

# BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE SAN JOSE, CA 95133 (408) 995-5535 FAX (408) 293-8773

July 28, 1994

Mark Borusk 1626 Vallejo Street San Francisco, CA 94123-5116

> Site: 1432 Harrison Street Oakland, California

Date: June 27, 1995

#### GROUNDWATER SAMPLING REPORT 950627-A-2

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. does not participate in the interpretation of analytical results, or become involved with the marketing or installation of remedial systems.

This report deals with the groundwater well sampling performed by our firm in response to your request. Data collected in the course of our work at the site are presented in the TABLE OF WELL MONITORING DATA. This information was collected during our inspection, well evacuation and sample collection. Measurements include the total depth of the well and the depth to water. Water surfaces were further inspected for the presence of immiscibles. A series of electrical conductivity, pH, and temperature readings were obtained during well evacuation and at the time of sample collection.

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### STANDARD PRACTICES

**Evacuation and Sampling Equipment** 

As shown in the TABLE OF WELL MONITORING DATA, the wells at this site were evacuated according to a protocol requirement for the three case volumes of water, before sampling. The wells were evacuated using bailers and electric submersible pumps.

Samples were collected using bailers.

**Bailers:** A bailer, in its simplest form, is a hollow tube which has been fitted with a check valve at the lower end. The device can be lowered into a well by means of a cord. When the bailer enters the water, the check valve opens and liquid flows into the interior of the bailer. The bottom check valve prevents water from escaping when the bailer is drawn up and out of the well.

Two types of bailers are used in groundwater wells at sites where fuel hydrocarbons are of concern. The first type of bailer is made of a clear material such as acrylic plastic and is used to obtain a sample of the surface and the near surface liquids, in order to detect the presence of visible or measurable fuel hydrocarbon floating on the surface. The second type of bailer is made of Teflon or stainless steel and is used as an evacuation and/or sampling device.

Bailers are inexpensive and relatively easy to clean. Because they are manually operated, variations in operator technique may have a greater influence than would be found with more automated sampling equipment. Also where fuel hydrocarbons are involved, the bailer may include near surface contaminants that are not representative of water deeper in the well.

**Electric Submersible Pumps:** Electric submersible pumps are appropriate for the high volume evacuation of wells of any depth provided the well diameter is large enough to admit the pump. Four inch and three inch diameter wells will readily accept electric submersible pumps, while two inch wells do not. In operation, the pump is lowered into the well with a pipe train above it. A checkvalve immediately above the pump and below the first section of pipe prevents water that has entered the pipe from flowing back into the well. Electricity is provided to the pump via an electrical cable and the action of the pump is to push water up out of the well.

Electric submersible pumps are often used as well evacuation devices, which are then supplanted with a more specialized sample collection device (such as a bailer) at the time of sampling. An alternative is to use the pump for both evacuation and sampling. When a bailer is used to collect the sample, interpretation of results by the consultant should allow for variations attributable to near surface contamination entering the bailer. When the electric submersible is, itself, used for sample collection it should be operated with the output restricted to a point where the loss of

Page 2

volatiles becomes indistinguishable from the level obtained with true sampling pumps. It should be noted that when the pump is used for both evacuation and sample collection that it is possible to perform these operations as an uninterrupted continuum. This contrasts with the variations in elapsed time between evacuation and sample collection that occur when field personnel cease one mode of operation and must bring other apparatus into use.

#### Decontamination

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site.

#### **Effluent Materials**

The evacuation process creates a volume of effluent water which must be contained. Blaine Tech Services, Inc. will place this water in appropriate containers of the client's choice or bring new 55 gallon DOT 17 E drums to the site, which are appropriate for the containment of the effluent materials. The determination of how to properly dispose of the effluent water must usually await the results of laboratory analyses of the sample collected from the groundwater well. If that sample does not establish whether or not the effluent water is contaminated, or if effluent from more than one source has been combined in the same container, it may be necessary to conduct additional analyses on the effluent material.

#### Sampling Methodology

Samples were obtained by standardized sampling procedures that follow an evacuation and sample collection protocol. The sampling methodology conforms to both State and Regional Water Quality Control Board standards and specifically adheres to EPA requirements for apparatus, sample containers and sample handling as specified in publication SW 846 and T.E.G.D. which is published separately.

#### **Sample Containers**

Sample containers are supplied by the laboratory performing the analyses.

#### Sample Handling Procedures

Following collection, samples are promptly placed in an ice chest containing deionized ice or an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

#### **Sample Designations**

All sample containers are identified with both a sampling event number and a discrete sample identification number. Please note that the sampling event number is the number that appears on our chain of custody. It is roughly equivalent to a job number, but applies only to work done on a particular day of the year rather than spanning several days, as jobs and projects often do.

#### Chain of Custody

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under our standard chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date and signature of person accepting custody of the samples).

#### Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to National Environmental Testing, Inc. in Santa Rosa, California. NET is certified by the California Department of Health Services as a Hazardous Materials Testing Laboratory, and is listed as DOHS HMTL #1386.

#### Personnel

All Blaine Tech Services, Inc. personnel receive 29 CFR 1910.120(e)(2) training as soon after being hired as is practical. In addition, many of our personnel have additional certifications that include specialized training in level B supplied air apparatus and the supervision of employees working on hazardous materials sites. Employees are not sent to a site unless we are confident they can adhere to any site safety provisions in force at the site and unless we know that they can follow the written provisions of an SSP and the verbal directions of an SSO.

In general, employees sent to a site to perform groundwater well sampling will assume an OSHA level D (wet) environment exists unless otherwise informed. The use of gloves and double glove protocols protects both our employees and the integrity of the samples being collected. Additional protective gear and procedures for higher OSHA levels of protection are available.

#### Reportage

Submission to the Regional Water Quality Control Board and the local implementing agency should include copies of the sampling report, the chain of custody and the certified analytical report issued by the Hazardous Materials Testing Laboratory.

The following addresses have been listed here for your convenience:

Water Quality Control Board San Francisco Bay Region 2101 Webster Street Suite 500 Oakland, CA 94612 ATTN: Richard Hiett

Oakland Fire Prevention Bureau One City Hall Plaza Oakland, CA 94612 ATTN: Stanley Y. Chi

Please call if we can be of any further assistance.

From The for Richard C. Blaine

RCB/lp

attachments: table of well monitoring data gradient map chain of custody certified analytical report

Blaine Tech Services, Inc. Report No. 950627-A-2

#### TABLE OF WELL MONITORING DATA

| Well I.D.                  | MW-1    |        |       | MW-1    |          |       | MW-1    |        |       |
|----------------------------|---------|--------|-------|---------|----------|-------|---------|--------|-------|
| Date Sampled               | 12/21/9 | 4      |       | 3/13/95 | 5        |       | 6/27/95 | 5      |       |
|                            |         |        |       |         |          |       |         |        |       |
| Well Diameter (in.)        | 4       |        |       | 4       |          |       | 4       |        |       |
| Total Well Depth (ft.)     | 25.12   |        |       | 25.15   |          |       | 25.10   |        |       |
| Depth To Water (ft.)       | 19.53   |        |       | 18.66   |          |       | 18.35   |        |       |
| Free Product (in.)         | NONE    |        |       | NONE    |          |       | NONE    |        |       |
| Reason If Not Sampled      |         |        |       |         |          |       |         |        |       |
| l Case Volume (gal.)       | 3.6     |        |       | 4.2     |          |       | 4.4     |        |       |
|                            |         |        |       |         |          |       |         |        |       |
| Did Well Dewater?          | NO      |        |       | NO      |          |       | NO      |        |       |
| Gallons Actually Evacuated | 111.0   |        |       | 15.0    |          |       |         | 4      |       |
| Purging Device             | BAILER  |        |       | ELECTRI | C SUBMER | SIBLE | BAILER  |        |       |
| Sampling Device            | BAILER  |        |       | BAILER  |          |       | BAILER  |        |       |
| Time                       | 16:20   | 16:25  | 16:29 | 10:26   | 10:28    | 10:30 | 15:10   | 15:15  | 15:20 |
| Temperature (Fahrenheit)   | 75.1    | 74.4   | 74.0  | 64.6    | 64.8     | 65.2  | 65.8    | 65.0   | 65.0  |
| рН                         | 7.2     | 7.1    | 7.0   | 7.4     | 7.4      | 7,5   | 8.0     | 7.8    | 7.8   |
| Conductivity (micromhos/cm |         | 460    | 420   | 880     | 440      | 400   | 1500    | 1300   | 1300  |
|                            | () 52 0 | 100    | 720   | 000     | 110      | ,00   | 1000    | 1900   | 1100  |
| BTS Chain of Custody       | 941221- | F-2    |       | 950313- | J-1      |       | 950627- | A-2    |       |
| BTS Sample I.D,            | MW-1    |        |       | MW-1    |          |       | MW-1    |        |       |
| DOHS HMTL Laboratory       | NET     |        |       | NET     |          |       | NET     |        |       |
| Analysis                   | TPH-GAS | & BTEX |       | TPH-GAS | & BTEX   |       | TPH-GAS | & BTEX |       |

| SUMMARY                | OF CAR RESULT | S in parts per billion ( | unless otherwise noted |
|------------------------|---------------|--------------------------|------------------------|
| DOHS HMTL Laboratory   | NET           | NET                      | NET                    |
| Laboratory Sample I.D. | 232101        | 238158                   | 244920                 |
| TPH Gasoline           | 180,000       | 150,000                  | 17,000 1. 4.           |
| Benzene                | 41,000        | 31,000                   | 17,000 Aleren          |
| Toluene                | 64,000        | 45,000                   | 18,000                 |
| Ethyl Benzene          | 3,100         | 2,500                    | 1,600                  |
| Xylene Isomers         | 100,000       | 17,000                   | 7,700                  |

In the interest of clarity, an addendum has been added to the **TABLE** which lists analytical results in such a way that our field observations are presented together with the analytical results. This addendum is entitled a **SUMMARY OF CAR RESULTS**. As indicated by the title, the source documents for these numbers are the laboratory's certified analytical reports. These **certified analytical reports (CARs)** are generated by the laboratory as the sole official documents in which they issue their findings. Any discrepancy between the CAR and a tabular or text presentation of analytical values must be decided in favor of the CAR on the grounds that the CAR is the authoritative legal document.

#### TABLE OF WELL MONITORING DATA

| Well I.D.                  | MW-2    |        |       | MW-2    |          |       | MW-2    |          |       |
|----------------------------|---------|--------|-------|---------|----------|-------|---------|----------|-------|
| Date Sampled               | 12/21/9 | 4      |       | 3/13/99 | 5        |       | 6/27/9  | 5        |       |
|                            |         |        |       |         |          |       |         |          |       |
| Well Diameter (in.)        | 2       |        |       | 2       |          |       | 2       |          |       |
| Total Well Depth (ft.)     | 25.85   |        |       | 25.86   |          |       | 25.80   |          |       |
| Depth To Water (ft.)       | 19.91   |        |       | 19.15   |          |       | 18.80   |          |       |
| Free Product (in.)         | NONE    |        |       | NONE    |          |       | NONE    |          |       |
| Reason If Not Sampled      |         |        |       |         |          |       |         |          |       |
| l Case Volume (gal.)       | 0.95    |        |       | 1.0     |          |       | 1.1     |          |       |
| Did Well Dewater?          | NO      |        |       | NO      |          |       | NO      |          |       |
| Gallons Actually Evacuated | i 3.0   |        |       | 3.0     |          |       | 3.5     |          |       |
| Purging Device             | BAILER  |        |       | BAILER  |          |       | BAILER  |          |       |
| Sampling Device            | BAILER  |        |       | BAILER  |          |       | BAILER  |          |       |
| Time                       | 15:48   | 15:51  | 15:55 | 11:00   | 11:03    | 11:06 | 14:45   | 14:47    | 14:49 |
| Temperature (Fahrenheit)   | 76.5    | 76.2   | 76.0  | 66.2    | 66.0     | 65.8  | 65.2    | 65.0     | 65.2  |
| Hq                         | 7.3     | 7.0    | 6.8   | 7.3     | 7.2      | 7.3   | 8.0     | 7.6      | 7.6   |
| Conductivity (micromhos/cm | n)650   | 800    | 820   | 300     | 290      | 300   | 1300    | 1200     | 1200  |
| BTS Chain of Custody       | 941221- | F'-2   |       | 950313- | ·J-1     |       | 950627- | -A-2     |       |
| BTS Sample I.D.            | MW-2    |        |       | MW-2    |          |       | MW-2    |          |       |
| DOHS HMTL Laboratory       | NET     |        |       | NET     |          |       | NET     |          |       |
| Analysis                   | TPH-GAS | & BTEX |       | TPH-GAS | S & BTEX |       | TPH-GAS | S & BTEX |       |

| SUMMARY                | OF CAR RESULT! | 5 in parts per billion | unless otherwise noted  |
|------------------------|----------------|------------------------|-------------------------|
| DOHS HMTL Laboratory   | NET            | NET                    | NET                     |
| Laboratory Sample I.D. | 231221         | 238159                 | 244921                  |
| TPH Gasoline           | 200,000        | 500,000                | 120,000 dom 4<br>23,000 |
| Benzene                | 140,000        | 9,200                  | 23,000                  |
| Toluene                | 200,000        | 23,000                 | 30,000 ch & de          |
| Ethyl Benzene          | 3,500          | 7,000                  | 2,700                   |
| Xylene Isomers         | 22,000         | 36,000                 | 13,000                  |

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Blaine Tech Services, Inc. Report No. 950627-A-2

Mark Borsuk

#### TABLE OF WELL MONITORING DATA

| Well I.D.                  | MW-3     |          |       | MW-3     |          |       | MW-3   |      |
|----------------------------|----------|----------|-------|----------|----------|-------|--------|------|
| Date Sampled               | 12/21/9  | 4        |       | 3/13/95  |          |       | 7/7/95 | i    |
|                            | •        |          |       | -        |          |       |        |      |
| Well Diameter (in.)        | 2        |          |       | 2        |          |       | 2      |      |
| Total Well Depth (ft.)     | 24.01    |          |       | 23.90    |          |       |        |      |
| Depth To Water (ft.)       | 18.82    |          |       | 17.86    |          |       | 18.25  |      |
| Free Product (in.)         | NONE     |          |       | NONE     |          |       |        |      |
| Reason If Not Sampled      |          |          |       |          |          |       | GAUGE  | ONLY |
| 1 Case Volume (gal.)       | 0.83     |          |       | 0.9      |          |       |        |      |
| Did Well Dewater?          | NO       |          |       | NO       |          |       |        |      |
| Gallons Actually Evacuated | +        |          |       |          |          |       |        |      |
| Galions Actually Evacuated | 2.3      |          |       | 3.0      |          |       |        |      |
| Purging Device             | BAILER   |          |       | BAILER   |          |       |        |      |
| Sampling Device            | BAILER   |          |       | BAILER   |          |       |        |      |
| Time                       | 15:10    | 15:16    | 15:21 | 09:48    | 09:51    | 09:54 |        |      |
| Temperature (Fahrenheit)   | 77.6     | 77.4     | 77.1  | 65.4     | 65.2     | 65.2  |        |      |
| PH                         | 7.3      | 7.2      | 7.2   | 8.0      | 7.8      | 7.8   |        |      |
| Conductivity (micromhos/cm | )550     | 500      | 490   | 560      | 420      | 360   |        |      |
| BTS Chain of Custody       | 941221-  | F-2      |       | 950313-  | J-1      |       |        |      |
| BTS Sample I.D.            | MW-3     |          |       | MW-3     | -        |       |        |      |
| DOHS HMTL Laboratory       | NET      |          |       | NET      |          |       |        |      |
| Analysis                   |          | DWEY     |       |          | DTEV     |       |        |      |
| натуртр                    | TPH-GAS  | ,        |       | TPH-GAS, | -        |       |        |      |
|                            |          | OR OIL & |       |          | DR OIL & |       |        |      |
|                            | EPA 801- | U        |       | EPA 8010 | 1        |       |        |      |

#### SUMMARY OF CAR RESULTS in parts per billion unless otherwise noted

| DOHS HMTL Laboratory<br>Laboratory Sample I.D. | NET<br>232102 | NET<br>238157 |
|--|---------------|---------------|
| TPH Gasoline                                   | ND            | ND            |
| Benzene  | ND            | ND            |
| Toluene  | ND            | ND            |
| Ethyl Benzene                                  | ND            | מא            |
| Xylene Isomers                                 | ND            | ND            |
| TPH Motor Oil                                  | ND            | ND            |
| EPA 8010                                       | ND            | ND            |
|  |               |               |

Not sapled. ?

July 24, 1995

Jim Keller Blaine Tech Services 985 Timothy Drive San Jose, CA 95133

Re: Second Quarter 1995 Monitoring Report 1432 Harrison Street Oakland, California

ital Technology, Inc.

Dear Mr. Keller:

As you requested, Cambria Environmental Technology, Inc. has prepared this letter summarizing the results of the second quarter 1995 ground water monitoring sampling at the site referenced above. Presented below are the second quarter 1995 activities, anticipated third quarter 1995 activities, and a discussion of hydrocarbon distribution in ground water.

Second Quarter 1995 Activities: On June 27, 1995, Blaine Tech Services (BTS) collected ground water samples from wells MW-1 and MW-2, and analyzed the samples for total petroleum hydrocarbons as gasoline (TPHg) and benzene, ethylbenzene, toluene and xylenes (BETX). On June 5, 1995 the Alameda County Department of Environmental Health authorized removal of MW-3 from the sampling regime. Cambria gauged all site wells on July 7, 1995.

Anticipated Third Quarter 1995 Activities: In July, 1995, Cambria drilled twelve soil borings and collected grab ground water samples and soil samples for laboratory analyses to define the horizontal extent of hydrocarbons in ground water. Cambria will generate an investigation report in August 1995. Blaine Tech Services (BTS) will collect water samples from the monitoring wells and gauge ground water depths in the monitoring wells.

*Hydrocarbon Distribution in Ground Water:* Samples from wells MW-1 and MW-2 contained up to 120,000 parts per billion (ppb) TPHg and 23,000 ppb benzene.

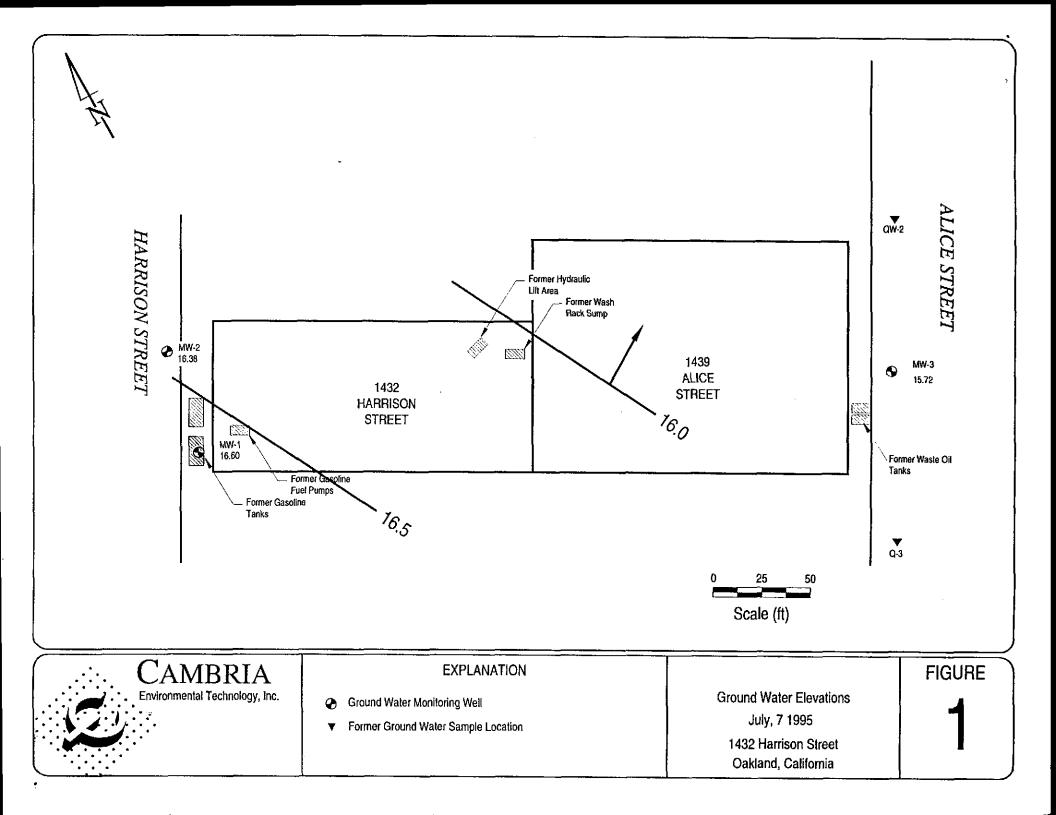
We appreciate this opportunity to provide Blaine Tech Services with environmental consulting services. Please call if you have any questions or comments.

Sincerely, Cambria Environmental Technology, Inc.

N. Scott MacLeod, R.G. Principal Geologist

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|  | 985 TIMOTHY DRIV                  | VF         | ····                    |           |              |        | -                 |                |                  | #7360            |
|--|-----------------------------------|------------|-------------------------|-----------|--------------|--------|-------------------|----------------|------------------|------------------|
| BLAINE   | SAN JOSE, CA 951                  | 33         |                         | CONDUCTAN | ALYSIS TO DE | TECT   | LAB NET           |                |                  | IDHS #           |
|  | (408) 995-55<br>FAX (408) 293-87  |            |                         |           |              |        |                   | T MEET SPECIFI | CATIONS AND      | DETECTION LIMITS |
| CHAIN OF CUSTODY                                     | · · · · · · · · · · · · · · · · · |            |                         |           |              |        | EPA               |                |                  | B REGION         |
| 950627-AZ  |                                   |            |                         |           |              |        |                   |                |                  |                  |
| CLIENT MARK BORSVIC                                  |                                   | ERS        | ļ                       |           |              |        | OTHER             |                |                  |                  |
| SITE   |                                   | CONTAINERS |                         |           |              |        | SPECIAL INSTRUCT  | IONS           |                  |                  |
| 1432 HARRISON  | <u>ST</u>                         | - No       |                         |           |              |        |                   |                |                  |                  |
| OAKLAND  |                                   | E ALL      | 12                      |           |              |        |                   |                |                  |                  |
| MA   |                                   | COMPOSIT   | 5                       |           |              |        |                   |                |                  |                  |
| SAMPLE I.D.  |                                   | = COM      | total                   |           |              |        |                   | I              | 1 I              |                  |
|  |                                   | <u>0</u>   |                         |           |              | ╉═╾┨── | ADD'L INFORMATION | STATUS         | CONDITION        | LAB SAMPLE #     |
| MWI 6/27 1530 UL                                     | / 3                               | _          | $\left  \Sigma \right $ |           |              |        |                   |                |                  |                  |
| MWC 6/27 1450 4                                      | ノ3                                | <u>`</u>   | $\times$                |           |              |        |                   |                |                  |                  |
|  |                                   |            |                         |           |              |        |                   |                |                  |                  |
|  |                                   |            |                         |           |              |        |                   |                |                  |                  |
|  |                                   |            |                         |           |              |        |                   |                |                  |                  |
|  |                                   |            |                         |           | -            |        |                   |                |                  |                  |
|  |                                   |            | ļ                       |           |              |        |                   |                |                  |                  |
|  | 14                                |            |                         |           |              | -      |                   | 1.             |                  |                  |
|  |                                   |            |                         |           |              |        |                   | 6/28/9         | Dos              | . bi<br><br>     |
|  |                                   |            |                         |           |              |        |                   |                |                  |                  |
|  |                                   |            |                         |           |              |        |                   | plat           | and              |                  |
| SAMPLING DATE TIME SAN<br>COMPLETED 6/27/95 1545 PER | APLING<br>REFORMED BY PA          |            | ب<br>ب                  | IAIEN     | TILE         | /      | RESULTS NEEDED    |                |                  |                  |
| RELEASED BY  |                                   | 58/9       | <u>ب ر</u><br>۲۲        | 9:35      | RECEIVE      | DB     | y me              |                | DATE             | TIME             |
| RELEASED BY  |                                   | ATE /      | ,                       | TIME      | RECEIVE      | DBY    | ~                 |                | 10/2-8/9<br>DATE |                  |
| Sprimbe  | (q                                | 28A        | _                       | 16:00     |              |        | reen              |                | 4/29/95          | <u> </u>         |
| RÉLEASED BY  | DA                                | TE         | -                       | TIME      | RECEIVE      |        |                   |                | DATE             | TIME             |
| SHIPPED VIA  | DA                                | ATE SEN    | IT.                     | TIME SENT | COOLER #     | ·      |                   |                | · <u>·</u>       | ]                |
| NOS  |                                   |            |                         |           |              |        |                   |                |                  |                  |
|  |                                   |            |                         | ·         |              |        |                   |                |                  |                  |



Santa Rosa Division 3636 North Laughlin Road Suite 110 Santa Rosa, CA 95403-8226 Tel: (707) 526-7200 Fax: (707) 541-2333

Fran Thie Blaine Tech Services 985 Timothy Dr. San Jose, CA 95133 Date: 07/07/1995 NET Client Acct. No: 43200 NET Job No: 95.02528 Received: 06/29/1995

Client Reference Information

Mark Borsur 1432 Harrison St., Oakland, CA/950627-A2

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Ken La:

Division Manager

UM Jennifer L. Roseberry Project/Manager

Enclosure(s)





Client Name:Blaine Tech ServicesDate:07/07Client Acct:43200ELAP Cert:1386 NET Job No: 95.02528

Date: 07/07/1995 Page: 2

Run

Ref: Mark Borsur 1432 Harrison St., Oakland, CA/950627-A2

SAMPLE DESCRIPTION: MW1

Date Taken: 06/27/1995 Time Taken: 15:30

| NET | Sample | No: | 244920 |
|-----|--------|-----|--------|
|-----|--------|-----|--------|

|         | Reporting   |   |  |   | Date  | Date   | Batch   |
|---------|---|---|--|---|---|--|---|
| Results | Flags   | Limit   | Units  | Method  | Extracted   | Analyzed   | No  |
|         |   |   |  |   |   |  |   |
|         |   |   |  |   |   | 07/04/1995   | 2980  |
| 100     |   |   |  |   |   | 07/04/1995   | 2980  |
| 71,000  |   | 5,000   | ug/L   | 5030  |   | 07/04/1995   | 2980  |
|         |   |   |  |   |   | 07/04/1995   | 2980  |
| 17,000  | FI  | 500   | ug/L   | 8020  |   | 07/05/1995   | 2983  |
| 18,000  | FI  | 500   | ug/L   | 8020  |   | 07/05/1995   | 2983  |
| 1,600   |   | 50  | ug/L   | 8020  |   | 07/04/1995   | 2980  |
| 7,700   |   | 50  | ug/L   | 8020  |   | 07/04/1995   | 2980  |
|         |   |   |  |   |   | 07/04/1995   | 2980  |
| 105     |   |   | % Rec.   | 5030  |   | 07/04/1995   | 2980  |
|         | <br>100<br>71,000<br><br>17,000<br>18,000<br>1,600<br>7,700<br> | 100<br>71,000<br><br>17,000 FI<br>18,000 FI<br>1,600<br>7,700 | Results         Flags         Limit               100         5,000               17,000         FI           500         18,000           1,600         50           7,700         50 | Results         Flags         Limit         Units           100              10,000         5,000         ug/L                 17,000         FI         500         ug/L           18,000         FI         500         ug/L           1,600         50         ug/L            7,700         50         ug/L | Results         Flags         Limit         Units         Method                      100              17,000         FI         500         ug/L         8020         18,000         FI         500         ug/L         8020         1,600         50         ug/L         8020 | Results         Flags         Limit         Units         Method         Extracted  17,000         FI         500         ug/L         8020           18,000         FI         500         ug/L         8020  - | Results         Flags         Limit         Units         Method         Extracted         Analyzed            07/04/1995         07/04/1995         07/04/1995         07/04/1995           100         07/04/1995         07/04/1995         07/04/1995           71,000         5,000         ug/L         5030         07/04/1995            07/04/1995         07/04/1995         07/04/1995            07/04/1995         07/04/1995         07/04/1995           17,000         FI         500         ug/L         8020         07/05/1995           18,000         FI         500         ug/L         8020         07/04/1995           7,700         50         ug/L         8020         07/04/1995            07/04/1995         07/04/1995         07/04/1995 |

FI : Compound quantitated at a 1000X dilution factor.



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#### SAMPLE DESCRIPTION: MW2

Date Taken: 06/27/1995 Time Taken: 14:50

| NET Sample No: 244921     |         |       |           |              |        |           |            | Run   |
|---------------------------|---------|-------|-----------|--------------|--------|-----------|------------|-------|
|                           |         |       | Reporting | J            |        | Date      | Date       | Batch |
| Parameter                 | Results | Flags | Limít     | <u>Units</u> | Method | Extracted | Analyzed   | No.   |
| TPH (Gas/BTXE, Liquid)    |         |       |           |              |        |           |            |       |
| METHOD 5030/M8015         |         |       |           |              |        |           | 07/04/1995 | 2980  |
| DILUTION FACTOR*          | 100     |       |           |              |        |           | 07/04/1995 | 2980  |
| as Gasoline               | 120,000 |       | 5,000     | ug/L         | 5030   |           | 07/04/1995 | 2980  |
| METHOD 8020 (GC, Liquid)  |         |       |           |              |        |           | 07/04/1995 | 2980  |
| Benzene                   | 23,000  | FI    | 500       | ug/L         | 8020   |           | 07/05/1995 | 2983  |
| Toluene                   | 30,000  | FI    | 500       | ug/L         | 8020   |           | 07/05/1995 | 2983  |
| Ethylbenzene              | 2,700   |       | 50        | ug/L         | 8020   |           | 07/04/1995 | 2980  |
| Xylenes (Total)           | 13,000  |       | 50        | ug/L         | 8020   |           | 07/04/1995 | 2980  |
| SURROGATE RESULTS         |         |       |           |              |        |           | 07/04/1995 | 2980  |
| Bromofluorobenzene (SURR) | 109     |       |           | % Rec.       | 5030   |           | 07/04/1995 | 2980  |

FI : Compound quantitated at a 1000X dilution factor.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

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NET Job No: 95.02528

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# CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

|                           |            | ccv                 | CCV      |        |                |         |        |  |
|---------------------------|------------|---------------------|----------|--------|----------------|---------|--------|--|
|                           | CCV        | N Standard Standard |          |        |                | Run     |        |  |
|                           | Standard   | Amount              | Amount   |        | Date           | Analyst | Batch  |  |
| Parameter                 | % Recovery | Found               | Expected | Units  | Units Analyzed |         | Number |  |
| TPH (Gas/BTXE, Liquid)    |            |                     |          |        |                |         |        |  |
| as Gasoline               | 106.0      | 0.53                | 0.50     | mg/L   | 07/03/1995     |         | 2980   |  |
| Benzene                   | 108.8      | 5.44                | 5.00     | ug/L   | 07/03/1995     |         | 2980   |  |
| Toluene                   | 102.8      | 5.14                | 5.00     | ug/L   | 07/03/1995     |         | 2980   |  |
| Ethylbenzene              | 107.4      | 5.37                | 5.00     | ug/L   | 07/03/1995     |         | 2980   |  |
| Xylenes (Total)           | 98.0       | 14.7                | 15.0     | ug/L   | 07/03/1995     | •       | 2980   |  |
| Bromofluorobenzene (SURR) | 112.0      | 112                 | 100      | % Rec. | 07/03/1995     |         | 2980   |  |
| TPH (Gas/BTXE,Liquid)     |            |                     |          |        |                |         |        |  |
| as Gasoline               | 98.0       | 0.49                | 0.50     | mg/L   | 07/05/1995     | aal     | 2983   |  |
| Benzene                   | 97.0       | 4.85                | 5.00     | ug/L   | 07/05/1995     | aal     | 2983   |  |
| Toluene                   | 90.8       | 4.54                | 5.00     | ug/L   | 07/05/1995     | aal     | 2983   |  |
| Ethylbenzene              | 94.6       | 4.73                | 5.00     | ug/L   | 07/05/1995     | aal     | 2983   |  |
| Xylenes (Total)           | 97.3       | 14.6                | 15.0     | ug/L   | 07/05/1995     | aal     | 2983   |  |
| Bromofluorobenzene (SURR) | 95.0       | 95                  | 100      | % Rec. | 07/05/1995     | aal     | 2983   |  |



**#** 

 
 Client Name:
 Blaine Tech Services
 Date:
 07/07

 Client Acct:
 43200
 ELAP Cert:
 1386
 NET Job No: 95.02528

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# **METHOD BLANK REPORT**

|                           | Method |           |        |            |          |        |  |  |
|---------------------------|--------|-----------|--------|------------|----------|--------|--|--|
|                           | Blank  |           | Run    |            |          |        |  |  |
|                           | Amount | Reporting |        | Date       | Analyst  | Batch  |  |  |
| Parameter                 | Found  | Limit     | Units  | Analyzed   | Initials | Number |  |  |
| TPH (Gas/BTXE, Liquid)    |        |           |        |            |          |        |  |  |
| as Gasoline               | ND     | 0.05      | mg/L   | 07/03/1995 |          | 2980   |  |  |
| Benzene                   | ND     | 0.5       | ug/L   | 07/03/1995 |          | 2980   |  |  |
| Toluene                   | ND     | 0.5       | ug/L   | 07/03/1995 |          | 2980   |  |  |
| Ethylbenzene              | ND     | 0.5       | ug/L   | 07/03/1995 |          | 2980   |  |  |
| Xylenes (Total)           | ND     | 0.5       | ug/L   | 07/03/1995 |          | 2980   |  |  |
| Bromofluorobenzene (SURR) | 110    |           | % Rec. | 07/03/1995 |          | 2980   |  |  |
| TPH (Gas/BTXE,Liquid)     |        |           |        |            |          | •      |  |  |
| as Gasoline               | ND     | 0.05      | mg/L   | 07/05/1995 | aal      | 2983   |  |  |
| Benzene                   | ND     | 0.5       | ug/L   | 07/05/1995 | aal      | 2983   |  |  |
| Toluene                   | ND     | 0.5       | ug∕L   | 07/05/1995 | aal      | 2983   |  |  |
| Ethylbenzene              | ND     | 0.5       | ug/L   | 07/05/1995 | aal      | 2983   |  |  |
| Xylenes (Total)           | ND     | 0.5       | ug/L   | 07/05/1995 | aal      | 2983   |  |  |
| Bromofluorobenzene (SURR) | 83     |           | % Rec. | 07/05/1995 | aal      | 2983   |  |  |



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Client Name: Blaine Tech Services Date: 07/07 Client Acct: 43200 ELAP Cert: 1386 NET Job No: 95.02528

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# MATRIX SPIKE / MATRIX SPIKE DUPLICATE

|                       |        | Matrix            |      |        |        |        | Matrix |       |            |       |        |
|-----------------------|--------|-------------------|------|--------|--------|--------|--------|-------|------------|-------|--------|
|                       | Matrix | Spike             |      |        |        | Matrix | Spike  |       |            |       |        |
|                       | Spike  | Dup               |      | Spike  | Sample | Spike  | Dup.   |       | Date       | Run   | Sample |
| Parameter             | % Rec. | <pre>% Rec.</pre> | RPD  | Amount | Conc.  | Conc.  | Conc.  | Units | Analyzed   | Batch | Spiked |
| TPH (Gas/BTXE,Liquid) |        |                   |      |        |        |        |        |       |            |       |        |
| as Gasoline           | 110.0  | 90.0              | 19.9 | 0.50   | ND     | 0.55   | 0.45   | mg/L  | 07/03/1995 | 2980  | 244914 |
| Benzene               | 99.3   | 85.4              | 15.1 | 8.90   | ND     | 8.84   | 7.60   | ug/L  | 07/03/1995 | 2980  | 244914 |
| Toluene               | 98.9   | 83.9              | 16.4 | 34.8   | ND     | 34.4   | 29.2   | ug/L  | 07/03/1995 | 2980  | 244914 |
| TPH (Gas/BTXE,Liquid) |        |                   |      |        |        |        |        |       |            |       |        |
| as Gasoline           | 98.0   | 88.0              | 10.8 | 0.50   | ND     | 0.49   | 0.44   | mg/L  | 07/05/1995 | 2983  | 244915 |
| Benzene               | 77.5   | 73.6              | 5.2  | 10.7   | ND     | 8.29   | 7.87   | ug/L  | 07/05/1995 | 2983  | 244915 |
| Toluene               | 92.7   | 92.0              | 0.8  | 28.6   | ND     | 26.5   | 26.3   | ug/L  | 07/05/1995 | 2983  | 244915 |



KEY TO ABBREVIATIONS and METHOD REFERENCES

- Set the set of the
- \* : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
- ICVS : Initial Calibration Verification Standard (External Standard).
- mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).

mg/L : Concentration in units of milligrams of analyte per liter of sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.

N/A : Not applicable.

NA : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable listed reporting limit.

NTU : Nephelometric turbidity units.

RPD : Relative percent difference, 100 [Value 1 - Value 2]/mean value.

SNA : Standard not available.

ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).

ug/L : Concentration in units of micrograms of analyte per liter of sample.

umhos/cm : Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid" Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.