CET Environmental Services, Inc.
3033 Richmond Parkway, Suite 300
Richmond, CA 94806
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#67

TRANSMITTAL MEMORANDUM

DATE: January 27, 1999

TO: Mr. John Robinson
Pacific Gas & Electric Company
4930 Coliseum Way
Oakland, CA 94177

FROM: Aaron N. Stessman, P.E.

RE: Semi-annual Groundwater Monitoring Report
CET Project No. 3932-000

Dear Mr. Robinson,

Enclosed please find four copies of the semi-annual groundwater monitoring report for 4930 Coliseum Way in Oakland, California. You should forward one copy to Mr. Barney Chan at the Alameda County Health Care Services Agency and one copy to Mr. Kevin Graves at the Regional Water Quality Control Board. Their addresses are as follows:

Mr. Barney Chan
Alameda County Health Agency
Division of Environmental Protection
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Mr. Kevin Graves
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Please call me if you have any comments or questions.

CET ENVIRONMENTAL SERVICES, INC.

SEMI-ANNUAL GROUNDWATER MONITORING REPORT

PACIFIC GAS & ELECTRIC
GENERAL CONSTRUCTION YARD
4930 COLISEUM WAY
OAKLAND, CA 94610

January 27, 1999

CET Project No. 3932-000

Prepared for

PACIFIC GAS & ELECTRIC COMPANY
123 Mission Street
San Francisco, CA 94111

Prepared by

CET ENVIRONMENTAL SERVICES, INC.
3033 Richmond Parkway, Suite 300
Richmond, CA 94806

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Richmond, California 94806

January 27, 1999

Grover Buhr, RG
Project Manager

Aaron N. Stessman, PE
Regional Manager

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APPENDICES

1.0 BACKGROUND

This report presents the results of semiannual groundwater monitoring and sampling completed in the fourth quarter of 1998 at the PG&E Distribution and Construction Yard at 4930 Coliseum Way in Oakland, California. A vicinity map is included as Figure 1. This report was completed in accordance with the directive issued by the Alameda County Health Care Services Agency (ACHCSA) and a PG&E letter to Alameda County dated April 12, 1993. This report discusses the December 1998 monitoring and sampling event and summarizes the results from groundwater monitoring and sampling performed at the site between January 1990 and the present. The groundwater monitoring program involves the following activities: measuring groundwater elevations; collecting groundwater samples from shallow wells on the site; and performing analyses of the samples to determine the distribution of selected fuel compounds, solvents, and lead in the uppermost water bearing zone, beneath the northern portion of the yard. This area includes the former locations of five underground storage tanks and one above ground storage tank. Figure 2 shows the site plan for the subject property.

In January 1988, all of the site's underground storage tanks and associated piping within the PG&E's property lines were removed. Analysis of their contents revealed that of the four tanks formerly located in a cluster at the north corner of the yard, two contained mineral spirits and two contained heavy oils. A concrete sump was located approximately 50 feet northeast of the tank cluster, near the location of a former welding shop. A fifth tank was formerly located near the west corner of the yard and contained diesel fuel. A soil sample collected below this tank indicated a concentration for diesel below the detection limit of 10 mg/kg. Following the tank removal, a subsurface investigation showed that soils immediately adjacent to the former diesel tank were not adversely impacted.

A number of soil samples collected near the former tank cluster, sump and shop location were found to contain Total Petroleum Hydrocarbons such as Diesel (TPH-D) at concentrations up to 3,900 mg/kg and Oil and Grease (O&G) at concentrations up to 1,000 mg/kg. These results were reported in the July 1988 report "Underground Tanks Investigation" by PG&E's Technical and Ecological Services Division.

In November and December 1991, approximately 2,000 cubic yards of soil was excavated as a remedial action for the petroleum hydrocarbons identified in the soil. Soil was excavated to the depth of groundwater, approximately 8 to 8 ½ feet below ground surface at the time, and replaced with clean, compacted backfill. The backfill below approximately 7 feet consisted of drain rock while backfill above 7 feet consisted of Class II aggregate base. The northwest and northeast excavation boundaries reached the approximate PG&E property lines. During the remedial excavation, confirmatory samples were taken along the sidewalls and bottom of the excavation to confirm that all the contaminated soil with concentrations above the regulatory agency approved cleanup target levels was removed. The cleanup targets for gasoline (TPH-G) and diesel (TPH-D) were 10 mg/kg and 100 mg/kg, respectively. The cleanup target for O&G was 1,000 mg/kg, and for Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) compounds was 5 µg/kg (total BTEX). This work was described in an EARTH TECHNOLOGY CORPORATION (formerly Aqua Resources, Inc.) document "Site Remediation and Closure Report ... Former Tank Cluster Area" dated February 1992.

The samples collected along the PG&E property lines were above cleanup target levels, while each of the remaining confirmatory samples was below the cleanup target levels. The samples collected along the northeastern property line were above cleanup targets primarily due to TPH-D and O&G concentrations. The soils in this excavation wall contained visible tar and heavy oil, and also two pipes containing a similar petroleum product. Analytical testing of the product found in the pipes indicated TPH-D at 7,000 mg/kg and did not indicate VOCs above the method detection limit. The samples on the northwestern property line were above cleanup target levels for one or more of TPH-G, TPH-D, O&G, and BTEX.

The conclusions of the February 1992 closure report suggested that offsite sources of petroleum hydrocarbons may exist in both the northeast and northwest directions, and requested regulatory agency input in initiating an investigation of these potential sources. Quarterly groundwater monitoring and sampling for a period of one year was recommended in the 1992 report for wells OW-1, OW-4, OW-6 and OW-7.

In September and October of 1992, a containment mitigation cap was constructed over the surface soils in an area south of the hydrocarbon remediation area. These soils are contaminated with lead, believed to originate from lead-containing paint chips generated from sandblasting of a large above-ground natural gas storage tank. The tank was removed in May 1990, and the soils were found contaminated with total and soluble lead above California Code of Regulations (CCR) levels for hazardous wastes. CCR Total Threshold Limit Concentration (TTLC) for lead is 1000 mg/kg and the Soluble Threshold Limit Concentration (STLC) is 5 mg/L, equivalent to parts per million (ppm). The ACHCSA and the Regional Water Quality Control Board (RWQCB) approved capping as the selected remedial option for this area. As part of the remedial option the County agreed upon continued groundwater monitoring and sampling for lead. Following containment capping, the remaining open ground at the site was covered with asphaltic concrete.

In February 1993, well OW-8 was installed in the southern area of the yard in the vicinity of the former above-ground storage tank (AST). A maximum lead concentration of 27 µg/L (April 1993) was reported in samples collected from OW-8, which is below the state Maximum Contaminant Level (MCL) of 50 µg/L for drinking water. Wells OW-2 and OW-5 are located in the vicinity of the former AST and are also being monitored for lead. Lead has not been detected above the State MCL in any monitoring events for wells OW-2, OW-5 and OW-8.

Based on lead levels consistently falling below the MCL for drinking water, the lead regulatory agency, ACHCSA, issued a letter (Appendix C) on July 14, 1994 reducing the required lead sampling frequency from quarterly to semi-annually. Similarly, petroleum hydrocarbon and VOC monitoring is presently performed semi-annually for specific wells.

2.0 GROUNDWATER MONITORING AND SAMPLING ACTIVITIES

Four of the five originally installed monitoring wells remain in existence at the site. Monitoring well OW-3 was destroyed during the remedial excavations performed in November 1991 in the northern corner of the yard. Two new monitoring wells, OW-6 and OW-7, were installed on December 19, 1991. OW-6 was placed in the vicinity of OW-3 to act as a replacement, and OW-7 was installed at the northeastern end of the remediation area to monitor upgradient contamination of the shallow groundwater underlying the site. Both wells penetrate the clean, compacted backfill placed in the previously excavated remediation area. Monitoring well OW-8 was installed in February 1993 to monitor possible lead contamination in the groundwater, downgradient of the former AST. The locations of the new wells were approved by the ACHCSA.

On December 17, 1998, groundwater samples were collected by CET Environmental Services, Inc. (CET) personnel from monitoring wells OW-1, OW-2, OW-5, OW-6, OW-7, and OW-8. The monitoring well OW-4 was not accessible at the time. Prior to sampling, four casing volumes of groundwater were purged with a bailer from each well to ensure the collection of formational water. The parameters pH and conductivity were measured periodically during purging until stabilized. Groundwater samples were then collected and properly stored for transportation to a State of California certified laboratory for analysis. This report presents the results of the December 17, 1998 sampling event.

The groundwater samples collected from each well were selectively analyzed by Curtis & Tompkins, Ltd. Analytical Laboratories, Berkeley, California for TPH-D (LUFT Manual, October 1989), TPH-G (LUFT Manual, October 1989), BTEX (EPA method 8020), purgeable halocarbons compounds (EPA method 8010) and lead (EPA method 6010A) according to the analyses. In addition, the laboratory performed internal quality control tests including method blanks and spike control analyses whose results were within acceptable limits therefor field blank sample OW-9B was not analyzed. Table 2.1 presents the current monitoring schedule with appropriate sample analyses. This schedule has been adopted with approval from the ACHCSA as provided in their letter dated July 14, 1994.

Table 2.1 Well Monitoring Schedule and Analyses

	TPH-D	TPH-G BTEX	EPA 8010 (VOCs)	Lead	Groundwater Elevation
OW - 1	S	S			S
OW - 2				S	S
OW - 4	S	S			S
OW - 5	S	S	S	S	S
OW - 6	S	S	S		S
OW - 7	S	S	S		S
OW - 8				S	S

S = Semiannual monitoring

Certified laboratory results are presented in Appendix A along with chain-of-custody documentation. A table of the historical results of the laboratory analyses is included in Appendix B.

3.0 ANALYTICAL RESULTS

3.1 PETROLEUM HYDROCARBONS

Table 3.1 summarizes the analytical results for petroleum hydrocarbons detected in the groundwater samples collected on December 17, 1998. TPH-D was detected in all of the monitoring wells sampled for TPH-D and the highest concentration was observed in well OW-7. TPH-G was detected in three of the five monitoring wells sampled for TPH-G. The highest concentration of TPH-G was also observed in monitoring well OW-7, located in the northern (most upgradient) corner of the site.

Table 3.1 Petroleum Hydrocarbons in Groundwater, in mg/L

Well	TPH-D	TPH-G
OW - 1	1.800	0.850
OW - 4	NA	NA
OW - 5	0.780	ND
OW - 6	2.000	0.130
OW - 7	3.500	1.100

Notes:

1) ND = Not Detected at or above the method Reporting Limits (RL)
2) TPH-D = Extractable Petroleum Hydrocarbons, Diesel Range, LUFT Manual, October 1989; RL = 0.05 mg/L.
3) TPH-G = Total Petroleum Hydrocarbons by California DHS Method LUFT Manual, October 1989; RL = 0.05 mg/L.
4) NA = Not Analyzed.

Figures 3.1 and 3.2 illustrate the historical concentrations of TPH-D in the monitored wells. For samples which reported TPH-D as not detected, one half of the detection limit was used in preparing these figures. The data from monitoring wells OW-3 and OW-6 are combined since OW-6 was installed to replace OW-3 following its destruction.

Figures 3.1 and 3.2 show that TPH-D concentrations were generally higher around the time of, or soon after, the remedial excavation in November 1991 in the wells in the remediation vicinity: OW-4, OW-6, and OW-7. Compared to the previous sampling event (June 1998), this quarter's results show an increase in TPH-D concentrations in wells OW-1, OW-5, OW-6, and OW-7. It was noted in the February 1992 tank cluster area remediation report that there is an apparent off-site source of contamination upgradient of the PG&E yard. The persistence of moderate TPH following remediation in this area is believed to be the result of this upgradient contamination.

Historically, TPH-D concentrations in monitoring well OW-5, located near the northwest property line, have fluctuated around 1,000 µg/L. The most recent sampling event yielded a concentration of 780 µg/L. Monitoring well OW-1 had TPH-D concentrations over 2000 µg/L in 1993, averaging

near 1,250 µg/L in 1994, 1,000 µg/L in 1995, 1,850 µg/L in 1996, and 1,100 µg/L in 1997. Current concentration of TPH-D in the monitoring well OW-1 was 1,800 µg/L. Monitoring well OW-6 had a concentration of 2,000 µg/L in the most recent event, showing an increase from 1,300 µg/L in the June 1998 event.

TPH-G has been consistently below 500 µg/L in all wells except upgradient wells OW-1, and OW-7. Historically, OW-7 has had concentrations ranging from 650 to 1,800 µg/L. The current TPH-G concentrations for OW-1 and OW-7 are 850 µg/L and 1,100 µg/L, respectively. Figures 3.3 and 3.4 illustrate the historical concentrations of TPH-G. Between January 1991 and March 1992 the analyses were not performed. Monitoring of TPH-G concentrations in OW-2 is no longer performed due to non-detections in this well. Relative to the previous sampling results, TPH-G concentrations have increased in OW-6 and OW-7, and decreased in OW-1. Current sampling results were non-detect for well OW-5.

3.2 LEAD

Table 3.2 presents the results of this quarter's groundwater analyses for lead. The state MCL for lead in drinking water is 50 µg/L. Samples were collected and analyzed for dissolved lead (filtered) in December of 1998. During this quarter's event, lead was not detected in the monitoring wells that were sampled for lead. Historically, all samples show concentrations below the 50 µg/L drinking water MCL. The highest historical concentration of lead was 27 µg/L in OW-8, sampled in April 1993.

Table 3.2 Lead in Groundwater, in µg/L

Well Number	State MCL	Reporting Limit	Dissolved Lead
OW-2	50	3.0	ND
OW-5	50	3.0	ND
OW-8	50	3.0	ND

Notes:
MCL = Maximum Contaminate Level for drinking water.
ND = Not Detected at or above the method Reporting Limits (RL)
NA = Not Analyzed
Dissolved Lead analyses performed by EPA Method 6010A

3.3 VOLATILE ORGANIC COMPOUNDS

Historical results of VOC monitoring are presented in Appendix B. Table 3.3 presents the recent analytical results for VOCs in groundwater. The state MCLs for drinking water were exceeded for: Vinyl chloride in monitoring well OW-5 at concentration 1.1 µg/L, 1,1-Dichloroethane and Chlorobenzene in monitoring well OW-7 at concentrations 5.7 µg/L and 31 µg/L respectively, 1,4-Dichlorobenzene (1,4-DCB) in monitoring wells OW-6 and OW-7 at concentrations of 68 µg/L and 470 µg/L, respectively.

VOCs detected at concentrations below their MCLs include:

- 1,1-Dichloroethane in wells OW-5 and OW-6;
- 1,1,1-Trichloroethane (TCA) in well OW-7;
- Trichloroethylene in well OW-5;
- Chlorobenzene in wells OW-6 and OW-7;
- 1,3-Dichlorobenzene (1,3-DCB) in wells OW-6 and OW-7;
- 1,2-Dichlorobenzene (1,2-DCB) in wells OW-6 and OW-7;
- 1,4-Dichlorobenzene in wells OW-6 and OW-7.

Figures 3.5 and 3.6 show the historical concentrations of total VOCs in the on-site monitoring wells. Figure 3.5 shows the concentrations of total VOCs in wells OW-1, OW-2 and OW-4. Of these wells, only OW-1 is presently monitored for VOCs, and these include only the BTEX fraction. From January 1994 to before the December 1997 sampling event, no BTEX was detected in well OW-1. Benzene, Ethyl Benzene and Xylene were detected in the December 1997 sample at concentrations of 0.66, 2.3, and 1.1 µg/L, respectively. In the June 1998 sample, only Toluene was detected in Well OW-1 at a concentration of 0.67. However, the results of the method blank sample, shown on the right-most column in table 3.3, reported concentration of 0.73 µg/L for Toluene. This reading suggests that the results obtained for Toluene for sample OW-1 may be in error.

In the December 1998, the sample contained Benzene at concentration 0.5 µg/L, Ethylbenzene at concentration 0.76 µg/L, and Total Xylenes at concentration 0.67 µg/L.

Figure 3.6 shows the concentrations of total VOCs in wells OW-5, OW-6, and OW-7, located at the upgradient edges of the site. The total VOC concentrations detected this quarter in wells OW-5, OW-6, and OW-7 were 11.6 µg/L, 110.7 µg/L, and 920.95 µg/L, respectively. Total VOC concentrations in each of these wells slightly increased relative to the previous sampling event in the second quarter of 1998. These three wells lie within ten feet of the northeast and/or northwest property lines of the site. Groundwater elevation monitoring consistently indicates that the groundwater flow direction is from the north or northeast from neighboring properties onto the PG&E site. This demonstrates that VOCs are migrating onto the PG&E site from an upgradient source.

Table 3.3 Volatile Organic Compounds in Groundwater, in ug/l

Possible offsite source

PURGEABLE HALOCARBONS	MCL	Well Number OW-1	OW-4	OW-5	OW-6	OW-7	MB
Chloromethane		NA	NA	ND	ND	ND	ND
Bromomethane		NA	NA	ND	ND	ND	ND
Vinyl chloride	0.5	NA	NA	1.1	ND	ND	ND
Chloroethane		NA	NA	ND	ND	ND	ND
Methylene Chloride	5#	NA	NA	ND	ND	ND	ND
Trichlorofluoromethane	150	NA	NA	ND	ND	ND	ND
1,1-Dichloroethene	6	NA	NA	ND	ND	ND	ND
1,1-Dichloroethane	5	NA	NA	2.5	4.6	5.7	ND
cis-1,2-Dichloroethene	6	NA	NA	ND	ND	ND	ND
trans-1,2-Dichloroethene	10	NA	NA	ND	ND	ND	ND
Chloroform	100#*	NA	NA	ND	ND	ND	ND
Freon 113	1200	NA	NA	ND	ND	ND	ND
1,2-Dichloroethane	0.5	NA	NA	ND	ND	ND	ND
1,1,1-Trichloroethane	200	NA	NA	ND	ND	5.6	ND
Carbon Tetrachloride	0.5	NA	NA	ND	ND	ND	ND
Bromodichloromethane	100#*	NA	NA	ND	ND	ND	ND
1,2-Dichloropropane	5	NA	NA	ND	ND	ND	ND
cis-1,3-Dichloropropene	5***	NA	NA	ND	ND	ND	ND
Trichloroethylene	5	NA	NA	0.7	ND	ND	ND
1,1,2-Trichloroethane	32	NA	NA	ND	ND	ND	ND
trans-1,3-Dichloropropene	5***	NA	NA	ND	ND	ND	ND
Dibromochloromethane	100#*	NA	NA	ND	ND	ND	ND
2-Chloroethylvinyl Ether		NA	NA	NA	NA	NA	NA
Bromoform	100#*	NA	NA	ND	ND	ND	ND
Tetrachloroethylene	5	NA	NA	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	NA	NA	ND	ND	ND	ND
Chlorobenzene	30	NA	NA	ND	8.3	31	ND
1,3-Dichlorobenzene	600#	NA	NA	ND	27	360	ND
1,2-Dichlorobenzene	600#	NA	NA	ND	2.8	48	ND
1,4-Dichlorobenzene	5	NA	NA	ND	68	470	ND
PURGEABLE AROMATICS							
Benzene	1	0.5	NA	7.3	ND	0.65	ND
Toluene	1000#	ND	NA	ND	ND	ND	ND
Ethylbenzene	680	0.76	NA	ND	ND	ND	ND
Total Xylenes	1750**	0.67	NA	ND	ND	ND	ND

Notes:

1) MCL = Maximum Contaminant Level in drinking water (State MCL, if not noted otherwise)
2) # = EPA MCL
3) * = MCL for sum of four compounds
4) ** = MCL for sum of all xylene isomers
5) *** = MCL for sum of trans- and cis-1,3-Dichloropropene
6) ND = Not Detected at or above MDL
7) Purgeable Halocarbons (EPA method 8010)
8) Purgeable Aromatics (EPA method 8020)
Exceeded MCL
9) NA = Not Tested
10) MB = Method Blank

4.0 GROUNDWATER FLOW DIRECTION

Water level measurements in the site monitoring wells were collected on December 17, 1998, prior to groundwater sampling. Groundwater elevations are shown in relation to a site specific coordinate system reported in previous reports. The top of casing (TOC) elevations for each of the wells are based upon an assumed TOC elevation of 10 feet at OW-1.

The groundwater elevations measured on December 17, 1998 and the resulting gradient direction, are presented in Figure 4.1. Historical groundwater elevations along with TOC elevations for each well are presented as a graph in Figure 4.2. The groundwater flow direction was calculated from groundwater elevations in OW-1, OW-2, OW-5, OW-6, OW-7, and OW-8 and indicates the local groundwater flow direction on this date was 0.008 ft/ft due south. This flow direction is consistent with those observed since monitoring began in 1988. The lead mitigation cap now limits direct precipitative recharge in the area between wells OW-2 and OW-5, and OW-8. The majority of the remaining site area has also been paved.

5.0 CAP INSPECTION

The cap will be inspected again by CET prior to the next semi-annual report.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

The following conclusions are made based upon the results of analyses performed on groundwater samples collected on December 17, 1998 from monitoring wells OW-1, OW-2, OW-5, OW-6, OW-7 and OW-8, and from prior semi-annual sampling results.

- The groundwater beneath the site appears to flow to the south, consistent with the historical flow direction. The groundwater gradient of 0.009 ft/ft is also consistent with historical data.

- TPH-D was detected in wells OW-1, OW-5, OW-6 and OW-7 above the reporting limit of 50 µg/L. The highest concentration was found in well OW-7 at 3,500 µg/L. Moderate TPH-D concentrations in groundwater have persisted in wells located in the northeastern portion of the property. Since remedial action had removed known sources of contaminants within the site, the presence of TPH-D is likely to be caused by upgradient, off-site source. TPH-D in groundwater has no regulatory action limits but is being assessed on a case-by-case basis by the regulators.

- TPH-D was detected in well OW-1 at 1,800 µg/L, a gentle drop from the 1,900 µg/L detected in the previous sampling but still below the maximum historical concentration of 3,900 µg/L observed in July of 1992. OW-1 is downgradient of a former diesel tank location.

- Monitoring wells OW-1, OW-6 and OW-7 had TPH-G concentrations of 850, 130, and 1,100 µg/L, respectively. TPH-G was not detected in well OW-5. The upgradient well OW-7 continues to have the highest concentration of TPH-G. The presence of TPH-G is likely to be caused by an upgradient, off-site source.

- Soluble lead concentrations were not detected in monitoring wells OW-2, OW-5 and OW-8. The MCL for lead in drinking water is 50 µg/L.

- Wells OW-5, OW-6 and OW-7 lie at the upgradient portion of the site and historically have had the highest concentrations of TPH-G and VOCs. The total VOC concentration is particularly elevated in OW-7, averaging near 921 µg/L. This indicates an upgradient, off-site source of fuel and solvent contamination located north of the subject site. The concentration of total VOCs in each of these wells increased this quarter relative to the previous sampling event.

- The following VOCs were detected below their MCL:

  Benzene in monitoring wells OW-5 and OW-7;
  1,1-Dichloroethane in monitoring wells OW-5, OW-6, and OW-7;
  Trichloroethene and Vinyl chloride in monitoring well OW-5;
  1,1,1-Trichloroethane in monitoring well OW-7;
  Chlorobenzene, 1,3-Dichlorobenzene and 1,2-Dichlorobenzene in monitoring well OW-6;
  1,3-Dichlorobenzene and 1,2-Dichlorobenzene in monitoring well OW-7.

- Chlorobenzene was detected in monitoring well OW-7 above its MCL.

- Vinyl Chloride was detected in monitoring well OW-5 above its MCL.

- 1,4-Dichlorobenzene was detected in monitoring wells OW-6 and OW-7 above its MCL.

- No Methylene Chloride was detected at the site in the most recent monitoring event.

6.2 RECOMMENDATIONS

- Continue monitoring in conformance with the revised ACHCSA schedule.

- An unidentified upgradient source of TPH-D, TPH-G and VOCs north of the subject property is clearly indicated by the groundwater monitoring data. Based on this finding it is recommended that PG&E enter into discussions with the involved regulatory agencies to investigate and pursue those responsible for the groundwater contaminants entering the PG&E property.

APPENDIX A

Sample Collection Records
Certified Laboratory Results

SAMPLE COLLECTION RECORD - MONITOR WELL

Date: 12 - 17 - 98 Sample I.D.: CAT 1 Job No.: 3932

Site Location: PG&E Oakland

No. of Containers: 5 / (Check one): ✓ Well Samples:

____ Duplicates from well ____ ____ Travel Blanks: ____ Field Blanks:

____ Other (explain) ____

W.L. (1/100'): 7.85 Date: 12/17/98 Time: 8:15 B.O.W.(1/2'): 17.97 9.60

Method: 1/ Electric Well Sounder: ____ Other/ ____

Meters Calibrated: Date: 12-17-98 By: JS

Calculated Purge Volume (4 casing volumes): 10 Gallons

Purging Method: ✓ Disposable Bailer: ____ Teflon Bailer:

____ Whale SuperSub 920 submersible pump; ____ Other/Specify ____

Time Start Purging (24 hr): 11:37 Product: Y / (N), Sheen: Y / (N),
Odor: Y / (N). Vapor: ____ ppm / %LEL . Color: CLEAR, LIGHT YELLOW

Time Stop Purging (24 hr): 1154 Product: Y / (N), Sheen: Y / (N),
Odor: Y / (N). Vapor: ____ ppm / %LEL . Color: CLEAR, LIGHT YELLOW

Time (24 hr)	H_2O (gal)	Temp. (C)	pH	Cond. (uS)	TDS (ppm)	Turbid. (NTU)	D.O. (ppm)
11:40	2.5	65.7	6.90	909			
11:45	5.0	66.9	6.97	908			
11:50	7.5	67.2	7.10	881			
11:54	10.0	68.9	7.10	914			
:							

Sample Collection Time (24 hr): 11:59

Notes: ____

Collected By (signature): RJ

SPLFRM.MW

SAMPLE COLLECTION RECORD - MONITOR WELL

Date: 12 - 17 - 98 Sample I.D.: CW-2 Job No.: 3932

Site Location: PG&E Oakland

No. of Containers: 1 / (Check one): ✓ Well Samples:

_____ Duplicates from well _____; _____ Travel Blanks: _____ Field Blanks;

_____ Other (explain) _____

W.L. (1/100'): 5.1' Date: 12/17/98 Time: 8:20 B.O.W.(1/2'): 20.0' 102

Method: ✓ Electric Well Sounder; _____ Other/_____

Meters Calibrated: Date: 12/17/98 By: JS

Calculated Purge Volume (4 casing volumes): 10 Gallons

Purging Method: ✓ Disposable Bailer; _____ Teflon Bailer;

_____ Whale SuperSub 920 submersible pump; _____ Other/Specify_____

Time Start Purging (24 hr): 9:39 Product: Y / (N), Sheen: Y / (N)

Odor: Y / (N) Vapor: _____ ppm / %LEL , Color: clear, light yellow

Time Stop Purging (24 hr): 10:09 Product: Y / (N), Sheen: Y / (N),

Odor: Y / (N), Vapor: _____ ppm / %LEL , Color: clear / brown

Time (24 hr)	H_2O (gal)	Temp. (C)	pH	Cond. (uS)	TDS (ppm)	Turbid. (NTU)	D.O. (ppm)
9:48	2.5	68.1	7.23	2240			
10:01	5	68.8	7.57	2220			
10:04	7.5	69.7	7.35	2,120			
10:10	10	68.4	7.42	2120			
:							

Sample Collection Time (24 hr): 10:10

Notes: _____

Collected By (signature): RJ

SPLFRM.MW

SAMPLE COLLECTION RECORD - MONITOR WELL

Date: 12 - 17 - 98 Sample I.D.: MW-5 Job No.: 3932

Site Location: PG&E Oakland

No. of Containers: 9 / (Check one): ✓ Well Samples:

_____ Duplicates from well _____; _____ Travel Blanks: _____ Field Blanks;

_____ Other (explain) _____

W.L. (1/100'): 4.00 Date: 12/17/98 Time: 8:23 B.O.W.(1/2'): 18.95 10.1

Method: ✓ Electric Well Sounder; _____ Other/ _____

Meters Calibrated: Date: 12/17/98 By: ZS

Calculated Purge Volume (4 casing volumes): 10 Gallons

Purging Method: ✓ Disposable Bailer; _____ Teflon Bailer;

_____ Whale SuperSub 920 submersible pump; _____ Other/Specify _____

Time Start Purging (24 hr): 1020, Product: Y / N, Sheen: Y / (N),
Odor: (Y) / N, Vapor: _____ ppm / %LEL, Color: CLEAR

Time Stop Purging (24 hr): 1037, Product: Y / N, Sheen: (Y) / N,
Odor: (Y) / N, Vapor: _____ ppm / %LEL, Color: _____

Time (24 hr)	H_2O (gal)	Temp. (C)	pH	Cond. (uS)	TDS (ppm)	Turbid. (NTU)	D.O. (ppm)
10:25	2.5	65.4	8.12	552			
10:30	5	64.7	7.36	514			
10:32	7.5	64.4	7.31	508			
10:34	10	64.0	7.10	510			
:_____							

Sample Collection Time (24 hr): 10:39

Notes: AT START OF PURGING SLIGHT OILY SMELL.

Collected By (signature): R

SPLFRM.MW

SAMPLE COLLECTION RECORD - MONITOR WELL

Date: 12-17-98 Sample I.D.: B-4-6 Job No.: 3935

Site Location: P.G.&E. OAKLAND

No. of Containers: 1 / (Check one): ____ Well Samples;

____ Duplicates from well ____; ____ Travel Blanks; ____ Field Blanks;

____ Other (explain) ____

W.L. (1/100'): 4.05 Date: 12/17/98 Time: 809 B.O.W.(1/2'): 17.07 8.64

Method: ✓ Electric Well Sounder; ____ Other/ ____

Meters Calibrated: Date: 12/17/98 By: JS

Calculated Purge Volume (4 casing volumes): 10 Gallons

Purging Method: ✓ Disposable Bailer; ____ Teflon Bailer;

____ Whale SuperSub 920 submersible pump; ____ Other/Specify ____

Time Start Purging (24 hr): 1327, Product: Y / (N), Sheen: Y / (N),
Odor: (Y) / N, Vapor: ____ ppm / %LEL, Color: CLEAR / LIGHT YELLOW, BROWN

Time Stop Purging (24 hr): 1343, Product: Y / (N), Sheen: Y / (N),
Odor: (Y) / N, Vapor: ____ ppm / %LEL, Color: CLEAR / LIGHT ~~BROWN~~ YELLOW

Time (24 hr)	H_2O (gal)	Temp. (C)	pH	Cond. (uS)	TDS (ppm)	Turbid. (NTU)	D.O. (ppm)
13:32	2.5	70.1	7.58	1022			
13:36	5.	69.2	7.55	924			
13:39	7.5	67.6	7.60	917			
13:45	10	66.6	7.62	950			
:__							

Sample Collection Time (24 hr): 1349

Notes: START PURGING SLIGHT PETROLEUM SMELL
END PURGING SLIGHT PETROLEUM ODOR.

Collected By (signature): RJ

SPLFRM.MW

SAMPLE COLLECTION RECORD - MONITOR WELL

Date: 12 - 17 - 97 Sample I.D.: [illegible] Job No.: 3932

Site Location: PG&E Oakland

No. of Containers: 8 / (Check one): ✓ Well Samples;

_____ Duplicates from well _____; _____ Travel Blanks; _____ Field Blanks;

_____ Other (explain) _____

W.L. (1/100'): 5.75 Date: 12/17/97 Time: 8:00 B.O.W.(1/2'): 13.2 8.67

Method: ✓ Electric Well Sounder; _____ Other/_____

Meters Calibrated: Date: 12/1-97 By: LS

Calculated Purge Volume (4 casing volumes): 10 Gallons

Purging Method: ✓ Disposable Bailer; _____ Teflon Bailer;

_____ Whale SuperSub 920 submersible pump; _____ Other/Specify_____

Time Start Purging (24 hr): 12:29, Product: Y / (N), Sheen: Y / (N),

Odor: (Y) / N, Vapor: _____ ppm / %LEL, Color: CLOUDY / YELLOW
PETROLEUM SMELL

Time Stop Purging (24 hr): 1254, Product: Y / (N), Sheen: Y / (N),

Odor: (Y) / N, Vapor: _____ ppm / %LEL, Color: CLOUDY / LT YELLOW
SLIGHT PETROLEUM SMELL

Time (24 hr)	H_2O (gal)	Temp. (C)	pH	Cond. (uS)	TDS (ppm)	Turbid. (NTU)	D.O. (ppm)
12:37	2.5	66.7	7.46	1010			
12:42	5.0	65.3	7.33	943			
12:47	7.5	64.5	7.34	897			
12:54	10.0	64.0	7.38	887			
:__							

Sample Collection Time (24 hr): 12:57

Notes: PETROLEUM SMELL AT START OF PURGING, SLIGHT PETROLEUM SMELL AT END OF PURGING.

Collected By (signature): RJ

SPLFRM.MW

SAMPLE COLLECTION RECORD - MONITOR WELL

P6

Date: 12-17-98 Sample I.D.: MW-2 Job No.: 3932

Site Location: PG&E Oakland

No. of Containers: 1 / (Check one): ✓ Well Samples;

_____ Duplicates from well _____; _____ Travel Blanks: _____ Field Blanks;

_____ Other (explain) _____

W.L. (1/100'): 3.72 Date: 12/17/98 Time: 8:30 B.O.W.(1/2): 17.92 9.52

Method: ✓ Electric Well Sounder; _____ Other/ _____

Meters Calibrated: Date: 12-17-98 By: JS

Calculated Purge Volume (4 casing volumes): 10 Gallons

Purging Method: ✓ Disposable Bailer: _____ Teflon Bailer;

_____ Whale SuperSub 920 submersible pump; _____ Other/Specify _____

Time Start Purging (24 hr): 8:40, Product: Y / (N), Sheen: Y / (N),
Odor: Y / (N), Vapor: _____ ppm / %LEL, Color: gray/brown cloudy

Time Stop Purging (24 hr): 9:12, Product: Y / (N), Sheen: Y / (N),
Odor: Y / (N), Vapor: _____ ppm / %LEL, Color: cloudy brown

Time (24 hr)	H_2O (gal)	Temp. (C)	pH	Cond. (uS)	TDS (ppm)	Turbid. (NTU)	D.O. (ppm)
8:45	2.5	6.04	6.84	887			
8:55	5	64.9	6.88	810			
9:04	7.5	63.5	6.85	723			
9:12	10	63.4	6.89	749			
:							

Sample Collection Time (24 hr): 9:15

Notes: _____

Collected By (signature): JS & BJ

SPLFRM.MW

SAMPLE COLLECTION RECORD - MONITOR WELL

Date: 12 - 17 - 14 Sample I.D.: [illegible] Job No.: [illegible]

Site Location: _____

No. of Containers: 3 / (Check one): _____ Well Samples:

_____ Duplicates from well _____; _____ Travel Blanks; ✓ Field Blanks;

_____ Other (explain) _____

W.L. (1/100'): _____ Date: _____ Time: _____ B.O.W.(1/2'): _____

Method: _____ Electric Well Sounder; _____ Other/ _____

Meters Calibrated: Date: _____ By: _____

Calculated Purge Volume (4 casing volumes): _____ Gallons

Purging Method: _____ Disposable Bailer: _____ Teflon Bailer;

_____ Whale SuperSub 920 submersible pump; _____ Other/Specify _____

Time Start Purging (24 hr): _____, Product: Y / N , Sheen: Y / N ,

Odor: Y / N , Vapor: _____ ppm / %LEL , Color: _____

Time Stop Purging (24 hr): _____, Product: Y / N , Sheen: Y / N ,

Odor: Y / N , Vapor: _____ ppm / %LEL , Color: _____

Time (24 hr)	H_2O (gal)	Temp. (C)	pH	Cond. (uS)	TDS (ppm)	Turbid. (NTU)	D.O. (ppm)
____:____							
____:____							
____:____							
____:____							
____:____							

Sample Collection Time (24 hr): _____

Notes: _____

_____

_____

Collected By (signature): _____

SPLFRM.MW

RECORD OF GROUNDWATER LEVEL MEASUREMENTS

Page 1 of 1

Date Measured: 12 14 21 Job No. 3932

Site Location: PG&E Oakland

Well location map attached? Yes X No ____

Method of Measurement: ✓ Electric well sounder,

____ Other: _____

Weather/Visibility: Clear, sunny

Notes: _____

Well I.D.	Time (24 hr)	G.W.L. (1/100 ft)	G.W.L. 3x's?	B.O.W. (1/2ft)	Remarks
OW-7	8:00	5.75'		18.20	
OW-6	8:09	4.35		17.07C	
OW-1	8:15	3.85'		17.97	
MW-2	8:20	5.10'		20.10'	
OW-5	8:23	4.00'		18.95'	
OW-8	8:30	3.72'		17.72'	
OW-4	not	accessible		———	———

Measured by (Signature): _____

rev.2/13/90

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

ANALYTICAL REPORT

Prepared for:

CET Environmental Services
3033 Richmond Parkway
Suite 300
Richmond, CA 94806

Date: 11-JAN-99
Lab Job Number: 137203
Project ID: 3932-000
Location: PG&E Colisuem Way

Reviewed by: _____

Reviewed by: _____

TVH-Total Volatile Hydrocarbons

Client: CET Environmental Services
Project#: 3932-000
Location: PG&E Colisuem Way

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
137203-003	OW-5	45505	12/17/98	12/30/98	12/30/98	
137203-004	OW-1	45505	12/17/98	12/30/98	12/30/98	
137203-005	OW-6	45505	12/17/98	12/30/98	12/30/98	
137203-006	OW-7	45505	12/17/98	12/30/98	12/30/98	

Matrix: Water

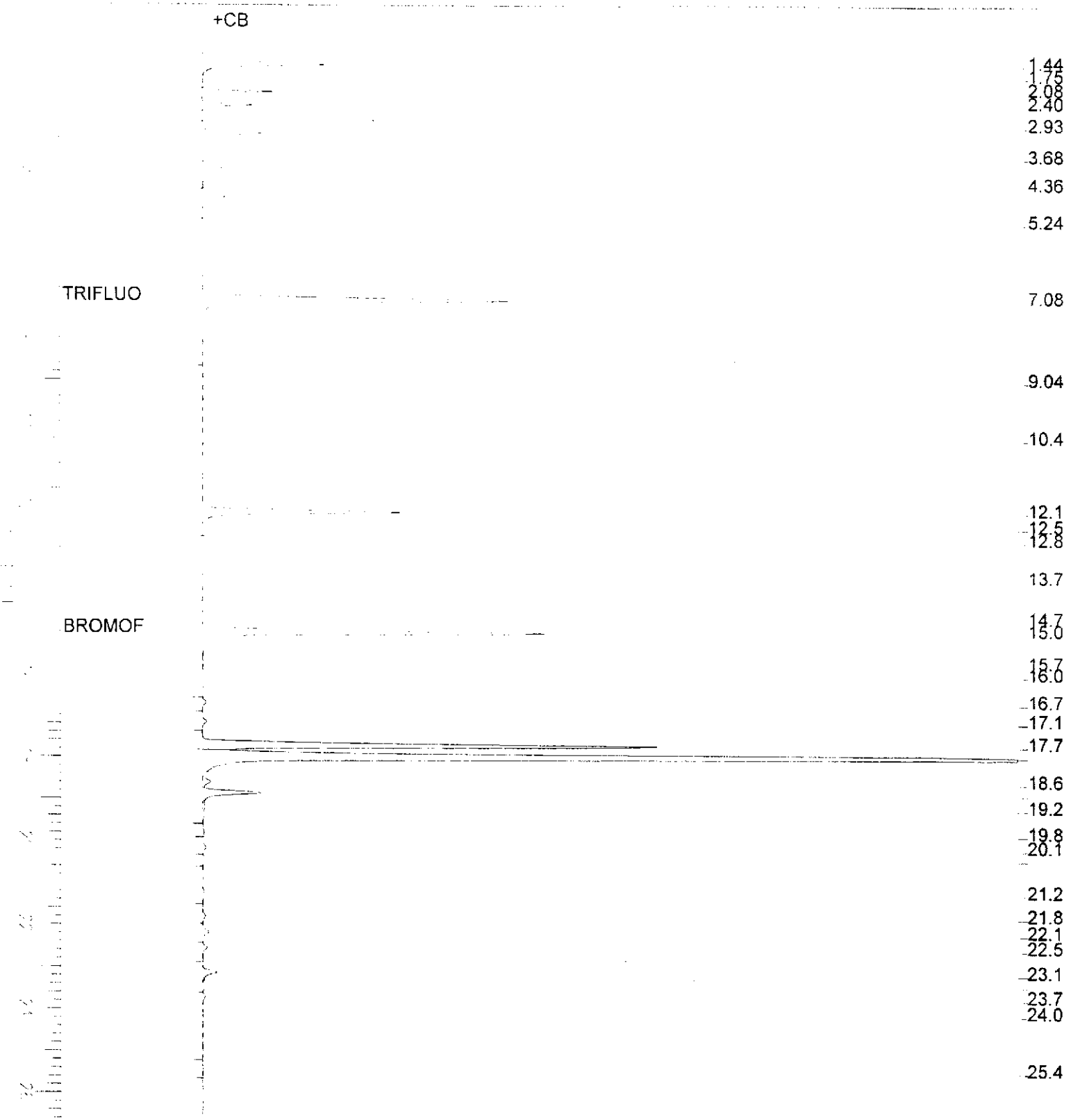
Analyte Diln Fac:	Units	137203-003 1	137203-004 1	137203-005 1	137203-006 1
Gasoline C7-C12	ug/L	<50	850 Z	130 Z	1100 Z
Surrogate					
Trifluorotoluene	%REC	76	82	75	65
Bromofluorobenzene	%REC	140	150	134	131

Z: Sample exhibits unknown single peak or peaks

GC05 'G' File TVH

Sample Name : RR,S,137203-004,45505,
FileName : G:\GC05\DATA\364G008.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 12 mV

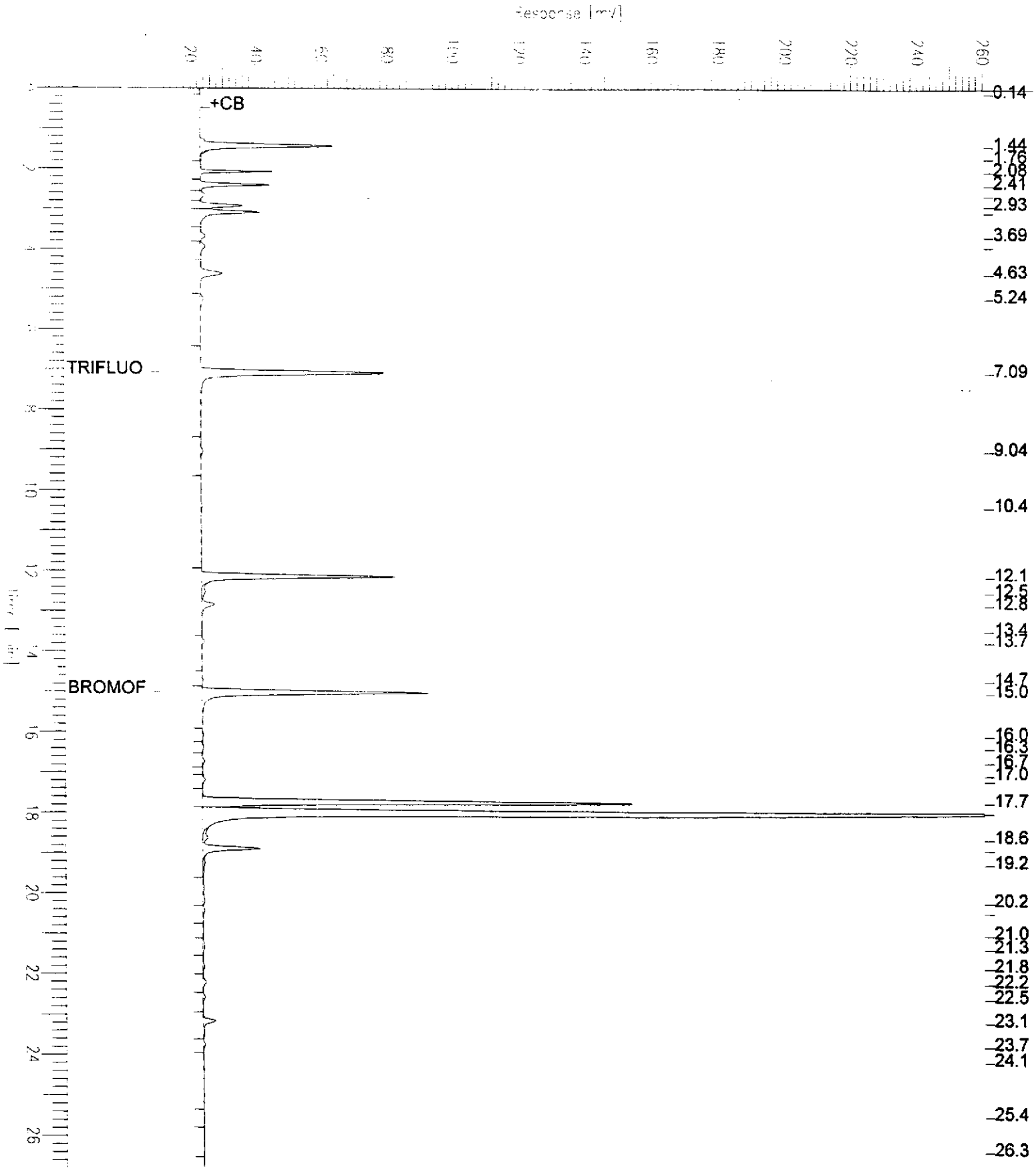
Sample #: Page 1 of 1
Date : 12/30/98 03:27 PM
Time of Injection: 12/30/98 03:00 PM
Low Point : 11.93 mV High Point : 261.93 mV
Plot Scale: 250.0 mV



GC05 'G' File TVH

Sample Name : S,137203-004,45484,
FileName : G:\GC05\DATA\363G013.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 10 mV

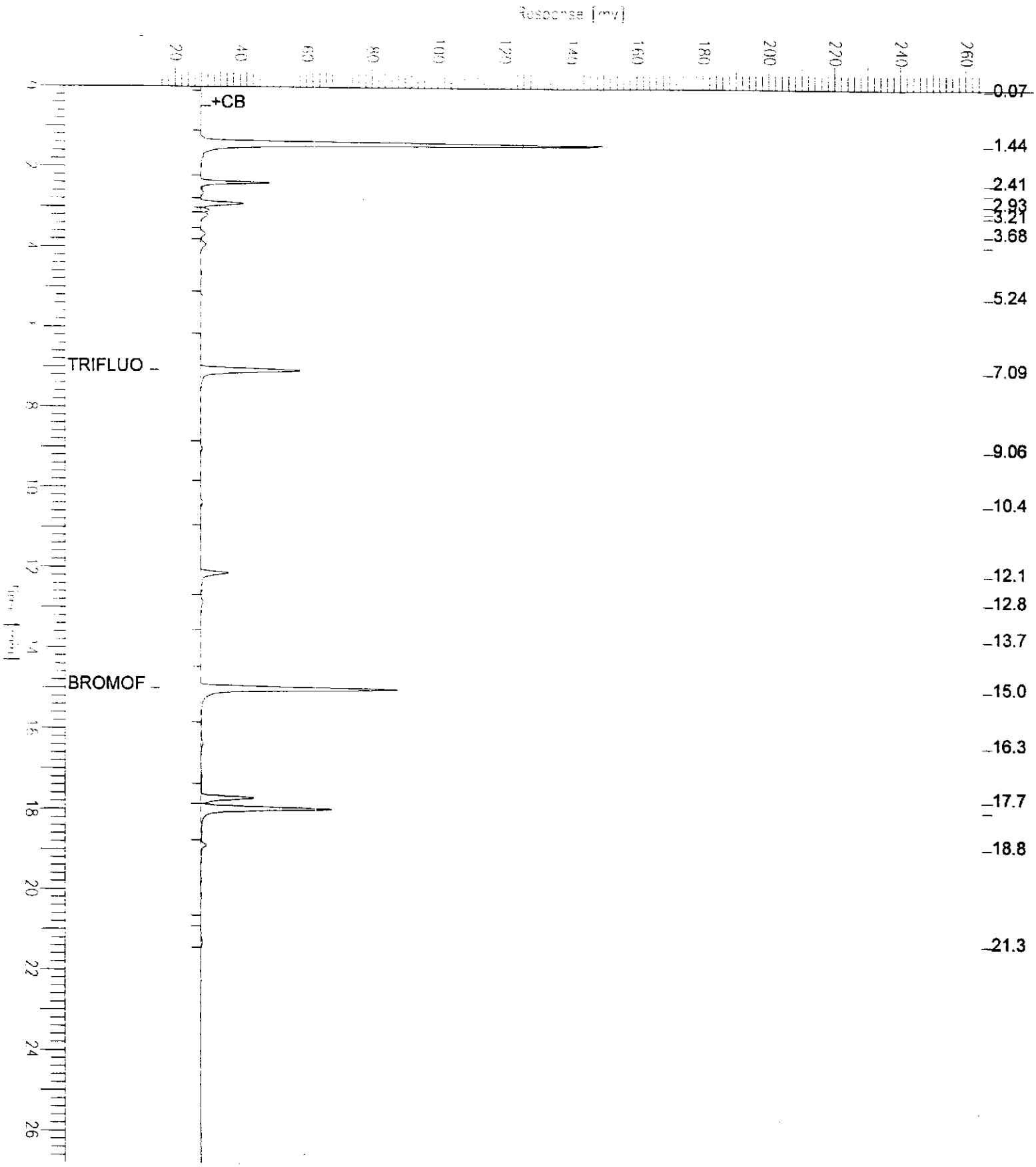
Sample #: Page 1 of 1
Date : 12/29/98 07:08 PM
Time of Injection: 12/29/98 06:41 PM
Low Point : 10.27 mV High Point : 260.27 mV
Plot Scale: 250.0 mV



GC05 'G' File TVH

Sample Name : S.137203-005,45484,
FileName : G:\GC05\DATA\363G030.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 15 mV

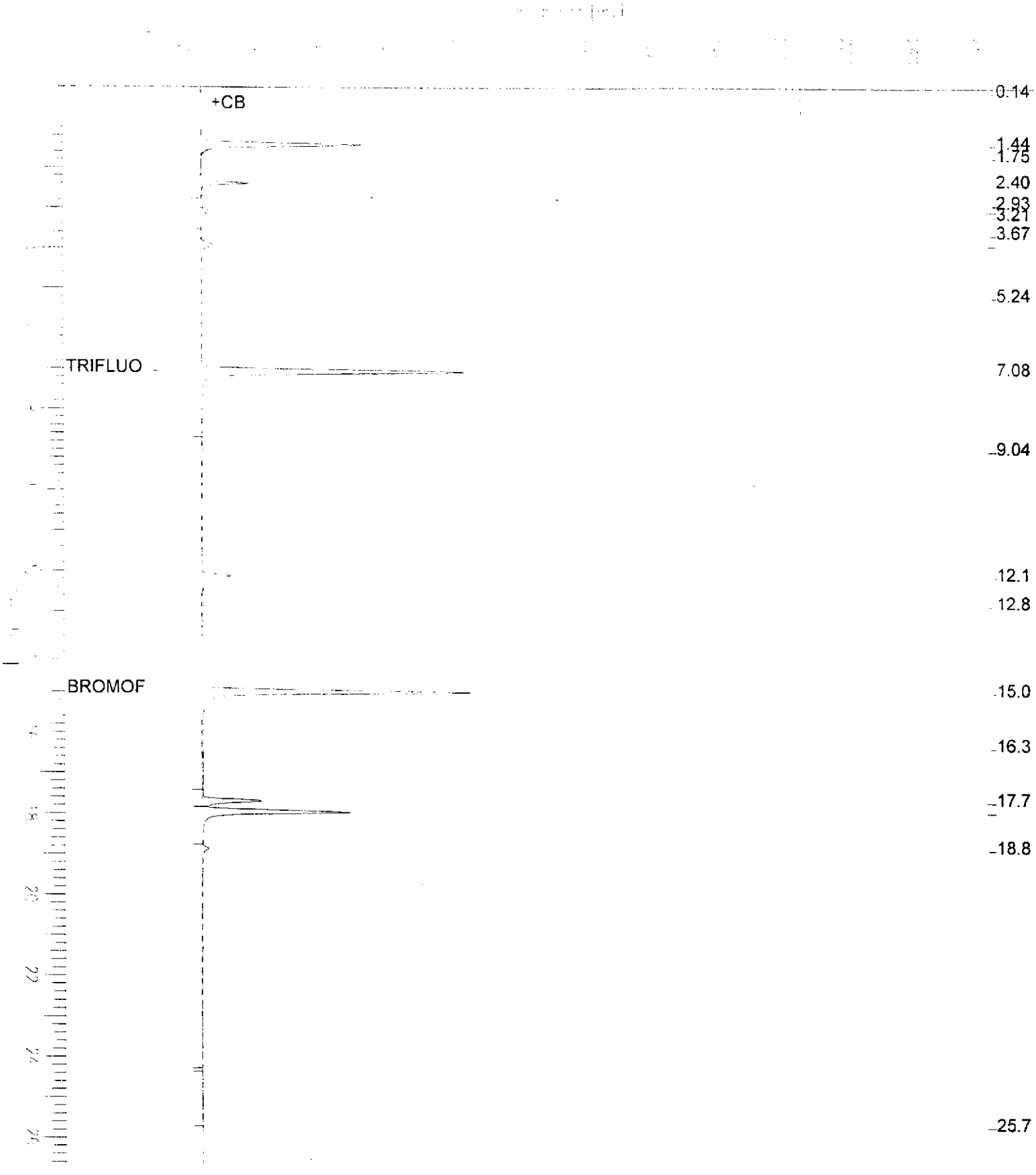
Sample #:
Date : 12/30/98 05:59 AM
Time of Injection: 12/30/98 05:32 AM
Low Point : 15.16 mV High Point : 265.16 mV
Plot Scale: 250.0 mV



GC05 'G' File TVH

Sample Name : RR,S,137203-005,45505,
FileName : G:\GC05\DATA\364G007.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 12 mV

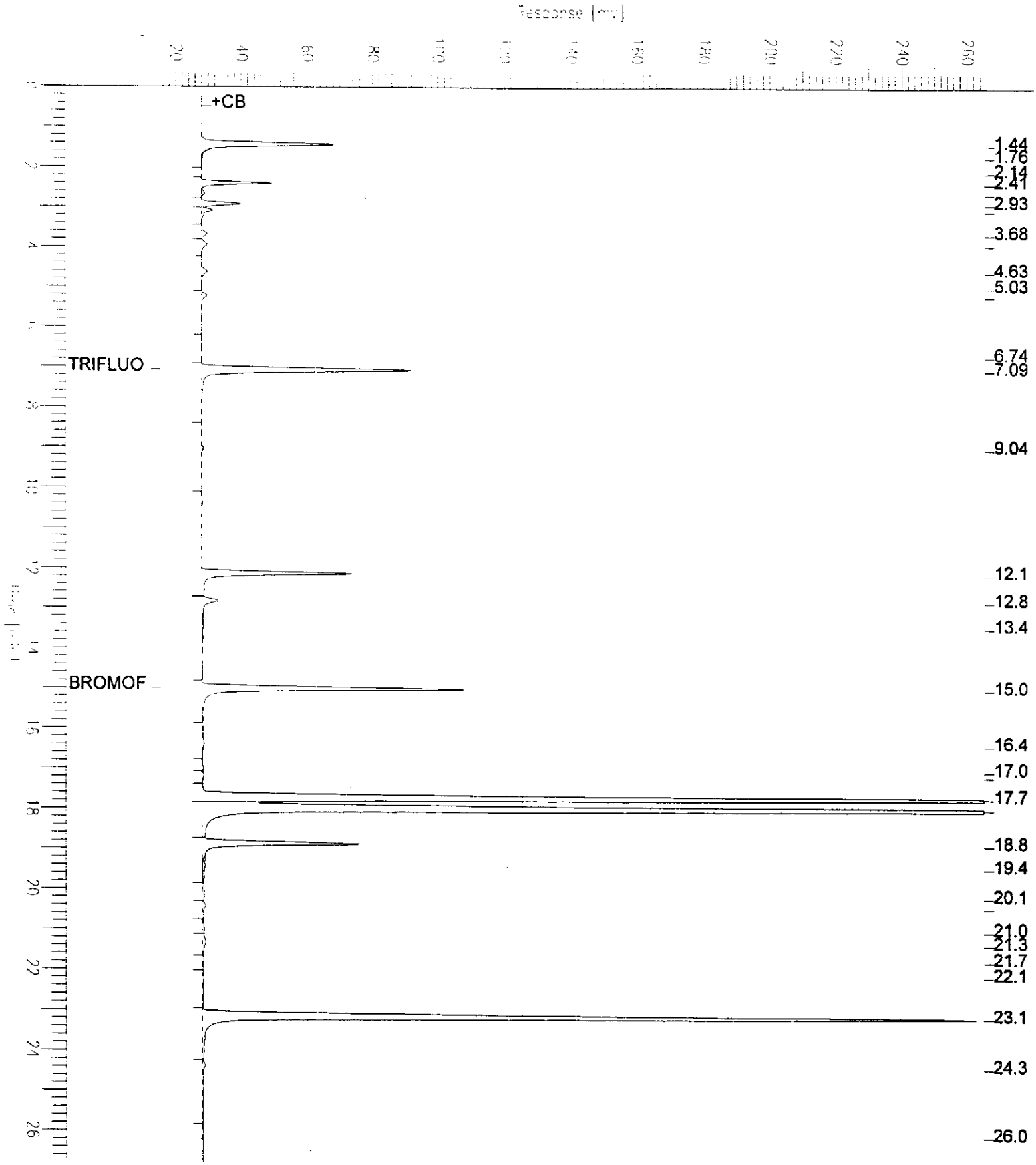
Sample #: Page 1 of 1
Date : 12/30/98 03:05 PM
Time of Injection: 12/30/98 02:22 PM
Low Point : 12.23 mV High Point : 262.23 mV
Plot Scale: 250.0 mV



GC05 'G' File TVH

Sample Name : S,137203-006,45484,
FileName : G:\GC05\DATA\363G031.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 15 mV

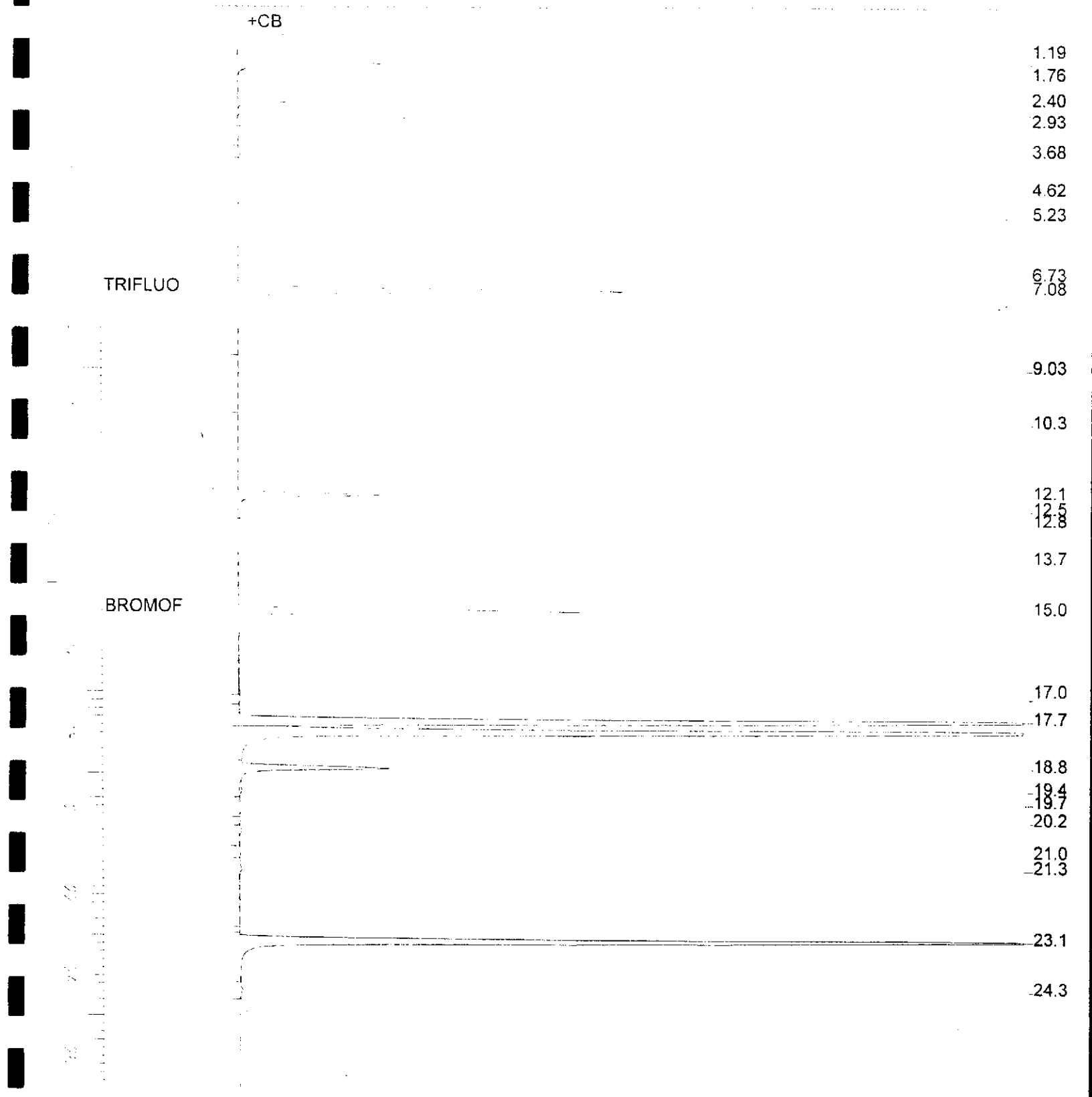
Sample #: Page 1 of 1
Date : 12/30/98 06:37 AM
Time of Injection: 12/30/98 06:10 AM
Low Point : 15.11 mV High Point : 265.11 mV
Plot Scale: 250.0 mV



GC05 'G' File TVH

Sample Name : RR,S,137203-006,45505,
FileName : G:\GC05\DATA\364G009.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 12 mV

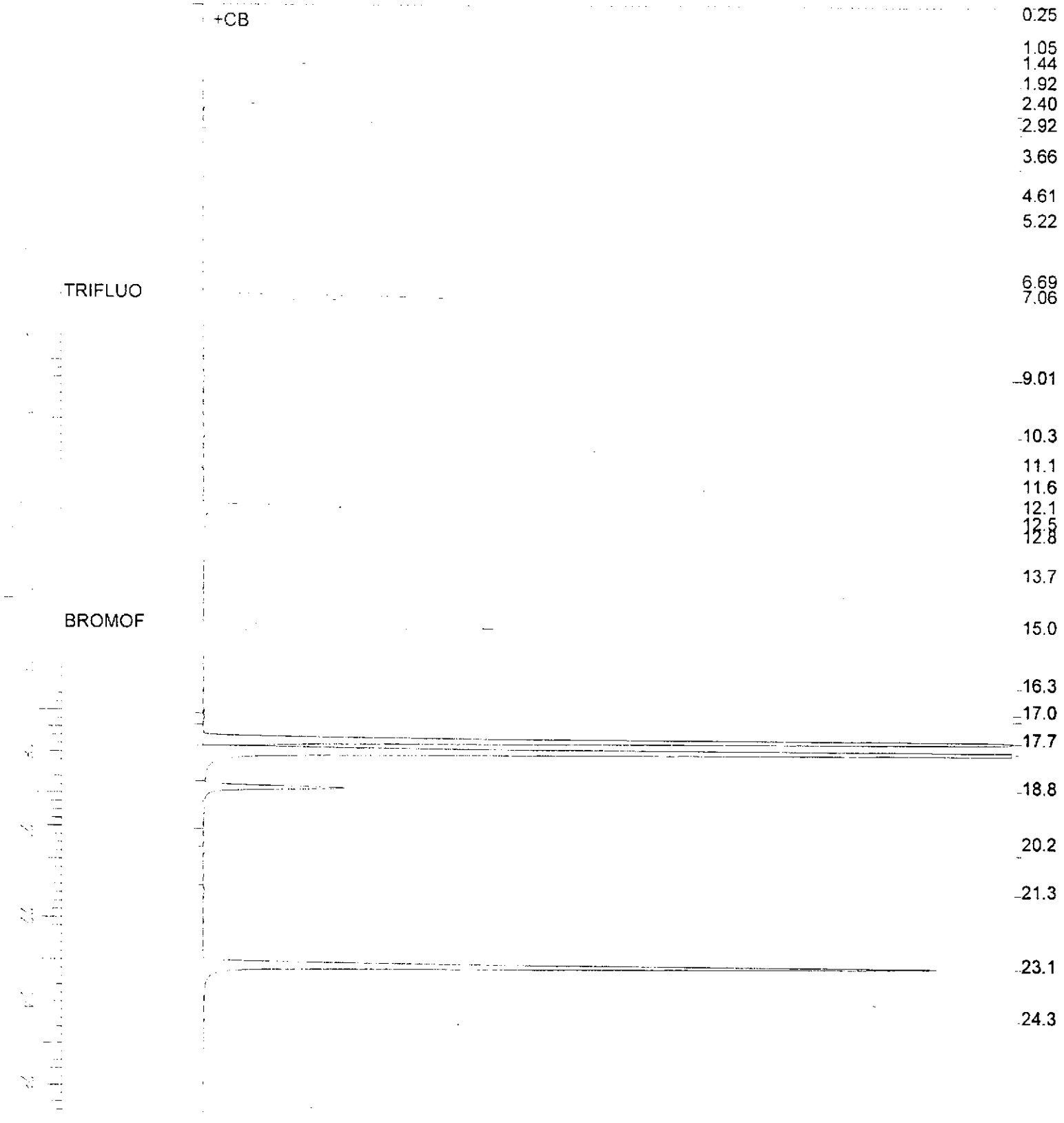
Sample #: Page 1 of 1
Date : 12/30/98 04:06 PM
Time of Injection: 12/30/98 03:38 PM
Low Point : 11.56 mV High Point : 261.56 mV
Plot Scale: 250.0 mV



GC05 'G' File TVH

Sample Name : RR.S,137203-006,45505,
FileName : G:\GC05\DATA\364G011.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 11 mV

Sample #: Page 1 of 1
Date : 12/30/98 05:38 PM
Time of Injection: 12/30/98 05:11 PM
Low Point : 10.86 mV High Point : 260.86 mV
Plot Scale: 250.0 mV



BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	CET Environmental Services	Analysis Method:	EPA 8015M
Project#:	3932-000	Prep Method:	EPA 5030
Location:	PG&E Colisuem Way		

METHOD BLANK

Matrix:	Water	Prep Date:	12/30/98
Batch#:	45505	Analysis Date:	12/30/98
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC87968

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	107	59-162
Bromofluorobenzene	137	59-162

Lab #: 137203

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	CET Environmental Services	Analysis Method:	EPA 8015M
Project#:	3932-000	Prep Method:	EPA 5030
Location:	PG&E Colisuem Way		

LABORATORY CONTROL SAMPLE

Matrix:	Water	Prep Date:	12/30/98
Batch#:	45505	Analysis Date:	12/30/98
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC87966

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	1721	2000	86	80-119

Surrogate	%Rec	Limits
Trifluorotoluene	104	59-162
Bromofluorobenzene	120	59-162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

TVH-Total Volatile Hydrocarbons

Client: CET Environmental Services
Project#: 3932-000
Location: PG&E Colisuem Way

Analysis Method: EPA 8015M
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 137264-003
Matrix: Water
Batch#: 45505
Units: ug/L
Diln Fac: 1

Sample Date: 12/21/98
Received Date: 12/22/98
Prep Date: 12/30/98
Analysis Date: 12/30/98

MS Lab ID: QC87969

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	<50	2213	111	71-131

Surrogate	%Rec	Limits
Trifluorotoluene	105	59-162
Bromofluorobenzene	145	59-162

MSD Lab ID: QC87970

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	2245	112	71-131	1	26

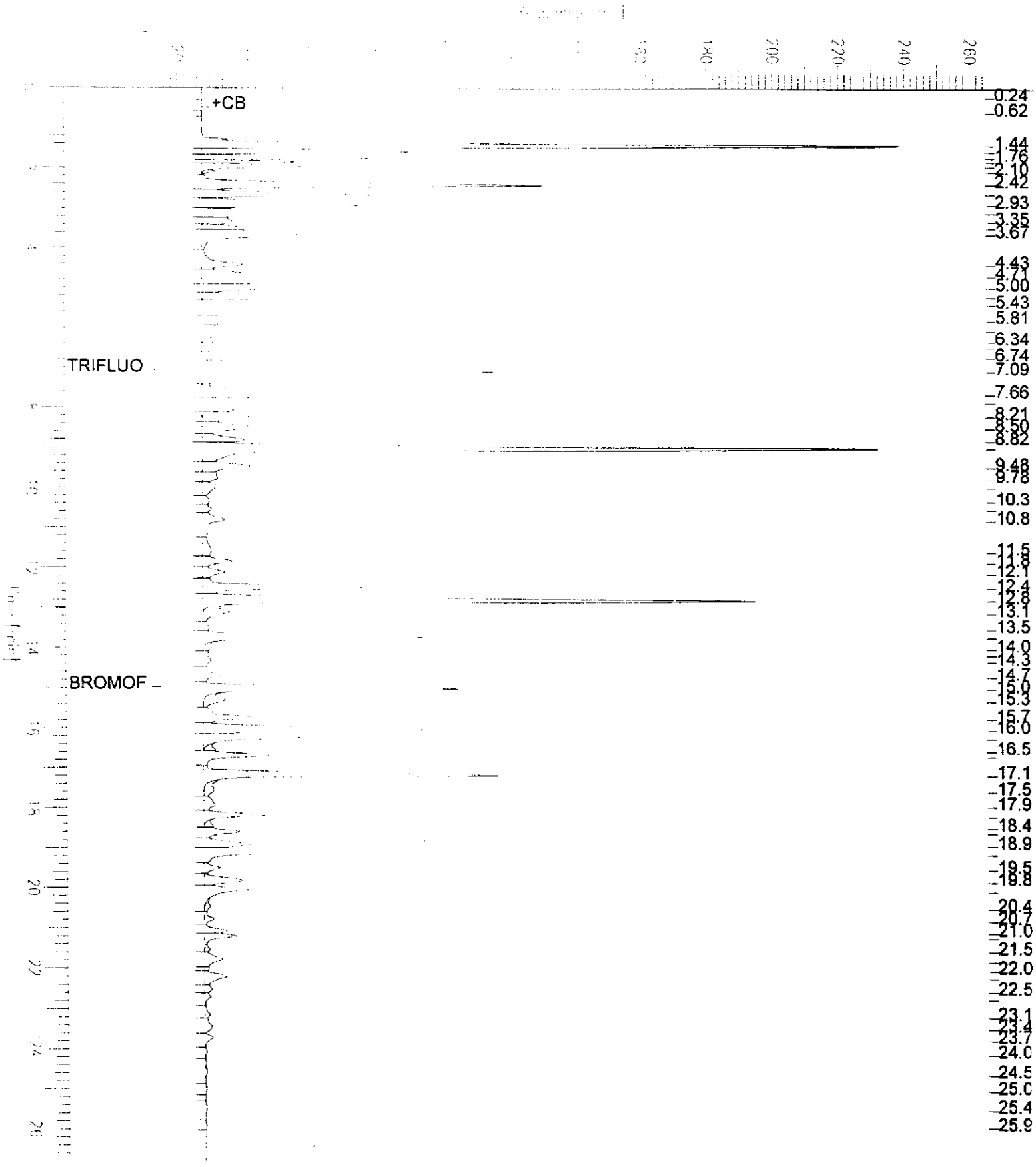
Surrogate	%Rec	Limits
Trifluorotoluene	123	59-162
Bromofluorobenzene	148	59-162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

GC05 'G' File TVH

Sample Name : RR,CCV/LCS,QC87966,98WS6930,45505,
FileName : G:\GC05\DATA\364G003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 14 mV

Sample #: GAS Page 1 of 1
Date : 12/30/98 12:16 PM
Time of Injection: 12/30/98 11:48 AM
Low Point : 14.50 mV High Point : 264.50 mV
Plot Scale: 250.0 mV



BTXE

Client: CET Environmental Services
Project#: 3932-000
Location: PG&E Colisuem Way

Analysis Method: EPA 8021B
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
137203-003	OW-5	45505	12/17/98	12/30/98	12/30/98	
137203-004	OW-1	45505	12/17/98	12/30/98	12/30/98	
137203-005	OW-6	45505	12/17/98	12/30/98	12/30/98	
137203-006	OW-7	45505	12/17/98	12/30/98	12/30/98	

Matrix: Water

Analyte Diln Fac:	Units	137203-003 1	137203-004 1	137203-005 1	137203-006 1
Benzene	ug/L	7.3	0.5	<0.5	0.65
Toluene	ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	ug/L	<0.5	0.76C	<0.5	<0.5
m,p-Xylenes	ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	ug/L	<0.5	0.67	<0.5	<0.5
Surrogate					
Trifluorotoluene	%REC	69	72	64	56
Bromofluorobenzene	%REC	127	140	119	121

C: Presence of this compound confirmed by second column, however, the confirmation concentration differed from the reported result by more than a factor of two

BTXE

Client: CET Environmental Services
Project#: 3932-000
Location: PG&E Colisuem Way

Analysis Method: EPA 8021B
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 45505
Units: ug/L
Diln Fac: 1

Prep Date: 12/30/98
Analysis Date: 12/30/98

MB Lab ID: QC87968

Analyte	Result
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	93	53-124
Bromofluorobenzene	120	41-142

Lab #: 137203

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: CET Environmental Services
Project#: 3932-000
Location: PG&E Colisuem Way

Analysis Method: EPA 8021B
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 45505
Units: ug/L
Diln Fac: 1

Prep Date: 12/30/98
Analysis Date: 12/30/98

LCS Lab ID: QC87967

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	17.76	20	89	69-109
Toluene	18.96	20	95	72-116
Ethylbenzene	19.14	20	96	67-120
m,p-Xylenes	39.12	40	98	69-117
o-Xylene	19.95	20	100	75-122

Surrogate	%Rec	Limits
Trifluorotoluene	91	53-124
Bromofluorobenzene	124	41-142

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 5 outside limits

TEH-Tot Ext Hydrocarbons

Client: CET Environmental Services
Project#: 3932-000
Location: PG&E Colisuem Way

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
137203-003	OW-5	45555	12/17/98	12/31/98	01/04/99	
137203-004	OW-1	45555	12/17/98	12/31/98	01/04/99	
137203-005	OW-6	45555	12/17/98	12/31/98	01/04/99	
137203-006	OW-7	45555	12/17/98	12/31/98	01/04/99	

Matrix: Water

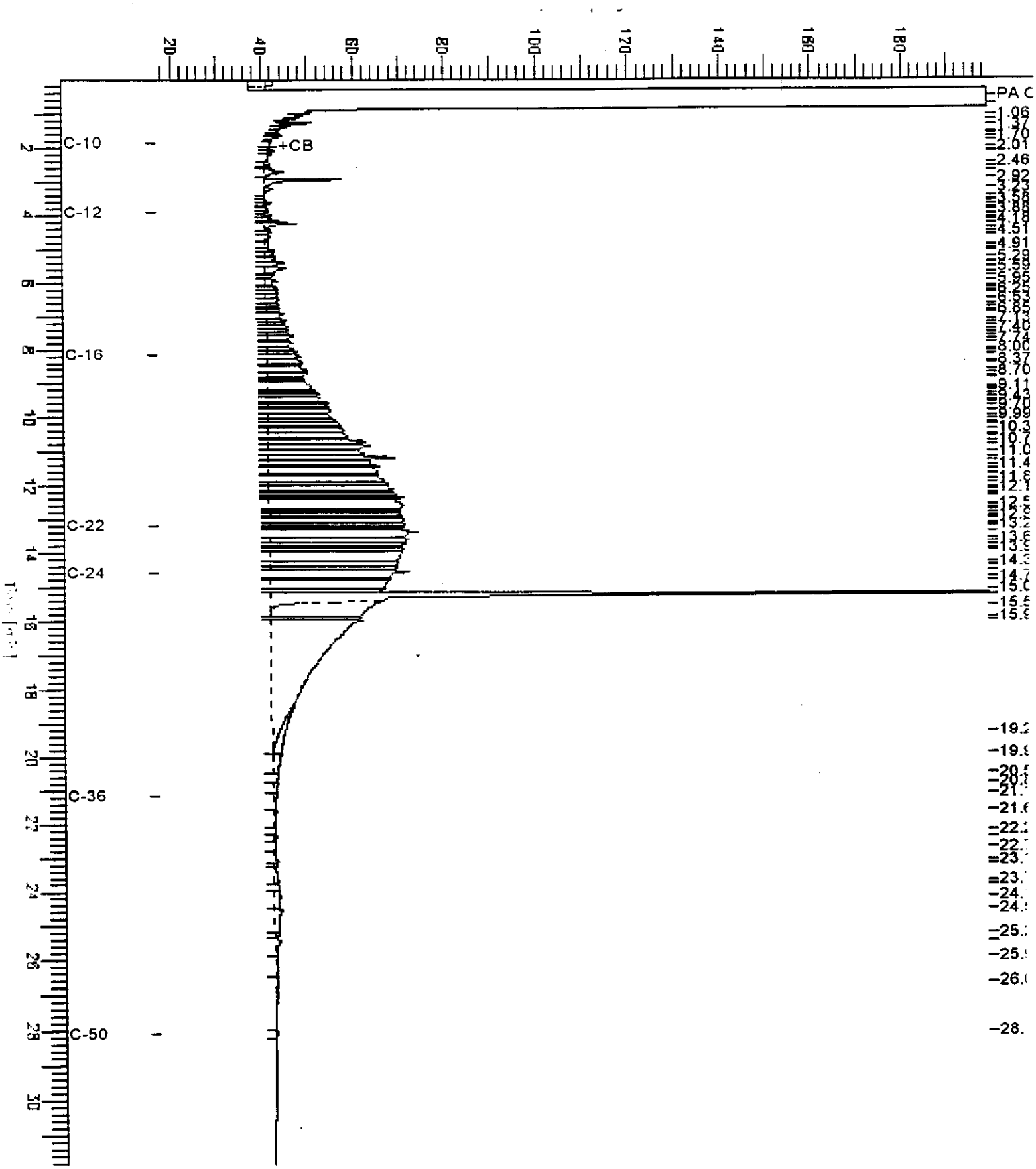
Analyte Diln Fac:	Units	137203-003 1	137203-004 1	137203-005 1	137203-006 1
Diesel C10-C24	ug/L	780 YH	1800 YH	2000 YH	3500 YH
Surrogate					
Hexacosane	%REC	83	98	92	94

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard

Chromatogram

Sample Name : 137203-003,45555
FileName : G:\GC13\CHB\004B009.RAW
Method : BTEH352.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 17 mV

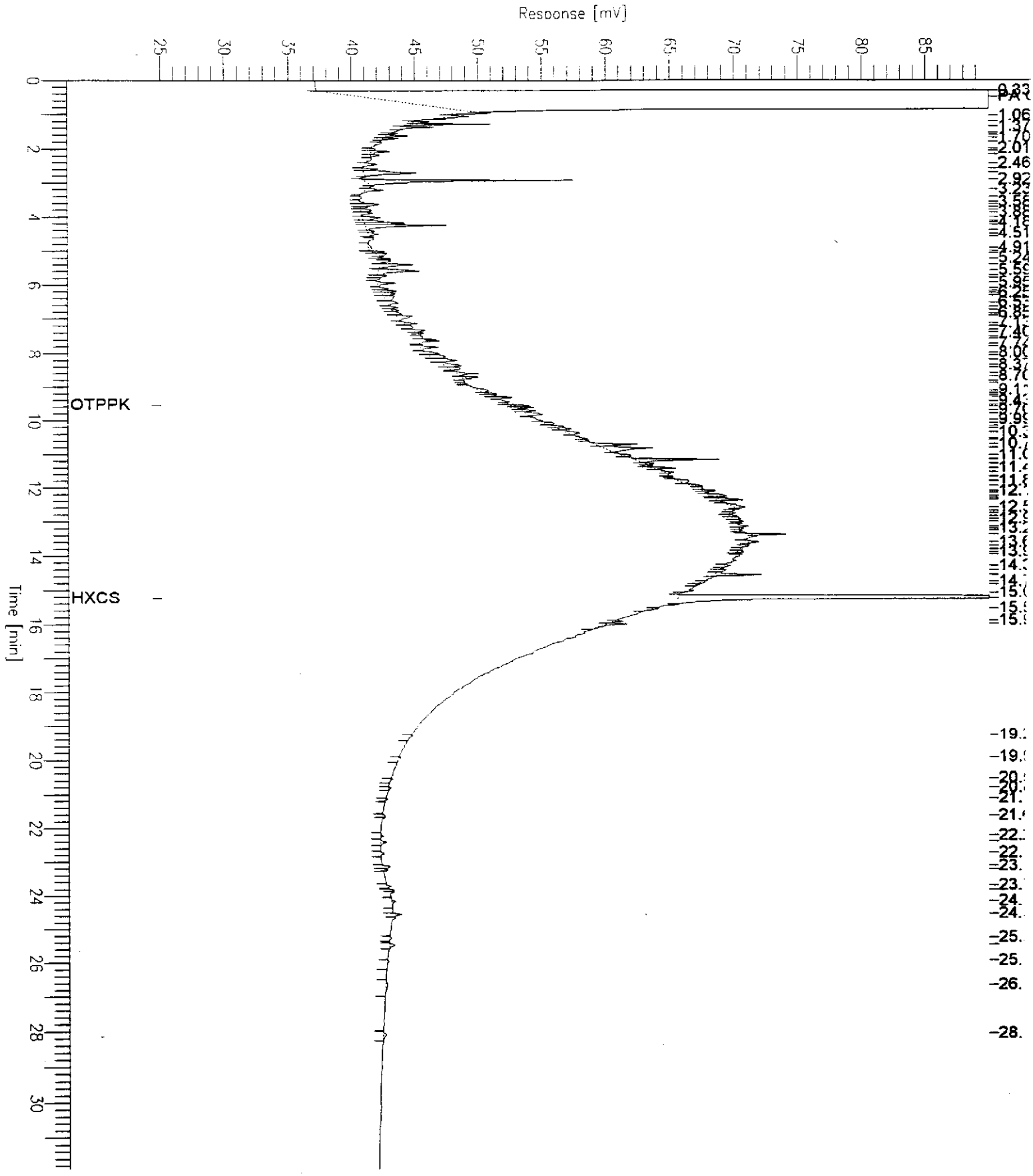
Sample #: 45555
Date : 1/5/99 08:20 AM
Time of Injection: 1/4/99 11:22 AM
Low Point : 16.69 mV High Point : 199.21 mV
Plot Scale: 182.5 mV



Chromatogram

Sample Name : 137203-003,45555
FileName : G:\GC13\CHB\004B009.raw
Method : SNGLB30
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: 25 mV

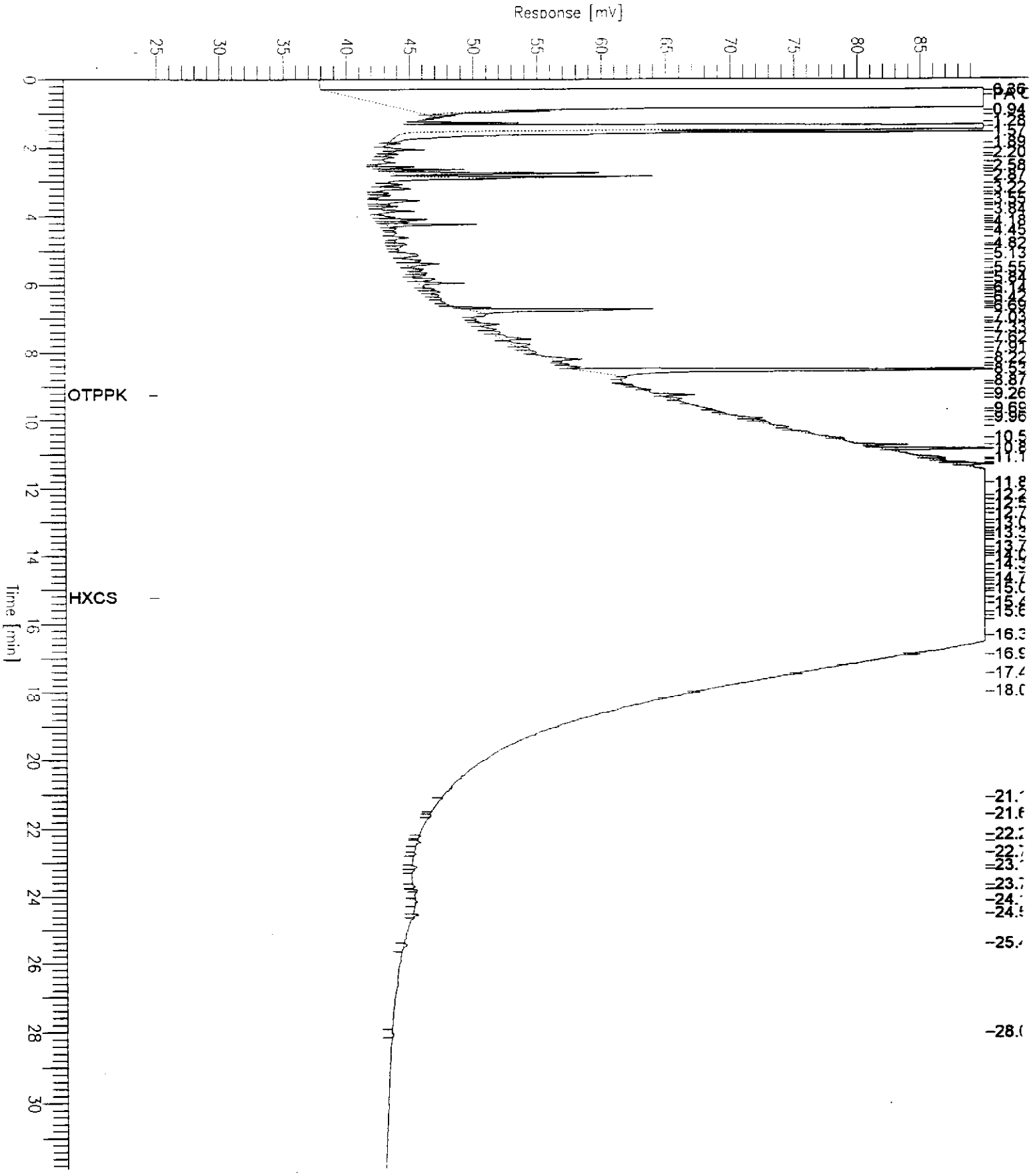
Sample #: 45555 Page 1 of 1
Date : 1/4/99 11:55 AM
Time of Injection: 1/4/99 11:22 AM
Low Point : 25.00 mV High Point : 90.00 mV
Plot Scale: 65.0 mV



Chromatogram

Sample Name : 137202-004,45555
FileName : G:\GC13\CHB\004B010.raw
Method : SNGLB30
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: 25 mV

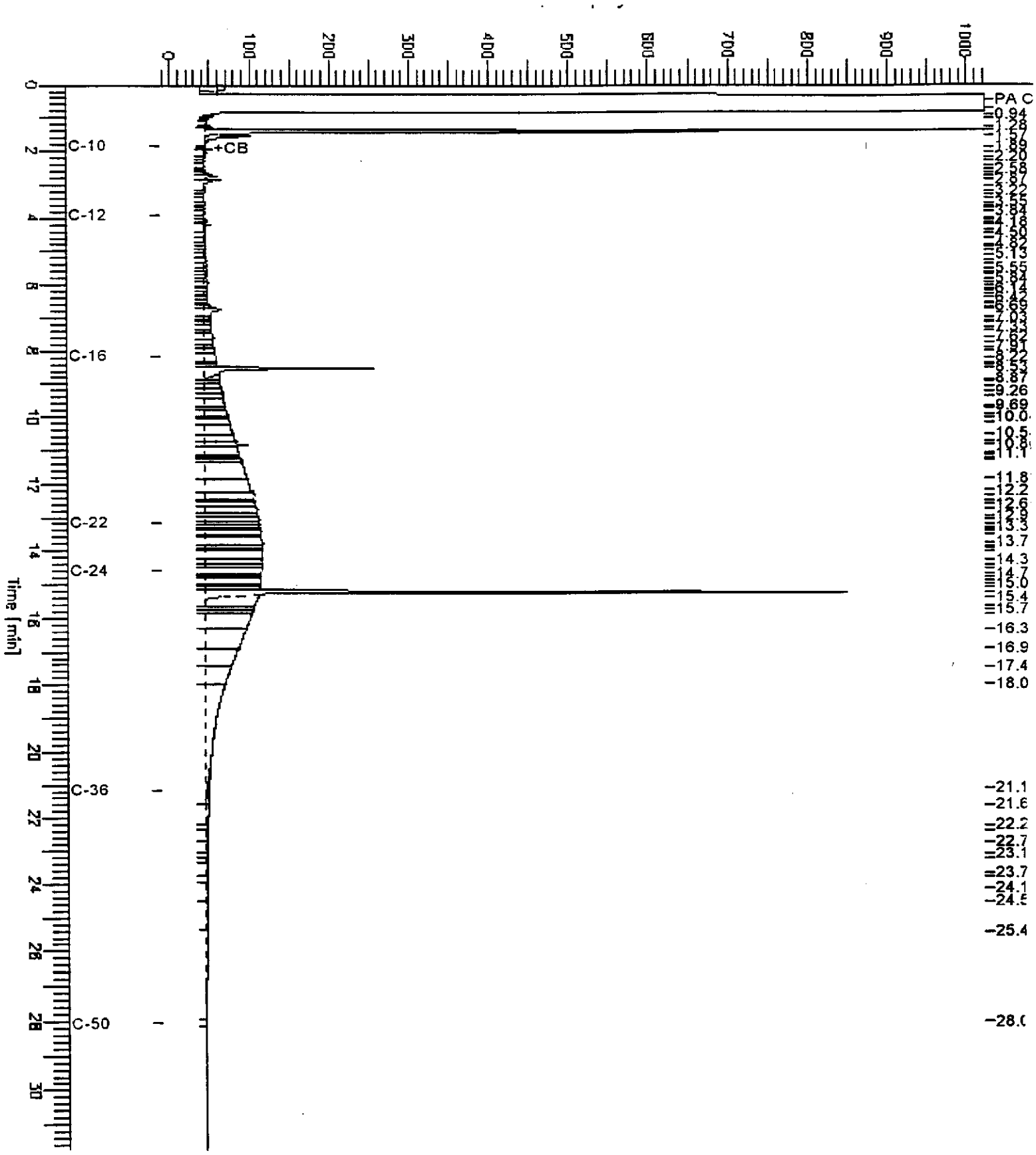
Sample #: 45555 Page 1 of 1
Date : 1/4/99 12:36 PM
Time of Injection: 1/4/99 12:04 PM
Low Point : 25.00 mV High Point : 90.00 mV
Plot Scale: 65.0 mV



Chromatogram

ple Name : 127203-004,45555
leName : G:\GC13\CHB\004B010.RAW
thod : BTEH352.MTH
art Time : 0.00 min End Time : 31.90 min
ple Factor: 0.0 Plot Offset: -14 mV

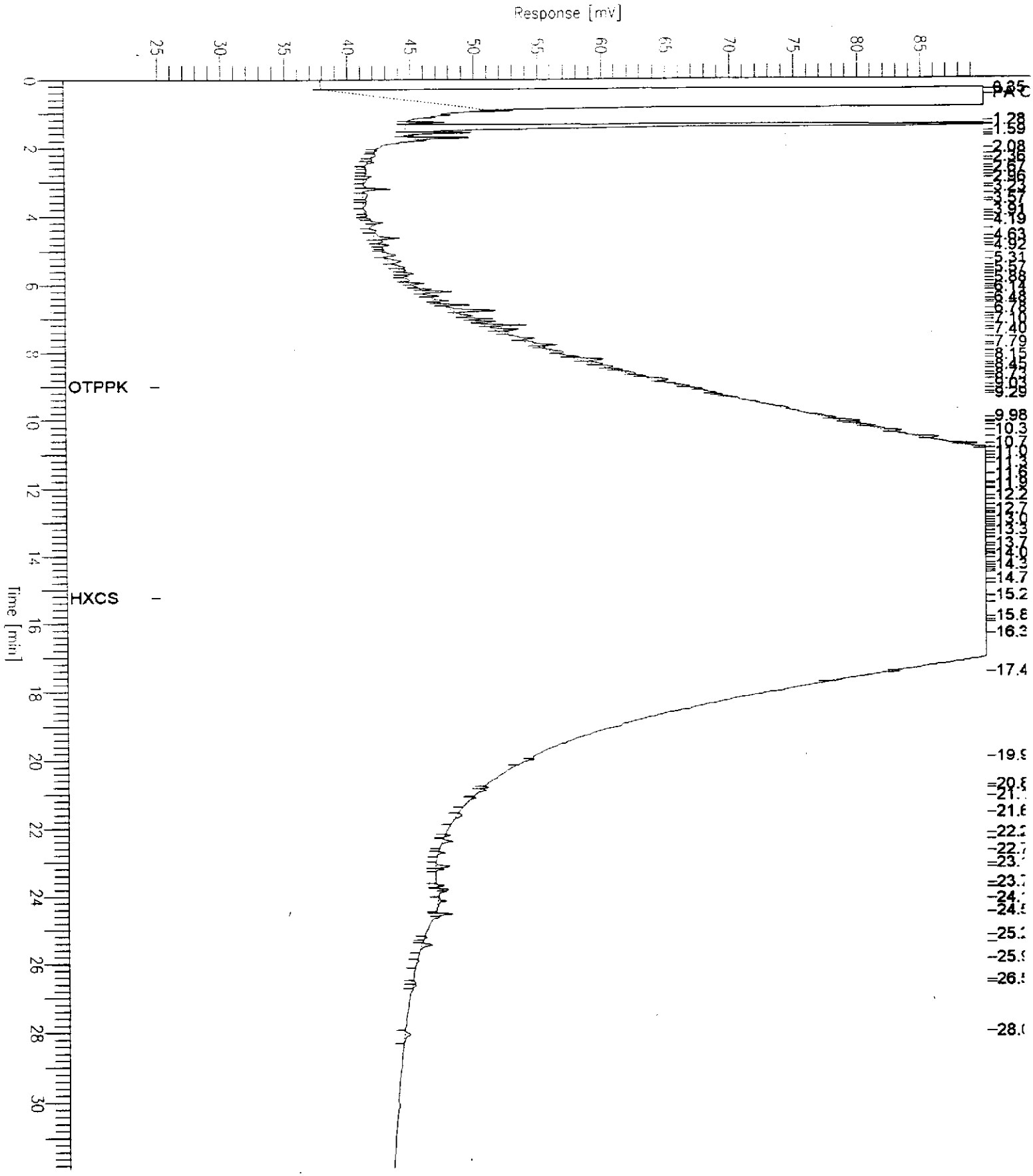
Sample #: 45555 Page 1 of 1
Date : 1/5/99 08:21 AM
Time of Injection: 1/4/99 12:04 PM
Low Point : -14.06 mV High Point : 1024.00 mV
Plot Scale: 1038.1 mV



Chromatogram

Sample Name : 137203-005,46555
FileName : G:\GC13\CHB\004B011.raw
Method : SNGLB30
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: 25 mV

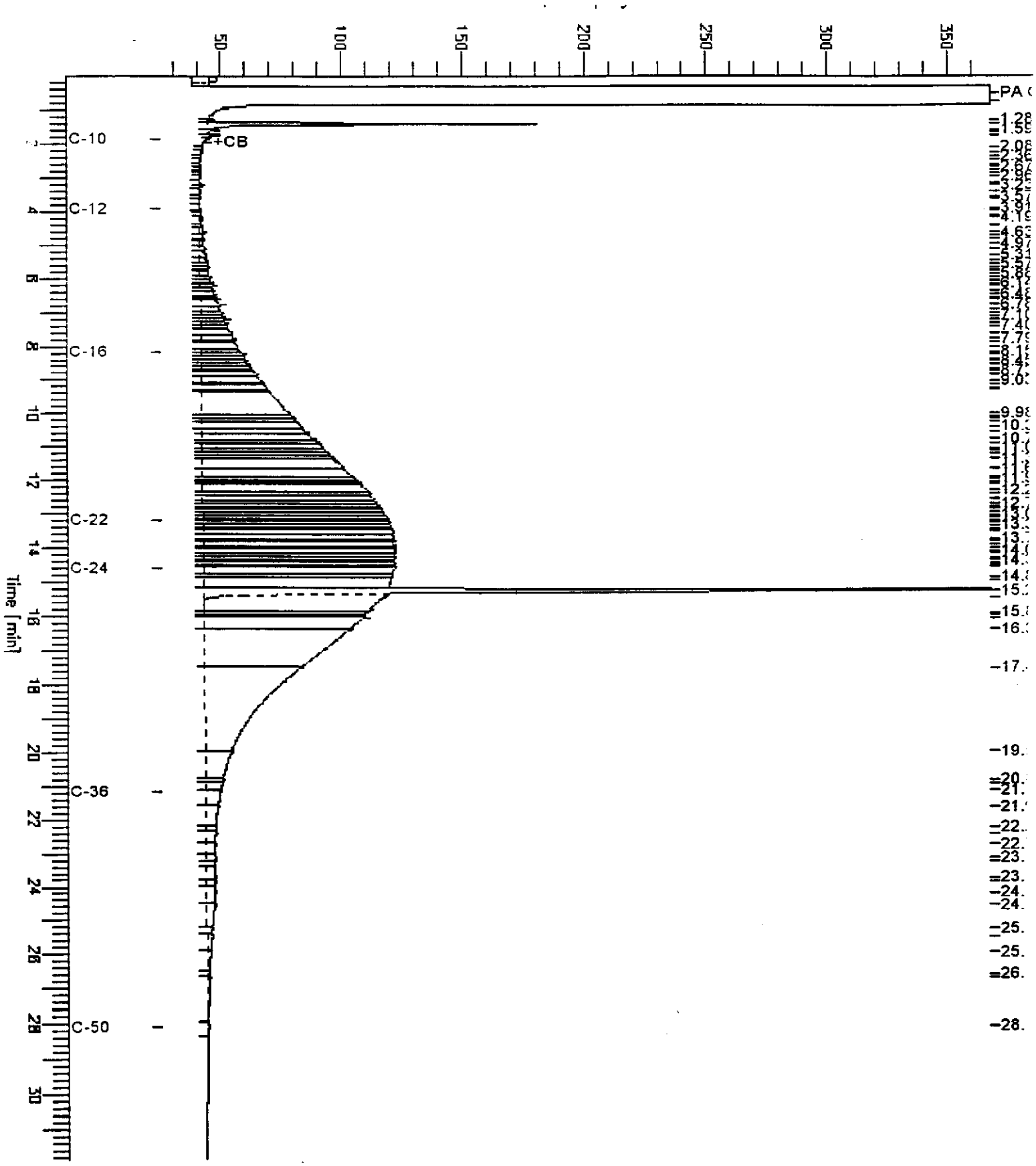
Sample #: 46555
Date : 1/4/99 11:19 AM
Time of Injection: 1/4/99 12:46 PM
Low Point : 25.00 mV High Point : 90.00 mV
Plot Scale: 65.0 mV



Chromatogram

Sample Name : 137203-005,45555
Data Name : G:\GC13\CHB\004B011.RAW
Method : BTEH352.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: 24 mV

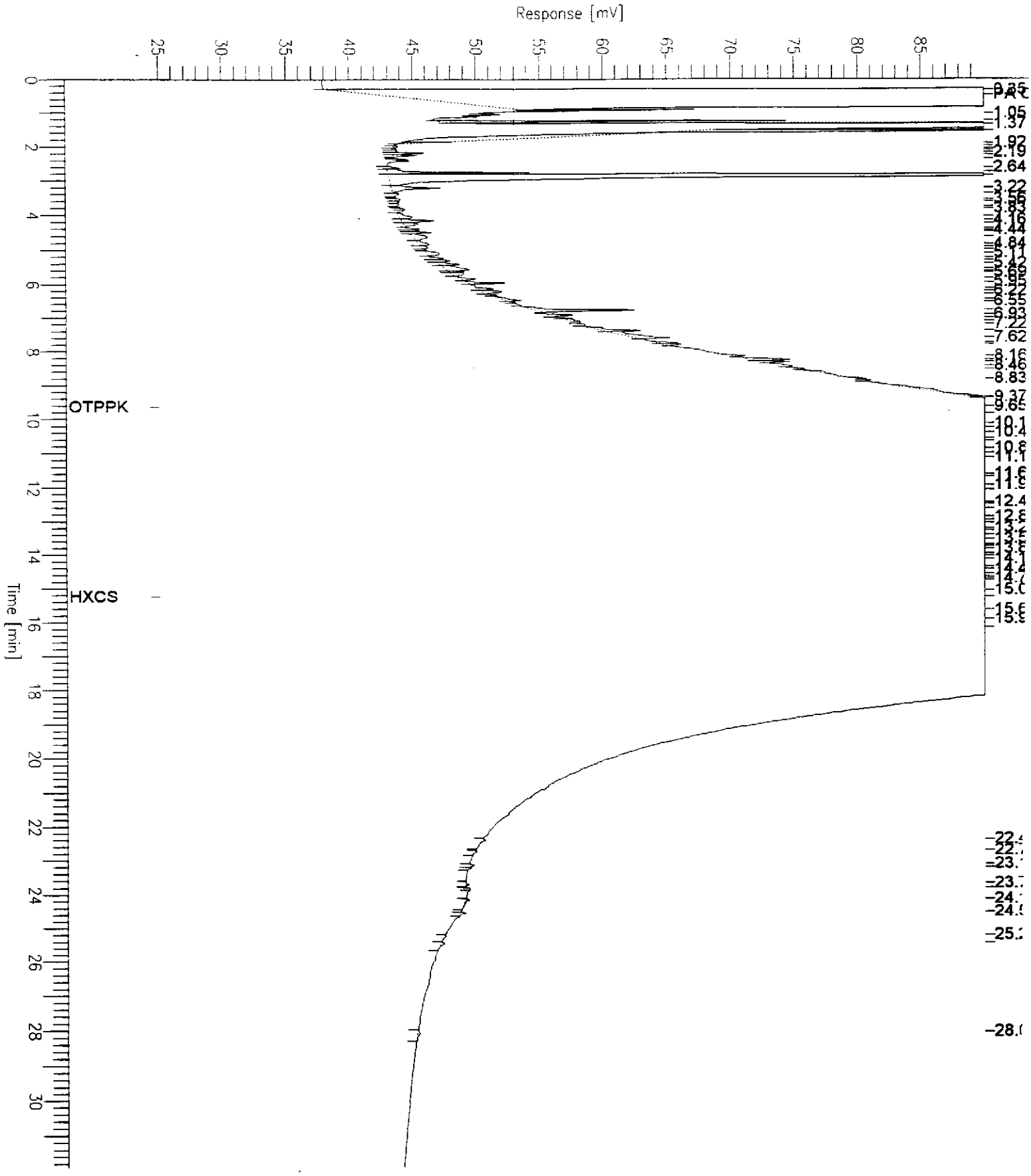
Sample #: 45555
Date : 1/5/99 05:22 AM
Time of Injection: 1/4/99 12:46 PM
Low Point : 24.46 mV High Point : 368.25 mV
Plot Scale: 343.8 mV



Chromatogram

Sample Name : 137203-006,45555
FileName : G:\GC13\CHB\004B012.raw
Method : SNGLB30
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: 25 mV

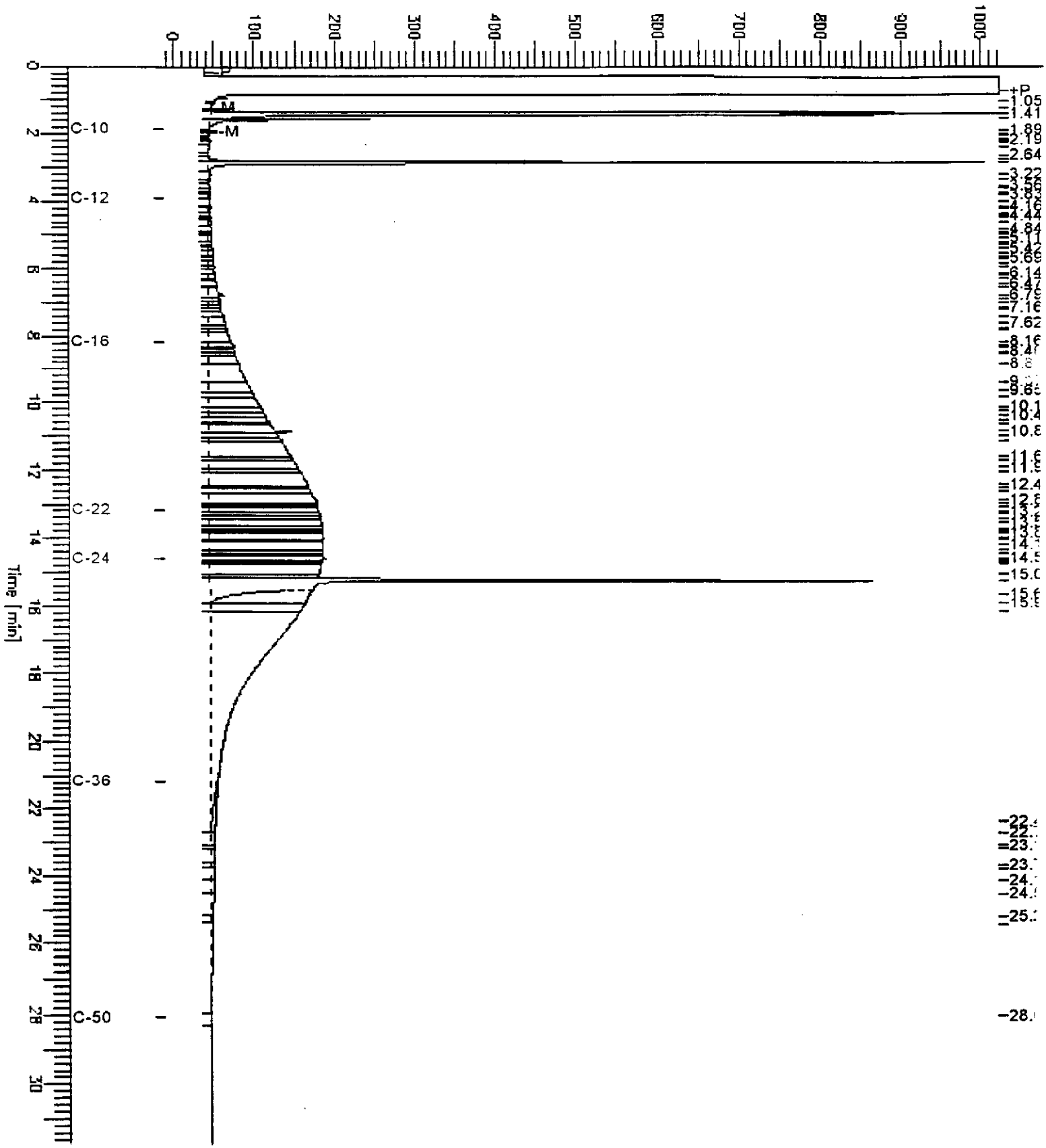
Sample #: 45555 Page 1 of 1
Date : 1/4/99 01:39 PM
Time of Injection: 1/4/99 01:27 PM
Low Point : 25.00 mV High Point : 90.00 mV
Plot Scale: 65.0 mV



Chromatogram

ame : 137203-006,45555
: G:\GC13\CHB\004B012.RAW
ethod : BTEH352.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: -14 mV

Sample #: 45555 Page 1 of 1
Date : 1/6/99 08:34 AM
Time of Injection: 1/4/99 01:27 PM
Low Point : -14.02 mV High Point : 1024.00 mV
Plot Scale: 1038.0 mV



TEH-Tot Ext Hydrocarbons

Client:	CET Environmental Services	Analysis Method:	EPA 8015M
Project#:	3932-000	Prep Method:	EPA 3520
Location:	PG&E Colisuem Way		

METHOD BLANK

Matrix:	Water	Prep Date:	12/31/98
Batch#:	45555	Analysis Date:	01/04/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC88152

Analyte	Result	
Diesel C10-C24	<50	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	99	53-136

TEH-Tot Ext Hydrocarbons

Client: CET Environmental Services
Project#: 3932-000
Location: PG&E Colisuem Way

Analysis Method: EPA 8015M
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 45555
Units: ug/L
Diln Fac: 1

Prep Date: 12/31/98
Analysis Date: 01/04/99

BS Lab ID: QC88153

Analyte	Spike Added	BS	%Rec	#	Limits
Diesel C10-C24	2475	1717	69		58-110

Surrogate	%Rec	Limits
Hexacosane	90	53-136

BSD Lab ID: QC88154

Analyte	Spike Added	BSD	%Rec	#	Limits	RPD	#	Limit
Diesel C10-C24	2475	1854	75		58-110	8		21

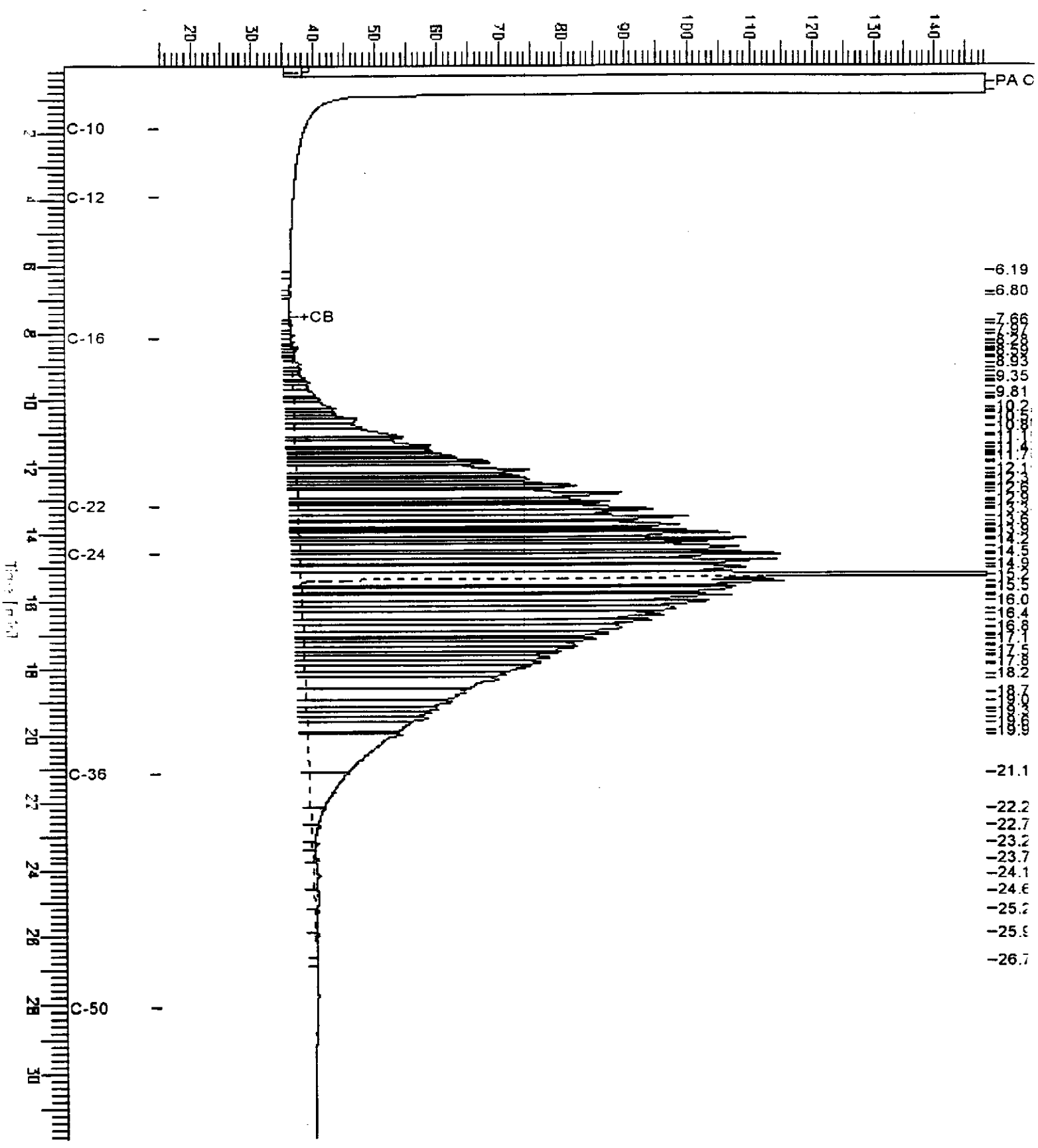
Surrogate	%Rec	Limits
Hexacosane	98	53-136

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Chromatogram

Sample Name : CCV,98WS6739,MO
FileName : G:\GC13\CHB\004B006.RAW
Method : STEH352.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 15 mV

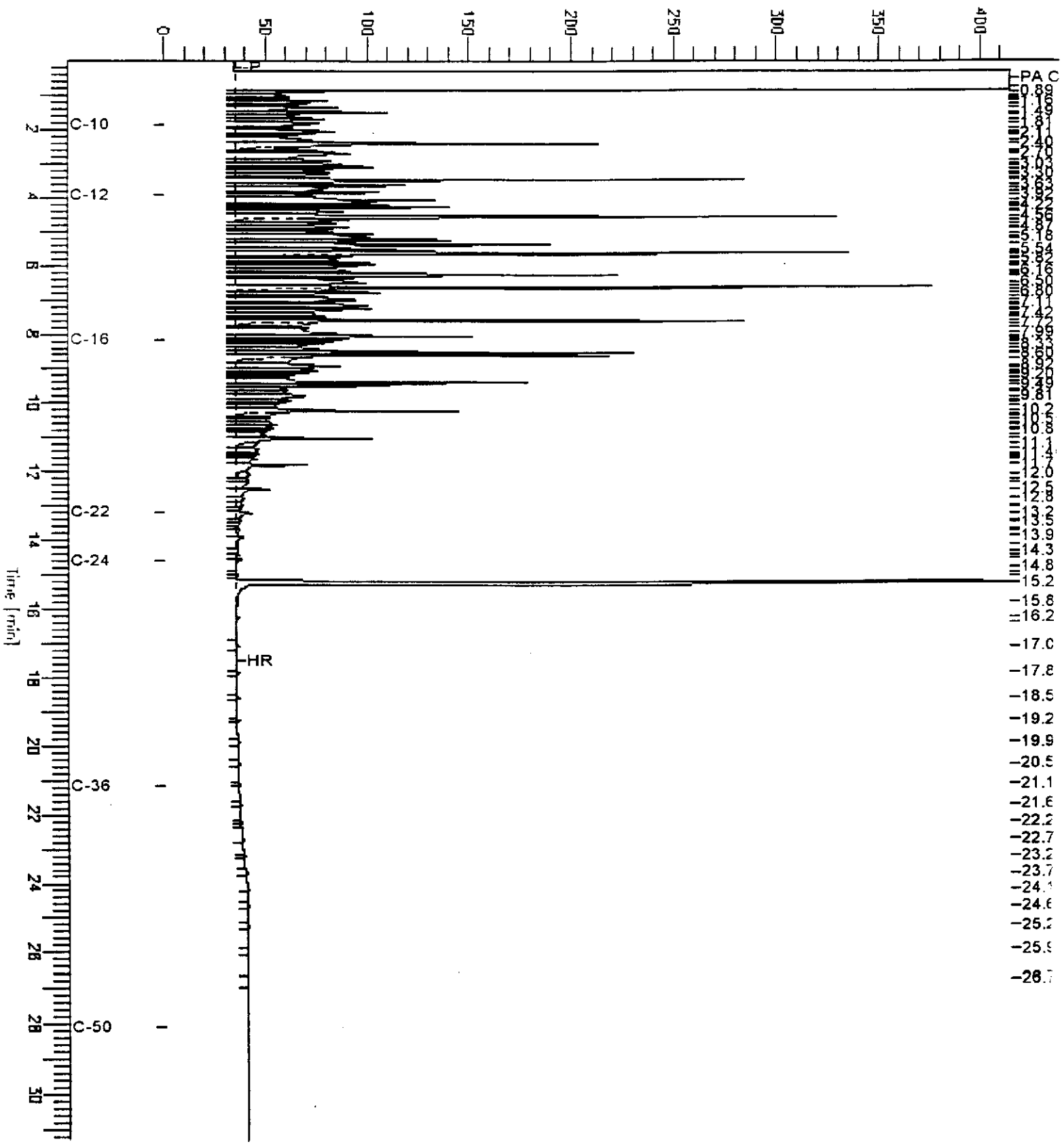
Sample #: 0.5MG/L Page 1 of 1
Date : 1/8/99 10:14 AM
Time of Injection: 1/8/99 10:17 AM
Low Point : 14.80 mV High Point : 148.33 mV
Plot Scale: 133.5 mV



Chromatogram

Sample Name : CCV,98WS6771,DS
FileName : G:\GC13\CHB\004B004.RAW
Method : BTEH352.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: -0 mV

Sample #: 0.1MG/L Page 1 of 1
Date : 1/8/99 08:11 AM
Time of Injection: 1/8/99 07:55 AM
Low Point : -0.16 mV High Point : 416.11 mV
Plot Scale: 416.3 mV



Curtis & Tompkins Ltd.

Halogenated Volatile Organics
EPA 8010 Analyte List

Client:	CET Environmental Services	Analysis Method:	EPA 8260
Project#:	3932-000	Prep Method:	EPA 5030
Location:	PG&E Colisuem Way		

Field ID:	OW-5	Sampled:	12/17/98
Lab ID:	137203-003	Received:	12/17/98
Matrix:	Water	Extracted:	12/21/98
Batch#:	45360	Analyzed:	12/21/98
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Chloromethane	ND	1.0
Vinyl Chloride	1.1	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Freon 113	ND	1.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	2.5	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	0.7	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	93	85-121
Toluene-d8	103	92-110
Bromofluorobenzene	92	84-115

Curtis & Tompkins Ltd.

Halogenated Volatile Organics
EPA 8010 Analyte List

Client:	CET Environmental Services	Analysis Method:	EPA 8260
Project#:	3932-000	Prep Method:	EPA 5030
Location:	PG&E Colisuem Way		

Field ID:	OW-6	Sampled:	12/17/98
Lab ID:	137203-005	Received:	12/17/98
Matrix:	Water	Extracted:	12/21/98
Batch#:	45360	Analyzed:	12/21/98
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Freon 113	ND	1.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	4.6	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	8.3	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	27	0.5
1,4-Dichlorobenzene	68	0.5
1,2-Dichlorobenzene	2.8	0.5

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	95	85-121
Toluene-d8	101	92-110
Bromofluorobenzene	92	84-115

Curtis & Tompkins Ltd.

Halogenated Volatile Organics
EPA 8010 Analyte List

Client:	CET Environmental Services	Analysis Method:	EPA 8260
Project#:	3932-000	Prep Method:	EPA 5030
Location:	PG&E Colisuem Way		

Field ID:	OW-7	Sampled:	12/17/98
Lab ID:	137203-006	Received:	12/17/98
Matrix:	Water	Extracted:	12/23/98
Batch#:	45425	Analyzed:	12/23/98
Units:	ug/L		
Diln Fac:	4		

Analyte	Result	Reporting Limit
Chloromethane	ND	4.0
Vinyl Chloride	ND	4.0
Bromomethane	ND	4.0
Chloroethane	ND	4.0
Trichlorofluoromethane	ND	2.0
Freon 113	ND	4.0
1,1-Dichloroethene	ND	2.0
Methylene Chloride	ND	80
trans-1,2-Dichloroethene	ND	2.0
1,1-Dichloroethane	5.7	2.0
cis-1,2-Dichloroethene	ND	2.0
Chloroform	ND	4.0
1,1,1-Trichloroethane	5.6	2.0
Carbon Tetrachloride	ND	2.0
1,2-Dichloroethane	ND	2.0
Trichloroethene	ND	2.0
1,2-Dichloropropane	ND	2.0
Bromodichloromethane	ND	2.0
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Tetrachloroethene	ND	2.0
Dibromochloromethane	ND	2.0
Chlorobenzene	31	2.0
Bromoform	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
1,3-Dichlorobenzene	360	2.0
1,4-Dichlorobenzene	470	2.0
1,2-Dichlorobenzene	48	2.0

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	115	85-121
Toluene-d8	100	92-110
Bromofluorobenzene	95	84-115

Lab #: 137203

BATCH QC REPORT

Curtis & Tompkins Ltd.

Halogenated Volatile Organics
EPA 8010 Analyte List

Client: CET Environmental Services
Project#: 3932-000
Location: PG&E Colisuem Way

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 45360
Units: ug/L
Diln Fac: 1

Prep Date: 12/20/98
Analysis Date: 12/20/98

MB Lab ID: QC87381

Analyte	Result	Reporting Limit
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Freon 113	ND	1.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	90	85-121
Toluene-d8	102	92-110
Bromofluorobenzene	91	84-115

Halogenated Volatile Organics
EPA 8010 Analyte List

Client: CET Environmental Services
Project#: 3932-000
Location: PG&E Colisuem Way

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 45425
Units: ug/L
Diln Fac: 1

Prep Date: 12/23/98
Analysis Date: 12/23/98

MB Lab ID: QC87627

Analyte	Result	Reporting Limit
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Freon 113	ND	1.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	112	85-121
Toluene-d8	101	92-110
Bromofluorobenzene	102	84-115

Lab #: 137203 BATCH QC REPORT Curtis & Tompkins Ltd.

Halogenated Volatile Organics

Client: CET Environmental Services
Project#: 3932-000
Location: PG&E Colisuem Way

Analysis Method: EPA 8260
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 45360
Units: ug/L
Diln Fac: 1

Prep Date: 12/20/98
Analysis Date: 12/20/98

BS Lab ID: QC87379

Analyte	Spike Added	BS	%Rec #	Limits
1,1-Dichloroethene	50	53.62	107	69-137
Trichloroethene	50	52.74	105	83-116
Chlorobenzene	50	53.56	107	87-117

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	89	85-121
Toluene-d8	103	92-110
Bromofluorobenzene	91	84-115

BSD Lab ID: QC87380

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	52.87	106	69-137	1	14
Trichloroethene	50	50.57	101	83-116	4	10
Chlorobenzene	50	53.03	106	87-117	1	10

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	88	85-121
Toluene-d8	102	92-110
Bromofluorobenzene	90	84-115

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 6 outside limits

Lab #: 137203 BATCH QC REPORT Curtis & Tompkins, Ltd.

Halogenated Volatile Organics

Client: CET Environmental Services
Project#: 3932-000
Location: PG&E Colisuem Way

Analysis Method: EPA 8260
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 45425
Units: ug/L
Diln Fac: 1

Prep Date: 12/23/98
Analysis Date: 12/23/98

BS Lab ID: QC87625

Analyte	Spike Added	BS	%Rec #	Limits
1,1-Dichloroethene	50	57.6	115	69-137
Trichloroethene	50	49.98	100	83-116
Chlorobenzene	50	50.34	101	87-117

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	109	85-121
Toluene-d8	103	92-110
Bromofluorobenzene	97	84-115

BSD Lab ID: QC87626

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	57.81	116	69-137	0	14
Trichloroethene	50	49.52	99	83-116	1	10
Chlorobenzene	50	49.35	99	87-117	2	10

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	110	85-121
Toluene-d8	102	92-110
Bromofluorobenzene	97	84-115

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 6 outside limits

CLIENT: CET Environmental Services
PROJECT ID: 3932-000
LOCATION: PG&E Colisuem Way
MATRIX: Filtrate

DATE REPORTED: 01/11/99

Metals Analytical Report

Lead

Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
OW-8	137203-001	12/17/98	12/17/98	ND	3.0	1	45500	EPA 6010A	01/08/99
OW-2	137203-002	12/17/98	12/17/98	ND	3.0	1	45500	EPA 6010A	01/08/99
OW-5	137203-003	12/17/98	12/17/98	ND	3.0	1	45500	EPA 6010A	01/08/99

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins, Ltd.

CLIENT: CET Environmental Services
JOB NUMBER: 137203

DATE REPORTED: 01/11/99

BATCH QC REPORT
BLANK SPIKE / BLANK SPIKE DUPLICATE

Compound	Spike Amount	BS Result	BSD Result	Units	BS% Rec.	BSD% Rec.	Rec. Limits	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Lead	500	475	472	ug/L	95	94	80-120	1	35	45500	EPA 6010A	01/08/99

Curtis & Tompkins, Ltd.

CLIENT: CET Environmental Services
JOB NUMBER: 137203

DATE REPORTED: 01/11/99

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Lead	ND	3	ug/L	1	45500	EPA 6010A	01/08/99

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: CET Environmental Services
JOB NUMBER: 137203

DATE REPORTED: 01/11/99

BATCH QC REPORT
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Lead	137203-001	<3.000	<3.000	ug/L	NC	20	45500	EPA 6010A	01/08/99

NC = Not Calculable

CET ENVIRONMENTAL SERVICES INC.

LABORATORY ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

C - 6626

Page 1 Of 1

Project Name: PG&E Colusa Way

Site Address/Location: PG&E Colusa Way, Oakland

Project No./P.O. No.: 3932-000

Project Manager: Aaron Stessman

Sampler (Printed Name): ROBERT JARVIS

Sampler Signature: Robert C Jarvis

G=glass jar AG = amber glass jar V=glass VOA P=plastic S=stainless or brass sleeve

S=soil W=water SL=sludge O=other

1=none 2=HCl 3=HNO3 4=H2SO4 0=other

ANALYSES REQUESTED

Turnaround Time - R=Rush N=Normal O=Other

Send Results To:

CET Environmental Services, Inc.
3033 Richmond Parkway
Suite 300
Richmond, CA 94806
Ph (510) 243-9500
Fx (510) 243-9501

Attn:

	SAMPLE ID	LOCATION DESCRIPTION	DATE	TIME	Comp.	Grab	No. Of Containers	Container Type	Matrix	Pres.	8015-g TPH-gasoline	8015-d TPH-diesel	8020 BTEX	8015 Full Range Carbon Speciation		LEAD FILTER TEST	8010 VOCs				TAT	SAMPLE REMARKS INSTRUCTIONS
1	OW-8		12/17/18	9:15		X	1	P	W	1	X					X					N	FILTER LEAD SAMPLE
2	OW-2		12/17/18	10:10		X	1	P	W	1						X					N	FILTER LEAD SAMPLE
3	OW-5		12/17/18	10:39		X	9	V,AG,P	W	1	X	X	X			X	X				N	FILTER LEAD SAMPLE
4	OW-1		12/17/18	11:59		X	5	V,AG	W	1	X	X	X									
5	OW-6		12/17/18	13:49		X	8	V,AG	W	1	X	X	X				X					
6	OW-7		12/17/18	12:59		X	8	V,AG	W	1	X	X	X				X					
7																						
8																						
9	OW-9b																	HOLD				sample not on C-O-C 12/17/18
10																						
11																						
12																						

	Printed Name:	Company:	Date:	Time:
Relinquished By (Signature) Robert Jarvis	ROBERT JARVIS	CET ENVIRONMENTAL	12/17/18	14:40
Received By (Signature)	Rebecca Dixon		12/17/18	14:40
Relinquished By (Signature)				
Received By (Signature)				

Sample Conditions

Received on Ice: (Yes) No

COC Seal: (Yes) No

Received Intact: (Yes) No

Special Remarks:

APPENDIX B

Historical Monitoring Data

Well ID	MCL	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1
Date	ug/L	Apr-88	Oct-89	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	Apr-91	Jul-91	Dec-91	Mar-92	Jul-92	Oct-92	Jan-93	Apr-93	Jul-93	Oct-93	Jan-94	Jul-94	Jun-95	Nov-95	Jun-96	Oct-96	Apr,Jun-97	Dec-97	Jun-98	Dec-98
PURGEABLE HALOCARBONS																												
Chloromethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5#	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ND	5	4	4	2	2	1	2.6	4.6	ND	ND	ND	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Freon 113	1200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.5	ND	ND	ND	ND	ND	ND	ND	0.63	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinyl Ether		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene		NA	NA	1	4	4	1	3	1.8	2.9	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	600#	NA	NA	ND	ND	ND	ND	ND	0.58	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	5	4	11	5	13	11	6	3	6.7	14	3.2	ND	4	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PURGEABLE AROMATICS																												
Benzene	1	ND	ND	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	NA	ND	ND	ND	ND	0.66	ND	0.5
Toluene	1000#	ND	ND	2.3	0.4	ND	ND	ND	ND	ND	ND	ND	0.7	ND	ND	NA	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	0.67	ND
Ethylbenzene	680	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	ND	0.6	NA	ND	NA	ND	ND	NA	ND	ND	ND	ND	2.3	ND	0.76
Total Xylenes	1750**		ND	2.6	2.4	ND	ND	ND	ND	ND	ND	3.2	9	1.7	1.9	NA	ND	NA	2.5	ND	NA	ND	ND	ND	ND	1.1	ND	0.67
TOTAL VOCs		4	16	18.1	23.8	17	9	7	13.41	21.5	3.2	3.2	15.7	5.7	8.5	NA	NA	NA	2.5	NA	NA	NA	NA	NA	NA	4.06	0.67	1.93
HYDROCARBONS																												
TVH-g		NA	NA	< 50	82	< 50	< 50	< 500	NA	NA	NA	100	320	< 50	70	NA	NA	NA	80	60	400	230	500	830	590	420	860	850
TEPH-d		< 1000	< 1000	190	300	200	200	90	< 200	< 50	1600	3100	3900	1000	2000	NA	2300	NA	1000	1500	740	1000	2300	1400	1500	700	1900	1800
O&G		< 5000	16000	NA	NA	NA	NA	NA	NA	< 5000	< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)		NA	NA	< 5000	< 5000	< 5000	< 5000	< 5000	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS																												
Lead	50	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA

Notes:
1) MCL = Maximum Contaminant Level in drinking water (State MCL if not noted otherwise)
2) # = EPA MCL
3) * = MCL for sum of four compounds
4) ** = MCL for sum of all xylene isomers
5) *** = MCL for sum of trans- and cis-1,3-Dichloropropene
6) ND = Not Detected at or above MDL
7) Purgeable Halocarbons (EPA method 8010)
8) Purgeable Aromatics (EPA method 8020)
9) NA = Not Tested

Well ID Date	MCL ug/L	OW-2 Apr-88	OW-2 Oct-89	OW-2 Jan-90	OW-2 Apr-90	OW-2 Jul-90	OW-2 Oct-90	OW-2 Jan-91	OW-2 Apr-91	OW-2 Jul-91	OW-2 Dec-91	OW-2 Mar-92	OW-2 Jul-92	OW-2 Oct-92	OW-2 Jan-93	OW-2 Apr-93	OW-2 Jul-93	OW-2 Oct-93	OW-2 Jan-94	OW-2 Apr-94	OW-2 Jul-94	OW-2 Jun-95	OW-2 Nov-95	OW-2 Jun-96	OW-2 Oct-96	OW-2 Apr,Jun-97	OW-2 Dec-97	OW-2 Jun-98	OW-2 Dec-98
PURGEABLE HALOCARBONS																													
Chloromethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5#	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	6	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Freon 113	1200	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinyl Ether		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND	ND	0.53	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene		NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	600#	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	5	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PURGEABLE AROMATICS																													
Benzene	1	ND	ND	0.4	ND	ND	ND	ND	ND	ND	ND	1.4	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1000#	ND	ND	0.4	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	680	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	1750**		ND	0.4	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL VOCs		NA	NA	1.2	1.4	NA	NA	NA	0.53	NA	NA	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS																													
TVH-g		NA	NA	< 50	< 50	< 50	< 50	< 50	NA	NA	NA	< 50	< 50	< 50	< 50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TEPH-d		< 1000	< 1000	130	140	68	90	< 50	< 200	< 50	650	670	410	410	620	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O&G		16000	16000	NA	NA	NA	NA	NA	NA	< 5000	< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)		NA	NA	< 5000	< 5000	< 5000	< 5000	< 5000	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS																													
Lead	50	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	8	ND	4.1	ND	ND	ND	ND	ND	ND	ND	ND

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9) NA = Not Tested

Well ID	MCL	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4
Date	ug/L	Jun-88	Oct-89	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	Apr-91	Jul-91	Dec-91	Mar-92	Jul-92	Oct-92	Jan-93	Apr-93	Jul-93	Oct-93	Jan-94	Jul-94	Jun-95	Nov-95	Jun-96	Oct-96	Apr,Jun-97	Dec-97	Jul-98	Dec-98
PURGEABLE HALOCARBONS																												
Chloromethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5#	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND	3	6.1	9.4	ND	7	4	4	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	6	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Freon 113	1200	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.5	ND	ND	ND	ND	ND	ND	ND	0.49	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinyl Ether		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	600#	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PURGEABLE AROMATICS																												
Benzene	1	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA
Toluene	1000#	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA
Ethylbenzene	680	ND	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA
Total Xylenes	1750**	ND	ND	0.6	2	ND	ND	ND	ND	ND	ND	0.7	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA
TOTAL VOCs		NA	NA	0.6	3.4	NA	NA	3	6.59	9.4	NA	7.7	4	4	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS																												
TVH-g		NA	NA	<50	<50	<50	<50	<50	NA	NA	NA	< 50	< 50	< 50	< 50	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA
TEPH-d		< 1000	< 1000	150	210	150	150	<50	580	< 60	2000	2100	820	1300	2100	NA	1500	NA	NA	NA	1600	630	1100	840	980	NA	1000	NA
O&G		< 5000	< 5000	NA	NA	NA	NA	NA	NA	< 5000	< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)		NA	NA	< 5000	< 5000	< 5000	< 5000	< 5000	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS																												
Lead	50	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	5	ND	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
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2) # = EPA MCL
3) * = MCL for sum of four compounds
4) ** = MCL for sum of all xylene isomers
5) *** = MCL for sum of trans- and cis-1,3-Dichloropropene
6) ND = Not Detected at or above MDL
7) Purgeable Halocarbons (EPA method 8010)
8) Purgeable Aromatics (EPA method 8020)
9) NA = Not Tested

Well ID Date	MCL ug/L	OW-5 Apr-91	OW-5 Jul-91	OW-5 Dec-91	OW-5 Mar-92	OW-5 Jul-92	OW-5 Oct-92	OW-5 Jan-93	OW-5 Jul-93	OW-5 Oct-93	OW-5 Jan-94	OW-5 Apr-94	OW-5 Jul-94	OW-5 Jun-95	OW-5 Nov95	OW-5 Jun-96	OW-5 Oct-96	OW-5 Apr,Jun-97	OW-5 Dec-97	OW-5 Jun-98	OW-5 Dec-98
PURGEABLE HALOCARBONS																					
Chloromethane		ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	1.1
Chloroethane		ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5#	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	67	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	150	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	6	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	1.8	7.2	ND	4	8	13	5	6	NA	2	NA	4	3.2	7.9	2.5	6.9	5.3	2.9	1	2.5
cis-1,2-Dichloroethene	6	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	100#*	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	1200	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	6	26	18	12	25	28	7	7	NA	2	NA	3	1.3	2.1	ND	1.3	ND	ND	ND	ND
Carbon Tetrachloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	0.75	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	0.7
1,1,2-Trichloroethane	32	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether		ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA
Bromoform	100#*	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	0.7	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	30	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600#	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
PURGEABLE AROMATICS																					
Benzene	1	14	20	11	15	11	13	26	14	NA	21	NA	11		11	15	18	3.8	15	ND	7.3
Toluene	1000#	0.54	ND	ND	1.1	ND	ND	ND	ND	NA	ND	NA	ND		ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	680	0.58	ND	ND	0.6	ND	ND	0.7	ND	NA	0.7	NA	0.6		ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1750**	5.6	4	6.9	5.1	6	3.6	13	2.4	NA	9.2	NA	1.3		ND	ND	ND	ND	2.74	ND	ND
TOTAL VOCs		29.97	57.2	35.9	37.8	50	57.6	51.7	29.4	NA	34.9	NA	19.9	4.5	88	17.5	26.2	9.1	20.64	1	11.6
HYDROCARBONS																					
TVH-g		NA	NA	NA	120	270	160	350	140	NA	370	NA	110	ND	ND	ND	ND	ND	83	ND	ND
TEPH-d		600	1500	1200	840	650	1000	1000	1600	NA	510	NA	1300	510	1600	830	870	740	630	630	780
O&G		NA	< 5000	< 5000	< 5000	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)		< 500	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
METALS																					
Lead	50	ND	NA	NA	ND	ND	ND	ND	ND	ND	7.3	7.4	5	ND	ND	ND	ND	5	ND	ND	ND

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Well ID	MCL	OW-3	OW-3	OW-3	OW-3	OW-3	OW-3	OW-3	OW-3	OW-3	OW-3	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-5	OW-6	OW-6
Date	ug/L	Apr-88	Jun-88	Oct-89	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	Apr-91	Jul-91	Dec-91	Mar-92	Jul-92	Oct-92	Jan-93	Jul-93	Oct-93	Jan-94	Jul-94	Jun-95	Nov-95	Jun-96	Oct-96	Apr,Jun-97	Dec-97	Jun-98	Dec-98
PURGEABLE HALOCARBONS																												
Chloromethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5#	ND	ND	ND	ND	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	49	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	150	ND	ND	ND	ND	ND	ND	ND	ND	0.82	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	4	5	28	29	14	17	17	15	16	41	ND	1	2	2	10	23	NA	7	17	31	8.8	10	5.4	7	7.7	3.3	4.6
cis-1,2-Dichloroethene	6	NA	NA	ND	ND	33	ND	1	1	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10	ND	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	100#*	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	1200	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.55	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND	ND	ND	ND	10	18	NA	ND	ND	3.9	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-ChloroethylVinyl Ether		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
Bromoform	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	30	ND	1	ND	ND	ND	ND	ND	1	2.3	2	5.7	ND	ND	ND	ND	ND	NA	ND	2	4.5	ND	5.2	1	4.5	26	9.1	8.3
1,3-Dichlorobenzene		NA	NA	NA	3	ND	2	2	1	3.3	ND	15	ND	ND	ND	ND	ND	NA	ND	ND	11	7.4	20	10	25	46	30	27
1,2-Dichlorobenzene	600#	NA	NA	NA	2	ND	1	1	1	2.3	ND	5.8	ND	ND	ND	ND	ND	NA	ND	ND	23	ND	2.4	ND	2.1	6.3	3	2.8
1,4-Dichlorobenzene	5	NA	NA	NA	2	ND	ND	2	1	3.1	ND	23	ND	ND	ND	ND	ND	NA	ND	ND	2.9	16	46	26	65	140	84	68
PURGEABLE AROMATICS																												
Benzene	1	ND	ND	ND	0.5	ND	ND	ND	ND	0.54	ND	ND	ND	ND	ND	ND	0.6	NA	ND	ND	ND	ND	ND	ND	ND	0.5	ND	ND
Toluene	1000#	ND	ND	ND	0.4	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	680	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	NA	ND	ND	ND	ND	ND	ND	ND	35	ND	ND
Total Xylenes	1750**			ND	0.7	2.1	ND	ND	ND	ND	ND	2	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs		6	8	28	37.6	59.4	20	23	20	32.81	43	51.5	1	2	2	20	42.7	NA	7	19	76.3	81.2	83.6	42.4	103.6	261.5	129.4	110.7
HYDROCARBONS																												
TVH-g		NA	NA	NA	< 50	52	< 50	< 50	< 50	NA	NA	NA	< 50	< 50	< 50	< 50	< 50	NA	70	<50	ND	ND	61	ND	83	160	110	130
TEPH-d		< 1000	< 1000	< 1000	440	470	450	130	1310	700	< 50	5500	4900	3500	3900	5300	3500	NA	2200	2500	1300	2400	2000	2400	1300	1200	1300	2000
O&G		< 5000	< 5000	5000	NA	NA	NA	NA	NA	NA	< 5000	< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)		NA	NA	NA	< 5000	< 5000	< 5000	< 5000	< 5000	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS																												
Lead	50	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Well ID	MCL	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7
Date	ug/L	Dec-91	Mar-92	Jul-92	Oct-92	Jan-93	Apr-93	Jul-93	Oct-93	Jan-94	Jul-94	Jun-95	Nov-95	Jun-96	Oct-96	Apr,Jun-97	Dec-97	Jun-98	Dec-98
PURGEABLE HALOCARBONS																			
Chloromethane		ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane		ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.5	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane		ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5#	14	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	570	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	150	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	6	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	16	ND	ND	25	NA	14	NA	8	ND	5.5	25	6.5	6.6	4.3	9.8	4.1	5.7
cis-1,2-Dichloroethene	6	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	100#*	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	1200	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	10	460	29	80	530	NA	73	NA	76	28	33	41	18	6.6	7.9	31	5.9	5.6
Carbon Tetrachloride	0.5	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	100#*	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	32	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	100#*	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether		ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
Bromoform	100#*	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	30	10	ND	ND	8	ND	NA	29	NA	21	24	12	34	25	31	25	46	27	31
1,3-Dichlorobenzene		460	130	420	330	170	NA	540	NA	450	570	270	400	380	440	290	360	340	360
1,2-Dichlorobenzene	600#	120	22	95	77	33	NA	470	NA	78	100	290	61	62	74	47	57	50	48
1,4-Dichlorobenzene	5	440	120	400	290	160	NA	110	NA	410	540	51	480	500	560	410	530	450	470
PURGEABLE AROMATICS																			
Benzene	1	ND	0.8	1	1.4	0.6	NA	1.5	NA	1.6	1.2		1.1	ND	ND	0.56	1.6	0.66	0.65
Toluene	1000#	ND	0.6	0.5	ND	ND	NA	ND	NA	ND	ND		ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	680	ND	ND	0.5	ND	ND	NA	ND	NA	ND	ND		ND	ND	ND	ND	70	ND	ND
Total Xylenes	1750**	ND	2.1	5	ND	ND	NA	ND	NA	4.2	ND		ND	ND	ND	ND	1.1	ND	ND
TOTAL VOCs		1054	751.5	951	786.4	918.6	NA	1237.5	NA	1048.8	1263.2	661.5	1612.1	991.5	1118.2	784.76	1106.5	877.66	920.95
HYDROCARBONS																			
TVH-g		NA	700	1300	1400	720	NA	1500	NA	1400	1800	650	980	1200	1500	1100	1100	1000	1100
TEPH-d		7100	4400	2800	3900	2300	NA	4900	NA	4500	4800	1600	4400	4600	4800	2600	2100	2600	3500
O&G		< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS																			
Lead	50	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
1) MCL = Maximum Contaminant Level in drinking water (State MCL if not noted otherwise)
2) # = EPA MCL
3) * = MCL for sum of four compounds
4) ** = MCL for sum of all xylene isomers
5) *** = MCL for sum of trans- and cis-1,3-Dichloropropene
6) ND = Not Detected at or above MDL
7) Purgeable Halocarbons (EPA method 8010)
8) Purgeable Aromatics (EPA method 8020)
9) NA = Not Tested

Well ID	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8
Date	Apr-93	Jul-93	Oct-93	Jan-94	Apr-94	Jul-94	Jun-95	Nov-95	Jun-96	Oct-96	Apr,Jun-97	Dec-97	Jun-97	Dec-98
PURGEABLE HALOCARBONS														
Chloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Freon 113	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinyl Ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PURGEABLE AROMATICS														
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL VOCs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS														
TVH-g	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TEPH-d	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O&G	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS														
Lead	27	17	ND	25	12	24	3.2	ND	ND	ND	ND	ND	ND	ND

Notes:
1) MCL = Maximum Contaminant Level in drinking water (State MCL if not noted otherwise)
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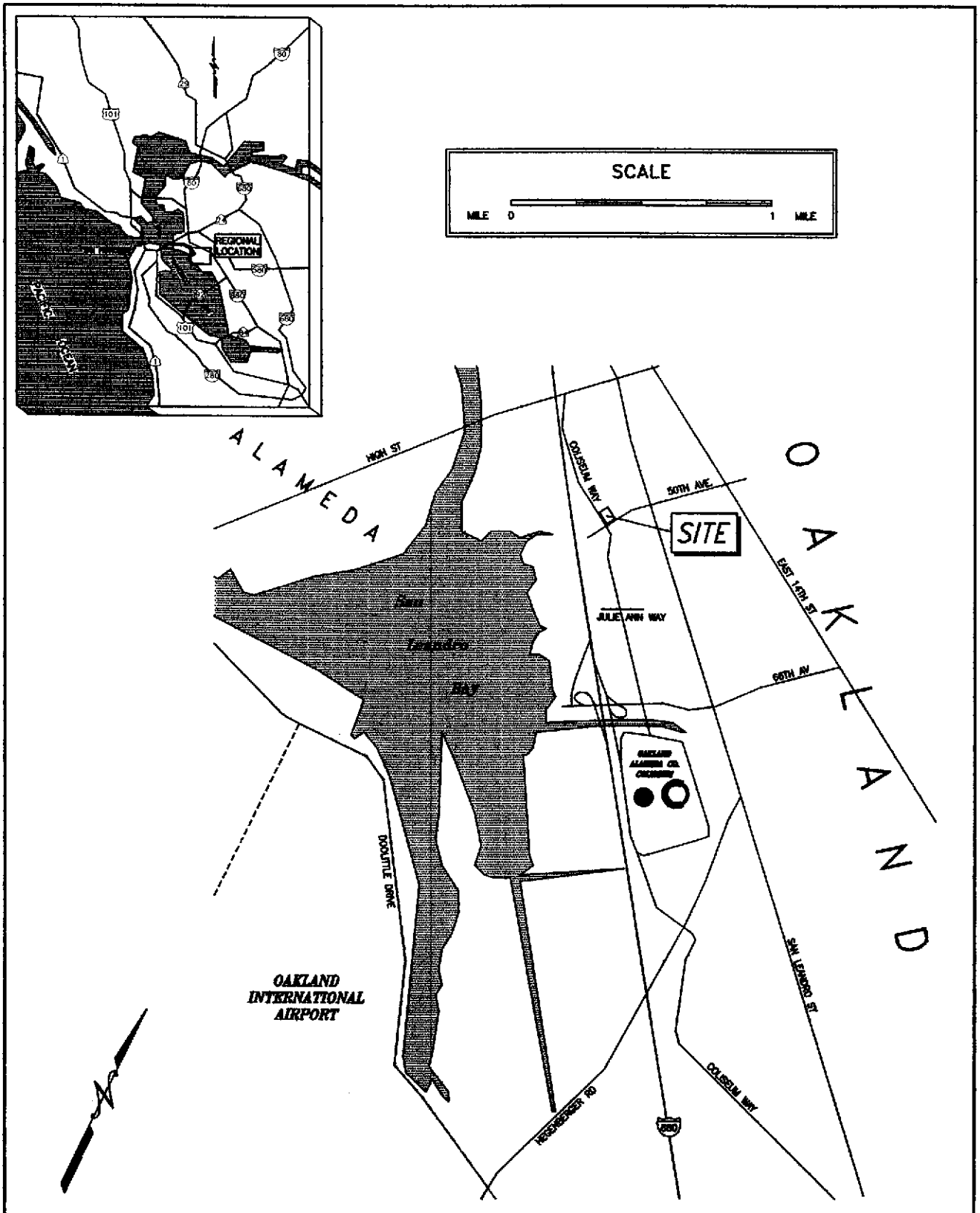
4) ** = MCL for sum of all xylene isomers
5) *** = MCL for sum of trans- and cis-1,3-Dichloropropene
6) ND = Not Detected at or above MDL
7) Purgeable Halocarbons (EPA method 8010)
8) Purgeable Aromatics (EPA method 8020)
9) NA = Not Tested

APPENDIX C

Figures



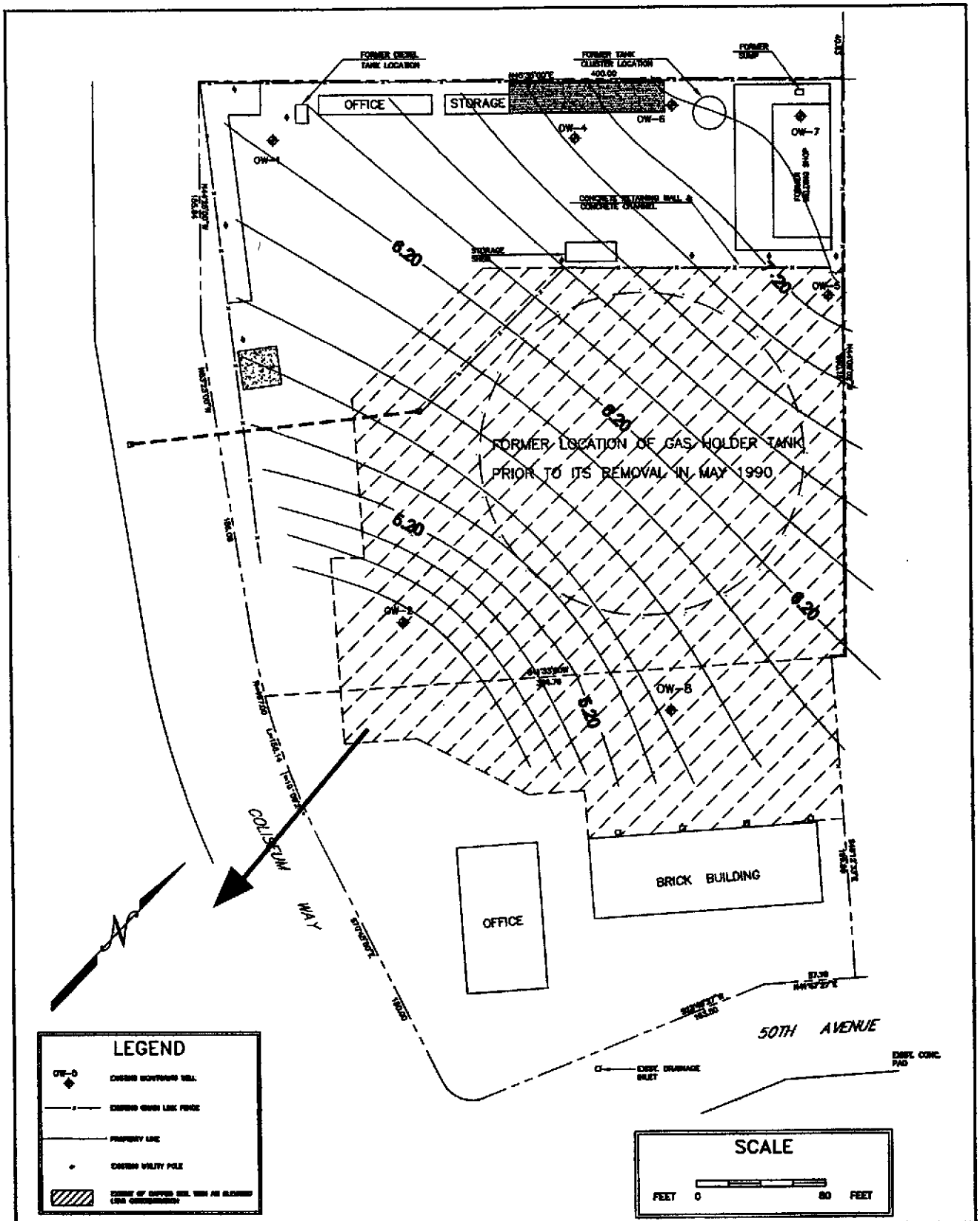
CET Environmental Services, Inc.

SITE LOCATION MAP

PG & E DISTRIBUTION CONSTRUCTION SITE
4930 COLISEUM WAY
OAKLAND, CA 94610

FIGURE 1

JOB NUMBER	DATE	DRAWING	BY	REVISED
3932	01/99	3666LOC	JL/ZS	00/00



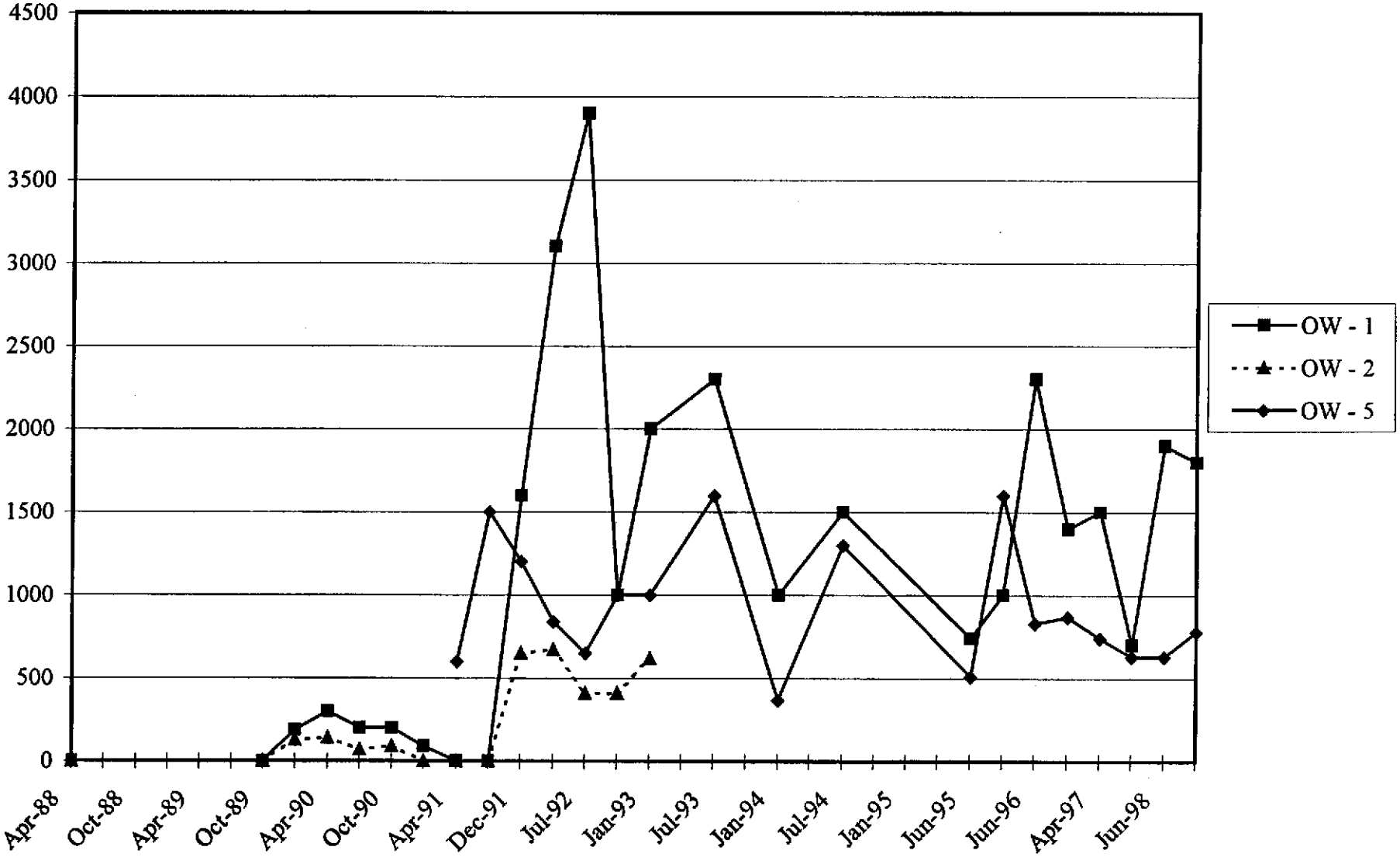
CET Environmental Services, Inc.

SITE PLAN AND SITE RELATIVE GROUNDWATER ELEVATIONS
PG&E DISTRIBUTION CONSTRUCTION SITE
4930 COLISEUM WAY
OAKLAND, CA 94610

FIGURE 2

JOB NUMBER	DATE	DRAWING	BY	REVISED
3932	1/99	GW12-98	ESS/ZS	00/00

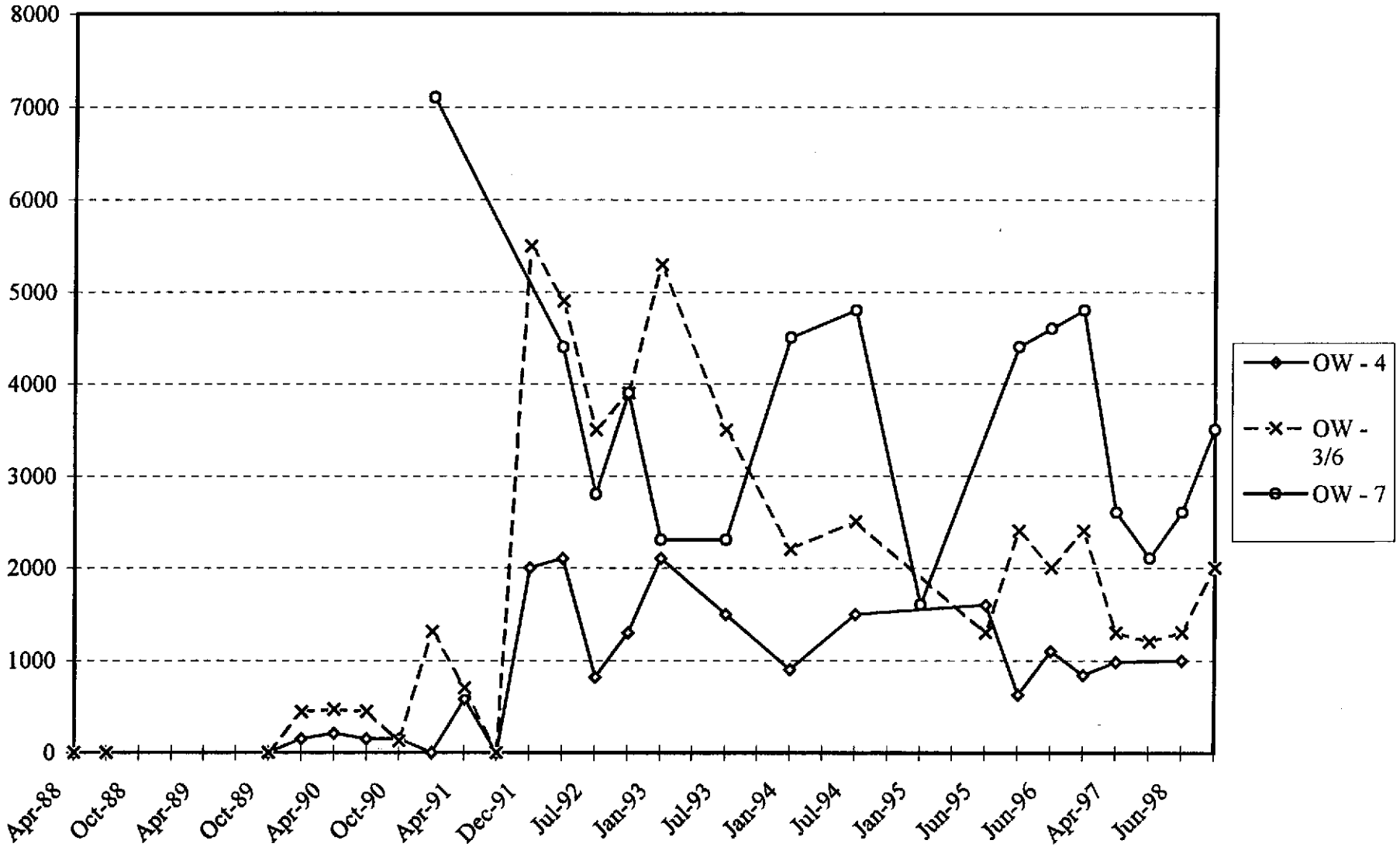
FIGURE 3.1
TPH-DIESEL in OW - 1, 2, & 5



Units: ug/L

tables12-98.xls

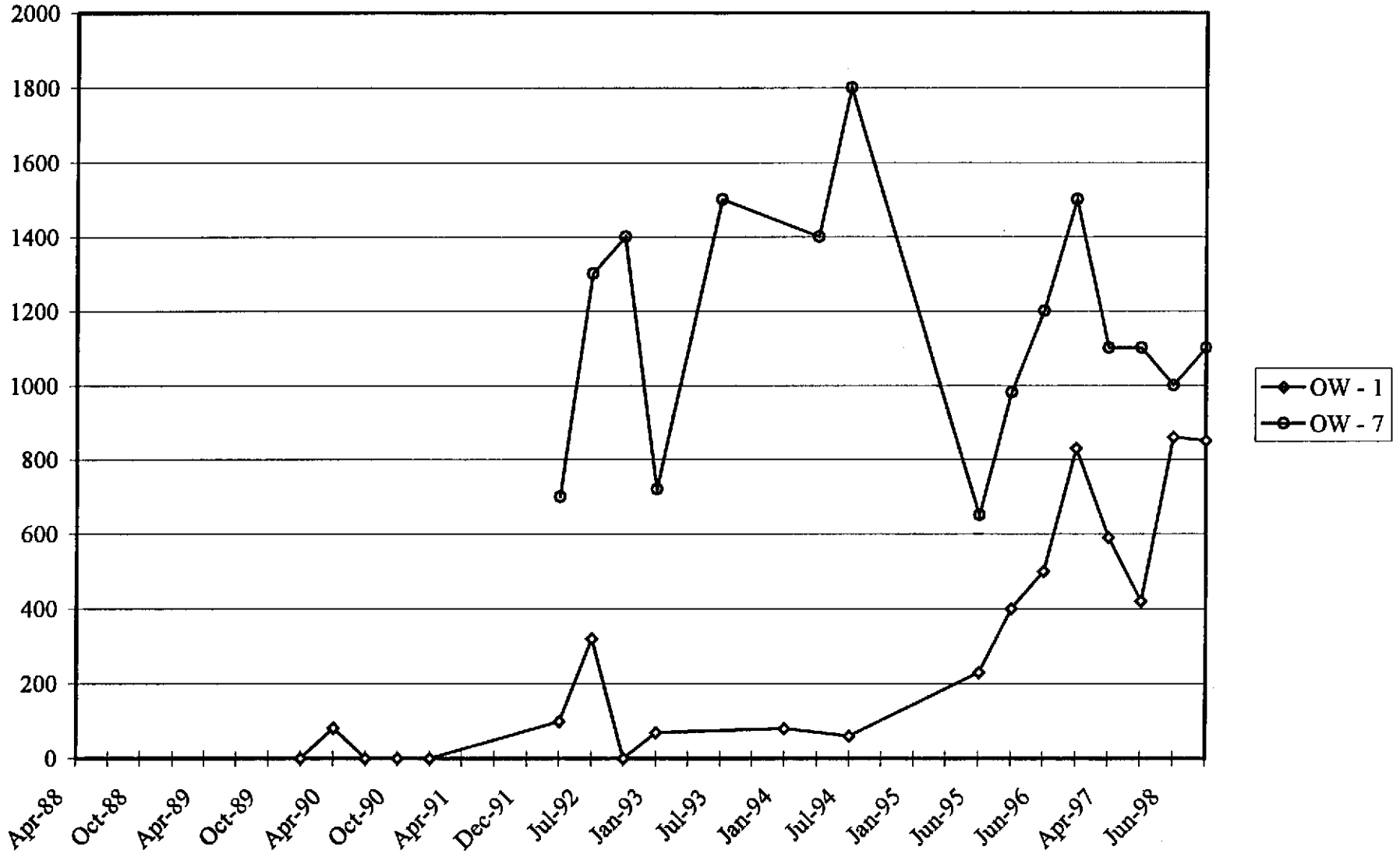
FIGURE 3.2
TPH-DIESEL in OW - 4, 3/6, & 7



Units: ug/L

tables12-98.xls

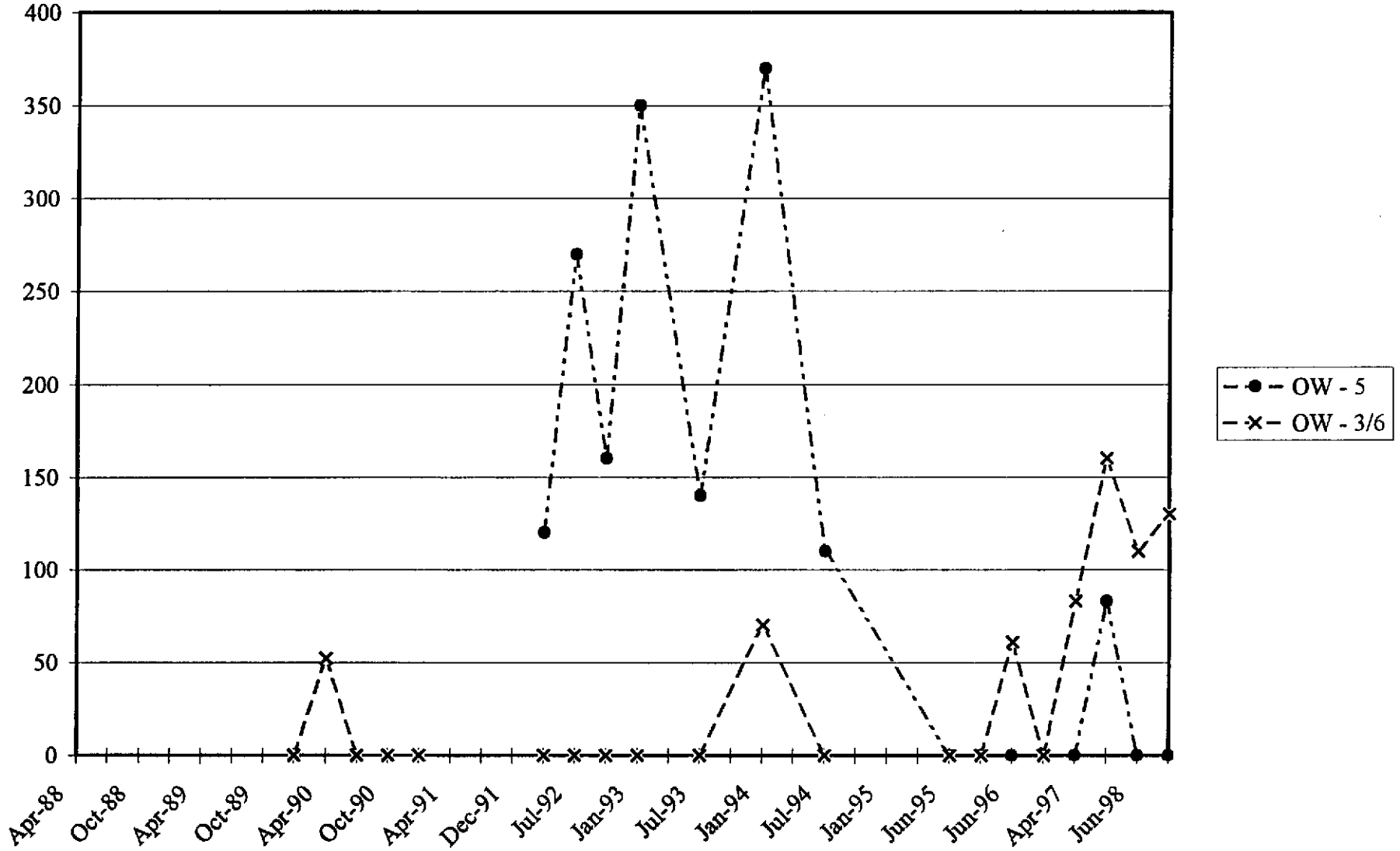
FIGURE 3.3
TPH-GASOLINE in OW - 1 & 7



Units: ug/L

tables12-98.xls

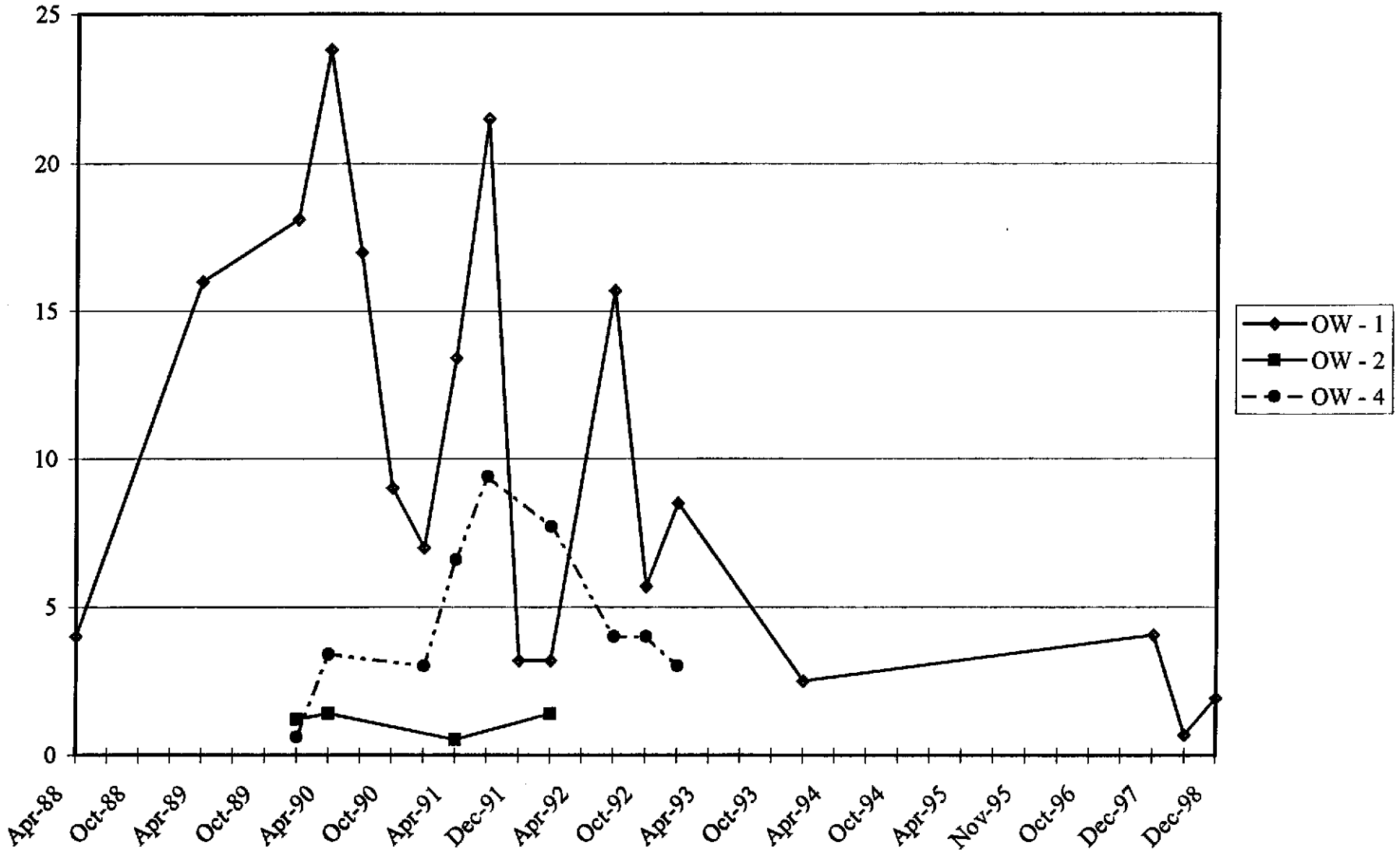
FIGURE 3.4
TPH-GASOLINE in OW - 5 & 3/6



Units: ug/L

tables12-98.xls

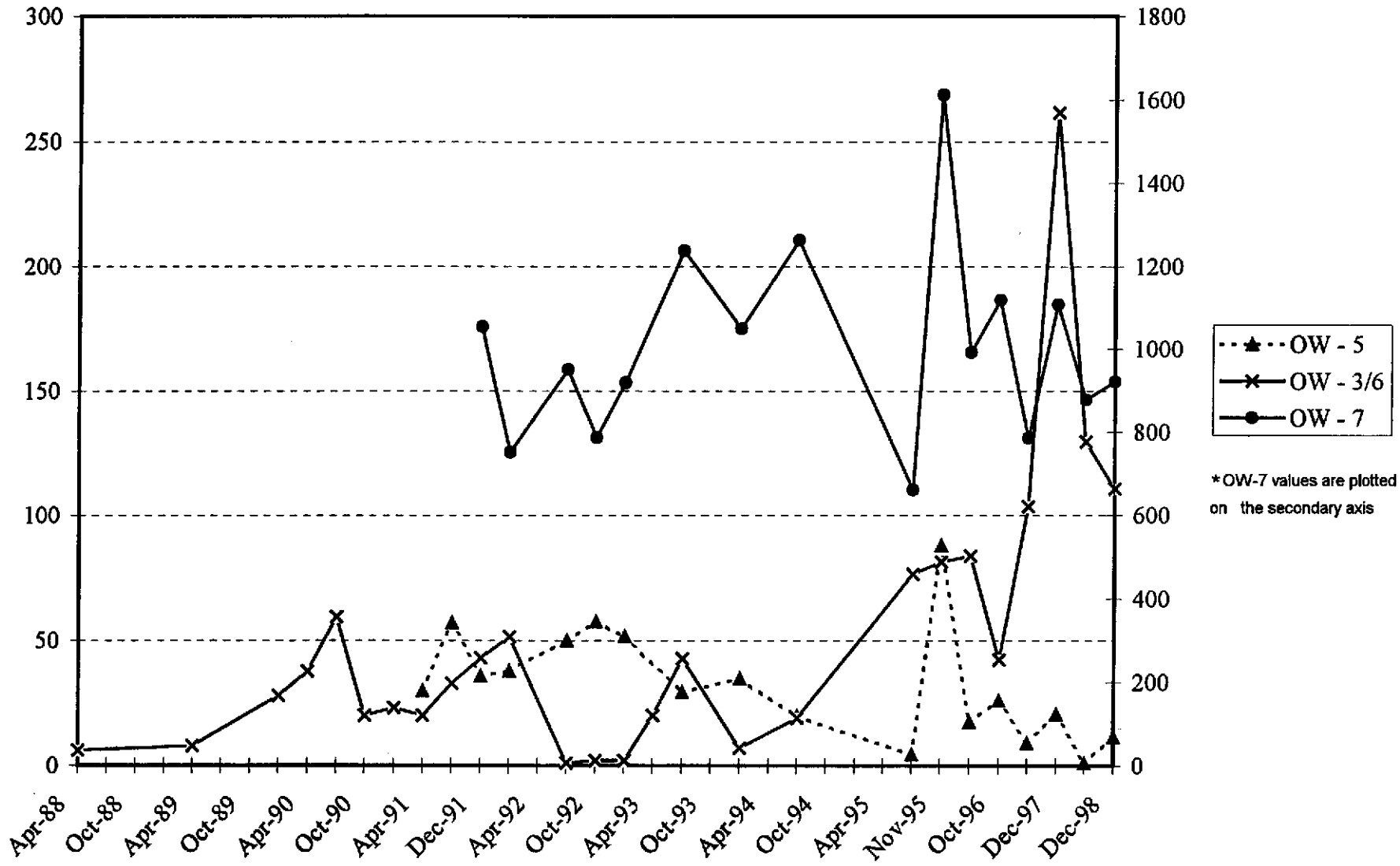
FIGURE 3.5
TOTAL VOCs in OW-1, 2, & 4



Units: ug/L

tables12-98.xls

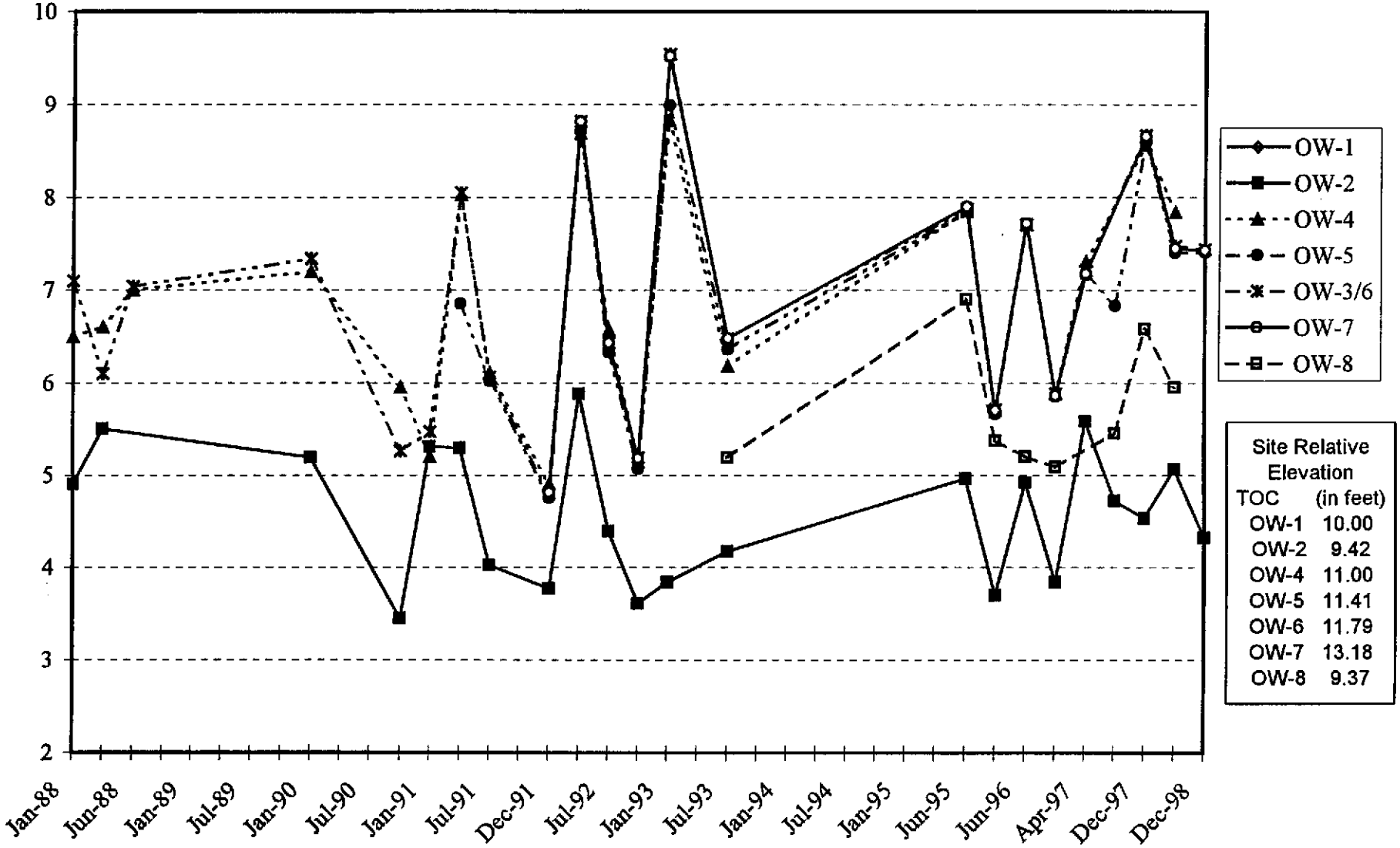
FIGURE 3.6
TOTAL VOCS in OW-5, 6, & 7*



Units: ug/L

tables12-98.xls

FIGURE 4.2
HISTORICAL GROUNDWATER LEVELS



Site Relative Elevation	
TOC	(in feet)
OW-1	10.00
OW-2	9.42
OW-4	11.00
OW-5	11.41
OW-6	11.79
OW-7	13.18
OW-8	9.37

Units: ug/L

tables12-98.xls