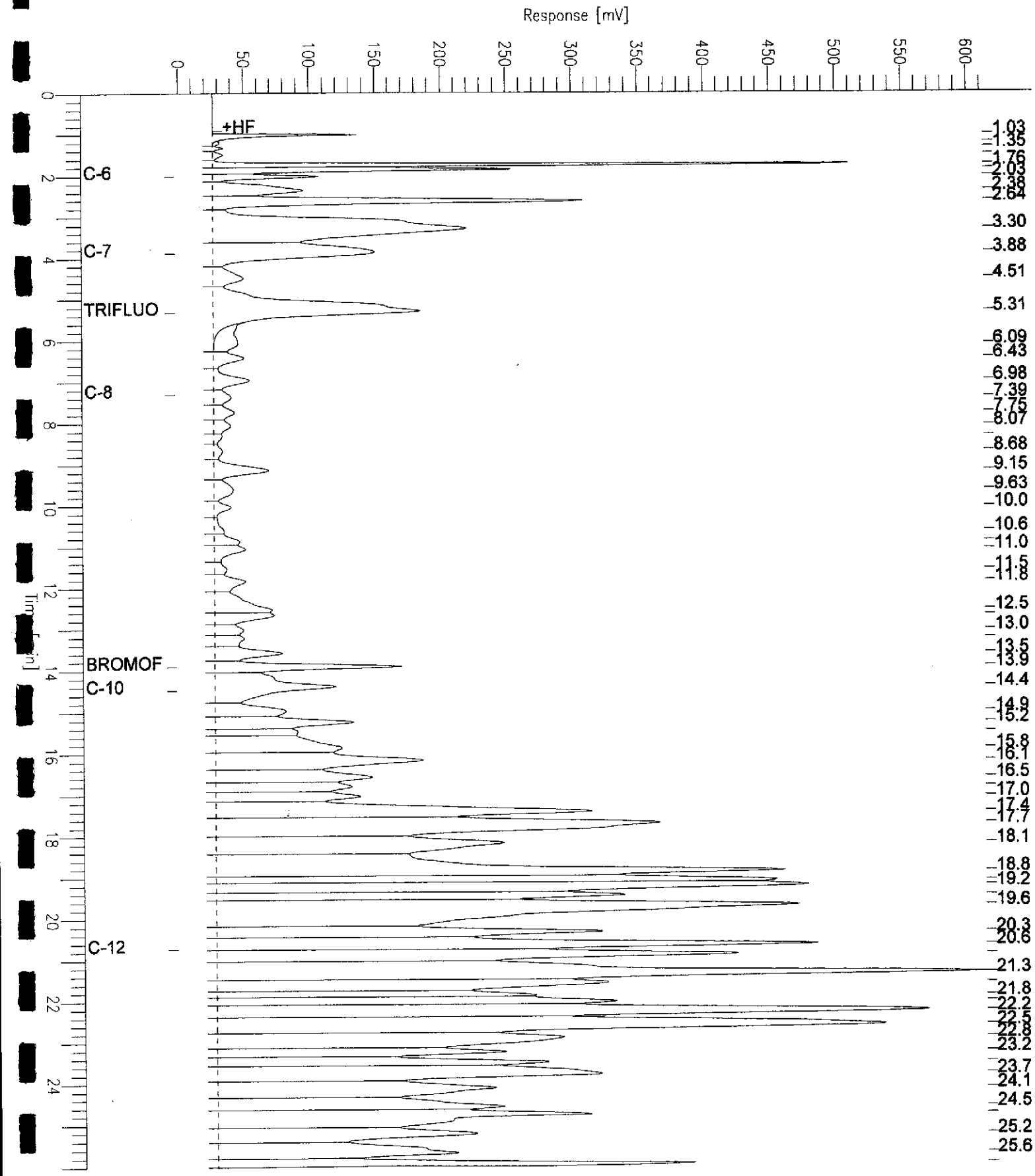


# GC07 TVH 'A' Data File RTX 502

Sample Name : 156743-004,69825
FileName : G:\GC07\DATA\031A020.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: -3 mV

Sample #: a
Date : 2/1/02 12:11 PM
Time of Injection: 1/31/02 10:41 PM
Low Point : -2.76 mV High Point : 612.89 mV
Plot Scale: 615.6 mV

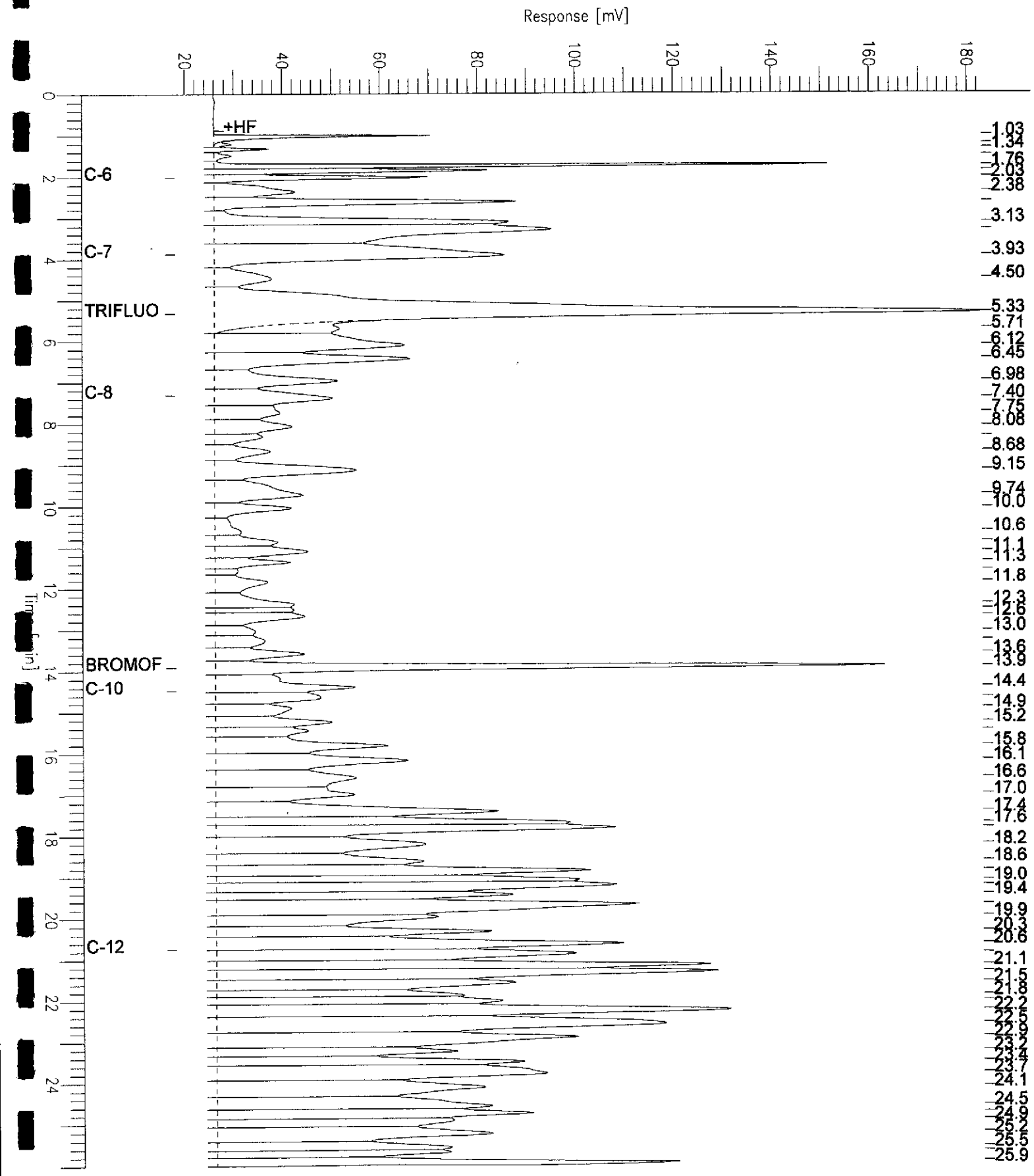




# GC07 TVH 'A' Data File RTX 502

Sample Name : 156743-005,69825
FileName : G:\GC07\DATA\031A019.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 18 mV

Sample #: a Page 1 of 1
Date : 2/1/02 12:11 PM
Time of Injection: 1/31/02 10:07 PM
Low Point : 18.00 mV High Point : 183.01 mV
Plot Scale: 165.0 mV

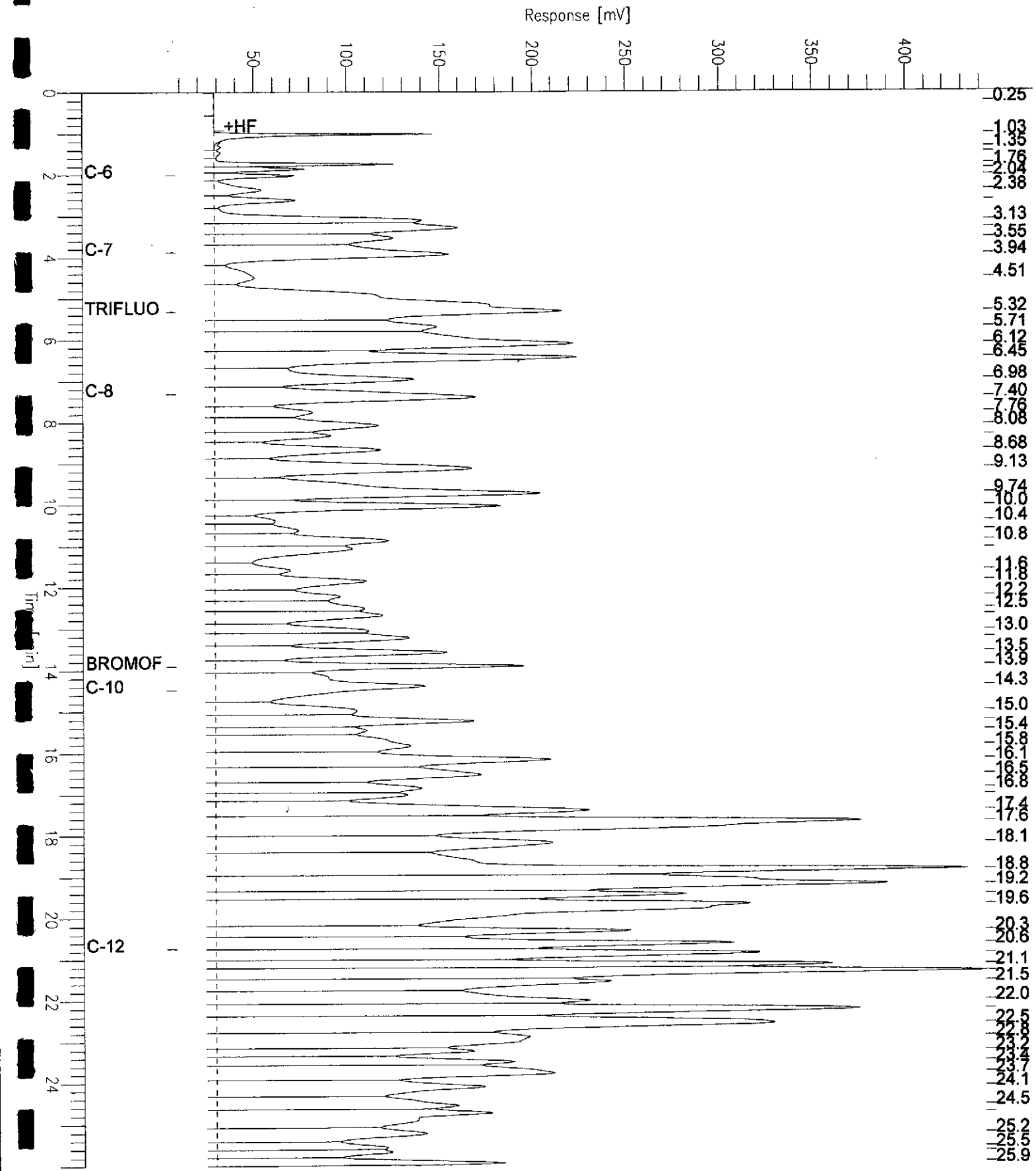


# GC07 TVH 'A' Data File RTX 502

Sample Name : 156743-006,69825
FileName : G:\GC07\DATA\031A024.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 8 mV

Sample #: a
Date : 2/1/02 12:11 PM
Time of Injection: 2/1/02 12:57 AM
Low Point : 7.92 mV High Point : 442.33 mV
Plot Scale: 434.4 mV



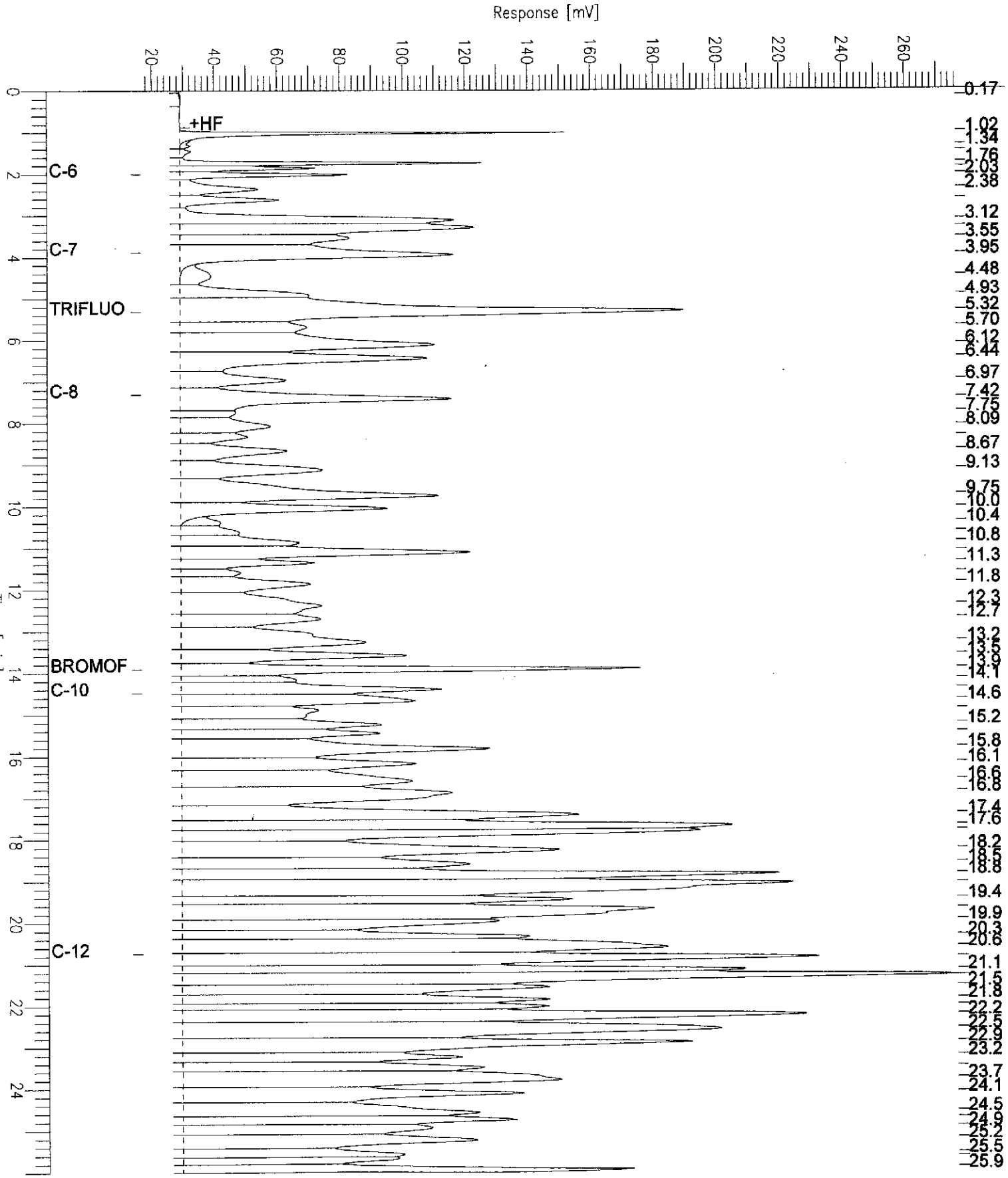


# GC07 TVH 'A' Data File RTX 502

Sample Name : 156743-007,69825
FileName : G:\GC07\DATA\031A025.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 16 mV

Sample #: a
Date : 2/1/02 12:12 PM
Time of Injection: 2/1/02 01:31 AM
Low Point : 16.47 mV High Point : 276.34 mV
Plot Scale: 259.9 mV



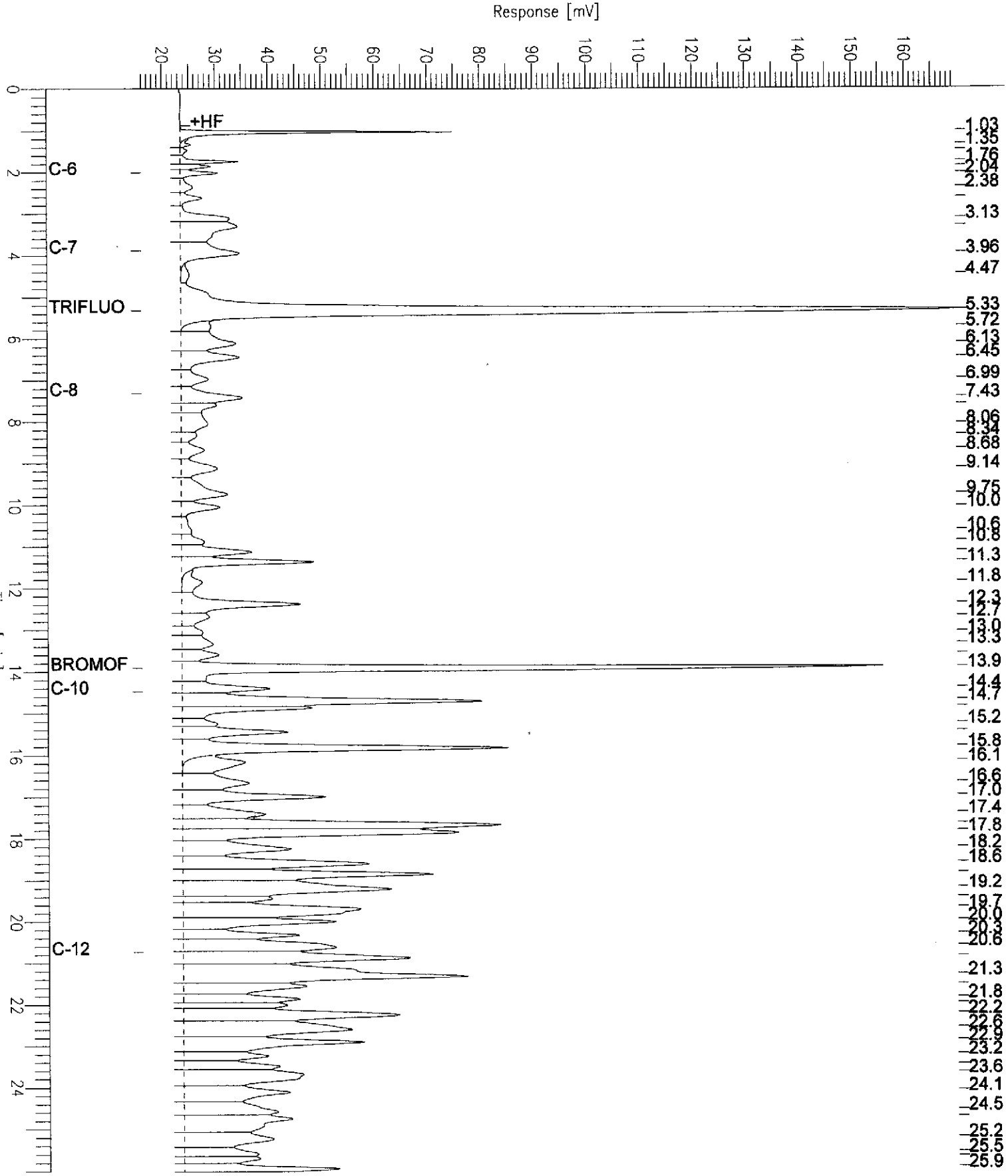


# GC07 TVH 'A' Data File RTX 502

Sample Name : 156743-008,69825
FileName : G:\GC07\DATA\031A015.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 16 mV

Sample #: a
Date : 2/1/02 12:11 PM
Time of Injection: 1/31/02 07:51 PM
Low Point : 15.99 mV High Point : 169.77 mV
Plot Scale: 153.8 mV



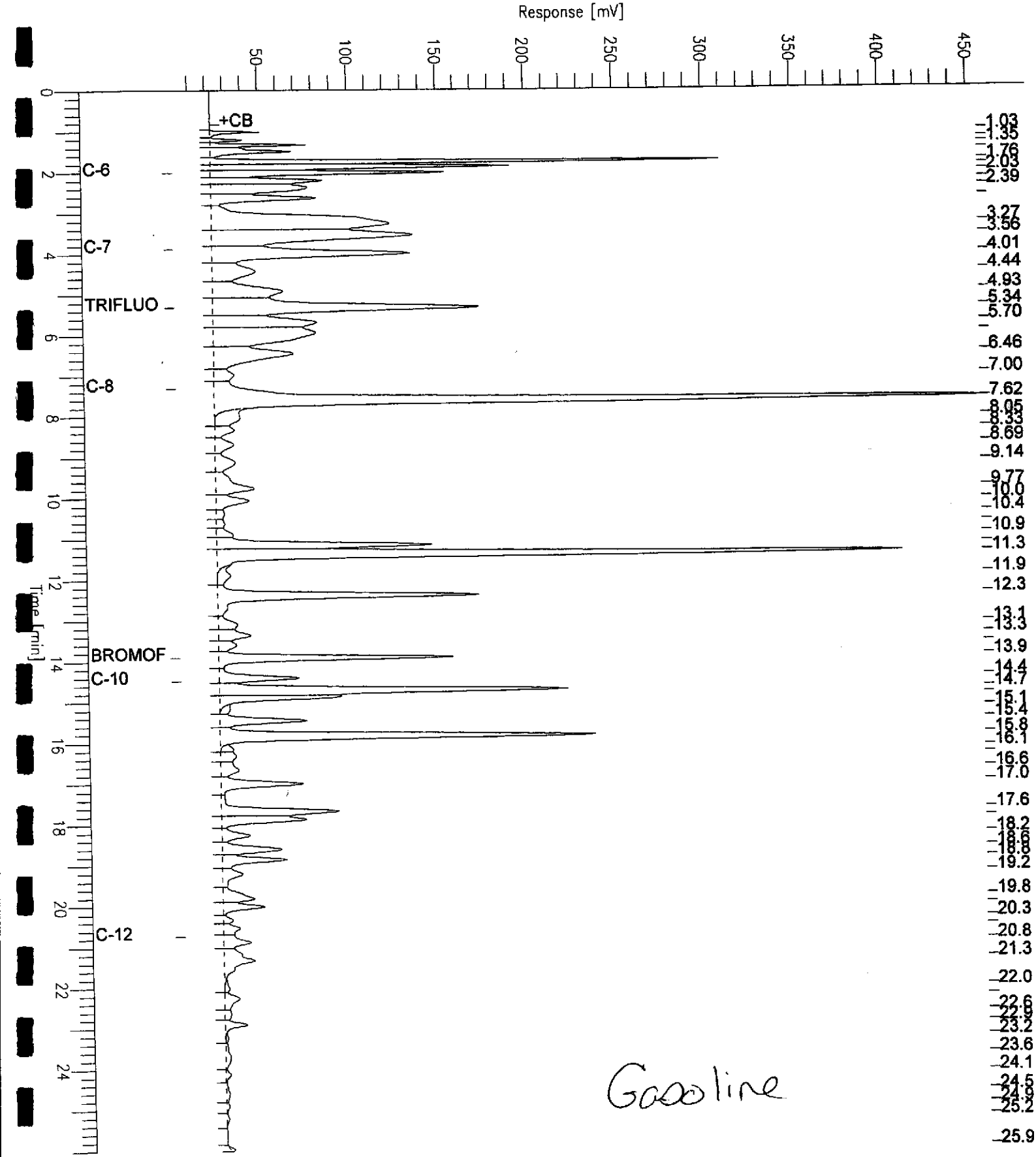


# GC07 TVH 'A' Data File RTX 502



mple Name : ccv/bs,qc169194,69825,01ws2371,5/5000
leName : g:\gc07\data\031a010.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
ale Factor: 1.0 Plot Offset: 1 mV

Sample #:
Date : 2/1/02 10:37 AM
Time of Injection: 1/31/02 04:48 PM
Low Point : 1.33 mV High Point : 456.01 mV
Plot Scale: 454.7 mV




Gasoline

Curtis & Tompkins, Ltd.

## Gasoline by GC/FID CA LUFT

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | 8015B(M) |
| Matrix: | Soil | Batch#: | 69825 |
| Units: | mg/Kg | Sampled: | 01/29/02 |
| Basis: | as received | Received: | 01/29/02 |

| | | | |
|---|---|---|---|
| Type: | BLANK | Diln Fac: | 1.000 |
| Lab ID: | QC169193 | Analyzed: | 01/31/02 |

| Analyte | Result | RL |
|---|---|---|
| Gasoline C7-C12 | ND | 1.0 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (FID) | 94 | 62-138 |
| Bromofluorobenzene (FID) | 93 | 46-150 |

*= Value outside of QC limits; see narrative
H= Heavier hydrocarbons contributed to the quantitation
b= See narrative
ND= Not Detected
RL= Reporting Limit
LR= Response exceeds instrument's linear range

Curtis & Tompkins, Ltd.

## Gasoline by GC/FID CA LUFT

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | 8015B(M) |
| Matrix: | Soil | Diln Fac: | 1.000 |
| Units: | mg/Kg | Batch#: | 69825 |
| Basis: | as received | Analyzed: | 01/31/02 |

Type: BS Lab ID: QC169194

| Analyte | Spiked | Result | %REC | Limits |
|---|---|---|---|---|
| Gasoline C7-C12 | 10.00 | 8.700 | 87 | 75-123 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (FID) | 118 | 62-138 |
| Bromofluorobenzene (FID) | 95 | 46-150 |

Type: BSD Lab ID: QC169195

| Analyte | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|
| Gasoline C7-C12 | 10.00 | 8.763 | 88 | 75-123 | 1 | 20 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (FID) | 122 | 62-138 |
| Bromofluorobenzene (FID) | 96 | 46-150 |

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

## Benzene, Toluene, Ethylbenzene, Xylenes

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8021B |
| Matrix: | Soil | Sampled: | 01/29/02 |
| Units: | ug/Kg | Received: | 01/29/02 |
| Basis: | as received | | |

| | | | |
|---|---|---|---|
| Field ID: | T-1 | Diln Fac: | 25.00 |
| Type: | SAMPLE | Batch#: | 69825 |
| Lab ID: | 156743-001 | Analyzed: | 01/31/02 |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND | 500 |
| Benzene | ND | 130 |
| Toluene | 450 | 130 |
| Ethylbenzene | 1,400 | 130 |
| m,p-Xylenes | ND | 130 |
| o-Xylene | 2,300 | 130 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 135 * | 65-134 |
| Bromofluorobenzene (PID) | 125 | 55-138 |

| | | | |
|---|---|---|---|
| Field ID: | T-2 | Diln Fac: | 25.00 |
| Type: | SAMPLE | Batch#: | 69940 |
| Lab ID: | 156743-002 | Analyzed: | 02/07/02 |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND | 500 |
| Benzene | 670 C | 130 |
| Toluene | 790 | 130 |
| Ethylbenzene | 3,300 C | 130 |
| m,p-Xylenes | ND | 130 |
| o-Xylene | 1,300 | 130 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 124 | 65-134 |
| Bromofluorobenzene (PID) | 106 | 55-138 |

| | | | |
|---|---|---|---|
| Field ID: | T-3 | Diln Fac: | 25.00 |
| Type: | SAMPLE | Batch#: | 69887 |
| Lab ID: | 156743-003 | Analyzed: | 02/04/02 |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND | 500 |
| Benzene | ND | 130 |
| Toluene | ND | 130 |
| Ethylbenzene | ND | 130 |
| m,p-Xylenes | ND | 130 |
| o-Xylene | 1,100 C | 130 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 105 | 65-134 |
| Bromofluorobenzene (PID) | 125 | 55-138 |

*= Value outside of QC limits; see narrative
C= Presence confirmed, but confirmation concentration differed by more than a factor of two
D= Not Detected
L= Reporting Limit

Curtis & Tompkins, Ltd.

## Benzene, Toluene, Ethylbenzene, Xylenes

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8021B |
| Matrix: | Soil | Sampled: | 01/29/02 |
| Units: | ug/Kg | Received: | 01/29/02 |
| Basis: | as received | | |

| | | | |
|---|---|---|---|
| Field ID: | T-4 | Diln Fac: | 5.000 |
| Type: | SAMPLE | Batch#: | 69992 |
| Lab ID: | 156743-004 | Analyzed: | 02/08/02 |

| Analyte | Result | RL |
|---|---|---|
| MTBE | 190 C | 100 |
| Benzene | 260 C | 25 |
| Toluene | 150 C | 25 |
| Ethylbenzene | 230 | 25 |
| m,p-Xylenes | 44 | 25 |
| o-Xylene | 200 C | 25 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 136 * | 65-134 |
| Bromofluorobenzene (PID) | 101 | 55-138 |

| | | | |
|---|---|---|---|
| Field ID: | T-5 | Diln Fac: | 5.000 |
| Type: | SAMPLE | Batch#: | 69992 |
| Lab ID: | 156743-005 | Analyzed: | 02/08/02 |

| Analyte | Result | RL |
|---|---|---|
| MTBE | 230 C | 100 |
| Benzene | 520 C | 25 |
| Toluene | 390 C | 25 |
| Ethylbenzene | 670 | 25 |
| m,p-Xylenes | 660 | 25 |
| o-Xylene | 600 | 25 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 206 * | 65-134 |
| Bromofluorobenzene (PID) | 103 | 55-138 |

| | | | |
|---|---|---|---|
| Field ID: | T-6 | Diln Fac: | 5.000 |
| Type: | SAMPLE | Batch#: | 69887 |
| Lab ID: | 156743-006 | Analyzed: | 02/04/02 |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND | 100 |
| Benzene | ND | 25 |
| Toluene | ND | 25 |
| Ethylbenzene | ND | 25 |
| m,p-Xylenes | ND | 25 |
| o-Xylene | ND | 25 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 115 | 65-134 |
| Bromofluorobenzene (PID) | 137 | 55-138 |

*= Value outside of QC limits; see narrative
C= Presence confirmed, but confirmation concentration differed by more than a factor of two
D= Not Detected
L= Reporting Limit

Curtis & Tompkins, Ltd.

## Benzene, Toluene, Ethylbenzene, Xylenes

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8021B |
| Matrix: | Soil | Sampled: | 01/29/02 |
| Units: | ug/Kg | Received: | 01/29/02 |
| Basis: | as received | | |

| | | | |
|---|---|---|---|
| Field ID: | T-7 | Diln Fac: | 5.000 |
| Type: | SAMPLE | Batch#: | 69887 |
| Lab ID: | 156743-007 | Analyzed: | 02/04/02 |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND | 100 |
| Benzene | 130 C | 25 |
| Toluene | 120 | 25 |
| Ethylbenzene | 520 | 25 |
| m,p-Xylenes | 350 | 25 |
| o-Xylene | 480 C | 25 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 104 | 65-134 |
| Bromofluorobenzene (PID) | 126 | 55-138 |

| | | | |
|---|---|---|---|
| Field ID: | COMP-1 | Diln Fac: | 25.00 |
| Type: | SAMPLE | Batch#: | 69825 |
| Lab ID: | 156743-008 | Analyzed: | 01/31/02 |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND | 500 |
| Benzene | ND | 130 |
| Toluene | 360 | 130 |
| Ethylbenzene | 570 | 130 |
| m,p-Xylenes | 980 | 130 |
| o-Xylene | 1,200 | 130 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 128 | 65-134 |
| Bromofluorobenzene (PID) | 117 | 55-138 |

| | | | |
|---|---|---|---|
| Type: | BLANK | Batch#: | 69825 |
| Lab ID: | QC169193 | Analyzed: | 01/31/02 |
| Diln Fac: | 1.000 | | |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND | 20 |
| Benzene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 115 | 65-134 |
| Bromofluorobenzene (PID) | 116 | 55-138 |

*= Value outside of QC limits; see narrative
C= Presence confirmed, but confirmation concentration differed by more than a factor of two
D= Not Detected
L= Reporting Limit

Curtis & Tompkins, Ltd.

## Benzene, Toluene, Ethylbenzene, Xylenes

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8021B |
| Matrix: | Soil | Sampled: | 01/29/02 |
| Units: | ug/Kg | Received: | 01/29/02 |
| Basis: | as received | | |

| | | | |
|---|---|---|---|
| Type: | BLANK | Batch#: | 69887 |
| Lab ID: | QC169426 | Analyzed: | 02/04/02 |
| Diln Fac: | 1.000 | | |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND | 20 |
| Benzene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 101 | 65-134 |
| Bromofluorobenzene (PID) | 110 | 55-138 |

| | | | |
|---|---|---|---|
| Type: | BLANK | Batch#: | 69940 |
| Lab ID: | QC169659 | Analyzed: | 02/06/02 |
| Diln Fac: | 1.000 | | |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND | 20 |
| Benzene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 100 | 65-134 |
| Bromofluorobenzene (PID) | 99 | 55-138 |

| | | | |
|---|---|---|---|
| Type: | BLANK | Batch#: | 69992 |
| Lab ID: | QC169826 | Analyzed: | 02/07/02 |
| Diln Fac: | 1.000 | | |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND | 20 |
| Benzene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 99 | 65-134 |
| Bromofluorobenzene (PID) | 99 | 55-138 |

*= Value outside of QC limits; see narrative
C= Presence confirmed, but confirmation concentration differed by more than a factor of two
D= Not Detected
L= Reporting Limit

Curtis & Tompkins, Ltd.

## Benzene, Toluene, Ethylbenzene, Xylenes

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8021B |
| Type: | LCS | Basis: | as received |
| Lab ID: | QC169196 | Diln Fac: | 1.000 |
| Matrix: | Soil | Batch#: | 69825 |
| Units: | ug/Kg | Analyzed: | 01/31/02 |

| Analyte | Spiked | Result | %REC | Limits |
|---|---|---|---|---|
| MTBE | 100.0 | 120.8 | 121 * | 58-115 |
| Benzene | 100.0 | 89.01 | 89 | 68-117 |
| Toluene | 100.0 | 87.82 | 88 | 70-120 |
| Ethylbenzene | 100.0 | 87.32 | 87 | 67-124 |
| m,p-Xylenes | 200.0 | 184.3 | 92 | 72-124 |
| o-Xylene | 100.0 | 95.09 | 95 | 72-123 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 119 | 65-134 |
| Bromofluorobenzene (PID) | 119 | 55-138 |

* = Value outside of QC limits; see narrative

Curtis & Tompkins, Ltd.

## Benzene, Toluene, Ethylbenzene, Xylenes

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8021B |
| Matrix: | Soil | Diln Fac: | 1.000 |
| Units: | ug/Kg | Batch#: | 69887 |
| Basis: | as received | Analyzed: | 02/04/02 |

Type: BS Lab ID: QC169427

| Analyte | Spiked | Result | %REC | Limits |
|---|---|---|---|---|
| MTBE | 100.0 | 138.5 | 139 * | 58-115 |
| Benzene | 100.0 | 87.02 | 87 | 68-117 |
| Toluene | 100.0 | 86.59 | 87 | 70-120 |
| Ethylbenzene | 100.0 | 88.59 | 89 | 67-124 |
| m,p-Xylenes | 200.0 | 181.7 | 91 | 72-124 |
| o-Xylene | 100.0 | 90.52 | 91 | 72-123 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 101 | 65-134 |
| Bromofluorobenzene (PID) | 112 | 55-138 |

Type: BSD Lab ID: QC169428

| Analyte | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|
| MTBE | 100.0 | 133.6 | 134 * | 58-115 | 4 | 20 |
| Benzene | 100.0 | 85.64 | 86 | 68-117 | 2 | 20 |
| Toluene | 100.0 | 84.77 | 85 | 70-120 | 2 | 20 |
| Ethylbenzene | 100.0 | 89.68 | 90 | 67-124 | 1 | 20 |
| m,p-Xylenes | 200.0 | 178.4 | 89 | 72-124 | 2 | 20 |
| o-Xylene | 100.0 | 89.41 | 89 | 72-123 | 1 | 20 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 99 | 65-134 |
| Bromofluorobenzene (PID) | 108 | 55-138 |

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

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# Benzene, Toluene, Ethylbenzene, Xylenes

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8021B |
| Matrix: | Soil | Diln Fac: | 1.000 |
| Units: | ug/Kg | Batch#: | 69940 |
| Basis: | as received | Analyzed: | 02/06/02 |

Type: BS Lab ID: QC169662

| Analyte | Spiked | Result | %REC | Limits |
|---|---|---|---|---|
| MTBE | 100.0 | 86.64 | 87 | 58-115 |
| Benzene | 100.0 | 84.98 | 85 | 68-117 |
| Toluene | 100.0 | 81.54 | 82 | 70-120 |
| Ethylbenzene | 100.0 | 84.33 | 84 | 67-124 |
| m,p-Xylenes | 200.0 | 171.9 | 86 | 72-124 |
| o-Xylene | 100.0 | 87.21 | 87 | 72-123 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 99 | 65-134 |
| Bromofluorobenzene (PID) | 95 | 55-138 |

Type: BSD Lab ID: QC169730

| Analyte | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|
| MTBE | 100.0 | 91.66 | 92 | 58-115 | 6 | 20 |
| Benzene | 100.0 | 82.55 | 83 | 68-117 | 3 | 20 |
| Toluene | 100.0 | 78.98 | 79 | 70-120 | 3 | 20 |
| Ethylbenzene | 100.0 | 83.12 | 83 | 67-124 | 1 | 20 |
| m,p-Xylenes | 200.0 | 171.0 | 85 | 72-124 | 1 | 20 |
| o-Xylene | 100.0 | 88.26 | 88 | 72-123 | 1 | 20 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 94 | 65-134 |
| Bromofluorobenzene (PID) | 95 | 55-138 |

RPD= Relative Percent Difference

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## Benzene, Toluene, Ethylbenzene, Xylenes

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8021B |
| Matrix: | Soil | Diln Fac: | 1.000 |
| Units: | ug/Kg | Batch#: | 69992 |
| Basis: | as received | Analyzed: | 02/07/02 |

Type: BS Lab ID: QC169829

| Analyte | Spiked | Result | %REC | Limits |
|---|---|---|---|---|
| MTBE | 100.0 | 97.66 | 98 | 58-115 |
| Benzene | 100.0 | 90.31 | 90 | 68-117 |
| Toluene | 100.0 | 86.00 | 86 | 70-120 |
| Ethylbenzene | 100.0 | 88.61 | 89 | 67-124 |
| m,p-Xylenes | 200.0 | 179.7 | 90 | 72-124 |
| o-Xylene | 100.0 | 92.78 | 93 | 72-123 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 101 | 65-134 |
| Bromofluorobenzene (PID) | 101 | 55-138 |

Type: BSD Lab ID: QC169830

| Analyte | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|
| MTBE | 100.0 | 97.26 | 97 | 58-115 | 0 | 20 |
| Benzene | 100.0 | 90.32 | 90 | 68-117 | 0 | 20 |
| Toluene | 100.0 | 85.92 | 86 | 70-120 | 0 | 20 |
| Ethylbenzene | 100.0 | 89.66 | 90 | 67-124 | 1 | 20 |
| m,p-Xylenes | 200.0 | 181.4 | 91 | 72-124 | 1 | 20 |
| o-Xylene | 100.0 | 93.29 | 93 | 72-123 | 1 | 20 |

| Surrogate | %REC | Limits |
|---|---|---|
| Trifluorotoluene (PID) | 100 | 65-134 |
| Bromofluorobenzene (PID) | 101 | 55-138 |

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

## Total Extractable Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Analysis: | 8015B(M) |
| Project#: | STANDARD | | |
| Matrix: | Soil | Sampled: | 01/29/02 |
| Units: | mg/Kg | Received: | 01/29/02 |
| Basis: | as received | Prepared: | 01/30/02 |

| | | | |
|---|---|---|---|
| Field ID: | T-1 | Batch#: | 69794 |
| Type: | SAMPLE | Analyzed: | 01/31/02 |
| Lab ID: | 156743-001 | Prep: | EPA 3550 |
| Dil'n Fac: | 1.000 | | |

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | 140 L Y | 0.99 |
| Motor Oil C24-C36 | ND | 5.0 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | 93 | 60-136 |

| | | | |
|---|---|---|---|
| Field ID: | T-2 | Batch#: | 69794 |
| Type: | SAMPLE | Analyzed: | 01/31/02 |
| Lab ID: | 156743-002 | Prep: | EPA 3550 |
| Dil'n Fac: | 40.00 | | |

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | 6,900 | 40 |
| Motor Oil C24-C36 | ND | 200 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | DO | 60-136 |

| | | | |
|---|---|---|---|
| Field ID: | T-3 | Batch#: | 69794 |
| Type: | SAMPLE | Analyzed: | 01/31/02 |
| Lab ID: | 156743-003 | Prep: | EPA 3550 |
| Dil'n Fac: | 20.00 | | |

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | 5,900 | 20 |
| Motor Oil C24-C36 | ND | 99 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | DO | 60-136 |

| | | | |
|---|---|---|---|
| Field ID: | T-4 | Batch#: | 69794 |
| Type: | SAMPLE | Analyzed: | 01/31/02 |
| Lab ID: | 156743-004 | Prep: | EPA 3550 |
| Dil'n Fac: | 20.00 | | |

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | 4,400 | 20 |
| Motor Oil C24-C36 | ND | 100 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | DO | 60-136 |

L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits fuel pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

## Total Extractable Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Analysis: | 8015B(M) |
| Project#: | STANDARD | | |
| Matrix: | Soil | Sampled: | 01/29/02 |
| Units: | mg/Kg | Received: | 01/29/02 |
| Basis: | as received | Prepared: | 01/30/02 |

| | | | |
|---|---|---|---|
| Field ID: | T-5 | Batch#: | 69794 |
| Type: | SAMPLE | Analyzed: | 01/31/02 |
| Lab ID: | 156743-005 | Prep: | EPA 3550 |
| Dln Fac: | 20.00 | | |

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | 6,300 | 20 |
| Motor Oil C24-C36 | ND | 99 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | DO | 60-136 |

| | | | |
|---|---|---|---|
| Field ID: | T-6 | Batch#: | 69767 |
| Type: | SAMPLE | Analyzed: | 01/31/02 |
| Lab ID: | 156743-006 | Prep: | SHAKER TABLE |
| Dln Fac: | 2.000 | | |

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | 720 | 2.0 |
| Motor Oil C24-C36 | 170 L | 10 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | 72 | 60-136 |

| | | | |
|---|---|---|---|
| Field ID: | T-7 | Batch#: | 69767 |
| Type: | SAMPLE | Analyzed: | 01/31/02 |
| Lab ID: | 156743-007 | Prep: | SHAKER TABLE |
| Dln Fac: | 3.000 | | |

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | 870 L | 3.0 |
| Motor Oil C24-C36 | ND | 15 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | 78 | 60-136 |

| | | | |
|---|---|---|---|
| Field ID: | COMP-1 | Batch#: | 69767 |
| Type: | SAMPLE | Analyzed: | 01/31/02 |
| Lab ID: | 156743-008 | Prep: | SHAKER TABLE |
| Dln Fac: | 3.000 | | |

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | 1,300 | 3.0 |
| Motor Oil C24-C36 | 370 L | 15 |

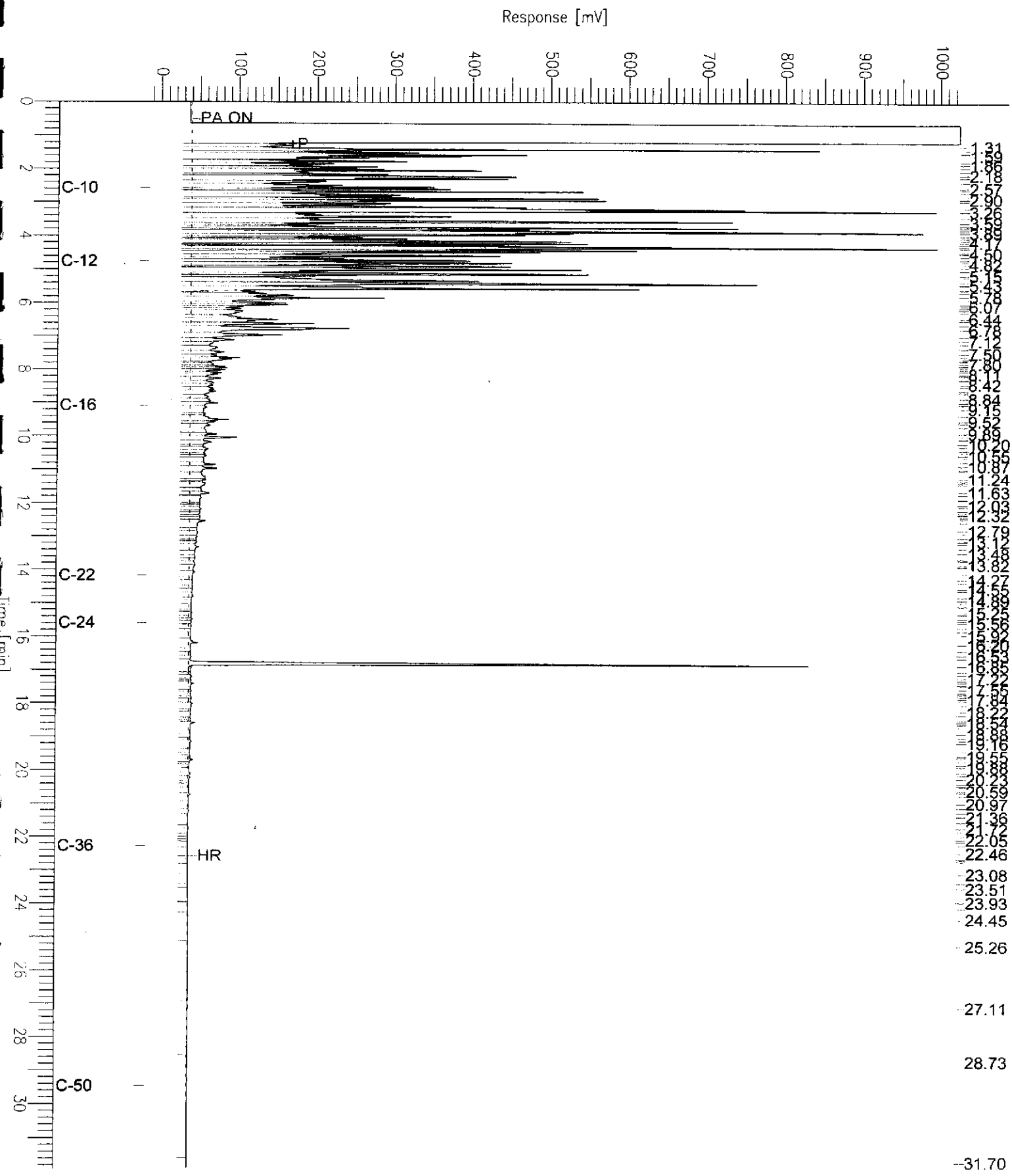
| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | 100 | 60-136 |

L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits fuel pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

# Chromatogram

Sample Name : 156743-001,69794
FileName : G:\GC11\CHA\028A090.RAW
Method : ATEH006.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: -15 mV

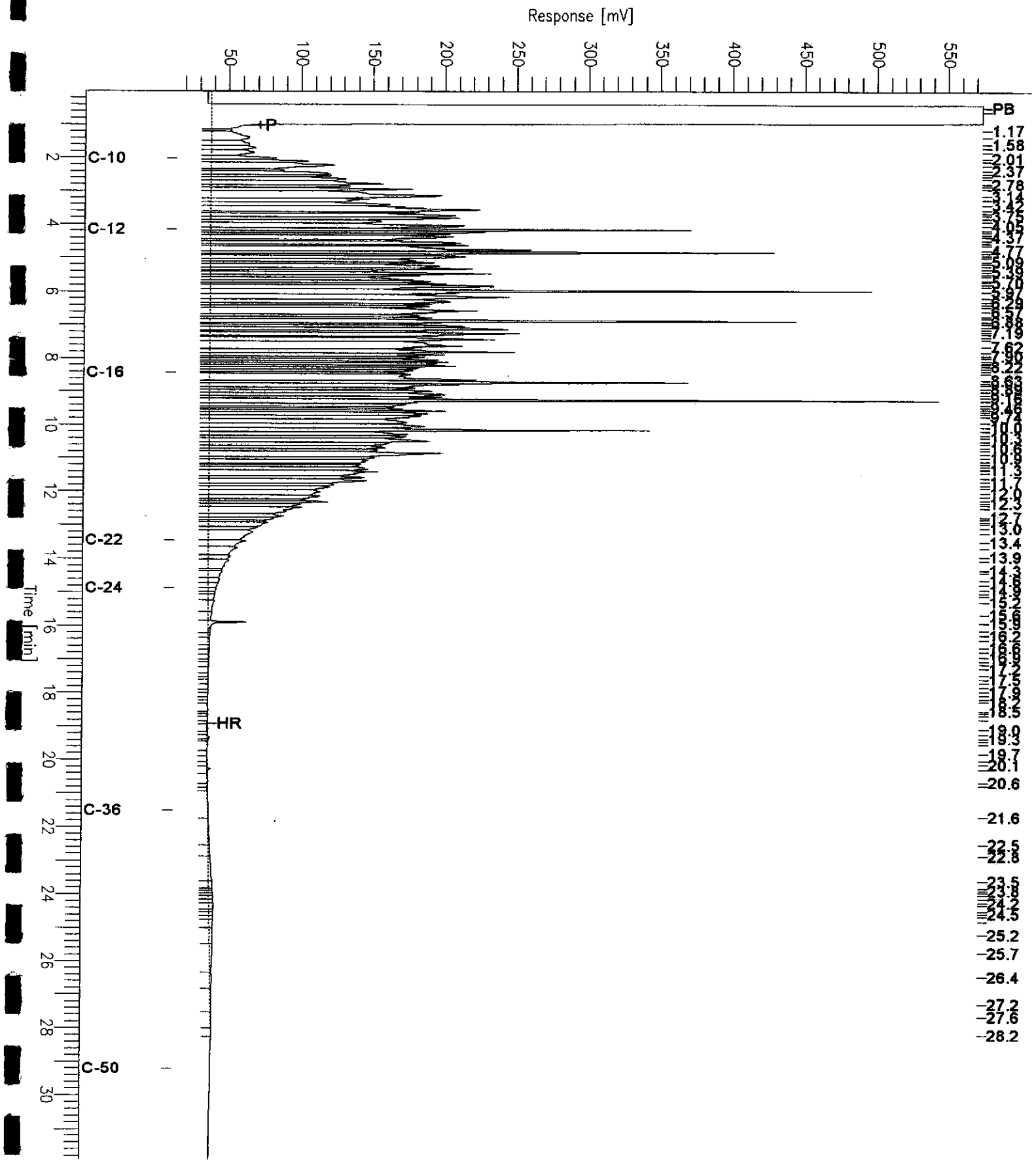
Sample #: 69794 Page 1 of 1
Date : 1/31/02 09:43 AM
Time of Injection: 1/31/02 06:00 AM
Low Point : -15.42 mV High Point : 1024.00 mV
Plot Scale: 1039.4 mV



# Chromatogram

Sample Name : 156743-002,69794
FileName : G:\GC15\CHB\028B114.RAW
Method : BTEH031.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 13 mV

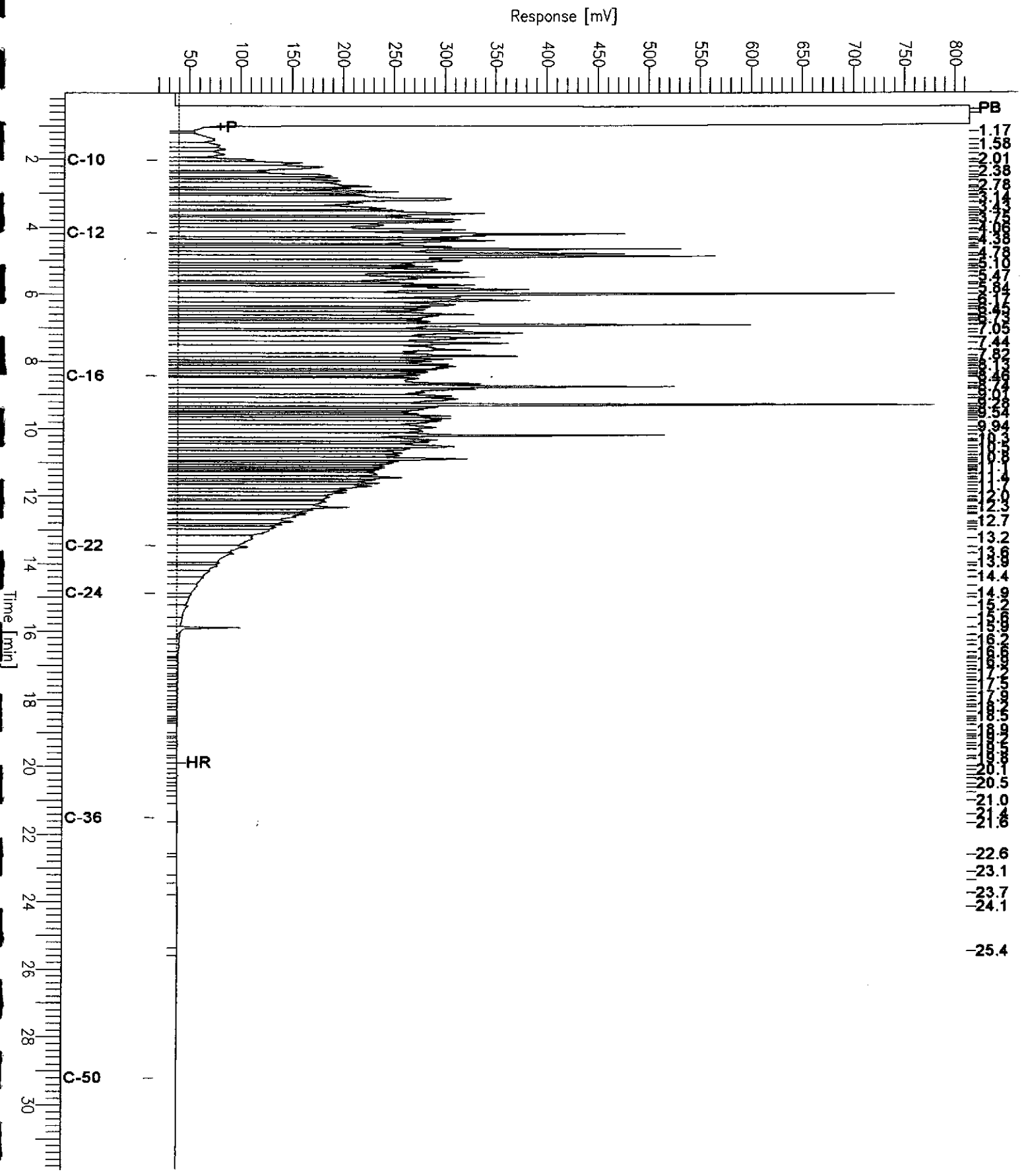
Sample #: 69794 Page 1 of 1
Date : 02/01/2002 09:12 AM
Time of Injection: 01/31/2002 06:53 PM
Low Point : 13.40 mV High Point : 574.04 mV
Plot Scale: 560.6 mV



# Chromatogram

Sample Name : 156743-003,69794
FileName : G:\GC15\CHB\028B115.RAW
Method : BTEH031.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 18 mV

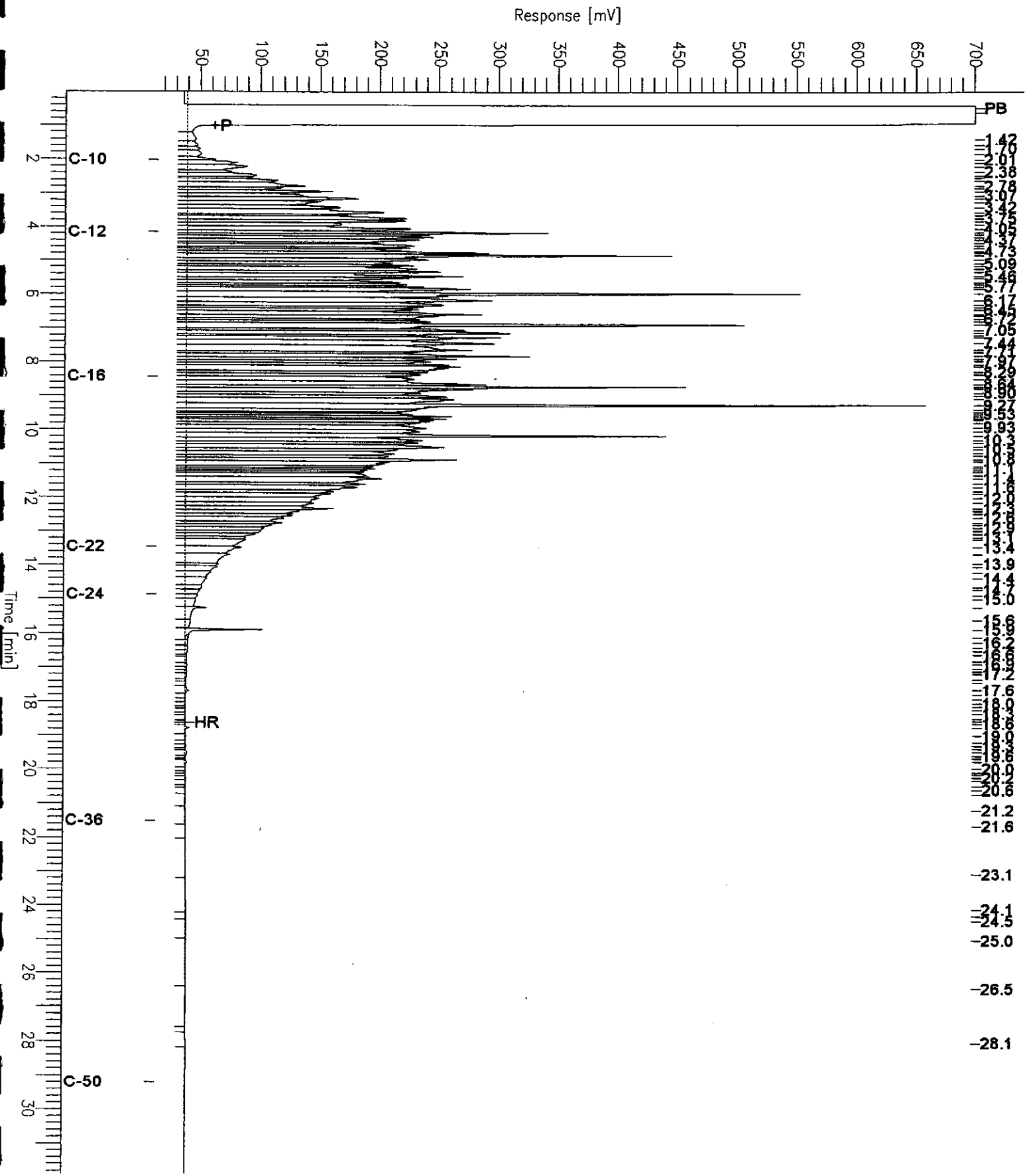
Sample #: 69794 Page 1 of 1
Date : 02/01/2002 09:12 AM
Time of Injection: 01/31/2002 07:33 PM
Low Point : 18.04 mV High Point : 814.38 mV
Plot Scale: 796.3 mV



# Chromatogram

Sample Name : 156743-004,69794
FileName : G:\GC15\CHB\028B116.RAW
Method : BTEH031.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 14 mV

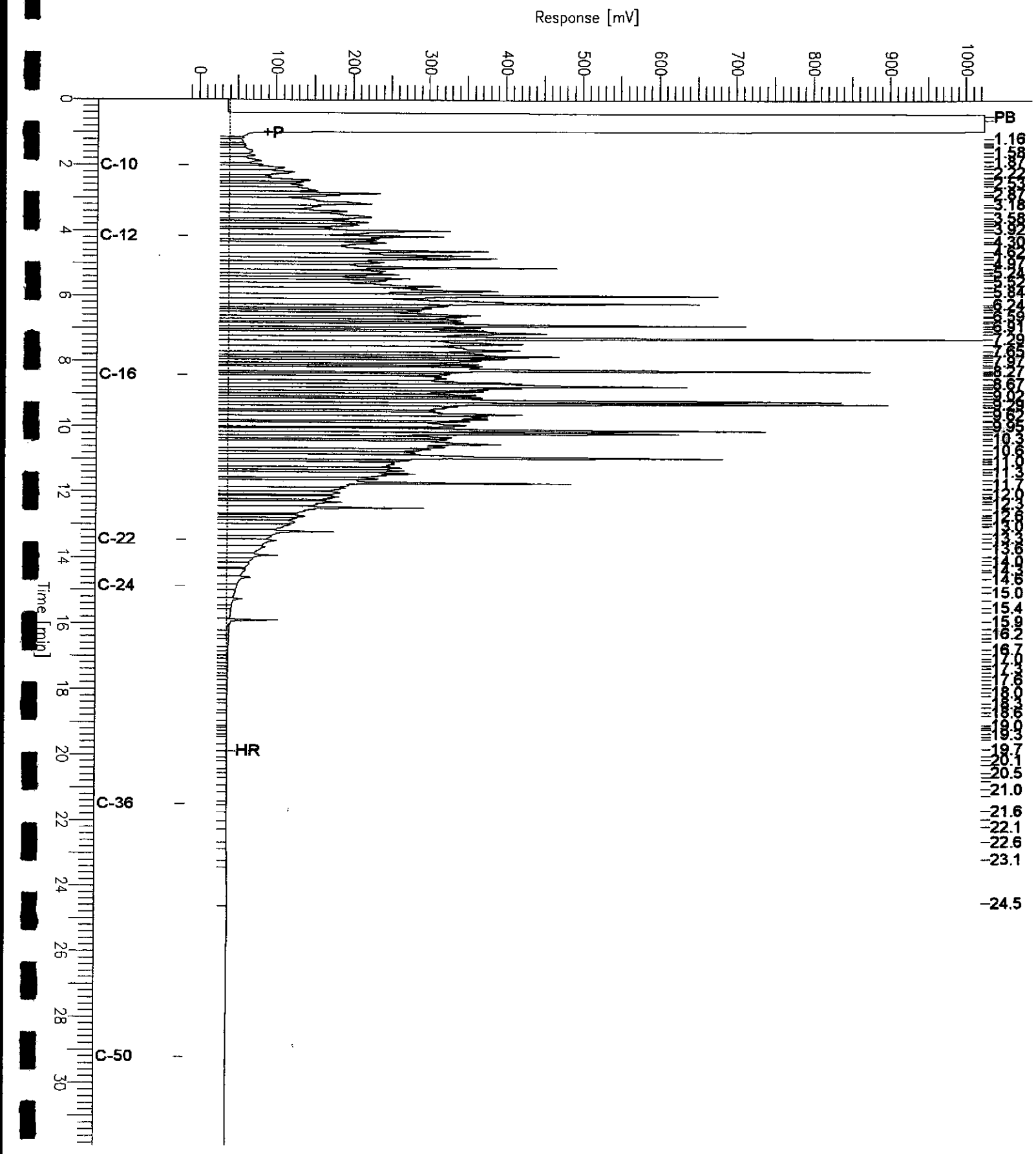
Sample #: 69794 Page 1 of 1
Date : 02/01/2002 09:13 AM
Time of Injection: 01/31/2002 08:14 PM
Low Point : 14.44 mV High Point : 700.10 mV
Plot Scale: 685.7 mV



# Chromatogram

Sample Name : 156743-005,69794
FileName : G:\GC15\CHB\028B117.RAW
Method : BTEH031.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: -15 mV

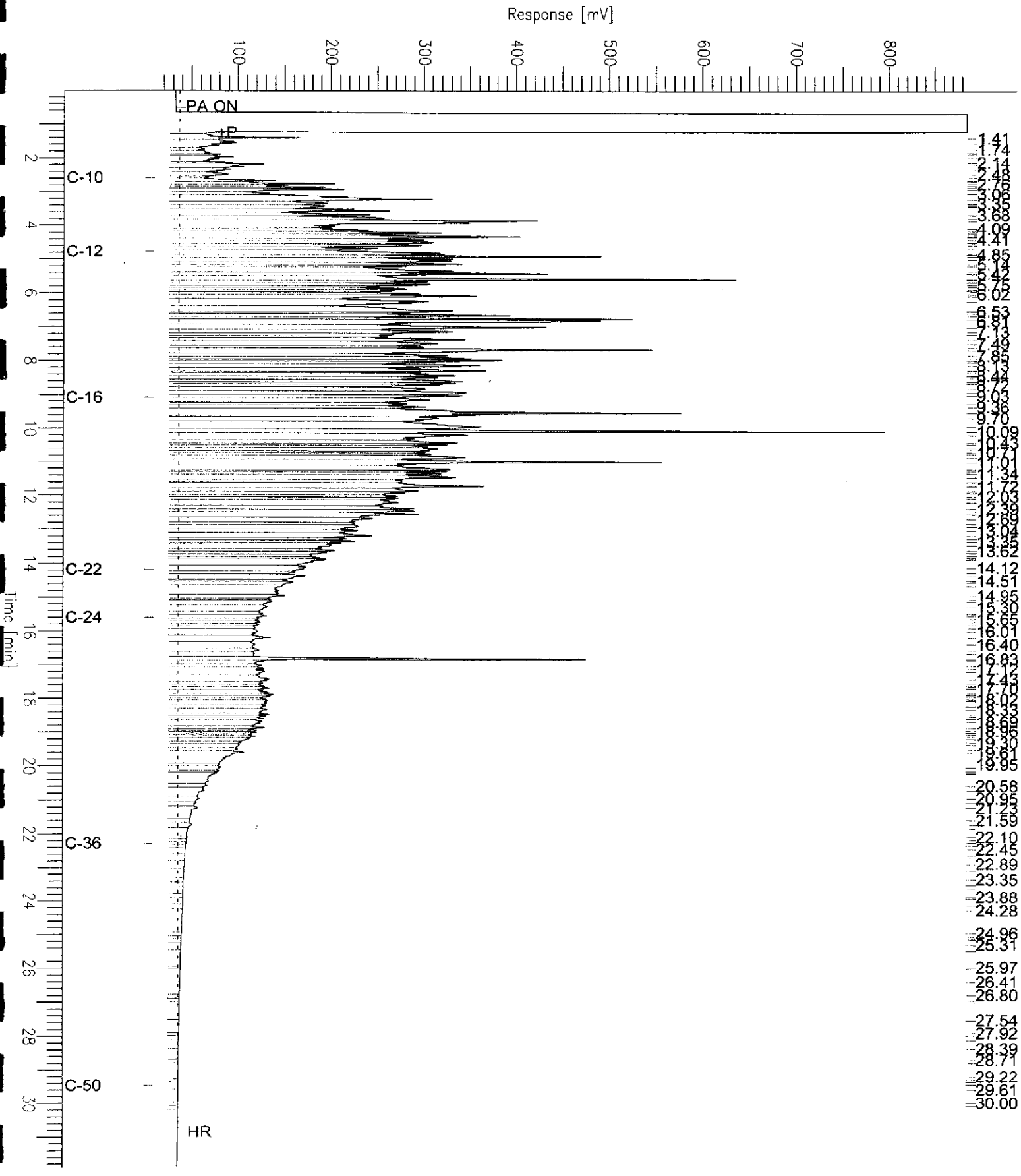
Sample #: 69794 Page 1 of 1
Date : 02/01/2002 09:14 AM
Time of Injection: 01/31/2002 08:54 PM
Low Point : -15.09 mV High Point : 1024.00 mV
Plot Scale: 1039.1 mV



# Chromatogram

Sample Name : 156743-006,6967
FileName : G:\GC11\CHA\028A100.RAW
Method : ATEH006.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 10 mV

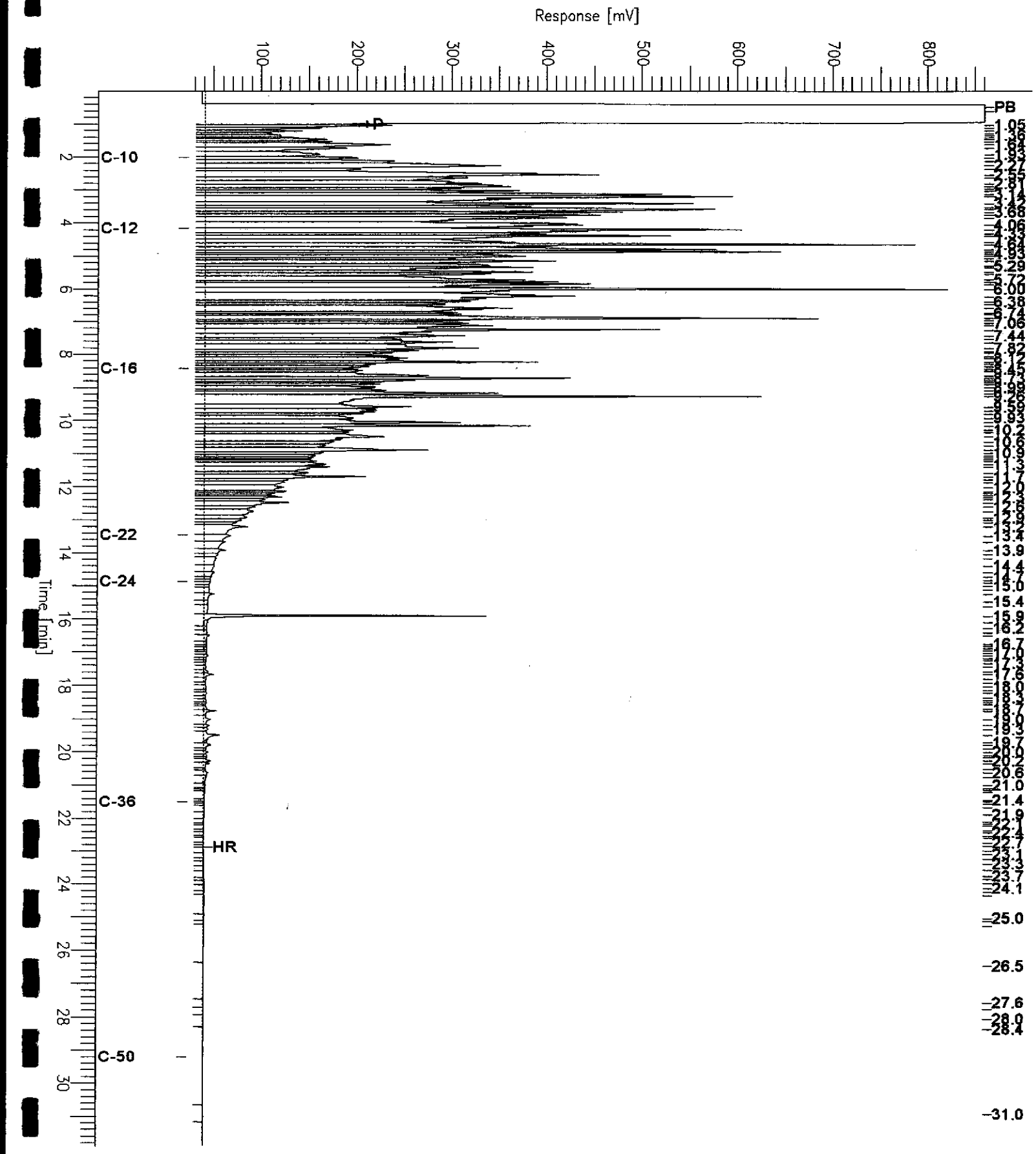
Sample #: 69767 Page 1 of 1
Date : 1/31/02 01:13 PM
Time of Injection: 1/31/02 12:37 PM
Low Point : 10.25 mV High Point : 885.08 mV
Plot Scale: 874.8 mV



# Chromatogram

Sample Name : 156743-007,69794 67 SV 02/01/02
FileName : G:\GC15\CHB\028B118.RAW
Method : BTEH031.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 23 mV

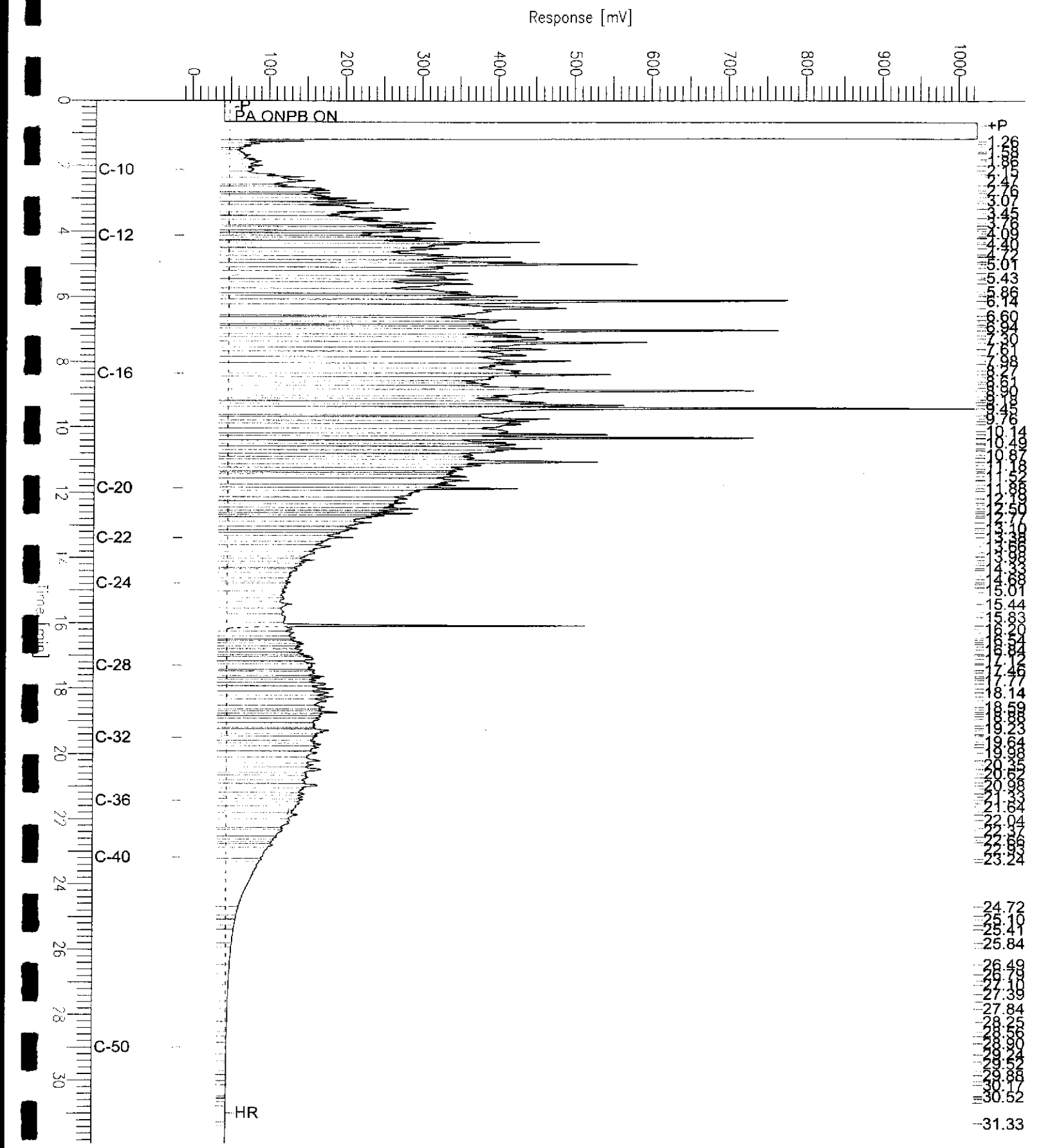
Sample #: 69794 Page 1 of 1
Date : 02/01/2002 09:14 AM
Time of Injection: 01/31/2002 09:34 PM
Low Point : 23.31 mV High Point : 860.43 mV
Plot Scale: 837.1 mV



# Chromatogram

Sample Name : 156743-008,69767
FileName : G:\GC13\CHB\030B044.RAW
Method : BTEH028.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: -11 mV

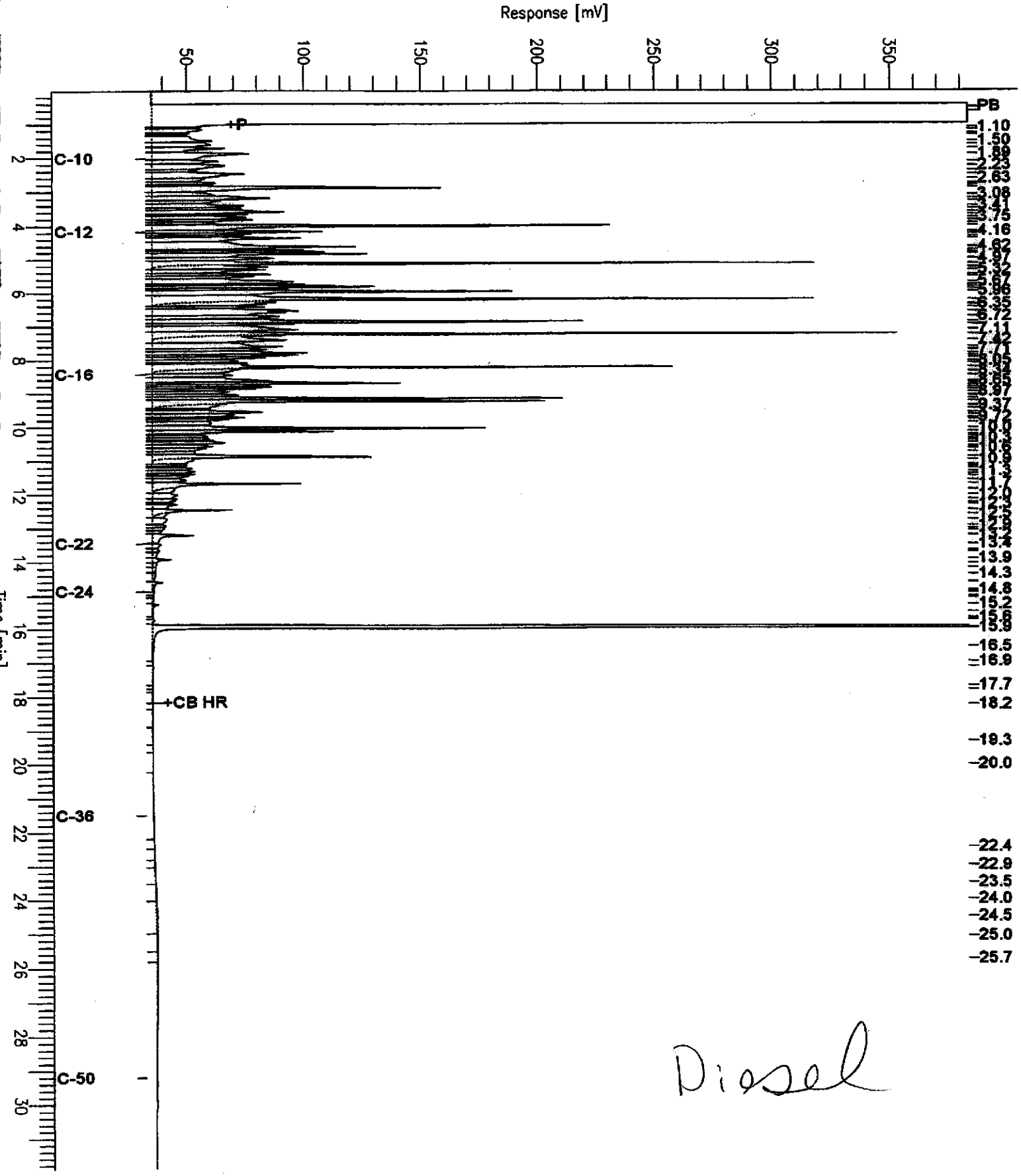
Sample #: 69767 Page 1 of 1
Date : 2/1/02 08:50 AM
Time of Injection: 1/31/02 09:47 PM
Low Point : -10.77 mV High Point : 1024.00 mV
Plot Scale: 1034.8 mV



# Chromatogram

mple Name : ccv,02ws0083,dsl
leName : G:\GC15\CHB\028B002.RAW
Method : BTEH021.MTH
Start Time : 0.01 min End Time : 31.91 min
ale Factor: 0.0 Plot Offset: 33 mV

Sample #: 500mg/L Page 1 of 1
Date : 01/28/2002 11:53 AM
Time of Injection: 01/28/2002 10:19 AM
Low Point : 32.81 mV High Point : 383.51 mV
Plot Scale: 350.7 mV

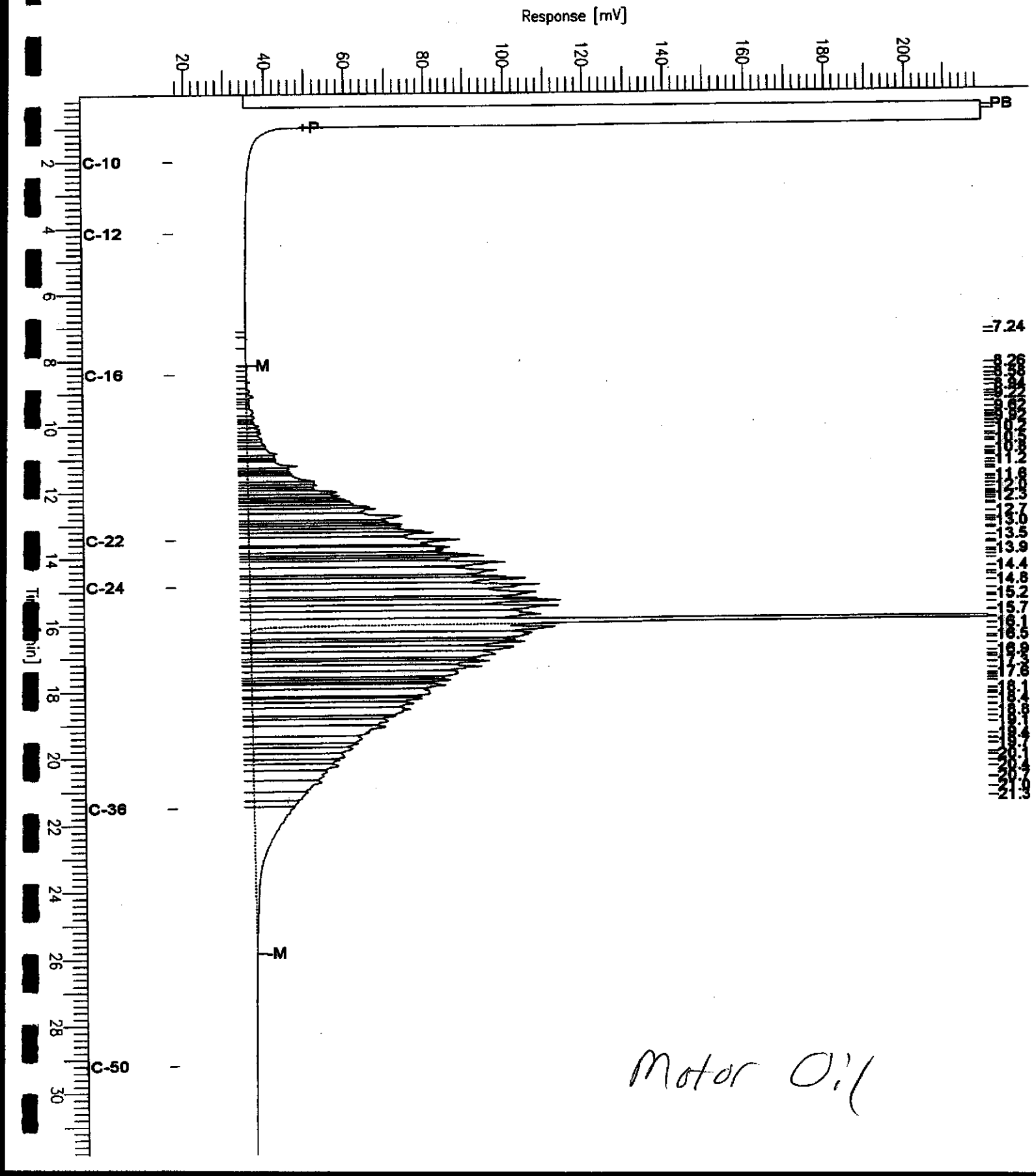



Diesel

# Chromatogram

Sample Name : ccv,02ws0100,mo
File Name : G:\GC15\CHB\028B003.RAW
Method : BTEH021.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 17 mV

Sample #: 500mg/L Page 1 of 1
Date : 01/28/2002 11:35 AM
Time of Injection: 01/28/2002 10:59 AM
Low Point : 17.30 mV High Point : 219.42 mV
Plot Scale: 202.1 mV




Motor Oil

Curtis & Tompkins, Ltd.

## Total Extractable Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Analysis: | 8015B(M) |
| Project#: | STANDARD | | |
| Matrix: | Soil | Sampled: | 01/29/02 |
| Units: | mg/Kg | Received: | 01/29/02 |
| Basis: | as received | Prepared: | 01/30/02 |

| | | | |
|---|---|---|---|
| Type: | BLANK | Analyzed: | 01/30/02 |
| Lab ID: | QC168983 | Prep: | SHAKER TABLE |
| Diln Fac: | 1.000 | Cleanup Method: | EPA 3630C |
| Batch#: | 69767 | | |

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | ND | 1.0 |
| Motor Oil C24-C36 | ND | 5.0 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | 62 | 60-136 |

| | | | |
|---|---|---|---|
| Type: | BLANK | Analyzed: | 01/31/02 |
| Lab ID: | QC169084 | Prep: | EPA 3550 |
| Diln Fac: | 1.000 | Cleanup Method: | EPA 3630C |
| Batch#: | 69794 | | |

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | ND | 1.0 |
| Motor Oil C24-C36 | ND | 5.0 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | 75 | 60-136 |

L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits fuel pattern which does not resemble standard
DO= Diluted Out
D= Not Detected
L= Reporting Limit

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## Total Extractable Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | SHAKER TABLE |
| Project#: | STANDARD | Analysis: | 8015B(M) |
| Type: | LCS | Diln Fac: | 1.000 |
| Lab ID: | QC168984 | Batch#: | 69767 |
| Matrix: | Soil | Prepared: | 01/30/02 |
| Units: | mg/Kg | Analyzed: | 01/30/02 |
| Basis: | as received | | |

Cleanup Method: EPA 3630C

| Analyte | Spiked | Result | %REC | Limits |
|---|---|---|---|---|
| Diesel C10-C24 | 49.78 | 37.54 | 75 | 67-121 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | 72 | 60-136 |

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## Total Extractable Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 3550 |
| Project#: | STANDARD | Analysis: | 8015B(M) |
| Type: | LCS | Diln Fac: | 1.000 |
| Lab ID: | QC169085 | Batch#: | 69794 |
| Matrix: | Soil | Prepared: | 01/30/02 |
| Units: | mg/Kg | Analyzed: | 01/30/02 |
| Basis: | as received | | |

Cleanup Method: EPA 3630C

| Analyte | Spiked | Result | %REC | Limits |
|---|---|---|---|---|
| Diesel C10-C24 | 49.92 | 37.29 | 75 | 67-121 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | 77 | 60-136 |

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## Total Extractable Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | SHAKER TABLE |
| Project#: | STANDARD | Analysis: | 8015B(M) |
| Field ID: | ZZZZZZZZZZ | Diln Fac: | 1.000 |
| MSS Lab ID: | 156705-008 | Batch#: | 69767 |
| Matrix: | Soil | Sampled: | 01/28/02 |
| Units: | mg/Kg | Received: | 01/28/02 |
| Basis: | as received | Prepared: | 01/30/02 |

| | | | |
|---|---|---|---|
| Type: | MS | Analyzed: | 01/30/02 |
| Lab ID: | QC168985 | Cleanup Method: | EPA 3630C |

| Analyte | MSS Result | Spiked | Result | %REC | Limits |
|---|---|---|---|---|---|
| Diesel C10-C24 | 7.835 | 49.97 | 50.83 | 86 | 35-146 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | 80 | 60-136 |

| | | | |
|---|---|---|---|
| Type: | MSD | Analyzed: | 01/31/02 |
| Lab ID: | QC168986 | Cleanup Method: | EPA 3630C |

| Analyte | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|
| Diesel C10-C24 | 49.70 | 53.54 | 92 | 35-146 | 6 | 48 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | 85 | 60-136 |

RPD= Relative Percent Difference

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## Total Extractable Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 3550 |
| Project#: | STANDARD | Analysis: | 8015B(M) |
| Field ID: | ZZZZZZZZZZ | Batch#: | 69794 |
| MSS Lab ID: | 156739-004 | Sampled: | 01/29/02 |
| Matrix: | Soil | Received: | 01/29/02 |
| Units: | mg/Kg | Prepared: | 01/30/02 |
| Basis: | as received | Analyzed: | 01/31/02 |
| Diln Fac: | 1.000 | | |

Type: MS
Lab ID: QC169086
Cleanup Method: EPA 3630C

| Analyte | MSS Result | Spiked | Result | %REC | Limits |
|---|---|---|---|---|---|
| Diesel C10-C24 | 2.553 | 50.45 | 30.92 | 56 | 35-146 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | 66 | 60-136 |

Type: MSD
Lab ID: QC169087
Cleanup Method: EPA 3630C

| Analyte | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|
| Diesel C10-C24 | 50.35 | 31.98 | 58 | 35-146 | 4 | 48 |

| Surrogate | %REC | Limits |
|---|---|---|
| Hexacosane | 65 | 60-136 |

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

## Purgeable Aromatics by GC/MS

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8260B |
| Field ID: | T-4 | Diln Fac: | 1.923 |
| Lab ID: | 156743-004 | Batch#: | 70099 |
| Matrix: | Soil | Sampled: | 01/29/02 |
| Units: | ug/Kg | Received: | 01/29/02 |
| Basis: | as received | Analyzed: | 02/13/02 |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND b | 9.6 |

| Surrogate | %REC | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 b | 76-127 |
| Toluene-d8 | 94 b | 80-111 |
| Bromofluorobenzene | 91 b | 77-126 |

b= See narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

## Purgeable Aromatics by GC/MS

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8260B |
| Field ID: | T-5 | Diln Fac: | 4.545 |
| Lab ID: | 156743-005 | Batch#: | 70099 |
| Matrix: | Soil | Sampled: | 01/29/02 |
| Units: | ug/Kg | Received: | 01/29/02 |
| Basis: | as received | Analyzed: | 02/13/02 |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND b | 23 |

| Surrogate | %REC | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 b | 76-127 |
| Toluene-d8 | 94 b | 80-111 |
| Bromofluorobenzene | 92 b | 77-126 |

b= See narrative
D= Not Detected
L= Reporting Limit

Curtis & Tompkins, Ltd.

## Purgeable Aromatics by GC/MS

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8260B |
| Type: | BLANK | Basis: | as received |
| Lab ID: | QC170226 | Diln Fac: | 1.000 |
| Matrix: | Soil | Batch#: | 70099 |
| Units: | ug/Kg | Analyzed: | 02/13/02 |

| Analyte | Result | RL |
|---|---|---|
| MTBE | ND | 5.0 |

| Surrogate | %REC | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 104 | 76-127 |
| Toluene-d8 | 98 | 80-111 |
| Bromofluorobenzene | 94 | 77-126 |

D= Not Detected
L= Reporting Limit

Curtis & Tompkins, Ltd.

## Purgeable Aromatics by GC/MS

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8260B |
| Type: | LCS | Basis: | as received |
| Lab ID: | QC170225 | Diln Fac: | 1.000 |
| Matrix: | Soil | Batch#: | 70099 |
| Units: | ug/Kg | Analyzed: | 02/13/02 |

| Analyte | Spiked | Result | %REC | Limits |
|---|---|---|---|---|
| MTBE | 50.00 | 46.32 | 93 | 60-140 |

| Surrogate | %REC | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 76-127 |
| Toluene-d8 | 98 | 80-111 |
| Bromofluorobenzene | 90 | 77-126 |

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## Purgeable Aromatics by GC/MS

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 5030B |
| Project#: | STANDARD | Analysis: | EPA 8260B |
| Field ID: | T-4 | Diln Fac: | 1.923 |
| MSS Lab ID: | 156743-004 | Batch#: | 70099 |
| Matrix: | Soil | Sampled: | 01/29/02 |
| Units: | ug/Kg | Received: | 01/29/02 |
| Basis: | as received | Analyzed: | 02/13/02 |

Type: MS Lab ID: QC170252

| Analyte | MSS Result | Spiked | Result | %REC | Limits |
|---|---|---|---|---|---|
| MTBE | <0.2700 | 96.15 | 79.97 | 83 | 60-140 |

| Surrogate | %REC | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 76-127 |
| Toluene-d8 | 95 | 80-111 |
| Bromofluorobenzene | 96 | 77-126 |

Type: MSD Lab ID: QC170253

| Analyte | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|
| MTBE | 96.15 | 81.43 | 85 | 60-140 | 2 | 20 |

| Surrogate | %REC | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 76-127 |
| Toluene-d8 | 97 | 80-111 |
| Bromofluorobenzene | 98 | 77-126 |

RPD= Relative Percent Difference

# Lead

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 3050 |
| Project#: | STANDARD | Analysis: | EPA 6010B |
| Analyte: | Lead | Diln Fac: | 1.000 |
| Matrix: | Soil | Sampled: | 01/29/02 |
| Units: | mg/Kg | Received: | 01/29/02 |
| Basis: | as received | | |

| Field ID | Type | Lab ID | | Result | RL | Batch# | Prepared | Analyzed |
|---|---|---|---|---|---|---|---|---|
| T-1 | SAMPLE | 156743-001 | | 15 | 0.15 | 69923 | 02/05/02 | 02/06/02 |
| T-2 | SAMPLE | 156743-002 | | 10 | 0.14 | 69923 | 02/05/02 | 02/06/02 |
| T-3 | SAMPLE | 156743-003 | | 9.4 | 0.15 | 69923 | 02/05/02 | 02/06/02 |
| T-4 | SAMPLE | 156743-004 | | 8.4 | 0.15 | 69923 | 02/05/02 | 02/06/02 |
| T-5 | SAMPLE | 156743-005 | | 9.7 | 0.15 | 69923 | 02/05/02 | 02/06/02 |
| T-6 | SAMPLE | 156743-006 | | 10 | 0.13 | 69923 | 02/05/02 | 02/06/02 |
| T-7 | SAMPLE | 156743-007 | | 12 | 0.12 | 69923 | 02/05/02 | 02/06/02 |
| COMP-1 | SAMPLE | 156743-008 | | 8.0 | 0.13 | 69828 | 01/31/02 | 02/01/02 |
| | BLANK | QC169201 | ND | | 0.15 | 69828 | 01/31/02 | 01/31/02 |
| | BLANK | QC169584 | ND | | 0.15 | 69923 | 02/05/02 | 02/06/02 |

ND= Not Detected
RL= Reporting Limit


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## Lead

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 3050 |
| Project#: | STANDARD | Analysis: | EPA 6010B |
| Analyte: | Lead | Diln Fac: | 1.000 |
| Matrix: | Soil | Batch#: | 69828 |
| Units: | mg/Kg | Prepared: | 01/31/02 |
| Basis: | as received | Analyzed: | 01/31/02 |

| Type | Lab ID | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|---|
| BS | QC169202 | 100.0 | 81.50 | 82 | 66-110 | | |
| BSD | QC169203 | 100.0 | 83.00 | 83 | 66-110 | 2 | 20 |

RPD= Relative Percent Difference

## Lead

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 3050 |
| Project#: | STANDARD | Analysis: | EPA 6010B |
| Analyte: | Lead | Diln Fac: | 1.000 |
| Field ID: | ZZZZZZZZZZ | Batch#: | 69828 |
| MSS Lab ID: | 156704-038 | Sampled: | 01/25/02 |
| Matrix: | Soil | Received: | 01/25/02 |
| Units: | mg/Kg | Prepared: | 01/31/02 |
| Basis: | as received | Analyzed: | 01/31/02 |

| Type | Lab ID | MSS Result | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|---|---|
| MS | QC169204 | 5.702 | 83.68 | 66.11 | 72 | 24-132 | | |
| MSD | QC169205 | | 92.17 | 75.12 | 75 | 24-132 | 4 | 41 |

RPD= Relative Percent Difference



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## Lead

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 3050 |
| Project#: | STANDARD | Analysis: | EPA 6010B |
| Analyte: | Lead | Diln Fac: | 1.000 |
| Matrix: | Soil | Batch#: | 69923 |
| Units: | mg/Kg | Prepared: | 02/05/02 |
| Basis: | as received | Analyzed: | 02/06/02 |

| Type | Lab ID | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|---|
| BS | QC169585 | 100.0 | 85.50 | 86 | 66-110 | | |
| BSD | QC169586 | 100.0 | 86.50 | 87 | 66-110 | 1 | 20 |

RPD= Relative Percent Difference

## Lead

| | | | |
|---|---|---|---|
| Lab #: | 156743 | Location: | Oakland Service Yard |
| Client: | Uribe & Associates | Prep: | EPA 3050 |
| Project#: | STANDARD | Analysis: | EPA 6010B |
| Analyte: | Lead | Diln Fac: | 1.000 |
| Field ID: | ZZZZZZZZZZ | Batch#: | 69923 |
| MSS Lab ID: | 156722-001 | Sampled: | 01/25/02 |
| Matrix: | Soil | Received: | 01/29/02 |
| Units: | mg/Kg | Prepared: | 02/05/02 |
| Basis: | as received | Analyzed: | 02/06/02 |

| Type | Lab ID | MSS Result | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|---|---|
| MS | QC169587 | 60.17 | 88.89 | 133.3 | 82 | 24-132 | | |
| MSD | QC169588 | | 91.32 | 135.2 | 82 | 24-132 | 0 | 41 |

RPD= Relative Percent Difference

## Attachment D

## Shipping Manifest and Invoice

(Note: The Generator Location on the manifest should read 7101 Edgewater rather than 7101 Tidewater.)

Republic Services
Vasco Road Landfill

# WASTE APPROVAL FORM/NON-HAZARDOUS WASTE MANIFEST

## WASTE STREAM INFORMATION

| | | | |
|---|---|---|---|
| Date | Wednesday, March 06, 2002 | | |
| Generator | City of Oakland | | |
| Generator Location | 7101 Tidewater | Oakland | CA |
| SWIC Number | 03352 | | |
| Bill To | Sequoia Environmental Corp. CASH | | |
| Approval Date | 3/6/02 | | |
| Expiration Date | 3/6/03 | | |
| Waste Description | Soil | | |
| Management | Direct Burial Area 1 IMMEDIATELY UPON RECEIPT | | |

*The above is a recommendation of the Vasco Road Landfill. It must be understood that management of the waste for disposal must be in compliance with the facility's permit and applicable federal, state and local regulations. The approval is based upon a review of the information provided by the generator and is contingent upon the receipt at the disposal facility of a waste material essentially equivalent in chemical composition and physical properties to that as defined above.*

*A MINIMUM OF ONE SIGNED AND COMPLETED COPY OF THIS FORM MUST ACCOMPANY EACH LOAD. ONE COPY WILL BE RETAINED BY THE VASCO ROAD LANDFILL.*

Wellon A Mat — 3/7/02

Generator Signature — Date

## TRANSPORTER INFORMATION

Transporter to complete this section

| | |
|---|---|
| Transporter Name | MCN COAST |
| Transporter Address | 5715 Preston Ave |
| Transporter City, State, Zip | Livermore CA |
| Transporter Phone Number | 925-449-8211 |
| Driver Name | Rich Pedersen |
| Truck Number | 40 |
| Vehicle License Number/State | 9A46932 |

John Pedersen — 3-8-02

Driver Signature — Date

## DESTINATION INFORMATION

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 3-8-2

Signature of Vasco Road Landfill employee — Date

4001 North Vasco Road, Livermore - Phone: 925-447-8491 - Fax: 925-447-3836 or 925-447-0499

SEQUOIA ENVIRONMENTAL
CORPORATION

900 Murmask Street, Suite 19
Oakland, CA 94607
510-663-2912 • Fax: 510-663-2914

# INVOICE

Invoice No.: SEI-230UA
Purchase Order No.: N/A
Date: March 13, 2002

**CLIENT:**

Mr. Bill White
Senior Hydrogeologist
Uribe & Associates
447 – 29th Street, Suite 200
Oakland, CA 94609-2237

## Project Completion – Soil Disposal

- Contaminated soil generated during the underground storage tank related excavation activities at the City of Oakland Service Yard located at Edgewater, Oakland.

| ITEM/DESCRIPTION | QUANTITY | RATE | AMOUNT |
|---|---|---|---|
| | | | |
| **March 8, 2002** | | | |
| | | | |
| Contaminated Soil | 62.46 tons | $29/ton | $1,811.34 |
| Transportation (Trucks) | 1 | $1,025 | 1,025.00 |
| Backhoe | 1 day | $400/day | 400.00 |
| Backhoe Operator | 10 hrs | $55/hr | 550.00 |
| Supervisor | 10 hr | $65/hr | 650.00 |
| | | | |
| | | **Total** | **$4,436.34** |

Total Project Cost $4,436.34
Initial Amount Paid None

**Total Amount Due $4,436.34**

***Since there was no initial payment, invoice is due within 14 days. We thank you for using Sequoia Environmental for your environmental***