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REPORT ON
CONDUCTING ADDITIONAL FIELD
INVESTIGATION TO EVALUATE THE SITE'S
CONCEPTUAL MODEL
FORMER GLOVATORIUM SITE
3815 Broadway, Oakland, California

January 3, 2002

Project 01-2512

Prepared for
Smiland and Khachigian
601 West Fifth Street, 7th Floor
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Prepared by
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January 7, 2002

Mr. Scott Seery, CHMM
Alameda County Department of
Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: SOMA Environmental Report on Conducting Additional Field Investigation to Evaluate the Site's Conceptual Model, Former Glovatorium Site, 3815 Broadway, Oakland, California

Dear Scott:

A copy of SOMA Environmental Engineering, Inc. (SOMA) Report entitled "Report on Conducting Additional Field Investigation to Evaluate the Site's Conceptual Model, Former Glovatorium Site, 3815 Broadway, Oakland, California" for your review and approval is enclosed.

Based on our June 15, 2001 approved workplan, SOMA is planning to use the information gathered in this report, as well as data in the previous groundwater monitoring reports to conduct groundwater flow and chemical transport modeling and human health risk assessment in order to define the site's regulatory status.

Thank you very much for your time and regulatory oversight. Meanwhile, please do not hesitate to call me at (925) 244-6600, if you have any questions or comments.

Sincerely,

Mansour Sepehr, Ph.D., P.E.
Principal



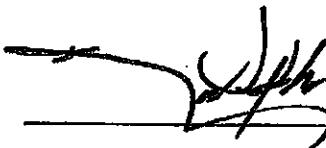
cc: Mr. Stuart Depper, Clean Tech Machinery
Albert Cohen, Esq., Smiland and Khachigian
Ms. Betty Graham, Regional Water Quality Control Board
Dr. Bruce W. Page, Bruce W. Page Consulting

Certification

This report has been prepared by SOMA Environmental Engineering, Inc. for Smiland & Khachigian to comply with Alameda County Department of Environmental Health's requirement based on our Approved Workplan dated June 15, 2001.



Naser Pakrou, Ph.D.
Manager of Field Operations



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1.0 INTRODUCTION

This report has been prepared by SOMA Environmental Engineering, Inc. (SOMA) for the Law Offices of Smiland and Khachigian on behalf of their client, the owners of the former Glovatorium. The site is the former Glovatorium property located at 3815 Broadway Avenue, Oakland, California (the "Site"), as shown in Figure 1. The Site is located in an area consisting primarily of commercial and residential uses.

SOMA's workplan dated June 15, 2001, which was approved by the Alameda County Health Care Services (ACHCS) on August 27, 2001, proposed a two-phased approach for assessing the nature and extent of soil and groundwater contamination and defining the Site's regulatory status. The first phase included installation of additional groundwater monitoring wells, soil and groundwater sampling, conducting hydraulic testing, and a sensitive receptor survey. The second phase included conducting groundwater flow and chemical fate and transport modeling, risk-based corrective action (RBCA), and defining the Site's regulatory status in order to decide whether or not an active groundwater remediation is warranted. This report describes the results of the first phase of investigation.

1.1 Site background

The initial Site investigation was conducted in August 1997 by Geosolv, LLC (Geosolv). During this investigation, Geosolv drilled fourteen soil borings and converted some of them into groundwater monitoring wells. In September 1998, Geosolv conducted further soil and groundwater investigation by drilling twelve additional soil borings. After collecting groundwater samples these borings were abandoned and grouted.

In July 1999, Levine.Fricke Recon (LFR) drilled 10 soil borings primarily along the 54-inch diameter storm drain and sanitary sewer system and collected grab groundwater samples. Some of the soil borings installed during this investigation were converted into groundwater monitoring wells (GW-1 through GW-8 and GW-5A and GW-6A).

In January and April 2000, LFR conducted first and second quarter 2000 groundwater monitoring events at the Site. During the monitoring events groundwater elevations in on- and off-site monitoring wells were measured.

In July and August 2000, LFR installed four groundwater monitoring wells, namely LFR-1 through LFR-4, and conducted the third quarter 2000 groundwater monitoring event. Figure 2 shows the location of groundwater monitoring wells. This was the first monitoring event in which bioattenuation parameters were collected. In late October and early November 2000, LFR conducted the fourth quarter 2000 groundwater monitoring event, including another round of bioattenuation sampling.

In January 2001, LFR field crew conducted groundwater monitoring including a bioattenuation study at the Site. SOMA was retained in March 2001 to conduct groundwater monitoring events and prepare the first quarter 2001 groundwater monitoring report (SOMA May 7, 2001). In April and September 2001, SOMA conducted the second and third quarter 2001 groundwater monitoring events, including a bioattenuation study, at the subject property. The results of bioattenuation studies indicated the occurrence of strong dechlorination processes in the subsurface.

2.0 CURRENT STATUS OF SITE CONDITIONS

The results of the previous six groundwater monitoring events and four rounds of bioattenuation studies are summarized in the following sections:

2.1 Groundwater Flow Condition

In general, the depth to groundwater throughout the entire hydrologic cycle ranges between 7.5 and 14 feet beneath the Site. The groundwater level fluctuation can be attributed to the rainfall-related recharge and dry periods throughout the hydrological cycle. Figure 3 displays the groundwater elevation contour map. As Figure 3 shows, the general groundwater flow direction is from the northeast to southwest.

The results of groundwater monitoring events indicate that electrical conductivity of the water-bearing zone beneath the Site varies between 600 and 1,300 $\mu\text{S}/\text{cm}$. Therefore, groundwater beneath the Site can be classified as a drinking water source. The significant difference between the electrical conductivity values at different wells suggests that the groundwater monitoring wells may have been completed in different water-bearing zones.

To evaluate such phenomenon, additional groundwater samples from B-10 and LFR-1 were collected and submitted to the laboratory for total anion and cation analyses. The results of the laboratory analyses indicated that due to the occurrence of biodegradation processes in the apparent source area well B-10, there is a dramatic difference in the ratio of anions compared to LFR-1. For instance, sulfate an electron acceptor was not detected in the apparent source area well B-10 due to the presence of anaerobic biodegradation processes. Contrary to the apparent source area well B-10, sulfate is present in LFR-1. Also, the chloride concentration is lower in B-10 than LFR-1, while one would expect the opposite result, since chloride is one of the final products of the reduction of chlorinated solvents. This result indicates that the groundwater type in B-10 may be different than LFR-1. In addition, the higher concentration of sodium in B-10 further suggests the difference in composition between the two water samples. The difference between the two water types suggests that B-10 and LFR-1 may have been completed in different water-bearing zones.

The result of this investigation will help to determine the extent/thickness of the saturated zone and presence or absence of a multi-layer water-bearing zone beneath the Site. This is an important piece of information in connection with the Site's conceptual model for identification of the hydrogeologic flow system and potential groundwater exposure pathways.

2.2 Groundwater Quality

During the past groundwater monitoring events, the groundwater samples have been analyzed for petroleum hydrocarbons and volatile organic compounds using EPA Method 8015M, 8021B and 8260B. The results of laboratory analyses indicates that groundwater beneath the Site has been impacted by TPH-ss, TPH-g, benzene, toluene, ethylbenzene, and total xylenes. Total petroleum hydrocarbons as gasoline (TPH-g) and as Stoddard solvent (TPH—ss) have been found at high concentrations beneath the Site. The maximum concentrations of TPH-g and TPH-ss have been reported in B-7, which is located inside the former Glovatorium building.

The results of monitoring events indicate minor concentrations of MtBE and BTEX at various groundwater monitoring wells. The maximum concentration of benzene has been reported in a split groundwater sample from GW-7 at 76 µg/L in July 1999. The maximum concentration of MtBE has been reported at 160 µg/L in B-10 in August 2000.

The results of monitoring events indicate the presence of volatile organic compounds (VOCs) in groundwater beneath the Site. Cis-1,2-dichloroethene (cis-1,2-DCE) has been found most frequently. The maximum concentration of cis-1,2-DCE has been reported at 14,000 µg/L in B-10 in January 2000. Cis-1,2-DCE is produced during the reductive dechlorination of tetrachloroethene (PCE).

PCE and TCE have been reported at relatively high concentrations and frequencies in groundwater samples from the Site. PCE and TCE were detected in six out of ten groundwater monitoring wells at maximum concentrations of 2,900 and 2,400 µg/L, respectively, both in well B-10.

Historically, vinyl chloride (VC) has been reported in two wells beneath the Site, GW-8 and LFR-2. The maximum concentration reported in GW-8 was 4.6 µg/L in January 2000. The latest result was 2.3 µg/L, reported in April 2000. The maximum concentration reported in LFR-2 was 15 µg/L in November 2000. The latest results were 1.3 µg/L and 1.9 µg/L in a duplicate, reported in April 2001. The presence of VC in the groundwater may indicate that the reductive dechlorination of PCE, TCE and Cis-1,2-DCE is strongly occurring beneath the Site.

The strong occurrence of bioattenuation processes in the subsurface is further evident by depletion of the PCE and TCE in some of the apparent source area wells, which used to contain elevated levels of PCE.

2.3 Bioattenuation Parameter Analysis Results

Bioattenuation parameters have been collected since the third quarter 2000 groundwater monitoring events. The objective of the bioattenuation study was to evaluate whether or not intrinsic bioremediation processes are active at the Site. The conclusion of this study is that PCE and other dissolved organic compounds are biodegrading beneath the Site.

During the degradation process, the indigenous bacteria that exist in the subsurface consume electron acceptors such as dissolved oxygen. After the dissolved oxygen is consumed, anaerobic microorganisms typically use alternative electron acceptors in the following order of preference: nitrate, ferric iron, oxyhydroxide, sulfate, and, finally, carbon dioxide. Evaluating the

distribution of these electron acceptors has provided the evidence, which indicates that the chlorinated and aliphatic hydrocarbon biodegradation is occurring.

3.0 SCOPE OF WORK

The primary purpose of this investigation was to collect additional hydrogeologic and chemical data to define the Site's conceptual model. Once the Site's conceptual model is defined, the Site's regulatory status can be determined. The Site's regulatory status can lead to categorizing the Site as a "Low Risk" or "High Risk" chemical release Site. If the result of our investigation indicates that the Site is a Low Risk Site, no active groundwater remediation is warranted. To accomplish the purpose of this workplan, a two-phased approach was proposed in SOMA's June 15, 2001 workplan. The first phase included defining the Site's conceptual model, while the second phase will determine the Site's regulatory status. This report will focus on the first phase of the approved workplan and explain the field investigation and the groundwater hydraulic tests.

3.1 Installation of Groundwater Monitoring Wells

To define the hydrogeologic flow regime and the vertical extent of contaminants found in soil and the shallow groundwater, five groundwater monitoring wells, namely SOMA-1 through SOMA-5 were installed. On October 4, 2001, SOMA-1 was installed in close proximity to the existing groundwater monitoring GW-4. This 4-inch-diameter well was installed to a total depth of 40 feet below ground surface. The purpose of this well was to evaluate the vertical groundwater gradient, as well as evaluate the groundwater quality conditions at greater depths in order to define the vertical extent of contaminants. Since this well is not situated within the apparent chemical source area, no soil samples were collected during the drilling operation. However, one composite soil sample was collected from the waste soils for disposal purposes. SOMA-1 was screened from 25 ft to a 40 ft depth using a well screen with a slot size of 0.02-inch.

According to SOMA's June 15, 2001 Workplan, all of the proposed monitoring wells were supposed to be 4-inches in diameter, and 40-ft in depth. However, due to the accessibility problem and low vertical clearance of the entrance gate to the building, the rest of the wells could not be installed as planned. The limited access drill rig supplied by Gregg Drilling (RHINO, Model) could only drill a borehole with a maximum diameter of 6-inches. Therefore, in converting the boreholes into monitoring wells the maximum casing diameter was 2-inches. SOMA-2 through SOMA-5 were installed on October 11 and 12, 2001 inside the Glovatorium building. SOMA-2 and SOMA-4 are 2-inches in diameter, each with a total depth of 20 feet bgs. However, in drilling the deeper monitoring wells, SOMA encountered another difficulty due to the limitation of the drill rig. Since these wells were installed in close proximity to the old underground storage tanks (USTs), there was a concern that cross contamination could occur during the installation of the deep monitoring wells. Therefore, a dual tubing procedure was used. Due to the limited diameter of the borehole that could be drilled by Rhino Model drill rig, as discussed previously, the actual diameter of the deep monitoring well casings were further reduced to $\frac{3}{4}$ -inch.

SOMA-3 and SOMA-5, each with a $\frac{3}{4}$ -inch casing diameter, were drilled to 30 and 26 feet bgs, respectively. Both SOMA-3 and SOMA-5 were screened from 21 to 26 feet bgs. Appendix A includes the lithologic logs and well completion diagrams.

On October 17, 2001, SOMA's field crew developed the newly installed monitoring wells by using a stainless steel bailer and a purge pump. Purging and bailing were continued until the groundwater became clear and free of sediments and debris. On October 30, 2001, the newly installed groundwater monitoring wells were surveyed by a California licensed surveyor. Figure 4 shows the locations of the groundwater monitoring wells.

The groundwater monitoring wells installed during this investigation were monitored during the fourth quarter groundwater monitoring event.

3.2 Collect Soil and Groundwater Samples

During drilling of the boreholes for installation of SOMA-3 and SOMA-5, soil samples were collected at 2-ft depth intervals for a better definition of the vertical extent of chemicals in the subsurface. The soil samples were collected using Encore samplers for protection of sample integrity. Before completion of the boreholes into groundwater monitoring wells, a grab groundwater sample was also collected from each location. The soil and groundwater samples were submitted to Curtis & Tompkins, Ltd., Analytical Laboratories. In addition two soil samples at SOMA-3 and SOMA-5 were collected for analyses of soil dry bulk density and organic carbon content, as planned.

3.3 Laboratory Analysis

Soil and groundwater samples were analyzed for the following constituents:

- TPH-g and TPH-ss using EPA Method 8015M
- BTEX and MtBE using 8021B and
- VOCs using EPA Method 8260B

Tables 1 and 2 show the results of laboratory analyses of soil samples collected during drilling operation. The results of grab groundwater samples have been presented in Table 3. In addition, certain soil samples were analyzed for total organic carbon and bulk density for evaluation of saturated sediments porosity and evaluation of retardation coefficients for different chemicals. The data will be used in conducting groundwater flow and chemical transport modeling for implementation of the second phase of this investigation.

3.4 Perform Aquifer Tests

An aquifer test is designed to evaluate hydraulic conductivity of the saturated sediments. It consists of pumping a well at a certain rate and recording the drawdown in the pumping well and in nearby observation wells at specific times. During a pumping test it is important to maintain a constant discharge rate at the pumping well. Before conducting the pumping test, an optimum pumping rate should be determined in order to create a measurable amount of drawdown in the pumping well and surrounding observation wells without dewatering the pumping well.

On November 6, 2001, an attempt was made to conduct a step drawdown test in order to define the optimum discharge rate before conducting a pumping test on a newly installed groundwater monitoring well, SOMA-1. In conducting a step drawdown test, the well is pumped at successively greater discharge rates for relatively short periods of time. The observed drawdown at the end of each pumping period is measured. The first chosen discharge rate for SOMA-1 was 0.75 gallon per minute (gpm). The plan was to pump the well for a period of one hour at this rate before increasing the pumping rate. However, after pumping for about 55 minutes the well went dry. The recorded drawdown inside SOMA-1 after pumping for 55 minutes and producing about 44 gallons of water was about 22 feet. Meanwhile, no drawdown was recorded in GW-4 or LFR-2 despite their close distance to SOMA-1. Despite the failure of the step drawdown test, the water level recovery in the pumping well was recorded for evaluation of hydraulic conductivity. This observation indicated that the hydraulic conductivity of the saturated material beneath the Site is low and it does not yield significant amounts of groundwater into the wells.

3.4.1 Perform Slug Test

Slug tests are suitable for evaluation of hydraulic conductivity of saturated sediments where they do not support continuous pumping at constant rates. The

slug test is initiated by causing an instantaneous change in the water level inside the casing through the sudden introduction or removal of a known volume of water. The recovery of the water level with time is then observed. When water is removed, the test is called a "rising head" test; when it is added, it is called a "falling head" test.

To evaluate hydraulic conductivity of the saturated sediments, a rising head test was performed on SOMA-2, LFR-2 and LFR-3. The recovery test results obtained while conducting a step drawdown test on SOMA-1 were also used to evaluate the hydraulic conductivity of saturated sediments using Cooper et al. (1967).

The field data gathered during the rising head test were analyzed using several methods to evaluate the range of hydraulic conductivity of saturated sediments. The estimated hydraulic conductivity values of the saturated sediments will be used to conduct groundwater flow and chemical transport modeling for implementation of the second phase of the approved workplan.

The method of interpreting the water level versus time data generated from a rising head test depends on the type of aquifer (i.e., confined versus unconfined). Specifically, the method of Hvorslev (1951) applies to a point piezometer, while that of Cooper et al. (1967) is for a confined aquifer. The method of Bouwer and Rice (1976) is suitable for unconfined aquifers.

The field data has been presented in Appendix B. The data was analyzed using Cooper et al. and Ferris and Knowles (1962). SOMA's proprietary software "SLUG" was used to evaluate the hydraulic conductivity values. Appendix B shows the raw data, solution technique and results of the test analyses for each well. Table 4 shows the data analyses results.

3.5 Perform Sensitive Receptor Survey

Sensitive receptors include schools, day care centers, hospitals, adolescence homes, groundwater wells and surface water bodies such as lakes, estuaries, and reservoirs. Using the Internet, the BayArea.com Yellow Pages were searched in order to locate any sensitive receptors in close proximity of the Site. Appendix D shows the results of our computer search. The following is a brief description of each search category:

3.5.1 Groundwater Wells

In order to locate any water supply wells including domestic, irrigation, industrial, or public drinking water wells, SOMA's staff made a special trip to Sacramento and searched the State Department of Water Resources (DWR) records. The results of our file review indicated that there is no domestic, industrial, irrigation or any other water supply well within a 2000-foot radius of the Site. The only wells reported within that radius are monitoring wells. According to the results of our file review, groundwater monitoring wells can be found in the following downgradient areas:

1. Kaiser Foundation Hospital
280 W. MacArthur Boulevard
6 monitoring wells, of which at least two are inside the building.
2. Chevron
3701 Broadway (NW corner of Broadway and W. MacArthur)
Approximately 11 monitoring wells
3. Shell
230 MacArthur Boulevard
3 monitoring wells
4. Firestone Tire and Rubber
2785 Broadway
1 monitoring well
5. Unocal

- 411 W. MacArthur Boulevard
- 6 monitoring wells
- 6. Kaiser Health Plan
- 3505 Broadway
- 3 monitoring wells

The following cross or upgradient locations also have monitoring wells.

- 1. Unocal
- 3943 Broadway (at 40th Street)
- 10 monitoring wells and 1 recovery well
- 2. Freidkin-Beckel
- 3810 Broadway
- 2 monitoring wells
- 3. Piedmont Plaza
- 175 41st Street
- 3 monitoring wells

Due to a lack of water supply wells in close proximity of the Site, the future and the current ingestion of chemically-impacted groundwater would not be possible.

3.5.2 Child-care Services

According to the results of our search, there are a total of 16 child-care facilities at distances ranging from 0.69 mile to 1.17 mile from the Site. The closest child-care facility is First Step Children's Center at 111 Fairmount Avenue in Oakland. Appendix D shows the results of our search.

3.5.3 Schools

There are a total of 28 schools within a 1.18-mile radius of the Site. The closest school is Leo's School, located 0.39 mile from the Site at 4238 Howe Street.

Hospitals Within a 1.18-mile radius of the Site, there are eight hospitals. The closest hospital, Kaiser Foundation Hospital, is located 0.14-mile distance from the Site, at 260 West MacArthur Boulevard in Oakland.

3.5.4 Nursing and Convalescent Homes

There are twelve nursing and convalescent homes within a 1.5-mile radius from the Site. The closest facility is located 0.14-mile from the Site at 210 40th Street Way in Oakland.

3.5.5 Adult Day-Care Centers

Within a 1.70-mile radius, there are four day-care centers for adults. The closest is located 1.2-miles from the Site at 459 22nd Street in Oakland.

4.0 RESULTS

The following are the results of the current soil and groundwater investigation, as well as the sensitive receptor survey at the Site. The results of this investigation will be used in conducting groundwater flow and chemical transport modeling and risk-based corrective action to define the site's regulatory status.

4.1 Groundwater Flow Condition

The results of this investigation did not reveal the presence of a major water-bearing zone beneath the Site. However, as the lithological logs of the newly installed groundwater monitoring wells indicate, the water-bearing zone is composed of fine grained clayey silt sediments which are separated by significantly lower permeable intervening clay layers, which in some locations are unsaturated. For instance, SOMA-5, which has been screened within a significantly thick clay layer beneath the first water-bearing zone from 21 to 26 feet bgs using the dual tubing method, is a dry well. Due to the presence of unsaturated, low permeability intervening clay layers between shallow and deep saturated layers, there is a significant vertical downward gradient at the Site. The results of the Fourth Quarter 2001 groundwater monitoring event confirm the strong vertical downward gradient between the shallow and deep groundwater monitoring wells. For instance the water level elevation difference between SOMA-2 and SOMA-3, which are located next to each other, is over 3.5 ft. Due

to the unsaturated or semi-saturated nature of the intervening clay layer and absence of a major water-bearing zone, the migration of chemically-impacted groundwater to off-site areas in a down-gradient direction is highly unlikely.

4.2 Petroleum Hydrocarbons in Soil

The results of laboratory analyses showed elevated levels of petroleum hydrocarbons and Stoddard Solvent, as well as volatile organic compounds (VOCs) in soil and groundwater beneath the Glovatorium building. The maximum concentration of total petroleum hydrocarbon as gasoline (TPH-g) was 7,600 mg/kg, detected in a soil sample collected from SOMA-5 at 16 feet bgs. The maximum concentration of Stoddard Solvent was 4,500 mg/kg detected in two soil samples collected from SOMA-5 at 12 and 16 ft bgs.

No benzene was detected in soil samples collected from SOMA-3 and SOMA-5. Only minor concentrations of toluene, ethylbenzene and xylenes were detected in soil samples collected at the 22 ft depth from SOMA-3.

MtBE was detected in soil samples collected from deeper depths. For instance, MtBE was detected in every soil sample collected from the 22 to 30 ft depths at concentrations ranging from 11 to 79 µg/kg at the SOMA-3 soil boring location. At the SOMA-5 sampling location MtBE was detected in soil samples collected from 18 to 26 feet at concentrations ranging up to 31 µg/kg. Table-1 shows the analytical results of soil samples analyzed for petroleum hydrocarbons.

4.2 Volatile Organic Compounds in Soil

Low levels of acetone were detected in 11 of the 28 soil samples collected from the SOMA-3 and SOMA-5 borings. Acetone concentrations ranged from ND (less than 5.1 µg/kg) to 130 µg/kg.

Cis-1,2-dichloroethene (cis-1,2-DCE) was detected in 10 of the soil samples collected from SOMA-3 and SOMA-5. The concentration of cis-1,2-DCE ranged from ND (less than 5 µg/kg) to greater than 280 µg/kg at the SOMA-3 sampling location at 18 feet bgs. The widespread presence of cis-1,2-DCE in the soil samples indicates the occurrence of dehalogenation processes in the subsurface. As the laboratory report indicates, the reported maximum concentration of cis-1,2-DCE exceeds the instrument's linear range.

Similar to cis-1,2-DCE, Trichloroethene (TCE) was detected in 6 of the soil samples collected from SOMA-3. The maximum concentration of TCE was 1,400µg/kg, at 10 feet bgs at the SOMA-3 boring location. The results of laboratory analyses on soil samples collected from SOMA-5 did not show any detectable levels of TCE concentrations.

Similar to TCE, PCE was detected at high concentrations in near surface (the upper 10 feet) soils at one location. The sample collected at 8 feet bgs from the SOMA-3 location reportedly had a PCE concentration of 34,000 µg/kg. However, the laboratory reported that this exceeded the linear range of their instrument. Similar to TCE, no PCE was detected at the SOMA-5 boring location. PCE was also absent at depths greater than 22 feet bgs in the SOMA-3 location. Similarity between the distribution of PCE and TCE indicates, that TCE is the by-product of PCE degradation during the dehalogenation processes.

Naphthalene at a significant concentration of 9,300 µg/kg was detected in one soil sample collected at 10 ft depth from SOMA-3. It was also detected in four soil samples collected from SOMA-5 with concentrations ranging from 6.2 µg/kg and 2,900 µg/kg at various depths. Due to low solubility and the high retardation of naphthalene in groundwater, so far no groundwater monitoring well has shown naphthalene contamination. However, a grab groundwater sample (unfiltered) collected from SOMA-3 showed 23 µg/l of naphthalene.

4.4 Other Chemicals Detected In Soil Samples

As the results of laboratory analyses show, in addition to the chemicals that routinely appear in groundwater samples, other petroleum hydrocarbons constituents were reported in soil samples collected from various depths. These chemicals appeared sporadically in different samples less than 10 percent of the time. Therefore, they do not appear in tabulated form in this report.

4.5 Chemicals in Grab Groundwater Samples

As the results of laboratory analyses on grab groundwater samples indicate, elevated levels of TPH-g and Stoddard Solvent were detected. The maximum concentrations of TPH-g and Stoddard Solvent were 26,000 and 15,000 µg/l, respectively, which occurred in a grab groundwater sample collected from SOMA-3.

MtBE concentrations ranged between ND (less than 4.2 µg/l) and 320 µg/l. The maximum concentration was detected at SOMA-4. Benzene was only detected at concentrations of 2.2 µg/l in a grab groundwater sample collected from SOMA-4. Maximum concentrations of toluene, ethylbenzene and total xylenes were 26, 9.3 and 79 µg/l, respectively.

No acetone was detected in grab groundwater samples. The reported concentrations of cis-1,2-DCE ranged from ND (less than 5 µg/l) at SOMA-1 to 5,700 µg/l. at SOMA-2, which was beyond the laboratory's instrument linear range. TCE was reported from ND (less than 5 µg/l) in SOMA-1 and SOMA-4 to 210 µg/l in SOMA-2. PCE distribution closely matched the distribution of TCE in groundwater. For instance, PCE concentration like the TCE was ND (less than 5 µg/l) at SOMA-1 and SOMA-4 and peaked at the SOMA-2 sampling location. Trans-1,2-DCE was detected only at SOMA-2, at 45 µg/l. Naphthalene was only detected in a grab groundwater sample collected from SOMA-4 at 23 µg/l. 1,2,4-

trimethylbenzene concentration ranged from ND (less than 5 $\mu\text{g/l}$) in SOMA-1 to 120 at SOMA-3.

4.6 Aquifer Hydraulic Test Results

The hydraulic test results of saturated sediments beneath the Site have been presented in Table 4. Since the water-bearing zone beneath the Site exhibits the characteristics of confined or semi-confined conditions, in analyzing the slug test data, the method of Jacob, Cooper, Bredehoeft, Popadopoulos and the method of Ferris and Knowles seemed more appropriate. As Table 4 shows, the hydraulic conductivity of the saturated sediments appears to range between 1.2×10^{-4} and 6.9×10^{-4} cm/sec, which is equivalent to 0.34 ft/day to 1.95 ft/day. The first method also showed that the storage coefficient of the water-bearing zone ranges between 6.25×10^{-4} and 1.12×10^{-2} , which indicates the saturated sediments beneath the Site are under confined condition.

The slug test results match closely with the lithological description of the saturated sediments. The hydraulic conductivity of 1×10^{-4} falls within the range of silty sand materials as encountered during the drilling operation.

The results of the laboratory analyses on two soil samples collected from 5 and 12-ft depths at SOMA-2 indicated, that the total organic carbon content of saturated sediments is considerably less than unsaturated sediments. The organic carbon content of unsaturated sediments at a 5-ft depth was 0.11 percent while that of saturated sediments was 0.06 percent. The bulk density of the saturated sediments at 18-ft bgs was 1.81 gram per cubic centimeter. Therefore, the porosity of the saturated sediments is about 32 percent.

5.0 CONCLUSIONS

In light of the new information that became available during this investigation and in combination with the results of the previous groundwater monitoring events the following conclusions were reached:

1. The groundwater system beneath the Site is a single hydrogeologic unit. The saturated sediments are composed of fined-grained material, which may be separated by intervening unsaturated or semi-saturated clay layers. Due to the presence of intervening clay layers between the saturated layers, there is a strong vertical downward gradient. The groundwater flow direction beneath the Site is from the northeast to southwest with an approximate flow gradient of 0.019 ft/ft to 0.035 ft/ft.
2. The results of slug tests indicated that the hydraulic conductivity of the saturated sediments ranges between 1.2×10^{-4} and 6.9×10^{-4} cm/sec, which is equivalent to 0.34 ft/day to 1.95 ft/day. Using the average groundwater flow gradient of 0.027 and aquifer porosity of 0.32, the groundwater flow velocity range between 10.5 and 60.1 ft/year.
3. The results of laboratory analyses on soil samples collected from the SOMA-3 and SOMA-5 locations showed the vertical extent of petroleum hydrocarbons and volatile organic compounds. The vertical extent of VOCs contamination did not extend beyond a 24 ft depth. At the SOMA-5 sampling location no PCE or TCE were reported.
4. The distribution of halogenated hydrocarbons such as TCE and cis-1,2-DCE are identical to the distribution of PCE in soils. This indicates that TCE and cis-1,2-DCE have been generated from de-chlorination of PCE in the subsurface.
5. The presence of elevated levels of petroleum hydrocarbons including TPH-g and Stoddard Solvent is an important piece of evidence, which ensures the future occurrence of anaerobic biodegradation of chlorinated solvents in subsurface.

6. The results our file review in the Department of Water Resources in Sacramento, California did not show a presence water supply well including domestic, industrial, irrigation or public drinking source within 2,000-ft radius of the Site. However, in the 2,000-ft radius of the Site, several sensitive receptors such as child-care services, schools, hospitals, nursing and convalescent homes were reported.

6.0 REFERENCES

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Tables

Table 1
Analytical Results of Soil Samples Analyzed for Petroleum Hydrocarbons
Former Glovatorium Site
3815 Broadway, Oakland, California

Sample ID	Date	Stoddard Solvent C7-C12 (mg/Kg)	Gasoline C7-C12 (mg/Kg)	MtBE (µg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl benzene (µg/Kg)	Total Xylenes (µg/Kg)
SOMA 3-2'	10/11/01	4.5	7.2	ND	ND	ND	ND	ND
SOMA 3-4'	10/11/01	ND	ND	ND	ND	ND	ND	ND
SOMA 3-6'	10/11/01	ND	ND	ND	ND	ND	ND	ND
SOMA 3-8'	10/11/01	690	1,200	ND	ND	ND	ND	ND
SOMA 3-10'	10/11/01	1,900	3,200	ND	ND	ND	ND	ND
SOMA 3-12'	10/11/01	250	420	ND	ND	ND	ND	ND
SOMA 3-14'	10/11/01	210	360	ND	ND	ND	ND	ND
SOMA 3-16'	10/11/01	ND	ND	ND	ND	ND	ND	ND
SOMA 3-18'	10/11/01	ND	1.7	ND	ND	ND	ND	ND
SOMA 3-20'	10/11/01	12	21	ND	ND	ND	ND	ND
SOMA 3-22'	10/12/01	7.9	14	11	ND	8.8	6.8	53
SOMA 3-24'	10/12/01	ND	ND	66	ND	ND	ND	ND
SOMA 3-26'	10/12/01	ND	ND	79	ND	ND	ND	ND
SOMA 3-28'	10/12/01	ND	ND	45	ND	ND	ND	ND
SOMA 3-30'	10/12/01	ND	ND	29	ND	ND	ND	ND
SOMA 5-2'	10/12/01	ND	ND	ND	ND	ND	ND	ND
SOMA 5-4'	10/12/01	8.8	16	ND	ND	ND	ND	ND
SOMA 5-6'	10/12/01	ND	1.7	ND	ND	ND	ND	ND
SOMA 5-8'	10/12/01	100	170	ND	ND	ND	ND	ND
SOMA 5-10'	10/12/01	290	490	ND	ND	ND	ND	ND
SOMA 5-12'	10/12/01	4,500	7,300	ND	ND	ND	ND	ND
SOMA 5-14'	10/12/01	2.5	4.5	ND	ND	ND	ND	ND
SOMA 5-16'	10/12/01	4500	7,600	ND	ND	ND	ND	ND
SOMA 5-18'	10/12/01	16	28	8.7	ND	ND	ND	ND
SOMA 5-20'	10/12/01	ND	ND	31	ND	ND	ND	ND
SOMA 5-22'	10/12/01	2.0	3.7	ND	ND	ND	ND	ND
SOMA 5-24'	10/12/01	ND	ND	27	ND	ND	ND	ND
SOMA 5-26'	10/12/01	ND	ND	21	ND	ND	ND	ND
Blank	10/19/01	ND	ND	ND	ND	ND	ND	ND

ND: Not Detected

NA: Not Analyzed

NS: Not Surveyed

Table 2
Analytical Results of Soil Samples Analyzed for Volatile Organic Compounds
Former Giovatorium Site
3815 Broadway, Oakland, California

Sample ID	Date	Acetone (µg/Kg)	Cis-1,2-DCE (µg/Kg)	TCE (µg/Kg)	Propyl- benzene (µg/Kg)	PCE (µg/Kg)	1,2,4- Trimethylbe- nzene (µg/Kg)	Naphthalene (µg/Kg)
SOMA 3-2'	10/11/01	<20	32.0	7.4	<4.9	50.0	<4.9	<4.9
SOMA 3-4'	10/11/01	130.0	58.0	39.0	<4.7	450 >LR	<4.7	<4.7
SOMA 3-6'	10/11/01	40.0	140.0	46.0	<4.8	210 >LR	<4.8	<4.8
SOMA 3-8'	10/11/01	<2000	<500	720.0	<500	34,000 >LR	<500	<500
SOMA 3-10'	10/11/01	<4000	<1000	1,400	<1000	1,400	<1000	9,300
SOMA 3-12'	10/11/01	<2000	<500	<500	<500	<500	680.0	<500
SOMA 3-14'	10/11/01	<500	<130	<130	210.0	<130	540.0	<130
SOMA 3-16'	10/11/01	24.0	100.0	<5.3	9.5	39.0	35.0	<5.3
SOMA 3-18'	10/11/01	20.0	280 >LR	11.0	<4.6	32.0	8.5	<4.6
SOMA 3-20'	10/11/01	25.0	50.0	<4.8	5.5	21.0	21.0	<4.8
SOMA 3-22'	10/12/01	100.0	180.0	<5.2	48.0	27.0	180.0	<9.7
SOMA 3-24'	10/12/01	<20	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1
SOMA 3-26'	10/12/01	<5.1	9.3	<5.1	<5.1	<5.1	<5.1	<5.1
SOMA 3-28'	10/12/01	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1
SOMA 3-30'	10/12/01	<20	<5	<5	<5	<5	<5	<5
SOMA 5-2'	10/12/01	<19	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
SOMA 5-4'	10/12/01	35.0	6.3	<4.8	5.8	<4.8	<4.8	<4.8
SOMA 5-6'	10/12/01	99.0	<5	<5	<5	<5	<5	<5
SOMA 5-8'	10/12/01	46.0	5.9	<4.8	<4.8	<4.8	<4.8	ND
SOMA 5-10'	10/12/01	<4000	<1000	<1000	4,600	<1000	4,200	2,900
SOMA 5-12'	10/12/01	57.0	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1
SOMA 5-14'	10/12/01	<38	<9.6	<9.6	19.0	<9.6	21.0	<9.6
SOMA 5-16'	10/12/01	<20	<1000	<5	3,400	<5	3,700	2,800
SOMA 5-18'	10/12/01	<4000	<1000	<1000	6.5	<1000	7.4	6.2
SOMA 5-20'	10/12/01	<21	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2
SOMA 5-22'	10/12/01	23.0	<5.2	ND	12.0	ND	14.0	19.0
SOMA 5-24'	10/12/01	<19	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6
SOMA 5-26'	10/12/01	<19	<4.7	<4.7	<42	<4.7	<4.7	<4.7

Table 3
Anayltical Results of Grab Groundwater Samples
Former Glovatorium Site
3815 Broadway, Oakland, California

Sample ID	Date	Stoddard Solvent C7-C12 (µg/L)	Gasoline C7-C12 (µg/L)	MtBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)
SOMA-1	10/4/01	410	740	16	<5	<5	<5	<5
SOMA 2	10/12/01	7,400	13,000	<4.2	<4.2	26	4.6	36
SOMA 3	10/12/01	15,000	26,000	21	<1.3	21	5.1	39.9
SOMA 4	10/12/01	2,500	4,300	320	2.2	25	9.3	79

Anayltical Results of Grab Groundwater Samples
Former Glovatorium Site
3815 Broadway, Oakland, California

Sample ID	Date	Acetone (ug/L)	Cis-1,2-DCE (ug/L)	TCE (ug/L)	PCE (ug/L)	Trans-1,2-DCE (ug/L)	Naphthalene (ug/L)	1,2,4-Trimethylbenzene (ug/L)
SOMA-1	10/4/01	<20	<5	<5	<5	<5	<5	<5
SOMA 2	10/12/01	<42	5700 >LR	210	640	45	<42	98
SOMA 3	10/12/01	<50	1900	68	180	<13	<13	120
SOMA 4	10/12/01	<20	650	<5	<5	<5	23	100

Table-4
Results of Slug Test Analyses
Former Glovatorium Site, 3815 Broadway, Oakland, California

Well ID	Method-1		Method-2
	Hydraulic Conductivity Cm/Sec	Storage Coefficient	Hydraulic Conductivity Cm/Sec
SOMA-1	2.19E-04	1.11E-02	1.37E-04
SOMA-2	6.96E-04	1.11E-02	1.94E-04
LFR-2	4.56E-04	6.25E-03	2.09E-04
LFR-3	3.70E-04	6.25E-04	1.24E-04

Method-1 is Cooper, Bredehoeft, and Papadopulos Method

Method-2 is Ferris and Knowles Method

Figures

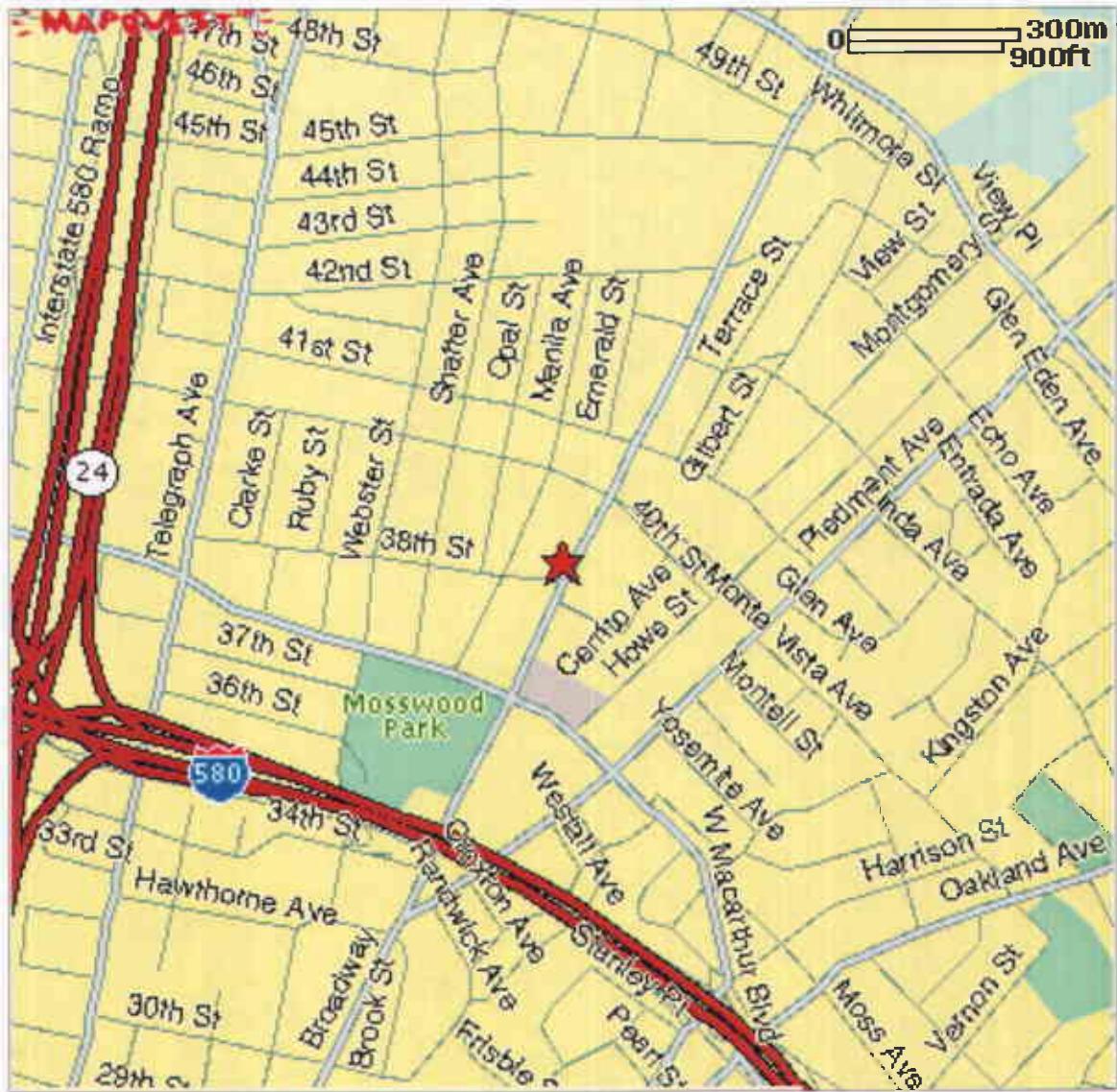


Figure 1: Site Location Map

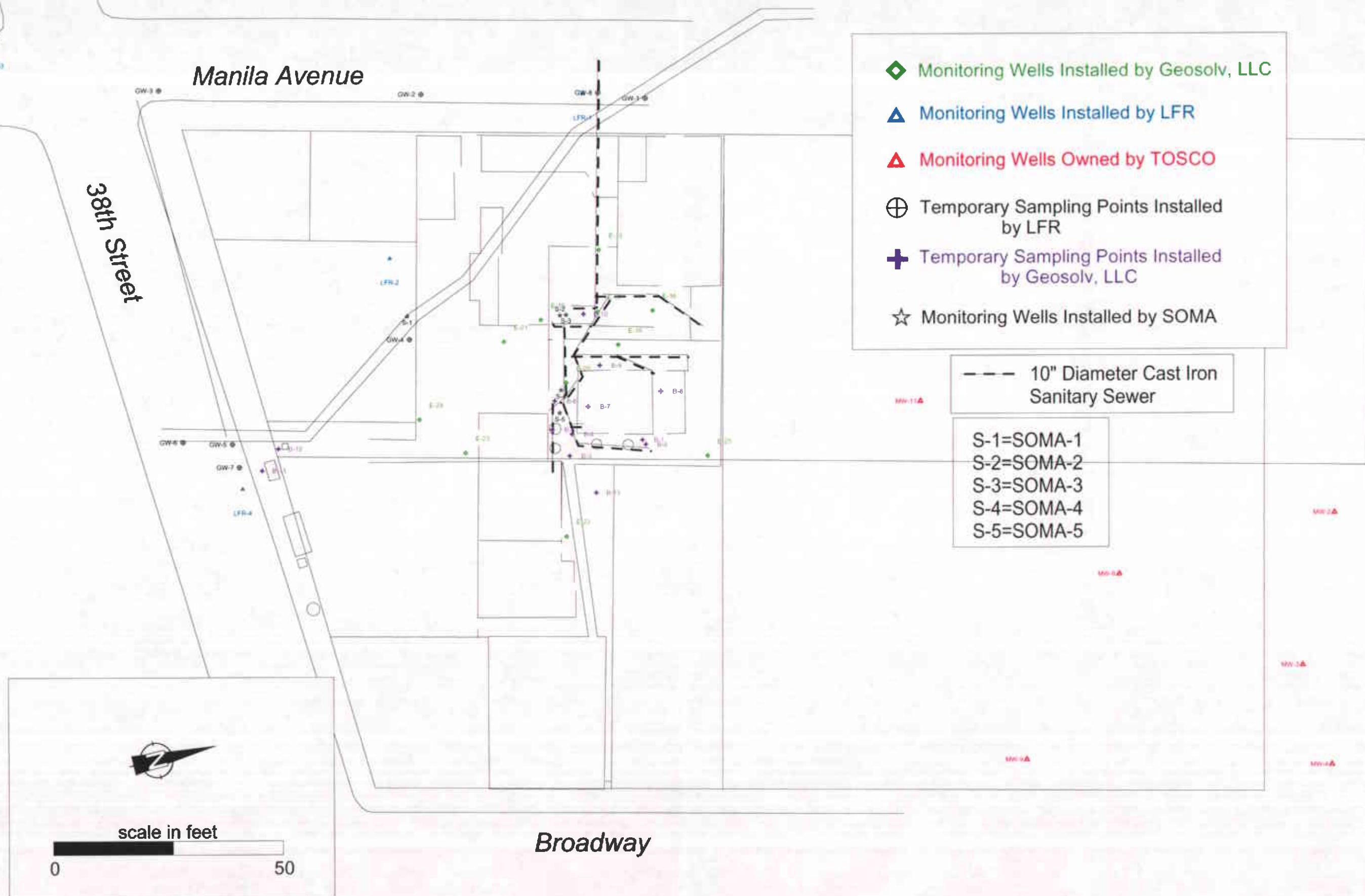


Figure 2: Location of Groundwater Monitoring Wells

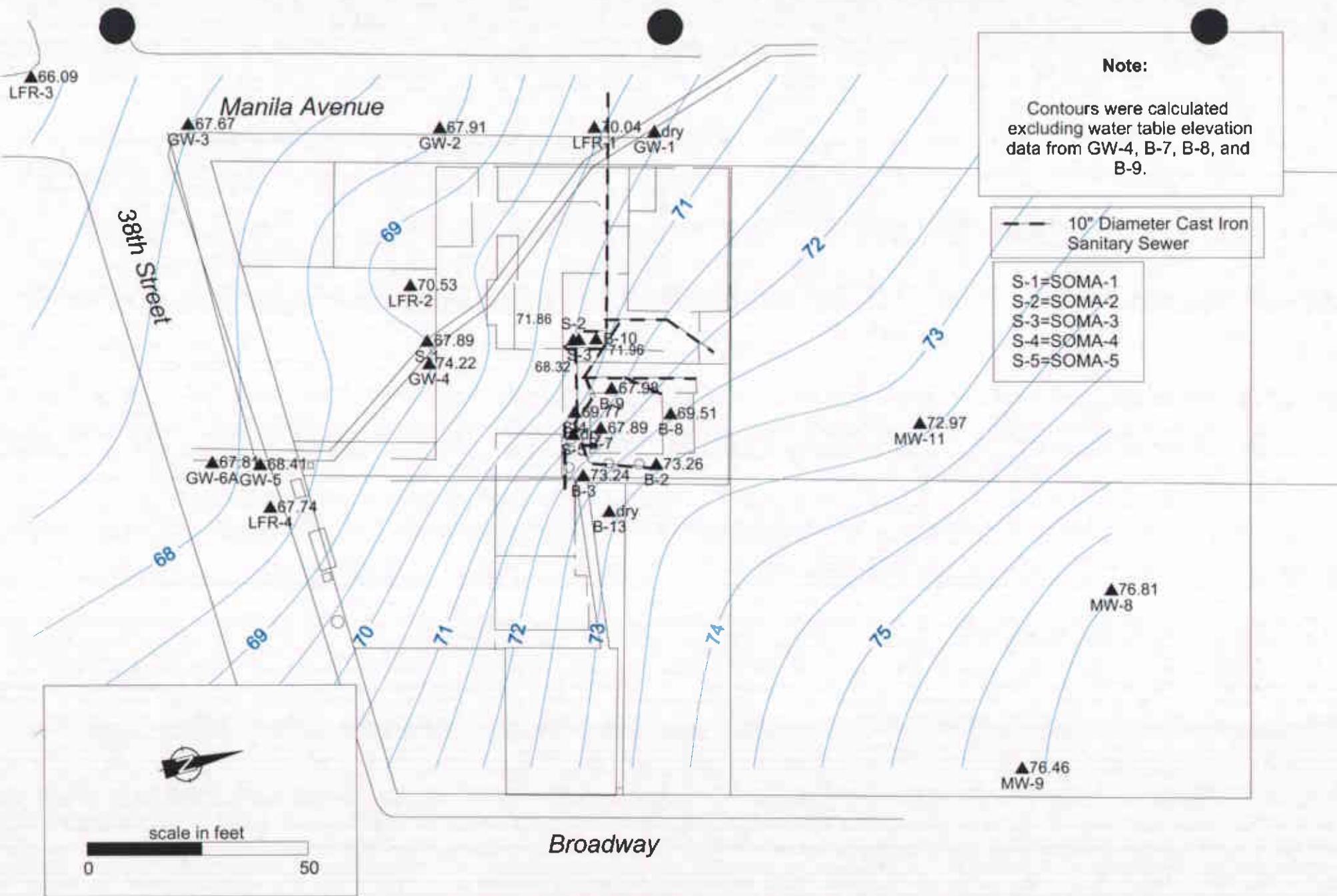


Figure 3 Groundwater Elevation Contour Map, October 18, 2001

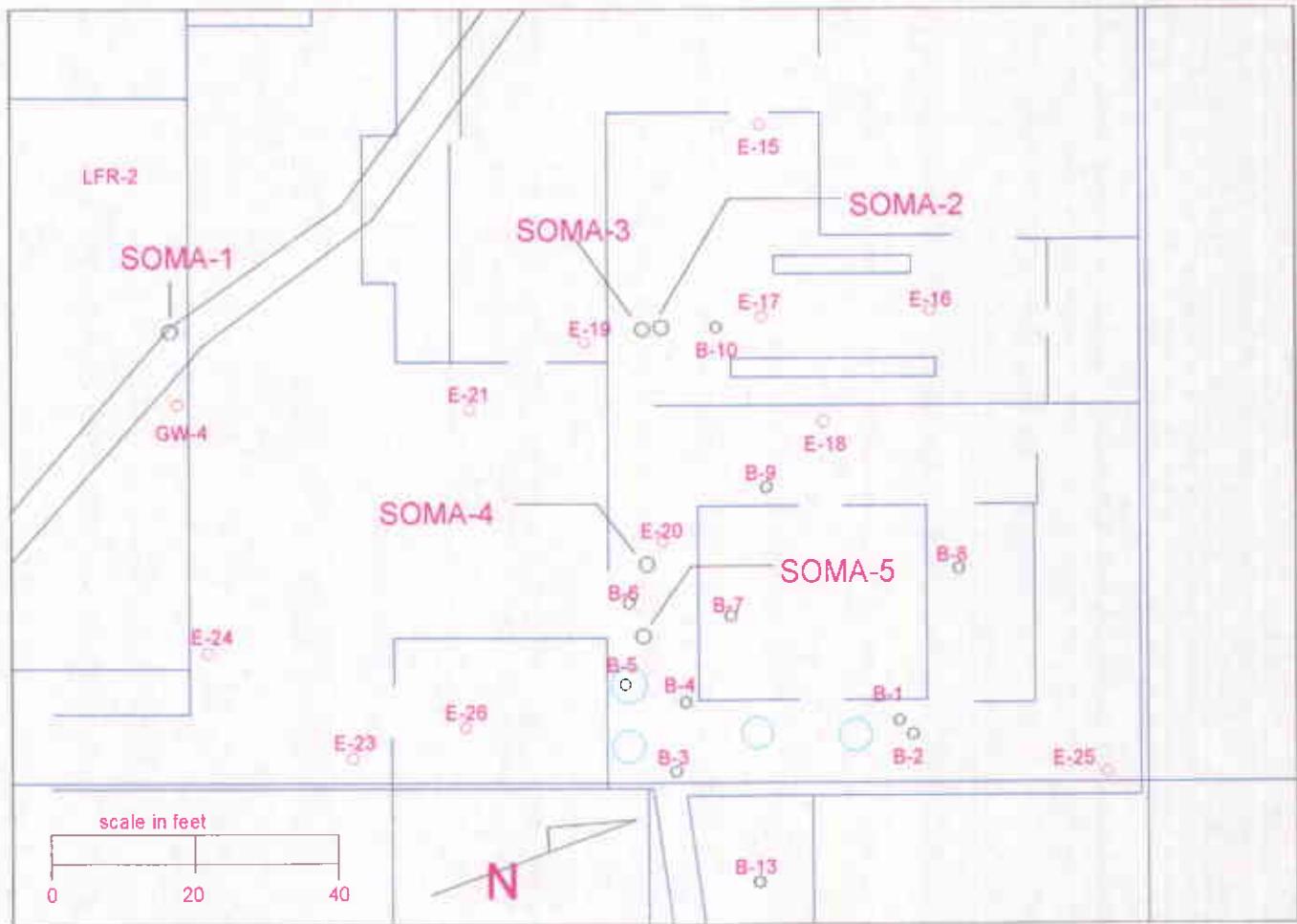


Figure 4: Location of Newly Installed Monitoring Wells SOMA-1 thru SOMA-5

Appendix A

Chain of Custody forms, Laboratory Analyses



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:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

Date: 24-OCT-01
Lab Job Number: 154630
Project ID: 2512
Location: Glovatorium

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:

Paul Prendergast
Project Manager

Reviewed by:

Operations Manager

This package may be reproduced only in its entirety.



Curtis & Tompkins, Ltd.

Laboratory Number: **154630**
Client: **Soma Environmental Engineering, Inc.**
Project Name: **Glovatorium**
Project #: **2512**
Receipt Date: **10/08/01**

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for one water sample and one soil sample received from the above referenced project on October 8th, 2001. The samples were received cold and intact.

Total Volatile Hydrocarbons (EPA 8015M):

The recovery for the bromofluorobenzene surrogate was over the acceptable QC limits for client ID Soma #1 10/4 (C&T ID 154630-002) due to coelution of sample hydrocarbons with this surrogate. No other analytical problems were encountered.

Volatile Organic Compounds (EPA 8260B):

No analytical problems were encountered.

Metals (EPA 6010B/7470A):

Copper was detected in the method blank for batch number 66977. The copper detected in client ID Soma # 1 10/4 (154630-002) was ten times the concentration of the hit in the method blank so the quality of the sample data should not be affected. No other 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 #

154636

Analyses

Project No: 2512

Project Name: Clayatarium

Project P.O.: _____

Turnaround Time: Standard

Laboratory Number	Sample ID.	Sampling Date Time	Soil Water Waste	# of Containers	Preservative				Field Notes	
					HCL	H ₂ SO ₄	HNO ₃	ICE		
SOMA 1	10/4 12:00	V		6	V				TPHg, TDHSS, TDSSM, BPF20, VCC, CAM17, Metals added per N.P. 10/8/01	
SOMA 1	10/4 12:00	V		2					BPF20, VCC, CAM17, Metals added per N.P. 10/8/01	
<div style="text-align: center;"> <input type="checkbox"/> Preservation Correct? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A </div>										
<div style="text-align: center;"> <input checked="" type="checkbox"/> Received <input checked="" type="checkbox"/> On Ice <input checked="" type="checkbox"/> Cold <input type="checkbox"/> Ambient <input checked="" type="checkbox"/> Intact </div>										
Notes:				RELINQUISHED BY:				RECEIVED BY:		
				<u>Naser Pakrou</u>				10/8 8:45 AM		10/8/01
								DATE/TIME		DATE/TIME
								DATE/TIME		DATE/TIME
				DATE/TIME		DATE/TIME				

Signature

10-10



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B (M)
Field ID:	SOMA#1 10/4	Batch#:	66969
Matrix:	Water	Sampled:	10/04/01
Units:	ug/L	Received:	10/08/01
Diln Fac:	1.000	Analyzed:	10/09/01

Type: SAMPLE Lab ID: 154630-001

Analyte	Result	RL
Gasoline C7-C12	740 H Y	50
Stoddard Solvent C7-C12	410	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	59-135
Bromofluorobenzene (FID)	129	60-140

Type: BLANK Lab ID: QC158243

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	92	59-135
Bromofluorobenzene (FID)	96	60-140

Heavier hydrocarbons contributed to the quantitation
Sample exhibits fuel pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
Page 1 of 1



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B (M)
Field ID:	SOMA#1 10/4	Batch#:	66976
Matrix:	Soil	Sampled:	10/04/01
Units:	mg/Kg	Received:	10/08/01
Basis:	as received	Analyzed:	10/09/01
Diln Fac:	1.000		

Type: SAMPLE Lab ID: 154630-002

Analyte	Result	RL
Gasoline C7-C12	24 H Y	1.0
Stoddard Solvent C7-C12	13	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	62-138
Bromofluorobenzene (FID)	220 *	>LR b 46-150

Type: BLANK Lab ID: QC158279

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Stoddard Solvent C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	104	62-138
Bromofluorobenzene (FID)	98	46-150

*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits fuel pattern which does not resemble standard

b= See narrative

ND= Not Detected

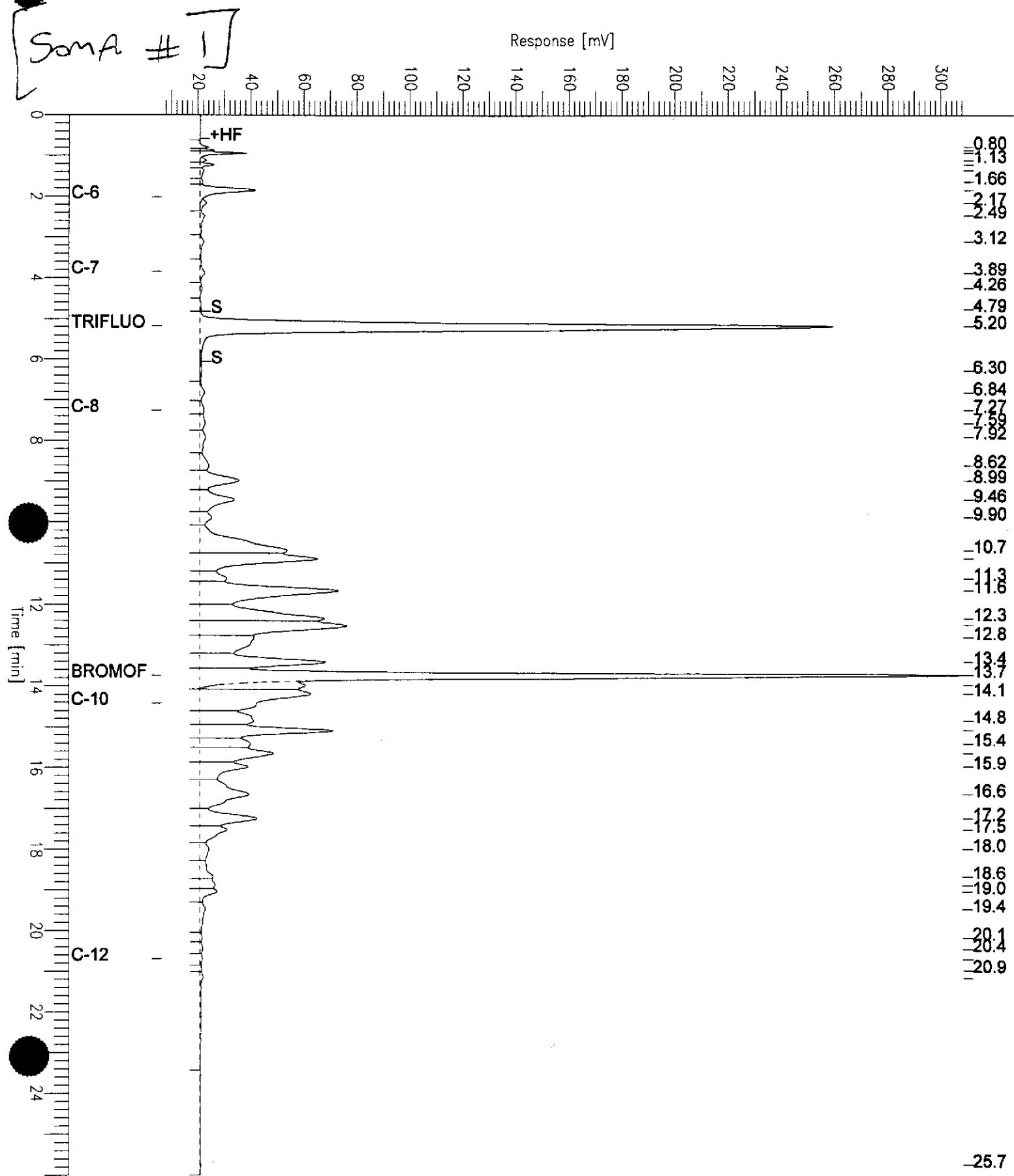
L= Reporting Limit

>LR= Response exceeds instrument's linear range

GC07 TVH 'A' Data File RTX 502

Sample Name : MSS,154630-001,66969,TVH + STOD
 FileName : G:\GC07\DATA\282A016.raw
 Method : TVHBTKE
 Start Time : 0.00 min End Time : 26.00 min
 Factor: 1.0 Plot Offset: 6 mV

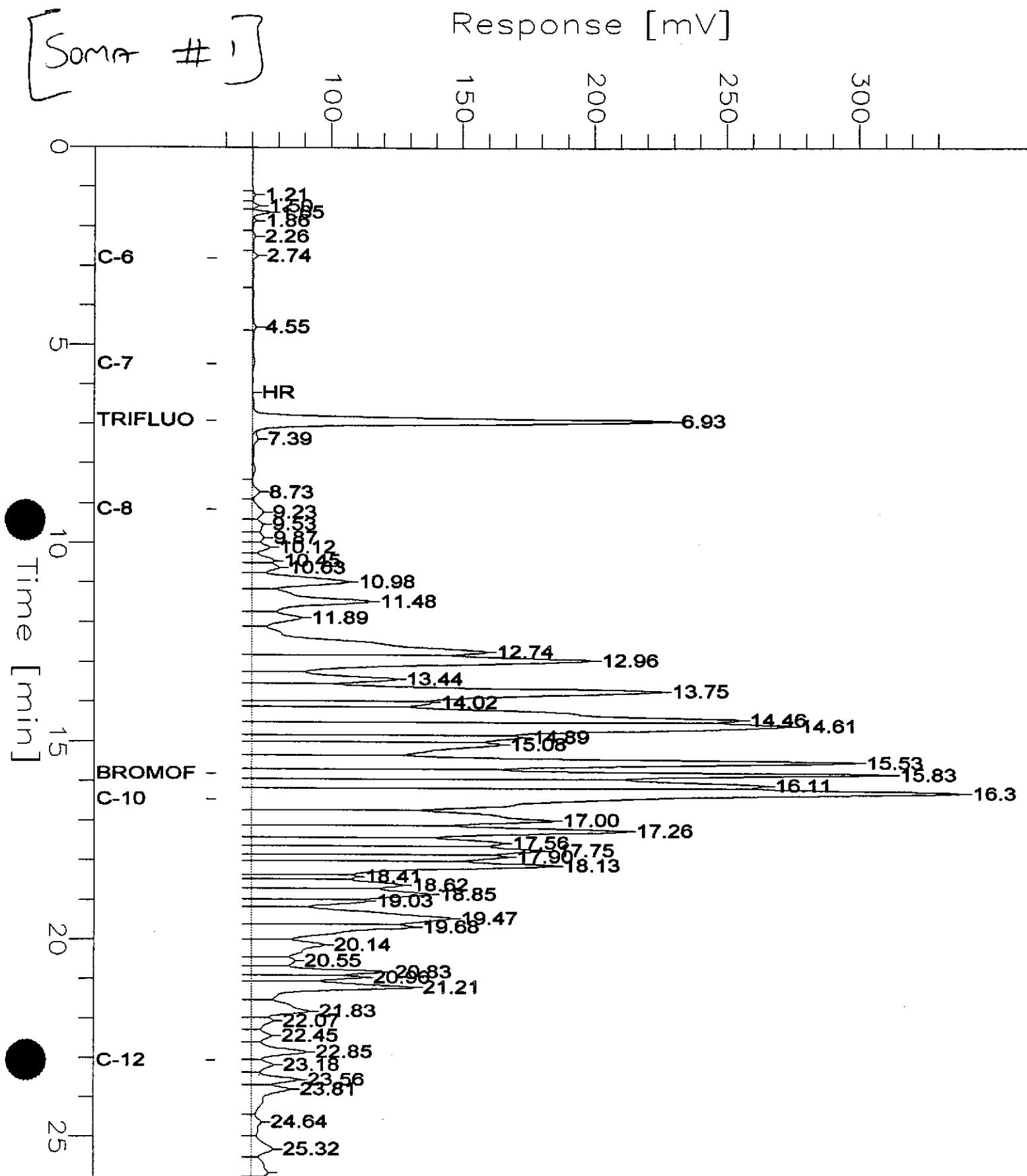
Sample #: B1 Page 1 of 1
 Date : 10/10/01 01:42 PM
 Time of Injection: 10/9/01 07:45 PM
 Low Point : 6.36 mV High Point : 308.61 mV
 Plot Scale: 302.3 mV



GC04 TVH 'J' Data File FID

Sample Name : 154630-002,66976,TVH+STODD
 FileName : G:\GC04\DATA\282J007.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.00 min
 Scale Factor: 1.0 Plot Offset: 57 mV

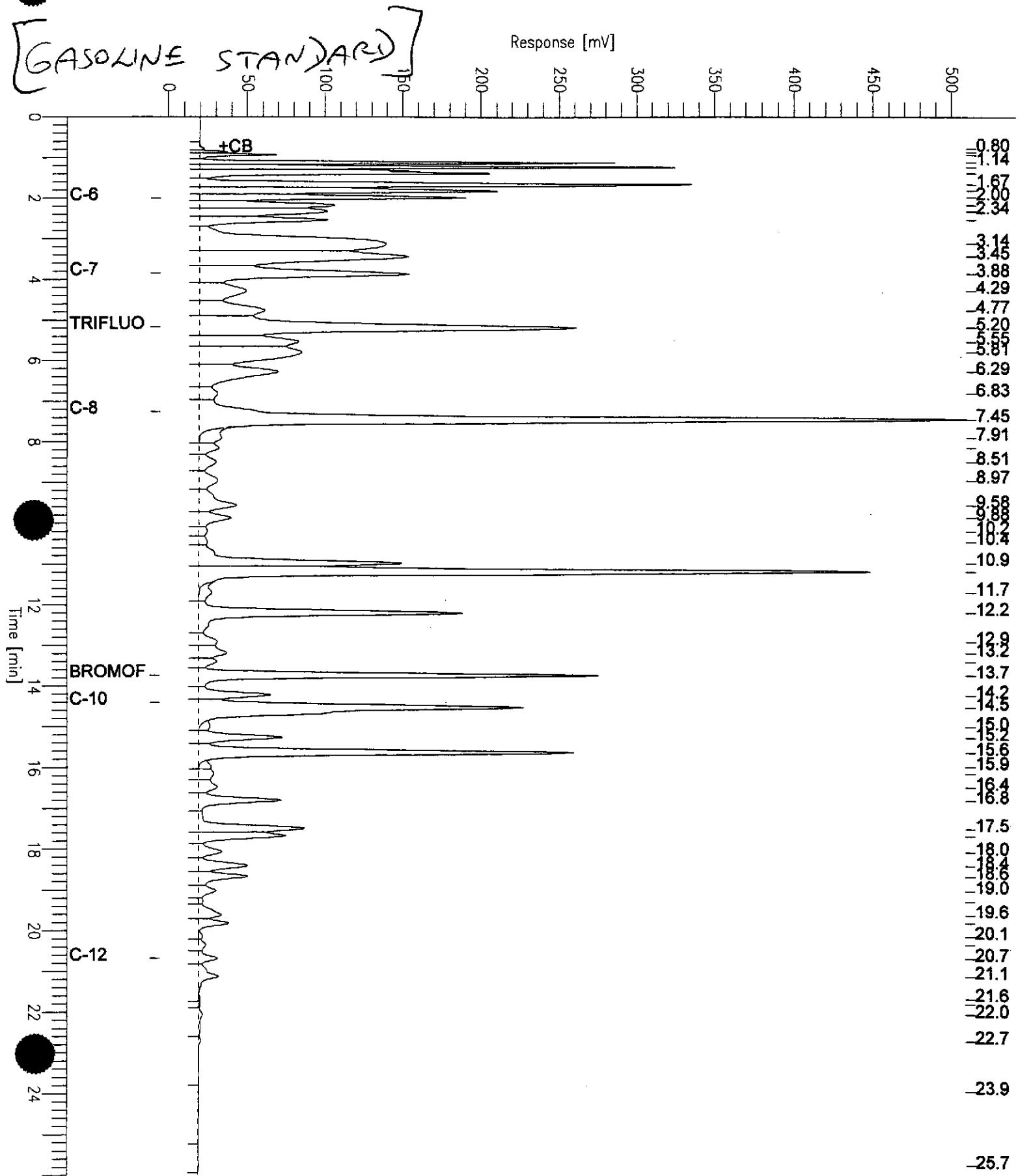
Sample #: A Page 1 of 1
 Date : 10/10/01 08:30 AM
 Time of Injection: 10/9/01 09:39 PM
 Low Point : 56.52 mV High Point : 339.91 mV
 Plot Scale: 283.4 mV



GC07 TVH 'A' Data File RTX 502

Sample Name : CCV/LCS, QC158244, 66969, 01WS1795, 5/5000
 FileName : G:\GC07\DATA\282A013.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.00 min
 Scale Factor: 1.0 Plot Offset: -5 mV

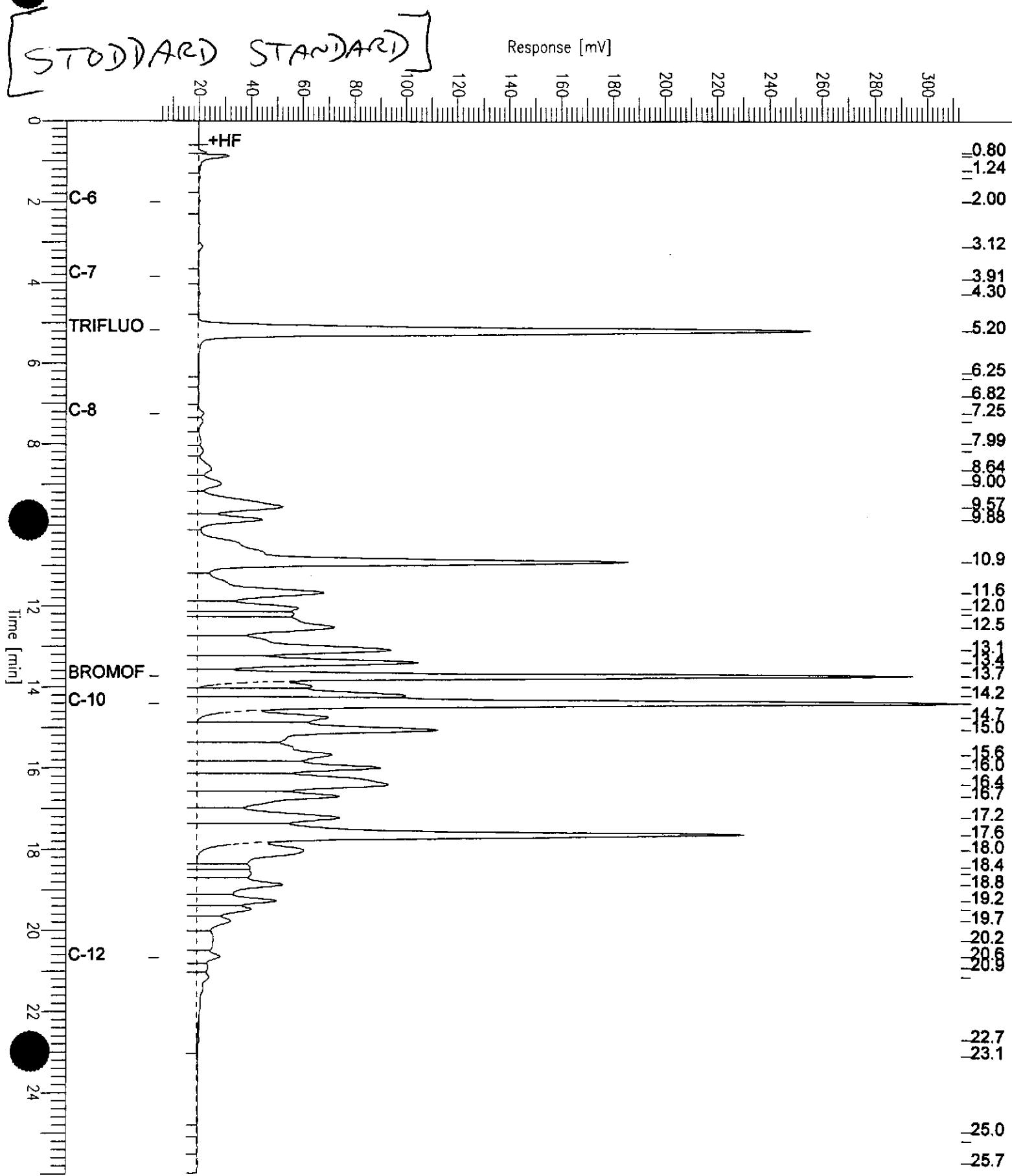
Sample #: Page 1 of 1
 Date : 10/9/01 06:34 PM
 Time of Injection: 10/9/01 06:07 PM
 Low Point : -4.78 mV High Point : 509.49 mV
 Plot Scale: 514.3 mV



GC07 TVH 'A' Data File RTX 502

Sample Name : CCV,STODDARD,66969,01WS1801,2.5/5000
 FileName : G:\GC07\DATA\282A012.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.00 min Plot Offset: 5 mV
 Factor: 1.0

Sample #: Page 1 of 1
 Date : 10/10/01 01:42 PM
 Time of Injection: 10/9/01 05:35 PM
 Low Point : 5.01 mV High Point : 313.24 mV
 Plot Scale: 308.2 mV





Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B (M)
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC158244	Batch#:	66969
Matrix:	Water	Analyzed:	10/09/01
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,093	105	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	113	59-135
Bromofluorobenzene (FID)	103	60-140



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B (M)
Field ID:	SOMA#1 10/4	Batch#:	66969
MSS Lab ID:	154630-001	Sampled:	10/04/01
Matrix:	Water	Received:	10/08/01
Units:	ug/L	Analyzed:	10/09/01
Diln Fac:	1.000		

Type: MS Lab ID: QC158245

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	738.6	2,000	2,754	101	65-131

Surrogate	%REC	Limits
Trifluorotoluene (FID)	116	59-135
Bromofluorobenzene (FID)	131	60-140

Type: MSD Lab ID: QC158246

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,808	103	65-131	2	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	59-135
Bromofluorobenzene (FID)	134	60-140



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)
Type:	LCS	Basis:	as received
Lab ID:	QC158280	Diln Fac:	1.000
Matrix:	Soil	Batch#:	66976
Units:	mg/Kg	Analyzed:	10/09/01

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.246	92	75-123

Surrogate	%REC	Limits
Trifluorotoluene (FID)	113	62-138
Bromofluorobenzene (FID)	104	46-150



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	154644-002	Batch#:	66976
Matrix:	Soil	Sampled:	10/08/01
Units:	mg/Kg	Received:	10/09/01
Basis:	as received	Analyzed:	10/09/01

Type: MS Lab ID: QC158281

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.1000	10.00	9.256	93	41-132

Surrogate	%REC	Limits
Trifluorotoluene (FID)	112	62-138
Bromofluorobenzene (FID)	100	46-150

Type: MSD Lab ID: QC158282

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.10	9.444	93	41-132	1	25

Surrogate	%REC	Limits
Trifluorotoluene (FID)	113	62-138
Bromofluorobenzene (FID)	103	46-150

Purgeable Organics by GC/MS

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA#1 10/4	Batch#:	67179
Lab ID:	154630-001	Sampled:	10/04/01
Matrix:	Water	Received:	10/08/01
Units:	ug/L	Analyzed:	10/17/01
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
TBE	16	5.0
cis-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA#1 10/4	Batch#:	67179
Lab ID:	154630-001	Sampled:	10/04/01
Matrix:	Water	Received:	10/08/01
Units:	ug/L	Analyzed:	10/17/01
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
2,3-Trichloropropane	ND	5.0
Isopropylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	111	78-123
Toluene-d8	100	80-110
Bromofluorobenzene	97	80-115

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA#1 10/4	Diln Fac:	1.000
Lab ID:	154630-002	Batch#:	66940
Matrix:	Soil	Sampled:	10/04/01
Units:	ug/Kg	Received:	10/08/01
Basis:	as received	Analyzed:	10/08/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	25	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MEBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA#1 10/4	Diln Fac:	1.000
Lab ID:	154630-002	Batch#:	66940
Matrix:	Soil	Sampled:	10/04/01
Units:	ug/Kg	Received:	10/08/01
Basis:	as received	Analyzed:	10/08/01

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
2,3-Trichloropropane	ND	5.0
Isopropylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	5.5	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	27	5.0
sec-Butylbenzene	6.7	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	84	63-133
1,2-Dichloroethane-d4	96	76-127
Toluene-d8	98	80-111
Bromofluorobenzene	102	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159064	Batch#:	67179
Matrix:	Water	Analyzed:	10/17/01
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
ethyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159064	Batch#:	67179
Matrix:	Water	Analyzed:	10/17/01
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Isomobenzene	ND	5.0
3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	#REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	109	78-123
Toluene-d8	98	80-110
Bromofluorobenzene	99	80-115

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	67179
Units:	ug/L	Analyzed:	10/17/01
Diln Fac:	1.000		

Type: BS Lab ID: QC159062

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	53.40	107	74-132
Benzene	50.00	48.71	97	80-116
Trichloroethene	50.00	50.94	102	80-119
Toluene	50.00	47.94	96	80-120
Chlorobenzene	50.00	50.57	101	80-117

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	105	78-123
Toluene-d8	95	80-110
Bromofluorobenzene	97	80-115

Type: BSD Lab ID: QC159063

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	50.30	101	74-132	6	20
Benzene	50.00	46.51	93	80-116	5	20
Trichloroethene	50.00	49.16	98	80-119	4	20
Toluene	50.00	47.02	94	80-120	2	20
Chlorobenzene	50.00	48.65	97	80-117	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	108	78-123
Toluene-d8	98	80-110
Bromofluorobenzene	97	80-115

Purgeable Organics by GC/MS

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC158128	Diln Fac:	1.000
Matrix:	Soil	Batch#:	66940
Units:	ug/Kg	Analyzed:	10/08/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Methyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC158128	Diln Fac:	1.000
Matrix:	Soil	Batch#:	66940
Units:	ug/Kg	Analyzed:	10/08/01

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	106	63-133
1,2-Dichloroethane-d4	115	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	101	77-126

ND = Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC158126	Diln Fac:	1.000
Matrix:	Soil	Batch#:	66940
Units:	ug/Kg	Analyzed:	10/08/01

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	58.35	117	66-138
Benzene	50.00	53.90	108	76-121
Trichloroethene	50.00	56.78	114	75-124
Toluene	50.00	53.47	107	75-124
Chlorobenzene	50.00	54.43	109	78-115

Surrogate	%REC	Limits
Dibromofluoromethane	103	63-133
1,2-Dichloroethane-d4	102	76-127
Toluene-d8	99	80-111
Bromofluorobenzene	100	77-126

California Title 26 Metals

Lab #:	154630	Project#:	2512
Client:	SOMA Environmental Engineering Inc.	Location:	Glovatorium
Field ID:	SOMA#1 10/4	Basis:	as received
Lab ID:	154630-002	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/04/01
Units:	mg/Kg	Received:	10/08/01

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.8	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Arsenic	2.9	0.24	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Barium	120	0.47	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Beryllium	0.40	0.095	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Cadmium	2.2	0.24	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Chromium	46	0.47	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Cobalt	15	0.95	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Copper	17	0.47	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Lead	5.7	0.14	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Mercury	0.068	0.019	67060	10/12/01	10/12/01	METHOD	EPA 7471
Molybdenum	ND	0.95	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Nickel	72	0.95	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Selenium	0.33	0.24	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Silver	ND	0.24	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Tellurium	ND	0.24	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Vanadium	32	0.47	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B
Zinc	31	0.95	66977	10/09/01	10/10/01	EPA 3050	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	154515-016	Batch#:	66940
Matrix:	Soil	Sampled:	10/01/01
Units:	ug/Kg	Received:	10/02/01
Basis:	as received	Analyzed:	10/09/01

Type: MS Lab ID: QC158202

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	ND	50.00	41.77	84	42-145
Benzene	0.6508	50.00	44.77	88	50-133
Trichloroethene	ND	50.00	48.77	98	33-133
Toluene	ND	50.00	45.70	91	45-134
Chlorobenzene	ND	50.00	46.30	93	38-137

Surrogate	%REC	Limits
bromofluoromethane	85	63-133
1,2-Dichloroethane-d4	94	76-127
Toluene-d8	98	80-111
Bromofluorobenzene	88	77-126

Type: MSD Lab ID: QC158203

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	41.41	83	42-145	1	31
Benzene	50.00	45.30	89	50-133	1	29
Trichloroethene	50.00	48.36	97	33-133	1	30
Toluene	50.00	45.86	92	45-134	0	29
Chlorobenzene	50.00	45.79	92	38-137	1	31

Surrogate	%REC	Limits
Dibromofluoromethane	85	63-133
1,2-Dichloroethane-d4	93	76-127
Toluene-d8	98	80-111
Bromofluorobenzene	89	77-126

ND= Not Detected

RPD= Relative Percent Difference

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California Title 26 Metals

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3050
Project#:	2512	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC158284	Batch#:	66977
Matrix:	Soil	Prepared:	10/09/01
Units:	mg/Kg	Analyzed:	10/10/01
Basis:	as received		

Analyte	Result	RL
Antimony	ND	3.0
Arsenic	ND	0.25
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.50
Cobalt	ND	1.0
Copper	1.7	0.50
Lead	ND	0.15
Molybdenum	ND	1.0
Nickel	ND	1.0
Selenium	ND	0.25
Tellurium	ND	0.25
Titanium	ND	0.50
Zinc	ND	1.0

ND= Not Detected

RL= Reporting Limit

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California Title 26 Metals

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2512	Analysis:	EPA 7471
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC158595	Batch#:	67060
Matrix:	Soil	Prepared:	10/12/01
Units:	mg/Kg	Analyzed:	10/12/01

Result	RL
ND	0.020

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3050
Project#:	2512	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	66977
Units:	mg/Kg	Prepared:	10/09/01
Basis:	as received	Analyzed:	10/10/01
Diln Fac:	1.000		

Type: BS Lab ID: QC158285

Analyte	Spiked	Result	REC	Limits	RPD	Pct
Antimony	100.0	90.00	90	60-129		
Arsenic	50.00	43.65	87	64-116		
Barium	100.0	85.50	86	69-111		
Beryllium	2.500	2.260	90	70-114		
Cadmium	10.00	8.350	84	59-114		
Chromium	100.0	88.00	88	68-111		
Cobalt	25.00	21.55	86	66-110		
Copper	12.50	11.45	92	67-114		
Lead	100.0	85.50	86	66-110		
Molybdenum	20.00	17.45	87	70-111		
Nickel	25.00	21.90	88	68-111		
Selenium	50.00	42.05	84	61-110		
Silver	10.00	8.500	85	57-116		
Thallium	50.00	41.65	83	60-111		
Vanadium	25.00	22.25	89	69-112		
Zinc	25.00	22.70	91	57-119		

Type: BSD Lab ID: QC158286

Analyte	Spiked	Result	REC	Limits	RPD	Pct
Antimony	100.0	96.00	96	60-129	6	20
Arsenic	50.00	46.70	93	64-116	7	20
Barium	100.0	90.50	91	69-111	6	20
Beryllium	2.500	2.435	97	70-114	7	20
Cadmium	10.00	8.950	90	59-114	7	20
Chromium	100.0	94.50	95	68-111	7	20
Cobalt	25.00	23.15	93	66-110	7	20
Copper	12.50	12.10	97	67-114	6	20
Lead	100.0	92.50	93	66-110	8	20
Molybdenum	20.00	18.85	94	70-111	8	20
Nickel	25.00	23.45	94	68-111	7	20
Selenium	50.00	44.85	90	61-110	6	20
Silver	10.00	9.050	91	57-116	6	20
Thallium	50.00	44.55	89	60-111	7	20
Vanadium	25.00	23.80	95	69-112	7	20
Zinc	25.00	25.60	102	57-119	12	20

California Title 26 Metals

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3050
Project#:	2512	Analysis:	EPA 6010B
Field ID:	SOMA#1 10/4	Diln Fac:	1.000
Type:	SDUP	Batch#:	66977
MSS Lab ID:	154630-002	Sampled:	10/04/01
Lab ID:	QC158287	Received:	10/08/01
Matrix:	Soil	Prepared:	10/09/01
Units:	mg/Kg	Analyzed:	10/10/01
Basis:	as received		

Analyte	MSS Result	Result	RL	RPD	LIM
Antimony	<2.844	ND	2.7	NC	46
Arsenic	2.863	3.475	0.23	19	36
Barium	124.6	151.6	0.45	20	35
Beryllium	0.4024	0.4502	0.090	11	25
Cadmium	2.180	2.756	0.23	23	27
Chromium	45.88	56.56	0.45	21	32
Cobalt	14.88	17.10	0.90	14	31
Copper	17.44	22.71	0.45	26	38
Lead	5.735	7.059	0.14	21	41
Molybdenum	<0.9479	1.145	0.90	NC	27
Nickel	72.04	86.88	0.90	19	35
Selenium	0.7204	0.5611	0.23	25	34
Silver	<0.2370	ND	0.23	NC	23
Thallium	<0.2370	0.4615	0.23	NC	36
Vanadium	31.66	41.63	0.45	27	29
Zinc	30.52	36.47	0.90	18	37

NC= Not Calculated

ND= Not Detected

RL= Reporting Limit

RPD= Relative Percent Difference

Page 1 of 1

California Title 26 Metals

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3050
Project#:	2512	Analysis:	EPA 6010B
Field ID:	SOMA#1 10/4	Diln Fac:	1.000
Type:	SSPIKE	Batch#:	66977
MSS Lab ID:	154630-002	Sampled:	10/04/01
Lab ID:	QC158288	Received:	10/08/01
Matrix:	Soil	Prepared:	10/09/01
Units:	mg/Kg	Analyzed:	10/10/01
Basis:	as received		

Analyte	MSS Result	Spiked	Result	#REC	Limits
Antimony	<1.300	86.21	19.53	23	15-142
Arsenic	2.863	43.10	39.61	85	38-124
Barium	124.6	86.21	215.1	105	33-136
Beryllium	0.4024	2.155	2.431	94	46-120
Cadmium	2.180	8.621	9.483	85	37-117
Chromium	45.88	86.21	130.6	98	21-137
Cobalt	14.88	21.55	32.63	82	24-131
Copper	17.44	10.78	30.91	125	24-150
Lead	5.735	86.21	80.17	86	24-132
Molybdenum	0.3664	17.24	12.20	69	23-122
Nickel	72.04	21.55	93.97	102	21-142
Selenium	0.7204	43.10	35.82	81	32-118
Silver	<0.07300	8.621	7.672	89	45-118
Thallium	0.1692	43.10	35.60	82	42-112
Vanadium	31.66	21.55	56.03	113	35-128
Zinc	30.52	21.55	54.31	110	20-146

California Title 26 Metals

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2512	Analysis:	EPA 7471
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67060
Units:	mg/Kg	Prepared:	10/12/01
Basis:	as received	Analyzed:	10/12/01

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC158596	0.5000	0.5250	105	80-114		
BSD	QC158597	0.5000	0.5300	106	80-114	1	130



Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2512	Analysis:	EPA 7471
Analyte:	Mercury	Basis:	as received
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	67060
MSS Lab ID:	154601-001	Sampled:	10/05/01
Lab ID:	QC158598	Received:	10/05/01
Matrix:	Soil	Prepared:	10/12/01
Units:	mg/Kg	Analyzed:	10/12/01

MSS Result	Result	RL	RPD	Lim
0.06154	0.06275	0.020	2	35

RL= Reporting Limit

RPD= Relative Percent Difference

Page 1 of 1

California Title 26 Metals

Lab #:	154630	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2512	Analysis:	EPA 7471
Analyte:	Mercury	Basis:	as received
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	MS	Batch#:	67060
MSS Lab ID:	154601-001	Sampled:	10/05/01
Lab ID:	QC158599	Received:	10/05/01
Matrix:	Soil	Prepared:	10/12/01
Units:	mg/Kg	Analyzed:	10/12/01

MSS Result	Spiked	Result	%REC	Limits
0.06154	0.4717	0.5330	100	62-135



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:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

Date: 30-OCT-01
Lab Job Number: 154761
Project ID: 2512
Location: Glovatarium

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:

Paul Prelogost
Project Manager

Reviewed by:

Operations Manager

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Curtis & Tompkins, Ltd.

Laboratory Number: **154761**
Client: **Soma Environmental Engineering, Inc.**
Project Name: **Glovatorium**
Project #: **2512**
Receipt Date: **10/12/01**

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for twenty-eight soil samples and three water samples received from the above referenced project on October 12th, 2001. The samples were received cold and intact.

Total Volatile Hydrocarbons (EPA 8015M):

The recoveries for the bromofluorobenzene surrogates in several of the samples were outside the acceptable QC limits due to coelution of sample hydrocarbons with this surrogate.

The recoveries for gasoline for the sample spike (C&T ID 154761-001) and its duplicate for batch number 67262 were below the acceptable QC limits due to the non-homogeneity of the samples. These matrix effects were confirmed by re-run.

No other analytical problems were encountered.

Volatile Organic Compounds (EPA 8260B):

The responses for tetrachloroethene and cis-1,2-dichloroethene were over the linear range for the instrument for several samples, as indicated by the 'b-flags.' These samples were originally submitted for an 8020MS analysis by EPA method 8260. The reprocessing for a full list 8260 was not requested until after the hold time expired so a re-run was not feasible. The recovery for the dibromofluoromethane surrogate was below the acceptable QC limit for client ID Soma 3-22' (C&T ID 154761-011) due to coelution of sample hydrocarbons with this surrogate. The recoveries for the bromofluorobenzene surrogates were over the acceptable QC limits for the sample spike (C&T ID 154761-005) and its duplicate for batch number 67210.

No other analytical problems were encountered.

CHAIN OF CUSTODY FORM

Page 1 of 3

Curtis & Tompkins, Ltd.

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

Analyses

C&T
 LOGIN # 199701

Project No: 2512

Sampler: Nase Parikh

Project Name: Glovarium

Report To: Nase Parikh

Project P.O.:

Company: SOMA Env. Eng.

Turnaround Time: Standard

Telephone: 925 244 6600

Fax: 925 244 6601

Laboratory Number	Sample ID.	Sampling Date Time	Matrix	# of Containers	Preservative					Field Notes	
					Soil	Water	Waste	HCl	H ₂ SO ₄	HNO ₃	
1	SOME-3-2	10/11		One							
2	3-9'										
3	3-6'										
4	3-8'										
5	3-10'										
6	3-12'										
7	3-14'										
8	3-16'										
9	3-18'										
10	3-20'										
11	3-22'	10/12									
12	3-24'										
13	3-26'										

Notes:

RELINQUISHED BY:

Nase Parikh

10/12/5:30
DATE/TIME

RECEIVED BY:

Tracy Baga 10/12/5
DATE/TIME

S: 30

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

Signature

Preservation Correct? Yes No N/A

CHAIN OF CUSTODY FORM

Page 2 of 3

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Analytical Laboratory Since 1878
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 Berkeley, CA 94710
 (510)486-0900 Phone
 (510)486-0532 Fax

C&T
 LOGIN # 194761

Analyses

Project No: 2512

Project Name: Glovoatum

Project P.O.: _____

Turnaround Time: standard

Sampler: Naser Pakrav

Report To: Naser Pakrav

Company: SCMA

Telephone: 925 241 6600

Fax: 925 241 6601

14	30M03-78	10/12	1	One	T P Hg, T P Hg
15		3-30'			BTEX, MTBE, VOC, 826C
16	30M02-5-2'				
17		5-4'			
18		5-6'			
19		5-8'			
20		5-10'			
21		5-12'			
22		5-14'			
23		5-16'			
24		5-18'			
25		5-20			
26		5-22			

Notes:

Signature	RELINQUISHED BY:	RECEIVED BY:
	Naser Pakrav	10/12 5:30
	DATE/TIME	DATE/TIME

Signature

CHAIN OF CUSTODY FORM

Page 3 of 3

Curtis & Tompkins, Ltd.

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

C&T
 LOGIN # 194761

Analyses

Project No: 2512

Project Name: Elevation

Project P.O.:

Turnaround Time: standard

Sampler: Naser Pakrou

Report To: Naser Pakrou

Company: SCMA

Telephone: 925 244 6600

Fax: 925 244 6601

Preservative										TPHs, TPHss, BTEX, MTBE, VOCs 8260
Laboratory Number	Sample ID.	Sampling Date Time	Matrix	# of Containers	HCl	H ₂ SO ₄	HNO ₃	ICE	W	TPHs, TPHss, BTEX, MTBE, VOCs 8260
27	BOMA-24	10/12	✓	one						
28	5-26		✓	1						
29	SCMA-2	3.15	✓	3						
30	SCMA-3	4.0	✓							
31	SCMA-4	4.20	✓	1						
For										
For										
ra										
ra										
La										

Notes:	RELINQUISHED BY:	RECEIVED BY:
	<u>Naser Pakrou</u> 10/12/01 DATE/TIME	<u>Tay B</u> 10/12/01 DATE/TIME

Signature



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)
Matrix:	Soil	Basis:	as received
Units:	mg/Kg	Received:	10/15/01

Field ID: SOMA 3-2' Batch#: 67262
Type: SAMPLE Sampled: 10/11/01
Lab ID: 154761-001 Analyzed: 10/24/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	7.2 H Y	1.1
Stoddard Solvent C7-C12	4.5	1.1

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	62-138
Bromofluorobenzene (FID)	138	46-150

Field ID: SOMA 3-4' Batch#: 67262
Type: SAMPLE Sampled: 10/11/01
Lab ID: 154761-002 Analyzed: 10/19/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	0.96
Stoddard Solvent C7-C12	ND	0.96

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	62-138
Bromofluorobenzene (FID)	102	46-150

Field ID: SOMA 3-6' Batch#: 67262
Type: SAMPLE Sampled: 10/11/01
Lab ID: 154761-003 Analyzed: 10/19/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Stoddard Solvent C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	62-138
Bromofluorobenzene (FID)	104	46-150

*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits fuel pattern which does not resemble standard

N= See narrative

D= Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)
Field ID:	SOMA 3-2'	Diln Fac:	1.000
MSS Lab ID:	154761-001	Batch#:	67262
Matrix:	Soil	Sampled:	10/11/01
Units:	mg/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/24/01

Type: MS Lab ID: QC159396

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	7.245	10.99	11.53	39 *	41-132
<hr/>					
Surrogate	%REC	Limits			
Trifluorotoluene (FID)	117	62-138			
Bromofluorobenzene (FID)	110	46-150			

Type: MSD Lab ID: QC159397

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.53	10.40	30 *	41-132	8	25
<hr/>						
Surrogate	%REC	Limits				
Trifluorotoluene (FID)	116	62-138				
Bromofluorobenzene (FID)	108	46-150				

*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

Page 1 of 1



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)
Matrix:	Soil	Basis:	as received
Units:	mg/Kg	Received:	10/15/01

Field ID: SOMA 3-8' Batch#: 67232
Type: SAMPLE Sampled: 10/11/01
Lab ID: 154761-004 Analyzed: 10/19/01
Diln Fac: 50.00

Analyte	Result	RL
Gasoline C7-C12	1,200 H Y	50
Stoddard Solvent C7-C12	690	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	62-138
Bromofluorobenzene (FID)	327 *	>LR b 46-150

Field ID: SOMA 3-10' Batch#: 67232
Type: SAMPLE Sampled: 10/11/01
Lab ID: 154761-005 Analyzed: 10/19/01
Diln Fac: 200.0

Analyte	Result	RL
Gasoline C7-C12	3,200 H Y	200
Stoddard Solvent C7-C12	1,900	200

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	62-138
Bromofluorobenzene (FID)	249 *	>LR b 46-150

Field ID: SOMA 3-12' Batch#: 67232
Type: SAMPLE Sampled: 10/11/01
Lab ID: 154761-006 Analyzed: 10/19/01
Diln Fac: 20.00

Analyte	Result	RL
Gasoline C7-C12	420 H Y	20
Stoddard Solvent C7-C12	250	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	235 *	>LR b 46-150

*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits fuel pattern which does not resemble standard

N= See narrative

ND= Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)
Matrix:	Soil	Basis:	as received
Units:	mg/Kg	Received:	10/15/01

Field ID: SOMA 3-14' Batch#: 67232
 Type: SAMPLE Sampled: 10/11/01
 Lab ID: 154761-007 Analyzed: 10/19/01
 Diln Fac: 10.00

Analyte	Result	RL
Gasoline C7-C12	360 H Y	10
Stoddard Solvent C7-C12	210	10

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	62-138
Bromofluorobenzene (FID)	249 *	>LR b 46-150

Field ID: SOMA 3-16' Batch#: 67262
 Type: SAMPLE Sampled: 10/11/01
 Lab ID: 154761-008 Analyzed: 10/19/01
 Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Stoddard Solvent C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	107	46-150

Field ID: SOMA 3-18' Batch#: 67262
 Type: SAMPLE Sampled: 10/11/01
 Lab ID: 154761-009 Analyzed: 10/19/01
 Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	1.7 H Y	1.0
Stoddard Solvent C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	115	46-150

*= Value outside of OC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits fuel pattern which does not resemble standard

See narrative

Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B (M)
Matrix:	Soil	Basis:	as received
Units:	mg/Kg	Received:	10/15/01

Field ID: SOMA 3-20' Batch#: 67262
Type: SAMPLE Sampled: 10/11/01
Lab ID: 154761-010 Analyzed: 10/19/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	21 H Y	0.95
Stoddard Solvent C7-C12	12	0.95

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	188 *	46-150

Field ID: SOMA 3-22' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-011 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	14 H Y	0.99
Stoddard Solvent C7-C12	7.9	0.99

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	62-138
Bromofluorobenzene (FID)	178 *	46-150

Field ID: SOMA 3-24' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-012 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	0.96
Stoddard Solvent C7-C12	ND	0.96

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	62-138
Bromofluorobenzene (FID)	110	46-150

*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits fuel pattern which does not resemble standard

N= See narrative

D= Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)
Matrix:	Soil	Basis:	as received
Units:	mg/Kg	Received:	10/15/01

Field ID: SOMA 3-26' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-013 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	0.94
Stoddard Solvent C7-C12	ND	0.94

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	62-138
Bromofluorobenzene (FID)	103	46-150

Field ID: SOMA 3-28' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-014 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	1.1
Stoddard Solvent C7-C12	ND	1.1

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	62-138
Bromofluorobenzene (FID)	103	46-150

Field ID: SOMA 3-30' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-015 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Stoddard Solvent C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	101	46-150

*- Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits fuel pattern which does not resemble standard

See narrative

N= Not Detected

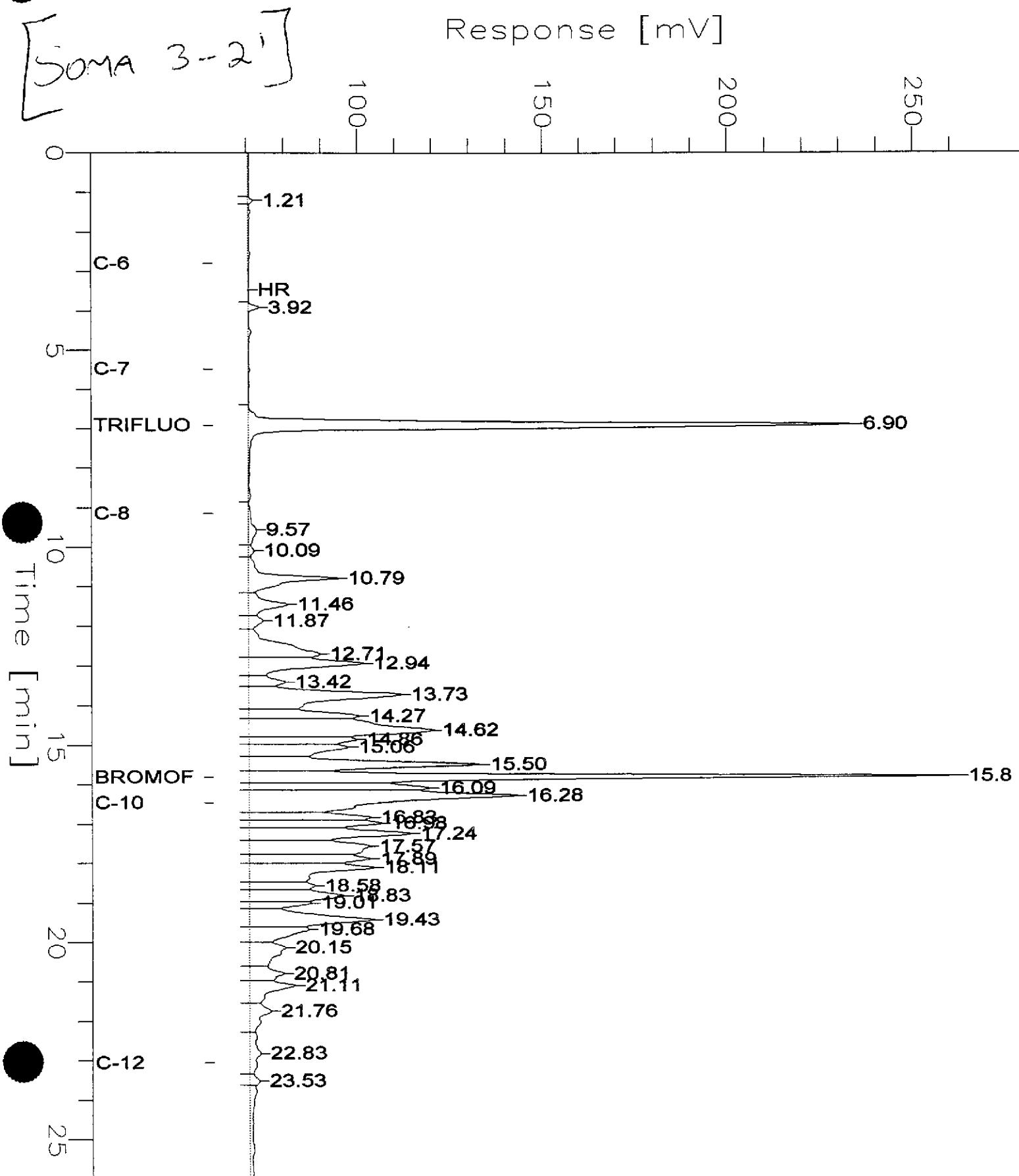
RL= Reporting Limit

>LR= Response exceeds instrument's linear range

GC04 TVH 'J' Data File FID

Sample Name : MSS_154761-001,67262
FileName : G:\GC04\DATA\296J025.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Plot Factor: 1.0 Plot Offset: 61 mV

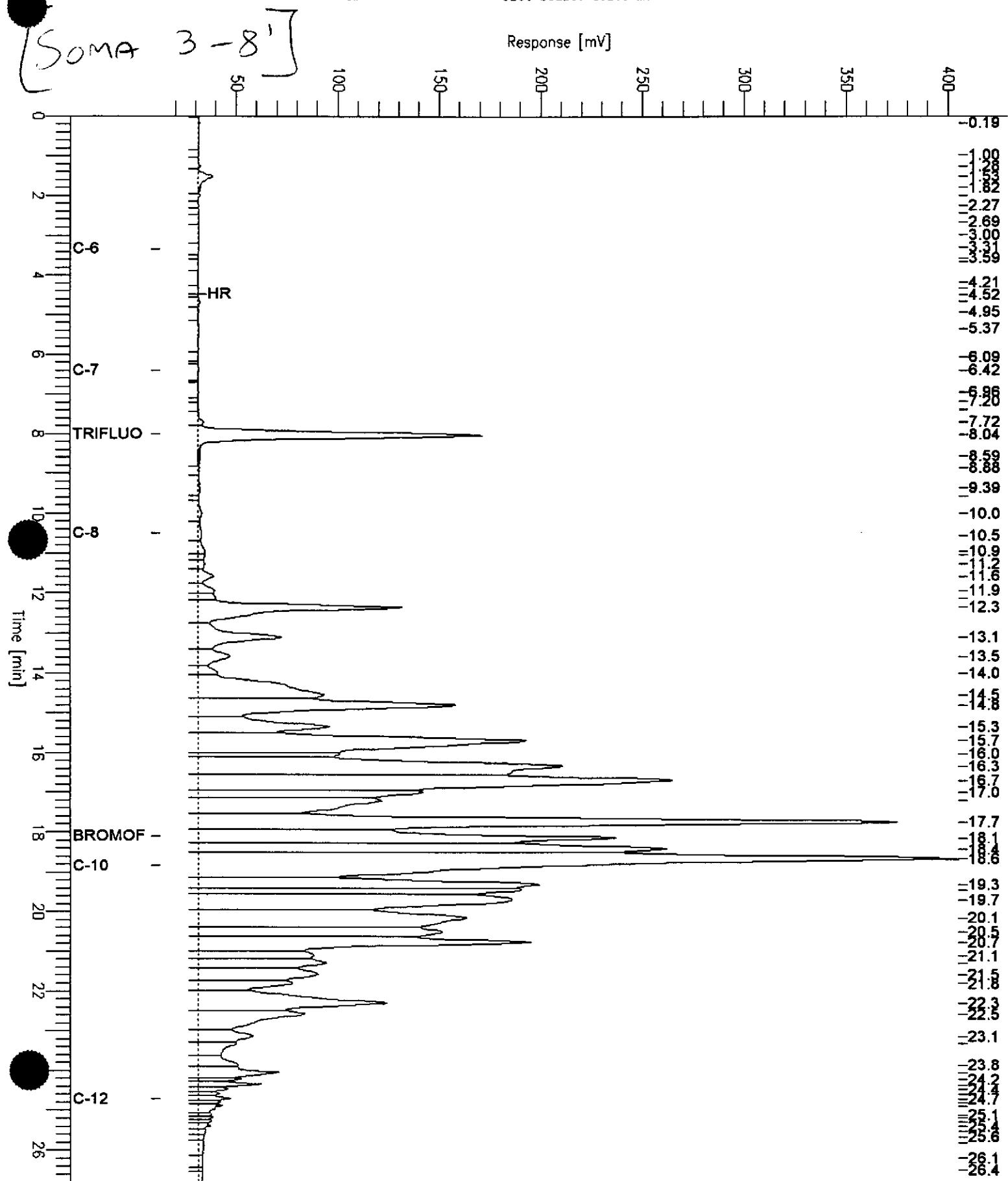
Sample #: A Page 1 of 1
Date : 10/24/01 03:06 PM
Time of Injection: 10/24/01 07:33 AM
Low Point : 60.93 mV High Point : 262.49 mV
Plot Scale: 201.6 mV



GC19 TVH 'X' Data File (FID)

Sample Name : 154761-004,67232,+stodd
 FileName : G:\GC19\DATA\292X021.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.80 min
 Scale Factor: 1.0 Plot Offset: 12 mV

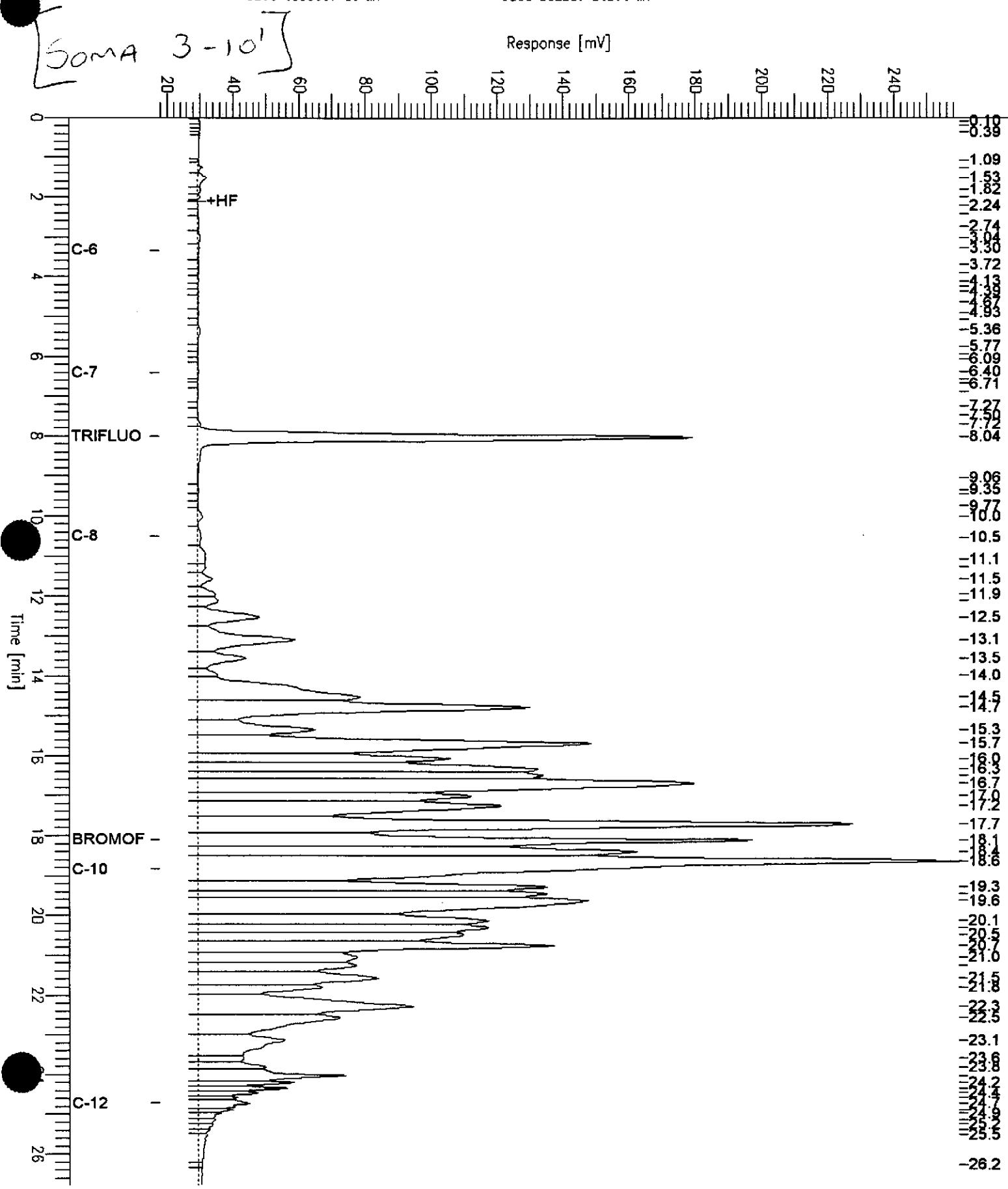
Sample #: a Page 1 of 1
 Date : 10/20/01 04:37 PM
 Time of Injection: 10/19/01 09:57 PM
 Low Point : 12.44 mV High Point : 405.32 mV
 Plot Scale: 392.9 mV



GC19 TVH 'X' Data File (FID)

Sample Name : 154761-005,67232,+stodd
 FileName : G:\GC19\DATA\292X018.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.80 min
 Scale Factor: 1.0 Plot Offset: 18 mV

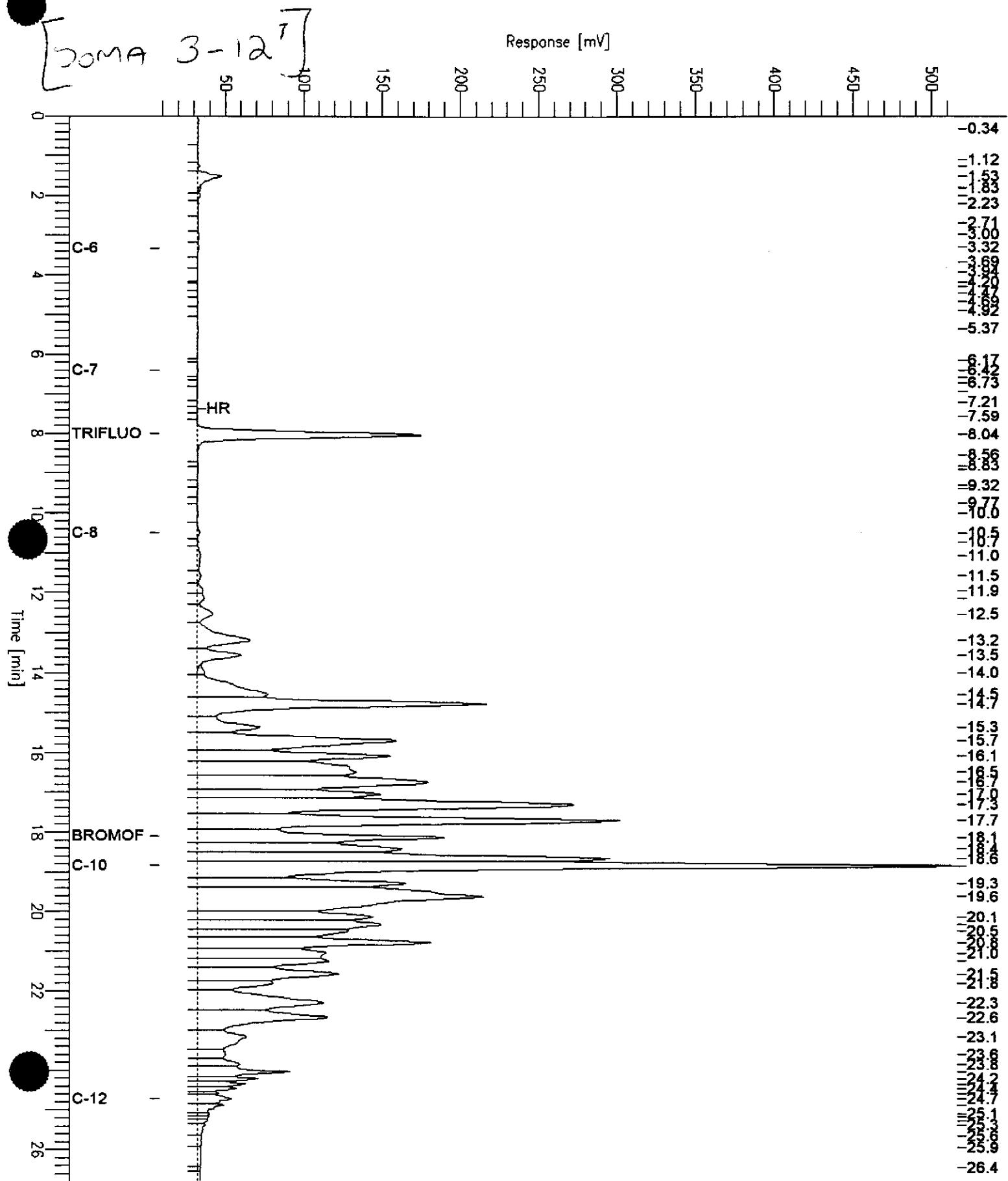
Sample #: a Page 1 of 1
 Date : 10/20/01 04:36 PM
 Time of Injection: 10/19/01 08:09 PM
 Low Point : 17.59 mV High Point : 259.94 mV
 Plot Scale: 242.4 mV



GC19 TVH 'X' Data File (FID)

Sample Name : 154761-006,67232,+stodd
 FileName : G:\GC19\DATA\292X022.raw
 Method : TVHBTEXE
 Start Time : 0.00 min End Time : 26.80 min
 Scale Factor: 1.0 Plot Offset: 8 mV

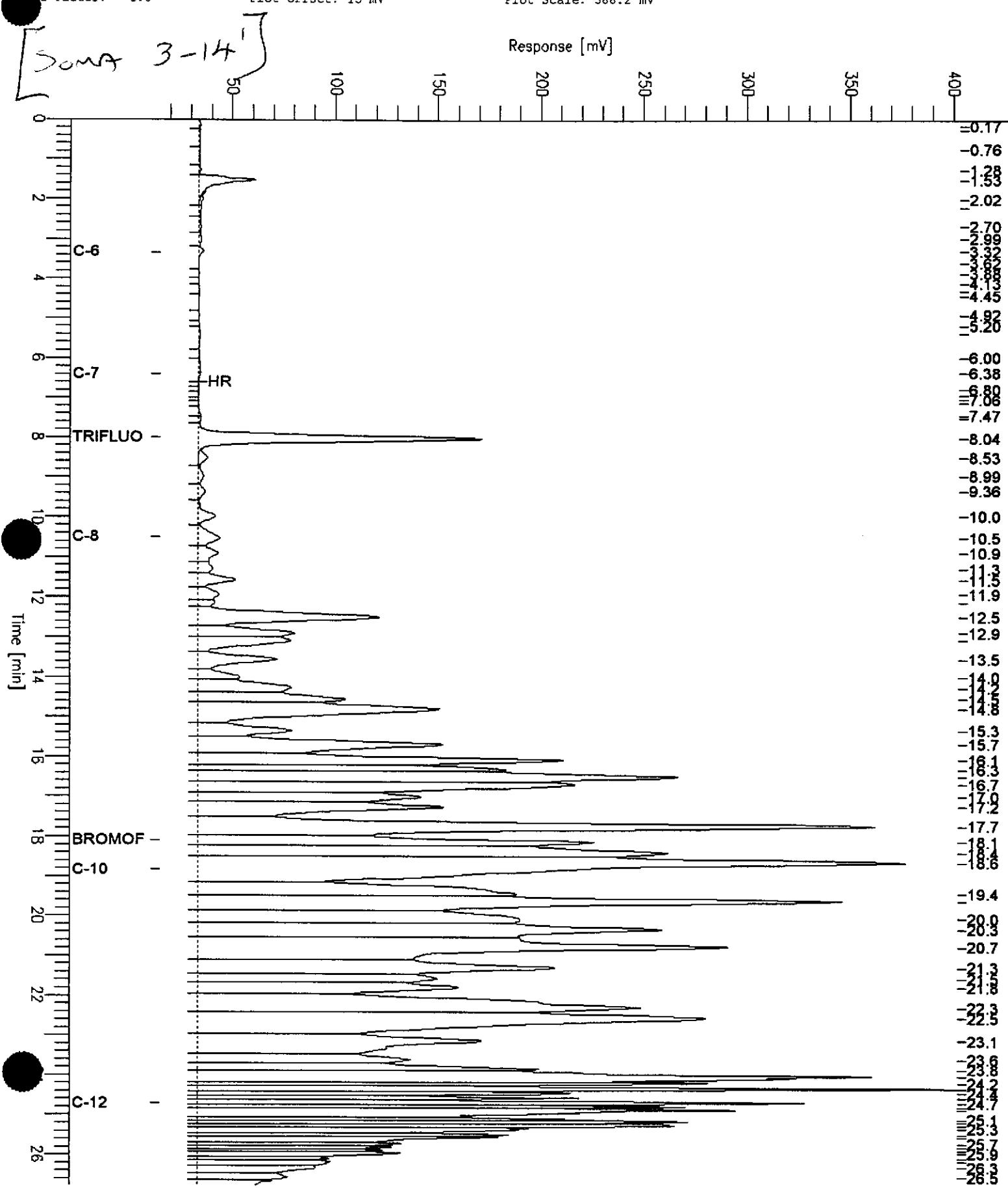
Sample #: a Page 1 of 1
 Date : 10/20/01 04:37 PM
 Time of Injection: 10/19/01 10:32 PM
 Low Point : 7.85 mV High Point : 516.99 mV
 Plot Scale: 509.1 mV



GC19 TVH 'X' Data File (FID)

Sample Name : 154761-007,67232,+stodd
 FileName : G:\GC19\DATA\292X024.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.80 min
 Scale Factor: 1.0 Plot Offset: 15 mV

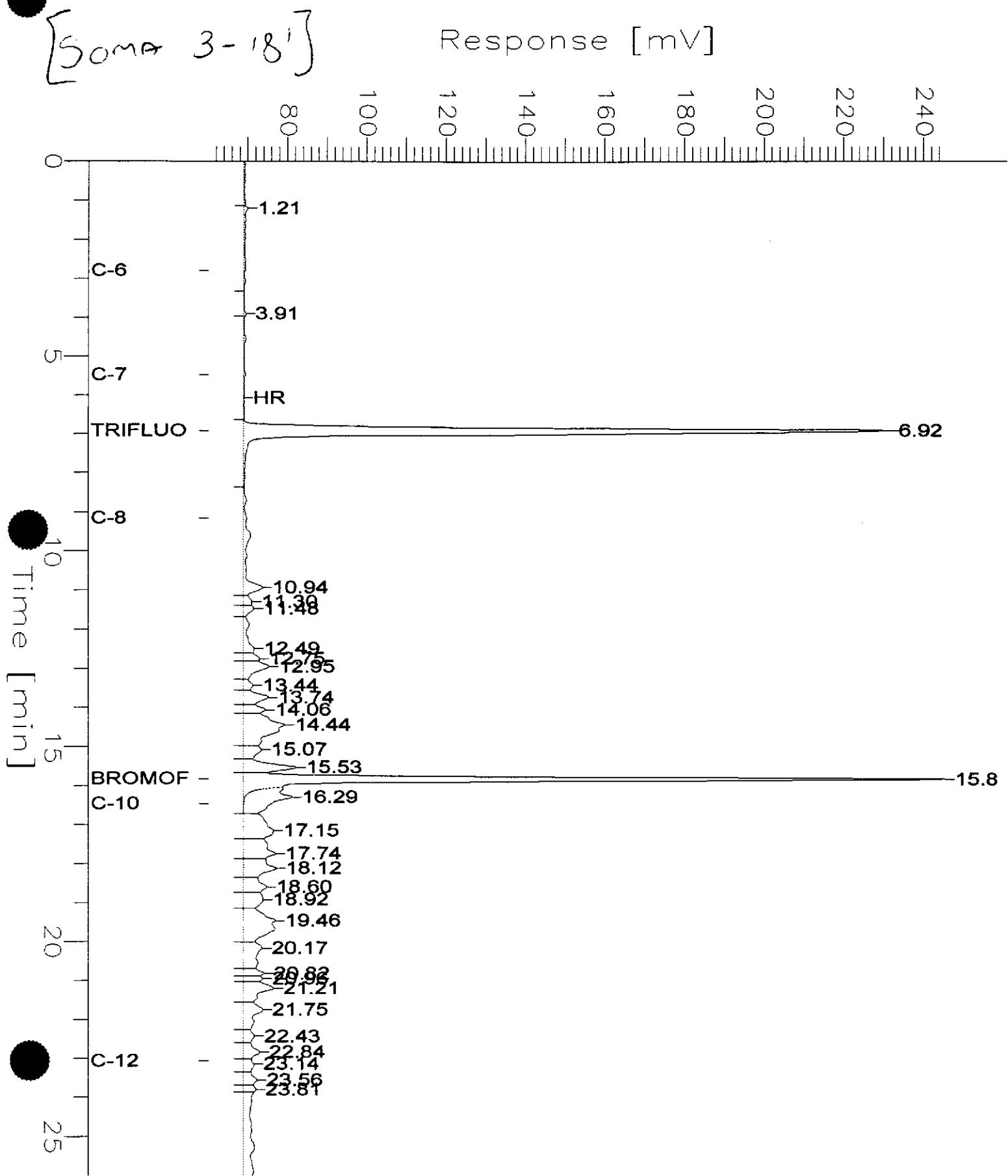
Sample #: a Page 1 of 1
 Date : 10/20/01 04:37 PM
 Time of Injection: 10/19/01 11:43 PM
 Low Point : 15.13 mV High Point : 403.31 mV
 Plot Scale: 388.2 mV



GC04 TVH 'J' Data File FID

Sample Name : 154761-009, 67262, STODARD ONLY
FileName : G:\GC04\DATA\292J011.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Factor: 1.0 Plot Offset: 60 mV

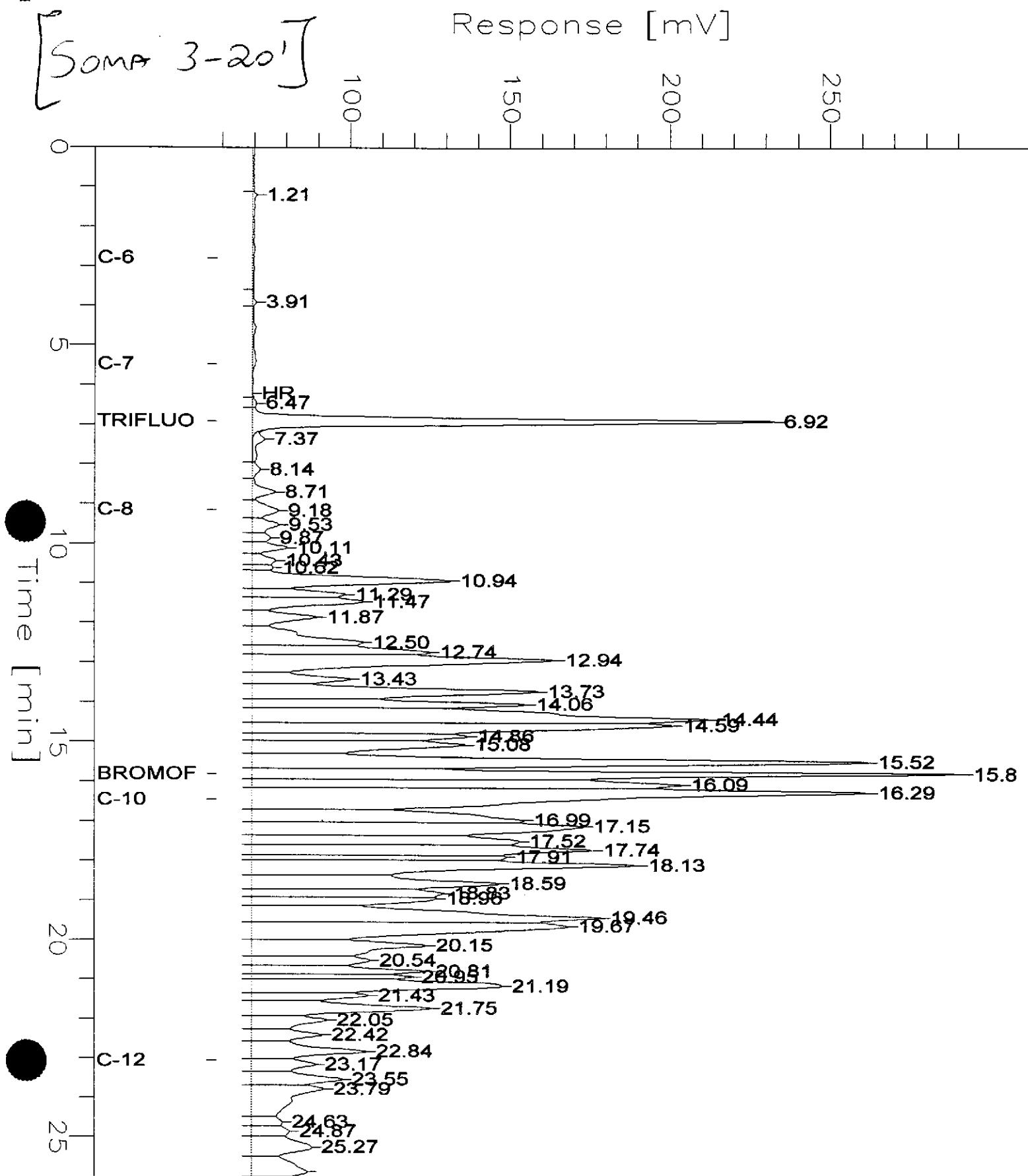
Sample #: Page 1 of 1
Date : 10/22/01 10:44 AM
Time of Injection: 10/19/01 09:55 PM
Low Point : 60.13 mV High Point : 245.70 mV
Plot Scale: 185.6 mV



GC04 TVH 'J' Data File FID

Sample Name : 154761-010,67262,STANDARD ONLY
FileName : G:\GC04\DATA\292J012.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 58 mV

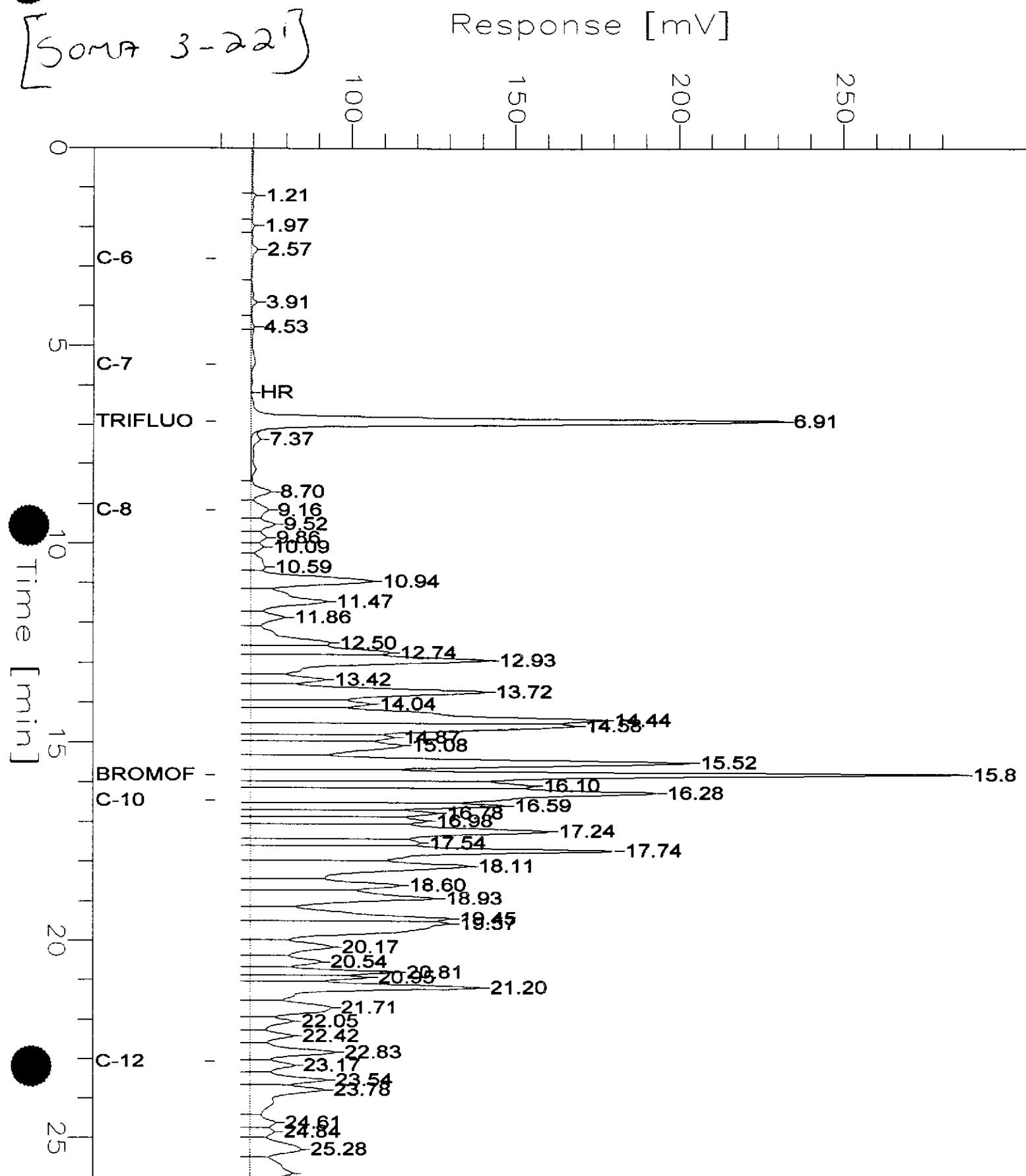
Sample #: Page 1 of 1
Date : 10/22/01 10:45 AM
Time of Injection: 10/19/01 10:30 PM
Low Point : 58.24 mV High Point : 292.24 mV
Plot Scale: 234.0 mV



GC04 TVH 'J' Data File FID

Sample Name : 154761-011,67262,STODARD ONLY
FileName : G:\GC04\DATA\292J018.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 58 mV

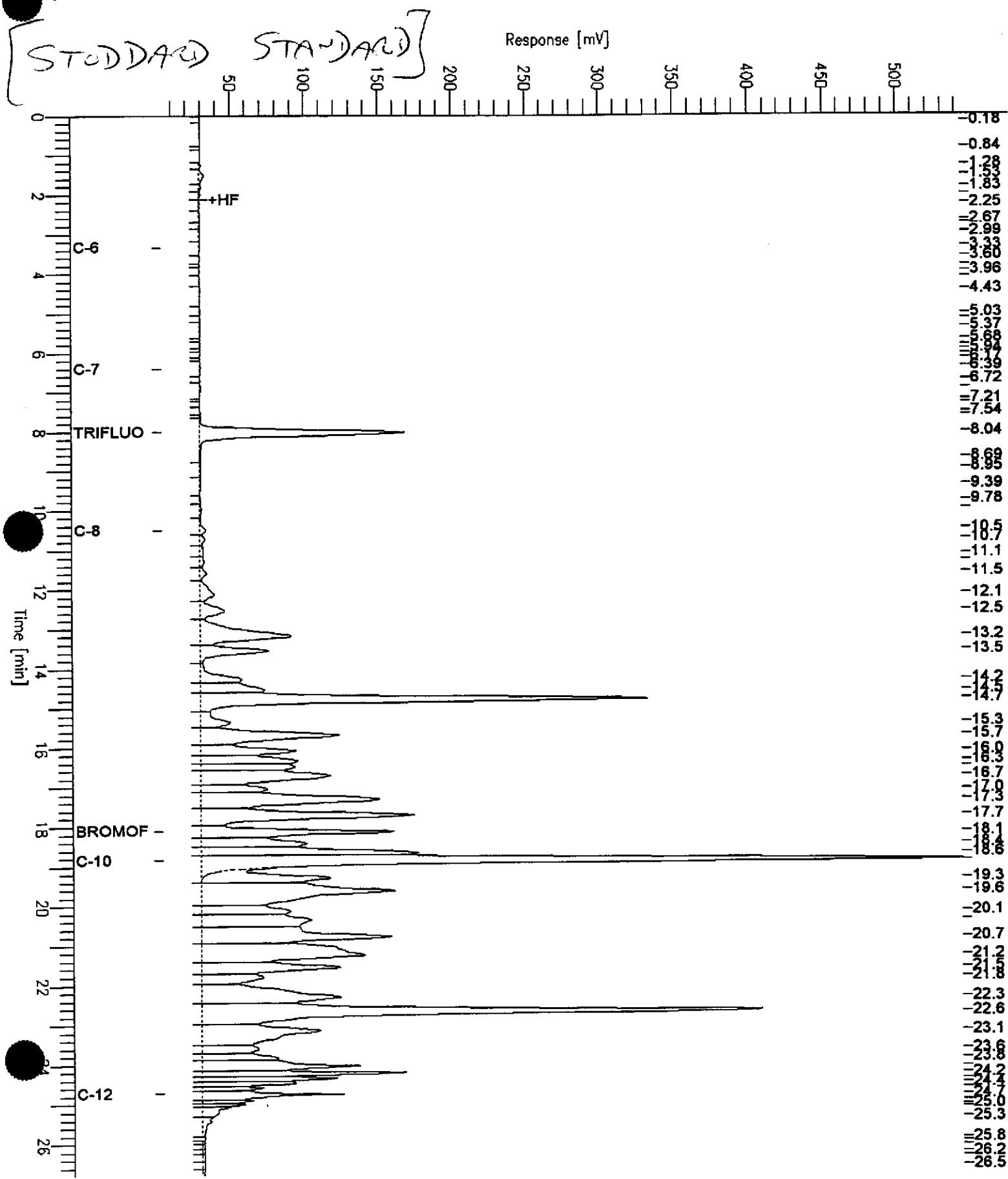
Sample #: Page 1 of 1
Date : 10/22/01 10:45 AM
Time of Injection: 10/20/01 02:04 AM
Low Point : 58.41 mV High Point : 286.80 mV
Plot Scale: 228.4 mV



GC19 TVH 'X' Data File (FID)

Sample Name : ccv,stodd,67232,01ws1801,5/5000
 FileName : G:\GC19\DATA\292X016.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.80 min
 Factor: 1.0 Plot Offset: 4 mV

Sample #: Page 1 of 1
 Date : 10/20/01 04:47 PM
 Time of Injection: 10/19/01 06:57 PM
 Low Point : 3.60 mV High Point : 543.56 mV
 Plot Scale: 540.0 mV





Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)
Matrix:	Soil	Basis:	as received
Units:	mg/Kg	Received:	10/15/01

Type: BLANK Batch#: 67262
Lab ID: QC159394 Analyzed: 10/19/01
Diln Fac: 1.000

Analyte	Result	RI
Gasoline C7-C12	ND	1.0
Stoddard Solvent C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	106	62-138
Bromofluorobenzene (FID)	100	46-150

*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits fuel pattern which does not resemble standard

See narrative

Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)
Type:	LCS	Basis:	as received
Lab ID:	QC159257	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67230
Units:	mg/Kg	Analyzed:	10/18/01

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	8.776	88	75-123

Surrogate	%REC	Limits
Trifluorotoluene (FID)	120	62-138
Bromofluorobenzene (FID)	105	46-150



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B (M)
Type:	LCS	Basis:	as received
Lab ID:	QC159266	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67232
Units:	mg/Kg	Analyzed:	10/19/01

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.942	99	75-123

Surrogate	%REC	Limits
Trifluorotoluene (FID)	123	62-138
Bromofluorobenzene (FID)	96	46-150



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B (M)
Type:	LCS	Basis:	as received
Lab ID:	QC159395	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67262
Units:	mg/Kg	Analyzed:	10/19/01

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.498	95	75-123

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	62-138
Bromofluorobenzene (FID)	105	46-150



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B (M)
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	154813-035	Batch#:	67230
Matrix:	Soil	Sampled:	10/12/01
Units:	mg/Kg	Received:	10/12/01
Basis:	as received	Analyzed:	10/19/01

Type: MS Lab ID: QC159259

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.1400	9.434	5.858	62	41-132

Surrogate	%REC	Limits
Trifluorotoluene (FID)	120	62-138
Bromofluorobenzene (FID)	108	46-150

Type: MSD Lab ID: QC159260

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.524	4.809	50	41-132	21	25

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	62-138
Bromofluorobenzene (FID)	108	46-150



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B (M)
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	154852-016	Batch#:	67232
Matrix:	Soil	Sampled:	10/17/01
Units:	mg/Kg	Received:	10/18/01
Basis:	as received	Analyzed:	10/20/01

Type: MS Lab ID: QC159268

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.1700	10.31	6.053	59	41-132

Surrogate	%REC	Limits
Trifluorotoluene (FID)	126	62-138
Bromofluorobenzene (FID)	99	46-150

Type: MSD Lab ID: QC159269

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	11.11	6.109	55	41-132	7	25

Surrogate	%REC	Limits
Trifluorotoluene (FID)	124	62-138
Bromofluorobenzene (FID)	98	46-150



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B (M)
Matrix:	Soil	Basis:	as received
Units:	mg/Kg	Received:	10/15/01

Field ID: SOMA 5-2' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-016 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Stoddard Solvent C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	100	46-150

Field ID: SOMA 5-4' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-017 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	16 H Y	0.99
Stoddard Solvent C7-C12	8.8	0.99

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	62-138
Bromofluorobenzene (FID)	195 *	46-150

Field ID: SOMA 5-6' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-018 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	1.7 H Y	1.0
Stoddard Solvent C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	114	46-150

*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

V= Sample exhibits fuel pattern which does not resemble standard

See narrative

Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Gascline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B (M)
Matrix:	Soil	Basis:	as received
Units:	mg/Kg	Received:	10/15/01

Field ID: SOMA 5-8' Batch#: 67232
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-019 Analyzed: 10/20/01
Diln Fac: 5.000

Analyte	Result	RL
Gasoline C7-C12	170 H Y	5.0
Stoddard Solvent C7-C12	100	5.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	62-138
Bromofluorobenzene (FID)	365 *	>LR b 46-150

Field ID: SOMA 5-10' Batch#: 67232
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-020 Analyzed: 10/19/01
Diln Fac: 20.00

Analyte	Result	RL
Gasoline C7-C12	490 H Y	20
Stoddard Solvent C7-C12	290	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	62-138
Bromofluorobenzene (FID)	275 *	>LR b 46-150

Field ID: SOMA 5-12' Sampled: 10/12/01
Type: SAMPLE Analyzed: 10/19/01
Lab ID: 154761-021

Analyte	Result	RL	Diln Fac	Batch#
Gasoline C7-C12	7,300 H Y	200	200.0	67230
Stoddard Solvent C7-C12	4,500	100	100.0	67232

Surrogate	%REC	Limits	Diln Fac	Batch#
Trifluorotoluene (FID)	102	62-138	200.0	67230
Bromofluorobenzene (FID)	310 *	>LR b 46-150	200.0	67230

*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits fuel pattern which does not resemble standard

N= See narrative

ND= Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)
Matrix:	Soil	Basis:	as received
Units:	mg/Kg	Received:	10/15/01

Field ID: SOMA 5-14' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-022 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	4.5	0.95
Stoddard Solvent C7-C12	2.5	0.95

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	131	46-150

Field ID: SOMA 5-16' Batch#: 67232
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-023 Analyzed: 10/19/01
Diln Fac: 200.0

Analyte	Result	RL
Gasoline C7-C12	7,600 H Y	200
Stoddard Solvent C7-C12	4,500	200

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	62-138
Bromofluorobenzene (FID)	346 *	>LR b 46-150

Field ID: SOMA 5/18' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-024 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	28 H Y	0.95
Stoddard Solvent C7-C12	16	0.95

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	62-138
Bromofluorobenzene (FID)	216 *	>LR b 46-150

*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

V= Sample exhibits fuel pattern which does not resemble standard

See narrative

Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)

Matrix:	Soil	Basis:	as received
Units:	mg/Kg	Received:	10/15/01

Field ID: SOMA 5-20' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-025 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	0.98
Stoddard Solvent C7-C12	ND	0.98

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	62-138
Bromofluorobenzene (FID)	101	46-150

Field ID: SOMA 5-22' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-026 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	3.7 H Y	1.0
Stoddard Solvent C7-C12	2.0	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	122	46-150

Field ID: SOMA 5-24' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-027 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Stoddard Solvent C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	62-138
Bromofluorobenzene (FID)	113	46-150

*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

V= Sample exhibits fuel pattern which does not resemble standard

N= See narrative

D= Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)

Matrix:	Soil	Basis:	as received
Units:	mg/Kg	Received:	10/15/01

Field ID: SOMA 5-26' Batch#: 67262
Type: SAMPLE Sampled: 10/12/01
Lab ID: 154761-028 Analyzed: 10/20/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	0.99
Stoddard Solvent C7-C12	ND	0.99

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	62-138
Bromofluorobenzene (FID)	101	46-150

Type: BLANK Batch#: 67230
Lab ID: QC159256 Analyzed: 10/18/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	100	46-150

Type: BLANK Batch#: 67232
Lab ID: QC159265 Analyzed: 10/19/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Stoddard Solvent C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	89	62-138
Bromofluorobenzene (FID)	88	46-150

*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits fuel pattern which does not resemble standard

See narrative

Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range

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GC04 TVH 'J' Data File FID

Sample Name : 154761-017, 67262, STODARD ONLY

FileName : G:\GC04\DATA\292J024.raw

Method : TVHBTXE

Start Time : 0.00 min End Time : 26.00 min

Scale Factor: 1.0 Plot Offset: 57 mV

Sample #:

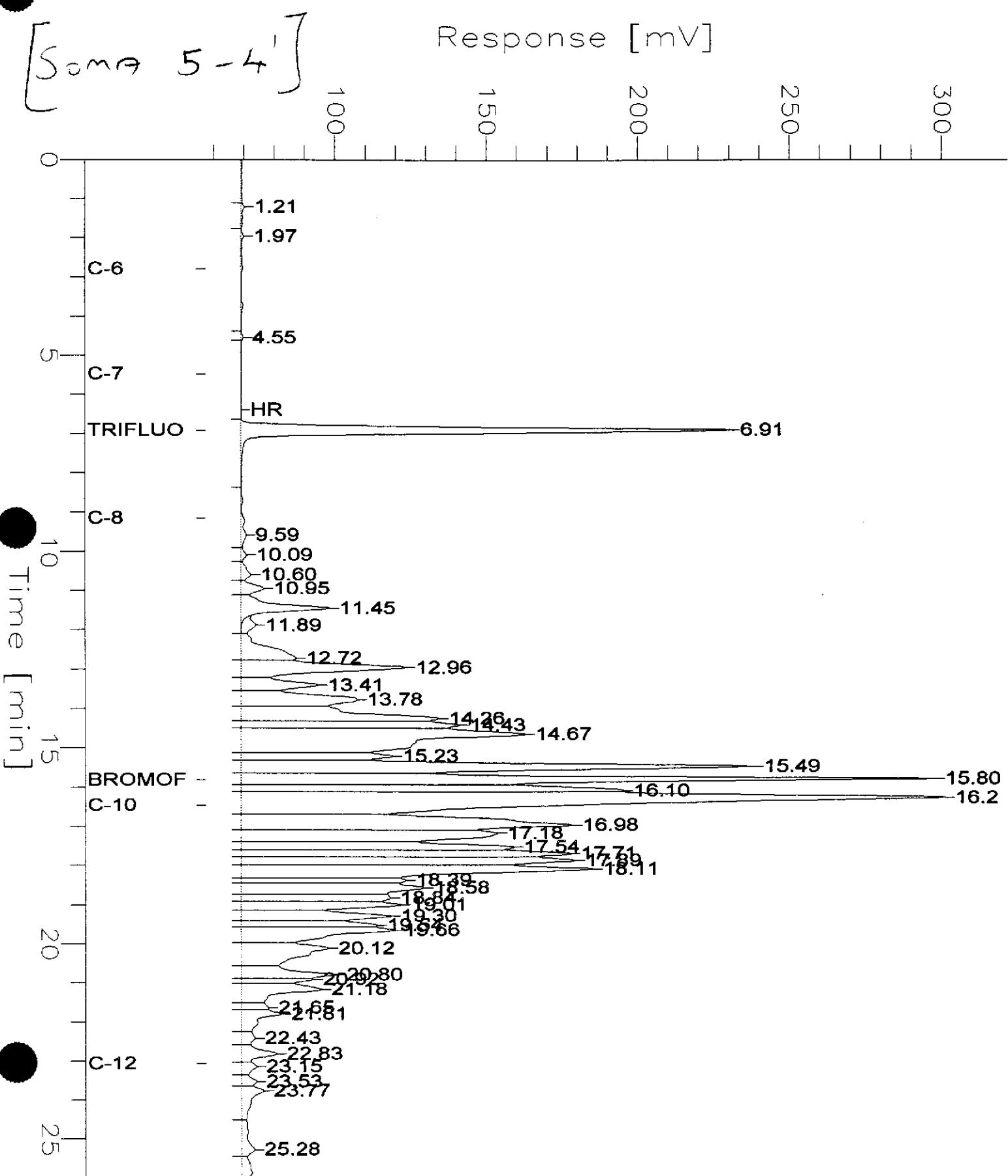
Page 1 of 1

Date : 10/22/01 10:45 AM

Time of Injection: 10/20/01 05:36 AM

Low Point : 57.32 mV High Point : 301.53 mV

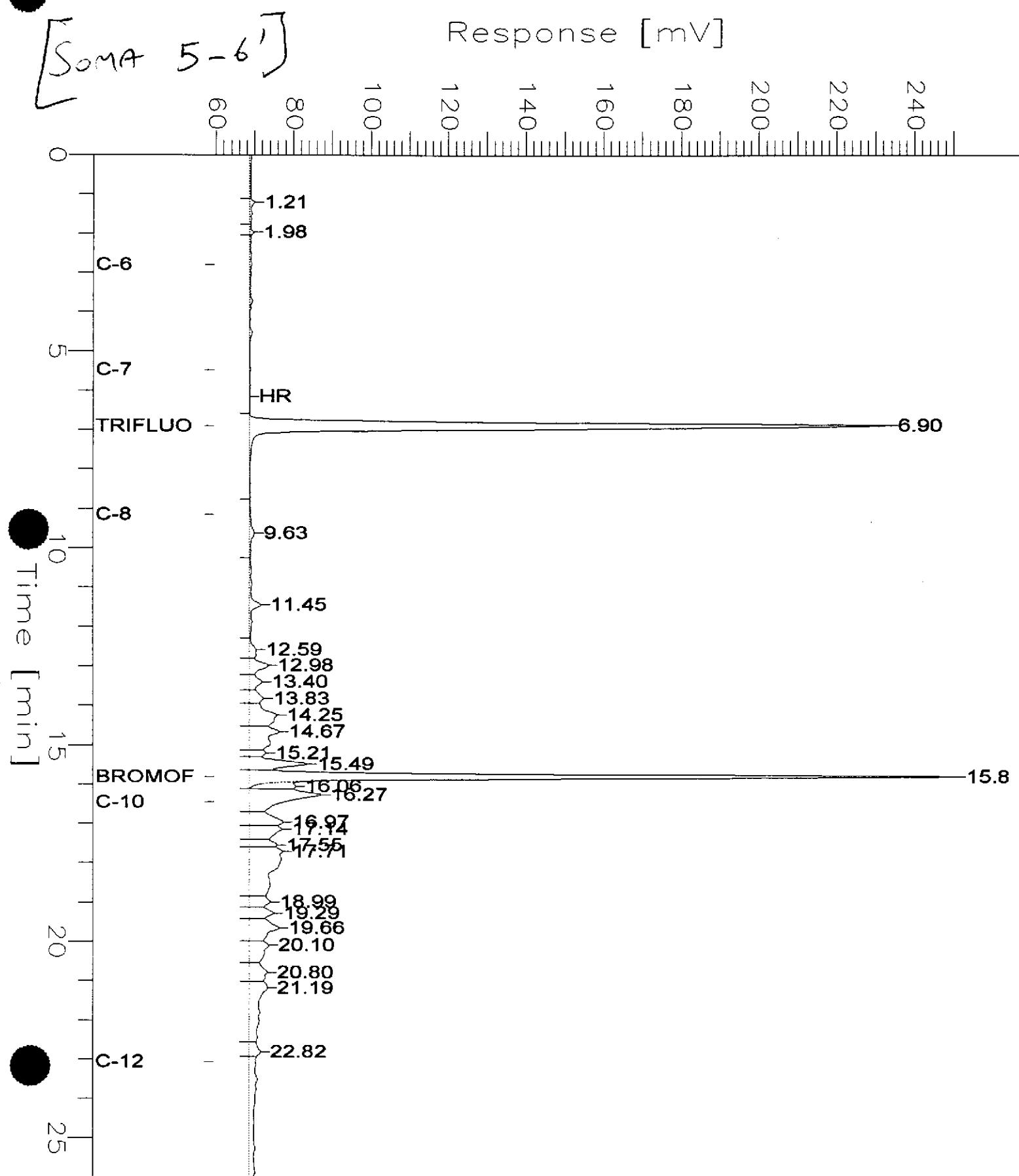
Plot Scale: 244.2 mV



GC04 TVH 'J' Data File FID

Sample Name : 154761-018,67262,STODARD ONLY
FileName : G:\GC04\DATA\292J025.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 60 mV

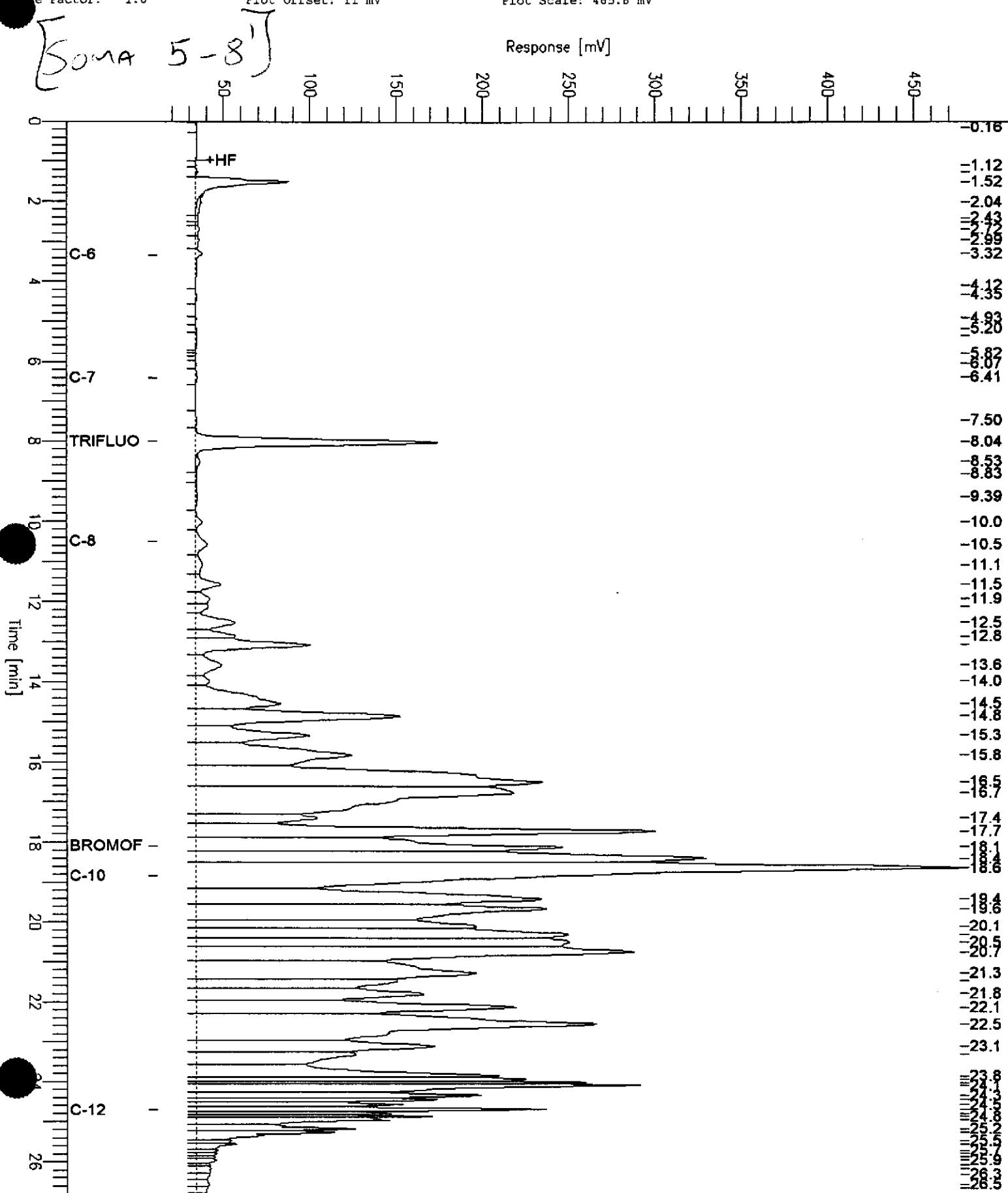
Sample #: Page 1 of 1
Date : 10/22/01 10:45 AM
Time of Injection: 10/20/01 06:12 AM
Low Point : 59.58 mV High Point : 251.05 mV
Plot Scale: 191.5 mV



GC19 TVH 'X' Data File (FID)

Sample Name : 154761-019,67232,+stodd
 FileName : G:\GC19\DATA\292X025.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.80 min
 Scale Factor: 1.0 Plot Offset: 11 mV

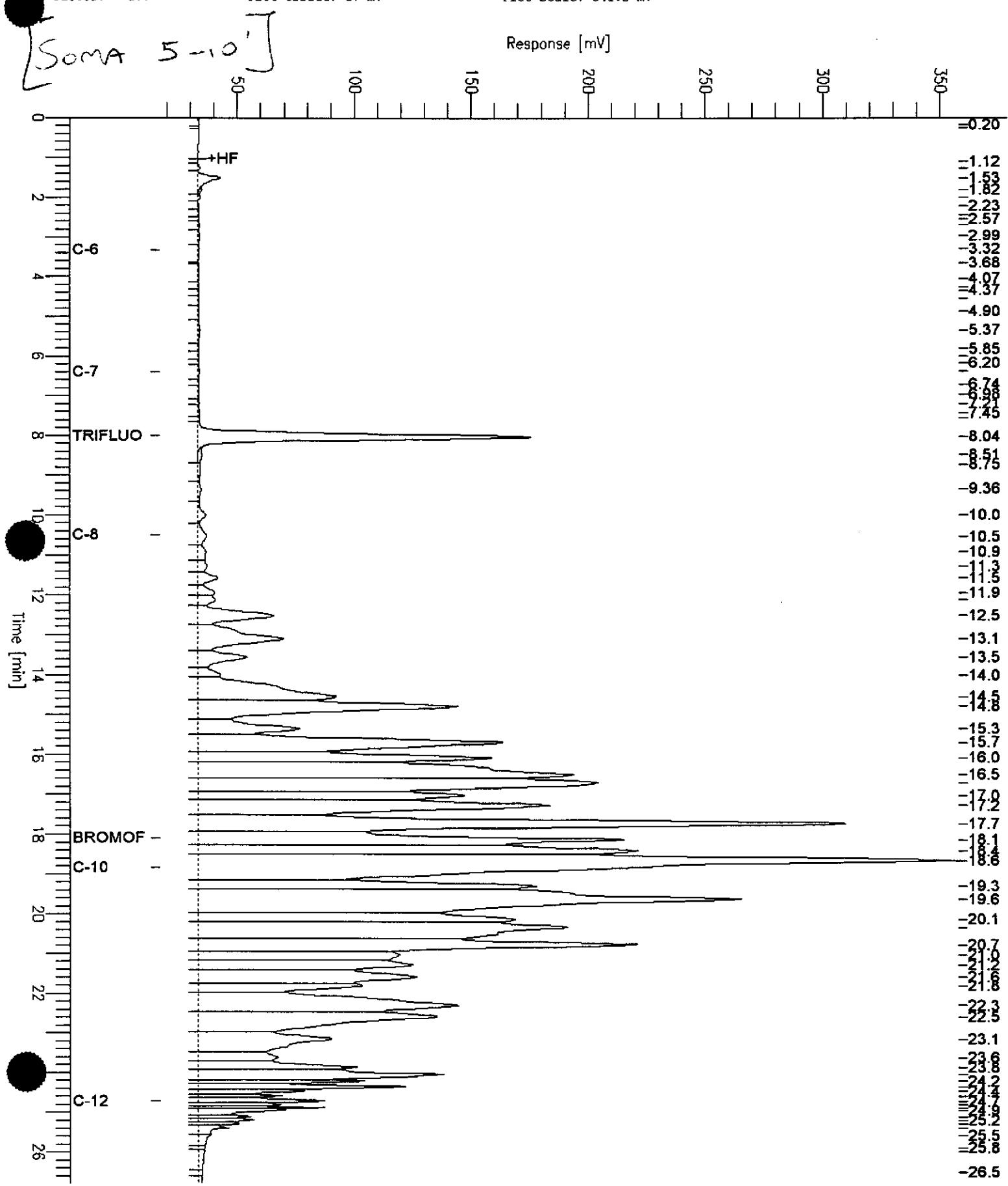
Sample #: a Page 1 of 1
 Date : 10/20/01 04:37 PM
 Time of Injection: 10/20/01 12:19 AM
 Low Point : 11.48 mV High Point : 477.32 mV
 Plot Scale: 465.8 mV



GC19 TVH 'X' Data File (FID)

Sample Name : 154761-020,67232,+stodd
 FileName : G:\GC19\DATA\292X023.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.80 min
 Scale Factor: 1.0 Plot Offset: 17 mV

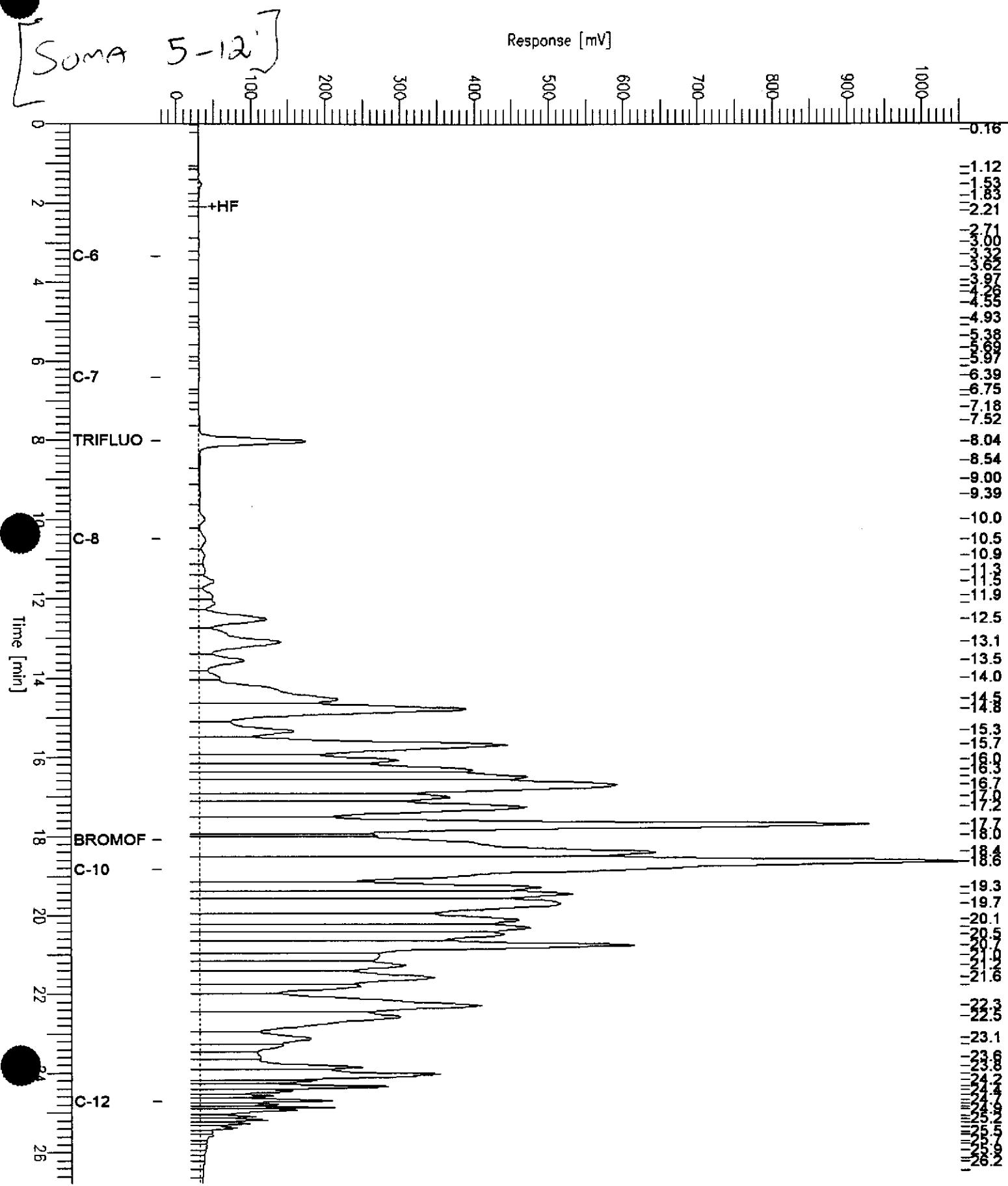
Sample #: a Page 1 of 1
 Date : 10/20/01 04:37 PM
 Time of Injection: 10/19/01 11:08 PM
 Low Point : 16.85 mV High Point : 358.05 mV
 Plot Scale: 341.2 mV



GC19 TVH 'X' Data File (FID)

Sample Name : 154761-021,67232,+stodd
 FileName : G:\GC19\DATA\292X020.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.80 min
 Scale Factor: 1.0 Plot Offset: -22 mV

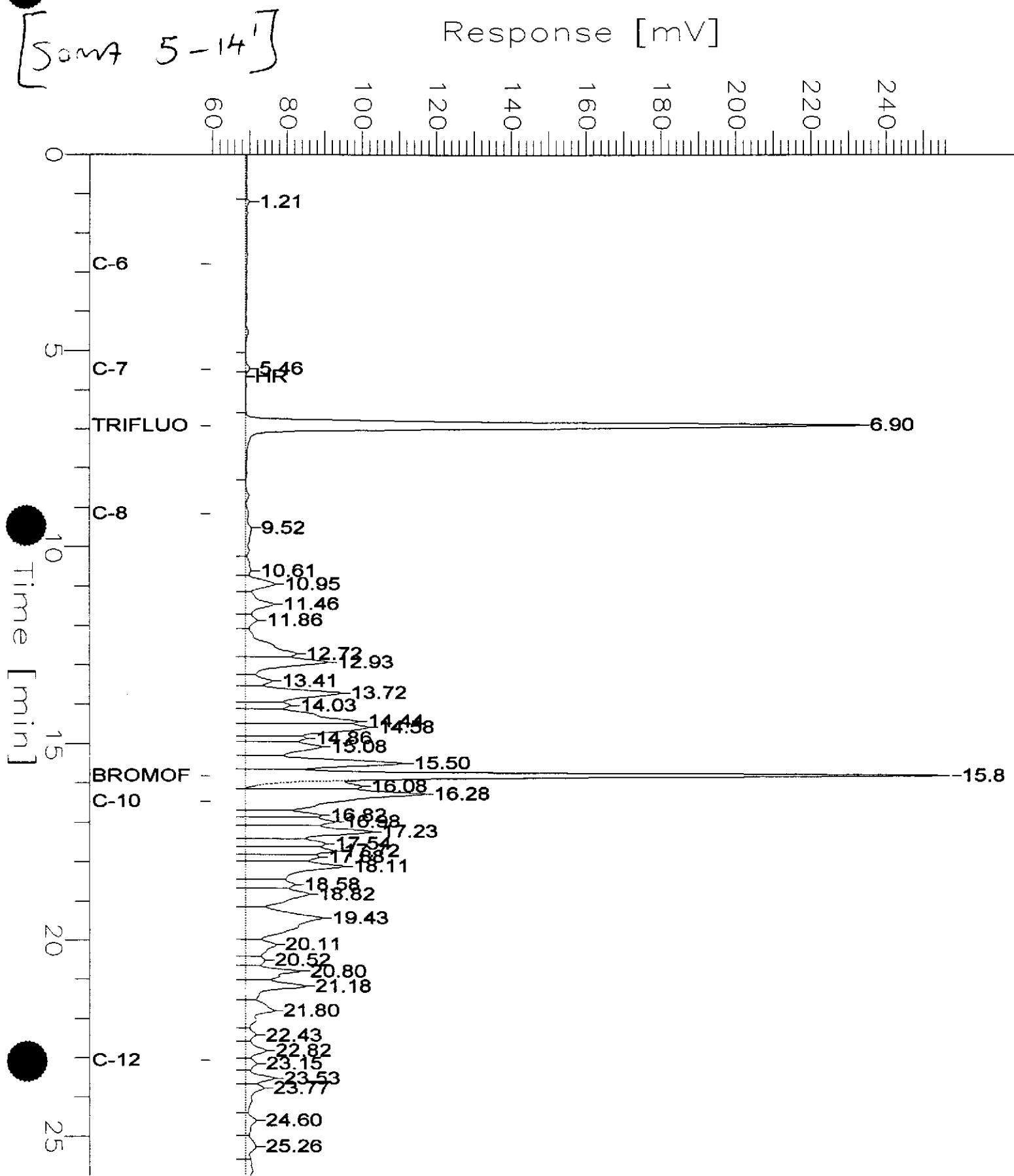
Sample #: a Page 1 of 1
 Date : 10/20/01 04:37 PM
 Time of Injection: 10/19/01 09:21 PM
 Low Point : -21.52 mV High Point : 1052.00 mV
 Plot Scale: 1073.5 mV



GC04 TVH 'J' Data File FID

Sample Name : 154761-022,67262,STODARD ONLY
FileName : G:\GC04\DATA\292J026.raw
Method : TVHBTEXE
Start Time : 0.00 min End Time : 26.00 min
Factor: 1.0 Plot Offset: 59 mV

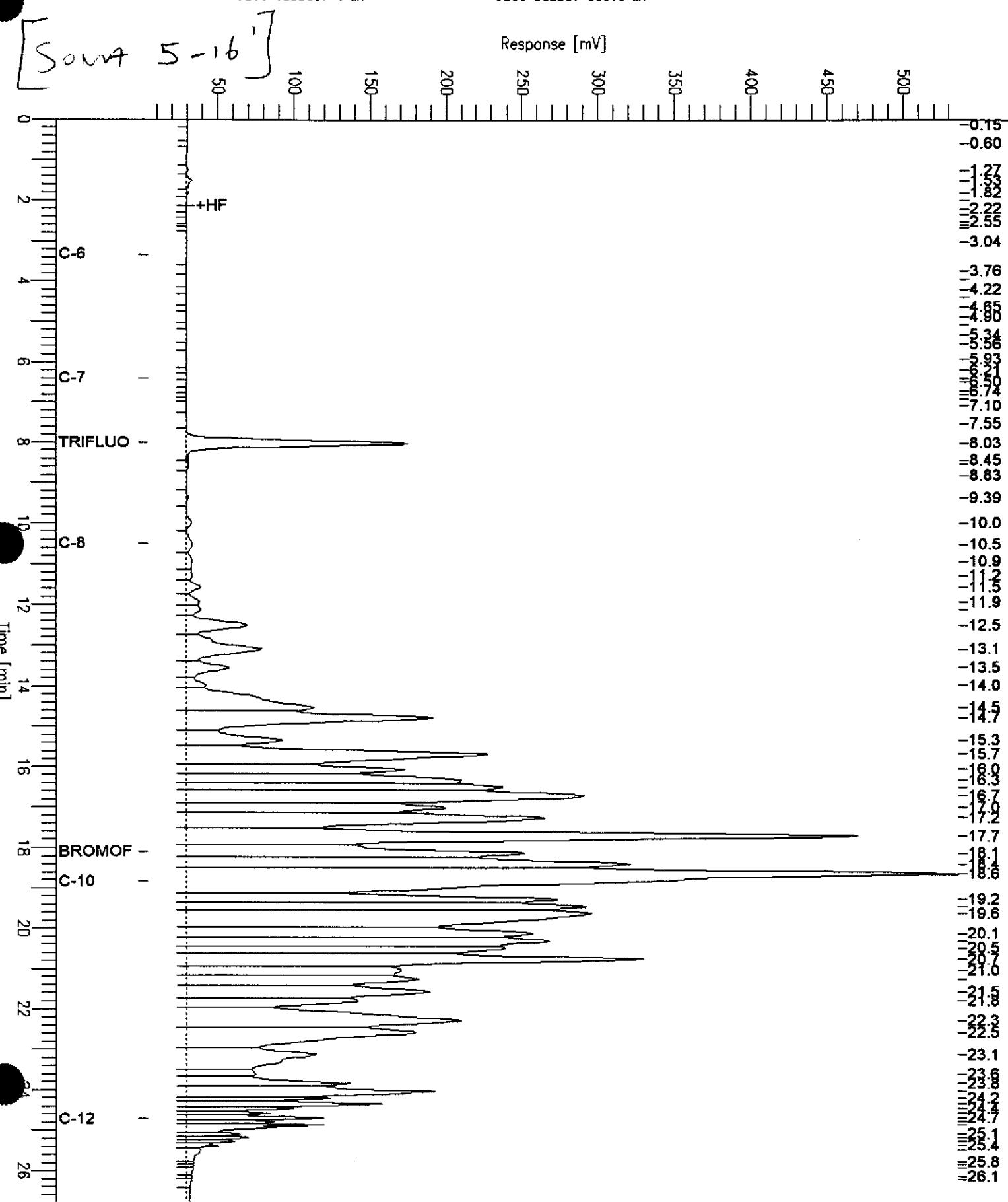
Sample #: Page 1 of 1
Date : 10/22/01 10:45 AM
Time of Injection: 10/20/01 06:47 AM
Low Point : 59.42 mV High Point : 257.85 mV
Plot Scale: 198.4 mV



GC19 TVH 'X' Data File (FID)

Sample Name : 154761-023,67232,+stodd
 FileName : G:\GC19\DATA\292X019.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.80 min
 Scale Factor: 1.0 Plot Offset: 4 mV

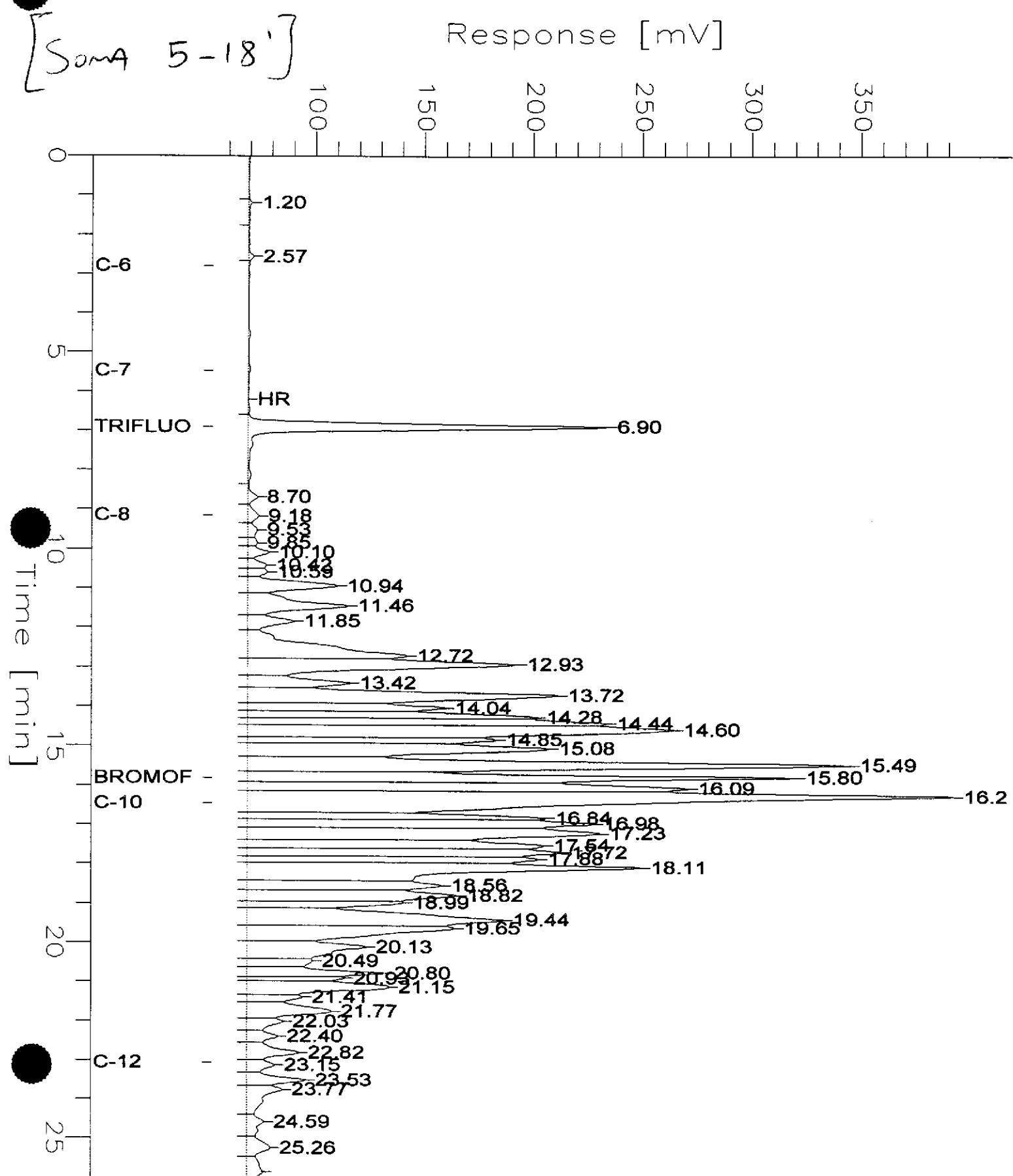
Sample #: a Page 1 of 1
 Date : 10/20/01 04:37 PM
 Time of Injection: 10/19/01 08:45 PM
 Low Point : 3.85 mV High Point : 537.36 mV
 Plot Scale: 533.5 mV



GC04 TVH 'J' Data File FID

Sample Name : 154761-024, 67262, STODARD ONLY
FileName : G:\GC04\DATA\292J027.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Factor: 1.0 Plot Offset: 53 mV

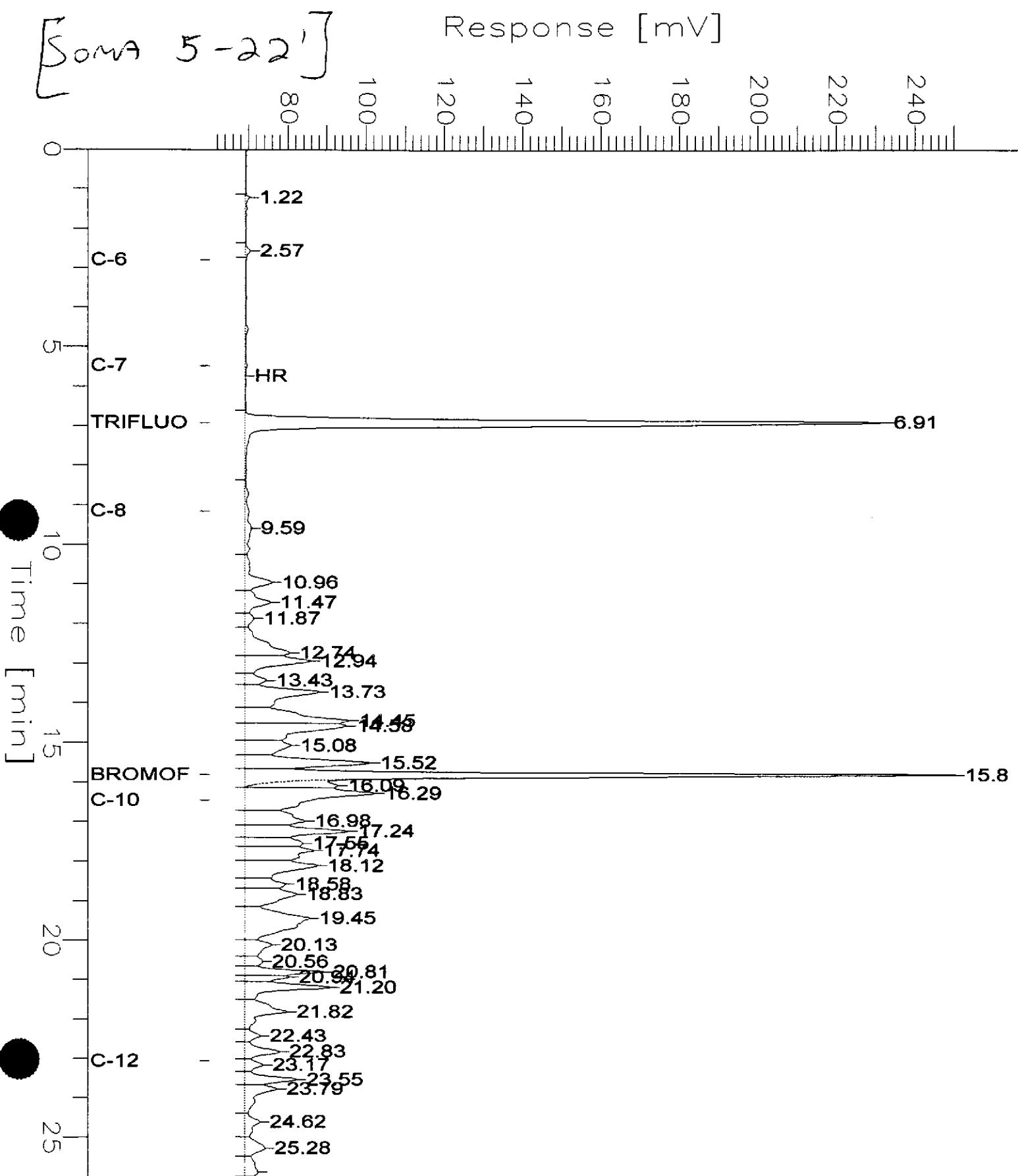
Sample #: Page 1 of 1
Date : 10/22/01 10:45 AM
Time of Injection: 10/20/01 07:22 AM
Low Point : 52.76 mV High Point : 393.31 mV
Plot Scale: 340.5 mV



GC04 TVH 'J' Data File FID

Sample Name : 154761-026,67262,STODARD ONLY
FileName : G:\GC04\DATA\292J031.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 60 mV

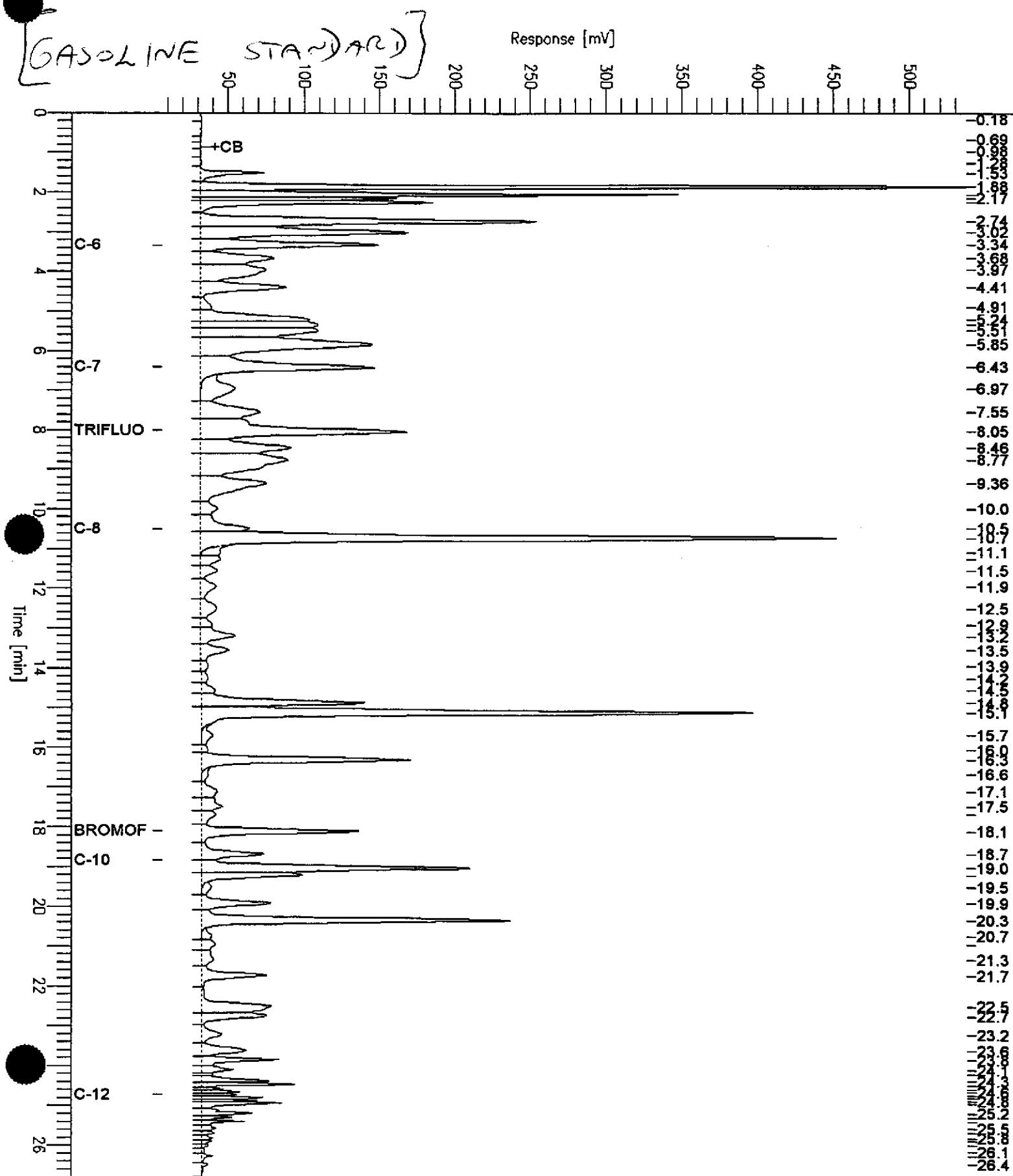
Sample #: Page 1 of 1
Date : 10/22/01 10:45 AM
Time of Injection: 10/20/01 09:44 AM
Low Point : 60.08 mV High Point : 250.59 mV
Plot Scale: 190.5 mV



GC19 TVH 'X' Data File (FID)

Sample Name : ccv/lcs,qc159266,67232,01ws2019,5/5000
 FileName : G:\GC19\DATA\292X004.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.80 min
 Scale Factor: 1.0 Plot Offset: 6 mV

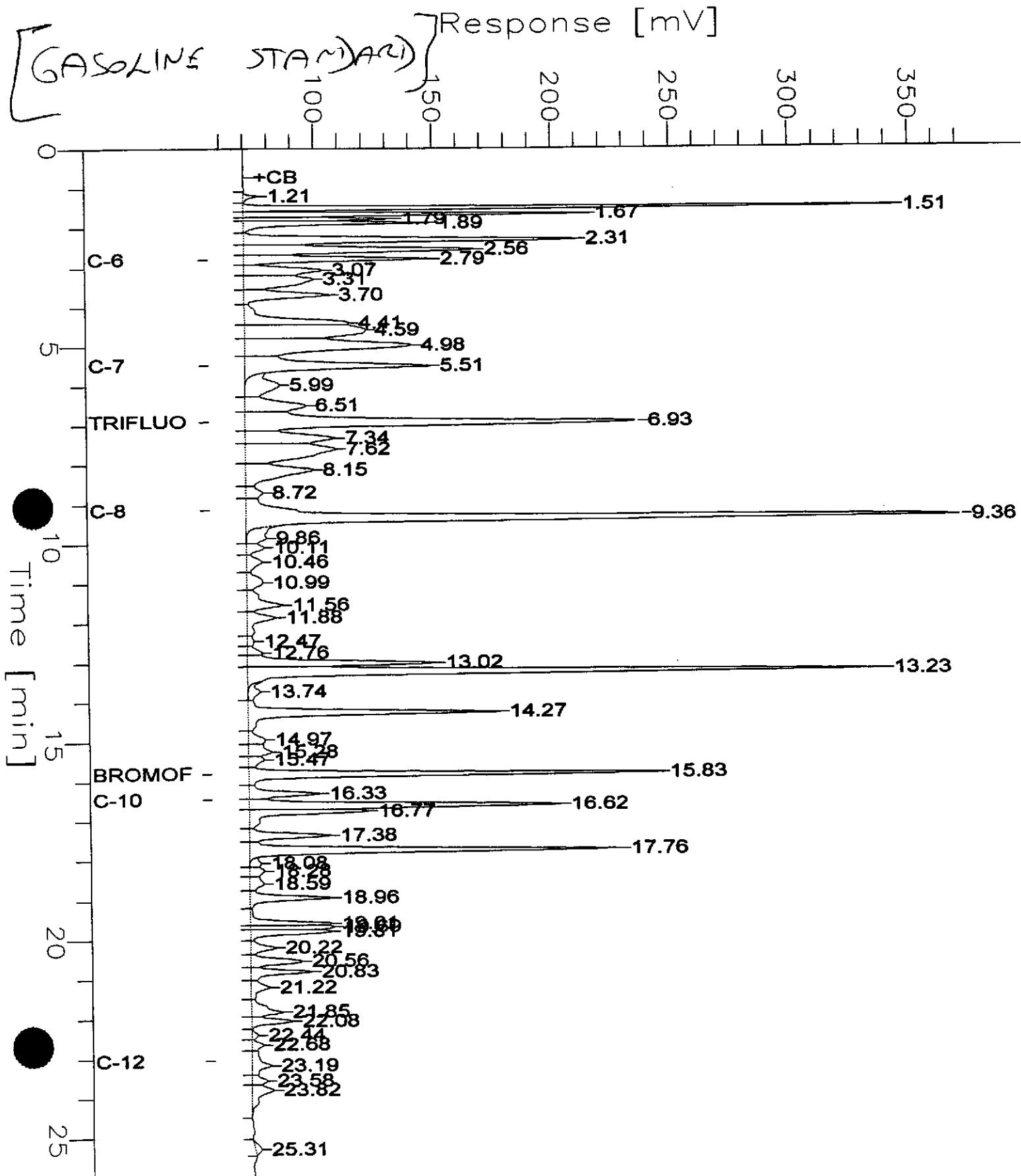
Sample #: Page 1 of 1
 Date : 10/19/01 11:33 AM
 Time of Injection: 10/19/01 11:06 AM
 Low Point : 6.12 mV High Point : 537.24 mV
 Plot Scale: 531.1 mV



GC04 TVH 'J' Data File FID

Sample Name : CCV/LCS,QC158280,66976,01WS1795,5/5000
 FileName : G:\GC04\DATA\282J004.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor: 1.0

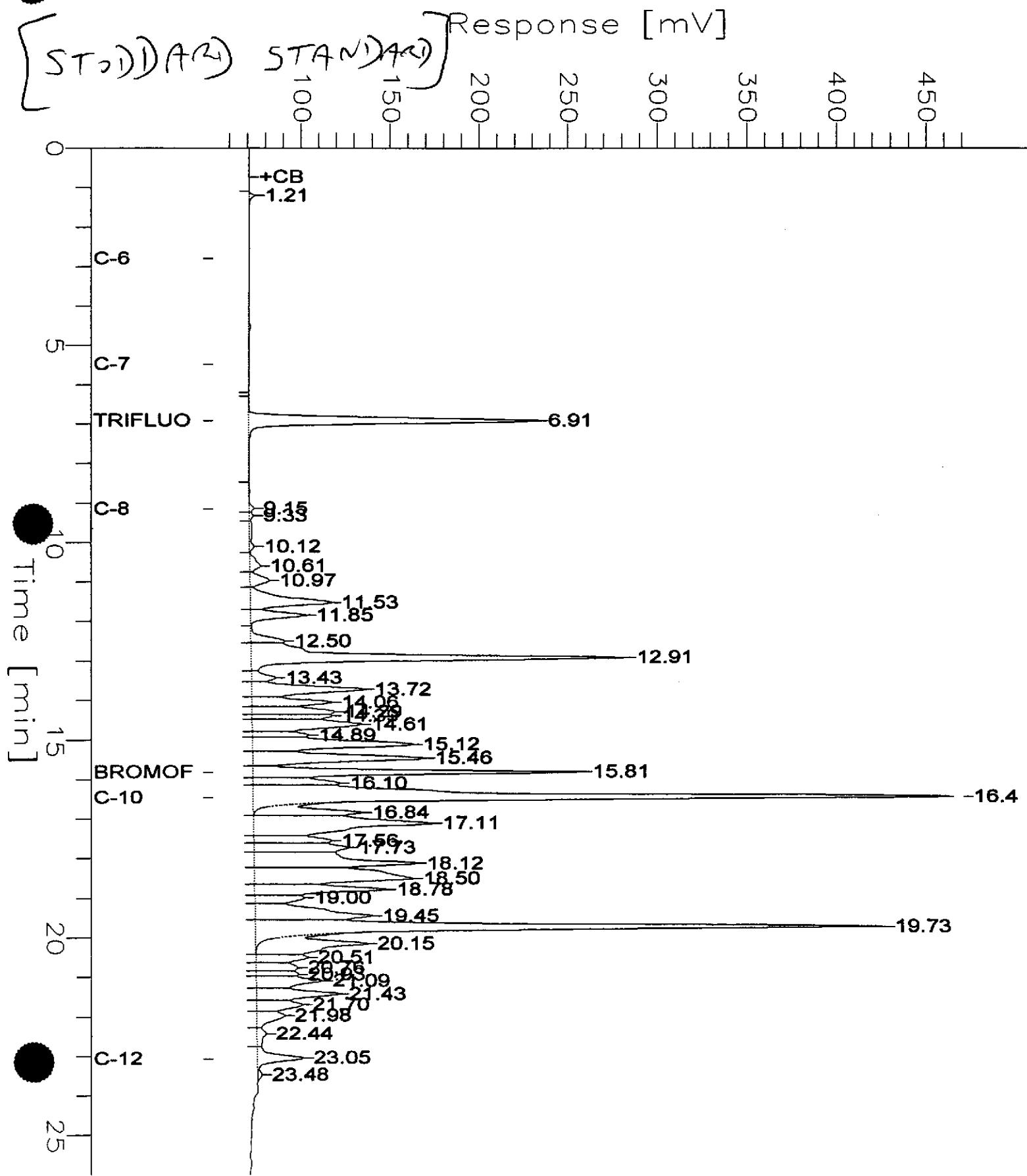
Sample #: Page 1 of 1
 Date : 10/9/01 08:18 PM
 Time of Injection: 10/9/01 07:52 PM
 Low Point : 55.13 mV High Point : 371.71 mV
 Plot Offset: 55 mV Plot Scale: 316.6 mV



GC04 TVH 'J' Data File FID

Sample Name : CCV,STODD,66976,01WS1801,5/5000
 FileName : G:\GC04\DATA\282J013.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.00 min
 S Factor: 1.0 Plot Offset: 51 mV

Sample #: Page 1 of 1
 Date : 10/10/01 01:38 AM
 Time of Injection: 10/10/01 01:12 AM
 Low Point : 50.79 mV High Point : 471.46 mV
 Plot Scale: 420.7 mV



Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-2'	Diln Fac:	0.9804
Lab ID:	154761-001	Batch#:	67139
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/16/01

Analyte	Result	RL
Freon 12	ND	9.8
Chloromethane	ND	9.8
Vinyl Chloride	ND	9.8
Bromomethane	ND	9.8
Chloroethane	ND	9.8
Trichlorofluoromethane	ND	4.9
Acetone	ND	20
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	20
Carbon Disulfide	ND	4.9
BE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.8
cis-1,2-Dichloroethene	32	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	7.4	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.8
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.8
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	50	4.9

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-2'	Diln Fac:	0.9804
Lab ID:	154761-001	Batch#:	67139
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/16/01

Analyte	Result	RL
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
2-Chlorobenzene	ND	4.9
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	REC	Limits
Dibromofluoromethane	102	63-133
1,2-Dichloroethane-d4	107	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	102	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-4'	Diln Fac:	0.9434
Lab ID:	154761-002	Batch#:	67139
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/16/01

Analyte	Result	RI
Freon 12	ND	9.4
Chloromethane	ND	9.4
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Chloroethane	ND	9.4
Trichlorofluoromethane	ND	4.7
Acetone	130	19
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
MTBE	ND	4.7
trans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	4.7
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.4
cis-1,2-Dichloroethene	58	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	39	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.4
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	450 >LR b	4.7
Dibromochloromethane	ND	4.7
1,2-Dibromoethane	ND	4.7
Chlorobenzene	ND	4.7
1,1,1,2-Tetrachloroethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7
Styrene	ND	4.7
Bromoform	ND	4.7
Isopropylbenzene	ND	4.7
1,1,2,2-Tetrachloroethane	ND	4.7
1,2,3-Trichloropropane	ND	4.7
Propylbenzene	ND	4.7
Bromobenzene	ND	4.7
1,3,5-Trimethylbenzene	ND	4.7
2-Chlorotoluene	ND	4.7

= See narrative

ND= Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-4'	Diln Fac:	0.9434
Lab ID:	154761-002	Batch#:	67139
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/16/01

Analyte	Result	RI
4-Chlorotoluene	ND	4.7
tert-Butylbenzene	ND	4.7
1,2,4-Trimethylbenzene	ND	4.7
sec-Butylbenzene	ND	4.7
para-Isopropyl Toluene	ND	4.7
1,3-Dichlorobenzene	ND	4.7
1,4-Dichlorobenzene	ND	4.7
n-Butylbenzene	ND	4.7
1,2-Dichlorobenzene	ND	4.7
1,2-Dibromo-3-Chloropropane	ND	4.7
1,2,4-Trichlorobenzene	ND	4.7
Hexachlorobutadiene	ND	4.7
Naphthalene	ND	4.7
1,2,3-Trichlorobenzene	ND	4.7

Surrogate	REC	Limits
Dibromofluoromethane	103	63-133
1,2-Dichloroethane-d4	109	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	104	77-126

See narrative

Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-6'	Diln Fac:	0.9615
Lab ID:	154761-003	Batch#:	67139
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/16/01

Analyte	Result	RI
Freon 12	ND	9.6
Chloromethane	ND	9.6
Vinyl Chloride	ND	9.6
Bromomethane	ND	9.6
Chloroethane	ND	9.6
Trichlorofluoromethane	ND	4.8
Acetone	40	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
MTBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	4.8
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.6
cis-1,2-Dichloroethene	140	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	46	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.6
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.6
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	210 >LR b	4.8
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
1,2,3-Trichloropropane	ND	4.8
Propylbenzene	ND	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8

See narrative

Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-6'	Diln Fac:	0.9615
Lab ID:	154761-003	Batch#:	67139
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/16/01

Analyte	Result	RL
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	ND	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	REC	Limits
Dibromofluoromethane	106	63-133
1,2-Dichloroethane-d4	107	76-127
Toluene-d8	99	80-111
Bromofluorobenzene	103	77-126

See narrative

Not Detected

ND= Reporting Limit

>LR= Response exceeds instrument's linear range

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-8'	Diln Fac:	100.0
Lab ID:	154761-004	Batch#:	67210
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/19/01

Analyte	Result	RL
Freon 12	ND	1,000
Chloromethane	ND	1,000
Vinyl Chloride	ND	1,000
Bromomethane	ND	1,000
Chloroethane	ND	1,000
Trichlorofluoromethane	ND	500
Acetone	ND	2,000
Freon 113	ND	500
1,1-Dichloroethene	ND	500
Methylene Chloride	ND	2,000
Carbon Disulfide	ND	500
MTBE	ND	500
trans-1,2-Dichloroethene	ND	500
Vinyl Acetate	ND	5,000
1,1-Dichloroethane	ND	500
2-Butanone	ND	1,000
cis-1,2-Dichloroethene	ND	500
2,2-Dichloropropane	ND	500
Chloroform	ND	500
Bromochloromethane	ND	500
1,1-Trichloroethane	ND	500
1-Dichloropropene	ND	500
Carbon Tetrachloride	ND	500
1,2-Dichloroethane	ND	500
Benzene	ND	500
Trichloroethene	720	500
1,2-Dichloropropane	ND	500
Bromodichloromethane	ND	500
Dibromomethane	ND	500
4-Methyl-2-Pentanone	ND	1,000
cis-1,3-Dichloropropene	ND	500
Toluene	ND	500
trans-1,3-Dichloropropene	ND	500
1,1,2-Trichloroethane	ND	500
2-Hexanone	ND	1,000
1,3-Dichloropropane	ND	500
Tetrachloroethene	34,000 >LR b	500
Dibromochloromethane	ND	500
1,2-Dibromoethane	ND	500
Chlorobenzene	ND	500
1,1,1,2-Tetrachloroethane	ND	500
Ethylbenzene	ND	500
m,p-Xylenes	ND	500
o-Xylene	ND	500
Styrene	ND	500
Bromoform	ND	500
Isopropylbenzene	ND	500
1,1,2,2-Tetrachloroethane	ND	500
1,2,3-Trichloropropane	ND	500
Propylbenzene	ND	500
Bromobenzene	ND	500
1,3,5-Trimethylbenzene	ND	500
2-Chlorotoluene	ND	500

See narrative

Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-8'	Diln Fac:	100.0
Lab ID:	154761-004	Batch#:	67210
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/19/01

Analyte	Result	RI
4-Chlorotoluene	ND	500
tert-Butylbenzene	ND	500
1,2,4-Trimethylbenzene	ND	500
sec-Butylbenzene	ND	500
para-Isopropyl Toluene	ND	500
1,3-Dichlorobenzene	ND	500
1,4-Dichlorobenzene	ND	500
n-Butylbenzene	ND	500
1,2-Dichlorobenzene	ND	500
1,2-Dibromo-3-Chloropropane	ND	500
1,2,4-Trichlorobenzene	ND	500
Hexachlorobutadiene	ND	500
Naphthalene	ND	500
1,2,3-Trichlorobenzene	ND	500

Surrogate	REC	Limits
Dibromofluoromethane	102	63-133
1,2-Dichloroethane-d4	105	76-127
Toluene-d8	98	80-111
Bromofluorobenzene	121	77-126

See narrative

Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-10'	Diln Fac:	200.0
Lab ID:	154761-005	Batch#:	67324
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/24/01

Analyte	Result	RL
Freon 12	ND	2,000
Chloromethane	ND	2,000
Vinyl Chloride	ND	2,000
Bromomethane	ND	2,000
Chloroethane	ND	2,000
Trichlorofluoromethane	ND	1,000
Acetone	ND	4,000
Freon 113	ND	1,000
1,1-Dichloroethene	ND	1,000
Methylene Chloride	ND	4,000
Carbon Disulfide	ND	1,000
BE	ND	1,000
trans-1,2-Dichloroethene	ND	1,000
Vinyl Acetate	ND	10,000
1,1-Dichloroethane	ND	1,000
2-Butanone	ND	2,000
cis-1,2-Dichloroethene	ND	1,000
2,2-Dichloropropane	ND	1,000
Chloroform	ND	1,000
Bromochloromethane	ND	1,000
1,1,1-Trichloroethane	ND	1,000
1,1-Dichloropropene	ND	1,000
Carbon Tetrachloride	ND	1,000
1,2-Dichloroethane	ND	1,000
Benzene	ND	1,000
Trichloroethene	1,400	1,000
1,2-Dichloropropane	ND	1,000
Bromodichloromethane	ND	1,000
Dibromomethane	ND	1,000
4-Methyl-2-Pentanone	ND	2,000
cis-1,3-Dichloropropene	ND	1,000
Toluene	ND	1,000
trans-1,3-Dichloropropene	ND	1,000
1,1,2-Trichloroethane	ND	1,000
2-Hexanone	ND	2,000
1,3-Dichloropropane	ND	1,000
Tetrachloroethene	1,400	1,000

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-10'	Diln Fac:	200.0
Lab ID:	154761-005	Batch#:	67324
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/24/01

Analyte	Result	RL
Dibromochloromethane	ND	1,000
1,2-Dibromoethane	ND	1,000
Chlorobenzene	ND	1,000
1,1,1,2-Tetrachloroethane	ND	1,000
Ethylbenzene	ND	1,000
m,p-Xylenes	ND	1,000
o-Xylene	ND	1,000
Styrene	ND	1,000
Bromoform	ND	1,000
Isopropylbenzene	ND	1,000
1,1,2,2-Tetrachloroethane	ND	1,000
2,3-Trichloropropane	ND	1,000
Propylbenzene	ND	1,000
Bromobenzene	ND	1,000
1,3,5-Trimethylbenzene	ND	1,000
2-Chlorotoluene	ND	1,000
4-Chlorotoluene	ND	1,000
tert-Butylbenzene	ND	1,000
1,2,4-Trimethylbenzene	ND	1,000
sec-Butylbenzene	ND	1,000
para-Isopropyl Toluene	ND	1,000
1,3-Dichlorobenzene	ND	1,000
1,4-Dichlorobenzene	ND	1,000
n-Butylbenzene	ND	1,000
1,2-Dichlorobenzene	ND	1,000
1,2-Dibromo-3-Chloropropane	ND	1,000
1,2,4-Trichlorobenzene	ND	1,000
Hexachlorobutadiene	ND	1,000
Naphthalene	9,300	1,000
1,2,3-Trichlorobenzene	ND	1,000

Surrogate	REC	Limits
Dibromofluoromethane	99	63-133
1,2-Dichloroethane-d4	102	76-127
Toluene-d8	100	80-111
Bromofluorobenzene	126	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-12'	Diln Fac:	100.0
Lab ID:	154761-006	Batch#:	67281
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/22/01

Analyte	Result	RL
Freon 12	ND	1,000
Chloromethane	ND	1,000
Vinyl Chloride	ND	1,000
Bromomethane	ND	1,000
Chloroethane	ND	1,000
Trichlorofluoromethane	ND	500
Acetone	ND	2,000
Freon 113	ND	500
1,1-Dichloroethene	ND	500
Methylene Chloride	ND	2,000
Carbon Disulfide	ND	500
BE	ND	500
trans-1,2-Dichloroethene	ND	500
Vinyl Acetate	ND	5,000
1,1-Dichloroethane	ND	500
2-Butanone	ND	1,000
cis-1,2-Dichloroethene	ND	500
2,2-Dichloropropane	ND	500
Chloroform	ND	500
Bromochloromethane	ND	500
1,1,1-Trichloroethane	ND	500
1,1-Dichloropropene	ND	500
Carbon Tetrachloride	ND	500
1,2-Dichloroethane	ND	500
Benzene	ND	500
Trichloroethene	ND	500
1,2-Dichloropropane	ND	500
Bromodichloromethane	ND	500
Dibromomethane	ND	500
4-Methyl-2-Pentanone	ND	1,000
cis-1,3-Dichloropropene	ND	500
Toluene	ND	500
trans-1,3-Dichloropropene	ND	500
1,1,2-Trichloroethane	ND	500
2-Hexanone	ND	1,000
1,3-Dichloropropane	ND	500
Tetrachloroethene	ND	500

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-12'	Diln Fac:	100.0
Lab ID:	154761-006	Batch#:	67281
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/22/01

Analyte	Result	RL
Dibromochloromethane	ND	500
1,2-Dibromoethane	ND	500
Chlorobenzene	ND	500
1,1,1,2-Tetrachloroethane	ND	500
Ethylbenzene	ND	500
m,p-Xylenes	ND	500
o-Xylene	ND	500
Styrene	ND	500
Bromoform	ND	500
Isopropylbenzene	ND	500
1,1,2,2-Tetrachloroethane	ND	500
2,3-Trichloropropane	ND	500
Propylbenzene	ND	500
Bromobenzene	ND	500
1,3,5-Trimethylbenzene	ND	500
2-Chlorotoluene	ND	500
4-Chlorotoluene	ND	500
tert-Butylbenzene	ND	500
1,2,4-Trimethylbenzene	680	500
sec-Butylbenzene	ND	500
para-Isopropyl Toluene	ND	500
1,3-Dichlorobenzene	ND	500
1,4-Dichlorobenzene	ND	500
n-Butylbenzene	ND	500
1,2-Dichlorobenzene	ND	500
1,2-Dibromo-3-Chloropropane	ND	500
1,2,4-Trichlorobenzene	ND	500
Hexachlorobutadiene	ND	500
Naphthalene	ND	500
1,2,3-Trichlorobenzene	ND	500

Surrogate	%REC	Limits
Dibromofluoromethane	102	63-133
1,2-Dichloroethane-d4	103	76-127
Toluene-d8	103	80-111
Bromofluorobenzene	108	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-14'	Diln Fac:	25.00
Lab ID:	154761-007	Batch#:	67210
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/18/01

Analyte	Result	RL
Freon 12	ND	250
Chloromethane	ND	250
Vinyl Chloride	ND	250
Bromomethane	ND	250
Chloroethane	ND	250
Trichlorofluoromethane	ND	130
Acetone	ND	500
Freon 113	ND	130
1,1-Dichloroethene	ND	130
Methylene Chloride	ND	500
Carbon Disulfide	ND	130
BE	ND	130
trans-1,2-Dichloroethene	ND	130
Vinyl Acetate	ND	1,300
1,1-Dichloroethane	ND	130
2-Butanone	ND	250
cis-1,2-Dichloroethene	ND	130
2,2-Dichloropropane	ND	130
Chloroform	ND	130
Bromochloromethane	ND	130
1,1,1-Trichloroethane	ND	130
1,1-Dichloropropene	ND	130
Carbon Tetrachloride	ND	130
1,2-Dichloroethane	ND	130
Benzene	ND	130
Trichloroethene	ND	130
1,2-Dichloropropane	ND	130
Bromodichloromethane	ND	130
Dibromomethane	ND	130
4-Methyl-2-Pentanone	ND	250
cis-1,3-Dichloropropene	ND	130
Toluene	ND	130
trans-1,3-Dichloropropene	ND	130
1,1,2-Trichloroethane	ND	130
2-Hexanone	ND	250
1,3-Dichloropropane	ND	130
Tetrachloroethene	ND	130

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-14'	Diln Fac:	25.00
Lab ID:	154761-007	Batch#:	67210
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/18/01

Analyte	Result	RL
Dibromochloromethane	ND	130
1,2-Dibromoethane	ND	130
Chlorobenzene	ND	130
1,1,1,2-Tetrachloroethane	ND	130
Ethylbenzene	ND	130
m,p-Xylenes	ND	130
o-Xylene	ND	130
Styrene	ND	130
Bromoform	ND	130
Isopropylbenzene	ND	130
1,1,2,2-Tetrachloroethane	ND	130
1,2,3-Trichloropropane	ND	130
Propylbenzene	210	130
Bromobenzene	ND	130
1,3,5-Trimethylbenzene	240	130
2-Chlorotoluene	ND	130
4-Chlorotoluene	ND	130
tert-Butylbenzene	ND	130
1,2,4-Trimethylbenzene	540	130
sec-Butylbenzene	370	130
para-Isopropyl Toluene	190	130
1,3-Dichlorobenzene	ND	130
1,4-Dichlorobenzene	ND	130
n-Butylbenzene	440	130
1,2-Dichlorobenzene	ND	130
1,2-Dibromo-3-Chloropropane	ND	130
1,2,4-Trichlorobenzene	ND	130
Hexachlorobutadiene	ND	130
Naphthalene	ND	130
1,2,3-Trichlorobenzene	ND	130

Surrogate	%REC	Limits
Dibromofluoromethane	96	63-133
1,2-Dichloroethane-d4	100	76-127
Toluene-d8	99	80-111
Bromofluorobenzene	115	77-126

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-16'	Diln Fac:	1.064
Lab ID:	154761-008	Batch#:	67139
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/16/01

Analyte	Result	RL
Freon 12	ND	11
Chloromethane	ND	11
Vinyl Chloride	ND	11
Bromomethane	ND	11
Chloroethane	ND	11
Trichlorofluoromethane	ND	5.3
Acetone	24	21
Freon 113	ND	5.3
1,1-Dichloroethene	ND	5.3
Methylene Chloride	ND	21
Carbon Disulfide	ND	5.3
BE	ND	5.3
trans-1,2-Dichloroethene	ND	5.3
Vinyl Acetate	ND	53
1,1-Dichloroethane	ND	5.3
2-Butanone	ND	11
cis-1,2-Dichloroethene	100	5.3
2,2-Dichloropropane	ND	5.3
Chloroform	ND	5.3
Bromochloromethane	ND	5.3
1,1,1-Trichloroethane	ND	5.3
1,1-Dichloropropene	ND	5.3
Carbon Tetrachloride	ND	5.3
1,2-Dichloroethane	ND	5.3
Benzene	ND	5.3
Trichloroethene	ND	5.3
1,2-Dichloropropane	ND	5.3
Bromodichloromethane	ND	5.3
Dibromomethane	ND	5.3
4-Methyl-2-Pentanone	ND	11
cis-1,3-Dichloropropene	ND	5.3
Toluene	ND	5.3
trans-1,3-Dichloropropene	ND	5.3
1,1,2-Trichloroethane	ND	5.3
2-Hexanone	ND	11
1,3-Dichloropropane	ND	5.3
Tetrachloroethene	39	5.3

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-16'	Diln Fac:	1.064
Lab ID:	154761-008	Batch#:	67139
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/16/01

Analyte	Result	RL
Dibromochloromethane	ND	5.3
1,2-Dibromoethane	ND	5.3
Chlorobenzene	ND	5.3
1,1,1,2-Tetrachloroethane	ND	5.3
Ethylbenzene	ND	5.3
m,p-Xylenes	ND	5.3
o-Xylene	ND	5.3
Styrene	ND	5.3
Bromoform	ND	5.3
Isopropylbenzene	ND	5.3
1,1,2,2-Tetrachloroethane	ND	5.3
2,3-Trichloropropane	ND	5.3
Propylbenzene	9.5	5.3
Bromobenzene	ND	5.3
1,3,5-Trimethylbenzene	16	5.3
2-Chlorotoluene	ND	5.3
4-Chlorotoluene	ND	5.3
tert-Butylbenzene	ND	5.3
1,2,4-Trimethylbenzene	35	5.3
sec-Butylbenzene	17	5.3
para-Isopropyl Toluene	9.6	5.3
1,3-Dichlorobenzene	ND	5.3
1,4-Dichlorobenzene	ND	5.3
n-Butylbenzene	18	5.3
1,2-Dichlorobenzene	ND	5.3
1,2-Dibromo-3-Chloropropane	ND	5.3
1,2,4-Trichlorobenzene	ND	5.3
Hexachlorobutadiene	ND	5.3
Naphthalene	ND	5.3
1,2,3-Trichlorobenzene	ND	5.3

Surrogate	#REC	Limits
Dibromofluoromethane	108	63-133
1,2-Dichloroethane-d4	111	76-127
Toluene-d8	103	80-111
Bromofluorobenzene	115	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-18'	Diln Fac:	0.9259
Lab ID:	154761-009	Batch#:	67139
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/16/01

Analyte	Result	RL
Freon 12	ND	9.3
Chloromethane	ND	9.3
Vinyl Chloride	ND	9.3
Bromomethane	ND	9.3
Chloroethane	ND	9.3
Trichlorofluoromethane	ND	4.6
Acetone	20	19
Freon 113	ND	4.6
1,1-Dichloroethene	ND	4.6
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.6
MTBE	ND	4.6
trans-1,2-Dichloroethene	ND	4.6
Vinyl Acetate	ND	4.6
1,1-Dichloroethane	ND	4.6
2-Butanone	ND	9.3
cis-1,2-Dichloroethene	280 >LR b	4.6
2,2-Dichloropropane	ND	4.6
Chloroform	ND	4.6
Bromochloromethane	ND	4.6
1,1-Trichloroethane	ND	4.6
1,1-Dichloropropene	ND	4.6
Carbon Tetrachloride	ND	4.6
1,2-Dichloroethane	ND	4.6
Benzene	ND	4.6
Trichloroethene	11	4.6
1,2-Dichloropropane	ND	4.6
Bromodichloromethane	ND	4.6
Dibromomethane	ND	4.6
4-Methyl-2-Pentanone	ND	9.3
cis-1,3-Dichloropropene	ND	4.6
Toluene	ND	4.6
trans-1,3-Dichloropropene	ND	4.6
1,1,2-Trichloroethane	ND	4.6
2-Hexanone	ND	9.3
1,3-Dichloropropane	ND	4.6
Tetrachloroethene	32	4.6
Dibromochloromethane	ND	4.6
1,2-Dibromoethane	ND	4.6
Chlorobenzene	ND	4.6
1,1,1,2-Tetrachloroethane	ND	4.6
Ethylbenzene	ND	4.6
m,p-Xylenes	ND	4.6
o-Xylene	ND	4.6
Styrene	ND	4.6
Bromoform	ND	4.6
Isopropylbenzene	ND	4.6
1,1,2,2-Tetrachloroethane	ND	4.6
1,2,3-Trichloropropane	ND	4.6
Propylbenzene	ND	4.6
Bromobenzene	ND	4.6
1,3,5-Trimethylbenzene	ND	4.6
2-Chlorotoluene	ND	4.6

See narrative

ND= Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-18'	Diln Fac:	0.9259
Lab ID:	154761-009	Batch#:	67139
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/16/01

Analyte	Result	RL
4-Chlorotoluene	ND	4.6
tert-Butylbenzene	ND	4.6
1,2,4-Trimethylbenzene	ND	4.6
sec-Butylbenzene	ND	4.6
para-Isopropyl Toluene	ND	4.6
1,3-Dichlorobenzene	ND	4.6
1,4-Dichlorobenzene	ND	4.6
n-Butylbenzene	ND	4.6
1,2-Dichlorobenzene	ND	4.6
1,2-Dibromo-3-Chloropropane	ND	4.6
1,2,4-Trichlorobenzene	ND	4.6
Hexachlorobutadiene	ND	4.6
Naphthalene	ND	4.6
1,2,3-Trichlorobenzene	ND	4.6

Surrogate	REC	Limits
Dibromofluoromethane	108	63-133
1,2-Dichloroethane-d4	110	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	111	77-126

See narrative

Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-20'	Diln Fac:	0.9615
Lab ID:	154761-010	Batch#:	67139
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/16/01

Analyte	Result	RL
Freon 12	ND	9.6
Chloromethane	ND	9.6
Vinyl Chloride	ND	9.6
Bromomethane	ND	9.6
Chloroethane	ND	9.6
Trichlorofluoromethane	ND	4.8
Acetone	25	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
TBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.6
cis-1,2-Dichloroethene	50	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.6
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.6
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	21	4.8

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-20'	Diln Fac:	0.9615
Lab ID:	154761-010	Batch#:	67139
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/16/01

Analyte	Result	RL
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
2,3-Trichloropropane	ND	4.8
Propylbenzene	5.5	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	8.8	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	21	4.8
sec-Butylbenzene	7.9	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	7.4	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	#REC	Limits
Dibromofluoromethane	105	63-133
1,2-Dichloroethane-d4	112	76-127
Toluene-d8	104	80-111
Bromofluorobenzene	110	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-22'	Diln Fac:	1.042
Lab ID:	154761-011	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RI
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.2
Acetone	100	21
Freon 113	ND	5.2
1,1-Dichloroethene	ND	5.2
Methylene Chloride	ND	21
Carbon Disulfide	ND	5.2
MTBE	11	5.2
trans-1,2-Dichloroethene	ND	5.2
Vinyl Acetate	ND	52
1,1-Dichloroethane	ND	5.2
2-Butanone	16	10
cis-1,2-Dichloroethene	180	5.2
2,2-Dichloropropane	ND	5.2
Chloroform	ND	5.2
Bromochloromethane	ND	5.2
1,1-Trichloroethane	ND	5.2
1,1-Dichloropropene	ND	5.2
Carbon Tetrachloride	ND	5.2
1,2-Dichloroethane	ND	5.2
Benzene	ND	5.2
Trichloroethene	ND	5.2
1,2-Dichloropropane	ND	5.2
Bromodichloromethane	ND	5.2
Dibromomethane	ND	5.2
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.2
Toluene	8.8	5.2
trans-1,3-Dichloropropene	ND	5.2
1,1,2-Trichloroethane	ND	5.2
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.2
Tetrachloroethene	27	5.2
Dibromochloromethane	ND	5.2
1,2-Dibromoethane	ND	5.2
Chlorobenzene	ND	5.2
1,1,1,2-Tetrachloroethane	ND	5.2
Ethylbenzene	6.8	5.2
m,p-Xylenes	37	5.2
o-Xylene	16	5.2
Styrene	ND	5.2
Bromoform	ND	5.2
Isopropylbenzene	22	5.2
1,1,2,2-Tetrachloroethane	ND	5.2
1,2,3-Trichloropropane	ND	5.2
Propylbenzene	48	5.2
Bromobenzene	ND	5.2
1,3,5-Trimethylbenzene	70	5.2
2-Chlorotoluene	ND	5.2
4-Chlorotoluene	ND	5.2

Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-22'	Diln Fac:	1.042
Lab ID:	154761-011	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
tert-Butylbenzene	ND	5.2
1,2,4-Trimethylbenzene	180	5.2
sec-Butylbenzene	34	5.2
para-Isopropyl Toluene	20	5.2
1,3-Dichlorobenzene	ND	5.2
1,4-Dichlorobenzene	ND	5.2
n-Butylbenzene	23	5.2
1,2-Dichlorobenzene	ND	5.2
1,2-Dibromo-3-Chloropropane	ND	5.2
1,2,4-Trichlorobenzene	ND	5.2
Hexachlorobutadiene	ND	5.2
Naphthalene	9.7	5.2
1,2,3-Trichlorobenzene	ND	5.2

Surrogate	REC	Limits
Dibromofluoromethane	50 *	63-133
1,2-Dichloroethane-d4	108	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	118	77-126

* Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-24'	Diln Fac:	1.020
Lab ID:	154761-012	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.1
Acetone	ND	20
Freon 113	ND	5.1
1,1-Dichloroethene	ND	5.1
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.1
BE	66	5.1
trans-1,2-Dichloroethene	ND	5.1
Vinyl Acetate	ND	51
1,1-Dichloroethane	ND	5.1
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.1
2,2-Dichloropropane	ND	5.1
Chloroform	ND	5.1
Bromochloromethane	ND	5.1
1,1,1-Trichloroethane	ND	5.1
1,1-Dichloropropene	ND	5.1
Carbon Tetrachloride	ND	5.1
1,2-Dichloroethane	ND	5.1
Benzene	ND	5.1
Trichloroethene	ND	5.1
1,2-Dichloropropane	ND	5.1
Bromodichloromethane	ND	5.1
Dibromomethane	ND	5.1
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.1
Toluene	ND	5.1
trans-1,3-Dichloropropene	ND	5.1
1,1,2-Trichloroethane	ND	5.1
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.1
Tetrachloroethene	ND	5.1

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-24'	Diln Fac:	1.020
Lab ID:	154761-012	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Dibromochloromethane	ND	5.1
1,2-Dibromoethane	ND	5.1
Chlorobenzene	ND	5.1
1,1,1,2-Tetrachloroethane	ND	5.1
Ethylbenzene	ND	5.1
m,p-Xylenes	ND	5.1
o-Xylene	ND	5.1
Styrene	ND	5.1
Bromoform	ND	5.1
Isopropylbenzene	ND	5.1
1,1,2,2-Tetrachloroethane	ND	5.1
1,2,3-Trichloropropane	ND	5.1
Propylbenzene	ND	5.1
Bromobenzene	ND	5.1
1,3,5-Trimethylbenzene	ND	5.1
2-Chlorotoluene	ND	5.1
4-Chlorotoluene	ND	5.1
tert-Butylbenzene	ND	5.1
1,2,4-Trimethylbenzene	ND	5.1
sec-Butylbenzene	ND	5.1
para-Isopropyl Toluene	ND	5.1
1,3-Dichlorobenzene	ND	5.1
1,4-Dichlorobenzene	ND	5.1
n-Butylbenzene	ND	5.1
1,2-Dichlorobenzene	ND	5.1
1,2-Dibromo-3-Chloropropane	ND	5.1
1,2,4-Trichlorobenzene	ND	5.1
Hexachlorobutadiene	ND	5.1
Naphthalene	ND	5.1
1,2,3-Trichlorobenzene	ND	5.1

Surrogate	%REC	Limits
Dibromoform	104	63-133
1,2-Dichloroethane-d4	109	76-127
Toluene-d8	104	80-111
Bromofluorobenzene	108	77-126

ND= Not Detected

RL= Reporting Limit



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-26'	Diln Fac:	1.020
Lab ID:	154761-013	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.1
Acetone	ND	20
Freon 113	ND	5.1
1,1-Dichloroethene	ND	5.1
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.1
BE	79	5.1
trans-1,2-Dichloroethene	ND	5.1
Vinyl Acetate	ND	51
1,1-Dichloroethane	ND	5.1
2-Butanone	ND	10
cis-1,2-Dichloroethene	9.3	5.1
2,2-Dichloropropane	ND	5.1
Chloroform	ND	5.1
Bromochloromethane	ND	5.1
1,1,1-Trichloroethane	ND	5.1
1,1-Dichloropropene	ND	5.1
Carbon Tetrachloride	ND	5.1
1,2-Dichloroethane	ND	5.1
Benzene	ND	5.1
Trichloroethene	ND	5.1
1,2-Dichloropropane	ND	5.1
Bromodichloromethane	ND	5.1
Dibromomethane	ND	5.1
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.1
Toluene	ND	5.1
trans-1,3-Dichloropropene	ND	5.1
1,1,2-Trichloroethane	ND	5.1
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.1
Tetrachloroethene	ND	5.1

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-26'	Diln Fac:	1.020
Lab ID:	154761-013	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Dibromochloromethane	ND	5.1
1,2-Dibromoethane	ND	5.1
Chlorobenzene	ND	5.1
1,1,1,2-Tetrachloroethane	ND	5.1
Ethylbenzene	ND	5.1
m,p-Xylenes	ND	5.1
o-Xylene	ND	5.1
Styrene	ND	5.1
Bromoform	ND	5.1
Isopropylbenzene	ND	5.1
1,1,2,2-Tetrachloroethane	ND	5.1
2,3-Trichloropropane	ND	5.1
Propylbenzene	ND	5.1
Bromobenzene	ND	5.1
1,3,5-Trimethylbenzene	ND	5.1
2-Chlorotoluene	ND	5.1
4-Chlorotoluene	ND	5.1
tert-Butylbenzene	ND	5.1
1,2,4-Trimethylbenzene	ND	5.1
sec-Butylbenzene	ND	5.1
para-Isopropyl Toluene	ND	5.1
1,3-Dichlorobenzene	ND	5.1
1,4-Dichlorobenzene	ND	5.1
n-Butylbenzene	ND	5.1
1,2-Dichlorobenzene	ND	5.1
1,2-Dibromo-3-Chloropropane	ND	5.1
1,2,4-Trichlorobenzene	ND	5.1
Hexachlorobutadiene	ND	5.1
Naphthalene	ND	5.1
1,2,3-Trichlorobenzene	ND	5.1

Surrogate	SREC	Limits
Dibromofluoromethane	101	63-133
1,2-Dichloroethane-d4	106	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	108	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-28'	Diln Fac:	1.020
Lab ID:	154761-014	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.1
Acetone	ND	20
Freon 113	ND	5.1
1,1-Dichloroethene	ND	5.1
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.1
TBE	45	5.1
cis-1,2-Dichloroethene	ND	5.1
Vinyl Acetate	ND	51
1,1-Dichloroethane	ND	5.1
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.1
2,2-Dichloropropane	ND	5.1
Chloroform	ND	5.1
Bromochloromethane	ND	5.1
1,1,1-Trichloroethane	ND	5.1
1,1-Dichloropropene	ND	5.1
Carbon Tetrachloride	ND	5.1
1,2-Dichloroethane	ND	5.1
Benzene	ND	5.1
Trichloroethene	ND	5.1
1,2-Dichloropropane	ND	5.1
Bromodichloromethane	ND	5.1
Dibromomethane	ND	5.1
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.1
Toluene	ND	5.1
trans-1,3-Dichloropropene	ND	5.1
1,1,2-Trichloroethane	ND	5.1
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.1
Tetrachloroethene	ND	5.1

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-28'	Diln Fac:	1.020
Lab ID:	154761-014	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Dibromochloromethane	ND	5.1
1,2-Dibromoethane	ND	5.1
Chlorobenzene	ND	5.1
1,1,1,2-Tetrachloroethane	ND	5.1
Ethylbenzene	ND	5.1
m,p-Xylenes	ND	5.1
o-Xylene	ND	5.1
Styrene	ND	5.1
Bromoform	ND	5.1
Isopropylbenzene	ND	5.1
1,1,2,2-Tetrachloroethane	ND	5.1
2,2,3-Trichloropropane	ND	5.1
Propylbenzene	ND	5.1
Bromobenzene	ND	5.1
1,3,5-Trimethylbenzene	ND	5.1
2-Chlorotoluene	ND	5.1
4-Chlorotoluene	ND	5.1
tert-Butylbenzene	ND	5.1
1,2,4-Trimethylbenzene	ND	5.1
sec-Butylbenzene	ND	5.1
para-Isopropyl Toluene	ND	5.1
1,3-Dichlorobenzene	ND	5.1
1,4-Dichlorobenzene	ND	5.1
n-Butylbenzene	ND	5.1
1,2-Dichlorobenzene	ND	5.1
1,2-Dibromo-3-Chloropropane	ND	5.1
1,2,4-Trichlorobenzene	ND	5.1
Hexachlorobutadiene	ND	5.1
Naphthalene	ND	5.1
1,2,3-Trichlorobenzene	ND	5.1

Surrogate	%REC	Limits
Dibromofluoromethane	104	63-133
1,2-Dichloroethane-d4	110	76-127
Toluene-d8	103	80-111
Bromofluorobenzene	106	77-126

ND = Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-30'	Diln Fac:	1.000
Lab ID:	154761-015	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
TBE	29	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-30'	Diln Fac:	1.000
Lab ID:	154761-015	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Isopropylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	105	63-133
1,2-Dichloroethane-d4	110	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	105	77-126

ND = Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-2'	Diln Fac:	0.9615
Lab ID:	154761-016	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Freon 12	ND	9.6
Chloromethane	ND	9.6
Vinyl Chloride	ND	9.6
Bromomethane	ND	9.6
Chloroethane	ND	9.6
Trichlorofluoromethane	ND	4.8
Acetone	ND	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
TBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.6
cis-1,2-Dichloroethene	ND	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.6
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.6
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-2'	Diln Fac:	0.9615
Lab ID:	154761-016	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
2,3-Trichloropropane	ND	4.8
Isopropylbenzene	ND	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	ND	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	#REC	Limits
Dibromofluoromethane	105	63-133
1,2-Dichloroethane-d4	109	76-127
Toluene-d8	103	80-111
Bromofluorobenzene	103	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-4'	Diln Fac:	0.9615
Lab ID:	154761-017	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Freon 12	ND	9.6
Chloromethane	ND	9.6
Vinyl Chloride	ND	9.6
Bromomethane	ND	9.6
Chloroethane	ND	9.6
Trichlorofluoromethane	ND	4.8
Acetone	35	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
TBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.6
cis-1,2-Dichloroethene	6.3	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.6
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.6
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-4'	Diln Fac:	0.9615
Lab ID:	154761-017	Batch#:	67139
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
2,3-Trichloropropane	ND	4.8
Isopropylbenzene	5.8	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	8.7	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	#REC	Limits
Dibromofluoromethane	104	63-133
1,2-Dichloroethane-d4	108	76-127
Toluene-d8	100	80-111
Bromofluorobenzene	108	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-6'	Diln Fac:	1.000
Lab ID:	154761-018	Batch#:	67175
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	99	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
TBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	14	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-6'	Diln Fac:	1.000
Lab ID:	154761-018	Batch#:	67175
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/17/01

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	105	63-133
1,2-Dichloroethane-d4	104	76-127
Toluene-d8	99	80-111
Bromofluorobenzene	102	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-8'	Diln Fac:	0.9615
Lab ID:	154761-019	Batch#:	67175
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/18/01

Analyte	Result	RL
Freon 12	ND	9.6
Chloromethane	ND	9.6
Vinyl Chloride	ND	9.6
Bromomethane	ND	9.6
Chloroethane	ND	9.6
Trichlorofluoromethane	ND	4.8
Acetone	46	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
BE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.6
cis-1,2-Dichloroethene	5.9	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.6
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.6
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-8'	Diln Fac:	0.9615
Lab ID:	154761-019	Batch#:	67175
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/18/01

Analyte	Result	RL
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
2,3-Trichloropropane	ND	4.8
Propylbenzene	ND	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	ND	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	%REC	Limits
Dibromofluoromethane	108	63-133
1,2-Dichloroethane-d4	107	76-127
Toluene-d8	96	80-111
Bromofluorobenzene	122	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-10'	Diln Fac:	200.0
Lab ID:	154761-020	Batch#:	67210
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/19/01

Analyte	Result	RL
Freon 12	ND	2,000
Chloromethane	ND	2,000
Vinyl Chloride	ND	2,000
Bromomethane	ND	2,000
Chloroethane	ND	2,000
Trichlorofluoromethane	ND	1,000
Acetone	ND	4,000
Freon 113	ND	1,000
1,1-Dichloroethene	ND	1,000
Methylene Chloride	ND	4,000
Carbon Disulfide	ND	1,000
BE	ND	1,000
trans-1,2-Dichloroethene	ND	1,000
Vinyl Acetate	ND	10,000
1,1-Dichloroethane	ND	1,000
2-Butanone	ND	2,000
cis-1,2-Dichloroethene	ND	1,000
2,2-Dichloropropane	ND	1,000
Chloroform	ND	1,000
Bromochloromethane	ND	1,000
1,1,1-Trichloroethane	ND	1,000
1,1-Dichloropropene	ND	1,000
Carbon Tetrachloride	ND	1,000
1,2-Dichloroethane	ND	1,000
Benzene	ND	1,000
Trichloroethene	ND	1,000
1,2-Dichloropropane	ND	1,000
Bromodichloromethane	ND	1,000
Dibromomethane	ND	1,000
4-Methyl-2-Pentanone	ND	2,000
cis-1,3-Dichloropropene	ND	1,000
Toluene	ND	1,000
trans-1,3-Dichloropropene	ND	1,000
1,1,2-Trichloroethane	ND	1,000
2-Hexanone	ND	2,000
1,3-Dichloropropane	ND	1,000
Tetrachloroethene	ND	1,000

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-10'	Diln Fac:	200.0
Lab ID:	154761-020	Batch#:	67210
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/19/01

Analyte	Result	RL
Dibromochloromethane	ND	1,000
1,2-Dibromoethane	ND	1,000
Chlorobenzene	ND	1,000
1,1,1,2-Tetrachloroethane	ND	1,000
Ethylbenzene	ND	1,000
m,p-Xylenes	ND	1,000
o-Xylene	ND	1,000
Styrene	ND	1,000
Bromoform	ND	1,000
Isopropylbenzene	1,700	1,000
1,1,2,2-Tetrachloroethane	ND	1,000
2,2,3-Trichloropropane	ND	1,000
Propylbenzene	4,600	1,000
Bromobenzene	ND	1,000
1,3,5-Trimethylbenzene	1,500	1,000
2-Chlorotoluene	ND	1,000
4-Chlorotoluene	ND	1,000
tert-Butylbenzene	ND	1,000
1,2,4-Trimethylbenzene	4,200	1,000
sec-Butylbenzene	3,500	1,000
para-Isopropyl Toluene	ND	1,000
1,3-Dichlorobenzene	ND	1,000
1,4-Dichlorobenzene	ND	1,000
n-Butylbenzene	1,200	1,000
1,2-Dichlorobenzene	ND	1,000
1,2-Dibromo-3-Chloropropane	ND	1,000
1,2,4-Trichlorobenzene	ND	1,000
Hexachlorobutadiene	ND	1,000
Naphthalene	2,900	1,000
1,2,3-Trichlorobenzene	ND	1,000

Surrogate	#REC	Limits
Dibromofluoromethane	99	63-133
1,2-Dichloroethane-d4	102	76-127
Toluene-d8	98	80-111
Bromofluorobenzene	121	77-126

ND = Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-12'	Diln Fac:	1.020
Lab ID:	154761-021	Batch#:	67175
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/18/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.1
Acetone	57	20
Freon 113	ND	5.1
1,1-Dichloroethene	ND	5.1
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.1
TBE	ND	5.1
trans-1,2-Dichloroethene	ND	5.1
Vinyl Acetate	ND	51
1,1-Dichloroethane	ND	5.1
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.1
2,2-Dichloropropane	ND	5.1
Chloroform	ND	5.1
Bromochloromethane	ND	5.1
1,1,1-Trichloroethane	ND	5.1
1,1-Dichloropropene	ND	5.1
Carbon Tetrachloride	ND	5.1
1,2-Dichloroethane	ND	5.1
Benzene	ND	5.1
Trichloroethene	ND	5.1
1,2-Dichloropropane	ND	5.1
Bromodichloromethane	ND	5.1
Dibromomethane	ND	5.1
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.1
Toluene	ND	5.1
trans-1,3-Dichloropropene	ND	5.1
1,1,2-Trichloroethane	ND	5.1
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.1
Tetrachloroethene	ND	5.1

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-12'	Diln Fac:	1.020
Lab ID:	154761-021	Batch#:	67175
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/18/01

Analyte	Result	RL
Dibromochloromethane	ND	5.1
1,2-Dibromoethane	ND	5.1
Chlorobenzene	ND	5.1
1,1,1,2-Tetrachloroethane	ND	5.1
Ethylbenzene	ND	5.1
m,p-Xylenes	ND	5.1
o-Xylene	ND	5.1
Styrene	ND	5.1
Bromoform	ND	5.1
Isopropylbenzene	ND	5.1
1,1,2,2-Tetrachloroethane	ND	5.1
2,3-Trichloropropane	ND	5.1
Propylbenzene	ND	5.1
Bromobenzene	ND	5.1
1,3,5-Trimethylbenzene	ND	5.1
2-Chlorotoluene	ND	5.1
4-Chlorotoluene	ND	5.1
tert-Butylbenzene	ND	5.1
1,2,4-Trimethylbenzene	ND	5.1
sec-Butylbenzene	ND	5.1
para-Isopropyl Toluene	ND	5.1
1,3-Dichlorobenzene	ND	5.1
1,4-Dichlorobenzene	ND	5.1
n-Butylbenzene	ND	5.1
1,2-Dichlorobenzene	ND	5.1
1,2-Dibromo-3-Chloropropane	ND	5.1
1,2,4-Trichlorobenzene	ND	5.1
Hexachlorobutadiene	ND	5.1
Naphthalene	ND	5.1
1,2,3-Trichlorobenzene	ND	5.1

Surrogate	#REC	Limits
Dibromofluoromethane	105	63-133
1,2-Dichloroethane-d4	103	76-127
Toluene-d8	96	80-111
Bromofluorobenzene	105	77-126

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-14'	Diln Fac:	1.923
Lab ID:	154761-022	Batch#:	67175
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/18/01

Analyte	Result	RL
Freon 12	ND	19
Chloromethane	ND	19
Vinyl Chloride	ND	19
Bromomethane	ND	19
Chloroethane	ND	19
Trichlorofluoromethane	ND	9.6
Acetone	ND	38
Freon 113	ND	9.6
1,1-Dichloroethene	ND	9.6
Methylene Chloride	ND	38
Carbon Disulfide	ND	9.6
TBE	ND	9.6
trans-1,2-Dichloroethene	ND	9.6
Vinyl Acetate	ND	9.6
1,1-Dichloroethane	ND	9.6
2-Butanone	ND	19
cis-1,2-Dichloroethene	ND	9.6
2,2-Dichloropropane	ND	9.6
Chloroform	ND	9.6
Bromochloromethane	ND	9.6
1,1,1-Trichloroethane	ND	9.6
1,1-Dichloropropene	ND	9.6
Carbon Tetrachloride	ND	9.6
1,2-Dichloroethane	ND	9.6
Benzene	ND	9.6
Trichloroethene	ND	9.6
1,2-Dichloropropane	ND	9.6
Bromodichloromethane	ND	9.6
Dibromomethane	ND	9.6
4-Methyl-2-Pentanone	ND	19
cis-1,3-Dichloropropene	ND	9.6
Toluene	ND	9.6
trans-1,3-Dichloropropene	ND	9.6
1,1,2-Trichloroethane	ND	9.6
2-Hexanone	ND	19
1,3-Dichloropropane	ND	9.6
Tetrachloroethene	ND	9.6

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-14'	Diln Fac:	1.923
Lab ID:	154761-022	Batch#:	67175
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/18/01

Analyte	Result	RL
Dibromochloromethane	ND	9.6
1,2-Dibromoethane	ND	9.6
Chlorobenzene	ND	9.6
1,1,1,2-Tetrachloroethane	ND	9.6
Ethylbenzene	ND	9.6
m,p-Xylenes	ND	9.6
o-Xylene	ND	9.6
Styrene	ND	9.6
Bromoform	ND	9.6
Isopropylbenzene	ND	9.6
1,1,2,2-Tetrachloroethane	ND	9.6
1,2,3-Trichloropropane	ND	9.6
Isopropylbenzene	19	9.6
Bromobenzene	ND	9.6
1,3,5-Trimethylbenzene	ND	9.6
2-Chlorotoluene	ND	9.6
4-Chlorotoluene	ND	9.6
tert-Butylbenzene	ND	9.6
1,2,4-Trimethylbenzene	21	9.6
sec-Butylbenzene	15	9.6
para-Isopropyl Toluene	ND	9.6
1,3-Dichlorobenzene	ND	9.6
1,4-Dichlorobenzene	ND	9.6
n-Butylbenzene	ND	9.6
1,2-Dichlorobenzene	ND	9.6
1,2-Dibromo-3-Chloropropane	ND	9.6
1,2,4-Trichlorobenzene	ND	9.6
Hexachlorobutadiene	ND	9.6
Naphthalene	42	9.6
1,2,3-Trichlorobenzene	ND	9.6

Surrogate	%REC	Limits
Dibromofluoromethane	102	63-133
1,2-Dichloroethane-d4	105	76-127
Toluene-d8	100	80-111
Bromofluorobenzene	102	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-16'	Diln Fac:	200.0
Lab ID:	154761-023	Batch#:	67210
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/19/01

Analyte	Result	RL
Freon 12	ND	2,000
Chloromethane	ND	2,000
Vinyl Chloride	ND	2,000
Bromomethane	ND	2,000
Chloroethane	ND	2,000
Trichlorofluoromethane	ND	1,000
Acetone	ND	4,000
Freon 113	ND	1,000
1,1-Dichloroethene	ND	1,000
Methylene Chloride	ND	4,000
Carbon Disulfide	ND	1,000
TBE	ND	1,000
trans-1,2-Dichloroethene	ND	1,000
Vinyl Acetate	ND	10,000
1,1-Dichloroethane	ND	1,000
2-Butanone	ND	2,000
cis-1,2-Dichloroethene	ND	1,000
2,2-Dichloropropane	ND	1,000
Chloroform	ND	1,000
Bromochloromethane	ND	1,000
1,1,1-Trichloroethane	ND	1,000
1,1-Dichloropropene	ND	1,000
Carbon Tetrachloride	ND	1,000
1,2-Dichloroethane	ND	1,000
Benzene	ND	1,000
Trichloroethene	ND	1,000
1,2-Dichloropropane	ND	1,000
Bromodichloromethane	ND	1,000
Dibromomethane	ND	1,000
4-Methyl-2-Pentanone	ND	2,000
cis-1,3-Dichloropropene	ND	1,000
Toluene	ND	1,000
trans-1,3-Dichloropropene	ND	1,000
1,1,2-Trichloroethane	ND	1,000
2-Hexanone	ND	2,000
1,3-Dichloropropane	ND	1,000
Tetrachloroethene	ND	1,000

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-16'	Diln Fac:	200.0
Lab ID:	154761-023	Batch#:	67210
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/19/01

Analyte	Result	RL
Dibromochloromethane	ND	1,000
1,2-Dibromoethane	ND	1,000
Chlorobenzene	ND	1,000
1,1,1,2-Tetrachloroethane	ND	1,000
Ethylbenzene	ND	1,000
m,p-Xylenes	ND	1,000
o-Xylene	ND	1,000
Styrene	ND	1,000
Bromoform	ND	1,000
Isopropylbenzene	1,100	1,000
1,1,2,2-Tetrachloroethane	ND	1,000
1,2,3-Trichloropropane	ND	1,000
Propylbenzene	3,400	1,000
Bromobenzene	ND	1,000
1,3,5-Trimethylbenzene	1,400	1,000
2-Chlorotoluene	ND	1,000
4-Chlorotoluene	ND	1,000
tert-Butylbenzene	ND	1,000
1,2,4-Trimethylbenzene	3,700	1,000
sec-Butylbenzene	2,900	1,000
para-Isopropyl Toluene	ND	1,000
1,3-Dichlorobenzene	ND	1,000
1,4-Dichlorobenzene	ND	1,000
n-Butylbenzene	1,200	1,000
1,2-Dichlorobenzene	ND	1,000
1,2-Dibromo-3-Chloropropane	ND	1,000
1,2,4-Trichlorobenzene	ND	1,000
Hexachlorobutadiene	ND	1,000
Naphthalene	2,800	1,000
1,2,3-Trichlorobenzene	ND	1,000

Surrogate	REC	Limits
Dibromofluoromethane	101	63-133
1,2-Dichloroethane-d4	105	76-127
Toluene-d8	100	80-111
Bromofluorobenzene	121	77-126

Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5/18'	Diln Fac:	1.000
Lab ID:	154761-024	Batch#:	67175
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/18/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
EPE	8.7	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5/18'	Diln Fac:	1.000
Lab ID:	154761-024	Batch#:	67175
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/18/01

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
2,3-Trichloropropane	ND	5.0
Isopropylbenzene	6.5	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	7.4	5.0
sec-Butylbenzene	5.7	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	6.2	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	#REC	Limits
Dibromofluoromethane	102	63-133
1,2-Dichloroethane-d4	106	76-127
Toluene-d8	99	80-111
Bromofluorobenzene	101	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-20'	Diln Fac:	1.042
Lab ID:	154761-025	Batch#:	67175
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/18/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.2
Acetone	ND	21
Freon 113	ND	5.2
1,1-Dichloroethene	ND	5.2
Methylene Chloride	ND	21
Carbon Disulfide	ND	5.2
TBE	31	5.2
trans-1,2-Dichloroethene	ND	5.2
Vinyl Acetate	ND	52
1,1-Dichloroethane	ND	5.2
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.2
2,2-Dichloropropane	ND	5.2
Chloroform	ND	5.2
Bromochloromethane	ND	5.2
1,1,1-Trichloroethane	ND	5.2
1,1-Dichloropropene	ND	5.2
Carbon Tetrachloride	ND	5.2
1,2-Dichloroethane	ND	5.2
Benzene	ND	5.2
Trichloroethene	ND	5.2
1,2-Dichloropropane	ND	5.2
Bromodichloromethane	ND	5.2
Dibromomethane	ND	5.2
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.2
Toluene	ND	5.2
trans-1,3-Dichloropropene	ND	5.2
1,1,2-Trichloroethane	ND	5.2
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.2
Tetrachloroethene	ND	5.2

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-20'	Diln Fac:	1.042
Lab ID:	154761-025	Batch#:	67175
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/18/01

Analyte	Result	RL
Dibromochloromethane	ND	5.2
1,2-Dibromoethane	ND	5.2
Chlorobenzene	ND	5.2
1,1,1,2-Tetrachloroethane	ND	5.2
Ethylbenzene	ND	5.2
m,p-Xylenes	ND	5.2
o-Xylene	ND	5.2
Styrene	ND	5.2
Bromoform	ND	5.2
Isopropylbenzene	ND	5.2
1,1,2,2-Tetrachloroethane	ND	5.2
2,3-Trichloropropane	ND	5.2
Isopropylbenzene	ND	5.2
Bromobenzene	ND	5.2
1,3,5-Trimethylbenzene	ND	5.2
2-Chlorotoluene	ND	5.2
4-Chlorotoluene	ND	5.2
tert-Butylbenzene	ND	5.2
1,2,4-Trimethylbenzene	ND	5.2
sec-Butylbenzene	ND	5.2
para-Isopropyl Toluene	ND	5.2
1,3-Dichlorobenzene	ND	5.2
1,4-Dichlorobenzene	ND	5.2
n-Butylbenzene	ND	5.2
1,2-Dichlorobenzene	ND	5.2
1,2-Dibromo-3-Chloropropane	ND	5.2
1,2,4-Trichlorobenzene	ND	5.2
Hexachlorobutadiene	ND	5.2
Naphthalene	ND	5.2
1,2,3-Trichlorobenzene	ND	5.2

Surrogate	%REC	Limits
Dibromofluoromethane	105	63-133
1,2-Dichloroethane-d4	109	76-127
Toluene-d8	100	80-111
Bromofluorobenzene	99	77-126

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-22'	Diln Fac:	1.042
Lab ID:	154761-026	Batch#:	67240
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/19/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.2
Acetone	23	21
Freon 113	ND	5.2
1,1-Dichloroethene	ND	5.2
Methylene Chloride	ND	21
Carbon Disulfide	ND	5.2
TCE	ND	5.2
cis-1,2-Dichloroethene	ND	5.2
Vinyl Acetate	ND	52
1,1-Dichloroethane	ND	5.2
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.2
2,2-Dichloropropane	ND	5.2
Chloroform	ND	5.2
Bromochloromethane	ND	5.2
1,1,1-Trichloroethane	ND	5.2
1,1-Dichloropropene	ND	5.2
Carbon Tetrachloride	ND	5.2
1,2-Dichloroethane	ND	5.2
Benzene	ND	5.2
Trichloroethene	ND	5.2
1,2-Dichloropropane	ND	5.2
Bromodichloromethane	ND	5.2
Dibromomethane	ND	5.2
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.2
Toluene	ND	5.2
trans-1,3-Dichloropropene	ND	5.2
1,1,2-Trichloroethane	ND	5.2
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.2
Tetrachloroethene	ND	5.2

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-22'	Diln Fac:	1.042
Lab ID:	154761-026	Batch#:	67240
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/19/01

Analyte	Result	RL
Dibromochloromethane	ND	5.2
1,2-Dibromoethane	ND	5.2
Chlorobenzene	ND	5.2
1,1,1,2-Tetrachloroethane	ND	5.2
Ethylbenzene	ND	5.2
m,p-Xylenes	ND	5.2
o-Xylene	ND	5.2
Styrene	ND	5.2
Bromoform	ND	5.2
Isopropylbenzene	ND	5.2
1,1,2,2-Tetrachloroethane	ND	5.2
2,3-Trichloropropane	ND	5.2
Isopropylbenzene	12	5.2
Bromobenzene	ND	5.2
1,3,5-Trimethylbenzene	ND	5.2
2-Chlorotoluene	ND	5.2
4-Chlorotoluene	ND	5.2
tert-Butylbenzene	ND	5.2
1,2,4-Trimethylbenzene	14	5.2
sec-Butylbenzene	11	5.2
para-Isopropyl Toluene	ND	5.2
1,3-Dichlorobenzene	ND	5.2
1,4-Dichlorobenzene	ND	5.2
n-Butylbenzene	ND	5.2
1,2-Dichlorobenzene	ND	5.2
1,2-Dibromo-3-Chloropropane	ND	5.2
1,2,4-Trichlorobenzene	ND	5.2
Hexachlorobutadiene	ND	5.2
Naphthalene	19	5.2
1,2,3-Trichlorobenzene	ND	5.2

Surrogate	%REC	Limits
Dibromofluoromethane	107	63-133
1,2-Dichloroethane-d4	107	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	103	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-24'	Diln Fac:	0.9259
Lab ID:	154761-027	Batch#:	67240
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/20/01

Analyte	Result	RL
Freon 12	ND	9.3
Chloromethane	ND	9.3
Vinyl Chloride	ND	9.3
Bromomethane	ND	9.3
Chloroethane	ND	9.3
Trichlorofluoromethane	ND	4.6
Acetone	ND	19
Freon 113	ND	4.6
1,1-Dichloroethene	ND	4.6
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.6
BE	27	4.6
trans-1,2-Dichloroethene	ND	4.6
Vinyl Acetate	ND	46
1,1-Dichloroethane	ND	4.6
2-Butanone	ND	9.3
cis-1,2-Dichloroethene	ND	4.6
2,2-Dichloropropane	ND	4.6
Chloroform	ND	4.6
Bromochloromethane	ND	4.6
1,1,1-Trichloroethane	ND	4.6
1,1-Dichloropropene	ND	4.6
Carbon Tetrachloride	ND	4.6
1,2-Dichloroethane	ND	4.6
Benzene	ND	4.6
Trichloroethene	ND	4.6
1,2-Dichloropropane	ND	4.6
Bromodichloromethane	ND	4.6
Dibromomethane	ND	4.6
4-Methyl-2-Pentanone	ND	9.3
cis-1,3-Dichloropropene	ND	4.6
Toluene	ND	4.6
trans-1,3-Dichloropropene	ND	4.6
1,1,2-Trichloroethane	ND	4.6
2-Hexanone	ND	9.3
1,3-Dichloropropane	ND	4.6
Tetrachloroethene	ND	4.6

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-24'	Diln Fac:	0.9259
Lab ID:	154761-027	Batch#:	67240
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/20/01

Analyte	Result	RL
Dibromochloromethane	ND	4.6
1,2-Dibromoethane	ND	4.6
Chlorobenzene	ND	4.6
1,1,1,2-Tetrachloroethane	ND	4.6
Ethylbenzene	ND	4.6
m,p-Xylenes	ND	4.6
o-Xylene	ND	4.6
Styrene	ND	4.6
Bromoform	ND	4.6
Isopropylbenzene	ND	4.6
1,1,2,2-Tetrachloroethane	ND	4.6
2,3-Trichloropropane	ND	4.6
Propylbenzene	ND	4.6
Bromobenzene	ND	4.6
1,3,5-Trimethylbenzene	ND	4.6
2-Chlorotoluene	ND	4.6
4-Chlorotoluene	ND	4.6
tert-Butylbenzene	ND	4.6
1,2,4-Trimethylbenzene	ND	4.6
sec-Butylbenzene	ND	4.6
para-Isopropyl Toluene	ND	4.6
1,3-Dichlorobenzene	ND	4.6
1,4-Dichlorobenzene	ND	4.6
n-Butylbenzene	ND	4.6
1,2-Dichlorobenzene	ND	4.6
1,2-Dibromo-3-Chloropropane	ND	4.6
1,2,4-Trichlorobenzene	ND	4.6
Hexachlorobutadiene	ND	4.6
Naphthalene	ND	4.6
1,2,3-Trichlorobenzene	ND	4.6

Surrogate	%REC	Limits
Dibromofluoromethane	104	63-133
1,2-Dichloroethane-d4	107	76-127
Toluene-d8	100	80-111
Bromofluorobenzene	101	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-26'	Diln Fac:	0.9434
Lab ID:	154761-028	Batch#:	67240
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/20/01

Analyte	Result	RL
Freon 12	ND	9.4
Chloromethane	ND	9.4
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Chloroethane	ND	9.4
Trichlorofluoromethane	ND	4.7
Acetone	ND	19
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
TBE	21	4.7
trans -1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.4
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.4
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
<i>trans</i> -1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 5-26'	Diln Fac:	0.9434
Lab ID:	154761-028	Batch#:	67240
Matrix:	Soil	Sampled:	10/12/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/20/01

Analyte	Result	RL
Dibromochloromethane	ND	4.7
1,2-Dibromoethane	ND	4.7
Chlorobenzene	ND	4.7
1,1,1,2-Tetrachloroethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7
Styrene	ND	4.7
Bromoform	ND	4.7
Isopropylbenzene	ND	4.7
1,1,2,2-Tetrachloroethane	ND	4.7
2,3-Trichloropropane	ND	4.7
Isopropylbenzene	ND	4.7
Bromobenzene	ND	4.7
1,3,5-Trimethylbenzene	ND	4.7
2-Chlorotoluene	ND	4.7
4-Chlorotoluene	ND	4.7
tert-Butylbenzene	ND	4.7
1,2,4-Trimethylbenzene	ND	4.7
sec-Butylbenzene	ND	4.7
para-Isopropyl Toluene	ND	4.7
1,3-Dichlorobenzene	ND	4.7
1,4-Dichlorobenzene	ND	4.7
n-Butylbenzene	ND	4.7
1,2-Dichlorobenzene	ND	4.7
1,2-Dibromo-3-Chloropropane	ND	4.7
1,2,4-Trichlorobenzene	ND	4.7
Hexachlorobutadiene	ND	4.7
Naphthalene	ND	4.7
1,2,3-Trichlorobenzene	ND	4.7

Surrogate	%RRC	Limits
Dibromofluoromethane	104	63-133
1,2-Dichloroethane-d4	106	76-127
Toluene-d8	100	80-111
Bromofluorobenzene	100	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Batch#:	67139
Basis:	as received	Analyzed:	10/16/01

Type: BS Lab ID: QC158928

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	57.65	115	66-138
Benzene	50.00	53.57	107	76-121
Trichloroethene	50.00	52.82	106	75-124
Toluene	50.00	52.39	105	75-124
Chlorobenzene	50.00	50.27	101	78-115

Surrogate	%REC	Limits
Dibromofluoromethane	104	63-133
1,2-Dichloroethane-d4	105	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	102	77-126

Type: BSD Lab ID: QC158929

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	59.56	119	66-138	3	20
Benzene	50.00	54.88	110	76-121	2	20
Trichloroethene	50.00	53.93	108	75-124	2	20
Toluene	50.00	52.74	105	75-124	1	20
Chlorobenzene	50.00	50.87	102	78-115	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	63-133
1,2-Dichloroethane-d4	107	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	101	77-126

RPD= Relative Percent Difference

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC159042	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67175
Units:	ug/Kg	Analyzed:	10/17/01

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	54.90	110	66-138
Benzene	50.00	50.93	102	76-121
Trichloroethene	50.00	50.09	100	75-124
Toluene	50.00	48.82	98	75-124
Chlorobenzene	50.00	48.51	97	78-115

Surrogate	%REC	Limits
Dibromofluoromethane	106	63-133
1,2-Dichloroethane-d4	105	76-127
Toluene-d8	99	80-111
Bromofluorobenzene	100	77-126



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9434
MSS Lab ID:	154753-054	Batch#:	67175
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/11/01
Basis:	as received	Analyzed:	10/17/01

Type: MS Lab ID: QC159071

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.2000	47.17	48.65	103	42-145
Benzene	<0.2200	47.17	44.82	95	50-133
Trichloroethene	<0.2000	47.17	43.37	92	33-133
Toluene	<0.1800	47.17	43.04	91	45-134
Chlorobenzene	<0.2900	47.17	39.67	84	38-137

Surrogate	%REC	Limits
Dibromofluoromethane	106	63-133
1,2-Dichloroethane-d4	111	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	103	77-126

Type: MSD Lab ID: QC159072

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	47.17	47.53	101	42-145	2	31
Benzene	47.17	43.23	92	50-133	4	29
Trichloroethene	47.17	42.41	90	33-133	2	30
Toluene	47.17	41.09	87	45-134	5	29
Chlorobenzene	47.17	37.80	80	38-137	5	31

Surrogate	%REC	Limits
Dibromofluoromethane	105	63-133
1,2-Dichloroethane-d4	106	76-127
Toluene-d8	100	80-111
Bromofluorobenzene	104	77-126

RPD= Relative Percent Difference

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC158914	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67139
Units:	ug/Kg	Analyzed:	10/16/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Acetyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC158914	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67139
Units:	ug/Kg	Analyzed:	10/16/01

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Isomobenzene	ND	5.0
,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	t _{REC}	Limits
Dibromofluoromethane	100	63-133
1,2-Dichloroethane-d4	106	76-127
Toluene-d8	100	80-111
Bromofluorobenzene	103	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC158915	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67139
Units:	ug/Kg	Analyzed:	10/16/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Methyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC158915	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67139
Units:	ug/Kg	Analyzed:	10/16/01

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Phenobenzene	ND	5.0
,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	102	63-133
1,2-Dichloroethane-d4	109	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	106	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC159044	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67175
Units:	ug/Kg	Analyzed:	10/17/01

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Homobenzene	ND	5.0
3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	99	63-133
1,2-Dichloroethane-d4	106	76-127
Toluene-d8	99	80-111
Bromofluorobenzene	101	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC159045	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67175
Units:	ug/Kg	Analyzed:	10/17/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
ethyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC159045	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67175
Units:	ug/Kg	Analyzed:	10/17/01

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
c-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
o-mobenzene	ND	5.0
3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	*REC	Limits
Dibromofluoromethane	104	63-133
1,2-Dichloroethane-d4	109	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	102	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC159044	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67175
Units:	ug/Kg	Analyzed:	10/17/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
ethyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC159299	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67240
Units:	ug/Kg	Analyzed:	10/19/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Methyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC159299	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67240
Units:	ug/Kg	Analyzed:	10/19/01

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	104	63-133
1,2-Dichloroethane-d4	108	76-127
Toluene-d8	100	80-111
Bromofluorobenzene	101	77-126

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-10'	Diln Fac:	25.00
MSS Lab ID:	154761-005	Batch#:	67210
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/19/01

Type: MS Lab ID: QC159254

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.2000	1,250	1,462	117	42-145
Benzene	<0.2200	1,250	1,462	117	50-133
Trichloroethene	1,307	1,250	2,548	99	33-133
Toluene	16.81	1,250	1,315	104	45-134
Chlorobenzene	315.7	1,250	1,468	92	38-137

Surrogate	%REC	Limits
bromofluoromethane	103	63-133
1,2-Dichloroethane-d4	99	76-127
Toluene-d8	98	80-111
Bromofluorobenzene	184 *	77-126

Type: MSD Lab ID: QC159255

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	1,250	1,515	121	42-145	4	31
Benzene	1,250	1,486	119	50-133	2	29
Trichloroethene	1,250	2,610	104	33-133	2	30
Toluene	1,250	1,391	110	45-134	6	29
Chlorobenzene	1,250	1,461	92	38-137	1	31

Surrogate	%REC	Limits
Dibromofluoromethane	101	63-133
1,2-Dichloroethane-d4	100	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	189 *	77-126

* = Value outside of QC limits; see narrative

RPD= Relative Percent Difference

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC159297	Diln Fac:	1.000
Matrix:	Soil	Batch#:	67240
Units:	ug/Kg	Analyzed:	10/19/01

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	59.99	120	66-138
Benzene	50.00	56.87	114	76-121
Trichloroethene	50.00	54.38	109	75-124
Toluene	50.00	53.64	107	75-124
Chlorobenzene	50.00	49.73	99	78-115

Surrogate	%REC	Limits
Dibromofluoromethane	108	63-133
1,2-Dichloroethane-d4	110	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	105	77-126



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.020
MSS Lab ID:	154852-016	Batch#:	67240
Matrix:	Soil	Sampled:	10/17/01
Units:	ug/Kg	Received:	10/18/01
Basis:	as received	Analyzed:	10/20/01

Type: MS Lab ID: QC159414

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.2000	51.02	49.68	97	42-145
Benzene	0.3688	51.02	41.75	81	50-133
Trichloroethene	<0.2000	51.02	41.41	81	33-133
Toluene	<0.1800	51.02	37.41	73	45-134
Chlorobenzene	<0.2900	51.02	28.39	56	38-137

Surrogate	%REC	Limits
bromofluoromethane	104	63-133
1,2-Dichloroethane-d4	105	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	103	77-126

Type: MSD Lab ID: QC159415

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	51.02	50.85	100	42-145	2	31
Benzene	51.02	40.86	79	50-133	2	29
Trichloroethene	51.02	41.76	82	33-133	1	30
Toluene	51.02	36.17	71	45-134	3	29
Chlorobenzene	51.02	27.13	53	38-137	5	31

Surrogate	%REC	Limits
Dibromofluoromethane	106	63-133
1,2-Dichloroethane-d4	105	76-127
Toluene-d8	100	80-111
Bromofluorobenzene	104	77-126

RPD= Relative Percent Difference

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA 3-12'	Diln Fac:	100.0
MSS Lab ID:	154761-006	Batch#:	67281
Matrix:	Soil	Sampled:	10/11/01
Units:	ug/Kg	Received:	10/15/01
Basis:	as received	Analyzed:	10/23/01

Type: MS Lab ID: QC159565

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.2000	5,000	5,779	116	42-145
Benzene	<0.2200	5,000	5,654	113	50-133
Trichloroethene	232.8	5,000	5,411	104	33-133
Toluene	<0.1800	5,000	5,347	107	45-134
Chlorobenzene	<0.2900	5,000	5,063	101	38-137

Surrogate	%REC	Limits
Dibromofluoromethane	103	63-133
1,2-Dichloroethane-d4	103	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	111	77-126

Type: MSD Lab ID: QC159566

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	5,000	5,884	118	42-145	2	31
Benzene	5,000	5,700	114	50-133	1	29
Trichloroethene	5,000	5,465	105	33-133	1	30
Toluene	5,000	5,508	110	45-134	3	29
Chlorobenzene	5,000	5,112	102	38-137	1	31

Surrogate	%REC	Limits
Dibromofluoromethane	106	63-133
1,2-Dichloroethane-d4	102	76-127
Toluene-d8	103	80-111
Bromofluorobenzene	112	77-126

RPD= Relative Percent Difference

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	25.00
MSS Lab ID:	154857-002	Batch#:	67324
Matrix:	Soil	Sampled:	10/17/01
Units:	ug/Kg	Received:	10/19/01
Basis:	as received	Analyzed:	10/24/01

Type: MS Lab ID: QC159748

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.2000	1,250	1,383	111	42-145
Benzene	12.08	1,250	1,432	114	50-133
Trichloroethene	<0.2000	1,250	1,361	109	33-133
Toluene	<0.1800	1,250	1,361	109	45-134
Chlorobenzene	7.660	1,250	1,305	104	38-137

Surrogate	%REC	Limits
Dibromofluoromethane	100	63-133
1,2-Dichloroethane-d4	99	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	110	77-126

Type: MSD Lab ID: QC159749

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	1,250	1,377	110	42-145	0	31
Benzene	1,250	1,458	116	50-133	2	29
Trichloroethene	1,250	1,357	109	33-133	0	30
Toluene	1,250	1,331	106	45-134	2	29
Chlorobenzene	1,250	1,293	103	38-137	1	31

Surrogate	%REC	Limits
Dibromofluoromethane	98	63-133
1,2-Dichloroethane-d4	99	76-127
Toluene-d8	99	80-111
Bromofluorobenzene	112	77-126

RPD= Relative Percent Difference

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Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Clovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B (M)
Matrix:	Water	Sampled:	10/12/01
Units:	ug/L	Received:	10/15/01
Batch#:	67279	Analyzed:	10/22/01

Field ID: SOMA -2 Lab ID: 154761-029
Type: SAMPLE Diln Fac: 5.000

Analyte	Result	RL
Gasoline C7-C12	13,000 H Y	250
Stoddard Solvent C7-C12	7,400	250

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	59-135
Bromofluorobenzene (FID)	167 *	60-140

Field ID: SOMA -3 Lab ID: 154761-030
Type: SAMPLE Diln Fac: 20.00

Analyte	Result	RL
Gasoline C7-C12	26,000 H Y	1,000
Stoddard Solvent C7-C12	15,000	1,000

Surrogate	%REC	Limits
Trifluorotoluene (FID)	106	59-135
Bromofluorobenzene (FID)	138	60-140

Field ID: SOMA -4 Lab ID: 154761-031
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	4,300 H Y	50
Stoddard Solvent C7-C12	2,500	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	109	59-135
Bromofluorobenzene (FID)	204 *	60-140

Type: BLANK Diln Fac: 1.000
Lab ID: QC159462

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

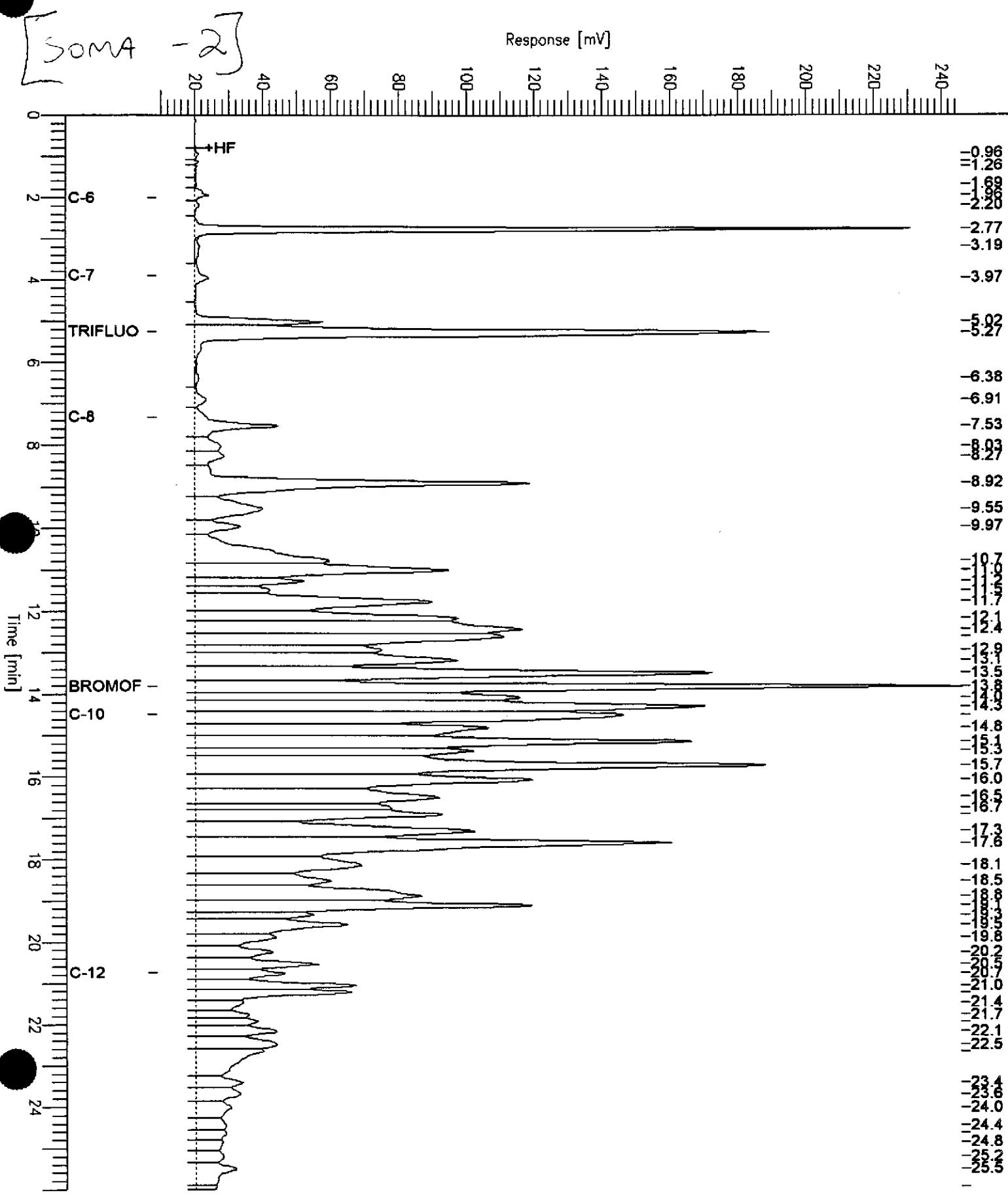
Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	59-135
Bromofluorobenzene (FID)	98	60-140

*= Value outside of QC limits; see narrative
Heavier hydrocarbons contributed to the quantitation
Sample exhibits fuel pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
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GC07 TVH 'A' Data File RTX 502

Sample Name : 154761-029,67279, tvh+stodd
FileName : G:\GC07\DATA\295A009.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 9 mV

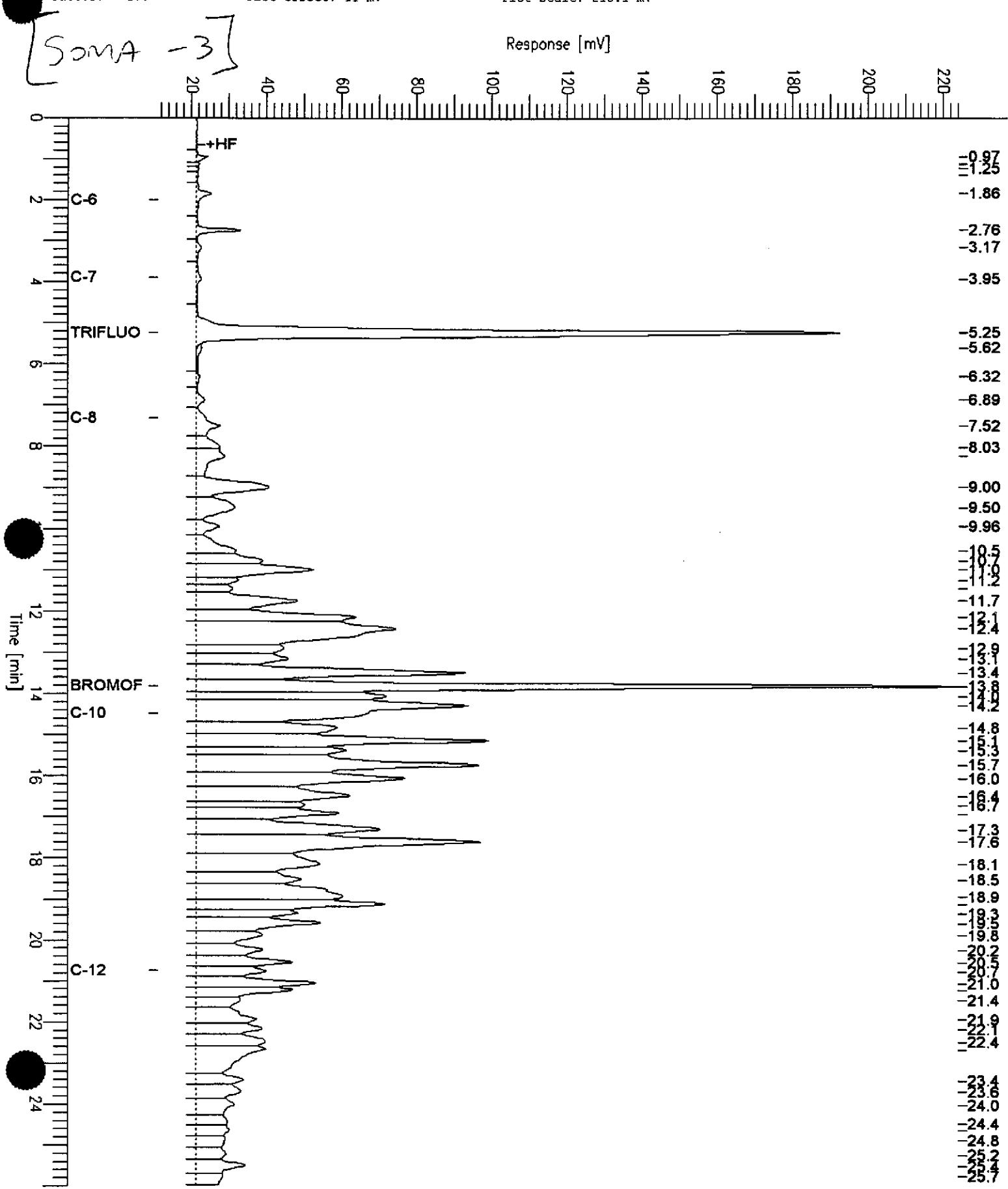
Sample #: c1 Page 1 of 1
Date : 10/23/01 12:09 PM
Time of Injection: 10/22/01 01:56 PM
Low Point : 8.61 mV High Point : 245.78 mV
Plot Scale: 237.2 mV



GC07 TVH 'A' Data File RTX 502

Sample Name : 154761-030,67279, tvh & stoddard
 FileName : G:\GC07\DATA\295A020.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.00 min
 Scale Factor: 1.0 Plot Offset: 11 mV

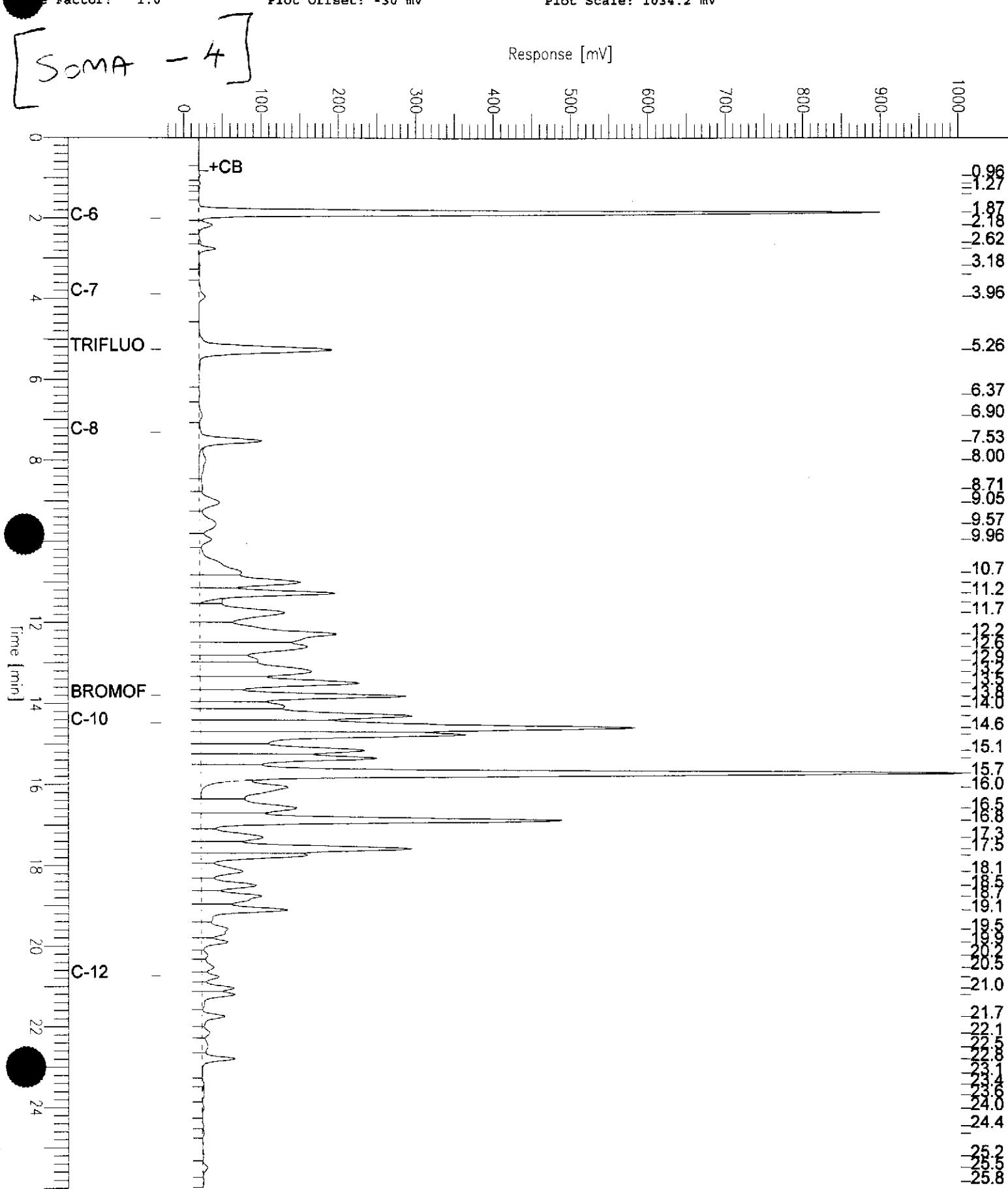
Sample #: c1 Page 1 of 1
 Date : 10/23/01 12:09 PM
 Time of Injection: 10/22/01 07:53 PM
 Low Point : 11.07 mV High Point : 224.22 mV
 Plot Scale: 213.1 mV



GC07 TVH 'A' Data File RTX 502

Sample Name : 154761-031,67279, tvh+stodd
 FileName : G:\GC07\DATA\295A011.raw
 Method : TVHBTEXE
 Start Time : 0.00 min End Time : 26.00 min
 Scale Factor: 1.0 Plot Offset: -30 mV

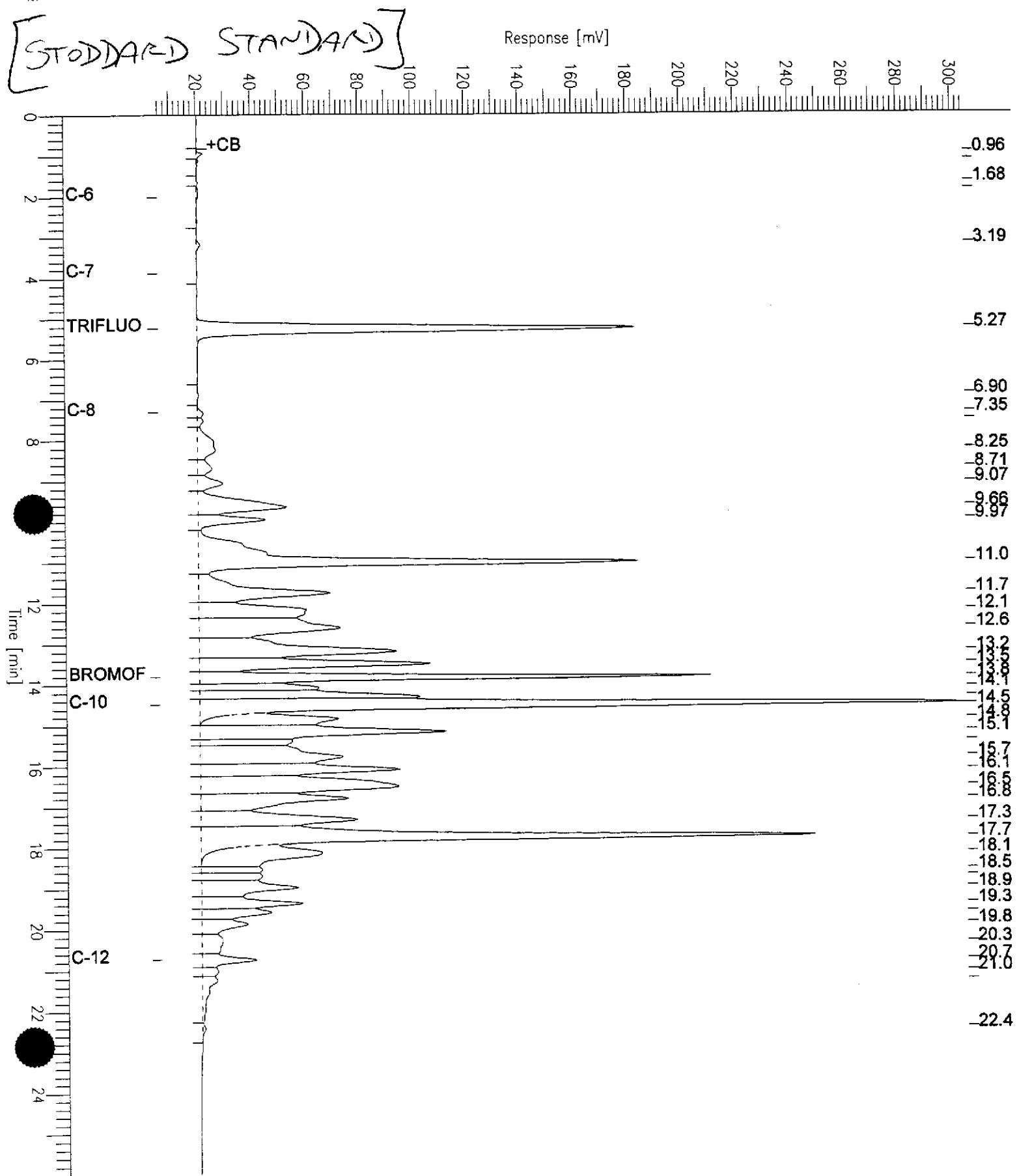
Sample #: a1 Page 1 of 1
 Date : 10/22/01 03:27 PM
 Time of Injection: 10/22/01 03:01 PM
 Low Point : -29.52 mV High Point : 1004.71 mV
 Plot Scale: 1034.2 mV



GC07 TVH 'A' Data File RTX 502

Sample Name : ccv,stodd,67279,01ws1801,2.5/5000
 FileName : G:\GC07\DATA\295A007.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.00 min Plot Offset: 6 mV
 Scale Factor: 1.0

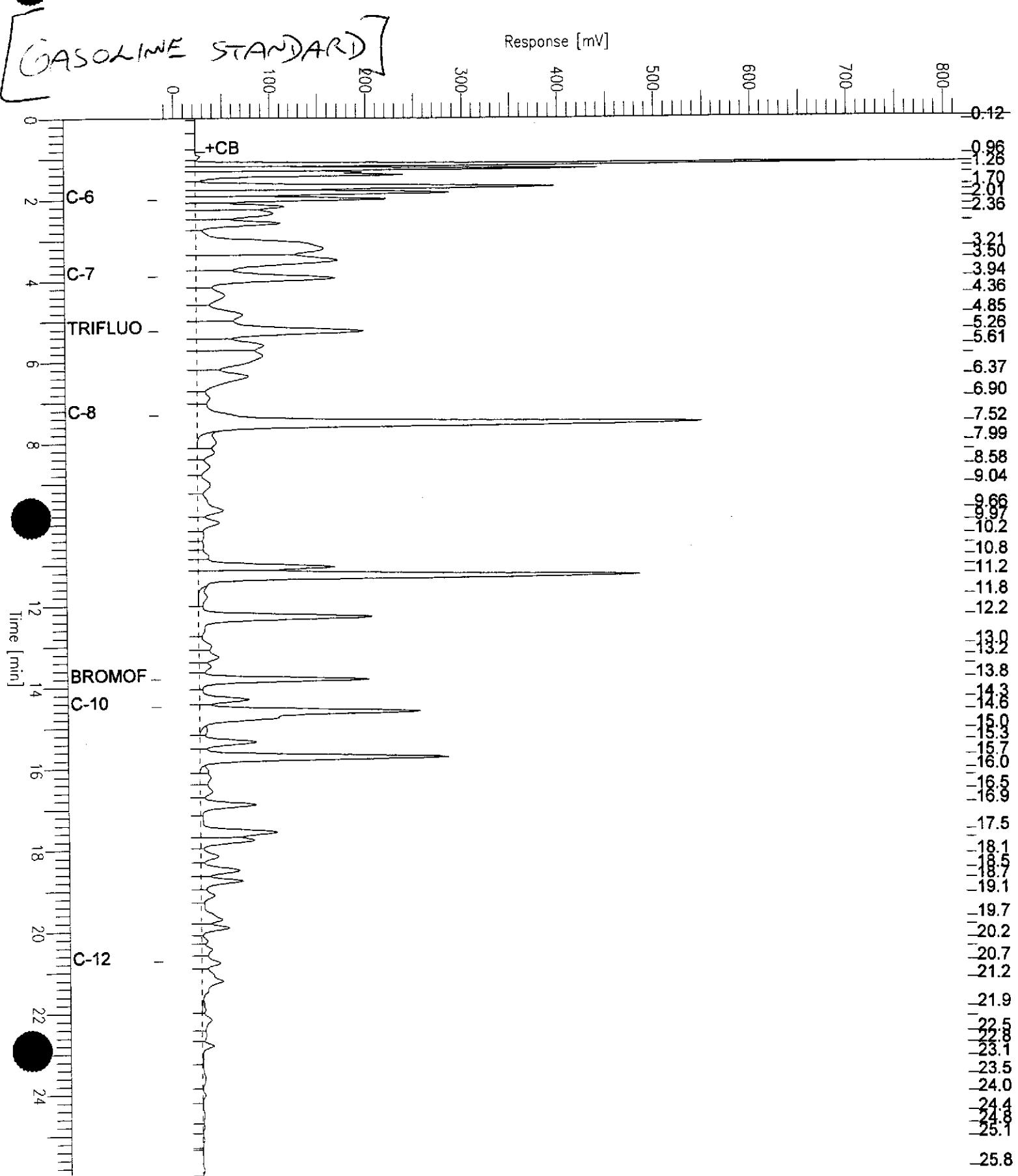
Sample #: Page 1 of 1
 Date : 10/22/01 12:46 PM
 Time of Injection: 10/22/01 12:20 PM
 Low Point : 5.90 mV High Point : 304.77 mV
 Plot Scale: 298.9 mV



GC07 TVH 'A' Data File RTX 502

Sample Name : CCV/LCS,QC159463,67279,01WS2019,5/5000
FileName : G:\GC07\DATA\295A003.raw
Method : TVHBTEXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: -17 mV

Sample #: Page 1 of 1
Date : 10/22/01 09:09 AM
Time of Injection: 10/22/01 08:43 AM
Low Point : -16.90 mV High Point : 818.89 mV
Plot Scale: 835.8 mV





Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Clovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC159463	Batch#:	67279
Matrix:	Water	Analyzed:	10/22/01
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,091	105	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	130	59-135
Bromofluorobenzene (FID)	106	60-140



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	154761	Location:	Clovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	8015B(M)
Field ID:	ZZZZZZZZZZ	Batch#:	67279
MSS Lab ID:	154874-001	Sampled:	10/19/01
Matrix:	Water	Received:	10/19/01
Units:	ug/L	Analyzed:	10/23/01
Diln Fac:	1.000		

Type: MS Lab ID: QC159464

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	23.81	2,000	2,044	101	65-131

Surrogate	%REC	Limits
Trifluorotoluene (FID)	135	59-135
Bromofluorobenzene (FID)	116	60-140

Type: MSD Lab ID: QC159465

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,024	100	65-131	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	133	59-135
Bromofluorobenzene (FID)	121	60-140



Curtis & Tompkins, Ltd

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA -2	Batch#:	67329
Lab ID:	154761-029	Sampled:	10/12/01
Matrix:	Water	Received:	10/15/01
Units:	ug/L	Analyzed:	10/24/01
Diln Fac:	8.333		

Analyte	Result	RL
Freon 12	ND	83
Chloromethane	ND	83
Vinyl Chloride	ND	83
Bromomethane	ND	83
Chloroethane	ND	83
Trichlorofluoromethane	ND	42
Acetone	ND	170
Freon 113	ND	42
1,1-Dichloroethene	ND	42
Methylene Chloride	ND	170
Carbon Disulfide	ND	42
MTBE	ND	42
trans-1,2-Dichloroethene	45	42
Vinyl Acetate	ND	420
1,1-Dichloroethane	ND	42
2-Butanone	ND	83
cis-1,2-Dichloroethene	5,700 >LR b	42
2,2-Dichloropropane	ND	42
Chloroform	ND	42
Bromochloromethane	ND	83
1,1-Trichloroethane	ND	42
1-Dichloropropene	ND	42
Carbon Tetrachloride	ND	42
1,2-Dichloroethane	ND	42
Benzene	ND	42
Trichloroethene	210	42
1,2-Dichloropropane	ND	42
Bromodichloromethane	ND	42
Dibromomethane	ND	42
4-Methyl-2-Pentanone	ND	83
cis-1,3-Dichloropropene	ND	42
Toluene	ND	42
trans-1,3-Dichloropropene	ND	42
1,1,2-Trichloroethane	ND	42
2-Hexanone	ND	83
1,3-Dichloropropane	ND	42
Tetrachloroethene	640	42
Dibromochloromethane	ND	42
1,2-Dibromoethane	ND	42
Chlorobenzene	ND	42
1,1,1,2-Tetrachloroethane	ND	42
Ethylbenzene	ND	42
m,p-Xylenes	ND	42
o-Xylene	ND	42
Styrene	ND	42
Bromoform	ND	42
Isopropylbenzene	ND	42
1,1,2,2-Tetrachloroethane	ND	42
1,2,3-Trichloropropane	ND	42
Propylbenzene	ND	42
Bromobenzene	ND	42
1,3,5-Trimethylbenzene	ND	42
2-Chlorotoluene	ND	42

= See narrative

= Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA -2	Batch#:	67329
Lab ID:	154761-029	Sampled:	10/12/01
Matrix:	Water	Received:	10/15/01
Units:	ug/L	Analyzed:	10/24/01
Diln Fac:	8.333		

Analyte	Result	RL
4-Chlorotoluene	ND	42
tert-Butylbenzene	ND	42
1,2,4-Trimethylbenzene	98	42
sec-Butylbenzene	ND	42
para-Isopropyl Toluene	ND	42
1,3-Dichlorobenzene	ND	42
1,4-Dichlorobenzene	ND	42
n-Butylbenzene	ND	42
1,2-Dichlorobenzene	ND	42
1,2-Dibromo-3-Chloropropane	ND	42
1,2,4-Trichlorobenzene	ND	42
Hexachlorobutadiene	ND	42
Naphthalene	ND	42
1,2,3-Trichlorobenzene	ND	42

Surrogate	REC	Limits
Dibromofluoromethane	106	80-122
1,2-Dichloroethane-d4	105	78-123
Toluene-d8	98	80-110
Bromofluorobenzene	104	80-115

o= See narrative

D= Not Detected

RL= Reporting Limit

>LR= Response exceeds instrument's linear range



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA -3	Units:	ug/L
Lab ID:	154761-030	Sampled:	10/12/01
Matrix:	Water	Received:	10/15/01

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Freon 12	ND	25	2.500	67329	10/24/01
Chloromethane	ND	25	2.500	67329	10/24/01
Vinyl Chloride	ND	25	2.500	67329	10/24/01
Bromomethane	ND	25	2.500	67329	10/24/01
Chloroethane	ND	25	2.500	67329	10/24/01
Trichlorofluoromethane	ND	13	2.500	67329	10/24/01
Acetone	ND	50	2.500	67329	10/24/01
Freon 113	ND	13	2.500	67329	10/24/01
1,1-Dichloroethene	ND	13	2.500	67329	10/24/01
Methylene Chloride	ND	50	2.500	67329	10/24/01
Carbon Disulfide	ND	13	2.500	67329	10/24/01
MTBE	21	13	2.500	67329	10/24/01
trans-1,2-Dichloroethene	ND	13	2.500	67329	10/24/01
Vinyl Acetate	ND	130	2.500	67329	10/24/01
cis-1-Dichloroethane	ND	13	2.500	67329	10/24/01
2-Butanone	ND	25	2.500	67329	10/24/01
cis-1,2-Dichloroethene	1,900	50	10.00	67290	10/23/01
2,2-Dichloropropane	ND	13	2.500	67329	10/24/01
Chloroform	ND	13	2.500	67329	10/24/01
Bromochloromethane	ND	25	2.500	67329	10/24/01
1,1,1-Trichloroethane	ND	13	2.500	67329	10/24/01
1,1-Dichloropropene	ND	13	2.500	67329	10/24/01
Carbon Tetrachloride	ND	13	2.500	67329	10/24/01
1,2-Dichloroethane	ND	13	2.500	67329	10/24/01
Benzene	ND	13	2.500	67329	10/24/01
Trichloroethene	68	13	2.500	67329	10/24/01
1,2-Dichloropropane	ND	13	2.500	67329	10/24/01
Bromodichloromethane	ND	13	2.500	67329	10/24/01
Dibromomethane	ND	13	2.500	67329	10/24/01
4-Methyl-2-Pentanone	ND	25	2.500	67329	10/24/01
cis-1,3-Dichloropropene	ND	13	2.500	67329	10/24/01
Toluene	21	13	2.500	67329	10/24/01
trans-1,3-Dichloropropene	ND	13	2.500	67329	10/24/01
1,1,2-Trichloroethane	ND	13	2.500	67329	10/24/01
2-Hexanone	ND	25	2.500	67329	10/24/01
1,3-Dichloropropane	ND	13	2.500	67329	10/24/01
Tetrachloroethene	180	13	2.500	67329	10/24/01
Dibromochloromethane	ND	13	2.500	67329	10/24/01
1,2-Dibromoethane	ND	13	2.500	67329	10/24/01

ND = Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA -3	Units:	ug/L
Lab ID:	154761-030	Sampled:	10/12/01
Matrix:	Water	Received:	10/15/01

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chlorobenzene	ND	13	2.500	67329	10/24/01
1,1,1,2-Tetrachloroethane	ND	13	2.500	67329	10/24/01
Ethylbenzene	ND	13	2.500	67329	10/24/01
m,p-Xylenes	30	13	2.500	67329	10/24/01
c-Xylene	ND	13	2.500	67329	10/24/01
Styrene	ND	13	2.500	67329	10/24/01
Bromoform	ND	13	2.500	67329	10/24/01
Isopropylbenzene	ND	13	2.500	67329	10/24/01
1,1,2,2-Tetrachloroethane	ND	13	2.500	67329	10/24/01
1,2,3-Trichloropropane	ND	13	2.500	67329	10/24/01
Propylbenzene	22	13	2.500	67329	10/24/01
Bromobenzene	ND	13	2.500	67329	10/24/01
1,3,5-Trimethylbenzene	40	13	2.500	67329	10/24/01
-Chlorotoluene	ND	13	2.500	67329	10/24/01
-Chlorotoluene	ND	13	2.500	67329	10/24/01
tert-Butylbenzene	ND	13	2.500	67329	10/24/01
1,2,4-Trimethylbenzene	120	13	2.500	67329	10/24/01
sec-Butylbenzene	18	13	2.500	67329	10/24/01
para-Isopropyl Toluene	ND	13	2.500	67329	10/24/01
1,3-Dichlorobenzene	ND	13	2.500	67329	10/24/01
1,4-Dichlorobenzene	ND	13	2.500	67329	10/24/01
n-Butylbenzene	16	13	2.500	67329	10/24/01
1,2-Dichlorobenzene	ND	13	2.500	67329	10/24/01
1,2-Dibromo-3-Chloropropane	ND	13	2.500	67329	10/24/01
1,2,4-Trichlorobenzene	ND	13	2.500	67329	10/24/01
Hexachlorobutadiene	ND	13	2.500	67329	10/24/01
Naphthalene	ND	13	2.500	67329	10/24/01
1,2,3-Trichlorobenzene	ND	13	2.500	67329	10/24/01

Surrogate	\$REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	104	80-122	2.500	67329	10/24/01
1,2-Dichloroethane-d4	105	78-123	2.500	67329	10/24/01
Toluene-d8	99	80-110	2.500	67329	10/24/01
Bromofluorobenzene	102	80-115	2.500	67329	10/24/01

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA -4	Units:	ug/L
Lab ID:	154761-031	Sampled:	10/12/01
Matrix:	Water	Received:	10/15/01

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Freon 12	ND	10	1.000	67290	10/23/01
Chloromethane	ND	10	1.000	67290	10/23/01
Vinyl Chloride	ND	10	1.000	67290	10/23/01
Bromomethane	ND	10	1.000	67290	10/23/01
Chloroethane	ND	10	1.000	67290	10/23/01
Trichlorofluoromethane	ND	5.0	1.000	67290	10/23/01
Acetone	ND	20	1.000	67290	10/23/01
Freon 113	ND	5.0	1.000	67290	10/23/01
1,1-Dichloroethene	ND	5.0	1.000	67290	10/23/01
Methylene Chloride	ND	20	1.000	67290	10/23/01
Carbon Disulfide	ND	5.0	1.000	67290	10/23/01
MTBE	320	17	3.333	67329	10/24/01
trans-1,2-Dichloroethene	ND	5.0	1.000	67290	10/23/01
Vinyl Acetate	ND	50	1.000	67290	10/23/01
1,1-Dichloroethane	ND	5.0	1.000	67290	10/23/01
2-Butanone	ND	10	1.000	67290	10/23/01
cis-1,2-Dichloroethene	650	17	3.333	67329	10/24/01
2,2-Dichloropropane	ND	5.0	1.000	67290	10/23/01
Chloroform	ND	5.0	1.000	67290	10/23/01
Bromoform	ND	10	1.000	67290	10/23/01
1,1,1-Trichloroethane	ND	5.0	1.000	67290	10/23/01
1,1-Dichloropropene	ND	5.0	1.000	67290	10/23/01
Carbon Tetrachloride	ND	5.0	1.000	67290	10/23/01
1,2-Dichloroethane	ND	5.0	1.000	67290	10/23/01
Benzene	ND	5.0	1.000	67290	10/23/01
Trichloroethene	ND	5.0	1.000	67290	10/23/01
1,2-Dichloropropane	ND	5.0	1.000	67290	10/23/01
Bromodichloromethane	ND	5.0	1.000	67290	10/23/01
Dibromomethane	ND	5.0	1.000	67290	10/23/01
4-Methyl-2-Pentanone	ND	10	1.000	67290	10/23/01
cis-1,3-Dichloropropene	ND	5.0	1.000	67290	10/23/01
Toluene	25	5.0	1.000	67290	10/23/01
trans-1,3-Dichloropropene	ND	5.0	1.000	67290	10/23/01
1,1,2-Trichloroethane	ND	5.0	1.000	67290	10/23/01
2-Hexanone	ND	10	1.000	67290	10/23/01
1,3-Dichloropropane	ND	5.0	1.000	67290	10/23/01
Tetrachloroethene	ND	5.0	1.000	67290	10/23/01
Dibromochloromethane	ND	5.0	1.000	67290	10/23/01
1,2-Dibromoethane	ND	5.0	1.000	67290	10/23/01

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	SOMA -4	Units:	ug/L
Lab ID:	154761-031	Sampled:	10/12/01
Matrix:	Water	Received:	10/15/01

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chlorobenzene	ND	5.0	1.000	67290	10/23/01
1,1,1,2-Tetrachloroethane	ND	5.0	1.000	67290	10/23/01
Ethylbenzene	9.3	5.0	1.000	67290	10/23/01
m,p-Xylenes	49	5.0	1.000	67290	10/23/01
o-Xylene	30	5.0	1.000	67290	10/23/01
Styrene	ND	5.0	1.000	67290	10/23/01
Bromoform	ND	5.0	1.000	67290	10/23/01
Isopropylbenzene	15	5.0	1.000	67290	10/23/01
1,1,2,2-Tetrachloroethane	ND	5.0	1.000	67290	10/23/01
1,2,3-Trichloropropane	ND	5.0	1.000	67290	10/23/01
Propylbenzene	36	5.0	1.000	67290	10/23/01
Bromobenzene	ND	5.0	1.000	67290	10/23/01
1,3,5-Trimethylbenzene	90	5.0	1.000	67290	10/23/01
-Chlorotoluene	ND	5.0	1.000	67290	10/23/01
-Chlorotoluene	ND	5.0	1.000	67290	10/23/01
tert-Butylbenzene	ND	5.0	1.000	67290	10/23/01
1,2,4-Trimethylbenzene	100	17	3.333	67329	10/24/01
sec-Butylbenzene	13	5.0	1.000	67290	10/23/01
para-Isopropyl Toluene	12	5.0	1.000	67290	10/23/01
1,3-Dichlorobenzene	ND	5.0	1.000	67290	10/23/01
1,4-Dichlorobenzene	ND	5.0	1.000	67290	10/23/01
n-Butylbenzene	14	5.0	1.000	67290	10/23/01
1,2-Dichlorobenzene	ND	5.0	1.000	67290	10/23/01
1,2-Dibromo-3-Chloropropane	ND	5.0	1.000	67290	10/23/01
1,2,4-Trichlorobenzene	ND	5.0	1.000	67290	10/23/01
Hexachlorobutadiene	ND	5.0	1.000	67290	10/23/01
Naphthalene	23	5.0	1.000	67290	10/23/01
1,2,3-Trichlorobenzene	ND	5.0	1.000	67290	10/23/01

Surrogate	\$REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	111	80-122	1.000	67290	10/23/01
1,2-Dichloroethane-d4	105	78-123	1.000	67290	10/23/01
Toluene-d8	98	80-110	1.000	67290	10/23/01
Bromofluorobenzene	98	80-115	1.000	67290	10/23/01

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159160	Batch#:	67210
Matrix:	Water	Analyzed:	10/18/01
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Methyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159160	Batch#:	67210
Matrix:	Water	Analyzed:	10/18/01
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	#REC	Limits
Dibromofluoromethane	102	63-133
1,2-Dichloroethane-d4	101	76-127
Toluene-d8	99	80-111
Bromofluorobenzene	103	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159470	Batch#:	67281
Matrix:	Water	Analyzed:	10/22/01
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
ethyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159470	Batch#:	67281
Matrix:	Water	Analyzed:	10/22/01
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
o-mobenzene	ND	5.0
3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	REC	Limits
Dibromofluoromethane	101	63-133
1,2-Dichloroethane-d4	99	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	107	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159647	Batch#:	67329
Matrix:	Water	Analyzed:	10/23/01
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Methyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

- Not Detected

RL= Reporting Limit



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159647	Batch#:	67329
Matrix:	Water	Analyzed:	10/23/01
Units:	ug/L		

Analyte	Result	RI
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Acromobenzene	ND	5.0
3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-122
1,2-Dichloroethane-d4	104	78-123
Toluene-d8	94	80-110
Bromofluorobenzene	95	80-115

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159648	Batch#:	67329
Matrix:	Water	Analyzed:	10/23/01
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Methyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND = Not Detected

RL= Reporting Limit



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159648	Batch#:	67329
Matrix:	Water	Analyzed:	10/23/01
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	#REC	Limits
Dibromofluoromethane	100	80-122
1,2-Dichloroethane-d4	113	78-123
Toluene-d8	94	80-110
Bromofluorobenzene	105	80-115

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovetarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159501	Batch#:	67290
Matrix:	Water	Analyzed:	10/22/01
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
methyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND = Not Detected

RL = Reporting Limit



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159501	Batch#:	67290
Matrix:	Water	Analyzed:	10/22/01
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Aromobenzene	ND	5.0
,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	TREC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	99	78-123
Toluene-d8	102	80-110
Bromofluorobenzene	103	80-115

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159629	Batch#:	67324
Matrix:	Water	Analyzed:	10/23/01
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
ethyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC159629	Batch#:	67324
Matrix:	Water	Analyzed:	10/23/01
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Homobenzene	ND	5.0
3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	63-133
1,2-Dichloroethane-d4	103	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	115	77-126

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC159646	Batch#:	67329
Matrix:	Water	Analyzed:	10/23/01
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	53.98	108	74-132
Benzene	50.00	54.74	109	80-116
Trichloroethene	50.00	45.94	92	80-119
Toluene	50.00	42.32	85	80-120
Chlorobenzene	50.00	46.94	94	80-117

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	105	78-123
Toluene-d8	100	80-110
Bromofluorobenzene	98	80-115



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	67290
Units:	ug/L	Analyzed:	10/22/01
Diln Fac:	1.000		

Type: BS Lab ID: QC159498

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	64.02	128	74-132
Benzene	50.00	53.40	107	80-116
Trichloroethene	50.00	57.97	116	80-119
Toluene	50.00	54.87	110	80-120
Chlorobenzene	50.00	52.42	105	80-117

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	101	78-123
Toluene-d8	101	80-110
Bromofluorobenzene	99	80-115

Type: BSD Lab ID: QC159499

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	60.83	122	74-132	5	20
Benzene	50.00	53.72	107	80-116	1	20
Trichloroethene	50.00	54.39	109	80-119	6	20
Toluene	50.00	55.43	111	80-120	1	20
Chlorobenzene	50.00	52.26	105	80-117	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	99	78-123
Toluene-d8	102	80-110
Bromofluorobenzene	99	80-115

RPD= Relative Percent Difference

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	67329
MSS Lab ID:	154822-001	Sampled:	10/16/01
Matrix:	Water	Received:	10/17/01
Units:	ug/L	Analyzed:	10/23/01
Diln Fac:	1.000		

Type: MS Lab ID: QC159649

Analyte	MSS Result	Spiked	Result	\$REC	Limits
1,1-Dichloroethene	<0.2700	50.00	49.98	100	70-132
Benzene	<0.2600	50.00	55.67	111	80-114
Trichloroethene	<0.2600	50.00	48.74	97	62-137
Toluene	1.011	50.00	47.02	92	79-121
Chlorobenzene	<0.1300	50.00	44.74	89	80-117

Surrogate	\$REC	Limits
Dibromofluoromethane	107	80-122
1,2-Dichloroethane-d4	111	78-123
Toluene-d8	102	80-110
Bromofluorobenzene	108	80-115

Type: MSD Lab ID: QC159650

Analyte	Spiked	Result	\$REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	49.92	100	70-132	0	20
Benzene	50.00	55.11	110	80-114	1	20
Trichloroethene	50.00	47.39	95	62-137	3	20
Toluene	50.00	47.12	92	79-121	0	20
Chlorobenzene	50.00	47.47	95	80-117	6	20

Surrogate	\$REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	106	78-123
Toluene-d8	105	80-110
Bromofluorobenzene	101	80-115

RPD= Relative Percent Difference

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC159469	Batch#:	67281
Matrix:	Water	Analyzed:	10/22/01
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	61.18	122	66-138
Benzene	50.00	55.89	112	76-121
Trichloroethene	50.00	54.28	109	75-124
Toluene	50.00	55.34	111	75-124
Chlorobenzene	50.00	52.20	104	78-115

Surrogate	%REC	Limits
Dibromofluoromethane	104	63-133
1,2-Dichloroethane-d4	101	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	104	77-126



Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC159628	Batch#:	67324
Matrix:	Water	Analyzed:	10/23/01
Units:	ug/L		

Analyte	Spiked	Result	tREC	Limits
1,1-Dichloroethene	50.00	59.56	119	66-138
Benzene	50.00	56.67	113	76-121
Trichloroethene	50.00	56.15	112	75-124
Toluene	50.00	56.22	112	75-124
Chlorobenzene	50.00	53.31	107	78-115

Surrogate	tREC	Limits
Dibromofluoromethane	102	63-133
1,2-Dichloroethane-d4	102	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	102	77-126

Purgeable Organics by GC/MS

Lab #:	154761	Location:	Glovatarium
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2512	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC159159	Batch#:	67210
Matrix:	Water	Analyzed:	10/18/01
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	60.16	120	66-138
Benzene	50.00	57.94	116	76-121
Trichloroethene	50.00	56.62	113	75-124
Toluene	50.00	53.23	106	75-124
Chlorobenzene	50.00	52.93	106	78-115

Surrogate	%REC	Limits
Dibromofluoromethane	105	63-133
1,2-Dichloroethane-d4	103	76-127
Toluene-d8	97	80-111
Bromofluorobenzene	102	77-126



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:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

Date: 08-NOV-01
Lab Job Number: 154895
Project ID: 2512
Location: Glovatorium

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:

Paul Prendergast
Project Manager

Reviewed by:

John S. Johnson
Operations Manager

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CHAIN OF CUSTODY FORM

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Analyses

Curtis & Tompkins, Ltd.

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

C&T
 LOGIN # 154895

Project No: 2512

Sampler: Naser Pakrou

Project Name: Glovarium

Report To: Naser Pakrou

Project P.O.:

Company: SOMA Env Eng

Turnaround Time: Standard

Telephone: 925 244 6600

Fax: 925 244 6601

Laboratory Number	Sample ID.	Sampling Date Time	Soil	Water	Waste	Matrix	Preservative					Field Notes	TOC	Bulk Density Correction	
							# of Containers	HCL	H ₂ SO ₄	HNO ₃	ICE	Note			
B0M92-5	10/12	✓					1				✓		87	✓	X
B0M92-6	10/12	✓					1				✓		87	✓	X
B0M92-19	10/12	✓					1				✓		87	✓	X

<input checked="" type="checkbox"/> Received	<input type="checkbox"/> On Ice
<input checked="" type="checkbox"/> Cold	<input type="checkbox"/> Ambient
<input checked="" type="checkbox"/> Intact	

Preservation Correct?		
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A

Notes:	RELINQUISHED BY:	RECEIVED BY:
	<u>Naser Pakrou</u> <u>10/22/11:15</u>	<u>Ajenee Alba</u> <u>10/22/11:55</u>
	DATE/TIME	DATE/TIME
	DATE/TIME	DATE/TIME

Signature

PTS Laboratories

Geotechnical Services

8100 Secura Way • Santa Fe Springs • CA 90670
Phone (562) 907-3607 • Fax (562) 907-3610

October 25, 2001

Mr. Paul Prendergast
Curtis & Tompkins
2323 Fifth St.
Berkeley, CA 94710

Re: 154895
PTS File: 31622

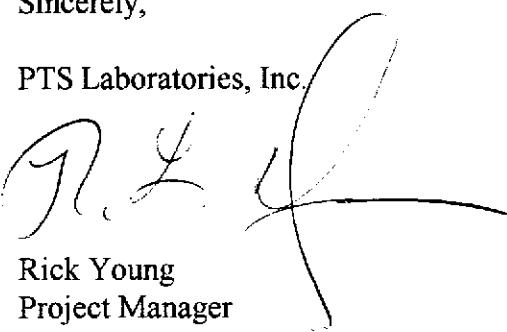
Dear Mr. Prendergast:

Enclosed is final data for from your Project # 154895. All analyses were performed by applicable ASTM, EPA or API methodology. Samples will be retained for 30 days before disposal unless other arrangements are made.

We appreciate the opportunity to be of service and trust these data will prove beneficial in the development of this project. Please feel free to call myself or Larry Kunkel, District Manager, should you have any questions or require additional information.

Sincerely,

PTS Laboratories, Inc.



Rick Young
Project Manager

RY/vk

encl.

PHYSICAL PROPERTIES DATA

(METHODOLOGY: ASTM D2937)

PROJECT NAME: N/A
PROJECT NO: 154895

SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENT. (1)	BULK DENSITY (g/cc)
------------	------------	--------------------	---------------------

SOMA 2-16' 16.00 V 1.81

(1) Sample Orientation: H = horizontal; V = vertical (2) Effective Porosity
= no pore fluids in place; all interconnected pore channels; Air Filled =
pore channels not occupied by pore fluids V_b = Bulk Volume, cc; P_v =
Pore Volume, cc; ND = Not Detected



Curtis & Tompkins, Ltd.

Total Organic Carbon (TOC)

Lab #:	154895	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Analysis:	WALKLEY-BLACK
Project#:	2512		
Analyte:	Total Organic Carbon	Batch#:	67474
Matrix:	Soil	Sampled:	10/12/01
Units:	%	Received:	10/22/01
Basis:	as received	Analyzed:	10/26/01
Diln Fac:	1.000		

Field ID	Type	Lab ID	Result	RL
SOMA 2-5'	SAMPLE	154895-001	0.11	0.03
SOMA 2-19'	SAMPLE	154895-003	0.06	0.05
	BLANK	QC160222	ND	0.01

ND= Not Detected

RL= Reporting Limit

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Total Organic Carbon (TOC)

Lab #:	154895	Location:	Glovatorium
Client:	SOMA Environmental Engineering Inc.	Analysis:	WALKLEY-BLACK
Project#:	2512		
Analyte:	Total Organic Carbon	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	67474
MSS Lab ID:	154890-001	Sampled:	10/22/01
Matrix:	Soil	Received:	10/22/01
Units:	#	Analyzed:	10/26/01
Basis:	as received		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Comments
LCS	QC160223		0.1300	0.1130	87	75-110			
MS	QC160224	3.179	1.630	5.417	138	40-148			
MSD	QC160225		1.630	5.087	117	40-148	6	28	

RPD= Relative Percent Difference

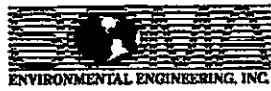
Page 1 of 1



Curtis & Tompkins, Ltd.

Appendix B

**Lithologic Logs, Well Completion Diagrams and Well
Survey Data**



GEOLOGIC LOG OF SOMA-1

Page 1 of 2

Boring Location: See Site Map	Project #2512 Site Location: 3815 Broadway, Oakland, California Drilling Method: Hollow Stem Auger Driller: Gregg Drilling & Testing. Logged By: Naser Pakrou	Date Drilled: 10/4/2001 Casing Elevation: Depth to Groundwater: Approved By: Jonathan Hoffman, R
----------------------------------	---	---

DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	NOTES
5			6" Asphalt and rock	
10		CL	Clay: Black; moist; low to medium plasticity; color gets lighter with depth; high organic content; no petroleum odor.	Well construction detail is presented in Appendix B
15		CL	Clay: Light brown; moist; low to medium plasticity; with occasional medium gravel; no petroleum odor.	
20		SC	Clayey Sand: Dark olive; moist; moderately/poorly sorted; low plasticity fines; 2-5% green gravel; no petroleum odor.	
25		GW	Sandy Gravel: Light brown; 30 to 40% poorly sorted v. fine to coarse sand; 5 to 10% low to med. plasticity fines; no petroleum odor.	
		CL	Silty Clay: Light brown; wet; low to medium plasticity; no petroleum odor.	
		SC	Clayey Sand: Light brown; v. fine sand; <25% low plasticity fines; moisture and clay content increase with depth; no petroleum odor.	
		CL	Silty Clay: Light brown; moist to wet; low to med. plasticity; no petroleum odor.	



GEOLOGIC LOG OF SOMA-1

Page 2 of 2

Boring Location: See Site Map	Project #2512 Site Location: 3815 Broadway, Oakland, California Drilling Method: Hollow Stem Auger Driller: Gregg Drilling & Testing. Logged By: Naser Pakrou	Date Drilled: 10/4/2001 Casing Elevation: Depth to Groundwater: Approved By: Jonathan Hoffman, R
----------------------------------	---	---

DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	NOTES
35		SC	Clayey Sand: Light brown; wet; fine to coarse poorly sorted sand; <10% low to med. plasticity fines; no petroleum odor.	Well construction detail is presented in Appendix B
40		CL	Silty Clay: Light brown; moist; low to medium plasticity; no petroleum odor.	



GEOLOGIC LOG OF SOMA-2

Page 1 of 1

Boring Location: See Site Map	Project #2512 Site Location: 3815 Broadway, Oakland, California Drilling Method: Hollow Stem Auger Driller: Gregg Drilling & Testing. Logged By: Naser Pakrou	Date Drilled: 10/11/2001 Casing Elevation: Depth to Groundwater: Approved By: Jonathan Hoffman, RG
----------------------------------	---	---

DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	NOTES
5		CL	6" concrete Silty Clay: Dark brown to black; moist; low to med. plasticity; color gets lighter with depth; occ. gravel at depth of 6-8'; high organic content; no petroleum odor.	Well construction detail is presented in Appendix B
10		CL	Silty Clay: Same as above but, no gravel and strong petroleum odor.	
15		SC	Clayey Sand: Dark olive to green; wet; fine to coarse poorly sorted sand; 25 to 30%, 7 to 10% low to medium plasticity fines; strong petroleum odor.	
20		GW	Sandy Gravel:Light brown matrix, dark brown gravel; wet; 20 to 25% fine to coarse poorly sorted sand; 5 to 10% low to med. plastic fines; strong petroleum odor.	
		CL	Silty Clay: Light olive; moist; med. plasticity; low permeability; no petroleum odor.	
			Drilling terminated at 20'	



GEOLOGIC LOG OF SOMA-3

Page 1 of 1

Boring Location: See Site Map	Project #2512 Site Location: 3815 Broadway, Oakland, California Drilling Method: Hollow Stem Auger Driller: Gregg Drilling & Testing. Logged By: Naser Pakrou	Date Drilled: 10/11/2001 Casing Elevation: Depth to Groundwater: Approved By: Jonathan Hoffman, R
--------------------------------------	---	--

DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	NOTES
5			6" concrete	
10		CL	Silty Clay: Dark brown to black; moist; low to med. plasticity; color gets lighter with depth; occ. gravel at depth of 6-8'; high organic content; no petroleum odor.	Well construction detail is presented in Appendix B
15		SC	Clayey Sand: Dark olive to green; wet; fine to coarse poorly sorted sand; 20 to 25% low to medium plasticity fines; strong petroleum odor.	
20		GW	Sandy Gravel: Light brown matrix, dark brown gravel; wet; 20 to 25% fine to coarse poorly sorted sand; 5 to 10% low to med. plastic fines; strong petroleum odor.	
25		CL	Silty Clay: Light olive; moist; med. plasticity; low permeability; no petroleum odor.	
		GC	Clayey Gravel: Dark olive; wet poorly sorted 20 to 30% low to med. plasticity fines; no petroleum odor.	
		CL	Silty Clay: Light brown; moist; med. plasticity; low permeability; no petroleum odor.	
			Drilling terminated at 30', hard to drill	



GEOLOGIC LOG OF SOMA-4

Page 1 of 1

Boring Location: See Site Map	Project #2512 Site Location: 3815 Broadway, Oakland, California Drilling Method: Hollow Stem Auger Driller: Gregg Drilling & Testing. Logged By: Naser Pakrou	Date Drilled: 10/12/2001 Casing Elevation: Depth to Groundwater: Approved By: Jonathan Hoffman, RG
----------------------------------	---	---

DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	NOTES
			6" concrete	
5		CL	Clay: Light brown; moist; med. plasticity; few orange pigments; no petroleum odor.	Well construction detail is presented in Appendix B
10		CL	Clay: Black; moist; med. plasticity; no petroleum odor.	
		CL	Silty Clay: Dark olive; moist; med. plasticity; occ. gravel increasing with depth.	
15		SC	Clayey Sand: Dark olive ; wet; fine to coarse poorly sorted sand; 15 to 25%, medium plasticity fines; strong petroleum odor.	
20		CL	Silty Clay: Light brown; moist; med. plasticity; low permeability; no petroleum odor.	
			Drilling terminated at 20'	

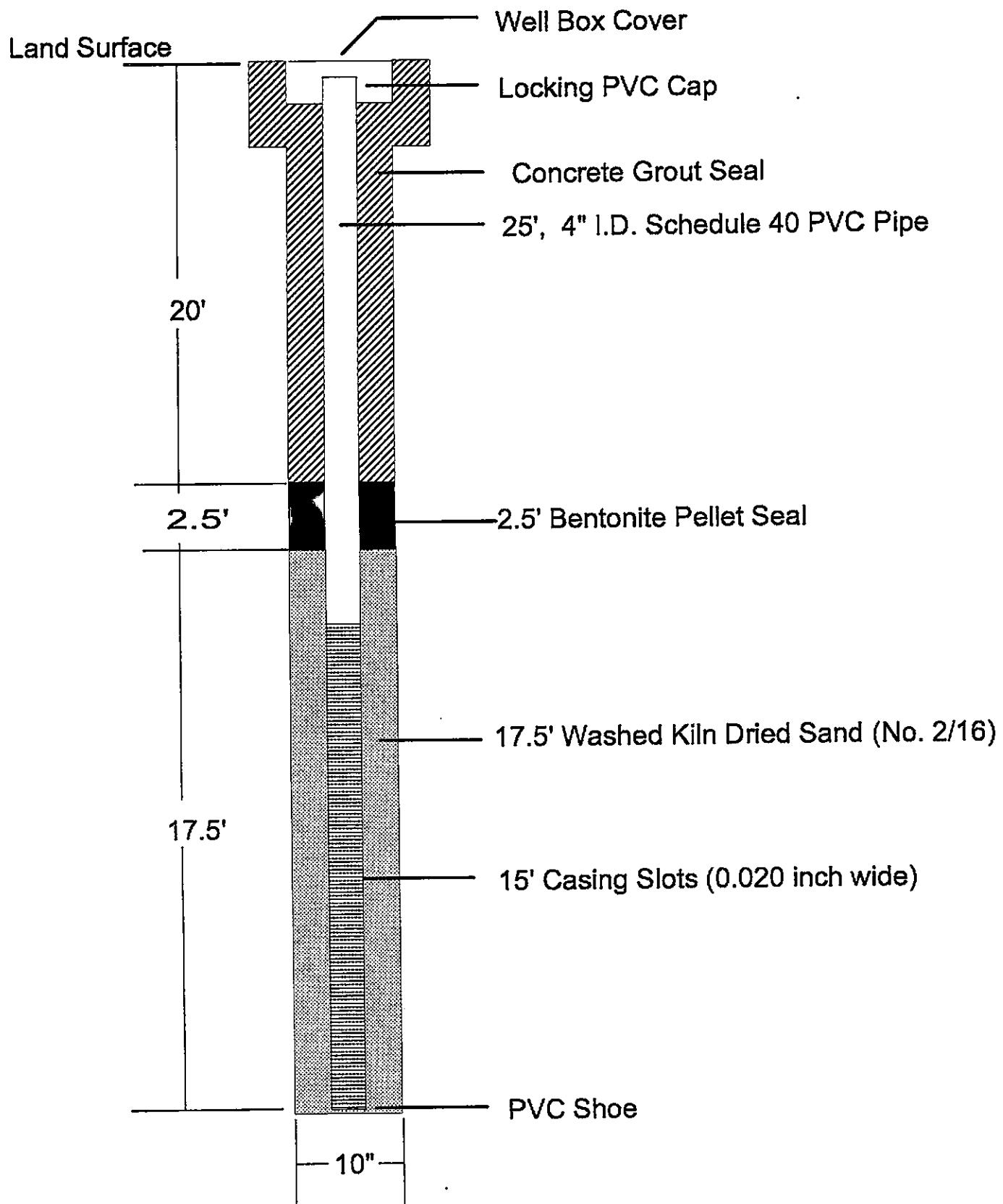


GEOLOGIC LOG OF SOMA-5

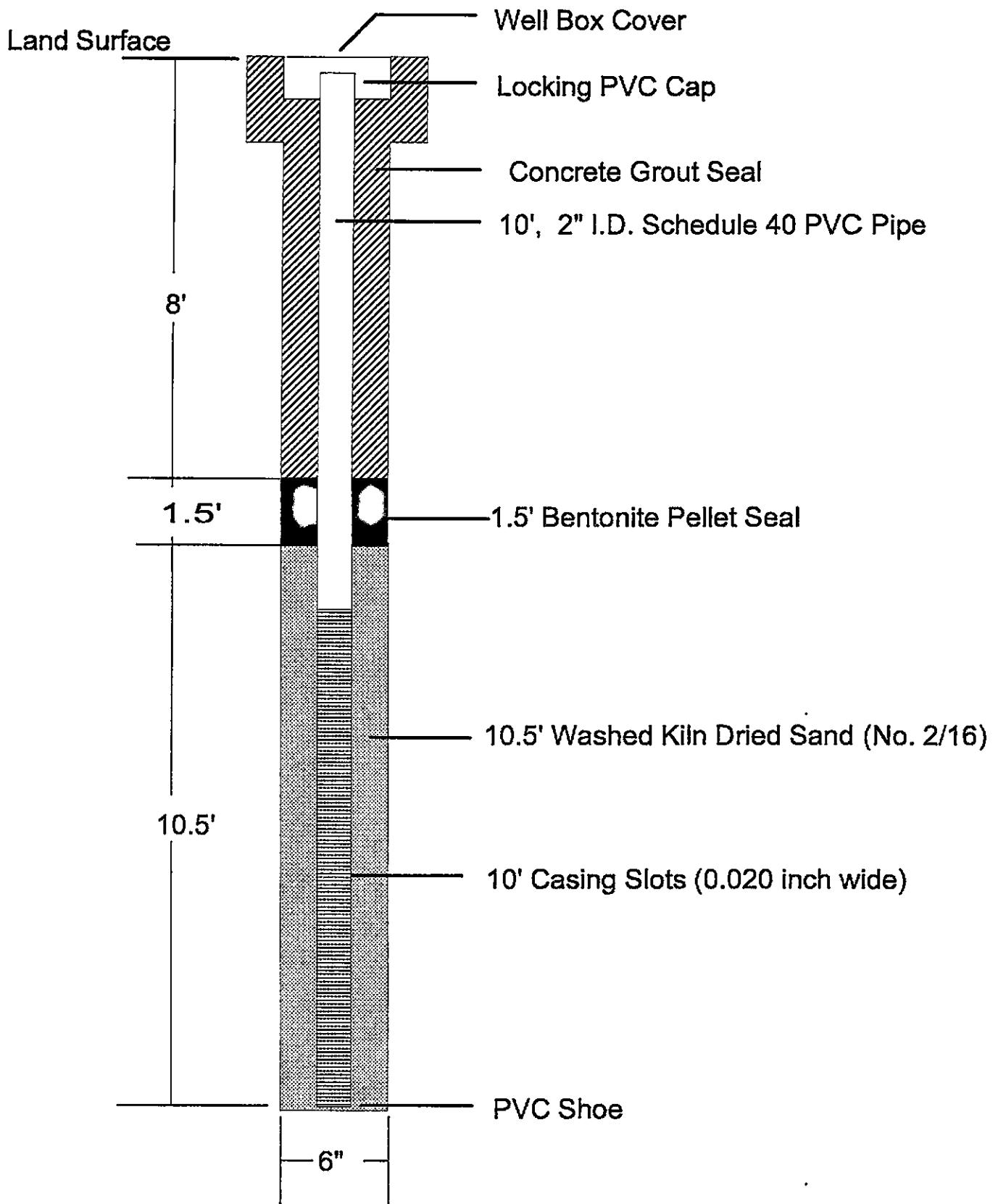
Page 1 of 1

Boring Location: See Site Map	Project #2512 Site Location: 3815 Broadway, Oakland, California Drilling Method: Hollow Stem Auger Driller: Gregg Drilling & Testing. Logged By: Naser Pakrou	Date Drilled: 10/12/2001 Casing Elevation: Depth to Groundwater: Approved By: Jonathan Hoffman, RG
--------------------------------------	---	---

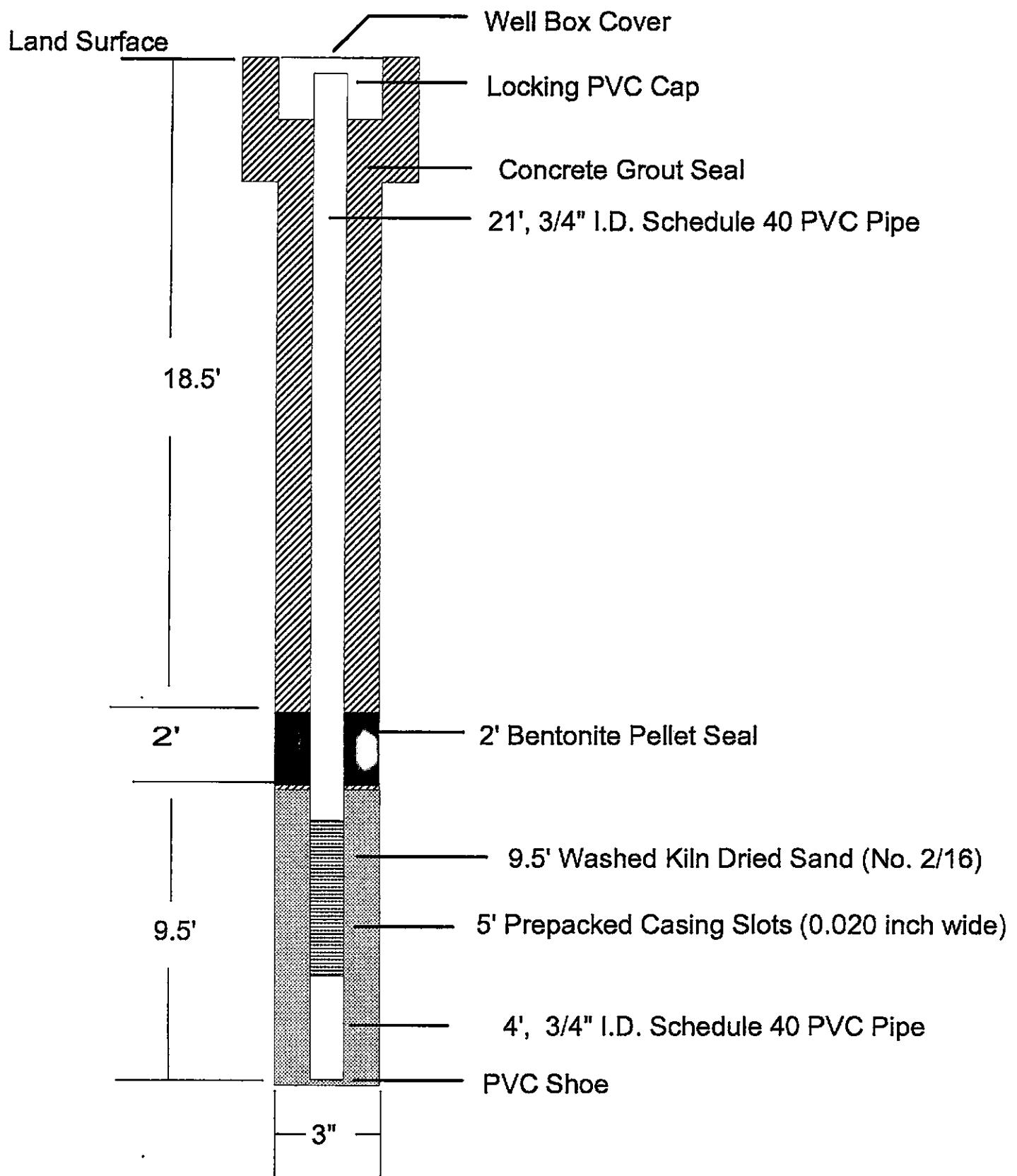
DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	NOTES
			6" concrete	
		CL	Clay: Light brown; moist; med. plasticity; few orange pigments; no petroleum odor.	Well construction detail is presented in Appendix B
5		CL	Clay: Black; moist; med. plasticity; no petroleum odor.	
10		CL	Silty Clay: Dark olive; moist; med. plasticity; occ. gravel increasing with depth.	
15		CL	Gravelly Clay: Dark olive to green matrix, red to dark brown gravel; moist; low to medium plasticity fines; 10-15% gravel; strong petroleum odor.	
20		CL	Silty Clay: Light brown; moist; med. plasticity; low permeability; no petroleum odor.	
25			Drilling terminated at 26', hard to drill	



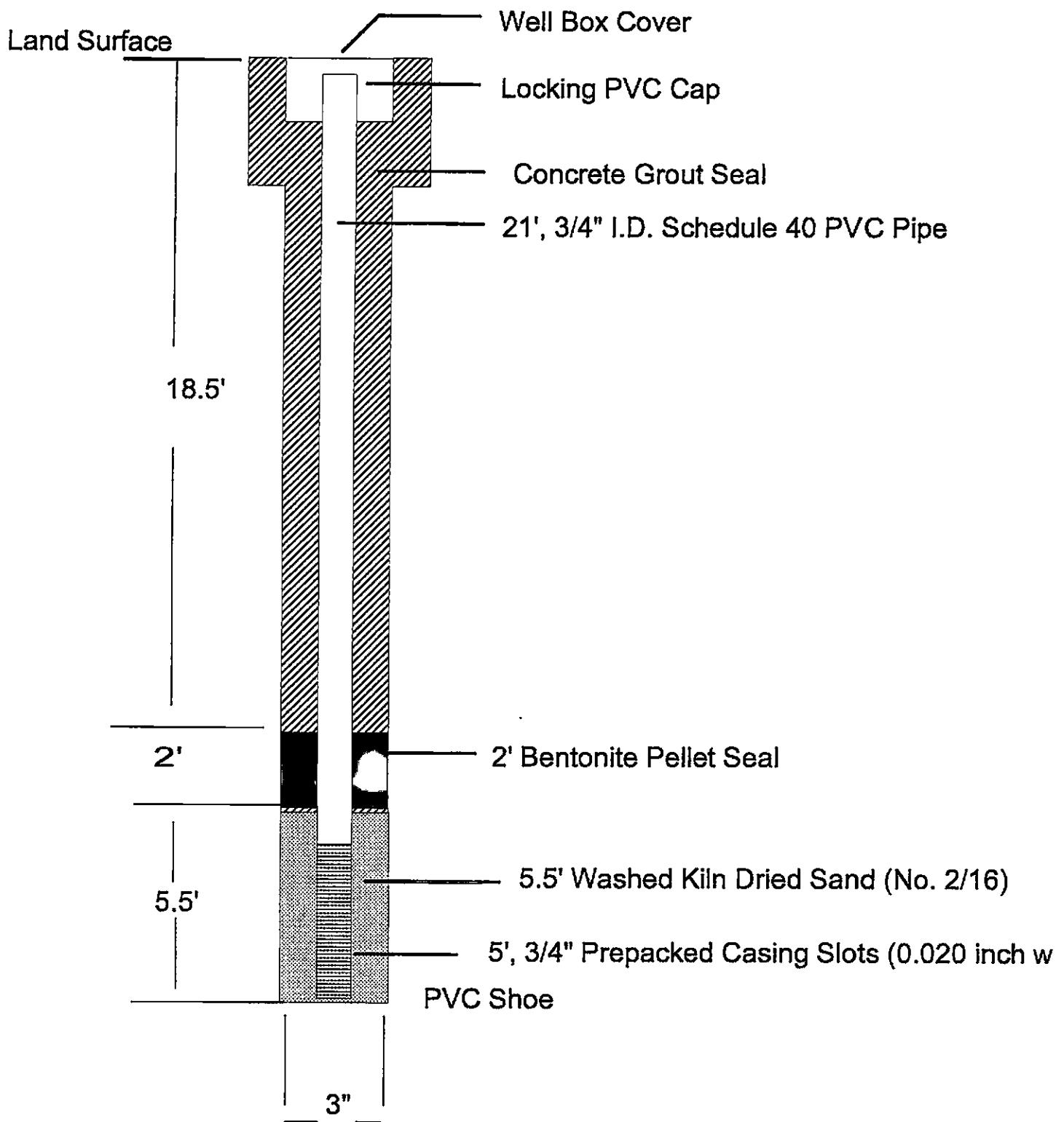
Construction Details of Monitoring Well Soma-1 with total depth of 40'



Construction Details of Monitoring Wells Soma-2 and Soma-4 with total depth of 20'



Construction Details of Monitoring Well Soma-3 with total depth of 30'



Construction Details of Monitoring Well Soma-5 with total depth of 26'

Virgil Chavez Land Surveying

312 Georgia Street, Suite 225
Vallejo, California 94590-5907
(707) 553-2476 • Fax (707) 553-8698

November 6, 2001
Project No. 1974-06

Mansour
Soma Environmental Engineering, Inc.
2680 Bishop Drive, Suite 203
San Ramon, CA 94583

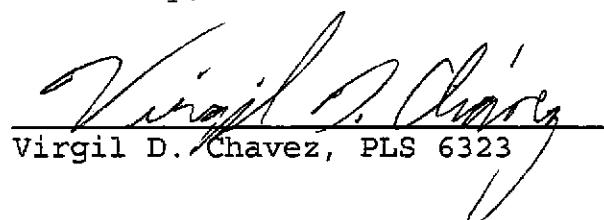
Subject: Monitoring Well Survey
3815 Broadway
Oakland, CA

Dear Mansour:

This is to confirm that we have proceeded at your request to survey the monitoring wells located at the above referenced location. The survey was performed on October 30, 2001. The benchmark for the survey was a USGS bronze disk located near the north end of the curb return at the Northwest corner of 38th Street and Broadway. The coordinates are for top of casing based on your coordinate system. Measurements taken at approximate north side of top of box and top of casing. Benchmark Elev. = 85.41 feet, (NGVD 29).

Well No.	Rim <u>Elevation</u>	TOC <u>Elevation</u>	Northing	Easting
SOMA - 1	82.31'	81.64'	270.13	326.38
SOMA - 2	81.62'	81.39'	270.39	392.29
SOMA - 3	81.65'	81.42'	270.60	394.89
SOMA - 4	81.51'	81.09'	237.74	392.79
SOMA - 5	81.68'	81.50'	227.76	392.24

Sincerely,


Virgil D. Chavez, PLS 6323



Appendix C

Raw data and Slug Tests Analyses Results

RAW DATA

WELL # SOMA-1

WELL DIAMETER= 6.00 INCHES
 CASING DIAMETER= 2.00 INCHES
 VOLUME OF WATER= -43.50 GALLONS
 LENGTH OF AQUIFER TESTED= 26.00 FEET
 VALUE OF H0=266.56 FEET
 STATIC WATER LEVEL= 14.13 FEET
 LENGTH OF SCREEN= 15.00 FEET
 WATER TABLE TO BOTTOM OF WELL= 26.00 FEET

SLUG TEST DATA:

TIME (FEET)	WATER LEVEL (FEET)	TIME SINCE TEST BEGAN (MINUTES)
0. 0.10	36.60	.17
0. 0.20	36.50	.33
0. 0.30	36.35	.50
0. 0.40	36.06	.67
0. 0.50	35.90	.83
0. 1. 0	35.80	1.00
0. 1.10	35.60	1.17
0. 1.20	35.45	1.33
0. 1.30	35.31	1.50
0. 2. 0	34.91	2.00
0. 2.30	34.60	2.50
0. 3. 0	34.40	3.00
0. 3.30	34.05	3.50
0. 4. 0	33.55	4.00
0. 4.30	33.26	4.50
0. 5. 0	32.75	5.00
0.10. 0	31.33	10.00
0.15. 0	30.26	15.00
0.20. 0	29.05	20.00
0.25. 0	27.85	25.00
0.30. 0	26.10	30.00
0.40. 0	24.25	40.00
0.50. 0	21.85	50.00
0.55. 0	20.15	55.00
1. 0. 0	18.71	60.00
1.10. 0	17.61	70.00
1.20. 0	16.97	80.00
1.30. 0	16.40	90.00

WELL DIAMETER= 6.00 INCHES
 CASING DIAMETER= 2.00 INCHES
 VOLUME OF WATER REMOVED OR ADDED TO WELL=***** GALLONS
 LENGTH OF AQUIFER TESTED= 26.00 FEET
 VALUE OF H0=266.56 FEET
 STATIC WATER LEVEL= 14.13 FEET

SLUG TEST DATA:

TIME SINCE TEST BEGAN (MINUTES)	WATER LEVEL (FEET)	DRAWDOWN (FEET)	HEAD RATIO	RECIPROCAL TIME (1/MINUTES)
.17	36.60	22.47	.084	6.000
.33	36.50	22.37	.084	3.000
.50	36.35	22.22	.083	2.000
.67	36.06	21.93	.082	1.500
.83	35.90	21.77	.082	1.200
1.00	35.80	21.67	.081	1.000
1.17	35.60	21.47	.081	.857
1.33	35.45	21.32	.080	.750
1.50	35.31	21.18	.079	.667
2.00	34.91	20.78	.078	.500
2.50	34.60	20.47	.077	.400
3.00	34.40	20.27	.076	.333
3.50	34.05	19.92	.075	.286
4.00	33.55	19.42	.073	.250
4.50	33.26	19.13	.072	.222
5.00	32.75	18.62	.070	.200
10.00	31.33	17.20	.065	.100
15.00	30.26	16.13	.061	.067

20.00	29.05	14.92	.056	.050
25.00	27.85	13.72	.051	.040
30.00	26.10	11.97	.045	.033
40.00	24.25	10.12	.038	.025
50.00	21.85	7.72	.029	.020
55.00	20.15	6.02	.023	.018
60.00	18.71	4.58	.017	.017
70.00	17.61	3.48	.013	.014
80.00	16.97	2.84	.011	.013
90.00	16.40	2.27	.009	.011

WELL # SOMA-1

HYD. CONDUC. BASED ON COOPER, BREDEHOEFT, AND PAPADOPULOS METHOD

HYD. CONDUC.=1.36E-04 / MATCH TIME (IN MINUTES)
 STORAGE COEF=.11 * ALPHA
 COMPUTER CALCULATES
 ALPHA=.10 MATCH TIME=.62
 HYD. CONDUC.=2.19E-04 CM/SEC
 STORAGE COEF=1.11E-02
 CORRELATION NUMBER=.81

HYD. CONDUCTIVITY BASED ON REGRESSION FIT OF HEAD RATIO DATA

HVORSLEV HYD. CONDUCTIVITY=3.15E-04 / LAG TIME
 BOUWER & RICE HYD. CONDUCTIVITY=9.38E-04 * -SLOPE

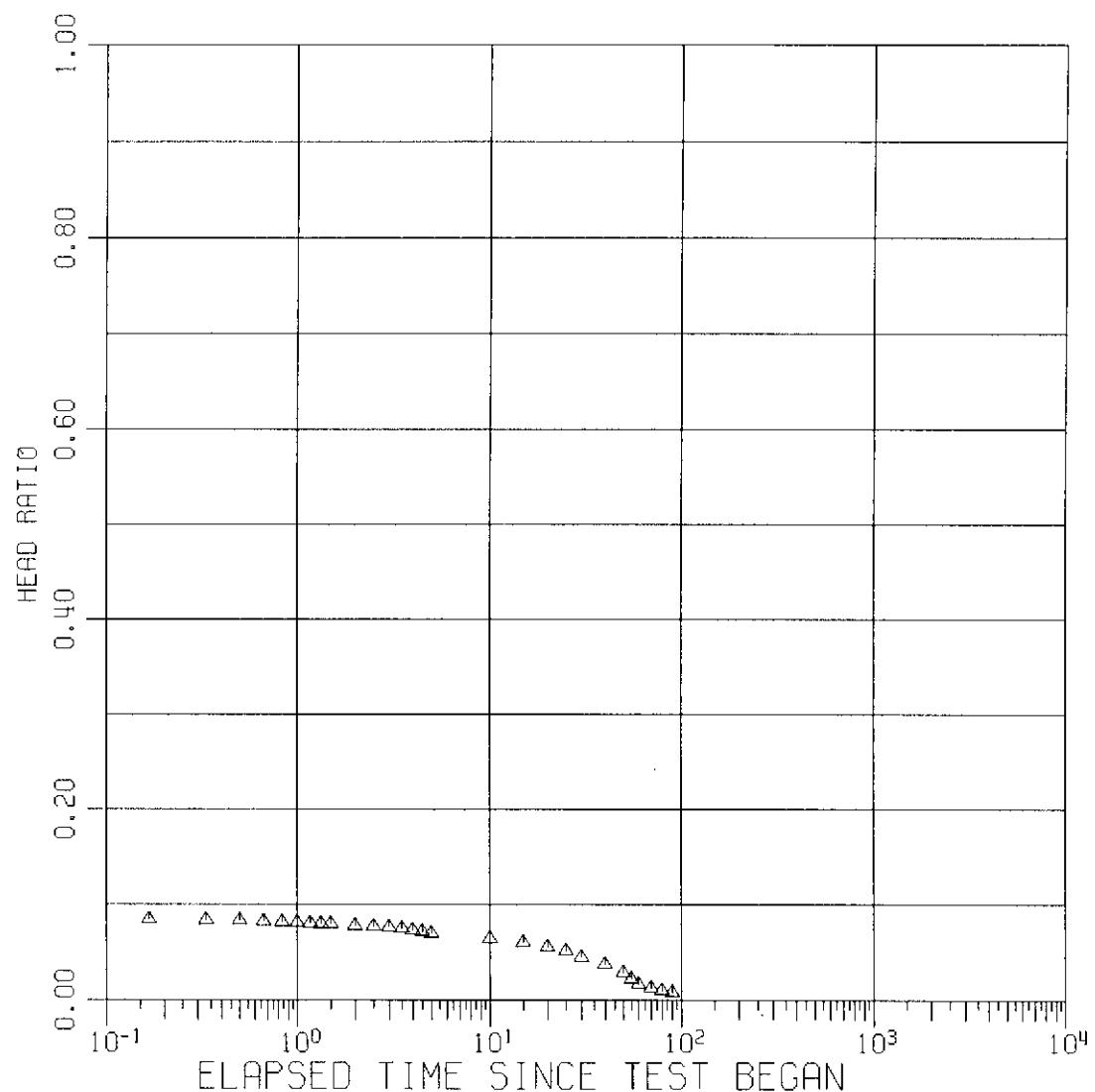
CALCULATED HYD. CONDUCTIVITY IS INVALID
 CALCULATIONS INDICATE THAT A VALUE OF 22.71 FEET FOR H0
 OR A VALUE OF 6.853 INCHES FOR EFFECTIVE CASING DIA.
 MAY YIELD BETTER RESULTS

HYD. CONDUC. BASED ON REGRESSION FIT OF DATA - FERRIS & KNOWLES METHOD

HYD. CONDUC.=9.03E-03 / SLOPE
 COMPUTER CALCULATES
 HYD. CONDUC. VARIES MORE THAN 20% DEPENDING ON THE EQUATION USED
 FOR X ON Y HYD. CONDUC.=1.64E-04 CM/SEC
 FOR Y ON X HYD. CONDUC.=1.10E-04 CM/SEC
 AVERAGE HYD. CONDUC.=1.37E-04 CM/SEC
 REGRESSION STATISTICS
 X ON Y
 INTERCEPT= 7.04
 SLOPE= 55.
 Y ON X
 INTERCEPT= 4.73
 SLOPE= 82.
 CORRELATION COEFFICIENT=.82

WELL #	HYD. CONDUC. METHOD 1 (Cm/Sec)	HYD. CONDUC. METHOD 2 (Cm/Sec)	STORAGE COEF METHOD 2	HYD. CONDUC. METHOD 3 (Cm/Sec)	HYD. CONDUC. METHOD 4 (Cm/Sec)
SOMA-1	.00	2.19E-04	1.11E-02	1.37E-04	.00

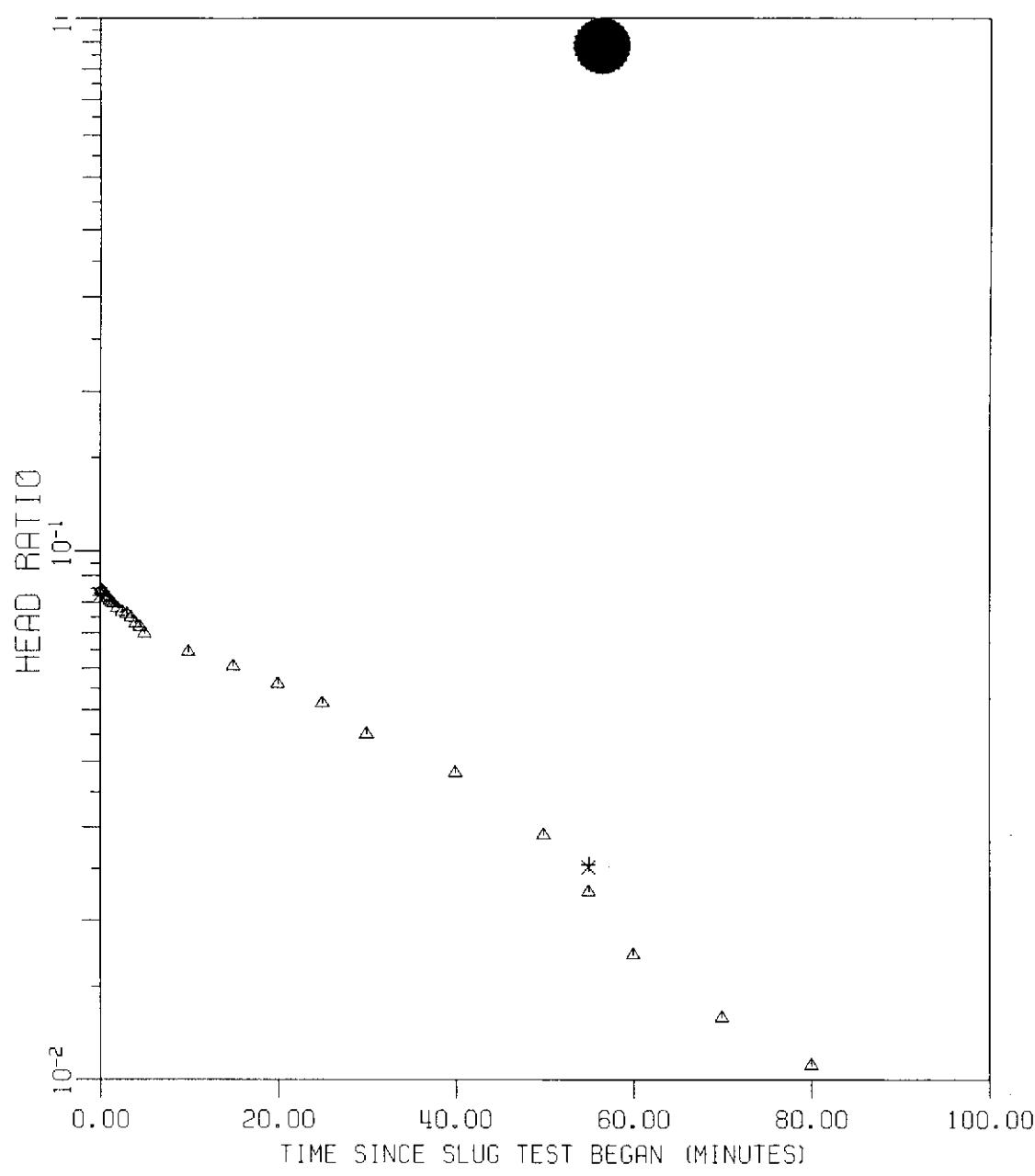
* METHOD 1 IS HVORSLEV
 METHOD 2 IS COOPER, BREDEHOEFT, AND PAPADOPULOS
 METHOD 3 IS FERRIS AND KNOWLES
 METHOD 4 IS BOUWER & RICE



SLUG TEST OF WELL S0MA-1
PROJECT NO.: 2512

DATE: JAN - 4 -

Bredenhoeft, Cooper and Papadopoulos Method

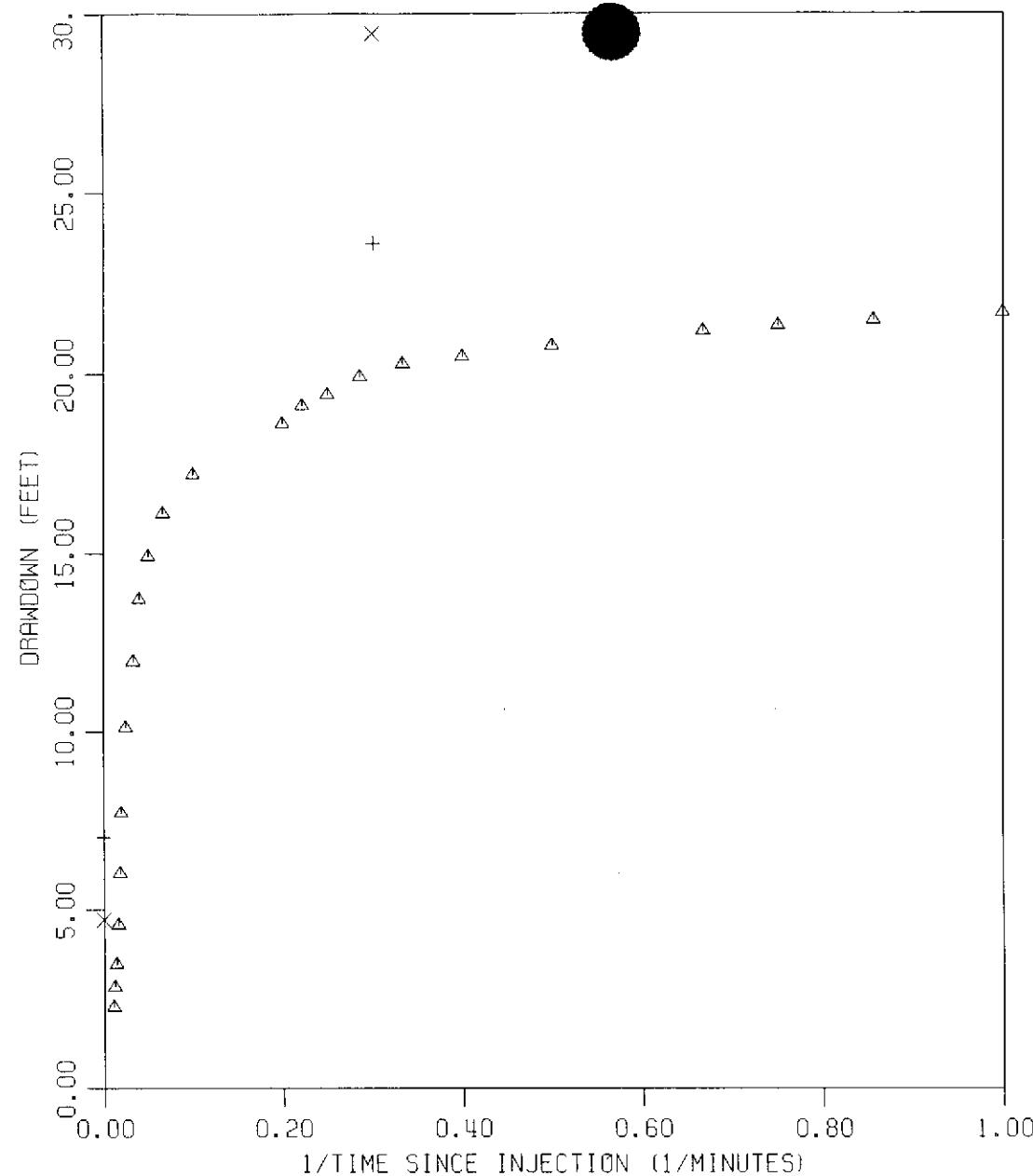


SLUG TEST OF WELL S0MA-1

PROJECT NO.: 2512

DATE: JAN - 4 -

Hvorslev Method: Log Head Ratio VS Time



SLUG TEST OF WELL S0MA-1

PROJECT NO.: 2512

DATE: JAN - 4 -

Ferris and Knowles Method: Drawdown V. Reciprocal Of Time-

RAW DATA

WELL # SOMA-2

WELL DIAMETER= 6.00 INCHES
 CASING DIAMETER= 2.00 INCHES
 VOLUME OF WATER= -.29 GALLONS
 LENGTH OF AQUIFER TESTED= 12.00 FEET
 VALUE OF H0= 1.78 FEET
 STATIC WATER LEVEL= 9.21 FEET
 LENGTH OF SCREEN= 10.00 FEET
 WATER TABLE TO BOTTOM OF WELL= 11.10 FEET

SLUG TEST DATA:

TIME (FEET)	WATER LEVEL (FEET)	TIME SINCE TEST BEGAN (MINUTES)
0. 0. 5	9.80	.08
0. 0. 7	9.64	.12
0. 0. 9	9.54	.15
0. 0.12	9.53	.20
0. 0.51	9.50	.85
0. 0.56	9.47	.93
0. 1.10	9.45	1.17
0. 1.19	9.44	1.32
0. 1.28	9.43	1.47
0. 1.48	9.42	1.80
0. 2. 1	9.40	2.02
0. 2.23	9.39	2.38
0. 2.46	9.38	2.77
0. 3. 5	9.37	3.08
0. 3.26	9.35	3.43
0. 3.54	9.34	3.90
0. 4. 8	9.33	4.13
0. 4.23	9.32	4.38
0. 4.50	9.31	4.83
0. 5.32	9.30	5.53
0. 5.48	9.29	5.80
0. 5.59	9.28	5.98
0. 6.39	9.27	6.65
0. 7.15	9.26	7.25
0. 8. 6	9.25	8.10
0. 8.46	9.24	8.77
0. 9. 0	9.23	9.00

WELL DIAMETER= 6.00 INCHES
 CASING DIAMETER= 2.00 INCHES
 VOLUME OF WATER REMOVED OR ADDED TO WELL= -.29 GALLONS
 LENGTH OF AQUIFER TESTED= 12.00 FEET
 VALUE OF H0= 1.78 FEET
 STATIC WATER LEVEL= 9.21 FEET

SLUG TEST DATA:

TIME SINCE TEST BEGAN (MINUTES)	WATER LEVEL (FEET)	DRAWDOWN (FEET)	HEAD RATIO	RECIPROCAL TIME (1/MINUTES)
.08	9.80	.59	.332	12.000
.12	9.64	.43	.242	8.571
.15	9.54	.33	.186	6.667
.20	9.53	.32	.180	5.000
.85	9.50	.29	.163	1.176
.93	9.47	.26	.146	1.071
1.17	9.45	.24	.135	.857
1.32	9.44	.23	.129	.759
1.47	9.43	.22	.124	.682
1.80	9.42	.21	.118	.556
2.02	9.40	.19	.107	.496
2.38	9.39	.18	.101	.420
2.77	9.38	.17	.096	.361
3.08	9.37	.16	.090	.324
3.43	9.35	.14	.079	.291
3.90	9.34	.13	.073	.256
4.13	9.33	.12	.068	.242
4.38	9.32	.11	.062	.228
4.83	9.31	.10	.056	.207

5.53	9.30	.09	.051	.181
5.80	9.29	.08	.045	.172
5.98	9.28	.07	.039	.167
6.65	9.27	.06	.034	.150
7.25	9.26	.05	.028	.138
8.10	9.25	.04	.023	.123
8.77	9.24	.03	.017	.114
9.00	9.23	.02	.011	.111

WELL # SOMA-2

HYD. CONDUC. BASED ON COOPER, BREDEHOEFT, AND PAPADOPULOS METHOD

HYD. CONDUC.=2.94E-04 / MATCH TIME (IN MINUTES)
STORAGE COEF= .11 * ALPHA

COMPUTER CALCULATES

ALPHA=.10 MATCH TIME=.42
HYD. CONDUC.= 6.96E-04 CM/SEC
STORAGE COEF=1.11E-02
CORRELATION NUMBER=.87

HYD. CONDUCTIVITY BASED ON REGRESSION FIT OF HEAD RATIO DATA

HVORSLEV HYD. CONDUCTIVITY=5.69E-04 / LAG TIME
BOUWER & RICE HYD. CONDUCTIVITY=1.08E-03 * -SLOPE

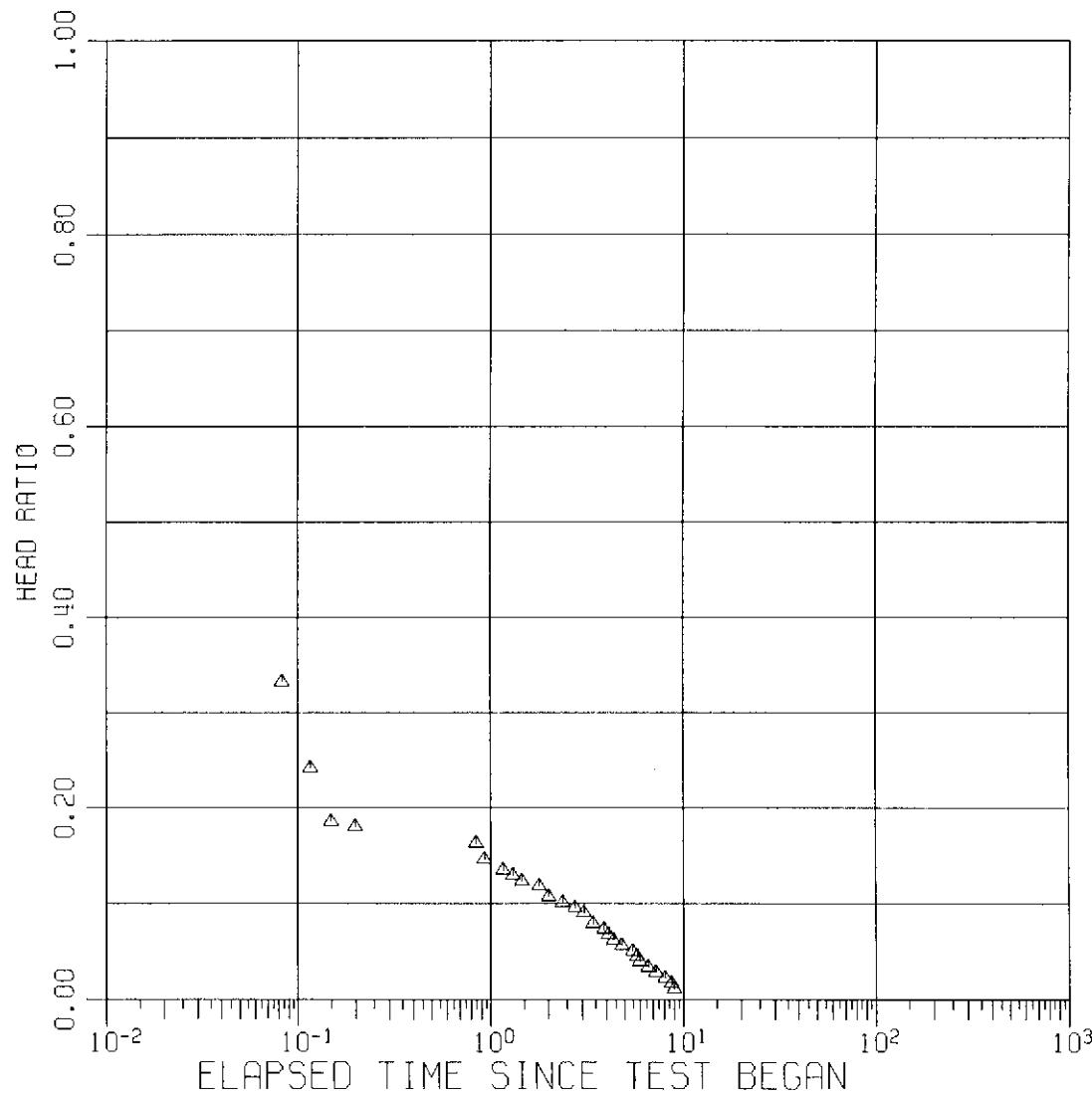
CALCULATED HYD. CONDUCTIVITY IS INVALID
CALCULATIONS INDICATE THAT A VALUE OF .89 FEET FOR H0
OR A VALUE OF 2.826 INCHES FOR EFFECTIVE CASING DIA.
MAY YIELD BETTER RESULTS

HYD. CONDUC. BASED ON REGRESSION FIT OF DATA - FERRIS & KNOWLES METHOD

HYD. CONDUC.=1.31E-04 / SLOPE
HYD. CONDUC.=1.94E-04 CM/SEC
REGRESSION STATISTICS
X ON Y
INTERCEPT= -.04
SLOPE= .66
Y ON X
INTERCEPT= -.05
SLOPE= .68
CORRELATION COEFFICIENT=.99

WELL #	HYD. CONDUC.	HYD. CONDUC.	STORAGE COEF	HYD. CONDUC.	HYD. CONDUC.
	METHOD 1 (Cm/Sec)	METHOD 2 (Cm/Sec)	METHOD 2	METHOD 3 (Cm/Sec)	METHOD 4 (Cm/Sec)
SOMA-2	.00	6.96E-04	1.11E-02	1.94E-04	.00

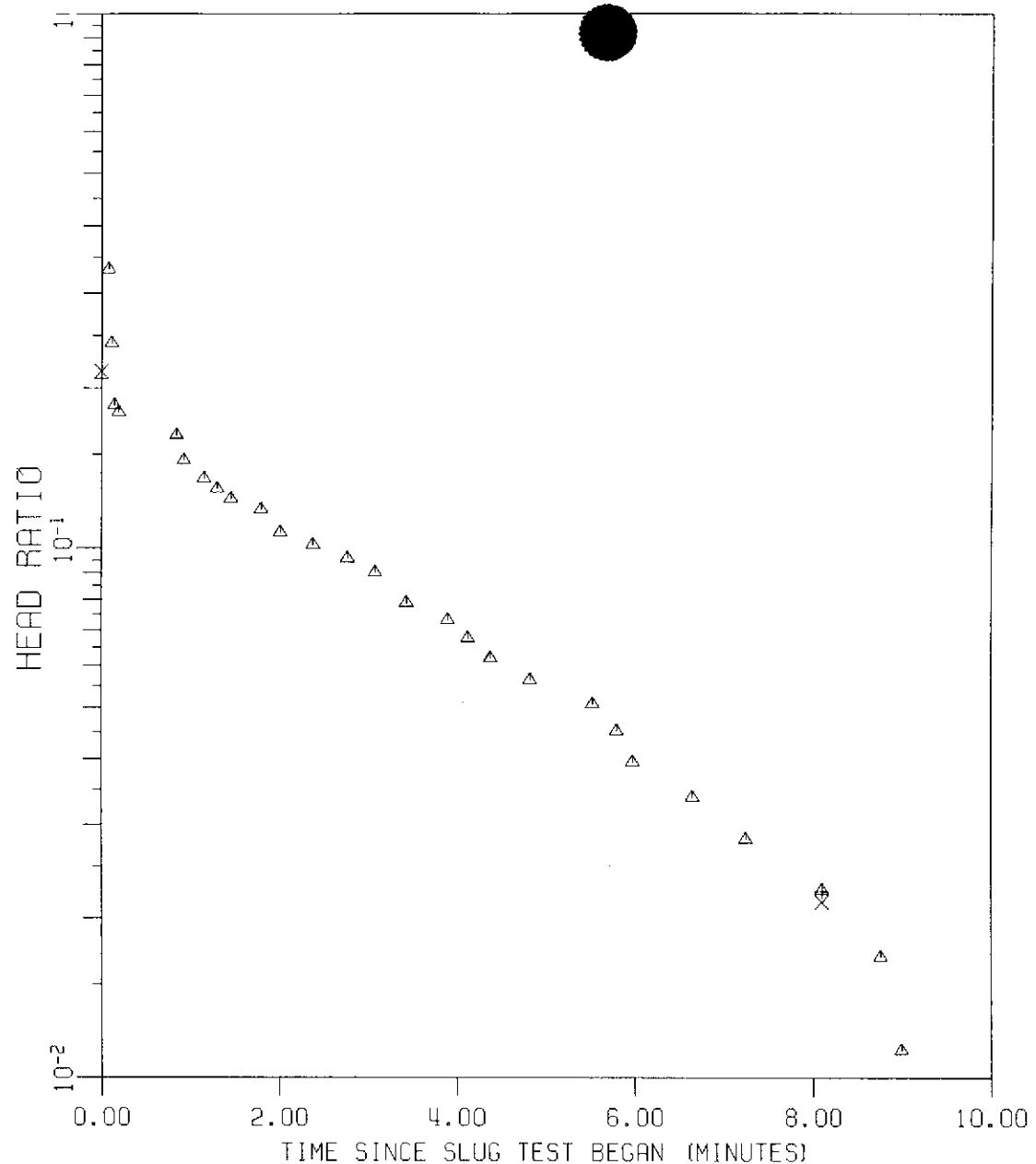
* METHOD 1 IS HVORSLEV
METHOD 2 IS COOPER, BREDEHOEFT, AND PAPADOPULOS
METHOD 3 IS FERRIS AND KNOWLES
METHOD 4 IS BOUWER & RICE



SLUG TEST OF WELL S0MA-2
PROJECT NO.: 2512

DATE: JAN - 4 -

Bredehoeft, Cooper and Papadopoulos Method

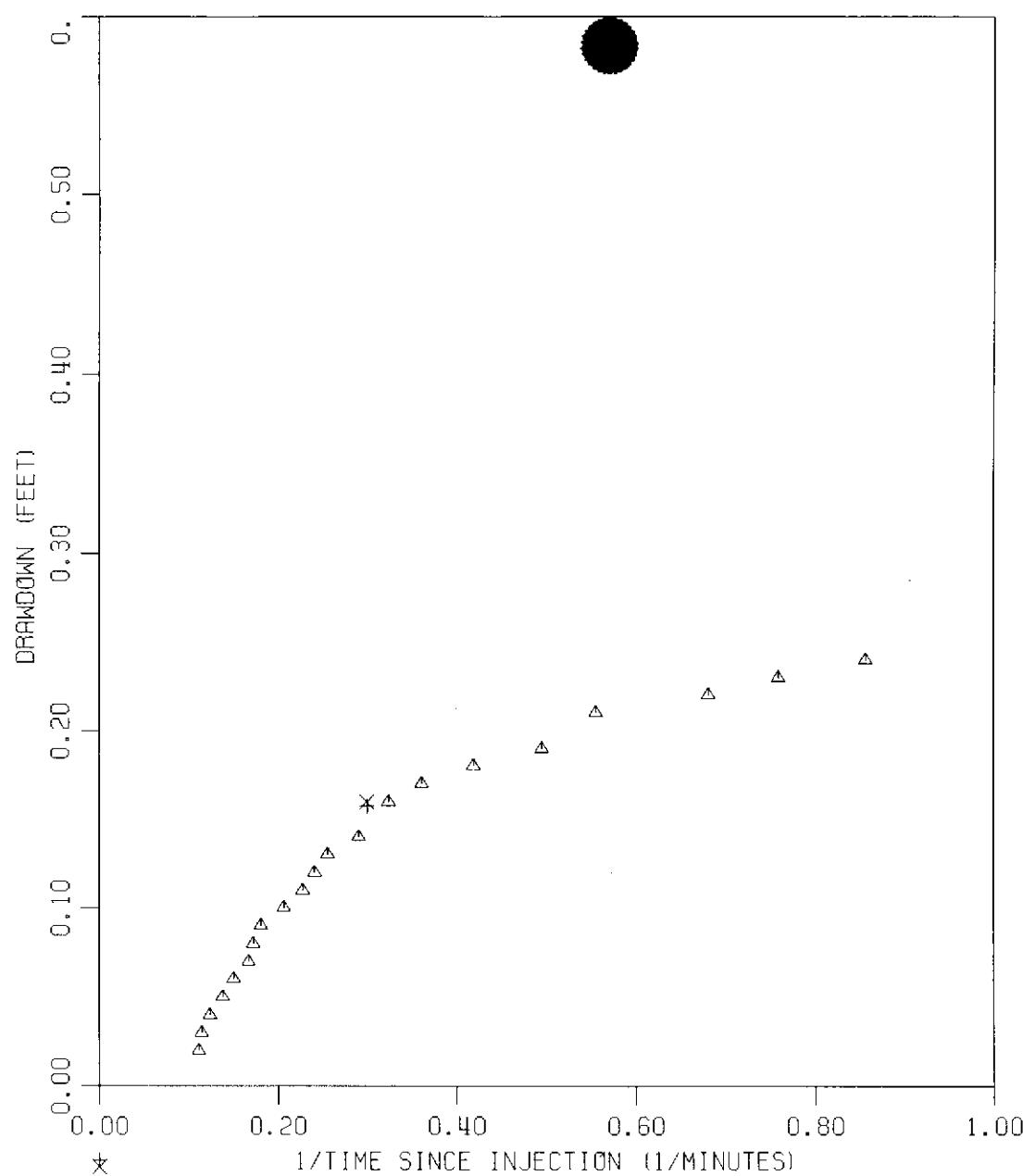


SLUG TEST OF WELL S0MA-2

PROJECT NO.: 2512

DATE: JAN - 4 -

Hvorslev Method: Log Head Ratio VS Time



SLUG TEST OF WELL SOMA-2

PROJECT NO.: 2512

DATE: JAN - 4 -

Ferris and Knowles Method: Drawdown V. Reciprocal Of Time-

RAW DATA

WELL # LFR-2

WELL DIAMETER= 8.00 INCHES
 CASING DIAMETER= 2.00 INCHES
 VOLUME OF WATER= -.29 GALLONS
 LENGTH OF AQUIFER TESTED= 12.00 FEET
 VALUE OF h_0 = 1.78 FEET
 STATIC WATER LEVEL= 11.30 FEET
 LENGTH OF SCREEN= 10.00 FEET
 WATER TABLE TO BOTTOM OF WELL= 7.70 FEET

SLUG TEST DATA:

TIME (FEET)	WATER LEVEL (FEET)	TIME SINCE TEST BEGAN (MINUTES)
0. 0. 5	11.80	.08
0. 0. 9	11.64	.15
0. 0.14	11.63	.23
0. 0.20	11.62	.33
0. 0.30	11.61	.50
0. 0.39	11.60	.65
0. 0.48	11.59	.80
0. 1. 3	11.58	1.05
0. 1.23	11.57	1.38
0. 1.48	11.56	1.80
0. 2.56	11.55	2.93
0. 4.20	11.54	4.33
0. 6.26	11.53	6.43
0. 7. 6	11.52	7.10
0. 9.20	11.51	9.33
0.12.25	11.50	12.42
0.20.40	11.47	20.67
0.28. 0	11.45	28.00
0.47.50	11.41	47.83

WELL DIAMETER= 8.00 INCHES
 CASING DIAMETER= 2.00 INCHES
 VOLUME OF WATER REMOVED OR ADDED TO WELL= -.29 GALLONS
 LENGTH OF AQUIFER TESTED= 12.00 FEET
 VALUE OF h_0 = 1.78 FEET
 STATIC WATER LEVEL= 11.30 FEET

SLUG TEST DATA:

TIME SINCE TEST BEGAN (MINUTES)	WATER LEVEL (FEET)	DRAWDOWN (FEET)	HEAD RATIO	RECIPROCAL TIME (1/MINUTES)
.08	11.80	.50	.281	12.000
.15	11.64	.34	.191	6.667
.23	11.63	.33	.186	4.286
.33	11.62	.32	.180	3.000
.50	11.61	.31	.174	2.000
.65	11.60	.30	.169	1.538
.80	11.59	.29	.163	1.250
1.05	11.58	.28	.158	.952
1.38	11.57	.27	.152	.723
1.80	11.56	.26	.146	.556
2.93	11.55	.25	.141	.341
4.33	11.54	.24	.135	.231
6.43	11.53	.23	.129	.155
7.10	11.52	.22	.124	.141
9.33	11.51	.21	.118	.107
12.42	11.50	.20	.113	.081
20.67	11.47	.17	.096	.048
28.00	11.45	.15	.084	.036
47.83	11.41	.11	.062	.021

WELL # LFR-2

HYD. CONDUCT. BASED ON COOPER, BREDEHOEFT, AND PAPADOPULOS METHOD

HYD. CONDUC.=2.94E-04 / MATCH TIME (IN MINUTES)
STORAGE COEF= 6.25E-02* ALPHA
COMPUTER CALCULATES
ALPHA=.10 MATCH TIME=.64
HYD. CONDUC.= 4.56E-04 CM/SEC
STORAGE COEF=6.25E-03
CORRELATION NUMBER=.67

HYD. CONDUCTIVITY BASED ON REGRESSION FIT OF HEAD RATIO DATA

HVORSLEV HYD. CONDUCTIVITY=5.27E-04 / LAG TIME
BOUWER & RICE HYD. CONDUCTIVITY=8.91E-04 * -SLOPE

CALCULATED HYD. CONDUCTIVITY IS INVALID
CALCULATIONS INDICATE THAT A VALUE OF .54 FEET FOR HO
OR A VALUE OF 3.612 INCHES FOR EFFECTIVE CASING DIA.
MAY YIELD BETTER RESULTS

HYD. CONDUC. BASED ON REGRESSION FIT OF DATA - FERRIS & KNOWLES METHOD

HYD. CONDUC.=1.31E-04 / SLOPE
COMPUTER CALCULATES
HYD. CONDUC. VARIES MORE THAN 20% DEPENDING ON THE EQUATION USED

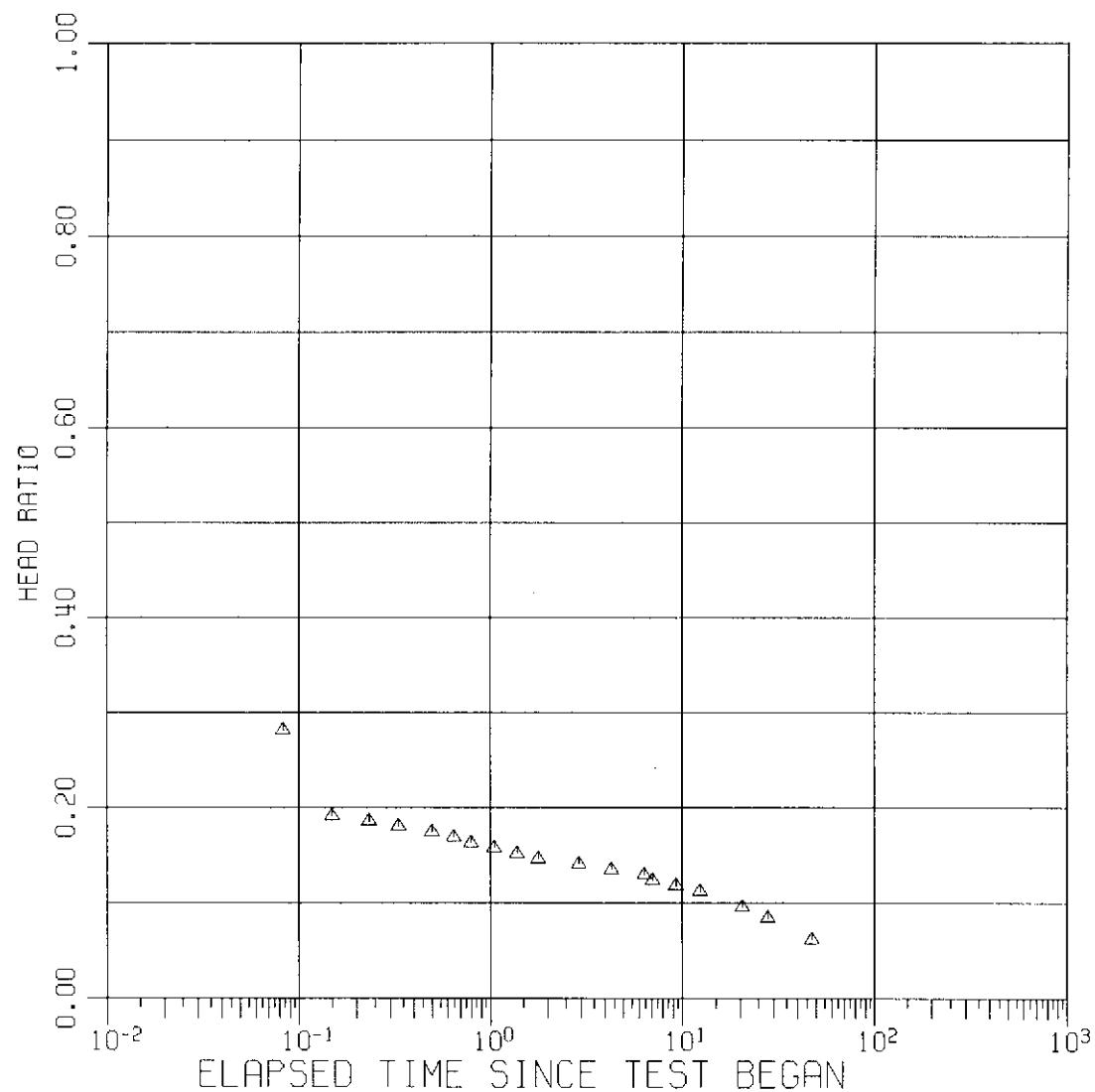
FOR X ON Y HYD. CONDUC.=2.32E-04 CM/SEC
FOR Y ON X HYD. CONDUC.=1.86E-04 CM/SEC
AVERAGE HYD. CONDUC.=2.09E-04 CM/SEC

REGRESSION STATISTICS

X ON Y
INTERCEPT=.13
SLOPE=.56
Y ON X
INTERCEPT=.12
SLOPE=.70
CORRELATION COEFFICIENT=.90

WELL #	HYD. CONDUC.	HYD. CONDUC.	STORAGE COEF	HYD. CONDUC.	HYD. CONDUC.
	METHOD 1 (Cm/Sec)	METHOD 2 (Cm/Sec)	METHOD 2	METHOD 3 (Cm/Sec)	METHOD 4 (Cm/Sec)
LFR-2	.00	4.56E-04	6.25E-03	2.09E-04	.00

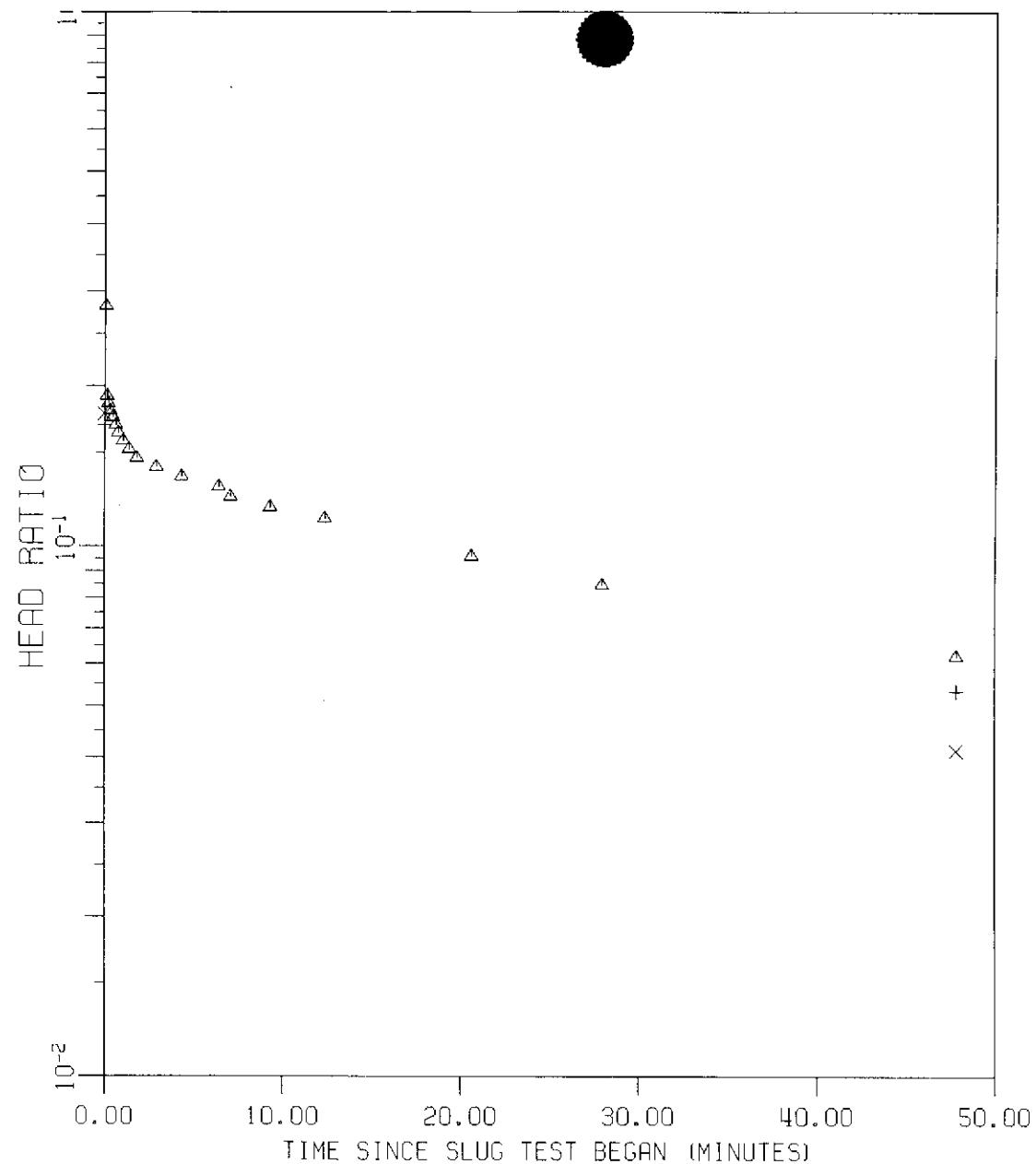
* METHOD 1 IS HVORSLEV
METHOD 2 IS COOPER, BREDEHOEFT, AND PAPADOPULOS
METHOD 3 IS FERRIS AND KNOWLES
METHOD 4 IS BOUWER & RICE



SLUG TEST OF WELL LFR-2
PROJECT NO.: 2512

DATE: JAN - 4 -

Bredenhoeft, Cooper and Papadopoulos Method

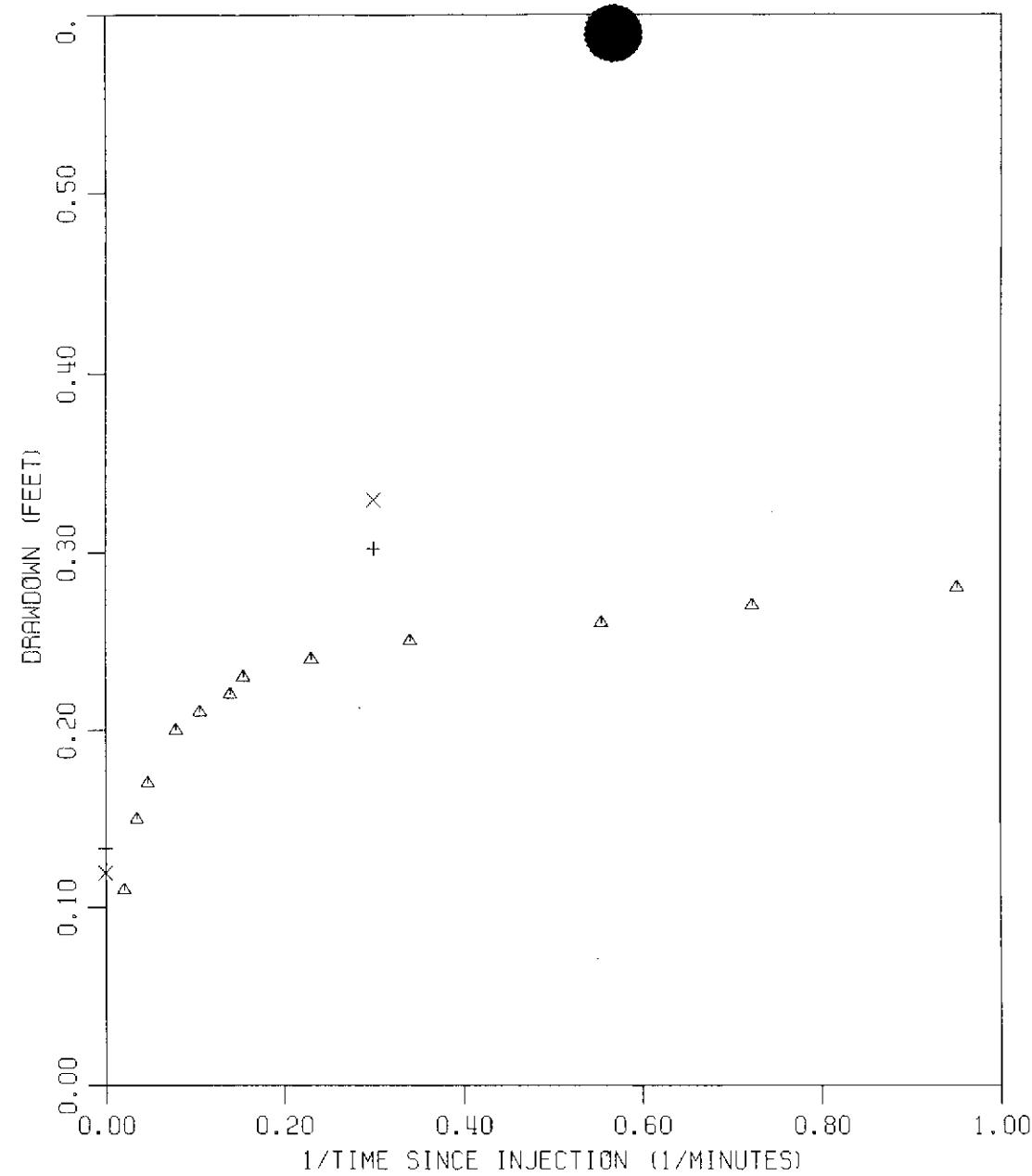


SLUG TEST OF WELL LFR-2

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Hvorslev Method: Log Head Ratio VS Time



SLUG TEST OF WELL LFR-2

PROJECT NO.: 2512

DATE: JAN - 4 -

Ferris and Knowles Method: Drawdown V. Reciprocal Of Time-

RAW DATA

WELL # LFR-3

WELL DIAMETER= 8.00 INCHES
 CASING DIAMETER= 2.00 INCHES
 VOLUME OF WATER= -.29 GALLONS
 LENGTH OF AQUIFER TESTED= 12.00 FEET
 VALUE OF h_0 = 1.80 FEET
 STATIC WATER LEVEL= 11.91 FEET
 LENGTH OF SCREEN= 10.00 FEET
 WATER TABLE TO BOTTOM OF WELL= 11.10 FEET

SLUG TEST DATA:

TIME (FEET)	WATER LEVEL (FEET)	TIME SINCE TEST BEGAN (MINUTES)
0. 0.10	12.35	.17
0. 0.15	12.34	.25
0. 0.20	12.33	.33
0. 0.32	12.32	.53
0. 0.51	12.30	.85
0. 0.56	12.29	.93
0. 1.10	12.28	1.17
0. 1.19	12.27	1.32
0. 1.28	12.26	1.47
0. 1.48	12.25	1.80
0. 2. 1	12.24	2.02
0. 2.23	12.23	2.38
0. 2.46	12.22	2.77
0. 3. 5	12.21	3.08
0. 3.26	12.20	3.43
0. 3.54	12.19	3.90
0. 4. 8	12.18	4.13
0. 4.23	12.17	4.38
0. 4.50	12.16	4.83
0. 5.32	12.15	5.53
0. 5.48	12.14	5.80
0. 5.59	12.13	5.98
0. 6.39	12.12	6.65
0. 7.15	12.11	7.25
0. 8. 6	12.10	8.10
0. 8.46	12.09	8.77
0. 9. 0	12.08	9.00
0. 9.15	12.07	9.25
0. 9.35	12.06	9.58
0. 9.52	12.05	9.87
0.10.21	12.04	10.35
0.10.52	12.03	10.87
0.11.12	12.02	11.20
0.11.58	12.01	11.97
0.12.35	12.00	12.58
0.15.45	11.95	15.75

WELL DIAMETER= 8.00 INCHES
 CASING DIAMETER= 2.00 INCHES
 VOLUME OF WATER REMOVED OR ADDED TO WELL= -.29 GALLONS
 LENGTH OF AQUIFER TESTED= 12.00 FEET
 VALUE OF h_0 = 1.80 FEET
 STATIC WATER LEVEL= 11.91 FEET

SLUG TEST DATA:

TIME SINCE TEST BEGAN (MINUTES)	WATER LEVEL (FEET)	DRAWDOWN (FEET)	HEAD RATIO	RECIPROCAL TIME (1/MINUTES)
.17	12.35	.44	.245	6.000
.25	12.34	.43	.239	4.000
.33	12.33	.42	.234	3.000
.53	12.32	.41	.228	1.875
.85	12.30	.39	.217	1.176
.93	12.29	.38	.212	1.071
1.17	12.28	.37	.206	.857
1.32	12.27	.36	.201	.759
1.47	12.26	.35	.195	.682
1.80	12.25	.34	.189	.556

2.02	12.24	.33	.184	.496
2.38	12.23	.32	.178	.420
2.77	12.22	.31	.173	.361
3.08	12.21	.30	.167	.324
3.43	12.20	.29	.162	.291
3.90	12.19	.28	.156	.256
4.13	12.18	.27	.150	.242
4.38	12.17	.26	.145	.228
4.83	12.16	.25	.139	.207
5.53	12.15	.24	.134	.181
5.80	12.14	.23	.128	.172
5.98	12.13	.22	.123	.167
6.65	12.12	.21	.117	.150
7.25	12.11	.20	.111	.138
8.10	12.10	.19	.106	.123
8.77	12.09	.18	.100	.114
9.00	12.08	.17	.095	.111
9.25	12.07	.16	.089	.108
9.58	12.06	.15	.084	.104
9.87	12.05	.14	.078	.101
10.35	12.04	.13	.072	.097
10.87	12.03	.12	.067	.092
11.20	12.02	.11	.061	.089
11.97	12.01	.10	.056	.084
12.58	12.00	.09	.050	.079
15.75	11.95	.04	.022	.063

WELL # LFR-3

HYD. CONDUC. BASED ON COOPER, BREDEHOEFT, AND PAPADOPULOS METHOD

HYD. CONDUC.=2.94E-04 / MATCH TIME (IN MINUTES)
 STORAGE COEF= 6.25E-02* ALPHA
 COMPUTER CALCULATES
 ALPHA=1.00E-02 MATCH TIME=.79
 HYD. CONDUC.= 3.70E-04 CM/SEC
 STORAGE COEF=6.25E-04
 CORRELATION NUMBER=.90

HYD. CONDUCTIVITY BASED ON REGRESSION FIT OF HEAD RATIO DATA

HVORSLEV HYD. CONDUCTIVITY=5.27E-04 / LAG TIME
 BOUWER & RICE HYD. CONDUCTIVITY=9.94E-04 * -SLOPE

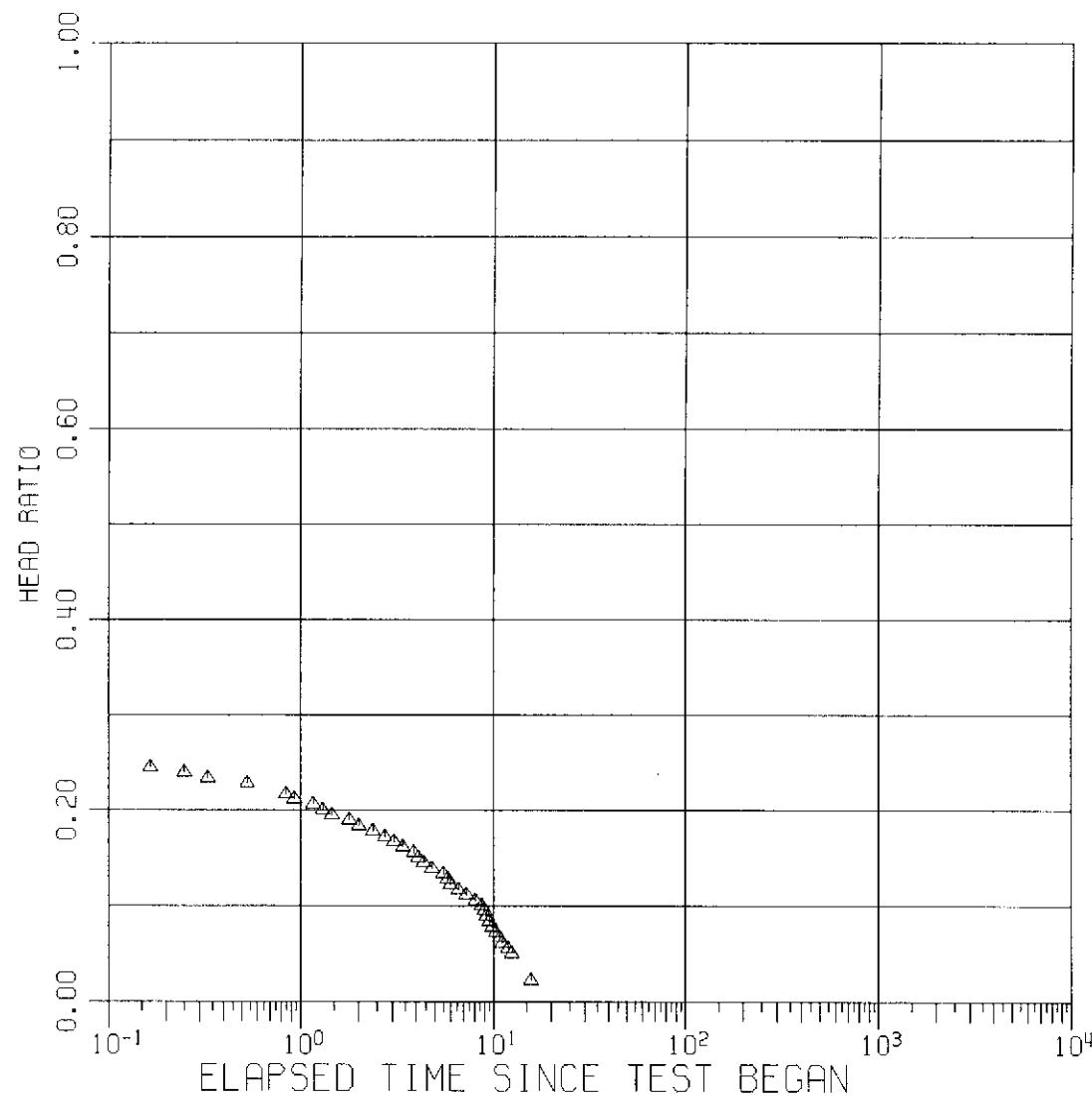
CALCULATED HYD. CONDUCTIVITY IS INVALID
 CALCULATIONS INDICATE THAT A VALUE OF .45 FEET FOR H0
 OR A VALUE OF 3.986 INCHES FOR EFFECTIVE CASING DIA.
 MAY YIELD BETTER RESULTS

HYD. CONDUC. BASED ON REGRESSION FIT OF DATA - FERRIS & KNOWLES METHOD

HYD. CONDUC.=1.32E-04 / SLOPE
 HYD. CONDUC.=1.24E-04 CM/SEC
 REGRESSION STATISTICS
 X ON Y
 INTERCEPT=.04
 SLOPE= 1.0
 Y ON X
 INTERCEPT=.02
 SLOPE= 1.1
 CORRELATION COEFFICIENT=.94

WELL #	HYD. CONDUC. METHOD 1 (Cm/Sec)	HYD. CONDUC. METHOD 2 (Cm/Sec)	STORAGE COEF METHOD 2 (Cm/Sec)	HYD. CONDUC. METHOD 3 (Cm/Sec)	HYD. CONDUC. METHOD 4 (Cm/Sec)
LFR-3	.00	3.70E-04	6.25E-04	1.24E-04	.00

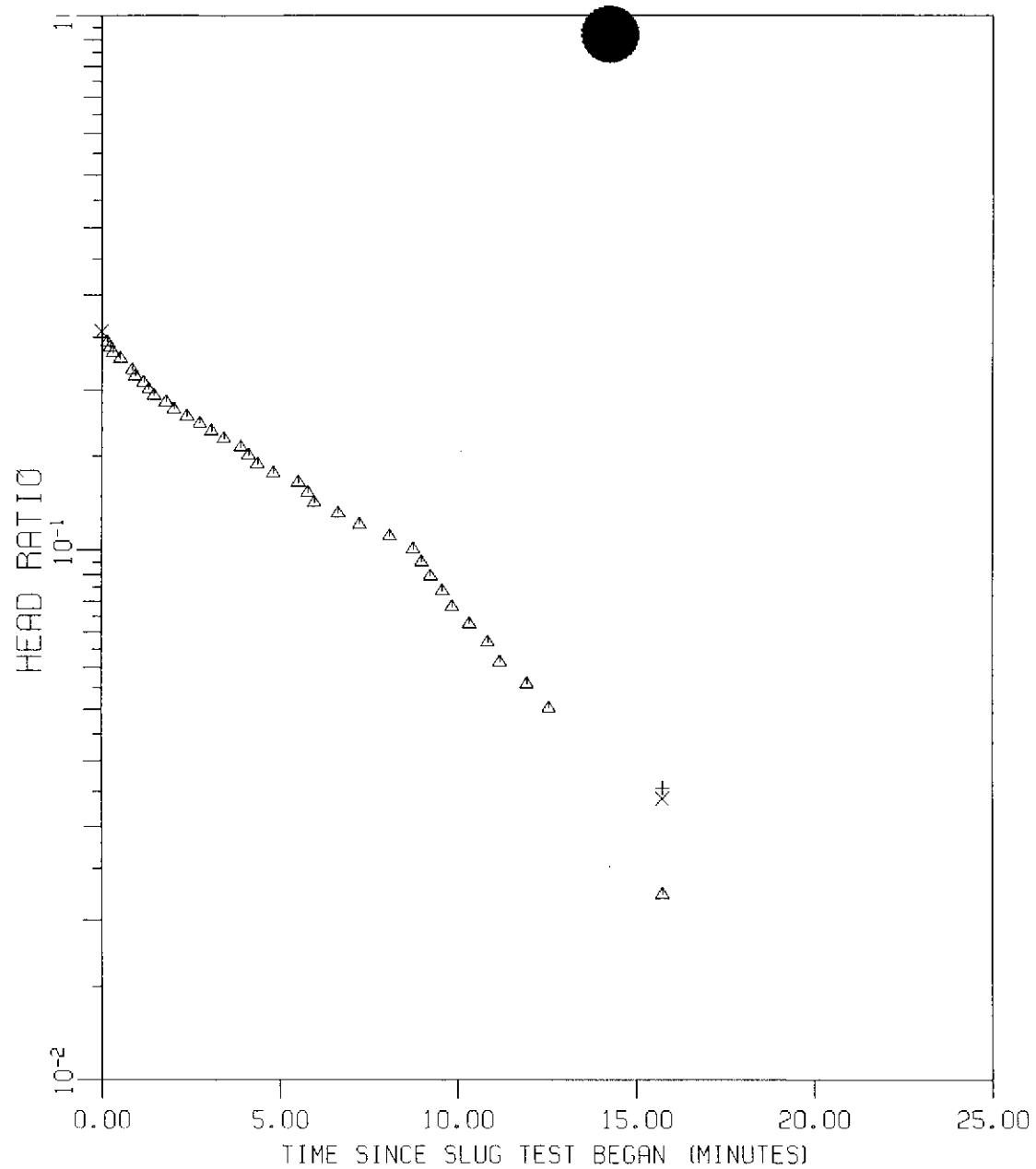
* METHOD 1 IS HVORSLEV
 METHOD 2 IS COOPER, BREDEHOEFT, AND PAPADOPULOS



SLUG TEST OF WELL LFR-3
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Bredehoeft, Cooper and Papadopoulos Method

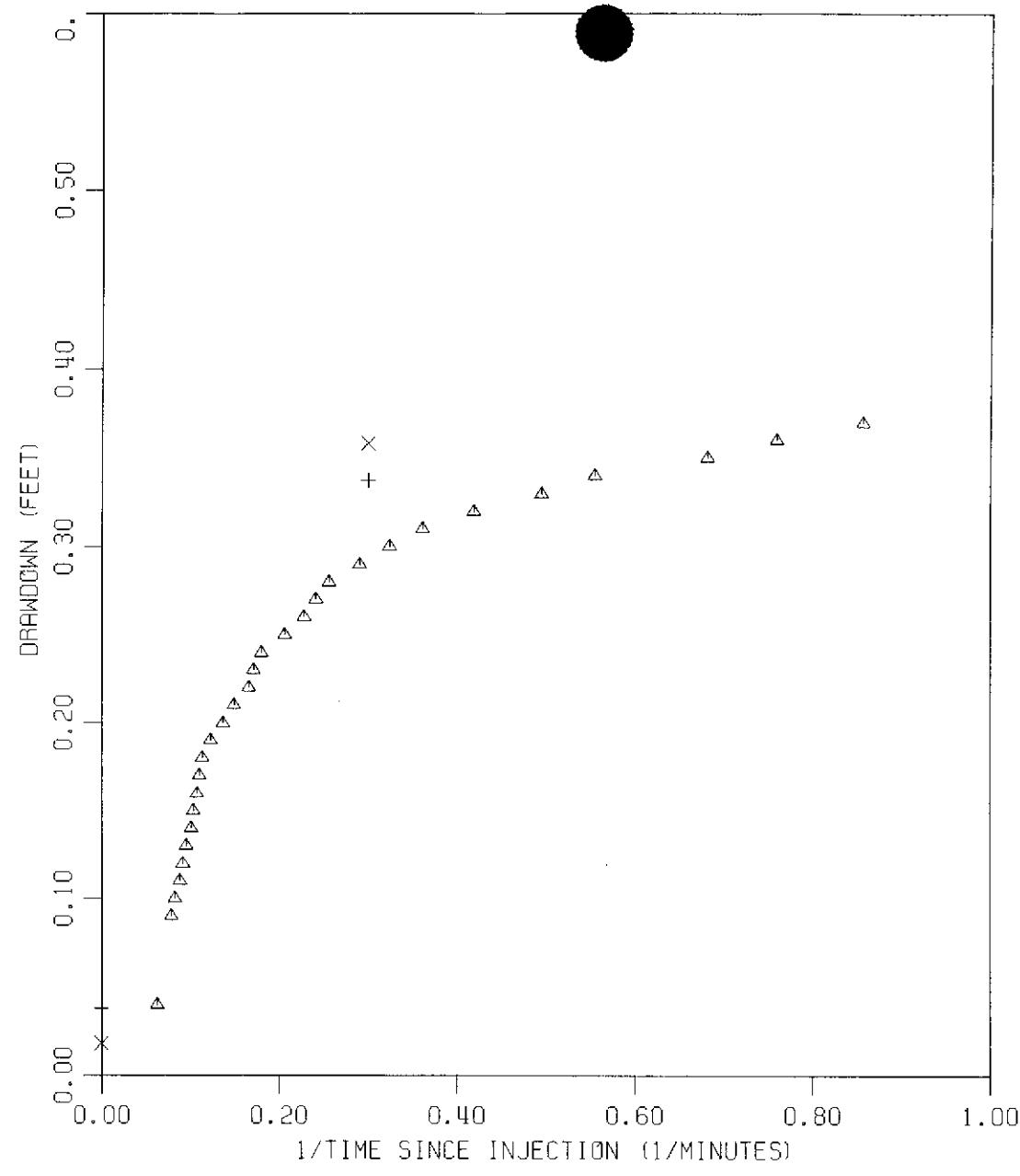


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Hvorslev Method: Log Head Ratio VS Time



SLUG TEST OF WELL LFR-3

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Ferris and Knowles Method: Drawdown V. Reciprocal Of Time-

Appendix D

Results of Search for Sensitive Receptors

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Westlake Middle School

2629 Harrison St 0.81 mi.
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 Phone: (510)879-2130
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Longfellow Elementary School

3877 Lusk St 0.84 mi.
 Oakland, CA ZipCode
 Phone: (510)879-1350
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Far West Alternative School

5263 Broadway Ter 0.87 mi.
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116 Montecito Ave 1.03 mi.
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Foster Elementary School

2850 West St 1.06 mi.
Emeryville, CA ZipCode
Phone: (510)879-2080
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St Andrews Missionary Baptist

2624 West St 1.12 mi.
Oakland, CA ZipCode
Phone: (510)465-8023
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Lakeview Early Childhood Ctr

746 Grand Ave 1.18 mi.
Oakland, CA ZipCode
Phone: (510)879-0857
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Longfellow Early Childhood Ctr

880 39th St **0.92 mi.**
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Alhambra Academy

666 Bellevue Ave **0.95 mi.**
 Oakland, CA ZipCode
 Phone: (510)530-9406
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Harriet R Tubman Childhood Ctr

880 33rd St **0.98 mi.**
 Oakland, CA ZipCode
 Phone: (510)879-0825
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Hoover Elementary School

890 Brockhurst St **1.01 mi.**
 Oakland, CA ZipCode
 Phone: (510)879-1700
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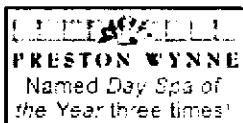
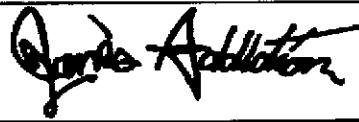
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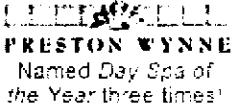


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Kaiser Foundation Hospital

280 W MacArthur Blvd 0.14 mi.
Oakland, CA 94611-5642
Phone: (510)596-1000
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Thunder Road Community Day Sc

390 40th St 0.18 mi.
Oakland, CA 94609-2633
Phone: (510)653-5040
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Fi

H

Surgery Center

3875 Telegraph Ave 0.42 mi.
Oakland, CA 94609-2428
Phone: (510)547-2244
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C



Summit Medical Ctr

350 Hawthorne Ave 0.48 mi.
Oakland, CA 94609-3100
Phone: (510)655-4000
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2910 McClure St
Oakland, CA ZipCode
Phone: (510)836-3677

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451 28th St
Oakland, CA ZipCode
Phone: (510)893-4066

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747 52nd St
Oakland, CA ZipCode
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2201 Broadway Fl 6
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Oakland, CA 94611-5612

Phone: (510)658-2041

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A**Grand Lake Gardens**110 41st St **0.30 mi.**
Oakland, CA 94611-5250
Phone: (510)596-2600[Map](#) | [Directions](#) | [What's NearbySM](#)

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H

Gatewood Manor524 41st St **0.47 mi.**
Oakland, CA 94609-2412
Phone: (510)654-9612[Map](#) | [Directions](#) | [What's NearbySM](#)

C

Oakland Nursing & Rehab Ctr3030 Webster St **0.59 mi.**
Oakland, CA 94609-3411
Phone: (510)451-3856[Map](#) | [Directions](#) | [What's NearbySM](#)

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Mc Clure Rehabilitation Hosp

2910 McClure St **0.74 mi.**
 Oakland, CA ZipCode
 Phone: (510)836-3677

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Gi
A

Guardian Medical Hill Nursing

475 29th St **0.75 mi.**
 Oakland, CA ZipCode
 Phone: (510)832-3222
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Fl

Dowling Convalescent Hospital

451 28th St **0.82 mi.**
 Oakland, CA ZipCode
 Phone: (510)893-4066
[Map](#) | [Directions](#) | [What's NearbySM](#)

H

Mac Arthur Nursing Ctr

309 Macarthur Blvd **0.88 mi.**
 Oakland, CA ZipCode
 Phone: (510)836-3777
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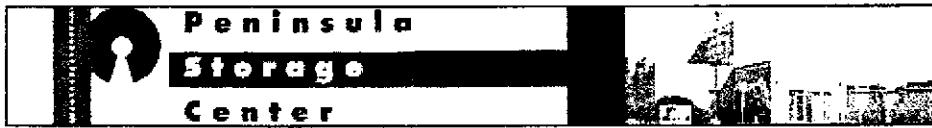
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St Paul's Towers

100 Bay Pl 1.01 mi.
Oakland, CA ZipCode
Phone: (510)835-4700
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G
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Burns Improvement Care

939 W Macarthur Blvd 1.02 mi.
Oakland, CA ZipCode
Phone: (510)652-7290
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F

H

Park View Lodge

616 59th St 1.33 mi.
Oakland, CA ZipCode
Phone: (510)655-9110
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Lake Park Retirement Residence

1850 Alice St 1.46 mi.
Oakland, CA ZipCode
Phone: (510)835-5511
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459 22nd St **1.19 mi.**
 Oakland, CA 94612
 Phone: (510)986-8910
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G
A

Citi Cerebral Palsy

1775 Broadway **1.47 mi.**
 Oakland, CA 94612-2105
 Phone: (510)465-4430
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F

H

Berkeley Adult Day Health Ctr

1890 Alcatraz Ave **1.70 mi.**
 Berkeley, CA 94703-2715
 Phone: (510)601-0167
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C

Hong Fook Ctr Harrison

1388 Harrison St **1.70 mi.**
 Oakland, CA 94612-2715
 Phone: (510)302-0460
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H

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First Step Children's Ctr

111 Fairmount Ave 0.69 mi.
Oakland, CA ZipCode
Phone: (510)238-0880
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First Presbyterian Child Dev

2619 Broadway 0.86 mi.
Oakland, CA ZipCode
Phone: (510)444-4456
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Parent Child Development Ctr

2619 Broadway # 201 0.86 mi.
Oakland, CA ZipCode
Phone: (510)452-0492
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Duck Soup Family Day Care

5304 Bryant Ave 0.88 mi.
Oakland, CA ZipCode
Phone: (510)653-7430
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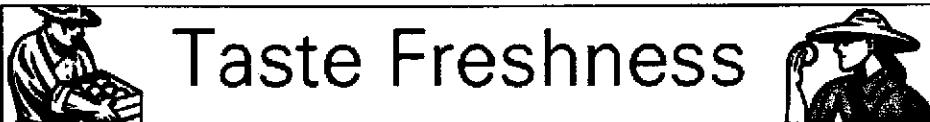
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 Oakland, CA 94611-4612
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Circle Pre-School

9 Lake Ave 0.54 mi.
 Oakland, CA 94611-4425
 Phone: (510)547-6447
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Home Day Pre-School

363 Oakland Ave 0.62 mi.
 Oakland, CA 94611-5530
 Phone: (510)763-5155
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Temescal Preschool

4827 Clarke St 0.63 mi.
 Oakland, CA 94609-2107
 Phone: (510)658-6197
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PCDCI 31st Child Devlp Ctr

836 31st St

0.99 mi.

Oakland, CA ZipCode

Phone: (510)595-7808

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Gi
A

Supporting Future Growth Child

860 30th St

1.06 mi.

Emeryville, CA ZipCode

Phone: (510)465-8810

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Fi

Starlite Child Development Ctr

2354 Telegraph Ave

1.06 mi.

Oakland, CA ZipCode

Phone: (510)839-0608

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H

Excellent Beginnings

4715 Market St

1.09 mi.

Oakland, CA ZipCode

Phone: (510)601-1885

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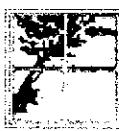
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Blossom Day School

4701 Market St 1.09 mi.
Emeryville, CA ZipCode
Phone: (510)658-5892
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Gi
A

Smalltrans Depot

111 Grand Ave 1.11 mi.
Oakland, CA ZipCode
Phone: (510)286-5130
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Fl

New Day Pre School & Lrng Ctr

460 W Grand Ave 1.15 mi.
Oakland, CA ZipCode
Phone: (510)465-8591
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H

Lakeview Preschool

515 Glenview Ave 1.17 mi.
Oakland, CA ZipCode
Phone: (510)444-1725
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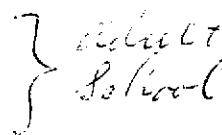
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376 40th St
Oakland, CA 94609-2634
Phone: (510)481-0240
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0.16 mi.

**Thunder Road Community Day School**

390 40th St
Oakland, CA 94609-2633
Phone: (510)653-5040
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0.18 mi.

Archway School

250 41st St
Oakland, CA 94611-5644
Phone: (510)547-4747
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0.18 mi.

Oakland Hebrew Day School

215 Ridgeway Ave
Oakland, CA 94611-5123
Phone: (510)652-4324
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St Leo's School

4238 Howe St 0.39 mi.
 Oakland, CA ZipCode
 Phone: (510)654-7828
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Oakland Technical High School

4351 Broadway 0.39 mi.
 Oakland, CA ZipCode
 Phone: (510)879-3050
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Park Day School

370 43rd St 0.40 mi.
 Oakland, CA ZipCode
 Phone: (510)653-0317
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Piedmont Avenue Elementary

4314 Piedmont Ave 0.48 mi.
 Oakland, CA ZipCode
 Phone: (510)879-1460
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Piedmont Avenue Early Chldhd

86 Echo Ave 0.50 mi.
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 Phone: (510)879-0832
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A

Carter Middle School

4521 Webster St 0.51 mi.
 Oakland, CA ZipCode
 Phone: (510)879-2140
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F

Emerson Early Childhood Ctr

4801 Lawton Ave 0.57 mi.
 Oakland, CA ZipCode
 Phone: (510)879-0811
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Emerson Elementary School

4803 Lawton Ave 0.58 mi.
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100 Lake Ave 0.58 mi.
Piedmont, CA ZipCode
Phone: (510)594-2686
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St Martin De Porres School

675 41st St 0.68 mi.
Oakland, CA ZipCode
Phone: (510)652-2220
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FI

Oakland Emiliano Zapata Acad

417 29th St 0.72 mi.
Oakland, CA ZipCode
Phone: (510)879-3130
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Montessori Casa Dei Bambini

281 Santa Clara Ave 0.78 mi.
Oakland, CA ZipCode
Phone: (510)836-4313
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Subject: Well Survey Results

Date: Wed, 14 Nov 2001 21:37:42 -0800

From: "Bob Solotar" <bob_solotar@hotmail.com>

To: "Mansour Sepehr" <msepehr@somaenv.com>

Hi, Mansour!

I thought it would be just as easy, and easier for you to read, if I just e-mailed you the results of the well survey rather than to fax you my notes. So here are the results:

There were no domestic, industrial, irrigation, or other water supply wells within 2000 feet of the Glovatorium site at 3815 Broadway. The only wells in the vicinity of the Site were monitoring wells.

The following downgradient locations had monitoring wells:

Kaiser Foundation Hospital
280 W. MacArthur Boulevard
6 monitoring wells, of which at least two were inside the building.

Chevron
3701 Broadway (NW corner of Broadway and W. MacArthur)
Approximately 11 monitoring wells

Shell
230 MacArthur Blvd. (at Piedmont Avenue)
3 monitoring wells

Firestone Tire and Rubber
2785 Broadway
1 monitoring well

Unocal
411 W. MacArthur Blvd. (at Webster)
6 monitoring wells

Kaiser Health Plan
3505 Broadway
3 monitoring wells

The following cross- or upgradient locations also had monitoring wells:

Unocal
3943 Broadway (at 40th St.)
10 monitoring wells and 1 recovery well

Freidkin-Becker
3810 Broadway
2 monitoring wells

Piedmont Plaza
175 41st St.
3 monitoring wells

Subject: Well Survey Results

Date: Wed, 14 Nov 2001 21:37:42 -0800

From: "Bob Solotar" <bob_solotar@hotmail.com>

To: "Mansour Sepehr" <msepehr@somaenv.com>

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Approximately 11 monitoring wells

Shell
230 MacArthur Blvd. (at Piedmont Avenue)
3 monitoring wells

Firestone Tire and Rubber
2785 Broadway
1 monitoring well

Unocal
411 W. MacArthur Blvd. (at Webster)
6 monitoring wells

Kaiser Health Plan
3505 Broadway
3 monitoring wells

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