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ENVIRONMENTAL ENGINEERING, INC
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January 6, 2006

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

Project: 2841

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

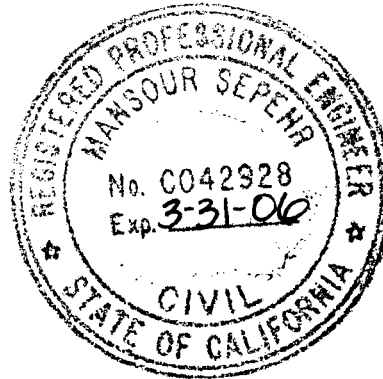
Dear Mr. Wickham:

SOMA's "Fourth Quarter 2005 Groundwater Monitoring Report" 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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Fourth Quarter 2005 Groundwater Monitoring Report

**WENTE WINERY
5565 Tesla Road
Livermore, California**

January 6, 2006

Project 2841

Prepared for

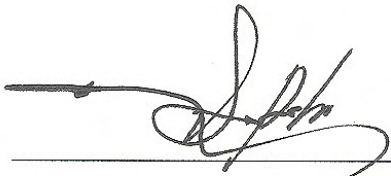
**Mr. Aris Krimetz
5565 Tesla Road
Livermore, California**

Prepared by

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

CERTIFICATION

This report has been prepared by SOMA Environmental Engineering, Inc. on behalf of Mr. Aris Krimetz, for Wente Winery, which is located at 5565 Tesla Road, Livermore, California to comply with the requirements of the Alameda County Environmental Health Services and the California Regional Water Quality Control Board for the Fourth Quarter 2005 groundwater monitoring event.



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



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1.0 INTRODUCTION

This monitoring report has been prepared by SOMA Environmental Engineering, Inc. (SOMA) on behalf of Mr. Aris Krimetz, for Wente Winery, which is located at 5565 Tesla Road, Livermore, California. Figure 1 shows the location of the Site.

This report summarizes the results of the Fourth Quarter 2005 groundwater monitoring event conducted at the Site on November 28, 2005. This report also includes the laboratory analytical results on the groundwater samples.

A natural attenuation study was conducted during this monitoring event. The objective of the natural attenuation study was to evaluate whether the petroleum hydrocarbons found in the groundwater were biodegrading.

These activities were performed in accordance with the general guidelines of the California Regional Water Quality Control Board (CRWQCB) and the Alameda County Environmental Health Services (ACEHS). Appendix A details the groundwater monitoring procedures used during this monitoring event.

1.1 Site Description

West of the winery buildings is an enclosed maintenance and agricultural storage area with a former underground storage tank (UST) pit that contained one gasoline and one diesel UST. The USTs were replaced with three aboveground storage tanks (ASTs), with a total capacity of 4,000 gallons. An on-site potable water supply well provides backup potable drinking water and process water for the winery facility. This water supply well is located south of and presumably upgradient from the former USTs area.

1.2 Previous Activities and Investigations

In 1987, two fuel USTs were removed from the Site. There is no information regarding the condition of the tank or evidence of leakage. In 1990, the ACEHS issued a notice of violation (NOV) for discharging waste sludge into an open ditch adjacent to a former steam-cleaning bay.

Clayton Environmental Consultants (Clayton) conducted a Phase I Environmental Site Assessment of the maintenance and storage areas. The Phase I study revealed the existence of the former USTs, former waste discharge area, and a number of agricultural storage areas.

In 2003, Clayton performed a subsurface investigation at the Site to implement the recommendations of the Phase I report. As shown in Figure 2, boreholes were advanced near the ASTs and near other RECs. The study indicated that a fuel release in the former UST area impacted the groundwater. In the former steam-

cleaning bay, gasoline and motor oil-range petroleum hydrocarbons were detected in the groundwater. Figure 2 illustrates the locations of the soil borings.

Wente then retained SOMA to review Clayton's report. SOMA then 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 May 5, 2005, SOMA oversaw Woodward Drilling (Woodward) install three monitoring wells, MW-1 through MW-3, as shown in Figure 2. On May 20, 2005, Woodward developed the newly installed wells.

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 former steam cleaning area. The results of this investigation are presented in SOMA's report entitled, "Phase I: Soil and Groundwater Investigation, Wente Winery, at 5565 Tesla Road, Livermore, California," dated July 25, 2005.

1.3 Regional Hydrogeologic Features

The subject site is located in the Livermore Valley Groundwater Basin (LVGB). The LVGB consists of a structural trough that is an important source of irrigation water for the Livermore Valley. In the western part of the basin up to 40 feet of clay caps these water-bearing sediments. The water-bearing zone is predominantly a permeable unit consisting of sand and gravel in a clayey sand matrix. The potentiometric surface of valley-fill groundwater near the Site is at approximately 20 to 30 feet below ground surface (bgs).

The groundwater flow in the valley-fill and underlying Livermore Formations is to the northwest/north. The nearby water supply wells west of and presumably downgradient from the Site are potentially exposed to the on-site contaminant plume.

There is one on-site well and five wells in the properties immediately west of and presumably downgradient from the Site. North/northeast of and presumably up/cross gradient from the subject site there are seven wells within 2,000 feet of the investigation area. Approximately 1,800 feet south of the Site there is another water supply well. Available records indicate that six of the seven wells located north/northeast of and within 2,000 feet of the Site may be used as drinking water wells.

2.0 Results

The following sections provide the results of the field measurements and laboratory analyses for the November 28, 2005 groundwater monitoring event.

2.1 Field Measurements

Table 1 presents the depths to groundwater, as well as the corresponding groundwater elevations for the monitoring wells. The depths to groundwater ranged from 8.90 feet in well MW-1 to 9.60 feet in well MW-3. The corresponding groundwater elevations ranged from 606.26 feet in well MW-1 to 607.72 feet in well MW-3.

The groundwater elevation contour map is displayed in Figure 3. As shown in Figure 3, groundwater flows north to northwesterly across the Site, at a gradient of approximately 0.007 feet/feet.

Refer to Table 1 for the historical site-wide groundwater elevation trends.

The field notes in Appendix B show the detailed measurements of the physical and chemical parameters of the groundwater for each well during this monitoring event. The more positive the redox potential of an electron acceptor, the more energetically favorable is the reaction utilizing that electron acceptor. The most energetically preferred electron acceptor for redox reactions is dissolved oxygen (DO). Evaluating the distribution of electron acceptors can provide evidence of where and to what extent hydrocarbon biodegradation is occurring.

DO concentrations in wells MW-1, MW-2, and MW-3 were 7.90 mg/L, 6.70 mg/L, and 6.78 mg/L, respectively. Oxygen reduction potential (ORP) showed positive redox potentials throughout the Site. As previously noted, positive redox potentials are more energetically favorable in utilizing electron acceptors during chemical reactions. This promotes the removal of organic mass from the contaminated groundwater by indigenous bacteria in the subsurface during the release of the transfer of electrons.

2.2 Laboratory Analysis

The historical total petroleum hydrocarbons as gasoline (TPH-g), total petroleum hydrocarbons as diesel (TPH-d), total petroleum hydrocarbons as motor oil (TPH-mo), benzene, toluene, ethylbenzene, total xylenes (BTEX), and Methyl tertiary Butyl Ether (MtBE) groundwater analytical results are shown in Table 1.

All TPH-g, TPH-mo, BTEX, and MtBE constituents were below the laboratory reporting limit throughout the Site. TPH-d was below the laboratory reporting limit in well MW-2. The highest TPH-d concentrations were detected in wells MW-1 and MW-3 at 150 ug/L. However, the TPH-d sample result did not resemble the standard diesel pattern. The laboratory designated this variation in the analytical

testing by using a “Y” flag. The sample result also exhibited unknown peaks during analytical testing. The laboratory designated this variation in the analytical result by using a “Z” flag. The laboratory report is presented in Appendix C and provides further clarification.

Figure 4 displays a contour map of TPH-d concentrations in the groundwater. As illustrated in Figure 4, TPH-d has only minimally impacted the groundwater throughout the Site.

Table 2 shows the analytical results for gasoline oxygenates and lead scavengers. Since gasoline oxygenates were not detected during SOMA’s initial (Third Quarter 2005) monitoring event and based on the directive of the ACEHS, in a letter dated September 19, 2005, further testing of gasoline oxygenates is no longer required for the monitoring wells. However, the supply wells will still be tested. All gasoline oxygenates and lead scavengers were below the laboratory reporting limit in the groundwater samples collected from the supply wells.

Table 3 shows the historical concentrations of volatile organic compounds (VOCs) in the groundwater. Tetrachloroethene, 1,1,1-Trichloroethane, Cis-1,2-dichloroethene, Trans-1,2-dichloroethene, vinyl chloride, 1,2-Dichloropropane, and 1,1-Dichloroethene were all below the laboratory reporting limit in all of the samples collected from the supply wells.

Table 4 shows the historical concentrations of metals in the groundwater. Cadmium, chromium, lead, and nickel were all below the laboratory reporting limit in all of the samples collected from the wells. Zinc was detected in the on-site supply well at 62 ug/L and the off-site supply well at 830 ug/L.

Appendix C includes the laboratory report and COC form for the Fourth Quarter 2005 groundwater monitoring event.

3.0 Conclusions and Recommendations

The results of the Fourth Quarter 2005 groundwater monitoring event can be summarized as follows:

- The groundwater flow direction appears to be north to northwesterly across the Site, at a gradient of 0.007 feet/feet. The groundwater flow direction is consistent with the previous monitoring event.
- Based on the results of the bio-attenuation study, indigenous bacteria have effectively removed organic mass from any impacted groundwater in the subsurface during the release of the transfer of electrons. This is evident by the high DO levels and positive redox potentials observed throughout the Site.

- The main consistent of concern throughout the Site was TPH-d. However, TPH-d was detected at low levels. The only other detected compounds, beside zinc, were:

- In the off-site supply well:

Tetrahydrofuran was detected at 19,700 ug/L and chloroethane was detected at 380 ug/L.

- In the on-site supply well:

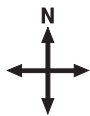
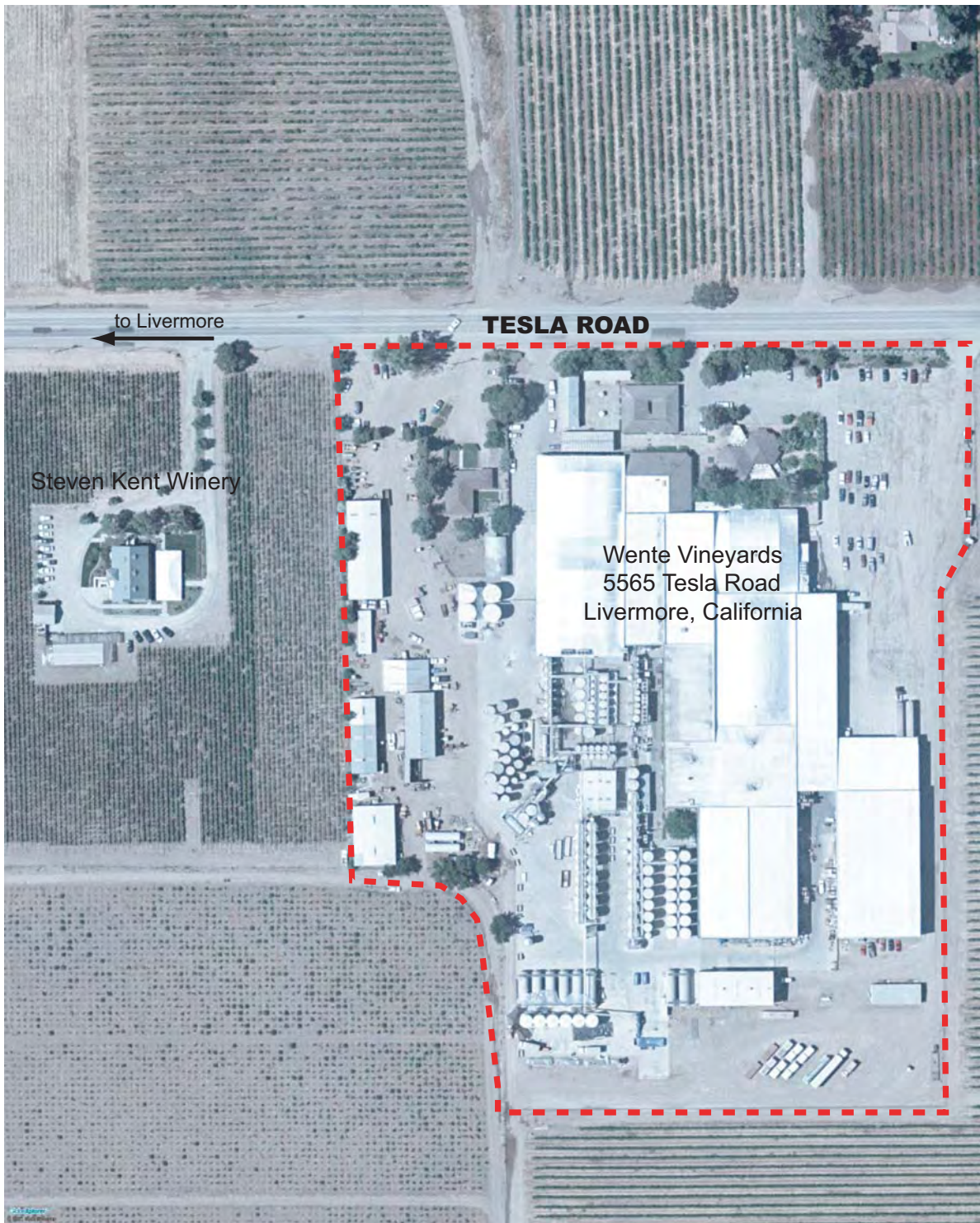
Chloroethane was detected at 4.19 ug/L.

Tetrahydrofuran and chloroethane are widely used as industrial solvents and refrigerants.

Based on the results of the Fourth Quarter 2005 monitoring event, SOMA recommends the following action items:

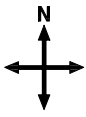
1. Continuing the quarterly monitoring events to further understand the seasonal variations in the groundwater quality conditions.
2. Re-sampling the off-site irrigation well in order to verify the presence of high levels of tetrahydrofuran and chloroethane.

FIGURES



approximate scale in feet
0 50 100

Figure 1: Site vicinity map.



▲ Off-Site Supply Well (Steven Kent Winery)

- ▲ MONITORING WELL (May 2005)
- ▲ PRIVATE WATER WELL
- ◆ TEMPORARY WELL BOREHOLE (June 24, 2005)
- ⊕ CPT BOREHOLE (October 2005)
- ◆ HSA CALIBRATION BOREHOLE
- ⊕ SOIL BORING (April 2003 By Clayton)
- ⊕ ANGLED SOIL BORING (April 2003 By Clayton)

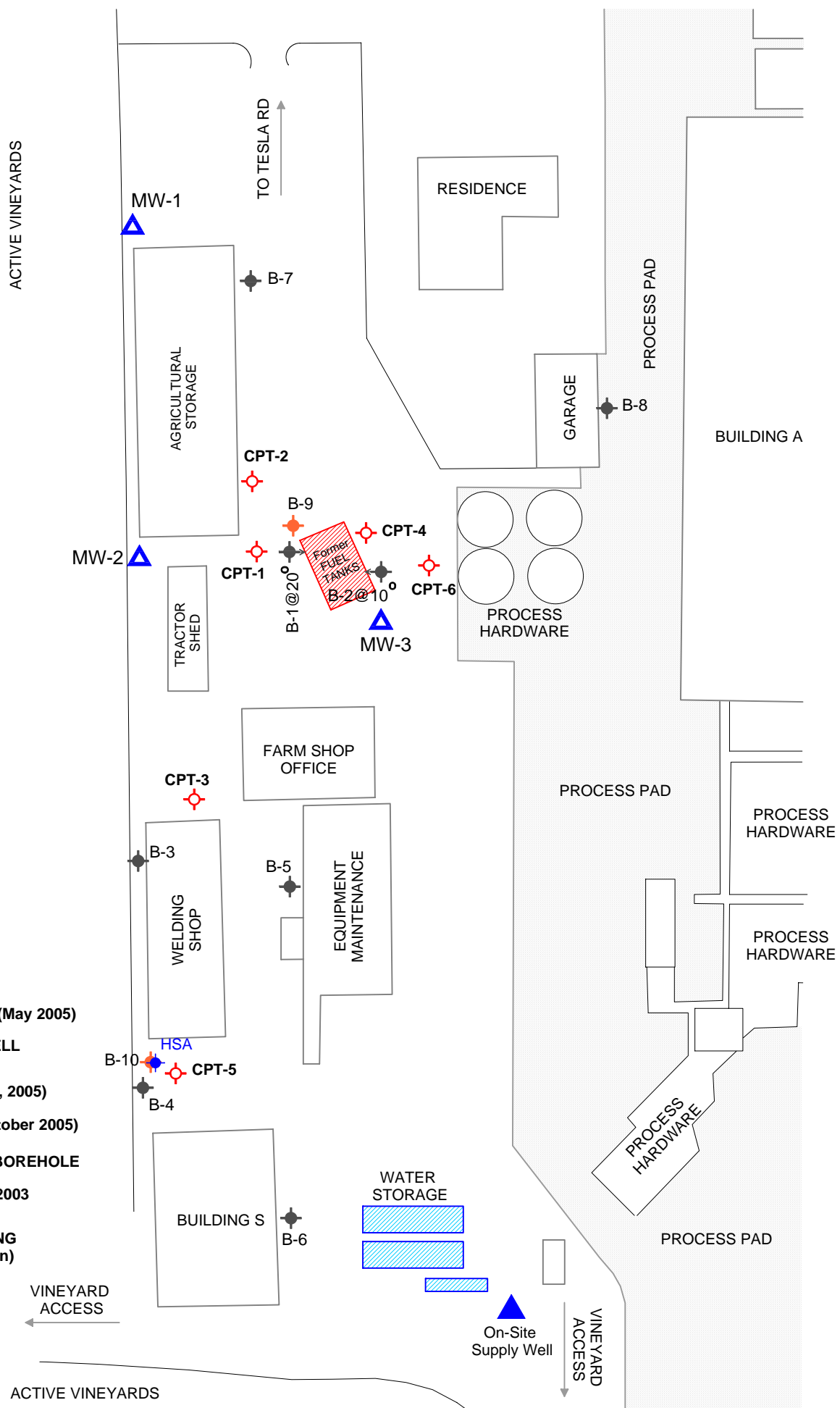
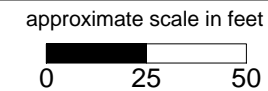
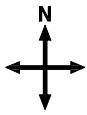
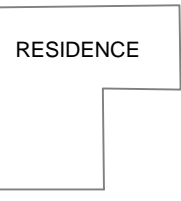


Figure 2: Map showing locations of newly installed wells, temporary well boreholes, and previous soil borings installed by Clayton group.



ACTIVE VINEYARDS

TO TESLA RD



RESIDENCE



GARAGE

PROCESS PAD

BUILDING A

MW-1
606.26

B-7

AGRICULTURAL STORAGE

806.85

CPT-2

B-1 @ 20°

CPT-4

MW-2
606.83

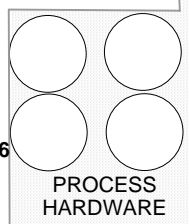
TRACTOR SHED

CPT-1

Former FUEL TANKS
B-2 @ 10°

CPT-6

MW-3
607.72



PROCESS HARDWARE

ACTIVE VINEYARDS

Off-Site Supply Well
NC



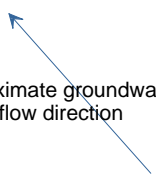
FARM SHOP OFFICE

CPT-3

PROCESS PAD

PROCESS HARDWARE

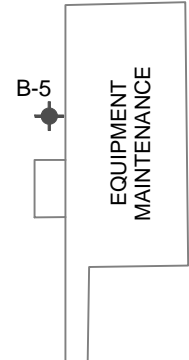
approximate groundwater flow direction



WELDING SHOP

HSA

CPT-5



EQUIPMENT MAINTENANCE

B-5

PROCESS PAD

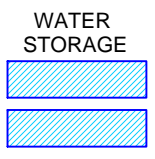
PROCESS HARDWARE

- MONITORING WELL (May 2005)
- PRIVATE WATER WELL
- CPT BOREHOLE
- HSA CALIBRATION BOREHOLE
- SOIL BORING (April 2003 By Clayton)
- ANGLED SOIL BORING (April 2003 By Clayton)
- NC NOT CALCULATED

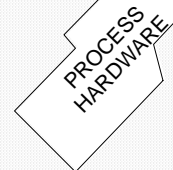


BUILDING S

B-6



WATER STORAGE



PROCESS HARDWARE

PROCESS PAD

VINEYARD ACCESS

ACTIVE VINEYARDS

On-Site Supply Well
NC

VINEYARD ACCESS

approximate scale in feet

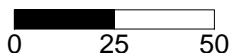
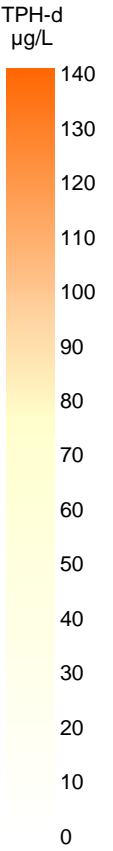
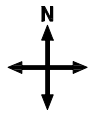


Figure 3: Groundwater elevation contour map in feet. November 2005.



ACTIVE VINEYARDS

TO TESLA RD

RESIDENCE

MW-1
150

B-7

AGRICULTURAL STORAGE

GARAGE

PROCESS PAD

BUILDING A

Off-Site Supply Well
120

ACTIVE VINEYARDS

CPT-2

B-1 @ 20°

CPT-4

MW-2
<50

CPT-1

Former FUEL TANKS

B-2 @ 10°

CPT-6

MW-3
150

PROCESS HARDWARE

FARM SHOP OFFICE

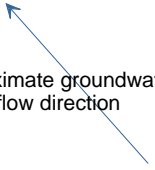
CPT-3

PROCESS PAD

PROCESS HARDWARE

PROCESS HARDWARE

approximate groundwater flow direction



WELDING SHOP

B-3

EQUIPMENT MAINTENANCE

B-5

- MONITORING WELL (May 2005)
- PRIVATE WATER WELL
- CPT BOREHOLE
- HSA CALIBRATION BOREHOLE
- SOIL BORING (April 2003 By Clayton)
- ANGLED SOIL BORING (April 2003 By Clayton)

HSA

CPT-5

B-4

BUILDING S

B-6

WATER STORAGE

On-Site Supply Well
100

PROCESS HARDWARE

PROCESS PAD

VINEYARD ACCESS

VINEYARD ACCESS

ACTIVE VINEYARDS

approximate scale in feet

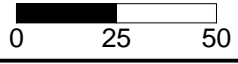


Figure 4: Contour Map of TPH-d concentrations in groundwater. November 2005.

TABLES

Table 1
Historical Groundwater Elevation Data & Analytical Results
Hydrocarbons, BTEX, & MtBE
Wente Vineyards
5565 Tesla Road, Livermore, California

Monitoring Well	Date	Top of Casing (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L)
MW-1	May-05	615.16	6.10	609.06	<200	<50	320 YZ	<0.5	<0.5	<0.5	<1.0	<0.5
	Sep-05	615.16	9.19	605.97	<50	<50	<300	<0.5	<2.0	<0.5	<1.0	<0.5
	Nov-05	615.16	8.90	606.26	<50	150 YZ	<300	<0.5	<2.0	<0.5	<1.0	<0.5
MW-2	May-05	616.03	6.69	609.34	<200	<50	<300	<0.5	<0.5	<0.5	<1.0	<0.5
	Sep-05	616.03	9.30	606.73	<50	<50	<300	<0.5	<2.0	<0.5	<1.0	<0.5
	Nov-05	616.03	9.20	606.83	<50	<50	<300	<0.5	<2.0	<0.5	<1.0	<0.5
MW-3	May-05	617.32	7.04	610.28	<200	680	<300	<0.5	1.58	<0.5	<1.0	<0.5
	Sep-05	617.32	9.61	607.71	<50	300 Y	<300	<0.5	<2.0	<0.5	<1.0	<0.5
	Nov-05	617.32	9.60	607.72	<50	150 YZ	<300	<0.5	<2.0	<0.5	<1.0	<0.5
B-9	Jun-05	NA	NA	NA	1,850,000	540,000 LY	<24,000	3,820	114,000	40,400	177,700	<462
B-10	Jun-05	NA	NA	NA	<200	<50	<300	<0.5	4.23	1.10	4.03	<0.5
Onsite Supply Well	May-05	NS	NM	NC	<200	<50	<300	<0.5	0.85	<0.5	<1.0	<0.5
	Nov-05	NS	NM	NC	<50	100 YZ	<300	<0.5	<2.0	<0.5	<1.0	<0.5
Offsite Supply Well	Nov-05	NS	NM	NC	<5,380	120 YZ	<300	<53.8	<215	<53.8	<108	<53.8

Table 1
Historical Groundwater Elevation Data & Analytical Results
Hydrocarbons, BTEX, & MtBE
Wente Vineyards
5565 Tesla Road, Livermore, California

Monitoring Well	Date	Top of Casing (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L)
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Notes:

- 1) The wells were installed on May 5, 2005 and developed by Woodward Drilling on May 20, 2005.
- 2) A grab sample was collected after the well development on May 20, 2005.
- 3) A grab sample was also collected from the water well, southeast of the water storage units on May 20, 2005.
- 4) The wells were surveyed by Harrington Surveys of Walnut Creek, CA on June 5, 2005.
- 5) A grab sample was collected from the borings on June 24, 2005.
- 6) The groundwater elevation for the May 2005 sampling was based on the survey data of Harrington Surveys.
- 7) The supply wells were first added to the quarterly events in the Fourth Quarter 2005.

NA: Not Applicable. B-9 and B-10 are boring locations and are not surveyed.
 NC: Not calculated.
 NM: Not Measured
 NS: Not surveyed. The onsite well is a private well.

TPH-d: Total hydrocarbons as diesel

TPH-g: Total hydrocarbons as gasoline

TPH-mo: Total hydrocarbons as motor oil

L: Lighter weight hydrocarbons contributed to the quantitation

Y: Sample exhibits chromatographic pattern which does not resemble standard

Z: Sample exhibits unknown single peaks or peaks.

<: Not Detected above the laboratory reporting limit.

Table 2
Historical Groundwater Analytical Results
Gasoline Oxygenates & Lead Scavengers
Wente Vineyards
5565 Tesla Road, Livermore, California

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-1	Sep-05	<2.5	<0.5	<0.5	<2.0	<0.5	<2.0
MW-2	Sep-05	<2.5	<0.5	<0.5	<2.0	<0.5	<2.0
MW-3	Sep-05	<2.5	<0.5	<0.5	<2.0	<0.5	<2.0
Onsite Supply Well	Nov-05	<2.5	<0.5	<0.5	<2.0	<0.5	<2.0
Offsite Supply Well	Nov-05	<269	<53.8	<53.8	<215	<53.8	<215

Notes:

- 1) A grab sample was collected after well development on May 20, 2005.
 - 2) Based on the approval of the Alameda County Environmental Health Services since gasoline oxygenates were not detected, further analysis was not required for wells MW-1 to MW-3. The only time gasoline oxygenates were tested for wells MW-1 to MW-3 was in the Third Quarter 2005.
 - 3) The supply wells were first added to the quarterly events in the Fourth Quarter 2005.
- <: Not Detected above the laboratory reporting limit.

Gasoline Oxygenates:

TBA: tertiary Butyl Alcohol
 DIPE: Di-Isopropyl Ether
 ETBE: Ethyl tertiary Butyl Ether
 TAME: Methyl tertiary Amyl Ether

Lead Scavengers:

EDB: 1,2-Dibromoethane
 1,2-DCA: 1,2-Dichloroethane

Table 3
Historical Analytical Results For Volatile Organic Compound
Analyses in Groundwater Samples
Wente Vineyards
5565 Tesla Road, Livermore, California

Monitoring Well	Date	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	1,2-DCP (µg/L)	1,1-DCE (µg/L)
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Notes:

- 1) A grab sample was collected after well development on May 20, 2005. However, the first time volatile organic compounds (VOCs) were analyzed was during the Third Quarter 2005 monitoring event.
 - 2) Based on the approval of the Alameda County Environmental Health Services since VOCs were not detected, further analysis was not required for wells MW-1 to MW-3. The only time VOCs were tested in wells MW-1 to MW-3 was in the Third Quarter 2005.
 - 3) The supply wells were first added to the quarterly events in the Fourth Quarter 2005.
- <: Not detected above the laboratory reporting limit.

Volatile organic compounds (VOCs)

PCE:	tetrachloroethene	TCE:	1,1,1-trichloroethane
cis-1,2-DCE:	cis-1,2-dichloroethene	trans-1,2-DCE:	trans-1,2-dichloroethene
vinyl chloride		1,2-DCP:	1,2-dichloropropane
1,1-DCE:	1,1-dichloroethene		

Table 4
Historical Groundwater Analytical Results
Metals
Wente Vineyards
5565 Tesla Road, Livermore, California

Monitoring Well	Date	Cadmium (µg/L)	Chromium (µg/L)	Lead (µg/L)	Nickel (µg/L)	Zinc (µg/L)
MW-1	Sep-05	<5.0	<10	<3.0	<20	27
MW-2	Sep-05	<5.0	<10	<3.0	<20	23
MW-3	Sep-05	<5.0	<10	<3.0	<20	<20
B-10	Jun-05	12	930	82	3,600	800
Onsite Supply Well	Nov-05	<5.0	<10	<3.0	<20	62
Offsite Supply Well	Nov-05	<5.0	<10	<3.0	<20	830

Notes:

- 1) Metals were tested at boring B-10 on June 24, 2005.
 - 2) Due to the results from B-10, the Alameda County Environmental Health Services requested that SOMA further analyze the wells for metals in a letter dated Sept. 19, 2005. SOMA collected grab samples from the wells on September 29, 2005.
 - 3) The only time metals were tested in wells MW-1 to MW-3 was in the Third Quarter 2005.
 - 4) The supply wells were first added to the quarterly events in the Fourth Quarter 2005.
- <: Not Detected above the laboratory reporting limit.

Appendix A

SOMA's Groundwater Monitoring Procedures

Field Activities

On November 28, 2005, SOMA's field crew conducted a groundwater monitoring event in accordance with the procedures and guidelines of the CRWQCB and the ACEHCS. During this groundwater monitoring event a total of three wells (MW-1 to MW-3) were monitored. Additional groundwater grab samples were collected from the on and off-site supply wells. Figure 2 shows the locations of the wells.

The depth to groundwater in each monitoring well was measured from the top of the casing to the nearest 0.01 foot using an electric sounder. Harrington Surveys Inc., of Walnut Creek, surveyed the Site on June 3, 2005. The survey datum was based on an elevation of 566.57 NAVD 88. Top of casing elevation data and the depth to groundwater in each monitoring well was used to calculate the groundwater elevation.

The survey data is included in Appendix B for the monitoring wells. The survey was conducted to comply with EDF requests for electronic reporting of data to the State Water Resources Control Board (SWRCB) Database.

Prior to collecting samples, each well was purged using a battery operated 2-inch diameter pump (Model ES-60 DC). During the purging activities, in order to obtain accurate measurements of groundwater parameters and especially to avoid the intrusion of oxygen from ambient air into the groundwater samples, field measurements were conducted in-situ (i.e., down-hole inside each monitoring well). The groundwater parameters such as DO, pH, temperature, EC, turbidity, and the ORP were measured in-situ using a Horiba, Model U-22 multi-parameter instrument. The equipment was calibrated at the Site using standard solutions and procedures provided by the manufacturer.

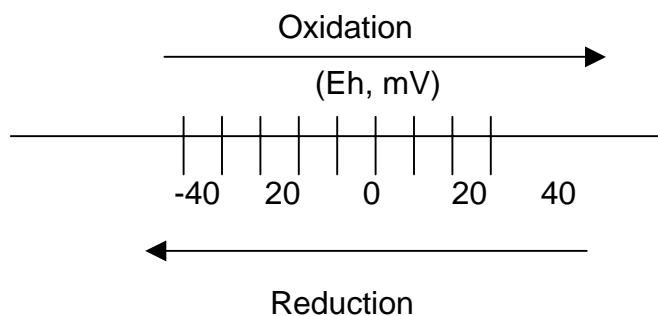
The pH of groundwater has an effect on the activity of microbial populations in the groundwater. The groundwater temperature affects the metabolic activity of bacteria. The groundwater conductivity (EC) is directly related to the concentration of ions in solution.

There is a strong correlation between the turbidity level and the biological oxygen demand of natural water bodies. The main purpose for checking the turbidity level is to provide a general overview of the extent of the suspended solids in the groundwater.

ORP (oxidation reduction potential) is the measure of the potential for an oxidation or reduction process to occur. In the oxidation process a molecule or ion loses one or several electrons. In the reduction process a molecule or ion gains one or several electrons. The unit of the redox potential is the Volt or m-Volt. The most important redox reaction in petroleum contaminated groundwater is the oxidation of petroleum hydrocarbons in the presence of bacteria and free molecular oxygen. Because the solubility of O₂ in water is low (9 mg/L at 25 °C and 11 mg/L at 5 °C), and because the rate of O₂ replenishment in subsurface environments is limited,

DO can be entirely consumed, when the oxidation of only a small amount of petroleum hydrocarbons occurs.

Oxidation of petroleum hydrocarbons can still occur, when all the dissolved O_2 in the groundwater is consumed, however, the oxidizing agents (i.e., the constituents that undergo reduction) now become NO_3^- , MnO_2 , $Fe(OH)_3$, SO_4^{2-} and others (Freeze and Cherry, 1979). As these oxidizing agents are consumed, the groundwater environment becomes more and more reduced. If the process proceeds far enough, the environment may become so strongly reduced that the petroleum hydrocarbons may undergo anaerobic degradation, resulting in the production of methane and carbon dioxide. The concept of oxidation and reduction in terms of changes in oxidation states is illustrated below.



The purging of the wells continued until the parameters for DO, pH, temperature, EC, turbidity, and redox stabilized or three casing volumes were purged. A disposable polyethylene bailer was used to collect sufficient samples from each well for laboratory analyses.

The groundwater sample was transferred to four 40-mL VOA vials and preserved with hydrochloric acid. The vials were then sealed to prevent the development of air bubbles within the headspace. The groundwater sample was also transferred into a one-liter non-preserved amber glass container. All groundwater samples were placed in an ice chest along with a chain of custody (COC) form. On November 28, 2005, SOMA's field crew delivered the samples to Pacific Analytical Laboratory (PAL) in Alameda, California.

Laboratory Analysis

The groundwater samples for both the monitoring wells and supply wells were analyzed for TPH-g, TPH-d, TPH-mo, BTEX, and MtBE. Additional analytes were tested for the supply wells. The additional analysis consisted of gasoline oxygenates, lead scavengers, volatile organic compounds (VOCs), and metals.

Pacific Analytical Laboratory, a state certified laboratory, analyzed the samples for TPH-g, BTEX, MtBE, gasoline oxygenates, lead scavengers, and VOCs. EPA Method 5030B was used to prepare the samples for measurements, and all constituents were analyzed using Method 8260B.

Samples for TPH-d, TPH-mo, and metals were subcontracted through Curtis and Tompkins, Ltd in Berkeley, CA. TPH-d and TPH-mo measurements were prepared using EPA Method 3520C and analyzed using EPA Method 8015B. Metal measurements were prepared using EPA Method 3010A and analyzed using EPA Method 6010B.

Appendix B

Table of Elevations & Coordinates on Monitoring Wells
Measured by Harrington Surveys, Inc.,
and
Field Measurements of Physical, Chemical, & Biodegradation
Parameters of the Groundwater Samples
at Time of Sampling

Harrington Surveys Inc.

Land Surveying & Mapping

2278 Larkey Lane, Walnut Creek, Ca. 94597 Phone (925)935-7228 Fax (925)935-5118
Cell (925)788-7359 E-Mail (ben5132@pacbell.net)

SOMA ENVIRONMENTAL ENGINEERING
2680 BISHOP DR. # 203
SAN RAMON, CA. 94583

JUNE 05, 2005

ATTN: ELENA

5565 TESLA ROAD,
LIVERMORE CA.

SURVEY REPORT

CONTROLLING POINTS FOR SURVEY:

CALIFORNIA HPGN MONUMENT 04 FL, CALIFORNIA COORDINATE SYSTEM, ZONE 3.
NAD 83. NORTH 2,085,087.52 - EAST 6,213,127.18, LAT. N37°42'56.31172"
W121°42'18.00018".
ELEVATION 566.57, NAVD 88,

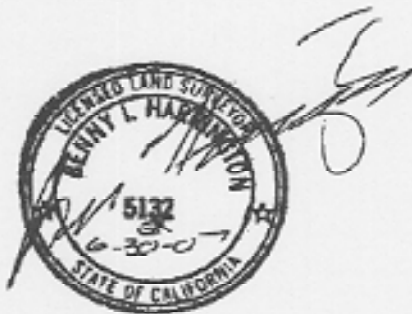
CALIFORNIA HPGN MONUMENT 04 FK, CALIFORNIA COORDINATE SYSTEM, ZONE 3.
NORTH 2,055,842.44 - EAST 6,189,298.07, LAT N37°38'02.07933",
W121°47'09.51080"
ELEVATION 637.80NAVD 88,

INSTRUMENTATION:

TRIMBLE GPS, MODEL 5800 AND LEICA TCA 1800, 1" HORZ. & VERT.
OBSERVATION: EPOCH = 180.

FIELD SURVEY: JUNE 03, 2005.

BEN HARRINGTON
PLS 5132





ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-1
 Casing Diameter: 2 inch
 Depth of Well: 15.00 ft
 Top of Casing Elevation: 615.16 ft
 Depth to Groundwater: 8.90 ft
 Groundwater Elevation: 606.26 ft
 Water Column Height: 6.10 ft
 Purged Volume: 8.5 gallons

Project No.: 2841

Address: Wente Vineyards
 5565 Tesla Rd, Livermore

Date: 11/28/05

Sampler: Mehran Nowroozi

Purging Method: Bailer Pump

Sampling Method: Bailer Pump

Color: No Yes Describe _____

Sheen: No Yes Describe _____

Odor: No Yes Describe _____

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
12:55 START	Purging						
12:58 PM	2	7.5	7.01	17.90	1720	949	128
12:59 PM	4.5	8.2	7.05	17.85	1720	529	127
1:01 PM	6.5	8.1	7.07	17.82	1701	663	125
1:03 PM	8.5	7.9	7.08	17.81	1721	478	124
Sampled 1:10 PM							

Notes:



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-2
 Casing Diameter: 2 inch
 Depth of Well: 14.90 ft
 Top of Casing Elevation: 616.03 ft
 Depth to Groundwater: 9.20 ft
 Groundwater Elevation: 606.83 ft
 Water Column Height: 5.70 ft
 Purged Volume: 5.5 gallons

Project No.: 2841
 Address: Wente Vineyards
 5565 Tesla Rd, Livermore
 Date: 11/28/05
 Sampler: Mehran Nowroozi

Purging Method: Bailer Pump

Sampling Method: Bailer Pump

Color: No Yes Describe _____

Sheen: No Yes Describe _____

Odor: No Yes Describe _____

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
1:30 Start	Purge	8					
1:32 PM	2	6.8	7.24	19.28	1510	414	127
1:34 PM	4	6.7	7.21	19.18	1410	428	129
	5.5	Dried					
8 AM @ 1:40 PM							

Notes:



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-3
 Casing Diameter: 2 inch
 Depth of Well: 1340 ft
 Top of Casing Elevation: 617.32 ft
 Depth to Groundwater: 9.60 ft
 Groundwater Elevation: 607.72 ft
 Water Column Height: 3.80 ft
 Purged Volume: 35 gallons

Project No.: 2841
 Address: Wente Vineyards
 5565 Tesla Rd, Livermore
 Date: 11/28/05
 Sampler: Mehran Nowroozi

Purging Method: Bailer Pump

Sampling Method: Bailer Pump

Color: No Yes Describe _____

Sheen: No Yes Describe _____

Odor: No Yes Describe _____

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
12:10 Start Purge							
12:11 PM	1.5	6.9	6.22	20.34	1640	999	144
12:12 PM	2.5	6.8	6.21	20.40	989	959	165
12:14 PM	3.5	6.72	6.10	20.45	1340	859	159
Sampled 12:20 PM							

Notes:

Appendix C

Laboratory Report and Chain of Custody Form
for the
Fourth Quarter 2005 Monitoring Event

06 December 2005

Mansour Sepehr
SOMA Environmental Engineering Inc.
6620 Owens Drive, Suite A
Pleasanton, CA 94588

RE: 5565 Tesla Rd, Livermore

Work Order Number: 5110015

This Laboratory report has been reviewed for technical correctness and completeness. This entire report was reviewed and approved by the Laboratory Director or the Director's designee, as verified by the following signature.

Sincerely,



Maiid Akhavan
Laboratory Director



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

Project: 5565 Tesla Rd, Livermore
Project Number: 2841
Project Manager: Mansour Sepehr

Reported:
06-Dec-05 13:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	5110015-01	Water	28-Nov-05 13:10	28-Nov-05 15:55
MW-2	5110015-02	Water	28-Nov-05 13:40	28-Nov-05 15:55
MW-3	5110015-03	Water	28-Nov-05 12:20	28-Nov-05 15:55
Off-site supply well	5110015-04	Water	28-Nov-05 14:35	28-Nov-05 15:55
On-site supply well	5110015-05	Water	28-Nov-05 14:05	28-Nov-05 15:55



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

Project: 5565 Tesla Rd, Livermore
Project Number: 2841
Project Manager: Mansour Sepehr

Reported:
06-Dec-05 13:04

Volatile Organic Compounds by EPA Method 8260B
Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (5110015-01) Water Sampled: 28-Nov-05 13:10 Received: 28-Nov-05 15:55									
Gasoline (C6-C12)	ND	50.0	ug/l	1	BL50601	28-Nov-05	05-Dec-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
MTBE	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		77.6 %		70-130	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		102 %		70-130	"	"	"	"	
<i>Surrogate: Perdeuterotoluene</i>		91.2 %		70-130	"	"	"	"	
MW-2 (5110015-02) Water Sampled: 28-Nov-05 13:40 Received: 28-Nov-05 15:55									
Gasoline (C6-C12)	ND	50.0	ug/l	1	BL50601	28-Nov-05	05-Dec-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
MTBE	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		75.2 %		70-130	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		103 %		70-130	"	"	"	"	
<i>Surrogate: Perdeuterotoluene</i>		91.4 %		70-130	"	"	"	"	
MW-3 (5110015-03) Water Sampled: 28-Nov-05 12:20 Received: 28-Nov-05 15:55									
Gasoline (C6-C12)	ND	50.0	ug/l	1	BL50601	28-Nov-05	05-Dec-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
MTBE	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		75.2 %		70-130	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		105 %		70-130	"	"	"	"	
<i>Surrogate: Perdeuterotoluene</i>		90.6 %		70-130	"	"	"	"	

Pacific Analytical Laboratory

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: 5565 Tesla Rd, Livermore
Project Number: 2841
Project Manager: Mansour Sepehr

Reported:
06-Dec-05 13:04

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Off-site supply well (5110015-04) Water Sampled: 28-Nov-05 14:35 Received: 28-Nov-05 15:55									
1,1,1,2-Tetrachloroethane	ND	215	ug/l	107.5	BL50601	28-Nov-05	05-Dec-05	EPA 8260B	
1,1,1-Trichloroethane	ND	53.8	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	215	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	215	"	"	"	"	"	"	
1,1,2-Trichloroethene	ND	53.8	"	"	"	"	"	"	
1,1-Dichloroethane	ND	53.8	"	"	"	"	"	"	
1,1-Dichloroethene	ND	53.8	"	"	"	"	"	"	
ETBE	ND	53.8	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	53.8	"	"	"	"	"	"	
TBA	ND	269	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	53.8	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	215	"	"	"	"	"	"	
1,2-Dibromo-3-Chloropropane	ND	215	"	"	"	"	"	"	
1,2-Dibromoethan	ND	215	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	53.8	"	"	"	"	"	"	
Ethanol	ND	108000	"	"	"	"	"	"	
1,2-dichloroethane	ND	53.8	"	"	"	"	"	"	
1,2-Dichloropropane	ND	53.8	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	53.8	"	"	"	"	"	"	
1,3-dichlorobenzene	ND	53.8	"	"	"	"	"	"	
1,3-dichloropropane	ND	53.8	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	53.8	"	"	"	"	"	"	
2,2-Dichloropropane	ND	215	"	"	"	"	"	"	
2-Chlorotoluene	ND	53.8	"	"	"	"	"	"	
2-nitropropane	ND	215	"	"	"	"	"	"	
4-Chlorotoluene	ND	53.8	"	"	"	"	"	"	
4-Isopropyltoluene	ND	53.8	"	"	"	"	"	"	
ACETONE	ND	538	"	"	"	"	"	"	
Acetonitrile	ND	53.8	"	"	"	"	"	"	
Alylchloride	ND	269	"	"	"	"	"	"	
Benzene	ND	53.8	"	"	"	"	"	"	
Bromobenzene	ND	53.8	"	"	"	"	"	"	
Bromochloromethane	ND	53.8	"	"	"	"	"	"	
Bromoform	ND	538	"	"	"	"	"	"	
Butan-2-one(MEK)	ND	215	"	"	"	"	"	"	
Carbon bisulfide	ND	53.8	"	"	"	"	"	"	
Chlorobenzene	ND	215	"	"	"	"	"	"	

Pacific Analytical Laboratory

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

Project: 5565 Tesla Rd, Livermore
Project Number: 2841
Project Manager: Mansour Sepehr

Reported:
06-Dec-05 13:04

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Off-site supply well (5110015-04) Water Sampled: 28-Nov-05 14:35 Received: 28-Nov-05 15:55										
Chloroform	ND	53.8		ug/l	107.5	BL50601	28-Nov-05	05-Dec-05	EPA 8260B	
Chloroprene	ND	53.8		"	"	"	"	"	"	
cis-1,2 dichloroethene	ND	53.8		"	"	"	"	"	"	
cis-1,3-Dichloro-1-Propene	ND	53.8		"	"	"	"	"	"	
CIS-1,4-Dichloro-2-butene	ND	269		"	"	"	"	"	"	
Dibromochloromethane	ND	215		"	"	"	"	"	"	
Diethylether	ND	53.8		"	"	"	"	"	"	
Ethyl methacrylate	ND	53.8		"	"	"	"	"	"	
Ethylbenzene	ND	53.8		"	"	"	"	"	"	
Freon 113	ND	53.8		"	"	"	"	"	"	
Hexachloro-1,3-Butadiene	ND	215		"	"	"	"	"	"	
Idomethane	ND	215		"	"	"	"	"	"	
Isopropylbenzene	ND	53.8		"	"	"	"	"	"	
m&p-Xylene	ND	108		"	"	"	"	"	"	
Methylene dichloride	ND	1080		"	"	"	"	"	"	
Naphthene	ND	53.8		"	"	"	"	"	"	
n-Butylbenzene	ND	53.8		"	"	"	"	"	"	
n-Propylbenzene	ND	53.8		"	"	"	"	"	"	
o-xylene	ND	53.8		"	"	"	"	"	"	
Pentachloroethane	ND	108		"	"	"	"	"	"	
sec-Butylbenzene	ND	53.8		"	"	"	"	"	"	
Styrene	ND	215		"	"	"	"	"	"	
tert-Butylbenzene	ND	53.8		"	"	"	"	"	"	
Tetrachlorocarbon	ND	53.8		"	"	"	"	"	"	
Tetrachloroethene	ND	53.8		"	"	"	"	"	"	
Tetrahydrofuran	19700	538		"	"	"	"	"	"	
Toluene	ND	215		"	"	"	"	"	"	
MTBE	ND	53.8		"	"	"	"	"	"	
trans-1,4-Dichloro-2-butene	ND	269		"	"	"	"	"	"	
Trans-Di-1,2-Chloroethylene	ND	53.8		"	"	"	"	"	"	
Methyl isobutyl ketone	ND	53.8		"	"	"	"	"	"	
Chloromethane	ND	53.8		"	"	"	"	"	"	
Bromomethane	ND	215		"	"	"	"	"	"	
Nitrobenzene	ND	1080		"	"	"	"	"	"	
Vinyl chloride	ND	53.8		"	"	"	"	"	"	
Bromodichloromethane	ND	53.8		"	"	"	"	"	"	
Dibromomethane	ND	53.8		"	"	"	"	"	"	

Pacific Analytical Laboratory

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

Project: 5565 Tesla Rd, Livermore
Project Number: 2841
Project Manager: Mansour Sepehr

Reported:
06-Dec-05 13:04

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Off-site supply well (5110015-04) Water Sampled: 28-Nov-05 14:35 Received: 28-Nov-05 15:55									
Dichlorodifluoromethane	ND	215	ug/l	107.5	BL50601	28-Nov-05	05-Dec-05	EPA 8260B	
Vinyl acetate	ND	215	"	"	"	"	"	"	
Trichlorofluoromethane	ND	215	"	"	"	"	"	"	
Chloroethane	380	53.8	"	"	"	"	"	"	
DIPE	ND	53.8	"	"	"	"	"	"	
1,1-dichloropropene	ND	53.8	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	215	"	"	"	"	"	"	
trans-1,3-Dichloro-1-Propene	ND	53.8	"	"	"	"	"	"	
2-Hexanone	ND	215	"	"	"	"	"	"	
TAME	ND	215	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		75.2 %		70-130	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		105 %		70-130	"	"	"	"	
<i>Surrogate: Perdeuterotoluene</i>		90.0 %		70-130	"	"	"	"	
Gasoline (C6-C12)	ND	5380	"	107.5	"	"	"	EPA 8015M	
On-site supply well (5110015-05) Water Sampled: 28-Nov-05 14:05 Received: 28-Nov-05 15:55									
1,1,1,2-Tetrachloroethane	ND	2.00	ug/l	1	BL50601	28-Nov-05	05-Dec-05	EPA 8260B	
1,1,1-Trichloroethane	ND	0.500	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	2.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	2.00	"	"	"	"	"	"	
1,1,2-Trichloroethene	ND	0.500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.500	"	"	"	"	"	"	
ETBE	ND	0.500	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.500	"	"	"	"	"	"	
TBA	ND	2.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.500	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	2.00	"	"	"	"	"	"	
1,2-Dibromo-3-Chloropropane	ND	2.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	2.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.500	"	"	"	"	"	"	
Ethanol	ND	1000	"	"	"	"	"	"	
1,2-dichloroethane	ND	0.500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.500	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.500	"	"	"	"	"	"	
1,3-dichlorobenzene	ND	0.500	"	"	"	"	"	"	
1,3-dichloropropane	ND	0.500	"	"	"	"	"	"	

Pacific Analytical Laboratory

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

Project: 5565 Tesla Rd, Livermore
Project Number: 2841
Project Manager: Mansour Sepehr

Reported:
06-Dec-05 13:04

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
On-site supply well (5110015-05) Water Sampled: 28-Nov-05 14:05 Received: 28-Nov-05 15:55									
1,4-Dichlorbenzene	ND	0.500	ug/l	1	BL50601	28-Nov-05	05-Dec-05	EPA 8260B	
2,2-Dichloropropane	ND	2.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.500	"	"	"	"	"	"	
2-nitropropane	ND	2.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.500	"	"	"	"	"	"	
4-Isopropyltoluene	ND	0.500	"	"	"	"	"	"	
ACETONE	ND	5.00	"	"	"	"	"	"	
Acetonitrile	ND	0.500	"	"	"	"	"	"	
Alylchloride	ND	2.50	"	"	"	"	"	"	
Benzene	ND	0.500	"	"	"	"	"	"	
Bromobenzene	ND	0.500	"	"	"	"	"	"	
Bromochloromethane	ND	0.500	"	"	"	"	"	"	
Bromoform	ND	5.00	"	"	"	"	"	"	
Butan-2-one(MEK)	ND	2.00	"	"	"	"	"	"	
Carbon bisulfide	ND	0.500	"	"	"	"	"	"	
Chlorobenzene	ND	2.00	"	"	"	"	"	"	
Chloroform	ND	0.500	"	"	"	"	"	"	
Chloroprene	ND	0.500	"	"	"	"	"	"	
cis-1,2 dichloroethene	ND	0.500	"	"	"	"	"	"	
cis-1,3-Dichloro-1-Propene	ND	0.500	"	"	"	"	"	"	
CIS-1,4-Dichloro-2-butene	ND	2.50	"	"	"	"	"	"	
Dibromochloromethane	ND	2.00	"	"	"	"	"	"	
Diethylether	ND	0.500	"	"	"	"	"	"	
Ethyl methacrylate	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Freon 113	ND	0.500	"	"	"	"	"	"	
Hexachloro-1,3-Butadiene	ND	2.00	"	"	"	"	"	"	
Idomethane	ND	2.00	"	"	"	"	"	"	
Isopropylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
Methylene dichloride	ND	10.0	"	"	"	"	"	"	
Naphthene	ND	0.500	"	"	"	"	"	"	
n-Butylbenzene	ND	0.500	"	"	"	"	"	"	
n-Propylbenzene	ND	0.500	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Pentachloroethane	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.500	"	"	"	"	"	"	

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

Project: 5565 Tesla Rd, Livermore
Project Number: 2841
Project Manager: Mansour Sepehr

Reported:
06-Dec-05 13:04

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
On-site supply well (5110015-05) Water Sampled: 28-Nov-05 14:05 Received: 28-Nov-05 15:55									
Styrene	ND	2.00	ug/l	1	BL50601	28-Nov-05	05-Dec-05	EPA 8260B	
tert-Butylbenzene	ND	0.500	"	"	"	"	"	"	
Tetrachlorocarbon	ND	0.500	"	"	"	"	"	"	
Tetrachloroethene	ND	0.500	"	"	"	"	"	"	
Tetrahydrofuran	ND	5.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
MTBE	ND	0.500	"	"	"	"	"	"	
trans-1,4-Dichloro-2-butene	ND	2.50	"	"	"	"	"	"	
Trans-Di-1,2-Chloroethylene	ND	0.500	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	0.500	"	"	"	"	"	"	
Chloromethane	ND	0.500	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
Nitrobenzene	ND	10.0	"	"	"	"	"	"	
Vinyl chloride	ND	0.500	"	"	"	"	"	"	
Bromodichloromethane	ND	0.500	"	"	"	"	"	"	
Dibromomethane	ND	0.500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	2.00	"	"	"	"	"	"	
Vinyl acetate	ND	2.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	2.00	"	"	"	"	"	"	
Chloroethane	4.19	0.500	"	"	"	"	"	"	
DIPE	ND	0.500	"	"	"	"	"	"	
1,1-dichloropropene	ND	0.500	"	"	"	"	"	"	
trans-1,3-Dichloro-1-Propene	ND	0.500	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	2.00	"	"	"	"	"	"	
TAME	ND	2.00	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		73.6 %		70-130	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		108 %		70-130	"	"	"	"	
<i>Surrogate: Perdeuterotoluene</i>		91.6 %		70-130	"	"	"	"	
Gasoline (C6-C12)	ND	50.0	"	"	"	"	"	EPA 8015M	



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

Project: 5565 Tesla Rd, Livermore
Project Number: 2841
Project Manager: Mansour Sepehr

Reported:
06-Dec-05 13:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BL50601 - EPA 5030 Water MS

Blank (BL50601-BLK1)

Prepared & Analyzed: 06-Dec-05

Surrogate: 4-Bromofluorobenzene	42.3		ug/l	50.0		84.6	70-130			
Surrogate: 4-Bromofluorobenzene	42.3		"	50.0		84.6	70-130			
Surrogate: Dibromofluoromethane	52.6		"	50.0		105	70-130			
Surrogate: Dibromofluoromethane	52.6		"	50.0		105	70-130			
Surrogate: Perdeuterotoluene	49.4		"	50.0		98.8	70-130			
Surrogate: Perdeuterotoluene	49.4		"	50.0		98.8	70-130			
1,1,1,2-Tetrachloroethane	ND	2.00	"							
1,1,1-Trichloroethane	ND	0.500	"							
1,1,2,2-Tetrachloroethane	ND	2.00	"							
1,1,2-Trichloroethane	ND	2.00	"							
1,1,2-Trichloroethene	ND	0.500	"							
1,1-Dichloroethane	ND	0.500	"							
1,1-Dichloroethene	ND	0.500	"							
ETBE	ND	0.500	"							
1,2,3-Trichlorobenzene	ND	0.500	"							
TBA	ND	2.50	"							
Gasoline (C6-C12)	ND	50.0	"							
1,2,4-Trichlorobenzene	ND	0.500	"							
1,2,4-Trimethylbenzene	ND	2.00	"							
1,2-Dibromo-3-Chloropropane	ND	2.00	"							
1,2-Dibromoethane	ND	2.00	"							
1,2-Dichlorobenzene	ND	0.500	"							
Ethanol	ND	1000	"							
1,2-dichloroethane	ND	0.500	"							
1,2-Dichloropropane	ND	0.500	"							
1,3,5-Trimethylbenzene	ND	0.500	"							
1,3-dichlorobenzene	ND	0.500	"							
1,3-dichloropropane	ND	0.500	"							
1,4-Dichlorobenzene	ND	0.500	"							
2,2-Dichloropropane	ND	2.00	"							
2-Chlorotoluene	ND	0.500	"							
2-nitropropane	ND	2.00	"							
4-Chlorotoluene	ND	0.500	"							
4-Isopropyltoluene	ND	0.500	"							
ACETONE	ND	5.00	"							



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

Project: 5565 Tesla Rd, Livermore
Project Number: 2841
Project Manager: Mansour Sepehr

Reported:
06-Dec-05 13:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BL50601 - EPA 5030 Water MS

Blank (BL50601-BLK1)

Prepared & Analyzed: 06-Dec-05

Acetonitrile	ND	0.500	ug/l							
Alylchloride	ND	2.50	"							
Benzene	ND	0.500	"							
Benzene	ND	0.500	"							
Bromobenzene	ND	0.500	"							
Bromochloromethane	ND	0.500	"							
Bromoform	ND	5.00	"							
Butan-2-one(MEK)	ND	2.00	"							
Carbon bisulfide	ND	0.500	"							
Chlorobenzene	ND	2.00	"							
Chloroform	ND	0.500	"							
Chloroprene	ND	0.500	"							
cis-1,2 dichloroethene	ND	0.500	"							
cis-1,3-Dichloro-1-Propene	ND	0.500	"							
CIS-1,4-Dichloro-2-butene	ND	2.50	"							
Dibromochloromethane	ND	2.00	"							
Diethylether	ND	0.500	"							
Ethyl methacrylate	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Freon 113	ND	0.500	"							
Hexachloro-1,3-Butadiene	ND	2.00	"							
Idomethane	ND	2.00	"							
Isopropylbenzene	ND	0.500	"							
m&p-Xylene	ND	1.00	"							
m&p-Xylene	ND	1.00	"							
Methylene dichloride	ND	10.0	"							
Naphthene	ND	0.500	"							
n-Butylbenzene	ND	0.500	"							
n-Propylbenzene	ND	0.500	"							
o-xylene	ND	0.500	"							
o-xylene	ND	0.500	"							
Pentachloroethane	ND	1.00	"							
sec-Butylbenzene	ND	0.500	"							
Styrene	ND	2.00	"							
tert-Butylbenzene	ND	0.500	"							

Pacific Analytical Laboratory

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SOMA Environmental Engineering Inc.
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Pleasanton CA, 94588

Project: 5565 Tesla Rd, Livermore
Project Number: 2841
Project Manager: Mansour Sepehr

Reported:
06-Dec-05 13:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BL50601 - EPA 5030 Water MS

Blank (BL50601-BLK1)

Prepared & Analyzed: 06-Dec-05

Tetrachlorocarbon	ND	0.500	ug/l							
Tetrachloroethene	ND	0.500	"							
Tetrahydrofuran	ND	5.00	"							
Toluene	ND	2.00	"							
Toluene	ND	2.00	"							
MTBE	ND	0.500	"							
MTBE	ND	0.500	"							
trans-1,4-Dichloro-2-butene	ND	2.50	"							
Trans-Di-1,2-Chloroethylene	ND	0.500	"							
Methyl isobutyl ketone	ND	0.500	"							
Chloromethane	ND	0.500	"							
Bromomethane	ND	2.00	"							
Nitrobenzene	ND	10.0	"							
Vinyl chloride	ND	0.500	"							
Bromodichloromethane	ND	0.500	"							
Dibromomethane	ND	0.500	"							
Dichlorodifluoromethane	ND	2.00	"							
Vinyl acetate	ND	2.00	"							
Trichlorofluoromethane	ND	2.00	"							
Chloroethane	ND	0.500	"							
DIPE	ND	0.500	"							
1,1-dichloropropene	ND	0.500	"							
1,2,3-Trichloropropane	ND	2.00	"							
trans-1,3-Dichloro-1-Propene	ND	0.500	"							
2-Hexanone	ND	2.00	"							
TAME	ND	2.00	"							
Gasoline (C6-C12)	ND	50.0	"							



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

Project: 5565 Tesla Rd, Livermore
Project Number: 2841
Project Manager: Mansour Sepehr

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06-Dec-05 13:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BL50601 - EPA 5030 Water MS

LCS (BL50601-BS1)

Prepared & Analyzed: 06-Dec-05

Surrogate: 4-Bromofluorobenzene	44.4		ug/l	50.0		88.8	70-130			
Surrogate: 4-Bromofluorobenzene	44.4		"	50.0		88.8	70-130			
Surrogate: Dibromofluoromethane	51.8		"	50.0		104	70-130			
Surrogate: Dibromofluoromethane	51.8		"	50.0		104	70-130			
Surrogate: Perdeuterotoluene	50.8		"	50.0		102	70-130			
Surrogate: Perdeuterotoluene	50.8		"	50.0		102	70-130			
1,1,2-Trichloroethene	120	0.500	"	100		120	70-130			
1,1-Dichloroethane	111	0.500	"	100		111	70-130			
1,1-Dichloroethene	124	0.500	"	100		124	70-130			
TBA	392	2.50	"	500		78.4	70-130			
Gasoline (C6-C12)	1780	50.0	"	2000		89.0	70-130			
1,2-dichloroethane	124	0.500	"	100		124	70-130			
Benzene	113	0.500	"	100		113	70-130			
Benzene	113	0.500	"	100		113	70-130			
Chlorobenzene	110	2.00	"	100		110	70-130			
Chloroform	115	0.500	"	100		115	70-130			
Tetrachloroethene	92.8	0.500	"	100		92.8	70-130			
Toluene	114	2.00	"	100		114	70-130			
Toluene	114	2.00	"	100		114	70-130			
MTBE	91.8	0.500	"	100		91.8	70-130			
MTBE	91.8	0.500	"	100		91.8	70-130			
Gasoline (C6-C12)	1780	50.0	"	2000		89.0	70-130			

LCS Dup (BL50601-BSD1)

Prepared & Analyzed: 06-Dec-05

Surrogate: 4-Bromofluorobenzene	46.4		ug/l	50.0		92.8	70-130			
Surrogate: 4-Bromofluorobenzene	46.4		"	50.0		92.8	70-130			
Surrogate: Dibromofluoromethane	51.9		"	50.0		104	70-130			
Surrogate: Dibromofluoromethane	51.9		"	50.0		104	70-130			
Surrogate: Perdeuterotoluene	46.7		"	50.0		93.4	70-130			
Surrogate: Perdeuterotoluene	46.7		"	50.0		93.4	70-130			
1,1,2-Trichloroethene	111	0.500	"	100		111	70-130	7.79	20	
1,1-Dichloroethane	120	0.500	"	100		120	70-130	7.79	20	
1,1-Dichloroethene	113	0.500	"	100		113	70-130	9.28	20	
Gasoline (C6-C12)	1420	50.0	"	2000		71.0	70-130	22.5	20	QR-02
TBA	391	2.50	"	500		78.2	70-130	0.255	20	
1,2-dichloroethane	120	0.500	"	100		120	70-130	3.28	20	

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

Project: 5565 Tesla Rd, Livermore
 Project Number: 2841
 Project Manager: Mansour Sepehr

Reported:
 06-Dec-05 13:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BL50601 - EPA 5030 Water MS

LCS Dup (BL50601-BSD1)

Prepared & Analyzed: 06-Dec-05

Benzene	103	0.500	ug/l	100		103	70-130	9.26	20	
Benzene	103	0.500	"	100		103	70-130	9.26	20	
Chlorobenzene	122	2.00	"	100		122	70-130	10.3	20	
Chloroform	108	0.500	"	100		108	70-130	6.28	20	
Tetrachloroethene	80.1	0.500	"	100		80.1	70-130	14.7	20	
Toluene	105	2.00	"	100		105	70-130	8.22	20	
Toluene	105	2.00	"	100		105	70-130	8.22	20	
MTBE	76.1	0.500	"	100		76.1	70-130	18.7	20	
MTBE	76.1	0.500	"	100		76.1	70-130	18.7	20	
Gasoline (C6-C12)	1420	50.0	"	2000		71.0	70-130	22.5	20	QR-02



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

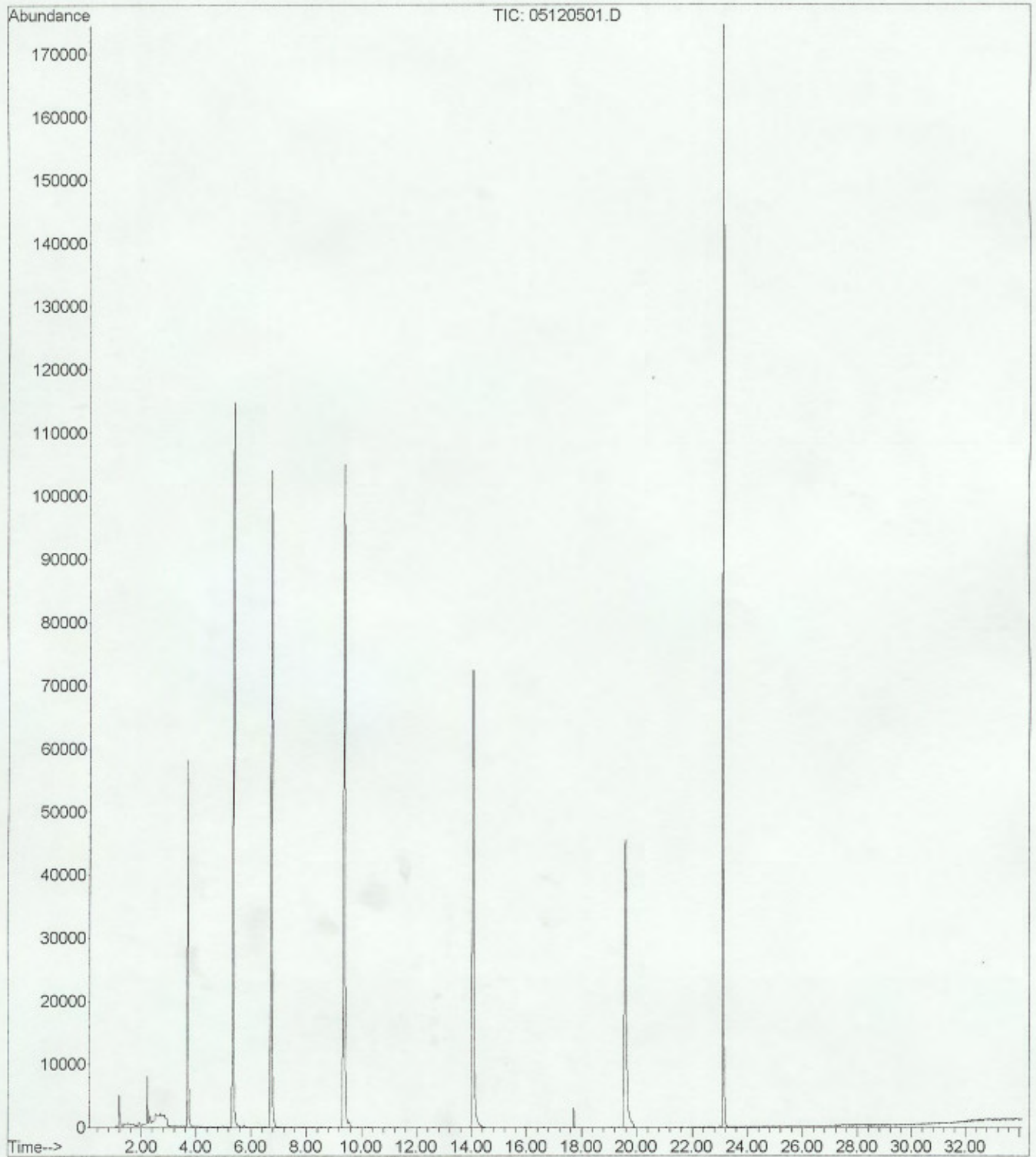
Project: 5565 Tesla Rd, Livermore
Project Number: 2841
Project Manager: Mansour Sepehr

Reported:
06-Dec-05 13:04

Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

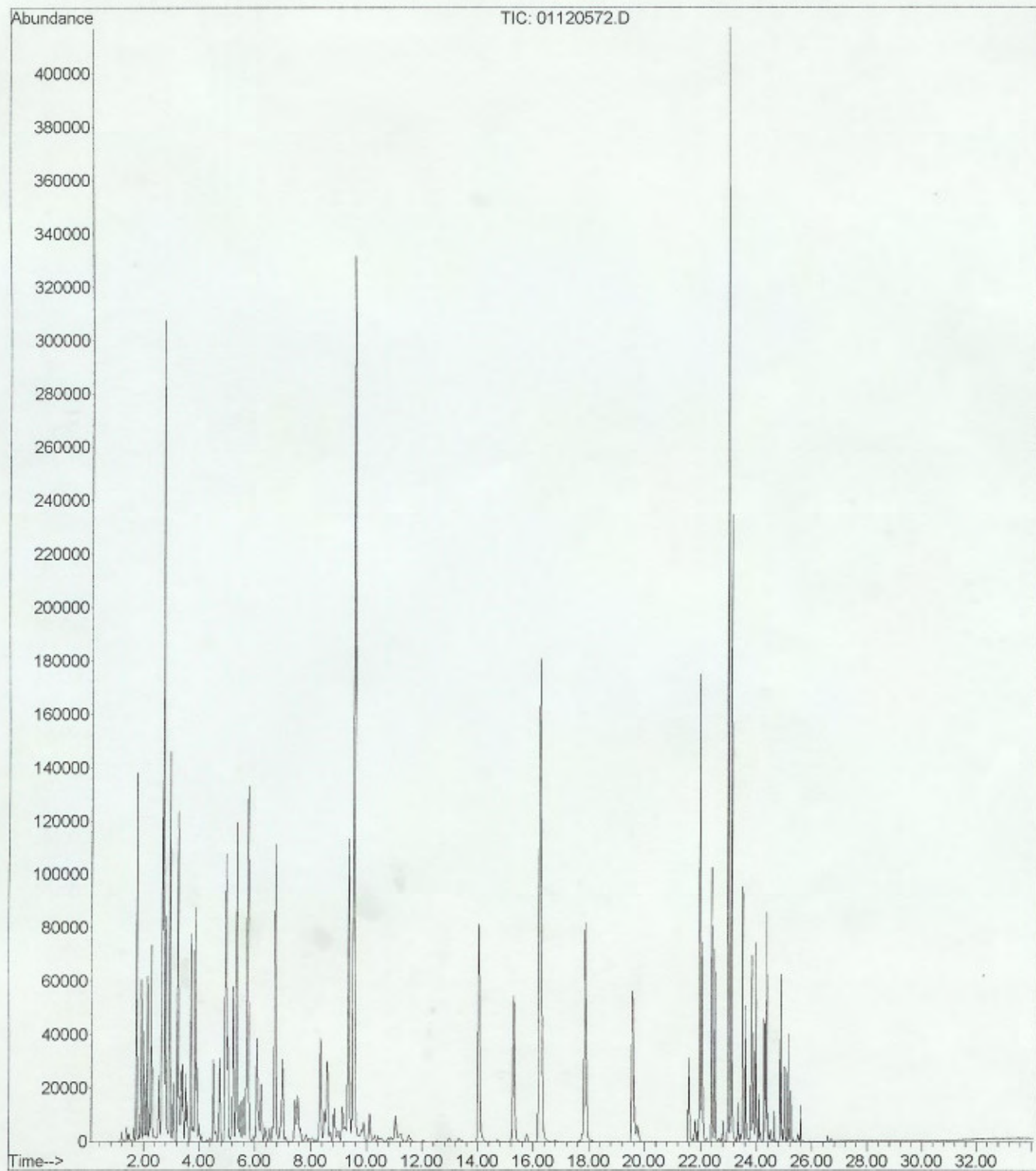
File :C:\MSDCHEM\1\DATA\2005-Dec-05-1407.b\05120501.D
Operator :
Acquired : 5 Dec 2005 2:23 pm using AcqMethod VOCOXY.M
Instrument : PAL GCMS
Sample Name: BL50601-BLK1
Misc Info :
Vial Number: 1



File : C:\MSDCHEM\1\DATA\2005-Dec-01-1110.b\01120571.D
Operator :
Acquired : 5 Dec 2005 12:25 pm using AcqMethod VOCOXY.M
Instrument : PAL GCMS
Sample Name: BL50601-BS1@voc
Misc Info :
Vial Number: 71



File :C:\MSDCHEM\1\DATA\2005-Dec-01-1110.b\01120572.D
Operator :
Acquired : 5 Dec 2005 1:29 pm using AcqMethod VOXY.M
Instrument : PAL GCMS
Sample Name: BL50601-BS1@gas
Misc Info :
Vial Number: 72



CHAIN OF CUSTODY FORM

PAL Pacific Analytical Laboratory
 851 West Midway Ave., Suite 201B
 Alameda, CA 94501
 510-864-0364 Telephone
 510-864-0365 Fax

PAL
 Login# 5110015

Project No: 2841				Sampler: Mehran Nowroozi				Analyses/Method											
Project Name: 5565 Tesla Rd, Livermore				Report To: Tony Perini				TPHg, BTEX, MIBE 8260B	TPH-d, TPH-mo	VOCs (full 8260B list)	metals								
Turnaround Time: Standard				Company: SOMA Environmental Engineering, Inc.															
				Tel: 925-734-6400 Fax: 925-734-6401															
Lab No.	Sample ID	Sampling Date/Time		Matrix			# of Containers				Preservatives				Field Notes				
		Date	Time	Soil	Water	Waste	HCL	H ₂ SO ₄	NONE	ICE									
	MW-1	11/28/05	1:10 PM		X		1 L Amber 4 VOAs	X		X	X	Grab Sample	X	X					
	MW-2	11/28/05	1:40 PM		X		1 L Amber 4 VOAs	X		X	X	Grab Sample	X	X					
	MW-3	11/28/05	12:20 PM		X		1 L Amber 4 VOAs	X		X	X	Grab Sample	X	X					
	Off-site supply well	11/28/05	2:35 PM		X		1 L Amber 4 VOAs 250 ml poly	X		X	X	Grab Sample, HNO ₃	X	X	X	X			
	On-site supply well	11/28/05	2:05 PM		X		1 L Amber 4 VOAs 250 ml poly	X		X	X	Grab Sample, HNO ₃	X	X	X	X			
Sampler Remarks:				Relinquished by:				Date/Time:				Received by:				Date/Time:			
EDF output required for metals using 0.45 micron filter metals - cadmium, chromium, lead, nickel, zinc				M. Nowroozi				11/28/05 3:45 PM				James Zingis				11/28/05 3:45 PM			



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

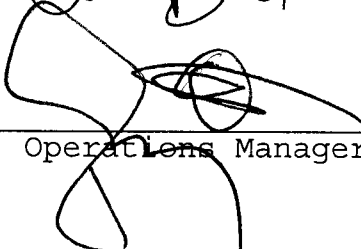
Prepared for:

Pacific Analytical Laboratory
851 West Midway Ave
Suite 201B
Alameda, CA 94501

Date: 12-DEC-05
Lab Job Number: 183444
Project ID: STANDARD
Location:

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

Reviewed by: 
Project Manager

Reviewed by: 
Operations Manager

This package may be reproduced only in its entirety.

CASE NARRATIVE

Laboratory number: 183444
Client: Pacific Analytical Laboratory
Request Date: 11/28/05
Samples Received: 11/28/05

This hardcopy data package contains sample and QC results for five water samples, requested for the above referenced project on 11/28/05. The samples were received on ice and intact.

TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

Metals (EPA 6010B):

No analytical problems were encountered.

183444

CHAIN OF CUSTODY FORM

PAL Pacific Analytical Laboratory
 851 West Midway Ave., Suite 201B
 Alameda, CA 94501
 510-864-0364 Telephone
 510-864-0365 Fax

PAL
 Login#

Project No: 2841		Sampler: Mehran Nowroozi		Analyses/Method									
Project Name: 5565 Tesla Rd, Livermore		Report To: Tony Perini		PFAS: PFEX, MDE-02008 TPH-d, TPH-mo VOCs (full 0269B-list) metals									
Turnaround Time: Standard		Company: SOMA Environmental Engineering, Inc.											
Tel: 925-734-6400 Fax: 925-734-6401		Sampling Date/Time		Matrix			# of Containers	Preservatives				Field Notes	
Lab No.	Sample ID	Date	Time	Soil	Water	Waste		HCL	H ₂ SO ₄	NONE	ICE		
-1	MW-1	11/28/05	1:10 PM		X		1 L Amber 4 VOAs	X		X	X	Grab Sample	
-2	MW-2	11/28/05	1:40 PM		X		1 L Amber 4 VOAs	X		X	X	Grab Sample	
-3	MW-3	11/28/05	12:20 PM		X		1 L Amber 4 VOAs	X		X	X	Grab Sample	
-4	Off-site supply well	11/28/05	2:35 PM		X		1 L Amber 4 VOAs 250 ml poly	X		X	X	Grab Sample, HNO ₃	
-5	On-site supply well	11/28/05	2:05 PM		X		1 L Amber 4 VOAs 250 ml poly	X		X	X	Grab Sample, HNO ₃	

Sampler Remarks: EDF output required for metals using 0.45 micron filter. metals - cadmium, chromium, lead, nickel, zinc. *James Goring* 11/28/05 4:45 PM

Relinquished by: *M. Nowroozi* 11/28/05 3:45 PM

Date/Time: 11/28/05 3:45 PM

Received by: *James Goring* 11/28/05 3:45 PM

Laranna 11/28/05 4:45 PM

REC'D intact; on ice!!

Nov 28 05 01:24P

Total Extractable Hydrocarbons

Lab #:	183444	Prep:	EPA 3520C
Client:	Pacific Analytical Laboratory	Analysis:	EPA 8015B
Project#:	STANDARD		
Matrix:	Water	Sampled:	11/28/05
Units:	ug/L	Received:	11/28/05
Diln Fac:	1.000	Prepared:	11/29/05
Batch#:	108208	Analyzed:	11/30/05

Field ID: OFF-SITE SUPPLY WELL Lab ID: 183444-004
 Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	120 Y Z	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	98	60-135

Field ID: ON-SITE SUPPLY WELL Lab ID: 183444-005
 Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	100 Y Z	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	101	60-135

Type: BLANK Cleanup Method: EPA 3630C
 Lab ID: QC319014

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

Surrogate	%REC	Limits
Hexacosane	108	60-135

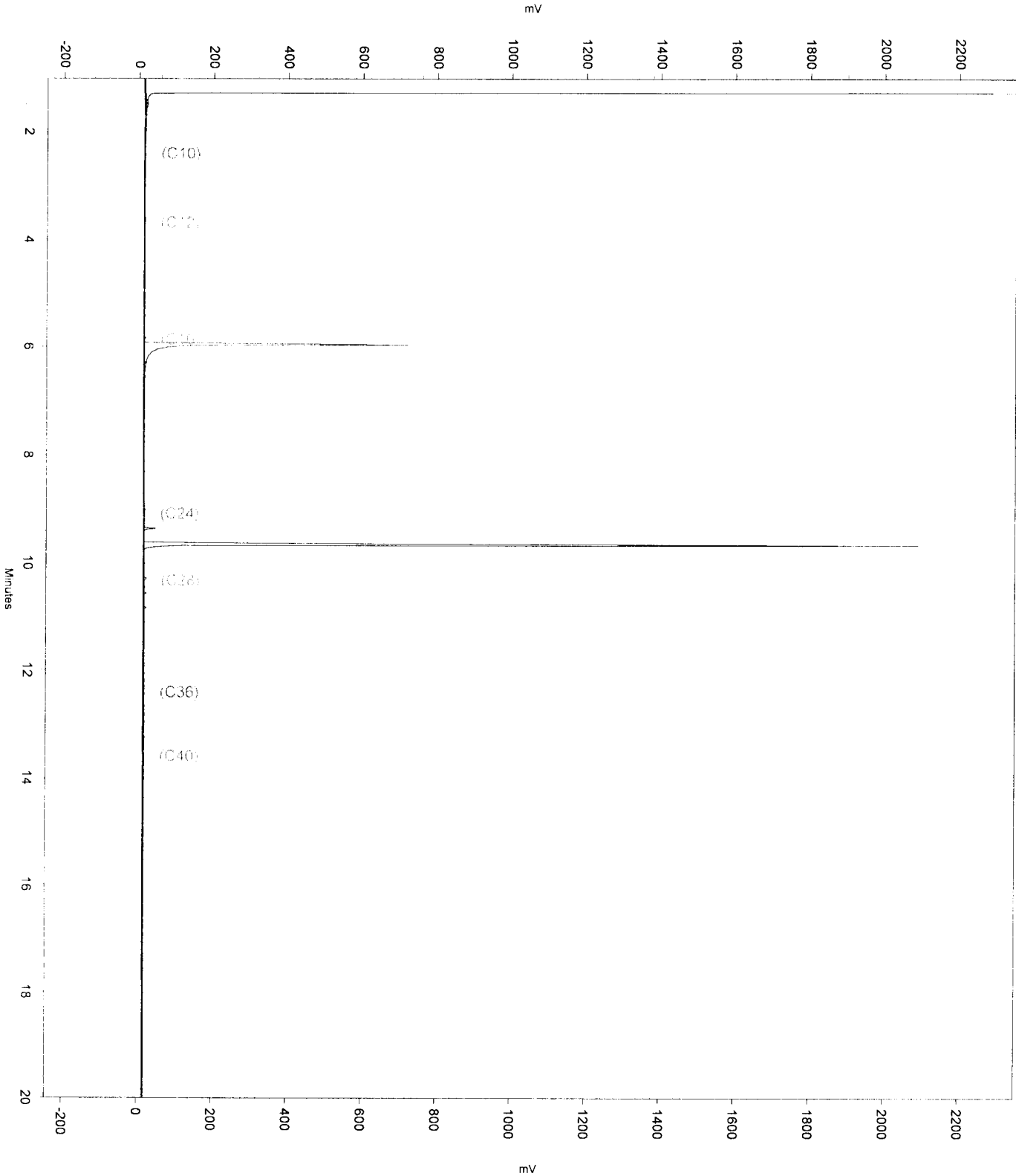
Y= Sample exhibits chromatographic pattern which does not resemble standard

Z= Sample exhibits unknown single peak or peaks

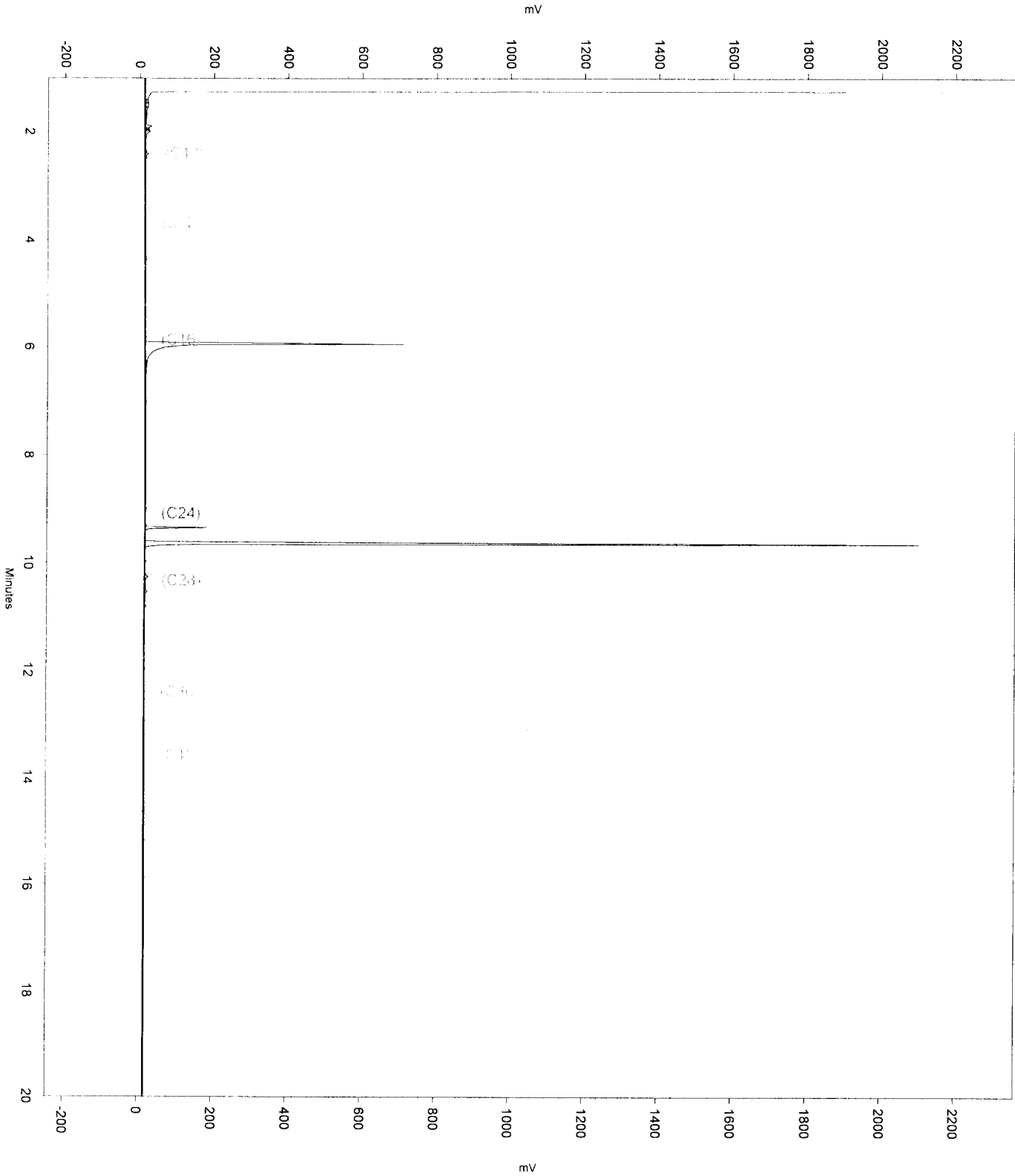
ND= Not Detected

RL= Reporting Limit

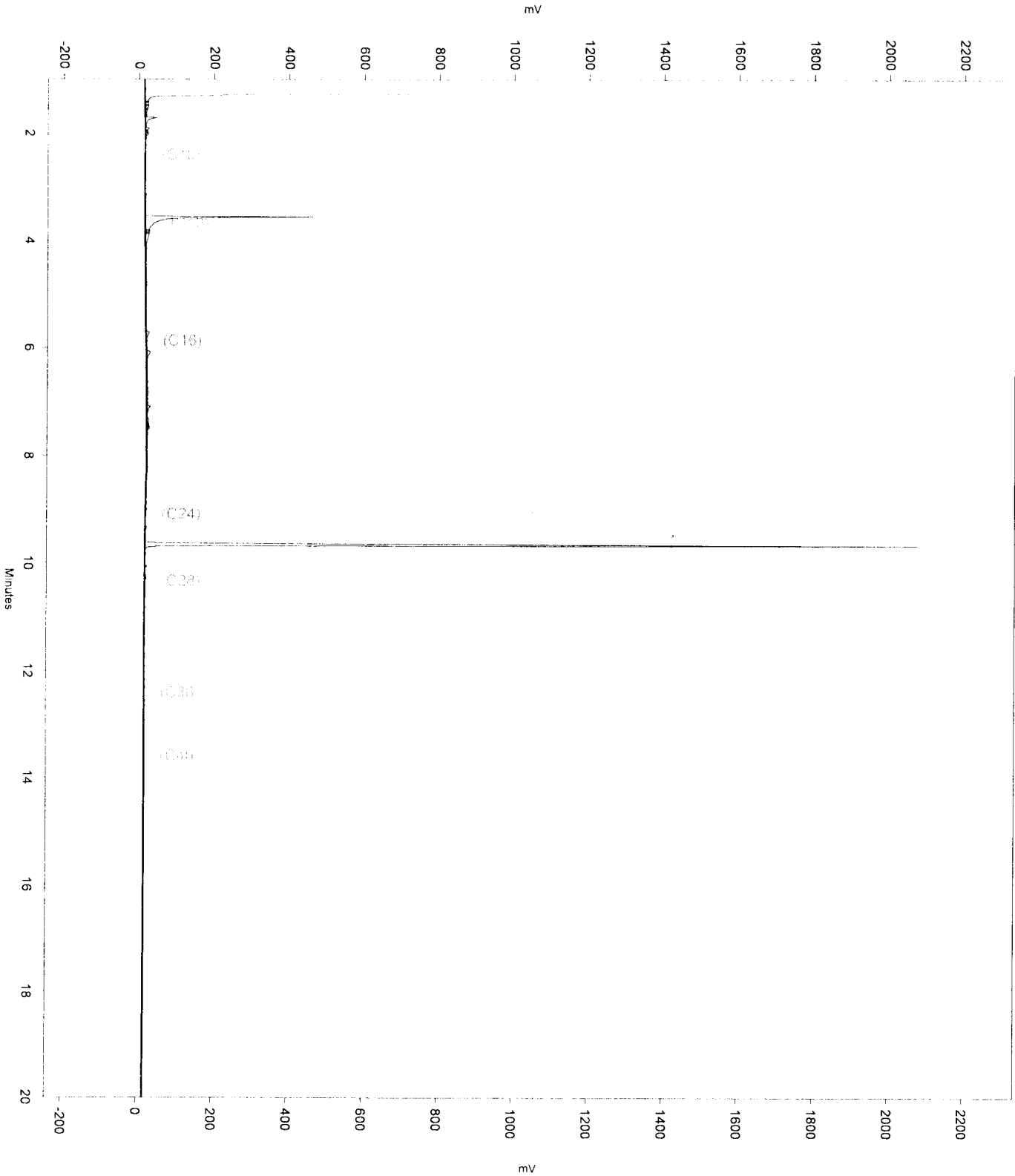
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Sample Amount: 1 Dilution Factor: 1 PDF: 1



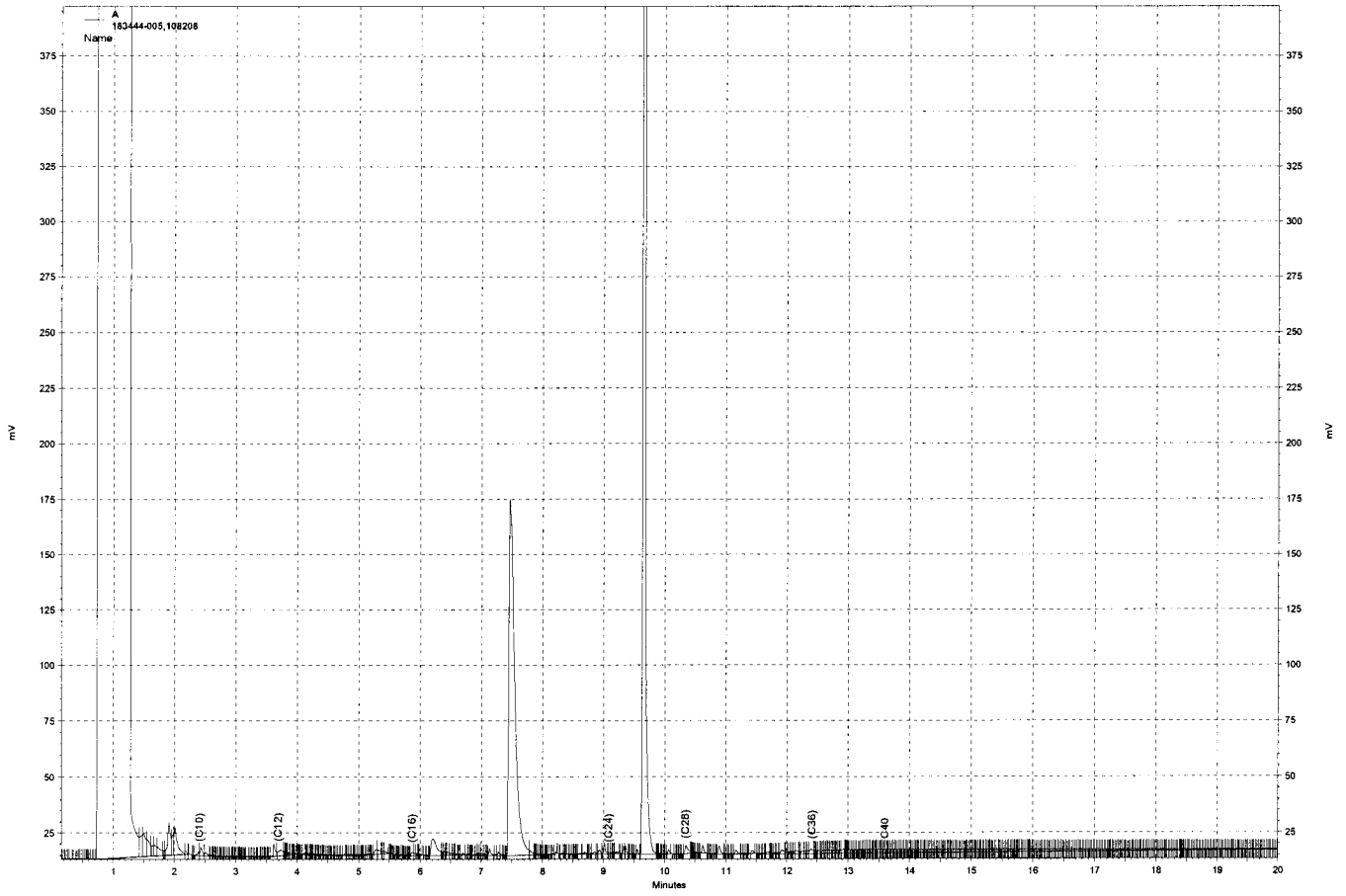
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Analysis Date: 12/1/2005 9:43:28 AM
Instrument: GC17A (Offline) Vial: 15 Operator: Teh 2. analyst (lims2k3\teh2)
Sample Amount: 1 Dilution Factor: 1 PDF: 1



Sample Name: 183444-004,108208
Data File: \\Lims\gdrive\ezchrom\Projects\GC17A\Data\334a016
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Run Date: 11/30/2005 9:51:08 PM
Analysis Date: 12/1/2005 9:43:59 AM
Instrument: GC17A (Offline) Vial: 16 Operator: Teh 2. analyst (lims2k3\teh2)
Sample Amount: 1 Dilution Factor: 1 PDF: 1



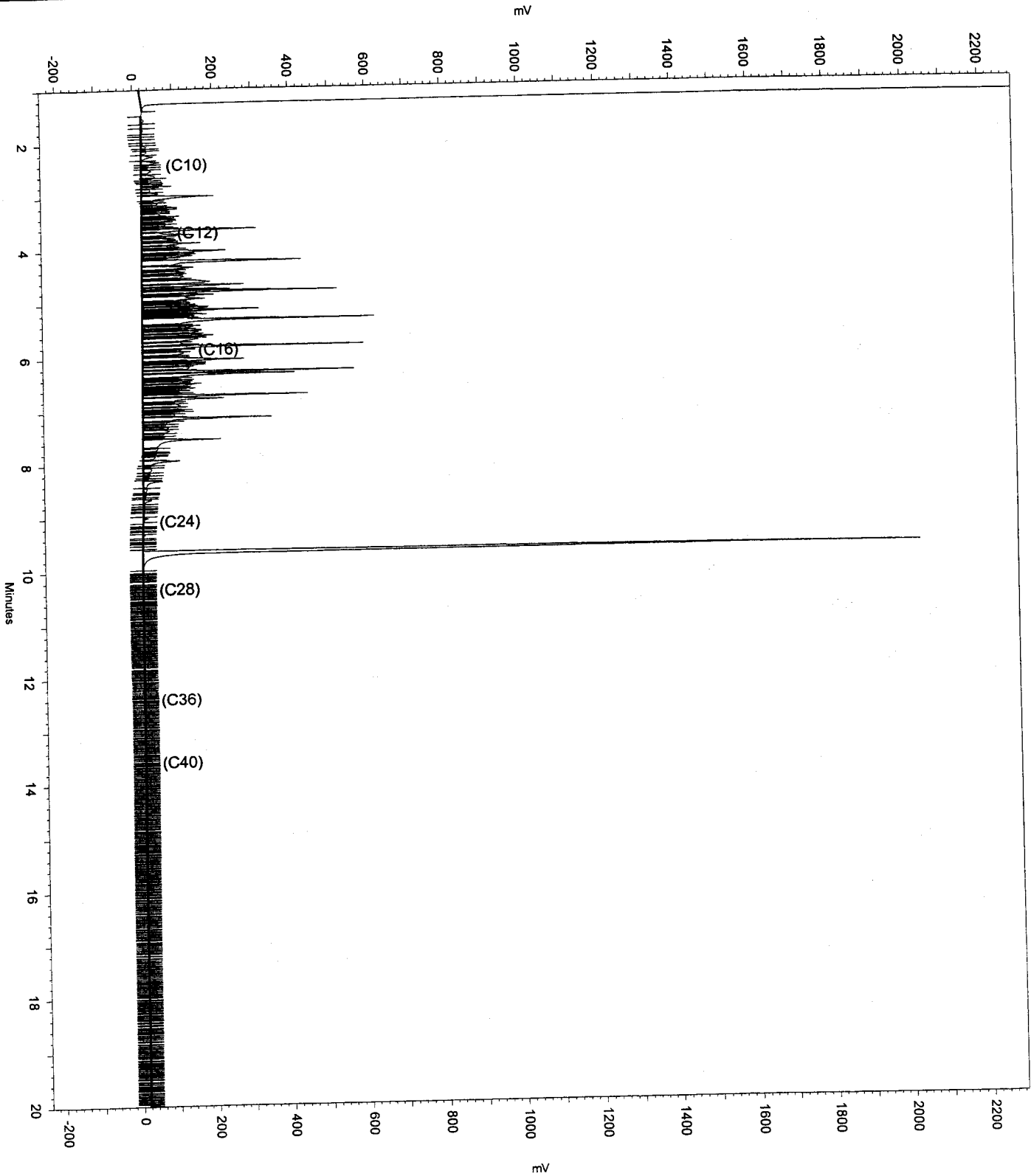
183444-005



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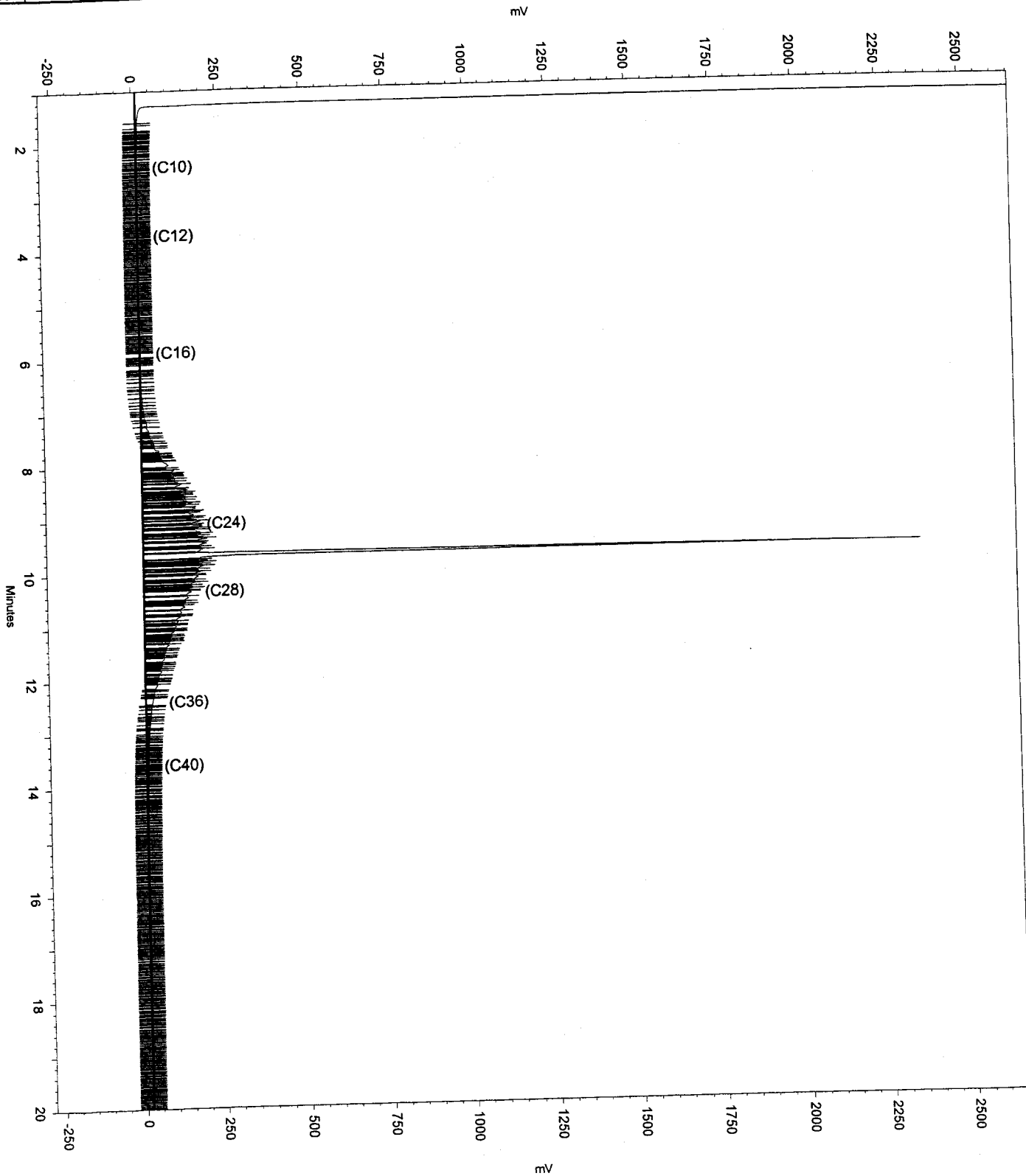
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Analysis Date: 12/1/2005 11:38:46 AM
Instrument: GC17A Vial: 3 Operator: Teh 3. Analyst (lms2k3\teh3)
Sample Amount: 1 Dilution Factor: 1 PDF: 1

Diesel



Sample Name: ccv,s1946.mo
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Method Name: \\Lims\gdrive\ezchrom\Projects\GC17A\Method\ateh327.met
Run Date: 12/1/2005 10:55:27 AM
Analysis Date: 12/1/2005 11:42:51 AM
Instrument: GC17A Vial: 4 Operator: Teh 3. Analyst (lims2k3\teh3)
Sample Amount: 1 Dilution Factor: 1 PDF: 1

Motor Oil



Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	183444	Prep:	EPA 3520C
Client:	Pacific Analytical Laboratory	Analysis:	EPA 8015B
Project#:	STANDARD		
Matrix:	Water	Batch#:	108208
Units:	ug/L	Prepared:	11/29/05
Diln Fac:	1.000	Analyzed:	11/30/05

Type: BS Cleanup Method: EPA 3630C
 Lab ID: QC319015

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,511	100	53-138

Surrogate	%REC	Limits
Hexacosane	105	60-135

Type: BSD Cleanup Method: EPA 3630C
 Lab ID: QC319016

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,655	106	53-138	6	36

Surrogate	%REC	Limits
Hexacosane	110	60-135



Dissolved Metals Analytical Report

Lab #: 183444	Prep: EPA 3010A	EPA 3010A
Client: Pacific Analytical Laboratory	Analysis: EPA 6010B	EPA 6010B
Project#: STANDARD		
Units: ug/L	Received: 11/28/05	11/28/05
Diln Fac: 1.000	Prepared: 11/30/05	11/30/05
Batch#: 108238	Analyzed: 12/01/05	12/01/05
Sampled: 11/28/05		

Field ID: OFF-SITE SUPPLY WELL	Lab ID: 183444-004	
Type: SAMPLE	Matrix: Filtrate	

Analyte	Result	RL
Cadmium	ND	5.0
Chromium	ND	10
Lead	ND	3.0
Nickel	ND	20
Zinc	830	20

Field ID: ON-SITE SUPPLY WELL	Lab ID: 183444-005	
Type: SAMPLE	Matrix: Filtrate	

Analyte	Result	RL
Cadmium	ND	5.0
Chromium	ND	10
Lead	ND	3.0
Nickel	ND	20
Zinc	62	20

Type: BLANK	Matrix: Water	
Lab ID: QC319139		

Analyte	Result	RL
Cadmium	ND	5.0
Chromium	ND	10
Lead	ND	3.0
Nickel	ND	20
Zinc	ND	20

Batch QC Report

Dissolved Metals Analytical Report

Lab #:	183444	Prep:	EPA 3010A
Client:	Pacific Analytical Laboratory	Analysis:	EPA 6010B
Project#:	STANDARD		
Matrix:	Water	Batch#:	108238
Units:	ug/L	Prepared:	11/30/05
Diln Fac:	1.000	Analyzed:	12/01/05

Type: BS Lab ID: QC319140

Analyte	Spiked	Result	%REC	Limits
Cadmium	50.00	48.70	97	80-120
Chromium	200.0	197.0	99	80-120
Lead	100.0	101.0	101	76-124
Nickel	500.0	491.0	98	80-120
Zinc	500.0	481.0	96	80-120

Type: BSD Lab ID: QC319141

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	50.00	46.40	93	80-120	5	20
Chromium	200.0	188.0	94	80-120	5	20
Lead	100.0	96.90	97	76-124	4	20
Nickel	500.0	469.0	94	80-120	5	20
Zinc	500.0	457.0	91	80-120	5	20

Batch QC Report

Dissolved Metals Analytical Report

Lab #:	183444	Prep:	EPA 3010A
Client:	Pacific Analytical Laboratory	Analysis:	EPA 6010B
Project#:	STANDARD		
Field ID:	ZZZZZZZZZZ	Batch#:	108238
MSS Lab ID:	183458-001	Sampled:	11/29/05
Matrix:	Water	Received:	11/29/05
Units:	ug/L	Prepared:	11/30/05
Diln Fac:	1.000	Analyzed:	12/01/05

Type: MS Lab ID: QC319142

Analyte	MSS Result	Spiked	Result	%REC	Limits
Cadmium	<0.3394	50.00	41.60	83	80-120
Chromium	<0.9220	200.0	168.0	84	80-120
Lead	<1.086	100.0	89.20	89	61-135
Nickel	<1.074	500.0	406.0	81	77-120
Zinc	24.30	500.0	512.0	98	75-124

Type: MSD Lab ID: QC319143

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	50.00	42.20	84	80-120	1	20
Chromium	200.0	172.0	86	80-120	2	20
Lead	100.0	92.00	92	61-135	3	23
Nickel	500.0	417.0	83	77-120	3	20
Zinc	500.0	526.0	100	75-124	3	20