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November 15, 2006

Mr. Jerry Wickham  
Alameda County Department of  
Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Project: 2842

Subject: Fuel Leak Case No. RO0002585, Wente Winery  
Site Located at 5565 Tesla Road, Livermore, California

Dear Mr. Wickham:

SOMA's report entitled "Additional Site Investigation in the Area of Steam Cleaning Operations" for the subject site has been uploaded to the State's GeoTracker database for your review.

Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 734-6400, if you have any questions or comments.

Sincerely,

Mansour Sepehr, Ph.D., PE  
Principal Hydrogeologist

cc: Mr. Aris Krimetz w/report enclosure





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## **ADDITIONAL SITE INVESTIGATION IN THE AREA OF STEAM CLEANING OPERATIONS**

**Wente Winery  
5565 Tesla Road, Livermore, California**

November 15, 2006

Project 2842

Prepared for

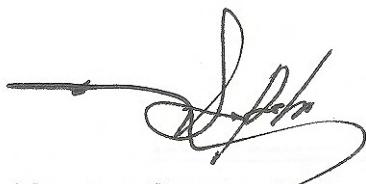
**Mr. Aris Krimetz  
5565 Tesla Road  
Livermore, California 94550**

Prepared by

**SOMA Environmental Engineering, Inc.  
6620 Owens Drive, Suite A  
Pleasanton, California 94588**

## CERTIFICATION

This report has been prepared by SOMA Environmental Engineering, Inc. (SOMA) on behalf of Wente Winery, which is located at 5565 Tesla Road, Livermore, California. This report details the results of the field investigation as presented in SOMA's workplan dated May 25, 2006, subsequently approved by the Alameda County Environmental Health Division in a correspondence dated June 2, 2006.



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



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## **1.0 INTRODUCTION**

On behalf of Wente Winery, SOMA Environmental Engineering, Inc. (SOMA) has prepared this report documenting the investigation activities for the property located at 5565 Tesla Road, Livermore, California, hereby referred to as “the Site.” This report was prepared pursuant to Alameda County Environmental Health’s (ACEH’s) June 2, 2006 approval of SOMA’s workplan dated April 14, 2006, and addendum dated May 26, 2006, to conduct an investigation to evaluate the soil and groundwater contamination in the area of the steam cleaning operations and welding shop at the Site.

### **1.1 Site Background**

The Site is located between South Vasco Road and Mines Road in Livermore, California (Figure 1) and operates as a winery. There are three aboveground fuel storage tanks, with a total capacity of 4,000 gallons, located on the premises.

In 1987, two fuel underground storage tanks (USTs) were removed from the Site. However, there are no available records of the tank removal, as such, there is no information regarding the condition of the tanks, what date they were removed or evidence of possible leakage.

In 1990, the ACEH issued a notice of violation (NOV) for discharging waste sludge into an open ditch adjacent to a steam-cleaning bay, which was located at the south end of the steel storage and welding shed. The NOV required sampling of the ditch area and around a stained drum, along with remediation of the contaminated areas.

## **1.2 Previous Site Investigation Activities**

On November 28, 1990 the ACEH, Hazardous Material Division, inspected the Site. During this inspection, several areas of stained soil around the maintenance shop were documented, where spillage had occurred. As per the ACEH's letter dated December 11, 1990, contamination was particularly evident around a group of unlabeled 55-gallon drums behind the shop. Another area of noticeable contamination was identified in the area of an unlined runoff ditch that is adjacent to the steam-cleaning pad, where the waste from the steam cleaning of vehicles and equipment were drained.

Following the inspection by the ACEH, Wente ceased all steam cleaning operations. These operations did not resume until an appropriate wastewater handling system, with closed loop operations, was installed. All necessary measures were implemented to prevent any accidental spill from occurring in the future. All hazardous wastes are now stored separately, in suitable buildings and/or provided with an acceptable secondary containment, in approved enclosed containers with appropriate labeling.

In November 2002, in accordance with Comerica Bank guidelines, the Clayton Group (Clayton) performed an ASTM D standard Phase I investigation to identify recognized environmental concerns (RECs). The Phase I study revealed the existence of the former USTs, the former waste discharge area, and a number of agricultural storage areas. This study indicated that agricultural chemicals were previously stored in Building S and in a detached garage. Clayton concluded that the identified areas constituted RECs and recommended sampling of these areas for relevant constituents of concern.

In 2003, Clayton performed a subsurface investigation at the Site to implement the recommendations of the Phase I report. Soil samples were analyzed for

pesticides, herbicides, petroleum hydrocarbons, volatile organic compounds (VOCs), and heavy metals. In the area of the steam-cleaning bay, which is located south/southwest of the former UST pit, no total petroleum hydrocarbon (TPH) or VOCs were detected in the soil. However, some metals were detected in the shallow soil (0.5 to 1- foot below ground surface (bgs)) at levels below or slightly above the Environmental Screening Levels (ESLs) set forth by the Regional Water Quality Control Board (RWQCB). Gasoline and motor oil-range petroleum hydrocarbons were detected in the groundwater at concentrations that were slightly above the Risk Based Screening Levels (RBSLs).

In 2004 Wente retained SOMA to review Clayton's report. SOMA subsequently submitted a workplan that included a vicinity well survey, a regional hydrogeologic study, and an additional site characterization. The site characterization included sampling and evaluating the water quality of the on-site water supply well, installing monitoring wells, and additional lithologic characterization to better define the shallow/perched water-bearing zone.

On June 24, 2005, SOMA oversaw Woodward drill two confirmatory boreholes (B-9 and B-10). The purpose of this investigation was to confirm the presence of petroleum hydrocarbons in the soil and groundwater next to the former USTs and to evaluate the current soil and groundwater conditions in close proximity of the steam cleaning area. Though the results of the laboratory analysis on the groundwater samples collected near the steam cleaning bay showed some presence of dissolved phase metal concentrations, the levels were not elevated as compared to the ESLs (groundwater in a current or potential source of drinking water). There were no detections of total petroleum hydrocarbons as gasoline (TPH-g), total petroleum hydrocarbons as diesel (TPH-d), total petroleum hydrocarbons as motor oil (TPH-mo), or organochlorine pesticides reported in the groundwater samples. The results of this investigation are presented in SOMA's report entitled "Phase I: Soil and Groundwater

Investigation, Wente Winery, 5565 Tesla Road, Livermore, California," dated July 25, 2005.

To further characterize the Site, on October 26 and 27, 2005, under SOMA's oversight, Gregg Drilling and Testing, Inc. (Gregg) conducted CPT drilling. The results of this site investigation revealed the presence of three water-bearing zones (WBZs) beneath the Site (Upper, Intermediate and Lower) that are separated by two confining layers. A negligible amount of petroleum hydrocarbons were detected in the area of the steam cleaning bay, in the Upper WBZ. The results of this investigation are presented in SOMA's report entitled "Additional Site Investigation to Evaluate the Extent of Groundwater Contamination, Wente Winery, 5565 Tesla Road, Livermore, California," dated December 6, 2005.

## **2.0 SCOPE OF WORK**

The following describes the tasks performed to accomplish the scope of this investigation:

- Task 1:      Permit Acquisition, Health and Safety Plan Preparation, and Subsurface Utility Clearance**
- Task 2:      Soil and Groundwater Investigation**
- Task 3:      Soil Vapor Survey**
- Task 4:      Report Preparation**

### **2.1      Permit Acquisition, Health and Safety Plan Preparation, and Subsurface Utility Clearance**

Prior to initiating field activities, SOMA obtained the necessary drilling permits from the Zone 7 Water Agency of Alameda County (permit no. 26168 and 26173). The permits are attached as Appendix A.

Before conducting the field activities, a site-specific health and safety plan (HASP) was prepared by SOMA. The HASP was designed to address safety provisions during field activities and to protect the field crew from physical and chemical hazards resulting from drilling and sampling. The HASP established personnel responsibilities, general safe work practices, field procedures, personal protective equipment standards, decontamination procedures, and emergency action plans.

SOMA also contacted Underground Service Alert (USA) to clear the drilling areas of underground utilities. Following USA clearance, on October 3, 2006 under SOMA's oversight, a private utility locator surveyed the proposed drilling areas and located all additional subsurface conduits.

## **2.2 Soil and Groundwater Investigation**

In accordance with the ACEH's request to perform an investigation in the area of the steam cleaning operations and the welding shop, a direct push technology (DPT) and manual hand auger were utilized. In order to collect depth-discrete groundwater samples from each water-bearing zone, groundwater-sampling boreholes were drilled adjacent to the CPT boreholes. In addition, as shown in Figure 2, twelve hand auger boreholes were drilled at the Site.

### **2.2.1 Depth-Discrete Groundwater Sampling**

The results of the October 2005 CPT investigation revealed the presence of three (Upper, Intermediate, and Lower) water-bearing zones beneath the Site. A negligible amount of petroleum hydrocarbons were detected in the Upper WBZ, near the steam cleaning bay.

To further evaluate the potential for groundwater contamination at the identified water-bearing zones, on October 5, 2006, under SOMA's oversight, Fisch Drilling (Fisch) conducted DPT drilling and collected depth discrete groundwater samples in the area of steam cleaning operations.

Using a Geoprobe 5500 truck mounted DPT rig, Fisch advanced two boreholes, GS-1 and GS-2, to approximately 63 feet below ground surface (bgs). A Hydropunch® type groundwater sampler was used to collect depth-discrete groundwater samples from the GS-1 and GS-2 borings. One and  $\frac{3}{4}$ -inch hollow push rods with a filter tip were advanced to the base of the desired sampling interval. Once at the sampling interval, the push rods were retracted, exposing the encased filter screen and allowing groundwater to infiltrate hydrostatically from the formation into the inlet screen. A small diameter bailer (approximately  $\frac{1}{2}$ -inch) was lowered through the push rods into the screen section for sample collection.

Based on the previous CPT data, groundwater was anticipated to occur at 19 to 24 feet bgs in boring GS-2. However, since groundwater occurred at a shallower depth than anticipated, the groundwater samples were collected at 12 to 16 feet bgs. Though not anticipated, the Intermediate WBZ was encountered in both borings (GS-1 and GS-2); therefore, three depth discrete groundwater samples were collected: 12 to 16 feet, 40 to 44 feet, and 59 to 63 feet bgs. The depth discrete sampling intervals are reflected in Table 1.

Please note that due to the dry weather, GS-1 (12 to 16 feet bgs) did not produce any groundwater. However, enough water was collected at that depth from the GS-2 boring to complete the analysis for the volatile organics using EPA Method 8260B.

The samples were decanted into 40-milliliter (mL) VOA vials, pre-preserved with hydrochloric acid. The samples were then immediately stored in a cooler with ice, pending delivery to Curtis & Tompkins, Ltd., Analytical Laboratories (C&T), a California state-certified analytical laboratory. Upon completing the sample collection, the push rods and sampler were decontaminated and prepared for the next sampling location.

### **2.2.2 Shallow Soil Sampling**

On October 9 and 10, 2006, under SOMA's oversight, Vironex advanced eleven shallow soil boreholes (HA-1 through HA-11), using a hand auger and soil core sampler. Two duplicate samples, HA-11D(A) and HA-11D(B), were collected from boring HA-11.

A hand auger was used to drill a small borehole. The auger was rotated so that the cutting blades dig into the soil and force the loosened matter up and into the auger bucket. A soil core sampler, which allows the recovery of an intact soil core from the bottom of the hand-augered hole, was then used. A sturdy push-tube was manually advanced into the targeted soil, driven with a slide hammer. An internal liner captured and held the recovered soil intact.

Samples collected from a single borehole but from different sampling intervals were assigned unique identifiers. Samples collected from 1-1.5 feet were assigned labels ending with the letter "A"; samples collected from 3-3.5 feet were assigned labels ending with the letter "B". For example HA-1A and HA-1B were collected at different depths from soil boring HA-1.

### **2.3 Soil Vapor Survey**

On October 9 and 10, 2006, under the supervision of a SOMA field geologist, Vironex also installed nine temporary soil vapor probes (SV-1 through SV-9). As

shown in Figure 2, soil vapor probes were drilled around the area of the steam cleaning operations and welding shop. Vapor samples were collected at a sampling depth of 4 to 5 feet bgs. In order to verify the accuracy of the data, one duplicate sample (SV-6D) was collected from soil vapor borehole SV-6.

The samples were analyzed to evaluate the potential health risk posed by inhaling contaminant vapors from the petroleum hydrocarbon-impacted soil at the Site. SOMA followed DTSC-promulgated protocols for subsurface vapor sampling.

### ***2.3.1 Soil Vapor Sampling Procedures***

Soil vapor samples were collected by temporarily inserting a one-inch diameter steel drilling-rod equipped with a steel drop off tip. The probe was hydraulically driven through the ground surface by direct push technology using a Geoprobe. Once the probe reached the designated sampling depth of 4 to 5 feet bgs, a ¼-inch diameter Teflon flow sampling tube was inserted down the center of the probe and threaded into the sampling port at the end of the rod. The sampling tube was then capped with a vapor tight valve and the probe was retracted six inches and allowed to equilibrate for approximately 20 to 30 minutes.

Hydrated bentonite was placed around the top opening of the drill rod and on the ground surface surrounding the drill rod to inhibit surface air migration down the center or outer portion of the drill rod. A pre- and post-sample vacuum reading was recorded for each Summa Canister sample.

A 200 milliliter/minute (ml/min) flow regulator with a built in vacuum gauge was connected to the downhole side of the tee fitting. A particulate filter was also installed on the downhole side of the regulator. A vacuum test (mechanical leak

check) was performed for 10 minutes to test the connections between the Summa Canisters and vapor tight valve. A leak detector compound (isopropyl alcohol) was placed around the borehole subsurface, top of the probe rod, and at the vapor tight valve. The vapor tight valve and purge canister valve were then opened to purge three volumes of air from the sample tubing and borehole. In addition to purging the calculated volume, a visual inspection of the vacuum gauge was noted to insure adequate flow.

After three tubing volumes had been purged, the vapor tight valve and the purge canister valve were closed. The vapor tight valve and sample canister valve were closed until after the sample canister gauge indicated approximately 5 inches mercury (Hg) of vacuum remaining in the canister, approximately 20% of the pre-sample vacuum. As a quality control measure, one field duplicate field sample was collected from boring SV-6.

After the vapor samples were collected, SOMA's field geologist properly labeled the one-liter Summa Canisters with the final post-sample recorded vacuum. Vironex then removed the tubing and drilling rod and grouted the borehole with Portland cement to surface grade. Soil vapor samples were shipped via UPS to Air Toxics Ltd. (Air Toxics), a state-certified analytical laboratory.

### ***2.3.2 Field Parameters during the Collection of the Vapor Samples***

The effective volume of ¼-inch diameter Teflon tubing is about 2.41 ml/ft; the average vapor flow rate through the sampling tube was 200 ml/min. The total length of the Teflon tubing was about 5 feet. Additionally, the volume of the six inch-long retracting probe rod was about 80 ml. During the sampling event, three tube volumes were purged through the sampling tubes. Therefore, the total purged air volume (three volume purge) is calculated as follows:

*Total volume of purged air = (2.41 ml/ft x 5 ft+80ml) x 3 = 276.15 ml.*

To calculate time during purging, divide 276.15 ml by 200 ml/min, which equals 1.38 minutes. Since one-liter Summa Canisters were used, the sample collection duration at 200 ml/min is:

*Sample collection time = 1,000 ml / 200 ml/min = 5 minutes*

A schematic of the vapor probe sampling system is also included in Appendix B. Though the final vacuum recorded in the field for all Summa Canisters was 5 inches Hg, due to the fact that the field vacuum gauges have a margin of error of up to 7 inches Hg (as per Air Toxics), a small inconsistency exists between the final vacuum recorded in the field and the vacuum as read by the laboratory. Please note, samples arrived at the laboratory airtight, and no leaks or receiving discrepancies were reported.

## **2.4 Summary of Soil, Groundwater and Soil Vapor Analytical Results**

### **2.4.1 *Groundwater Samples***

Groundwater samples were submitted to Curtis & Tompkins, Ltd., Analytical Laboratories (C&T) on October 6, 2006. Groundwater samples collected from GS-1 and GS-2 were analyzed for total petroleum hydrocarbons (TPH) as gasoline using EPA 8015B and Volatile Organics using EPA Method 8260B.

A summary of the laboratory analytical groundwater data is presented in Table 1. As Table 1 shows, none of the analytes were detected at or above the laboratory reporting limits. The groundwater analytical laboratory report is included as Appendix C.

## **2.4.2 Soil Samples**

Soil samples collected at the 1 to 1.5-foot sampling depth were submitted for analysis, while deeper samples collected at the 3 to 3.5-foot sampling depth were extracted and put “on hold” pending the results of the shallower samples.

Soil samples were analyzed for TPH-g, TPH-d and TPH-mo using EPA Method 8015B with silica gel clean-up, Volatile Organics using EPA Method 8260B, Polynuclear Aromatics using EPA Method 8270C, Organochlorine Pesticides using EPA Method 8081A, Polychlorinated Biphenyls (PCBs) using EPA Method 8082, and CAM 17 metals using EPA Methods 6010B and 7471A.

In order to reduce already significant costs of the laboratory analysis, with the ACEH’s approval, a site-specific guideline determining the necessity of analysis for the deeper zone samples was developed.

For all the constituents, except CAM 17 metals, deeper samples were analyzed if the field observations indicated any evidence of contamination such as staining, odor, elevated PID readings, or when laboratory analysis on the shallow (1 to 1.5 feet bgs) depth interval showed concentrations above the laboratory detection limit. Exceptions were made when concentrations of the constituents were slightly above the laboratory detection limit, and significantly lower than the official ESL levels.

The deeper zone samples (3 to 3.5 feet bgs) previously put “on-hold” pending the results of the shallower (1 to 1.5 bgs) zone samples were analyzed for all CAM 17 metals when any of the metals in the corresponding shallow sample from the target location exceeded the State Water Board’s ESLs. The exception was made for the metals that are known to have elevated ambient concentrations in the Bay Area region, like arsenic, chromium and cobalt. (Appendix D contains

Kearney Foundation Special Report, summarizing *Background Concentrations of Trace and Major Elements in California Soils*).

Therefore, the analysis for the deeper horizon was not triggered for CAM 17 Metals, when the results for the following metals (arsenic, chromium and cobalt) of the corresponding shallow sample were slightly above the ESL, but below the published ambient concentration levels, provided that all other metals in the same sample were below the ESLs.

Please note that the ESL values for shallow depths (<=3m bgs) for both residential and commercial land use scenarios, assuming that the water is a potential or current groundwater drinking source, were utilized in determining the potential for adverse health effects.

The results of the soil analytical analysis are as follows:

- 1) **Petroleum Hydrocarbons** using *EPA Method 8015B- with silica gel cleanup*

As Table 2 shows, TPH-d and TPH-mo were detected above the ESL (residential exposure scenario) at the 1 to 1.5-foot sampling depth in soil borings HA-3A and HA-4A. The maximum TPH-d and TPH-mo concentrations were detected in HA-3A at 2,100 and 6,800 milligrams per Kilogram (mg/Kg), respectively. In boring HA-10A, at the 1 to 1.5-foot sampling interval, TPH-mo was detected at 770 mg/Kg, which is above the ESL for the residential exposure scenario (with groundwater being a current or potential groundwater source); however, it was below the ESL for the commercial/industrial exposure scenario. Figures 3 and 4 show the contour maps of TPH-mo and TPH-d, respectively. The soil analytical laboratory report is included as Appendix C.

2) **Volatile Organics** using EPA Method 8260B (including Tetrahydrofuran and Chloroethane)

As Table 3 shows, none of the analytes were detected at or above the laboratory reporting limits.

3) **CAM 17 Metals** using EPA Methods 6010B and 7471A

As previously discussed, the ESL as well as the background concentrations levels published by Kearney Foundation were used in determining the impact of the metal contamination at the Site. The metals known to have elevated ambient concentrations in the Bay Area region are arsenic, chromium and cobalt with background concentrations reported for the Solano County at 9.6 mg/Kg, 73 mg/Kg, and 15.9 mg/Kg, respectively.

As Table 4 shows, at the 1 to 1.5-foot sampling interval, cadmium, chromium, cobalt, lead and nickel were detected at concentrations slightly above the ESL (residential exposure scenario) and published background concentrations. Soil borings HA-3, HA-5, HA-6, HA-7, HA-8 and HA-9 exhibited the presence of at least one of the above-mentioned metals. Figure 5 shows the spatial distribution of the above metals at the 1 to 1.5 foot sampling interval. It could be seen that lead, a contaminant of concern, was detected at the levels slightly exceeding the ESL for the residential exposure scenario, and consequently were below the ESL for the industrial exposure scenario.

At the 3 to 3.5-foot sampling interval, cadmium, chromium, cobalt, and nickel were detected at concentrations slightly above the ESL (residential exposure scenario) and published background concentrations. Soil borings HA-2, HA-3, HA-4, HA-5, HA-6, and HA-7 exhibited the presence of at least one of the above-mentioned metals. Figure 6 shows the spatial distribution of the above metals at the 3 to 3.5-foot sampling interval. It could be seen that the lead concentration

decreased with depth to below the ESL (residential exposure scenario), while the nickel concentration slightly increased with depth. Nickel was detected above the ESL (residential and industrial exposure scenarios) in soil boring HA-2. The soil analytical laboratory report is included as Appendix C.

Table 4 compares the soil analytical results for CAM 17 Metals with the ESLs set forth by the RWQCB, as well as the Preliminary Remediation Goal (PRG) set forth by EPA Region 9 and the California Human Health Screening Levels (CHHSLs) set forth by CalEPA in January 2005.

4) **Organochlorine Pesticides** using *EPA Method 8081A*

As Table 5 shows, although some analytes were detected above the laboratory reporting limit, none exceeded the ESL for even a residential exposure scenario. Please note, due to the fact that Delta-BHC was detected in sample HA-7A (1 to 1.5-foot sampling depth) at 6.1 ug/Kg, and the ESL was only available for Gamma-BHC at 49 ug/Kg, a deeper sample from HA-7B (3 to 3.5-foot sampling depth) was analyzed for the organochlorine pesticides. The results of the deeper sample exhibited a reduced concentration of Delta-BHC to below the laboratory reporting limit.

5) **Polychlorinated Biphenyls (PCBs)** using *EPA Method 8082*

As Table 5 shows, although Aroclor-1260 was detected at levels ranging from 18 to 46 ug/Kg, in samples HA-6A and HA-4A, respectively, the detected levels were significantly below the ESL for even a residential exposure scenario.

6) **Polynuclear Aromatics (PNA)** using *EPA Method 8270C*

As Table 6 shows, none of the analytes were detected at or above the laboratory reporting limits. Please note in samples HA-3A, HA-4A and HA-10A the laboratory reported dilution factors were 50, 5, and 2, respectively.

#### **2.4.3 Soil Vapor Samples**

Soil vapor samples were submitted to Air Toxics, Ltd. on October 11, 2006. Soil vapor samples collected from borings SV-1 through SV-9 were analyzed using EPA Modified Method TO-15. As a quality control measure, one field duplicate field sample was collected from boring SV-6. In addition to that, the laboratory replicated and analyzed a duplicate sample for soil vapor borehole SV-8. The full list of soil vapor samples and the analytical data from the soil vapor samples are presented in Table 7.

As Table 8 indicates, the results of the laboratory analysis show that all of the constituents detected in the soil vapors beneath the Site were detected at the levels significantly lower than the ESLs. Samples were collected at a 4 to 5-foot depth. Benzene was detected from 8 ug/m<sup>3</sup> (SV-3) to 170 ug/m<sup>3</sup> (SV-4). Toluene was detected from 8.2 ug/m<sup>3</sup> (SV-8) to 300 ug/m<sup>3</sup> (SV-4). Ethylbenzene was detected from 7 ug/m<sup>3</sup> (SV-1) to 37 ug/m<sup>3</sup> (SV-4). MtBE was not detected above the laboratory reporting limit.

The laboratory report for the soil vapor samples is attached as Appendix E.

### **3.0 CONCLUSIONS AND RECOMMENDATIONS**

In light of the current and previous data gathered at the Site, the following are our conclusions and recommendations.

The results of SOMA's current site investigation showed elevated levels of TPH-d and TPH-mo in the soil at 1 to 1.5-feet bgs in HA-3, HA-4, HA-10A, and HA-3, HA-4, respectively.

Cadmium, chromium, cobalt, lead and nickel were detected at concentrations slightly above the ESL (residential exposure scenario) and published background

concentrations. The concentrations of most metals decreased with depth, while the concentration of nickel slightly increased. Nickel was detected above its ESL (for residential and industrial exposure scenarios) in soil boring HA-2.

Therefore, SOMA recommends:

*Excavating and removing the contaminated soil to an approximate depth of 1 to 3.5 feet bgs near the areas surrounding soil borings HA-2 through HA-6 and HA-10.*

Figure 7 shows the locations of the recommended soil excavation areas. After excavating the impacted soil to the recommended depth, SOMA will collect confirmatory soil samples from the bottom and sidewalls to document that the contaminant concentrations in the remaining soil are below the ESLs for a *residential* land use scenario.

Based on the current groundwater investigation results, in conjunction with the results from CPT-3 and CPT-5 included in the “*Additional Site Investigation to Evaluate the Extent of Groundwater Contamination [Report]*” (December 6, 2005), the groundwater beneath the Site in the area of the steam cleaning bay and the welding shop does not appear to be impacted by petroleum hydrocarbons and Volatile Organics.

In conclusion, we anticipate that upon removing the “hot spots” in the surface soil, the ACEH will adopt a no further action status for the steam cleaning and welding shop areas.

# **Tables**

**Table 1**  
**Groundwater Analytical Results**  
Wente Vineyards  
5565 Tesla Road, Livermore, California

Sample ID	Sampling Depth (ft bgs)	TPH-g ug/L	Benzene ug/L	Toluene ug/L	Ethyl-benzene ug/L	Total Xylenes ug/L	MtBE ug/L	Chlotoethane ug/L	Tetrahydrofuran ug/L
GS-1B	40-44'	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<50
GS-1C	59-63'	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<50
GS-2A	12-16'	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<50
GS-2B	40-44'	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<50
GS-2C	59-63'	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<50

Notes:

NA- Not Analyzed (Upper water bearing zone didn't yield enough water to complete the analysis)

< Less than Laboratory Reporting Limit

**Table 2**  
**Soil Analytical Results (TPH)**  
**Wente Vineyards**  
**5565 Tesla Road, Livermore, California**

Sample ID	Sampling Depth (ft bgs)	TPH-g mg/kg	TPH-d mg/kg	TPH-mo mg/kg
HA-1A	1-1.5'	<0.96	25 HY	150 H
HA-1B	3-3.5'	NA	7.0 HY	43
HA-2A	1-1.5'	<1	1.1 HY	6.2
HA-2B	3-3.5'	NA	NA	NA
HA-3A	1-1.5'	<0.99	<b>2,100 HY</b>	<b>6,800 H</b>
HA-3B	3-3.5'	NA	<1.0	<5.0
HA-4A	1-1.5'	<1.1	<b>1,300 HY</b>	<b>6,600 H</b>
HA-4B	3-3.5'	NA	50 HY	250
HA-5A	1-1.5'	<1	1.6 HY	8.8
HA-5B	3-3.5'	NA	NA	NA
HA-6A	1-1.5'	<1	17 HY	86 H
HA-6B	3-3.5'	NA	2.7 HY	19
HA-7A	1-1.5'	<1	34 HY	130 H
HA-7B	3-3.5'	NA	85 HY	320
HA-8A	1-1.5'	<1	<1.0	5.5
HA-8B	3-3.5'	NA	NA	NA
HA-9A	1-1.5'	<1	1.4 HY	10
HA-9B	3-3.5'	NA	NA	NA
HA-10A	1-1.5'	<1	72 HY	<b>770 H</b>
HA-10B	3-3.5'	NA	<1.0	<5.0
HA-11A	1-1.5'	<0.94	68 HY	330 H
HA-11B	3-3.5'	NA	4.2 HY	27
HA-11D(A)*	1-1.5'	<0.94	42 HY	230 H
HA-11D(B)*	3-3.5'	NA	<0.99	5.5
<hr/>				
<b>ESL</b> (Commercial/Industrial)		<b>100</b>	<b>100</b>	<b>1,000</b>
<b>ESL</b> (Residential)		<b>100</b>	<b>100</b>	<b>500</b>

Notes:

H: Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

ESL- Environmental Screening Levels (Groundwater is current or potential drinking water source, shallow soils <= 3m bgs), California Regional Water Quality Control Board SF Region, February 2005

< Less than Laboratory Reporting Limit

"A" Samples- Collected at 1- to 1.5 ft sampling depth

"B" Samples- Collected at 3- to 3.5- sampling depth

\* Samples HA-11D(A) and HA-11D(B) are duplicate samples collected at the location of soil boring HA-11

**Table 3**  
**Soil Analytical Results (Volatile Organics)**  
**Wente Vineyards**  
**5565 Tesla Road, Livermore, California**

Sample ID	Sampling Depth (ft bgs)	MTBE ug/kg	Benzene ug/kg	Toluene ug/kg	Ethylbenzene ug/kg	m,p-Xylenes ug/kg	o-Xylene ug/kg	Tetrahydrofuran ug/kg	Chloroethane ug/kg
<hr/>									
HA-1A	1-1.5'	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<49	<9.8
HA-2A	1-1.5'	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<45	<9.1
HA-3A	1-1.5'	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<47	<9.4
HA-4A	1-1.5'	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<49	<9.8
HA-5A	1-1.5'	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<45	<8.9
HA-6A	1-1.5'	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<49	<9.8
HA-7A	1-1.5'	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50	<10
HA-8A	1-1.5'	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<46	<9.3
HA-9A	1-1.5'	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<47	<9.4
HA-10A	1-1.5'	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<46	<9.3
HA-10B	3-3.5'	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<45	<9.1
HA-11A	1-1.5'	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<45	<9.1
HA-11D(A)	1-1.5'	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<46	<9.3
<hr/>									
ESL (Commercial/Industrial)	23	44	2,900	3,300	2,300	2,300	NL*/(PRG=21,000)	850	
ESL (Residential)	23	44	2,900	3,300	2,300	2,300	NL*/(PRG=9,400)	630	

Notes:

ESL- Environmental Screening Levels (Groundwater is current or potential drinking water source, shallow soils <= 3m bgs), California Regional Water Quality Control Board SF Region, February 2005

PRG- Preliminary Remediation Goal (EPA Region 9)

NL\*- ESL not available

< Less than Laboratory Reporting Limit

"A" Samples- Collected at 1- to 1.5 ft sampling depth

"B" Samples- Collected at 3- to 3.5- sampling depth

**Table 4**  
**Soil Analytical Results (Metals CAM 17)**  
**Wente Vineyards**  
**5565 Tesla Road, Livermore, California**

Sample ID	Sampling Depth (ft bgs)	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
ESL (Commercial/Industrial)	40	5.5	1,500	8	7.4	58	10	230	750	10	40	150	10	40	13	200	600	
ESL (Residential)	6.1	5.5	750	4	1.7	58	10	230	150	3.7	40	150	10	20	1	110	600	
Ambient Levels*	NA	9.6	NA	NA	NA	73	15.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
HA-1A	1-1.5'	<3	4.6	140	0.21	<0.25	47	11	28	24	0.04	1.2	81	<0.25	<0.25	<0.25	24	68
HA-1B	3-3.5'	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023	NA	NA	NA	NA	NA	NA	
HA-2A	1-1.5'	<3	4.1	180	0.25	2.4	61	12	62	110	0.098	5	85	<0.25	<0.25	<0.25	31	160
HA-2B	3-3.5'	<3	3.3	230	0.38	1.3	72	20	37	16	0.034	<1	180	<0.26	<0.26	<0.26	33	57
HA-3A	1-1.5'	<3	3.6	170	0.23	3.9	79	10	77	160	0.14	12	86	<0.25	<0.25	<0.25	24	220
HA-3B	3-3.5'	<3	3.1	170	0.23	3	59	12	62	64	0.071	7.1	89	<0.25	0.25	<0.25	32	150
HA-4A	1-1.5'	<3	3.7	170	0.25	0.66	58	11	38	56	0.083	2	92	<0.25	<0.25	<0.25	26	130
HA-4B	3-3.5'	<3	4.9	230	0.38	3.3	73	16	82	59	0.084	6.1	120	<0.25	0.33	<0.25	38	290
HA-5A	1-1.5'	<3	3.8	190	0.3	1.3	87	14	49	150	0.09	1.9	120	<0.25	<0.25	<0.25	29	130
HA-5B	3-3.5'	<3	3.9	170	0.28	2.4	67	15	50	70	0.063	1.9	130	<0.25	<0.25	<0.25	31	130
HA-6A	1-1.5'	<3	5.1	340	0.33	1.4	73	16	57	73	0.046	2.2	140	<0.25	<0.25	<0.25	30	180
HA-6B	3-3.5'	<3	5.4	370	0.31	2.8	68	15	65	88	0.058	2.9	120	<0.25	<0.25	<0.25	33	220
HA-7A	1-1.5'	<3	7.4	200	0.25	2	59	10	57	100	0.051	6.2	78	<0.25	<0.25	<0.25	24	210
HA-7B	3-3.5'	<3	6.6	300	0.23	2.9	56	9.8	87	110	0.049	5.3	75	<0.25	<0.25	<0.25	26	210
HA-8A	1-1.5'	<3	3.3	240	0.36	<0.25	70	18	32	8.5	0.034	<1	170	<0.25	<0.25	<0.25	30	63
HA-8B	3-3.5'	<3	3.3	120	0.2	1	50	12	31	19	0.075	<1	110	<0.25	<0.25	<0.25	26	490
HA-9A	1-1.5'	<3	3.3	240	0.3	<0.26	63	16	35	24	0.054	1.1	150	<0.26	<0.26	<0.26	27	120

**Table 4**  
**Soil Analytical Results (Metals CAM 17)**  
**Wente Vineyards**  
**5565 Tesla Road, Livermore, California**

Sample ID	Sampling Depth (ft bgs)	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
HA-9B	3-3.5'	<3	3.6	210	0.26	1.1	62	15	32	14	0.097	<1	140	<0.25	<0.25	<0.25	29	100
HA -10A	1-1.5'	<3	2.9	140	0.23	<0.25	52	13	39	37	0.059	1.2	120	<0.25	<0.25	<0.25	24	82
HA -10B	3-3.5'	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.038	NA	NA	NA	NA	NA	NA	NA
HA -11A	1-1.5'	<3	3.3	210	0.27	0.33	60	12	49	41	0.045	2.4	100	<0.25	<0.25	<0.25	29	97
HA -11B	3-3.5'	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.053	NA	NA	NA	NA	NA	NA	NA
HA-11D(A)	1-1.5'	<3	3.1	250	0.26	0.32	62	15	51	51	0.042	2.2	130	<0.26	<0.26	<0.26	26	99
HA-11D(B)	3-3.5'	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.048	NA	NA	NA	NA	NA	NA	NA
<hr/>																		
ESL (Commercial/Industrial)	40	5.5	1,500	8	7.4	58	10	230	750	10	40	150	10	40	13	200	600	
ESL (Residential)	6.1	5.5	750	4	1.7	58	10	230	150	3.7	40	150	10	20	1	110	600	
CHHSLs (Commercial/ Industrial)	380	0.24	63,000	1,700	7.5	NL	3,200	38,000	3,500	180	4,800	16,000	4,800	4,800	63	6,700	100,000	
CHHSLs (Residential)	30	0.07	5,200	150	1.7	NL	660	3,000	150	18	380	1,600	380	380	5	530	23,000	
PRGs (Commercial/Industrial-Direct Contact)	410	1.6	67,000	1,900	450	450	1,900	41,000	800	62	5,100	20,000	5,100	5,100	67	1,000	100,000	
PRGs (Residential-Direct Contact)	31	0.39	5,400	150	37	210	900	3,100	150	6.1	390	1,600	390	390	5.2	78	23,000	

Notes:

ESL- Environmental Screening Levels (Groundwater is current or potential drinking water source, shallow soils <= 3m bgs),  
California Regional Water Quality Control Board SF Region, February 2005

PRG- Preliminary Remediation Goal (EPA Region 9)

CHHSLs- California Human Health Screening Levels, CalEPA January 2005

NA- Not analyzed

**Table 4**  
**Soil Analytical Results (Metals CAM 17)**  
**Wente Vineyards**  
**5565 Tesla Road, Livermore, California**

Sample ID	Sampling Depth (ft bgs)																
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)

< Less than Laboratory Reporting Limit

\* Kearney Foundation Special Report

NA- Not applicable

"A" Samples- Collected at 1- to 1.5 ft sampling depth

"B" Samples- Collected at 3- to 3.5- sampling depth

**Table 5**  
**Soil Analytical Results (Pesticides and PCBs)**  
**Wente Vineyards**  
**5565 Tesla Road, Livermore, California**

Sample ID	Sampling Depth (ft bgs)	Organochlorine Pesticides					Polychlorinated Biphenyls (PCBs) Aroclor-1260 <sup>1</sup> ug/kg
		Delta-BHC ug/kg	4,4'-DDE ug/kg	4,4'-DDD ug/kg	4,4'-DDT ug/kg	Alpha-Chlordane ug/kg	
HA-1A	1-1.5'	<1.7	<3.3	<3.3	<3.3	<1.7	<9.6
HA-2A	1-1.5'	<1.7	<3.3	<3.3	<3.3	<1.7	<9.5
HA-3A	1-1.5'	<8.6	<17	<3.3	<17 #	<8.6	<9.7
HA-4A	1-1.5'	<8.4	<16	<3.3	<16 #	<8.4	<b>46</b>
HA-5A	1-1.5'	<1.7	<3.3	<3.3	<3.3	<1.7	<9.6
HA-6A	1-1.5'	<5.1	<10	<17	<10 #	<b>6.1 C</b>	<b>18</b>
HA-7A	1-1.5'	<b>6.1 C</b>	<3.3	<16	<3.3	<1.7	<9.6
HA-7B	3-3.5'	<5.1	<9.9	<3.3	<9.9 #	<5.1	NA
HA-8A	1-1.5'	<1.7	<3.3	<10	<3.3	<1.7	<9.6
HA-9A	1-1.5'	<1.7	<3.3	<3.3	<3.3	<1.7	<9.7
HA-10A	1-1.5'	<1.7	<b>3.9</b>	<9.9	<b>14</b>	<1.7	<9.6
HA-11A	1-1.5'	<1.7	<3.3	<3.3	<3.3	<1.7	<9.5
HA-11D(A)	1-1.5'	<1.7	<b>40 C</b>	<3.3	<b>12</b>	<1.7	<9.5
<b>ESL</b> <i>(Commercial/Industrial)</i>		NL*	4,000	9,000	4,000	1,700	740
<b>ESL</b> <i>(Residential)</i>		NL**	1,600	2,300	1,600	440	220

Notes:

ESL- Environmental Screening Levels (Groundwater is current or potential drinking water source, shallow soils <= 3m bgs), California Regional Water Quality Control Board SF Region, February 2005

\* ESL for Gamma-BHC (Hexachlorocyclohexane, Lindane)= **49 ug/kg**

\*\* ESL for Gamma-BHC (Hexachlorocyclohexane, Lindane)= **49 ug/kg**

C= Presence confirmed, but RPD between columns exceeds 40%

# CCV drift outside limits; average CCV drift within limits per method requirements

<sup>1</sup> ESL level available for Polychlorinated Biphenyls (PCBs)

< Less than Laboratory Reporting Limit

"A" Samples- Collected at 1- to 1.5 ft sampling depth

"B" Samples- Collected at 3- to 3.5- sampling depth

**Table 6**  
**Soil Analytical Results (Polynuclear Aromatics)**  
**Wente Vineyards**  
**5565 Tesla Road, Livermore, California**

Sample ID	Sampling Depth (ft bgs)	Naphthalene	Acenaphthylenne	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Oibenz(a,h)anthracene	Benzo(g,h,i)perylene
		( $\mu\text{g}/\text{kg}$ )															
HA-1A	1-1.5'	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67
HA-2A	1-1.5'	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67
HA-3A	1-1.5'	<6700	<6700	<6700	<6700	<6700	<6700	<6700	<6700	<6700	<6700	<6700	<6700	<6700	<6700	<6700	<6700
HA-4A	1-1.5'	<340	<340	<340	<340	<340	<340	<340	<340	<340	<340	<340	<340	<340	<340	<340	<340
HA-5A	1-1.5'	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67
HA-6A	1-1.5'	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67
HA-7A	1-1.5'	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66
HA-8A	1-1.5'	<68	<68	<68	<68	<68	<68	<68	<68	<68	<68	<68	<68	<68	<68	<68	<68
HA-9A	1-1.5'	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67
HA-10A	1-1.5'	<130	<130	<130	<130	<130	<130	<130	<130	<130	<130	<130	<130	<130	<130	<130	<130
HA-11A	1-1.5'	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66	<66
HA-11D(A)	1-1.5'	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67

Notes:

ESL- Environmental Screening Levels (Groundwater is current or potential drinking water source, shallow soils <= 3m bgs), California Regional Water Quality Control Board SF Region, February 2005

PRG- Preliminary Remediation Goal (EPA Region 9)

NL\*- ESL not available

In soil Borings HA-3A, HA-4A, and HA-10A Laboratory reported a dilution factor of 50, 5, and 2, respectively

< Less than Laboratory Reporting Limit

**Table 7**  
**Soil Vapor Field Data**  
**Wente Vineyards**  
**5565 Tesla Road, Livermore, California**

Cannister #	Sample Location	Initial Vacuum ("Hg)	Purging			Sampling		
			Start Time	End Time	Volume Purged (mL)	Start Time	End Time	Final Vacuum ("Hg)
34430	Purge Cannister	29	N/A	N/A	N/A	N/A	N/A	ND
30824	SV-9	25	10:00:50	10:02:13	276	10:02	10:12	5
2218	SV-4	30	11:29:55	11:31:18	276	11:32	11:37	5
2211	SV-5	30	12:13:20	12:14:43	276	12:14	12:20	5
1463	SV-6	29	13:40:47	13:42:10	276	13:42	13:52	5
11829	SV-6D (Field Duplicate of SV-6)*	28.5	14:10:20	14:11:43	276	14:11	14:20	5
31795	SV-7	29.5	14:46:07	14:47:30	276	14:48	14:55	5
2079	SV-3	30	15:32:55	15:34:18	276	15:34	15:40	5
1477	SV-1	29	16:03:25	16:04:53	276	16:05	16:37	5
1472	SV-8	29	10:15:33	10:16:56	276	10:16	10:25	5
34601	SV-2	29	10:44:48	10:46:11	276	10:46	10:52	5

Note:

\* Though laboratory sample ID for the field duplicate sample collected at soil vapor borehole SV-6 is SV-10, the sample ID used in the report for the above sample is SV-6D.

**Table 8**  
**Soil Vapor Analytical Results**  
**Wente Vineyards**  
**5565 Tesla Road, Livermore, California**

Compound	Sample ID										Shallow Soil Gas Screening Levels		
	SV-1 (ug/m³)	SV-2 (ug/m³)	SV-3 (ug/m³)	SVE-4 (ug/m³)	SV-5 (ug/m³)	SV-6 (ug/m³)	SV-6D Field Duplicate of SV-6*	SV-7 (ug/m³)	SV-8 (ug/m³)	SV-8 Lab Duplicate (ug/m³)	SVE-9 (ug/m³)	Commercial/ Industrial (ug/m³)	Residential (ug/m³)
Freon 12	<6.4	<6.1	<5	<6.2	<6.6	<6.8	<6.8	<6.2	<5.1	<5.1	<5.3	NA	NA
Freon 114	<9	<8.6	<7.1	<8.8	<9.4	<9.6	<9.6	<8.8	<7.2	<7.2	<7.6	NA	NA
Chloromethane	<11	<10	<8.3	<10	<11	<11	<11	<10	<8.5	<8.5	<8.9	NA	NA
Vinyl Chloride	<3.3	<3.2	<2.6	<3.2	<3.4	<3.5	<3.5	<3.2	<2.6	<2.6	<2.8	NA	NA
<b>1,3-Butadiene</b>	<b>150</b>	<b>28</b>	<b>16</b>	<b>330</b>	<b>130</b>	<b>79</b>	<b>31</b>	<b>140</b>	<2.3	<2.3	<b>610</b>	<b>NL</b>	<b>NL</b>
Bromomethane	<5	<4.8	<3.9	<4.9	<5.2	<5.4	<5.4	<4.9	<4	<4	<4.2	NA	NA
Chloroethane	<3.4	<3.2	<2.7	<3.3	<3.5	<3.6	<3.6	<3.3	<2.7	<2.7	<2.8	NA	NA
<b>Freon 11</b>	<b>&lt;7.2</b>	<b>&lt;6.9</b>	<b>10</b>	<b>7.0 J</b>	<b>18</b>	<b>&lt;7.8</b>	<b>&lt;7.8</b>	<b>&lt;7.1</b>	<b>&lt;5.8</b>	<b>&lt;5.8</b>	<b>&lt;6.1</b>	<b>NL</b>	<b>NL</b>
<b>Ethanol</b>	<b>28</b>	<b>50</b>	<b>13</b>	<b>34</b>	<b>16</b>	<b>55</b>	<b>16</b>	<b>43</b>	<b>&lt;7.7</b>	<b>&lt;7.7</b>	<b>74</b>	<b>38,000,000</b>	<b>19,000,000</b>
Freon 113	<9.9	<9.5	<7.7	<9.7	<10	<10	<10	<9.7	<7.8	<7.8	<8.3	NA	NA
1,1-Dichloroethene	<5.1	<4.9	<4	<5	<5.3	<5.5	<5.5	<5	<4.1	<4.1	<4.3	NA	NA
<b>Acetone</b>	<b>400</b>	<b>570</b>	<b>100</b>	<b>330</b>	<b>170</b>	<b>820</b>	<b>310</b>	<b>990</b>	<b>23</b>	<b>23</b>	<b>280</b>	<b>1,800,000</b>	<b>660,000</b>
<b>2-Propanol</b>	<b>21</b>	<b>18</b>	<b>&lt;9.9</b>	<b>43</b>	<b>19</b>	<b>150</b>	<b>16</b>	<b>24</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>12</b>	<b>NL</b>	<b>NL</b>
<b>Carbon Disulfide</b>	<b>19</b>	<b>12</b>	<b>4.8</b>	<b>18</b>	<b>19</b>	<b>13</b>	<b>7</b>	<b>17</b>	<b>&lt;3.2</b>	<b>&lt;3.2</b>	<b>320</b>	<b>NL</b>	<b>NL</b>
3-Chloropropene	<16	<15	<13	<16	<17	<17	<17	<16	<13	<13	<14	NA	NA
<b>Methylene Chloride</b>	<4.5	<4.3	<b>4.4</b>	<4.4	<4.7	<4.8	<4.8	<4.4	<3.6	<3.6	<3.8	<b>NL</b>	<b>NL</b>
MtBE	<4.6	<4.4	<3.6	<4.6	<4.8	<5	<5	<4.6	<3.7	<3.7	<3.9	NA	NA
trans-1,2-Dichloroethene	<5.1	<4.9	<4	<5	<5.3	<5.5	<5.5	<5	<4.1	<4.1	<4.3	NA	NA
<b>Hexane</b>	<b>61</b>	<b>19</b>	<b>16</b>	<b>160</b>	<b>82</b>	<b>44</b>	<b>18</b>	<b>76</b>	<3.6	<3.6	<b>84</b>	<b>NL</b>	<b>NL</b>
1,1-Dichloroethane	<5.2	<5	<4.1	<5.1	<5.4	<5.6	<5.6	<5.1	<4.1	<4.1	<4.4	<b>NL</b>	<b>NL</b>
<b>2-Butanone (Methyl Ethyl Ketone)</b>	<b>73</b>	<b>77</b>	<b>15</b>	<b>92</b>	<b>44</b>	<b>180</b>	<b>170</b>	<b>210</b>	<b>4.2</b>	<b>4.3</b>	<b>61</b>	<b>590,000</b>	<b>210,000</b>
cis-1,2-Dichloroethene	<5.1	<4.9	<4	<5	<5.3	<5.5	<5.5	<5	<4.1	<4.1	<4.3	NA	NA
<b>Tetrahydrofuran</b>	<b>6.5</b>	<b>4.6</b>	<b>&lt;3</b>	<b>8.5</b>	<b>4.5</b>	<b>6.9</b>	<b>50</b>	<b>5.2</b>	<3	<3	<b>7</b>	<b>NL</b>	<b>NL</b>
<b>Chloroform</b>	<6.3	<6	<4.9	<6.2	<6.6	<6.7	<6.7	<b>9.2</b>	<5	<5	<5.3	<b>1,500</b>	<b>450</b>
1,1,1-Trichloroethane	<7	<6.7	<5.5	<6.9	<7.3	<7.5	<7.5	<6.9	<5.6	<5.6	<5.9	NA	NA
<b>Cyclohexane</b>	<b>14</b>	<b>&lt;4.2</b>	<b>4.7</b>	<b>46</b>	<b>36</b>	<b>7.9</b>	<b>4.8</b>	<b>18</b>	<3.5	<3.5	<b>56</b>	<b>NL</b>	<b>NL</b>
Carbon Tetrachloride	<8.1	<7.8	<6.4	<8	<8.5	<8.7	<8.7	<8	<6.4	<6.4	<6.8	NA	NA
<b>2,2,4-Trimethylpentane</b>	<6	<5.8	<4.7	<b>7.1</b>	<6.3	7.8	<6.4	<5.9	<4.8	<4.8	<b>19</b>	<b>NL</b>	<b>NL</b>
<b>Benzene</b>	<b>45</b>	<b>18</b>	<b>8</b>	<b>170</b>	<b>51</b>	<b>44</b>	<b>16</b>	<b>64</b>	<3.3	<3.3	<b>63</b>	<b>290</b>	<b>85</b>
1,2-Dichloroethane	<5.2	<5	<4.1	<5.1	<5.4	<5.6	<5.6	<5.1	<4.1	<4.1	<4.4	NA	NA
<b>Heptane</b>	<b>30</b>	<b>10</b>	<b>7.2</b>	<b>71</b>	<b>36</b>	<b>20</b>	<b>10</b>	<b>32</b>	<4.2	<4.2	<b>41</b>	<b>NL</b>	<b>NL</b>
<b>Trichloroethene</b>	<6.9	<6.6	<5.4	<6.8	<7.2	<b>74</b>	<b>16</b>	<6.8	<5.5	<5.5	<5.8	<b>4,100</b>	<b>1,200</b>
1,2-Dichloropropane	<6	<5.7	<4.7	<5.8	<6.2	<6.4	<6.4	<5.8	<4.7	<4.7	<5	NA	NA
1,4-Dioxane	<18	<18	<14	<18	<19	<20	<20	<18	<15	<15	<16	NA	NA

**Table 8**  
**Soil Vapor Analytical Results**  
**Wente Vineyards**  
**5565 Tesla Road, Livermore, California**

Compound	Sample ID										Shallow Soil Gas Screening Levels		
	SV-1 (ug/m³)	SV-2 (ug/m³)	SV-3 (ug/m³)	SVE-4 (ug/m³)	SV-5 (ug/m³)	SV-6 (ug/m³)	SV-6D Field Duplicate of SV-6*	SV-7 (ug/m³)	SV-8 (ug/m³)	SV-8 Lab Duplicate (ug/m³)	SVE-9 (ug/m³)	Commercial/ Industrial (ug/m³)	Residential (ug/m³)
Bromodichloromethane	<8.6	<8.3	<6.8	<8.5	<9	<9.2	<9.2	<8.5	<6.9	<6.9	<7.2	NA	NA
cis-1,3-Dichloropropene	<5.8	<5.6	<4.6	<5.7	<6.1	<6.3	<6.3	<5.7	<4.6	<4.6	<4.9	NA	NA
<b>4-Methyl-2-pentanone</b>	<5.3	9.7	<4.1	<b>14</b>	<b>8.6</b>	<b>14</b>	<b>5.8</b>	<b>19</b>	<4.2	<4.2	<b>5.6</b>	<b>NL</b>	<b>NL</b>
<b>Toluene</b>	<b>42</b>	<b>52</b>	<b>34</b>	<b>300</b>	<b>130</b>	<b>110</b>	<b>60</b>	<b>160</b>	<b>8.2</b>	<b>8.9</b>	<b>95</b>	<b>180,000</b>	<b>63,000</b>
trans-1,3-Dichloropropene	<5.8	<5.6	<4.6	<5.7	<6.1	<6.3	<6.3	<5.7	<4.6	<4.6	<4.9	NA	NA
1,1,2-Trichloroethane	<7	<6.7	<5.5	<6.9	<7.3	<7.5	<7.5	<6.9	<5.6	<5.6	<5.9	NA	NA
<b>Tetrachloroethene</b>	<b>14</b>	<8.4	<b>58</b>	<8.6	<9.1	<9.4	<9.4	<b>41</b>	<b>110</b>	<b>100</b>	<b>240</b>	<b>1,400</b>	<b>410</b>
2-Hexanone	<21	<20	<16	<21	<22	<23	<23	<21	<17	<17	<18	NA	NA
Dibromochloromethane	<11	<10	<8.6	<11	<11	<12	<12	<11	<8.7	<8.7	<9.2	NA	NA
1,2-Dibromoethane (EDB)	<9.9	<9.5	<7.8	<9.7	<10	<11	<11	<9.7	<7.9	<7.9	<8.3	NA	NA
Chlorobenzene	<5.9	<5.7	<4.6	<5.8	<6.2	<6.4	<6.4	<5.8	<4.7	<4.7	<5	NA	NA
<b>Ethyl Benzene</b>	<b>7</b>	<b>10</b>	<b>9</b>	<b>37</b>	<b>11</b>	<b>20</b>	<b>9.6</b>	<b>35</b>	<4.4	<4.4	<b>15</b>	<b>1,200,000</b>	<b>420,000</b>
<b>m,p-Xylene</b>	<b>12</b>	<b>31</b>	<b>35</b>	<b>54</b>	<b>15</b>	<b>34</b>	<b>22</b>	<b>77</b>	<4.4	<4.4	<b>42</b>	<b>410,000</b>	<b>150,000</b>
<b>o-Xylene</b>	<5.6	<b>13</b>	<b>14</b>	<b>22</b>	<b>8</b>	<b>16</b>	<b>8.1</b>	<b>28</b>	<4.4	<4.4	<b>16</b>	<b>410,000</b>	<b>150,000</b>
<b>Styrene</b>	<5.5	<b>5.5</b>	<4.3	<b>15</b>	<b>7.9</b>	<b>16</b>	<b>7</b>	<b>26</b>	<4.4	<4.4	<b>8.4</b>	<b>590,000</b>	<b>210,000</b>
Bromoform	<13	<13	<10	<13	<14	<14	<14	<13	<10	<10	<11	NA	NA
<b>Cumene</b>	<6.3	<6.1	<5	<b>9.6</b>	<6.6	<6.8	<6.8	<6.2	<5	<5	<5.3	<b>NL</b>	<b>NL</b>
1,1,2,2-Tetrachloroethane	<8.8	<8.5	<6.9	<8.7	<9.2	<9.5	<9.5	<8.7	<7	<7	<7.4	NA	NA
<b>Propylbenzene</b>	<6.3	<b>12</b>	<5	<b>7</b>	<6.6	<6.8	<6.8	<b>7.6</b>	<5	<5	<5.3	<b>NL</b>	<b>NL</b>
<b>4-Ethyltoluene</b>	<6.3	<b>35</b>	<5	<b>20</b>	<6.6	<b>12</b>	<6.8	<b>23</b>	<5	<5	<b>15</b>	<b>NL</b>	<b>NL</b>
<b>1,3,5-Trimethylbenzene</b>	<6.3	<b>26</b>	<5	<b>6.4</b>	<6.6	<6.8	<6.8	<b>6.5</b>	<5	<5	<b>5.5</b>	<b>NL</b>	<b>NL</b>
<b>1,2,4-Trimethylbenzene</b>	<6.3	<b>87</b>	<5	<b>26</b>	<6.6	<b>14</b>	<b>7</b>	<b>27</b>	<5	<5	<b>25</b>	<b>NL</b>	<b>NL</b>
1,3-Dichlorobenzene	<7.8	<7.4	<6.1	<7.6	<8.1	<8.3	<8.3	<7.6	<6.2	<6.2	<6.5	NA	NA
1,4-Dichlorobenzene	<7.8	<7.4	<6.1	<7.6	<8.1	<8.3	<8.3	<7.6	<6.2	<6.2	<6.5	NA	NA
alpha-Chlorotoluene	<6.7	<6.4	<5.2	<6.5	<7	<7.1	<7.1	<6.5	<5.3	<5.3	<5.6	NA	NA
1,2-Dichlorobenzene	<7.8	<7.4	<6.1	<7.6	<8.1	<8.3	<8.3	<7.6	<6.2	<6.2	<6.5	NA	NA
1,2,4-Trichlorobenzene	<38	<37	<30	<38	<40	<41	<41	<38	<30	<30	<32	NA	NA
Hexachlorobutadiene	<55	<53	<43	<54	<57	<59	<59	<54	<44	<44	<46	<b>NL</b>	<b>NL</b>

Laboratory Note:

J- Estimated Value

Note

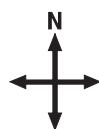
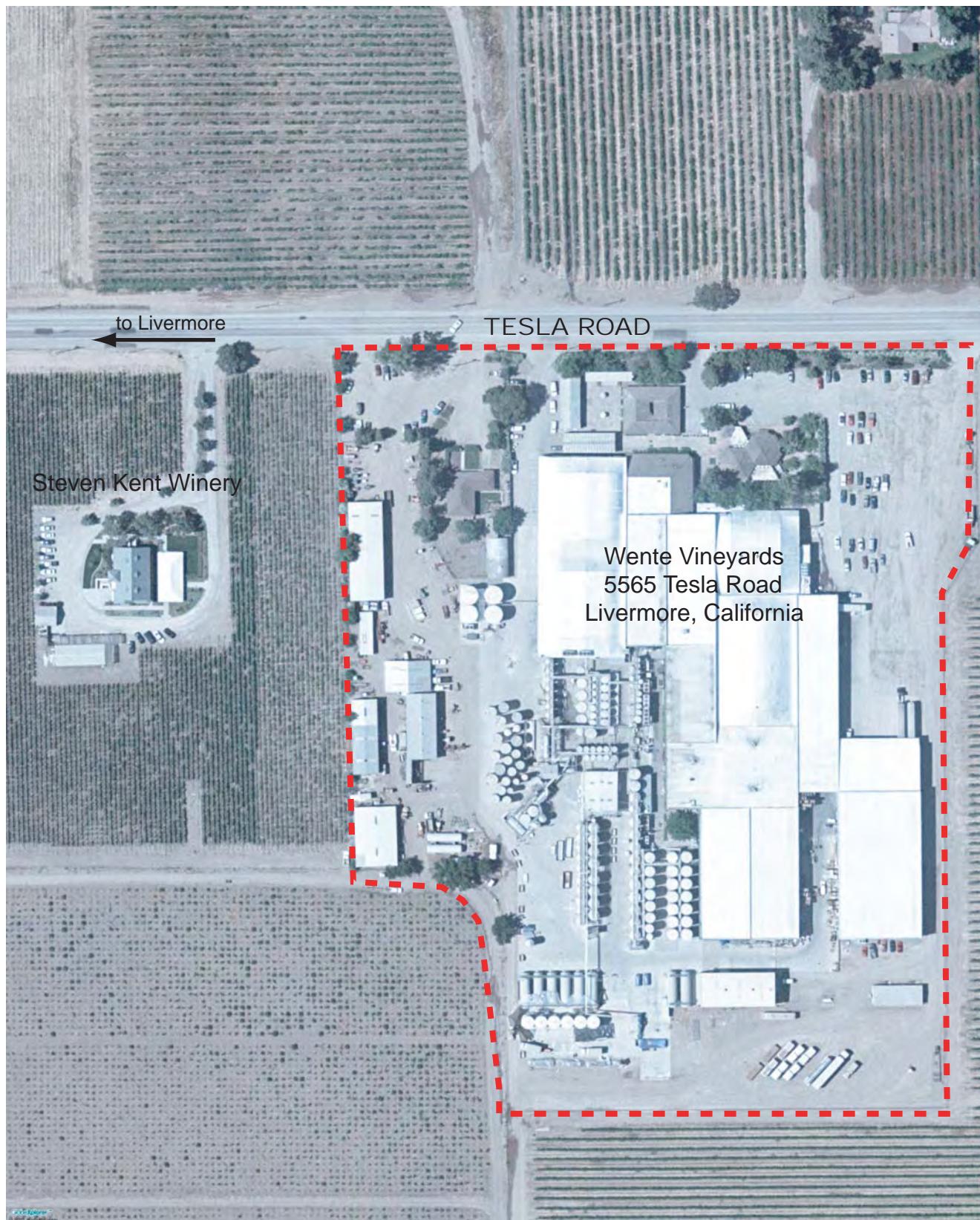
NA- Not Applicable

NL- Not Listed

< - Less Than Laboratory Reporting Limit

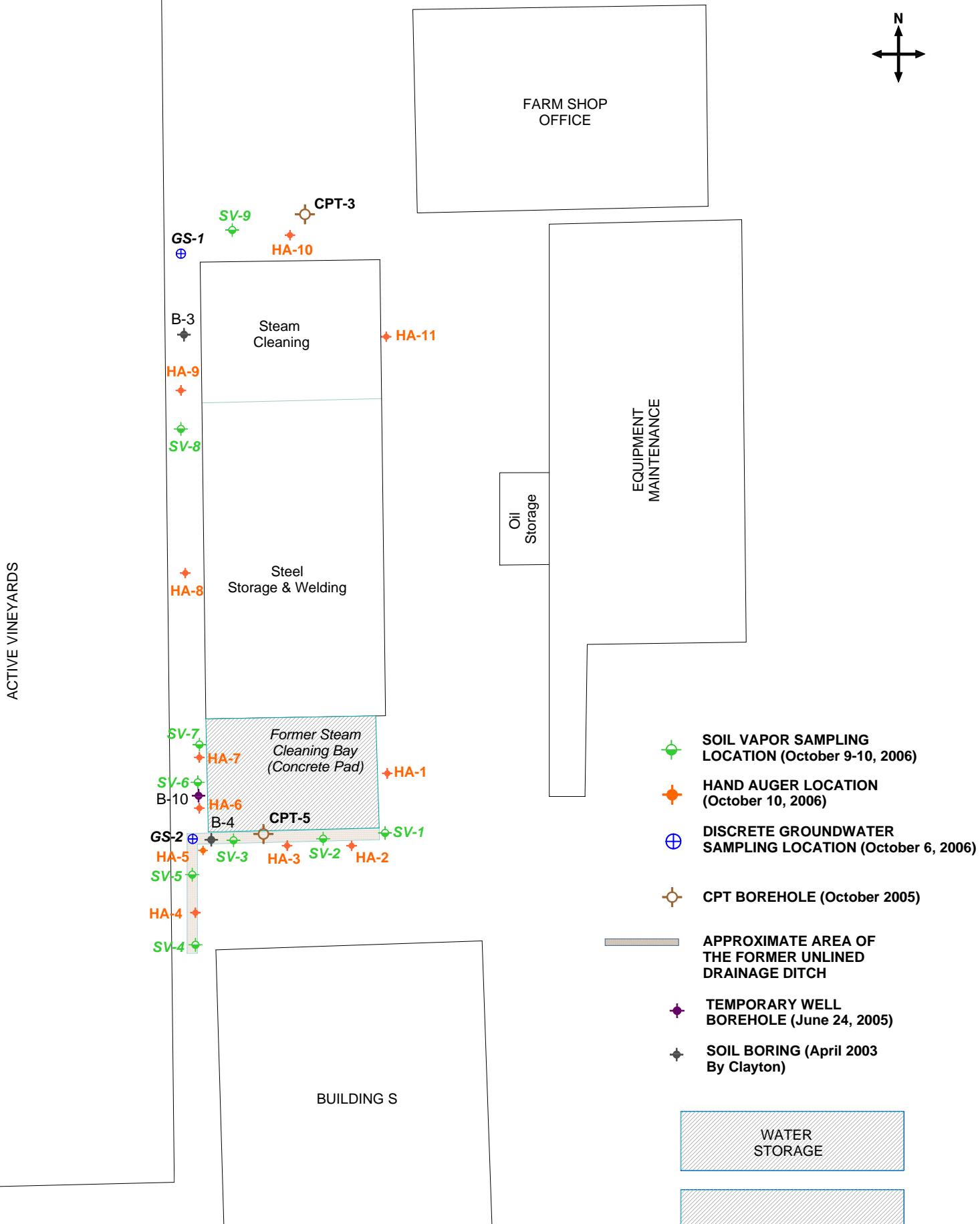
\* Laboratory sample ID for the field duplicate sample collected from the soil vapor borehole SV-6 is SV-10, however the sample ID used in the report is for the above sample is SV-6D.

# **Figures**



approximate scale in feet  
0 50 100

Figure 1: Site vicinity map.

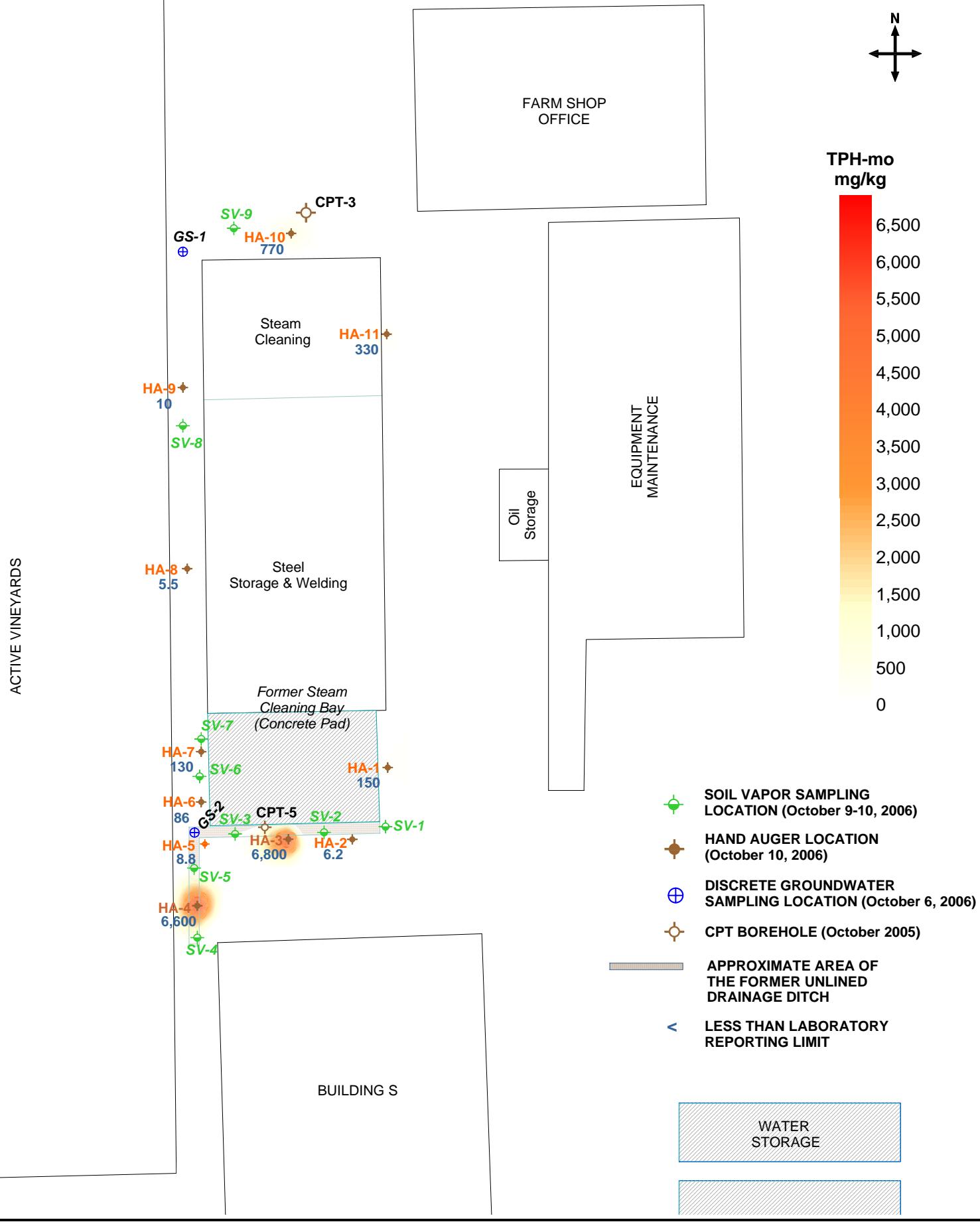


approximate scale in feet

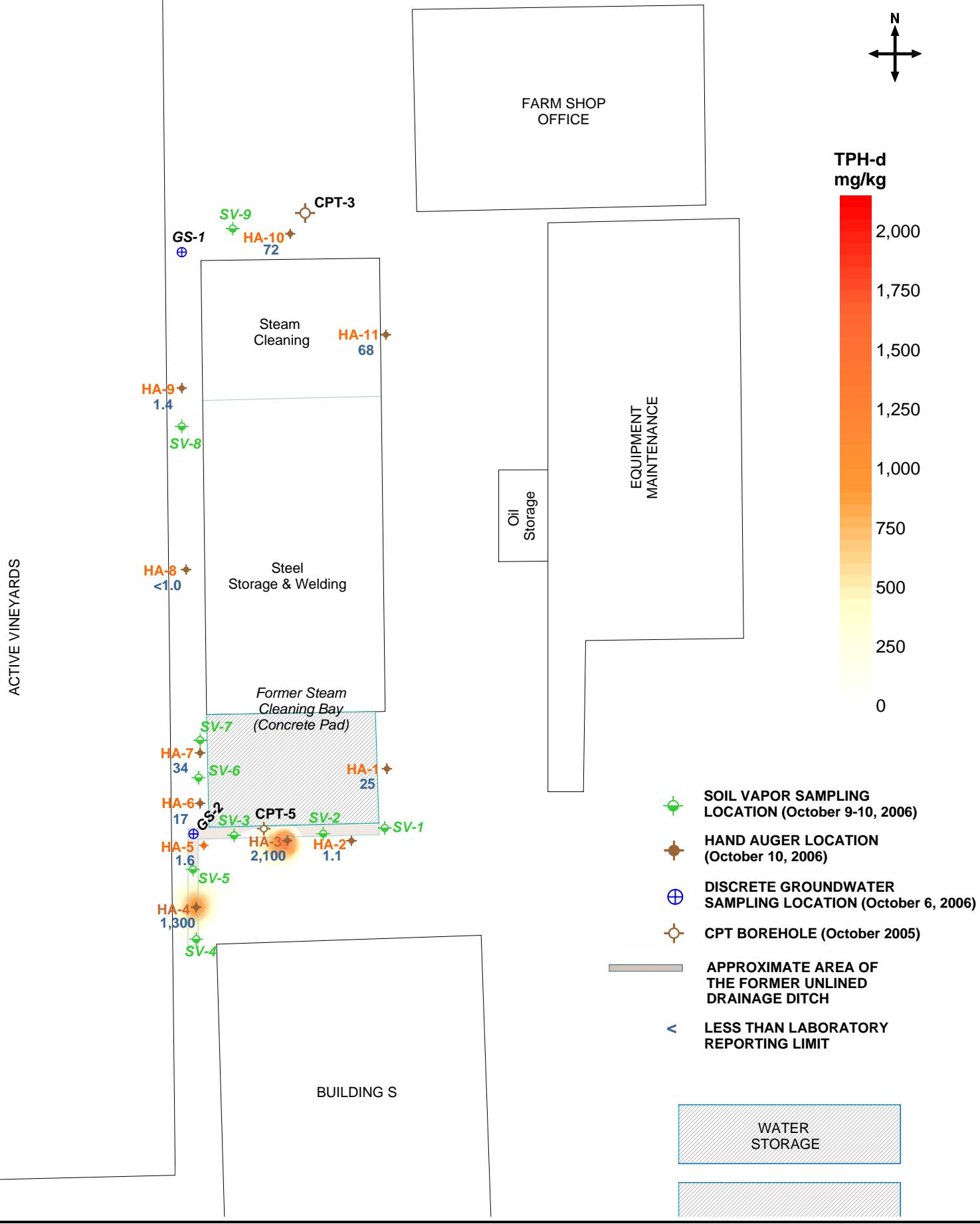
1

Figure 2: Site Map Showing Locations of Hand Auger, Soil Vapor, and Discrete Groundwater Sampling Boreholes

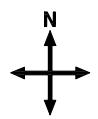




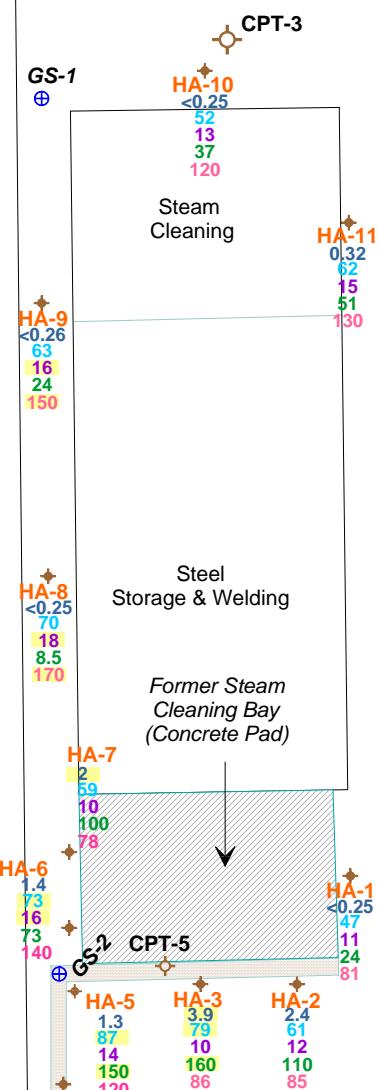
Location	TPH-mo (mg/kg)
GS-1	770
SV-9	10
HA-10	330
HA-9	5.5
SV-8	130
HA-8	1.0
Steel Storage & Welding	
Former Steam Cleaning Bay (Concrete Pad)	
SV-7	130
SV-6	1.0
HA-7	150
HA-6	8.8
SV-3	86
CPT-5	6,800
SV-2	6.2
HA-5	6,600
SV-5	6,600
HA-4	6,600
SV-4	6,600



Metals	ESL (Commercial/Industrial)	ESL (Residential)	Ambient Levels
Cadmium	7.4	1.7	NA
Chromium	58	58	73
Cobalt	10	10	15.9
Lead	750	150	NA
Nickel	150	150	NA



ACTIVE VINEYARDS



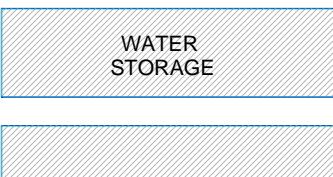
FARM SHOP  
OFFICE

Oil  
Storage

EQUIPMENT  
MAINTENANCE

BUILDING S

- 1.4 - Cadmium (mg/kg)
- 73 - Chromium (mg/kg)
- 16 - Cobalt (mg/kg)
- 150 - Lead (mg/kg)
- 140 - Nickel (mg/kg)
- 0.00 - VALUES EXCEEDING ESL (Residential) AND BACKGROUND LEVELS
- ◆ - HAND AUGER LOCATION (October 10, 2006)
- ⊕ - DISCRETE GROUNDWATER SAMPLING LOCATION (October 6, 2006)
- ◇ - CPT BOREHOLE (October 2005)
- APPROXIMATE AREA OF THE FORMER UNLINED DRAINAGE DITCH
- < - LESS THAN LABORATORY REPORTING LIMIT

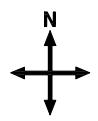


approximate scale in feet

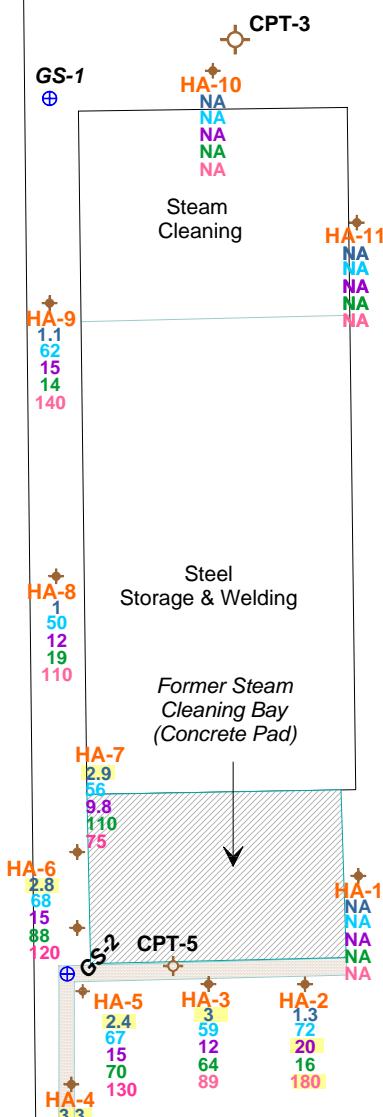
0 20 40

Figure 5: Map Showing Soil Concentration of Metals at 1- to 1.5' bgs

Metals	ESL (Commercial/Industrial)	ESL (Residential)	Ambient Levels
Cadmium	7.4	1.7	NA
Chromium	58	58	73
Cobalt	10	10	15.9
Lead	750	150	NA
Nickel	150	150	NA



ACTIVE VINEYARDS



FARM SHOP  
OFFICE

EQUIPMENT  
MAINTENANCE

Oil  
Storage

BUILDING S

0.00 VALUES EXCEEDING ESL (Residential)  
AND BACKGROUND LEVELS

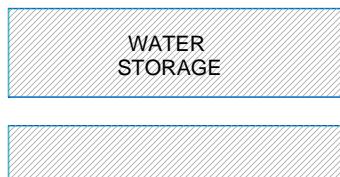
HAND AUGER LOCATION  
(October 10, 2006)

DISCRETE GROUNDWATER  
SAMPLING LOCATION (October 6, 2006)

CPT BOREHOLE (October 2005)

APPROXIMATE AREA OF  
THE FORMER UNLINED  
DRAINAGE DITCH

LESS THAN LABORATORY  
REPORTING LIMIT



approximate scale in feet

0 20 40

Figure 6: Contour Map Showing Soil Concentration of Metals at  
3- to 3.5' bgs

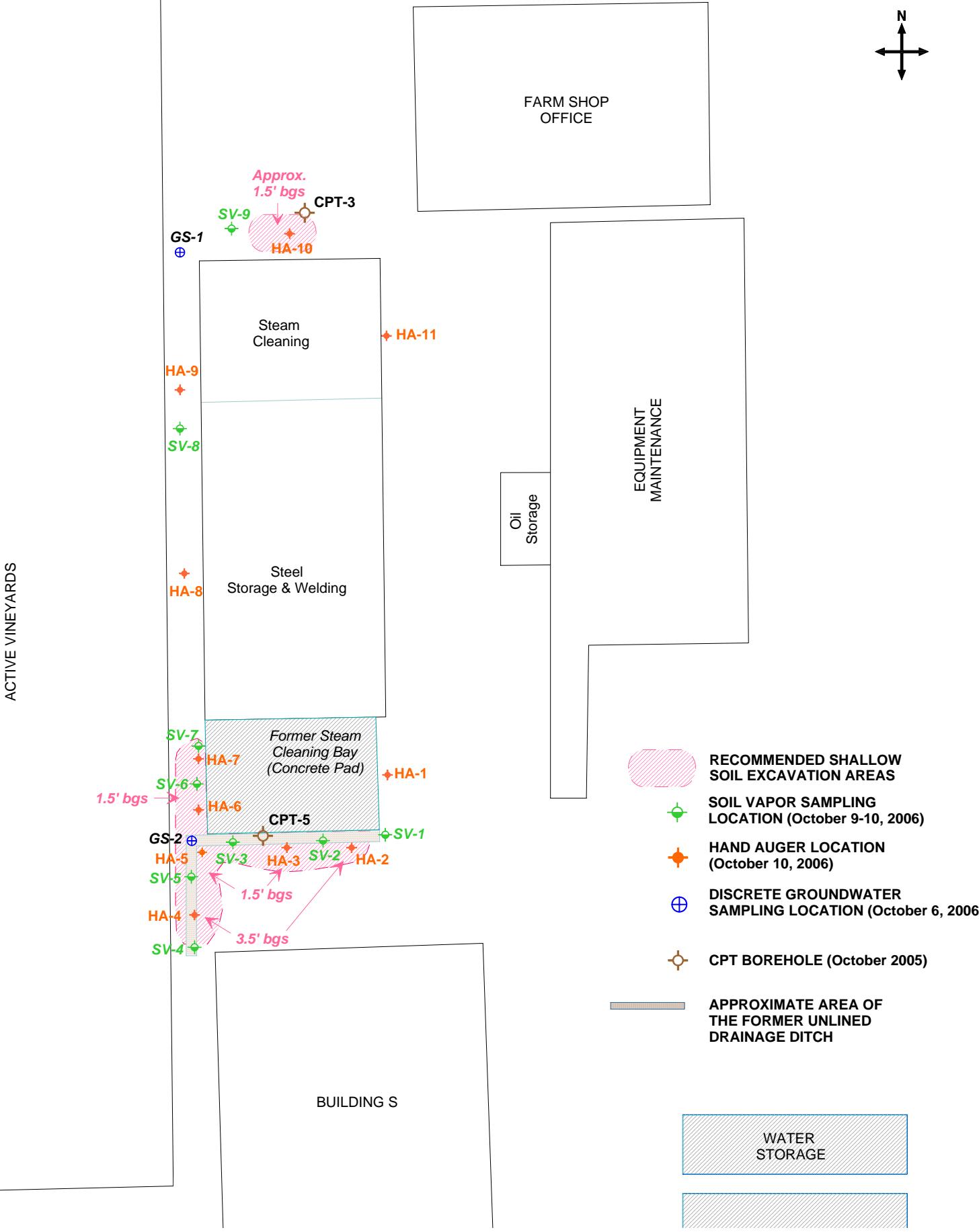


Figure 7: Recommended Shallow Soil Excavation Areas

# **Appendix A**

## **Drilling Permits**



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ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

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100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551

PHONE (925) 454-5000

October 2, 2006

Ms. Adina Honniball  
SOMA Environmental  
6620 Owens Drive, Suite A  
Pleasanton, CA 94588-3334

Dear Ms. Honniball:

Enclosed are drilling permits 26168 and 26173 for a contamination investigation at 5565 Tesla Road in Livermore for Wente Bros. Winery. Also enclosed is a current drilling permit application for your files. Drilling permit applications for future projects can also be downloaded from our web site at [www.zone7water.com](http://www.zone7water.com).

Please note that permit conditions A-2 and G requires that a report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, permit number and any analysis of the soil and water samples. Please submit the original of your completion report. We will forward your submittal to the California Department of Water Resources.

If you have any questions, please contact me at extension 5056 or Matt Katen at extension 5071.

Sincerely,

A handwritten signature in black ink, appearing to read "Wyman Hong".  
Wyman Hong  
Water Resources Specialist

Enc.



## ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 454-5728

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 5565 Tesla Rd  
Livermore, CA 94550

California Coordinates Source R. Accuracy ±  
CCN R. CCE  
APN 99-850-2-2

CLIENT  
Name Aris Krimetz  
Address 5565 Tesla Rd Phone (925) 456-2300  
City Livermore Zip 94550

APPLICANT  
Name SOMA Environmental Engineering  
Address 6620 Owens Dr Phone (925) 734-6400  
City Pleasanton Zip 94588

## TYPE OF PROJECT

Well Construction	Geotechnical Investigation		
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input checked="" type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input type="checkbox"/>

## PROPOSED WELL USE

New Domestic	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Remediation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Groundwater Monitoring	<input type="checkbox"/>
Dewatering	<input type="checkbox"/>	Other <u>groundwater sampling</u>	<input checked="" type="checkbox"/>

## DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Hollow Stem Auger	<input type="checkbox"/>
Cable Tool	<input type="checkbox"/>	Direct Push	<input checked="" type="checkbox"/>	Other	<input type="checkbox"/>

DRILLING COMPANY Fisch DrillingDRILLER'S LICENSE NO. 683865

## WELL PROJECTS

Drill Hole Diameter	<u>in.</u>	Maximum	
Casing Diameter	<u>in.</u>	Depth	<u>ft.</u>
Surface Seal Depth	<u>in.</u>	Number	

## SOIL BORINGS

Number of Borings	<u>2</u>	Maximum	
Hole Diameter	<u>2-5 in.</u>	Depth	<u>65 ft.</u>

ESTIMATED STARTING DATE 10/4/06ESTIMATED COMPLETION DATE 10/4/06

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-18.

APPLICANT'S

SIGNATURE S. KrimetzDate 9/22/06

ATTACH SITE PLAN OR SKETCH

PERMIT NUMBER 26168

WELL NUMBER \_\_\_\_\_

APN 099A-2340-004-01

## PERMIT CONDITIONS

(Circled Permit Requirements Apply)

A.

## GENERAL

1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B.

## WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
4. A sample port is required on the discharge pipe near the wellhead.

C.

## GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D.

GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E.

CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F.

WELL DESTRUCTION. See attached.

G.

SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after the completion of permitted work the well installation report including all soil and water laboratory analysis results.

Approved

Date 9/25/06

Wyman Hong

Revised: April 27, 2005



## ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 454-5728

## DRILLING PERMIT APPLICATION

## FOR APPLICANT TO COMPLETE

## FOR OFFICE USE

LOCATION OF PROJECT 5565 Tesla Rd  
Livermore, CA 94550California Coordinates Source \_\_\_\_\_ ft. Accuracy: \_\_\_\_\_ ft.  
CCN \_\_\_\_\_ ft. CCE \_\_\_\_\_ ft.  
APN 99-850-2-2CLIENT  
Name Aris Krynetz Phone (925) 456-2300  
Address 5565 Tesla Rd  
City Livermore Zip 94550APPLICANT  
Name SOMA Environmental Engineering  
Address 16020 Owens Dr Phone (925) 734-6401  
City Pleasanton Zip 94558TYPE OF PROJECT  
Well Construction  Geotechnical Investigation   
Cathodic Protection  General   
Water Supply  Contamination   
Monitoring  Well Destruction PROPOSED WELL USE  
New Domestic  Irrigation   
Municipal  Remediation   
Industrial  Groundwater Monitoring   
Dewatering  Other Soil vapor extraction DRILLING METHOD:  
Mud Rotary  Air Rotary  Hollow Stem Auger   
Cable Tool  Direct Push  Other \_\_\_\_\_DRILLING COMPANY Vironex Environmental Services  
DRILLER'S LICENSE NO. 705927WELL PROJECTS  
Drill Hole Diameter \_\_\_\_\_ in. Maximum \_\_\_\_\_  
Casing Diameter \_\_\_\_\_ in. Depth \_\_\_\_\_ ft.  
Surface Seal Depth \_\_\_\_\_ ft. Number \_\_\_\_\_SOIL BORINGS  
Number of Borings 20 Maximum 5 in.  
Hole Diameter 1 in. Depth 5 ft.ESTIMATED STARTING DATE 10/9/06  
ESTIMATED COMPLETION DATE 10/10/06

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE JPL Date 9/22/06

ATTACH SITE PLAN OR SKETCH

PERMIT NUMBER 26173

WELL NUMBER \_\_\_\_\_

APN 099A-2340-004-01

## PERMIT CONDITIONS

(Circle Permit Requirements Apply)

- A. GENERAL**
  1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
  2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects or drilling logs and location sketch for geotechnical projects.
  3. Permit is void if project not begun within 90 days of approval date.
- B. WATER SUPPLY WELLS**
  1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
  2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
  3. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
  4. A sample port is required on the discharge pipe near the wellhead.
- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**
  1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
  2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
- D. GEOTECHNICAL** Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.
- E. CATHODIC** Fill hole above anode zone with concrete placed by tremie.
- F. WELL DESTRUCTION**. See attached.
- G. SPECIAL CONDITIONS**. Submit to Zone 7 within 60 days after the completion of permitted work the well installation report including all soil and water laboratory analysis results.

Approved \_\_\_\_\_

Date 9/29/06

Revised: April 27, 2005

## **Appendix B**

### **Schematic of the Vapor Probe Sampling System**

## *Schematic of Soil Gas Sampling Manifold*

F= Filter

V= Valve

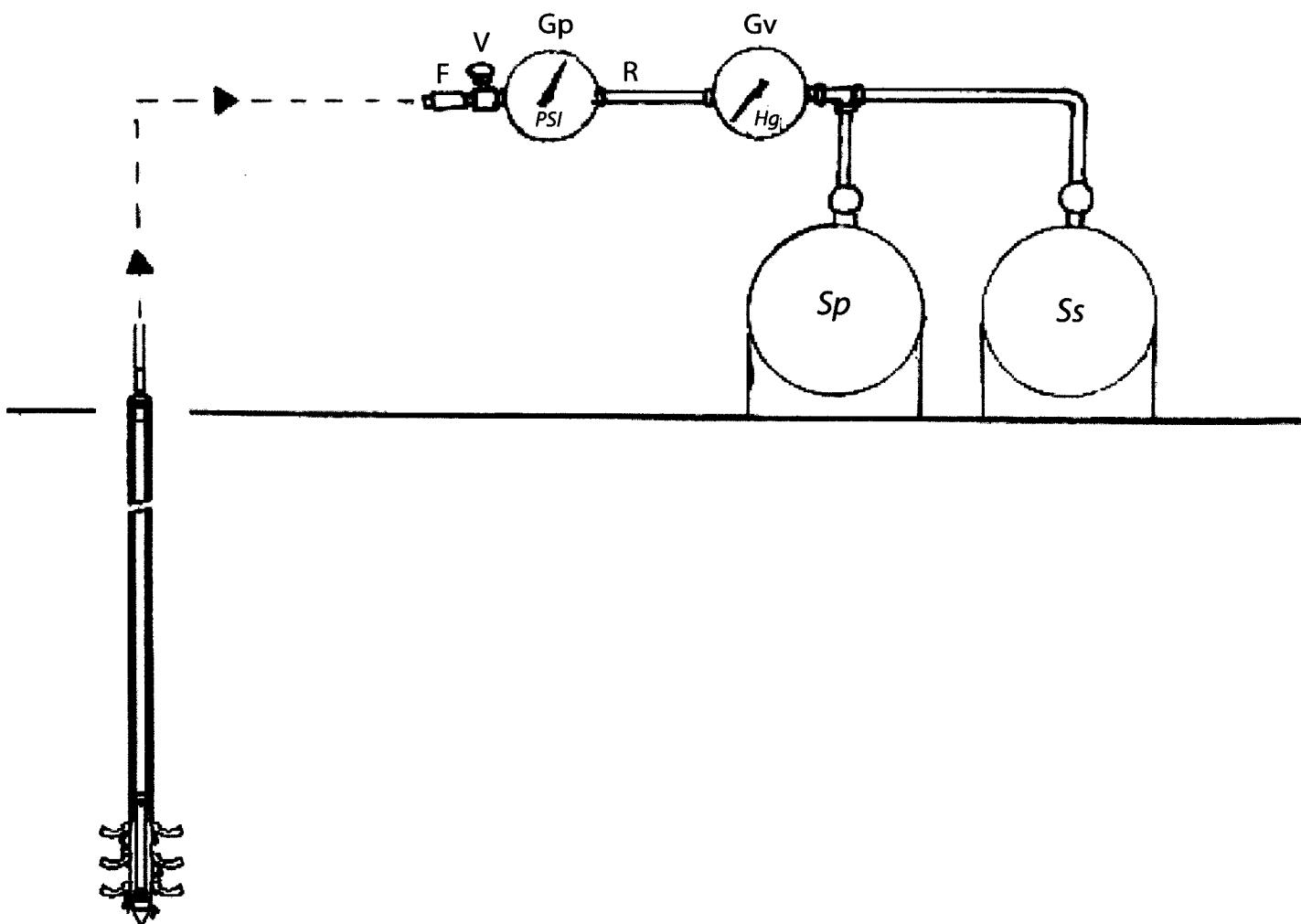
Gp= Pressure Gauge

R= Flow Regulator

Gv= Vacuum Gauge

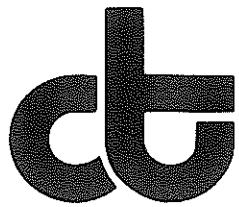
Sp= Purge Summa Canister

Ss= Sample Summa Canister



# **Appendix C**

## **Groundwater and Soil Laboratory Report**



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.  
6620 Owens Dr.  
Suite A  
Pleasanton, CA 94588

Date: 18-OCT-06  
Lab Job Number: 189937  
Project ID: 2842  
Location: Wente

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:

  
Troy B. Saylor  
Project Manager

Reviewed by:

  
Michael J. Whittaker  
Operations Manager

This package may be reproduced only in its entirety.

NELAP # 01107CA

Page 1 of 22

## CASE NARRATIVE

Laboratory number: 189937  
Client: SOMA Environmental Engineering Inc.  
Project: 2842  
Location: Wente  
Request Date: 10/06/06  
Samples Received: 10/06/06

This hardcopy data package contains sample and QC results for five water samples, requested for the above referenced project on 10/06/06. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B) :  
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B) :  
No analytical problems were encountered.

**Tracy Babjar**

---

**From:** "Elena Manzo" <emanzo@somaenv.com>  
**To:** ""Tracy Babjar" <tracy@ctberk.com>  
**Sent:** Monday, October 16, 2006 4:46 PM  
**Subject:** RE: CT# 189937

Dear Tracy,

Please change the project number for the above job from 2840 to 2842, and please include tetrahydrofuran as part of the 2860B (VOCs) analysis.

Thank You  
Elena Manzo

---

**From:** Joyce Bobek [mailto:jbobek@somaenv.com]  
**Sent:** Monday, October 16, 2006 4:00 PM  
**To:** emanzo@somaenv.com  
**Subject:** FW: CT# 189937

---

**From:** Tracy Babjar [mailto:tracy@ctberk.com]  
**Sent:** Monday, October 16, 2006 3:58 PM  
**To:** joyce bobek  
**Subject:** CT# 189937

# CHAIN OF CUSTODY FORM

Page 1 of 1

## Analyses

**Curtis & Tompkins, Ltd.**

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

Project No: 2840

Project Name: Waste

Project P.O.: 2840

Turnaround Time:

Laboratory Number	Sample ID.	Sampling Date Time	Matrix	# of Containers	Preservative				Field Notes	8260B 8@45mls/80LSUM
					HCL	H <sub>2</sub> SO	HNO <sub>3</sub>	ICE		
-1	GS-1C	10/5/06-1030	X	3,40ml VOAs	X		X		59 FT - 63FT	XX
-2	GS-1B	10/5/06-1040	X	3,40ml VOAs	X		X		40FT - 44FT	XX
N/A	GS-2A	10/5/06-1100	X	3,40ml VOAs	X		X		12FT - 16FT	AMFT
-3	GS-2C	10/5/06-1240	X	3,40ml VOAs	X		X		59FT - 63FT	XX
-4	GS-2B	10/5/06-1:00	X	3,40ml VOAs	X		X		40FT - 44FT	XX
-5	GS-2A	10/5/06-1:20	X	3,40ml VOAs	X		X		12FT - 16FT	XX
OR										
OR										
OR										
L										
A										
B										
D										
L										

Notes:

  
 Ali Tbil 10/6/06 10:55am  
 DATE/TIME

RELINQUISHED BY:

RECEIVED BY:

Ali Tbil 10/6/06 10:55am  
 DATE/TIME

Doug Johnson 10/6/06 10:55am  
 DATE/TIME

Doug Johnson 10/6/06 10:55am  
 DATE/TIME

DATE/TIME

Jean Dwyer 10/6/06 11:40am  
 DATE/TIME

DATE/TIME

Signature

# **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

Project No: 2840

Project Name: Wife

Project P.O.: 2840

#### **Turnaround Time:**

**C&T**  
LOGIN # \_\_\_\_\_  
  
**Sampler:** Adina Honniball

Report To: Joyce Bobek

Company : SOMA

**Telephone:** (925) 734-6400

Fax: (925) 734-6401

Matrix	Preservative
--------	--------------

C&T  
LOGIN #

## Analyses

Laboratory Number	Sample ID.	Sampling Date Time	Soil Water Waste	Matrix	# of Containers	Preservative				Field Notes	82603	B615W4
						HCl	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE			
For ator Use Labor atory	GS-1 C	10/5/06-1000	X	3, 40ml VOAs	X				X	59 FT - 63FT	X	X
	GS-1 B	10/5/06-1040	X	3, 40ml VOAs	X				X	40FT - 44FT	X	X
	GS-2 C	10/5/06-1240	X	3, 40ml VOAs	X				X	59FT - 63FT	X	X
	GS-2 B	10/5/06-1:00	X	3, 40ml VOAs	X				X	40FT - 44FT	X	X
	GS-2 A	10/5/06-1:10	X	3, 40ml VOAs	X				X	12FT - 16FT	X	X
										Analyzed		

**Notes:**

**RELINQUISHED BY**

RECEIVED BY:

~~Proprietary~~ ~~Confidential~~ ~~Intertel~~

Ali Tahir / 10/6/06 10:55am DATE/TIME

10/06/06  
DATE/TIME 10:55

110/06/06

18/06/06 14:40  
DATE/TIME

**DATE/TIME**

**DATE/TIME**

**Signature**



Curtis &amp; Tompkins, Ltd.

**Total Volatile Hydrocarbons**

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	118298
Units:	ug/L	Sampled:	10/05/06
Diln Fac:	1.000	Received:	10/06/06

Field ID: GS-1C Lab ID: 189937-001  
Type: SAMPLE Analyzed: 10/11/06

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	93	69-137
Bromofluorobenzene (FID)	93	80-133

Field ID: GS-1B Lab ID: 189937-002  
Type: SAMPLE Analyzed: 10/11/06

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	85	69-137
Bromofluorobenzene (FID)	89	80-133

Field ID: GS-2C Lab ID: 189937-003  
Type: SAMPLE Analyzed: 10/11/06

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	90	69-137
Bromofluorobenzene (FID)	94	80-133

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Total Volatile Hydrocarbons**

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	118298
Units:	ug/L	Sampled:	10/05/06
Diln Fac:	1.000	Received:	10/06/06

Field ID: GS-2B Lab ID: 189937-004  
Type: SAMPLE Analyzed: 10/11/06

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	69-137
Bromofluorobenzene (FID)	91	80-133

Type: BLANK Analyzed: 10/10/06  
Lab ID: QC359725

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	87	69-137
Bromofluorobenzene (FID)	90	80-133

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Total Volatile Hydrocarbons

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC359726	Batch#:	118298
Matrix:	Water	Analyzed:	10/10/06
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,965	98	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	107	69-137
Bromofluorobenzene (FID)	101	80-133



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Total Volatile Hydrocarbons

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	118298
MSS Lab ID:	189931-001	Sampled:	10/05/06
Matrix:	Water	Received:	10/06/06
Units:	ug/L	Analyzed:	10/10/06
Diln Fac:	1.000		

Type: MS Lab ID: QC359727

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	29.21	2,000	1,973	97	80-120
<hr/>					
Surrogate	%REC	Limits			
Trifluorotoluene (FID)	108	69-137			
Bromofluorobenzene (FID)	98	80-133			

Type: MSD Lab ID: QC359728

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	2,000	1,926	95	80-120	2 20
<hr/>					
Surrogate	%REC	Limits			
Trifluorotoluene (FID)	105	69-137			
Bromofluorobenzene (FID)	96	80-133			

RPD= Relative Percent Difference

Page 1 of 1



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	GS-1C	Batch#:	118408
Lab ID:	189937-001	Sampled:	10/05/06
Matrix:	Water	Received:	10/06/06
Units:	ug/L	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
Tetrahydrofuran	ND	50
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	GS-1C	Batch#:	118408
Lab ID:	189937-001	Sampled:	10/05/06
Matrix:	Water	Received:	10/06/06
Units:	ug/L	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-120
1,2-Dichloroethane-d4	112	80-130
Toluene-d8	103	80-120
Bromofluorobenzene	94	80-122

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	GS-1B	Batch#:	118408
Lab ID:	189937-002	Sampled:	10/05/06
Matrix:	Water	Received:	10/06/06
Units:	ug/L	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
Tetrahydrofuran	ND	50
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	GS-1B	Batch#:	118408
Lab ID:	189937-002	Sampled:	10/05/06
Matrix:	Water	Received:	10/06/06
Units:	ug/L	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	112	80-120
1,2-Dichloroethane-d4	115	80-130
Toluene-d8	104	80-120
Bromofluorobenzene	94	80-122

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	GS-2C	Batch#:	118408
Lab ID:	189937-003	Sampled:	10/05/06
Matrix:	Water	Received:	10/06/06
Units:	ug/L	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
Tetrahydrofuran	ND	50
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	GS-2C	Batch#:	118408
Lab ID:	189937-003	Sampled:	10/05/06
Matrix:	Water	Received:	10/06/06
Units:	ug/L	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	109	80-120
1,2-Dichloroethane-d4	115	80-130
Toluene-d8	104	80-120
Bromofluorobenzene	92	80-122

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	GS-2B	Batch#:	118408
Lab ID:	189937-004	Sampled:	10/05/06
Matrix:	Water	Received:	10/06/06
Units:	ug/L	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
Tetrahydrofuran	ND	50
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	GS-2B	Batch#:	118408
Lab ID:	189937-004	Sampled:	10/05/06
Matrix:	Water	Received:	10/06/06
Units:	ug/L	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-120
1,2-Dichloroethane-d4	116	80-130
Toluene-d8	106	80-120
Bromofluorobenzene	94	80-122

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

## Purgeable Organics by GC/MS

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	GS-2A	Batch#:	118408
Lab ID:	189937-005	Sampled:	10/05/06
Matrix:	Water	Received:	10/06/06
Units:	ug/L	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
Tetrahydrofuran	ND	50
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	GS-2A	Batch#:	118408
Lab ID:	189937-005	Sampled:	10/05/06
Matrix:	Water	Received:	10/06/06
Units:	ug/L	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-120
1,2-Dichloroethane-d4	117	80-130
Toluene-d8	104	80-120
Bromofluorobenzene	94	80-122

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC360206	Batch#:	118408
Matrix:	Water	Analyzed:	10/13/06
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
Tetrahydrofuran	ND	50
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC360206	Batch#:	118408
Matrix:	Water	Analyzed:	10/13/06
Units:	ug/L		

Analyte	Result	RL
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	108	80-130
Toluene-d8	103	80-120
Bromofluorobenzene	93	80-122

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	189937	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	118408
Units:	ug/L	Analyzed:	10/13/06
Diln Fac:	1.000		

Type: BS Lab ID: QC360207

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	27.76	111	77-128
Benzene	25.00	24.84	99	80-120
Trichloroethene	25.00	25.82	103	80-120
Toluene	25.00	26.46	106	80-120
Chlorobenzene	25.00	24.05	96	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	106	80-130
Toluene-d8	104	80-120
Bromofluorobenzene	84	80-122

Type: BSD Lab ID: QC360208

Analyte	Spiked	Result	%REC	Limits	RPD Lim
1,1-Dichloroethene	25.00	28.73	115	77-128	3 20
Benzene	25.00	24.70	99	80-120	1 20
Trichloroethene	25.00	27.19	109	80-120	5 20
Toluene	25.00	26.97	108	80-120	2 20
Chlorobenzene	25.00	24.25	97	80-120	1 20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	106	80-130
Toluene-d8	103	80-120
Bromofluorobenzene	84	80-122

RPD= Relative Percent Difference



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L   R E P O R T

Prepared for:

SOMA Environmental Engineering Inc.  
6620 Owens Dr.  
Suite A  
Pleasanton, CA 94588

Date: 03-NOV-06  
Lab Job Number: 190008  
Project ID: 2842  
Location: Wente

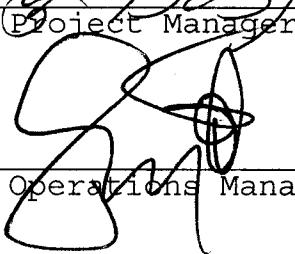
This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to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

Reviewed by:

  
Troy Bobbier

Project Manager

Reviewed by:

  
Brian

Operations Manager

This package may be reproduced only in its entirety.

## CASE NARRATIVE

Laboratory number: 190008  
Client: SOMA Environmental Engineering Inc.  
Project: 2842  
Location: Wente  
Request Date: 10/11/06  
Samples Received: 10/11/06

This hardcopy data package contains sample and QC results for twenty four soil samples and one two-point soil composite, requested for the above referenced project on 10/11/06. The samples were received cold and intact.

**TPH-Purgeables and/or BTXE by GC (EPA 8015B):**

No analytical problems were encountered.

**TPH-Extractables by GC (EPA 8015B):**

Matrix spikes were not reported for batch 118466 and batch 118598 because the parent sample required a dilution that would have diluted out the spikes. No other analytical problems were encountered.

**Volatile Organics by GC/MS (EPA 8260B):**

High surrogate recoveries were observed for 1,2-dichloroethane-d4 in HA-6A (lab # 190008-017) and the MS for batch 118352; no associated target analytes were detected in the sample. No other analytical problems were encountered.

**Semivolatile Organics by GC/MS (EPA 8270C):**

No analytical problems were encountered.

**Pesticides (EPA 8081A):**

No analytical problems were encountered.

**Polychlorinated Biphenyls (PCBs) (EPA 8082):**

No analytical problems were encountered.

**Metals (EPA 6010B and EPA 7471A):**

High recovery was observed for arsenic in the MS for batch 118335; the parent sample was not a project sample, the BS/BSD were within limits, and the associated RPD was within limits. No other analytical problems were encountered.

# **CHAIN OF CUSTODY FORM**

Page 1 of 5

## **Curtis & Tompkins, Ltd.**

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

Project No: 2840

**Project Name:** Wente

Project P.O.: 2840

Turnaround Time: 14 days

C&T LOGIN # 190008

Sampler: Adina Honniball

Report To: Joyce Bobek

Company : SOMA Environmental

Fax: 925-734-6401

Laboratory Number	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative				Field Notes	8015m	8260B	8270	8081	8082	CAM 1
			Soil	Water	Waste		HCl	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE							
For Laboratory Use	HA-10 a	10/10/06 09MS	X			1					6" x 2" tube (1'-1.5' deep)	X	X	X	X	X	
	HA-10 a	10/10/06 09HS	X			1					1 bottle (1'-1.5' deep)						X
	HA-10 b	10/10/06 1030	X			1					2" x 6" tube (3'-3.5' deep)	X	X	X	X		
	HA-10 b	10/10/06 1000	X			1					bottle (3'-3.5' deep)						X
	HA-11 a	10/10/06 1050	X			1					2" x 6" tube (1'-1.5' deep)	X	X	X	X		
	HA-11 a	10/10/06 1050	X			1					bottle (1'-1.5' deep)						X
	HA-12 a	10/10/06 1050	X			1					2" x 6" tube (3'-3.5' deep)	X	X	X	X		
	HA-12 a	10/10/06 1050	X			1					bottle (3'-3.5' deep)						X
	HA-11 b	10/10/06 1107	X			1					2" x 6" tube (1'-1.5' deep)	X	X	X	X		
	HA-11 b	10/10/06 1107	X			1					bottle (1'-1.5' deep)						X
	HA-12 b	10/10/06 1107	X			1					2" x 6" tube (3'-3.5' deep)	X	X	X	X		
	HA-12 b	10/10/06 1107	X			1					bottle (3'-3.5' deep)						X

**Notes:**

rec'd intact Ag

**PLEASE NOTE:**

DUPPLICATE SAMPLES COLLECTED AT LOCATION HA-11

LABORATORY SAMPLE ID HA-12A CORRESPONDS TO HA-11D(A)

LABORATORY SAMPLE ID HA-12B CORRESPONDS TO HA-11D(B)

**RELINQUISHED BY:**

Anti 7fin 10/11/06 0900 DATE/TIME

**RECEIVED BY:**

10/11/06 1043  
DATE/TIME

DATE/TIME

DATE/TIME

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DATA SHEET

**DATE/TIME**

**DATE/TIME**

DATE/TIME

**DATE/TIME**

**Signature**

# CHAIN OF CUSTODY FORM

Page 2 of 5

## Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878  
2323 Fifth Street  
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(510)486-0900 Phone  
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C&T  
LOGIN # 190008

## Analyses

Sampler: Adina Honiball

Report To: Joyce Bobek

Company: SOMA Environmental

Telephone: 925-734-6400

Fax: 925-734-6401

Project No: 2840

Project Name: Wente

Project P.O.: 2840

Turnaround Time: 14 days

Laboratory Number	Sample ID.	Sampling Date Time	Matrix		Preservative				Field Notes	80155 82603 82701 8081 8082 CAMI7
			Soil	Water Waste	HCl	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE		
-7	HA-1a	10/10/06 1125	X						6" x 2" tube (1'-1.5' deep)	X X X XX
-8	HA-1a	10/10/06 1125	X						1 bottle (1'-1.5' deep)	X
-9	HA-1b	10/10/06 1145	X						2" x 6" tube (3'-3.5' deep)	X X X XX
-10	HA-1b	10/10/06 1145	X						1 bottle (3'-3.5' deep)	X
-11	HA-2a	10/10/06 1205	X						2" x 6" tube (1'-1.5' deep)	X X X XX
-12	HA-2a	10/10/06 1205	X						bottle (1'-1.5' deep)	X
Laboratory Use	HA-2b	10/10/06 1210	X						2" x 6" tube (3'-3.5' deep)	X X X XX
Laboratory Use	HA-2b	10/10/06 1210	X						bottle (3'-3.5' deep)	X
Laboratory	HA-3a	10/10/06 1220	X						2" x 6" tube (1'-1.5' deep)	X X X XX
Laboratory	HA-3a	10/10/06 1220	X						bottle (1'-1.5' deep)	X
Laboratory	HA-3b	10/10/06 1230	X						2" x 6" tube (3'-3.5' deep)	X X X XX
Laboratory	HA-3b	10/10/06 1230	X						bottle (3'-3.5' deep)	X

Notes:

(cc'd) intact Ag

PLEASE NOTE:

DUPLICATE SAMPLES COLLECTED AT LOCATION HA-11

LABORATORY SAMPLE ID HA-12A CORRESPONDS TO HA-11D(A)

LABORATORY SAMPLE ID HA-12B CORRESPONDS TO HA-11D(B)

RELINQUISHED BY:

Adina Honiball 10/11/06 0900  
DATE/TIME

RECEIVED BY:

Adina 10/11/06 1043  
DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

Signature

# **CHAIN OF CUSTODY FORM**

Page 3 of 5

## **Curtis & Tompkins, Ltd.**

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

Project No: 2440

Project Name: Wente

Project P.O.: 2840

Turnaround Time: 14 days

**C&T** 190008  
**LOGIN #** \_\_\_\_\_

Sampler: Adina Itonniball

Report To: Joyce Bobek

Company : SOMA Environmental

Telephone: 925-734-6400

Fax: 925-734-6401

Laboratory Number	Sample ID.	Sampling Date Time	Matrix	# of Containers	Preservative				Field Notes	8015m	8260B	8270	8081	8082	CAM 1
					HCl	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE							
For Laboratory Use	HA-4a	10/10/06 1240	X	1					2" x 6" tube (1'-1.5' deep)	X	X	X	X	X	X
	HA-4a	10/10/06 1240	X	-					bottle (1'-1.5' deep)	X	X	X	X	X	X
	HA-4b	10/10/06 1245	X	1					2" x 6" tube (3'-3.5' deep)	X	X	X	X	X	X
	HA-4b	10/10/06 1245	X	-					bottle (3'-3.5' deep)						
	HA-5a	10/10/06 1300	X	1					2" x 6" tube (1'-1.5' deep)	X	X	X	X	X	X
	HA-5a	10/10/06 1300	X	-					bottle (1'-1.5' deep)						
	HA-5b	10/10/06 1310	X	1					2" x 6" tube (3'-3.5' deep)	X	X	X	X	X	X
	HA-5b	10/10/06 1310	X	-					bottle (3'-3.5' deep)						
	HA-6a	10/10/06 1335	X	1					2" x 6" tube (1'-1.5' deep)	X	X	X	X	X	X
	HA-6a	10/10/06 1335	X	-					bottle (1'-1.5' deep)						
	HA-6b	10/10/06 1345	X	1					2" x 6" tube (3'-3.5' deep)	X	X	X	X	X	X
	HA-6b	10/10/06 1345	X	-					bottle (3'-3.5' deep)						

## **Notes:**

rec'd intact + cold by

**PLEASE NOTE:**

DUPPLICATE SAMPLES COLLECTED AT LOCATION HA-11

LABORATORY SAMPLE ID HA-12A CORRESPONDS TO HA-11D(A)

LABORATORY SAMPLE ID HA-12B CORRESPONDS TO HA-11D(B)

**RELINQUISHED BY:**

*Chris Ybarra* 10/11/06 0900  
**DATE/TIME**

**RECEIVED BY:**

*[Signature]* 10/11/06 1043  
**DATE/TIME**

DATE/TIME

Digitized by srujanika@gmail.com

DATE/TIME

DATE/TIME

**Signature**

## Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878

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

# **CHAIN OF CUSTODY**

Page 4 of 5

C & T LOGIN #: 11111111

1900s

**Project No.:** 2840

**Project Name:** Wentle

**Project P.O.:** 2840

**Turnaround Time:** 14 days

Sampler: Adina Hanniball

Report To: Joyce Bobek

Company: SOMA Environmental

**Telephone:** 925-734-6400

Fax: 925-734-6401

Lab No.	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative		
			Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>
HA-7a	2"x6" tube	10/10/06 1410	X			1			
HA-7a	bottle	10/10/06 1410	X			1			
HA-7b	2"x6" tube	10/10/06 1435	X			1			
HA-7b	bottle	10/10/06 1435	X			1			
HA-8a	2"x6" tube	10/10/06 1630	X			1			
HA-8a	bottle	10/10/06 1630	X			1			
HA-8b	2"x6" tube	10/10/06 1637	X			1			
HA-8b	bottle	10/10/06 1637	X			1			
HA-9a	2"x6" tube	10/10/06 1655	X			1			
HA-9a	bottle	10/10/06 1655	X			1			
HA-9b	2"x6" tube	10/10/06 1705	X			1			
HA-9b	bottle	10/10/06 1705	X			1			

**Notes:**

SAMPLE RECEIPT

**RELINQUISHED BY:**

Carli Thir 10/11/06 0900  
DATE / TIME

Preservative Correct

Yes  No  N/A

DATE / TIME

DATE / TIME

DATE / TIME

## **Analysis**

RECEIVED BY:

*Anhenn* 10/11/06 1043  
DATE / TIME

— 1 —

DATE / TIME

DATE / TIME

**SIGNATURE**

**Curtis & Tompkins, Ltd.**

Analytical Laboratory Since 1878

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

# **CHAIN OF CUSTODY**

Page 5 of 5

**Project No.:** 2840

Project Name: Wente

Project P.O.: 2840

Turnaround Time: 14 days

C & T LOGIN #: 11118

190008

Sampler: Adina Honniball

**Report To:** Joyce Bobak

**Company:** SOMA Environmental

Telephone: 925-734-6400

Fax: 925-734-6401

## Analysis

XX CAM 17

L.

Please homogenize  
these two samples

Please homogenize these two samples

**Notes:**

SAMPLE RECEIPT		RELINQUISHED BY:	
<input checked="" type="checkbox"/> Intact	<input checked="" type="checkbox"/> Cold	<i>John</i>	10/11/06 0900
<input type="checkbox"/> On Ice	<input type="checkbox"/> Ambient	DATE / TIME	
Preservative Correct?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	DATE / TIME
		DATE / TIME	

**Total Volatile Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	118405
Units:	mg/Kg	Sampled:	10/10/06
Basis:	as received	Received:	10/11/06
Diln Fac:	1.000		

Field ID: HA-10A Lab ID: 190008-001  
 Type: SAMPLE Analyzed: 10/13/06

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	62-137
Bromofluorobenzene (FID)	116	60-148

Field ID: HA-11A Lab ID: 190008-003  
 Type: SAMPLE Analyzed: 10/13/06

Analyte	Result	RL
Gasoline C7-C12	ND	0.94

Surrogate	%REC	Limits
Trifluorotoluene (FID)	113	62-137
Bromofluorobenzene (FID)	116	60-148

Field ID: HA-12A Lab ID: 190008-004  
 Type: SAMPLE Analyzed: 10/13/06

Analyte	Result	RL
Gasoline C7-C12	ND	0.94

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	62-137
Bromofluorobenzene (FID)	118	60-148

Field ID: HA-1A Lab ID: 190008-007  
 Type: SAMPLE Analyzed: 10/13/06

Analyte	Result	RL
Gasoline C7-C12	ND	0.96

Surrogate	%REC	Limits
Trifluorotoluene (FID)	113	62-137
Bromofluorobenzene (FID)	116	60-148

ND= Not Detected  
 RL= Reporting Limit

Page 1 of 4

**Total Volatile Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	118405
Units:	mg/Kg	Sampled:	10/10/06
Basis:	as received	Received:	10/11/06
Diln Fac:	1.000		

Field ID: HA-2A Lab ID: 190008-009  
 Type: SAMPLE Analyzed: 10/14/06

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	62-137
Bromofluorobenzene (FID)	122	60-148

Field ID: HA-3A Lab ID: 190008-011  
 Type: SAMPLE Analyzed: 10/14/06

Analyte	Result	RL
Gasoline C7-C12	ND	0.99

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	62-137
Bromofluorobenzene (FID)	119	60-148

Field ID: HA-4A Lab ID: 190008-013  
 Type: SAMPLE Analyzed: 10/14/06

Analyte	Result	RL
Gasoline C7-C12	ND	1.1

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	62-137
Bromofluorobenzene (FID)	118	60-148

Field ID: HA-5A Lab ID: 190008-015  
 Type: SAMPLE Analyzed: 10/14/06

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	62-137
Bromofluorobenzene (FID)	118	60-148

ND= Not Detected  
 RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Total Volatile Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	118405
Units:	mg/Kg	Sampled:	10/10/06
Basis:	as received	Received:	10/11/06
Diln Fac:	1.000		

Field ID: HA-6A Lab ID: 190008-017  
Type: SAMPLE Analyzed: 10/14/06

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
<b>Surrogate %REC Limits</b>		
Trifluorotoluene (FID)	112	62-137
Bromofluorobenzene (FID)	121	60-148

Field ID: HA-7A Lab ID: 190008-019  
Type: SAMPLE Analyzed: 10/13/06

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
<b>Surrogate %REC Limits</b>		
Trifluorotoluene (FID)	102	62-137
Bromofluorobenzene (FID)	115	60-148

Field ID: HA-8A Lab ID: 190008-021  
Type: SAMPLE Analyzed: 10/14/06

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
<b>Surrogate %REC Limits</b>		
Trifluorotoluene (FID)	116	62-137
Bromofluorobenzene (FID)	123	60-148

Field ID: HA-9A Lab ID: 190008-023  
Type: SAMPLE Analyzed: 10/14/06

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
<b>Surrogate %REC Limits</b>		
Trifluorotoluene (FID)	113	62-137
Bromofluorobenzene (FID)	119	60-148

ND= Not Detected

RL= Reporting Limit

Page 3 of 4



Curtis &amp; Tompkins, Ltd.

**Total Volatile Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	118405
Units:	mg/Kg	Sampled:	10/10/06
Basis:	as received	Received:	10/11/06
Diln Fac:	1.000		

Type: BLANK Analyzed: 10/13/06  
Lab ID: QC360193

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	limits
Trifluorotoluene (FID)	116	62-137
Bromofluorobenzene (FID)	124	60-148

## Batch QC Report

## Total Volatile Hydrocarbons

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC360195	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118405
Units:	mg/Kg	Analyzed:	10/13/06

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.53	105	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	116	62-137
Bromofluorobenzene (FID)	132	60-148

## Batch QC Report

## Total Volatile Hydrocarbons

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8015B
Field ID:	HA-7A	Diln Fac:	1.000
MSS Lab ID:	190008-019	Batch#:	118405
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/13/06

Type: MS Lab ID: QC360247

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1072	9.524	4.820	49	38-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	117	62-137
Bromofluorobenzene (FID)	117	60-148

Type: MSD Lab ID: QC360248

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	10.00	6.183	61	38-120	20 26

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	62-137
Bromofluorobenzene (FID)	116	60-148

RPD= Relative Percent Difference



Curtis &amp; Tompkins, Ltd.

**Total Extractable Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06
Basis:	as received		

Field ID: HA-10A                          Batch#: 118466  
Type: SAMPLE                                Prepared: 10/16/06  
Lab ID: 190008-001                        Analyzed: 10/19/06  
Diln Fac: 3.000                            Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	72 H Y	3.0
Motor Oil C24-C36	770 H	15

Surrogate	REC	Limits
Hexacosane	93	48-130

Field ID: HA-10B                          Batch#: 118466  
Type: SAMPLE                                Prepared: 10/16/06  
Lab ID: 190008-002                        Analyzed: 10/27/06  
Diln Fac: 1.000                            Cleanup Method: EPA 3630C

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

Surrogate	REC	Limits
Hexacosane	72	48-130

Field ID: HA-11A                          Batch#: 118466  
Type: SAMPLE                                Prepared: 10/16/06  
Lab ID: 190008-003                        Analyzed: 10/18/06  
Diln Fac: 1.000                            Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	68 H Y	1.0
Motor Oil C24-C36	330 H	5.0

Surrogate	REC	Limits
Hexacosane	107	48-130

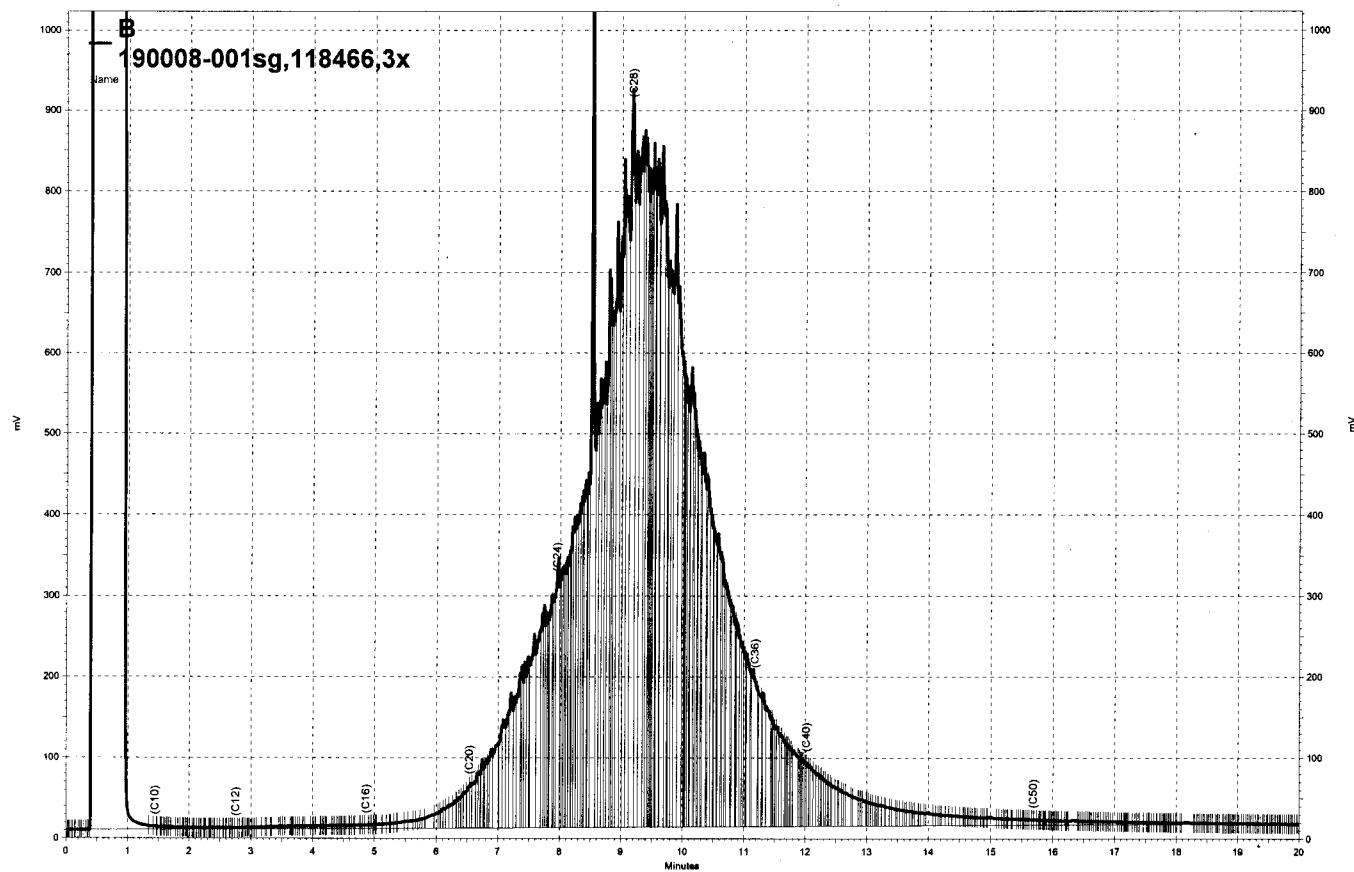
H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out

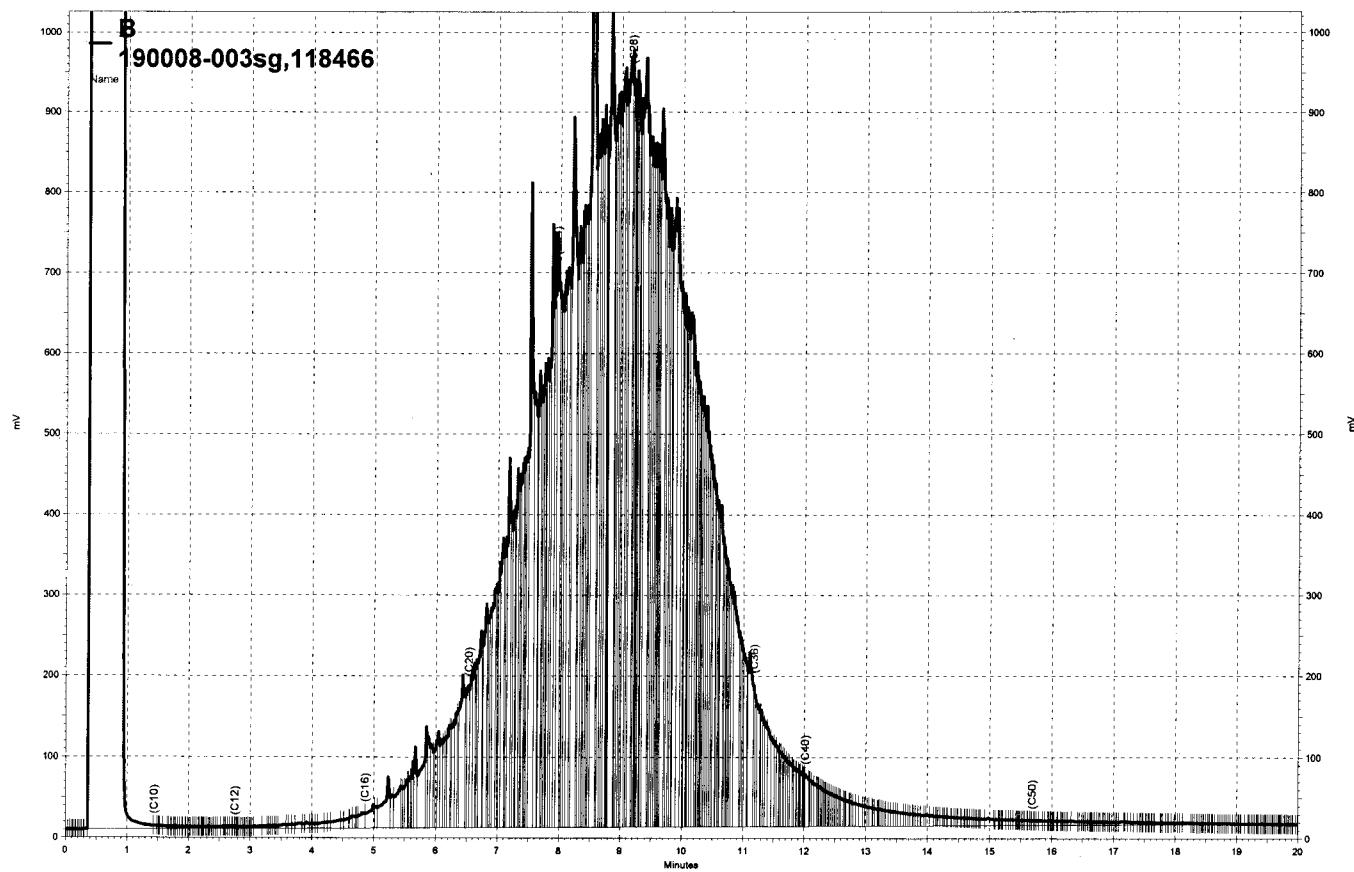
ND= Not Detected

RL= Reporting Limit



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NA - 10A



— \\Lims\\gdrive\\ezchrom\\Projects\\GC14B\\Data\\291b011, B

HA - II A



Curtis &amp; Tompkins, Ltd.

**Total Extractable Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06
Basis:	as received		

Field ID: HA-12A                          Batch#: 118466  
Type: SAMPLE                                Prepared: 10/16/06  
Lab ID: 190008-004                        Analyzed: 10/18/06  
Diln Fac: 1.000                              Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	42 H Y	1.0
Motor Oil C24-C36	230 H	5.0

Surrogate	REC	Limits
Hexacosane	96	48-130

Field ID: HA-11B                          Batch#: 118468  
Type: SAMPLE                                Prepared: 10/16/06  
Lab ID: 190008-005                        Analyzed: 10/27/06  
Diln Fac: 1.000                              Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	4.2 H Y	1.0
Motor Oil C24-C36	27	5.0

Surrogate	REC	Limits
Hexacosane	125	48-130

Field ID: HA-12B                          Batch#: 118468  
Type: SAMPLE                                Prepared: 10/16/06  
Lab ID: 190008-006                        Analyzed: 10/27/06  
Diln Fac: 1.000                              Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	0.99
Motor Oil C24-C36	5.5	5.0

Surrogate	REC	Limits
Hexacosane	73	48-130

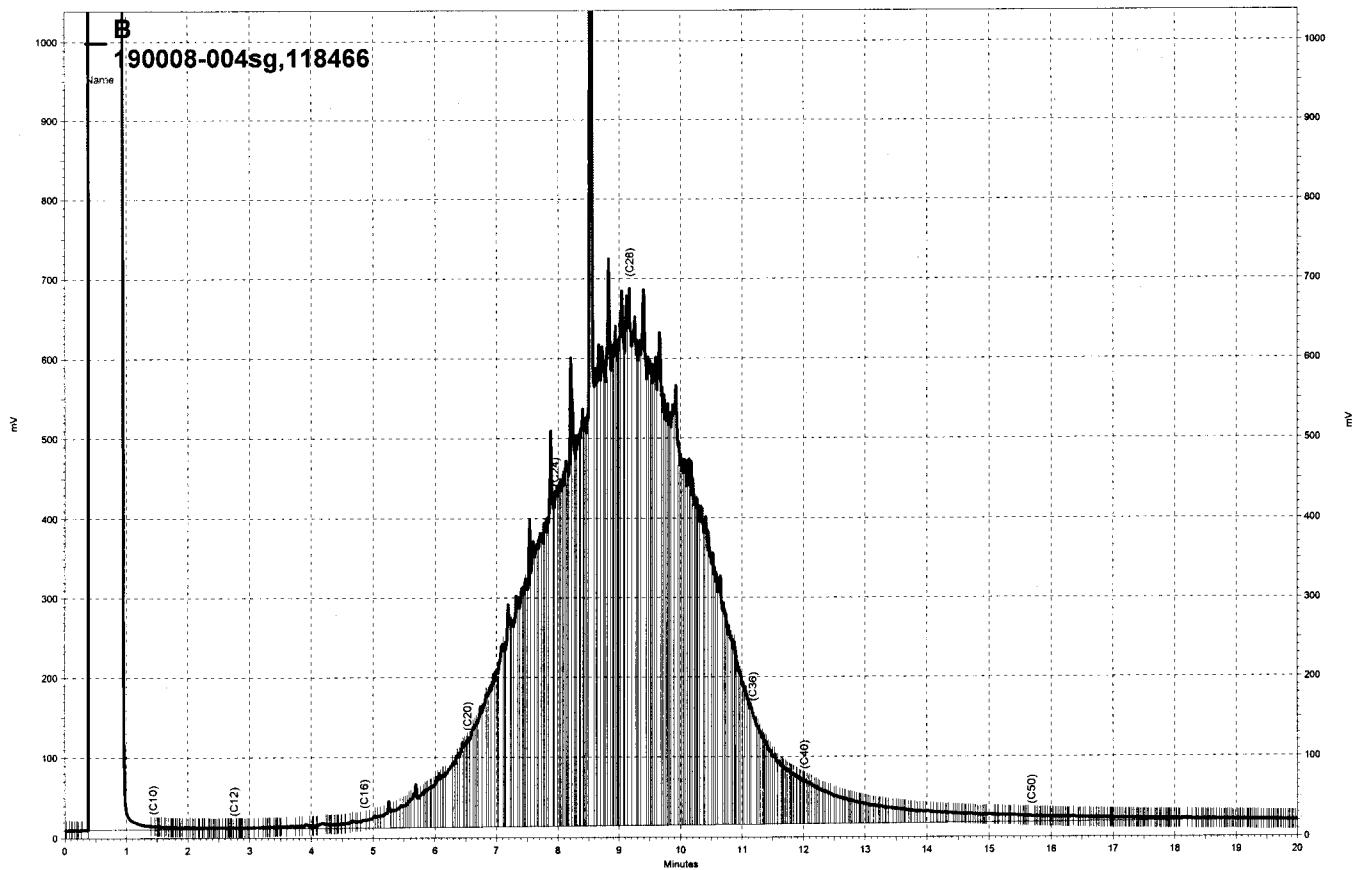
H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out

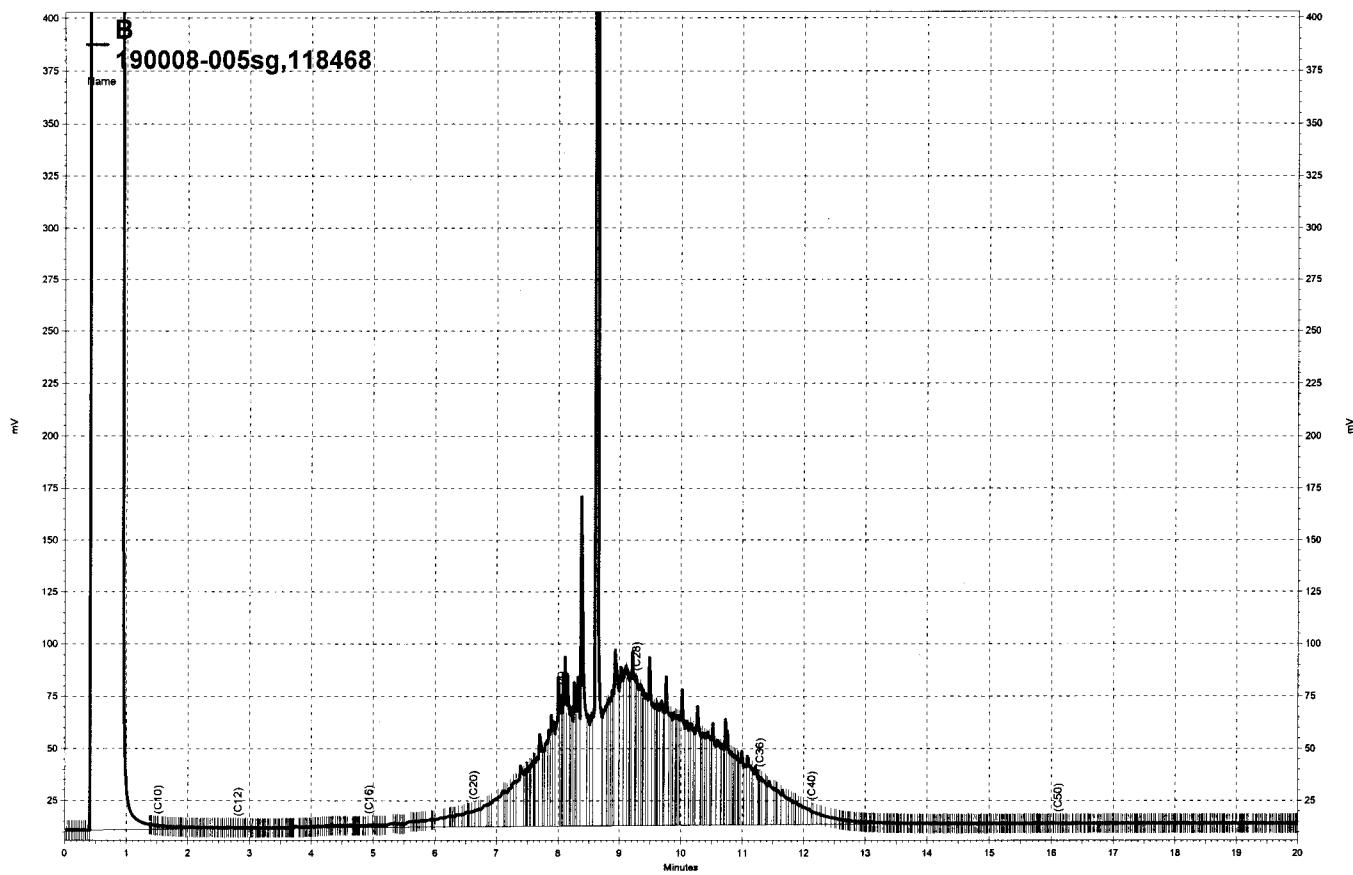
ND= Not Detected

RL= Reporting Limit



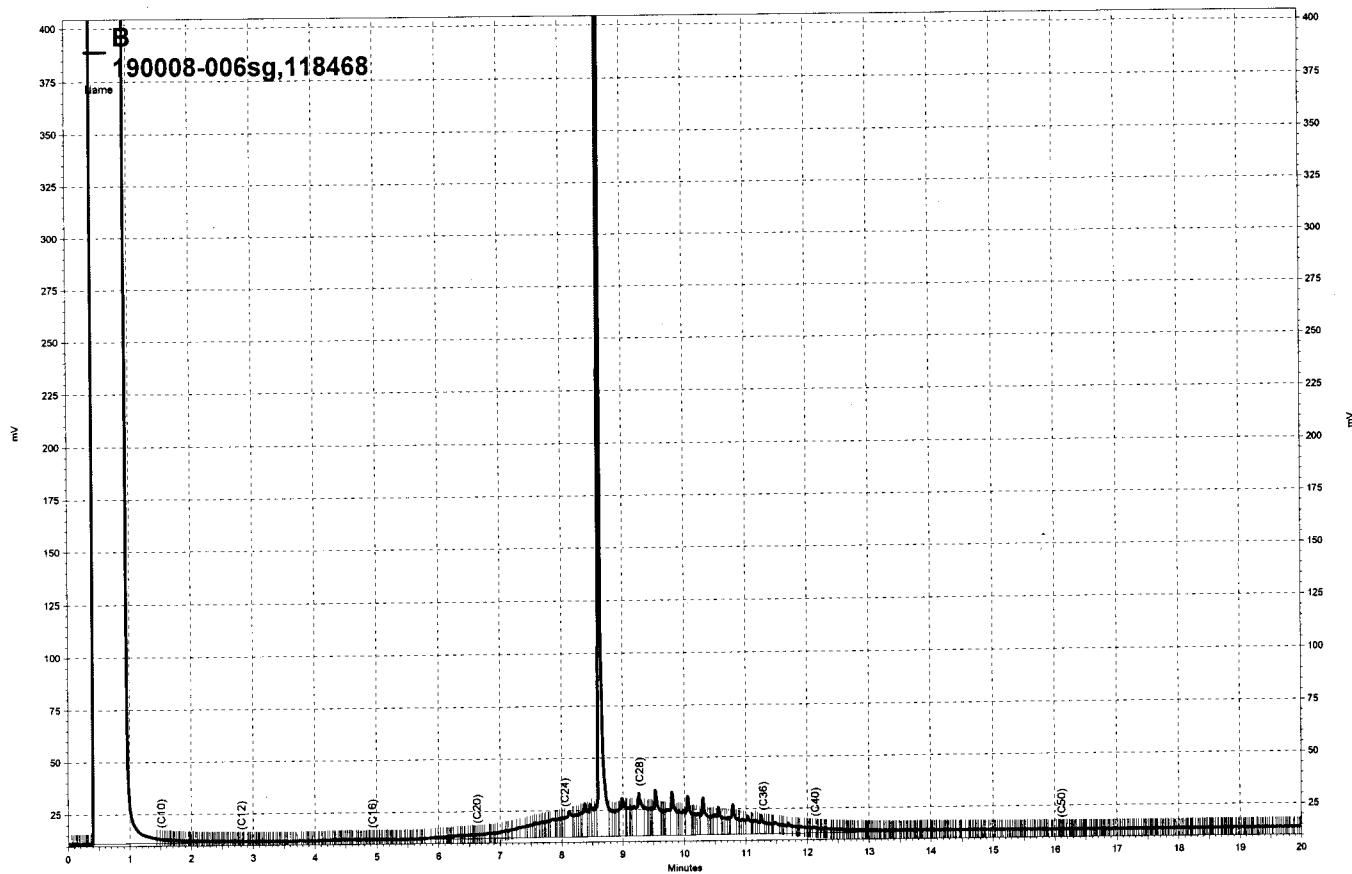
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HA - 12A



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HA - II B



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HA-12B



Curtis &amp; Tompkins, Ltd.

**Total Extractable Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06
Basis:	as received		

Field ID: HA-1A Batch#: 118466  
Type: SAMPLE Prepared: 10/16/06  
Lab ID: 190008-007 Analyzed: 10/18/06  
Diln Fac: 1.000 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	25 H Y	0.99
Motor Oil C24-C36	150 H	5.0

Surrogate	%REC	Limits
Hexacosane	96	48-130

Field ID: HA-1B Batch#: 118468  
Type: SAMPLE Prepared: 10/16/06  
Lab ID: 190008-008 Analyzed: 10/27/06  
Diln Fac: 1.000 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	7.0 H Y	1.0
Motor Oil C24-C36	43	5.0

Surrogate	%REC	Limits
Hexacosane	89	48-130

Field ID: HA-2A Batch#: 118466  
Type: SAMPLE Prepared: 10/16/06  
Lab ID: 190008-009 Analyzed: 10/18/06  
Diln Fac: 1.000 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	1.1 H Y	1.0
Motor Oil C24-C36	6.2	5.0

Surrogate	%REC	Limits
Hexacosane	111	48-130

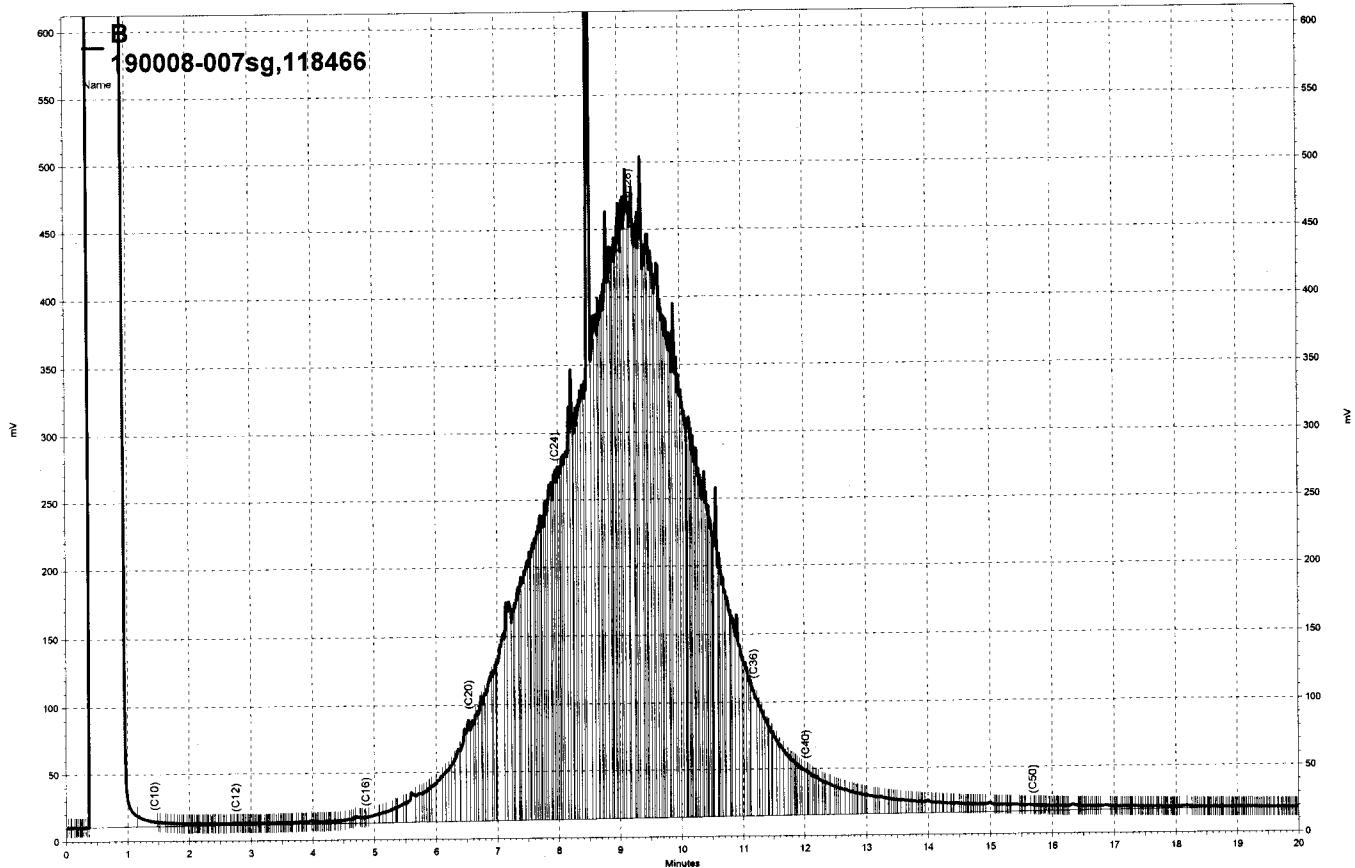
H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

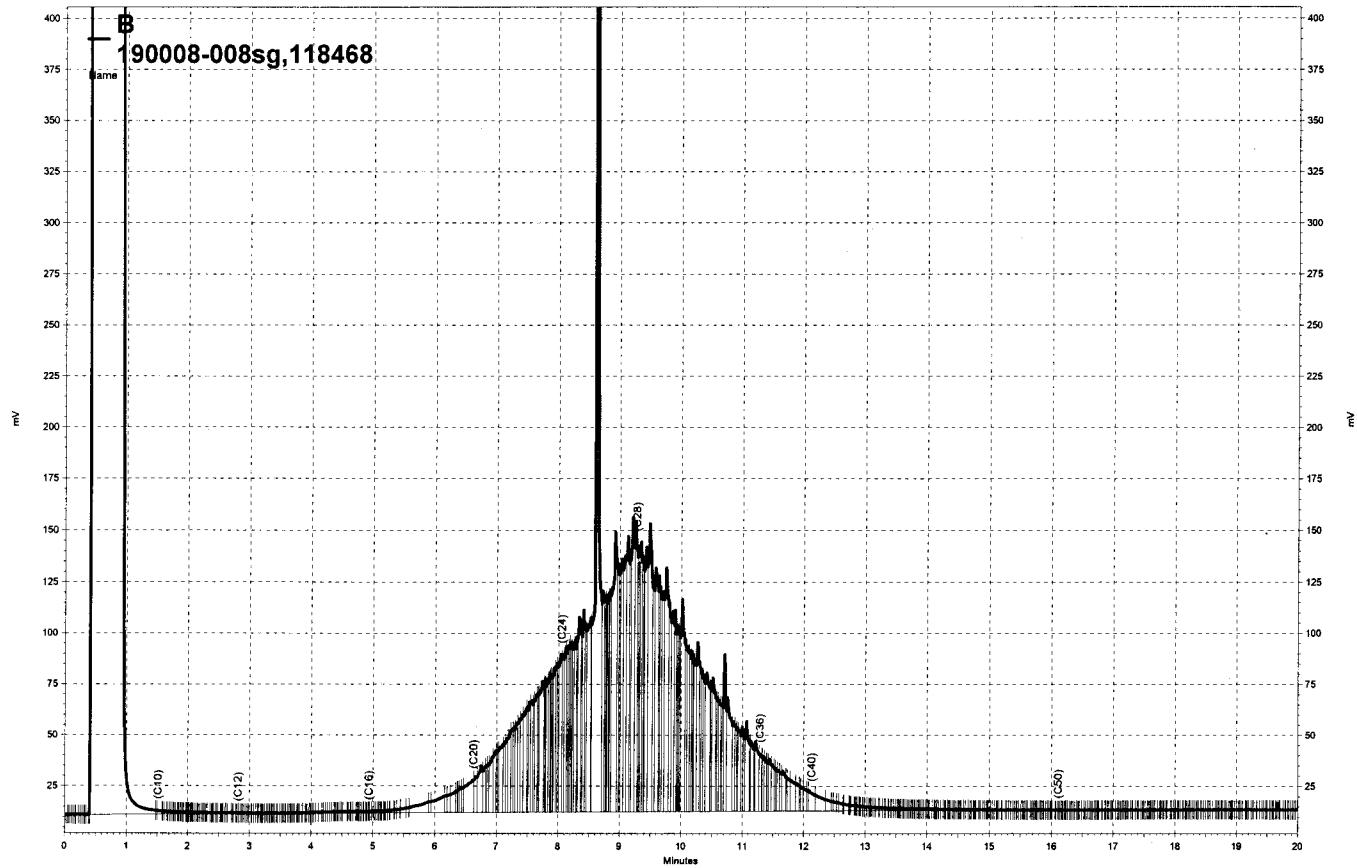
DO= Diluted Out

ND= Not Detected

RL= Reporting Limit

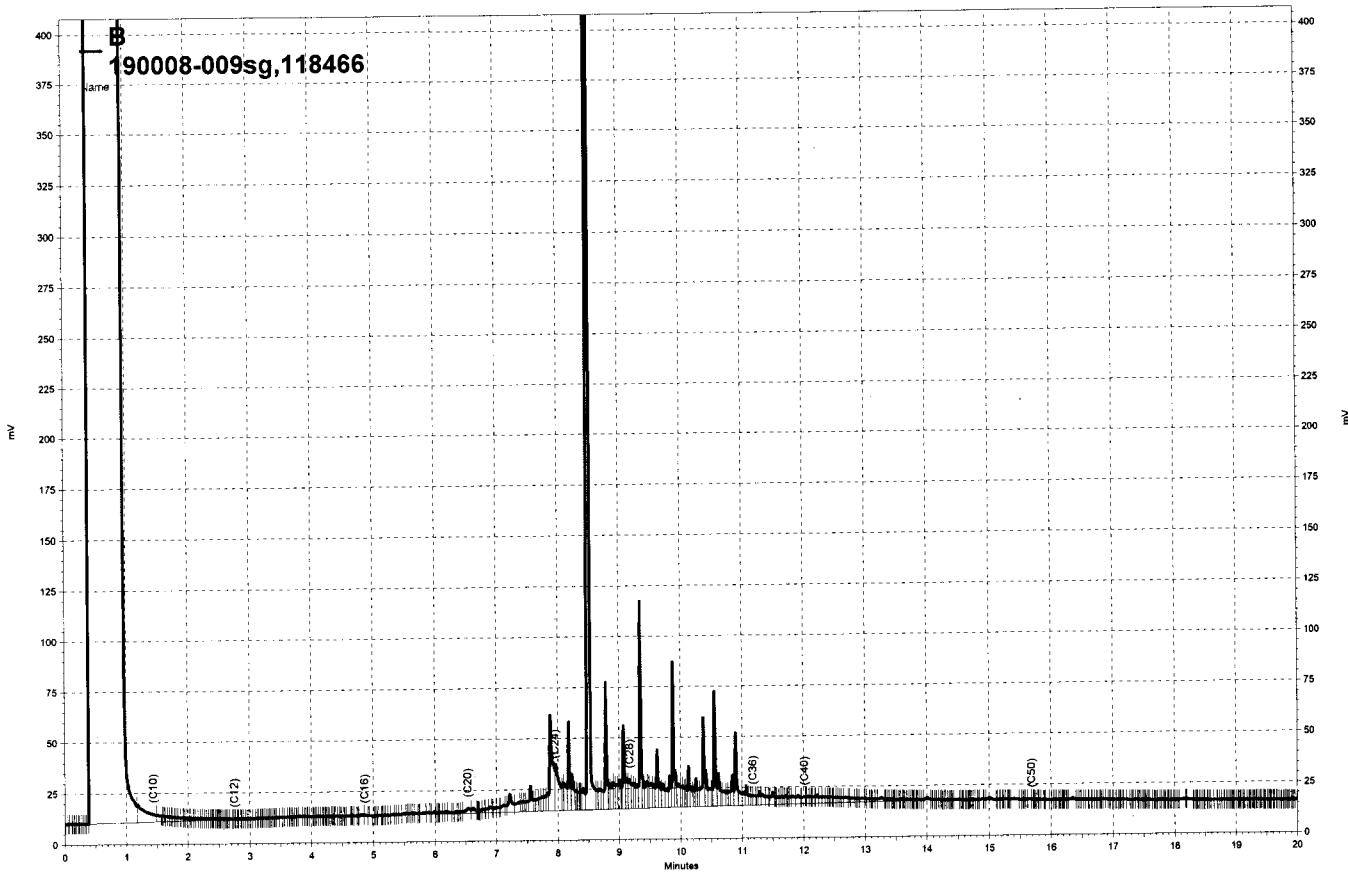


HA - IA



— \\Lims\\gdrive\\ezchrom\\Projects\\GC14B\\Data\\300b019, B

HA - LB



— \\Lims\\gdrive\\ezchrom\\Projects\\GC14B\\Data\\291b013, B

HA-2A



Curtis &amp; Tompkins, Ltd.

**Total Extractable Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06
Basis:	as received		

Field ID: HA-3A                          Batch#: 118466  
Type: SAMPLE                              Prepared: 10/16/06  
Lab ID: 190008-011                      Analyzed: 10/19/06  
Diln Fac: 20.00                            Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	2,100 H Y	20
Motor Oil C24-C36	6,800 H	100

Surrogate	%REC	Limits
Hexacosane	DO	48-130

Field ID: HA-3B                          Batch#: 118468  
Type: SAMPLE                              Prepared: 10/16/06  
Lab ID: 190008-012                      Analyzed: 10/27/06  
Diln Fac: 1.000                            Cleanup Method: EPA 3630C

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

Surrogate	%REC	Limits
Hexacosane	87	48-130

Field ID: HA-4A                          Batch#: 118466  
Type: SAMPLE                              Prepared: 10/16/06  
Lab ID: 190008-013                      Analyzed: 10/20/06  
Diln Fac: 20.00                            Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	1,300 H Y	20
Motor Oil C24-C36	6,600 H	99

Surrogate	%REC	Limits
Hexacosane	DO	48-130

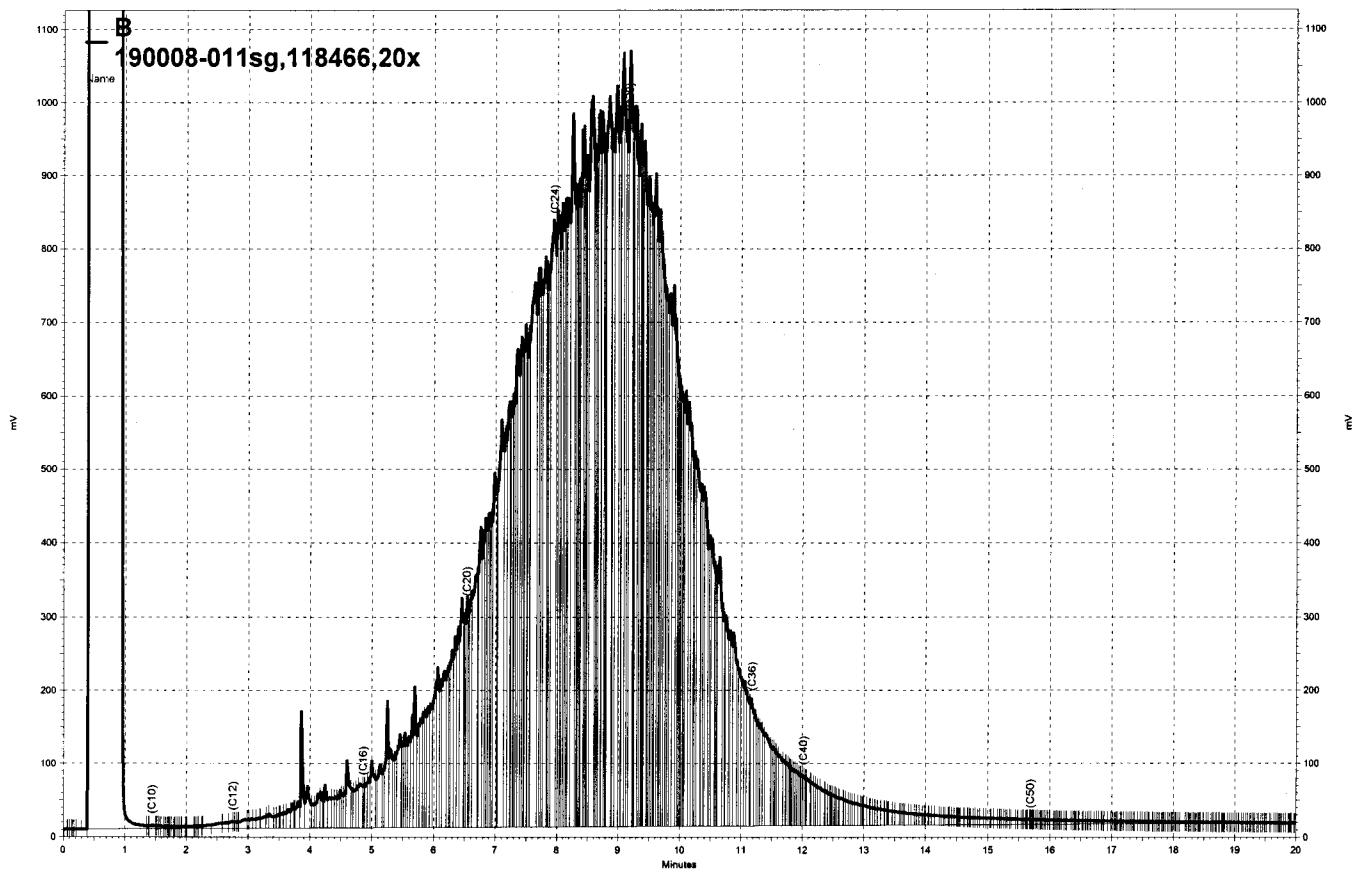
H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out

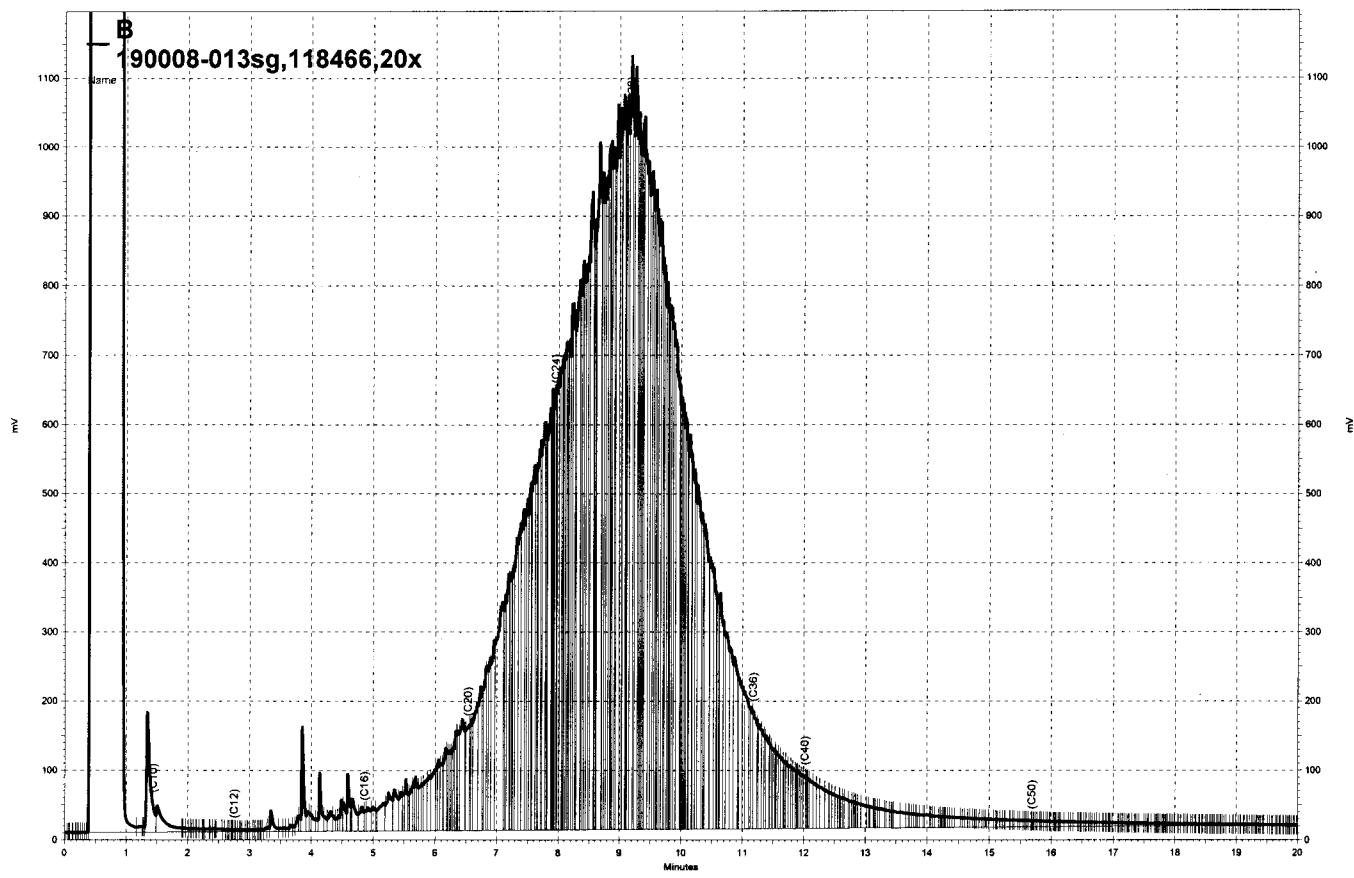
ND= Not Detected

RL= Reporting Limit



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HA - 3A



HA - 41A



Curtis &amp; Tompkins, Ltd.

**Total Extractable Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06
Basis:	as received		

Field ID: HA-4B                          Batch#: 118468  
Type: SAMPLE                              Prepared: 10/16/06  
Lab ID: 190008-014                      Analyzed: 10/27/06  
Diln Fac: 1.000                            Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	50 H Y	0.99
Motor Oil C24-C36	250	5.0

Surrogate	%REC	Limits
Hexacosane	111	48-130

Field ID: HA-5A                          Batch#: 118466  
Type: SAMPLE                              Prepared: 10/16/06  
Lab ID: 190008-015                      Analyzed: 10/19/06  
Diln Fac: 1.000                            Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	1.6 H Y	0.99
Motor Oil C24-C36	8.8	5.0

Surrogate	%REC	Limits
Hexacosane	109	48-130

Field ID: HA-6A                          Batch#: 118466  
Type: SAMPLE                              Prepared: 10/16/06  
Lab ID: 190008-017                      Analyzed: 10/19/06  
Diln Fac: 1.000                            Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	17 H Y	1.0
Motor Oil C24-C36	86 H	5.1

Surrogate	%REC	Limits
Hexacosane	113	48-130

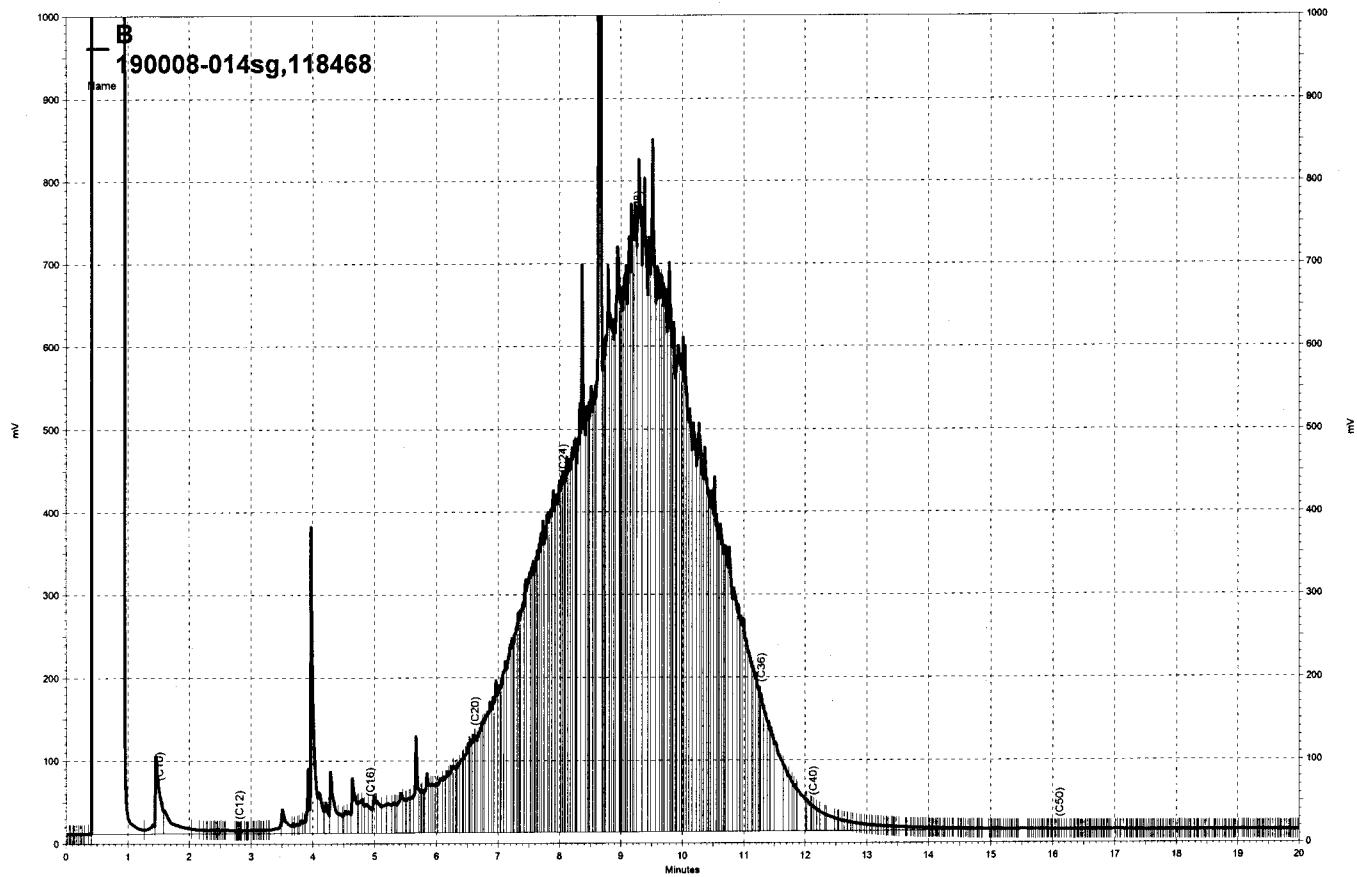
H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out

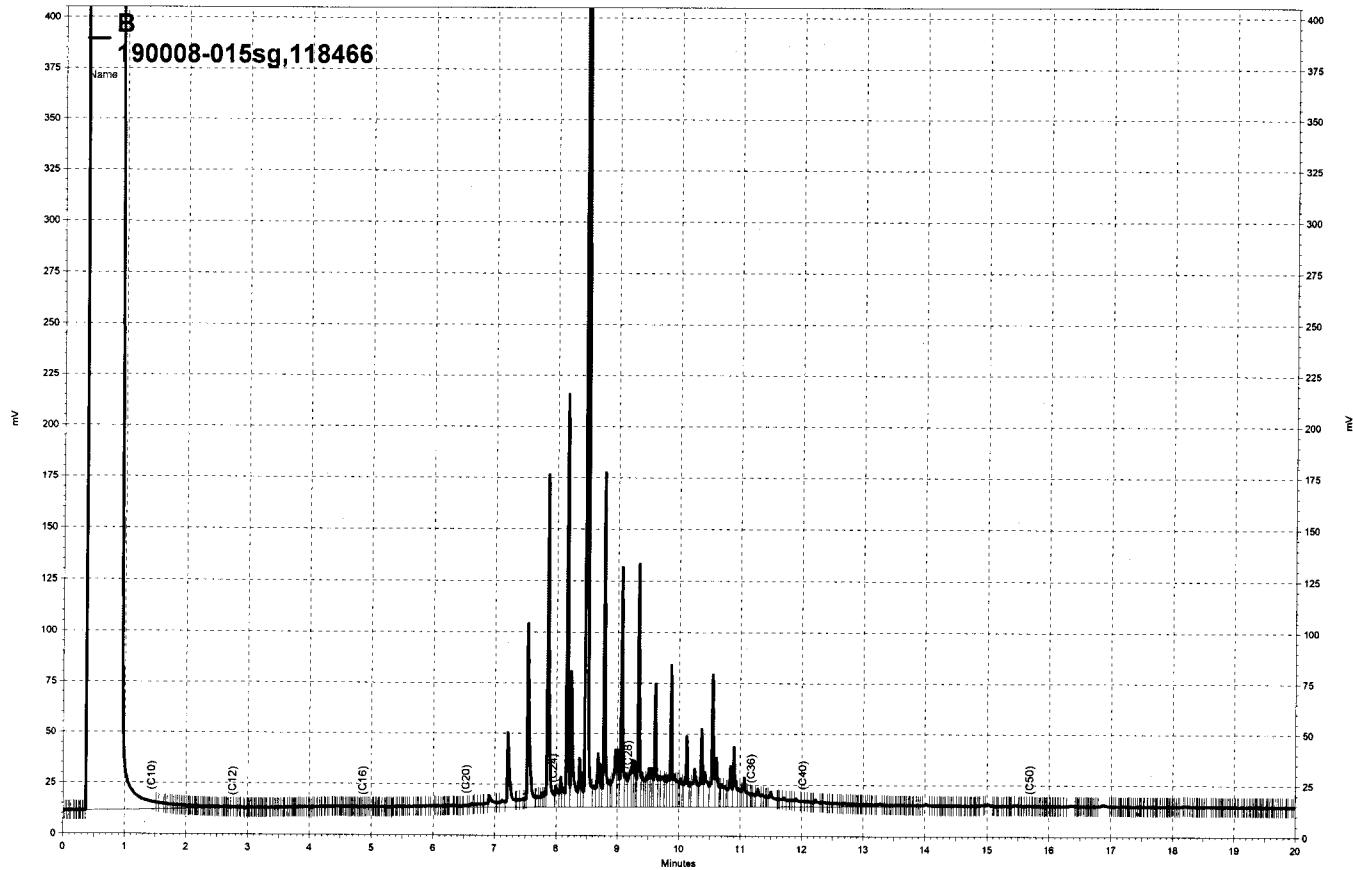
ND= Not Detected

RL= Reporting Limit



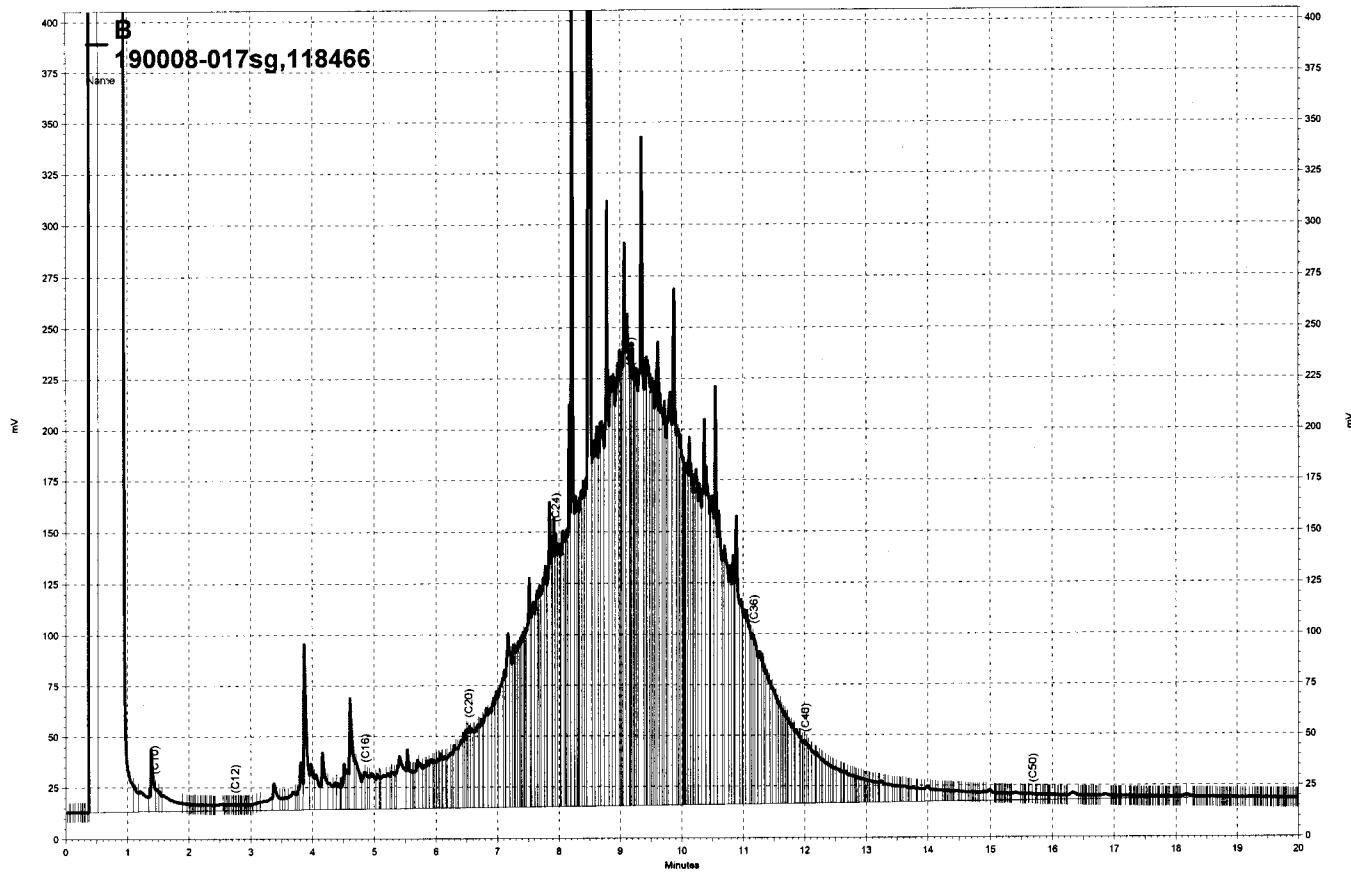
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HA-4B



— \\Lims\\gdrive\\ezchrom\\Projects\\GC14B\\Data\\291b037, B

1A - 5A



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HA - 6A



Curtis &amp; Tompkins, Ltd.

**Total Extractable Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06
Basis:	as received		

Field ID: HA-6B Batch#: 118598  
Type: SAMPLE Prepared: 10/20/06  
Lab ID: 190008-018 Analyzed: 10/30/06  
Diln Fac: 2.000 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	2.7 H Y	2.0
Motor Oil C24-C36	19	10

Surrogate	%REC	Limits
Hexacosane	110	48-130

Field ID: HA-7A Batch#: 118466  
Type: SAMPLE Prepared: 10/16/06  
Lab ID: 190008-019 Analyzed: 10/19/06  
Diln Fac: 1.000 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	34 H Y	0.99
Motor Oil C24-C36	130 H	5.0

Surrogate	%REC	Limits
Hexacosane	110	48-130

Field ID: HA-7B Batch#: 118598  
Type: SAMPLE Prepared: 10/20/06  
Lab ID: 190008-020 Analyzed: 10/27/06  
Diln Fac: 1.000 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	85 H Y	1.0
Motor Oil C24-C36	320	5.0

Surrogate	%REC	Limits
Hexacosane	123	48-130

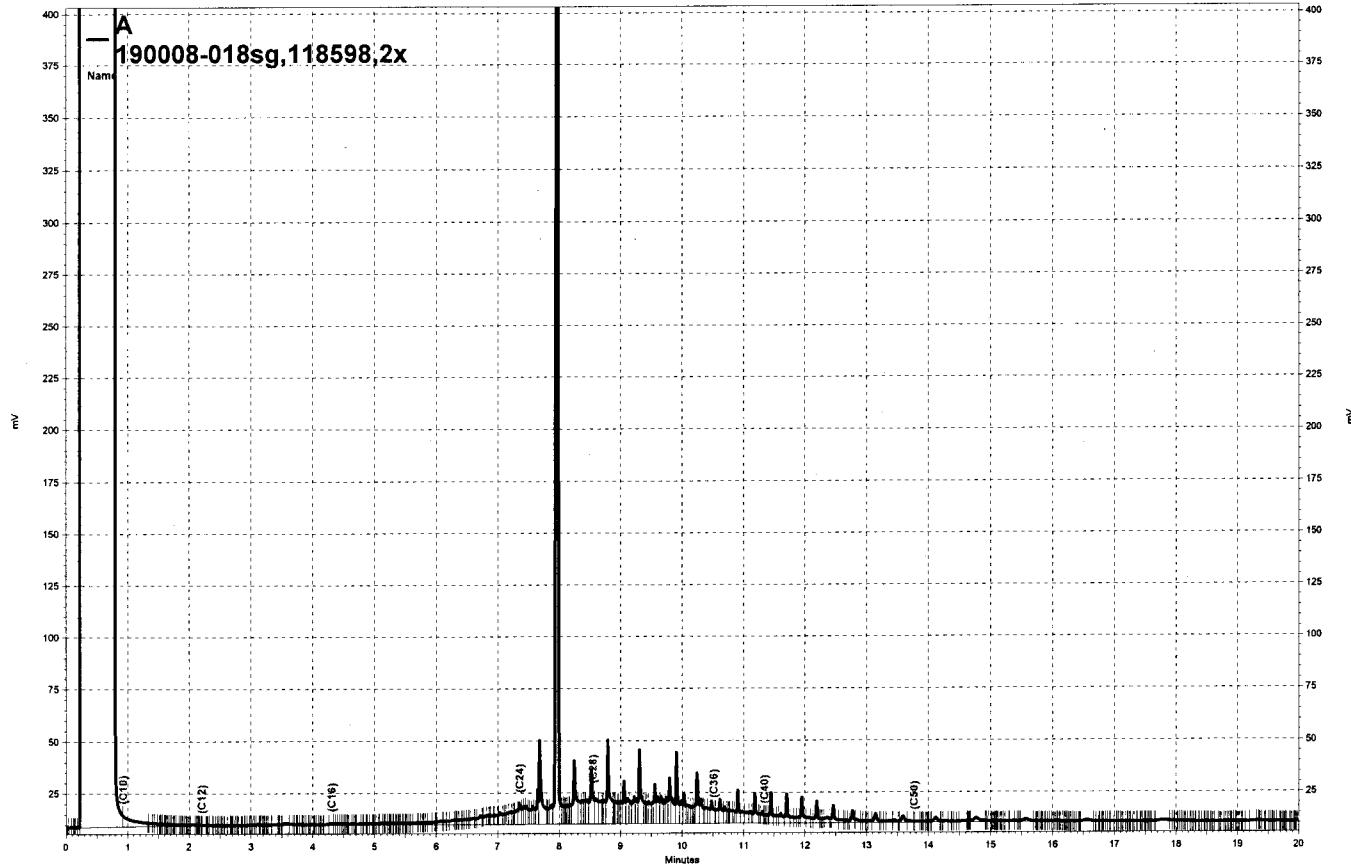
H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out

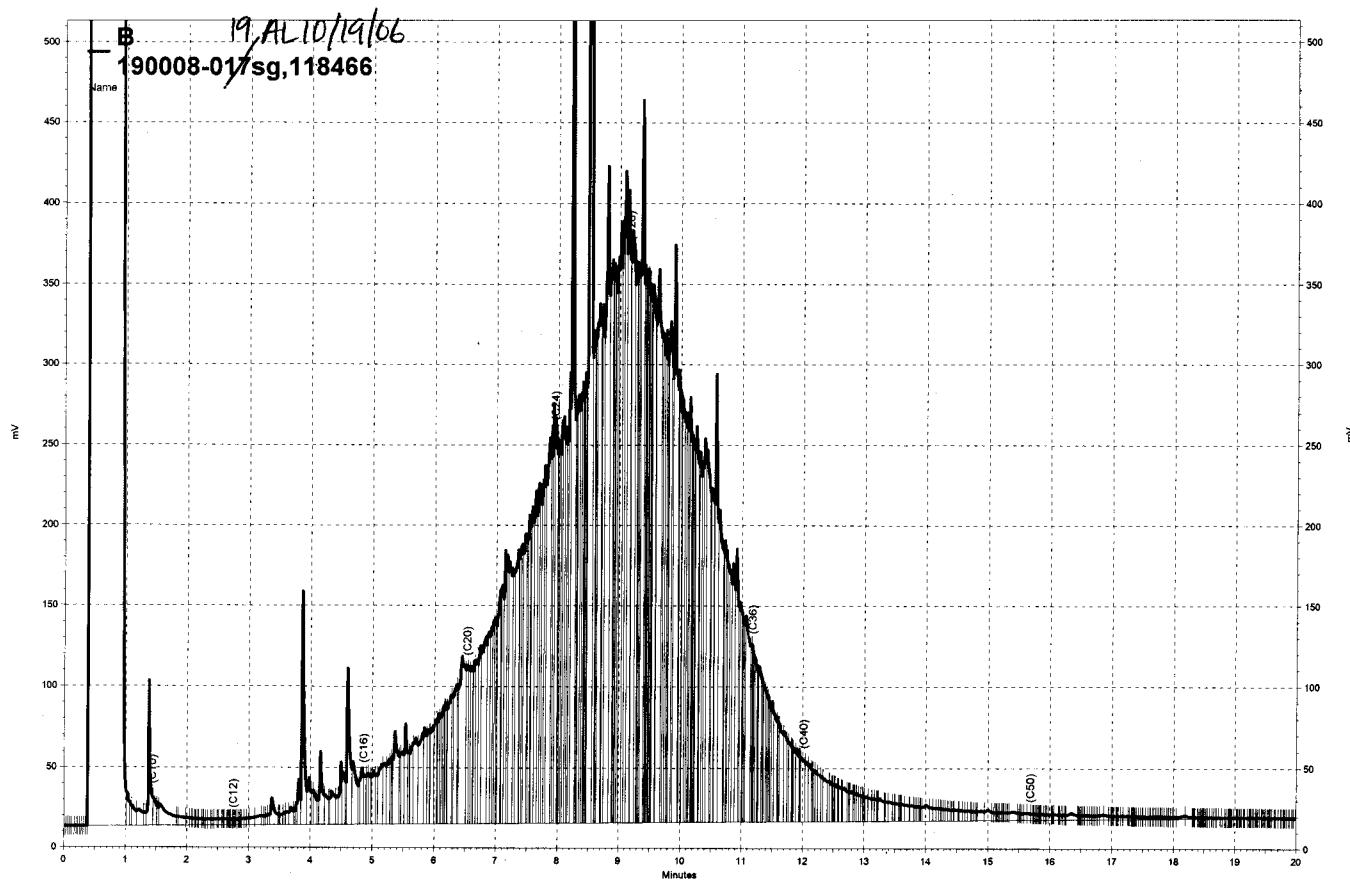
ND= Not Detected

RL= Reporting Limit



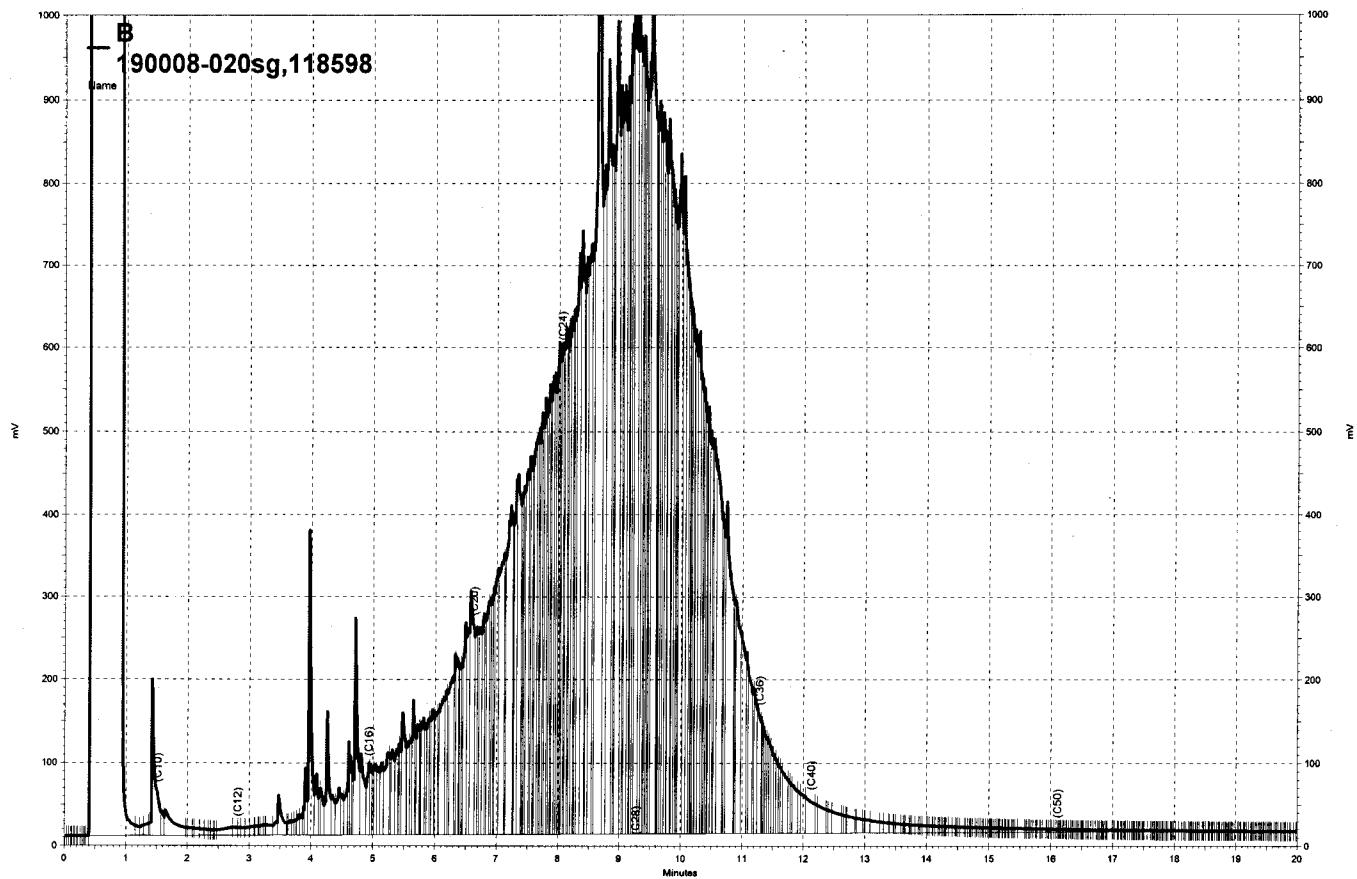
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HA-GB



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HA - 7A



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WA - 73

**Total Extractable Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06
Basis:	as received		

Field ID: HA-8A                          Batch#: 118466  
 Type: SAMPLE                              Prepared: 10/16/06  
 Lab ID: 190008-021                      Analyzed: 10/18/06  
 Diln Fac: 1.000                         Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	5.5	5.0

Surrogate	REC	Limits
Hexacosane	102	48-130

Field ID: HA-9A                          Batch#: 118466  
 Type: SAMPLE                              Prepared: 10/16/06  
 Lab ID: 190008-023                      Analyzed: 10/18/06  
 Diln Fac: 1.000                         Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	1.4 H Y	0.98
Motor Oil C24-C36	10	4.9

Surrogate	REC	Limits
Hexacosane	123	48-130

Type: BLANK                              Prepared: 10/16/06  
 Lab ID: QC360466                      Analyzed: 10/18/06  
 Diln Fac: 1.000                         Cleanup Method: EPA 3630C  
 Batch#: 118466

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

Surrogate	REC	Limits
Hexacosane	99	48-130

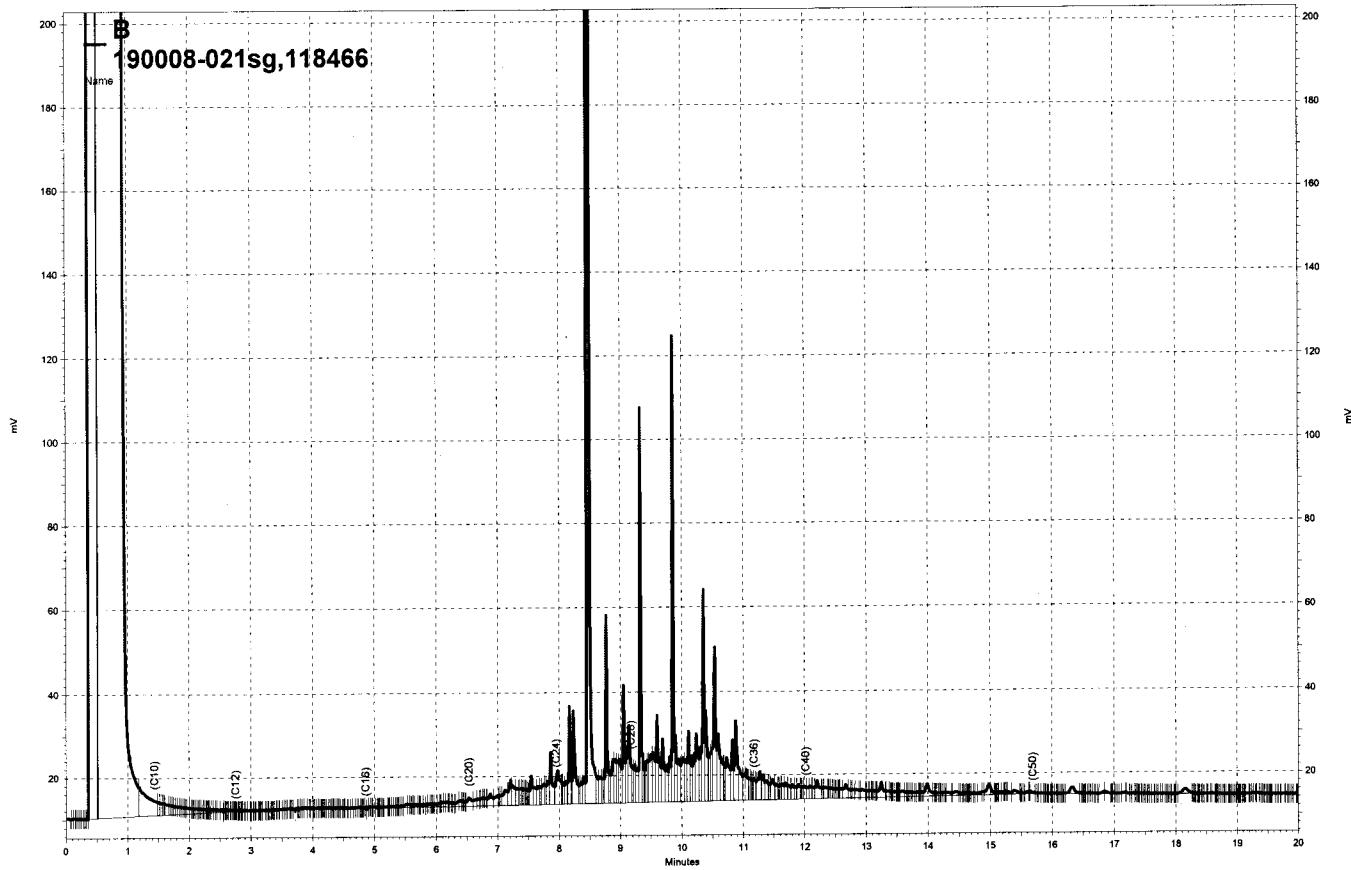
H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out

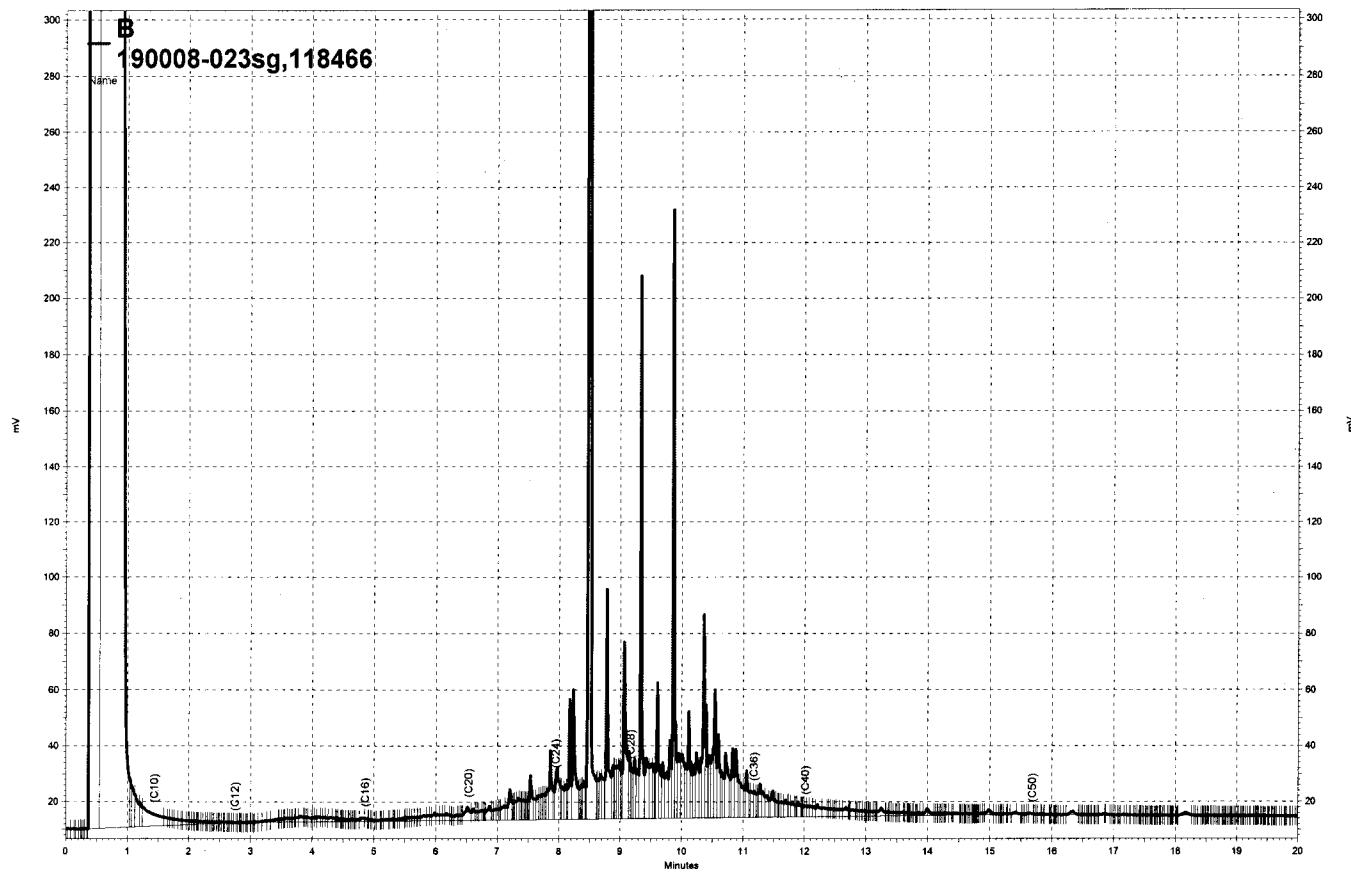
ND= Not Detected

RL= Reporting Limit



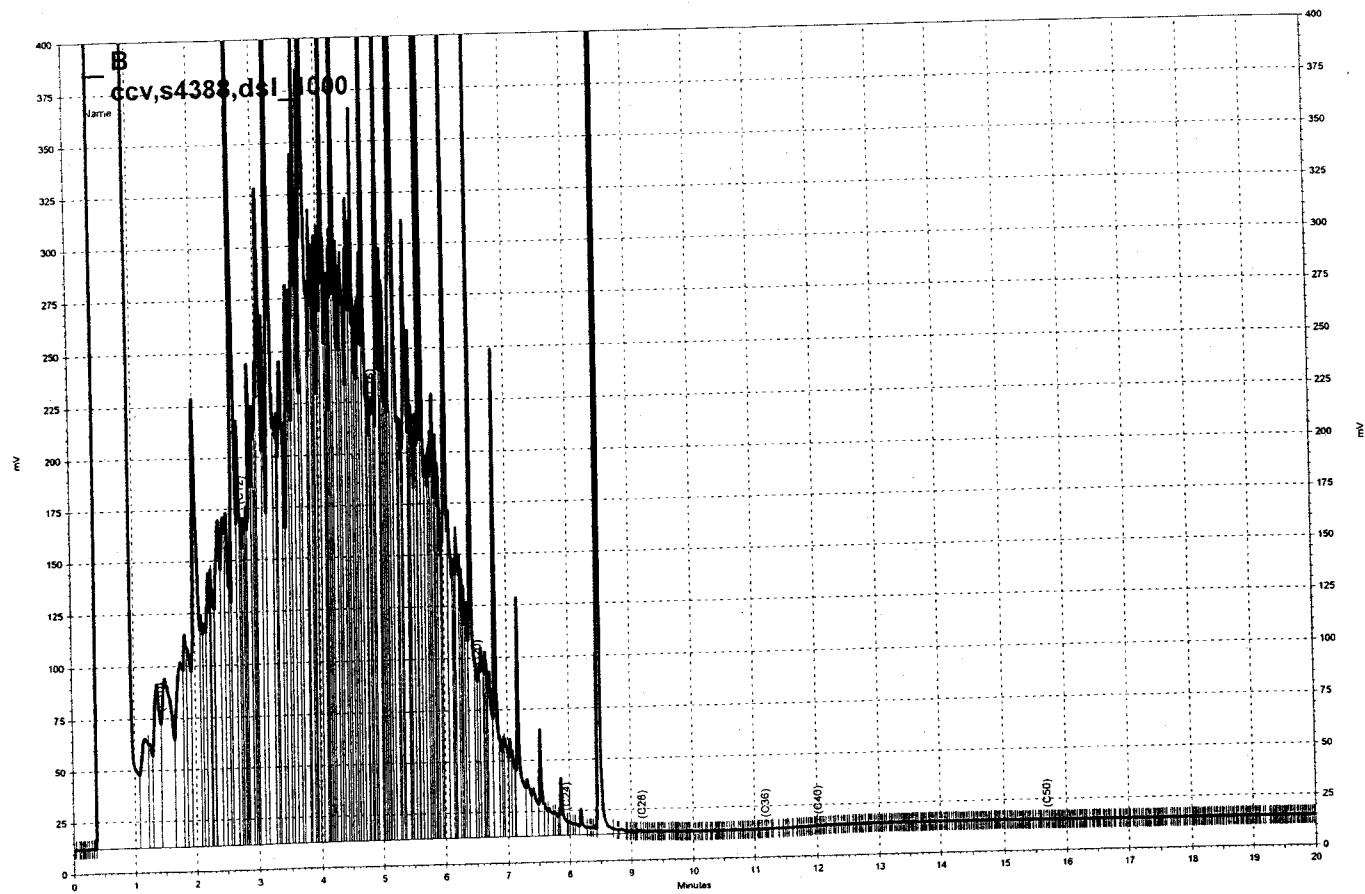
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HA - 8A



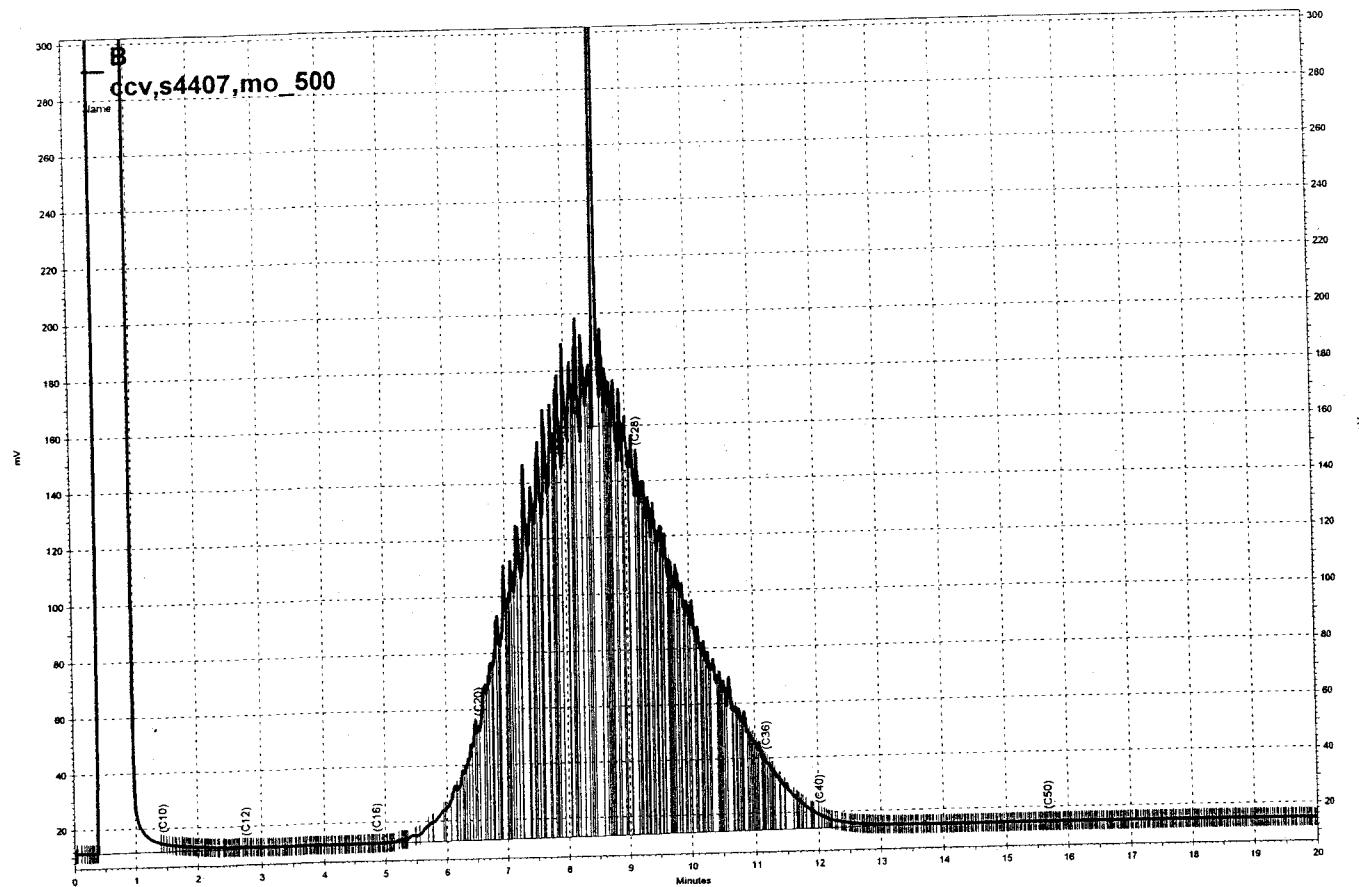
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HA - 9A



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Diesel



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Motor Oil

**Total Extractable Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2842	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06
Basis:	as received		

Type: BLANK Prepared: 10/16/06  
 Lab ID: QC360474 Analyzed: 10/18/06  
 Diln Fac: 1.000 Cleanup Method: EPA 3630C  
 Batch#: 118468

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

Surrogate	REC	Limits
Hexacosane	81	48-130

Type: BLANK Prepared: 10/20/06  
 Lab ID: QC361034 Analyzed: 10/22/06  
 Diln Fac: 1.000 Cleanup Method: EPA 3630C  
 Batch#: 118598

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

Surrogate	REC	Limits
Hexacosane	123	48-130

H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**Total Extractable Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2842	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC360467	Batch#:	118466
Matrix:	Soil	Prepared:	10/16/06
Units:	mg/Kg	Analyzed:	10/18/06
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.47	54.05	107	59-133

Surrogate	%REC	Limits
Hexacosane	109	48-130

## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2842	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC360475	Batch#:	118468
Matrix:	Soil	Prepared:	10/16/06
Units:	mg/Kg	Analyzed:	10/18/06
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.68	32.64	66	59-133

Surrogate	%REC	Limits
Hexacosane	71	48-130

## Batch QC Report

**Total Extractable Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2842	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC361035	Batch#:	118598
Matrix:	Soil	Prepared:	10/20/06
Units:	mg/Kg	Analyzed:	10/22/06
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.68	60.30	121	59-133

Surrogate	%REC	Limits
Hexacosane	114	48-130

## Batch QC Report

**Total Extractable Hydrocarbons**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2842	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	118468
MSS Lab ID:	189949-001	Sampled:	10/06/06
Matrix:	Soil	Received:	10/09/06
Units:	mg/Kg	Prepared:	10/16/06
Basis:	as received	Analyzed:	10/18/06
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3630C  
 Lab ID: QC360476

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	5.714	49.94	37.10	63	37-153

Surrogate	%REC	Limits
Hexacosane	81	48-130

Type: MSD Cleanup Method: EPA 3630C  
 Lab ID: QC360477

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Diesel C10-C24	49.84	36.17	61	37-153	2 43

Surrogate	%REC	Limits
Hexacosane	80	48-130

RPD= Relative Percent Difference

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-10A	Diln Fac:	0.9259
Lab ID:	190008-001	Batch#:	118352
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/12/06

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	23
Freon 113	ND	4.6
1,1-Dichloroethene	ND	4.6
Carbon Disulfide	ND	4.6
MTBE	ND	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
Dibromochloromethane	ND	4.6

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-10A	Diln Fac:	0.9259
Lab ID:	190008-001	Batch#:	118352
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/12/06

Analyte	Result	RI
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
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
Tetrahydrofuran	ND	4.6

Surrogate	%REC	Limits
Dibromofluoromethane	113	79-120
1,2-Dichloroethane-d4	130	76-130
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-126

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-10B	Diln Fac:	0.9091
Lab ID:	190008-002	Batch#:	118352
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/12/06

Analyte	Result	RL
Freon 12	ND	9.1
Chloromethane	ND	9.1
Vinyl Chloride	ND	9.1
Bromomethane	ND	9.1
Chloroethane	ND	9.1
Trichlorofluoromethane	ND	4.5
Acetone	ND	23
Freon 113	ND	4.5
1,1-Dichloroethene	ND	4.5
Carbon Disulfide	ND	4.5
MTBE	ND	4.5
trans-1,2-Dichloroethene	ND	4.5
Vinyl Acetate	ND	45
1,1-Dichloroethane	ND	4.5
2-Butanone	ND	9.1
cis-1,2-Dichloroethene	ND	4.5
2,2-Dichloropropane	ND	4.5
Chloroform	ND	4.5
Bromochloromethane	ND	4.5
1,1,1-Trichloroethane	ND	4.5
1,1-Dichloropropene	ND	4.5
Carbon Tetrachloride	ND	4.5
1,2-Dichloroethane	ND	4.5
Benzene	ND	4.5
Trichloroethene	ND	4.5
1,2-Dichloropropane	ND	4.5
Bromodichloromethane	ND	4.5
Dibromomethane	ND	4.5
4-Methyl-2-Pentanone	ND	9.1
cis-1,3-Dichloropropene	ND	4.5
Toluene	ND	4.5
trans-1,3-Dichloropropene	ND	4.5
1,1,2-Trichloroethane	ND	4.5
2-Hexanone	ND	9.1
1,3-Dichloropropane	ND	4.5
Tetrachloroethene	ND	4.5
Dibromochloromethane	ND	4.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-10B	Diln Fac:	0.9091
Lab ID:	190008-002	Batch#:	118352
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/12/06

Analyte	Result	RL
1,2-Dibromoethane	ND	4.5
Chlorobenzene	ND	4.5
1,1,1,2-Tetrachloroethane	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5
Styrene	ND	4.5
Bromoform	ND	4.5
Isopropylbenzene	ND	4.5
1,1,2,2-Tetrachloroethane	ND	4.5
1,2,3-Trichloropropane	ND	4.5
Propylbenzene	ND	4.5
Bromobenzene	ND	4.5
1,3,5-Trimethylbenzene	ND	4.5
2-Chlorotoluene	ND	4.5
4-Chlorotoluene	ND	4.5
tert-Butylbenzene	ND	4.5
1,2,4-Trimethylbenzene	ND	4.5
sec-Butylbenzene	ND	4.5
para-Isopropyl Toluene	ND	4.5
1,3-Dichlorobenzene	ND	4.5
1,4-Dichlorobenzene	ND	4.5
n-Butylbenzene	ND	4.5
1,2-Dichlorobenzene	ND	4.5
1,2-Dibromo-3-Chloropropane	ND	4.5
1,2,4-Trichlorobenzene	ND	4.5
Hexachlorobutadiene	ND	4.5
Naphthalene	ND	4.5
1,2,3-Trichlorobenzene	ND	4.5
Tetrahydrofuran	ND	45

Surrogate	%REC	Limits
Dibromofluoromethane	117	79-120
1,2-Dichloroethane-d4	130	76-130
Toluene-d8	100	80-120
Bromofluorobenzene	98	80-126

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-11A	Diln Fac:	0.9091
Lab ID:	190008-003	Batch#:	118352
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/12/06

Analyte	Result	RL
Freon 12	ND	9.1
Chloromethane	ND	9.1
Vinyl Chloride	ND	9.1
Bromomethane	ND	9.1
Chloroethane	ND	9.1
Trichlorofluoromethane	ND	4.5
Acetone	ND	23
Freon 113	ND	4.5
1,1-Dichloroethene	ND	4.5
Carbon Disulfide	ND	4.5
MTBE	ND	4.5
trans-1,2-Dichloroethene	ND	4.5
Vinyl Acetate	ND	45
1,1-Dichloroethane	ND	4.5
2-Butanone	ND	9.1
cis-1,2-Dichloroethene	ND	4.5
2,2-Dichloropropane	ND	4.5
Chloroform	ND	4.5
Bromoform	ND	4.5
1,1,1-Trichloroethane	ND	4.5
1,1-Dichloropropene	ND	4.5
Carbon Tetrachloride	ND	4.5
1,2-Dichloroethane	ND	4.5
Benzene	ND	4.5
Trichloroethene	ND	4.5
1,2-Dichloropropane	ND	4.5
Bromodichloromethane	ND	4.5
Dibromomethane	ND	4.5
4-Methyl-2-Pentanone	ND	9.1
cis-1,3-Dichloropropene	ND	4.5
Toluene	ND	4.5
trans-1,3-Dichloropropene	ND	4.5
1,1,2-Trichloroethane	ND	4.5
2-Hexanone	ND	9.1
1,3-Dichloropropane	ND	4.5
Tetrachloroethene	ND	4.5
Dibromochloromethane	ND	4.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-11A	Diln Fac:	0.9091
Lab ID:	190008-003	Batch#:	118352
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/12/06

Analyte	Result	RL
1,2-Dibromoethane	ND	4.5
Chlorobenzene	ND	4.5
1,1,1,2-Tetrachloroethane	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5
Styrene	ND	4.5
Bromoform	ND	4.5
Isopropylbenzene	ND	4.5
1,1,2,2-Tetrachloroethane	ND	4.5
1,2,3-Trichloropropane	ND	4.5
Propylbenzene	ND	4.5
Bromobenzene	ND	4.5
1,3,5-Trimethylbenzene	ND	4.5
2-Chlorotoluene	ND	4.5
4-Chlorotoluene	ND	4.5
tert-Butylbenzene	ND	4.5
1,2,4-Trimethylbenzene	ND	4.5
sec-Butylbenzene	ND	4.5
para-Isopropyl Toluene	ND	4.5
1,3-Dichlorobenzene	ND	4.5
1,4-Dichlorobenzene	ND	4.5
n-Butylbenzene	ND	4.5
1,2-Dichlorobenzene	ND	4.5
1,2-Dibromo-3-Chloropropane	ND	4.5
1,2,4-Trichlorobenzene	ND	4.5
Hexachlorobutadiene	ND	4.5
Naphthalene	ND	4.5
1,2,3-Trichlorobenzene	ND	4.5
Tetrahydrofuran	ND	45

Surrogate	%REC	Limits
Dibromofluoromethane	113	79-120
1,2-Dichloroethane-d4	127	76-130
Toluene-d8	98	80-120
Bromofluorobenzene	100	80-126

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-12A	Diln Fac:	0.9259
Lab ID:	190008-004	Batch#:	118496
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/17/06

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	23
Freon 113	ND	4.6
1,1-Dichloroethene	ND	4.6
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	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
Dibromochloromethane	ND	4.6

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-12A	Diln Fac:	0.9259
Lab ID:	190008-004	Batch#:	118496
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/17/06

Analyte	Result	RL
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
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
Tetrahydrofuran	ND	46

Surrogate	%REC	Limits
Dibromofluoromethane	110	79-120
1,2-Dichloroethane-d4	121	76-130
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-126

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-1A	Diln Fac:	0.9804
Lab ID:	190008-007	Batch#:	118496
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/17/06

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	25
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Carbon Disulfide	ND	4.9
MTBE	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	ND	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	ND	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	ND	4.9
Dibromochloromethane	ND	4.9

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-1A	Diln Fac:	0.9804
Lab ID:	190008-007	Batch#:	118496
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/17/06

Analyte	Result	RL
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
Propylbenzene	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
Tetrahydrofuran	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	98	79-120
1,2-Dichloroethane-d4	112	76-130
Toluene-d8	101	80-120
Bromofluorobenzene	98	80-126

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-2A	Diln Fac:	0.9091
Lab ID:	190008-009	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

Analyte	Result	RL
Freon 12	ND	9.1
Chloromethane	ND	9.1
Vinyl Chloride	ND	9.1
Bromomethane	ND	9.1
Chloroethane	ND	9.1
Trichlorofluoromethane	ND	4.5
Acetone	ND	23
Freon 113	ND	4.5
1,1-Dichloroethene	ND	4.5
Carbon Disulfide	ND	4.5
MTBE	ND	4.5
trans-1,2-Dichloroethene	ND	4.5
Vinyl Acetate	ND	45
1,1-Dichloroethane	ND	4.5
2-Butanone	ND	9.1
cis-1,2-Dichloroethene	ND	4.5
2,2-Dichloropropane	ND	4.5
Chloroform	ND	4.5
Bromochloromethane	ND	4.5
1,1,1-Trichloroethane	ND	4.5
1,1-Dichloropropene	ND	4.5
Carbon Tetrachloride	ND	4.5
1,2-Dichloroethane	ND	4.5
Benzene	ND	4.5
Trichloroethene	ND	4.5
1,2-Dichloropropane	ND	4.5
Bromodichloromethane	ND	4.5
Dibromomethane	ND	4.5
4-Methyl-2-Pentanone	ND	9.1
cis-1,3-Dichloropropene	ND	4.5
Toluene	ND	4.5
trans-1,3-Dichloropropene	ND	4.5
1,1,2-Trichloroethane	ND	4.5
2-Hexanone	ND	9.1
1,3-Dichloropropane	ND	4.5
Tetrachloroethene	ND	4.5
Dibromochloromethane	ND	4.5

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-2A	Diln Fac:	0.9091
Lab ID:	190008-009	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

Analyte	Result	RL
1,2-Dibromoethane	ND	4.5
Chlorobenzene	ND	4.5
1,1,1,2-Tetrachloroethane	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5
Styrene	ND	4.5
Bromoform	ND	4.5
Isopropylbenzene	ND	4.5
1,1,2,2-Tetrachloroethane	ND	4.5
1,2,3-Trichloropropane	ND	4.5
Propylbenzene	ND	4.5
Bromobenzene	ND	4.5
1,3,5-Trimethylbenzene	ND	4.5
2-Chlorotoluene	ND	4.5
4-Chlorotoluene	ND	4.5
tert-Butylbenzene	ND	4.5
1,2,4-Trimethylbenzene	ND	4.5
sec-Butylbenzene	ND	4.5
para-Isopropyl Toluene	ND	4.5
1,3-Dichlorobenzene	ND	4.5
1,4-Dichlorobenzene	ND	4.5
n-Butylbenzene	ND	4.5
1,2-Dichlorobenzene	ND	4.5
1,2-Dibromo-3-Chloropropane	ND	4.5
1,2,4-Trichlorobenzene	ND	4.5
Hexachlorobutadiene	ND	4.5
Naphthalene	ND	4.5
1,2,3-Trichlorobenzene	ND	4.5
Tetrahydrofuran	ND	45

Surrogate	#REC	Limits
Dibromofluoromethane	111	79-120
1,2-Dichloroethane-d4	124	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-126

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-3A	Diln Fac:	0.9434
Lab ID:	190008-011	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

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	24
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Carbon Disulfide	ND	4.7
MTBE	ND	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
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	ND	4.7
Dibromochloromethane	ND	4.7

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-3A	Diln Fac:	0.9434
Lab ID:	190008-011	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

Analyte	Result	RL
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
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
Tetrahydrofuran	ND	4.7

Surrogate	%REC	Limits
Dibromofluoromethane	116	79-120
1,2-Dichloroethane-d4	129	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	104	80-126

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-4A	Diln Fac:	0.9804
Lab ID:	190008-013	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

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	25
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Carbon Disulfide	ND	4.9
MTBE	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	ND	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	ND	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	ND	4.9
Dibromochloromethane	ND	4.9

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-4A	Diln Fac:	0.9804
Lab ID:	190008-013	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

Analyte	Result	RI
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
Propylbenzene	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
Tetrahydrofuran	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	111	79-120
1,2-Dichloroethane-d4	124	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	106	80-126

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-5A	Diln Fac:	0.8929
Lab ID:	190008-015	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

Analyte	Result	RL
Freon 12	ND	8.9
Chloromethane	ND	8.9
Vinyl Chloride	ND	8.9
Bromomethane	ND	8.9
Chloroethane	ND	8.9
Trichlorofluoromethane	ND	4.5
Acetone	ND	22
Freon 113	ND	4.5
1,1-Dichloroethene	ND	4.5
Carbon Disulfide	ND	4.5
MTBE	ND	4.5
trans-1,2-Dichloroethene	ND	4.5
Vinyl Acetate	ND	45
1,1-Dichloroethane	ND	4.5
2-Butanone	ND	8.9
cis-1,2-Dichloroethene	ND	4.5
2,2-Dichloropropane	ND	4.5
Chloroform	ND	4.5
Bromochloromethane	ND	4.5
1,1,1-Trichloroethane	ND	4.5
1,1-Dichloropropene	ND	4.5
Carbon Tetrachloride	ND	4.5
1,2-Dichloroethane	ND	4.5
Benzene	ND	4.5
Trichloroethene	ND	4.5
1,2-Dichloropropane	ND	4.5
Bromodichloromethane	ND	4.5
Dibromomethane	ND	4.5
4-Methyl-2-Pentanone	ND	8.9
cis-1,3-Dichloropropene	ND	4.5
Toluene	ND	4.5
trans-1,3-Dichloropropene	ND	4.5
1,1,2-Trichloroethane	ND	4.5
2-Hexanone	ND	8.9
1,3-Dichloropropane	ND	4.5
Tetrachloroethene	ND	4.5
Dibromochloromethane	ND	4.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-5A	Diln Fac:	0.8929
Lab ID:	190008-015	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

Analyte	Result	RL
1,2-Dibromoethane	ND	4.5
Chlorobenzene	ND	4.5
1,1,1,2-Tetrachloroethane	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5
Styrene	ND	4.5
Bromoform	ND	4.5
Isopropylbenzene	ND	4.5
1,1,2,2-Tetrachloroethane	ND	4.5
1,2,3-Trichloropropane	ND	4.5
Propylbenzene	ND	4.5
Bromobenzene	ND	4.5
1,3,5-Trimethylbenzene	ND	4.5
2-Chlorotoluene	ND	4.5
4-Chlorotoluene	ND	4.5
tert-Butylbenzene	ND	4.5
1,2,4-Trimethylbenzene	ND	4.5
sec-Butylbenzene	ND	4.5
para-Isopropyl Toluene	ND	4.5
1,3-Dichlorobenzene	ND	4.5
1,4-Dichlorobenzene	ND	4.5
n-Butylbenzene	ND	4.5
1,2-Dichlorobenzene	ND	4.5
1,2-Dibromo-3-Chloropropane	ND	4.5
1,2,4-Trichlorobenzene	ND	4.5
Hexachlorobutadiene	ND	4.5
Naphthalene	ND	4.5
1,2,3-Trichlorobenzene	ND	4.5
Tetrahydrofuran	ND	4.5

Surrogate	%REC	Limits
Dibromofluoromethane	110	79-120
1,2-Dichloroethane-d4	130	76-130
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-126

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-6A	Diln Fac:	0.9804
Lab ID:	190008-017	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

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	25
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	4.9
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.8
cis-1,2-Dichloroethene	ND	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	ND	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	ND	4.9
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
Propylbenzene	ND	4.9
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9
4-Chlorotoluene	ND	4.9

\* = Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

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Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-6A	Diln Fac:	0.9804
Lab ID:	190008-017	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

Analyte	Result	RL
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
Tetrahydrofuran	ND	4.9

Surrogate	% REC	Limits
Dibromofluoromethane	112	79-120
1,2-Dichloroethane-d4	132 *	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-126

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-7A	Diln Fac:	1.000
Lab ID:	190008-019	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

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	25
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Carbon Disulfide	ND	5.0
MTBE	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
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-7A	Diln Fac:	1.000
Lab ID:	190008-019	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

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
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
Tetrahydrofuran	ND	50

Surrogate	%REC	Limits
Dibromofluoromethane	113	79-120
1,2-Dichloroethane-d4	127	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-126

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-8A	Diln Fac:	0.9259
Lab ID:	190008-021	Batch#:	118561
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/19/06

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	23
Freon 113	ND	4.6
1,1-Dichloroethene	ND	4.6
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	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
Dibromochloromethane	ND	4.6

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-8A	Diln Fac:	0.9259
Lab ID:	190008-021	Batch#:	118561
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/19/06

Analyte	Result	RL
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
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
Tetrahydrofuran	ND	46

Surrogate	% REC	Limits
Dibromofluoromethane	112	79-120
1,2-Dichloroethane-d4	124	76-130
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-126

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-9A	Diln Fac:	0.9434
Lab ID:	190008-023	Batch#:	118561
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/19/06

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	24
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Carbon Disulfide	ND	4.7
MTBE	ND	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
Bromoform	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
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	ND	4.7
Dibromochloromethane	ND	4.7

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-9A	Diln Fac:	0.9434
Lab ID:	190008-023	Batch#:	118561
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/19/06

Analyte	Result	RL
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
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
Tetrahydrofuran	ND	4.7

Surrogate	%REC	Limits
Dibromofluoromethane	113	79-120
1,2-Dichloroethane-d4	126	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	97	80-126

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC359961	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118352
Units:	ug/Kg	Analyzed:	10/12/06

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	25
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Carbon Disulfide	ND	5.0
MTBE	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
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC359961	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118352
Units:	ug/Kg	Analyzed:	10/12/06

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
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
Tetrahydrofuran	ND	50

Surrogate	%REC	Limits
Dibromofluoromethane	112	79-120
1,2-Dichloroethane-d4	122	76-130
Toluene-d8	100	80-120
Bromofluorobenzene	97	80-126

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC360099	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118352
Units:	ug/Kg	Analyzed:	10/12/06

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	25
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Carbon Disulfide	ND	5.0
MTBE	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
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC360099	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118352
Units:	ug/Kg	Analyzed:	10/12/06

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
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
Tetrahydrofuran	ND	50

Surrogate	%REC	Limits
Dibromofluoromethane	110	79-120
1,2-Dichloroethane-d4	122	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	94	80-126

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC360594	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118496
Units:	ug/Kg	Analyzed:	10/17/06

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	25
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Carbon Disulfide	ND	5.0
MTBE	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
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC360594	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118496
Units:	ug/Kg	Analyzed:	10/17/06

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
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
Tetrahydrofuran	ND	50

Surrogate	%REC	Limits
Dibromofluoromethane	97	79-120
1,2-Dichloroethane-d4	108	76-130
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-126

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC360696	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118518
Units:	ug/Kg	Analyzed:	10/18/06

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	25
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Carbon Disulfide	ND	5.0
MTBE	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
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC360696	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118518
Units:	ug/Kg	Analyzed:	10/18/06

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
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
Tetrahydrofuran	ND	50

Surrogate	%REC	Limits
Dibromofluoromethane	97	79-120
1,2-Dichloroethane-d4	104	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	97	80-126

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC360864	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118561
Units:	ug/Kg	Analyzed:	10/19/06

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	25
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Carbon Disulfide	ND	5.0
MTBE	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
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

**Purgeable Organics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC360864	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118561
Units:	ug/Kg	Analyzed:	10/19/06

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
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
Tetrahydrofuran	ND	50

Surrogate	%REC	Limits
Dibromofluoromethane	115	79-120
1,2-Dichloroethane-d4	128	76-130
Toluene-d8	98	80-120
Bromofluorobenzene	97	80-126

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC359959	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118352
Units:	ug/Kg	Analyzed:	10/12/06

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.66	99	79-132
Benzene	25.00	22.87	91	80-120
Trichloroethene	25.00	24.54	98	80-121
Toluene	25.00	24.46	98	80-120
Chlorobenzene	25.00	24.97	100	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	79-120
1,2-Dichloroethane-d4	114	76-130
Toluene-d8	100	80-120
Bromofluorobenzene	96	80-126



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC360593	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118496
Units:	ug/Kg	Analyzed:	10/17/06

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	25.05	100	79-132
Benzene	25.00	23.10	92	80-120
Trichloroethene	25.00	24.71	99	80-121
Toluene	25.00	25.09	100	80-120
Chlorobenzene	25.00	25.16	101	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	79-120
1,2-Dichloroethane-d4	104	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-126



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC360695	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118518
Units:	ug/Kg	Analyzed:	10/18/06

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	23.45	94	79-132
Benzene	25.00	22.69	91	80-120
Trichloroethene	25.00	24.17	97	80-121
Toluene	25.00	25.12	100	80-120
Chlorobenzene	25.00	25.08	100	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	91	79-120
1,2-Dichloroethane-d4	97	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-126



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC360863	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118561
Units:	ug/Kg	Analyzed:	10/19/06

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.86	99	79-132
Benzene	25.00	22.52	90	80-120
Trichloroethene	25.00	23.40	94	80-121
Toluene	25.00	23.94	96	80-120
Chlorobenzene	25.00	24.33	97	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	107	79-120
1,2-Dichloroethane-d4	110	76-130
Toluene-d8	98	80-120
Bromofluorobenzene	95	80-126



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	118352
MSS Lab ID:	189949-001	Sampled:	10/06/06
Matrix:	Soil	Received:	10/09/06
Units:	ug/Kg	Analyzed:	10/13/06
Basis:	as received		

Type: MS Diln Fac: 1.000  
 Lab ID: QC359990

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.5722	25.00	24.69	99	72-135
Benzene	<0.1378	25.00	20.90	84	67-120
Trichloroethene	<0.3272	25.00	22.24	89	65-131
Toluene	<0.5526	25.00	23.97	96	62-120
Chlorobenzene	<0.5171	25.00	19.25	77	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	117	79-120
1,2-Dichloroethane-d4	131 *	76-130
Toluene-d8	103	80-120
Bromofluorobenzene	93	80-126

Type: MSD Diln Fac: 0.9259  
 Lab ID: QC359991

Analyte	Spiked	Result	%REC	Limits	RPD Lim
1,1-Dichloroethene	23.15	24.08	104	72-135	5 22
Benzene	23.15	19.78	85	67-120	2 20
Trichloroethene	23.15	21.73	94	65-131	5 20
Toluene	23.15	23.66	102	62-120	6 20
Chlorobenzene	23.15	18.07	78	59-120	1 21

Surrogate	%REC	Limits
Dibromofluoromethane	113	79-120
1,2-Dichloroethane-d4	128	76-130
Toluene-d8	104	80-120
Bromofluorobenzene	90	80-126

\*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference



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## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	HA-6A	Diln Fac:	0.9804
MSS Lab ID:	190008-017	Batch#:	118518
Matrix:	Soil	Sampled:	10/10/06
Units:	ug/Kg	Received:	10/11/06
Basis:	as received	Analyzed:	10/18/06

Type: MS Lab ID: QC360760

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.5610	24.51	26.42	108	72-135
Benzene	<0.1351	24.51	18.73	76	67-120
Trichloroethene	<0.3208	24.51	21.26	87	65-131
Toluene	<0.5418	24.51	19.04	78	62-120
Chlorobenzene	<0.5070	24.51	16.01	65	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	113	79-120
1,2-Dichloroethane-d4	130	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-126

Type: MSD Lab ID: QC360761

Analyte	Spiked	Result	%REC	Limits	RPD Lim
1,1-Dichloroethene	24.51	26.09	106	72-135	1 22
Benzene	24.51	19.18	78	67-120	2 20
Trichloroethene	24.51	21.77	89	65-131	2 20
Toluene	24.51	19.52	80	62-120	2 20
Chlorobenzene	24.51	16.36	67	59-120	2 21

Surrogate	%REC	Limits
Dibromofluoromethane	109	79-120
1,2-Dichloroethane-d4	125	76-130
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-126

RPD= Relative Percent Difference



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## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2842	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9615
MSS Lab ID:	190108-001	Batch#:	118561
Matrix:	Soil	Sampled:	10/16/06
Units:	ug/Kg	Received:	10/16/06
Basis:	as received	Analyzed:	10/19/06

Type: MS Lab ID: QC360946

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.5502	24.04	25.97	108	72-135
Benzene	<0.1325	24.04	20.87	87	67-120
Trichloroethene	<0.3146	24.04	22.36	93	65-131
Toluene	<0.5313	24.04	21.52	90	62-120
Chlorobenzene	<0.4972	24.04	19.50	81	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	79-120
1,2-Dichloroethane-d4	97	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	103	80-126

Type: MSD Lab ID: QC360947

Analyte	Spiked	Result	%REC	Limits	RPD Lim
1,1-Dichloroethene	24.04	23.96	100	72-135	8 22
Benzene	24.04	19.40	81	67-120	7 20
Trichloroethene	24.04	20.54	85	65-131	8 20
Toluene	24.04	19.94	83	62-120	8 20
Chlorobenzene	24.04	18.50	77	59-120	5 21

Surrogate	%REC	Limits
Dibromofluoromethane	95	79-120
1,2-Dichloroethane-d4	97	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	103	80-126

RPD= Relative Percent Difference

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### Polynuclear Aromatics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	HA-10A	Batch#:	118343
Lab ID:	190008-001	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	2.000		

Analyte	Result	RL
Naphthalene	ND	130
Acenaphthylene	ND	130
Acenaphthene	ND	130
Fluorene	ND	130
Phenanthrene	ND	130
Anthracene	ND	130
Fluoranthene	ND	130
Pyrene	ND	130
Benzo(a)anthracene	ND	130
Chrysene	ND	130
Benzo(b)fluoranthene	ND	130
Benzo(k)fluoranthene	ND	130
Benzo(a)pyrene	ND	130
Indeno(1,2,3-cd)pyrene	ND	130
Dibenz(a,h)anthracene	ND	130
Benzo(g,h,i)perylene	ND	130

Surrogate	%REC	Limits
Nitrobenzene-d5	55	46-120
2-Fluorobiphenyl	56	49-120
Terphenyl-d14	51	36-120

ND= Not Detected

RL= Reporting Limit

**Polynuclear Aromatics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	HA-11A	Batch#:	118343
Lab ID:	190008-003	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Naphthalene	ND	66
Acenaphthylene	ND	66
Acenaphthene	ND	66
Fluorene	ND	66
Phenanthrene	ND	66
Anthracene	ND	66
Fluoranthene	ND	66
Pyrene	ND	66
Benzo(a)anthracene	ND	66
Chrysene	ND	66
Benzo(b)fluoranthene	ND	66
Benzo(k)fluoranthene	ND	66
Benzo(a)pyrene	ND	66
Indeno(1,2,3-cd)pyrene	ND	66
Dibenz(a,h)anthracene	ND	66
Benzo(g,h,i)perylene	ND	66

Surrogate	%REC	Limits
Nitrobenzene-d5	57	46-120
2-Fluorobiphenyl	56	49-120
Terphenyl-d14	50	36-120

ND= Not Detected

RL= Reporting Limit

### Polynuclear Aromatics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	HA-12A	Batch#:	118343
Lab ID:	190008-004	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Naphthalene	ND	67
Acenaphthylene	ND	67
Acenaphthene	ND	67
Fluorene	ND	67
Phenanthrene	ND	67
Anthracene	ND	67
Fluoranthene	ND	67
Pyrene	ND	67
Benzo(a)anthracene	ND	67
Chrysene	ND	67
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
Nitrobenzene-d5	52	46-120
2-Fluorobiphenyl	51	49-120
Terphenyl-d14	47	36-120

ND= Not Detected

RL= Reporting Limit

### Polynuclear Aromatics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	HA-1A	Batch#:	118343
Lab ID:	190008-007	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Naphthalene	ND	67
Acenaphthylene	ND	67
Acenaphthene	ND	67
Fluorene	ND	67
Phenanthrene	ND	67
Anthracene	ND	67
Fluoranthene	ND	67
Pyrene	ND	67
Benzo(a)anthracene	ND	67
Chrysene	ND	67
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
Nitrobenzene-d5	48	46-120
2-Fluorobiphenyl	49	49-120
Terphenyl-d14	46	36-120

ND= Not Detected

RL= Reporting Limit

**Polynuclear Aromatics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	HA-2A	Batch#:	118343
Lab ID:	190008-009	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Naphthalene	ND	67
Acenaphthylene	ND	67
Acenaphthene	ND	67
Fluorene	ND	67
Phenanthrene	ND	67
Anthracene	ND	67
Fluoranthene	ND	67
Pyrene	ND	67
Benzo(a)anthracene	ND	67
Chrysene	ND	67
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%RBC	Limits
Nitrobenzene-d5	53	46-120
2-Fluorobiphenyl	54	49-120
Terphenyl-d14	52	36-120

ND= Not Detected

RL= Reporting Limit

### Polynuclear Aromatics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	HA-3A	Batch#:	118343
Lab ID:	190008-011	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	50.00		

Analyte	Result	RL
Naphthalene	ND	6,700
Acenaphthylene	ND	6,700
Acenaphthene	ND	6,700
Fluorene	ND	6,700
Phenanthrene	ND	6,700
Anthracene	ND	6,700
Fluoranthene	ND	6,700
Pyrene	ND	6,700
Benzo(a)anthracene	ND	6,700
Chrysene	ND	6,700
Benzo(b)fluoranthene	ND	6,700
Benzo(k)fluoranthene	ND	6,700
Benzo(a)pyrene	ND	6,700
Indeno(1,2,3-cd)pyrene	ND	6,700
Dibenz(a,h)anthracene	ND	6,700
Benzo(g,h,i)perylene	ND	6,700

Surrogate	%REC	Limits
Nitrobenzene-d5	DO	46-120
2-Fluorobiphenyl	DO	49-120
Terphenyl-d14	DO	36-120

DO= Diluted Out

ND= Not Detected

RL= Reporting Limit

### Polynuclear Aromatics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	HA-4A	Batch#:	118343
Lab ID:	190008-013	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	5.000		

Analyte	Result	RL
Naphthalene	ND	340
Acenaphthylene	ND	340
Acenaphthene	ND	340
Fluorene	ND	340
Phenanthrene	ND	340
Anthracene	ND	340
Fluoranthene	ND	340
Pyrene	ND	340
Benzo(a)anthracene	ND	340
Chrysene	ND	340
Benzo(b)fluoranthene	ND	340
Benzo(k)fluoranthene	ND	340
Benzo(a)pyrene	ND	340
Indeno(1,2,3-cd)pyrene	ND	340
Dibenz(a,h)anthracene	ND	340
Benzo(g,h,i)perylene	ND	340

Surrogate	%RBC	Limits
Nitrobenzene-d5	57	46-120
2-Fluorobiphenyl	58	49-120
Terphenyl-d14	50	36-120

ND= Not Detected

RL= Reporting Limit

**Polynuclear Aromatics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	HA-5A	Batch#:	118343
Lab ID:	190008-015	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Naphthalene	ND	67
Acenaphthylene	ND	67
Acenaphthene	ND	67
Fluorene	ND	67
Phenanthrene	ND	67
Anthracene	ND	67
Fluoranthene	ND	67
Pyrene	ND	67
Benzo(a)anthracene	ND	67
Chrysene	ND	67
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
Nitrobenzene-d5	59	46-120
2-Fluorobiphenyl	57	49-120
Terphenyl-d14	54	36-120

ND= Not Detected

RL= Reporting Limit

**Polynuclear Aromatics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	HA-6A	Batch#:	118343
Lab ID:	190008-017	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Analyte	Result	RL
Naphthalene	ND	67
Acenaphthylene	ND	67
Acenaphthene	ND	67
Fluorene	ND	67
Phenanthrene	ND	67
Anthracene	ND	67
Fluoranthene	ND	67
Pyrene	ND	67
Benzo(a)anthracene	ND	67
Chrysene	ND	67
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%RBC	Limits
Nitrobenzene-d5	49	46-120
2-Fluorobiphenyl	49	49-120
Terphenyl-d14	46	36-120

ND= Not Detected

RL= Reporting Limit



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**POLYNUCLEAR AROMATICS BY GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	HA-7A	Batch#:	118343
Lab ID:	190008-019	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/12/06
Diln Fac:	1.000		

Analyte	Result	RL
Naphthalene	ND	66
Acenaphthylene	ND	66
Acenaphthene	ND	66
Fluorene	ND	66
Phenanthrene	ND	66
Anthracene	ND	66
Fluoranthene	ND	66
Pyrene	ND	66
Benzo(a)anthracene	ND	66
Chrysene	ND	66
Benzo(b)fluoranthene	ND	66
Benzo(k)fluoranthene	ND	66
Benzo(a)pyrene	ND	66
Indeno(1,2,3-cd)pyrene	ND	66
Dibenz(a,h)anthracene	ND	66
Benzo(g,h,i)perylene	ND	66

Surrogate	%REC	Limits
Nitrobenzene-d5	46	46-120
2-Fluorobiphenyl	52	49-120
Terphenyl-d14	54	36-120

ND= Not Detected

RL= Reporting Limit

**Polynuclear Aromatics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	HA-8A	Batch#:	118327
Lab ID:	190008-021	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/11/06
Basis:	as received	Analyzed:	10/16/06
Diln Fac:	1.000		

Analyte	Result	RL
Naphthalene	ND	68
Acenaphthylene	ND	68
Acenaphthene	ND	68
Fluorene	ND	68
Phenanthrene	ND	68
Anthracene	ND	68
Fluoranthene	ND	68
Pyrene	ND	68
Benzo(a)anthracene	ND	68
Chrysene	ND	68
Benzo(b)fluoranthene	ND	68
Benzo(k)fluoranthene	ND	68
Benzo(a)pyrene	ND	68
Indeno(1,2,3-cd)pyrene	ND	68
Dibenz(a,h)anthracene	ND	68
Benzo(g,h,i)perylene	ND	68

Surrogate	%REC	Limits
Nitrobenzene-d5	56	46-120
2-Fluorobiphenyl	75	49-120
Terphenyl-d14	71	36-120

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Polynuclear Aromatics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	HA-9A	Batch#:	118327
Lab ID:	190008-023	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/11/06
Basis:	as received	Analyzed:	10/16/06
Diln Fac:	1.000		

Analyte	Result	RL
Naphthalene	ND	67
Acenaphthylene	ND	67
Acenaphthene	ND	67
Fluorene	ND	67
Phenanthrene	ND	67
Anthracene	ND	67
Fluoranthene	ND	67
Pyrene	ND	67
Benzo(a)anthracene	ND	67
Chrysene	ND	67
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
Nitrobenzene-d5	56	46-120
2-Fluorobiphenyl	76	49-120
Terphenyl-d14	66	36-120

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**Polynuclear Aromatics by GC/MS**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC359855	Batch#:	118327
Matrix:	Soil	Prepared:	10/11/06
Units:	ug/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL
Naphthalene	ND	67
Acenaphthylene	ND	67
Acenaphthene	ND	67
Fluorene	ND	67
Phenanthrene	ND	67
Anthracene	ND	67
Fluoranthene	ND	67
Pyrene	ND	67
Benzo(a)anthracene	ND	67
Chrysene	ND	67
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
Nitrobenzene-d5	56	46-120
2-Fluorobiphenyl	53	49-120
Terphenyl-d14	52	36-120

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Polynuclear Aromatics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC359921	Batch#:	118343
Matrix:	Soil	Prepared:	10/12/06
Units:	ug/Kg	Analyzed:	10/13/06
Basis:	as received		

Analyte	Result	RL
Naphthalene	ND	66
Acenaphthylene	ND	66
Acenaphthene	ND	66
Fluorene	ND	66
Phenanthrene	ND	66
Anthracene	ND	66
Fluoranthene	ND	66
Pyrene	ND	66
Benzo(a)anthracene	ND	66
Chrysene	ND	66
Benzo(b)fluoranthene	ND	66
Benzo(k)fluoranthene	ND	66
Benzo(a)pyrene	ND	66
Indeno(1,2,3-cd)pyrene	ND	66
Dibenz(a,h)anthracene	ND	66
Benzo(g,h,i)perylene	ND	66

Surrogate	%RBC	Limits
Nitrobenzene-d5	59	46-120
2-Fluorobiphenyl	61	49-120
Terphenyl-d14	60	36-120

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Polynuclear Aromatics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC359856	Batch#:	118327
Matrix:	Soil	Prepared:	10/11/06
Units:	ug/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Naphthalene	1,686	1,202	71	49-120
Acenaphthylene	1,686	1,168	69	47-120
Acenaphthene	1,686	1,160	69	50-120
Fluorene	1,686	1,205	71	49-120
Phenanthrene	1,686	1,122	67	52-120
Anthracene	1,686	1,146	68	51-120
Fluoranthene	1,686	1,115	66	52-120
Pyrene	1,686	1,209	72	48-120
Benzo(a)anthracene	1,686	1,086	64	47-120
Chrysene	1,686	1,231	73	50-120
Benzo(b)fluoranthene	1,686	1,233	73	39-120
Benzo(k)fluoranthene	1,686	1,287	76	43-120
Benzo(a)pyrene	1,686	1,279	76	47-120
Indeno(1,2,3-cd)pyrene	1,686	1,340	79	39-122
Dibenz(a,h)anthracene	1,686	1,321	78	40-120
Benzo(g,h,i)perylene	1,686	1,404	83	35-124

Surrogate	%REC	Limits
Nitrobenzene-d5	67	46-120
2-Fluorobiphenyl	66	49-120
Terphenyl-d14	63	36-120

## Batch QC Report

## Polynuclear Aromatics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC359922	Batch#:	118343
Matrix:	Soil	Prepared:	10/12/06
Units:	ug/Kg	Analyzed:	10/13/06
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Naphthalene	1,684	942.9	56	49-120
Acenaphthylene	1,684	899.6	53	47-120
Acenaphthene	1,684	900.8	54	50-120
Fluorene	1,684	937.4	56	49-120
Phenanthrene	1,684	869.3	52	52-120
Anthracene	1,684	869.9	52	51-120
Fluoranthene	1,684	871.9	52	52-120
Pyrene	1,684	916.5	54	48-120
Benzo(a)anthracene	1,684	824.0	49	47-120
Chrysene	1,684	929.8	55	50-120
Benzo(b)fluoranthene	1,684	1,090	65	39-120
Benzo(k)fluoranthene	1,684	1,134	67	43-120
Benzo(a)pyrene	1,684	1,142	68	47-120
Indeno(1,2,3-cd)pyrene	1,684	1,214	72	39-122
Dibenz(a,h)anthracene	1,684	1,196	71	40-120
Benzo(g,h,i)perylene	1,684	1,240	74	35-124

Surrogate	%REC	Limits
Nitrobenzene-d5	51	46-120
2-Fluorobiphenyl	53	49-120
Terphenyl-d14	50	36-120

## Batch QC Report

## Polynuclear Aromatics by GC/MS

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8270C
Field ID:	ZZZZZZZZZZ	Batch#:	118327
MSS Lab ID:	189968-001	Sampled:	10/03/06
Matrix:	Soil	Received:	10/10/06
Units:	ug/Kg	Prepared:	10/11/06
Basis:	as received	Analyzed:	10/12/06
Diln Fac:	1.000		

Type: MS Lab ID: QC359857

Analyte	MSS	Result	Spiked	Result	%REC	Limits
Naphthalene		<18.26	1,674	1,040	62	44-120
Acenaphthylene		<22.62	1,674	993.6	59	46-120
Acenaphthene		<16.14	1,674	985.1	59	47-120
Fluorene		<16.75	1,674	1,022	61	46-120
Phenanthrene		<16.41	1,674	953.3	57	48-120
Anthracene		<16.37	1,674	950.5	57	47-120
Fluoranthene		<14.53	1,674	942.2	56	40-120
Pyrene		<12.49	1,674	999.3	60	41-126
Benzo(a)anthracene		<15.09	1,674	903.4	54	39-120
Chrysene		<16.98	1,674	1,026	61	42-120
Benzo(b)fluoranthene		<11.25	1,674	970.1	58	35-120
Benzo(k)fluoranthene		<17.13	1,674	1,052	63	37-120
Benzo(a)pyrene		<12.37	1,674	1,031	62	43-120
Indeno(1,2,3-cd)pyrene		<13.21	1,674	1,089	65	26-120
Dibenz(a,h)anthracene		<13.77	1,674	1,064	64	32-120
Benzo(q,h,i)perylene		<13.39	1,674	1,148	69	22-120

Surrogate	%REC	Limits
Nitrobenzene-d5	57	46-120
2-Fluorobiphenyl	54	49-120
Terphenyl-d14	52	36-120

Type: MSD Lab ID: QC359858

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Naphthalene	1,675	1,009	60	44-120	3	24
Acenaphthylene	1,675	961.6	57	46-120	3	23
Acenaphthene	1,675	941.0	56	47-120	5	26
Fluorene	1,675	982.2	59	46-120	4	26
Phenanthrene	1,675	909.8	54	48-120	5	26
Anthracene	1,675	906.3	54	47-120	5	25
Fluoranthene	1,675	899.6	54	40-120	5	30
Pyrene	1,675	940.7	56	41-126	6	33
Benzo(a)anthracene	1,675	846.7	51	39-120	7	29
Chrysene	1,675	953.0	57	42-120	7	30
Benzo(b)fluoranthene	1,675	918.4	55	35-120	6	32
Benzo(k)fluoranthene	1,675	994.9	59	37-120	6	31
Benzo(a)pyrene	1,675	971.4	58	43-120	6	27
Indeno(1,2,3-cd)pyrene	1,675	1,027	61	26-120	6	34
Dibenz(a,h)anthracene	1,675	1,000	60	32-120	6	29
Benzo(q,h,i)perylene	1,675	1,076	64	22-120	6	36

Surrogate	%REC	Limits
Nitrobenzene-d5	56	46-120
2-Fluorobiphenyl	53	49-120
Terphenyl-d14	49	36-120

RPD= Relative Percent Difference

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### Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-10A	Batch#:	118344
Lab ID:	190008-001	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	3.9	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	14	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	86	41-123
Decachlorobiphenyl	75	45-140

ND= Not Detected

RL= Reporting Limit

### Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-11A	Batch#:	118344
Lab ID:	190008-003	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	88	41-123
Decachlorobiphenyl	102	45-140

ND= Not Detected

RL= Reporting Limit

### Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-12A	Batch#:	118344
Lab ID:	190008-004	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	40 C	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	12	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	84	41-123
Decachlorobiphenyl	127	45-140

C= Presence confirmed, but RPD between columns exceeds 40%

ND= Not Detected

RL= Reporting Limit



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**Organochlorine Pesticides**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-1A	Batch#:	118344
Lab ID:	190008-007	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	84	41-123
Decachlorobiphenyl	86	45-140

ND= Not Detected

RL= Reporting Limit

### Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-2A	Batch#:	118344
Lab ID:	190008-009	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	82	41-123
Decachlorobiphenyl	88	45-140

ND= Not Detected

RL= Reporting Limit

### Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-3A	Batch#:	118344
Lab ID:	190008-011	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/14/06
Diln Fac:	5.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	8.6
beta-BHC	ND	8.6
gamma-BHC	ND	8.6
delta-BHC	ND	8.6
Heptachlor	ND	8.6
Aldrin	ND	8.6
Heptachlor epoxide	ND	8.6
Endosulfan I	ND	8.6
Dieldrin	ND	17
4,4'-DDE	ND	17
Endrin	ND	17
Endosulfan II	ND	17
Endosulfan sulfate	ND	17
4,4'-DDD	ND	17
Endrin aldehyde	ND	17
4,4'-DDT	ND #	17
alpha-Chlordane	ND	8.6
gamma-Chlordane	ND	8.6
Methoxychlor	ND	86
Toxaphene	ND	300

Surrogate	%REC	Limits
TCMX	105	41-123
Decachlorobiphenyl	129	45-140

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

### Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-4A	Batch#:	118344
Lab ID:	190008-013	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/14/06
Diln Fac:	5.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	8.4
beta-BHC	ND	8.4
gamma-BHC	ND	8.4
delta-BHC	ND	8.4
Heptachlor	ND	8.4
Aldrin	ND	8.4
Heptachlor epoxide	ND	8.4
Endosulfan I	ND	8.4
Dieldrin	ND	16
4,4'-DDE	ND	16
Endrin	ND	16
Endosulfan II	ND	16
Endosulfan sulfate	ND	16
4,4'-DDD	ND	16
Endrin aldehyde	ND	16
4,4'-DDT	ND #	16
alpha-Chlordane	ND	8.4
gamma-Chlordane	ND	8.4
Methoxychlor	ND	84
Toxaphene	ND	300

Surrogate	%REC	Limits
TCMX	98	41-123
Decachlorobiphenyl	95	45-140

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

### Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-5A	Batch#:	118344
Lab ID:	190008-015	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	82	41-123
Decachlorobiphenyl	77	45-140

ND= Not Detected

RL= Reporting Limit

### Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-6A	Batch#:	118344
Lab ID:	190008-017	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/14/06
Diln Fac:	3.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	5.1
beta-BHC	ND	5.1
gamma-BHC	ND	5.1
delta-BHC	ND	5.1
Heptachlor	ND	5.1
Aldrin	ND	5.1
Heptachlor epoxide	ND	5.1
Endosulfan I	ND	5.1
Dieldrin	ND	10
4,4'-DDE	ND	10
Endrin	ND	10
Endosulfan II	ND	10
Endosulfan sulfate	ND	10
4,4'-DDD	ND	10
Endrin aldehyde	ND	10
4,4'-DDT	ND #	10
alpha-Chlordane	6.1 C	5.1
gamma-Chlordane	ND	5.1
Methoxychlor	ND	51
Toxaphene	ND	180

Surrogate	%REC	Limits
TCMX	94	41-123
Decachlorobiphenyl	99	45-140

#= CCV drift outside limits; average CCV drift within limits per method requirements

C= Presence confirmed, but RPD between columns exceeds 40%

ND= Not Detected

RL= Reporting Limit

### Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-7A	Batch#:	118344
Lab ID:	190008-019	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	6.1 C	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	86	41-123
Decachlorobiphenyl	78	45-140

C= Presence confirmed, but RPD between columns exceeds 40%

ND= Not Detected

RL= Reporting Limit



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**Organochlorine Pesticides**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-7B	Batch#:	118344
Lab ID:	190008-020	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/14/06
Diln Fac:	3.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	5.1
beta-BHC	ND	5.1
gamma-BHC	ND	5.1
delta-BHC	ND	5.1
Heptachlor	ND	5.1
Aldrin	ND	5.1
Heptachlor epoxide	ND	5.1
Endosulfan I	ND	5.1
Dieldrin	ND	9.9
4,4'-DDE	ND	9.9
Endrin	ND	9.9
Endosulfan II	ND	9.9
Endosulfan sulfate	ND	9.9
4,4'-DDD	ND	9.9
Endrin aldehyde	ND	9.9
4,4'-DDT	ND #	9.9
alpha-Chlordane	ND	5.1
gamma-Chlordane	ND	5.1
Methoxychlor	ND	51
Toxaphene	ND	180

Surrogate	%REC	Limits
TCMX	48	41-123
Decachlorobiphenyl	58	45-140

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

### Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-8A	Batch#:	118406
Lab ID:	190008-021	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/13/06
Basis:	as received	Analyzed:	10/18/06
Diln Fac:	1.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	69	41-123
Decachlorobiphenyl	89	45-140

ND= Not Detected

RL= Reporting Limit

### Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-9A	Batch#:	118406
Lab ID:	190008-023	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/13/06
Basis:	as received	Analyzed:	10/18/06
Diln Fac:	1.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	61

Surrogate	%REC	Limits
TCMX	92	41-123
Decachlorobiphenyl	96	45-140

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC359925	Batch#:	118344
Matrix:	Soil	Prepared:	10/12/06
Units:	ug/Kg	Analyzed:	10/13/06
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	61

Surrogate	REC	Limits
TCMX	82	41-123
Decachlorobiphenyl	80	45-140

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC360196	Batch#:	118406
Matrix:	Soil	Prepared:	10/13/06
Units:	ug/Kg	Analyzed:	10/18/06
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	61

Surrogate	%REC	Limits
TCMX	69	41-123
Decachlorobiphenyl	99	45-140

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**Organochlorine Pesticides**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC359929	Batch#:	118344
Matrix:	Soil	Prepared:	10/12/06
Units:	ug/Kg	Analyzed:	10/13/06
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.42	9.258	69	42-124
Heptachlor	13.42	9.513	71	43-129
Aldrin	13.42	9.436	70	46-122
Dieldrin	26.84	19.24	72	49-130
Endrin	26.84	18.30	68	48-132
4,4'-DDT	26.84	17.94	67	45-142

Surrogate	%REC	Limits
TCMX	66	41-123
Decachlorobiphenyl	68	45-140

## Batch QC Report

## Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC360203	Batch#:	118406
Matrix:	Soil	Prepared:	10/13/06
Units:	ug/Kg	Analyzed:	10/18/06
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.51	11.94	88	42-124
Heptachlor	13.51	12.13	90	43-129
Aldrin	13.51	12.48	92	46-122
Dieldrin	27.03	26.45	98	49-130
Endrin	27.03	22.46	83	48-132
4, 4'-DDT	27.03	27.65	102	45-142

Surrogate	%REC	Limits
TCMX	81	41-123
Decachlorobiphenyl	93	45-140



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## Batch QC Report

## Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	HA-12A	Batch#:	118344
MSS Lab ID:	190008-004	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3620B  
Lab ID: QC359930

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.2766	13.33	11.43	86	47-120
Heptachlor	<0.2082	13.33	12.41	93	47-127
Aldrin	<0.2013	13.33	11.04	83	46-120
Dieldrin	<0.3579	26.67	22.97	86	48-125
Endrin	<0.3956	26.67	21.20	79	49-130
4,4'-DDT	12.13	26.67	30.34	68	31-145

Surrogate	%REC	Limits
TCMX	86	41-123
Decachlorobiphenyl	106	45-140

Type: MSD Cleanup Method: EPA 3620B  
Lab ID: QC359931

Analyte	Spiked	Result	%REC	Limits	RPD Lim
gamma-BHC	13.23	11.47	87	47-120	1 45
Heptachlor	13.23	12.12	92	47-127	2 43
Aldrin	13.23	10.75	81	46-120	2 42
Dieldrin	26.46	23.16	88	48-125	2 41
Endrin	26.46	21.40	81	49-130	2 47
4,4'-DDT	26.46	37.07	94	31-145	21 52

Surrogate	%REC	Limits
TCMX	89	41-123
Decachlorobiphenyl	110	45-140

RPD= Relative Percent Difference

## Batch QC Report

## Organochlorine Pesticides

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8081A
Field ID:	ZZZZZZZZZZ	Batch#:	118406
MSS Lab ID:	190039-004	Sampled:	10/11/06
Matrix:	Soil	Received:	10/12/06
Units:	ug/Kg	Prepared:	10/13/06
Basis:	as received	Analyzed:	10/18/06
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3620B  
 Lab ID: QC360204

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.2770	13.41	12.72	95	47-120
Heptachlor	<0.2085	13.41	12.61	94	47-127
Aldrin	<0.2015	13.41	12.64	94	46-120
Dieldrin	<0.3584	26.83	26.02	97	48-125
Endrin	<0.3961	26.83	25.13	94	49-130
4,4'-DDT	1.360	26.83	28.30 #	100	31-145

Surrogate	%REC	Limits
TCMX	76	41-123
Decachlorobiphenyl	96	45-140

Type: MSD Cleanup Method: EPA 3620B  
 Lab ID: QC360205

Analyte	Spiked	Result	%REC	Limits	RPD Lim
gamma-BHC	13.41	11.19	83	47-120	13 45
Heptachlor	13.41	12.01	90	47-127	5 43
Aldrin	13.41	11.72	87	46-120	7 42
Dieldrin	26.82	24.58	92	48-125	6 41
Endrin	26.82	23.73	88	49-130	6 47
4,4'-DDT	26.82	24.98 #	88	31-145	12 52

Surrogate	%REC	Limits
TCMX	73	41-123
Decachlorobiphenyl	90	45-140

#= CCV drift outside limits; average CCV drift within limits per method requirements  
 RPD= Relative Percent Difference



Curtis &amp; Tompkins, Ltd.

**Polychlorinated Biphenyls (PCBs)**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8082
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Sampled:	10/10/06
Basis:	as received	Received:	10/11/06

Field ID: HA-10A Prepared: 10/12/06  
Type: SAMPLE Analyzed: 10/12/06  
Lab ID: 190008-001 Cleanup Method: EPA 3665A  
Batch#: 118344

Analyte	Result	RL
Aroclor-1016	ND	9.6
Aroclor-1221	ND	19
Aroclor-1232	ND	9.6
Aroclor-1242	ND	9.6
Aroclor-1248	ND	9.6
Aroclor-1254	ND	9.6
Aroclor-1260	ND	9.6

Surrogate	%REC	Limits
TCMX	132	61-140
Decachlorobiphenyl	113	50-155

Field ID: HA-11A Prepared: 10/12/06  
Type: SAMPLE Analyzed: 10/12/06  
Lab ID: 190008-003 Cleanup Method: EPA 3665A  
Batch#: 118344

Analyte	Result	RL
Aroclor-1016	ND	9.5
Aroclor-1221	ND	19
Aroclor-1232	ND	9.5
Aroclor-1242	ND	9.5
Aroclor-1248	ND	9.5
Aroclor-1254	ND	9.5
Aroclor-1260	ND	9.5

Surrogate	%REC	Limits
TCMX	137	61-140
Decachlorobiphenyl	122	50-155

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Polychlorinated Biphenyls (PCBs)**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8082
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Sampled:	10/10/06
Basis:	as received	Received:	10/11/06

Field ID: HA-12A Prepared: 10/12/06  
Type: SAMPLE Analyzed: 10/12/06  
Lab ID: 190008-004 Cleanup Method: EPA 3665A  
Batch#: 118344

Analyte	Result	RL
Aroclor-1016	ND	9.5
Aroclor-1221	ND	19
Aroclor-1232	ND	9.5
Aroclor-1242	ND	9.5
Aroclor-1248	ND	9.5
Aroclor-1254	ND	9.5
Aroclor-1260	ND	9.5

Surrogate	%REC	Limits
TCMX	139	61-140
Decachlorobiphenyl	127	50-155

Field ID: HA-1A Prepared: 10/12/06  
Type: SAMPLE Analyzed: 10/13/06  
Lab ID: 190008-007 Cleanup Method: EPA 3665A  
Batch#: 118344

Analyte	Result	RL
Aroclor-1016	ND	9.6
Aroclor-1221	ND	19
Aroclor-1232	ND	9.6
Aroclor-1242	ND	9.6
Aroclor-1248	ND	9.6
Aroclor-1254	ND	9.6
Aroclor-1260	ND	9.6

Surrogate	%REC	Limits
TCMX	123	61-140
Decachlorobiphenyl	113	50-155

ND= Not Detected

RL= Reporting Limit

### Polychlorinated Biphenyls (PCBs)

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8082
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Sampled:	10/10/06
Basis:	as received	Received:	10/11/06

Field ID: HA-2A                      Prepared: 10/12/06  
 Type: SAMPLE                          Analyzed: 10/13/06  
 Lab ID: 190008-009                    Cleanup Method: EPA 3665A  
 Batch#: 118344

Analyte	Result	RL
Aroclor-1016	ND	9.5
Aroclor-1221	ND	19
Aroclor-1232	ND	9.5
Aroclor-1242	ND	9.5
Aroclor-1248	ND	9.5
Aroclor-1254	ND	9.5
Aroclor-1260	ND	9.5

Surrogate	%REC	Limits
TCMX	123	61-140
Decachlorobiphenyl	111	50-155

Field ID: HA-3A                      Prepared: 10/12/06  
 Type: SAMPLE                          Analyzed: 10/13/06  
 Lab ID: 190008-011                    Cleanup Method: EPA 3665A  
 Batch#: 118344

Analyte	Result	RL
Aroclor-1016	ND	9.7
Aroclor-1221	ND	19
Aroclor-1232	ND	9.7
Aroclor-1242	ND	9.7
Aroclor-1248	ND	9.7
Aroclor-1254	ND	9.7
Aroclor-1260	ND	9.7

Surrogate	%REC	Limits
TCMX	104	61-140
Decachlorobiphenyl	52	50-155

ND= Not Detected

RL= Reporting Limit

**Polychlorinated Biphenyls (PCBs)**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8082
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Sampled:	10/10/06
Basis:	as received	Received:	10/11/06

Field ID: HA-4A                      Prepared: 10/12/06  
 Type: SAMPLE                          Analyzed: 10/13/06  
 Lab ID: 190008-013                  Cleanup Method: EPA 3665A  
 Batch#: 118344

Analyte	Result	RL
Aroclor-1016	ND	9.5
Aroclor-1221	ND	19
Aroclor-1232	ND	9.5
Aroclor-1242	ND	9.5
Aroclor-1248	ND	9.5
Aroclor-1254	ND	9.5
Aroclor-1260	46	9.5

Surrogate	%REC	Limits
TCMX	110	61-140
Decachlorobiphenyl	55	50-155

Field ID: HA-5A                      Prepared: 10/12/06  
 Type: SAMPLE                          Analyzed: 10/13/06  
 Lab ID: 190008-015                  Cleanup Method: EPA 3665A  
 Batch#: 118344

Analyte	Result	RL
Aroclor-1016	ND	9.6
Aroclor-1221	ND	19
Aroclor-1232	ND	9.6
Aroclor-1242	ND	9.6
Aroclor-1248	ND	9.6
Aroclor-1254	ND	9.6
Aroclor-1260	ND	9.6

Surrogate	%REC	Limits
TCMX	130	61-140
Decachlorobiphenyl	125	50-155

ND= Not Detected

RL= Reporting Limit

### Polychlorinated Biphenyls (PCBs)

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8082
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Sampled:	10/10/06
Basis:	as received	Received:	10/11/06

Field ID: HA-6A                      Prepared: 10/12/06  
 Type: SAMPLE                          Analyzed: 10/13/06  
 Lab ID: 190008-017                  Cleanup Method: EPA 3665A  
 Batch#: 118344

Analyte	Result	RL
Aroclor-1016	ND	9.7
Aroclor-1221	ND	19
Aroclor-1232	ND	9.7
Aroclor-1242	ND	9.7
Aroclor-1248	ND	9.7
Aroclor-1254	ND	9.7
Aroclor-1260	18	9.7

Surrogate	%REC	Limits
TCMX	124	61-140
Decachlorobiphenyl	92	50-155

Field ID: HA-7A                      Prepared: 10/12/06  
 Type: SAMPLE                          Analyzed: 10/13/06  
 Lab ID: 190008-019                  Cleanup Method: EPA 3665A  
 Batch#: 118344

Analyte	Result	RL
Aroclor-1016	ND	9.6
Aroclor-1221	ND	19
Aroclor-1232	ND	9.6
Aroclor-1242	ND	9.6
Aroclor-1248	ND	9.6
Aroclor-1254	ND	9.6
Aroclor-1260	ND	9.6

Surrogate	%REC	Limits
TCMX	132	61-140
Decachlorobiphenyl	124	50-155

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Polychlorinated Biphenyls (PCBs)**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8082
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Sampled:	10/10/06
Basis:	as received	Received:	10/11/06

Field ID: HA-8A Prepared: 10/13/06  
Type: SAMPLE Analyzed: 10/13/06  
Lab ID: 190008-021 Cleanup Method: EPA 3665A  
Batch#: 118406

Analyte	Result	RL
Aroclor-1016	ND	9.6
Aroclor-1221	ND	19
Aroclor-1232	ND	9.6
Aroclor-1242	ND	9.6
Aroclor-1248	ND	9.6
Aroclor-1254	ND	9.6
Aroclor-1260	ND	9.6

Surrogate	%REC	Limits
TCMX	91	61-140
Decachlorobiphenyl	81	50-155

Field ID: HA-9A Prepared: 10/13/06  
Type: SAMPLE Analyzed: 10/13/06  
Lab ID: 190008-023 Cleanup Method: EPA 3665A  
Batch#: 118406

Analyte	Result	RL
Aroclor-1016	ND	9.7
Aroclor-1221	ND	19
Aroclor-1232	ND	9.7
Aroclor-1242	ND	9.7
Aroclor-1248	ND	9.7
Aroclor-1254	ND	9.7
Aroclor-1260	ND	9.7

Surrogate	%REC	Limits
TCMX	89	61-140
Decachlorobiphenyl	83	50-155

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Polychlorinated Biphenyls (PCBs)**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8082
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Sampled:	10/10/06
Basis:	as received	Received:	10/11/06

Type: BLANK Prepared: 10/12/06  
Lab ID: QC359925 Analyzed: 10/12/06  
Batch#: 118344 Cleanup Method: EPA 3665A

Analyte	Result	RL
Aroclor-1016	ND	9.7
Aroclor-1221	ND	19
Aroclor-1232	ND	9.7
Aroclor-1242	ND	9.7
Aroclor-1248	ND	9.7
Aroclor-1254	ND	9.7
Aroclor-1260	ND	9.7

Surrogate	%REC	Limits
TCMX	124	61-140
Decachlorobiphenyl	106	50-155

Type: BLANK Prepared: 10/13/06  
Lab ID: QC360196 Analyzed: 10/13/06  
Batch#: 118406 Cleanup Method: EPA 3665A

Analyte	Result	RL
Aroclor-1016	ND	9.7
Aroclor-1221	ND	19
Aroclor-1232	ND	9.7
Aroclor-1242	ND	9.7
Aroclor-1248	ND	9.7
Aroclor-1254	ND	9.7
Aroclor-1260	ND	9.7

Surrogate	%REC	Limits
TCMX	107	61-140
Decachlorobiphenyl	90	50-155

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Polychlorinated Biphenyls (PCBs)

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC359926	Batch#:	118344
Matrix:	Soil	Prepared:	10/12/06
Units:	ug/Kg	Analyzed:	10/12/06
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1254	167.2	207.0	124	60-142

Surrogate	%REC	Limits
TCMX	127	61-140
Decachlorobiphenyl	124	50-155

## Batch QC Report

**Polychlorinated Biphenyls (PCBs)**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC360200	Batch#:	118406
Matrix:	Soil	Prepared:	10/13/06
Units:	ug/Kg	Analyzed:	10/13/06
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1254	164.4	189.9	116	60-142

Surrogate	%REC	Limits
TCMX	125	61-140
Decachlorobiphenyl	119	50-155

## Batch QC Report

**Polychlorinated Biphenyls (PCBs)**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8082
Field ID:	HA-11A	Batch#:	118344
MSS Lab ID:	190008-003	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	ug/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/12/06
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3665A  
 Lab ID: QC359927

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1254	<2.056	166.2	213.8	129	60-166

Surrogate	%REC	Limits
TCMX	139	61-140
Decachlorobiphenyl	123	50-155

Type: MSD Cleanup Method: EPA 3665A  
 Lab ID: QC359928

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1254	165.8	162.7	98	60-166	27	38

Surrogate	%REC	Limits
TCMX	125	61-140
Decachlorobiphenyl	90	50-155

RPD= Relative Percent Difference

## Batch QC Report

**Polychlorinated Biphenyls (PCBs)**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B
Project#:	2842	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	118406
MSS Lab ID:	189983-001	Sampled:	10/06/06
Matrix:	Soil	Received:	10/10/06
Units:	ug/Kg	Prepared:	10/13/06
Basis:	as received	Analyzed:	10/13/06
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3665A  
 Lab ID: QC360201

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1254	40.26	168.8	152.7	67	60-166

Surrogate	%REC	Limits
TCMX	89	61-140
Decachlorobiphenyl	86	50-155

Type: MSD Cleanup Method: EPA 3665A  
 Lab ID: QC360202

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1254	165.8	158.6	71	60-166	5	38

Surrogate	%REC	Limits
TCMX	89	61-140
Decachlorobiphenyl	91	50-155

RPD= Relative Percent Difference

**Mercury by Cold Vapor AA**

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2842	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	118372
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06
Basis:	as received	Prepared:	10/12/06
Diln Fac:	1.000	Analyzed:	10/12/06

Field ID	Type	Lab ID	Result	RL
HA-10B	SAMPLE	190008-002	0.038	0.020
HA-11B	SAMPLE	190008-005	0.053	0.020
HA-12B	SAMPLE	190008-006	0.048	0.020
HA-1B	SAMPLE	190008-008	0.023	0.020
	BLANK	QC360057	ND	0.020

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Mercury by Cold Vapor AA

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2842	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	118372
MSS Lab ID:	190010-001	Sampled:	09/20/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/12/06

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC360058		0.5000	0.5130	103	80-120		
BSD	QC360059		0.5000	0.5120	102	80-120	0	20
MS	QC360061	<0.005985	0.4808	0.4798	100	54-154		
MSD	QC360062		0.4808	0.4933	103	54-154	3	28

RPD= Relative Percent Difference

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**California Title 26 Metals**

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-10A	Diln Fac:	1.000
Lab ID:	190008-001	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	118335	10/11/06	EPA 3050B	EPA 6010B
Arsenic	2.9	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Barium	140	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.23	0.10	118335	10/11/06	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Chromium	52	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Cobalt	13	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Copper	39	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Lead	37	0.15	118335	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.059	0.020	118372	10/12/06	METHOD	EPA 7471A
Molybdenum	1.2	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Nickel	120	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Vanadium	24	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Zinc	82	1.0	118335	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

## California Title 26 Metals

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-11A	Diln Fac:	1.000
Lab ID:	190008-003	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	118335	10/11/06	EPA 3050B	EPA 6010B
Arsenic	3.3	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Barium	210	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.27	0.10	118335	10/11/06	EPA 3050B	EPA 6010B
Cadmium	0.33	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Chromium	60	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Cobalt	12	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Copper	49	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Lead	41	0.15	118335	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.045	0.020	118372	10/12/06	METHOD	EPA 7471A
Molybdenum	2.4	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Nickel	100	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Vanadium	29	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Zinc	97	1.0	118335	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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**California Title 26 Metals**

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-12A	Diln Fac:	1.000
Lab ID:	190008-004	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	118335	10/11/06	EPA 3050B	EPA 6010B
Arsenic	3.1	0.26	118335	10/11/06	EPA 3050B	EPA 6010B
Barium	250	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.26	0.10	118335	10/11/06	EPA 3050B	EPA 6010B
Cadmium	0.32	0.26	118335	10/11/06	EPA 3050B	EPA 6010B
Chromium	62	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Cobalt	15	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Copper	51	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Lead	51	0.15	118335	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.042	0.020	118372	10/12/06	METHOD	EPA 7471A
Molybdenum	2.2	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Nickel	130	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.26	118335	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.26	118335	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.26	118335	10/11/06	EPA 3050B	EPA 6010B
Vanadium	26	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Zinc	99	1.0	118335	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

**California Title 26 Metals**

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-1A	Diln Fac:	1.000
Lab ID:	190008-007	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	118335	10/11/06	EPA 3050B	EPA 6010B
Arsenic	4.6	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Barium	140	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.21	0.10	118335	10/11/06	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Chromium	47	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Cobalt	11	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Copper	28	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Lead	24	0.15	118335	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.040	0.020	118372	10/12/06	METHOD	EPA 7471A
Molybdenum	1.2	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Nickel	81	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Vanadium	24	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Zinc	68	1.0	118335	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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**California Title 26 Metals**

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-2A	Diln Fac:	1.000
Lab ID:	190008-009	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	118335	10/11/06	EPA 3050B	EPA 6010B
Arsenic	4.1	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Barium	180	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.25	0.10	118335	10/11/06	EPA 3050B	EPA 6010B
Cadmium	2.4	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Chromium	61	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Cobalt	12	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Copper	62	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Lead	110	0.15	118335	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.098	0.020	118374	10/12/06	METHOD	EPA 7471A
Molybdenum	5.0	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Nickel	85	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Vanadium	31	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Zinc	160	1.0	118335	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

## California Title 26 Metals

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-2B	Basis:	as received
Lab ID:	190008-010	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06

Analyte	Result	RL	Batch# Prepared	Analyzed	Prep	Analysis
Antimony	ND	3.0	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Arsenic	3.3	0.26	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Barium	230	0.50	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Beryllium	0.38	0.10	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cadmium	1.3	0.26	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Chromium	72	0.50	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cobalt	20	1.0	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Copper	37	0.50	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Lead	16	0.16	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Mercury	0.034	0.020	118374 10/12/06	10/12/06	METHOD	EPA 7471A
Molybdenum	ND	1.0	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Nickel	180	1.0	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Selenium	ND	0.26	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Silver	ND	0.26	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Thallium	ND	0.26	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Vanadium	33	0.50	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Zinc	57	1.0	118335 10/11/06	10/26/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**California Title 26 Metals**

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-3A	Diln Fac:	1.000
Lab ID:	190008-011	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	118335	10/11/06	EPA 3050B	EPA 6010B
Arsenic	3.6	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Barium	170	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.23	0.10	118335	10/11/06	EPA 3050B	EPA 6010B
Cadmium	3.9	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Chromium	79	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Cobalt	10	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Copper	77	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Lead	160	0.15	118335	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.14	0.020	118374	10/12/06	METHOD	EPA 7471A
Molybdenum	12	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Nickel	86	1.0	118335	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118335	10/11/06	EPA 3050B	EPA 6010B
Vanadium	24	0.50	118335	10/11/06	EPA 3050B	EPA 6010B
Zinc	220	1.0	118335	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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**California Title 26 Metals**

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-3B	Basis:	as received
Lab ID:	190008-012	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	3.0	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Arsenic	3.1	0.25	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Barium	170	0.50	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Beryllium	0.23	0.10	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cadmium	3.0	0.25	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Chromium	59	0.50	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cobalt	12	1.0	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Copper	62	0.50	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Lead	64	0.15	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Mercury	0.071	0.020	118374	10/12/06	10/12/06	METHOD	EPA 7471A
Molybdenum	7.1	1.0	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Nickel	89	1.0	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Silver	0.25	0.25	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Vanadium	32	0.50	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Zinc	150	1.0	118335	10/11/06	10/26/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

## California Title 26 Metals

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-4A	Diln Fac:	1.000
Lab ID:	190008-013	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	118336	10/11/06	EPA 3050B	EPA 6010B
Arsenic	3.7	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Barium	170	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.25	0.10	118336	10/11/06	EPA 3050B	EPA 6010B
Cadmium	0.66	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Chromium	58	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Cobalt	11	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Copper	38	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Lead	56	0.15	118336	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.083	0.020	118374	10/12/06	METHOD	EPA 7471A
Molybdenum	2.0	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Nickel	92	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Vanadium	26	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Zinc	130	1.0	118336	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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## California Title 26 Metals

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-4B	Basis:	as received
Lab ID:	190008-014	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	3.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Arsenic	4.9	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Barium	230	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Beryllium	0.38	0.10	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cadmium	3.3	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Chromium	73	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cobalt	16	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Copper	82	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Lead	59	0.15	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Mercury	0.084	0.020	118374	10/12/06	10/12/06	METHOD	EPA 7471A
Molybdenum	6.1	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Nickel	120	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Silver	0.33	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Vanadium	38	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Zinc	290	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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**California Title 26 Metals**

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-5A	Diln Fac:	1.000
Lab ID:	190008-015	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	118336	10/11/06	EPA 3050B	EPA 6010B
Arsenic	3.8	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Barium	190	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.30	0.10	118336	10/11/06	EPA 3050B	EPA 6010B
Cadmium	1.3	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Chromium	87	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Cobalt	14	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Copper	49	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Lead	150	0.15	118336	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.090	0.020	118374	10/12/06	METHOD	EPA 7471A
Molybdenum	1.9	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Nickel	120	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Vanadium	29	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Zinc	130	1.0	118336	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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**California Title 26 Metals**

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-5B	Basis:	as received
Lab ID:	190008-016	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06

Analyte	Result	RL	Batch# Prepared	Analyzed	Prep	Analysis
Antimony	ND	3.0	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Arsenic	3.9	0.25	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Barium	170	0.50	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Beryllium	0.28	0.10	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cadmium	2.4	0.25	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Chromium	67	0.50	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cobalt	15	1.0	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Copper	50	0.50	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Lead	70	0.15	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Mercury	0.063	0.020	118374 10/12/06	10/12/06	METHOD	EPA 7471A
Molybdenum	1.9	1.0	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Nickel	130	1.0	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Vanadium	31	0.50	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B
Zinc	130	1.0	118336 10/11/06	10/26/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

## California Title 26 Metals

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-6A	Diln Fac:	1.000
Lab ID:	190008-017	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	118336	10/11/06	EPA 3050B	EPA 6010B
Arsenic	5.1	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Barium	340	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.33	0.10	118336	10/11/06	EPA 3050B	EPA 6010B
Cadmium	1.4	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Chromium	73	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Cobalt	16	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Copper	57	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Lead	73	0.15	118336	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.046	0.021	118374	10/12/06	METHOD	EPA 7471A
Molybdenum	2.2	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Nickel	140	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Vanadium	30	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Zinc	180	1.0	118336	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

**California Title 26 Metals**

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-6B	Basis:	as received
Lab ID:	190008-018	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	3.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Arsenic	5.4	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Barium	370	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Beryllium	0.31	0.10	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cadmium	2.8	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Chromium	68	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cobalt	15	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Copper	65	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Lead	88	0.15	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Mercury	0.058	0.020	118374	10/12/06	10/12/06	METHOD	EPA 7471A
Molybdenum	2.9	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Nickel	120	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Vanadium	33	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Zinc	220	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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## California Title 26 Metals

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-7A	Diln Fac:	1.000
Lab ID:	190008-019	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	118336	10/11/06	EPA 3050B	EPA 6010B
Arsenic	7.4	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Barium	200	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.25	0.10	118336	10/11/06	EPA 3050B	EPA 6010B
Cadmium	2.0	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Chromium	59	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Cobalt	10	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Copper	57	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Lead	100	0.15	118336	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.051	0.021	118374	10/12/06	METHOD	EPA 7471A
Molybdenum	6.2	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Nickel	78	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Vanadium	24	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Zinc	210	1.0	118336	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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## California Title 26 Metals

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-7B	Basis:	as received
Lab ID:	190008-020	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	3.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Arsenic	6.6	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Barium	300	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Beryllium	0.23	0.10	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cadmium	2.9	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Chromium	56	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cobalt	9.8	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Copper	87	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Lead	110	0.15	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Mercury	0.049	0.020	118374	10/12/06	10/12/06	METHOD	EPA 7471A
Molybdenum	5.3	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Nickel	75	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Vanadium	26	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Zinc	210	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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**California Title 26 Metals**

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-8A	Diln Fac:	1.000
Lab ID:	190008-021	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	118336	10/11/06	EPA 3050B	EPA 6010B
Arsenic	3.3	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Barium	240	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.36	0.10	118336	10/11/06	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Chromium	70	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Cobalt	18	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Copper	32	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Lead	8.5	0.15	118336	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.034	0.021	118374	10/12/06	METHOD	EPA 7471A
Molybdenum	ND	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Nickel	170	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118336	10/11/06	EPA 3050B	EPA 6010B
Vanadium	30	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Zinc	63	1.0	118336	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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## California Title 26 Metals

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-8B	Basis:	as received
Lab ID:	190008-022	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg		

Analyte	Result	RL	Diln	Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	3.0	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Arsenic	3.3	0.25	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Barium	120	0.50	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Beryllium	0.20	0.10	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cadmium	1.0	0.25	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Chromium	50	0.50	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cobalt	12	1.0	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Copper	31	0.50	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Lead	19	0.15	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Mercury	0.075	0.020	1.000		118374	10/12/06	10/12/06	METHOD	EPA 7471A
Molybdenum	ND	1.0	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Nickel	110	1.0	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Vanadium	26	0.50	1.000		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Zinc	490	8.5	10.00		118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

**California Title 26 Metals**

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-9A	Diln Fac:	1.000
Lab ID:	190008-023	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	118336	10/11/06	EPA 3050B	EPA 6010B
Arsenic	3.3	0.26	118336	10/11/06	EPA 3050B	EPA 6010B
Barium	240	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.30	0.10	118336	10/11/06	EPA 3050B	EPA 6010B
Cadmium	ND	0.26	118336	10/11/06	EPA 3050B	EPA 6010B
Chromium	63	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Cobalt	16	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Copper	35	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Lead	24	0.15	118336	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.054	0.020	118374	10/12/06	METHOD	EPA 7471A
Molybdenum	1.1	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Nickel	150	1.0	118336	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.26	118336	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.26	118336	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.26	118336	10/11/06	EPA 3050B	EPA 6010B
Vanadium	27	0.50	118336	10/11/06	EPA 3050B	EPA 6010B
Zinc	120	1.0	118336	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

## California Title 26 Metals

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-9B	Basis:	as received
Lab ID:	190008-024	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/10/06
Units:	mg/Kg	Received:	10/11/06

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	3.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Arsenic	3.6	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Barium	210	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Beryllium	0.26	0.10	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cadmium	1.1	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Chromium	62	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Cobalt	15	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Copper	32	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Lead	14	0.15	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Mercury	0.097	0.020	118374	10/12/06	10/12/06	METHOD	EPA 7471A
Molybdenum	ND	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Nickel	140	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Vanadium	29	0.50	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B
Zinc	100	1.0	118336	10/11/06	10/26/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

**California Title 26 Metals**

Lab #:	190008	Project#:	2842
Client:	SOMA Environmental Engineering Inc.	Location:	Wente
Field ID:	HA-13 COMPOSITE	Basis:	as received
Lab ID:	190008-027	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Prep	Analysis
Antimony	ND	3.0	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Arsenic	2.5	0.25	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Barium	130	0.50	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Beryllium	0.19	0.10	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Chromium	81	0.50	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Cobalt	38	1.0	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Copper	37	0.50	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Lead	10	0.15	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Mercury	0.026	0.020	1.000	118374	10/12/06	METHOD	EPA 7471A
Molybdenum	ND	1.0	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Nickel	730	1.3	5.000	118336	10/11/06	EPA 3050B	EPA 6010B
Selenium	ND	0.25	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Thallium	ND	0.25	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Vanadium	21	0.50	1.000	118336	10/11/06	EPA 3050B	EPA 6010B
Zinc	55	1.0	1.000	118336	10/11/06	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

## California Title 26 Metals

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3050B
Project#:	2842	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC359886	Batch#:	118335
Matrix:	Soil	Prepared:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL
Antimony	ND	3.0
Arsenic	ND	0.25
Barium	ND	0.50
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.50
Cobalt	ND	1.0
Copper	ND	0.50
Lead	ND	0.15
Molybdenum	ND	1.0
Nickel	ND	1.0
Selenium	ND	0.25
Silver	ND	0.25
Thallium	ND	0.25
Vanadium	ND	0.50
Zinc	ND	1.0

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

## California Title 26 Metals

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3050B
Project#:	2842	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC359893	Batch#:	118336
Matrix:	Soil	Prepared:	10/11/06
Units:	mg/Kg	Analyzed:	10/12/06
Basis:	as received		

Analyte	Result	RL
Antimony	ND	3.0
Arsenic	ND	0.25
Barium	ND	0.50
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.50
Cobalt	ND	1.0
Copper	ND	0.50
Lead	ND	0.15
Molybdenum	ND	1.0
Nickel	ND	1.0
Selenium	ND	0.25
Silver	ND	0.25
Thallium	ND	0.25
Vanadium	ND	0.50
Zinc	ND	1.0

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

California Title 26 Metals			
Result	RL		
ND	0.020		

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

## California Title 26 Metals

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2842	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC360064	Batch#:	118374
Matrix:	Soil	Prepared:	10/12/06
Units:	mg/Kg	Analyzed:	10/12/06

Result	RL
ND	0.020

ND= Not Detected

RL= Reporting Limit

Page 1 of 1

## Batch QC Report

California Title 26 Metals					
Lab #:	190008	Location:	Wente		
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3050B		
Project#:	2842	Analysis:	EPA 6010B		
Matrix:	Soil	Batch#:	118335		
Units:	mg/Kg	Prepared:	10/11/06		
Basis:	as received	Analyzed:	10/12/06		
Diln Fac:	1.000				

Type: BS Lab ID: QC359887

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	101.0	101	80-120
Arsenic	50.00	51.19	102	80-120
Barium	100.0	101.7	102	80-120
Beryllium	2.500	2.686	107	80-120
Cadmium	10.00	10.38	104	80-120
Chromium	100.0	100.6	101	80-120
Cobalt	25.00	24.40	98	80-120
Copper	12.50	12.43	99	80-120
Lead	100.0	100.4	100	80-120
Molybdenum	20.00	20.99	105	80-120
Nickel	25.00	24.98	100	80-120
Selenium	50.00	50.89	102	80-120
Silver	10.00	9.886	99	80-120
Thallium	50.00	51.27	103	80-120
Vanadium	25.00	25.57	102	80-120
Zinc	25.00	25.41	102	80-120

Type: BSD Lab ID: QC359888

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	102.3	102	80-120	1	20
Arsenic	50.00	51.75	103	80-120	1	20
Barium	100.0	102.4	102	80-120	1	20
Beryllium	2.500	2.692	108	80-120	0	20
Cadmium	10.00	10.50	105	80-120	1	20
Chromium	100.0	101.2	101	80-120	1	20
Cobalt	25.00	24.71	99	80-120	1	20
Copper	12.50	12.53	100	80-120	1	20
Lead	100.0	101.5	102	80-120	1	20
Molybdenum	20.00	21.20	106	80-120	1	20
Nickel	25.00	25.13	101	80-120	1	20
Selenium	50.00	51.44	103	80-120	1	20
Silver	10.00	9.910	99	80-120	0	20
Thallium	50.00	52.05	104	80-120	2	20
Vanadium	25.00	25.69	103	80-120	0	20
Zinc	25.00	25.63	103	80-120	1	20

## Batch QC Report

## California Title 26 Metals

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3050B
Project#:	2842	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	118336
Units:	mg/Kg	Prepared:	10/11/06
Basis:	as received	Analyzed:	10/12/06
Diln Fac:	1.000		

Type: BS Lab ID: QC359894

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	98.33	98	80-120
Arsenic	50.00	49.76	100	80-120
Barium	100.0	99.18	99	80-120
Beryllium	2.500	2.694	108	80-120
Cadmium	10.00	10.08	101	80-120
Chromium	100.0	97.95	98	80-120
Cobalt	25.00	23.90	96	80-120
Copper	12.50	12.09	97	80-120
Lead	100.0	96.07	96	80-120
Molybdenum	20.00	20.21	101	80-120
Nickel	25.00	24.23	97	80-120
Selenium	50.00	49.69	99	80-120
Silver	10.00	9.667	97	80-120
Thallium	50.00	49.70	99	80-120
Vanadium	25.00	24.85	99	80-120
Zinc	25.00	24.74	99	80-120

Type: BSD Lab ID: QC359895

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Antimony	100.0	99.58	100	80-120	1 20
Arsenic	50.00	50.38	101	80-120	1 20
Barium	100.0	100.2	100	80-120	1 20
Beryllium	2.500	2.720	109	80-120	1 20
Cadmium	10.00	10.18	102	80-120	1 20
Chromium	100.0	99.09	99	80-120	1 20
Cobalt	25.00	24.14	97	80-120	1 20
Copper	12.50	12.25	98	80-120	1 20
Lead	100.0	97.14	97	80-120	1 20
Molybdenum	20.00	20.42	102	80-120	1 20
Nickel	25.00	24.46	98	80-120	1 20
Selenium	50.00	50.05	100	80-120	1 20
Silver	10.00	9.792	98	80-120	1 20
Thallium	50.00	50.27	101	80-120	1 20
Vanadium	25.00	25.13	101	80-120	1 20
Zinc	25.00	24.90	100	80-120	1 20

RPD= Relative Percent Difference

Page 1 of 1

## Batch QC Report

## California Title 26 Metals

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3050B
Project#:	2842	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	118336
MSS Lab ID:	190002-001	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Prepared:	10/11/06
Basis:	as received	Analyzed:	10/12/06
Diln Fac:	1.000		

Type: MS Lab ID: QC359896

Analyte	MSS	Result	Spiked	Result	%REC	Limits
Antimony		0.3250	102.0	46.53	45	1-126
Arsenic		<0.07526	51.02	49.21	96	74-120
Barium		39.21	102.0	140.6	99	53-134
Beryllium		0.1688	2.551	2.898	107	78-120
Cadmium		<0.04230	10.20	9.901	97	71-120
Chromium		58.25	102.0	159.8	99	64-120
Cobalt		7.535	25.51	30.83	91	64-120
Copper		6.734	12.76	20.52	108	56-139
Lead		1.562	102.0	96.83	93	57-120
Molybdenum		0.4184	20.41	19.75	95	68-120
Nickel		61.04	25.51	87.65	104	48-132
Selenium		<0.1269	51.02	46.67	91	72-120
Silver		<0.05368	10.20	10.13	99	67-120
Thallium		0.2158	51.02	48.05	94	69-120
Vanadium		27.48	25.51	53.70	103	55-134
Zinc		34.56	25.51	59.26	97	46-133

Type: MSD Lab ID: QC359897

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Antimony	101.0	41.82	41	1-126	10 21
Arsenic	50.51	49.27	98	74-120	1 20
Barium	101.0	138.0	98	53-134	1 20
Beryllium	2.525	2.899	108	78-120	1 20
Cadmium	10.10	9.900	98	71-120	1 20
Chromium	101.0	157.4	98	64-120	1 20
Cobalt	25.25	30.75	92	64-120	1 20
Copper	12.63	20.19	107	56-139	1 20
Lead	101.0	96.87	94	57-120	1 20
Molybdenum	20.20	19.58	95	68-120	0 20
Nickel	25.25	84.93	95	48-132	3 20
Selenium	50.51	47.09	93	72-120	2 20
Silver	10.10	10.09	100	67-120	1 20
Thallium	50.51	47.79	94	69-120	0 20
Vanadium	25.25	53.72	104	55-134	1 20
Zinc	25.25	59.42	98	46-133	1 20

RPD= Relative Percent Difference

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59.0

## Batch QC Report

## California Title 26 Metals

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3050B
Project#:	2842	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	118335
MSS Lab ID:	190004-001	Sampled:	10/06/06
Matrix:	Soil	Received:	10/09/06
Units:	mg/Kg	Prepared:	10/11/06
Basis:	as received	Analyzed:	10/12/06
Diln Fac:	1.000		

Type: MS Lab ID: QC359889

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	61.08	89.29	93.66	36	1-126
Arsenic	175.5	44.64	230.2	123 *	74-120
Barium	546.8	89.29	596.8 >LR	56 NM	53-134
Beryllium	0.8123	2.232	3.028	99	78-120
Cadmium	1.618	8.929	9.157	84	71-120
Chromium	213.7	89.29	301.6	99	64-120
Cobalt	42.03	22.32	61.67	88	64-120
Copper	780.2	11.16	686.1 >LR	-843 NM	56-139
Lead	697.2	89.29	665.0 >LR	-36 NM	57-120
Molybdenum	46.51	17.86	59.62	73	68-120
Nickel	71.17	22.32	100.2	130	48-132
Selenium	<0.1042	44.64	37.97	85	72-120
Silver	0.2623	8.929	9.242	101	67-120
Thallium	1.149	44.64	36.27	79	69-120
Vanadium	76.39	22.32	99.68	104	55-134
Zinc	3,618	22.32	2,615 >LR	-4493 NM	46-133

Type: MSD Lab ID: QC359890

Analyte	Spiked	Result	%REC	Limits	RPD	lim
Antimony	86.21	87.21	30	1-126	5	21
Arsenic	43.10	218.3	99 NM	74-120	5	20
Barium	86.21	557.9 >LR	13 NM	53-134	NC	20
Beryllium	2.155	2.944	99	78-120	0	20
Cadmium	8.621	8.865	84	71-120	0	20
Chromium	86.21	289.2	88	64-120	3	20
Cobalt	21.55	61.41	90	64-120	1	20
Copper	10.78	700.9 >LR	-735 NM	56-139	NC	20
Lead	86.21	664.8 >LR	-38 NM	57-120	NC	20
Molybdenum	17.24	65.55	110	68-120	10	20
Nickel	21.55	92.62	100	48-132	7	20
Selenium	43.10	35.22	82	72-120	4	20
Silver	8.621	9.153	103	67-120	2	20
Thallium	43.10	35.47	80	69-120	1	20
Vanadium	21.55	97.44	98	55-134	1	20
Zinc	21.55	2,941 >LR	-3141 NM	46-133	NC	20

\*= Value outside of QC limits; see narrative

NC= Not Calculated

NM= Not Meaningful: Sample concentration &gt; 4X spike concentration

&gt;LR= Response exceeds instrument's linear range

RPD= Relative Percent Difference

## Batch QC Report

## California Title 26 Metals

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2842	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118372
Units:	mg/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/12/06

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC360058	0.5000	0.5130	103	80-120		
BSD	QC360059	0.5000	0.5120	102	80-120	0	20

RPD= Relative Percent Difference

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60.0

## Batch QC Report

## California Title 26 Metals

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2842	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118374
Units:	mg/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/12/06

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC360065	0.5000	0.5240	105	80-120		
BSD	QC360066	0.5000	0.5330	107	80-120	2	20

RPD= Relative Percent Difference

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62.0

## Batch QC Report

## California Title 26 Metals

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2842	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	118372
MSS Lab ID:	190010-001	Sampled:	09/20/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/12/06

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC360061	<0.005985	0.4808	0.4798	100	54-154		
MSD	QC360062		0.4808	0.4933	103	54-154	3	28

RPD= Relative Percent Difference

Page 1 of 1

61.0

## Batch QC Report

## California Title 26 Metals

Lab #:	190008	Location:	Wente
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2842	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	HA-13 COMPOSITE	Batch#:	118374
MSS Lab ID:	190008-027	Sampled:	10/10/06
Matrix:	Soil	Received:	10/11/06
Units:	mg/Kg	Prepared:	10/12/06
Basis:	as received	Analyzed:	10/12/06

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC360067	0.02602	0.5000	0.5760	110	54-154		
MSD	QC360068		0.4902	0.5559	108	54-154	2	28

RPD= Relative Percent Difference

Page 1 of 1

63.0

**Tracy Babjar**

---

**From:** "Elena Manzo" <emanzo@somaenv.com>  
**To:** ""Tracy Babjar"" <tracy@ctberk.com>  
**Sent:** Thursday, October 12, 2006 3:47 PM  
**Subject:** RE: 2840 - C&T Login Summary (190008)

Tracy, could you please change project No for this login from 2840 to 2842.

Thank you  
Elena

-----Original Message-----

From: Tracy Babjar [mailto:[tracy@ctberk.com](mailto:tracy@ctberk.com)]  
Sent: Thursday, October 12, 2006 3:11 PM  
To: [jbobek@somaenv.com](mailto:jbobek@somaenv.com); [Emanzo@somaenv.com](mailto:Emanzo@somaenv.com)  
Subject: 2840 - C&T Login Summary (190008)

Per our conversation, here is the revised summary. We do not have a EH hold option for the T26 met, however as I told you only the HG has been analyzed for the metals and I have instructed my ICP department to not analyze the B samples.

Please e-mail me back to let me know this is correct.

Thanks,

Tracy

C&T Login Summary for 190008

Project: 2840  
Site: Wente  
Lab Login #: 190008  
Report Due: 10/19/06  
PO#:  
C&T Proj Mgr: Tracy Babjar

Report To: 6620 Owens Dr.  
Suite A  
Pleasanton, CA 94588  
ATTN: Joyce Bobek  
(925) 734-6400

Bill To: 6620 Owens Dr.  
Suite A  
Pleasanton, CA 94588  
ATTN: Joyce Bobek  
(925) 734-6400

**Tracy Babjar**

---

**From:** "Elena Manzo" <emanzo@somaenv.com>  
**To:** ""Tracy Babjar"" <tracy@ctberk.com>  
**Sent:** Monday, October 16, 2006 9:32 AM  
**Subject:** RE: EDF for CT# 190008\_SOMA

Hi there,

We did not specify an EDF output requirement on our chain of custody for the Log #190008 (Wente Job), and we will definitely need it.

Thank you,

Elena

---

**From:** Tracy Babjar [mailto:[tracy@ctberk.com](mailto:tracy@ctberk.com)]  
**Sent:** Friday, October 13, 2006 12:51 PM  
**To:** Elena Manzo  
**Subject:** EDF for CT# 189694

**Tracy Babjar**

---

**From:** "Elena Manzo" <emanzo@somaenv.com>  
**To:** "Tracy Babjar" <tracy@ctberk.com>  
**Sent:** Thursday, October 12, 2006 2:33 PM  
**Subject:** RE: Wente

Dear Tracy,

Please change turn around time for Gasoline and 8260 list from 14 to 7 days for all of the "a" samples, and please hold all "b" samples for the above analysis. For the rest of the analysis please extract and hold all the "b" samples.

Thank you.

Elena

---

**From:** Elena Manzo [mailto:[emanzo@somaenv.com](mailto:emanzo@somaenv.com)]  
**Sent:** Thursday, October 12, 2006 2:23 PM  
**To:** 'Tracy Babjar'  
**Subject:** Wente

Dear Tracy,

I truly apologize about any confusion, and the inconvenience it might have caused.

**As we discussed, we will need to analyze our samples for TPH by 8015M-(gasoline, diesel, and motor oil- with silica gel cleanup), polynuclear aromatic hydrocarbons by 8270 PNA, VOCs by 8260 list, PCBs by 8082, pesticides by 8081, and metals by CAM17.**

- 1) We will need to extract and analyze all of the samples with the sample ID ending on "a", for example HA-1a, except for the homogenized sample HA-13a and HA-13b (the ambient sample), which will have to be homogenized and analyzed regardless,
- 2) We will only analyze a sample ending on "b" (example HA-1b), by the above methods with the exception of CAM17, if the corresponding HA-1a had a result above the "detection limit".

-The "b" samples will be analyzed by CAM17 only if their corresponding "a" sample result is greater than the ambient sample HA-13 (a+b).

In conclusion, we will analyze all "a" samples, and HA-13a and HA-13b, for the methods listed above. All "b" samples will be put on hold until the Summary Report indicates which additional samples may need to be analyzed.

Sincerely,

Elena Manzo  
Project Scientist  
925-734-6400

**Tracy Babjar**

---

**From:** "Elena Manzo" <emanzo@somaenv.com>  
**To:** "Tracy Babjar" <tracy@ctberk.com>  
**Sent:** Wednesday, October 25, 2006 2:15 PM  
**Subject:** RE: 2842 - C&T Reports (190008)

Tracy,

Thus far, we also do not need to analyze any of our "B" samples for PNA's (EPA 8270 SIM), and PCB's (EPA 8082). Only one sample HA-7B will need to be analyzed for Pesticides (EPA 8081).

Sincerely,

-620

Elena

Tracy Babjar

Dopt C

**From:** "Elena Manzo" <emanzo@somaenv.com>  
**To:** "Tracy Babjar" <tracy@ctberk.com>  
**Sent:** Wednesday, October 25, 2006 3:14 PM  
**Subject:** RE: 2842 - C&T Reports (190008)

The following samples will have to be analyzed for CAM-17 metals: HA-2B,  
HA-3B, HA-5B, HA-4B, HA-6B, HA-7B, HA-8B, HA-9B, and HA-9B.

12 14 18 20 22 24

10

*Batch*

Elena

118335

118336

-----Original Message-----

From: Tracy Babjar [mailto:tracy@ctberk.com]  
Sent: Wednesday, October 25, 2006 2:36 PM  
To: Elena Manzo  
Subject: Re: 2842 - C&T Reports (190008)

No worries. We will get that started. I should have those results for you  
on Oct 31st.

I will have the TEH diesel results to you tonight.

Tracy

----- Original Message -----

From: "Elena Manzo" <emanzo@somaenv.com>  
To: "Tracy Babjar" <tracy@ctberk.com>  
Sent: Wednesday, October 25, 2006 2:15 PM  
Subject: RE: 2842 - C&T Reports (190008)

> Tracy,  
> Thus far, we also do not need to analyze any of our "B" samples for PNA's  
> (EPA 8270 SIM), and PCB's (EPA 8082). Only one sample HA-7B will need to  
> be  
> analyzed for Pesticides (EPA 8081).  
>  
> Sincerely,  
>  
>  
>  
> Elena  
>

Tracy BabjarNov 2

**From:** "Elena Manzo" <emanzo@somaenv.com>  
**To:** ""Tracy Babjar"" <tracy@ctberk.com>  
**Sent:** Thursday, October 26, 2006 9:16 AM  
**Subject:** RE: 2842 - C&T Reports (190008)

Tracy,

The following samples will have to be analyzed for TPH-d, and TPH-mo:  
 HA-10B, HA-11B, HA-12B, HA-1B, HA-7B, HA-6B, HA-3B, and HA-4B.

Thank you    5    6    8    20    18    12    14

Elena

-----Original Message-----

From: Tracy Babjar [mailto:tracy@ctberk.com]  
 Sent: Wednesday, October 25, 2006 6:46 PM  
 To: Elena Manzo  
 Subject: Re: 2842 - C&T Reports (190008)

Hi Elena,

Yes we did do silica gel on these samples.

Tracy

----- Original Message -----

From: "Elena Manzo" <emanzo@somaenv.com>  
 To: ""Tracy Babjar"" <tracy@ctberk.com>  
 Sent: Wednesday, October 25, 2006 6:20 PM  
 Subject: RE: 2842 - C&T Reports (190008)

> Thank you,  
 > Tracy, did we use silica cleanup gel for these samples?

&gt;

&gt;

&gt; Elena

&gt;

&gt; -----Original Message-----

> From: Tracy Babjar [mailto:tracy@ctberk.com]  
 > Sent: Wednesday, October 25, 2006 5:01 PM  
 > To: jbobek@somaenv.com; emanzo@somaenv.com  
 > Subject: 2842 - C&T Reports (190008)

&gt;

&gt; Attached is a PDF version of the hardcopy reports for C&amp;T job 190008.

&gt; TEH-

&gt; Diesel/Motor Oil results.

&gt;

&gt; Email compiled and sent 10/25/06 05:00 PM.

&gt;

Batch #  
 118464-#2  
 118468-#5

" 4 #16  
 " 6 #20  
 118598 #20

118468 #12  
 118598 #14

# **Appendix D**

## **Background Concentrations of Trace and Major Elements**

## **KEARNEY FOUNDATION SPECIAL REPORT**

# **Background Concentrations of Trace and Major Elements in California Soils**



**KEARNEY FOUNDATION OF SOIL SCIENCE  
DIVISION OF AGRICULTURE AND NATURAL  
RESOURCES  
UNIVERSITY OF CALIFORNIA**

**MARCH 1996**

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Figure 2. Distribution frequency of elements in California benchmark soils graphs available as Adobe Acrobat files at  
[http://envisci.ucr.edu/faculty/acchang/kearney/Kearney\\_text.htm](http://envisci.ucr.edu/faculty/acchang/kearney/Kearney_text.htm)

Aluminum-Antimony	Iodine-Iron	Silicon-Silver
Arsenic-Barium	Lanthanum-Lead	Sodium-Strontium
Beryllium-Bismuth	Lithium-Magnesium	Thallium-Thorium
Boron-Cadmium	Manganese-Mercury	Tin-Titanium
Calcium-Cerium	Molybdenum-Nickel	Tungsten-Uranium
Cesium-Chromium	Niobium-Phosphorous	Vanadium-Yttrium
Cobalt-Copper	Potassium-Rubidium	Zinc-Zirconium
Gallium-Germanium	Scandium-Selenium	

Editor: Deborah Silva  
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 University of CA, Riverside, CA 92521

## **Background Concentrations of Trace and Major Elements in California Soils**

G. R. Bradford<sup>1</sup>, A. C. Chang<sup>1</sup>, A. L. Page<sup>1</sup>, D. Bakhtar<sup>1</sup>, J. A. Frampton<sup>2</sup>,  
and H. Wright<sup>1</sup>

<sup>1</sup>*Department of Soil and Environmental Sciences, University of California, Riverside*

<sup>2</sup>*Department of Toxic Substances Control, California Environmental Protection Agency,  
Sacramento, CA*

### **Summary**

The first comprehensive, scientific database on background concentrations of trace and major elements in California soils has been developed. Background total concentrations of 46 trace and major elements have been determined in 50 benchmark soils selected from throughout the state. The authors have received numerous requests from industries and public agencies to disseminate this information because it is necessary for environmental monitoring, remediation of contaminated soils, land use planning, and ecological evaluations. Reliable, comprehensive information about background levels of trace and major elements in California soils will facilitate accurate interpretations of experimental and field data and will facilitate scientifically defensible decisions by industries and policy makers.

Dissolution of soil samples with  $\text{HNO}_3\text{-HCl-HF}$  was followed by analysis with inductively coupled plasma optical emission spectrometry (ICP-OES) and mass spectrometry (ICP-MS). Statistical analyses of the data show that background concentrations of the elements vary by a factor of 3 to 150 times. Ranges in concentrations compare favorably with values reported in the scientific literature. Most elements show distinctly positively-skewed frequency distributions or concentrations less than median values. Highly significant ( $p < 0.01$ ) positive correlation coefficients occur between several elements: Ce-La ( $r=0.96$ ), Ni-Cr ( $r=0.95$ ), Fe-V ( $r=0.92$ ), Fe-Sc ( $r=0.92$ ), Mo-U ( $r=0.82$ ), V-Sc ( $r=0.86$ ), Cu-Co ( $r=0.81$ ), Co-Mg ( $r=0.63$ ), Ni-Mg ( $r=0.71$ ), Cr-Mg ( $r=0.65$ ). These results suggest that chemical and physical factors control element associations in parent material and soil forming processes and that chemical and physical factors may be important in the distribution of elements in the soil. Coefficients of variation are greatest for Ag, Cr, Mo, Ni, Se, and W, and least for Zn, Al and Si.

This database is essential to systematic, accurate assessments of anthropogenic and natural causes of elevated trace element concentrations and should be particularly useful to industries attempting to monitor their own effects on trace element levels in soils and to public agencies charged with assessing the severity of trace element pollution problems.

## Introduction

The term "trace element" is rather loosely used in the scientific literature to designate a number of elements that occur in natural systems in small concentrations (Page, 1974). As defined in many dictionaries, trace elements are those chemical elements, especially metals, used by organisms in minute quantities but believed essential to their physiology. However, the term is and has been used to designate elements with no known physiological function which, when present in sufficient concentrations, may be toxic to living systems.

Other terms that have been used, and which for all practical purposes can be considered synonyms for the term "trace elements," are "trace metals", "trace inorganics", "heavy metals", "micronutrients", and "microelements". The use of the term "micronutrient" usually has been restricted to those trace elements known to be essential for the growth of higher plants, e.g., Cu, Zn, Mo, B, Mn, Fe, Cl, and Ni (Asher, 1991). The use of the term "heavy metals" in the scientific literature is usually, but not always, restricted to those metals that have densities greater than  $5.0 \text{ g cm}^{-3}$ . Trace elements are defined herein as those elements having less than 0.1 % average abundance in the earth's crust (Mitchell, 1964). Using this definition the elements Al, Ca, Fe, Mg, K, Na, Si and Ti are considered "major" elements in this manuscript.

Trace elements are ubiquitous in the earth's crust. Their natural levels in soil vary widely, depending largely on the nature of parent materials from which soils form and also on soil-forming processes (Adriano, 1986; Kubota, 1981; Lund et al., 1981; Heil and Mahmoud, 1978). Natural distribution patterns of trace elements in soil have been affected by a variety of anthropogenic activities, including mining, smelting, agriculture, energy generation, manufacturing, waste disposal, and transportation (Adriano, 1986; Munro, 1983; Page, 1974). Industrial effects are relatively well-documented and may be either largely concentrated on-site (e.g., mine tailings) or dispersed over large areas (e.g., stack emissions).

Adriano (1986) identified two major routes for input of trace elements into agro-ecosystems: aerial (e.g., aerosols, particulate matter, resuspended and airborne dusts, etc.), and land (fertilizers, pesticides, solid wastes, other soil amendments, etc.). The output pathways can be represented primarily by losses through plant tissue removal for food, feedstuff, and fiber, and by leaching and erosion. Both input and output fluxes are constantly changing whether soils are in agricultural production or not; therefore, the background concentrations of trace elements in soils are probably not significantly altered by short-term agricultural use. Harmason and de Haan (1980) calculated that it would take three centuries of phosphate fertilization at 100 kg P<sub>2</sub>O<sub>5</sub> per hectare per year to enrich the top 20 cm of soil by 1 mg/kg U, if the P<sub>2</sub>O<sub>5</sub> fertilizer contained 100 mg/kg U.

Most management activities that affect soil trace elements are very poorly documented; therefore, it is usually difficult or impossible to determine the anthropogenic influences on any specific site. Compounding this problem is a general lack of background data on natural trace element distribution patterns in soils.

Shacklette and Boemgen (1984) published results of an extensive sampling (1,218 samples) and analyses (35+ elements) in surficial materials in the United States as a whole. The samples were collected by U.S. Geological Survey personnel along their travel routes to other field studies or within their project areas. A sample site was selected about every 50 miles. Cultivated fields were included and congested areas avoided. They concluded that sampling to a depth of 20 cm may have avoided the effects of surface contamination. No gross contamination of samples was expected by a variety of methods. About 74 samples were collected in California.

When environmental problems related to high trace element levels in soils or groundwater are discovered, there has been a tendency for the public to blame the most visible industry first without proper technical assessment of other possible anthropogenic or natural causes (Letey et al., 1986).

By providing the first comprehensive, scientific database on background concentrations of trace and major elements in benchmark California soils, this study addresses serious shortcomings in assessment technology, to date. Previously, comparative data were not available because information compiled from different sources was incomplete and the methodologies used for soil sampling and analysis were incompatible. The results reported herein are the first cohesive data set available on background levels of trace and major elements in California. Such a database is essential to any systematic, accurate assessment of anthropogenic effects and natural causes of elevated or reduced levels of trace and major elements in California.

## **Materials and Methods**

### **Sample Collection**

Benchmark soil series sample locations for this study were selected from an extensive file of soil profile sample locations in the Department of Soils and Plant Nutrition, University of California; Berkeley (now known as the Department of Environmental Science, Policy and Management). These samples were accumulated by cooperative efforts of the University of California Division of Agriculture and Natural Resources and the U.S. Department of Agriculture soil survey teams during more than 50 years of soil survey work in California. A detailed discussion of the series is given by Stone and Weir (1953). R. J. Arkley, University of California, Berkeley, selected the 22 series for this and earlier studies (Bradford et al., 1967, 1971) as most representative of California soils. The series concept has changed since 1953, so current designations may be different. Contemporary methods have been used to determine total and

water-soluble elements in soil profile samples from the Berkeley file and from separate collections in past studies (Bradford et al., 1967, 1971).

The 50 benchmark soil samples representing 22 soil series analyzed for this report were collected in 1967 (Bradford et al., 1967). The sampling sites (selected from the Berkeley file) were mostly from agricultural fields distant from known point sources of contamination; therefore, the trace element concentrations should be representative of background levels.

A 20-gallon soil sample was collected from the surface to 50 cm depth, excluding the organic debris at the surface. The soil was shoveled from the site onto a 10-mesh plastic fabric screen and sieved to exclude large rocks, etc. A plastic screen was used to avoid metallic contamination. The soil samples were air-dried, mixed and stored in 20-gallon plastic containers.

Soil series and their locations (longitude, latitude and county) are presented in Tables 1 A and 1 B. Soil family designations are not listed because of changes since 1953. Locations are also shown on a California map (Fig. 1). The authors emphasize that by identifying the soil samples as to a series designation in no way implies an attempt to correlate element concentrations within a series. Two or three samples of each series are too few to make such a study feasible. Furthermore, Bradford et al. (1967) concluded from a more extensive analysis of soil horizons from many of the same series studied in this report that there was no marked association of total essential trace element content with the series designation.

### Sample Analyses

A 10-g subsample was ground with an agate mortar and pestle to pass a 60-mesh plastic screen. A 1-g portion was weighed into a 50-ml Teflon screw-cap centrifuge tube and treated with  $\text{HNO}_3$ , repeated portions of 6  $\text{N}$  HCl and then dilute HF. Replicate analyses were not considered necessary because of low standard deviation values reported for 4 replicate analyses by the method used (Bakhtar et al., 1989). One in 500 (weight/volume) dilutions were analyzed with inductively coupled plasma optical emission spectrometry (ICP-OES) and mass spectrometry (ICP-MS). To avoid interferences from polyatomic chloride complexes in ICP-MS analyses, aliquots of dissolved sample solution in HCl were evaporated to dryness at a low temperature followed by redissolution in 1%  $\text{HNO}_3$ . Analyses were made with a VG Plasma Quad by following the manufacturer's recommended procedure with multielement calibration and scan acquisition of data.

In most cases, low concentration elements in the high atomic mass range were measured with ICP-MS and high-concentration elements in the low atomic mass range were measured with ICP-OES to minimize interferences. Gray (1986) estimated detection limits for multielement analyses using ICP-MS as shown in Table 2. Methods

used for each element are shown in Table 3. Concentrations in Table 2 were set equal to one-half the detection limit in samples containing less than detectable levels of an element to permit statistical analyses (Gilbert, 1987).

Estimated detection limit for ICP-OES analyses is defined in this study as the concentration equivalent to a signal due to the analyte which is equal to three times the standard deviation of a series of 10 replicate measurements of a zero calibration blank.

## Results and Discussion

Levels of trace elements in benchmark soils are the result of a combination of complex factors, including soil parent material, topography, climate, vegetation, management and time. High Cd has been identified with certain coastal marine sediments (Lund et al., 1981). High levels of oxyanions of U, V and Mo have been identified with evaporates in soils of the west side of the San Joaquin Valley and probably originate from West Side alluvial deposits (Bradford et al., 1990).

Table 2 shows total concentrations of 46 elements in each of 50 benchmark soils from California. Table 2 also lists the ranges in concentration for each element. Precision and accuracy are discussed in a published report of the method used (Bakhtar et al., 1989). In general, background elemental concentrations for these soils vary by factors ranging from about 150 times (P, W), about 80 times (B and Mo), about 60 times (Cr, Ni), about 15 times (Co), about 5 times (Pb, V) to about 3 times (Al, Ga, Zn). Summary statistics, which include the coefficients of variation (CV) for each element, are listed in Table 3. Coefficients of variation are greatest for Ag, Cr, Mo, Ni, Se, and W, and least for Zn, Al and Si. Ranges in concentrations compare favorably with those reported by Shacklette and Boerngen (1984), Kabata-Pendias and Pendias (1992) and Rose et al. (1979).

Correlation coefficients shown in Table 4 are significant at the probability level of 0.01. Examples of elements with high r values are Ce-La ( $r = 0.96$ ), Ni-Cr ( $r = 0.95$ ), Fe-V ( $r = 0.92$ ), Fe-Sc ( $r = 0.92$ ), Mo-U ( $r = 0.82$ ), V-Sc ( $r = 0.86$ ), Cu-Co ( $r = 0.81$ ), Co-Mg ( $r=0.63$ ), Ni-Mg ( $r=0.71$ ), Cr-Mg ( $r=0.65$ ). These high r values suggest that chemical and physical factors control element associations in parent material and soil forming processes. Data from analyses of other soil profile and topographic sequence samples from California also showed high r values between Ni-Cr, V-Sc, and Cu-Co (Marrett et al., 1992). The only significant negative r values observed were between Co-Th ( $r=0.39$ ) and V-Th ( $r=-0.37$ ).

Both our data and that from Shacklette and Boerngen (1984) show that samples from northern California often contain higher concentrations of Cr, Co, Cu, Ni, Fe and V compared to samples from southern California. An examination of a Geologic Map of California (Jennings, 1977) shows a predominance of volcanic and ultramafic

rocks in northern California. Isolated areas of ultramafic rocks are also shown east of Porterville and in the Idria area to the west of the San Joaquin Valley. Ultramafic rocks are mostly serpentine, a magnesium silicate with associated Ni, Cr, etc. (Jennings, 1977). Soils formed from ultramafic parent material would likely show high r values between Mg and Ni and Cr as shown in Table 4. High concentrations of Cr, Co, Cu, Ni, Fe and V in northern California soils probably originate from high levels of these elements in the ultramafic and volcanic rocks in the area. Note that the concentrations of Ni, Cr, and Mg (Table 2) tend to be elevated in soil sample nos. 25 (Porterville area) and 48 (east of Idria).

Soil samples within a series (Table 2) most often show diverse concentrations of elements. Imperial clay loam samples (nos. 18, 19 and 20) are an exception. Concentration of most elements in the three samples of this series are closely grouped, suggesting thorough mixing of sediment imported by the Colorado River.

The above results emphasize the importance of parent material composition and soil forming processes on background concentrations of trace and major elements in soils. Bradford et al. (1967) observed in an earlier study that in general the distribution of trace element content of benchmark soils is reasonably consistent within groupings based on soil parent material. Frequency distributions are illustrated for each element in Fig. 2.

Moment coefficients of skewness and kurtosis express how the shapes of sample frequency distribution curves differ from ideal Gaussian (normal) curves. Skewness refers to asymmetry of the upper and lower halves of the curve around the mean. Kurtosis refers to deviations towards unusual flatness or pointedness of the curve peak. Perfect Gaussian (normal) curves have moment coefficients of skewness and kurtosis of 0 and 3, respectively. Log transformations (calculated but not shown) generally improve the data for most trace elements by helping to correct positive skew and stabilizing variance (which is proportional to the mean in untransformed data).

Analyses and reports were created by SAS software. Univariate statistics are summarized in Table 3. Distributions for each element were tested for normality using the W test (Shapiro and Wilk, 1965). Results of the W test for both untransformed and natural log-transformed data are given in Table 3. The W test produces a statistic for the null hypothesis such that the input data values are a random sample from a normal distribution. W must be greater than zero and less than or equal to one, with small values of W leading to rejection of the null hypothesis. The probability for testing the hypothesis that the data come from a normal distribution is given as PROB < W.

The hypothesis of normality (null hypothesis) is rejected at the a significance level if W is less than the a quartile, where, for example, the a quartile is 0.974 for a = 0.50 and n = 50. The significance level of a = 0.50 is the accepted level for testing the

hypothesis of normality (Shapiro and Wilk, 1965). Tests for skewness, kurtosis, the W test and the related probability are also shown for the untransformed data in Fig. 2.

High concentrations of B, Mo and U observed in sample number 8, a Fresno Series from the Tulare Lake bed, led us to prepare and analyze a one-to-one soil-to-water extract. The water extract was high in Na (7,000 mg/L) and alkalinity (47.6 meq/L), and low in Ca and Mg. These chemical parameters favor high solubility of the oxyanions (Drever, 1988). Oxyanion analyses of sample number 8 showed P (21 mg/L), B (15 mg/L), V (8 mg/L), Mo (9 mg/L), U (1.8 mg/L) and As (1.8 mg/L). These high water-soluble concentrations of several toxic elements emphasize the importance of analyzing water extracts of soils in addition to total analyses for full and complete assessment of trace element impacts on the environment.

The principal objective of this study, to determine background concentrations of trace and major elements in benchmark soils from California, has been accomplished. Parent material and soil forming processes have a major effect on the chemical composition of soils. The data may have application to the identification of areas suspected of essential element deficiencies and/or trace element toxicity for plant growth and may also be useful in soil genesis studies.

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**Table 1 A**  
**Series and Location of Benchmark Soils<sup>1</sup>**

Soil Series and Texture Phase	Soil No.	County	Longitude	North Latitude	Soil Taxonomy
Aiken scl	4	El Dorado	120°50'	38°39'	Clayey, oxidic, mesic, Xeric Haplohumufts
Aiken cl	5	El Dorado	120°57'	38°15'	
Aiken cl	6	Tehama	121°43'	40°26'	
Altamont cl	1	San Diego	117°13'	32°54'	Fine, montmorillonitic, thermic Typic Chromoxererts
Altamont cl	2	Glenn	122°22'	39°34'	
Altamont cl	3	Tehama	122°41'	40°14'	
Cajon fs	28	San Bernardino	117°40'	34°46'	Mixed, thermic, Typic Torripsamments
Coachella fs	7	Riverside	116°12'	33°42'	Sandy, mixed, hyperthermic Typic Torrifluvents
Fresno I	8	Kern	119°23'	35°23'	Fine-loamy, mixed, thermic Natric Durixeriffs
Fresno I	10	Merced	120°29'	37°10'	
Hanford sl	12	San Diego	116°47'	32°49'	Coarse-loamy, mixed, nonacid, thermic Typic Xerorthents
Hanford sl	11	San Joaquin	121°14'	38°11'	
Holland ls	14	El Dorado	120°41'	38°36'	Fine-loamy, mixed, mesic
Holland I	13	Fresno	119°22'	37°04'	
Holland ls	15	El Dorado	120°54'	38°49'	
Holtville sl	50	Imperial	115°23'	32°46'	Clayey over loamy, montmorillonitic (calcareous) hyperthermic Typic Torrifluvents
Hugo cl	17	Solano	122°00'	38°22'	Fine-loamy, mixed mesic dysrtic xerocrepts
Hugo cl	16	Humboldt	123°54'	40°45'	
Imperial cl	18	Imperial	115°34'	32°42'	Fine, montmorillonitic (calcareous), hyperthermic
Imperial cl	19	Riverside	114°36'	33°38'	
Imperial cl	20	Imperial	115°31'	32°56'	Vertic Torrifluvents
Kettlemen sl	21	Fresno	120°40'	36°35'	Fine-loamy, mixed (calcareous), Thermic Typic Torriorthents
Kettlemen sl	23	Fresno	120°20'	36°19'	
Kettlemen cl	22	Kern	119°22'	34°58'	

Soil Series and Texture Phase	Soil No.	County	Longitude	North Latitude	Soil Taxonomy
Lassen c	25	Tulare	119°00'	36°06'	Fine, montmorillonitic, mesic Typic Chromoxererts
Lassen c	24	Modoc	120°27'	41°32'	
Los Osos c	27	Santa Barbara	120°28'	34°35'	Fine, montmorillonitic, thermic, Typic Argixerolls
Los Osos cl	26	Lake	122°30'	38°53'	
Maymen sl	30	Lake	122°54'	39°16'	Loamy, mixed, mesic dystric Lithic Xerochrepts
Maymen sl	31	Tehama	122°41'	40°09'	
Maymen sl	29	Glenn	122°36'	39°34'	
Merced sl	9	San Joaquin	121°22'	38°05'	Fine, montmorillonitic, thermic Patchic Haploxerolls
Merced c	33	Fresno	120°12'	36°35'	
Merced cl	34	Merced	120°19'	37°28'	
Merced c	32	Kern	119°13'	35°12'	
Mojave I	36	San Bernardino	117°12'	34°32'	Not available
Mojave sl	35	San Bernardino	116°41'	34°58'	
Panoche cl	48	Fresno	Not available		Fine-loamy, mixed (calcareous), thermic Typic Torriorthents
Ramona sl	37	San Diego	116°54'	32°43'	Fine-loamy, mixed, thermic, Typic Haploixeriffs
Ramona sl	38	San Joaquin	121°13'	38°14'	
Redding cl	40	Tehama	122°12'	40°04'	Fine, mixed, thermic Abruptic Durixeralfs
Redding cl	39	Glenn	122°15'	39°41'	
San Joaquin sl	41	Merced	120°11'	37°10'	Not available
San Joaquin I	42	Tulare	119°05'	36°02'	
Venice	49	San Joaquin	121°31'	37°40'	Eric, thermic Typic Mediheists
Watsonville I	45	Santa Cruz	122°03'	36°57'	Fine, montmorillonitic, thermic Xeric Argialbolls
Watsonville I	43	Santa Barbara	120°27'	34°29'	
Watsonville I	44	Santa Cruz	121°42'	36°56'	
Yolo cl	46	Solano	121°47'	38°26'	Fine-silty, mixed, nonacid, thermic Typic Xerorthent
Yolo cl	47	Tehama	122°15'	40°03'	

<sup>1</sup>Table 1 A is alphabetical by soil series. Table 1 B is in numerical order by soil number.

<sup>2</sup>Texture phase abbreviations: I = loam, sl = sandy loam, ls = loamy sand, fs = fine sand, cl = clay loam, scl = sandy clay loam, c = clay (USDA-SCS classification scheme)

Table 1 B  
Series and Location of Benchmark Soils<sup>1</sup>

Soil Series and Texture Phase	Soil No.	County	Longitude	North Latitude	Soil Taxonomy
Altamont cl	1	San Diego	117°13'	32°54'	Fine, montmorillonitic, thermic Typic Chromoxererts
Attamont cl	2	Glenn	122°22'	39°34'	
Alfamont cl	3	Tehama	122°41'	40°14'	
Aiken scl	4	El Dorado	120°50'	38°39'	Clayey, oxidic, mesic, Xeric HaplohumuRs
Aiken ci	5	El Dorado	120°57	38°15'	
Aiken ci	6	Tehama	121°43'	40°26'	
Coachella fs	7	Riverside	116°12'	33°42'	Sandy, mixed, hyperthermic Typic Torrifluvents
Fresno I	8	Kern	119°23'	35°23'	Fine-loamy, mixed, thermic Natric Durixeralfs
Merced sl	9	San Joaquin	121°22'	38°05'	Fine, montmorillonitic, thermic Pachic Haploxerolls
Fresno I	10	Merced	120°29'	37°10'	Fine-loamy, mixed, thermic Natric Durixeralfs
Hanford sl	11	San Joaquin	121°14'	38°11'	Coarse-loamy, mixed, nonacid, themnic Typic Xerorthents
Hardord sl	12	San Diego	116°47	32°49'	
Holland I	13	Fresno	119°22'	37°04'	Fine-loamy, mixed, mesic Ultic Haploxeralfs
Holland ls	14	El Dorado	120°41'	38°36'	
Holland ls	15	El Dorado	120°54'	38°49'	
Hugo cl	16	Humboldt	123°54'	40°45'	Fine-loamy, mixed mesic Dystric Xerochrepts
Hugo cl	17	Solano	122°00'	38°22'	
Imperial cl	18	Imperial	115°34'	32°42'	Fine, montmorillonitic (calcareous), hyperthermic
Imperial cl	19	Riverside	114°36'	33°38'	
imperial cl	20	Imperial	115°31'	32°56'	Vertic Torrifluvents
Kettlemen sl	21	Fresno	120°40'	36°35'	Fine-loamy, mixed (calcareous), thermic Typic Torriorthents
Kettlemen cl	22	Kern	119°22'	34°58'	
Kettlemen sl	23	Fresno	120°20'	36°19'	
Lassen c	24	Modoc	120°27	41°32'	Fine, montmorillonitic, mesic Typic Chromoxererts
Lassen c	25	Tulare	119°00'	36°06'	
Los Osos cl	26	Lake	122°30'	38°53'	Fine, montmorillonitic, thermic, Typic Argixerolls
Los Osos c	27	Santa Barbara	120°28'	34°35'	
Cajon fs	28	San Bernardino	117°40'	34°46'	Mixed, thermic, Typic Torripsamments
Maymen sl	29	Glenn	122°36'	39°34'	Loamy, mixed, mesic Dystric Lithic Xerochrepts
Maymen sl	30	Lake	122°54'	39°16'	
Maymen sl	31	Tehama	122°41'	40°09'	

Merced c	32	Kern	119°13'	35°12'	Fine, montmorillonitic, thermic Pachic Haploxerolls
Merced c	33	Fresno	120°12'	36°35'	
Merced cl	34	Merced	120°19'	37°28'	
Mojave sl	35	San Bernardino	116°41'	34°58'	Fine-loamy, mixed, thermic Typic Haplargids
Mojave l	36	San Bernardino	117°12'	34°32'	
Ramona sl	37	San Diego	116°54'	32°43'	Fine-loamy, mixed, thermic, Typic Haploxeraffs
Ramona sl	38	San Joaquin	121°13'	38°14'	
Redding cl	39	Glenn	122°15'	39°41'	Fine, mixed, thermic Abruptic Durixeralfs
Redding cl	40	Tehama	122°12'	40°04'	
San Joaquin sl	41	Merced	120°11'	37°10'	Fine, mixed, thermic Abruptic Durixeraffs
San Joaquin l	42	Tulare	119°05'	36°02'	
Watsonville l	43	Santa Barbara	120°27'	34°29'	Fine, montmorillonitic, thermic Xeric Argialbolls
Watsonville l	44	Santa Cruz	121°42'	36°56'	
Watsonville l	45	Santa Cruz	122°03'	36°57'	
Yolo cl	46	Solano	121°47'	38°26'	Fine-silty, mixed, nonacid, thermic Typic Xerorthent
Yolo cl	47	Tehama	122°15'	40°03'	
Panoche cl	48	Fresno	Not available		Fine-loamy, mixed (calcareous), thermic Typic Torriorthents
Venice	49	San Joaquin	121°31'	37°40'	Eric, thermic Typic Medihemist
Holtville sl	50	Imperial	115°23'	32°46'	Clayey over loamy, montmorillonitic (calcareous) hyperthermic Typic Torrifluvents

<sup>1</sup>Table 1 B is in numerical order by soil number. Table 1 A is alphabetical by soil series. <sup>2</sup>Texture phase abbreviations: l = loam, sl = sandy loam, ls = loamy sand, fs = fine sand, cl = clay loam, scl = sandy clay loam, c = clay (USDA-SCS classification scheme)

**Table 2**  
**Total Concentrations of Elements in Benchmark Soils**

<b>Soil No.</b>	<b>Ag</b> Mg/Kg	<b>Al</b> %	<b>As</b>	<b>B</b>	<b>Ba</b>	<b>Be</b>	<b>Bi</b>	<b>Ca</b>	<b>Cd</b>	<b>Ce</b>	<b>Co</b>	<b>Cr</b>
1	0.21	8.3	11.0	23	738	2.19	0.80	7360	0.11	305	8.8	36
2	0.37	8.1	8.3	17	654	1.20	0.38	5680	0.18	138	15.0	47
3	0.27	9.9	8.0	45	764	1.90	0.42	6948	0.44	121	24.1	110
4	0.37	9.7	3.9	16	659	1.90	0.25	6758	0.25	177	34.8	115
5	0.22	7.1	3.9	7	438	1.90	0.27	3782	0.95	217	38.8	242
6	0.22	9.6	1.2	1	260	1.10	0.24	6795	0.19	94	13.1	45
7	0.12	6.3	1.2	2	533	0.80	0.21	25090	0.16	292	6.9	35
8	0.28	7.6	4.2	74	526	1.25	0.39	22035	0.52	213	9.3	42
9	0.41	6.6	0.8	5	379	0.64	0.37	9587	0.05	161	4.3	26
10	0.80	6.3	1.1	13	517	1.38	0.29	17967	0.40	141	7.1	89
11	0.52	9.0	1.2	4	472	1.51	0.33	11081	0.31	184	7.6	27
12	4.30	8.3	0.6	10	250	0.60	0.24	24524	0.13	122	15.8	29
13	0.40	9.5	2.1	2	625	1.53	0.20	8592	0.36	208	10.8	26
14	3.30	8.7	6.9	34	358	1.43	0.34	16494	0.36	167	22.7	108
15	0.48	7.6	1.2	19	258	1.45	0.19	16658	0.56	85	18.3	107
16	0.42	6.8	5.7	27	375	1.70	0.39	2903	0.15	133	29.9	214
17	2.60	8.0	9.6	26	796	0.93	0.37	6488	0.20	173	15.9	73
18	0.16	6.4	5.2	36	371	1.48	0.45	36400	0.58	189	11.3	40
19	0.37	6.7	4.7	44	392	2.26	0.52	45577	0.43	216	10.0	52
20	0.43	5.9	5.4	33	385	1.76	0.41	41649	0.62	188	8.3	45
21	0.55	6.1	1.8	28	1400	1.14	0.34	15295	0.30	140	10.1	86
22	0.34	6.8	4.0	19	556	0.77	0.25	8243	1.70	115	8.1	50
23	8.30	6.9	4.4	19	677	0.83	0.31	20015	1.00	147	11.9	129
24	0.49	9.9	1.4	4	403	1.78	0.29	17812	1.10	154	26.6	92
25	0.18	8.5	1.7	5	248	0.66	0.28	24070	0.29	119	46.9	1579
26	0.22	10.6	1.4	3	525	1.17	0.33	9408	0.05	127	14.5	51
27	0.44	8.8	4.5	25	720	2.70	0.65	4559	0.44	240	14.2	102
28	0.28	5.8	1.0	5	576	0.68	0.60	15054	0.32	214	11.6	67
29	0.42	8.0	6.3	46	434	1.84	0.39	2777	0.31	153	26.4	181

**Table 2 (continued)**  
**Total Concentrations of Elements in Benchmark Soils**

<b>Soil No.</b>	<b>Ag</b>	<b>Al</b>	<b>As</b>	<b>B</b>	<b>Ba</b>	<b>Be</b>	<b>Bi</b>	<b>Ca</b>	<b>Cd</b>	<b>Ce</b>	<b>Co</b>	<b>Cr</b>
	Mg/Kg	%					Mg/Kg					
30	0.16	7.1	3.2	16	461	1.49	0.39	2451	0.13	107	12.9	70
31	3.80	7.7	6.8	30	440	1.47	0.30	2495	0.16	141	26.0	190
32	0.39	7.8	6.7	44	493	1.75	0.52	24853	0.14	234	8.7	38
33	0.27	8.3	3.9	26	552	1.45	0.58	11610	0.14	173	11.6	88
34	0.40	8.4	2.1	20	684	1.51	0.37	16160	0.05	158	16.0	68
35	0.12	6.9	3.8	11	571	1.10	0.39	16311	0.05	243	8.7	23
36	0.16	4.0	2.4	9	710	1.91	0.38	11229	0.14	239	8.0	47
37	2.50	10.4	1.7	17	221	0.86	0.64	29095	0.45	114	18.8	36
38	0.22	6.9	1.0	5	730	1.13	0.14	7653	0.05	155	7.9	49
39	0.63	5.0	2.1	8	158	0.92	0.25	2762	0.30	88	12.0	221
40	0.80	3.0	2.4	5	133	0.25	0.23	3422	0.11	83	8.8	102
41	0.13	7.0	1.4	8	531	0.50	0.29	14362	0.26	122	9.6	47
42	0.35	8.0	1.8	9	540	1.25	0.28	14131	0.24	167	10.8	50
43	0.16	5.2	1.4	7	571	1.42	0.35	3763	0.39	182	8.4	121
44	0.63	5.3	1.9	15	767	1.28	0.25	2570	0.18	148	9.2	129
45	0.22	4.9	1.1	9	565	0.68	0.11	6600	0.71	113	2.7	87
46	0.53	7.5	4.5	23	511	1.30	0.33	6076	0.21	114	22.1	397
47	0.58	7.5	3.0	22	361	1.03	0.20	10770	0.18	117	26.1	271
48	0.10	7.5	6.0	49	522	1.23	0.44	12531	0.18	139	17.8	147
49	0.20	3.5	4.7	25	324	0.25	0.34	24175	0.73	78	8.8	49
50	0.35	4.4	2.2	18	328	1.18	0.25	26824	0.58	121	4.3	29
AVG	0.80	7.3	3.5	19	509	1.28	0.35	14466	0.36	159	14.9	122
GEOM MEAN	0.41	7.1	2.8	14	468	1.14	0.33	10849	0.26	151	12.6	76
MAX	8.30	10.6	11.0	74	1400	2.70	0.80	45577	1.70	305	46.9	1579
MIN	0.10	3.0	0.6	1	133	0.25	0.11	2451	0.05	78	2.7	23
RANGE	8.20	7.6	10.4	73	1267	2.45	0.69	43126	1.65	227	44.2	1556
EST.D.LIM. <sup>1</sup>	0.015	0.001	0.2	2	1	0.5	0.1	25	0.10	0.15	2.5	1

<sup>1</sup>Est.D.Lim. denotes the estimated detection limit for each element. In this table, concentrations less than the Est.D.Lim. are reported as one-half of the Est.D.Lim. Descriptive statistics are calculated accordingly.

**Table 2 (continued)**  
**Total Concentrations of Elements in Benchmark Soils**

<b>Soil No.</b>	<b>Cs</b>	<b>Cu</b>	<b>Fe</b>	<b>Ga</b>	<b>Ge</b>	<b>Hg</b>	<b>I</b>	<b>K</b>	<b>La</b>	<b>Li</b>	<b>Mg</b>	<b>Mn</b>
	-----mg/Kg-----	%		-----mg/Kg-----		%		-----mg/Kg-----		-----mg/Kg-----		
1	7.3	36.6	3.2	22.0	1.6	0.90	1.24	3.00	38.5	33	7407	501
2	3.0	44.2	3.7	19.6	3.0	0.10	0.91	2.36	16.4	27	4913	549
3	4.5	66.9	5.7	27.6	3.5	0.70	0.94	1.48	13.0	90	11067	527
4	3.1	96.4	6.8	27.9	5.6	0.27	0.93	2.13	18.3	20	8745	1186
5	2.8	85.7	7.6	26.8	5.8	0.61	0.91	1.21	21.6	23	9586	1687
6	1.8	21.9	3.6	16.5	1.6	0.10	0.60	0.75	14.0	13	5888	618
7	1.8	14.8	2.9	18.0	2.0	0.10	0.72	2.48	39.3	21	11613	587
8	5.1	18.3	3.2	20.3	2.3	0.40	0.60	2.40	28.3	42	12928	682
9	1.5	13.7	2.0	11.5	1.9	0.27	0.49	1.78	20.4	11	5631	449
10	2.1	17.5	3.0	16.5	2.0	0.49	0.54	1.53	17.8	15	11000	598
11	1.9	24.4	3.0	14.3	2.8	0.10	0.49	2.91	24.6	13	6442	599
12	1.7	14.2	6.6	14.6	2.9	0.26	0.50	1.09	11.4	11	14345	1051
13	4.4	13.7	3.7	23.1	2.4	0.10	0.44	1.87	27.6	35	7920	911
14	3.2	21.6	5.3	18.7	2.5	0.22	0.43	1.51	18.6	50	12027	726
15	1.0	22.5	3.7	14.9	2.7	0.21	0.36	1.37	9.8	9	11364	584
16	2.8	34.5	4.0	15.0	1.9	0.10	0.33	1.03	18.2	40	15538	810
17	4.5	34.2	3.7	21.0	2.2	0.10	0.43	2.50	23.0	32	7147	574
18	5.5	16.5	2.6	15.4	2.2	0.10	0.34	2.38	25.6	23	12014	426
19	6.2	17.8	2.7	17.0	1.9	0.10	0.27	2.45	29.5	24	14305	480
20	5.1	17.7	2.3	15.3	3.0	0.10	0.33	2.16	25.4	18	12163	421
21	3.4	18.7	2.6	24.7	2.5	0.25	0.22	2.06	19.6	16	9628	456
22	2.6	11.8	1.8	13.7	2.6	0.29	0.25	2.25	16.3	7	4710	259
23	2.4	17.7	3.3	16.3	1.0	0.22	0.24	2.12	20.4	11	12036	542
24	2.1	45.2	5.8	19.3	3.7	0.10	0.27	0.57	16.5	8	11822	1217
25	2.2	52.7	4.5	13.3	2.1	0.57	0.26	1.05	15.5	8	32378	809
26	4.1	58.4	4.5	21.0	2.4	0.10	0.27	1.90	13.8	7	12014	768
27	8.7	28.7	4.3	24.5	3.9	0.39	0.25	2.93	32.3	14	9873	454
28	1.2	13.3	3.1	15.7	3.1	0.10	0.16	2.25	28.0	4	9678	470
29	3.5	50.3	5.0	20.0	4.8	0.75	0.28	1.72	17.3	13	12581	858

Table 2 (continued)  
Total Concentrations of Elements in Benchmark Soils

<b>Soil No.</b>	<b>Cs</b>	<b>Cu</b>	<b>Fe</b>	<b>Ga</b>	<b>Ge</b>	<b>Hg</b>	<b>I</b>	<b>K</b>	<b>La</b>	<b>Li</b>	<b>Mg</b>	<b>Mn</b>
	-----mg/Kg-----	%		-----mg/Kg-----				%		-----mg/Kg-----		
30	3.2	29.0	2.6	18.2	1.5	0.22	0.26	0.84	16.7	8	7497	961
31	2.5	55.6	5.1	19.2	5.1	0.10	0.23	1.33	16.0	32	12381	824
32	4.3	22.3	3.4	19.1	2.5	0.10	0.23	2.15	33.4	51	8370	285
33	3.9	23.6	3.5	18.9	2.6	0.45	0.23	1.74	23.4	33	8238	260
34	3.4	24.8	4.4	20.4	2.5	0.66	0.28	2.08	21.7	61	15918	768
35	2.4	11.3	2.5	16.5	2.2	0.32	0.20	2.47	31.8	32	7861	433
36	2.0	15.1	3.1	17.9	2.8	0.10	0.22	1.69	33.8	25	7410	439
37	1.6	35.6	8.7	20.9	5.2	0.10	0.27	0.51	10.9	11	13725	1205
38	1.6	16.1	3.3	15.3	2.1	0.10	0.20	2.49	20.1	9	3664	890
39	1.0	20.7	2.5	8.3	3.5	0.10	0.17	0.36	10.1	15	3003	480
40	1.0	20.0	2.1	8.5	4.1	0.10	0.15	0.21	9.7	9	2402	382
41	1.3	10.6	2.3	14.0	0.3	0.10	0.19	1.63	14.2	8	5436	638
42	3.9	18.6	3.5	18.5	3.8	0.10	0.27	2.06	21.5	20	8396	736
43	2.3	11.4	1.3	12.7	2.2	0.63	0.62	1.56	23.8	7	1970	445
44	2.1	16.6	2.0	17.7	1.5	0.10	0.42	1.99	20.4	10	2384	593
45	2.4	9.5	1.0	12.8	1.5	0.10	0.43	1.67	15.0	5	1456	268
46	3.3	41.5	4.5	18.3	4.4	0.34	0.32	1.66	13.3	27	15324	674
47	2.6	51.3	5.2	18.5	3.8	0.57	0.24	1.03	13.4	28	20568	720
48	4.1	37.6	4.2	20.8	3.3	0.10	0.35	2.01	18.8	52	18414	535
49	1.5	24.4	2.4	10.4	2.4	0.25	0.67	0.42	9.9	27	7393	436
50	2.8	9.1	1.4	10.7	1.2	0.10	0.27	1.57	16.0	20	7616	253
AVG	3.1	28.7	3.7	17.6	2.8	0.26	0.40	1.73	20.3	23	9923	646
GEOM MEAN	2.7	24.0	3.4	17.1	2.5	0.20	0.35	1.54	19.0	18	8492	592
MAX	8.7	96.4	8.7	27.9	5.8	0.90	1.24	3.00	39.3	90	32378	1687
MIN	1.0	9.1	1.0	8.3	0.3	0.10	0.15	0.21	9.7	4	1456	253
RANGE	7.7	87.3	7.7	19.6	5.6	0.80	1.09	2.79	29.6	86	30922	1434
Est.D.Lim. <sup>1</sup>	0.25	0.25	.00025	0.15	0.5	0.2	0.15	0.05	0.15	2	10	2.5

<sup>1</sup>Est.D.Lim. denotes the estimated detection limit for each element. In this table, concentrations less than the Est.D.Lim. are reported as one-half of the Est.D.Lim. Descriptive statistics are calculated accordingly.

Table 2 (continued)  
Total Concentrations of Elements in Benchmark Soils

Soil No.	Mo	Na	Nb	Ni	P	Pb	Rb	Sb	Sc	Se	Si	Sn
					-mg/Kg-					%	Mg/Kg	
1	1.4	14710	1.3	20	94	57.1	84.5	1.95	11.9	0.015	26.7	1.20
2	1.2	15620	0.9	25	231	29.7	48.0	1.46	11.6	0.015	31.0	1.25
3	0.4	8960	0.3	77	82	26.9	52.2	0.78	21.0	0.030	27.2	0.89
4	1.2	11790	0.8	51	359	22.4	53.1	1.15	18.0	0.015	23.7	0.75
5	0.7	10010	1.8	140	972	34.3	51.9	0.45	22.0	0.070	26.6	1.26
6	0.8	14400	1.3	25	13	15.6	19.5	0.29	12.0	0.015	22.4	1.13
7	2.4	16610	2.3	19	772	14.2	70.0	0.33	9.0	0.150	26.5	0.77
8	9.6	29000	3.4	21	807	18.4	81.5	0.73	7.5	0.015	27.0	1.38
9	0.6	15050	1.5	12	213	21.3	39.8	0.36	4.9	0.015	32.4	0.82
10	1.2	15270	1.3	26	107	14.8	43.2	0.32	7.6	0.015	28.9	0.86
11	0.5	22240	1.0	13	515	22.7	42.8	0.38	6.1	0.015	34.0	0.98
12	0.7	19560	1.1	10	74	15.6	31.9	0.26	20.0	0.015	24.3	1.38
13	1.4	73400	4.0	16	1150	97.1	86.0	0.47	5.7	0.015	24.4	2.16
14	0.6	18800	0.5	64	378	22.1	53.7	0.25	11.4	0.015	28.3	0.58
15	0.2	17400	0.5	49	142	12.4	25.9	0.35	9.5	0.015	30.1	1.14
16	0.7	13970	1.9	142	697	34.0	46.5	0.46	8.5	0.015	28.3	1.46
17	0.6	16230	0.8	40	539	30.9	54.7	1.03	10.5	0.050	31.2	1.01
18	0.8	9870	1.9	21	740	44.3	59.8	0.73	4.7	0.190	28.8	1.46
19	1.3	9490	2.1	25	873	37.0	66.8	0.77	5.9	0.220	26.3	1.12
20	0.8	10690	2.0	22	736	33.8	55.9	0.68	5.2	0.180	29.9	1.47
21	1.4	14620	1.0	53	342	19.7	53.5	0.66	5.6	0.170	32.6	0.57
22	3.7	10980	2.1	27	509	14.6	48.4	0.45	2.8	0.180	30.3	1.07
23	0.9	18380	1.0	62	560	22.5	41.7	1.50	5.1	0.160	32.1	1.00
24	0.4	14370	3.4	57	252	16.7	18.9	0.44	15.5	0.015	23.9	0.68
25	1.3	11340	1.8	509	41	17.9	33.4	0.73	11.7	0.015	25.2	1.91
26	0.8	11970	0.5	27	385	24.1	47.7	0.73	17.0	0.015	26.0	0.53
27	1.3	20970	3.5	52	293	39.1	107.9	1.52	7.8	0.430	30.0	1.85
28	0.1	15650	1.3	30	657	13.2	43.0	0.16	6.7	0.015	30.0	0.94
29	1.1	15580	0.5	116	664	23.9	57.2	0.75	12.8	0.230	30.2	0.85

**Table 2 (continued)**  
**Total Concentrations of Elements in Benchmark Soils**

Soil No.	Mo	Na	Nb	Ni	P	Pb	Rb	Sb	Sc	Se	Si	Sn
					mg/Kg					%	Mg/Kg	
30	0.6	15620	1.8	47	610	20.6	57.6	0.28	7.3	0.015	34.0	0.77
31	0.6	14270	0.7	104	487	18.1	41.7	0.59	17.1	0.040	32.8	0.85
32	4.5	15110	4.3	21	407	22.4	68.5	1.40	8.5	0.015	26.3	1.91
33	2.4	15650	2.7	56	63	24.5	61.4	0.68	7.9	0.015	28.8	1.35
34	1.7	16830	3.1	29	463	17.5	67.4	0.46	10.0	0.015	25.9	1.19
35	0.9	17260	1.3	12	301	21.3	55.1	0.33	5.3	0.015	30.4	1.22
36	1.0	7580	1.8	23	314	26.7	61.8	0.32	6.0	0.015	35.6	1.01
37	0.5	19540	1.4	15	33	17.0	28.5	0.42	24.0	0.015	27.9	1.38
38	0.5	13800	1.1	23	257	21.3	42.1	0.37	5.0	0.015	35.9	0.25
39	0.4	15550	0.8	50	194	12.7	16.3	0.24	5.0	0.015	39.4	0.64
40	0.7	6630	0.6	30	124	14.0	14.3	0.16	5.0	0.015	37.1	1.04
41	0.3	17410	0.9	17	65	14.2	30.2	0.15	6.8	0.015	33.5	0.99
42	1.0	13800	0.8	22	107	17.8	61.3	0.60	8.8	0.015	32.7	0.92
43	1.7	13570	4.9	20	387	13.4	41.7	0.50	2.5	0.110	36.7	2.44
44	3.1	10230	1.4	27	309	19.7	43.5	0.57	4.2	0.015	27.3	1.32
45	2.6	12290	2.9	9	360	16.0	28.9	0.48	2.6	0.015	34.7	1.77
46	0.7	17040	1.5	212	467	18.9	40.5	0.50	11.0	0.015	27.2	1.05
47	0.7	17890	0.6	196	351	14.9	34.4	0.40	15.3	0.015	28.1	0.65
48	1.5	19290	1.3	113	357	23.1	55.8	0.60	13.5	0.015	28.8	0.81
49	2.2	5580	1.7	41	1210	27.4	21.1	0.42	4.2	0.140	13.2	1.04
50	0.3	10010	0.9	12	524	16.8	31.9	0.31	0.8	0.015	35.6	1.35
AVG	1.3	15838	1.7	57	412	23.9	48.5	0.60	9.5	0.058	29.4	1.11
GEO. MEAN	0.9	14500	1.4	36	290	21.7	44.6	0.50	8.2	0.028	29.0	1.03
MAX	9.6	73400	4.9	509	1210	97.1	107.9	1.95	24.0	0.430	39.4	2.44
MIN	0.1	5580	0.3	9	13	12.4	14.3	0.15	0.8	0.015	13.2	0.25
RANGE	9.5	67820	4.6	500	1197	84.7	93.6	1.80	23.2	0.415	26.2	2.19
Est.D.Lim. <sup>1</sup>	0.025	100	0.25	5	25	1	0.15	0.15	0.2	0.03	0.0005	0.5

<sup>1</sup> Est.D.Lim. denotes the estimated detection limit for each element. In this table, concentrations less than the Est.D.Lim. are reported as one-half of the Est.D.Lim. Descriptive statistics are calculated accordingly.

Table 2 (continued)  
Total Concentrations of Elements in Benchmark Soils

<b>Soil No.</b>	<b>Sr</b>	<b>Th</b>	<b>Ti</b>	<b>TL</b>	<b>U</b>	<b>V</b>	<b>W</b>	<b>Y</b>	<b>Zn</b>	<b>Zr</b>
mg/Kg										
1	84	36.2	4640	1.10	8.2	74	1.10	30.6	172	610
2	166	13.9	6463	0.62	5.7	134	0.22	22.6	165	232
3	38	10.1	6218	0.74	2.7	187	0.10	15.0	204	134
4	194	10.8	7337	0.85	3.8	236	0.16	31.2	149	151
5	47	8.8	12890	0.70	3.1	191	0.28	29.2	162.	230
6	155	9.8	5918	0.46	3.2	123	0.40	19.1	139	88
7	236	27.5	4351	0.62	8.5	60	0.36	43.2	170	32
8	210	25.4	4780	0.68	21.3	83	1.60	39.1	180	57
9	152	20.2	2885	0.34	4.6	55	0.33	29.4	182	51
10	151	12.8	4466	0.48	3.1	93	0.45	29.4	153	67
11	198	23.9	3864	0.41	5.1	80	0.28	26.6	97	56
12	92	11.0	5373	0.52	2.4	220	0.31	31.9	123	52
13	118	32.4	4650	0.87	10.7	89	0.74	23.4	236	53
14	84	18.0	5662	0.49	5.7	170	0.15	30.7	104	90
15	156	5.3	3590	0.29	1.9	123	0.19	26.8	141	29
16	68	8.1	4566	0.59	1.8	125	0.97	11.8	177	108
17	102	13.3	5225	0.57	3.2	133	0.42	22.8	193	99
18	169	15.8	3657	0.73	4.2	69	0.76	27.5	172	130
19	193	18.6	4778	0.75	4.4	84	0.73	31.8	179	180
20	197	15.9	3949	0.57	3.9	74	0.71	28.6	168	178
21	106	16.0	3740	0.42	3.4	92	0.60	25.3	165	81
22	176	13.7	2453	0.47	5.6	58	0.54	21.6	152	50
23	187	14.2	3963	0.47	2.9	113	0.47	25.0	107	92
24	182	8.2	6957	0.45	1.5	139	0.65	33:3	149	107
25	86	13.3	2757	0.36	4.3	77	0.95	16.8	133	45
26	231	9.8	3997	0.67	2.8	117	0.05	19.5	183	38
27	134	25.5	5683	0.90	5.8	133	1.20	24.8	144	105
28	116	19.5	3705	0.38	2.4	85	0.10	32.6	92	20
29	33	9.4	7096	0.69	1.6	185	0.22	15.6	157	164

Table 2 (continued)  
Total Concentrations of Elements in Benchmark Soils

Soil No.	Sr	Th	Ti	TL	U	V	W	Y	Zn	Zr
mg/Kg										
30	20	10.8	4814	0.63	3.0	102	0.44	8.5	144	68
31	24	7.3	7875	0.42	1.5	181	0.17	12.9	189	136
32	229	30.1	3499	0.79	17.3	77	6.50	36.9	164	43
33	172	23.1	3739	0.75	14.5	126	6.90	21.5	157	60
34	264	17.3	5178	0.68	6.4	115	1.20	33.9	176	48
35	179	25.1	3790	0.61	4.9	74	0.64	35.7	154	35
36	90	25.8	2950	0.77	3.9	75	0.72	30.6	94	19
37	158	5.9	7771	0.45	1.7	288	0.47	32.9	154	34
38	83	16.1	3644	0.42	3.4	96	0.28	20.9	91	58
39	23	6.0	4990	0.20	1.2	92	0.25	9.5	88	92
40	27	5.6	2388	0.17	1.2	76	0.24	10.8	136	24
41	65	10.4	3857	0.33	2.6	68	0.28	17.9	138	56
42	84	32.9	4565	0.81	6.7	94	0.28	24.4	155	60
43	87	17.3	4233	0.44	3.8	54	1.10	15.7	133	63
44	49	13.3	3454	0.58	4.3	88	0.50	15.6	100	56
45	69	11.3	2629	0.50	5.6	48	0.50	18.0	135	41
46	83	9.1	5539	0.50	2.1	139	0.48	16.4	119	100
47	74	7.2	6099	0.33	1.6	175	0.27	18.1	165	98
48	180	14.0	4913	0.59	4.0	138	0.37	25.7	132	111
49	271	9.8	2239	0.28	6.3	58	1.30	25.6	122	34
50	123	9.5	2012	0.49	2.5	39	0.36	18.1	150	95
AVG	128	15.7	4716	0.56	4.7	112	0.77	24.3	149	93
GEOM. MEAN	107	13.8	4419	0.52	3.8	101	0.45	22.9	145	72
MAX	271	36.2	12890	1.10	21.3	288	6.90	43.2	236	610
MIN	20	5.3	2012	0.17	1.2	39	0.05	8.5	88	19
RANGE	251	30.9	10878	0.93	20.1	249	6.85	34.7	148	591
Est.D.Lim. <sup>1</sup>	4	0.1	5	0.15	0.05	5	0.1	0.15	2.5	0.25

<sup>1</sup>Est.D.Lim. denotes the estimated detection limit for each element. In this table, concentrations less than the Est.D.Lim. are reported as one-half of the Est.D.Lim. Descriptive statistics are calculated accordingly.

**Table 3**  
**Ranges In Concentration and Summary Statistics of 46 Elements in 50 Benchmark California Soils<sup>a</sup>**

Parameter	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce
Mean	0.80	7.3	3.5	19	509	1.28	0.35	14466	0.36	159
Standard Deviation	1.43	1.7	2.5	15	210	0.52	0.14	10703	0.31	52
Coefficient of Variation (CV) (%)	178	24	71	79	41	41	39	74	88	33
Geometric Mean	0.41	7.1	2.8	14	468	1.14	0.33	10849	0.26	151
Geometric Deviation	2.64	1.3	2.1	2.6	1.54	1.79	1.46	2.25	2.27	1.38
Geometric CV (%)	636	19	76	19	0.30	157	448	0.02	876	0.9
Minimum	0.10	3.0	0.6	1	133	0.25	0.11	2451	0.05	78
Lower Quartile	0.22	6.3	1.4	7	375	0.92	0.25	6600	0.15	121
Median	0.37	7.5	2.7	17	519.5	1.265	0.335	11420	0.275	150.5
Upper Quartile	0.53	8.3	4.7	26	625	1.53	0.39	20015	0.44	188
Maximum	8.30	10.6	11.0	74	1400	2.70	0.80	45577	1.70	305
W:Normal <sup>b</sup>	0.4864	0.9761	0.8865	0.8935	0.9161	0.9883	0.9248	0.8848	0.7977	0.9426
Prob<W <sup>c</sup>	0.0001	0.5824	0.0001	0.0001	0.0015	0.9591	0.0039	0.0001	0.0001	0.0268
W:Ln Normal <sup>d</sup>	0.8708	0.9218	0.9556	0.9566	0.9562	0.8305	0.9816	0.9505	0.9764	0.9781
Prob<W	0.0001	0.0028	0.1021	0.1129	0.1082	0.0001	0.7863	0.061	0.5961	0.6564
Methods Reported <sup>e</sup>	1	2	3	2	2	1	1	2	1	1

<sup>a</sup>Please refer to Table 2 for concentration units for each element. Concentrations less than the Est.D.Lim. are reported as one-half of the Est.D.Lim. Descriptive statistics are calculated accordingly.

<sup>b</sup>w:Normal: Normal test statistic

<sup>c</sup>Prob<W: Associated probability for testing the hypothesis that the data come from a normal distribution

<sup>d</sup>W:Ln Normal: Normal test statistic for Ln transformed data

<sup>e</sup>Methods Reported

1 = ICP-MS (Inductively Coupled Plasma-Mass Spectroscopy)

2 = ICP-OES (ICP-Optical Emission Spectroscopy)

3 - ICP-OES Hydride

**Table 3 (continued)**  
**Ranges in Concentration and Summary Statistics of 46 Elements in 50 Benchmark California Soils<sup>a</sup>**

Parameter	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hg	I
Mean	14.9	122	3.1	28.7	3.7	17.6	2.8	0.26	0.40
Standard Deviation	9.2	223	1.6	19.3	1.6	4.5	1.2	0.21	0.24
Coefficient of Variation (CV) (%)	62	183	53	67	43	25	43	80	60
Geometric Mean	12.6	76	2.7	24.0	3.4	17.1	2.5	0.20	0.35
Geometric Deviation	1.79	2.27	1.7	1.8	1.6	1.3	1.6	2.12	1.67
Geometric CV (%)	14	3	62	7	46	7	64	1059	476
Minimum	2.7	23	1.0	9.1	1.0	8.3	0.4	0.05	0.15
Lower Quartile	8.7	45	1.9	16.1	2.6	14.9	2.0	0.10	0.24
Median	11.6	69	2.6	21.6	3.3	17.9	2.5	0.19	0.30
Upper Quartile	18.3	115	3.9	36.6	4.5	20.3	3.5	0.34	0.49
Maximum	46.9	1579	8.7	96.4	8.7	27.9	5.8	0.90	1.24
W:Normal <sup>b</sup>	0.8510	0.3834	0.9001	0.8169	0.9396	0.9758	0.9410	0.8133	0.8138
Prob<W <sup>c</sup>	0.0001	0.0001	0.0003	0.0001	0.0194	0.5721	0.0226	0.0001	0.0001
W:Ln Normal <sup>d</sup>	0.9727	0.9265	0.9815	0.9544	0.9846	0.96	0.9379	0.9212	0.9372
Prob<W	0.4631	0.0047	0.783	0.0903	0.8799	0.1563	0.0162	0.0026	0.015
Methods	2	2	1	1	2	1	1	1	1
Reported <sup>e</sup>									

<sup>a</sup>Please refer to Table 2 for concentration units for each element. Concentrations less than the Est. D. Lim. are reported as one-half of the Est.D.Lim. Descriptive statistics are calculated accordingly.

<sup>b</sup>w:Normal: Normal test statistic

<sup>c</sup>Prob<W: Associated probability for testing the hypothesis that the data come from a normal distribution

<sup>d</sup>W:Ln Normal: Normal test statistic for Ln transformed data

<sup>e</sup>Methods Reported

1 = ICP-MS (Inductively Coupled Plasma-Mass Spectroscopy)

2 = ICP-OES (ICP-Optical Emission Spectroscopy)

3 = ICP-OES Hydride

**Table 3 (continued)**  
**Ranges in Concentration and Summary Statistics of 46 Elements in 50 Benchmark California Soils<sup>a</sup>**

Parameter	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
Mean	1.73	20.3	23	9923	646	1.3	15838	1.7	57
Standard Deviation	0.69	7.5	17	5356	285	1.5	9309	1.1	80
Coefficient of Variation (CV) (%)	40	37	75	54	44	113	59	65	141
Geometric Mean	1.54	19.0	18	8492	592	0.9	14500	1.4	36
Geometric Deviation	1.77	1.4	2.0	1.80	1.5	2.23	1.5	1.9	2.4
Geometric CV (%)	115	7.5	11	0.02	0.3	239	0.01	141	7
Minimum	0.21	9.7	4	1456	253	0.1	5580	0.3	9
Lower quartile	1.33	15.0	10	6442	449	0.6	11790	0.9	21
Median	1.76	18.7	19	9166	590	0.85	15080	1.3	27
Upper Quartile	2.25	24.6	32	12036	809	1.4	17260	2	56
Maximum	3.00	39.3	90	32378	1687	9.6	73400	4.9	509
W:Normal <sup>b</sup>	0.9610	0.9350	0.8442	0.8978	0.9104	0.6126	0.5514	0.8747	0.5508
Prob<W <sup>c</sup>	0.1722	0.0118	0.0001	0.0002	0.0008	0.0001	0.0001	0.0001	0.0001
W:Ln Normal <sup>d</sup>	0.8352	0.9696	0.9776	0.92	0.9732	0.9849	0.904	0.9806	0.9388
Prob<W	0.0001	0.3634	0.6377	0.0023	0.4807	0.8873	0.0004	0.749	0.0178
Methods Reported <sup>e</sup>	2	1	2	2	2	1	2	1	2

<sup>a</sup>Please refer to Table 2 for concentration units for each element. Concentrations less than the Est.D.Lim. are reported as one-half of the Est.D.Lim. Descriptive statistics are calculated accordingly.

<sup>b</sup>W:Normal: Normal test statistic

<sup>c</sup>Prob<W: Associated probability for testing the hypothesis that the data come from a normal distribution

<sup>d</sup>W:Ln Normal: Normal test statistic for Ln transformed data

<sup>e</sup>Methods Reported

1 = ICP-MS (Inductively Coupled Plasma-Mass Spectroscopy)

2 = ICP-OES (ICP-Optical Emission Spectroscopy)

3 = ICP-OES Hydride

**Table 3 (continued)**  
**Ranges in Concentration and Summary Statistics of 46 Elements in 50 Benchmark California Soils<sup>a</sup>**

Parameter	P	Pb	Rb	Sb	Sc	Se	Si	Sn	Sr
Mean	412	23.9		48.5	0.60	9.5	0.058	29.4	1.11
Standard Deviation	290	13.8		19.0	0.39	5.3	0.084	4.6	0.42
Coefficient of Variation (CV) (%)	70	58		39	66	55	147	16	38.
Geometric Mean	290	21.7		44.6	0.50	8.2	0.028	29.0	1.03
Geometric Dev	3	1.5		1.5	1.80	1.7	2.89	1.2	1.48
Geometric CV (%)	0.9	7		3	360	21	10149	4	143
Minimum	13	12.4		14.3	0.15	0.8	0.015	13.2	0.25
Lower Quartile	194	16		34.4	0.33	5.3	0.015	26.6	0.85
Median	360	20.6		47.9	0.47	8.0	0.015	28.8	1.04
Upper Quartile	560	26.7		57.6	0.73	11.9	0.050	32.6	1.35
Maximum	1210	97.1		107.9	1.95	24.0	0.430	39.4	2.44
W:Normal <sup>b</sup>	0.9330	0.6712		0.9680	0.8210	0.8966	0.5860	0.9662	0.9444
Prob<W <sup>c</sup>	0.0950	0.0001		0.3202	0.0001	0.0002	0.0001	0.2500	0.0322
W:Ln Normal <sup>d</sup>	0.9101	0.9118		0.9538	0.9704	0.9712	0.626	0.7089	0.9708
Prob<W <sup>e</sup>	0.0008	0.0009		0.0849	0.39	0.415	0.0001	0.0001	0.4015
Methods Reported	2	1		1	1	2	3	2	1
									2

<sup>a</sup>Please refer to Table 2 for concentration units for each element. Concentrations less than the Est.D.Lim. are reported as one-half of the Est.D.Lim. Descriptive statistics are calculated accordingly.

<sup>b</sup>w:Normal: Normal test statistic

<sup>c</sup>Prob<W: Associated probability for testing the hypothesis that the data come from a normal distribution

<sup>d</sup>W:Ln Normal: Normal test statistic for Ln transformed data

<sup>e</sup>Methods Reported

1 = ICP-MS (Inductively Coupled Plasma-Mass Spectroscopy)

2 = ICP-OES (ICP-Optical Emission Spectroscopy)

3 = ICP-OES Hydride

Table 3 (continued)  
Ranges in Concentration and Summary Statistics of 46 Elements In 50 Benchmark California Soils<sup>a</sup>

Parameter	Th	Ti	Tl	U	V	W	Y	Zn	Zr
Mean	15.7	4716	0.56	4.7	112	0.77	24.3	149	93
Standard Deviation	7.6	185	0.19	3.9	53	1.27	8.1	32	90
Coefficient of Variation (CV) (%)	49	39	34	83	47	166	33	21	97
Geometric Mean	13.8	4419	0.52	3.8	101	0.45	22.9	145	72
Geometric Deviation	1.6	1	1.46	1.9	2	2.51	1.45	1	2
Geometric CV (%)	12	0.03	280	51	2	553	6	0.9	3
Minimum	5.3	2012	0.17	1.2	39	0.05	8.5	88	19
Lower Quartile	9.8	3657	0.42	2.5	75	0.28	18.0	133	48
Median	13.5	4516	0.54	3.8	94	0.45	24.9	153	63
Upper Quartile	19.5	5539	0.69	5.6	134	0.73	30.6	170	107
Maximum	36.2	12890	1.10	21.3	288	6.90	43.2	236	610
W:Normal <sup>b</sup>	0.9028	0.8778	0.9846	0.7174	0.8974	0.4405	0.9793	0.9696	0.6261
Prob<W <sup>c</sup>	0.0004	0.0001	0.8775	0.0001	0.0002	0.0001	0.7026	0.3657	0.0001
W:Ln Normal <sup>d</sup>	0.9611	0.9843	0.9633	0.9657	0.9809	0.9589	0.9467	0.9401	0.9497
Prob<W	0.1731	0.8699	0.212	0.2633	0.7619	0.1415	0.041	0.0205	0.0561
Methods Reported <sup>e</sup>	1	2	1	1	2	1	1	2	2

<sup>a</sup>Please refer to Table 2 for concentration units for each element. Concentrations less than the Est.D.Lim. are reported as one-half of the Est.D.Lim. Descriptive statistics are calculated accordingly.

<sup>b</sup>w:Normal: Normal test statistic

<sup>c</sup>Prob<W: Associated probability for testing the hypothesis that the data come from a normal distribution

<sup>d</sup>W:Ln Normal: Normal test statistic for Ln transformed data

<sup>e</sup>Methods Reported

1 = ICP-MS (Inductively Coupled Plasma-Mass Spectroscopy)

2 = ICP-OES (ICP-Optical Emission Spectroscopy)

3 = ICP-OES Hydride

**Table 4**  
**Correlation Coefficients between Elements in California Benchmark Soils<sup>1</sup>**

	Ag	Mo	Be	P	Si	Se
B	-	0.51	-	-	-	-
K	-	-	0.38	-	0.43	-
Pb	-	-	0.43	0.45	-	-
Zr	-	-	0.48	-	-	-
Rb	-	0.37	0.64	-	-	0.41
Nb	-	0.50	-	-	-	-
Cs	-	-	0.68	-	-	-
Sb	-	-	0.46	-	-	-
Bi	-	-	0.43	-	-	-
W	-	0.43	-	-	-	-
La	-	-	0.47	-	-	-
Tl	-	0.51	0.37	-	-	-
Ga	-	0.51	0.60	-	-	-
Cd	-	0.51	-	-	-	0.36
As	-	-	0.39	-	-	-
U	-	0.82	-	-	-	-
Al	-	-	0.36	-	-	-
Ti	-	-	0.41	-	-	-
Ce	-	-	0.51	-	-	-

<sup>1</sup>Correlation significant at p < 0.01 if r > 0.36

	Ga	Sc	Hg	Ge	Ca
Sc	0.58	1.0	-	-	-
Ge	0.42	0.61	-	1.0	-
Cu	0.62	0.76	-	0.66	-
As	0.38	-	-	-	-
Al	0.63	0.65	-	-	-
Fe	0.61	0.92	-	0.69	-
Mn	0.47	0.69	-	0.69	-
Ti	0.63	0.75	-	0.69	-
Mg	-	0.39	-	-	-
I	0.38	-	0.44	-	-
Ce	0.38	-	-	-	-
Sr	-	-	-	-	0.49

<sup>1</sup>Correlation significant at p < 0.01 if r > 0.36

**Table 4 (continued)**  
**Correlation Coefficients between Elements in California Benchmark Soils<sup>1</sup>**

	B	Li	K	V	Co	Ni	Cr
Li	0.59	1.0	-	-	-	-	-
CO	-	-	-	0.63	1.0	-	-
Ni	-	-	-	-	0.76	1.0	-
Cr	-	-	-	-	0.65	0.95	1.0
Rb	0.41	0.39	0.71	-	-	-	-
Cs	0.55	0.38	0.56	-	-	-	-
Sb	-	-	0.52	-	-	-	-
Bi	0.39	-	-	-	-	-	-
Y	-	-	0.42	-	-	-	-
La	-	-	0.72	-	-	-	-
Zn	-	0.41	-	-	-	-	-
Ba	-	-	0.59	-	-	-	-
Tl	-	0.39	0.42	-	-	-	-
Ga	-	0.45	-	0.56	0.40	-	-
Sc	-	-	-	0.86	0.67	-	-
Ge	-	-	-	0.69	0.55	-	-
Cu	-	-	-	0.66	0.81	0.46	-
As	0.62	0.59	-	-	-	-	-
Th	-	-	0.65	-0.37	-0.39	-	-
U	0.41	-	0.39	-	-	-	-
Al	-	-	-	0.60	0.45	-	-
Fe	-	-	-	0.92	0.72	-	-
Mn	-	-	-	0.68	0.66	-	-
Ti	-	-	-	0.76	0.62	-	-
Mg	-	-	-	-	0.63	0.71	0.65
Ce	-	-	0.69	-	-	-	-

<sup>1</sup>Correlation significant at p < 0.01 if r > 0.36

	Bi	W	Y	La	Zn	Ba	Tl
W	0.38	1.0	-	-	-	-	-
La	0.47	-	0.58	1.0	-	-	-
Ba	-	-	-	0.39	-	1.0	-
Tl	-	-	-	0.48	0.43	-	1.0
Ga	-	-	-	-	0.45	0.55	0.39
As	0.49	-	-	-	-	-	-
Th	0.42	0.47	0.49	0.83	-	0.37	0.55
U	-	0.69	0.45	0.53	-	-	0.39
Al	-	-	-	-	0.37	-	-
Ca	-	-	0.47	-	-	-	-
Ce	0.47	-	0.63	0.96	-	-	0.47
Sr	-	-	0.67	-	-	-	-

<sup>1</sup>Correlation significant at P < 0.01 if r > 0.36

**Table 4 (continued)**  
**Correlation Coefficients between Elements in California Benchmark Soils**

	Pb	Zr	Rb	Nb	Cs	Sn	Sb
Zr	0.42	1.0	-	-	-	-	-
Rb	0.57	-	1.0	-	-	-	-
Nb	-	-	0.40	1.0	-	-	-
Cs	0.57	0.53	0.81	-	1.0	-	1.0
Sn	-	-	-	0.63	-	1.0	-
Sb	0.38	0.62	0.53	-	0.68	-	1.0
Bi	-	0.45	0.50	-	0.59	-	0.51
W	-	-	-	0.52	-	0.36	-
Y	-	-	0.38	-	-	-	-
La	0.41	-	0.78	0.46	0.51	-	0.39
Zn	0.50	-	0.42	-	0.48	-	-
Ba	-	-	0.48	-	-	-	0.39
Tl	0.40	-	0.52	-	0.40	-	0.36
Ga	0.36	-	0.59	-	0.53	-	0.46
Hg	-	0.46	-	-	-	-	-
As	0.37	0.65	0.40	-	0.59	-	0.66
Th	0.44	-	0.74	0.44	0.47	-	-
U	-	-	0.57	0.57	0.38	-	-
Ca	-	-	-	-	-	0.38	-
Mg	-	-	-	-	-	-	-
Na	0.63	-	0.37	-	-	-	-
I	-	0.61	-	-	-	-	0.39
Ce	0.42	0.37	0.76	0.39	0.51	-	0.40

<sup>1</sup>Correlation significant at p < 0.01 if r > 0.36

	As	Th	U	Al	Fe	Mn	Ti
U	-	0.71	1.0	-	-	-	-
Fe	-	-	-	0.67	1.0	-	-
Mn	-	-	-	0.50	0.78	1.0	-
Ti	-	-	-	0.49	0.79	0.77	1.0
Mg	-	-	-	-	0.47	-	-
Na	-	0.36	-	-	-	-	-
I	0.38	-	-	-	-	-	-
Ce	-	0.78	0.47	-	-	-	-
Sr	-	-	0.43	-	-	-	-

<sup>1</sup>Correlation significant at p < 0.01 if r > 0.36

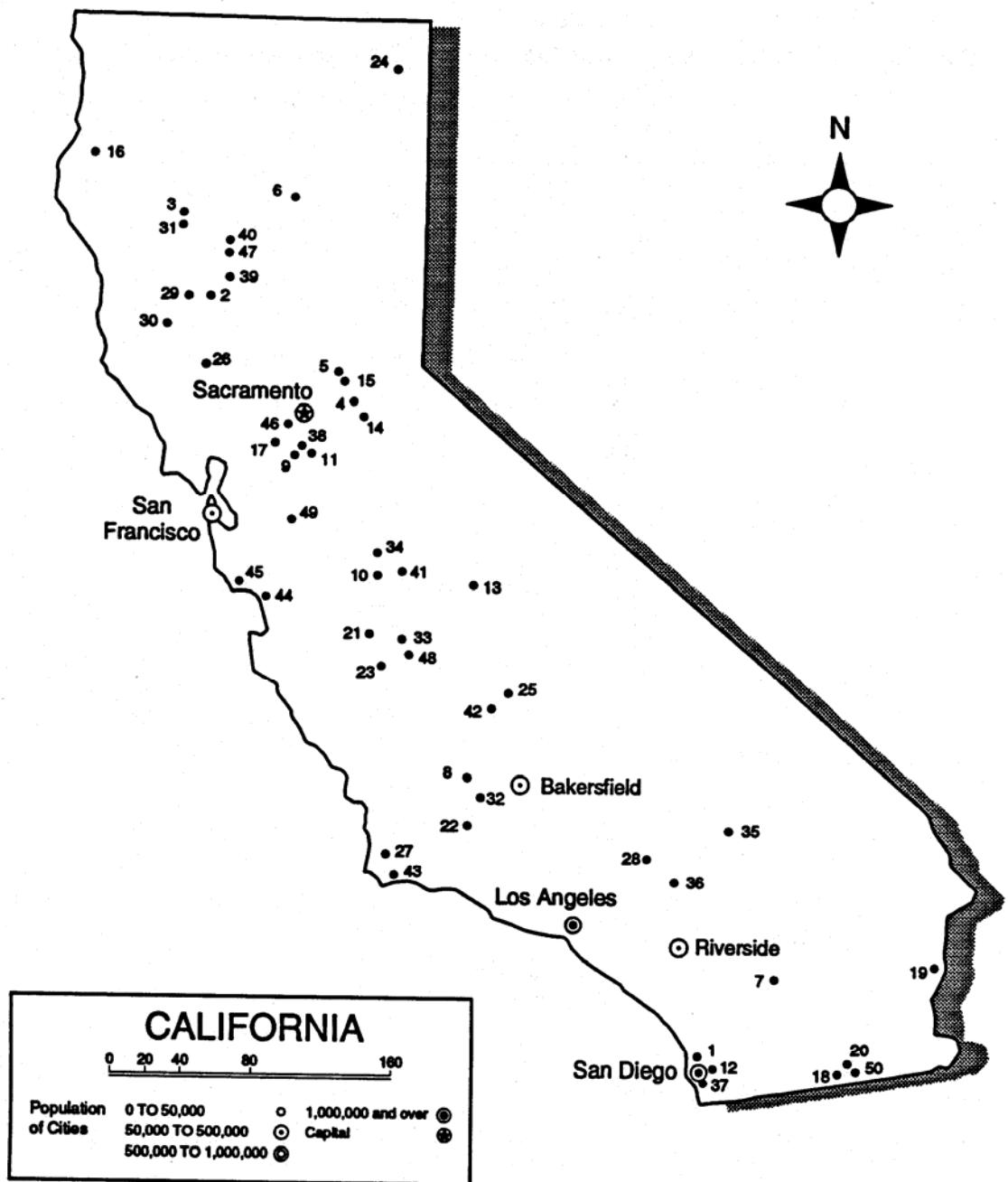


Figure 1. Soil sample numbers keyed to map of California

# **Appendix E**

## **Soil Vapor Laboratory Report**



## CHAIN-OF-CUSTODY RECORD

### Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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Page 1 of 1

Contact Person <u>Adina Honniball, Joyce Bobek</u> Company <u>SOMA Environmental Engineering</u> Address <u>6620 Owens Dr. Ste A</u> City <u>Pleasanton</u> State <u>CA</u> Zip <u>94588</u> Phone <u>925-734-6400</u> FAX <u>925-734-6401</u> Collected By: Signature <u>Adi Hinn</u>				Project info: P.O. # _____ Project # <u>2840</u> Project Name <u>Wente</u>	Turn Around Time: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush _____ Specify	
Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Canister Pressure / Vacuum Final	Canister Pressure / Vacuum Receipt
01A	SV-9 can# 30824	10/9/06 1002	modified TO-15 + isopropyl alcohol	25 "Hg	5 "Hg	2.0 "Hg
02A	SV-4 cann. 2218	10/9/06 1132	modified TO-15 + isopropyl alc	30	5	6.0 "Hg
03A	SV-5 cann. 2211	10/9/06 1214	modified TO-15 , isopropyl alc	29	5	7.5 "Hg
04A	SV-6 cann. 1463	10/9/06 13:24	modified TO-15 , isopropyl alc	29	5	9.0 "Hg
05A	SV-10 cann. 11829	10/9/06 14:11	modified TO-15 , isopropyl alc	28.5	5	8.0 "Hg
06A	SV-7 cann. 31795	10/9/06 14:48	modified TO-15 , isopropyl alc	29.5	5	6.0 "Hg
07A	SV-3 cann. 2079	10/9/06 15:34	modified TO-15 , isopropyl alc.	30	5	0.0 "Hg
08A	SV-1 cann. 1477	10/9/06 14:05	modified TO-15 , isopropyl alc	29	5	6.5 "Hg
09A	SV-8 cann. 1472	10/10/06 1016	modified TO-15 , isopropyl alc.	29	5	0.5 "Hg
10A	SV-2 cann. 34601	10/10/06 1046	modified TO-15 , isopropyl alc	29	5	5.5 "Hg
Relinquished By: (Signature) Date/Time      Received By: (Signature) Date/Time				Notes:		
<u>Adi Hinn 10/10/06 1120</u> <u>T.Lafrenz-ATL 10/11/06 1000</u>				PLEASE NOTE: DUPLICATE SAMPLE COLLECTED AT LOCATION SV-6 LABORATORY SAMPLE ID SV-10 CORRESPONDS TO SV-6 (D)		
Relinquished By: (Signature) Date/Time		Received By: (Signature) Date/Time				
Relinquished By: (Signature) Date/Time		Received By: (Signature) Date/Time				

Shipper Name	Air Bill #	Opened By:	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
Lab Use Only	UPS	12F75 22E 22 10004870	Ter NA	Good	Yes No <input checked="" type="checkbox"/> None	0610237



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## Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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**Hours 8:00 A.M to 6:00 P.M. Pacific**



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## WORK ORDER #: 0610237

### Work Order Summary

<b>CLIENT:</b>	Ms. Elena Manzo SOMA Environmental 6620 Owens Drive, Suite A Pleasanton, CA 94588	<b>BILL TO:</b>	Ms. Elena Manzo SOMA Environmental 6620 Owens Drive, Suite A Pleasanton, CA 94588
<b>PHONE:</b>	925-734-6400	<b>P.O. #</b>	
<b>FAX:</b>	925-734-6401	<b>PROJECT #</b>	2842 Wente
<b>DATE RECEIVED:</b>	10/11/2006	<b>CONTACT:</b>	Kyle Vagadori
<b>DATE COMPLETED:</b>	10/24/2006		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT</u>
			<u>VAC./PRES.</u>
01A	SV-9	Modified TO-15	2.0 "Hg
02A	SV-4	Modified TO-15	6.0 "Hg
03A	SV-5	Modified TO-15	7.5 "Hg
04A	SV-6	Modified TO-15	8.0 "Hg
05A	SV-10	Modified TO-15	8.0 "Hg
06A	SV-7	Modified TO-15	6.0 "Hg
07A	SV-3	Modified TO-15	0.0 "Hg
08A	SV-1	Modified TO-15	6.5 "Hg
09A	SV-8	Modified TO-15	0.5 "Hg
09AA	SV-8 Duplicate	Modified TO-15	0.5 "Hg
10A	SV-2	Modified TO-15	5.5 "Hg
11A	Lab Blank	Modified TO-15	NA
12A	CCV	Modified TO-15	NA
13A	LCS	Modified TO-15	NA

PLEASE NOTE:

DUPLICATE SAMPLE COLLECTED AT LOCATION SV-6

LABORATORY SAMPLE ID SV-10 CORRESPONDS TO SV-6(D)

CERTIFIED BY:

DATE: 10/24/06

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE  
Modified TO-15  
SOMA Environmental  
Workorder# 0610237**

Ten 1 Liter Summa Canister samples were received on October 11, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

<b>Requirement</b>	<b>TO-15</b>	<b>ATL Modifications</b>
Daily CCV	+/- 30% Difference	</= 30% Difference with two allowed out up to </=40%;; flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

### **Receiving Notes**

There were no receiving discrepancies.

### **Analytical Notes**

The reported LCS for each daily batch has been derived from more than one analytical file.

### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector



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r1-File was requantified for the purpose of reissue



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## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: SV-9**

**Lab ID#: 0610237-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	1.1	270	2.4	610
Ethanol	4.3	39	8.1	74
Acetone	4.3	120	10	280
2-Propanol	4.3	5.0	11	12
Carbon Disulfide	1.1	100	3.4	320
Hexane	1.1	24	3.8	84
2-Butanone (Methyl Ethyl Ketone)	1.1	21	3.2	61
Tetrahydrofuran	1.1	2.4	3.2	7.0
Cyclohexane	1.1	16	3.7	56
2,2,4-Trimethylpentane	1.1	4.0	5.0	19
Benzene	1.1	20	3.4	63
Heptane	1.1	10	4.4	41
4-Methyl-2-pentanone	1.1	1.4	4.4	5.6
Toluene	1.1	25	4.1	95
Tetrachloroethene	1.1	36	7.3	240
Ethyl Benzene	1.1	3.4	4.7	15
m,p-Xylene	1.1	9.6	4.7	42
o-Xylene	1.1	3.7	4.7	16
Styrene	1.1	2.0	4.6	8.4
4-Ethyltoluene	1.1	3.0	5.3	15
1,3,5-Trimethylbenzene	1.1	1.1	5.3	5.5
1,2,4-Trimethylbenzene	1.1	5.2	5.3	25

**Client Sample ID: SV-4**

**Lab ID#: 0610237-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	1.3	150	2.8	330
Freon 11	1.3	1.2 J	7.1	7.0 J
Ethanol	5.1	18	9.5	34
Acetone	5.1	140	12	330
2-Propanol	5.1	17	12	43
Carbon Disulfide	1.3	5.8	3.9	18
Hexane	1.3	46	4.4	160
2-Butanone (Methyl Ethyl Ketone)	1.3	31	3.7	92
Tetrahydrofuran	1.3	2.9	3.7	8.5
Cyclohexane	1.3	13	4.4	46



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## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-4

Lab ID#: 0610237-02A

2,2,4-Trimethylpentane	1.3	1.5	5.9	7.1
Benzene	1.3	54	4.0	170
Heptane	1.3	17	5.2	71
4-Methyl-2-pentanone	1.3	3.3	5.2	14
Toluene	1.3	78	4.8	300
Ethyl Benzene	1.3	8.5	5.5	37
m,p-Xylene	1.3	12	5.5	54
o-Xylene	1.3	5.2	5.5	22
Styrene	1.3	3.5	5.4	15
Cumene	1.3	2.0	6.2	9.6
Propylbenzene	1.3	1.4	6.2	7.0
4-Ethyltoluene	1.3	4.0	6.2	20
1,3,5-Trimethylbenzene	1.3	1.3	6.2	6.4
1,2,4-Trimethylbenzene	1.3	5.2	6.2	26

Client Sample ID: SV-5

Lab ID#: 0610237-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	1.3	59	3.0	130
Freon 11	1.3	3.2	7.6	18
Ethanol	5.4	8.4	10	16
Acetone	5.4	74	13	170
2-Propanol	5.4	7.6	13	19
Carbon Disulfide	1.3	6.1	4.2	19
Hexane	1.3	23	4.7	82
2-Butanone (Methyl Ethyl Ketone)	1.3	15	4.0	44
Tetrahydrofuran	1.3	1.5	4.0	4.5
Cyclohexane	1.3	10	4.6	36
Benzene	1.3	16	4.3	51
Heptane	1.3	8.7	5.5	36
4-Methyl-2-pentanone	1.3	2.1	5.5	8.6
Toluene	1.3	36	5.1	130
Ethyl Benzene	1.3	2.5	5.8	11
m,p-Xylene	1.3	3.5	5.8	15
o-Xylene	1.3	1.8	5.8	8.0
Styrene	1.3	1.9	5.7	7.9



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## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: SV-6**

**Lab ID#: 0610237-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	1.4	36	3.0	79
Ethanol	5.5	29	10	55
Acetone	5.5	350	13	820
2-Propanol	5.5	62	14	150
Carbon Disulfide	1.4	4.3	4.3	13
Hexane	1.4	12	4.9	44
2-Butanone (Methyl Ethyl Ketone)	1.4	62	4.1	180
Tetrahydrofuran	1.4	2.3	4.1	6.9
Cyclohexane	1.4	2.3	4.8	7.9
2,2,4-Trimethylpentane	1.4	1.7	6.4	7.8
Benzene	1.4	14	4.4	44
Heptane	1.4	4.8	5.6	20
Trichloroethene	1.4	14	7.4	74
4-Methyl-2-pentanone	1.4	3.4	5.6	14
Toluene	1.4	30	5.2	110
Ethyl Benzene	1.4	4.5	6.0	20
m,p-Xylene	1.4	7.8	6.0	34
o-Xylene	1.4	3.6	6.0	16
Styrene	1.4	3.9	5.9	16
4-Ethyltoluene	1.4	2.4	6.8	12
1,2,4-Trimethylbenzene	1.4	2.8	6.8	14

**Client Sample ID: SV-10**

**Lab ID#: 0610237-05A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	1.4	14	3.0	31
Ethanol	5.5	8.4	10	16
Acetone	5.5	130	13	310
2-Propanol	5.5	6.5	14	16
Carbon Disulfide	1.4	2.2	4.3	7.0
Hexane	1.4	5.0	4.9	18
2-Butanone (Methyl Ethyl Ketone)	1.4	57	4.1	170
Tetrahydrofuran	1.4	17	4.1	50
Cyclohexane	1.4	1.4	4.8	4.8
Benzene	1.4	4.9	4.4	16
Heptane	1.4	2.4	5.6	10



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## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: SV-10**

**Lab ID#: 0610237-05A**

Trichloroethene	1.4	2.9	7.4	16
4-Methyl-2-pentanone	1.4	1.4	5.6	5.8
Toluene	1.4	16	5.2	60
Ethyl Benzene	1.4	2.2	6.0	9.6
m,p-Xylene	1.4	5.1	6.0	22
o-Xylene	1.4	1.9	6.0	8.1
Styrene	1.4	1.6	5.9	7.0
1,2,4-Trimethylbenzene	1.4	1.4	6.8	7.0

**Client Sample ID: SV-7**

**Lab ID#: 0610237-06A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	1.3	61	2.8	140
Ethanol	5.1	23	9.5	43
Acetone	5.1	420	12	990
2-Propanol	5.1	9.9	12	24
Carbon Disulfide	1.3	5.4	3.9	17
Hexane	1.3	22	4.4	76
2-Butanone (Methyl Ethyl Ketone)	1.3	70	3.7	210
Tetrahydrofuran	1.3	1.8	3.7	5.2
Chloroform	1.3	1.9	6.2	9.2
Cyclohexane	1.3	5.2	4.4	18
Benzene	1.3	20	4.0	64
Heptane	1.3	7.9	5.2	32
4-Methyl-2-pentanone	1.3	4.6	5.2	19
Toluene	1.3	42	4.8	160
Tetrachloroethene	1.3	6.0	8.6	41
Ethyl Benzene	1.3	8.1	5.5	35
m,p-Xylene	1.3	18	5.5	77
o-Xylene	1.3	6.5	5.5	28
Styrene	1.3	6.2	5.4	26
Propylbenzene	1.3	1.6	6.2	7.6
4-Ethyltoluene	1.3	4.6	6.2	23
1,3,5-Trimethylbenzene	1.3	1.3	6.2	6.5
1,2,4-Trimethylbenzene	1.3	5.5	6.2	27



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## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: SV-3**

**Lab ID#: 0610237-07A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	1.0	7.5	2.2	16
Freon 11	1.0	1.8	5.7	10
Ethanol	4.0	6.7	7.6	13
Acetone	4.0	44	9.6	100
Carbon Disulfide	1.0	1.5	3.1	4.8
Methylene Chloride	1.0	1.3	3.5	4.4
Hexane	1.0	4.7	3.6	16
2-Butanone (Methyl Ethyl Ketone)	1.0	5.0	3.0	15
Cyclohexane	1.0	1.4	3.5	4.7
Benzene	1.0	2.5	3.2	8.0
Heptane	1.0	1.8	4.1	7.2
Toluene	1.0	9.0	3.8	34
Tetrachloroethene	1.0	8.6	6.8	58
Ethyl Benzene	1.0	2.1	4.4	9.0
m,p-Xylene	1.0	8.0	4.4	35
o-Xylene	1.0	3.2	4.4	14

**Client Sample ID: SV-1**

**Lab ID#: 0610237-08A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	1.3	66	2.8	150
Ethanol	5.2	15	9.7	28
Acetone	5.2	170	12	400
2-Propanol	5.2	8.6	13	21
Carbon Disulfide	1.3	6.1	4.0	19
Hexane	1.3	17	4.5	61
2-Butanone (Methyl Ethyl Ketone)	1.3	25	3.8	73
Tetrahydrofuran	1.3	2.2	3.8	6.5
Cyclohexane	1.3	4.1	4.4	14
Benzene	1.3	14	4.1	45
Heptane	1.3	7.3	5.3	30
Toluene	1.3	11	4.9	42
Tetrachloroethene	1.3	2.1	8.8	14
Ethyl Benzene	1.3	1.6	5.6	7.0
m,p-Xylene	1.3	2.8	5.6	12



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: SV-8**

**Lab ID#: 0610237-09A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Acetone	4.1	9.8	9.7	23
2-Butanone (Methyl Ethyl Ketone)	1.0	1.4	3.0	4.2
Toluene	1.0	2.2	3.9	8.2
Tetrachloroethene	1.0	16	7.0	110

**Client Sample ID: SV-8 Duplicate**

**Lab ID#: 0610237-09AA**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Acetone	4.1	9.8	9.7	23
2-Butanone (Methyl Ethyl Ketone)	1.0	1.5	3.0	4.3
Toluene	1.0	2.4	3.9	8.9
Tetrachloroethene	1.0	15	7.0	100

**Client Sample ID: SV-2**

**Lab ID#: 0610237-10A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	1.2	13	2.7	28
Ethanol	4.9	26	9.3	50
Acetone	4.9	240	12	570
2-Propanol	4.9	7.4	12	18
Carbon Disulfide	1.2	4.0	3.8	12
Hexane	1.2	5.5	4.4	19
2-Butanone (Methyl Ethyl Ketone)	1.2	26	3.6	77
Tetrahydrofuran	1.2	1.6	3.6	4.6
Benzene	1.2	5.5	3.9	18
Heptane	1.2	2.4	5.1	10
4-Methyl-2-pentanone	1.2	2.4	5.0	9.7
Toluene	1.2	14	4.6	52
Ethyl Benzene	1.2	2.4	5.4	10
m,p-Xylene	1.2	7.2	5.4	31
o-Xylene	1.2	2.9	5.4	13
Styrene	1.2	1.3	5.3	5.5
Propylbenzene	1.2	2.4	6.1	12
4-Ethyltoluene	1.2	7.1	6.1	35



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AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Summary of Detected Compounds**  
**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SV-2**

**Lab ID#: 0610237-10A**

1,3,5-Trimethylbenzene	1.2	5.4	6.1	26
1,2,4-Trimethylbenzene	1.2	18	6.1	87



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-9**

**Lab ID#: 0610237-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102308</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.16</b>	<b>Date of Analysis: 10/23/06 04:48 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 114	1.1	Not Detected	7.6	Not Detected
Chloromethane	4.3	Not Detected	8.9	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
1,3-Butadiene	1.1	270	2.4	610
Bromomethane	1.1	Not Detected	4.2	Not Detected
Chloroethane	1.1	Not Detected	2.8	Not Detected
Freon 11	1.1	Not Detected	6.1	Not Detected
Ethanol	4.3	39	8.1	74
Freon 113	1.1	Not Detected	8.3	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Acetone	4.3	120	10	280
2-Propanol	4.3	5.0	11	12
Carbon Disulfide	1.1	100	3.4	320
3-Chloropropene	4.3	Not Detected	14	Not Detected
Methylene Chloride	1.1	Not Detected	3.8	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	3.9	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Hexane	1.1	24	3.8	84
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	21	3.2	61
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Tetrahydrofuran	1.1	2.4	3.2	7.0
Chloroform	1.1	Not Detected	5.3	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Cyclohexane	1.1	16	3.7	56
Carbon Tetrachloride	1.1	Not Detected	6.8	Not Detected
2,2,4-Trimethylpentane	1.1	4.0	5.0	19
Benzene	1.1	20	3.4	63
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Heptane	1.1	10	4.4	41
Trichloroethene	1.1	Not Detected	5.8	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.0	Not Detected
1,4-Dioxane	4.3	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
4-Methyl-2-pentanone	1.1	1.4	4.4	5.6
Toluene	1.1	25	4.1	95
trans-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-9**

**Lab ID#: 0610237-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102308</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.16</b>	<b>Date of Analysis: 10/23/06 04:48 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
1,1,2-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Tetrachloroethene	1.1	36	7.3	240
2-Hexanone	4.3	Not Detected	18	Not Detected
Dibromochloromethane	1.1	Not Detected	9.2	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.3	Not Detected
Chlorobenzene	1.1	Not Detected	5.0	Not Detected
Ethyl Benzene	1.1	3.4	4.7	15
m,p-Xylene	1.1	9.6	4.7	42
o-Xylene	1.1	3.7	4.7	16
Styrene	1.1	2.0	4.6	8.4
Bromoform	1.1	Not Detected	11	Not Detected
Cumene	1.1	Not Detected	5.3	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.4	Not Detected
Propylbenzene	1.1	Not Detected	5.3	Not Detected
4-Ethyltoluene	1.1	3.0	5.3	15
1,3,5-Trimethylbenzene	1.1	1.1	5.3	5.5
1,2,4-Trimethylbenzene	1.1	5.2	5.3	25
1,3-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.6	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	112	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-4**

**Lab ID#: 0610237-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102309</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.53</b>	<b>Date of Analysis: 10/23/06 05:37 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
Freon 12	1.3	Not Detected	6.2	Not Detected
Freon 114	1.3	Not Detected	8.8	Not Detected
Chloromethane	5.1	Not Detected	10	Not Detected
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
1,3-Butadiene	1.3	150	2.8	330
Bromomethane	1.3	Not Detected	4.9	Not Detected
Chloroethane	1.3	Not Detected	3.3	Not Detected
Freon 11	1.3	1.2 J	7.1	7.0 J
Ethanol	5.1	18	9.5	34
Freon 113	1.3	Not Detected	9.7	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Acetone	5.1	140	12	330
2-Propanol	5.1	17	12	43
Carbon Disulfide	1.3	5.8	3.9	18
3-Chloropropene	5.1	Not Detected	16	Not Detected
Methylene Chloride	1.3	Not Detected	4.4	Not Detected
Methyl tert-butyl ether	1.3	Not Detected	4.6	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Hexane	1.3	46	4.4	160
1,1-Dichloroethane	1.3	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	31	3.7	92
cis-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Tetrahydrofuran	1.3	2.9	3.7	8.5
Chloroform	1.3	Not Detected	6.2	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Cyclohexane	1.3	13	4.4	46
Carbon Tetrachloride	1.3	Not Detected	8.0	Not Detected
2,2,4-Trimethylpentane	1.3	1.5	5.9	7.1
Benzene	1.3	54	4.0	170
1,2-Dichloroethane	1.3	Not Detected	5.1	Not Detected
Heptane	1.3	17	5.2	71
Trichloroethene	1.3	Not Detected	6.8	Not Detected
1,2-Dichloropropane	1.3	Not Detected	5.8	Not Detected
1,4-Dioxane	5.1	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.5	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	1.3	3.3	5.2	14
Toluene	1.3	78	4.8	300
trans-1,3-Dichloropropene	1.3	Not Detected	5.7	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-4**

**Lab ID#: 0610237-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102309</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.53</b>	<b>Date of Analysis: 10/23/06 05:37 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
1,1,2-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Tetrachloroethene	1.3	Not Detected	8.6	Not Detected
2-Hexanone	5.1	Not Detected	21	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.7	Not Detected
Chlorobenzene	1.3	Not Detected	5.8	Not Detected
Ethyl Benzene	1.3	8.5	5.5	37
m,p-Xylene	1.3	12	5.5	54
o-Xylene	1.3	5.2	5.5	22
Styrene	1.3	3.5	5.4	15
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	2.0	6.2	9.6
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.7	Not Detected
Propylbenzene	1.3	1.4	6.2	7.0
4-Ethyltoluene	1.3	4.0	6.2	20
1,3,5-Trimethylbenzene	1.3	1.3	6.2	6.4
1,2,4-Trimethylbenzene	1.3	5.2	6.2	26
1,3-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.5	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,2,4-Trichlorobenzene	5.1	Not Detected	38	Not Detected
Hexachlorobutadiene	5.1	Not Detected	54	Not Detected

J = Estimated value.

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	113	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-5**

**Lab ID#: 0610237-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102310</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.69</b>	<b>Date of Analysis: 10/23/06 06:19 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
Freon 12	1.3	Not Detected	6.6	Not Detected
Freon 114	1.3	Not Detected	9.4	Not Detected
Chloromethane	5.4	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.4	Not Detected
1,3-Butadiene	1.3	59	3.0	130
Bromomethane	1.3	Not Detected	5.2	Not Detected
Chloroethane	1.3	Not Detected	3.5	Not Detected
Freon 11	1.3	3.2	7.6	18
Ethanol	5.4	8.4	10	16
Freon 113	1.3	Not Detected	10	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.3	Not Detected
Acetone	5.4	74	13	170
2-Propanol	5.4	7.6	13	19
Carbon Disulfide	1.3	6.1	4.2	19
3-Chloropropene	5.4	Not Detected	17	Not Detected
Methylene Chloride	1.3	Not Detected	4.7	Not Detected
Methyl tert-butyl ether	1.3	Not Detected	4.8	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.3	Not Detected
Hexane	1.3	23	4.7	82
1,1-Dichloroethane	1.3	Not Detected	5.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	15	4.0	44
cis-1,2-Dichloroethene	1.3	Not Detected	5.3	Not Detected
Tetrahydrofuran	1.3	1.5	4.0	4.5
Chloroform	1.3	Not Detected	6.6	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.3	Not Detected
Cyclohexane	1.3	10	4.6	36
Carbon Tetrachloride	1.3	Not Detected	8.5	Not Detected
2,2,4-Trimethylpentane	1.3	Not Detected	6.3	Not Detected
Benzene	1.3	16	4.3	51
1,2-Dichloroethane	1.3	Not Detected	5.4	Not Detected
Heptane	1.3	8.7	5.5	36
Trichloroethene	1.3	Not Detected	7.2	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.2	Not Detected
1,4-Dioxane	5.4	Not Detected	19	Not Detected
Bromodichloromethane	1.3	Not Detected	9.0	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	6.1	Not Detected
4-Methyl-2-pentanone	1.3	2.1	5.5	8.6
Toluene	1.3	36	5.1	130
trans-1,3-Dichloropropene	1.3	Not Detected	6.1	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-5**

**Lab ID#: 0610237-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102310</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.69</b>	<b>Date of Analysis: 10/23/06 06:19 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
1,1,2-Trichloroethane	1.3	Not Detected	7.3	Not Detected
Tetrachloroethene	1.3	Not Detected	9.1	Not Detected
2-Hexanone	5.4	Not Detected	22	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	10	Not Detected
Chlorobenzene	1.3	Not Detected	6.2	Not Detected
Ethyl Benzene	1.3	2.5	5.8	11
m,p-Xylene	1.3	3.5	5.8	15
o-Xylene	1.3	1.8	5.8	8.0
Styrene	1.3	1.9	5.7	7.9
Bromoform	1.3	Not Detected	14	Not Detected
Cumene	1.3	Not Detected	6.6	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	9.2	Not Detected
Propylbenzene	1.3	Not Detected	6.6	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.6	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.6	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.6	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	8.1	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	8.1	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	7.0	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	8.1	Not Detected
1,2,4-Trichlorobenzene	5.4	Not Detected	40	Not Detected
Hexachlorobutadiene	5.4	Not Detected	57	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	112	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-6**

**Lab ID#: 0610237-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102311</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.76</b>	<b>Date of Analysis: 10/23/06 07:02 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
Freon 12	1.4	Not Detected	6.8	Not Detected
Freon 114	1.4	Not Detected	9.6	Not Detected
Chloromethane	5.5	Not Detected	11	Not Detected
Vinyl Chloride	1.4	Not Detected	3.5	Not Detected
1,3-Butadiene	1.4	36	3.0	79
Bromomethane	1.4	Not Detected	5.4	Not Detected
Chloroethane	1.4	Not Detected	3.6	Not Detected
Freon 11	1.4	Not Detected	7.8	Not Detected
Ethanol	5.5	29	10	55
Freon 113	1.4	Not Detected	10	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.5	Not Detected
Acetone	5.5	350	13	820
2-Propanol	5.5	62	14	150
Carbon Disulfide	1.4	4.3	4.3	13
3-Chloropropene	5.5	Not Detected	17	Not Detected
Methylene Chloride	1.4	Not Detected	4.8	Not Detected
Methyl tert-butyl ether	1.4	Not Detected	5.0	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.5	Not Detected
Hexane	1.4	12	4.9	44
1,1-Dichloroethane	1.4	Not Detected	5.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.4	62	4.1	180
cis-1,2-Dichloroethene	1.4	Not Detected	5.5	Not Detected
Tetrahydrofuran	1.4	2.3	4.1	6.9
Chloroform	1.4	Not Detected	6.7	Not Detected
1,1,1-Trichloroethane	1.4	Not Detected	7.5	Not Detected
Cyclohexane	1.4	2.3	4.8	7.9
Carbon Tetrachloride	1.4	Not Detected	8.7	Not Detected
2,2,4-Trimethylpentane	1.4	1.7	6.4	7.8
Benzene	1.4	14	4.4	44
1,2-Dichloroethane	1.4	Not Detected	5.6	Not Detected
Heptane	1.4	4.8	5.6	20
Trichloroethene	1.4	14	7.4	74
1,2-Dichloropropane	1.4	Not Detected	6.4	Not Detected
1,4-Dioxane	5.5	Not Detected	20	Not Detected
Bromodichloromethane	1.4	Not Detected	9.2	Not Detected
cis-1,3-Dichloropropene	1.4	Not Detected	6.3	Not Detected
4-Methyl-2-pentanone	1.4	3.4	5.6	14
Toluene	1.4	30	5.2	110
trans-1,3-Dichloropropene	1.4	Not Detected	6.3	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-6**

**Lab ID#: 0610237-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102311</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.76</b>	<b>Date of Analysis: 10/23/06 07:02 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
1,1,2-Trichloroethane	1.4	Not Detected	7.5	Not Detected
Tetrachloroethene	1.4	Not Detected	9.4	Not Detected
2-Hexanone	5.5	Not Detected	23	Not Detected
Dibromochloromethane	1.4	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.4	Not Detected	11	Not Detected
Chlorobenzene	1.4	Not Detected	6.4	Not Detected
Ethyl Benzene	1.4	4.5	6.0	20
m,p-Xylene	1.4	7.8	6.0	34
o-Xylene	1.4	3.6	6.0	16
Styrene	1.4	3.9	5.9	16
Bromoform	1.4	Not Detected	14	Not Detected
Cumene	1.4	Not Detected	6.8	Not Detected
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.5	Not Detected
Propylbenzene	1.4	Not Detected	6.8	Not Detected
4-Ethyltoluene	1.4	2.4	6.8	12
1,3,5-Trimethylbenzene	1.4	Not Detected	6.8	Not Detected
1,2,4-Trimethylbenzene	1.4	2.8	6.8	14
1,3-Dichlorobenzene	1.4	Not Detected	8.3	Not Detected
1,4-Dichlorobenzene	1.4	Not Detected	8.3	Not Detected
alpha-Chlorotoluene	1.4	Not Detected	7.1	Not Detected
1,2-Dichlorobenzene	1.4	Not Detected	8.3	Not Detected
1,2,4-Trichlorobenzene	5.5	Not Detected	41	Not Detected
Hexachlorobutadiene	5.5	Not Detected	59	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	116	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-10**

**Lab ID#: 0610237-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102312</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.76</b>	<b>Date of Analysis: 10/23/06 07:44 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
Freon 12	1.4	Not Detected	6.8	Not Detected
Freon 114	1.4	Not Detected	9.6	Not Detected
Chloromethane	5.5	Not Detected	11	Not Detected
Vinyl Chloride	1.4	Not Detected	3.5	Not Detected
1,3-Butadiene	1.4	14	3.0	31
Bromomethane	1.4	Not Detected	5.4	Not Detected
Chloroethane	1.4	Not Detected	3.6	Not Detected
Freon 11	1.4	Not Detected	7.8	Not Detected
Ethanol	5.5	8.4	10	16
Freon 113	1.4	Not Detected	10	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.5	Not Detected
Acetone	5.5	130	13	310
2-Propanol	5.5	6.5	14	16
Carbon Disulfide	1.4	2.2	4.3	7.0
3-Chloropropene	5.5	Not Detected	17	Not Detected
Methylene Chloride	1.4	Not Detected	4.8	Not Detected
Methyl tert-butyl ether	1.4	Not Detected	5.0	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.5	Not Detected
Hexane	1.4	5.0	4.9	18
1,1-Dichloroethane	1.4	Not Detected	5.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.4	57	4.1	170
cis-1,2-Dichloroethene	1.4	Not Detected	5.5	Not Detected
Tetrahydrofuran	1.4	17	4.1	50
Chloroform	1.4	Not Detected	6.7	Not Detected
1,1,1-Trichloroethane	1.4	Not Detected	7.5	Not Detected
Cyclohexane	1.4	1.4	4.8	4.8
Carbon Tetrachloride	1.4	Not Detected	8.7	Not Detected
2,2,4-Trimethylpentane	1.4	Not Detected	6.4	Not Detected
Benzene	1.4	4.9	4.4	16
1,2-Dichloroethane	1.4	Not Detected	5.6	Not Detected
Heptane	1.4	2.4	5.6	10
Trichloroethene	1.4	2.9	7.4	16
1,2-Dichloropropane	1.4	Not Detected	6.4	Not Detected
1,4-Dioxane	5.5	Not Detected	20	Not Detected
Bromodichloromethane	1.4	Not Detected	9.2	Not Detected
cis-1,3-Dichloropropene	1.4	Not Detected	6.3	Not Detected
4-Methyl-2-pentanone	1.4	1.4	5.6	5.8
Toluene	1.4	16	5.2	60
trans-1,3-Dichloropropene	1.4	Not Detected	6.3	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-10**

**Lab ID#: 0610237-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102312</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.76</b>	<b>Date of Analysis: 10/23/06 07:44 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
1,1,2-Trichloroethane	1.4	Not Detected	7.5	Not Detected
Tetrachloroethene	1.4	Not Detected	9.4	Not Detected
2-Hexanone	5.5	Not Detected	23	Not Detected
Dibromochloromethane	1.4	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.4	Not Detected	11	Not Detected
Chlorobenzene	1.4	Not Detected	6.4	Not Detected
Ethyl Benzene	1.4	2.2	6.0	9.6
m,p-Xylene	1.4	5.1	6.0	22
o-Xylene	1.4	1.9	6.0	8.1
Styrene	1.4	1.6	5.9	7.0
Bromoform	1.4	Not Detected	14	Not Detected
Cumene	1.4	Not Detected	6.8	Not Detected
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.5	Not Detected
Propylbenzene	1.4	Not Detected	6.8	Not Detected
4-Ethyltoluene	1.4	Not Detected	6.8	Not Detected
1,3,5-Trimethylbenzene	1.4	Not Detected	6.8	Not Detected
1,2,4-Trimethylbenzene	1.4	1.4	6.8	7.0
1,3-Dichlorobenzene	1.4	Not Detected	8.3	Not Detected
1,4-Dichlorobenzene	1.4	Not Detected	8.3	Not Detected
alpha-Chlorotoluene	1.4	Not Detected	7.1	Not Detected
1,2-Dichlorobenzene	1.4	Not Detected	8.3	Not Detected
1,2,4-Trichlorobenzene	5.5	Not Detected	41	Not Detected
Hexachlorobutadiene	5.5	Not Detected	59	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	116	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-7**

**Lab ID#: 0610237-06A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102313</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.53</b>	<b>Date of Analysis: 10/23/06 08:27 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
Freon 12	1.3	Not Detected	6.2	Not Detected
Freon 114	1.3	Not Detected	8.8	Not Detected
Chloromethane	5.1	Not Detected	10	Not Detected
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
1,3-Butadiene	1.3	61	2.8	140
Bromomethane	1.3	Not Detected	4.9	Not Detected
Chloroethane	1.3	Not Detected	3.3	Not Detected
Freon 11	1.3	Not Detected	7.1	Not Detected
Ethanol	5.1	23	9.5	43
Freon 113	1.3	Not Detected	9.7	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Acetone	5.1	420	12	990
2-Propanol	5.1	9.9	12	24
Carbon Disulfide	1.3	5.4	3.9	17
3-Chloropropene	5.1	Not Detected	16	Not Detected
Methylene Chloride	1.3	Not Detected	4.4	Not Detected
Methyl tert-butyl ether	1.3	Not Detected	4.6	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Hexane	1.3	22	4.4	76
1,1-Dichloroethane	1.3	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	70	3.7	210
cis-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Tetrahydrofuran	1.3	1.8	3.7	5.2
Chloroform	1.3	1.9	6.2	9.2
1,1,1-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Cyclohexane	1.3	5.2	4.4	18
Carbon Tetrachloride	1.3	Not Detected	8.0	Not Detected
2,2,4-Trimethylpentane	1.3	Not Detected	5.9	Not Detected
Benzene	1.3	20	4.0	64
1,2-Dichloroethane	1.3	Not Detected	5.1	Not Detected
Heptane	1.3	7.9	5.2	32
Trichloroethene	1.3	Not Detected	6.8	Not Detected
1,2-Dichloropropane	1.3	Not Detected	5.8	Not Detected
1,4-Dioxane	5.1	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.5	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	1.3	4.6	5.2	19
Toluene	1.3	42	4.8	160
trans-1,3-Dichloropropene	1.3	Not Detected	5.7	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-7**

**Lab ID#: 0610237-06A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102313</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.53</b>	<b>Date of Analysis: 10/23/06 08:27 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
1,1,2-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Tetrachloroethene	1.3	6.0	8.6	41
2-Hexanone	5.1	Not Detected	21	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.7	Not Detected
Chlorobenzene	1.3	Not Detected	5.8	Not Detected
Ethyl Benzene	1.3	8.1	5.5	35
m,p-Xylene	1.3	18	5.5	77
o-Xylene	1.3	6.5	5.5	28
Styrene	1.3	6.2	5.4	26
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.2	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.7	Not Detected
Propylbenzene	1.3	1.6	6.2	7.6
4-Ethyltoluene	1.3	4.6	6.2	23
1,3,5-Trimethylbenzene	1.3	1.3	6.2	6.5
1,2,4-Trimethylbenzene	1.3	5.5	6.2	27
1,3-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.5	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,2,4-Trichlorobenzene	5.1	Not Detected	38	Not Detected
Hexachlorobutadiene	5.1	Not Detected	54	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	114	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-3**

**Lab ID#: 0610237-07A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102314</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.02</b>	<b>Date of Analysis: 10/23/06 09:09 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
Freon 12	1.0	Not Detected	5.0	Not Detected
Freon 114	1.0	Not Detected	7.1	Not Detected
Chloromethane	4.0	Not Detected	8.3	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	7.5	2.2	16
Bromomethane	1.0	Not Detected	3.9	Not Detected
Chloroethane	1.0	Not Detected	2.7	Not Detected
Freon 11	1.0	1.8	5.7	10
Ethanol	4.0	6.7	7.6	13
Freon 113	1.0	Not Detected	7.7	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Acetone	4.0	44	9.6	100
2-Propanol	4.0	Not Detected	9.9	Not Detected
Carbon Disulfide	1.0	1.5	3.1	4.8
3-Chloropropene	4.0	Not Detected	13	Not Detected
Methylene Chloride	1.0	1.3	3.5	4.4
Methyl tert-butyl ether	1.0	Not Detected	3.6	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Hexane	1.0	4.7	3.6	16
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	5.0	3.0	15
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Chloroform	1.0	Not Detected	4.9	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Cyclohexane	1.0	1.4	3.5	4.7
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
Benzene	1.0	2.5	3.2	8.0
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Heptane	1.0	1.8	4.1	7.2
Trichloroethene	1.0	Not Detected	5.4	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.1	Not Detected
Toluene	1.0	9.0	3.8	34
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-3**

**Lab ID#: 0610237-07A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102314</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.02</b>	<b>Date of Analysis: 10/23/06 09:09 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Tetrachloroethene	1.0	8.6	6.8	58
2-Hexanone	4.0	Not Detected	16	Not Detected
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Ethyl Benzene	1.0	2.1	4.4	9.0
m,p-Xylene	1.0	8.0	4.4	35
o-Xylene	1.0	3.2	4.4	14
Styrene	1.0	Not Detected	4.3	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
Propylbenzene	1.0	Not Detected	5.0	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	111	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-1**

**Lab ID#: 0610237-08A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102315</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.58</b>	<b>Date of Analysis: 10/23/06 09:51 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
Freon 12	1.3	Not Detected	6.4	Not Detected
Freon 114	1.3	Not Detected	9.0	Not Detected
Chloromethane	5.2	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
1,3-Butadiene	1.3	66	2.8	150
Bromomethane	1.3	Not Detected	5.0	Not Detected
Chloroethane	1.3	Not Detected	3.4	Not Detected
Freon 11	1.3	Not Detected	7.2	Not Detected
Ethanol	5.2	15	9.7	28
Freon 113	1.3	Not Detected	9.9	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Acetone	5.2	170	12	400
2-Propanol	5.2	8.6	13	21
Carbon Disulfide	1.3	6.1	4.0	19
3-Chloropropene	5.2	Not Detected	16	Not Detected
Methylene Chloride	1.3	Not Detected	4.5	Not Detected
Methyl tert-butyl ether	1.3	Not Detected	4.6	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Hexane	1.3	17	4.5	61
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	25	3.8	73
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Tetrahydrofuran	1.3	2.2	3.8	6.5
Chloroform	1.3	Not Detected	6.3	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Cyclohexane	1.3	4.1	4.4	14
Carbon Tetrachloride	1.3	Not Detected	8.1	Not Detected
2,2,4-Trimethylpentane	1.3	Not Detected	6.0	Not Detected
Benzene	1.3	14	4.1	45
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Heptane	1.3	7.3	5.3	30
Trichloroethene	1.3	Not Detected	6.9	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.0	Not Detected
1,4-Dioxane	5.2	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.6	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	11	4.9	42
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-1**

**Lab ID#: 0610237-08A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102315</b>	<b>Date of Collection: 10/9/06</b>		
<b>Dil. Factor:</b>	<b>2.58</b>	<b>Date of Analysis: 10/23/06 09:51 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	2.1	8.8	14
2-Hexanone	5.2	Not Detected	21	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.9	Not Detected
Chlorobenzene	1.3	Not Detected	5.9	Not Detected
Ethyl Benzene	1.3	1.6	5.6	7.0
m,p-Xylene	1.3	2.8	5.6	12
o-Xylene	1.3	Not Detected	5.6	Not Detected
Styrene	1.3	Not Detected	5.5	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.8	Not Detected
Propylbenzene	1.3	Not Detected	6.3	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.7	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,2,4-Trichlorobenzene	5.2	Not Detected	38	Not Detected
Hexachlorobutadiene	5.2	Not Detected	55	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	111	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-8**

**Lab ID#: 0610237-09A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102317</b>	<b>Date of Collection: 10/10/06</b>		
<b>Dil. Factor:</b>	<b>2.05</b>	<b>Date of Analysis: 10/23/06 11:45 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Chloromethane	4.1	Not Detected	8.5	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	1.0	Not Detected	4.0	Not Detected
Chloroethane	1.0	Not Detected	2.7	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Ethanol	4.1	Not Detected	7.7	Not Detected
Freon 113	1.0	Not Detected	7.8	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	4.1	9.8	9.7	23
2-Propanol	4.1	Not Detected	10	Not Detected
Carbon Disulfide	1.0	Not Detected	3.2	Not Detected
3-Chloropropene	4.1	Not Detected	13	Not Detected
Methylene Chloride	1.0	Not Detected	3.6	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.7	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	1.4	3.0	4.2
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Toluene	1.0	2.2	3.9	8.2
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-8**

**Lab ID#: 0610237-09A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102317</b>	<b>Date of Collection: 10/10/06</b>		
<b>Dil. Factor:</b>	<b>2.05</b>	<b>Date of Analysis: 10/23/06 11:45 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	16	7.0	110
2-Hexanone	4.1	Not Detected	17	Not Detected
Dibromochloromethane	1.0	Not Detected	8.7	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
m,p-Xylene	1.0	Not Detected	4.4	Not Detected
o-Xylene	1.0	Not Detected	4.4	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.0	Not Detected
Propylbenzene	1.0	Not Detected	5.0	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	111	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-8 Duplicate**

**Lab ID#: 0610237-09AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102318</b>	<b>Date of Collection: 10/10/06</b>		
<b>Dil. Factor:</b>	<b>2.05</b>	<b>Date of Analysis: 10/24/06 12:28 AM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Chloromethane	4.1	Not Detected	8.5	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	1.0	Not Detected	4.0	Not Detected
Chloroethane	1.0	Not Detected	2.7	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Ethanol	4.1	Not Detected	7.7	Not Detected
Freon 113	1.0	Not Detected	7.8	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	4.1	9.8	9.7	23
2-Propanol	4.1	Not Detected	10	Not Detected
Carbon Disulfide	1.0	Not Detected	3.2	Not Detected
3-Chloropropene	4.1	Not Detected	13	Not Detected
Methylene Chloride	1.0	Not Detected	3.6	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.7	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	1.5	3.0	4.3
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Toluene	1.0	2.4	3.9	8.9
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-8 Duplicate**

**Lab ID#: 0610237-09AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102318</b>	<b>Date of Collection: 10/10/06</b>		
<b>Dil. Factor:</b>	<b>2.05</b>	<b>Date of Analysis: 10/24/06 12:28 AM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	15	7.0	100
2-Hexanone	4.1	Not Detected	17	Not Detected
Dibromochloromethane	1.0	Not Detected	8.7	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
m,p-Xylene	1.0	Not Detected	4.4	Not Detected
o-Xylene	1.0	Not Detected	4.4	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.0	Not Detected
Propylbenzene	1.0	Not Detected	5.0	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	111	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-2**

**Lab ID#: 0610237-10A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102319</b>	<b>Date of Collection: 10/10/06</b>		
<b>Dil. Factor:</b>	<b>2.47</b>	<b>Date of Analysis: 10/24/06 01:10 AM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	4.9	Not Detected	10	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,3-Butadiene	1.2	13	2.7	28
Bromomethane	1.2	Not Detected	4.8	Not Detected
Chloroethane	1.2	Not Detected	3.2	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Ethanol	4.9	26	9.3	50
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	4.9	240	12	570
2-Propanol	4.9	7.4	12	18
Carbon Disulfide	1.2	4.0	3.8	12
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	1.2	Not Detected	4.3	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.4	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	5.5	4.4	19
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	26	3.6	77
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Tetrahydrofuran	1.2	1.6	3.6	4.6
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.8	Not Detected
Benzene	1.2	5.5	3.9	18
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Heptane	1.2	2.4	5.1	10
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	2.4	5.0	9.7
Toluene	1.2	14	4.6	52
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SV-2**

**Lab ID#: 0610237-10A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102319</b>	<b>Date of Collection: 10/10/06</b>		
<b>Dil. Factor:</b>	<b>2.47</b>	<b>Date of Analysis: 10/24/06 01:10 AM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected
2-Hexanone	4.9	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	2.4	5.4	10
m,p-Xylene	1.2	7.2	5.4	31
o-Xylene	1.2	2.9	5.4	13
Styrene	1.2	1.3	5.3	5.5
Bromoform	1.2	Not Detected	13	Not Detected
Cumene	1.2	Not Detected	6.1	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
Propylbenzene	1.2	2.4	6.1	12
4-Ethyltoluene	1.2	7.1	6.1	35
1,3,5-Trimethylbenzene	1.2	5.4	6.1	26
1,2,4-Trimethylbenzene	1.2	18	6.1	87
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	37	Not Detected
Hexachlorobutadiene	4.9	Not Detected	53	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	111	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0610237-11A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102306</b>	<b>Date of Collection: NA</b>		
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 10/23/06 02:46 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0610237-11A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102306</b>	<b>Date of Collection: NA</b>		
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 10/23/06 02:46 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (uG/m3)</b>	<b>Amount (uG/m3)</b>
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	106	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0610237-12A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102302</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/23/06 11:19 AM

<b>Compound</b>	<b>%Recovery</b>
Freon 12	98
Freon 114	92
Chloromethane	116
Vinyl Chloride	98
1,3-Butadiene	92
Bromomethane	94
Chloroethane	99
Freon 11	101
Ethanol	103
Freon 113	95
1,1-Dichloroethene	99
Acetone	93
2-Propanol	101
Carbon Disulfide	89
3-Chloropropene	98
Methylene Chloride	114
Methyl tert-butyl ether	86
trans-1,2-Dichloroethene	84
Hexane	94
1,1-Dichloroethane	98
2-Butanone (Methyl Ethyl Ketone)	87
cis-1,2-Dichloroethene	98
Tetrahydrofuran	98
Chloroform	86
1,1,1-Trichloroethane	97
Cyclohexane	86
Carbon Tetrachloride	104
2,2,4-Trimethylpentane	98
Benzene	89
1,2-Dichloroethane	106
Heptane	76
Trichloroethene	94
1,2-Dichloropropane	100
1,4-Dioxane	84
Bromodichloromethane	89
cis-1,3-Dichloropropene	98
4-Methyl-2-pentanone	88
Toluene	96
trans-1,3-Dichloropropene	95



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0610237-12A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102302</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/23/06 11:19 AM

<b>Compound</b>	<b>%Recovery</b>
1,1,2-Trichloroethane	92
Tetrachloroethene	107
2-Hexanone	87
Dibromochloromethane	90
1,2-Dibromoethane (EDB)	95
Chlorobenzene	93
Ethyl Benzene	95
m,p-Xylene	89
o-Xylene	92
Styrene	87
Bromoform	95
Cumene	82
1,1,2,2-Tetrachloroethane	97
Propylbenzene	91
4-Ethyltoluene	86
1,3,5-Trimethylbenzene	82
1,2,4-Trimethylbenzene	92
1,3-Dichlorobenzene	86
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	87
1,2-Dichlorobenzene	82
1,2,4-Trichlorobenzene	98
Hexachlorobutadiene	84

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	112	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0610237-13A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102303</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/23/06 11:48 AM

<b>Compound</b>	<b>%Recovery</b>
Freon 12	88
Freon 114	84
Chloromethane	106
Vinyl Chloride	88
1,3-Butadiene	88
Bromomethane	85
Chloroethane	92
Freon 11	90
Ethanol	99
Freon 113	85
1,1-Dichloroethene	88
Acetone	91
2-Propanol	99
Carbon Disulfide	91
3-Chloropropene	85
Methylene Chloride	104
Methyl tert-butyl ether	84
trans-1,2-Dichloroethene	83
Hexane	94
1,1-Dichloroethane	88
2-Butanone (Methyl Ethyl Ketone)	84
cis-1,2-Dichloroethene	90
Tetrahydrofuran	92
Chloroform	78
1,1,1-Trichloroethane	86
Cyclohexane	82
Carbon Tetrachloride	92
2,2,4-Trimethylpentane	88
Benzene	84
1,2-Dichloroethane	100
Heptane	77
Trichloroethene	89
1,2-Dichloropropane	92
1,4-Dioxane	86
Bromodichloromethane	85
cis-1,3-Dichloropropene	62 Q
4-Methyl-2-pentanone	87
Toluene	90
trans-1,3-Dichloropropene	100



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0610237-13A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>8102303</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/23/06 11:48 AM

<b>Compound</b>	<b>%Recovery</b>
1,1,2-Trichloroethane	87
Tetrachloroethene	102
2-Hexanone	83
Dibromochloromethane	85
1,2-Dibromoethane (EDB)	84
Chlorobenzene	88
Ethyl Benzene	94
m,p-Xylene	81
o-Xylene	75
Styrene	91
Bromoform	74
Cumene	71
1,1,2,2-Tetrachloroethane	92
Propylbenzene	79
4-Ethyltoluene	77
1,3,5-Trimethylbenzene	63 Q
1,2,4-Trimethylbenzene	58 Q
1,3-Dichlorobenzene	80
1,4-Dichlorobenzene	98
alpha-Chlorotoluene	77
1,2-Dichlorobenzene	75
1,2,4-Trichlorobenzene	82
Hexachlorobutadiene	65 Q

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	111	70-130