

# SUMMIT ENGINEERING

- House Inspection
- Soils Report
- Surveying
- Design
- Hazardous Waste Studies

6045 Shirley Drive  
Oakland, CA 94611  
Tel: (510) 531-6655  
Fax: (510) 482-5848

ST10 49

Henry Alders 654-4641  
HYDRAULIC ELECTRO SERVICE CORP.  
5812 Hollis Street  
Emeryville, CA 94608

December 22, 1993

Re : First Quarterly Groundwater Sampling and Analysis at  
5812 Hollis Street, Emeryville, California.

Dear Mr. Alders :

The attached environmental report documents work performed in response to County of Alameda's requirement to proceed with quarterly groundwater sampling and verification analysis at the subject site.

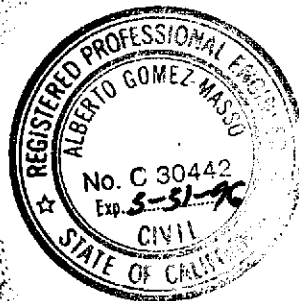
The well was installed SW of the previous tank excavation to a depth of 20 feet, and consists of a 2-inch PVC casing with 5 feet of blank casing and 15 feet of slotted casing. During this sampling round, groundwater was detected at a depth of 4.0 feet below top of casing. The results of BTEX, TPH-g and TPH-d laboratory analysis of groundwater samples are also included. Results show groundwater to contain no such contaminants.

Please, feel free to contact us if there are questions about this report, or we might be of further service.

Sincerely,

*Al Masso*

Al G. Masso  
RCE-30442



FIRST QUARTERLY  
GROUNDWATER SAMPLING AND ANALYSIS FOR  
THE PROPERTY LOCATED AT  
5812 HOLLIS STREET  
EMERYVILLE, CALIFORNIA

FOR

HENRY ALDERS  
HYDRAULIC ELECTRO SERVICE  
5128 HOLLIS STREET  
EMERYVILLE CA 94608

SUMMIT ENGINEERING  
6045 SHIRLEY DRIVE  
OAKLAND, CALIFORNIA 94611

DECEMBER 22, 1993

## INTRODUCTION

The subject site consists of a paved storage yard for forklifts, and similar industrial equipment for the ongoing electro-hydraulic business located at 5812 Hollis Street between Powell and 59th Streets in the city of Emeryville (Figure 1). A 10,000-gal gasoline tank and a 3000-gal diesel tank were removed from the subject site on December 5th, 1989. Several soil samples were analyzed showing minor amounts of TPH-d and non-detectable amounts of BTEX. A water sample from the tank pit had a surface sheen and showed 90 ppm TPH-d, and minor amounts of TPH-g and BTEX (Ref. 1).

To ascertain whether significant contamination exists at this site, the County of Alameda requires a groundwater investigation. In order to satisfy county requirements, a 2-inch diameter PVC monitoring well was installed as shown in Figure 2. Soil sampling revealed only minor amounts of hydrocarbons at 10-foot depth, i.e. 14 ppm of TPH-g and 40 ppm of TPH-d. Water sampling showed no detectable amounts of hydrocarbons (Ref. 2).

County further required 4 consecutive quarterly samples for site closure (Ref. 3). This reports completes the first required quarterly round of sampling and analysis.

## WELL INSTALLATION

A monitoring well, MW-1, was installed west-southwest, downstream of the former excavation area in a downgradient location, and about 8 feet from the edge of the excavation of previously existing underground tanks (Figure 2).

The County of Alameda (Ref. 3) required to show that the well installed at the job site is in a downgradient position from the previous tank excavation. There is abundant information in RWQCB files showing that in the Emeryville area the groundwater travels generally towards the San Francisco Bay along west-to-southwest directions. Some of the files reviewed are shown on Table 1. Location of file sites 1 thru 14 on Table 1 have been plotted in Figure 1 along with the observed groundwater direction. Figure 1 clearly shows the predominant groundwater flow to be along a W-SW direction. Therefore, well MW-1 is in a correct downgradient position.

The well was extended to a depth of 20 feet. The well consists of a 2-inch diameter PVC casing with the top 5 feet of blank pipe, and the remaining 15 feet of 0.020-inch screen. The lower end of the well was capped and converted to a silt catcher. The well was completed with No. 3 Monterey sand backfill, a 2-foot thick bentonite seal, and a Christy box in cement grout as well as a lock-cover for the top end of the well.

A point of reference on the top of the well casing (TOC) was marked, and tied to a city benchmark for groundwater level control. The rim elevation of the sanitary sewer manhole at the intersection of Hollis and 59th Streets, which had been recently surveyed at 21.00 with respect to the mean sea level (MSL), was used as benchmark. The TOC elevation was calculated to be 21.25 (MSL).

The well was developed 48 hrs after drilling. A surface suction pump was used to pump 100 gallons of groundwater until a clear liquid was obtained.

#### WATER SAMPLING AND ANALYSIS

A clear bailer was used to collect and examine the standing water; no sheen or floaters were observed. Using an interface probe, groundwater was detected 41 inches below TOC, i.e. groundwater elevation was determined to be at 17.84 feet (MSL).

The well was purged by pumping 5 gallons of water. A set of water samples was collected in chemically clean bottles and vials, placed in ice, and transported under chain of custody to the laboratory for analysis of TPH-g, TPH-d, and BTEX using EPA methods 5030, 8015m (DHS Extraction Method), and 8020 respectively. Groundwater stabilized with the following parameters :

Temperature = 17 °C

Acidity pH = 6.5

Resistivity = 2,350  $\mu\Omega$

Results of analysis are shown on Table 2.

**CONCLUSIONS**

Similarly as in the previous water sampling, laboratory results on Table 2 show no groundwater contamination.

## REFERENCES

1. CHIPS Environmental Consultants, Letter to Jack Quarle and Associates, Document No. DSK6 Q707.DOC, December 13, 1989.
2. SUMMIT ENGINEERING, Soil and Groundwater Sampling at 5812 Hollis Street, Emeryville, California, July 23, 1993.
3. Alameda County Health Care Services, Hazardous Materials Division, Letter Dated 9/15/93.

TABLE - 1

## VICINITY SITES WITH HYDROLOGIC INFORMATION

Site No.	Case Name Address	File Number Report Author, Date	Comments
1	Getz Construct 1351 Ocean St	01-0697 Geomatrix 10/9/80	grdwater flow towards <u>SW</u>
2	H. Horn & Sons 1301 65th St	01-0753 Blymeyer Engs 7/14/88	1 MW placed W-SW of area of study
3	Market Place 6425 Christy St	01-0559 McLaren-Hart 4/8/92	24 MW's grdwater flow towards <u>W-SW</u>
4	Bay Front/US Post 1650 65th St	01-0558 Engin. Science 6/15/90	7 MW's grdwater flow towards <u>W-SW</u>
5	Felix Tank Exc. 6202 Christy St	01-0617 Wallace-Kuhl Ass. 6/6/90	grdwater flow towards <u>West</u>
6	Westinghouse Corp. Lanregan St	SLIC-01NBT0021 Woodward-Clyde Ass. 1985	4 MW's grdwater flow towards <u>W-SW</u>
7	Chevron Terminal Powell and Landregan	SLIC-01NBT0034 McKesson Envir. 1985	5 MW's grdwater flow towards <u>W-SW</u>
8	Pie Nationwide Prop. 5500 Eastshore Hwy	01-1176 Blymeyer Engs. 8/7/89	2 MW's grdwater flow towards <u>West</u>
9	Ransome Co. 4030 Hollis St	01-1223 Aqua Resources 1/15/91	3 MW's grdwater flow towards <u>SW</u>
10	City Housing Project 4300 San Pablo	01-0404 Subsurface Conslt. 7/13/90	6 MW's grdwater flow towards <u>West</u>
11	Shell Station 1800 Powell St	01-1336 Geostrategies Inc. 6/26/90	7 MW's flow direction towards <u>SW</u>

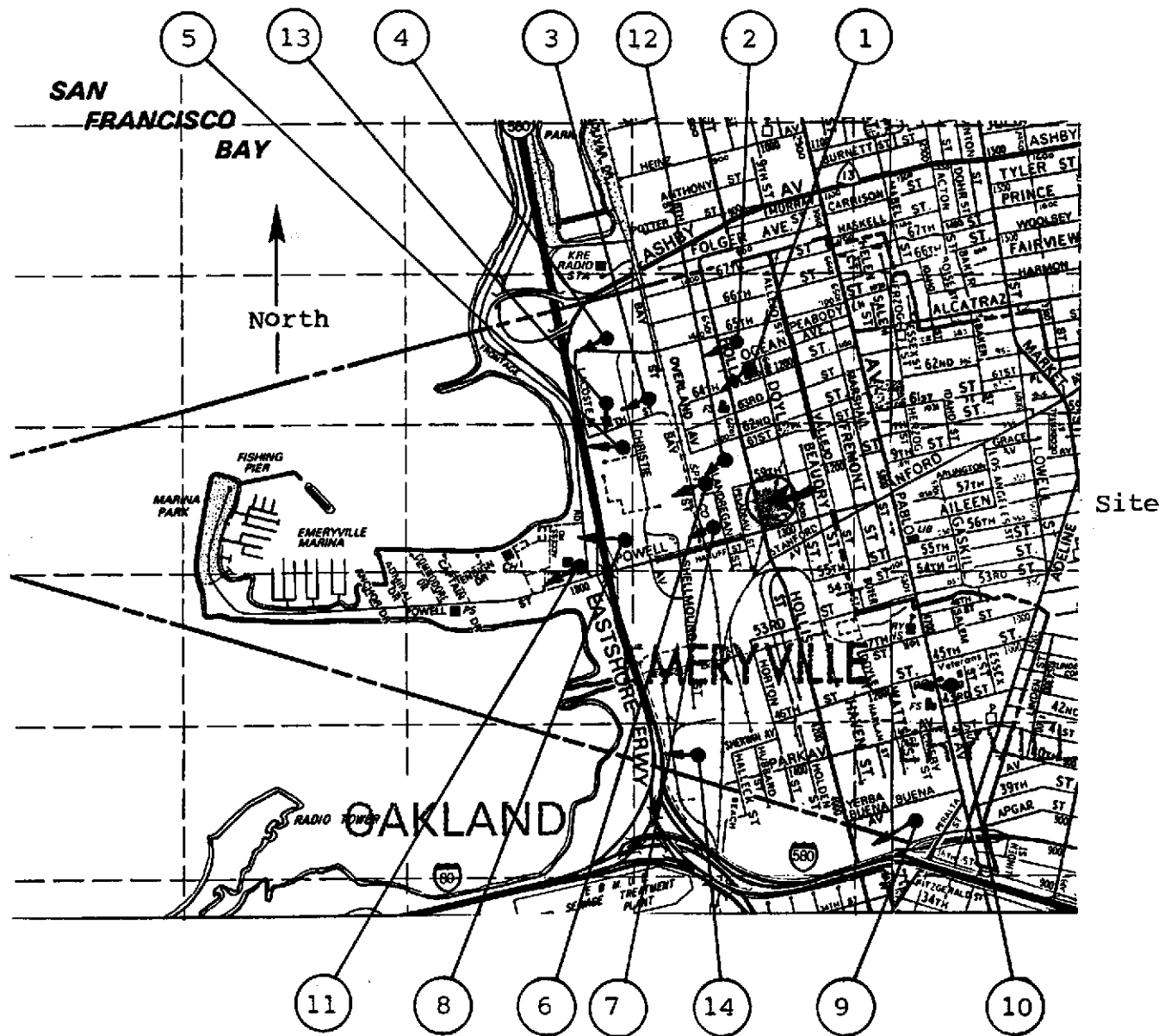
- |    |   |   |  |
|----|---|---|--|
| 12 | Hollis St Proj.<br>6050 Hollis St         | 01-0773<br>Baseline Envir.Consl.<br>6/28/91 | 1 MW installed SW of<br>area under study       |
| 13 | Bay Center Proj.<br>1665 65th St          | 01-0157<br>Groundwater Technl.<br>4/10/90   | 6 MW's, complicated<br>flow pattern towd.South |
| 14 | Barbary Coast Steel<br>4300 Eastshore Hwy | 01-0394<br>Emcon Assoc.<br>8/6/91           | 3 MW's, grdwater flow<br>towards West ←        |

Table - 2

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RESULTS OF GROUNDWATER ANALYSIS  
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<u>Compound</u>	<u>Concentration (µg/l)</u>	<u>Detect. Limit (µg/l)</u>
Benz	ND	0.3
Tol	"	"
EBenz	"	"
Xyl	"	"
TPH-g	"	50
TPH-d	"	"





Ref. Thomas Bros. Map  
Scale 1" = 2,200'

LEGEND

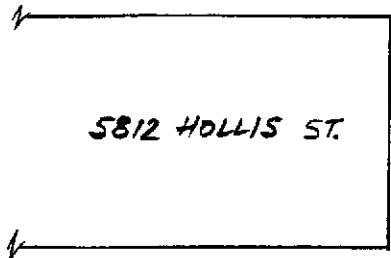
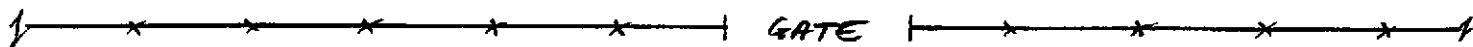
- ⑤ Site with Hydrologic Information (Table 1)
- Grdwater Direction

FIGURE 1 - SITE LOCATION

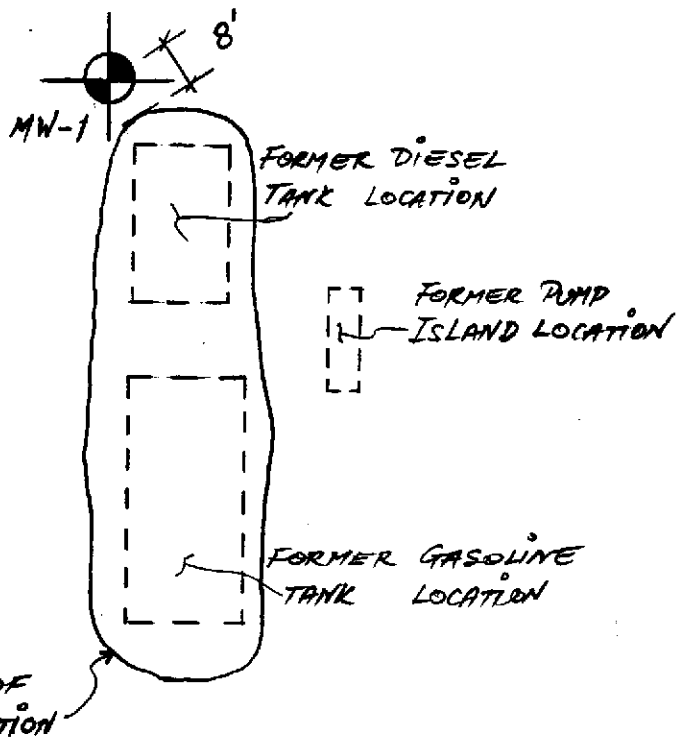
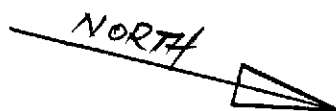
**SUMMIT ENGINEERING**

HOLLIS

STREET



5812 HOLLIS ST.



NOT TO SCALE

LEGEND



LOCATION OF  
MONITORING WELL

FIGURE 2 - SITE PLAN AND WELL LOCATION



Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806

PHONE (510) 222-3002

FAX (510) 222-1251

**CERTIFICATE OF ANALYSIS**

STATE LICENSE NO. 1150

Attn: Al Masso  
Mapco/Summit Environmental  
6045 Shirley Drive  
Oakland, CA 94611

Date Received: 12/20/93  
Date Analyzed: 12/21/93  
Date Reported: 12/31/93  
Job #: 75326

Project: 5812 Hollis Street, Emeryville  
Matrix: Water

Aromatic Volatile Hydrocarbon Analysis  
EPA Method 602  
mg/L

<u>Lab I.D.</u>	<u>Client I.D.</u>	<u>Benzene</u>	<u>MDL</u>	<u>Toluene</u>	<u>MDL</u>
75326-1	MW-1	ND<0.3	0.3	ND<0.3	0.3

<u>Lab I.D.</u>	<u>Client I.D.</u>	<u>Ethyl- benzene</u>	<u>MDL</u>	<u>Xylenes</u>	<u>MDL</u>
75326-1	MW-1	ND<0.3	0.3	ND<0.3	0.3

QA/QC: Matrix Spike Recovery for Benzene: 91%  
Matrix Spike Recovery for Toluene: 90%  
Matrix Spike Recovery for Chlorobenzene: 95%

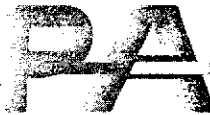
Matrix Spike Duplicate Recovery for Benzene: 98%  
Matrix Spike Duplicate Recovery for Toluene: 96%  
Matrix Spike Duplicate Recovery for Chlorobenzene: 104%

MDL: Method Detection Limit. Compound below this level would not be detected.

*Swinder Sidhu (For)*

Jaime Chow  
Laboratory Director

JC/dwc



Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806

PHONE (510) 222-3002

FAX (510) 222-1251

### CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Al Masso  
Mapco/Summit Environmental  
6045 Shirley Drive  
Oakland, CA 94611

Date Received: 12/20/93  
Date Extracted: 12/28/93  
Date Analyzed: 12/29/93  
Date Reported: 12/31/93  
Job #: 75326

Project: 5812 Hollis Street, Emeryville  
Matrix: Water

Total Petroleum Hydrocarbon Analysis  
DHS Extraction Method (LUFT)  
mg/L

<u>Lab I.D.</u>	<u>Client I.D.</u>	<u>Diesel</u>	<u>MDL</u>
75326-1	MW-1	ND<0.05	0.05

QA/QC: Matrix Spike Recovery for Diesel: 111%  
Matrix Spike Duplicate Recovery for Diesel: 116%

MDL: Method Detection Limit. Compound below this level would not be detected.

Suminder Sohu (For)

Jaime Chow  
Laboratory Director

JC/dwc

OUTSTANDING QUALITY AND SERVICE  
CALIFORNIA STATE CERTIFIED LABORATORY



Precision Analytical Laboratory, Inc.

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CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Al Masso  
Mapco/Summit Environmental  
6045 Shirley Drive  
Oakland, CA 94611

Date Received: 12/20/93  
Date Analyzed: 12/21/93  
Date Reported: 12/31/93  
Job #: 75326

Project: 5812 Hollis Street, Emeryville  
Matrix: Water

Total Petroleum Hydrocarbon Analysis  
EPA Method 5030  
mg/L

<u>Lab I.D.</u>	<u>Client I.D.</u>	<u>Gasoline</u>	<u>MDL</u>
75326-1	MW-1	ND<50	50

QA/QC: Matrix Spike Recovery for Gasoline: 119%  
Matrix Spike Duplicate Recovery for Gasoline: 116%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow (For)

Jaime Chow  
Laboratory Director

JC/dwc

CHAIN OF CUSTODY

PROJECT NO.	SAMPLERS (Signature) <i>ACMasso</i>					ANALYSIS REQUESTED <i>TPH- Gas &amp; Diesel</i> <i>BTX - (8020)</i> <i>Halogenated (8010)</i> <i>Oil &amp; Grease</i> <i>PCB - (8080)</i> <i>Metals (CAM-17)</i> 8240							
PROJECT NAME AND ADDRESS: <i>5812 HOLLIS ST EMERYVILLE</i>													
CROSS REFERENCE NUMBER	DATE	TIME	Soil	Water	STATION LOCATION								REMARKS
MW-1	12/20/93	4:35		✓		✓	✓						
RELINQUISHED BY: (Signature) <i>ACMasso</i>			DATE <i>12/20/93</i>		RECEIVED BY: (Signature) <i>[Signature]</i>				DATE <i>12/20/93</i>				
RELINQUISHED BY: (Signature)			TIME <i>4:35</i>		RECEIVED BY: (Signature)				TIME <i>4:30</i>				
RELINQUISHED BY: (Signature)			DATE		RECEIVED BY: (Signature)				DATE				
RELINQUISHED BY: (Signature)			TIME		RECEIVED BY: (Signature)				TIME				
RELINQUISHED BY: (Signature)			DATE		RECEIVED BY: (Signature)				DATE				
RELINQUISHED BY: (Signature)			TIME		RECEIVED BY: (Signature)				TIME				

Turnaround Time: \* 24 hrs \_\_\_\_\_ \* 2/3 days \_\_\_\_\_ \* 4/5 \_\_\_\_\_ Normal  \* Surcharge Applies

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: \_\_\_\_\_