PORT OF OAKLAND

August 15, 2003

Alameda County
AUG 2 3 2003
Environmental Health

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

RE: Site Investigation Report
Suspected Site of UST HF-17 - Building H-227 at Ninth Avenue Terminal
Oakland, CA 94606

Dear Mr. Chan:

Please find enclosed for your review is our site investigation report prepared by GAIA Consulting, Inc, (GAIA) for suspected underground storage tank (UST) HF-17 near Building H-227 at Ninth Avenue Terminal. This report is being submitted in accordance with Alameda County Health Care Services Agency (County) requirements pursuant to your letter dated December 13, 2002. The site investigation was performed in accordance with the Final Site Investigation Workplan dated October 8, 2002, with oversight and approval of the City of Oakland Fire Service Agency – Office of Emergency Services (OFSA-OES).

As we discussed during our phone conversation on June 3, 2003, the Ninth Avenue Terminal property, including this suspected UST site, is contained within a larger development area referred to as the "Oak to Ninth Project", which is slated for redevelopment. All further UST work, if necessary, will be incorporated into site remediation and management formulated as part of ongoing discussions between the selected developer, Oakland Harbor Partners and their consultant, Erler & Kalinowski, Inc.

Similar to the our requests in letters to you dated June 4, 2003 (regarding USTs at Ninth Avenue), June 19, 2003 (regarding the former Seabreeze Yacht Center), and July 29, 2003 (regarding groundwater monitoring at Ninth Avenue), the Port requests suspension of potential future UST work until redevelopment. The schedule for this work is uncertain because it is based on the time required for the Port to close escrow with Oakland Harbor Partners; it is anticipated that close of escrow will be sometime between September 2005 and September 2007. We trust this approach is amenable to both the County and the OFSA-OES.

Please provide your review and comments at your convenience. This transmittal letter and enclosed report are being sent to you concurrent with another transmittal letter and investigation report for suspected UST site, HF-16, located near building H-204. These two transmittal letters and reports will be the last correspondence you will receive from the Port related to the Oak to Ninth Project. If you have any questions, please do not hesitate to contact me at (510) 627-1134.

Sincerely,

Jeffrey L. Rubin, CPSS, REA
Port Associate Environmental Scientist
Environmental Health and Safety Compliance

Enclosure: noted

Cc (w/encl.): Keith Matthews, City of Oakland Fire Service Agency – Office of Emerg. Services
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August 15, 2003

Mr. Jeff Rubin
Port of Oakland
530 Water Street
Oakland, California 94607

**SUBJECT: FINAL UST Site Investigation Report,
UST Site HF-17, Ninth Avenue Terminal, Oakland**

Dear Mr. Rubin:

Attached you will find the UST Site Investigation Report for UST HF-17 at former Building H-227 at the Ninth Avenue Terminal. The investigation was performed in accordance with the approved workplan submitted by GAIA on October 8, 2002. This report is ready for submittal to Alameda County.

We appreciate the opportunity to serve the Port of Oakland on this project. Please contact me at (510) 663-4177 if you have any questions.

Cordially,
GAIA Consulting, Inc.

Susanne von Rosenberg, P.E.
Project Manager

Jeriann Alexander, P.E., REA
Fugro West, Inc.
1000 Broadway, Suite 200
Oakland, CA 94607

UST SITE INVESTIGATION

UST HF-17 at Former Building H-227

Ninth Avenue Terminal, Oakland, CA

August 14, 2003

Prepared for:
Port of Oakland
530 Water Street
Oakland, California 94607

Prepared by:

GAIA consulting, inc.

GAIA Consulting, Inc.
2101 Webster Street, 12th Floor
Oakland, California 94612

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1,2 DCA	1,2 Dichloroethane
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylene
CUS	California Utility Surveys
DIPE	Isopropyl Ether
EDB	Dibromoethane
EPA	Environmental Protection Agency
ETBE	Ethyl tert-Butyl Ether
FOSS	FOSS Environmental Services
GAIA	GAIA Consulting, Inc
HF	Identification prefix for Port Area H Fuel tank
KOT	Keep on Trucking
LOP	Local Oversight Program
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
MTBE	methyl tert-Butyl ether
RBSLs	Risk Based Screening Levels
RMA	R. Morrison & Associates, Inc.
SCI	Subsurface Consultants, Inc.
SCITP	SCI Test Pit
SCIMW	SCI Monitoring Well
TAME	Methyl tert-amyl ether

TBA	tert-Butyl Alcohol
TPH-d	total diesel range petroleum hydrocarbons
TPH-g	total gasoline range petroleum hydrocarbons
TPH-mo	total motor oil range petroleum hydrocarbons
USA	Underground Service Alert
UST	Underground Storage Tank
VAD	Vic Adelson Drayage

1.0 INTRODUCTION

This report summarizes the site investigation activities performed at suspected underground storage terminal (UST) site HF-17[1] located adjacent to former Building H-227 at the 9th Avenue Terminal in Oakland (Figures 1 and 2). This UST site is not currently part of the Local Oversight Program, and does not have a listed street address. The UST site is physically located approximately 575 feet east of the Oakland Estuary and 900 feet southwest of Embarcadero Road, between 8th and 9th Avenues. This UST site is part of a larger development area, designated as the Oak to Ninth District, which will be redeveloped (Figure 1). The redeveloped property encompasses 60 acres of property on the Oakland Estuary, including the Ninth Avenue Terminal and Clinton Basin areas. The goal of the redevelopment is to create a mixed-use waterfront neighborhood.[2]

The activities described herein were performed in general accordance with a workplan prepared by GAIA Consulting, Inc. (GAIA) entitled "Final Site Investigation Workplan, UST Site HF-17 at Building H-227, 9th Avenue Terminal" dated October 8, 2002. The workplan was reviewed and approved by the Alameda County Health Care Services Agency (County) in their letter dated December 11, 2002. A copy of this letter is provided in Appendix A. The purpose of this investigation was to determine the location or former location of UST HF-17 and assess subsurface conditions in the vicinity of the UST site. It was not clear from readily available records whether UST HF-17 had previously been removed.

2.0 BACKGROUND

The Ninth Avenue Terminal is a break bulk cargo facility located on the Oakland Inner Harbor in East Oakland, California (Figure 1). The Terminal has been owned by the Port since at least the late 1920s. The Terminal study area is an irregularly shaped parcel of land, encompassing approximately 25 acres excluding the wharves. It was leased to a variety of tenants, and continues to have limited light industrial and commercial activity (Subsurface Consultants, Inc [SCI] 1996b). The Terminal is bordered by Embarcadero Road, Interstate 880, and railroad tracks to the northeast, Clinton Basin to the northwest, the Inner Harbor Channel/Oakland Estuary to the southwest, and Brooklyn Basin to the southeast. The land use in the Terminal vicinity is commercial/industrial. The majority of the Terminal is paved with asphaltic concrete. The remainder of the Terminal is occupied by buildings or concrete foundation slabs remaining from former buildings. Wharves constructed of concrete or asphalt over a wood frame extend along the southeast and southwest sides of the Terminal.

Various aboveground and underground utilities exist throughout the Terminal. Storm water runoff is collected by numerous catch basins; the majority of the storm water is conveyed to a main storm drain collector system below Eighth Avenue that discharges to the Inner Harbor. The storm drains in the vicinity of UST Site HF-17 (approximately 100 to 150 feet away) are the primary collectors under Eighth and Ninth Avenues. Sanitary sewer improvements consist of laterals extending from buildings to main sewer lines below Eighth and Tenth Avenues. The main sanitary sewer lines flow toward Embarcadero Road where a large collector pipe exists. Other on-site subsurface utilities include domestic and fire protection water supply, natural gas, electricity, fire alarm, and telephone lines, and abandoned fuel pipes.

Site investigations have been conducted at the Terminal since 1992. Multiple companies have conducted numerous rounds of investigation. Investigation activities included UST removals, soil borings, test pits, hydropunch sampling, monitoring well installation, subsurface utility investigations, geophysical investigations, and tide studies. Flux chamber sampling, to evaluate the flux of volatile organic

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[1] HF refers to the Port system of numbering tanks; the tanks are located in Port Area H, and are fuel (F) tanks.
[2] This information reflects the conceptual redevelopment plan.

compounds through a specific area of site soils, has also been conducted. Regular groundwater monitoring at the Terminal has been conducted since late 1996.

The Ninth Avenue Terminal is generally flat with elevations ranging from approximately 9 to 14 feet above Port datum, which is the mean lower low water mark, or 3.2 feet below mean sea level. Previous studies have shown that the soils beneath the site consist primarily of an organic-rich clay (Young Bay Mud) overlain by approximately 3 to 6 feet of fill material. The fill material consists primarily of an angular gravel with silt and sand lenses. Shoreline areas tend to be underlain by up to 7 to 9 feet of fill consisting of layers of sand, gravel, silt and clay. The majority of the borings installed at the Terminal terminate in the Young Bay Mud (they extend to depths between 10 and 20 feet below ground surface [bgs]). Based on the limited number of deeper borings installed, the Young Bay Mud extends to depths of 23 to 27 feet bgs at the Ninth Avenue Terminal. It is underlain by another series of clay layers. Immediately below the Young Bay Mud is a thin layer of stiff greenish clay approximately 3 feet thick. This layer is underlain by a pale brown silty clay with sand that grades into a silty sand (SCI 1996, 1997). This formation is most likely the Merritt Sand.

Groundwater at the Terminal is typically encountered at 3 to 10 feet below ground surface. General groundwater elevation contour patterns have remained relatively consistent since 1996, although localized mounds and depressions have appeared and disappeared in certain areas. In general, groundwater elevations tend to be higher in the central portion of the site, with flow radiating outward toward the shorelines of Clinton Basin and Brooklyn Basin (SCI 1998).

Tidal influence on groundwater elevations and storm drains has been observed at the site. Wells located along the Clinton and Brooklyn Basin shorelines are tidally influenced, while interior wells and those adjacent to the concrete bulkhead wall which extends along the southeastern and southwestern portions of the Terminal, are not. Tidal fluctuations of as much as two feet have been observed in near-shore wells. Research suggests that tidal influence extends inland more than 80 feet along that portion of the northern shoreline that is not protected by the concrete bulkhead. Very minor changes in groundwater levels were recorded approximately 10 feet from the bulkhead during tidal changes (SCI 1997b). UST Site HF-17 may not be subject to direct tidal influence because it is located too far inland (approximately 450 feet southeast) of the Clinton Basin shoreline.

Tidal waters have been observed to extend throughout the storm drainage system, as far inland as the drainage catchment north of the Embarcadero. Elevated groundwater levels measured along selected utilities during tide studies indicate there may be exfiltration from the storm drain pipelines (SCI 1998). A storm drain pipe line, running parallel to 8th Avenue, is located approximately 135 feet northwest of UST Site HF-17, and the nearest storm drain catchment is located approximately 140 feet northwest. Exfiltration from the storm drain lines may occur within this tank site, although there are no monitoring wells located along these nearby utility lines to indicate elevated groundwater levels in the area.

3.0 PREVIOUS SITE INVESTIGATIONS AND RESULTS

The following report section summarizes investigations previously conducted on or near UST Site HF-17 (Figure 2 and 3). UST HF-17 was associated with former Building H-227. In 1962, Union Oil Company of California installed a 10,000-gallon underground storage UST at the site, for use by H.A.C. Transportation Company (Port 1962). According to the Port of Oakland Board of Commissioners Resolution No. 13977, the Board consented to the installation of a "10,000 gallon U.L. tank". Based on this resolution, the contents of the UST are presumed to be unleaded gasoline. According to a 1965 Port of Oakland map (Port, 1965), the UST existed in the yard area southeast of Building H-227 (see Appendix B). Research indicates that the yard area was used by H.A.C. Trucking until 1964, and by C.D. Ericson from 1964 to 1975. Records to date do not indicate weather any other entities operated the tank.

Previous Subsurface Investigation Results
SCI Test Pit 8 (SCITP-8) was excavated in the area of a subsurface anomaly located by California Utility Surveys (CUS) within UST Site HF-17 in 1997. The subsurface anomaly was detected in the course of clearing several boring locations in the area. A wire-reinforced concrete slab was unearthed just beneath the asphalt pavement; however, no UST was encountered (SCI 1997b).

UST Site HF-17 is located approximately 75 feet west of a former aboveground storage (AST) farm, and approximately 60 feet north of another former AST farm. These areas were formerly leased by Port Petroleum and American Bitumens/Chevron, respectively, and are not considered part of UST Site HF-17 (Figure 3). Elevated levels of total diesel range petroleum hydrocarbons (TPH-d) and motor oil range (TPH-mo) have been detected in the south AST farm area; however, these detections are associated with a known release that flowed toward the south (away from UST Site HF-17).

Two borings (SCI-5 and R. Morrison & Associates, Inc.[RMA]-12) and one test pit (SCITP-8) are located within 50 feet of the UST site. Only low levels (less than 130 milligrams/kilogram (mg/kg)) of TPH compounds were detected in soil samples collected during the previous investigations conducted in the vicinity of UST site HF-17. Groundwater samples collected from borings SCI-5 and RMA-12 contained concentrations of TPH-d at 35,000 µg/L and 53,900 µg/L, respectively. TPH-mo was detected at 42,000 µg/L at SCI-5; TPH-mo was not analyzed in RMA-12. The elevated levels of TPH-d and TPH-mo found in groundwater at borings SCI-5 and RMA-12 are similar to elevated concentrations found at the nearby south and southwestern AST farms. The edge of the southern AST farm is located 60 feet southwest of the UST area (Figure 3). One monitoring well, SCI Monitoring Well 10 (SCIMW-10) is located approximately 55 feet east of this UST site. Since 1998, no TPH-d or TPH-mo has been detected in water samples collected from monitoring well SCI-MW-10; monitoring well SCIMW-10 was last monitored in January 2003.

4.0 2003 UST HF-17 FIELD INVESTIGATION

On April 22, 2003, CUS screened the area believed to be the UST site using electro-magnetic induction techniques. The area screened was approximately 100 feet by 100 feet and was centered around previously-investigated test pit SCITP-8. CUS detected a metallic anomaly approximately 10 feet wide by 30 feet long. This anomaly had been detected during a prior investigation conducted by SCI and was determined to be a steel reinforced concrete slab. No other anomalies were detected within the surveyed area.

Because readily available records do not indicate whether UST HF-17 was removed, four new test pits (GAIA TP-1 through GAIA TP-4) were excavated to determine whether the UST was still in place. GAIA observed FOSS Environmental Services Company (FOSS) in the excavation of test pits within the potential UST area beginning on April 23, 2003. This phase of investigation was completed in accordance with the previously submitted workplan. FOSS utilized a backhoe equipped with a 36-inch bucket to excavate the test pits. The lithology of the test pits was logged by a GAIA geologist. A brief description of the material found within each test pit is summarized below and also included on Figure 5. A photographic log of the excavation activities is presented in Appendix C.

GAIA Test Pit 1
Test pit or trench GAIA TP-1 was excavated within the area of the former Pacific Gas and Lumber Company where no previous exploratory excavation had been completed (Figures 4 and 5). The building did not exist at the time the UST was installed (Port, 1965). Test pit GAIA TP-1 was excavated on a northeast strike and was approximately 22 feet long by 4 feet wide by 7 feet deep. Depth to groundwater was estimated to be 5.5 feet bgs in the test pit.

Crushed rock fill was encountered at the southwest end of the test pit below two layers of asphalt. Greenish-gray clays and silts were encountered below the crushed rock at a depth of 3 feet bgs. Two soil samples, TP-1@3' and TP-1@6.5' were collected near the southwest end of the test pit.

A water sample designated TP-1 was collected near the middle of the test pit TP-1, where the groundwater appeared to have a brownish sheen. This water appeared to drain out of gravelly fill located between two concrete structures encountered near the middle of the trench. The concrete structures were encountered at 3 feet and 4 feet bgs in the trench (Figure 5, Notes 1 and 3). Structure 1 looked similar to a foundation wall and was capped with redwood timber. Structure 2 was broader, approximately 4 feet wide and appeared solid. Structure 2 may have been part of a concrete grid foundation underlying some parts of the Port, as was noted in a 1945 Contractor's Plan (Port 1945). Redwood timbers were also encountered above Structure 2.

More gravelly fill was encountered at the northeast end of test pit TP-1. Water draining from the gravelly fill in this area had a black sheen. Water sample TP-1-2 and soil sample TP-1@4.5' were collected from this end of the trench. No evidence of a UST was encountered.

GAIA Test Pit 2

Test pit GAIA TP-2 was excavated approximately 13 feet northwest of the subsurface concrete pad which had been previously investigated by SCI (Figure 5). Test pit GAIA TP-2 was excavated on a northeast strike and was approximately 10 feet long by 3 feet wide by 7 feet deep. Crushed rock fill was encountered below a 6-inch thick layer of asphaltic concrete. Beginning at approximately 2 feet bgs, a greenish-gray clayey silt with trace sand and broken shells was encountered. No evidence of a UST was encountered. The test pit was relatively dry and therefore no water sample was collected. However, two soil samples, TP-2@3' and TP-2@6', were collected.

GAIA Test Pit 3

Test pit GAIA TP-3 was excavated through the northwest end of the subsurface concrete pad (Figures 4 and 5). SCI previously investigated the southwest end of the pad via their test pit SCITP-8 (Figure 4). Test pit GAIA TP-3 was excavated on a northeast strike and was approximately 11 feet long by 3 feet wide by 6 feet deep. Below a layer of asphalt and crushed rock fill, an 8-inch thick, wire-mesh reinforced, concrete pad was encountered at approximately 1.5 feet bgs. Beneath the concrete pad tan clay and crushed rock extended to approximately 2 feet bgs. Greenish-gray silty clay with broken shells was encountered between 2 to 6 feet bgs. No evidence of a UST was encountered. The test pit was relatively dry and therefore no water sample was collected. However, two soil samples, TP-3@3' and TP-3@6' were collected.

GAIA Test Pit 4

Test pit GAIA TP-4 was excavated off the west corner of the shallow concrete pad (Figures 4 and 5). Test pit GAIA TP-4 was excavated on a northwest strike and was approximately 13 feet long by 3 feet wide by 7 feet deep. The test pit was extended laterally off the main section in a southwest direction for approximately 7 feet (Figures 4 and 5). The excavation was extended in this direction to follow a sandy backfill encountered in the main pit area. Excavation in the southwest direction was terminated shortly after encountering a concrete wall (see Figure 5 map Note 10) similar to that encountered in test pit GAIA TP-1.

A 6-inch layer of asphaltic concrete was penetrated at the surface. Crushed rock fill extended to 1.5 feet bgs. Alternating lifts of clay and crushed rock were encountered between approximately 1.5 feet-3.0 feet bgs. A greenish-gray silty sand was encountered from 3 to 7 feet bgs in the main leg of the trench. This silty sand exhibited a weathered gasoline odor when first uncovered. Greenish-gray silts or clay were

observed along portions of the trench sidewalls, suggesting the silty sand is not a native material. In addition, some crushed rock fragments, wood, and metal debris were observed as deep as 6 feet bgs.

In GAIA TP-4, groundwater was encountered at approximately 5.5 feet bgs. Water sample TP-4 and soil samples TP-4@3' and TP-4@6' were collected from the main leg of the trench.

Sample Protocols and Analyses

A total of 9 soil samples and 3 groundwater samples were collected from test pits GAIA TP-1 through GAIA TP-4. All test pit samples for chemical analysis were collected in laboratory-provided sample jars and placed into a cooler with ice. Samples were documented on a chain-of-custody form. The samples were transported under chain of custody to Curtis & Tompkins, Ltd., a California-certified laboratory. All soil and groundwater samples were analyzed for TPH compounds by US Environmental Protection Agency (EPA) Method 8015-Modified with silica gel clean-up for TPH-mo and TPH-d and BTEX using EPA Method 8021. Samples were also tested for fuel oxygenates and lead scavengers by EPA Method 8260. Chain-of-Custody forms and analytical test reports are presented in Appendix D. Test pit sample analytical data are presented in Tables 1 and 2 and in Figure 6. Analytical results are also discussed in Section 5.0 below.

Soil Management and Test Pit Backfill

Soil excavated from each test pit was placed on a layer of visqueen adjacent to the test pit. Test pits were backfilled with the excavated soil. Backfilled soil was loosely compacted in place with the backhoe bucket. A layer of 3/4-inch size road base aggregate was compacted over the backfilled soil. A 6-inch thick layer of asphalt was used to complete the former test pits to grade.

5.0 SAMPLE ANALYTICAL RESULTS

The highest concentrations of TPH compounds in soil were detected in samples collected from test pit GAIA TP-4. A sample collected at 3 feet bgs at GAIA TP-4 had concentrations of TPH-d at 5,700 mg/kg, TPH-mo at 1,700 mg/kg, and total gasoline-range petroleum hydrocarbons (TPH-g) at 120 mg/kg. A sample collected at 5 feet bgs contained TPH-d at 360 mg/kg and TPH-mo at 260 mg/kg. TPH concentrations at GAIA TP-1 ranged from "non-detect" (TPH-g) to 290 mg/kg (TPH-mo). The highest TPH compounds measured in GAIA TP-1 were from 4.5 feet bgs, with TPH-d at 130 mg/kg, TPH-mo at 290 mg/kg, and TPH-g at 4.2 mg/kg. Ethylbenzene and total xylenes were detected in sample GAIA TP-1 at 3 feet bgs at concentrations of 0.015 mg/kg and 0.0228 mg/kg, respectively. Sample GAIA TP-4@3' contained ethylbenzene and total xylenes at concentrations of 0.82 mg/kg and 0.86 mg/kg, respectively. Fuel oxygenates and lead scavengers were not detected in any of the soil samples analyzed.

Elevated concentrations of TPH compounds were detected in groundwater samples from test pits GAIA TP-1 and GAIA TP-4. Groundwater samples GAIA TP-1 and GAIA TP-1-2 collected from test pit GAIA TP-1 had elevated concentrations of TPH-d at 9,100 µg/L and 20,000 µg/L, TPH-mo at 15,000 µg/L and 22,000 µg/L, and TPH-g at 49,000 µg/L and 8,900 µg/L, respectively. TPH-d, TPH-mo, and TPH-g were detected in the groundwater sample from test pit GAIA TP-4 at concentrations of 32,000 µg/L, 5,000 µg/L, and 870 µg/L, respectively. Ethylbenzene and total xylenes were also detected in groundwater samples collected from GAIA TP-1. Groundwater sample GAIA TP-1 contained ethlybenzene at 290 µg/L and total xylenes at 180 µg/L. Ethylbenzene and total xylenes were also detected in water sample GAIA TP-1-2, but both at identical lower concentrations of 19 µg/L. Total xylenes were detected in groundwater sample GAIA TP-4 at a concentration of 2.3 µg/L. The fuel oxygenate Tert-Butyl Alcohol (TBA) was detected in groundwater samples GAIA TP-1 and GAIA TP-1-2 at concentrations of 20 µg/L and 21 µg/L, respectively.

6.0 CONCLUSIONS

A total of four test pits were excavated in the general areas where available information indicated the possible presence or possible former presence of a UST. The Port of Oakland 1965 map as well as site maps from investigations performed by SCI were used to guide the placement of test pits GAIA TP-1 through GAIA TP-4. Test pit GAIA TP-3 was excavated through a subsurface concrete pad identified by CUS to investigate whether the UST was emplaced under this pad. A UST was not encountered in any of the test pits. Subsurface investigations conducted to date have not located UST HF-17. Thus, the available information indicates that the UST has likely already been removed. This conclusion is supported by the apparent presence of imported (sandy, silty) fill in TP-1 and TP-4.

Overall, the sample results indicate only limited hydrocarbon impact on the east side of the study area (GAIA TP-2 and GAIA TP-3). Higher TPH concentrations were encountered in the center (GAIA TP-4) and on the west side (GAIA TP-1) of the study area. TPH compounds detected in soil at GAIA TP-2 and GAIA TP-3 were detected at very low concentrations (less than 13 mg/kg). Soil samples collected from test pit GAIA TP-4 contained high concentrations of TPH compounds. The strongest hydrocarbon odor was also noted in this test pit. In addition, a silty sand, typical of fill material found in a UST pit, was encountered to a depth of 7 feet bgs. UST HF-17 was therefore most likely located in the vicinity of this test pit.

Groundwater samples collected from test pits GAIA TP-1 and GAIA TP-4 contained elevated levels of TPH-d and TPH-mo. Detected concentrations of TPH-d and TPH-mo are consistent with data from previous nearby borings SCI-5 and RMA-12. These previous borings showed concentrations of TPH-d and TPH-mo ranging from 35,000 µg/L to 53,900 µg/L. Groundwater samples from GAIA TP-1 and GAIA TP-4, however, also contained elevated levels of TPH-g: TPH-g was also detected in groundwater samples from nearby borings SCI-5 and RMA-12. The nearest groundwater monitoring well (SCIMW-10) is located approximately 55 feet south-southeast of the former UST area. Since 1998, TPH compounds have not been detected in this well.

The elevated levels of TPH-d and TPH-mo found in soil and groundwater at GAIA TP-4 are consistent with the elevated concentrations found at the southern AST farm. The former presence of large ASTs with known releases to the south and east of the UST area may have contributed to the subsurface hydrocarbon impact in the suspected UST area. However, the presence of TPH-g in groundwater at GAIA TP-1 and GAIA TP-4 suggests a possible separate source for these constituents. Because concentrations of TPH-g in soil at GAIA TP-1 and GAIA TP-4 are relatively low, it cannot be concluded that the source of TPH-g in groundwater at this UST site is associated with former UST HF-17.

The Port area is underlain with artificial fill and is crisscrossed by utility trenches and pipelines. Tidal influence on groundwater and on water in storm drains has been previously documented. Many buried concrete structures on site. Because of the relatively unnatural state of the subsurface, groundwater flow direction and chemical migration may not be as expected. Flow and migration may be impeded by concrete barriers and clay-rich zones, channelized in areas of porous fill or utility trenches, and subject to reversed horizontal movement due to tidal influence and areas of recharge. These conditions may complicate site evaluations, including the identification of potential sources of the TPH-g in groundwater at UST Site HF-17.

7. REFERENCES

Note: the references relevant to this report are shown in bold.

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41. Subsurface Consultants, Inc. (SCI 2000b). *Memorandum - Preliminary Review of Environmental Conditions at 901 Embarcadero, Ninth Avenue Terminal, Oakland, California*, May 2000.

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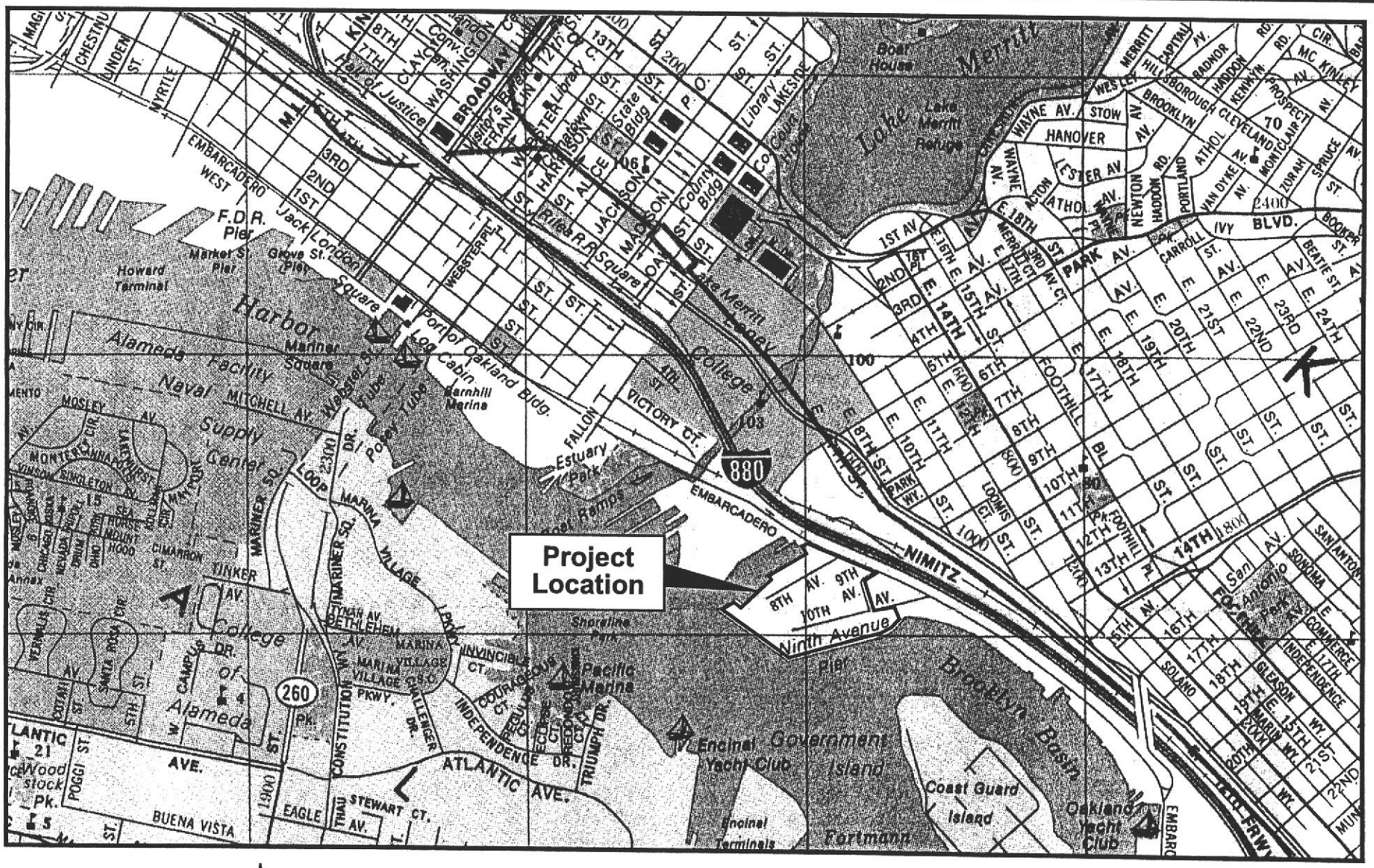
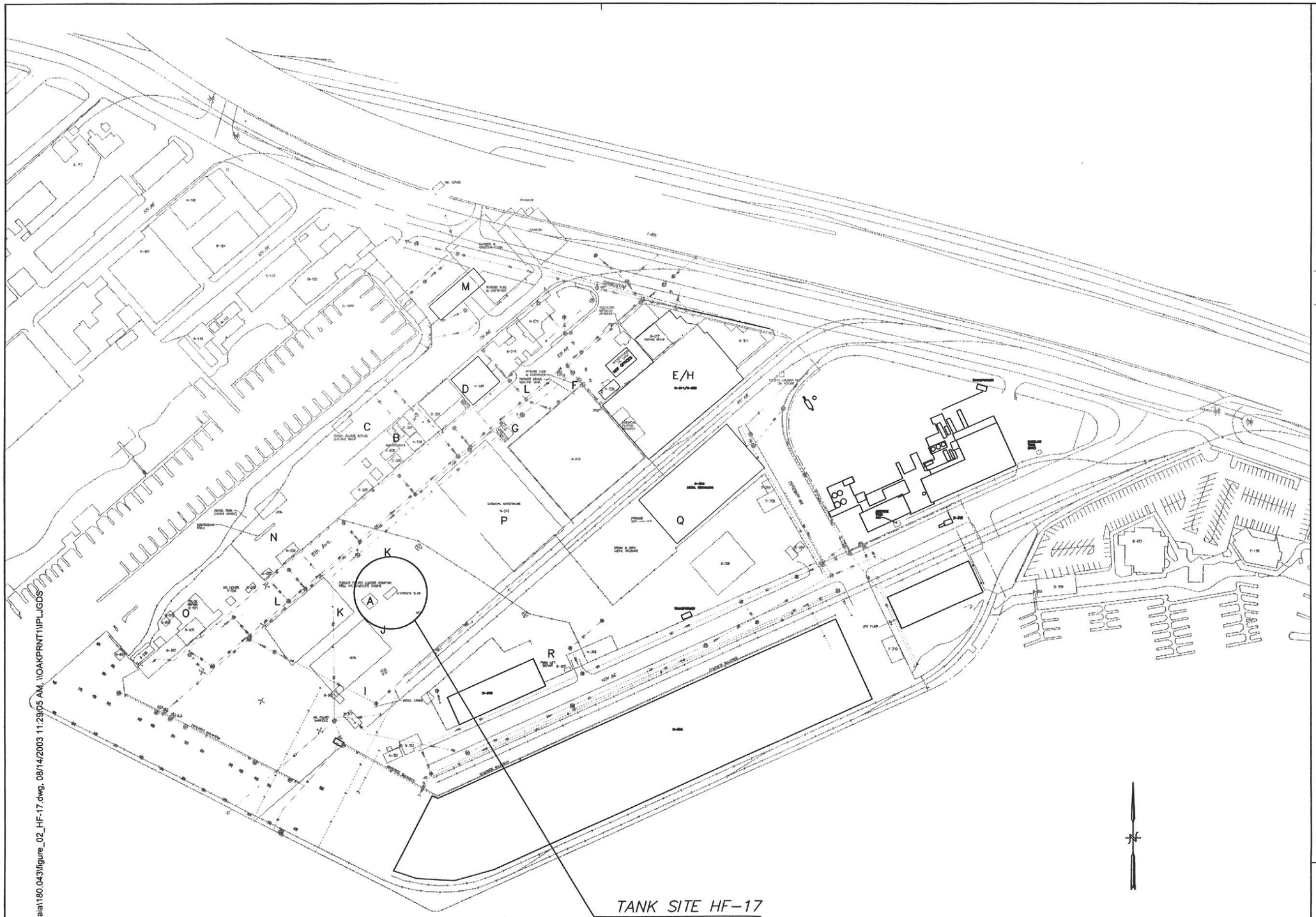


Figure 1
Vicinity Map
Port of Oakland
Ninth Avenue Terminal

GAIA consulting, inc.

168344.A5.01 •Vicinity Map •11/9/01 •ccc•SFO



LEGEND:

- DEMOLISHED BUILDING
- EXISTING BUILDING
- EXISTING BUILDING FOUNDATION
- FENCE LINE
- RAILROAD
- BOUNDARY LINE
- OVERHEAD LIGHT STANDARD
- EXISTING ABOVE OR UNDERGROUND STORAGE TANK
- FORMER ABOVE OR UNDERGROUND STORAGE TANK
- K DESIGNATED INVESTIGATION AREA

NOTE: ALL CONCENTRATIONS IN µg/L
MW LAST SAMPLED IN DECEMBER 2001

INVESTIGATION AREA
UST SITE HF-17
9th Avenue Terminal
Port of Oakland

GAIA consulting, inc.

Project No.	Figure
180.043	2

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RMA-26
SCITP-23A
SCI-48
RMA-2
H-225
SCI-30
SD
SS
W
?
TANK
E GRADE)
ASTs
RMA-25
SCIMW-2
B-4
CHEMICAL WAREHOUSE
H-215
P
SCIMW-30
RMA
SCI-81
SCI-60
SCI-80
SCI-55
N
SCI-43
SCI-45
8th Ave.
SCI-7
4
K
VTP-4
SCITP-3
H-224
SCITP-26
SCI-44
SCITP-19
H-222
W
B-2
SCI-39
SCIMW-22
SCI-59
SCIMW-31D
1
RMA-24
OIL HOUSE
H-204
UST
H-223
SCI-8
GAIA TP-2
FORMER PACIFIC LUMBER COMPANY
WELL AND GASOLINE ENGINE
GAIA TP-3
SCITP-8
CONCRETE SLAB
GAIA TP-1
GAIA TP-4
B-3
RMA-22
SC
B-7
L
SCITP-13
GAIA TP-5
SCITP-20
H-227
K
SCIMW-33
SCIMW-10
ASTs
SCI-6
SCITP-22
SCITP-21
RMA-13
J
SCI-9
SCITP-11
RMA-14
RMA-15
ASTs
SCIMW-13
SCITP-12
FORK
REP
SCI-1
RMA-20
SCI-38
SCITP-17
RMA-17
SCI-3
RMA-16
SCIMW-9
SCIMW-3
H-220
RMA-18
SCITP-10
STEEL TANKS
H-318
RMA-19
SCITP-9
RMA-21
H-217
OIL FILLED
MANHOLE
SCI-4

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LEGEND:

- GAIA TEST PIT LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- TEST PIT LOCATION
- DEMOLISHED BUILDING
- FENCE LINE
- RAILROAD
- BOUNDARY LINE
- OVERHEAD LIGHT STANDARD
- EXISTING ABOVE OR UNDERGROUND STORAGE TANK
- FORMER ABOVE OR UNDERGROUND STORAGE TANK

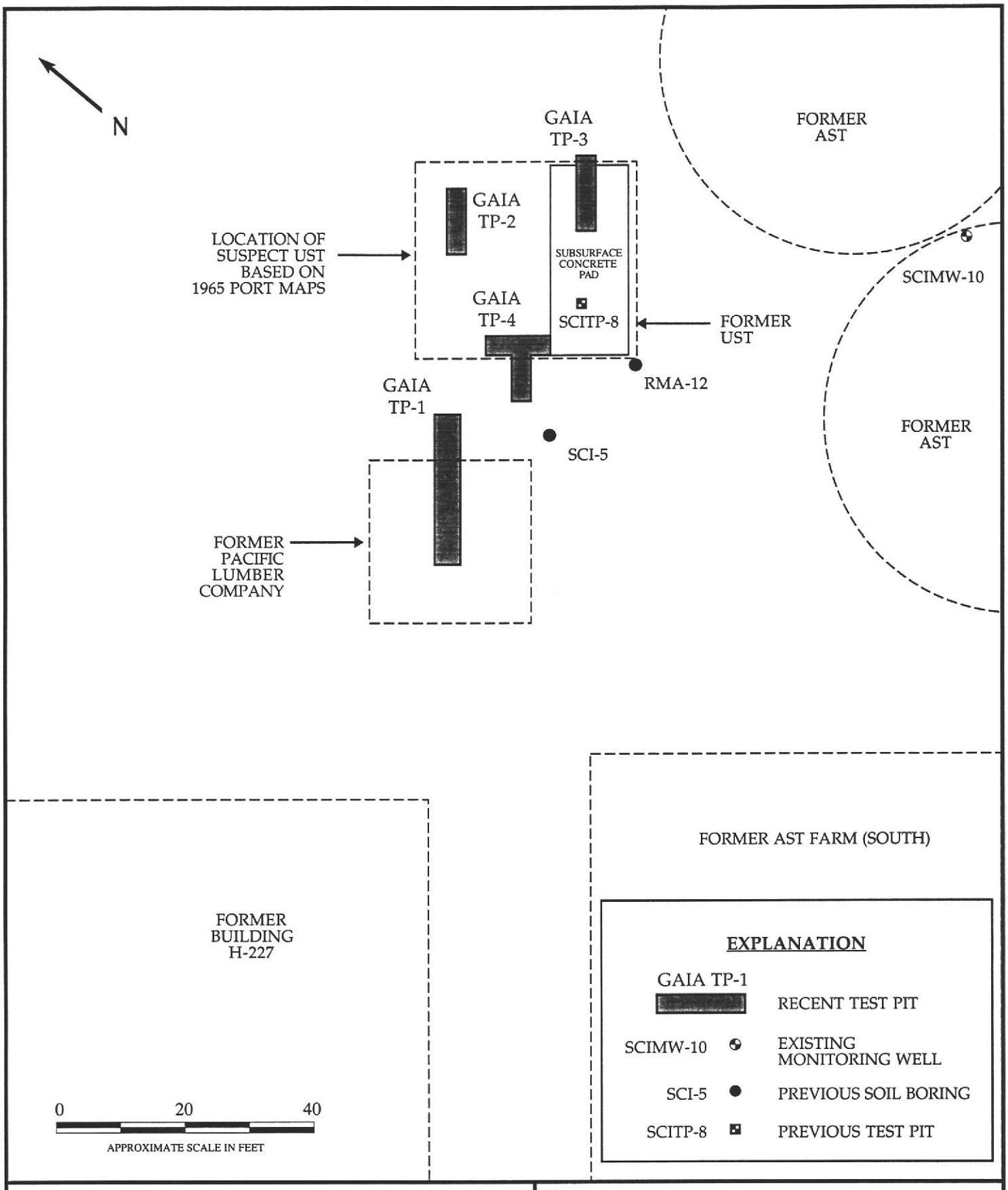
N

GRAPHIC SCALE
0 50 100

SITE LOCATION
UST HF-17 (BLDG. H-227)
9th Avenue Terminal
Port of Oakland

GAIA consulting, inc.

Project No.	Figure
180.043	3



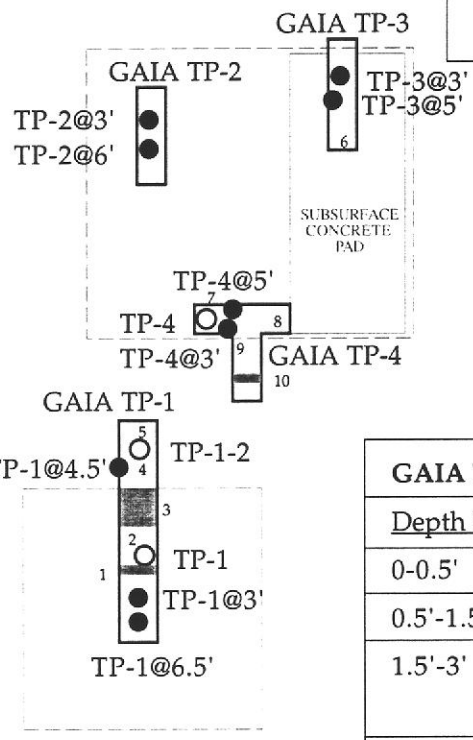
TEST PIT LOCATION MAP
UST Site HF-17
Building H-227
9th Avenue Terminal
Port of Oakland

GAIA CONSULTING, INC.

Project No.	Figure Date	Figure
180.043	**8/03**	**4**

GAIA TP-2 (4-24-03)	
Depth bgs	Log
0-0.5'	asphaltic concrete
0.5'-2'	crushed rock fill
2'-6.5'	g-g clayey silt w/ trace fine sand & broken shells
NOTES: No water in hole.	

GAIA TP-3 (4-24-03)	
Depth bgs	Log
0-0.5'	asphaltic concrete
0.5'-75'	crushed rock fill
0.75'-1.5'	concrete w/ wire mesh
1.5'-2'	clay & crushed rock fill
2'-6'	g-g silty clay w/ shells
NOTES:	
	No water in hole.
6	Abundant broken shells in clay @3-4' bgs on southwest trench end.



GAIA TP-1 (4-23-03)	
Depth bgs	Log
0-0.33'	asphaltic concrete
0.33'-0.66'	asphaltic concrete
0.66'-3'	crushed rock fill
3'-7'	greenish-gray (g-g) clays and silts
NOTES:	
	Groundwater @ 5.5 ' bgs.
1	Concrete wall topped w/ redwood timber @ 3' bgs.
2	Brownish sheen on water.
3	Solid concrete structure 4' wide @ 4' bgs topped with redwood timbers
4	Black sheen on water.
5	Gravelly fill on north-east trench end.

GAIA TP-4 (4-24-03)	
Depth bgs	Log
0-0.5'	asphaltic concrete
0.5'-1.5'	crushed rock fill
1.5'-3'	alternating lifts of clay and crushed rock fill
3'-7'	g-g silty sand fill or silts/clays
NOTES:	
	Groundwater @ 5.5 ' bgs.
7	Trace crushed red rock & wood debris between 4-6' bgs.
8	Piece of metal 6" x 24" and 3/32" thick and wood debris @6' bgs.
9	Broken pieces of whitish colored hard debris @ 3-4' bgs.
10	Concrete wall topped w/ redwood timber @2' bgs.

EXPLANATION

TP-1@3' ●	SOIL SAMPLE/DEPTH
TP-1 ○	WATER SAMPLE
SCIMW-10 ◔	EXISTING MONITORING WELL
GAIA TP-1 ▭	TEST PIT
▪	SUBSURFACE CONCRETE FEATURE UNCOVERED

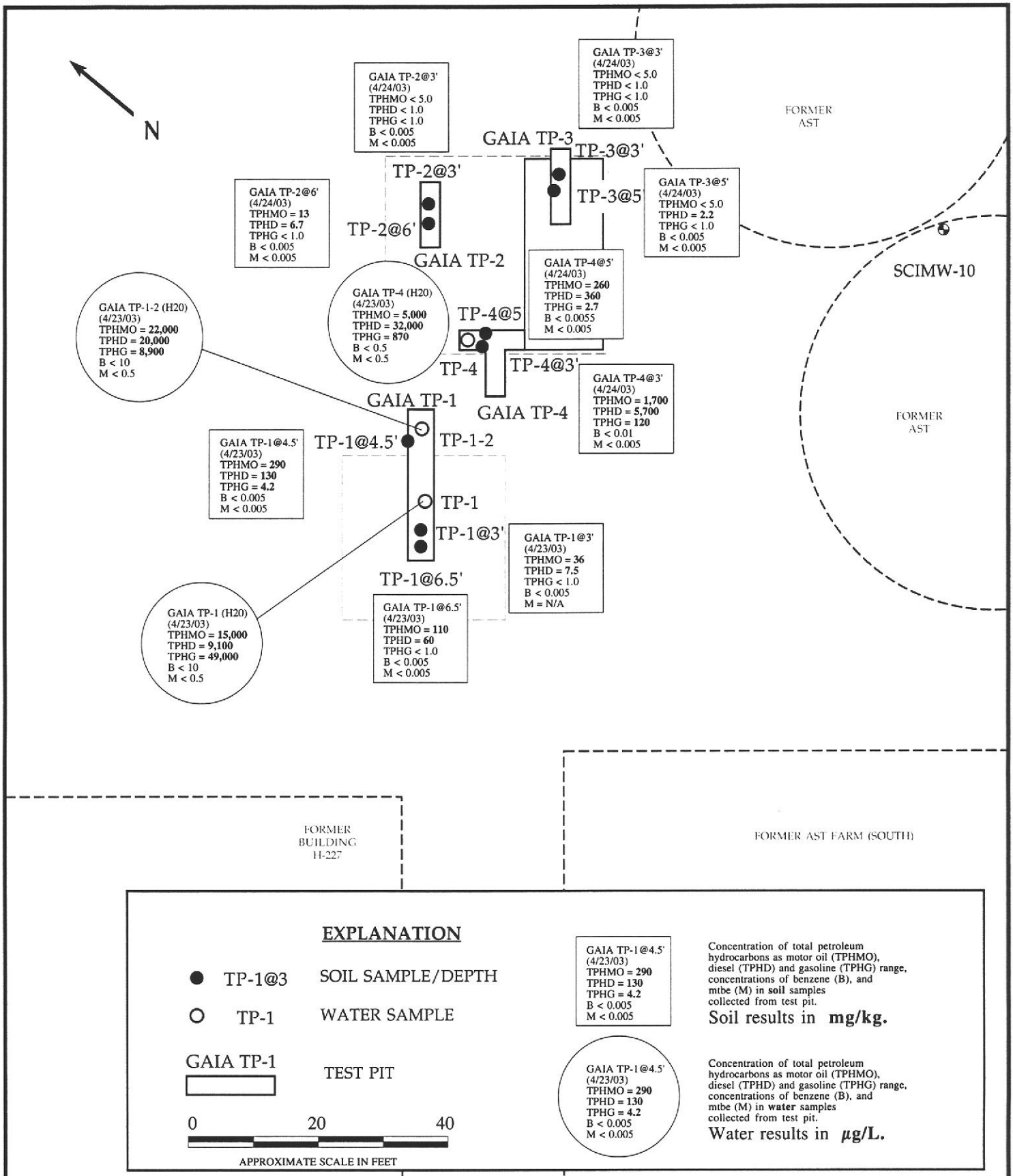
0 20 40

APPROXIMATE SCALE IN FEET

TEST PIT SAMPLING MAP & LOGS
UST Site HF-17
Building H-227
9th Avenue Terminal
Port of Oakland

GAIA CONSULTING, INC.

Project No.	Figure Date	Figure
180.043	**8/03**	**5**



HYDROCARBON DISTRIBUTION MAP

UST Site HF-17
Building H-227
9th Avenue Terminal
Port Of Oakland

GAIA CONSULTING, INC.

Project No.	Figure Date	Figure
180.043	**8/03**	**6**

Table 1
SOIL SAMPLE ANALYTICAL RESULTS
UST Site HF-17 at Former Building H-227
Ninth Avenue Terminal, Port of Oakland

SAMPLE ID	DEPTH (ft. bgs)	SAMPLE DATE	*Total Petroleum Hydrocarbons & BTEX (mg/kg)*							*Fuel Oxygenates & Lead Scavengers (mg/kg)*						
			TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	1,2-DCA	EDB
HISTORIC SITE INVESTIGATION																
SCI-5@3.5	3.5	5/21/1996	**47YH**	**71Y**	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--
RMA-12@6.5-7	6.5	11/20/1996	<10	--	<10	--	--	--	--	--	--	--	--	--	--	--
SCIMW-10@3	3.0	8/21/1996	**100YH**	**810**	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--
SCITP-8@4.5	4.5	2/3/1997	**10YH**	**120H**	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--
SCITP-8@6	6.0	2/3/1997	**32YH**	**340**	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--
GAIA INVESTIGATION																
GAIA TP-1@3	3.0	4/23/2003	**7.5 HY**	**36**	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--
GAIA TP-1@4.5	4.5	4/23/2003	**130 HLY**	**290 L**	**4.2 HY**	<0.005	<0.005	**0.015 C**	**0.0228 C**	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005
GAIA TP-1@6.5	6.5	4/23/2003	**60 HLY**	**110 L**	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005
GAIA TP-2@3	3.0	4/24/2003	<1.0	<5.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005
GAIA TP-2@6	6.0	4/24/2003	**6.7 HY**	**13**	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005
GAIA TP-3@3	3.0	4/24/2003	<1.0	<5.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005
GAIA TP-3@5	5.0	4/24/2003	**2.2 HY**	<5.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005
GAIA TP-4@3	3.0	4/24/2003	**5,700 HLY**	**1,700 L**	**120 HY**	<0.01	<0.01	**0.82 C**	**0.86 C**	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005
GAIA TP-4@5	5.0	4/24/2003	**360 HLY**	**260L**	**2.7 HY**	<0.0055	<0.0055	**0.0089 C**	**<0.0055**	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005

Notes:

--	Sample not analyzed
<0.05	Analyte not detected above the stated reporting limit
H	Heavier hydrocarbons contributed to the quantitation
L	Lighter hydrocarbons contributed to the quantitation
Y	Sample exhibits chromatographic pattern which does not resemble standard
C	Presence confirmed, but relative percent difference between columns exceeds 40%
TPH-d	Total diesel range petroleum hydrocarbonsby EPA Method 8015M w/silica gel cleanup
TPH-mo	Total motor oil range petroleum hydrocarbons by EPA Method 8015M w/silica gel cleanup
TPH-g	Total gasoline range petroleum hydrocarbonsby EPA Method 8015M
Fuel Oxygenates	MTBE, TBA, DIPE, ETBE, & TAME by EPA Method 8260B
Lead Scavengers	1,2-DCA and EDB by EPA Method 8260B

mg/kg	miligrams per kilogram
ft bgs	feet below ground surface
MTBE	methyl tert-Butyl ether
TBA	tert-Butyl Alcohol
DIPE	Isopropyl Ether
ETBE	Ethyl tert-Butyl Ether
TAME	Methyl tert-amyl ether
1,2-DCA	1,2-Dichloroethane
EDB	1,2 Dibromoethane

Table 2
GROUNDWATER SAMPLE ANALYTICAL RESULTS
UST Site HF-17 at Former Building H-227
Ninth Avenue Terminal, Port of Oakland

SAMPLE ID	GROUND WATER ELEVATION (ft)	SAMPLE DATE	*Total Petroleum Hydrocarbons & BTEX (µg/L)*							*Fuel Oxygenates & Lead Scavengers (µg/L)*						
			TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	1,2-DCA	EDB
HISTORIC SITE INVESTIGATION																
SCI-5	--	5/21/1996	**35,000YHL**	**42,000YL**	**250Y**	<25	<25	<25	<25	--	--	--	--	--	--	--
RMA-12	--	11/20/1996	**53,900Y**	--	<500	--	--	--	--	--	--	--	--	--	--	--
SCIMW-10	7.95	8/26/1996	**1,100YH**	**1,200YL**	<50	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	--
SCIMW-10	7.87	1/23/1997	**1,400YH**	**2,500**	<50	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--
SCIMW-10	7.64	9/18/1998	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--
SCIMW-10	5.98	12/1/1999	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--
SCIMW-10	6.57	10/10/2000	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--
SCIMW-10	5.85	12/3/2001	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--
SCIMW-10	5.89	1/21/2003	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--
GAIA INVESTIGATION																
GAIA TP-1	--	4/23/2003	**9,100 HLY**	**15,000**	**49,000 HY**	<10	<10	**290**	**180 C**	<0.5	**20**	<0.5	<0.5	<0.5	<0.5	<0.5
GAIA TP-1-2	--	4/23/2003	**20,000 HLY**	**22,000**	**8,900 HY**	<10	<10	**19 C**	**19 C**	<0.5	**21**	<0.5	<0.5	<0.5	<0.5	<0.5
GAIA TP-4	--	4/24/2003	**32,000**	**5,000 L**	**870 HY**	<0.5	<0.5	<0.5	**2.3 C**	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

<0.05 Analyte not detected above the stated reporting limit
-- Sample not analyzed
H Heavier hydrocarbons contributed to the quantitation
L Lighter hydrocarbons contributed to the quantitation
Y Sample exhibits chromatographic pattern which does not resemble standard
C Presence confirmed, but relative percent difference between columns exceeds 40%
TPH-d Total diesel range petroleum hydrocarbonsby EPA Method 8015M w/silica gel cleanup
TPH-mo Total motor oil range petroleum hydrocarbons by EPA Method 8015M w/silica gel cleanup
TPH-g Total gasoline range petroleum hydrocarbonsby EPA Method 8015M
BTEX Benzene, Toluene, Ethyl-Benzene, Total Xylenes by EPA Method 8021
Fuel Oxygenates MTBE, TBA, DIPE, ETBE, &TAME by EPA Method 8260B
Lead Scavengers 1,2-DCA and EDB by EPA Method 8260B

µg/L micrograms per Liter
TBA tert-Butyl Alcohol
DIPE Isopropyl Ether
ETBE Ethyl tert-Butyl Ether
TAME Methyl tert-Amyl Ether
1,2-DCA 1,2-Dichloroethane
EDB 1,2 Dibromoethane

APPENDIX A
County Workplan Approval Letter

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

December 13, 2002

Mr. Doug Herman
Port of Oakland
P.O. Box 2064
Oakland, CA 94604-2064

Dear Mr. Herman:

Subject: Suspected site of UST HF-17, Building H-227, Ninth Ave. Terminal,
Oakland, CA 94606

Alameda County Environmental Health, Local Oversight Program (LOP), has received and reviewed the October 8, 2002 Final Site Investigation Work Plan for the referenced site. As you are aware, this site is located within a larger area of environmental impact commonly referred to as the Ninth Ave. Terminal site. This report also states that this Ninth Ave. site is within an even larger potential development area designated as the Oak to Ninth District. Although the proposed future use of this area is commercial, UST and SLIC closures must either evaluate **all** potential exposure scenarios or ensure the site is re-evaluated if a more conservative site usage is planned.

A 10,000 gallon underground tank is reported to have been located at this site northeast of Building H-227. Although prior investigation did not produce evidence of this tank, the investigation is not considered thorough. Therefore, this work plan proposes potholing areas within the presumed UST area along with performing a geophysical survey. In regards to the work plan, I have the following comments:

- Please submit a signed, stamped cover letter from your consultant for this report.
- Should a UST be found, the removal of the UST should be done through the City of Oakland Fire Department. If product is found in the tank, it should be analyzed to confirm that the proposed analytes are consistent with the contents.
- Please make note of any utilities found during the investigation since they pose a potential preferential migration pathway.
- Please identify any tank remnants in the event a UST is not found. Significant evidence must exist before the site can be transferred to LOP.
- Even if a UST is not found, you must determine if the release in this area requires additional soil and groundwater investigation. There is a lack of monitoring wells in this area.
- Please notify our office when the investigation is scheduled.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

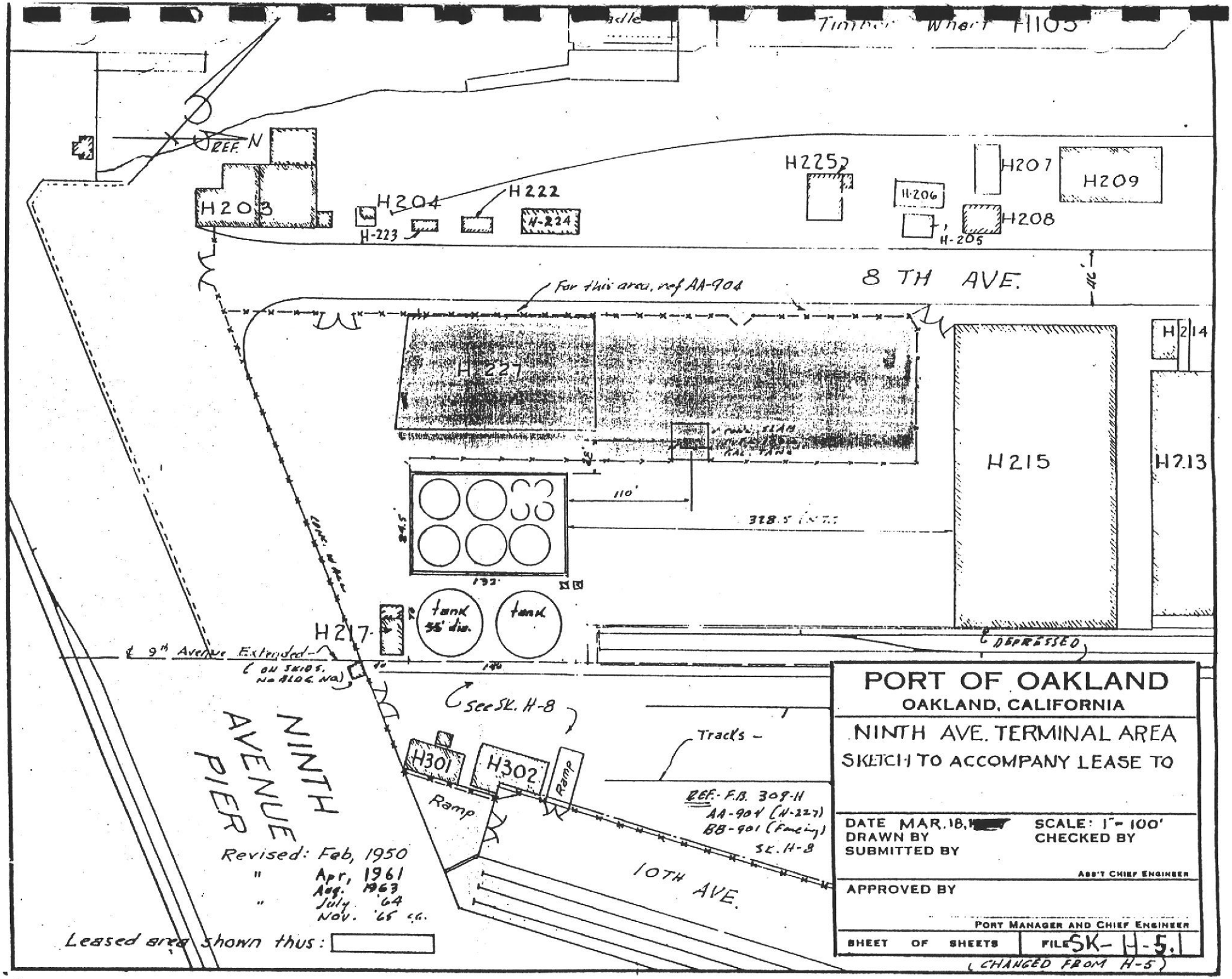
Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Ms. S. von Rosenberg, GAIA Consulting, 2101 Webster St., 12th Floor, Oakland, CA 94612
Ms. J. Alexander, Fugro, 1000 Broadway, Suite 200, Oakland, CA 94607
Mr. L. Griffin, City of Oakland Fire Dept., 1605 Martin Luther King Jr. Way, Oakland, CA 94612

HF17lovwp

APPENDIX B

1965 Port of Oakland Map



PORT OF OAKLAND

OAKLAND, CALIFORNIA

NINTH AVE. TERMINAL AREA

SKETCH TO ACCOMPANY LEASE TO

DATE MAR. 18, [redacted] SCALE: 1" = 100'

DRAWN BY CHECKED BY

SUBMITTED BY

ASS'T CHIEF ENGINEER

APPROVED BY

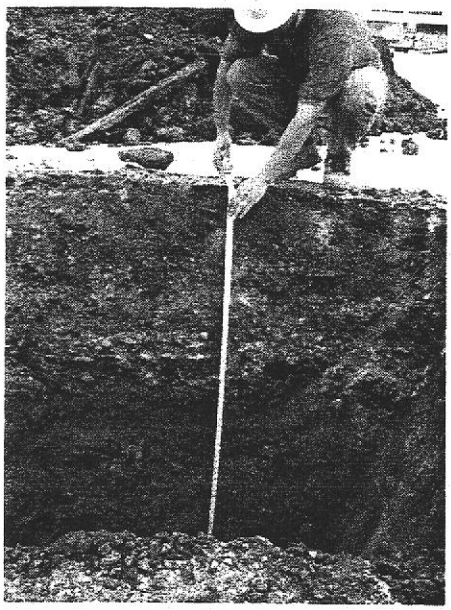
PORT MANAGER AND CHIEF ENGINEER

SHEET OF SHEETS FILE SK- H-5.

(CHANGED FROM H-5)

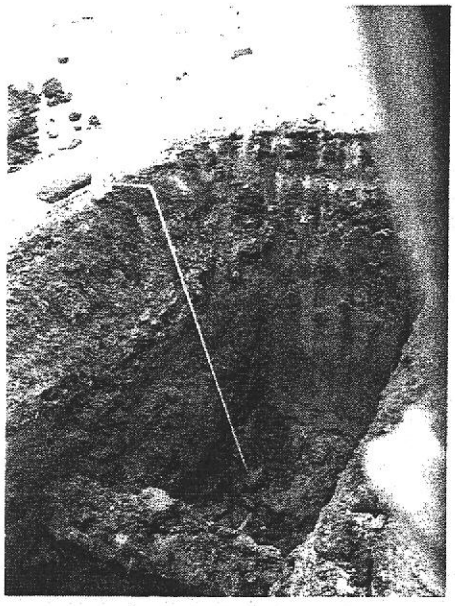
APPENDIX C

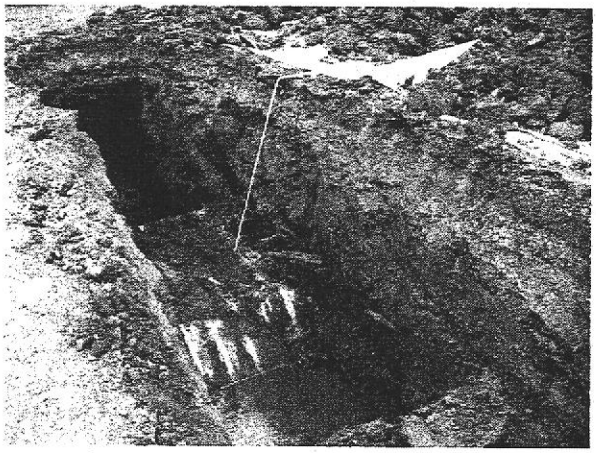
Photo Log



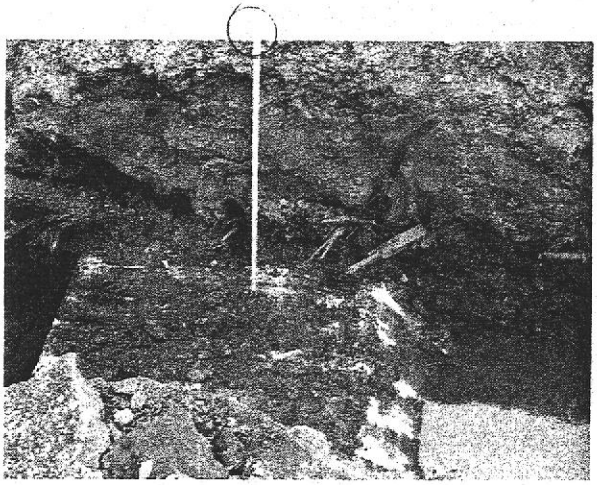
#1 (left photo) Southern corner of TP-1. Various colored crushed rock fill layer extends to approx. 2.5' bgs and is underlain by greenish-gray silt/clay soil.

#2 (right photo) Southwestern end of TP-1. In foreground, redwood timber atop foundation-like concrete wall.



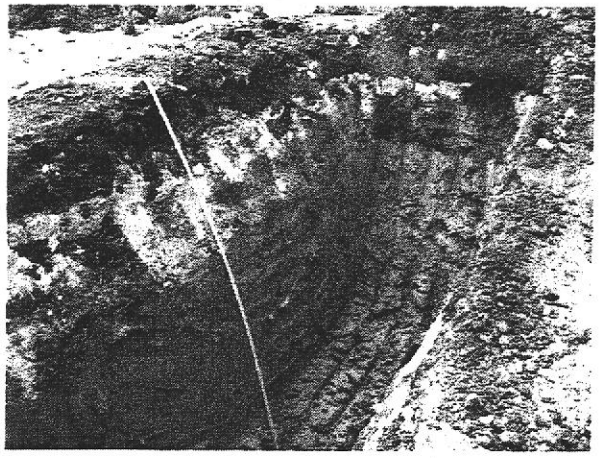


#3 TP-1 mid-trench. Unknown concrete structure approximately 4' wide with sloped walls.

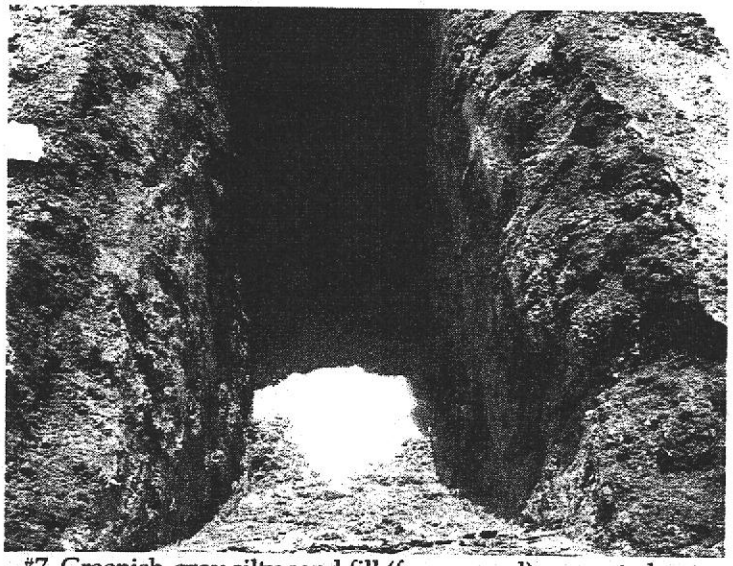


4 TP-1 mid-trench. Closeup of unknown concrete structure. May be part of larger concrete grid stabilizing structure underlying area.

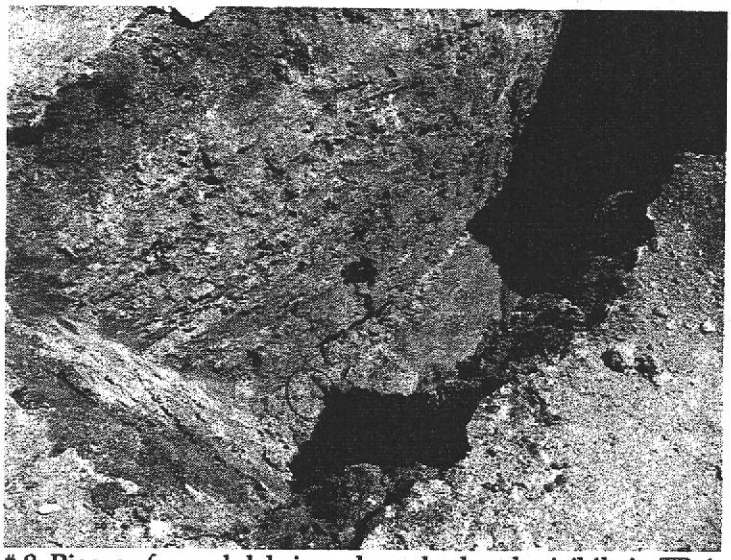
#5 Test pit TP-2. Greenish-gray clayey silt beginning at 2' bgs. Crushed rock fill and asphaltic concrete layer above. Backfilled test pit TP-1 visible in background.



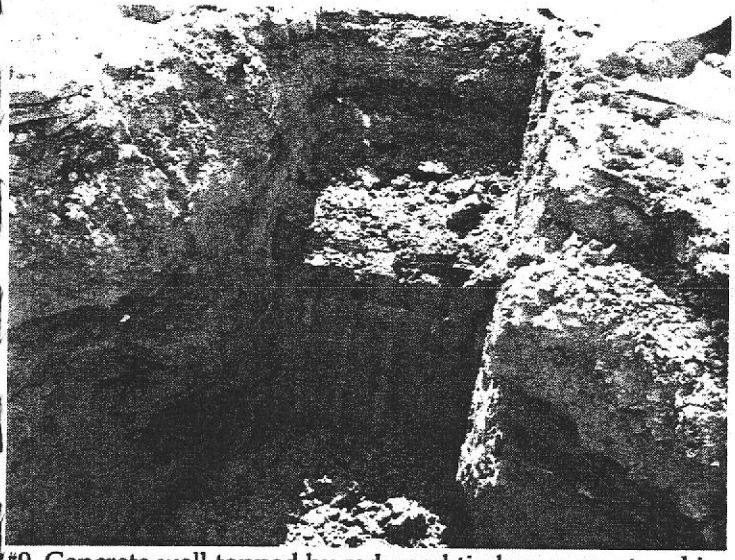
#6 TP-3 excavated through buried concrete pad visible on sidewall. Greenish-gray silty clay begins at 2' bgs. No UST was encountered under concrete pad.



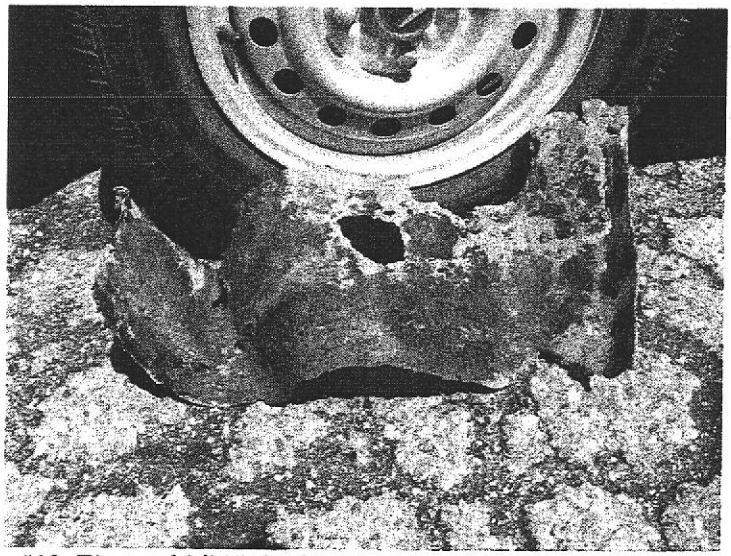
#7 Greenish-gray silty sand fill (foreground) excavated out of test pit TP-4, groundwater filling hole.



8 Pieces of wood debris and crushed rock visibile in TP-4 northeastern sidewall down to depths of approximately 6' bgs.



#9 Concrete wall topped by redwood timber encountered in southwestern leg of test pit TP-4.



#10 Piece of 3/32" thick metal recovered from TP-4 at approximately 6' bgs (car tire for scale).

APPENDIX D

Laboratory Certified Analytical Reports

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

ANALYTICAL REPORT

Prepared for:

GAIA Consulting, Inc.
2101 Webster Street
12th Floor
Oakland, CA 94612

Date: 14-MAY-03
Lab Job Number: 164929
Project ID: H-227
Location: 9th Ave

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

Reviewed by: _____
Project Manager

Reviewed by: _____
Operations Manager

Curtis & Tompkins, Ltd.

Laboratory Number: 164929
Client: Gaia Consulting Inc.
Project#: H-227
Location: 9th Avenue

Receipt Date: 04/24/03

CASE NARRATIVE

This hardcopy data package contains sample and QC results for three soil and two water samples that were received on April 24, 2003. The samples were received cold and intact.

Total Volatile Hydrocarbons/BTXE by EPA 8015B/8021B

High bromofluorobenzene surrogate recovery was observed in sample GAIA TP-1 (164929-004). This outlier was due to heavy hydrocarbons coeluting with the surrogate peak. The associated trifluorotoluene surrogate recovery met acceptance criteria. No other analytical problems were encountered.

Total Extractable Hydrocarbons by EPA 8015B

All samples were silica gel cleaned by EPA 3630C as requested on the chain of custody. Low spike recovery was observed in the matrix spike duplicate. The sample used as the matrix spike sample was not from this site. The matrix spike recovery and the relative percent difference met acceptance criteria, as did the laboratory control sample. No analytical problems were encountered.

Gasoline Oxygenates/Lead Scavengers by EPA 8260B

No analytical problems were encountered.

CHAIN OF CUSTODY FORM

Page 1 of 1

Curtis & Tompkins, Ltd.
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

C&T LOGIN # 164929

Sampler: Henry Huckmans
Report To: Melba Policicchio
Company: Gaia Consulting Inc.
Telephone: (510) 663-4257
Fax: (510) 663-4141

Project No: H-227
Project Name: 9th Ave.
Project P.O.:
Turnaround Time: standard

Laboratory Number	Sample ID.	Sampling Date Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservative: HCL	Preservative: H_2SO	Preservative: HNO_3	Preservative: ICE	Field Notes	Analyses: 8015M TPH-d,g, MO	Analyses: 8260 fuel oxygenates (5)	Analyses: EDB, DCA	Analyses: BTEX 8021
-1	Gaia TP-1@3	4/23 12:20	X			1 Jar				X		X	X	X	X
-2	GAIA TP-1@4.5	12:40	X			1 Jar				X		X	X	X	X
-3	GAIA TP-1@4.5	15:15	X			1 Jar				X		X	X	X	X
-4	GAIA TP-1	4/23 13:10		X		5 VOAs, 1 amber				X	VOAs unpreserved	X	X	X	X
-5	GAIA TP-1-2	4/23 15:30		X		5 VOAs, 1 amber				X	VOAs unpreserved	X	X	X	X

For Laboratory Use

Notes:
8015M w/ Silica gel cleanup
5 fuel oxygenates + lead scavengers
8260
VOAs were unpreserved

RELINQUISHED BY:
Melba Policicchio 4-24-03 7:55 DATE/TIME
DATE/TIME
DATE/TIME

RECEIVED BY:
4-24-03 11:47 AM DATE/TIME
DATE/TIME
DATE/TIME

Signature

RECEIVED 04/24

BUBBLE IN VOA -0046

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227		
Matrix:	Water	Sampled:	04/23/03
Units:	ug/L	Received:	04/24/03
Batch#:	81081		

Field ID:	GAIA TP-1	Diln Fac:	20.00
Type:	SAMPLE	Analyzed:	04/26/03
Lab ID:	164929-004		

Analyte	Result	RL	Analysis
Gasoline C7-C12	49,000 H Y	1,000	8015B
Benzene	ND	10	EPA 8021B
Toluene	ND	10	EPA 8021B
Ethylbenzene	290	10	EPA 8021B
m,p-Xylenes	ND	10	EPA 8021B
o-Xylene	180 C	10	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	105	68-145	8015B
Bromofluorobenzene (FID)	156 *	66-143	8015B
Trifluorotoluene (PID)	91	53-143	EPA 8021B
Bromofluorobenzene (PID)	113	52-142	EPA 8021B

Field ID:	GAIA TP-1-2	Diln Fac:	20.00
Type:	SAMPLE	Analyzed:	04/26/03
Lab ID:	164929-005		

Analyte	Result	RL	Analysis
Gasoline C7-C12	8,900 H Y	1,000	8015B
Benzene	ND	10	EPA 8021B
Toluene	ND	10	EPA 8021B
Ethylbenzene	19 C	10	EPA 8021B
m,p-Xylenes	ND	10	EPA 8021B
o-Xylene	19 C	10	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	96	68-145	8015B
Bromofluorobenzene (FID)	107	66-143	8015B
Trifluorotoluene (PID)	86	53-143	EPA 8021B
Bromofluorobenzene (PID)	99	52-142	EPA 8021B

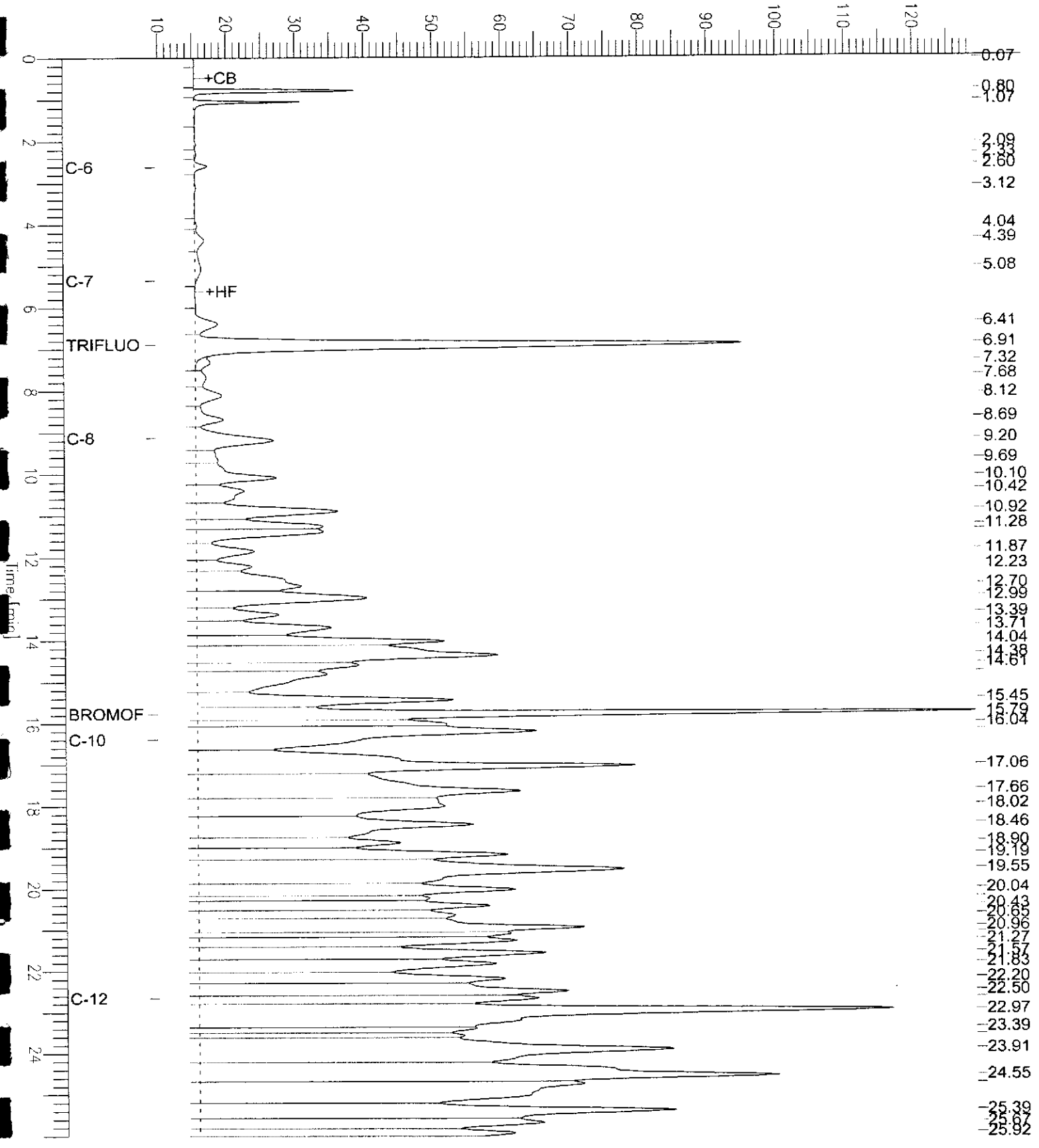
*= Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

GC07 TVH 'A' Data File RTX 502

Sample Name : 164929-004,81081
FileName : G:\GC07\DATA\115A029.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 10 mV

Sample #: e7 Page 1 of 1
Date : 4/26/03 06:25 PM
Time of Injection: 4/26/03 03:46 AM
Low Point : 9.64 mV High Point : 128.79 mV
Plot Scale: 119.2 mV

GAIA TP-1

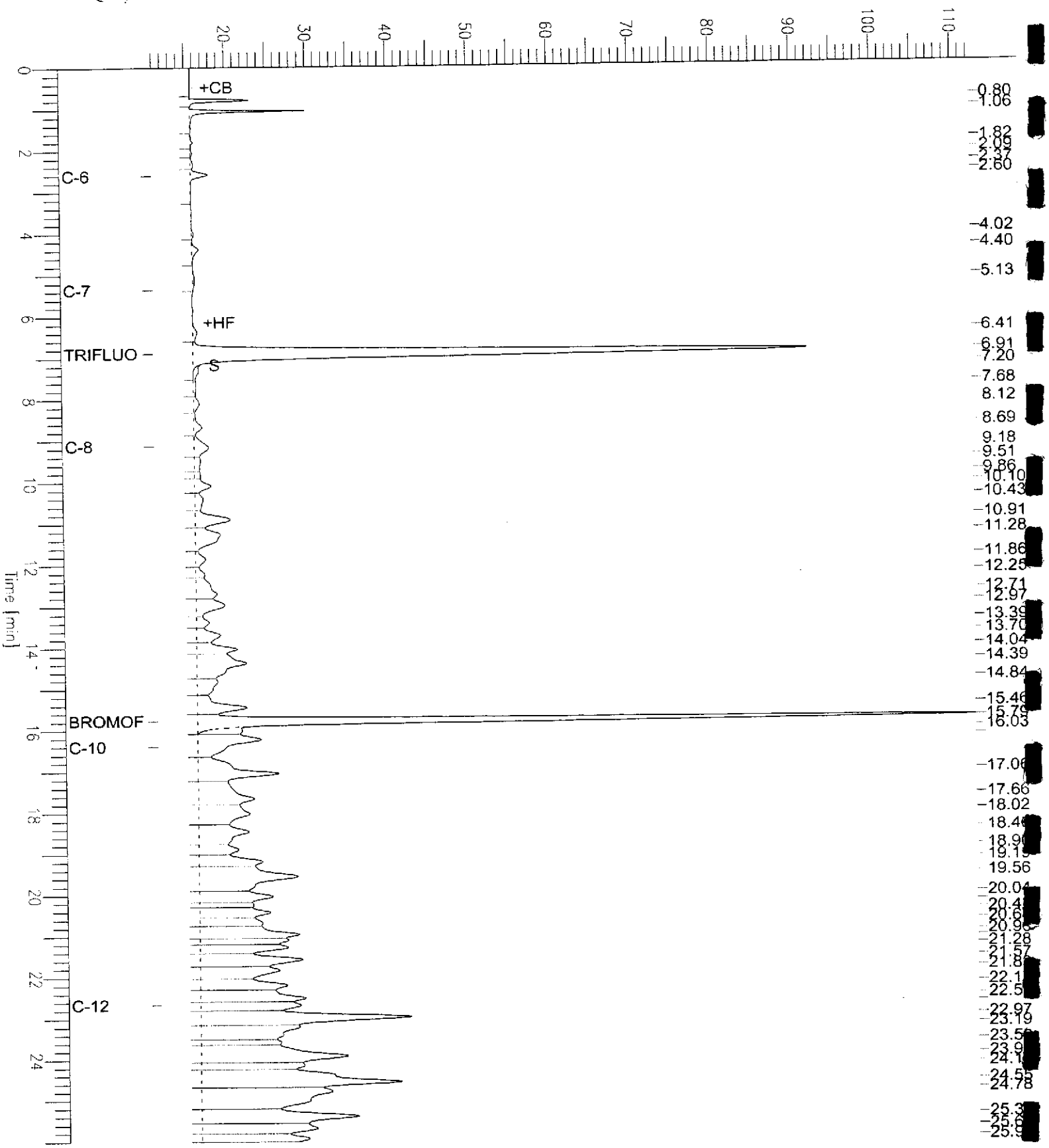


GC07 TVH 'A' Data File RTX 502

Sample Name : 164929-005,81081
FileName : G:\GC07\DATA\115A031.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 11 mV

Sample #: d7
Date : 4/26/03 06:25 PM
Time of Injection: 4/26/03 04:56 AM
Low Point : 10.88 mV High Point : 112.34 mV
Plot Scale: 101.5 mV

GAIA TP-1-2

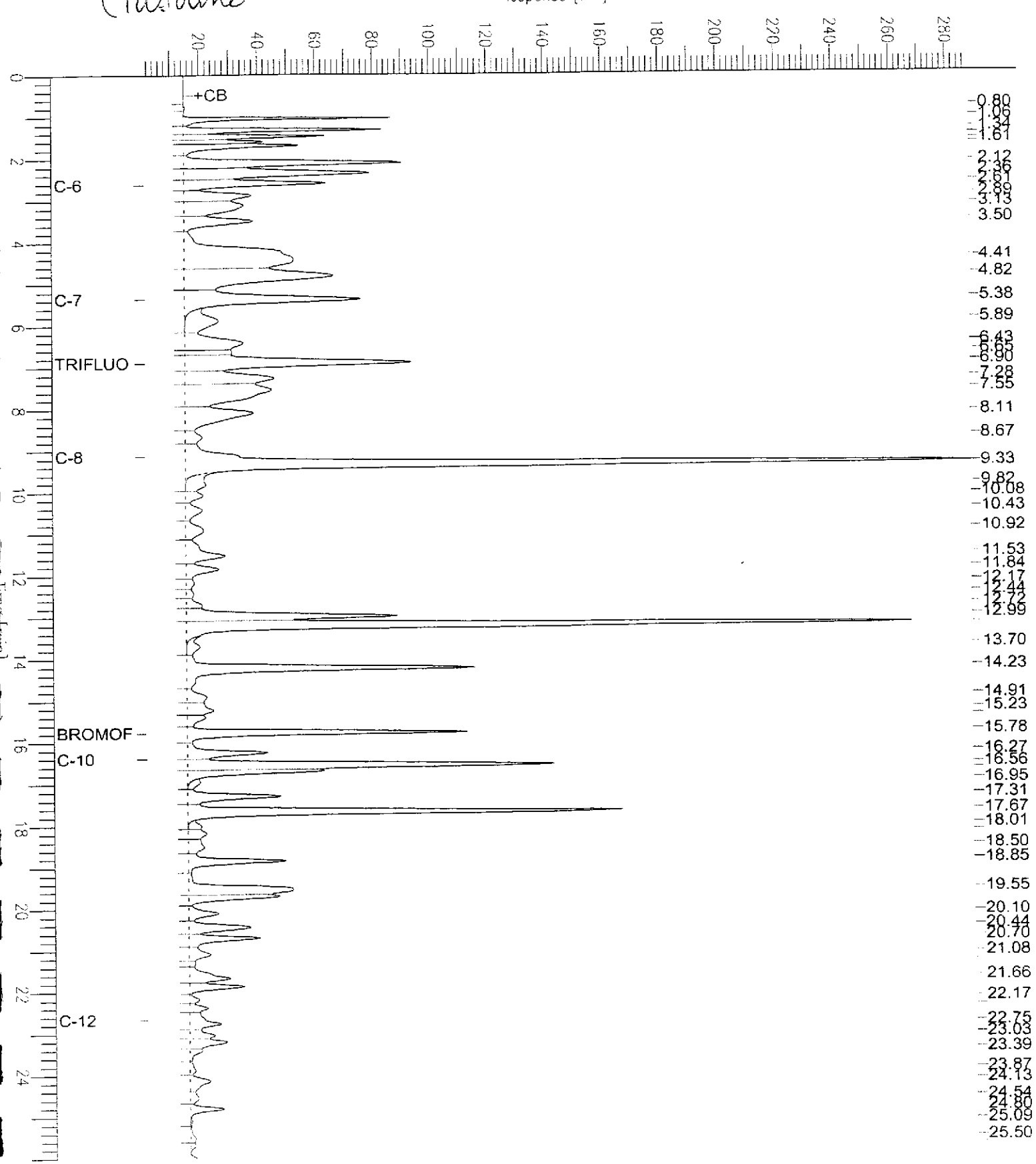


GC07 TVH 'A' Data File RTX 502

Sample Name : ccv/lcs,qc212119,81081,03ws0527,5/5000
FileName : G:\GC07\DATA\115A002.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 1 mV

Sample #:
Date : 4/25/03 11:32 AM
Time of Injection: 4/25/03 11:05 AM
Low Point : 1.12 mV High Point : 287.80 mV
Plot Scale: 286.7 mV

Baseline



Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227		
Matrix:	Water	Sampled:	04/23/03
Units:	ug/L	Received:	04/24/03
Batch#:	81081		

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC212117	Analyzed:	04/25/03

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	94	68-145	8015B
Bromofluorobenzene (FID)	100	66-143	8015B
Trifluorotoluene (PID)	84	53-143	EPA 8021B
Bromofluorobenzene (PID)	96	52-142	EPA 8021B

*= Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC212119	Batch#:	81081
Matrix:	Water	Analyzed:	04/25/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,996	100	79-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	109	68-145
Bromofluorobenzene (FID)	104	66-143

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC212118	Batch#:	81081
Matrix:	Water	Analyzed:	04/25/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Benzene	20.00	21.77	109	65-122
Toluene	20.00	21.18	106	67-121
Ethylbenzene	20.00	21.32	107	70-121
m,p-Xylenes	40.00	42.98	107	72-125
o-Xylene	20.00	21.26	106	73-122

Surrogate	%REC	Limits
Trifluorotoluene (PID)	87	53-143
Bromofluorobenzene (PID)	97	52-142

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8021B
Field ID:	ZZZZZZZZZZ	Batch#:	81081
MSS Lab ID:	164935-004	Sampled:	04/24/03
Matrix:	Water	Received:	04/24/03
Units:	ug/L	Analyzed:	04/25/03
Diln Fac:	1.000		

Type: MS Lab ID: QC212162

Analyte	MSS Result	Spiked	Result	%REC	Limits
Benzene	21.06	20.00	41.62	103	52-149
Toluene	2.074	20.00	23.65	108	69-130
Ethylbenzene	11.75	20.00	31.94	101	70-131
m,p-Xylenes	5.424	40.00	49.12	109	68-137
o-Xylene	0.7329	20.00	22.94	111	73-133

Surrogate	%REC	Limits
Trifluorotoluene (PID)	96	53-143
Bromofluorobenzene (PID)	104	52-142

Type: MSD Lab ID: QC212163

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	20.00	42.59	108	52-149	2	30
Toluene	20.00	24.47	112	69-130	3	30
Ethylbenzene	20.00	33.48	109	70-131	5	30
m,p-Xylenes	40.00	50.28	112	68-137	2	30
o-Xylene	20.00	23.71	115	73-133	3	30

Surrogate	%REC	Limits
Trifluorotoluene (PID)	97	53-143
Bromofluorobenzene (PID)	104	52-142

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	STANDARD		
Matrix:	Soil	Sampled:	04/23/03
Basis:	as received	Received:	04/24/03
Diln Fac:	1.000	Analyzed:	04/25/03
Batch#:	81080		

Field ID: GAIA TP-1@3 Lab ID: 164929-001
Type: SAMPLE

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	0.95	mg/Kg	8015B
Benzene	ND	4.8	ug/Kg	EPA 8021B
Toluene	ND	4.8	ug/Kg	EPA 8021B
Ethylbenzene	ND	4.8	ug/Kg	EPA 8021B
m,p-Xylenes	ND	4.8	ug/Kg	EPA 8021B
o-Xylene	ND	4.8	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	91	58-144	8015B
Bromofluorobenzene (FID)	92	60-146	8015B
Trifluorotoluene (PID)	83	67-146	EPA 8021B
Bromofluorobenzene (PID)	85	60-137	EPA 8021B

Field ID: GAIA TP-1@6.5 Lab ID: 164929-002
Type: SAMPLE

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	0.98	mg/Kg	8015B
Benzene	ND	4.9	ug/Kg	EPA 8021B
Toluene	ND	4.9	ug/Kg	EPA 8021B
Ethylbenzene	ND	4.9	ug/Kg	EPA 8021B
m,p-Xylenes	ND	4.9	ug/Kg	EPA 8021B
o-Xylene	ND	4.9	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	92	58-144	8015B
Bromofluorobenzene (FID)	97	60-146	8015B
Trifluorotoluene (PID)	84	67-146	EPA 8021B
Bromofluorobenzene (PID)	88	60-137	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	STANDARD		
Matrix:	Soil	Sampled:	04/23/03
Basis:	as received	Received:	04/24/03
Diln Fac:	1.000	Analyzed:	04/25/03
Batch#:	81080		

Field ID: GAIA TP-1@4.5 Lab ID: 164929-003
Type: SAMPLE

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	4.2 H Y	0.99	mg/Kg	8015B
Benzene	ND	5.0	ug/Kg	EPA 8021B
Toluene	ND	5.0	ug/Kg	EPA 8021B
Ethylbenzene	15 C	5.0	ug/Kg	EPA 8021B
m,p-Xylenes	5.8 C	5.0	ug/Kg	EPA 8021B
o-Xylene	17 C	5.0	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	84	58-144	8015B
Bromofluorobenzene (FID)	102	60-146	8015B
Trifluorotoluene (PID)	72	67-146	EPA 8021B
Bromofluorobenzene (PID)	76	60-137	EPA 8021B

Type: BLANK Lab ID: QC212114

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	8015B
Benzene	ND	5.0	ug/Kg	EPA 8021B
Toluene	ND	5.0	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.0	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.0	ug/Kg	EPA 8021B
o-Xylene	ND	5.0	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	89	58-144	8015B
Bromofluorobenzene (FID)	86	60-146	8015B
Trifluorotoluene (PID)	80	67-146	EPA 8021B
Bromofluorobenzene (PID)	79	60-137	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

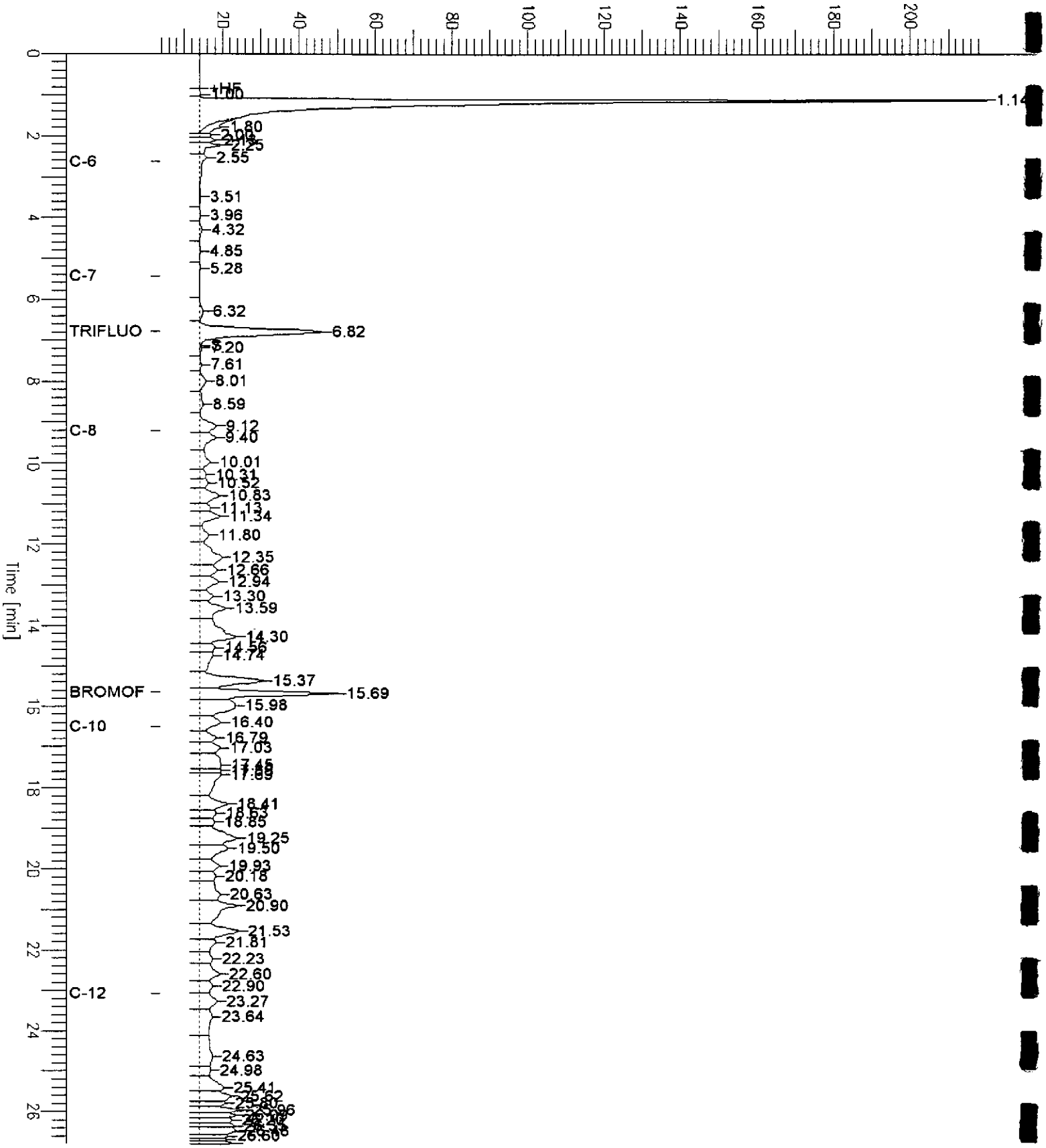
1.0

GC19 TVH 'X' Data File (FID)

Sample Name : 164929-003,81080
FileName : G:\GC19\DATA\115X005.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: 1.0 Plot Offset: 4 mV

Sample #: a Page 1 of 1
Date : 4/26/03 03:49 PM
Time of Injection: 4/25/03 11:48 AM
Low Point : 3.65 mV High Point : 219.95 mV
Plot Scale: 216.3 mV

GAIA TP-1645

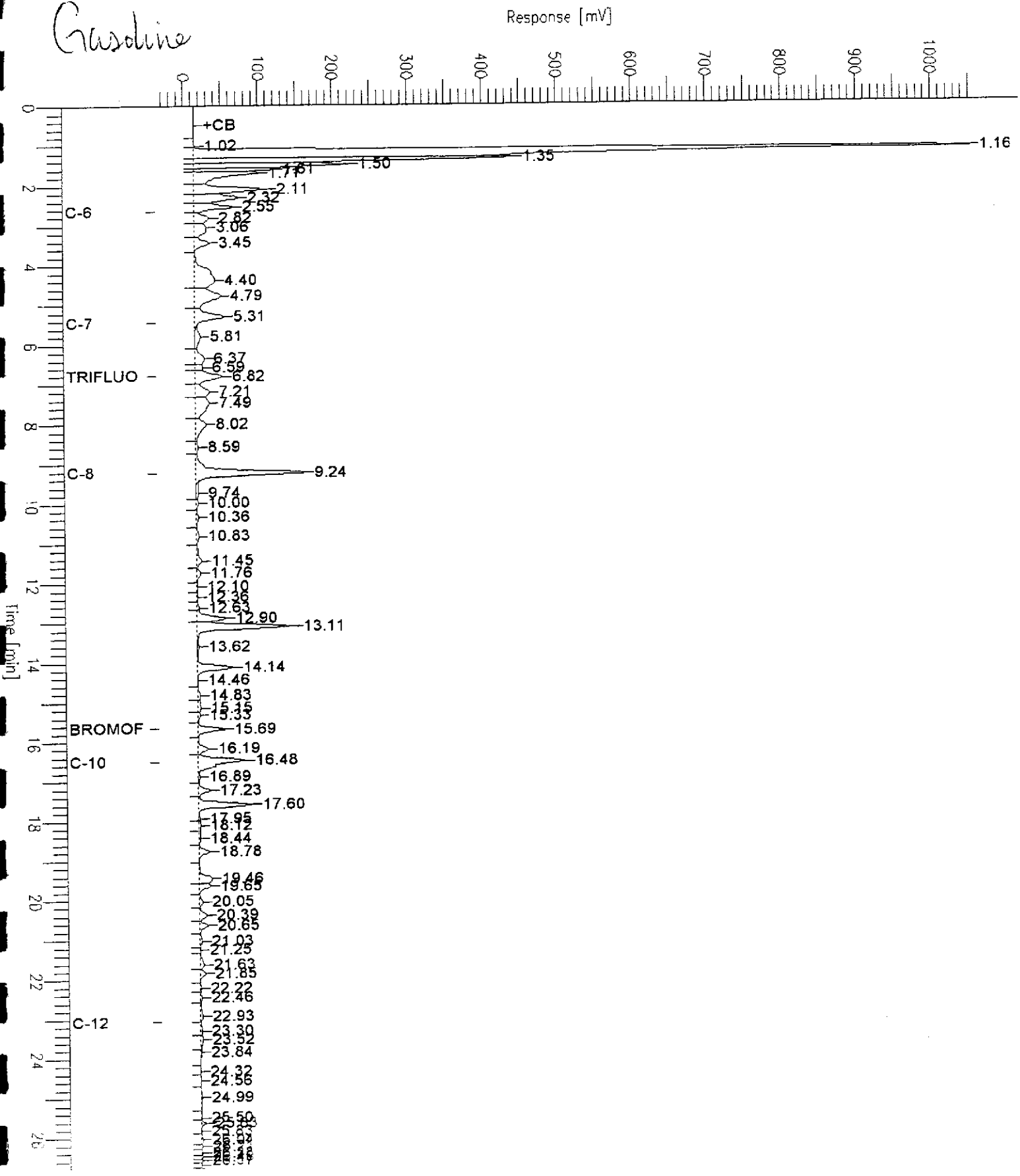


GC19 TVH 'X' Data File (FID)

Sample Name : ccv/lcs,qc212116,81080,03ws0527,5/5000
FileName : G:\GC19\DATA\115X003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: 1.0 Plot Offset: -38 mV

Sample #: Page 1 of 1
Date : 4/25/03 11:07 AM
Time of Injection: 4/25/03 10:40 AM
Low Point : -37.80 mV High Point : 1051.76 mV
Plot Scale: 1089.6 mV

Gasoline



Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	8015B
Type:	LCS	Basis:	as received
Lab ID:	QC212116	Diln Fac:	1.000
Matrix:	Soil	Batch#:	81080
Units:	mg/Kg	Analyzed:	04/25/03

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.850	99	78-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	104	58-144
Bromofluorobenzene (FID)	90	60-146

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Type:	LCS	Basis:	as received
Lab ID:	QC212115	Diln Fac:	1.000
Matrix:	Soil	Batch#:	81080
Units:	ug/Kg	Analyzed:	04/25/03

Analyte	Spiked	Result	%REC	Limits
Benzene	100.0	101.5	101	65-120
Toluene	100.0	93.26	93	69-120
Ethylbenzene	100.0	93.67	94	68-121
m,p-Xylenes	200.0	184.2	92	70-124
o-Xylene	100.0	90.75	91	73-121

Surrogate	%REC	Limits
Trifluorotoluene (PID)	77	67-146
Bromofluorobenzene (PID)	75	60-137

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	164945-004	Batch#:	81080
Matrix:	Soil	Sampled:	04/23/03
Units:	mg/Kg	Received:	04/25/03
Basis:	as received	Analyzed:	04/25/03

Type: MS Lab ID: QC212185

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	5.256	9.901	12.15	70	44-133

Surrogate	%REC	Limits
Trifluorotoluene (FID)	118	58-144
Bromofluorobenzene (FID)	120	60-146

Type: MSD Lab ID: QC212186

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.10	11.92	66	44-133	3	31

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	58-144
Bromofluorobenzene (FID)	113	60-146

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 3520C
Project#:	H-227	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	04/23/03
Units:	ug/L	Received:	04/24/03
Diln Fac:	1.000		

Field ID:	GAIA TP-1	Prepared:	05/06/03
Type:	SAMPLE	Analyzed:	05/07/03
Lab ID:	164929-004	Cleanup Method:	EPA 3630C
Batch#:	81314		

Analyte	Result	RL
Diesel C10-C24	9,100 H L Y	50
Motor Oil C24-C36	15,000	300

Surrogate	%REC	Limits
Hexacosane	68	39-137

Field ID:	GAIA TP-1-2	Prepared:	04/30/03
Type:	SAMPLE	Analyzed:	04/30/03
Lab ID:	164929-005	Cleanup Method:	EPA 3630C
Batch#:	81176		

Analyte	Result	RL
Diesel C10-C24	20,000 H L Y	50
Motor Oil C24-C36	22,000	300

Surrogate	%REC	Limits
Hexacosane	117	39-137

Type:	BLANK	Prepared:	04/30/03
Lab ID:	QC212488	Analyzed:	05/01/03
Batch#:	81176	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	119	39-137

Type:	BLANK	Prepared:	05/06/03
Lab ID:	QC213036	Analyzed:	05/08/03
Batch#:	81314	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	80	39-137

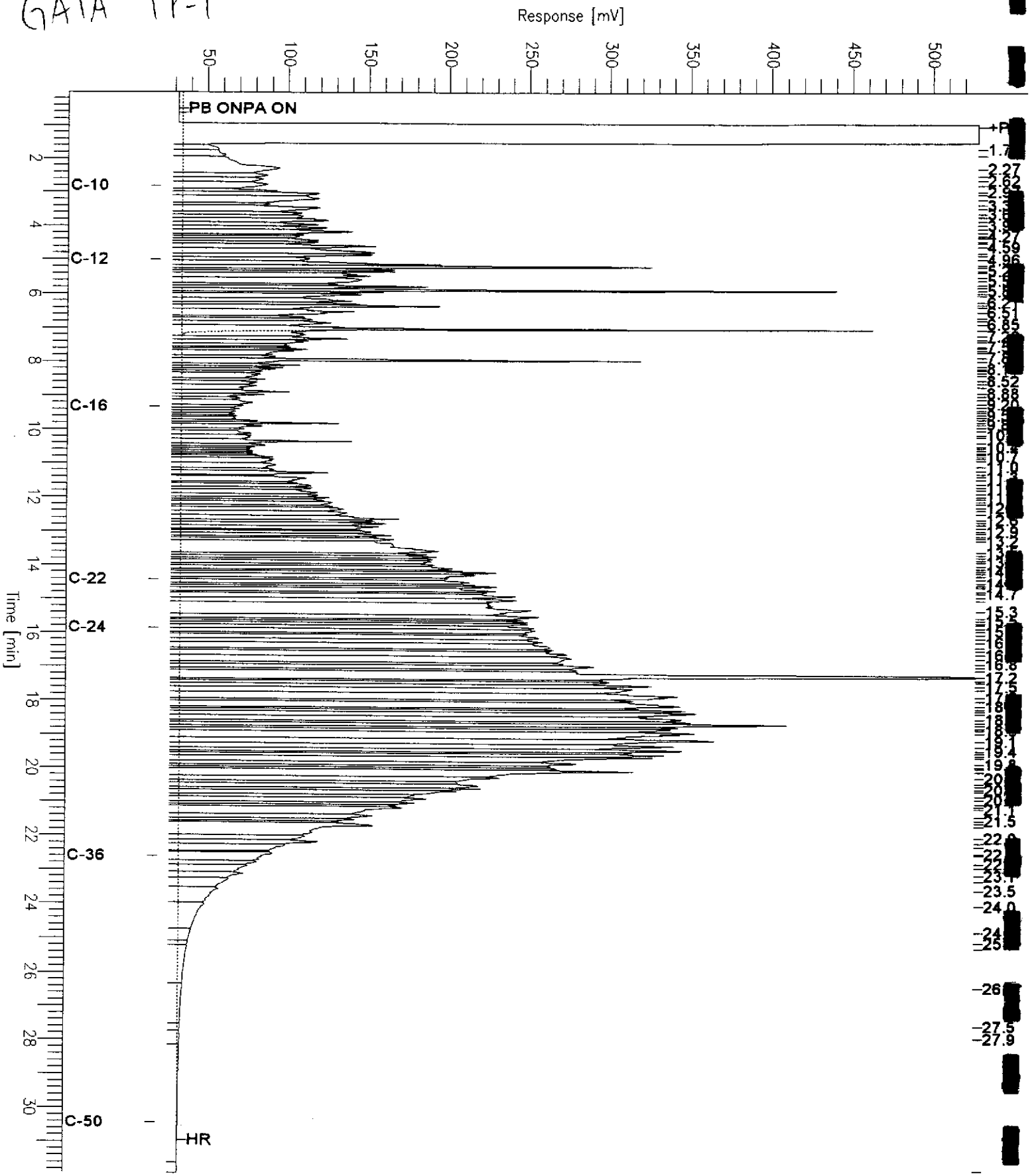
H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 164929-004sg,81314
FileName : G:\GC15\CHB\127B013.RAW
Method : BTEH124.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 21 mV

Sample #: 81314
Date : 5/8/03 09:32 AM
Time of Injection: 5/7/03 08:07 PM
Low Point : 21.02 mV High Point : 528.23 mV
Plot Scale: 507.2 mV

GAIA TP-1

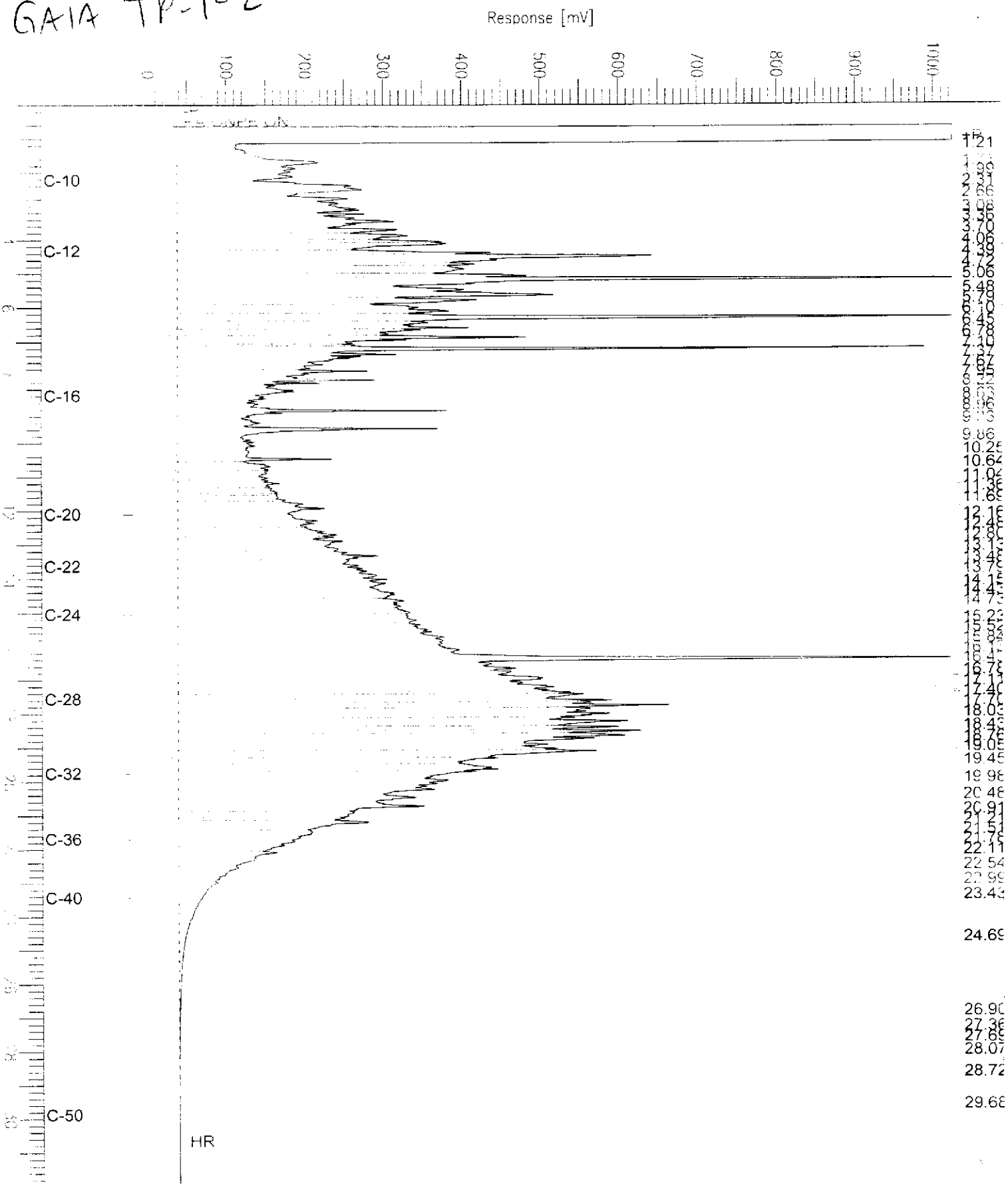


Chromatogram

Sample Name : 164929-005sg,81176
FileName : G:\GC13\CHB\120B018.RAW
Method : BTEH106.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: -19 mV

Sample #: 81176 Page 1 of 1
Date : 5/1/03 09:05 AM
Time of Injection: 4/30/03 09:30 PM
Low Point : -18.83 mV High Point : 1024.00 mV
Plot Scale: 1042.8 mV

GAIA TP-1-2



Chromatogram

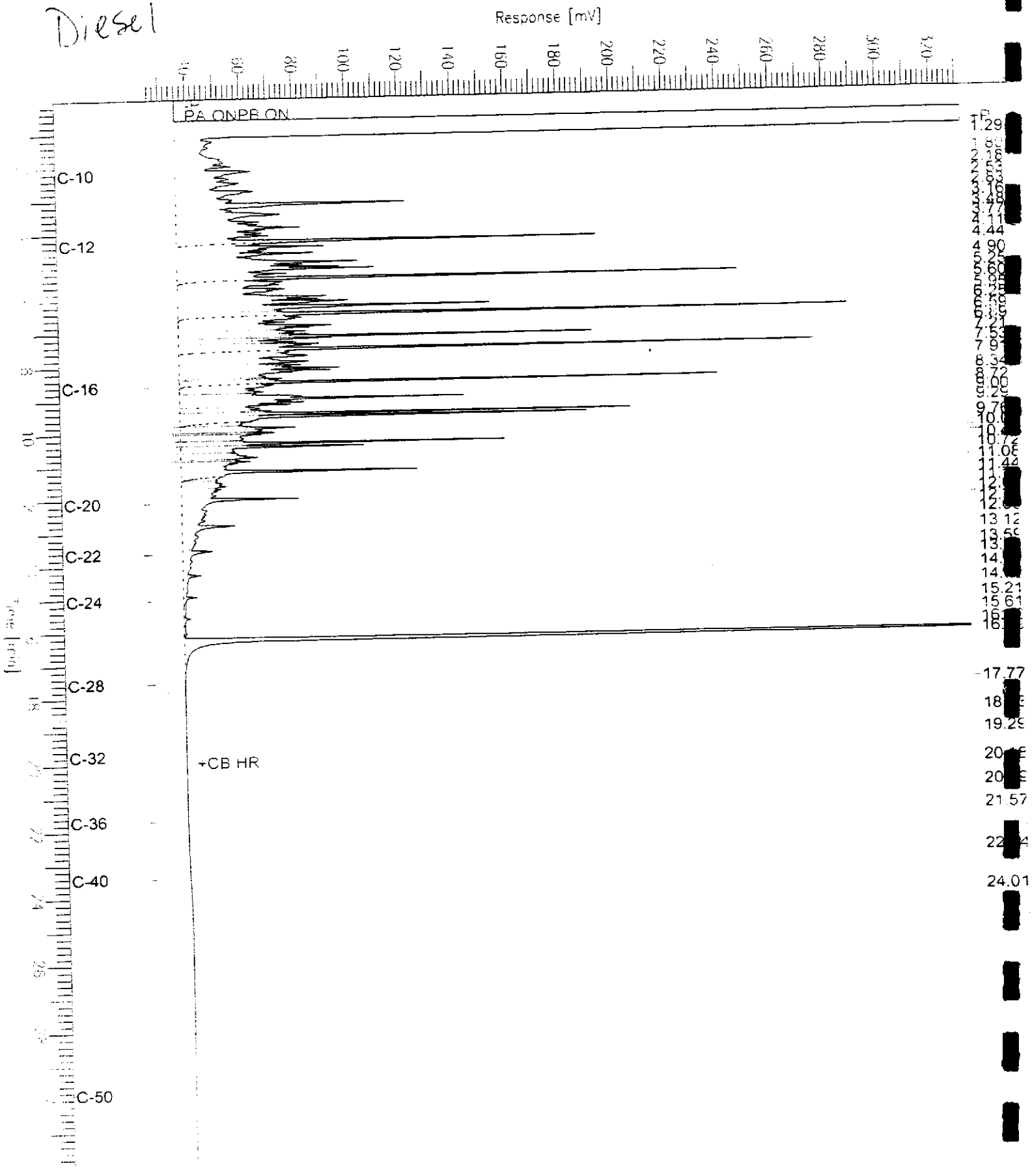
Sample Name : ccv,03ws0520,dsl
FileName : G:\GC13\CHB\120B002.RAW
Method : BTEH106.MTH
Start Time : 0.01 min
Scale Factor: 0.0

End Time : 31.91 min
Plot Offset: 25 mV

Sample #: 500mg/L
Date : 4/30/03 10:26 AM
Time of Injection: 4/30/03 09:18 AM
Low Point : 25.23 mV
Plot Scale: 306.7 mV

High Point : 331.96 mV

Diesel

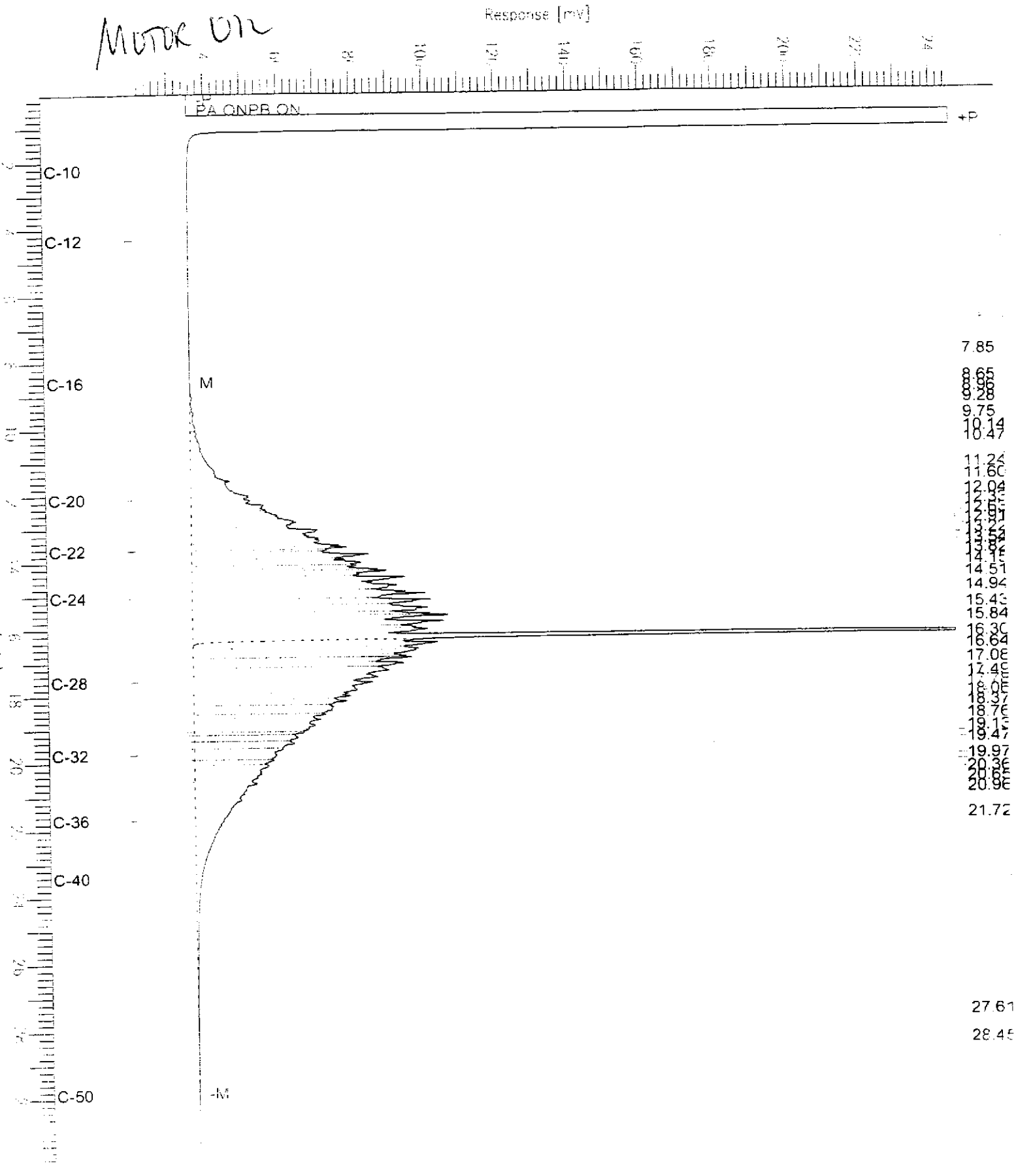


Chromatogram

Sample Name : ccv,03ws0550,mo
FileName : G:\GC13\CHB\120B003.RAW
Method : BTEH106.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 21 mV

Sample #: 500mg/L Page 1 of 1
Date : 4/30/03 10:40 AM
Time of Injection: 4/30/03 09:57 AM
Low Point : 20.75 mV High Point : 245.40 mV
Plot Scale: 224.6 mV

Motor 012



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 3520C
Project#:	H-227	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	81176
Units:	ug/L	Prepared:	04/30/03
Diln Fac:	1.000		

Type: BS
Lab ID: QC212489
Analyzed: 04/30/03
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,469	99	37-120

Surrogate	%REC	Limits
Hexacosane	111	39-137

Type: BSD
Lab ID: QC212490
Analyzed: 05/01/03
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,740	110	37-120	10	26

Surrogate	%REC	Limits
Hexacosane	117	39-137

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 3520C
Project#:	H-227	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	81314
Units:	ug/L	Prepared:	05/06/03
Diln Fac:	1.000	Analyzed:	05/07/03

Type: BS
Lab ID: QC213037
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,163	87	37-120

Surrogate	%REC	Limits
Hexacosane	86	39-137

Type: BSD
Lab ID: QC213038
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,140	86	37-120	1	26

Surrogate	%REC	Limits
Hexacosane	84	39-137

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 3550
Project#:	H-227	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	81130
Units:	mg/Kg	Sampled:	04/23/03
Basis:	as received	Received:	04/24/03
Diln Fac:	1.000	Prepared:	04/28/03

Field ID: GAIA TP-1@3
Type: SAMPLE
Lab ID: 164929-001

Analyzed: 04/29/03
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	7.5 H Y	1.0
Motor Oil C24-C36	36	5.0

Surrogate	%REC	Limits
Hexacosane	97	48-137

Field ID: GAIA TP-1@6.5
Type: SAMPLE
Lab ID: 164929-002

Analyzed: 04/29/03
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	60 H L Y	1.0
Motor Oil C24-C36	110 L	5.0

Surrogate	%REC	Limits
Hexacosane	96	48-137

Field ID: GAIA TP-1@4.5
Type: SAMPLE
Lab ID: 164929-003

Analyzed: 04/30/03
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	130 H L Y	0.99
Motor Oil C24-C36	290 L	5.0

Surrogate	%REC	Limits
Hexacosane	89	48-137

Type: BLANK
Lab ID: QC212304

Analyzed: 04/29/03
Cleanup Method: EPA 3630C

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

Surrogate	%REC	Limits
Hexacosane	77	48-137

H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

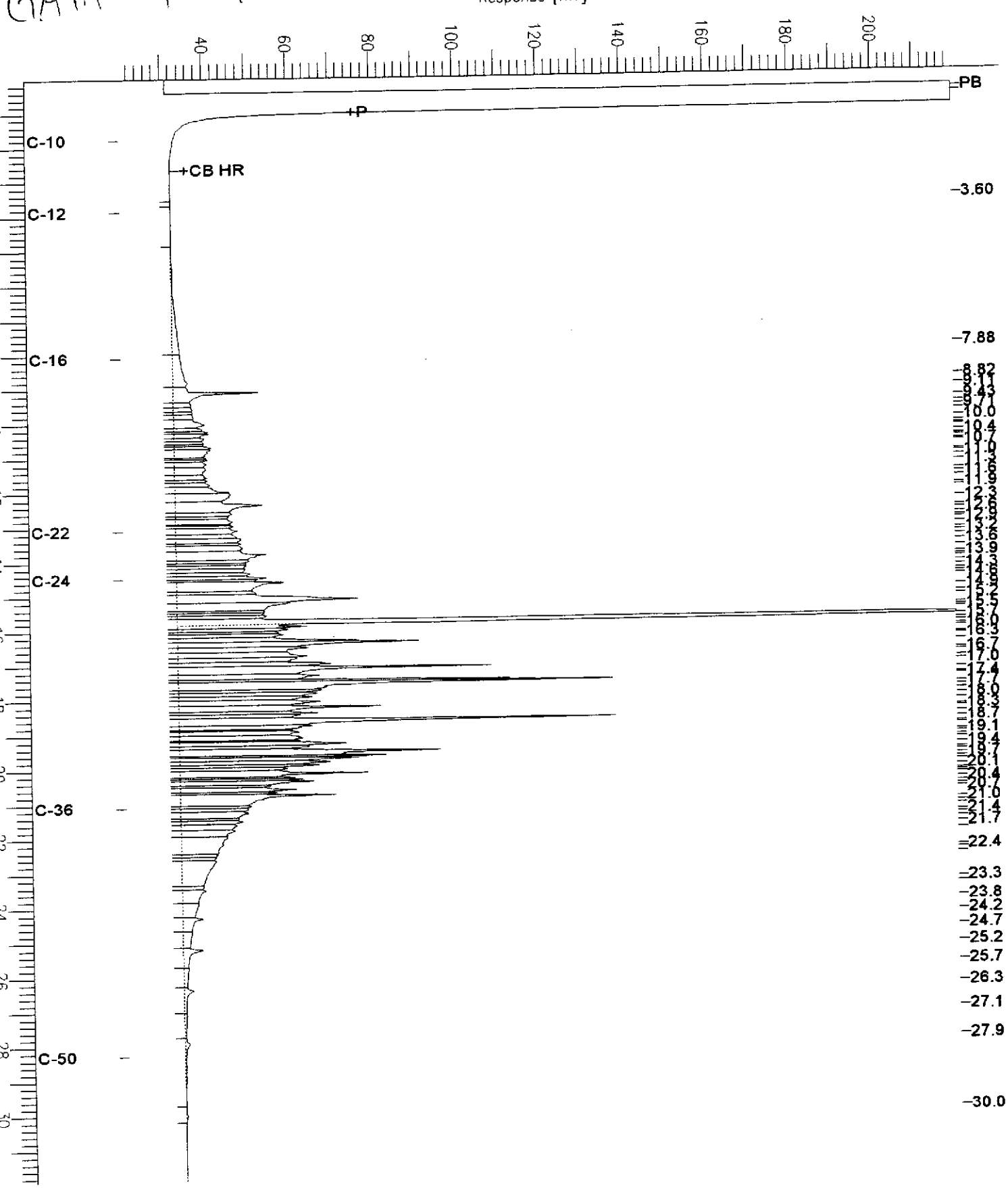
9.0

Chromatogram

ple Name : 164929-001sg,81130
leName : G:\GC15\CHB\119B013.RAW
Method : BTEH105.MTH
Start Time : 0.01 min End Time : 31.91 min
ale Factor: 0.0 Plot Offset: 20 mV

Sample #: 81130
Date : 4/30/03 08:49 AM
Time of Injection: 4/29/03 06:10 PM
Low Point : 20.19 mV High Point : 219.52 mV
Plot Scale: 199.3 mV

GAIA TP-103

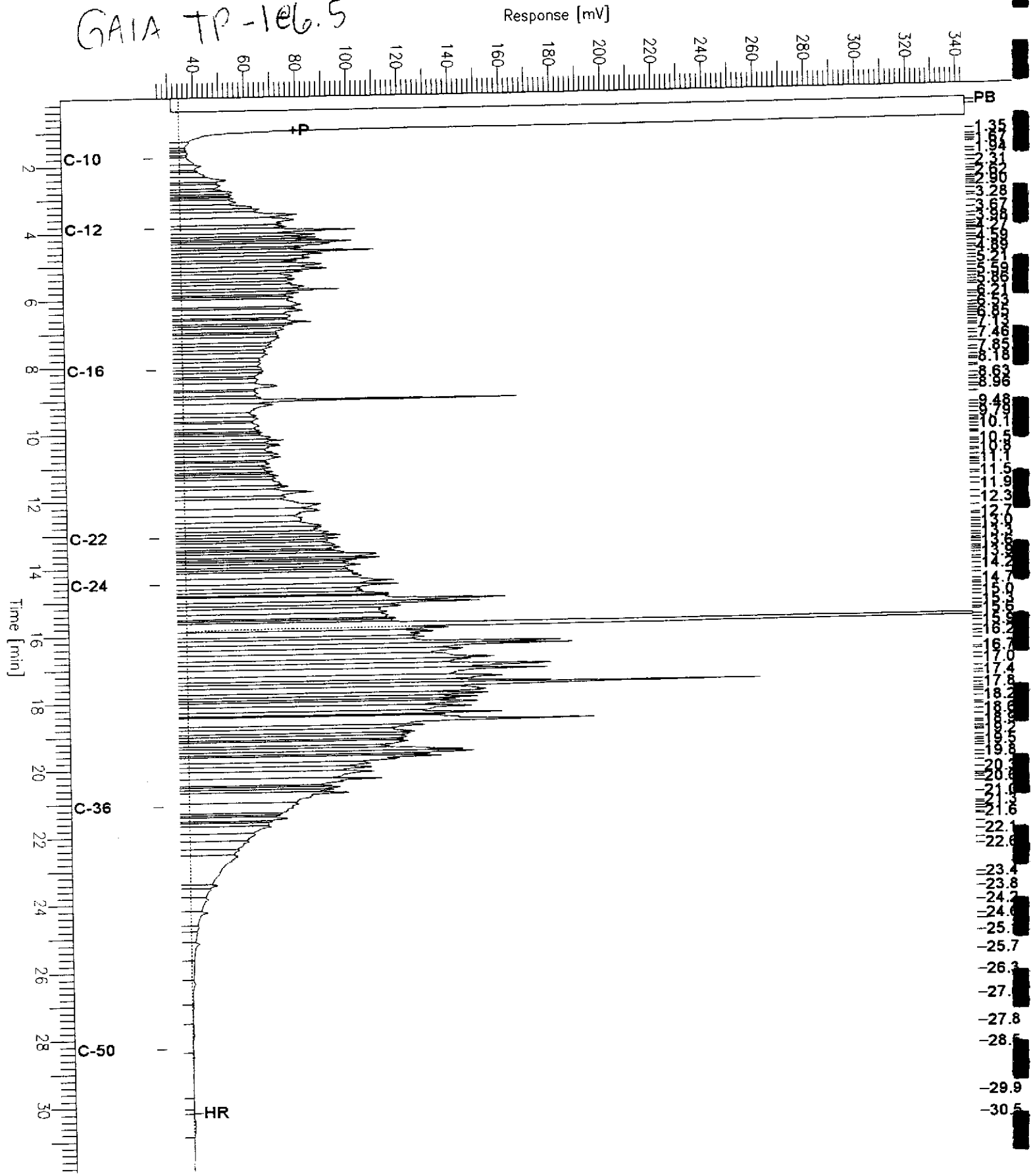


Chromatogram

Sample Name : 164929-002sg,81130
FileName : G:\GC15\CHB\119B014.RAW
Method : BTEH105.MTH
Start Time : 0.01 min
End Time : 31.91 min
Scale Factor: 0.0
Plot Offset: 24 mV

Sample #: 81130
Date : 4/30/03 08:50 AM
Time of Injection: 4/29/03 06:50 PM
Low Point : 24.11 mV
High Point : 343.58 mV
Plot Scale: 319.5 mV

GAIA TP-166.5



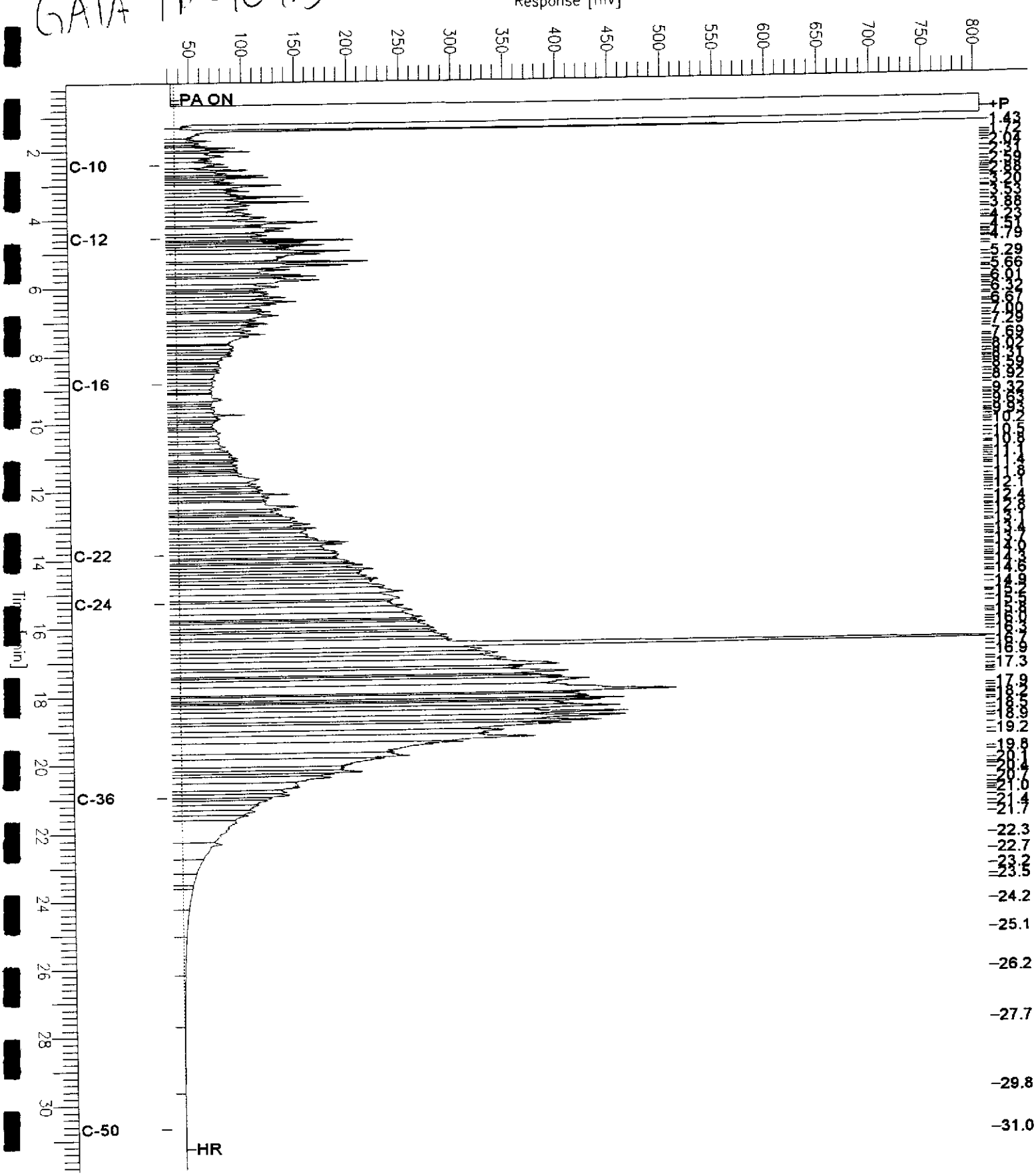
Chromatogram

Sample Name : 164929-003sg,81130
FileName : G:\GC17\CHA\119A025.RAW
Method : ATEH107.MTH
Start Time : 0.01 min
Scale Factor: 0.0

End Time : 31.91 min
Plot Offset: 22 mV

Sample #: 81130
Date : 4/30/03 09:27 AM
Time of Injection: 4/30/03 02:18 AM
Low Point : 21.63 mV
High Point : 806.22 mV
Plot Scale: 784.6 mV

GAIA TP - 1@4.5

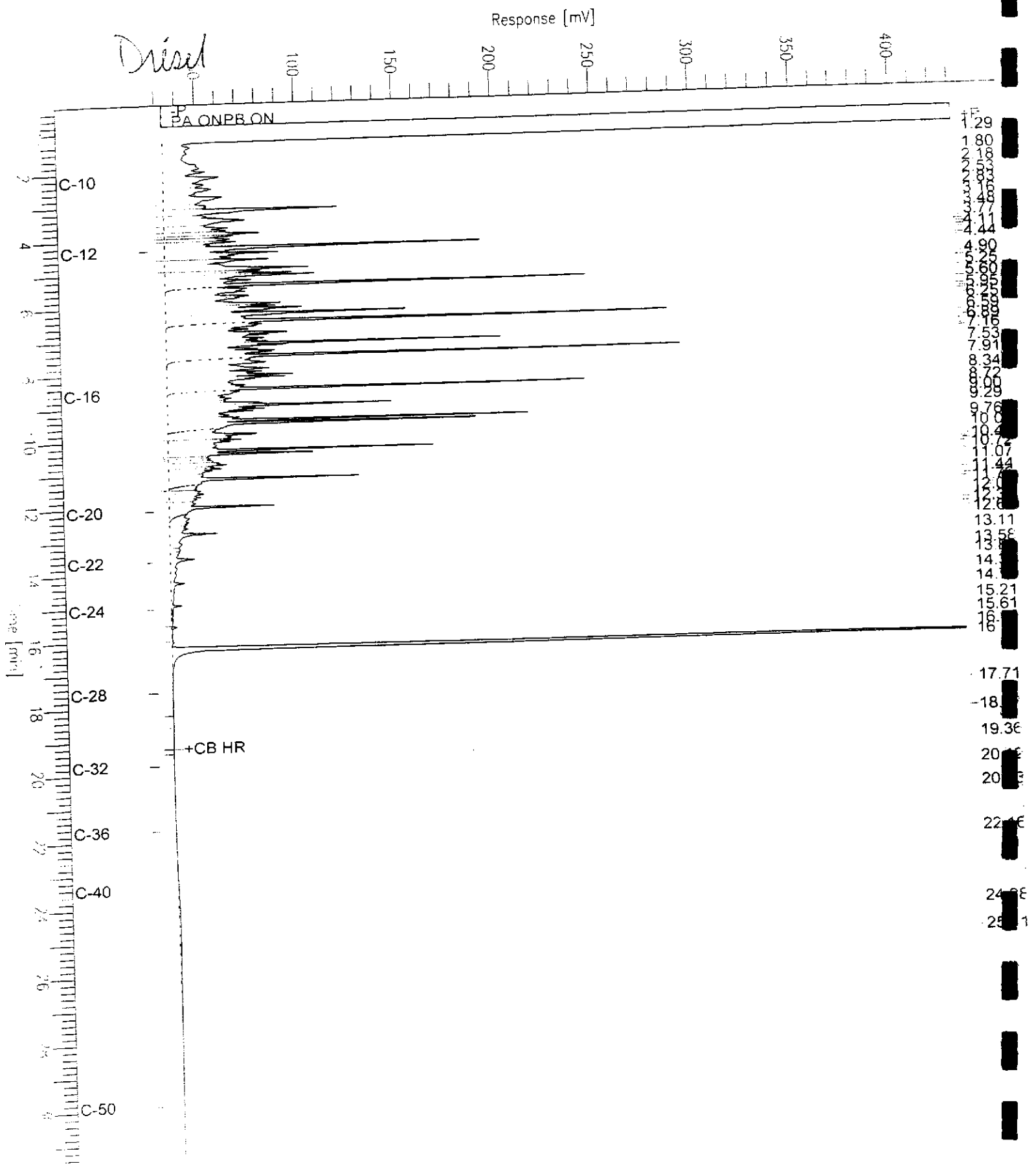


Chromatogram

Sample Name : ccv,03ws0520,dsl
FileName : G:\GC13\CHB\119B002.RAW
Method : BTEH106.MTH
Start Time : 0.01 min
Scale Factor: 0.0

End Time : 31.51 min
Plot Offset: 26 mV

Sample #: 500mg/L
Date : 4/29/03 11:16 AM
Time of Injection: 4/29/03 09:12 AM
Low Point : 26.45 mV
High Point : 431.51 mV
Plot Scale: 405.1 mV

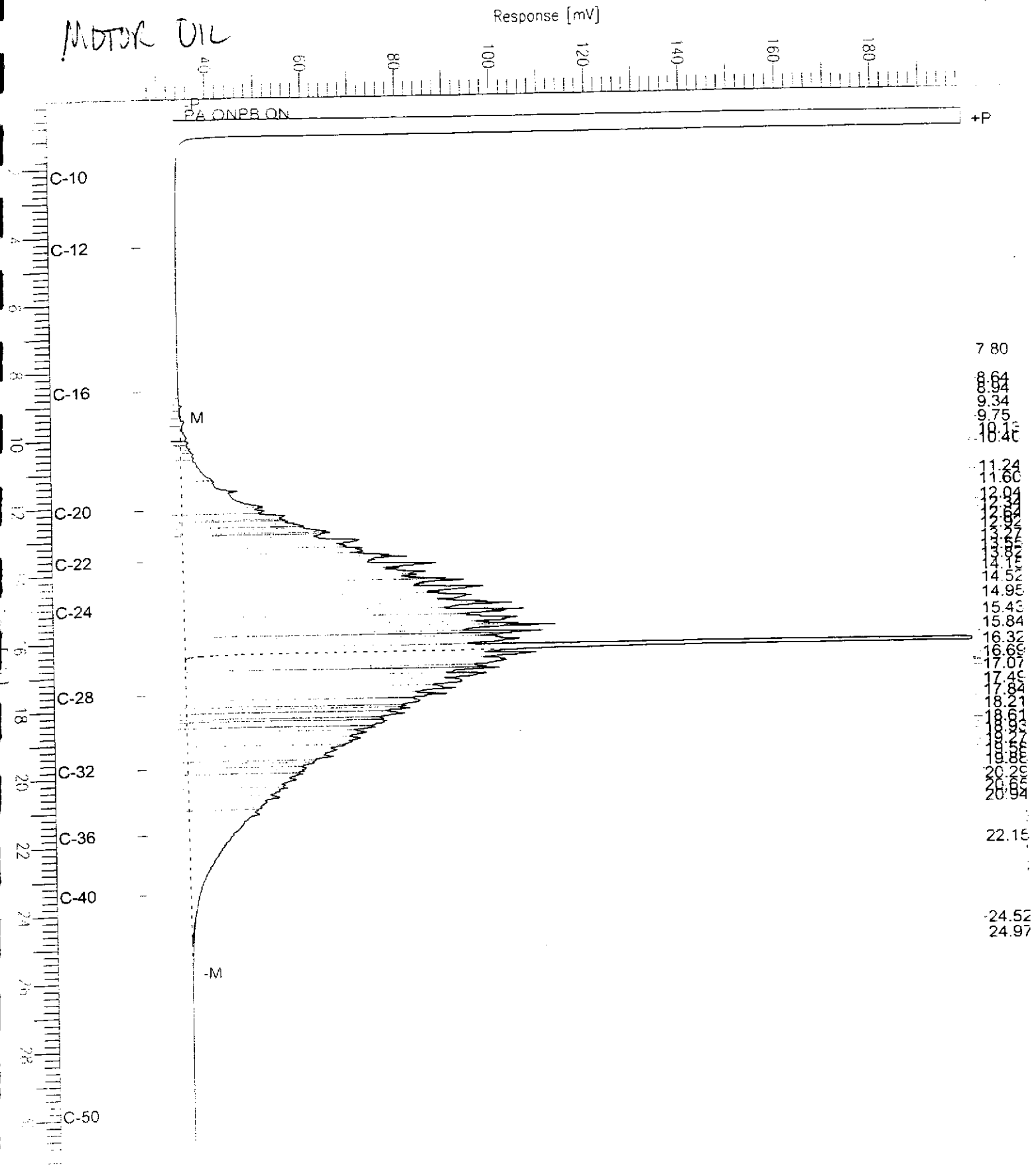


Chromatogram

Sample Name : ccv,03ws0550,mo
File Name : G:\GC13\CHB\119B003.RAW
Method : BTEH106.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #: 500mg/L
Date : 4/29/03 11:23 AM
Time of Injection: 4/29/03 09:52 AM
Low Point : 26.53 mV High Point : 198.92 mV
Plot Scale: 172.4 mV

MOTOR OIL



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 3550
Project#:	H-227	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC212305	Batch#:	81130
Matrix:	Soil	Prepared:	04/28/03
Units:	mg/Kg	Analyzed:	04/29/03
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.10	49.67	99	56-121

Surrogate	%REC	Limits
Hexacosane	90	48-137

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 3550
Project#:	H-227	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	81130
MSS Lab ID:	164921-008	Sampled:	04/23/03
Matrix:	Soil	Received:	04/24/03
Units:	mg/Kg	Prepared:	04/28/03
Basis:	as received	Analyzed:	04/30/03
Diln Fac:	1.000		

Type: MS Lab ID: QC212306

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	44.05	49.63	62.63	37	37-128

Surrogate	%REC	Limits
Hexacosane	90	48-137

Type: MSD Lab ID: QC212307

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.95	58.06	28 *	37-128	8	37

Surrogate	%REC	Limits
Hexacosane	95	48-137

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

11.0

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	04/23/03
Units:	ug/L	Received:	04/24/03
Diln Fac:	1.000	Analyzed:	04/25/03
Batch#:	81085		

Field ID: GAIA TP-1 Lab ID: 164929-004
Type: SAMPLE

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	20	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-121
1,2-Dichloroethane-d4	103	77-130
Toluene-d8	98	80-120
Bromofluorobenzene	99	80-120

Field ID: GAIA TP-1-2 Lab ID: 164929-005
Type: SAMPLE

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	21	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-121
1,2-Dichloroethane-d4	100	77-130
Toluene-d8	97	80-120
Bromofluorobenzene	95	80-120

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	04/23/03
Units:	ug/L	Received:	04/24/03
Diln Fac:	1.000	Analyzed:	04/25/03
Batch#:	81085		

Type: BLANK Lab ID: QC212134

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	NA	
MTBE	ND	0.5
Isopropyl Ether (DIPE)	NA	
Ethyl tert-Butyl Ether (ETBE)	NA	
Methyl tert-Amyl Ether (TAME)	NA	
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-121
1,2-Dichloroethane-d4	101	77-130
Toluene-d8	98	80-120
Bromofluorobenzene	101	80-120

Type: BLANK Lab ID: QC212135

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-121
1,2-Dichloroethane-d4	103	77-130
Toluene-d8	98	80-120
Bromofluorobenzene	100	80-120

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	81085
Units:	ug/L	Analyzed:	04/25/03
Diln Fac:	1.000		

Type: BS Lab ID: QC212132

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	52.11	104	49-144

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-121
1,2-Dichloroethane-d4	99	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	98	80-120

Type: BSD Lab ID: QC212133

Analyte	Spiked	Result	%REC	Limits	RPD	Li
MTBE	50.00	52.58	105	49-144	1	21

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-121
1,2-Dichloroethane-d4	99	77-130
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Field ID:	GAIA TP-1@4.5	Batch#:	81161
Matrix:	Soil	Sampled:	04/23/03
Units:	ug/Kg	Received:	04/24/03
Basis:	as received	Analyzed:	04/29/03

Type: SAMPLE
Lab ID: 164929-003

Diln Fac: 1.020

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.1
Isopropyl Ether (DIPE)	ND	5.1
Ethyl tert-Butyl Ether (ETBE)	ND	5.1
Methyl tert-Amyl Ether (TAME)	ND	5.1
1,2-Dichloroethane	ND	5.1
1,2-Dibromoethane	ND	5.1

Surrogate	%REC	Limits
Dibromofluoromethane	99	74-124
1,2-Dichloroethane-d4	112	75-128
Toluene-d8	100	80-111
Bromofluorobenzene	98	75-127

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Field ID:	GAIA TP-1@4.5	Batch#:	81161
Matrix:	Soil	Sampled:	04/23/03
Units:	ug/Kg	Received:	04/24/03
Basis:	as received	Analyzed:	04/29/03

Type: BLANK Diln Fac: 1.000
Lab ID: QC212426

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dibromoethane	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	97	74-124
1,2-Dichloroethane-d4	108	75-128
Toluene-d8	101	80-111
Bromofluorobenzene	93	75-127

Type: BLANK Lab ID: QC212513

Analyte	Result
tert-Butyl Alcohol (TBA)	NA
MTBE	NA
Isopropyl Ether (DIPE)	NA
Ethyl tert-Butyl Ether (ETBE)	NA
Methyl tert-Amyl Ether (TAME)	NA
1,2-Dichloroethane	NA
1,2-Dibromoethane	NA

Surrogate	Result
Dibromofluoromethane	NA
1,2-Dichloroethane-d4	NA
Toluene-d8	NA
Bromofluorobenzene	NA

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC212425	Diln Fac:	1.000
Matrix:	Soil	Batch#:	81161
Units:	ug/Kg	Analyzed:	04/29/03

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	46.60	93	63-121

Surrogate	%REC	Limits
Dibromofluoromethane	97	74-124
1,2-Dichloroethane-d4	103	75-128
Toluene-d8	99	80-111
Bromofluorobenzene	92	75-127

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Gasoline Oxygenates by GC/MS

Lab #:	164929	Location:	9th Ave
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.852
MSS Lab ID:	164952-011	Batch#:	81161
Matrix:	Soil	Sampled:	04/25/03
Units:	ug/Kg	Received:	04/25/03
Basis:	as received	Analyzed:	04/30/03

Type: MS Lab ID: QC212514

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.3700	92.59	80.88	87	53-131

Surrogate	%REC	Limits
Dibromofluoromethane	95	74-124
1,2-Dichloroethane-d4	103	75-128
Toluene-d8	99	80-111
Bromofluorobenzene	89	75-127

Type: MSD Lab ID: QC212515

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	92.59	82.79	89	53-131	2	30

Surrogate	%REC	Limits
Dibromofluoromethane	96	74-124
1,2-Dichloroethane-d4	103	75-128
Toluene-d8	100	80-111
Bromofluorobenzene	90	75-127

RPD= Relative Percent Difference

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

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

Prepared for:

GAIA Consulting, Inc.
2101 Webster Street
12th Floor
Oakland, CA 94612

Date: 15-MAY-03
Lab Job Number: 164962
Project ID: H-227
Location: 9th Avenue

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

Reviewed by: _____
Project Manager

Reviewed by: _____
Operations Manager

Curtis & Tompkins, Ltd.

Laboratory Number: 164962
Client: Gaia Consulting Inc.
Project#: H-227
Location: 9th Avenue

Receipt Date: 04/25/03

CASE NARRATIVE

This hardcopy data package contains sample and QC results for one water and seven soil samples that were received on April 25, 2003. The samples were received cold and intact.

Total Volatile Hydrocarbons/BTXE by EPA 8015B/8021B

High surrogate recoveries were observed in samples GAIA TP-4 @3' and GAIA TP-5 @3.5 (164962-005 and -008). This outlier was due to hydrocarbons coeluting with the surrogate peak. No other analytical problems were encountered.

Total Extractable Hydrocarbons by EPA 8015B

All samples were silica gel cleaned by EPA 3630C as requested on the chain of custody.

Sample GAIA TP-4 @3' was analyzed at a dilution, which caused the surrogate to be diluted out.

Low spike recovery was observed in the matrix spike duplicate. The sample used as the matrix spike sample was not from this site. The matrix spike recovery and the relative percent difference met acceptance criteria, as did the laboratory control sample. No other analytical problems were encountered.

Gasoline Oxygenates/Lead Scavengers by EPA 8260B

No analytical problems were encountered.

CHAIN OF CUSTODY FORM

Page ____ of ____

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Analytical Laboratory Since 1878
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Berkeley, CA 94710
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(510)486-0532 Fax

C&T LOGIN # 164962

Sampler: Henry Hurtemans
Report To: Melba Policicchio
Company: Gaia Consulting Inc.
Telephone: (510) 663-4257
Fax: (510) 663-4141

Project No: H-227
Project Name: 9th Avenue
Project P.O.:
Turnaround Time: Standard

	Laboratory Number	Sample ID.	Sampling Date Time	Matrix: Soil	Water	Waste	# of Containers	Preservative: HCL	H_2SO	HNO_3	ICE	Field Notes
-1	For Laboratory Use	GaiaTP-2@3'	4-24-03 0945	X			1 jar					
-2		GaiaTP-2@6'	0955	X								
-3		GaiaTP-3@3'	1110	X								
-4		GaiaTP-3@5'	1115	X								
-5		GaiaTP-4@3'	1135	X								
-6		GaiaTP-4@5'	1150	X								
-7		GAIA TP-4	4/25/03 11:05		X		5 VOAs Amber				↓	not preserved
		GAIA TP-5@3.5	4/25/03 11:50	X			1 jar					

Analyses: 8015m TPH-g, d, mo; 8260 Full Oxygenates; Lead Scavenging 8260; BTEX 8021; Total Lead

Notes:
VOAs are not preserved
TPH w/ silica gel cleanup
Lead scavenging - 1,2 DCA, EDB

RELINQUISHED BY:
Melba Policicchio 12:25 4-25-03 DATE/TIME
DATE/TIME
DATE/TIME

RECEIVED BY:
4-25-03 12:25 PM DATE/TIME
DATE/TIME
DATE/TIME

Signature

RECEIVED cold

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Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227		
Field ID:	GAIA TP-4	Batch#:	81152
Matrix:	Water	Sampled:	04/24/03
Units:	ug/L	Received:	04/25/03
Diln Fac:	1.000		

Type: SAMPLE Analyzed: 04/30/03
Lab ID: 164962-007

Analyte	Result	RL	Analysis
Gasoline C7-C12	870 H Y	50	8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	2.3 C	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	97	68-145	8015B
Bromofluorobenzene (FID)	111	66-143	8015B
Trifluorotoluene (PID)	88	53-143	EPA 8021B
Bromofluorobenzene (PID)	93	52-142	EPA 8021B

Type: BLANK Analyzed: 04/29/03
Lab ID: QC212391

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	85	68-145	8015B
Bromofluorobenzene (FID)	87	66-143	8015B
Trifluorotoluene (PID)	78	53-143	EPA 8021B
Bromofluorobenzene (PID)	80	52-142	EPA 8021B

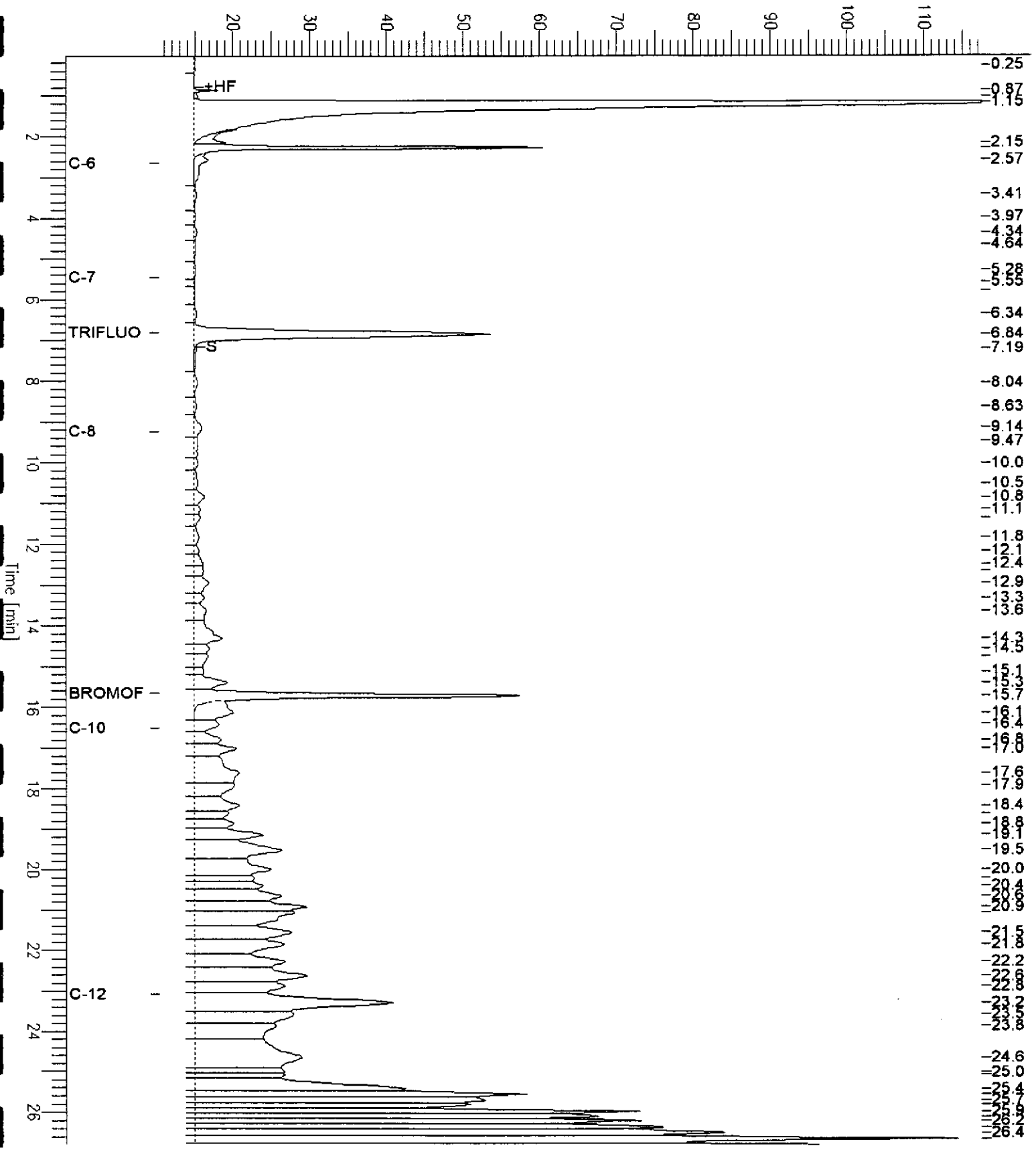
C= Presence confirmed, but RPD between columns exceeds 40%
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

GC19 TVH 'X' Data File (FID)

Sample Name : 164962-007,81152,tvh+btxe
FileName : G:\GC19\DATA\119X031.RAW
Method :
Start Time : 0.02 min End Time : 26.80 min
Scale Factor: 0.0 Plot Offset: 10 mV

Sample #: d1 Page 1 of 1
Date : 4/30/03 08:37 AM
Time of Injection: 4/30/03 02:14 AM
Low Point : 10.38 mV High Point : 117.46 mV
Plot Scale: 107.1 mV

GAIA TP-4

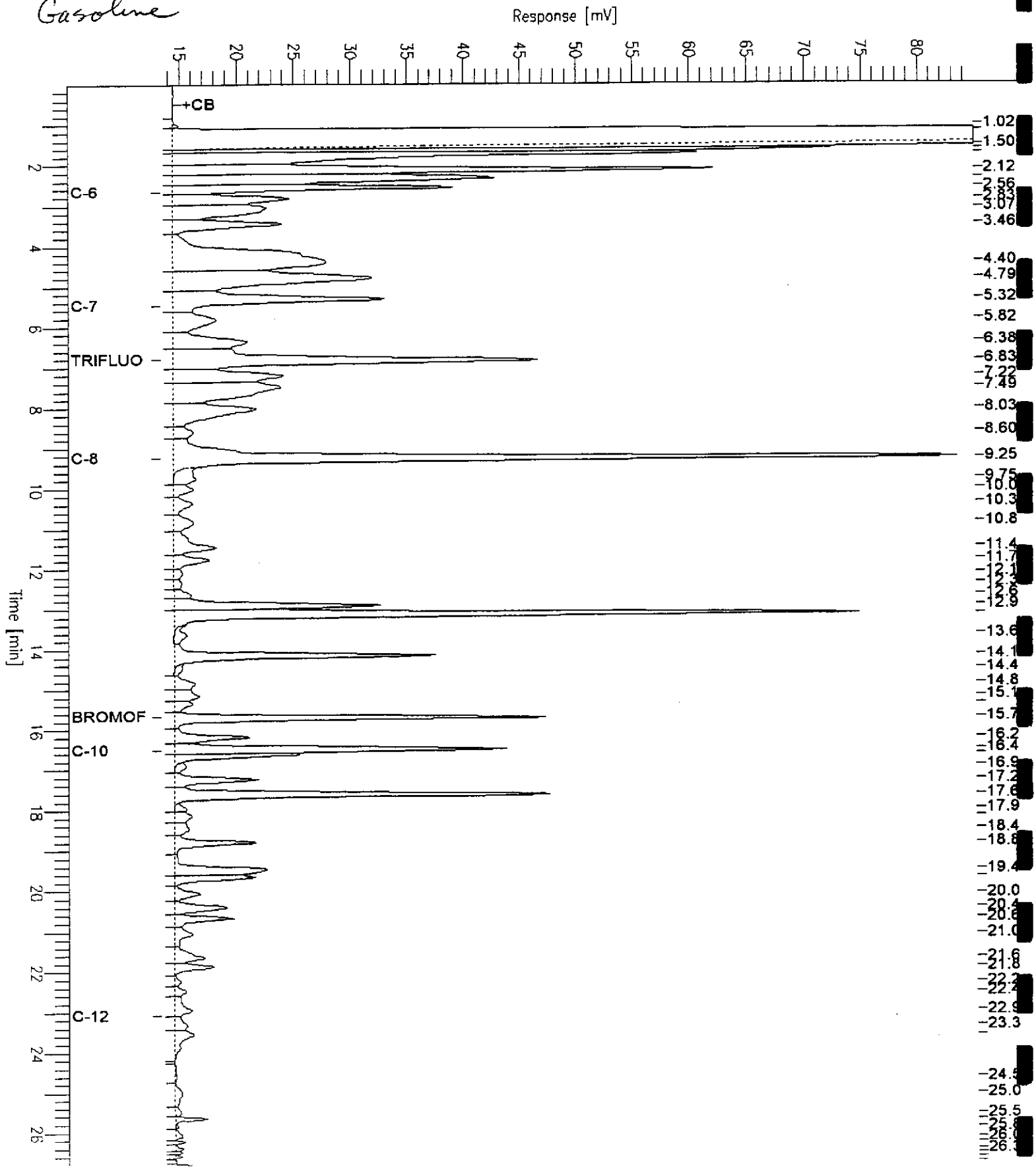


GC19 TVH 'X' Data File (FID)

Sample Name : ccv/lcs,qc212393,81152,03ws0682,2.5/5000
FileName : G:\GC19\DATA\119X002.RAW
Method :
Start Time : 0.02 min End Time : 26.80 min
Scale Factor: 0.0 Plot Offset: 13 mV

Sample #: Page 1 of 1
Date : 4/30/03 10:52 AM
Time of Injection: 4/29/03 09:51 AM
Low Point : 13.33 mV High Point : 84.93 mV
Plot Scale: 71.6 mV

Gasoline



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Total Volatile Hydrocarbons

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC212393	Batch#:	81152
Matrix:	Water	Analyzed:	04/29/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	928.1	93	79-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	68-145
Bromofluorobenzene (FID)	79	66-143

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Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC212392	Batch#:	81152
Matrix:	Water	Analyzed:	04/29/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Benzene	10.00	10.26	103	65-122
Toluene	10.00	9.394	94	67-121
Ethylbenzene	10.00	9.777	98	70-121
m,p-Xylenes	20.00	18.08	90	72-125
o-Xylene	10.00	9.083	91	73-122

Surrogate	%REC	Limits
Trifluorotoluene (PID)	74	53-143
Bromofluorobenzene (PID)	76	52-142

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Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8021B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	164943-005	Batch#:	81152
Matrix:	Water	Sampled:	04/24/03
Units:	ug/L	Received:	04/25/03

Type: MS Analyzed: 04/29/03
Lab ID: QC212445

Analyte	MSS Result	Spiked	Result	%REC	Limits
Benzene	<0.06500	20.00	21.73	109	52-149
Toluene	<0.03700	20.00	20.44	102	69-130
Ethylbenzene	<0.04500	20.00	20.56	103	70-131
m,p-Xylenes	<0.07200	40.00	39.77	99	68-137
o-Xylene	<0.05700	20.00	20.08	100	73-133

Surrogate	%REC	Limits
Trifluorotoluene (PID)	86	53-143
Bromofluorobenzene (PID)	89	52-142

Type: MSD Analyzed: 04/30/03
Lab ID: QC212446

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	20.00	22.11	111	52-149	2	30
Toluene	20.00	20.34	102	69-130	0	30
Ethylbenzene	20.00	21.72	109	70-131	6	30
m,p-Xylenes	40.00	40.11	100	68-137	1	30
o-Xylene	20.00	20.45	102	73-133	2	30

Surrogate	%REC	Limits
Trifluorotoluene (PID)	87	53-143
Bromofluorobenzene (PID)	92	52-142

RPD= Relative Percent Difference

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Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227		
Matrix:	Soil	Received:	04/25/03
Basis:	as received		

Field ID:	GAIA TP-2@3'	Batch#:	81080
Type:	SAMPLE	Sampled:	04/24/03
Lab ID:	164962-001	Analyzed:	04/25/03
Diln Fac:	1.000		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.1	mg/Kg	8015B
Benzene	ND	5.3	ug/Kg	EPA 8021B
Toluene	ND	5.3	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.3	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.3	ug/Kg	EPA 8021B
o-Xylene	ND	5.3	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	88	58-144	8015B
Bromofluorobenzene (FID)	89	60-146	8015B
Trifluorotoluene (PID)	80	67-146	EPA 8021B
Bromofluorobenzene (PID)	83	60-137	EPA 8021B

Field ID:	GAIA TP-2@6'	Batch#:	81080
Type:	SAMPLE	Sampled:	04/24/03
Lab ID:	164962-002	Analyzed:	04/25/03
Diln Fac:	1.000		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.1	mg/Kg	8015B
Benzene	ND	5.3	ug/Kg	EPA 8021B
Toluene	ND	5.3	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.3	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.3	ug/Kg	EPA 8021B
o-Xylene	ND	5.3	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	89	58-144	8015B
Bromofluorobenzene (FID)	91	60-146	8015B
Trifluorotoluene (PID)	81	67-146	EPA 8021B
Bromofluorobenzene (PID)	84	60-137	EPA 8021B

*= Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227		
Matrix:	Soil	Received:	04/25/03
Basis:	as received		

ield ID:	GAIA TP-3@3'	Batch#:	81080
Type:	SAMPLE	Sampled:	04/24/03
Lab ID:	164962-003	Analyzed:	04/25/03
iln Fac:	1.000		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	8015B
Benzene	ND	5.1	ug/Kg	EPA 8021B
Toluene	ND	5.1	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.1	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.1	ug/Kg	EPA 8021B
o-Xylene	ND	5.1	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	88	58-144	8015B
Bromofluorobenzene (FID)	91	60-146	8015B
Trifluorotoluene (PID)	80	67-146	EPA 8021B
Bromofluorobenzene (PID)	85	60-137	EPA 8021B

ield ID:	GAIA TP-3@5'	Batch#:	81080
ype:	SAMPLE	Sampled:	04/24/03
ab ID:	164962-004	Analyzed:	04/25/03
Diln Fac:	1.000		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	0.97	mg/Kg	8015B
Benzene	ND	4.9	ug/Kg	EPA 8021B
Toluene	ND	4.9	ug/Kg	EPA 8021B
Ethylbenzene	ND	4.9	ug/Kg	EPA 8021B
m,p-Xylenes	ND	4.9	ug/Kg	EPA 8021B
o-Xylene	ND	4.9	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	94	58-144	8015B
Bromofluorobenzene (FID)	95	60-146	8015B
Trifluorotoluene (PID)	86	67-146	EPA 8021B
Bromofluorobenzene (PID)	89	60-137	EPA 8021B

*= Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
A= Not Analyzed
D= Not Detected
L= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227		
Matrix:	Soil	Received:	04/25/03
Basis:	as received		

Field ID:	GAIA TP-4@3'	Lab ID:	164962-005
Type:	SAMPLE	Sampled:	04/24/03

Analyte	Result	RL	Units	Diln Fac	Batch#	Analyzed	Analysis
Gasoline C7-C12	120 H Y	10	mg/Kg	10.00	81124	04/28/03	8015B
Benzene	ND	10	ug/Kg	1.000	81080	04/25/03	EPA 8021B
Toluene	ND	10	ug/Kg	1.000	81080	04/25/03	EPA 8021B
Ethylbenzene	820 C	10	ug/Kg	1.000	81080	04/25/03	EPA 8021B
m,p-Xylenes	250 C	10	ug/Kg	1.000	81080	04/25/03	EPA 8021B
o-Xylene	610 C	10	ug/Kg	1.000	81080	04/25/03	EPA 8021B

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed	Analysis
Trifluorotoluene (FID)	104	58-144	10.00	81124	04/28/03	8015B
Bromofluorobenzene (FID)	121	60-146	10.00	81124	04/28/03	8015B
Trifluorotoluene (PID)	88	67-146	1.000	81080	04/25/03	EPA 8021B
Bromofluorobenzene (PID)	157 *	60-137	1.000	81080	04/25/03	EPA 8021B

Field ID:	GAIA TP-4@5'	Batch#:	81080
Type:	SAMPLE	Sampled:	04/24/03
Lab ID:	164962-006	Analyzed:	04/25/03
Diln Fac:	1.000		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	2.7 H Y	1.1	mg/Kg	8015B
Benzene	ND	5.5	ug/Kg	EPA 8021B
Toluene	ND	5.5	ug/Kg	EPA 8021B
Ethylbenzene	8.9 C	5.5	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.5	ug/Kg	EPA 8021B
o-Xylene	ND	5.5	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	90	58-144	8015B
Bromofluorobenzene (FID)	101	60-146	8015B
Trifluorotoluene (PID)	82	67-146	EPA 8021B
Bromofluorobenzene (PID)	85	60-137	EPA 8021B

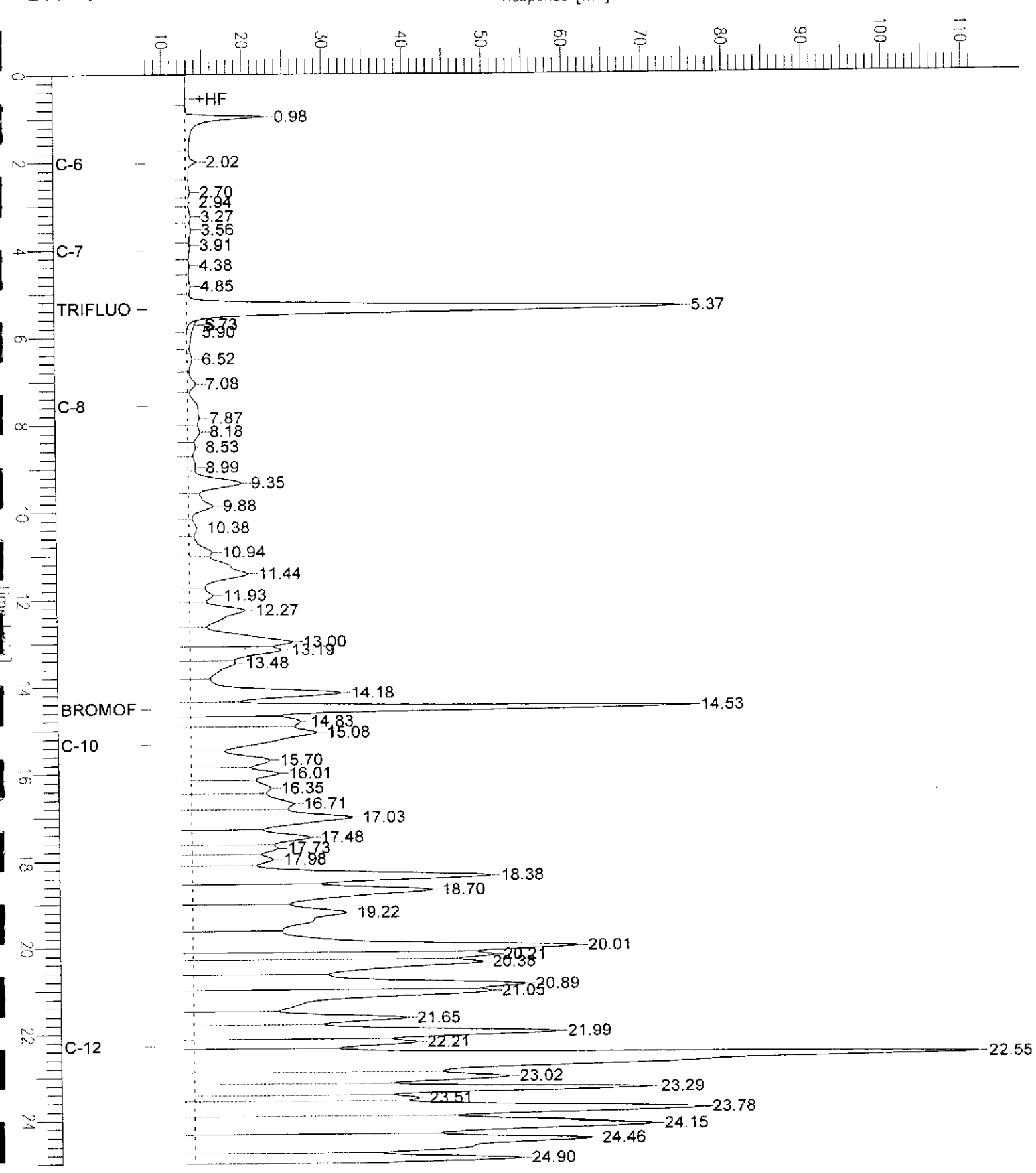
*= Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Chromatogram

[redacted]mple Name : 164962-005,81124
[redacted]leName : G:\GC05\DATA\118G005.raw
[redacted]thod : TVHBTXE
Start Time : 0.00 min End Time : 25.00 min
Scale Factor: 1.0 Plot Offset: 8 mV

Sample #: a
Date : 4/28/03 03:57 PM
Time of Injection: 4/28/03 02:14 PM
Low Point : 7.97 mV High Point : 111.19 mV
Plot Scale: 103.2 mV

GAIA TP-4 @ 3'

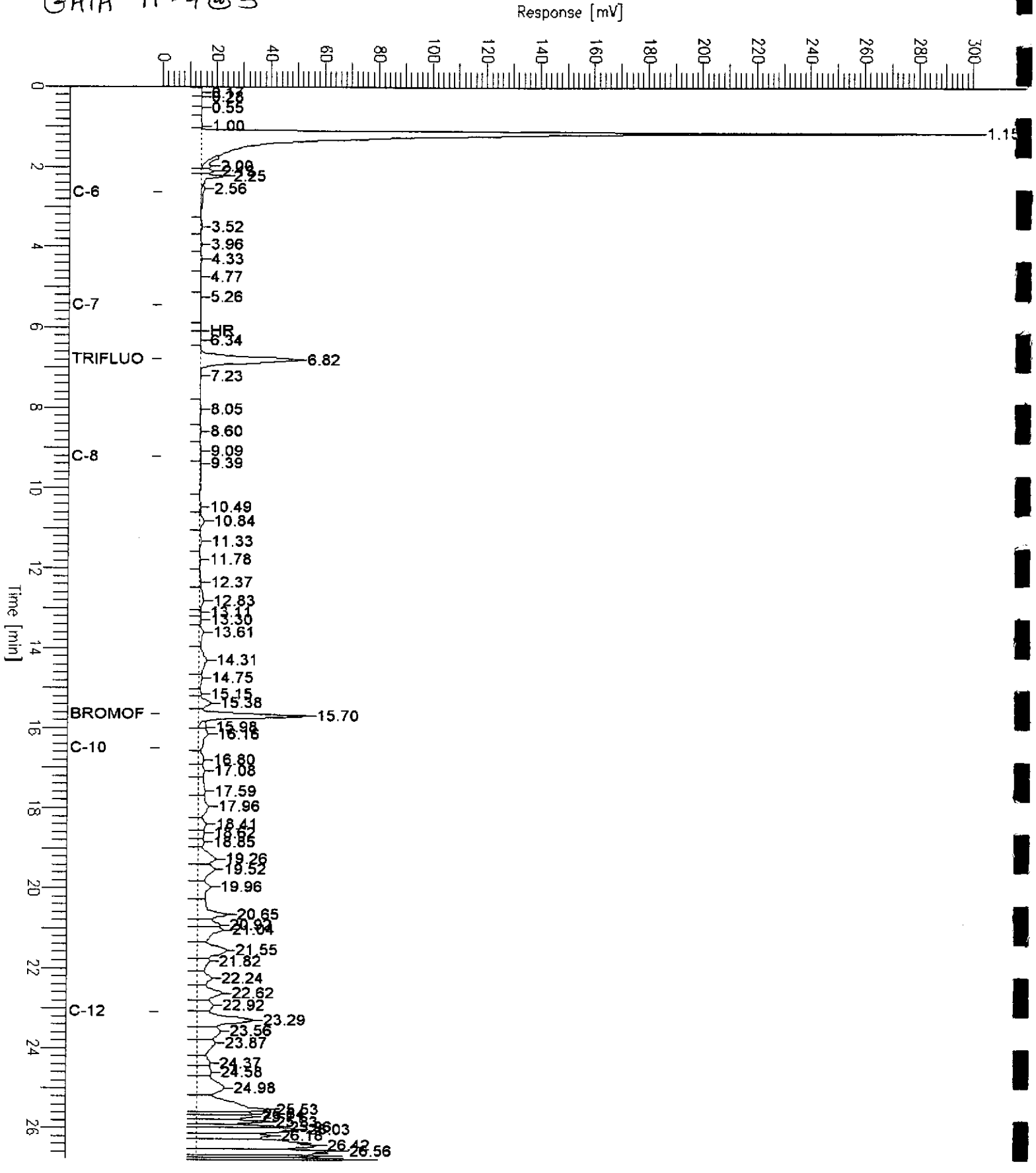


GC19 TVH 'X' Data File (FID)

Sample Name : 164962-006,81080
FileName : G:\GC19\DATA\115X019.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: 1.0 Plot Offset: -0 mV

Sample #: a Page 1 of 1
Date : 4/26/03 03:56 PM
Time of Injection: 4/25/03 08:18 PM
Low Point : -0.24 mV High Point : 301.45 mV
Plot Scale: 301.7 mV

GAIA TP-4@5'



Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227		
Matrix:	Soil	Received:	04/25/03
Basis:	as received		

Field ID:	GAIA TP-5@3.5	Lab ID:	164962-008
Type:	SAMPLE	Sampled:	04/25/03

Analyte	Result	RL	Units	Dil'n Fac	Batch#	Analyzed	Analysis
Gasoline C7-C12	3,800	100	mg/Kg	100.0	81109	04/27/03	8015B
Benzene	12,000	250	ug/Kg	50.00	81080	04/25/03	EPA 8021B
Toluene	19,000	250	ug/Kg	50.00	81080	04/25/03	EPA 8021B
Ethylbenzene	38,000	250	ug/Kg	50.00	81080	04/25/03	EPA 8021B
m,p-Xylenes	140,000	500	ug/Kg	100.0	81109	04/27/03	EPA 8021B
o-Xylene	33,000	250	ug/Kg	50.00	81080	04/25/03	EPA 8021B

Surrogate	%REC	Limits	Dil'n Fac	Batch#	Analyzed	Analysis
Trifluorotoluene (FID)	183 *	58-144	100.0	81109	04/27/03	8015B
Bromofluorobenzene (FID)	193 *	60-146	100.0	81109	04/27/03	8015B
Trifluorotoluene (PID)	92	67-146	50.00	81080	04/25/03	EPA 8021B
Bromofluorobenzene (PID)	73	60-137	50.00	81080	04/25/03	EPA 8021B

Type:	BLANK	Batch#:	81080
Lab ID:	QC212114	Analyzed:	04/25/03
Dil'n Fac:	1.000		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	8015B
Benzene	ND	5.0	ug/Kg	EPA 8021B
Toluene	ND	5.0	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.0	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.0	ug/Kg	EPA 8021B
o-Xylene	ND	5.0	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	89	58-144	8015B
Bromofluorobenzene (FID)	86	60-146	8015B
Trifluorotoluene (PID)	80	67-146	EPA 8021B
Bromofluorobenzene (PID)	79	60-137	EPA 8021B

Type:	BLANK	Batch#:	81109
Lab ID:	QC212228	Analyzed:	04/26/03
Dil'n Fac:	1.000		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	8015B
m,p-Xylenes	ND	5.0	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	125	58-144	8015B
Bromofluorobenzene (FID)	121	60-146	8015B
Trifluorotoluene (PID)	127	67-146	EPA 8021B
Bromofluorobenzene (PID)	126	60-137	EPA 8021B

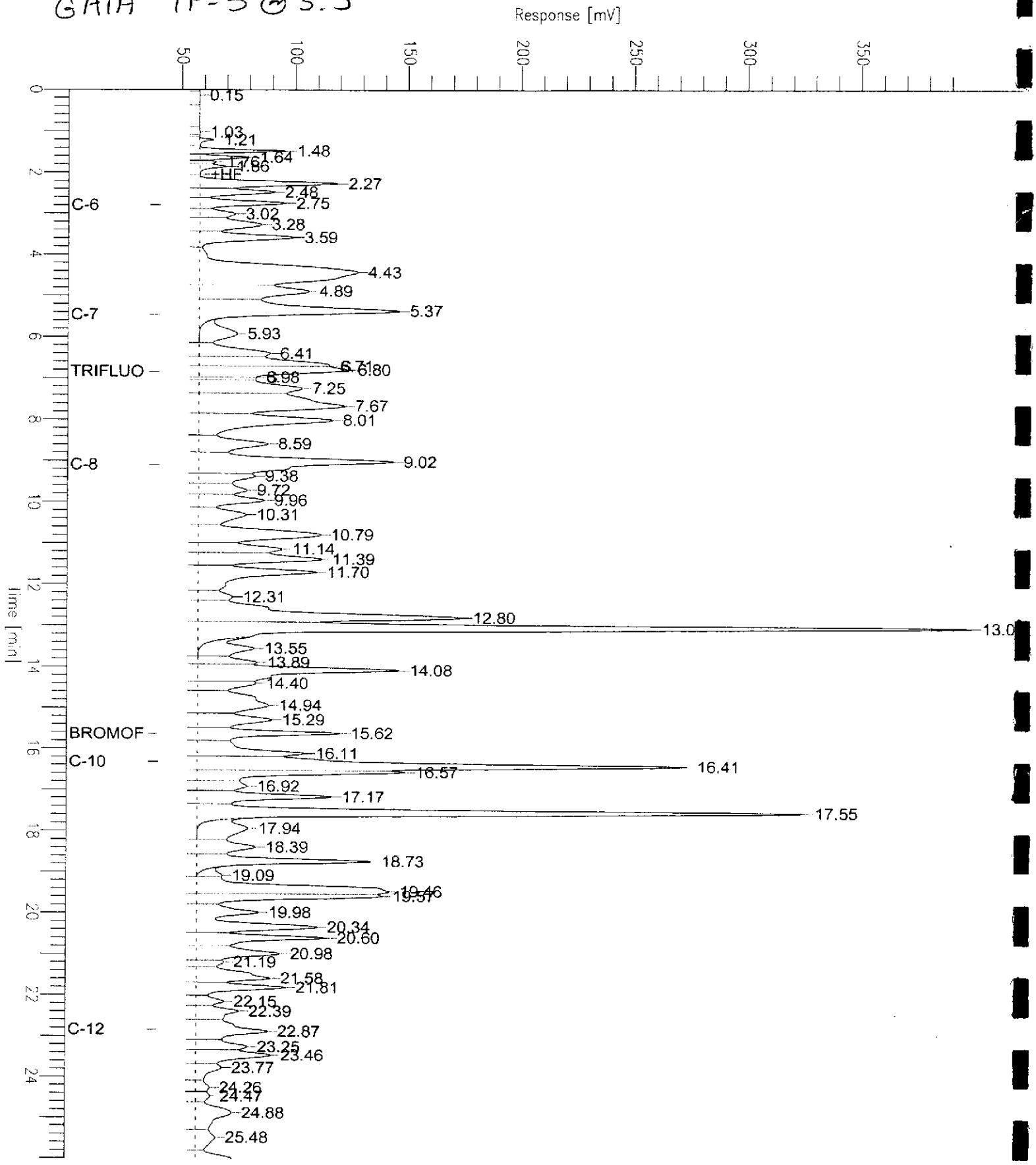
*= Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

GC04 TVH 'J' Data File FID

Sample Name : 164962-008,81109,tvh and mpxly only
FileName : G:\GC04\DATA\116J011.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 40 mV

Sample #: a Page 1 of 1
Date : 4/28/03 10:14 AM
Time of Injection: 4/27/03 12:36 AM
Low Point : 40.45 mV High Point : 399.33 mV
Plot Scale: 358.9 mV

GAIA TP-5 @ 3.5

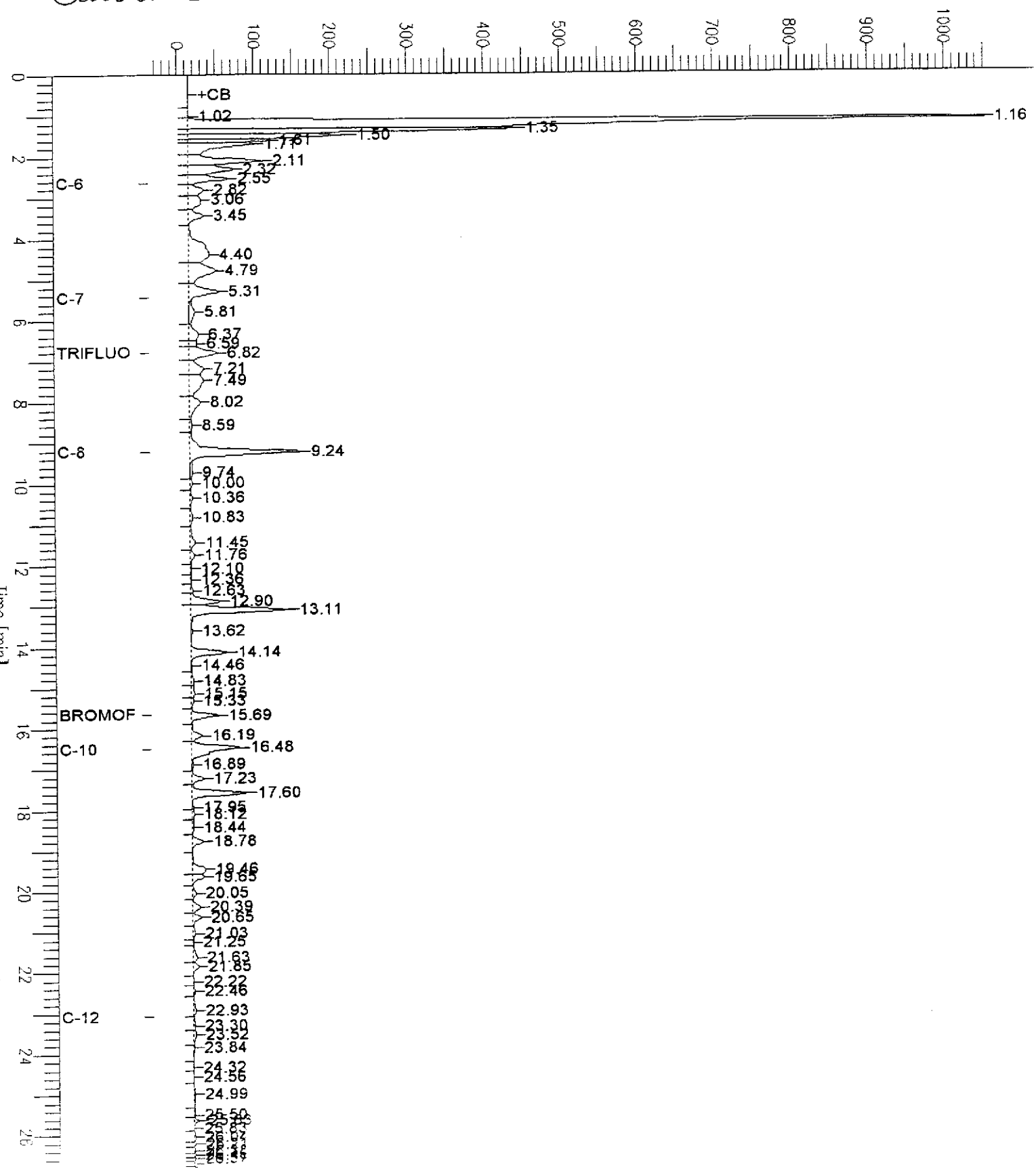


GC19 TVH 'X' Data File (FID)

Sample Name : ccv/lcs,gc212116,81080,03ws0527,5/5000
FileName : G:\GC19\DATA\115X003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: 1.0 Plot Offset: -38 mV

Sample #: Page 1 of 1
Date : 4/25/03 11:07 AM
Time of Injection: 4/25/03 10:40 AM
Low Point : -37.80 mV High Point : 1051.76 mV
Plot Scale: 1089.6 mV

Gasoline



Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227		
Matrix:	Soil	Received:	04/25/03
Basis:	as received		

Type:	BLANK	Batch#:	81124
Lab ID:	QC212281	Analyzed:	04/28/03
Units:	mg/Kg	Analysis:	8015B
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		104	58-144
Bromofluorobenzene (FID)		96	60-146
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

*= Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227		
Type:	LCS	Basis:	as received
Lab ID:	QC212115	Diln Fac:	1.000
Matrix:	Soil	Batch#:	81080
Units:	ug/Kg	Analyzed:	04/25/03

Analyte	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12		NA			
Benzene	100.0	101.5	101	65-120	EPA 8021B
Toluene	100.0	93.26	93	69-120	EPA 8021B
Ethylbenzene	100.0	93.67	94	68-121	EPA 8021B
m,p-Xylenes	200.0	184.2	92	70-124	EPA 8021B
o-Xylene	100.0	90.75	91	73-121	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	85	58-144	8015B
Bromofluorobenzene (FID)	81	60-146	8015B
Trifluorotoluene (PID)	77	67-146	EPA 8021B
Bromofluorobenzene (PID)	75	60-137	EPA 8021B

NA= Not Analyzed

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227		
Type:	LCS	Basis:	as received
Lab ID:	QC212116	Diln Fac:	1.000
Matrix:	Soil	Batch#:	81080
Units:	mg/Kg	Analyzed:	04/25/03

Analyte	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12	10.00	9.850	99	78-120	8015B
Benzene		NA			
Toluene		NA			
Ethylbenzene		NA			
m,p-Xylenes		NA			
o-Xylene		NA			

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	104	58-144	8015B
Bromofluorobenzene (FID)	90	60-146	8015B
Trifluorotoluene (PID)	96	67-146	EPA 8021B
Bromofluorobenzene (PID)	80	60-137	EPA 8021B

NA= Not Analyzed

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8021B
Type:	LCS	Basis:	as received
Lab ID:	QC212230	Diln Fac:	1.000
Matrix:	Soil	Batch#:	81109
Units:	ug/Kg	Analyzed:	04/26/03

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12		NA		
m,p-Xylenes	200.0	198.7	99	70-124

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)	NA		
Bromofluorobenzene (FID)	NA		
Trifluorotoluene (PID)		133	67-146
Bromofluorobenzene (PID)		130	60-137

NA= Not Analyzed

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	8015B
Type:	BS	Basis:	as received
Lab ID:	QC212229	Diln Fac:	1.000
Matrix:	Soil	Batch#:	81109
Units:	mg/Kg	Analyzed:	04/26/03

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.86	109	78-120
m,p-Xylenes		NA		

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		142	58-144
Bromofluorobenzene (FID)		124	60-146
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

NA= Not Analyzed

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	8015B
Type:	BSD	Basis:	as received
Lab ID:	QC212233	Diln Fac:	1.000
Matrix:	Soil	Batch#:	81109
Units:	mg/Kg	Analyzed:	04/27/03

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.00	10.77	108	78-120	1	20
m,p-Xylenes		NA				

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		141	58-144
Bromofluorobenzene (FID)		123	60-146
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

NA= Not Analyzed
RPD= Relative Percent Difference

8.0

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	8015B
Matrix:	Soil	Diln Fac:	1.000
Units:	mg/Kg	Batch#:	81124
Basis:	as received	Analyzed:	04/28/03

Type: BS Lab ID: QC212282

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.18	102	78-120

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		123	58-144
Bromofluorobenzene (FID)		104	60-146
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

Type: BSD Lab ID: QC212329

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	15.00	15.38	103	78-120	1	20

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		130	58-144
Bromofluorobenzene (FID)		108	60-146
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

NA= Not Analyzed
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd

Curtis & Tompkins Laboratories Analytical Report

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227		
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	164945-004	Batch#:	81080
Matrix:	Soil	Sampled:	04/23/03
Units:	mg/Kg	Received:	04/25/03
Basis:	as received	Analyzed:	04/25/03

Type: MS Lab ID: QC212185

Analyte	MSS Result	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12	5.256	9.901	12.15	70	44-133	8015B
Benzene			NA			
Toluene			NA			
Ethylbenzene			NA			
m,p-Xylenes			NA			
o-Xylene			NA			

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	118	58-144	8015B
Bromofluorobenzene (FID)	120	60-146	8015B
Trifluorotoluene (PID)	103	67-146	EPA 8021B
Bromofluorobenzene (PID)	95	60-137	EPA 8021B

Type: MSD Lab ID: QC212186

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analysis
Gasoline C7-C12	10.10	11.92	66	44-133	3	31	8015B
Benzene		NA					
Toluene		NA					
Ethylbenzene		NA					
m,p-Xylenes		NA					
o-Xylene		NA					

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	115	58-144	8015B
Bromofluorobenzene (FID)	113	60-146	8015B
Trifluorotoluene (PID)	101	67-146	EPA 8021B
Bromofluorobenzene (PID)	86	60-137	EPA 8021B

NA= Not Analyzed
RPD= Relative Percent Difference

5.0

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 3520C
Project#:	H-227	Analysis:	EPA 8015B
Field ID:	GAIA TP-4	Sampled:	04/24/03
Matrix:	Water	Received:	04/25/03
Units:	ug/L	Prepared:	04/30/03
Batch#:	81176	Analyzed:	05/01/03

Type:	SAMPLE	Diln Fac:	5.000
Lab ID:	164962-007	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	32,000	250
Motor Oil C24-C36	5,000 L	1,500

Surrogate	%REC	Limits
Hexacosane	120	39-137

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC212488	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	119	39-137

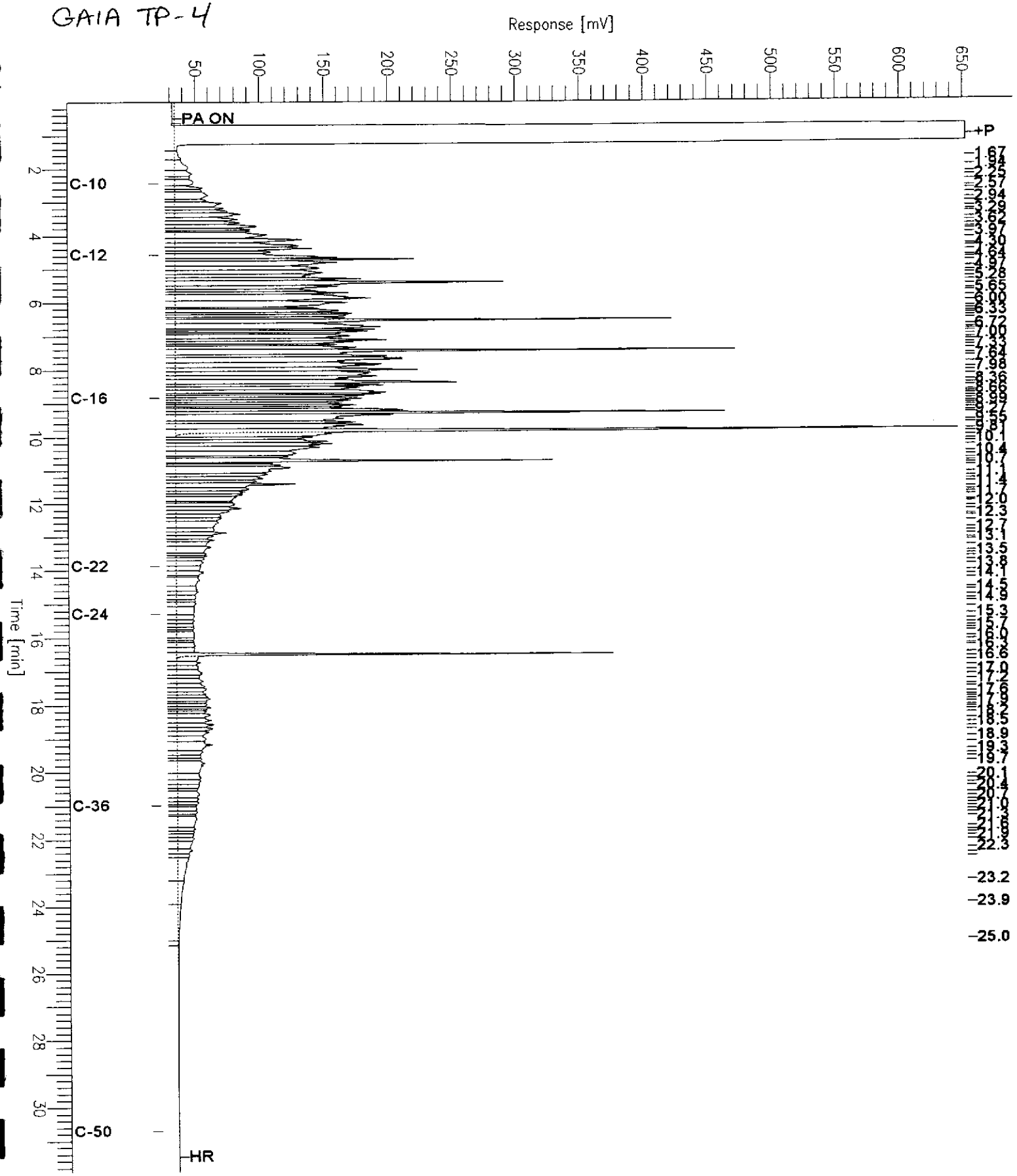
L= Lighter hydrocarbons contributed to the quantitation
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 164962-007sg,81176
FileName : G:\GC17\CHA\121A008.RAW
Method : ATEH107.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 21 mV

Sample #: 81176 Page 1 of 1
Date : 5/2/03 08:19 AM
Time of Injection: 5/1/03 10:24 PM
Low Point : 21.47 mV High Point : 652.28 mV
Plot Scale: 630.8 mV

GAIA TP-4

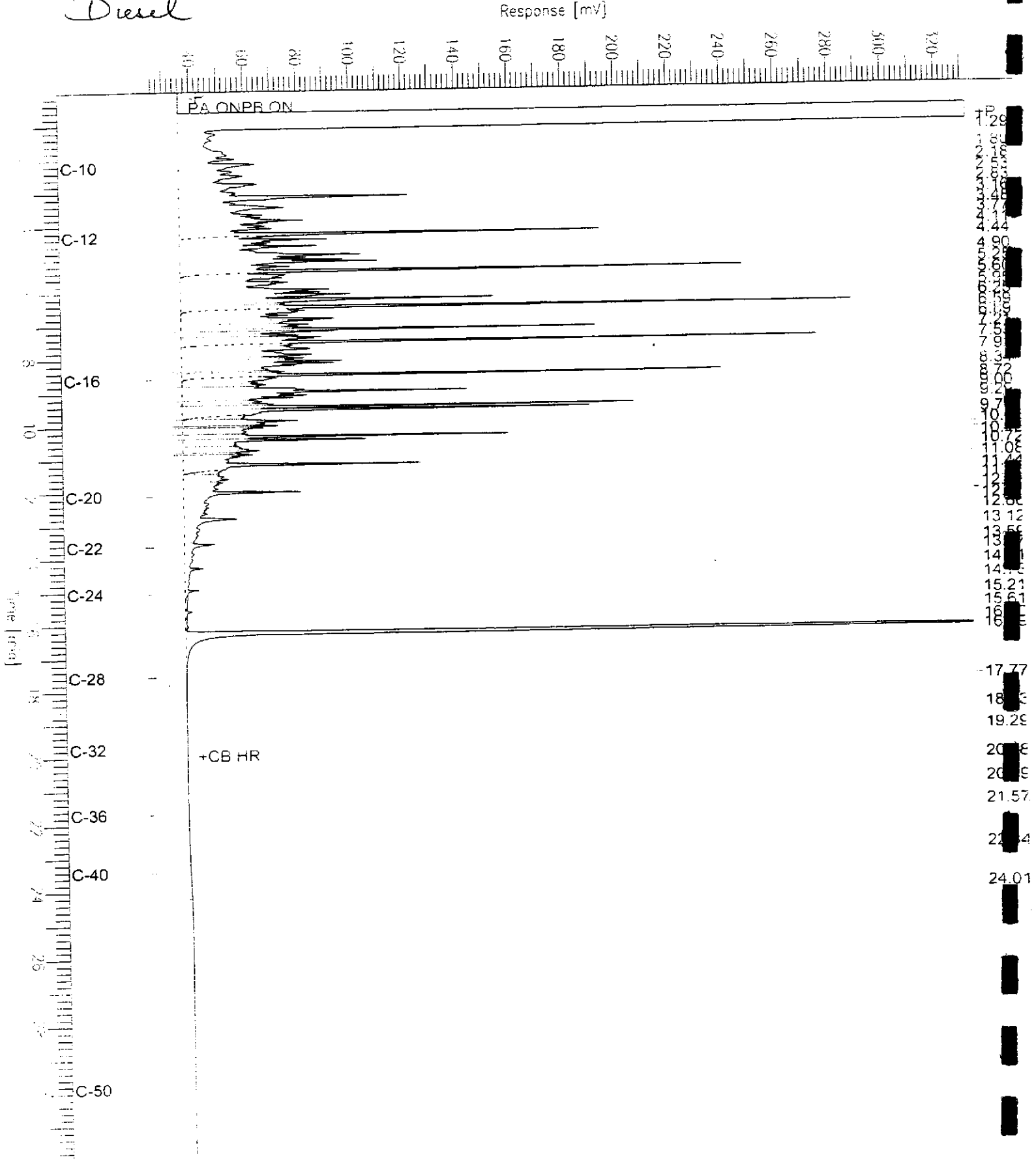


Chromatogram

Sample Name : ccv,03ws0520,dsl
FileName : G:\GC13\CHB\120B002.RAW
Method : BTEH106.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 25 mV

Sample #: 500mg/L Page 1 of 1
Date : 4/30/03 10:26 AM
Time of Injection: 4/30/03 09:18 AM
Low Point : 25.23 mV High Point : 331.96 mV
Plot Scale: 306.7 mV

Diesel

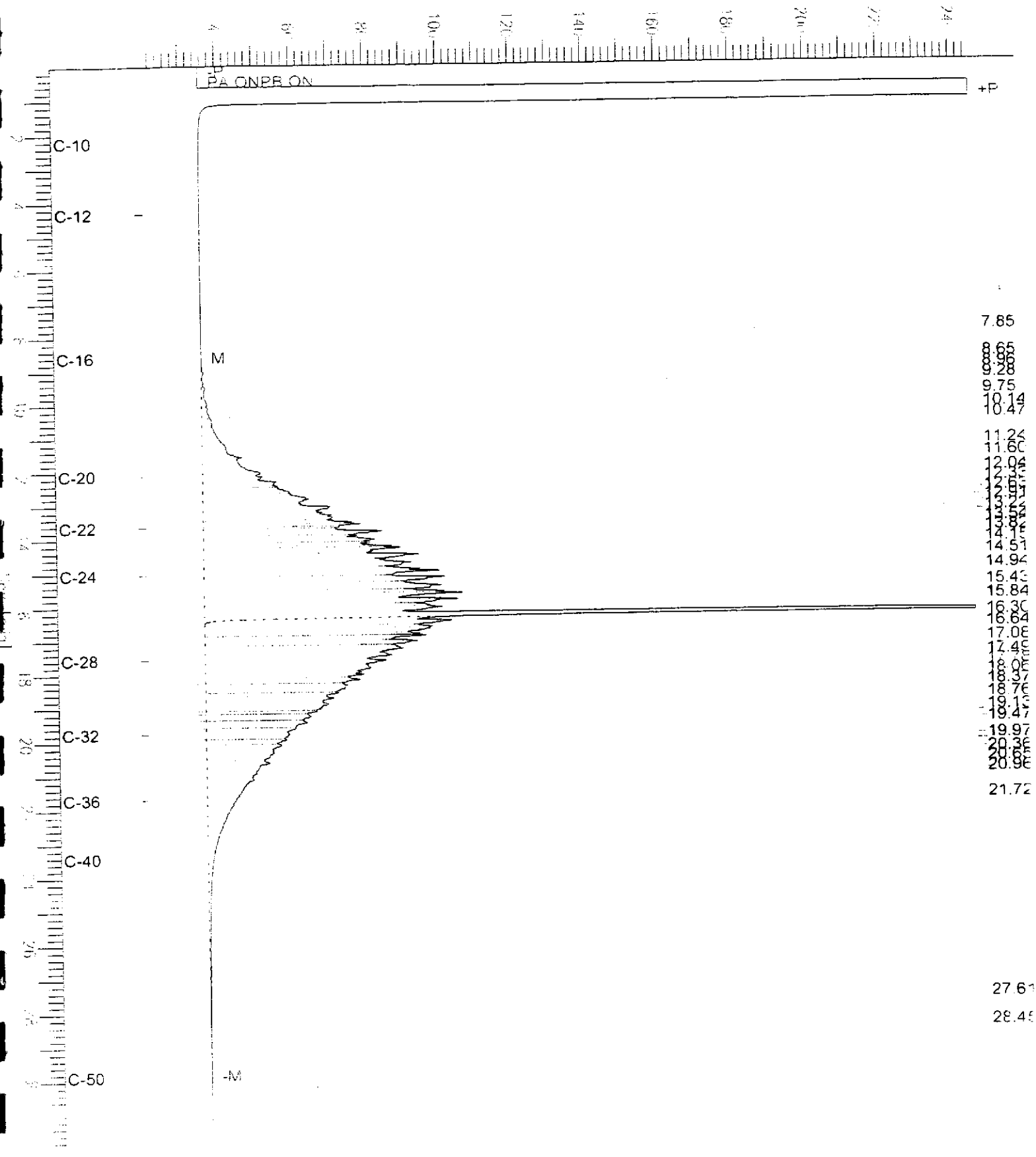


Chromatogram

mple Name : ccv,03ws0550,mo
leName : G:\GC13\CHB\120B003.RAW
Method : BTEH106.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 21 mV

Sample #: 500mg/L
Date : 4/30/03 10:40 AM
Time of Injection: 4/30/03 09:57 AM
Low Point : 20.75 mV High Point : 245.40 mV
Plot Scale: 224.6 mV

Motor Oil



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 3520C
Project#:	H-227	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	81176
Units:	ug/L	Prepared:	04/30/03
Diln Fac:	1.000		

Type: BS
Lab ID: QC212489
Analyzed: 04/30/03
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,469	99	37-120

Surrogate	%REC	Limits
Hexacosane	111	39-137

Type: BSD
Lab ID: QC212490
Analyzed: 05/01/03
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,740	110	37-120	10	26

Surrogate	%REC	Limits
Hexacosane	117	39-137

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 3550
Project#:	H-227	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	81130
Units:	mg/Kg	Received:	04/25/03
Basis:	as received	Prepared:	04/28/03

Field ID:	GAIA TP-2@3'	Sampled:	04/24/03
Type:	SAMPLE	Analyzed:	04/29/03
Lab ID:	164962-001	Cleanup Method:	EPA 3630C
Dil Fac:	1.000		

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

Surrogate	%REC	Limits
Hexacosane	82	48-137

Field ID:	GAIA TP-2@6'	Sampled:	04/24/03
Type:	SAMPLE	Analyzed:	04/29/03
Lab ID:	164962-002	Cleanup Method:	EPA 3630C
Dil Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	6.7 H Y	0.99
Motor Oil C24-C36	13	5.0

Surrogate	%REC	Limits
Hexacosane	90	48-137

Field ID:	GAIA TP-3@3'	Sampled:	04/24/03
Type:	SAMPLE	Analyzed:	04/29/03
Lab ID:	164962-003	Cleanup Method:	EPA 3630C
Dil Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	ND	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
Hexacosane	82	48-137

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

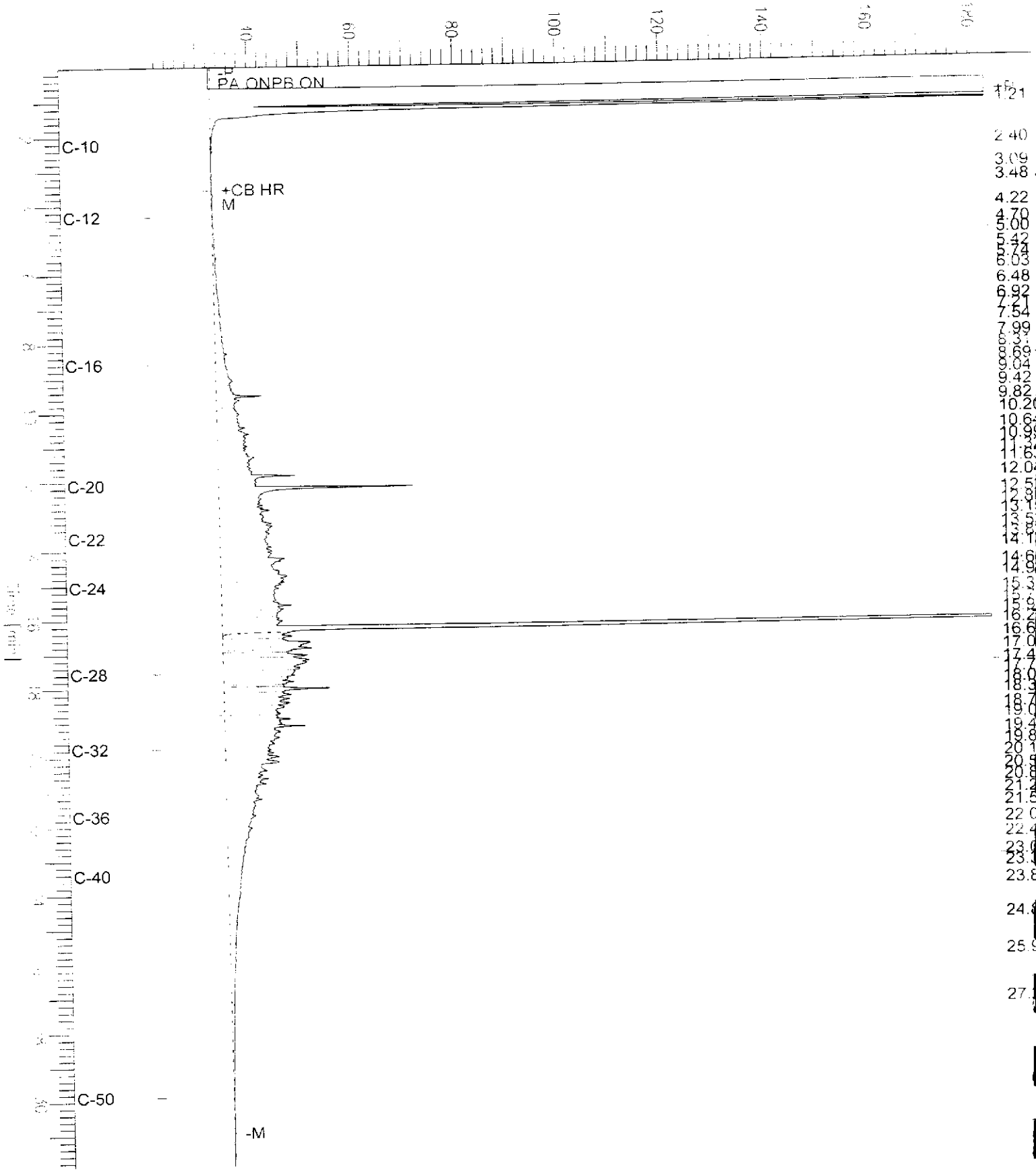
Chromatogram

Sample Name : 164962-002sg,81130
FileName : G:\GC13\CHB\119B012.RAW
Method : BTEH106.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 22 mV

Sample #: 81130 Page 1 of 1
Date : 4/30/03 09:21 AM
Time of Injection: 4/29/03 04:24 PM
Low Point : 21.57 mV High Point : 183.03 mV
Plot Scale: 161.5 mV

GAIA TP-2@6'

Response [mV]



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 3550
Project#:	H-227	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	81130
Units:	mg/Kg	Received:	04/25/03
Basis:	as received	Prepared:	04/28/03

Field ID:	GAIA TP-3@5'	Sampled:	04/24/03
Type:	SAMPLE	Analyzed:	04/29/03
Lab ID:	164962-004	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	2.2 H Y	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
Hexacosane	73	48-137

Field ID:	GAIA TP-4@3'	Sampled:	04/24/03
Type:	SAMPLE	Analyzed:	05/01/03
Lab ID:	164962-005	Cleanup Method:	EPA 3630C
Diln Fac:	20.00		

Analyte	Result	RL
Diesel C10-C24	5,700 H L Y	20
Motor Oil C24-C36	1,700 L	100

Surrogate	%REC	Limits
Hexacosane	DO	48-137

Field ID:	GAIA TP-4@5'	Sampled:	04/24/03
Type:	SAMPLE	Analyzed:	04/29/03
Lab ID:	164962-006	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	360 H L Y	1.0
Motor Oil C24-C36	260 L	5.0

Surrogate	%REC	Limits
Hexacosane	85	48-137

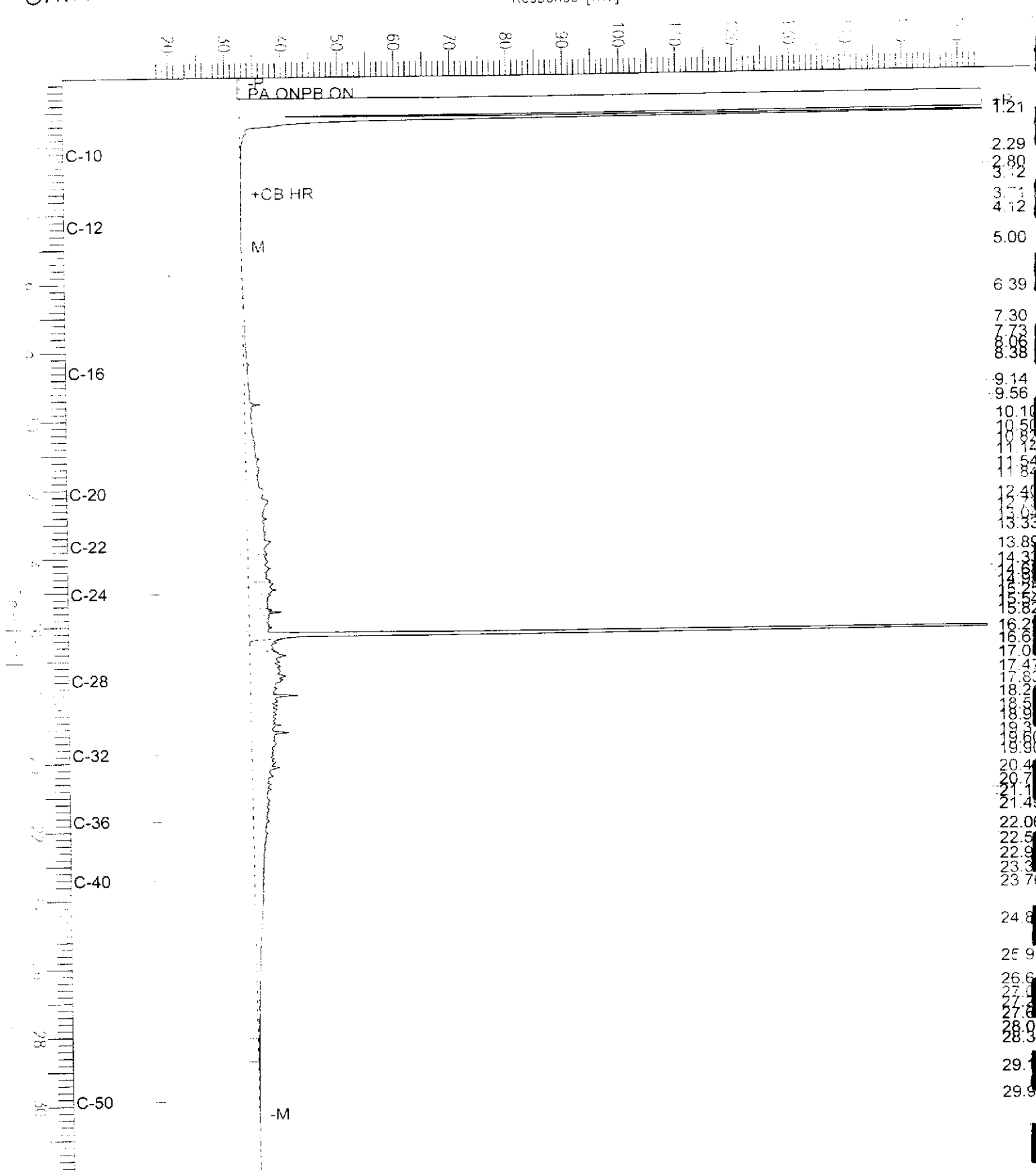
H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 164962-004sg,81130
FileName : G:\GC13\CHB\119B014.RAW
Method : BTEH106.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #: 81130
Date : 4/30/03 09:29 AM
Time of Injection: 4/29/03 05:42 PM
Low Point : 17.72 mV High Point : 164.16 mV
Plot Scale: 146.4 mV

GAIA TP-305'

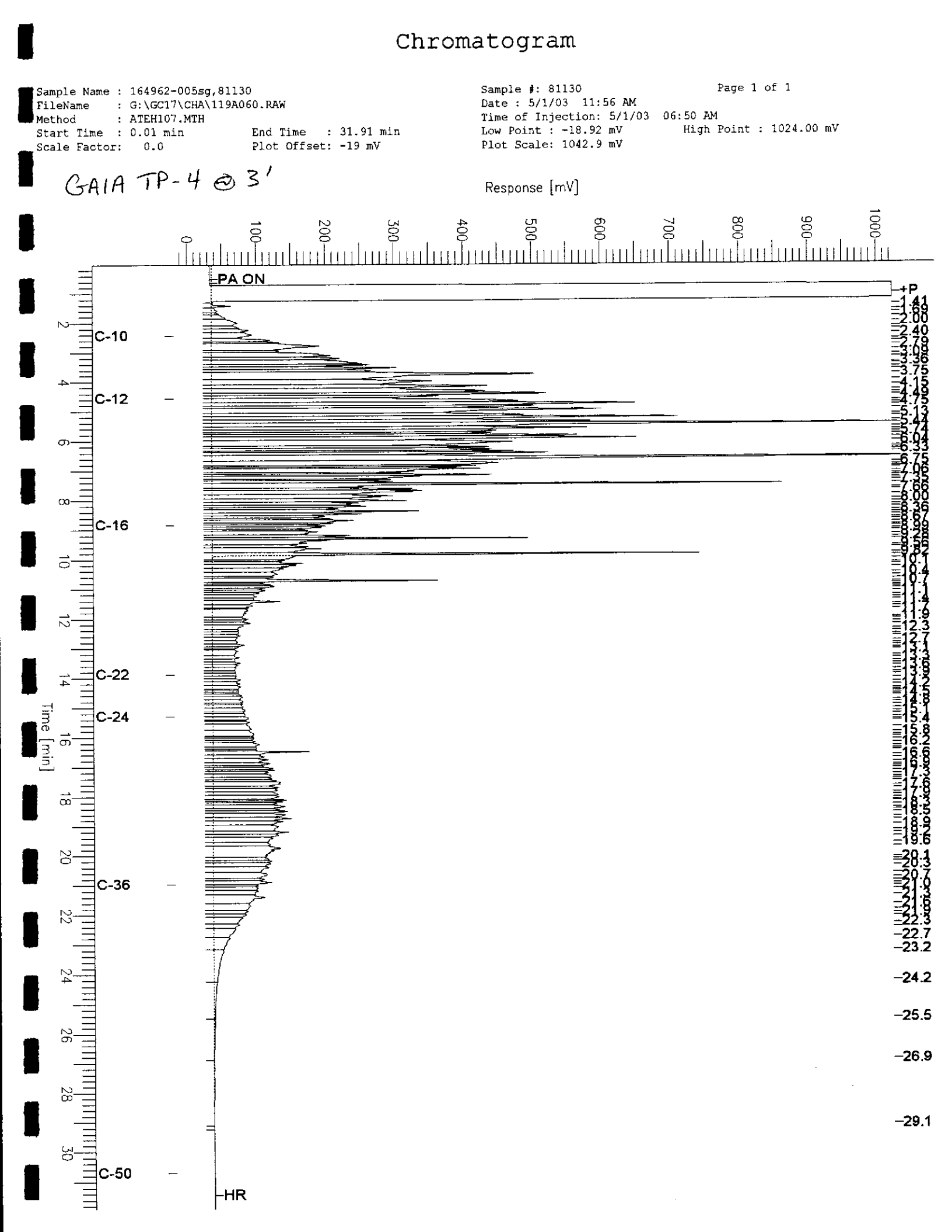


Chromatogram

Sample Name : 164962-005sg,81130
FileName : G:\GC17\CHA\119A060.RAW
Method : ATEH107.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: -19 mV

Sample #: 81130 Page 1 of 1
Date : 5/1/03 11:56 AM
Time of Injection: 5/1/03 06:50 AM
Low Point : -18.92 mV High Point : 1024.00 mV
Plot Scale: 1042.9 mV

GAIA TP-4 @ 3'

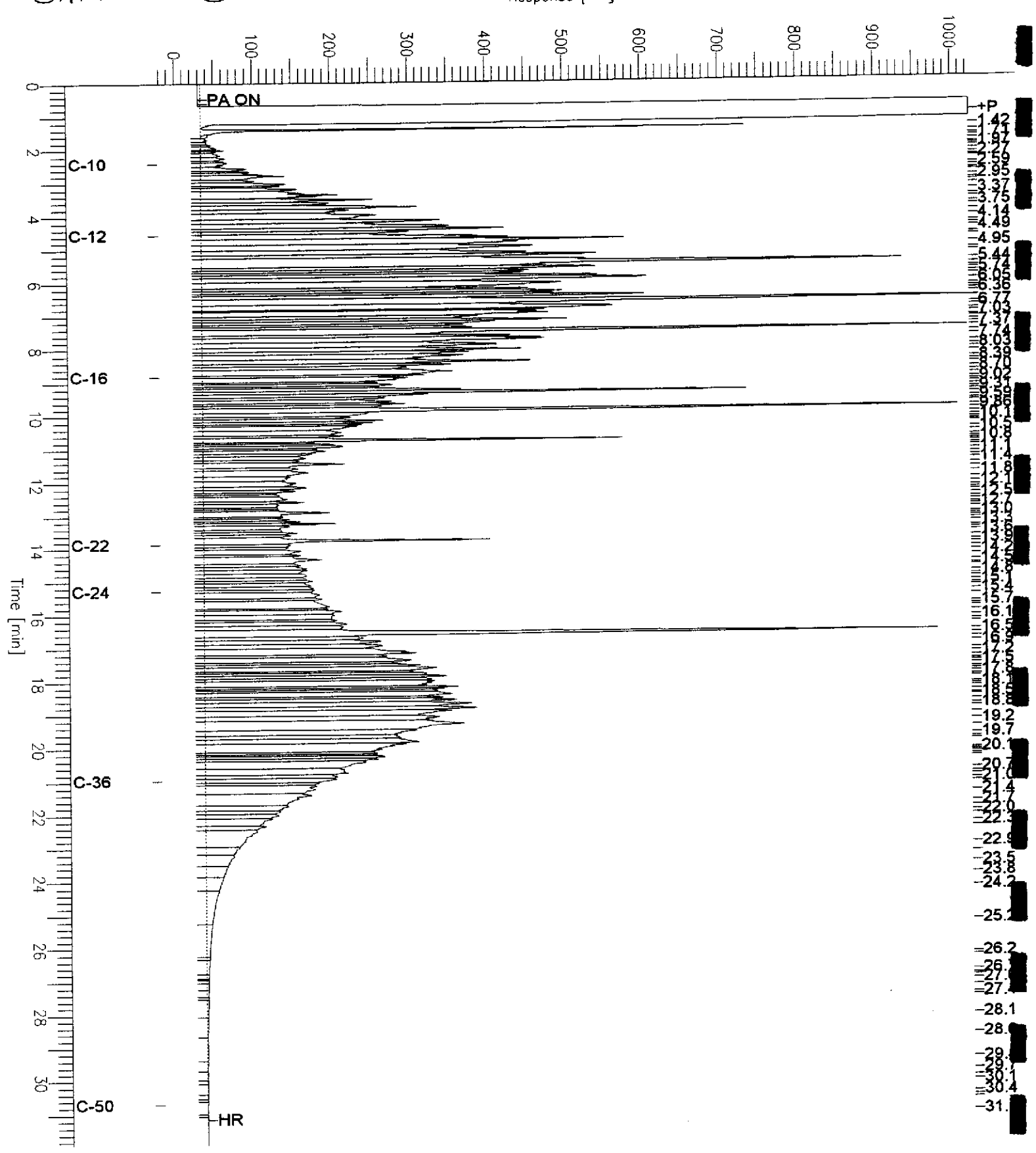


Chromatogram

Sample Name : 164962-006sg,81130
FileName : G:\GC17\CHA\119A011.RAW
Method : ATEH107.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: -22 mV

Sample #: 81130
Date : 4/30/03 09:21 AM
Time of Injection: 4/29/03 04:56 PM
Low Point : -21.58 mV High Point : 1024.00 mV
Plot Scale: 1045.6 mV

GAIA TP-4 @ 5'



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 3550
Project#:	H-227	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	81130
Units:	mg/Kg	Received:	04/25/03
Basis:	as received	Prepared:	04/28/03

Field ID:	GAIA TP-5@3.5	Sampled:	04/25/03
Type:	SAMPLE	Analyzed:	04/30/03
Lab ID:	164962-008	Cleanup Method:	EPA 3630C
Dil Fac:	5.000		

Analyte	Result	RL
Diesel C10-C24	1,100 H L Y	5.0
Motor Oil C24-C36	870	25

Surrogate	%REC	Limits
Hexacosane	110	48-137

Type:	BLANK	Analyzed:	04/29/03
Lab ID:	QC212304	Cleanup Method:	EPA 3630C
Dil Fac:	1.000		

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

Surrogate	%REC	Limits
Hexacosane	77	48-137

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

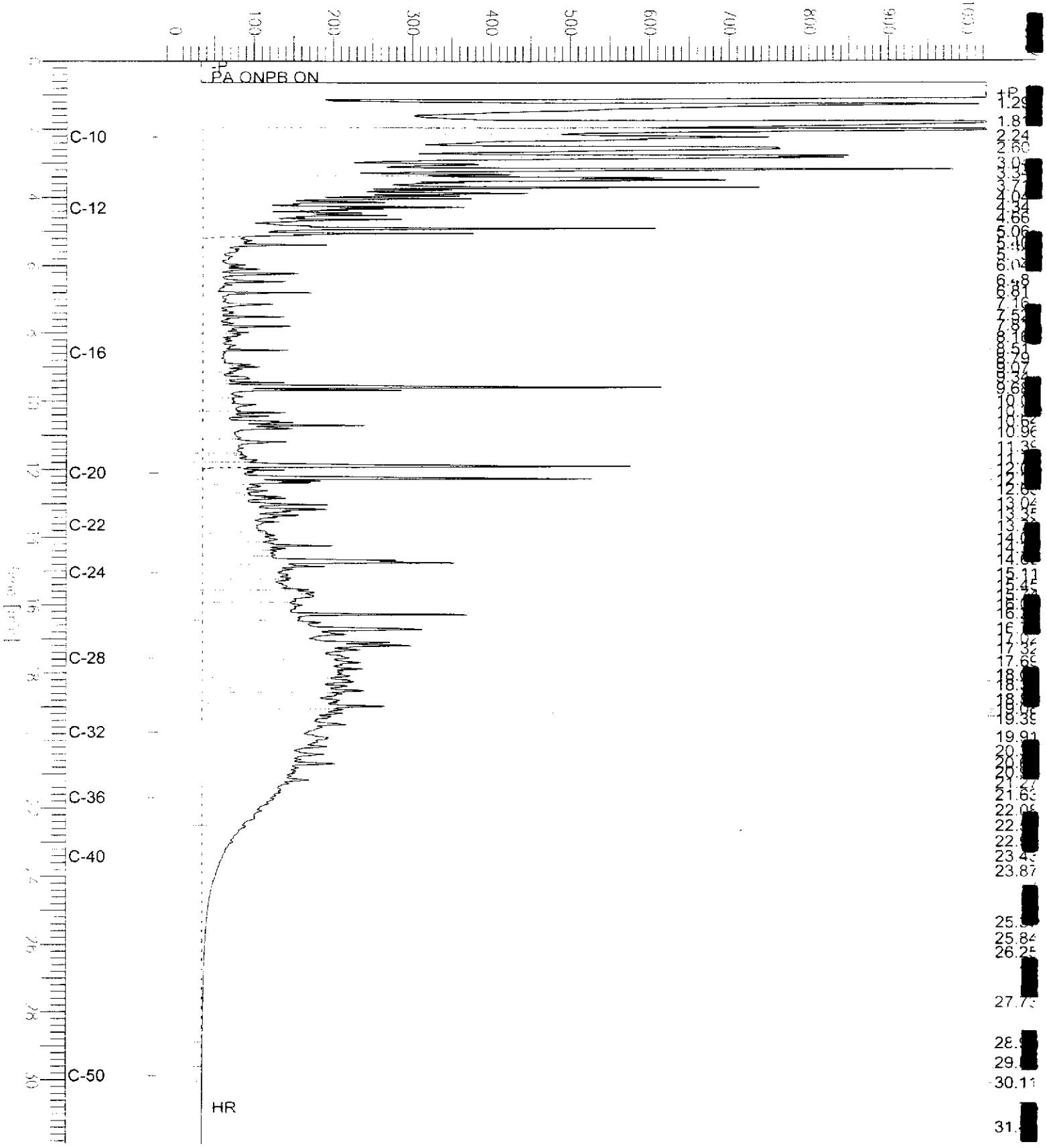
Chromatogram

Sample Name : 164962-008sg,81130
FileName : G:\GC13\CHB\120B007.RAW
Metnod : BTEH106.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: -20 mV

Sample #: 81130 Page 1 of 1
Date : 4/30/03 04:19 PM
Time of Injection: 4/30/03 02:18 PM
Low Point : -19.57 mV High Point : 1024.00 mV
Plot Scale: 1043.6 mV

GAIA TP-5 @ 3.5

Response [mV]

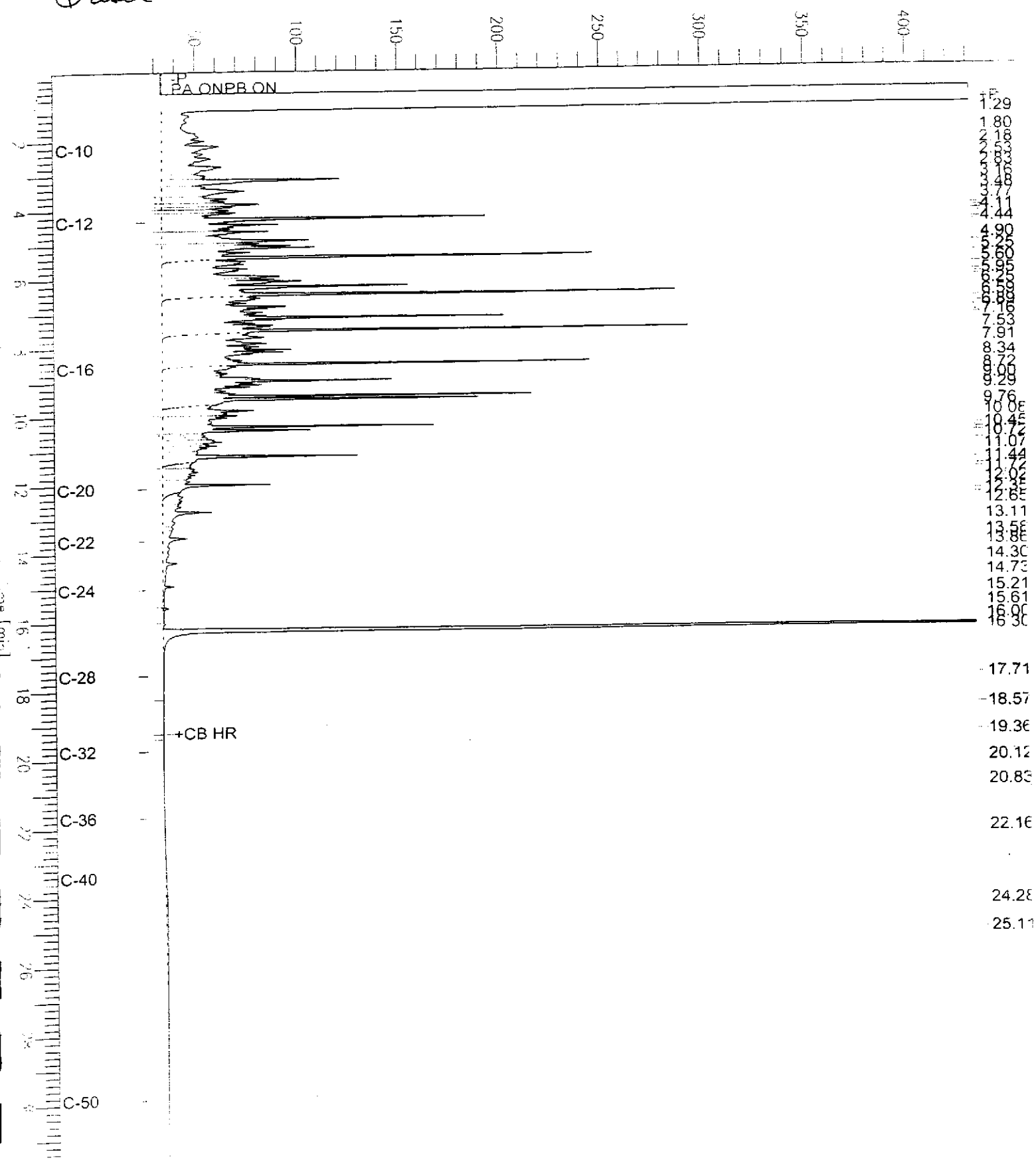


Chromatogram

Sample Name : ccv,03ws0520,dsl
FileName : G:\GC13\CHB\119B002.RAW
Method : BTEH106.MTH
Start Time : 0.01 min End Time : 31.51 min
Scale Factor: 0.0 Plot Offset: 26 mV

Sample #: 500mg/L
Date : 4/29/03 11:16 AM
Time of Injection: 4/29/03 09:12 AM
Low Point : 26.45 mV High Point : 431.51 mV
Plot Scale: 405.1 mV

Diesel

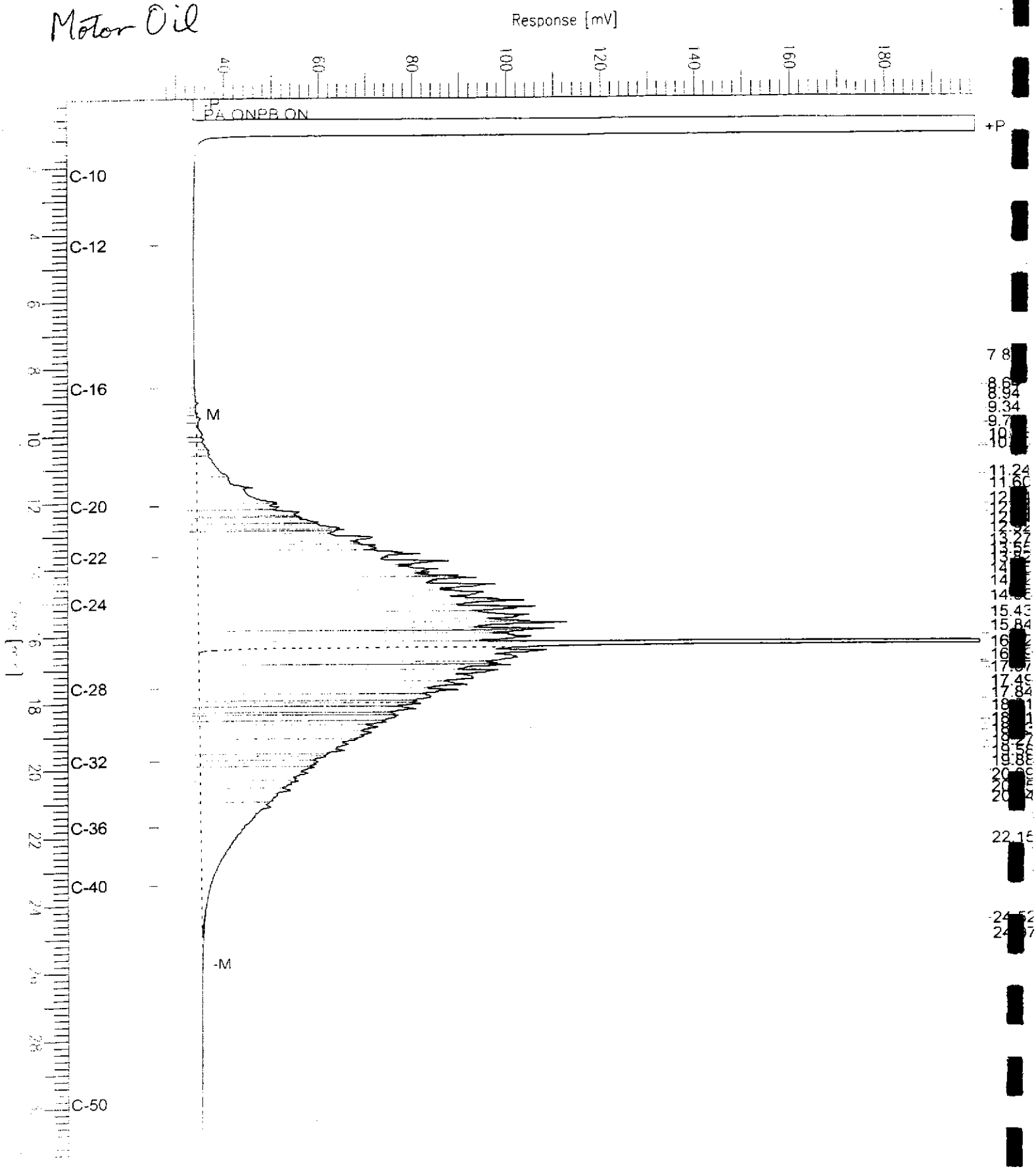


Chromatogram

Sample Name : ccv,03ws0550,mo
FileName : G:\GC13\CHB\119B003.RAW
Method : BTEH106.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #: 500mg/L
Date : 4/29/03 11:23 AM
Time of Injection: 4/29/03 09:52 AM
Low Point : 26.53 mV High Point : 198.92 mV
Plot Scale: 172.4 mV

Motor Oil



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 3550
Project#:	H-227	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC212305	Batch#:	81130
Matrix:	Soil	Prepared:	04/28/03
Units:	mg/Kg	Analyzed:	04/29/03
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.10	49.67	99	56-121

Surrogate	%REC	Limits
Hexacosane	90	48-137

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 3550
Project#:	H-227	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	81130
MSS Lab ID:	164921-008	Sampled:	04/23/03
Matrix:	Soil	Received:	04/24/03
Units:	mg/Kg	Prepared:	04/28/03
Basis:	as received	Analyzed:	04/30/03
Diln Fac:	1.000		

Type: MS Lab ID: QC212306

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	44.05	49.63	62.63	37	37-128

Surrogate	%REC	Limits
Hexacosane	90	48-137

Type: MSD Lab ID: QC212307

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.95	58.06	28 *	37-128	8	37

Surrogate	%REC	Limits
Hexacosane	95	48-137

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

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Field ID:	GAIA TP-4	Batch#:	81125
Matrix:	Water	Sampled:	04/24/03
Units:	ug/L	Received:	04/25/03
Diln Fac:	1.000	Analyzed:	04/28/03

Type: SAMPLE Lab ID: 164962-007

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-121
1,2-Dichloroethane-d4	112	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	98	80-120

Type: BLANK Lab ID: QC212285

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	NA	
MTBE	ND	0.5
Isopropyl Ether (DIPE)	NA	
Ethyl tert-Butyl Ether (ETBE)	NA	
Methyl tert-Amyl Ether (TAME)	NA	
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-121
1,2-Dichloroethane-d4	105	77-130
Toluene-d8	98	80-120
Bromofluorobenzene	101	80-120

Type: BLANK Lab ID: QC212286

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-121
1,2-Dichloroethane-d4	108	77-130
Toluene-d8	97	80-120
Bromofluorobenzene	101	80-120

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	81125
Units:	ug/L	Analyzed:	04/28/03
Diln Fac:	1.000		

Type: BS Lab ID: QC212283

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	47.52	95	49-144

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-121
1,2-Dichloroethane-d4	110	77-130
Toluene-d8	102	80-120
Bromofluorobenzene	100	80-120

Type: BSD Lab ID: QC212284

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	50.00	46.77	94	49-144	2	21

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-121
1,2-Dichloroethane-d4	108	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Basis:	as received	Received:	04/25/03

Field ID:	GAIA TP-2@3'	Diln Fac:	1.020
Type:	SAMPLE	Batch#:	81132
Lab ID:	164962-001	Sampled:	04/24/03
Matrix:	Soil	Analyzed:	04/29/03
Units:	ug/Kg		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.1
Isopropyl Ether (DIPE)	ND	5.1
Ethyl tert-Butyl Ether (ETBE)	ND	5.1
Methyl tert-Amyl Ether (TAME)	ND	5.1
1,2-Dichloroethane	ND	5.1
1,2-Dibromoethane	ND	5.1

Surrogate	%REC	Limits
Dibromofluoromethane	97	74-124
1,2-Dichloroethane-d4	106	75-128
Toluene-d8	98	80-111
Bromofluorobenzene	95	75-127

Field ID:	GAIA TP-2@6'	Diln Fac:	1.042
Type:	SAMPLE	Batch#:	81132
Lab ID:	164962-002	Sampled:	04/24/03
Matrix:	Soil	Analyzed:	04/29/03
Units:	ug/Kg		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.2
Isopropyl Ether (DIPE)	ND	5.2
Ethyl tert-Butyl Ether (ETBE)	ND	5.2
Methyl tert-Amyl Ether (TAME)	ND	5.2
1,2-Dichloroethane	ND	5.2
1,2-Dibromoethane	ND	5.2

Surrogate	%REC	Limits
Dibromofluoromethane	96	74-124
1,2-Dichloroethane-d4	106	75-128
Toluene-d8	99	80-111
Bromofluorobenzene	96	75-127

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Basis:	as received	Received:	04/25/03

Field ID:	GAIA TP-3@3'	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	81132
Lab ID:	164962-003	Sampled:	04/24/03
Matrix:	Soil	Analyzed:	04/29/03
Units:	ug/Kg		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dibromoethane	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	98	74-124
1,2-Dichloroethane-d4	111	75-128
Toluene-d8	100	80-111
Bromofluorobenzene	97	75-127

Field ID:	GAIA TP-3@5'	Diln Fac:	1.064
Type:	SAMPLE	Batch#:	81132
Lab ID:	164962-004	Sampled:	04/24/03
Matrix:	Soil	Analyzed:	04/29/03
Units:	ug/Kg		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	110
MTBE	ND	5.3
Isopropyl Ether (DIPE)	ND	5.3
Ethyl tert-Butyl Ether (ETBE)	ND	5.3
Methyl tert-Amyl Ether (TAME)	ND	5.3
1,2-Dichloroethane	ND	5.3
1,2-Dibromoethane	ND	5.3

Surrogate	%REC	Limits
Dibromofluoromethane	99	74-124
1,2-Dichloroethane-d4	111	75-128
Toluene-d8	99	80-111
Bromofluorobenzene	96	75-127

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Basis:	as received	Received:	04/25/03

Field ID:	GAIA TP-4@3'	Diln Fac:	100.0
Type:	SAMPLE	Batch#:	81162
Lab ID:	164962-005	Sampled:	04/24/03
Matrix:	Soil	Analyzed:	04/29/03
Units:	ug/Kg		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10,000
MTBE	ND	500
Isopropyl Ether (DIPE)	ND	500
Ethyl tert-Butyl Ether (ETBE)	ND	500
Methyl tert-Amyl Ether (TAME)	ND	500
1,2-Dichloroethane	ND	500
1,2-Dibromoethane	ND	500

Surrogate	%REC	Limits
Dibromofluoromethane	94	74-124
1,2-Dichloroethane-d4	107	75-128
Toluene-d8	100	80-111
Bromofluorobenzene	92	75-127

Field ID:	GAIA TP-4@5'	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	81132
Lab ID:	164962-006	Sampled:	04/24/03
Matrix:	Soil	Analyzed:	04/29/03
Units:	ug/Kg		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dibromoethane	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	99	74-124
1,2-Dichloroethane-d4	109	75-128
Toluene-d8	99	80-111
Bromofluorobenzene	95	75-127

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Basis:	as received	Received:	04/25/03

Field ID:	GAIA TP-5@3.5	Diln Fac:	142.9
Type:	SAMPLE	Batch#:	81162
Lab ID:	164962-008	Sampled:	04/25/03
Matrix:	Soil	Analyzed:	04/29/03
Units:	ug/Kg		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	14,000
MTBE	ND	710
Isopropyl Ether (DIPE)	ND	710
Ethyl tert-Butyl Ether (ETBE)	ND	710
Methyl tert-Amyl Ether (TAME)	ND	710
1,2-Dichloroethane	ND	710
1,2-Dibromoethane	ND	710

Surrogate	%REC	Limits
Dibromofluoromethane	95	74-124
1,2-Dichloroethane-d4	105	75-128
Toluene-d8	100	80-111
Bromofluorobenzene	92	75-127

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC212311	Batch#:	81132
Matrix:	Soil	Analyzed:	04/28/03
Units:	ug/Kg		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	NA	
MTBE	ND	5.0
Isopropyl Ether (DIPE)	NA	
Ethyl tert-Butyl Ether (ETBE)	NA	
Methyl tert-Amyl Ether (TAME)	NA	
1,2-Dichloroethane	ND	5.0
1,2-Dibromoethane	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	97	74-124
1,2-Dichloroethane-d4	104	75-128
Toluene-d8	99	80-111
Bromofluorobenzene	95	75-127

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Basis:	as received	Received:	04/25/03

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC212318	Batch#:	81132
Matrix:	Soil	Analyzed:	04/28/03
Units:	ug/Kg		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dibromoethane	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	95	74-124
1,2-Dichloroethane-d4	106	75-128
Toluene-d8	100	80-111
Bromofluorobenzene	90	75-127

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC212428	Batch#:	81162
Matrix:	Water	Analyzed:	04/29/03
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dibromoethane	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	97	74-124
1,2-Dichloroethane-d4	105	75-128
Toluene-d8	100	80-111
Bromofluorobenzene	93	75-127

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC212310	Diln Fac:	1.000
Matrix:	Soil	Batch#:	81132
Units:	ug/Kg	Analyzed:	04/28/03

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	45.99	92	63-121

Surrogate	%REC	Limits
Dibromofluoromethane	96	74-124
1,2-Dichloroethane-d4	104	75-128
Toluene-d8	100	80-111
Bromofluorobenzene	90	75-127

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC212427	Batch#:	81162
Matrix:	Water	Analyzed:	04/29/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	46.05	92	63-121

Surrogate	%REC	Limits
Dibromofluoromethane	99	74-124
1,2-Dichloroethane-d4	107	75-128
Toluene-d8	98	80-111
Bromofluorobenzene	93	75-127

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	164964-001	Batch#:	81132
Matrix:	Soil	Sampled:	04/24/03
Units:	ug/Kg	Received:	04/25/03
Basis:	as received	Analyzed:	04/28/03

Type: MS Lab ID: QC212316

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.2000	50.00	46.89	94	53-131

Surrogate	%REC	Limits
Dibromofluoromethane	98	74-124
1,2-Dichloroethane-d4	105	75-128
Toluene-d8	100	80-111
Bromofluorobenzene	93	75-127

Type: MSD Lab ID: QC212317

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	50.00	46.10	92	53-131	2	30

Surrogate	%REC	Limits
Dibromofluoromethane	98	74-124
1,2-Dichloroethane-d4	104	75-128
Toluene-d8	99	80-111
Bromofluorobenzene	94	75-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 5030B
Project#:	H-227	Analysis:	EPA 8260B
Field ID:	GAIA TP-4@3'	Diln Fac:	100.0
MSS Lab ID:	164962-005	Batch#:	81162
Matrix:	Soil	Sampled:	04/24/03
Units:	ug/Kg	Received:	04/25/03
Basis:	as received	Analyzed:	04/30/03

Type: MS Lab ID: QC212516

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<20.00	5,000	4,659	93	53-131

Surrogate	%REC	Limits
Dibromofluoromethane	91	74-124
1,2-Dichloroethane-d4	100	75-128
Toluene-d8	100	80-111
Bromofluorobenzene	92	75-127

Type: MSD Lab ID: QC212517

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	5,000	4,775	96	53-131	2	30

Surrogate	%REC	Limits
Dibromofluoromethane	94	74-124
1,2-Dichloroethane-d4	99	75-128
Toluene-d8	100	80-111
Bromofluorobenzene	94	75-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Lead

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 3050
Project#:	H-227	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	81167
Field ID:	GAIA TP-5@3.5	Sampled:	04/25/03
Matrix:	Soil	Received:	04/25/03
Units:	mg/Kg	Prepared:	04/29/03
Basis:	as received	Analyzed:	04/30/03
Diln Fac:	1.000		

Type	Lab ID	Result	RL
SAMPLE	164962-008	46	0.14
BLANK	QC212451	ND	0.15

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Lead

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 3050
Project#:	H-227	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Matrix:	Soil	Batch#:	81167
Units:	mg/Kg	Prepared:	04/29/03
Basis:	as received	Analyzed:	04/30/03

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC212452	100.0	85.00	85	70-120		
BSD	QC212453	100.0	91.00	91	70-120	7	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Lead

Lab #:	164962	Location:	9th Avenue
Client:	GAIA Consulting, Inc.	Prep:	EPA 3050
Project#:	H-227	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	81167
MSS Lab ID:	164892-001	Sampled:	04/21/03
Matrix:	Soil	Received:	04/23/03
Units:	mg/Kg	Prepared:	04/29/03
Basis:	as received	Analyzed:	04/30/03

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC212454	16.50	87.34	81.66	75	46-128		
MSD	QC212455		86.96	80.43	74	46-128	1	39

RPD= Relative Percent Difference