



Geo Environmental Technologies

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**DOWNGRAIDENT  
INVESTIGATION OF GROUNDWATER**

**Performed on February 2, 2001**

**Livermore Gas and Mini Mart  
(Formerly Flying Ram)  
160 Holmes street  
Livermore, California**

**SITE # 4130**

**For**

**Manwel and Samira Shuwyahat  
Livermore Gas and Mini Mart  
160 Holmes Street  
Livermore, California 94520**

**May 18, 2001**

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**REPORT OF  
DOWNGRAIENT  
INVESTIGATION OF GROUNDWATER**

**FOR**

**SITE # 4130**

**Livermore Gas and Mini Mart  
160 Holmes Street  
Livermore, California**

**1.0 INTRODUCTION**

This report presents the results of an investigation of petroleum hydrocarbon and methyl t-butyl ether (MTBE) impacts on soil and groundwater, performed downgradient of the Livermore Gas and Mini Mart.

The soil and groundwater investigation was conducted in response to correspondence from the Alameda County Environmental Health Services (ACEHS), requesting further assessment of the contaminant distribution in the soil and groundwater downgradient and crossgradient of the former underground storage tanks locations. The ACEHS, the local oversight agency directing remediation activities at the site, has assigned the Livermore Gas and Mini Mart - Site # 4130.

Geo Environmental Technologies (GET) was retained by the property owner and responsible party, to perform these services. Following a series of conversations between GET and Eva Chu of the ACEHS, GET prepared a workplan which was approved by Ms. Chu on January 30, 2001. A copy of the ACEHS approval letter (printed from electronic format) is presented in Appendix A.

The purpose of this investigation was to assess the extent of hydrocarbon and MTBE-impacted soil and groundwater beneath the site and in the site vicinity. Section 1 of this document outlines the scope of work of the investigation. Section 2 describes the site history, previous investigations and remedial measures, and hydrogeology and hydrology of the site. Section 3 presents site contacts. Section 4 describes the fieldwork performed during the current investigation. Section 5 describes results of the analytical data and extent of subsurface impact. Section 6 provides conclusions drawn from this investigation. Section 7 contains recommendations for future tasks to be undertaken.

## 1.1 Scope of work

The following activities were conducted to determine the extent of petroleum hydrocarbon and MTBE-impact to soil and groundwater in the site vicinity.

- Direct push technology (Geoprobe® and Hydropunch™) was used to advance 5 temporary borings located onsite and offsite and to collect groundwater samples at the predetermined locations.
- One borehole was continuously logged to the total depth explored and a continuous soil core was collected from the soil horizon above and below groundwater.
- In order to delineate the vertical extent of hydrocarbons and MTBE impact to the groundwater, attempts were made to collect at least two 40-ml VOA and two 1-liter amber bottles for water samples from each boring. This effort was successful in 3 of the 5 boreholes.
- Groundwater samples were analyzed for Total Petroleum Hydrocarbons as diesel (TPHd), Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene, Toluene, Ethyl-benzene, Xylenes (BTEX compounds) and MTBE.

## 2.0 PAST WORK ON SITE

On 2/26/99, a boring was advanced in the northern section of the property, about 10 feet from the edge of First Street sidewalk, to log soil and determine depth to groundwater. A groundwater grab sample was collected and analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), benzene, toluene, ethyl-benzene, total xylenes (BTEX) and methyl tertiary butyl ether (MtBE). The sample was found to be impacted by petroleum hydrocarbons (TPHg: 100,000 ug/l, Benzene: 6,100 ug/l, MtBE: 60,000 ug/l). The results were communicated to the Livermore-Pleasanton Fire Department (LPCD) and a UST unauthorized release report was generated.

On 4/5/99, three gasoline USTs and one diesel UST, associated dispensers and piping were removed, manifested and disposed, under permit by the LPCD. The pit was over excavated and samples were collected from native soil beneath the USTs. Sample analysis indicated the presence of petroleum hydrocarbons in soil. Total Petroleum Hydrocarbons as diesel (TPHd) was detected at low levels (61 mg/kg) in the soil stockpile but not beneath the diesel tank; TPHg concentrations ranged from not detectable (ND) to 80 mg/kg; MTBE concentrations ranged from 24 to 110 mg/kg.

On 5/20/99 samples were collected from soil beneath the dispenser islands. TPHg was found beneath the east dispenser-island in varying concentrations ranging from 32 mg/kg to 6,500 mg/kg. TPHd beneath the diesel dispenser was detected at 1300 mg/kg. No MTBE was detected beneath the dispenser islands.

On 7/26/00 groundwater monitoring wells MW1, MW2 and MW3 were installed on site. Groundwater samples were analyzed for TPHd, TPHg, BTEX, and MTBE. Analytical results indicated that downgradient well MW1 was contaminated with 57,000 ug/L TPHd, 170,000 ug/L TPHg, 320,000 ug/L MTBE and 6,400 ug/L Benzene. Groundwater in crossgradient well MW2 contained 4,500 ug/L TPHg, 3,000 ug/L MTBE and 220 ug/L Benzene; upgradient well MW3 contained traces of TPHd and TPHg, but no BTEX or MTBE above detection limits.

On 10/19/00 the monitoring wells were sampled as part of a quarterly sampling program. MW1 remained impacted with 17,000 ug/L TPHd, 170,000 ug/L TPHg, 200,000 ug/L MTBE and 8,400 ug/L Benzene. Crossgradient well MW2 contained 1,300 ug/L TPHd, 3,400 ug/L TPHg, 1,900 ug/L MTBE and 150 ug/L Benzene. Upgradient well MW3 contained no TPHd, TPHg, BTEX or MTBE above detection limits. As directed by Ms. Chu of the ACEHS, the samples were also analyzed for fuel oxygenates, confirming the presence of MTBE.

On 2/22/01 the monitoring wells were sampled again. MW1 contained 11,000 ug/L TPHd, 82,000 ug/L TPHg, 190,000 ug/L MTBE and 5,100 ug/L Benzene. Crossgradient well MW2 contained 880 ug/L TPHd, 7,600 ug/L TPHg, 2,200 ug/L MTBE and 25 ug/L Benzene. Upgradient well MW3 again contained no TPHd, TPHg, BTEX or MTBE above detection limits.

Cumulative analytical results for all quarterlies are reproduced from the latest quarterly monitoring report and presented in Appendix B as Tables 1 and 2 (Fuel oxygenate analytical results are presented as Table 2).

## **2.1 Local Hydrogeology**

Local hydrogeology has been established during the installation of the existing three monitoring wells on site and from lithologic logs with descriptions provided by Ms. Chu of the ACEHS.

The soil horizon is comprised of tightly packed sands and gravels with varying percentages of silt and clay at different depths. It was independently described by a driller on 11/18/24 as "cement gravel" to a depth of 68 feet bgs. The shallow soil lithology was described during the installation of the three monitoring wells as "sandy, gravelly, clay" and "sandy, clayey, gravel."

Cooper labs (a geotechnical testing laboratory), described soil at 12.5 feet bgs as sandy silty clay and soil at 17 feet bgs as sandy, clayey gravel." The same description applies to the soil encountered during continuous coring of soil boring B1.

First water beneath the site during well installation on 7/26/00 was encountered at about 20-feet bgs. First water during the geoprobe drilling was encountered at varying depths and is not a reliable indicator of real depth to water, because of potential smudging and sealing-off of the water-bearing zone. Depth to water on 2/22/01 in wells MW1, MW2 and MW3 was 22.91 feet (ft) below ground surface (bgs), 22.87 ft bgs and 23.51 ft bgs, respectively. Groundwater flow direction is northwesterly, which is consistent with general area direction of flow. The groundwater gradient was 0.00275 ft/ft.

Soil specific gravity, dry density and porosity analysis was performed by Cooper Testing Labs on a shallow (12.5-foot bgs) and a deeper soil sample (17-foot bgs) from well MW2. The specific gravity for the 12.5' soil sample was 2.82 and its porosity was 37.8%; specific gravity for the 17' soil sample was 2.75 and its porosity was 32.1%. Total Organic Carbon (TOC) analysis was performed on the 10-foot soil sample from well MW3 by Advanced Technologies using EPA Method 9060. No organic carbon was detected at instrument detection limits of 30 mg/kg.

### 3.0 SITE CONTACTS

The following is a list of site contacts and phone numbers.

UST Operator: Livermore Gas and Mini Mart  
Attention: Manwel and Samira Shuwayhat  
160 Holmes Street  
Livermore, CA 94520  
Phone: (925) 455-4212

Local Oversight Agency: ACEHS  
Attention: Eva Chu  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502  
Phone: (510) 567-6700

Engineering: Geo-Environmental Technologies  
Attention: Costas Orountiotis  
3275 Stevens Creek Blvd., Suite 208  
San Jose, CA 95117  
Phone: (408) 241-1798

## **4.0 METHODS AND PROCEDURES**

The site vicinity groundwater flow direction is west by northwest, towards Hanson Park, which is directly across Holmes Street from the subject site. Beyond the park is South S Street and Valley Memorial Hospital; Noah's Bagels is to the northwest and a shopping center is to the north; to the east and northeast is the Livermore Inn; to the south (upgradient) is Second Street and to the southeast are residences.

Figure 1, is the Site Vicinity Map showing the location of the site with respect to major streets and highways; Figure 2, is the Site Plan showing the locations of former USTs, existing monitoring wells and the sampling locations on and off the site.

The investigation concentrated on the property itself, the downgradient area into Hanson Park and north towards the Livermore Inn. The investigation of off-site areas was performed under a street encroachment permit and traffic control plan.

### **4.1 Permitting, Site Access and Clearance**

An encroachment permit (# EN010021) was obtained on 1/17/01 for proposed soil borings in the street right of way and Hanson Park. A copy of the encroachment permit is attached in Appendix C.

The locations of soil borings were marked in accordance with regulatory requirements prior to notifying Underground Services Alert for clearance of underground utilities at the boring locations

### **4.2 Soil borings location**

Groundwater was expected to be found at a depth of about 20 below ground surface (bgs). Of the anticipated seven to nine borings, only 5 borings were advanced to groundwater during one long day of drilling.

Boring B1 was continuously logged in the field in order to characterize the actual soil lithology of deposits in the downgradient direction. The field log matches the existing historical lithologic logs of area soils (tightly packed sands and gravels with silt and small quantities of clayey material).

All borings were backfilled with cement slurry to about 6-inches below ground surface; soil and grass were then replaced.

Boring B1 was located on site, 33 feet north of monitoring well MW1 adjacent to Holmes Street and was drilled to a depth of 32 feet; groundwater in this boring was severely impacted by TPHd, TPHg/BTEX and MTBE.

Boring B2 was located 120 feet north-northeast of impacted well MW1 at the corner of Livermore Gas and Mini Mart and the Livermore Inn and was also drilled to a depth of 32 feet; groundwater in this boring contained only traces of TPHg and MTBE.

Boring B3 was placed at the north-westernmost corner of Hanson Park across the property and drilled to a depth of 32 feet; groundwater in this boring was impacted by high concentrations of TPHg and MTBE.

Boring B4 was located on the north-eastern corner of Hanson Park, adjacent to Holmes Street and drilled to a depth of 36 feet; groundwater in this boring was impacted by high concentrations of TPHg and MTBE.

Boring B5 was located on the eastern boundary of Hanson Park, adjacent to Holmes Street and was drilled to a depth of 28 feet; groundwater in this boring was impacted by TPHd and MTBE.

Borings were advanced using direct push technology (Geoprobe™ and Hydropunch™) along the North, West and Northwest edge of the subject site. Discrete groundwater samples were collected from a variable depth aquifer (DTW in B5 was 28' bgs whereas in B4 DTW was 34.5' bgs).

Boring locations are shown on Figure 2. Borings B1 and B2 were located along the northwest side of the property to investigate the extent of groundwater impact along Holmes Street and towards the Livermore Inn. Borings B3, B4 and B5 were installed inside Hanson Park west of the site, to determine the extent of groundwater impact in an area in the downgradient direction. Two additional proposed borings were not drilled, because of the difficulty in penetrating the packed soil.

Field screening of soil in borings B3, B4 and B5 found no evidence of significant hydrocarbon impact to the soil.

#### **4.3 Drilling of Soil Borings**

Continuous soil samples for logging were collected only in boring B1 by hydraulically driving a 48-inch long, 1-1/2 -inch outside diameter stainless steel probe, containing a clear acetate sleeve. The sampling probe is advanced into the subsurface in 48-inch (4 feet) increments. The sampling probe is driven into soil using a hydraulically operated hammer. A 1.125-inch diameter core of soil is collected inside the acetate sleeve as the sampler is advanced. A retractable plug is placed in the tip of the sampler. When the sampler has been advanced to the desired depth, a rod is run through the drilling rods and sampler and the plug is released, allowing it slide up inside the sleeve as the sampler is advanced.



The soil sampler was extricated from the boring and the acetate liner removed. The section of the liner containing the soil sample was removed from the rest of the liner and capped using Teflon film and plastic end caps, labeled, and placed in a cooler filled with ice. The soils are described and recorded on the geologist's field log.

A strip of acetate liner was removed from the core so that a description of the sediments could be performed. The borings were logged using the Unified Soil Classification System. Upon completion of sample collection the borehole was tremie-filled to the surface with cement slurry.

Soil samples were not submitted for analysis by a certified laboratory because in the case of B1 the soil appeared to be contaminated only in the vadose zone immediately above groundwater and in the case of the other borings it appeared not contaminated at all (no odor, no discoloration).

#### **4.4 Groundwater Sample Collection**

After penetrating the first water-bearing zone with the Geoprobe® sample probe, groundwater was allowed to accumulate in the boring annulus. Depth to water was measured and a grab groundwater sample was collected using new disposable clear plastic bailers.

Grab groundwater samples were collected in new clean 40-milliliter volatile organic analysis (VOA) glass vials with plastic caps equipped with a Teflon™ coated septum. Each sample VOA was preserved at an approximate pH of 2.0 using hydrochloric acid. A large enough quantity of groundwater to fill at least one amber liter bottle and perform diesel analysis was not possible from borings B3 and B4 and TPHd was not included in the analysis for these two borings.

After the container was sealed a label was affixed to the sample container. The label contained the following information: project name, sample identification, sample collector, time and date of sample collection. After labeling, each sample container was placed in a cooler containing ice while at the site and during transportation to the laboratory for analysis. Sample collection information was also entered onto a chain-of-custody document that accompanied the samples during time at the site and transport to the laboratory for analysis.

The groundwater samples were analyzed for TPHg by modified EPA Method 8015, for BTEX and MTBE by EPA Method 8020 and where possible for TPHd by modified EPA Method 8015.

#### **4.5 Drilling and Sampling Equipment Decontamination**

Drilling equipment was cleaned before being introduced into the subsurface sediments. Decontamination consisted of: 1) wash using a bristle brush and a non-phosphate detergent, 2) rinse with tap water, and 3) final rinse with distilled water. Equipment was allowed to air dry prior to re-introduction into the subsurface.

Groundwater sampling equipment decontamination was not required since the clear plastic tubing used to extract the sample was discarded immediately after sample collection and not reused.

#### **5.0 RESULTS**

TPHd, TPHg, Benzene and MTBE were detected in groundwater samples collected from boring B1 at the following concentrations: 13,000, 650,000, 6,300 and 290,000 µg/L respectively.

No TPHd was detected in groundwater samples recovered from boring B2. TPHg and MTBE were detected at low levels, 56 and 47 µg/L respectively. No BTEX compounds were detected.

Insufficient groundwater was recovered in the sample recovered from boring B3 and TPHd analysis was not performed. TPHg and MTBE were detected at 6,200 and 3,800 µg/L respectively. No BTEX compounds were detected.

Insufficient groundwater was recovered in the samples recovered from boring B4 and TPHd analysis was not performed. TPHg and MTBE were detected at 12,000 and 6,000 µg/L respectively. No BTEX compounds were detected.

TPHd and MTBE were detected in groundwater samples collected from boring B5 at the following concentrations: 960 and 16,000 µg/L respectively. No TPHg or BTEX constituents were detected in this sample; however, the laboratory reporting limit for TPHg had been raised to 25,000 ppb, which may have been too high to register the presence of TPHg at concentrations less than 25,000 µg/L.

The laboratory report and chain of custody is presented in Appendix D. The results of this investigation are presented in Table 1.

## 6.0 CONCLUSIONS

Lithologic characterization of sediment samples indicates a highly permeable soil horizon with tightly packed sediments. This type of water bearing zone allows relatively unhindered migration of contaminant compounds, especially MTBE.

Shallow groundwater impact is localized to the west of the former UST field. The direction of migration appears to be directly across Holmes Street along a west axis through Hanson Park and past the park towards the local hospital grounds.

The traces of TPHg and MTBE adjacent to the Livermore Inn indicate that groundwater contamination does not extent to the north of the site.

It is not known how far groundwater contamination extends south of boring B5, located directly west of monitoring well MW1 (MTBE levels in boring B5 were 16,000 µg/L).

## 7.0 RECOMMENDATIONS

Based on the results of this investigation, GET recommends the following:

- Advance 4-5 soil borings using hollow stem auger drilling within Hanson Park south of B5, north of Hanson Park within Noah's Bagels parking lot and west of Hanson Park toward the local hospital.
- Install one 2-inch diameter groundwater monitoring well at or near the location of boring B3, a second well west of B3 at the entrance to the empty lot adjacent to the local hospital and a third monitoring well at the zero-concentration line, south of boring B5 within Hanson Park.
- Install one 6-inch diameter, 40-foot deep extraction well, constructed so as to be usable for both soil vapor and groundwater extraction, within 15 to 20 feet north of monitoring well MW1.
- No further subsurface investigation into Livermore Inn appears to be required. The results from geoprobe soil boring B2 along that edge of the site indicated no significant migration of hydrocarbons in that direction.
- Perform a pump test using the 6-inch diameter extraction well and establish aquifer pumping and recharge rates.

A copy of this report must be submitted to: ACEHS  
Attention: Eva Chu  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

Questions or comments regarding this report may be discussed by calling the undersigned at (408) 241-1798.



Kenneth L. Meleen  
Professional Civil Engineer #C17487  
License expires 6/30/01

A handwritten signature in black ink, appearing to read "Costas Orountiotis".

Costas Orountiotis  
Program Manager

**Geo Environmental Technology**

**TABLE 1 - Groundwater Analytical Results**

**Sampling date: 2/2/01**

**Livermore Gas and Minimart, 160 Holmes, Livermore, California**

Boring ID	TPHd ug/l	TPHg ug/l	Benzene ug/l	Toluene ug/l	Ethyl-Benzene ug/l	Total Xylenes ug/l	MtBE ug/l
B1	13,000	650,000	6,300	10,000	<2500	12,000	290,000
B2	< 61	56	< 0.5	< 0.5	< 0.5	< 0.5	47
B3	NS	6,200	< 50	< 50	< 50	< 50	3,800
B4	NS	12,000	< 50	< 50	< 50	< 50	6,000
B5	960	< 25,000	< 250	< 250	< 250	< 250	16,000

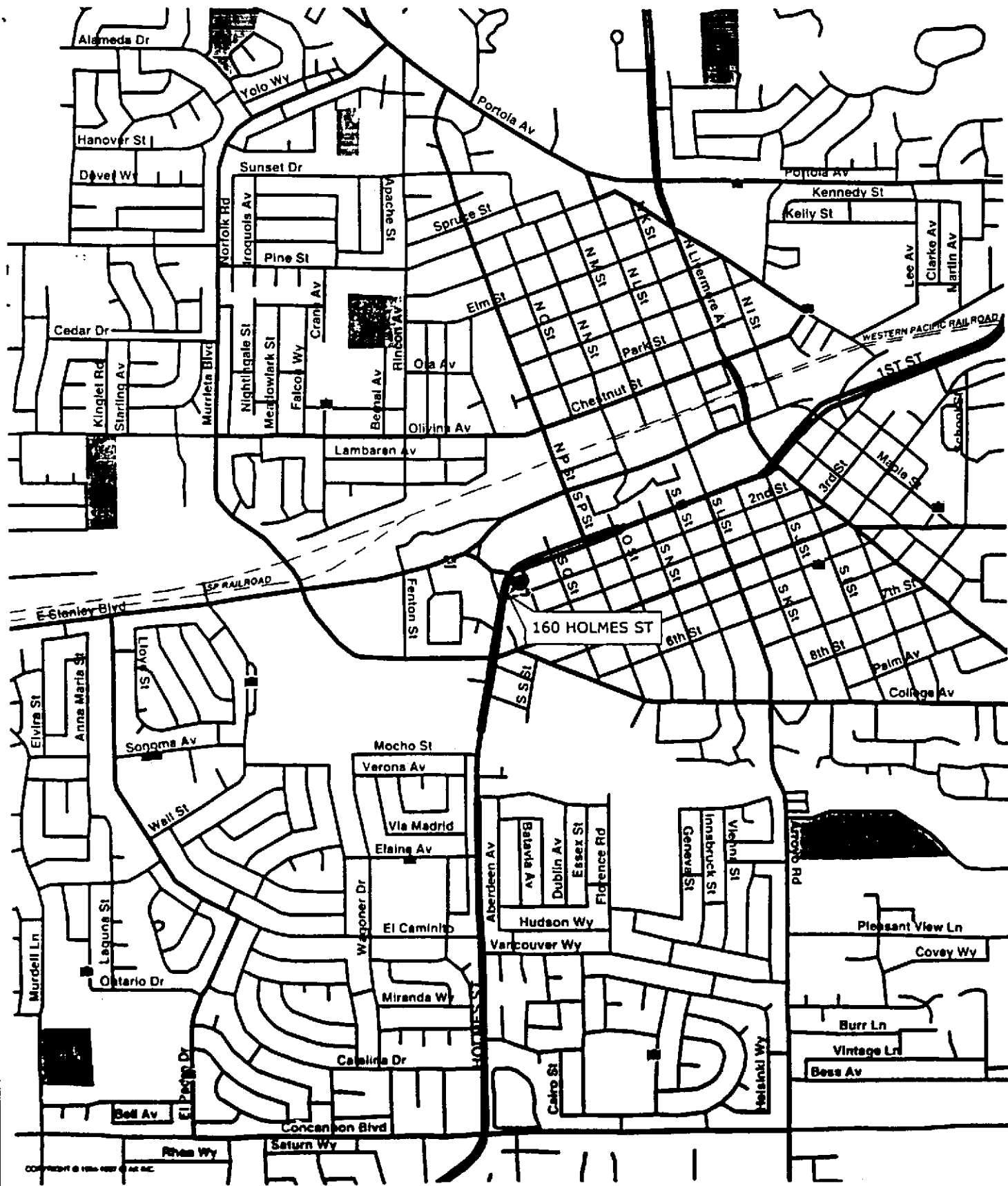
Notes:

NS: not sampled

ug/l: micrograms per liter

< : indicates values less than given laboratory detection limit

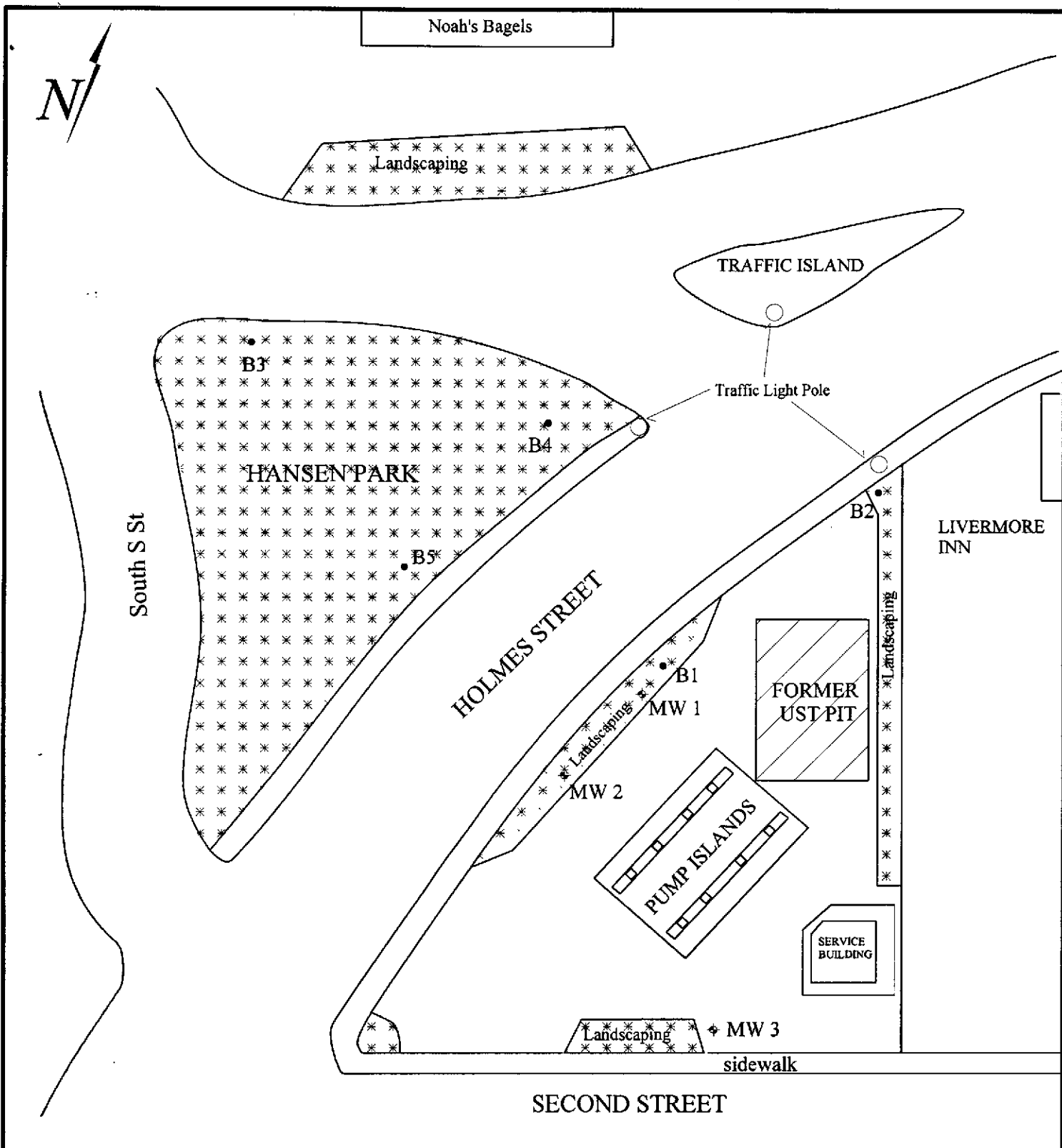
# FIGURES



**Geo  
Environmental  
Technologies**

**SITE VICINITY MAP**  
 Livermore Gas and Minimart  
 160 Homes Street, Livermore, CA

Figure No.  
 1  
 Project  
 Manwel



- LEGEND:**
- ◆ Groundwater Monitoring Well
  - Geoprobe Boring

**Geo  
Environmental  
Technologies**

**Geoprobe Locations (2/2/01)**  
 Livermore Gas and Minimart  
 160 Homes Street, Livermore, CA

**Figure No.**  
 2  
**Project  
 Manwel**



**APPENDIX  
A**

StID 4130

May 10, 2001

Mr. Manwel Shuwayhat  
Livermore Gas and Mini Mart  
160 Holmes Street  
Livermore, CA 94550

**RE: Workplan Approval for 160 Holmes Street, Livermore, CA**

Dear Mr. Shuwayhat:

I have completed review of GET's January 22, 2001 *Workplan - Offsite Soil and Groundwater Investigation*, prepared for the above referenced site. GET proposed to advance seven to nine borings using direct push technology. Three of the borings are proposed on-site. Three or more borings are proposed off-site.

Upon review of the location of the proposed borings, I do not believe that proposed Boring B1 and B3 are necessary. Rather, I would like to see additional borings advanced further west/northwest of proposed Boring BZ and BY. It is hoped that these additional borings will help to delineate the extent of the MTBE plume and to help site permanent groundwater monitoring wells. It is also recommended that multiple depth discrete groundwater samples be collected from proposed Boring B5, B6, and BY.

The workplan is acceptable with the above recommended changes/additions. I understand that field work is scheduled for February 1, 2001. If the work schedule changes, please provide an update to this office. If you have any questions, I can be reached at (510) 567-6762.

eva chu  
Hazardous Materials Specialist

email: Costas Orountiotis ([coetice@hotmail.com](mailto:coetice@hotmail.com))  
Danielle Stefani ([dstefani@lpfire.org](mailto:dstefani@lpfire.org))  
Matt Katen, Zone 7 (QIC 80201)

holmes7

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**Folder: Inbox**

**From:** "Chu, Eva, Public Health, EHS" <[EChu@co.alameda.ca.us](mailto:EChu@co.alameda.ca.us)> [Save Address](#) - [Block](#)

**To:** 'Costas' <[coetic@hotmail.com](mailto:coetic@hotmail.com)> [Save Address](#)

**Subject:** 160 Holmes

**Date:** Tue, 30 Jan 2001 07:51:43 -0800

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Hi Costas,

Attached is the letter approving the workplan for on- and off-site borings. I also would like to have depth discrete groundwater samples collected from a few of the borings. Let me know if Vironex' rig can do that. Otherwise, Precision has a rig that can.

I spoke with John Freeman at CWS (925) 455-1450. He says that well CWS #3 is located in a PG&E substation. The well is currently on standby and they hope to decommission it soon. PG&E want them out.

Well CWS #8 is currently out of service for maintenance. Recently the well was not pumping. If repairable, they hope to put it back into operation.

Another CWS well is about a mile west, on Stanley. I think that well is too far and should not be affected by the plume at Manwel's.

Hope this helps.

<<holmes7.doc>>

evachu


Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502  
(510) 567-6762  
(510) 337-9335 fax

 Attachment: holmes7.doc (34k) -- [View Attachment](#)

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**APPENDIX  
B**

**Geo Environmental Technologies**

**TABLE 1 - Groundwater Analytical Results**

Livermore Gas and Minimart, 160 Holmes, Livermore, California

Well ID.	Date	DTW (ft bgs)	TPHd (µg/L)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MtBE (µg/L)
MW1	08/11/00		57,000	170,000	6,400	7,600	4,200	9,700	320,000
	10/19/00	21.94	17,000	170,000	8,400	3,200	2,700	10,000	200,000
	02/22/01	22.91	11,000	82,000	5,100	1,000	1,300	8,700	190,000
MW2	08/11/00		1,900	4,500	220	52	160	170	3,000
	10/19/00	21.80	1,300	3,400	150	21	100	70	1,900
	02/22/01	22.87	880	7,600	25	< 10	69	25	2,200
MW3	08/11/00		260	59	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0
	10/19/00	22.45	< 65	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0
	02/22/01	23.51	100	< 50	< 0.5	< 0.50	< 0.50	< 0.50	< 5.0

- Notes:**
- ft bgs      Feet Below Ground Surface
  - TPHg      Total Petroleum Hydrocarbons as gasoline
  - TPHd      Total Petroleum Hydrocarbons as diesel
  - µg/L      Micrograms per liter
  - MtBE      Methyl tertiary butyl ether

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**TABLE 2 - Fuel Oxygenates**

Livermore Gas and Minimart, 160 Holmes, Livermore, California

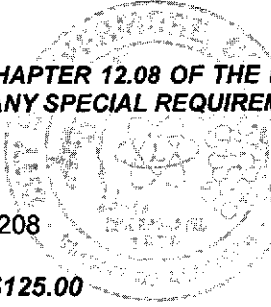
Well ID.	Date	Diisopropyl Ether (µg/L)	Ethyl-t-butyl Ether (µg/L)	Methyl-t-butyl Ether (µg/L)	Ter-Amyl Methyl Ether (µg/L)	tert-Butanol (µg/L)
MW1	10/19/00	< 2000	< 2000	180,000	< 2000	< 2000
MW2	10/19/00	< 40	< 40	1,800	< 40	< 40
MW3	10/19/00	< 1	< 1	< 1	< 1	< 1

Note: µg/L = Micrograms per liter

**APPENDIX  
C**

City of Livermore  
Community Development Department  
1052 S. Livermore Avenue  
Livermore, CA 94550  
(925) 373-5240

Encroachment  
Permit No. EN010021



PERMIT TO DO WORK IN ACCORDANCE WITH CHAPTER 12.08 OF THE LIVERMORE MUNICIPAL CODE AND SPECIFICATIONS AS ADOPTED BY THE CITY OF LIVERMORE AND ANY SPECIAL REQUIREMENTS SHOWN OR LISTED HEREIN.

Applicant/Permittee:

Name: GEO ENVIRONMENTAL  
Address: 3275 STEVENS CREEK BL #208  
SAN JOSE, CA 95117, 95117  
Phone: (408) 241-1798  
Total: \$125.00

Receipt No"  
Permit Fee: \$65.00  
Inspection Fee: \$60.00  
Bond: \$0.00

PLEASE READ THIS PERMIT CAREFULLY. KEEP IT AT THE WORK SITE. TO ARRANGE FOR INSPECTION, PHONE (925) 373-5240 AT LEAST 24 HOURS BEFORE YOU START WORK.

JOB LOCATION: , Hanson Park (see attached map)

DESCRIPTION OF WORK: <sup>five</sup> Bore ~~four~~ 1 inch diameter test cylinders behind sidewalk in Park area and one test cylinder on Seond Street in sidewalk area; replace one sidewalk flag

Length of Excavation: \_ L.F. Width: \_ L.F. Depth: \_ L.F.

Attention is directed to the General Provisions printed on the reverse side of this permit and to the attached special requirements (to be determined as needed by the Engineering Division).

Prosecution of Work: All work authorized by the permit shall be performed in a workmanlike, diligent, and expeditious manner, and must be completed to the satisfaction of the Director of Public Works.

Liability and Damages: The permittee shall be responsible for all liability imposed by law for personal injury or property damage which may arise out of the work permitted and done by permittee under this permit, or which may arise out of the failure on the part of the permittee to perform his obligations under said permit in respect to maintenance and encroachment. The permittee shall protect and indemnify the City of Livermore, its officers and employees, and save them harmless in every way from all action at law for damage or injury to persons or property that may arise out of or be occasioned in any way because of his operations as provided in this permit.

Signature of Permittee:

By: [Signature] for GET

Date: 1/17/01

City Engineer

By: [Signature]

Date of Issue: 1/17/01

Work Completed:

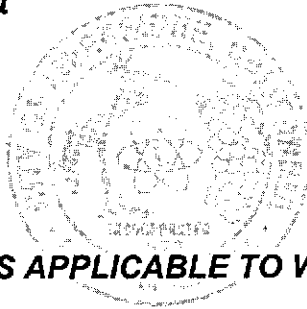
Date: \_\_\_\_\_

Inspector: \_\_\_\_\_



**City of Livermore  
Community Development Department  
1052 S. Livermore Avenue  
Livermore, CA 94550  
(925) 373-5240**

**Encroachment Permit No. EN010021**



**SPECIAL REQUIREMENTS APPLICABLE TO WORK ASSOCIATED WITH**

**JOB LOCATION:** *, Hanson Park (see attached map)*

**DESCRIPTION OF WORK:** *Bore four 1 inch diameter test cylinders behind sidewalk in Park area and one test cylinder on Seond Street in sidewalk area; replace one sidewalk flag*

**1:** *Lane closures on Holmes Street require a permit from the state*

**APPENDIX  
D**

**Geo Enviromental Technologies**

3275 Stevens Creek Blvd

#208

San Jose, CA 95117

Attn.: Mr. Costas Orountiotis

Project: Manwel

Dear Mr. Orountiotis

Attached is our report for your samples received on Friday February 2, 2001  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after March 19, 2001  
unless you have requested otherwise. We appreciate the opportunity to be of service to you.  
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.  
My email address is: [vvancil@chromalab.com](mailto:vvancil@chromalab.com)

Sincerely,



Vincent Vancil

Diesel

<b>Geo Enviromental Technologies</b>	✉ 3275 Stevens Creek Blvd #208 San Jose, CA 95117
Attn: Costas Orountiotis	Phone: (408) 241-1798 Fax: (408) 248-7685
Project #:	Project: Manwel

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
B1	Water	02/02/2001	1
B2	Water	02/02/2001	2
B5	Water	02/02/2001	5

# STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-02-0036

To: **Geo Enviromental Technologies**  
Attn.: Costas Orountiotis

Test Method: 8015M  
Prep Method: 3510/8015M

Diesel

Sample ID: <b>B1</b>	Lab Sample ID: <b>2001-02-0036-001</b>
Project: <b>Manwel</b>	Received: <b>02/02/2001 16:55</b>
Sampled: <b>02/02/2001</b>	Extracted: <b>02/02/2001 09:00</b>
Matrix: <b>Water</b>	QC-Batch: <b>2001/02/02-05.10</b>
Sample/Analysis Flag r l ( See Legend & Note section )	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	13000	59	ug/L	1.18	02/05/2001 15:03	edr
<b>Surrogate(s)</b> o-Terphenyl	98.5	60-130	%	1.18	02/05/2001 15:03	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-02-0036

To: **Geo Enviromental Technologies**  
Attn.: **Costas Orountiotis**

Test Method: 8015M  
Prep Method: 3510/8015M

Diesel

Sample ID: <b>B2</b>	Lab Sample ID: <b>2001-02-0036-002</b>
Project: <b>Manwel</b>	Received: <b>02/02/2001 16:55</b>
Sampled: <b>02/02/2001</b>	Extracted: <b>02/02/2001 09:00</b>
Matrix: <b>Water</b>	QC-Batch: <b>2001/02/02-05.10</b>
Sample/Analysis Flag <b>rl</b> ( See Legend & Note section )	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	61	ug/L	1.21	02/05/2001 15:42	
<b>Surrogate(s)</b> o-Terphenyl	89.4	60-130	%	1.21	02/05/2001 15:42	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

Printed on: 02/07/2001 07:43

Page 3 of 7

# STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-02-0036

To: **Geo Enviromental Technologies**  
Attn.: Costas Orountiotis

Test Method: 8015M  
Prep Method: 3510/8015M

Diesel

Sample ID: <b>B5</b>	Lab Sample ID: <b>2001-02-0036-005</b>
Project: <b>Manwel</b>	Received: <b>02/02/2001 16:55</b>
Sampled: <b>02/02/2001</b>	Extracted: <b>02/02/2001 09:00</b>
Matrix: <b>Water</b>	QC-Batch: <b>2001/02/02-05.10</b>
Sample/Analysis Flag <b>rl</b> ( See Legend & Note section )	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	960	57	ug/L	1.14	02/05/2001 16:20	ndp
<b>Surrogate(s)</b> o-Terphenyl	90.7	60-130	%	1.14	02/05/2001 16:20	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-02-0036

To: **Geo Environmental Technologies**  
Attn.: Costas Orountiotis

Test Method: 8015M  
Prep Method: 3510/8015M

## Batch QC Report Diesel

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2001/02/02-05.10</b>
MB: 2001/02/02-05.10-001		Date Extracted: 02/02/2001 09:00

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	02/04/2001 06:26	
<i>Surrogate(s)</i> o-Terphenyl	98.0	60-130	%	02/04/2001 06:26	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096



To: **Geo Environmental Technologies**

Test Method: 8015M

Attn: Costas Orountiotis

Prep Method: 3510/8015M

### Batch QC Report

Diesel

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 2001/02/02-05.10
LCS: 2001/02/02-05.10-002	Extracted: 02/02/2001 09:00	Analyzed 02/03/2001 10:53
LCSD: 2001/02/02-05.10-003	Extracted: 02/02/2001 09:00	Analyzed 02/03/2001 11:36

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]			RPD		Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD [%]	Recovery	RPD	LCS	LCSD		
Diesel	1000	939	1250	1250	80.0	75.1	6.3	60-130	25				
<b>Surrogate(s)</b> o-Terphenyl	18.8	18.3	20.0	20.0	94.0	91.5		60-130					

To: **Geo Enviromental Technologies**  
Attn: Costas Orountiotis

Test Method: 8015M  
Prep Method: 3510/8015M

**Legend & Notes**

Diesel

**Analysis Flags**

rl

Reporting limits raised due to reduced sample size.

**Analyte Flags**

edr

Hydrocarbon reported is in the early Diesel range, and does not match our Diesel standard

Gas/BTEX and MTBE

<b>Geo Environmental Technologies</b>	☒ 3275 Stevens Creek Blvd #208 San Jose, CA 95117
Attn: Costas Orountiotis	Phone: (408) 241-1798 Fax: (408) 248-7685
Project #:	Project: Manwel

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
B1	Water	02/02/2001	1
B2	Water	02/02/2001	2
B3	Water	02/02/2001	3
B4	Water	02/02/2001	4
B5	Water	02/02/2001	5

To: **Geo Environmental Technologies**

Test Method: 8020  
8015M

Attn.: Costas Orountiotis

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: <b>B1</b>	Lab Sample ID: <b>2001-02-0036-001</b>
Project: <b>Manwel</b>	Received: 02/02/2001 16:55
Sampled: 02/02/2001	Extracted: 02/16/2001 11:29
Matrix: <b>Water</b>	QC-Batch: 2001/02/16-01.01
Sample/Analysis Flag <input type="checkbox"/> ( See Legend & Note section )	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	650000	250000	ug/L	5000.00	02/16/2001 11:29	
Benzene	6300	2500	ug/L	5000.00	02/16/2001 11:29	
Toluene	10000	2500	ug/L	5000.00	02/16/2001 11:29	
Ethyl benzene	ND	2500	ug/L	5000.00	02/16/2001 11:29	
Xylene(s)	12000	2500	ug/L	5000.00	02/16/2001 11:29	
MTBE	290000	25000	ug/L	5000.00	02/16/2001 11:29	
<b>Surrogate(s)</b>						
Trifluorotoluene	99.4	58-124	%	1.00	02/16/2001 11:29	
4-Bromofluorobenzene-FID	85.4	50-150	%	1.00	02/16/2001 11:29	

To: **Geo Enviromental Technologies**

Test Method: 8020  
8015M

Attn.: Costas Orountiotis

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: <b>B2</b>	Lab Sample ID: <b>2001-02-0036-002</b>
Project: <b>Manwei</b>	Received: <b>02/02/2001 16:55</b>
Sampled: <b>02/02/2001</b>	Extracted: <b>02/14/2001 18:28</b>
Matrix: <b>Water</b>	QC-Batch: <b>2001/02/14-01.02</b>

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	56	50	ug/L	1.00	02/14/2001 18:28	g
Benzene	ND	0.50	ug/L	1.00	02/14/2001 18:28	
Toluene	ND	0.50	ug/L	1.00	02/14/2001 18:28	
Ethyl benzene	ND	0.50	ug/L	1.00	02/14/2001 18:28	
Xylene(s)	ND	0.50	ug/L	1.00	02/14/2001 18:28	
MTBE	47	5.0	ug/L	1.00	02/14/2001 18:28	,est
<b>Surrogate(s)</b>						
Trifluorotoluene	96.1	58-124	%	1.00	02/14/2001 18:28	
4-Bromofluorobenzene-FID	77.0	50-150	%	1.00	02/14/2001 18:28	

To: **Geo Enviromental Technologies**

Test Method: 8020  
8015M

Attn.: Costas Orountiotis

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: <b>B3</b>	Lab Sample ID: <b>2001-02-0036-003</b>
Project: <b>Manwel</b>	Received: <b>02/02/2001 16:55</b>
Sampled: <b>02/02/2001</b>	Extracted: <b>02/16/2001 12:02</b>
Matrix: <b>Water</b>	QC-Batch: <b>2001/02/16-01.01</b>
Sample/Analysis Flag o ( See Legend & Note section )	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	6200	5000	ug/L	100.00	02/16/2001 12:02	g
Benzene	ND	50	ug/L	100.00	02/16/2001 12:02	
Toluene	ND	50	ug/L	100.00	02/16/2001 12:02	
Ethyl benzene	ND	50	ug/L	100.00	02/16/2001 12:02	
Xylene(s)	ND	50	ug/L	100.00	02/16/2001 12:02	
MTBE	3800	500	ug/L	100.00	02/16/2001 12:02	
<b>Surrogate(s)</b>						
Trifluorotoluene	95.3	58-124	%	1.00	02/16/2001 12:02	
4-Bromofluorobenzene-FID	97.4	50-150	%	1.00	02/16/2001 12:02	

To: **Geo Environmental Technologies**

Test Method: 8020  
8015M

Attn.: Costas Orountiotis

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: <b>B4</b>	Lab Sample ID: <b>2001-02-0036-004</b>
Project: <b>Manwel</b>	Received: <b>02/02/2001 16:55</b>
Sampled: <b>02/02/2001</b>	Extracted: <b>02/16/2001 12:35</b>
Matrix: <b>Water</b>	QC-Batch: <b>2001/02/16-01.01</b>
Sample/Analysis Flag <input type="radio"/> ( See Legend & Note section )	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	12000	5000	ug/L	100.00	02/16/2001 12:35	g
Benzene	ND	50	ug/L	100.00	02/16/2001 12:35	
Toluene	ND	50	ug/L	100.00	02/16/2001 12:35	
Ethyl benzene	ND	50	ug/L	100.00	02/16/2001 12:35	
Xylene(s)	ND	50	ug/L	100.00	02/16/2001 12:35	
MTBE	6000	500	ug/L	100.00	02/16/2001 12:35	
<b>Surrogate(s)</b>						
Trifluorotoluene	93.9	58-124	%	1.00	02/16/2001 12:35	
4-Bromofluorobenzene-FID	89.0	50-150	%	1.00	02/16/2001 12:35	

To: **Geo Enviromental Technologies**

Test Method: 8020  
8015M

Attn.: Costas Orountiotis

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: <b>B5</b>	Lab Sample ID: <b>2001-02-0036-005</b>
Project: <b>Manwel</b>	Received: <b>02/02/2001 16:55</b>
Sampled: <b>02/02/2001</b>	Extracted: <b>02/16/2001 13:07</b>
Matrix: <b>Water</b>	QC-Batch: <b>2001/02/16-01.01</b>
Sample/Analysis Flag <input type="radio"/> ( See Legend & Note section )	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	25000	ug/L	500.00	02/16/2001 13:07	
Benzene	ND	250	ug/L	500.00	02/16/2001 13:07	
Toluene	ND	250	ug/L	500.00	02/16/2001 13:07	
Ethyl benzene	ND	250	ug/L	500.00	02/16/2001 13:07	
Xylene(s)	ND	250	ug/L	500.00	02/16/2001 13:07	
MTBE	16000	2500	ug/L	500.00	02/16/2001 13:07	
<b>Surrogate(s)</b>						
Trifluorotoluene	92.5	58-124	%	1.00	02/16/2001 13:07	
4-Bromofluorobenzene-FID	84.1	50-150	%	1.00	02/16/2001 13:07	



To: **Geo Environmental Technologies**

Test Method: 8015M

8020

Attn.: Costas Orountiotis

Prep Method: 5030

**Batch QC Report**  
Gas/BTEX and MTBE

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2001/02/14-01.02</b>
MB: 2001/02/14-01.02-001		Date Extracted: 02/14/2001 08:46

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	02/14/2001 08:46	
Benzene	ND	0.5	ug/L	02/14/2001 08:46	
Toluene	ND	0.5	ug/L	02/14/2001 08:46	
Ethyl benzene	ND	0.5	ug/L	02/14/2001 08:46	
Xylene(s)	ND	0.5	ug/L	02/14/2001 08:46	
<b>Surrogate(s)</b>					
Trifluorotoluene	94.0	58-124	%	02/14/2001 08:46	
4-Bromofluorobenzene-FID	77.6	50-150	%	02/14/2001 08:46	

To: **Geo Enviromental Technologies**

Test Method: 8015M

8020

Attn.: Costas Orountiotis

Prep Method: 5030

**Batch QC Report**  
Gas/BTEX and MTBE

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2001/02/16-01.01</b>
<b>MB:</b> 2001/02/16-01.01-001		Date Extracted: 02/16/2001 08:46

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	02/16/2001 08:46	
Benzene	ND	0.5	ug/L	02/16/2001 08:46	
Toluene	ND	0.5	ug/L	02/16/2001 08:46	
Ethyl benzene	ND	0.5	ug/L	02/16/2001 08:46	
Xylene(s)	ND	0.5	ug/L	02/16/2001 08:46	
MTBE	ND	5.0	ug/L	02/16/2001 08:46	
<b>Surrogate(s)</b>					
Trifluorotoluene	100.4	58-124	%	02/16/2001 08:46	
4-Bromofluorobenzene-FID	92.6	50-150	%	02/16/2001 08:46	

To: **Geo Environmental Technologies**

Test Method: 8015M  
8020

Attn: Costas Orountiotis

Prep Method: 5030

**Batch QC Report**

Gas/BTEX and MTBE

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Water</b>	<b>QC Batch # 2001/02/14-01.02</b>
LCS: 2001/02/14-01.02-002	Extracted: 02/14/2001 09:21	Analyzed 02/14/2001 09:21
LCSD: 2001/02/14-01.02-003	Extracted: 02/14/2001 09:57	Analyzed 02/14/2001 09:57

Compound	Conc. [ ug/L ]		Exp.Conc. [ ug/L ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	451	427	500	500	90.2	85.4	5.5	75-125	20		
Benzene	112	105	100.0	100.0	112.0	105.0	6.5	77-123	20		
Toluene	103	98.1	100.0	100.0	103.0	98.1	4.9	78-122	20		
Ethyl benzene	112	106	100.0	100.0	112.0	106.0	5.5	70-130	20		
Xylene(s)	322	300	300	300	107.3	100.0	7.0	75-125	20		
<b>Surrogate(s)</b>											
Trifluorotoluene	558	531	500	500	111.6	106.2		58-124			
4-Bromofluorobenzene-FI	401	388	500	500	80.2	77.6		50-150			

To: **Geo Enviromental Technologies**

Test Method: 8015M  
8020

Attn: Costas Orountiotis

Prep Method: 5030

**Batch QC Report**

Gas/BTEX and MTBE

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Water</b>	<b>QC Batch # 2001/02/16-01.01</b>
LCS: 2001/02/16-01.01-002	Extracted: 02/16/2001 09:18	Analyzed 02/16/2001 09:18
LCSD: 2001/02/16-01.01-003	Extracted: 02/16/2001 09:51	Analyzed 02/16/2001 09:51

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	516	477	500	500	103.2	95.4	7.9	75-125	20		
Benzene	89.2	95.5	100.0	100.0	89.2	95.5	6.8	77-123	20		
Toluene	90.5	95.8	100.0	100.0	90.5	95.8	5.7	78-122	20		
Ethyl benzene	91.3	96.5	100.0	100.0	91.3	96.5	5.5	70-130	20		
Xylene(s)	276	289	300	300	92.0	96.3	4.6	75-125	20		
<b>Surrogate(s)</b>											
Trifluorotoluene	444	485	500	500	88.8	97.0		58-124			
4-Bromofluorobenzene-FI	425	421	500	500	85.0	84.2		50-150			

To: **Geo Enviromental Technologies**

Test Method: 8015M  
8020

Attn: Costas Orountiotis

Prep Method: 5030

**Legend & Notes**

Gas/BTEX and MTBE

**Analysis Notes**

B2 ( Lab# 2001-02-0036-002 )

est=Sample was analyzed for MTBE by GC/MS past Hold Time. Concentration reported for MTBE is estimated.

**Analysis Flags**

o

Reporting limits were raised due to high level of analyte present in the sample.

**Analyte Flags**

g


Hydrocarbon reported in the gasoline range does not match our gasoline standard.

# CHROMALAB, INC.

Environmental Services (SDB) (DOHS 1094)


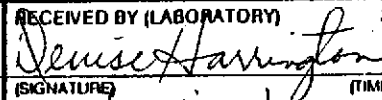
**2001-02-0036**  
 1220 Quarry Lane • Pleasanton, California 94566-4756  
 (925) 484-1919 • Fax (925) 484-1096

Reference #: 57268  
**Chain of Custody**  
 DATE 2-2-01 PAGE 1 of 1

PROJ. MGR. C. DROUNTLOTIS  
 COMPANY GET  
 ADDRESS 3275 Stevens Creek Blvd #208, San Jose, CA 95117  
 SAMPLERS (SIGNATURE)  (PHONE NO.) 408-241-1748  
 (FAX NO.) 408-248-7685

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	ANALYSIS REPORT														NUMBER OF CONTAINERS						
					<input checked="" type="checkbox"/> TPH (EPA 8015, 8020) <input checked="" type="checkbox"/> Gas w/ <input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE	PURGEABLE AROMATICS BTEX (EPA 8020)	TPH-Diesel (EPA 8015M)	TEPH (EPA 8015M) <input type="checkbox"/> Diesel <input type="checkbox"/> M.O. <input type="checkbox"/> Other	PURGEABLE HALOCARBONS, (HVOCS) (EPA 8010)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMIVOLATILES (EPA 8270)	Oil & Grease <input type="checkbox"/> Petrol <input type="checkbox"/> Total <input type="checkbox"/> 1664	<input type="checkbox"/> PESTICIDES (EPA 8080) <input type="checkbox"/> PCB'S (EPA 8080)	PNA's by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	<input type="checkbox"/> Spec. Cond. <input type="checkbox"/> TSS <input type="checkbox"/> TDS	AIR METALS: Cd, Cr, Pb, Ni, Zn	CAM 17 METALS (EPA 6010/7470/7471)	TOTAL LEAD		<input type="checkbox"/> W.E.T. (STLC) <input type="checkbox"/> TCLP	<input type="checkbox"/> Hexavalent Chromium <input type="checkbox"/> pH (24 hr hold time for H2O)				
B1	2/2/1		H <sub>2</sub> O	Ice	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3
B2	↓		↓	↓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3
B3	↓		↓	↓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
B4	↓		↓	↓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
B5	↓		↓	↓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3

PROJECT INFORMATION		SAMPLE RECEIPT			
PROJECT NAME: <u>Manwel</u>	TOTAL NO. OF CONTAINERS: <u>13</u>	HEAD SPACE	TEMPERATURE: <u>3.0°C</u>		
PROJECT NUMBER: <u>          </u>	CONFORMS TO RECORD				
P.O.# <u>Geos</u>	TAT: <input checked="" type="checkbox"/> STANDARD 8-DAY	<input type="checkbox"/> 24	<input type="checkbox"/> 48	<input type="checkbox"/> 72	<input type="checkbox"/> OTHER
SPECIAL INSTRUCTIONS/COMMENTS: Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> Electronic Report					

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3.
 (SIGNATURE) (TIME) <u>C DROUNTLOTIS</u> (PRINTED NAME) (DATE) <u>GET 2-2-01</u> (COMPANY)	 (SIGNATURE) (TIME)  (PRINTED NAME) (DATE)  (COMPANY)	 (SIGNATURE) (TIME)  (PRINTED NAME) (DATE)  (COMPANY)
RECEIVED BY 1.	RECEIVED BY 2.	RECEIVED BY (LABORATORY) 3.
 (SIGNATURE) (TIME)  (PRINTED NAME) (DATE)  (COMPANY)	 (SIGNATURE) (TIME)  (PRINTED NAME) (DATE)  (COMPANY)	 (SIGNATURE) (TIME) <u>D. Harrington 1052</u> (PRINTED NAME) (DATE) <u>STH-Ch 2/2/01</u> (LAB)