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April 8, 2004

QUARTERLY GROUNDWATER MONITORING REPORT  
MARCH 2004 GROUNDWATER SAMPLING  
ASE JOB NO. 3648

at  
1310 Central Avenue  
Alameda, California

Prepared for:  
Mr. Nissan Saidian  
5733 Medallion Court  
Castro Valley, CA 94522

Prepared by:  
AQUA SCIENCE ENGINEERS, INC.  
208 W. El Pintado  
Danville, CA 94526  
(925) 820-9391

## **1.0 INTRODUCTION**

### Site Location (Site), See Figure 1

1310 Central Avenue  
Alameda, CA

### Responsible Party

Mr. Nissan Saidian  
5733 Medallion Court  
Castro Valley, CA 94522

### Environmental Consulting Firm

Aqua Science Engineers, Inc. (ASE)  
208 West El Pintado  
Danville, CA 94526  
Contact: Robert Kitay, Senior Geologist  
(925) 820-9391

### Agency Review

Mr. Amir Gholami  
Alameda County Health Care Services Agency (ACHCSA)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

Mr. Chuck Headlee  
California Regional Water Quality Control Board (RWQCB)  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

The following is a report detailing the methods and findings of the March 12, 2004 quarterly groundwater sampling at the above-referenced site (*Figure 1*). This sampling was conducted as required by the ACHCSA and RWQCB. ASE has prepared this report on behalf of Mr. Nissan Saidian, owner of the property.

## **2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT**

On March 12, 2004, ASE measured the depth to water in each site groundwater monitoring well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen. No free-floating hydrocarbons or sheen was present in any of the monitoring wells. Groundwater elevation data is presented as *Table One*.

A groundwater potentiometric surface map is presented as *Figure 2*. Groundwater beneath the site was calculated as flowing to the west with a hydraulic gradient of approximately 0.008-feet/foot. Flow direction at the site has varied from quarter to quarter. Additionally, all three monitoring wells, and MW-3 in particular, have consistently been noted to be under pressure, and water level measurements may not accurately reflect static conditions.

## **3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS**

Prior to sampling, all monitoring wells were purged of three well casing volumes of groundwater using dedicated polyethylene bailers. Petroleum hydrocarbon odors were present during the purging and sampling of monitoring wells MW-1 and MW-3. The parameters pH, temperature, and conductivity were monitored during the well purging, and samples were not collected until the parameters stabilized. Groundwater samples were collected from each well using dedicated polyethylene bailers.

All samples were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials, pre-preserved with hydrochloric acid, and sealed without headspace. The samples were then labeled and placed in a cooler with wet ice for transport to Kiff Analytical, LLC (ELAP #2236) of Davis, California under appropriate chain-of-custody documentation. Well sampling field logs are presented in *Appendix A*.

The well purge water was placed in 55-gallon steel drums and labeled for temporary storage.

The groundwater samples collected from all three site monitoring wells were analyzed for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX), and fuel oxygenates by EPA Method 8260, and total petroleum hydrocarbons as diesel (TPH-D) by EPA Method 3550/8015M. The

analytical results are presented in *Table Two*, and the certified analytical report and chain-of-custody documentation are included as *Appendix B*.

## **4.0 CONCLUSIONS**

Hydrocarbon concentrations in the samples collected this quarter were generally consistent with those reported during the previous quarter.

The TPH-G and total xylene concentrations detected in the groundwater sample collected from monitoring well MW-1 exceeded Environmental Screening Levels (ESLs) as presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region dated July 2003. The TPH-D detected in the groundwater samples collected from monitoring well MW-2 and the TPH-G, benzene, and total xylene concentrations detected in the groundwater sample collected from MW-3 also exceeded the ESLs.

## **5.0 RECOMMENDATIONS**

ASE recommends that this site remain on a quarterly sampling schedule. The next sampling is scheduled for June 2004. ASE has also made recommendations for an additional groundwater monitoring well, and an additional boring in the January 30, 2004 report. ASE will implement the recommendations once a written request has been made by the ACHCSA.

## **6.0 REPORT LIMITATIONS**

The results presented in this report represent the conditions at the time of the groundwater sampling, at the specific locations where the groundwater samples were collected, and for the specific parameters analyzed by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the former underground storage tanks and associated plumbing at the site, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of independent CAL-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

Respectfully submitted,

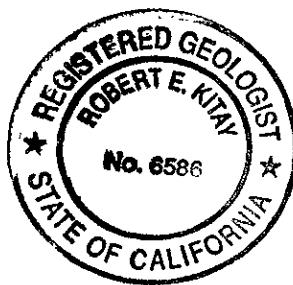
AQUA SCIENCE ENGINEERS, INC.



Damian Hriciga  
Project Geologist



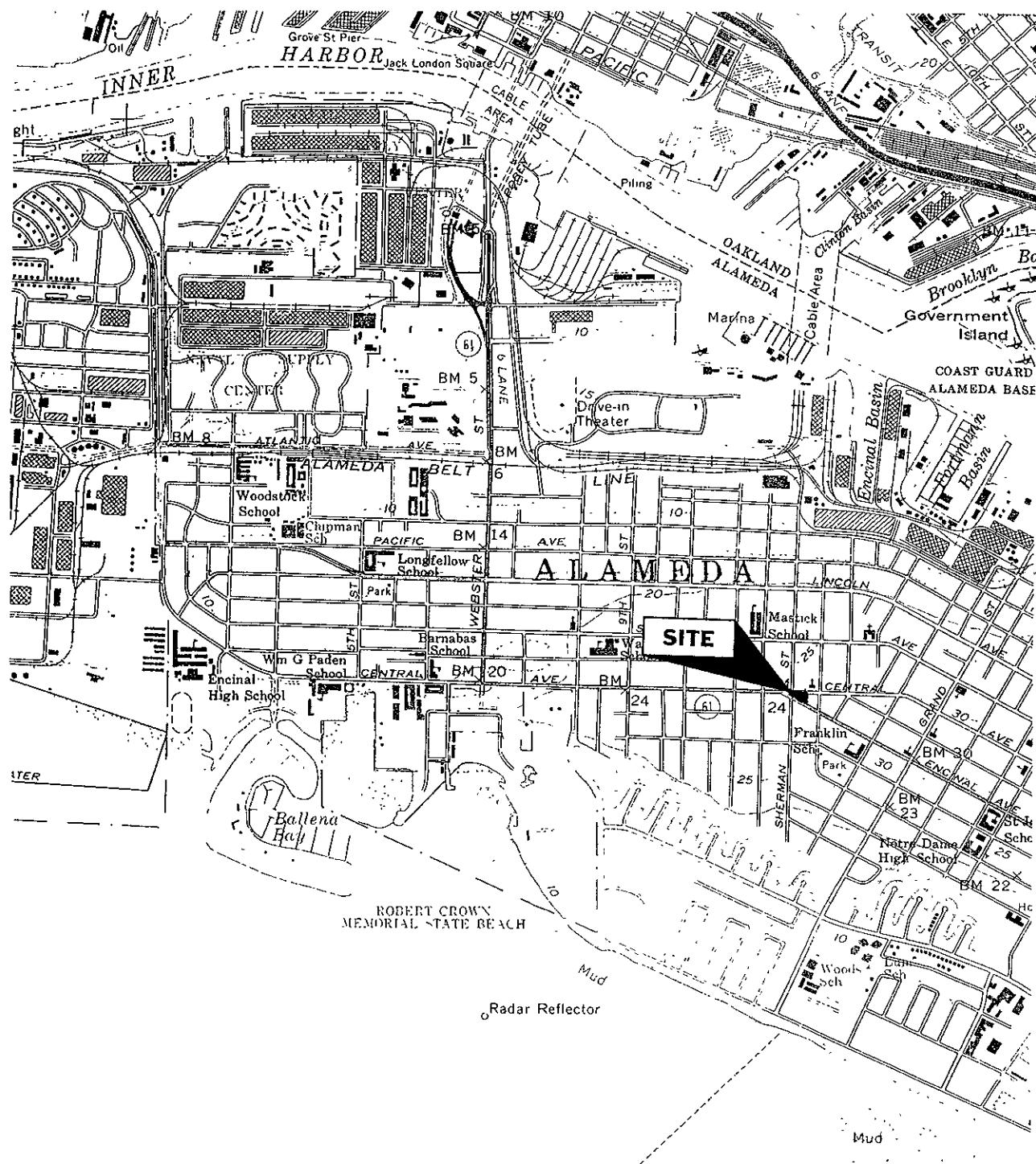
Robert E. Kitay, R.G., R.E.A.  
Senior Geologist



Attachments: Table One and Two  
Figures 1 and 2  
Appendices A and B

cc: Mr. Nissan Saidian  
Mr. Amir Gholami, ACHCSA  
Mr. Chuck Headlee, RWQCB, San Francisco Bay Region

## **FIGURES**



## LOCATION MAP

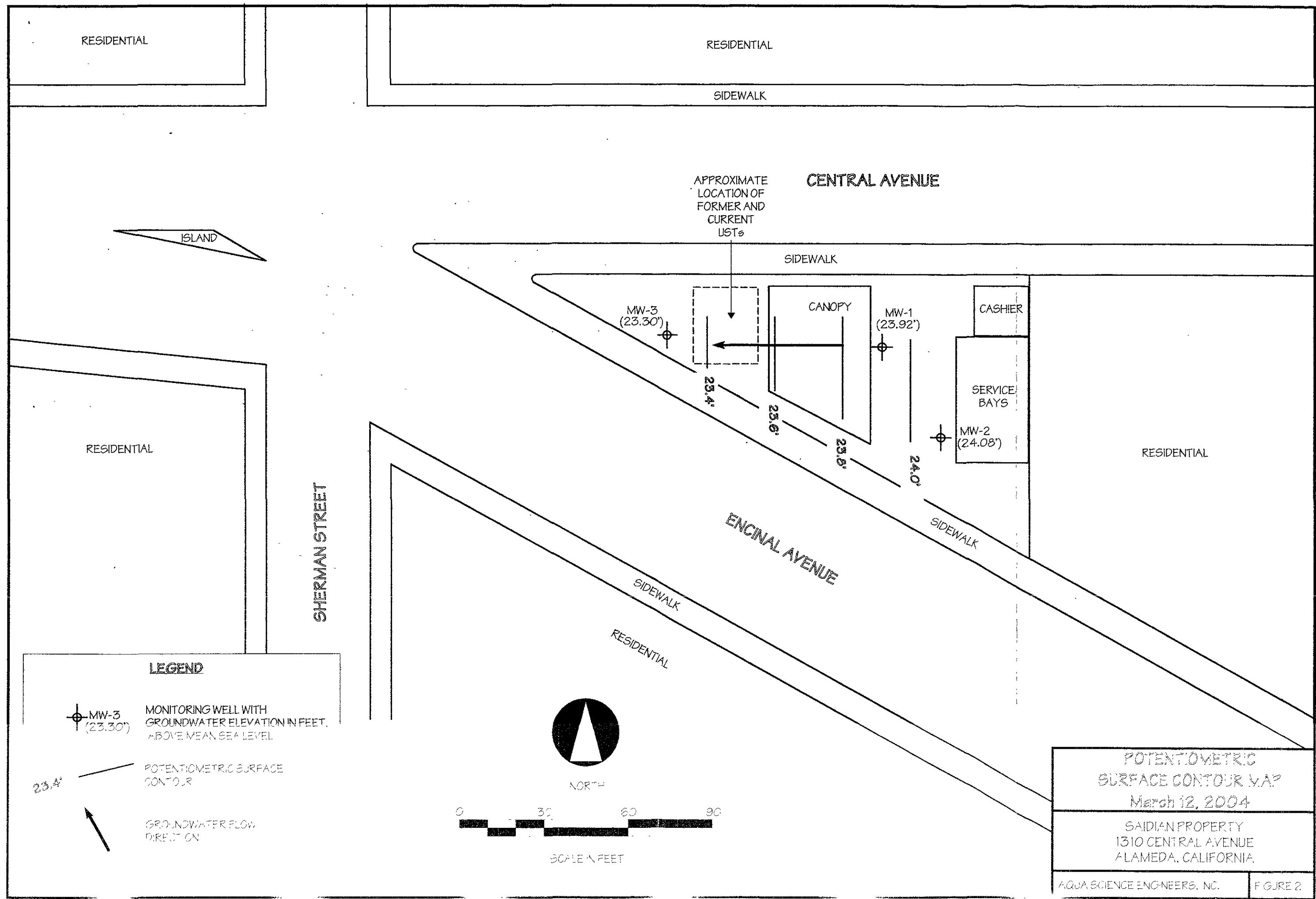
SAIDIAN PROPERTY  
1310 CENTRAL AVENUE  
ALAMEDA, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

Figure 1



NORTH



## **TABLES**

**TABLE ONE**  
**Groundwater Elevation Data**  
**Saldan Property-Alameda**  
**Alameda, CA**

| Well | Date of Measurement | Top of Casing Elevation | Depth to Water (feet) | Groundwater Elevation (msl) |
|------|---------------------|-------------------------|-----------------------|-----------------------------|
| MW-1 | 9/6/99              | 26.85                   | 5.16                  | 21.69                       |
|      | 5/16/00             |                         | 3.24                  | 23.61                       |
|      | 8/3/00              |                         | 4.15                  | 22.70                       |
|      | 12/5/00             |                         | 4.90                  | 21.95                       |
|      | 3/5/01              |                         | 3.04                  | 23.81                       |
|      | 6/4/01              |                         | 4.01                  | 22.84                       |
|      | 6/5/02              |                         | 3.73                  | 23.12                       |
|      | 9/9/02              |                         | 5.06                  | 21.79                       |
|      | 12/19/02            |                         | 4.09                  | 22.76                       |
|      | 3/10/03             |                         | 3.50                  | 23.35                       |
|      | 6/3/03              |                         | 3.66                  | 23.19                       |
|      | 9/18/03             |                         | 4.91                  | 21.94                       |
|      | 12/22/03            |                         | 4.30                  | 22.55                       |
|      | 3/12/04             |                         | 2.93                  | 23.92                       |
| MW-2 | 9/6/99              | 27.18                   | 5.56                  | 21.62                       |
|      | 5/16/00             |                         | 3.52                  | 23.66                       |
|      | 8/3/00              |                         | 4.44                  | 22.74                       |
|      | 12/5/00             |                         | 5.24                  | 21.94                       |
|      | 3/5/01              |                         | 3.28                  | 23.90                       |
|      | 6/4/01              |                         | 4.33                  | 22.85                       |
|      | 6/5/02              |                         | 3.98                  | 23.20                       |
|      | 9/9/02              |                         | 5.34                  | 21.84                       |
|      | 12/19/02            |                         | 4.33                  | 22.85                       |
|      | 3/10/03             |                         | 3.58                  | 23.60                       |
|      | 6/3/03              |                         | 3.87                  | 23.31                       |
|      | 9/18/03             |                         | 5.24                  | 21.94                       |
|      | 12/22/03            |                         | 4.47                  | 22.71                       |
|      | 3/12/04             |                         | 3.10                  | 24.08                       |
| MW-3 | 9/6/00              | 25.30                   | 4.02                  | 21.28                       |
|      | 5/16/00             |                         | 2.06                  | 23.24                       |
|      | 8/3/00              |                         | 3.20                  | 22.10                       |
|      | 12/5/00             |                         | 3.71                  | 21.59                       |
|      | 3/5/01              |                         | 1.90                  | 23.40                       |
|      | 6/4/01              |                         | 2.72                  | 22.58                       |
|      | 6/5/02              |                         | 2.75                  | 22.55                       |
|      | 9/9/02              |                         | 3.88                  | 21.42                       |
|      | 12/19/02            |                         | 2.79                  | 22.51                       |
|      | 3/10/03             |                         | 2.36                  | 22.94                       |
|      | 6/3/03              |                         | 2.65                  | 22.65                       |
|      | 9/19/03             |                         | 3.15                  | 22.15                       |
|      | 12/22/03            |                         | 2.83                  | 22.47                       |
|      | 3/12/04             |                         | 2.00                  | 23.30                       |

**TABLE TWO**  
**Summary of Chemical Analysis of GROUNDWATER Samples**  
**Saldian Property-Alameda**  
**Petroleum Hydrocarbons**  
**All results are in parts per billion (ppb)**

| Well/<br>Date Sampled | TPH<br>Gasoline | TPH<br>Diesel | Benzene | Toluene | Ethyl<br>Benzene | Total<br>Xylenes | MTBE    | TAME  | TBA   | Other<br>Oxygenates |
|-----------------------|-----------------|---------------|---------|---------|------------------|------------------|---------|-------|-------|---------------------|
| <b>MW-1</b>           |                 |               |         |         |                  |                  |         |       |       |                     |
| 9/6/99                | 5,700           | 8,700         | 170     | 59      | 22               | 85               | 20,000  | NA    | NA    | NA                  |
| 5/16/00               | 20,000          | < 7,500       | 38      | 6.3     | 740              | 1,600            | < 5.0   | < 5.0 | < 50  | < 5.0               |
| 8/3/00                | 20,000          | < 6,000       | 56      | 9.7     | 920              | 1,600            | < 0.5   | < 0.5 | < 50  | < 0.5               |
| 12/5/00               | 31,000          | < 4,000       | 64      | 27      | 820              | 2,200            | < 10    | < 5.0 | < 50  | < 5.0               |
| 3/5/01                | 20,000          | < 4,000       | 19      | < 5.0   | 480              | 870              | < 5.0   | < 5.0 | < 50  | < 5.0               |
| 6/4/01                | 23,000          | < 7,000       | 58      | 50      | 710              | 2,100            | 5.1     | < 5.0 | < 50  | < 5.0               |
| 6/5/02                | 7,400           | < 1,500       | 9.3     | 6.7     | 180              | 230              | < 1.0   | < 1.0 | < 10  | < 1.0               |
| 9/9/02                | 8,300           | < 3,500       | 32      | 20      | 390              | 670              | < 2.0   | < 2.0 | < 20  | < 2.0               |
| 12/19/02              | 5,100           | --            | 7.9     | 2.5     | 56               | 93               | < 1.0   | < 1.0 | < 10  | < 1.0               |
| 3/10/03               | 2,000           | < 2,000       | 3.4     | 2.9     | 80               | 98               | < 0.5   | < 0.5 | < 5.0 | < 0.5               |
| 6/3/03                | 7,300           | < 4,000       | 6.8     | 9.9     | 300              | 1000             | 2.3     | < 0.5 | < 5.0 | < 0.5               |
| 9/18/03               | 9,000           | < 3,000       | 26      | 22      | 420              | 1200             | 4.5     | < 1.5 | < 20  | < 1.5               |
| 12/22/03              | 4,300           | < 2,000       | 12      | 6.7     | 200              | 290              | 9.1     | < 1.0 | < 10  | < 1.0               |
| 3/12/04               | 7,000           | < 3,000       | 8.3     | 8.2     | 250              | 760              | 3.9     | < 2.0 | < 20  | < 2.0               |
| <b>MW-2</b>           |                 |               |         |         |                  |                  |         |       |       |                     |
| 9/6/99                | 6,000           | 70            | 1,300   | 92      | 50               | 400              | 6,800   | NA    | NA    | NA                  |
| 5/16/00               | < 50            | < 50          | < 0.5   | < 0.5   | < 0.5            | < 0.5            | < 0.5   | < 50  | < 50  | < 5.0               |
| 8/3/00                | < 50            | < 50          | < 0.5   | < 0.5   | < 0.5            | < 0.5            | < 0.5   | < 50  | < 50  | < 0.5               |
| 12/5/00               | < 50            | 1,400         | < 0.5   | < 0.5   | < 0.5            | < 0.5            | < 0.5   | < 50  | < 50  | < 0.5               |
| 3/5/01                | < 50            | < 50          | < 0.5   | < 0.5   | < 0.5            | < 0.5            | < 0.5   | < 50  | < 50  | < 0.5               |
| 6/4/01                | < 50            | < 50          | < 0.5   | < 0.5   | < 0.5            | < 0.5            | < 0.5   | < 50  | < 50  | < 0.5               |
| 6/5/02                | < 50            | 2,300         | < 0.5   | < 0.5   | < 0.5            | < 0.5            | < 0.5   | < 50  | < 50  | < 0.5               |
| 9/9/02                | < 50            | 1,300         | < 0.5   | < 0.5   | < 0.5            | < 0.5            | 1.4     | < 0.5 | < 50  | < 0.5               |
| 12/19/02              | < 50            | --            | < 0.5   | < 0.5   | < 0.5            | < 0.5            | 16      | < 0.5 | < 50  | < 0.5               |
| 3/10/03               | < 50            | 3,000         | < 0.5   | < 0.5   | < 0.5            | < 0.5            | 1.0     | < 0.5 | < 50  | < 0.5               |
| 6/3/03                | < 50            | 700           | < 0.5   | < 0.5   | < 0.5            | < 0.5            | 2.0     | < 0.5 | < 50  | < 0.5               |
| 9/18/03               | < 50            | 1,400         | < 0.5   | < 0.5   | < 0.5            | < 0.5            | 4.7     | < 0.5 | < 50  | < 0.5               |
| 12/22/03              | < 50            | 1,000         | < 0.5   | < 0.5   | < 0.5            | < 0.5            | 39      | < 0.5 | < 50  | < 0.5               |
| 3/12/04               | < 50            | 250           | < 0.5   | < 0.5   | < 0.5            | < 0.5            | 2.1     | < 0.5 | < 50  | < 0.5               |
| <b>MW-3</b>           |                 |               |         |         |                  |                  |         |       |       |                     |
| 9/6/99                | 43,000          | 870           | 860     | 70      | < 0.5            | 65               | 120,000 | NA    | NA    | NA                  |
| 5/16/00               | 17,000          | < 5,000       | 2,800   | 60      | 380              | 190              | 990     | 9.1   | 350   | < 5.0               |
| 8/3/00                | 16,000          | < 2,000       | 1,600   | 29      | 210              | 53               | 1,200   | 21    | 260   | < 2.0               |
| 12/5/00               | 17,000          | 5,800         | 1,700   | 45      | 460              | 240              | 1,100   | 21    | 230   | < 5.0               |
| 3/5/01                | 29,000          | < 1300        | 2,100   | 68      | 280              | 100              | 180     | < 8.0 | < 80  | < 8.0               |
| 6/4/01                | 17,000          | < 6,000       | 2,000   | 56      | 340              | 230              | 300     | < 10  | 130   | < 10                |
| 6/5/02                | 11,000          | < 2,000       | 1,600   | 46      | 210              | 47               | 790     | < 10  | 220   | < 10                |
| 9/9/02                | 12,000          | < 800         | 1,400   | 44      | 130              | 27               | 760     | < 10  | 160   | < 10                |
| 12/19/02              | 10,000          | --            | 740     | 32      | 180              | 38               | 86      | < 5.0 | < 50  | < 5.0               |
| 3/10/03               | 13,000          | < 6,000       | 1,200   | 42      | 240              | 35               | 470     | 5.3   | 140   | < 5.0               |
| 6/3/03                | 6,500           | < 3,000       | 750     | 21      | 46               | 15               | 1,300   | < 50  | 280   | < 2.5               |
| 9/18/03               | 9,800           | < 3,000       | 1,500   | 38      | 170              | 32               | 420     | < 10  | 150   | < 10                |
| 12/22/03              | 8,800           | < 2,000       | 1,100   | 32      | 82               | 20               | 330     | 5.8   | 52    | < 5.0               |
| 3/12/04               | 7,600           | < 3,000       | 590     | 23      | 69               | 17               | 470     | 9.2   | 63    | < 2.5               |
| ESL                   | 500             | 640           | 46      | 130     | 290              | 13               | 1,800   | NE    | NE    | VARIABLES           |

**Notes:**

MTBE = Methyl-t-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-Butanol

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (July 2003)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

NA = Samples Not Analyzed for this compound.

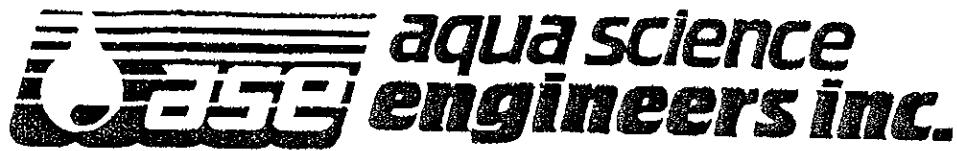
NE = DHS MCLs are not established.

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.

Most recent data in bold

## **APPENDIX A**

Well Sampling Field Logs



## WELL SAMPLING FIELD LOG

Project Name and Address: Az AMEDA  
Job #: \_\_\_\_\_ Date of sampling: 3/12/09  
Well Name: MW-1 Sampled by: OIL  
Total depth of well (feet): 18.0 Well diameter (inches): 2  
Depth to water before sampling (feet): 2.93  
Thickness of floating product if any: \_\_\_\_\_  
Depth of well casing in water (feet): 15.07  
Number of gallons per well casing volume (gallons): 2.4  
Number of well casing volumes to be removed: 3  
Req'd volume of groundwater to be purged before sampling (gallons): 7.2  
Equipment used to purge the well: BAILER  
Time Evacuation Began: 1410 Time Evacuation Finished: 1425  
Approximate volume of groundwater purged: 7.2  
Did the well go dry?: No After how many gallons: \_\_\_\_\_  
Time samples were collected: 1430  
Depth to water at time of sampling: 2.99  
Percent recovery at time of sampling: \_\_\_\_\_  
Samples collected with: BAILER  
Sample color: OLIVE Odor: SLIGHT  
Description of sediment in sample: SILT

### CHEMICAL DATA

| Volume Purged | Temp        | pH          | Conductivity |
|---------------|-------------|-------------|--------------|
| <u>2.4</u>    | <u>66.8</u> | <u>6.55</u> | <u>5158</u>  |
| <u>4.8</u>    | <u>66.7</u> | <u>6.73</u> | <u>4902</u>  |
| <u>7.2</u>    | <u>65.7</u> | <u>6.45</u> | <u>4183</u>  |
| _____         | _____       | _____       | _____        |
| _____         | _____       | _____       | _____        |
| _____         | _____       | _____       | _____        |

### SAMPLES COLLECTED

| Sample      | # of containers | Volume & type container | Pres       | Iced?    | Analysis |
|-------------|-----------------|-------------------------|------------|----------|----------|
| <u>MW-1</u> | <u>5</u>        | <u>4.0 ml VIAL</u>      | <u>HCl</u> | <u>Y</u> | _____    |
| _____       | _____           | _____                   | _____      | _____    | _____    |
| _____       | _____           | _____                   | _____      | _____    | _____    |
| _____       | _____           | _____                   | _____      | _____    | _____    |
| _____       | _____           | _____                   | _____      | _____    | _____    |



## WELL SAMPLING FIELD LOG

Project Name and Address: An Am 001  
Job #: 36-5 Date of sampling: 3/21/04  
Well Name: Mw-2 Sampled by: DLT  
Total depth of well (feet): 17.8 Well diameter (inches): 2  
Depth to water before sampling (feet): 3.10  
Thickness of floating product if any: —  
Depth of well casing in water (feet): 14.7  
Number of gallons per well casing volume (gallons): 2.4  
Number of well casing volumes to be removed: 1  
Req'd volume of groundwater to be purged before sampling (gallons): 7.5  
Equipment used to purge the well: RAILER  
Time Evacuation Began: 1335 Time Evacuation Finished: 1344  
Approximate volume of groundwater purged: —  
Did the well go dry?: NO After how many gallons: —  
Time samples were collected: 1355  
Depth to water at time of sampling: 3.25  
Percent recovery at time of sampling: —  
Samples collected with: RAILER  
Sample color: — Odor: —  
Description of sediment in sample: —

### CHEMICAL DATA

| Volume Purged | Temp        | pH          | Conductivity |
|---------------|-------------|-------------|--------------|
| <u>2.1</u>    | <u>65.7</u> | <u>6.23</u> | <u>312</u>   |
| <u>4.8</u>    | <u>64.3</u> | <u>6.19</u> | <u>274</u>   |
| <u>7.2</u>    | <u>64.1</u> | <u>6.43</u> | <u>301</u>   |
| <u>—</u>      | <u>—</u>    | <u>—</u>    | <u>—</u>     |
| <u>—</u>      | <u>—</u>    | <u>—</u>    | <u>—</u>     |
| <u>—</u>      | <u>—</u>    | <u>—</u>    | <u>—</u>     |

### SAMPLES COLLECTED

| Sample      | # of containers | Volume & type container | Pres         | Iced?    | Analysis |
|-------------|-----------------|-------------------------|--------------|----------|----------|
| <u>Mw-2</u> | <u>5</u>        | <u>16 oz WA</u>         | <u>If: C</u> | <u>Y</u> | <u>—</u> |
| <u>—</u>    | <u>—</u>        | <u>—</u>                | <u>—</u>     | <u>—</u> | <u>—</u> |
| <u>—</u>    | <u>—</u>        | <u>—</u>                | <u>—</u>     | <u>—</u> | <u>—</u> |
| <u>—</u>    | <u>—</u>        | <u>—</u>                | <u>—</u>     | <u>—</u> | <u>—</u> |
| <u>—</u>    | <u>—</u>        | <u>—</u>                | <u>—</u>     | <u>—</u> | <u>—</u> |



## WELL SAMPLING FIELD LOG

Project Name and Address: Alameda  
Job #: 3648 Date of sampling: 3/2/04  
Well Name: MW-3 Sampled by: OH  
Total depth of well (feet): 18 Well diameter (inches): 2  
Depth to water before sampling (feet): 2.00  
Thickness of floating product if any: -  
Depth of well casing in water (feet): 16  
Number of gallons per well casing volume (gallons): 2.58  
Number of well casing volumes to be removed: 3  
Req'd volume of groundwater to be purged before sampling (gallons): 8.1  
Equipment used to purge the well: SAILOR  
Time Evacuation Began: 10115 Time Evacuation Finished: 1505  
Approximate volume of groundwater purged: 8.1  
Did the well go dry?: No After how many gallons: -  
Time samples were collected: 1507  
Depth to water at time of sampling: 2.50  
Percent recovery at time of sampling: -  
Samples collected with: SAILOR  
Sample color: clear Odor: strong  
Description of sediment in sample: -

### CHEMICAL DATA

| Volume Purged | Temp | pH   | Conductivity |
|---------------|------|------|--------------|
| 2.7           | 58.2 | 6.54 | 546          |
| 5.4           | 65   | 6.55 | 555          |
| 8.1           | 65.8 | 6.73 | 535          |
|               |      |      |              |
|               |      |      |              |
|               |      |      |              |

### SAMPLES COLLECTED

| Sample | # of containers | Volume & type container | Pres | Iced? | Analysis |
|--------|-----------------|-------------------------|------|-------|----------|
| MW-3   | 5               | 40 ml Vials             | ice  | Y     |          |

## **APPENDIX B**

Certified Analytical Report  
and  
Chain of Custody Documentation



Report Number : 37445

Date : 3/20/2004

Damian Hriciga  
Aqua Science Engineers, Inc.  
208 W. El Pintado Road  
Danville, CA 94526

Subject : 3 Water Samples  
Project Name : ALAMEDA  
Project Number : 3648

Dear Mr. Hriciga,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Dahl".

Jeff Dahl



Report Number : 37445

Date : 3/20/2004

Subject : 3 Water Samples  
Project Name : ALAMEDA  
Project Number : 3648

## Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for samples MW-1 and MW-3.

Approved By:   
Jeff Dahl

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



Report Number : 37445

Date : 3/20/2004

Project Name : ALAMEDA

Project Number : 3648

Sample : MW-1 Matrix : Water Lab Number : 37445-01

Sample Date : 3/12/2004

| Parameter                     | Measured Value | Method Reporting Limit | Units      | Analysis Method | Date Analyzed |
|-------------------------------|----------------|------------------------|------------|-----------------|---------------|
| Benzene                       | 8.3            | 2.0                    | ug/L       | EPA 8260B       | 3/19/2004     |
| Toluene                       | 8.2            | 2.0                    | ug/L       | EPA 8260B       | 3/19/2004     |
| Ethylbenzene                  | 250            | 2.0                    | ug/L       | EPA 8260B       | 3/19/2004     |
| Total Xylenes                 | 760            | 2.0                    | ug/L       | EPA 8260B       | 3/19/2004     |
| Methyl-t-butyl ether (MTBE)   | 3.9            | 2.0                    | ug/L       | EPA 8260B       | 3/19/2004     |
| Diisopropyl ether (DIPE)      | < 2.0          | 2.0                    | ug/L       | EPA 8260B       | 3/19/2004     |
| Ethyl-t-butyl ether (ETBE)    | < 2.0          | 2.0                    | ug/L       | EPA 8260B       | 3/19/2004     |
| Tert-amyl methyl ether (TAME) | < 2.0          | 2.0                    | ug/L       | EPA 8260B       | 3/19/2004     |
| Tert-Butanol                  | < 20           | 20                     | ug/L       | EPA 8260B       | 3/19/2004     |
| TPH as Gasoline               | 7000           | 200                    | ug/L       | EPA 8260B       | 3/19/2004     |
| 1,2-Dichloroethane            | < 2.0          | 2.0                    | ug/L       | EPA 8260B       | 3/19/2004     |
| 1,2-Dibromoethane             | < 2.0          | 2.0                    | ug/L       | EPA 8260B       | 3/19/2004     |
| Toluene - d8 (Surr)           | 98.0           |                        | % Recovery | EPA 8260B       | 3/19/2004     |
| 4-Bromofluorobenzene (Surr)   | 93.8           |                        | % Recovery | EPA 8260B       | 3/19/2004     |
| Dibromofluoromethane (Surr)   | 96.9           |                        | % Recovery | EPA 8260B       | 3/19/2004     |
| 1,2-Dichloroethane-d4 (Surr)  | 100            |                        | % Recovery | EPA 8260B       | 3/19/2004     |
| TPH as Diesel                 | < 3000         | 3000                   | ug/L       | M EPA 8015      | 3/17/2004     |
| Octacosane (Diesel Surrogate) | 116            |                        | % Recovery | M EPA 8015      | 3/17/2004     |

Approved By: Jeff Dahl

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 37445  
Date : 3/20/2004

Project Name : ALAMEDA

Project Number : 3648

Sample : MW-2 Matrix : Water Lab Number : 37445-02

Sample Date : 3/12/2004

| Parameter                     | Measured Value | Method Reporting Limit | Units      | Analysis Method | Date Analyzed |
|-------------------------------|----------------|------------------------|------------|-----------------|---------------|
| Benzene                       | < 0.50         | 0.50                   | ug/L       | EPA 8260B       | 3/16/2004     |
| Toluene                       | < 0.50         | 0.50                   | ug/L       | EPA 8260B       | 3/16/2004     |
| Ethylbenzene                  | < 0.50         | 0.50                   | ug/L       | EPA 8260B       | 3/16/2004     |
| Total Xylenes                 | < 0.50         | 0.50                   | ug/L       | EPA 8260B       | 3/16/2004     |
| Methyl-t-butyl ether (MTBE)   | 2.1            | 0.50                   | ug/L       | EPA 8260B       | 3/16/2004     |
| Diisopropyl ether (DIPE)      | < 0.50         | 0.50                   | ug/L       | EPA 8260B       | 3/16/2004     |
| Ethyl-t-butyl ether (ETBE)    | < 0.50         | 0.50                   | ug/L       | EPA 8260B       | 3/16/2004     |
| Tert-amyl methyl ether (TAME) | < 0.50         | 0.50                   | ug/L       | EPA 8260B       | 3/16/2004     |
| Tert-Butanol                  | < 5.0          | 5.0                    | ug/L       | EPA 8260B       | 3/16/2004     |
| TPH as Gasoline               | < 50           | 50                     | ug/L       | EPA 8260B       | 3/16/2004     |
| 1,2-Dichloroethane            | < 0.50         | 0.50                   | ug/L       | EPA 8260B       | 3/16/2004     |
| 1,2-Dibromoethane             | < 0.50         | 0.50                   | ug/L       | EPA 8260B       | 3/16/2004     |
| Toluene - d8 (Surr)           | 99.7           |                        | % Recovery | EPA 8260B       | 3/16/2004     |
| 4-Bromofluorobenzene (Surr)   | 91.4           |                        | % Recovery | EPA 8260B       | 3/16/2004     |
| Dibromofluoromethane (Surr)   | 95.8           |                        | % Recovery | EPA 8260B       | 3/16/2004     |
| 1,2-Dichloroethane-d4 (Surr)  | 101            |                        | % Recovery | EPA 8260B       | 3/16/2004     |
| TPH as Diesel                 | 250            | 50                     | ug/L       | M EPA 8015      | 3/17/2004     |
| Octacosane (Diesel Surrogate) | 109            |                        | % Recovery | M EPA 8015      | 3/17/2004     |

Approved By: Jeff Dahl

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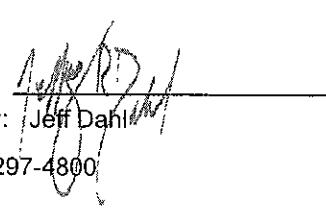
Report Number : 37445  
Date : 3/20/2004

Project Name : ALAMEDA

Project Number : 3648

Sample : MW-3                    Matrix : Water                    Lab Number : 37445-03  
Sample Date : 3/12/2004

| Parameter                     | Measured Value | Method Reporting Limit | Units      | Analysis Method | Date Analyzed |
|-------------------------------|----------------|------------------------|------------|-----------------|---------------|
| Benzene                       | 590            | 2.5                    | ug/L       | EPA 8260B       | 3/18/2004     |
| Toluene                       | 23             | 2.5                    | ug/L       | EPA 8260B       | 3/18/2004     |
| Ethylbenzene                  | 69             | 2.5                    | ug/L       | EPA 8260B       | 3/18/2004     |
| Total Xylenes                 | 17             | 2.5                    | ug/L       | EPA 8260B       | 3/18/2004     |
| Methyl-t-butyl ether (MTBE)   | 470            | 2.5                    | ug/L       | EPA 8260B       | 3/18/2004     |
| Diisopropyl ether (DIPE)      | < 2.5          | 2.5                    | ug/L       | EPA 8260B       | 3/18/2004     |
| Ethyl-t-butyl ether (ETBE)    | < 2.5          | 2.5                    | ug/L       | EPA 8260B       | 3/18/2004     |
| Tert-amyl methyl ether (TAME) | 9.2            | 2.5                    | ug/L       | EPA 8260B       | 3/18/2004     |
| Tert-Butanol                  | 63             | 25                     | ug/L       | EPA 8260B       | 3/18/2004     |
| TPH as Gasoline               | 7600           | 250                    | ug/L       | EPA 8260B       | 3/18/2004     |
| 1,2-Dichloroethane            | < 2.5          | 2.5                    | ug/L       | EPA 8260B       | 3/18/2004     |
| 1,2-Dibromoethane             | < 2.5          | 2.5                    | ug/L       | EPA 8260B       | 3/18/2004     |
| Toluene - d8 (Surr)           | 100            |                        | % Recovery | EPA 8260B       | 3/18/2004     |
| 4-Bromofluorobenzene (Surr)   | 99.0           |                        | % Recovery | EPA 8260B       | 3/18/2004     |
| Dibromofluoromethane (Surr)   | 95.7           |                        | % Recovery | EPA 8260B       | 3/18/2004     |
| 1,2-Dichloroethane-d4 (Surr)  | 98.2           |                        | % Recovery | EPA 8260B       | 3/18/2004     |
| TPH as Diesel                 | < 3000         | 3000                   | ug/L       | M EPA 8015      | 3/17/2004     |
| Octacosane (Diesel Surrogate) | 114            |                        | % Recovery | M EPA 8015      | 3/17/2004     |

Approved By:   
Jeff Dahl

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 37445

Date : 3/20/2004

**QC Report : Method Blank Data****Project Name : ALAMEDA****Project Number : 3648**

| Parameter                     | Measured Value | Method Reporting Limit | Units | Analysis Method | Date Analyzed |
|-------------------------------|----------------|------------------------|-------|-----------------|---------------|
| TPH as Diesel                 | < 50           | 50                     | ug/L  | M EPA 8015      | 3/16/2004     |
| Octacosane (Diesel Surrogate) | 114            |                        | %     | M EPA 8015      | 3/16/2004     |
| Benzene                       | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/16/2004     |
| Toluene                       | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/16/2004     |
| Ethylbenzene                  | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/16/2004     |
| Total Xylenes                 | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/16/2004     |
| Methyl-t-butyl ether (MTBE)   | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/16/2004     |
| Diisopropyl ether (DIPE)      | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/16/2004     |
| Ethyl-t-butyl ether (ETBE)    | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/16/2004     |
| Tert-amyl methyl ether (TAME) | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/16/2004     |
| Tert-Butanol                  | < 5.0          | 5.0                    | ug/L  | EPA 8260B       | 3/16/2004     |
| TPH as Gasoline               | < 50           | 50                     | ug/L  | EPA 8260B       | 3/16/2004     |
| 1,2-Dichloroethane            | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/16/2004     |
| 1,2-Dibromoethane             | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/16/2004     |
| Toluene - d8 (Surr)           | 99.1           |                        | %     | EPA 8260B       | 3/16/2004     |
| 4-Bromofluorobenzene (Surr)   | 96.3           |                        | %     | EPA 8260B       | 3/16/2004     |
| Dibromofluoromethane (Surr)   | 95.4           |                        | %     | EPA 8260B       | 3/16/2004     |
| 1,2-Dichloroethane-d4 (Surr)  | 98.6           |                        | %     | EPA 8260B       | 3/16/2004     |
| Benzene                       | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/17/2004     |
| Toluene                       | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/17/2004     |
| Ethylbenzene                  | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/17/2004     |
| Total Xylenes                 | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/17/2004     |
| Methyl-t-butyl ether (MTBE)   | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/17/2004     |
| Diisopropyl ether (DIPE)      | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/17/2004     |
| Ethyl-t-butyl ether (ETBE)    | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/17/2004     |
| Tert-amyl methyl ether (TAME) | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/17/2004     |
| Tert-Butanol                  | < 5.0          | 5.0                    | ug/L  | EPA 8260B       | 3/17/2004     |
| TPH as Gasoline               | < 50           | 50                     | ug/L  | EPA 8260B       | 3/17/2004     |
| 1,2-Dichloroethane            | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/17/2004     |
| 1,2-Dibromoethane             | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/17/2004     |
| Toluene - d8 (Surr)           | 99.8           |                        | %     | EPA 8260B       | 3/17/2004     |

| Parameter                     | Measured Value | Method Reporting Limit | Units | Analysis Method | Date Analyzed |
|-------------------------------|----------------|------------------------|-------|-----------------|---------------|
| 4-Bromofluorobenzene (Surr)   | 92.9           |                        | %     | EPA 8260B       | 3/17/2004     |
| Dibromofluoromethane (Surr)   | 93.2           |                        | %     | EPA 8260B       | 3/17/2004     |
| 1,2-Dichloroethane-d4 (Surr)  | 101            |                        | %     | EPA 8260B       | 3/17/2004     |
| Benzene                       | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/19/2004     |
| Toluene                       | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/19/2004     |
| Ethylbenzene                  | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/19/2004     |
| Total Xylenes                 | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/19/2004     |
| Methyl-t-butyl ether (MTBE)   | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/19/2004     |
| Diisopropyl ether (DIPE)      | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/19/2004     |
| Ethyl-t-butyl ether (ETBE)    | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/19/2004     |
| Tert-amyl methyl ether (TAME) | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/19/2004     |
| Tert-Butanol                  | < 5.0          | 5.0                    | ug/L  | EPA 8260B       | 3/19/2004     |
| TPH as Gasoline               | < 50           | 50                     | ug/L  | EPA 8260B       | 3/19/2004     |
| 1,2-Dichloroethane            | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/19/2004     |
| 1,2-Dibromoethane             | < 0.50         | 0.50                   | ug/L  | EPA 8260B       | 3/19/2004     |
| Toluene - d8 (Surr)           | 101            |                        | %     | EPA 8260B       | 3/19/2004     |
| 4-Bromofluorobenzene (Surr)   | 91.3           |                        | %     | EPA 8260B       | 3/19/2004     |
| Dibromofluoromethane (Surr)   | 99.2           |                        | %     | EPA 8260B       | 3/19/2004     |
| 1,2-Dichloroethane-d4 (Surr)  | 98.2           |                        | %     | EPA 8260B       | 3/19/2004     |

Approved By: Jeff Dahl

KIFF ANALYTICAL, LLC  
2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 37445

Date : 3/20/2004

## QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : ALAMEDA

Project Number : 3648

| Parameter            | Spiked Sample | Sample Value | Spike Level | Spike Dup. Level | Spiked Sample Value | Duplicate Spiked Sample Value | Units | Analysis Method | Date Analyzed | Spiked Sample Percent Recov. | Duplicate Spiked Sample Percent Recov. | Relative Percent Diff. | Spiked Sample Percent Recov. Limit | Relative Percent Diff. Limit |
|----------------------|---------------|--------------|-------------|------------------|---------------------|-------------------------------|-------|-----------------|---------------|------------------------------|--|------------------------|------------------------------------|------------------------------|
| TPH as Diesel        | Blank         | <50          | 1000        | 1000             | 1040                | 1120                          | ug/L  | M EPA 8015      | 3/16/04       | 104                          | 112                                    | 8.06                   | 70-130                             | 25                           |
| Benzene              | 37420-06      | <0.50        | 40.0        | 40.0             | 38.2                | 37.5                          | ug/L  | EPA 8260B       | 3/16/04       | 95.6                         | 93.8                                   | 1.93                   | 70-130                             | 25                           |
| Toluene              | 37420-06      | <0.50        | 40.0        | 40.0             | 39.0                | 38.1                          | ug/L  | EPA 8260B       | 3/16/04       | 97.6                         | 95.2                                   | 2.46                   | 70-130                             | 25                           |
| Tert-Butanol         | 37420-06      | 240          | 200         | 200              | 438                 | 444                           | ug/L  | EPA 8260B       | 3/16/04       | 99.8                         | 102                                    | 2.67                   | 70-130                             | 25                           |
| Methyl-t-Butyl Ether | 37420-06      | 31           | 40.0        | 40.0             | 70.3                | 68.9                          | ug/L  | EPA 8260B       | 3/16/04       | 97.9                         | 94.3                                   | 3.79                   | 70-130                             | 25                           |
| Benzene              | 37462-02      | <0.50        | 40.0        | 40.0             | 38.3                | 37.8                          | ug/L  | EPA 8260B       | 3/17/04       | 95.8                         | 94.6                                   | 1.29                   | 70-130                             | 25                           |
| Toluene              | 37462-02      | <0.50        | 40.0        | 40.0             | 39.7                | 39.5                          | ug/L  | EPA 8260B       | 3/17/04       | 99.2                         | 98.8                                   | 0.405                  | 70-130                             | 25                           |
| Tert-Butanol         | 37462-02      | <5.0         | 200         | 200              | 195                 | 197                           | ug/L  | EPA 8260B       | 3/17/04       | 97.5                         | 98.4                                   | 0.981                  | 70-130                             | 25                           |
| Methyl-t-Butyl Ether | 37462-02      | <0.50        | 40.0        | 40.0             | 35.7                | 36.4                          | ug/L  | EPA 8260B       | 3/17/04       | 89.4                         | 91.1                                   | 1.95                   | 70-130                             | 25                           |
| Benzene              | 37527-01      | <0.50        | 40.0        | 40.0             | 42.2                | 42.4                          | ug/L  | EPA 8260B       | 3/19/04       | 105                          | 106                                    | 0.607                  | 70-130                             | 25                           |
| Toluene              | 37527-01      | <0.50        | 40.0        | 40.0             | 42.7                | 42.3                          | ug/L  | EPA 8260B       | 3/19/04       | 107                          | 106                                    | 0.893                  | 70-130                             | 25                           |
| Tert-Butanol         | 37527-01      | <5.0         | 200         | 200              | 209                 | 213                           | ug/L  | EPA 8260B       | 3/19/04       | 104                          | 107                                    | 2.22                   | 70-130                             | 25                           |
| Methyl-t-Butyl Ether | 37527-01      | <0.50        | 40.0        | 40.0             | 38.6                | 38.3                          | ug/L  | EPA 8260B       | 3/19/04       | 96.5                         | 95.8                                   | 0.709                  | 70-130                             | 25                           |

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By: Jeff Dahl

Report Number : 37445

Date : 3/20/2004

QC Report : Laboratory Control Sample (LCS)

Project Name : **ALAMEDA**

Project Number : **3648**

| Parameter            | Spike Level | Units | Analysis Method | Date Analyzed | LCS Percent Recov. | LCS Percent Recov. Limit |
|----------------------|-------------|-------|-----------------|---------------|--------------------|--------------------------|
| Benzene              | 40.0        | ug/L  | EPA 8260B       | 3/16/04       | 97.8               | 70-130                   |
| Toluene              | 40.0        | ug/L  | EPA 8260B       | 3/16/04       | 101                | 70-130                   |
| Tert-Butanol         | 200         | ug/L  | EPA 8260B       | 3/16/04       | 96.1               | 70-130                   |
| Methyl-t-Butyl Ether | 40.0        | ug/L  | EPA 8260B       | 3/16/04       | 91.3               | 70-130                   |
|                      |             |       |                 |               |                    |                          |
| Benzene              | 40.0        | ug/L  | EPA 8260B       | 3/17/04       | 97.4               | 70-130                   |
| Toluene              | 40.0        | ug/L  | EPA 8260B       | 3/17/04       | 100                | 70-130                   |
| Tert-Butanol         | 200         | ug/L  | EPA 8260B       | 3/17/04       | 93.4               | 70-130                   |
| Methyl-t-Butyl Ether | 40.0        | ug/L  | EPA 8260B       | 3/17/04       | 88.8               | 70-130                   |
|                      |             |       |                 |               |                    |                          |
| Benzene              | 40.0        | ug/L  | EPA 8260B       | 3/19/04       | 107                | 70-130                   |
| Toluene              | 40.0        | ug/L  | EPA 8260B       | 3/19/04       | 108                | 70-130                   |
| Tert-Butanol         | 200         | ug/L  | EPA 8260B       | 3/19/04       | 106                | 70-130                   |
| Methyl-t-Butyl Ether | 40.0        | ug/L  | EPA 8260B       | 3/19/04       | 95.7               | 70-130                   |

KIFF ANALYTICAL, LLC

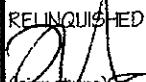
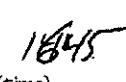
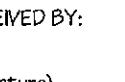
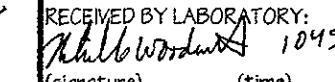
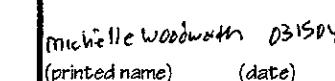
2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By: Jeff Dahl

Aqua Science Engineers, Inc.  
208 W. El Pintado Road  
Danville, CA 94526  
(925) 820-9391  
FAX (925) 837-4853

# Chain of Custody 37445

PAGE 1 OF 1

|  |   |  |   |   |
|--|---|--|---|---|
| SAMPLER (SIGNATURE)  | PROJECT NAME  | ALAMEDA  | JOB NO.   | 3648  |
| ADDRESS  |   | ALAMEDA, CA  |   |   |
| ANALYSIS REQUEST   |   |  |   |   |
| SPECIAL INSTRUCTIONS:<br>SEND EDF<br>TO 600102128  |   |  |   |   |
| SAMPLE ID.   | DATE  | TIME   | MATRIX  | NO. OF SAMPLES  |
| MW-1   | 3/12  | 1430   | W   | 5   |
| MW-2   | 1   | 1350   | W   | 5   |
| MW-3   | 1   | 1507   | W   | 5   |
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| RELINQUISHED BY:   | RECEIVED BY:  | RELINQUISHED BY:   | RECEIVED BY LABORATORY:   | COMMENTS:   |
| <br>(signature) | <br>(time) | <br>(signature) | <br>(time) | <br>(signature)    |
| DAMIAN HRICICA<br>(printed name)   | 3/12/04<br>(date)   | (printed name)   | (date)  | <br>(printed name) |
| Company- ASE   | Company-  | Company-   | Company- Kiff Analytical  | TURN AROUND TIME<br>STANDARD 24H 48H 72H<br>OTHER:  |