

Amy Leech

Alameda County Department of Environmental Health 1131 Harbor Bay Parkway, #250

Alameda CA 94502-6577

96 APR 10 PM 1: 37

510/528-4234 Fax 528-2613

4 April 1996

Project No. P178

Data Submittal
Groundwater Monitoring
21031 Western Boulevard
Hayward CA

Dear Ms. Leech:

Attached is our data submittal documenting analytical results of groundwater monitoring performed on 22 March 1996 for wells MW-1, MW-2, and MW-3 (Figures 1 and 2).

Groundwater monitoring activities are summarized in the following tables, figures, and attachments:

- Table 1 presents a chronology of environmental activities.
- Table 2 summarizes groundwater level measurements.
- Table 3 includes groundwater purging and sampling information.
- Table 4 summarizes analytical results of groundwater sampling.
- Figure 2 depicts groundwater elevation data.
- Attachment 1 contains the standard operating procedure we used.
- · Attachment 2 contains the groundwater sampling forms.
- Attachment 3 contains the chain-of-custody form.
- Attachment 4 contains the laboratory data report.

Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline, and benzene, ethylbenzene, toluene, and xylenes. Analytical results revealed nondetectable concentrations:

Purge water was contained in a steel drum. This water will be discharged to the sanitary sewer.

Please call if you have any questions.

Sincerely,

STREAMBORN

Keith D. Beury

Environmental Engineer

Attachments

cc: William and Kathy Florence, Oakland CA

Kevin Graves/San Francisco Bay Regional Water Quality Control Board, Oakland CA

|                                      |                               |   | Y 4              |
|--------------------------------------|-------------------------------|---|------------------|
|                                      | 77                            | Table 1   | 10 C4 1:04       |
|                                      | Environmenta                  | al Chronology for 21031 Western Boulevard, Hayward CA   |                  |
| Date                                 | Performed By                  | Description   | O A              |
| April 1989                           | William and<br>Kathy Florence | <ul> <li>Property at 21031 Western Boulevard was purchased by William and Kathy<br/>Florence.</li> </ul>  | بر               |
|                                      |                               | <ul> <li>At the time the property was purchased by the Florences, a 1,000-gallon<br/>underground gasoline tank existed near the east side of the onsite building. The<br/>tank was installed by a previous owner of the property.</li> </ul>  | هیمپور ۲۰ ا<br>ا |
| 21 August 1989                       | West Coast<br>Tank Testing    | <ul> <li>The tank was removed.</li> <li>Approximately 20 cubic yards of gasoline-contaminated soil were overexcavated and stockpiled onsite.</li> </ul>   | <u> </u><br>     |
|                                      |                               | <ul> <li>Two soil samples were collected from the excavation. The sample depths and<br/>exact locations were not documented. Analytical results indicated elevated<br/>concentrations of TPH-gasoline and BTEX.</li> </ul>  |                  |
| 22 September 1989                    | West Coast<br>Tank Testing    | <ul> <li>Approximately 80 cubic yards of gasoline-contaminated soil were excavated and<br/>stockpiled onsite with the previously-excavated 20 cubic yards. The 100 cubic<br/>yards of overexcavated soil were apparently aerated onsite. Final disposition of<br/>the soil was not documented.</li> </ul> | <br> <br> <br>   |
| September and<br>October 1989        | B&B Associated<br>Services    | • Several soil samples were collected. The sample depths and exact locations were not documented, but some of the samples were presumably collected from the limits of the excavation. Analytical results indicated elevated concentrations of TPH-gasoline and BTEX.                                     |                  |
| 14 November 1994                     | Streamborn                    | Workplan describing soil and groundwater investigation was submitted to<br>Alameda County Department of Environmental Health.   |                  |
| 2 December 1994                      | Alameda<br>County             | Comments regarding the workplan were provided by Alameda County Department of Environmental Health.   |                  |
| 22 December 1994                     | Streamborn                    | Workplan addendum was submitted to Alameda County.  | ]                |
| 23 January 1995                      | Alameda<br>County             | Alameda County approved the workplan and addendum.  | }                |
| 19 and 20<br>December 1995           | Streamborn                    | Soil borings B-1 and B-2 were drilled adjacent to the former tank excavation.     Soil samples collected from the borings revealed nondetectable concentrations of TPH-gasoline and BTEX, and nondetectable or nonelevated concentrations of lead.  |                  |
|                                      |                               | • Monitoring well MW-1 was installed east of the former tank excavation. Soil samples from the boring revealed nondetectable concentrations of TPH-gasoline and BTEX, and nondetectable or nonelevated concentrations of lead.  |                  |
|                                      |                               | • Monitoring well MW-2 was installed northwest of the former tank excavation. Soil samples from the boring revealed nondetectable concentrations of TPH-gasoline and BTEX, and nondetectable or nonelevated concentrations of lead.   |                  |
|                                      |                               | • Monitoring well MW-3 was installed west of the former tank excavation. Soil samples from the boring revealed nondetectable concentrations of TPH-gasoline and BTEX, and nondetectable or nonelevated concentrations of lead.  |                  |
|                                      |                               | Level survey of wells performed.  | j                |
| 26 December 1995<br>27 December 1995 | Streamborn Streamborn         | <ul> <li>Monitoring wells MW-1, MW-2, and MW-3 were developed.</li> <li>Groundwater samples were collected from wells MW-1, MW-2, and MW-3.</li> <li>Groundwater levels measured. Results revealed nondetectable concentrations of</li> </ul>   |                  |
| 22 March 1996                        | Streamborn                    | <ul> <li>TPH-gasoline, BTEX, and dissolved lead.</li> <li>Groundwater samples were collected from wells MW-1, MW-2, and MW-3. Groundwater levels measured. Results revealed nondetectable concentrations of TPH-gasoline and BTEX.</li> </ul>   |                  |

- (a) Alameda County = Alameda County Department of Environmental Health.
- (b) TPH-gasoline = total petroleum hydrocarbons as gasoline.
- (c) BTEX = benzene, toluene, ethylbenzene, and xylenes.

Table 2
Groundwater Level Measurements for 21031 Western Boulevard, Hayward CA

| L           | ocation                        | М                          | W-1   | М                          | W-2  | MW-3  |           |  |
|-------------|--------------------------------|----------------------------|---|----------------------------|--|---|-----------|--|
| Meas        | suring Point                   | Side, Elev<br>(Ground Surf | Casing-North ation 999.63 ace-North Side, n 1,000.09) | Side, Elev<br>(Ground Surf | Casing-North ation 999.40 ace-North Side, on 999.81) | Top of PVC Casing-North<br>Side, Elevation 999.72<br>(Ground Surface-North Side,<br>Elevation 1,000.16) |           |  |
| Measured By | Parameter or Date              | Depth                      | Elevation   | Depth                      | Elevation  | Depth   | Elevation |  |
| Streamborn  | 27 December 1995               | 25.13                      | 974.50  | 24.73                      | 974.67   | 25.27   | 974.45    |  |
| Streamborn  | 22 March 1996                  | 19.02                      | 980.61  | 18.66                      | 980.74   | 19.13 980.59  |           |  |
| Streamborn  | Total Depth (last measurement) | 34.9                       | -   | 34.9                       | -  | 34.9  | -         |  |

- (a) Measurements in units of feet.
- (b) Groundwater elevations referenced to site-specific datum = bench mark at surface of concrete slab, south side of roll up door. Assumed elevation = 1,000.00 feet.

Table 3
Monitoring Well Purging and Sampling Information

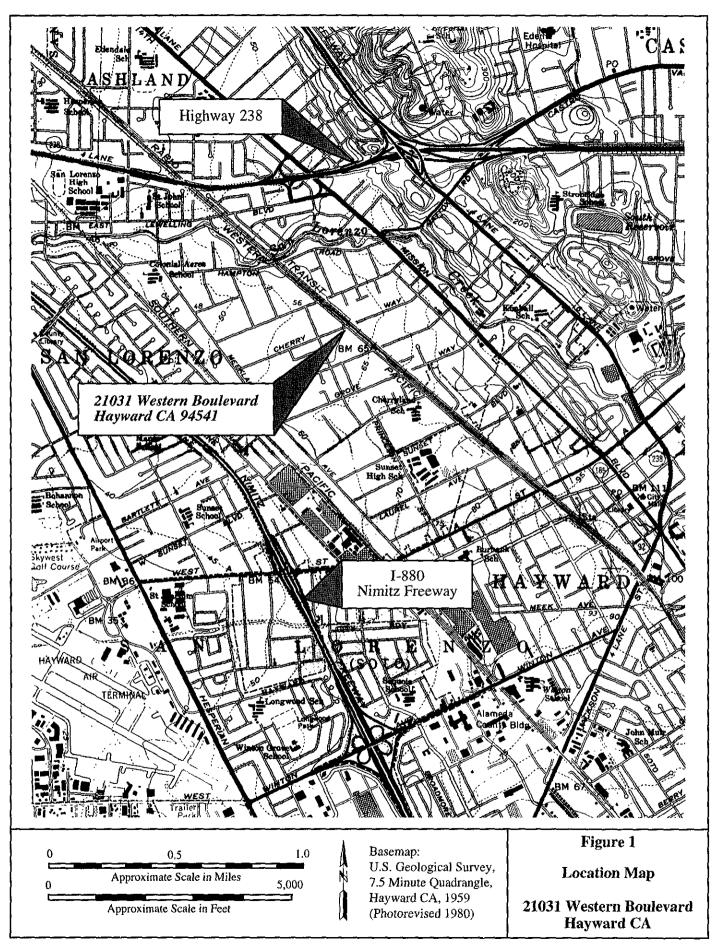
| Sample<br>Location | Sample<br>Identification | Sample Date         | Sample<br>Time | Type of Sample   | ORP<br>(mV) | pН  | Specific<br>Conductance<br>(µmho/cm <sup>2</sup> at<br>field temperature) | Dissolved<br>Oxygen<br>(mg/L) | Temperature<br>(degrees C) | Purge<br>Method | Purge<br>Duration<br>(minutes) | Volume<br>Purged<br>(gallons) | Purged<br>Dry ? | Static Casing<br>Volumes<br>Removed | Turbidity              |
|--------------------|--------------------------|---------------------|----------------|------------------|-------------|-----|---|-------------------------------|----------------------------|-----------------|--------------------------------|-------------------------------|-----------------|-------------------------------------|------------------------|
| MW-1               | MW-1(27Dec95)            | 27 December<br>1995 | 13:55          | Grab<br>(bailer) | 115         | 6.8 | NM  | 4.6                           | 17.7                       | Bailer          | 20                             | 5                             | No              | ±3.2                                | Translucent<br>, Brown |
|                    | MW-1(22Mar96)            | 22 March<br>1996    | 11:05          | Grab<br>(bailer) | 10          | 6.7 | 970   | 2.7                           | 19.3                       | Bailer          | 35                             | 9                             | No              | ±3.5                                | Translucent<br>, Brown |
| MW-2               | MW-2(27Dec95)            | 27 December<br>1995 | 13:25          | Grab<br>(bailer) | 90          | 6.8 | NM  | 5.7                           | 18.3                       | Bailer          | 20                             | 5                             | No              | ±3.1                                | Opaque,<br>Brown       |
|                    | MW-2(22Mar96)            | 22 March<br>1996    | 12:55          | Grab<br>(bailer) | 60          | 6.5 | 850   | 3.0                           | 16.9                       | Bailer          | 35                             | 9                             | No              | ±3.5                                | Translucent<br>, Brown |
| MW-3               | MW-3(27Dec95)            | 27 December<br>1995 | 14:20          | Grab<br>(bailer) | 85          | 6.6 | NM  | 4.3                           | 17.9                       | Bailer          | 20                             | 5                             | No              | ±3.2                                | Translucent<br>, Brown |
|                    | MW-3(22Mar96)            | 22 March<br>1996    | 14:45          | Grab<br>(bailer) | 50          | 6.4 | 960   | 2.5                           | 16.6                       | Bailer          | 35                             | 9                             | No              | ±3.6                                | Translucent, Brown     |

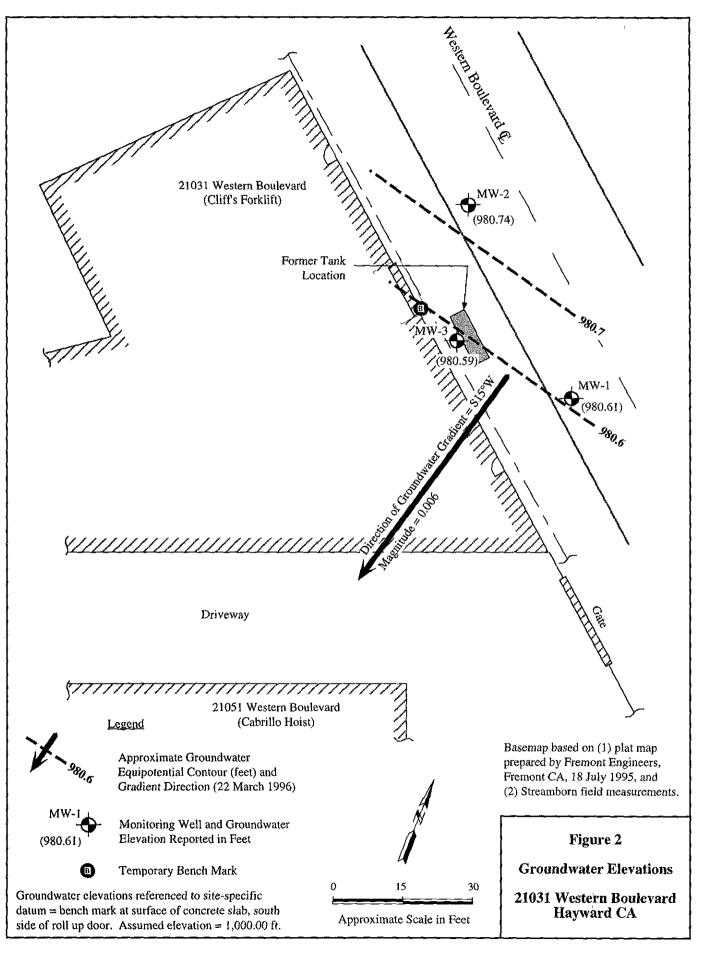
- (a) ORP = oxidation-reduction potential.
- (b) NM = not measured.
- (c) Sampling conducted by Streamborn (Berkeley CA).

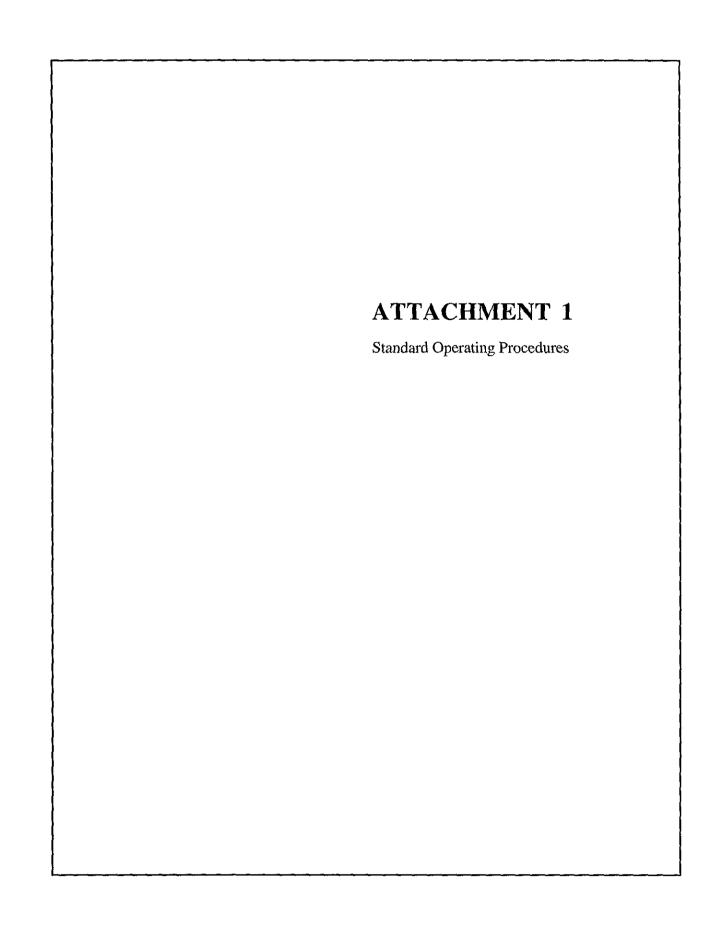
Table 4
Groundwater Analytical Results for 21031 Western Boulevard, Hayward CA

| Monitoring<br>Well | Sample<br>Date | Sample<br>Identification | Sample<br>Type | Sampled<br>By | TPH-<br>Gasoline<br>(µg/L) | Benzene<br>(µg/L) | Toluene<br>(μg/L) | Ethyl-<br>benzene<br>(µg/L) | Xylenes (μg/L) | Dissolved<br>Lead<br>(µg/L) |
|--------------------|----------------|--------------------------|----------------|---------------|----------------------------|-------------------|-------------------|-----------------------------|----------------|-----------------------------|
| MW-1               | 27 Dec<br>1995 | MW-1<br>(27Dec95)        | Grab           | Streamborn    | <50                        | <0.5              | <0.5              | <0.5                        | <0.5           | <5                          |
|                    | 22 Mar<br>1996 | MW-1<br>(22Mar96)        | Grab           | Streamborn    | <b>&lt;</b> 50             | <0.5              | <0.5              | <b>∠0.5</b>                 | < <b>0.5</b>   | Not<br>measured             |
| MW-2               | 27 Dec<br>1995 | MW-2<br>(27Dec95)        | Grab           | Streamborn    | <50                        | <0.5              | <b>∠0.</b> 5      | <0.5                        | <0.5           | <b>.5</b>                   |
|                    | 22 Mar<br>1996 | MW-2<br>(22Mar96)        | Grab           | Streamborn    | <b>⊲5</b> 0                | <0.5              | δ<br>G            | <b>₹0</b> .5                | <0.5           | Not<br>measured             |
| MW-3               | 27 Dec<br>1995 | MW-3<br>(27Dec95)        | Grab           | Streamborn    | <50                        | <0.5              | <0.5              | <0.5                        | <0.5           |                             |
|                    | 22 Mar<br>1996 | MW-3<br>(22Mar96)        | Grab           | Streamborn    | <50                        | <0.5              | <0.5              | <0.5                        | <0.5           | Not<br>measured             |

- (a) TPH-Gasoline = total petroleum hydrocarbons as gasoline.
- (b) < denotes less than detection limit (shaded values).
- (c) Laboratory analysis performed by Chromalab, Pleasanton CA.







# STANDARD OPERATING PROCEDURE (SOP) 16A WELL PURGING AND SAMPLING ASSOCIATED WITH UNDERGROUND TANK RELEASES

#### 1.0 INTRODUCTION AND SUMMARY

This SOP describes procedures to purge and sample wells that have been properly installed and developed for the investigation of potential or confirmed releases from underground tanks. Typically, this SOP will be used for sampling monitoring wells with 2- or 4-inch diameter casing. The sampling described herein is appropriate for groundwater analyses typically required for underground tank release investigations, including: volatile and semivolatile organic compounds. For newly installed and developed wells, the purging and sampling described in this SOP is typically performed at least 7 days after well development to allow ambient groundwater conditions to re-establish in the vicinity of the well.

The procedures described in this SOP should be modified for domestic wells or wells with dedicated sampling equipment. The procedures should also be modified if product is observed in the well.

Typical well sampling and purging activities include decontaminating the purging and sampling equipment, purging the stagnant water from the well casing and filter pack by bailing, measuring field parameters and volume of evacuated groundwater during purging, terminating the purging process when field parameters stabilize, collecting groundwater samples by bailing, and labeling and preserving the collected samples.

#### 2.0 EQUIPMENT AND MATERIALS

- Water sampling log
- Buckets and bristle brushes for decontamination
- Low residue, organic free soap such as Liquinox or Alconox
- If sampling is to be performed for metals, dilute (10%) reagent-grade nitric acid (for decontamination)
- Tap water (for decontamination)
- Distilled water (for decontamination and potential quality control blank samples)
- Cooler with ice (do not use blue ice or dry ice)
- Ziplock bags of size to accommodate sample containers
- Steel, 55-gallon, open-top drums, DOT 17H
- Field organic vapor monitor. The make, model, and calibration information of the field organic vapor monitor (including compound and concentration of calibration gas) should be documented.
- Laboratory-cleaned containers of proper type and size for the analytical parameters (refer to Table 1)
- Glass beaker, ±250 milliliter for measurement of field parameters. A similar flow-through cell may also be used.
- Water level meter

- pH, temperature, and specific conductivity instruments, including pH and specific conductivity standards approximating or spanning the natural groundwater parameters. Oxidation-reduction potential (ORP) or dissolved oxygen meters may also be required.
- Purging equipment consisting of the following:
   PVC, Teflon, or stainless steel bailer with dedicated or new bailer rope.
- Sampling device consisting of the following:
   Teflon or stainless steel bailer with dedicated or new bailer rope. If samples are collected for volatile organic compound analysis, bailer should also be fitted with bottom-emptying device.

As specified in the Site Safety Plan, additional safety and personnel decontamination equipment and materials may be needed.

#### 3.0 TYPICAL PROCEDURES

The following procedures are intended to cover the majority of purging and sampling conditions. However, normal field practice requires re-evaluation of these procedures and implementation of alternate procedures upon encountering unusual or unexpected conditions. Deviations from the following procedures may be expected and should be documented.

- 1. Remove top cap and perform field organic vapor monitoring of well casing. Also observe odor. Record measurement and observation on water sampling log.
- 2. Measure static water level and total depth and compare to historic measurements. Re-measure if discrepancies are noted with historic data. Document observations of product, if appropriate. Calculate volume of standing water in casing. Water quality samples are not generally considered representative in the presence of product. Accordingly, it may be appropriate to abandon sampling efforts if product is discovered.
- 3. Decontaminate purging and sampling equipment.
- 4. Begin purging and if possible, adjust purge rate to expose as little of the screened interval as possible (subject to reasonable time constraints). Record the following observations on the water sampling log at the beginning of purge, periodically during purge, and during sampling:
  - Purge volume and time
  - pH, temperature, and specific conductivity
  - Turbidity (clarity and color)
  - Approximate drawdown and well yield during purge
  - Whether well was purged dry
  - Other observations (such as presence of product) as appropriate
- 5. Terminate purging when one of the following conditions is observed:

  Ouick Recharge Wells: Stabilized field parameters and at least 3 casing volumes of standing water have been removed ready for sampling. If field parameters have not stabilized after removal of 5 casing volumes of

standing water, terminate purging anyway. Wells should be allowed to recover to at least 1/2 the original standing water depth prior to sampling.

Slow Recharge Wells: Wells that are initially purged dry, and do not recover to 1/2 the original standing water depth within 4 hours, should be purged dry again and then sampled when sufficient recovery has occurred to sample. Generally, 1-foot of recovery may be considered sufficient recovery.

- 6. If recharge has submerged the entire screened interval, sample from middepth of screened interval. Otherwise, sample from middepth of water column at time of sampling.
- 7. Fill sample containers directly and preserve according to the requirements of Table 1. Containers should generally filled to capacity. Containers for volatile organic compound analysis should be filled from the bottom using a bottom-emptying device fitted into the bailer. Containers for volatile organic compound analysis should not have headspace.
- 8. Label sample containers, place in ziplock bag, and place on ice in cooler.
- 9. Log samples onto chain-of-custody form and maintain sample custody until shipped to or picked up by laboratory.
- 10. Containerize purge water and excess sample in steel drum(s). Label drum(s) with hazardous waste label, contents, and well number from which waste originated.

# 4.0 QUALITY ASSURANCE AND QUALITY CONTROL

Field quality control samples are not mandatory. Optional field quality control samples may include:

- Duplicate samples at a frequency of 1 per 10 natural samples.
- Cross-contamination blank (also known as a sampler rinsate blank) at a frequency of 1 per 10 natural samples. Cross-contamination blanks are prepared by passing deionized water over and through decontaminated sampling equipment (including sample filter if used).
- If volatile organic compound analyses are specified, travel blanks should also be included at a frequency of 1 per day of sampling.
- Standard reference materials and natural matrix spikes.

Meters for measurement of field parameters should be calibrated at least once per day. Calibration standards should generally approximate or span natural groundwater characteristics. Recalibration may be appropriate if unusual measurements are noticed.

#### 5.0 DOCUMENTATION

The following information should be collected prior to sampling and taken into the field for reference:

Well completion schematic

 Summary of historic water level, total depth, and field parameter measurements

Observations, measurements, and other documentation of the purging and sampling effort should be recorded on the following:

- Daily Report
- · Field Notebook
- Water Sampling Log
- Chain-of-Custody

Documentation should include any deviations from this SOP, as well as documentation of the containerization and disposition/disposal of investigation-derived waste.

#### 6.0 DECONTAMINATION

Prior to sampling each well, down-well equipment and equipment that will contact the sample (except sample containers) should be decontaminated according to the following procedure:

- · Wash with soap
- Rinse with tap water
- · Double rinse with distilled water

Prior to leaving the site, purging and sampling equipment should be cleaned.

# 7.0 INVESTIGATION-DERIVED WASTE

Purge water and excess sample should be containerized in steel drums. Drums should be labeled with waste labels, identifying: type of waste (purge water), well of origin, generator's name, and accumulation date. Wastes from different wells may be combined, but wastes that are anticipated to contain chemicals should not be mixed with waste that is believed to be uncontaminated.

Decontamination wastewater may be discharged to the sanitary sewer or at the ground surface.

# 8.0 SAFETY

Primary chemical hazards during well purging and sampling are associated with inhalation and dermal exposure. Acids used for decontamination and sample preservation may also present chemical hazards. Primary protection against inhalation exposure includes avoidance and respiratory protection. Primary protection against dermal exposure includes avoidance and splash protection and gloves. Special chemical hazards may be associated with the presence of product, if discovered during sampling.

Other specific site safety guidance is provided in the Site Safety Plan.

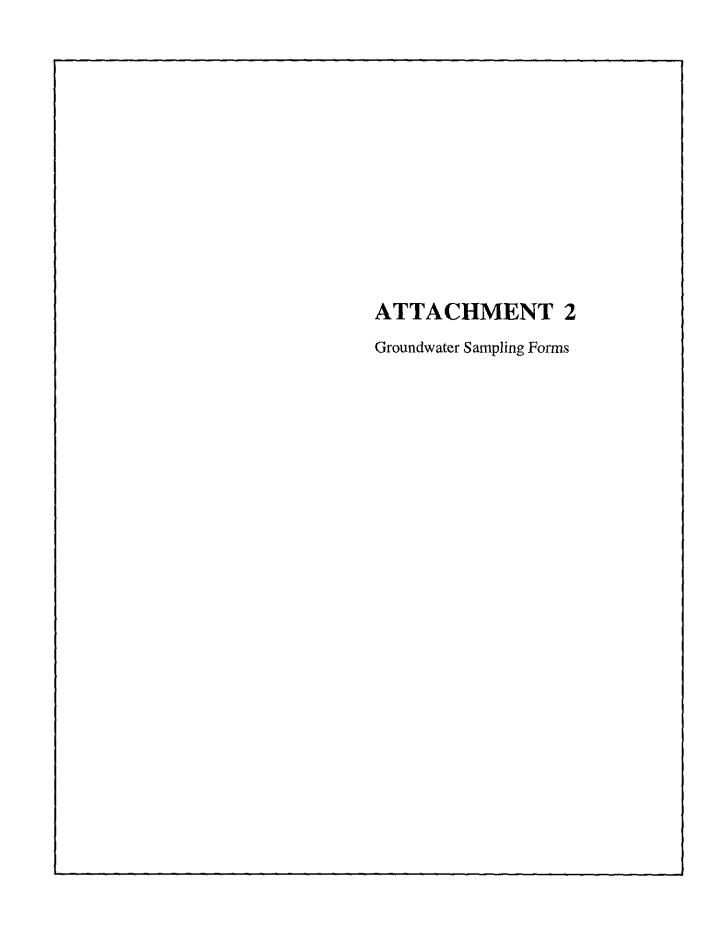
#### 9.0 REFERENCES

Aller, L., T.W. Bennett, G. Hackett, R.J. Petty, J.H. Lehr, H. Sedoris, and D.M. Nielsen, 1989. Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells. National Water Well Association, Dublin, OH. 1989.

U.S. Environmental Protection Agency, 1989. A Compendium of Superfund Field Operations Methods, EPA/540/P-87/001, OSWER Directive 9355.0-14. USEPA, Office of Emergency and Remedial Response, Washington, DC. December 1989.

Table 1
Sampling and Preservation for Groundwater Samples

| Parameter   | Analytical Method                        | Container                             | Preservation                            | Maximum Holding Time   |
|---|--|---------------------------------------|---|--|
| Purgeable Halocarbons by GC   | EPA 8010                                 | Two 40-ml glass vials                 | Place on ice in a cooler (Cool to 4° C) | 14 days after collection   |
| Purgeable Aromatics by GC (including Benzene, Toluene, Ethylbenzene, and Xylenes)         | EPA 8020                                 | Two 40-ml glass vials                 | Place on iće in a cooler (Cool to 4° C) | 14 days after collection   |
| Volatile Organic Compounds<br>by GC/MS  | EPA 8240                                 | Two 40-ml glass vials                 | Place on ice in a cooler (Cool to 4° C) | 14 days after collection   |
| Semivolatile Organic<br>Compounds by GC/MS<br>(Base/Neutral/Acid<br>Extractable Organics) | EPA 8270                                 | Two 1-liter<br>amber glass<br>bottles | Place on ice in a cooler (Cool to 4° C) | Extract 7 days after collection<br>Analyze 40 days after<br>extraction |
| Total Petroleum Hydrocarbons as Motor Oil   | Extract by EPA 3510 and analyze by GCFID | Two 1-liter<br>amber glass<br>bottles | Place on ice in a cooler (Cool to 4° C) | Extract 7 days after collection<br>Analyze 7 days after extraction     |
| Total Petroleum Hydrocarbons as Diesel  | Extract by EPA 3510 and analyze by GCFID | Two 1-liter<br>amber glass<br>bottles | Place on ice in a cooler (Cool to 4° C) | Extract 7 days after collection<br>Analyze 7 days after extraction     |
| Total Petroleum Hydrocarbons as Gasoline  | Extract by EPA 5030 and analyze by GCFID | Two 40-ml glass vials                 | Place on ice in a cooler (Cool to 4° C) | Extract 7 days after collection<br>Analyze 7 days after extraction     |
| Oil & Grease  | SM 5520                                  | One 1-liter<br>amber glass<br>bottles | Place on ice in a cooler (Cool to 4° C) | 28 days after collection   |



# STREAMBORN MONITORING WELL PURGE DATA

| Project Name/Number: 21031 Western Blvd           | Logged By: Keith Beury              |
|---|-------------------------------------|
| Property Location: 21031 Western Blvd, Hayward CA | Date: 22 March 1996                 |
| Well Number: MW- \                                | Sample Type: Grab                   |
| Sampling Equipment: Bailer                        | Depth to Water: 19.02 Final = 19.03 |
| Measuring Point: Top of Casing - North Side       | Total Depth: 34.9                   |
| Free Product: No                                  | Odor: None                          |
| Comments:   | Sample Number: MW-1 (ZZMAR96)       |

Note obstructions, well damage, or other compromising features under comments. Record depth in feet.

| 1 | Total<br>Depth<br>(feet) | • | Depth to<br>Water<br>(feet) |   | 0.16 gallons/foot for 2-inch well<br>0.65 gallons/foot for 4-inch well<br>1.47 gallons/foot for 6-inch well | = | Casing<br>Volume<br>(gallons) |
|---|--------------------------|---|-----------------------------|---|---|---|-------------------------------|
| 3 | 34.9                     | - | 19.0                        | X | 0.16  | = | 2.54                          |

x3 = 7.7 gallons = 3 casing volumes

| Purge<br>Volume<br>(gallons) | Time  | Dissolved<br>Oxygen<br>(mg/L) | рН   | Specific<br>Conductivity<br>(µmhos/cm <sup>2</sup> ) | Temp<br>(°C) | ORP<br>(mV) | Turbidity | Color                                 | Purged Dry? | Comments             |   |
|------------------------------|-------|-------------------------------|------|--|--------------|-------------|-----------|---------------------------------------|-------------|----------------------|---|
| 0                            | (0:30 | - !                           |      |  |              |             |           |                                       |             | Start purge          |   |
|                              | 10:33 | 2.5                           | 6.53 | 1,090  | 18.2         | 05          | Trans.    | Brown                                 | No          |                      |   |
| 3                            | 10:41 | 2.5                           | 6.83 | 990  | 18.3         | 35          | i (       | Ŀį                                    | ч           |                      |   |
| 5                            | 10:52 | 2.0                           | 6.70 | 970  | 18.2         | 10          | 11        | · · · · · · · · · · · · · · · · · · · | 11          |                      |   |
| 7                            | 11:00 | 7.6                           | 6.68 | 940  | 19.4         | 15          | "         | t <sub>f</sub>                        | LI          |                      |   |
| 9                            | 11:05 | 2.7                           | 6.70 | 970  | 19.3         | 10          | /t        | ı                                     | t l         |                      |   |
|                              |       |                               |      |  |              |             |           |                                       |             | Collect sample /1:05 | 5 |

Note observations of odor, sheen, and other signs of contamination under comments. Record turbidity as clear, translucent, opaque, cloudy, or turbid.

# STREAMBORN MONITORING WELL PURGE DATA

| Project Name/Number: 21031 Western Blvd           | Logged By: Keith Beury              |
|---|-------------------------------------|
| Property Location: 21031 Western Blvd, Hayward CA | Date: 22 March 1996                 |
| Well Number: MW- 2_                               | Sample Type: Grab                   |
| Sampling Equipment: Bailer                        | Depth to Water: 18.66 Final = 18.61 |
| Measuring Point: Top of Casing - North Side       | Total Depth: 34.9                   |
| Free Product: No                                  | Odor: None                          |
| Comments: ——                                      | Sample Number: MW-2 (22 MAR96)      |

Note obstructions, well damage, or other compromising features under comments. Record depth in feet.

|   | Total<br>Depth<br>(feet) | <br> <br> <br> | Depth to<br>Water<br>(feet) |   | 0.16 gallons/foot for 2-inch well<br>0.65 gallons/foot for 4-inch well<br>1.47 gallons/foot for 6-inch well | = | Casing<br>Volume<br>(gallons) |            |    |   | •              |
|---|--------------------------|----------------|-----------------------------|---|---|---|-------------------------------|------------|----|---|----------------|
| Ì | 34.9                     | Ŀ              | 18.7                        | х | 0.16  | = | 2.59                          | <b>×</b> 3 |    |   | gallons        |
|   |                          |                |                             |   |   |   |                               |            | =- | 5 | casing volumes |

| Purge<br>Volume<br>(gallons) | Time     | Dissolved<br>Oxygen<br>(mg/L) | pН   | Specific<br>Conductivity<br>(µmhos/cm <sup>2</sup> ) | Temp<br>(°C) | ORP<br>(mV) | Turbidity | Color    | Purged Dry? | Comments             |
|------------------------------|----------|-------------------------------|------|--|--------------|-------------|-----------|----------|-------------|----------------------|
| 0                            | 120      |                               |      |  |              |             |           | <u> </u> |             | Start purge          |
| 1                            | 12:24    | 7.8                           | 6.45 | 900  | 18-Z         | 25          | Trans     | Brown    | No          |                      |
| 3                            | 12:32    | 7.8                           | 6.48 | 880  | 17.6         | 30          | εţ        | · · ·    | 10          |                      |
| 5                            | 12:40    | 2.9                           | 6.40 | 860  | 17.4         | જ           | £1        | E        | R           |                      |
| 7                            | 12:47    | 7.8                           | 6.42 | 870  | 17.3         | 50          | l,        | , h      | *           |                      |
| 9                            | 17:55    | 3.0                           | 6.47 | 850  | 16.9         | 60          |           | 4        | 4           |                      |
|                              | <u>-</u> |                               |      |  |              | <del></del> |           |          |             | Collect sample 12:55 |

Note observations of odor, sheen, and other signs of contamination under comments. Record turbidity as clear, translucent, opaque, cloudy, or turbid.

# STREAMBORN MONITORING WELL PURGE DATA

| Project Name/Number: 21031 Western Blvd           | Logged By: Keith Beury              |
|---|-------------------------------------|
| Property Location: 21031 Western Blvd, Hayward CA | Date: 22 March 1996                 |
| Well Number: MW- 3                                | Sample Type: Grab                   |
| Sampling Equipment: Bailer                        | Depth to Water: 19.13 Final = 19.16 |
| Measuring Point: Top of Casing - North Side       | Total Depth: 34.9                   |
| Free Product: No                                  | Odor: None                          |
| Comments:   | Sample Number: MW-3 (22 MAR 96)     |

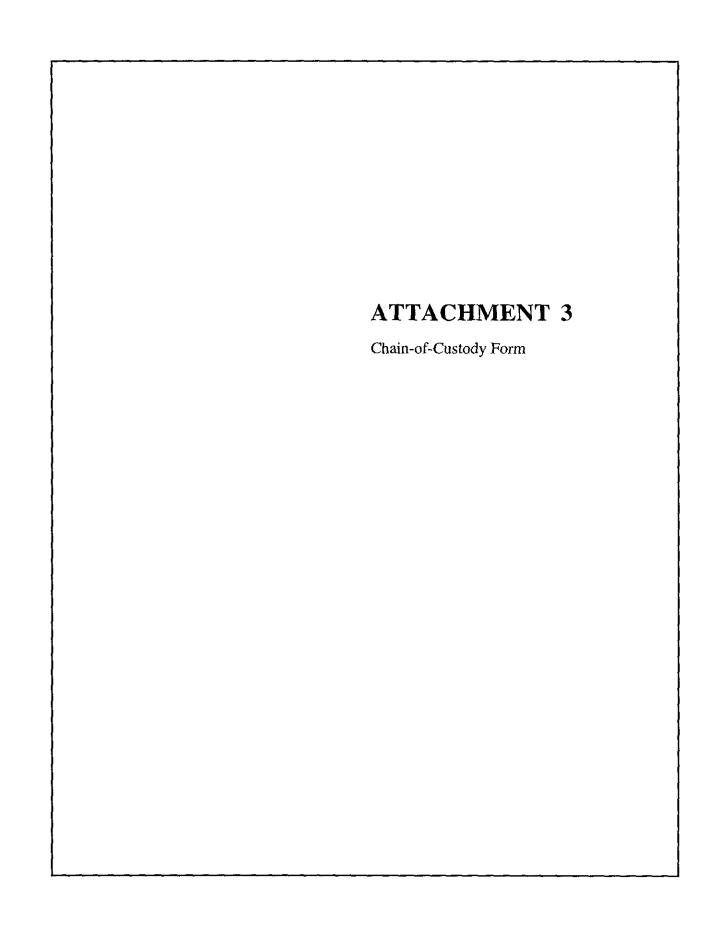
Note obstructions, well damage, or other compromising features under comments. Record depth in feet.

| Total<br>Depth<br>(feet) | - | Depth to<br>Water<br>(feet) | Х | 0.16 gallons/foot for 2-inch well<br>0.65 gallons/foot for 4-inch well<br>1.47 gallons/foot for 6-inch well | ıı | Casing<br>Volume<br>(gallons) |
|--------------------------|---|-----------------------------|---|---|----|-------------------------------|
| 34.9                     | - | 19-1                        | х | 0.16  | =  | 2.53                          |

× 3 = 7.6 gallons = 3 casing valunes

| Purge<br>Volume<br>(gallons) | Time | Dissolved<br>Oxygen<br>(mg/L) | pН   | Specific<br>Conductivity<br>(µmhos/cm²) | Temp<br>(°C) | ORP<br>(mV) | Turbidity | Color | Purged Dry? | Comments            |
|------------------------------|------|-------------------------------|------|---|--------------|-------------|-----------|-------|-------------|---------------------|
| 0                            | 2:10 |                               |      |   |              |             |           |       |             | Start purge         |
| 1                            | 7:15 | 2.4                           | 6.41 | 910                                     | 16.6         | 60          | Trans     | Brown | No          |                     |
| 3                            | 7:22 | Z.6                           | 6.42 | 950                                     | 16.9         | 60          | • *       | It    | 11          |                     |
| 6                            | 2:32 | 2.5                           | 6.38 | 950                                     | 16.6         | 40          | · 11      | it.   | "           | ·                   |
| 9                            | 2:45 | 2.5                           | 6.39 | 960                                     | 16.6         | 50          | 11        | 11    | "           |                     |
|                              |      |                               |      |   |              |             |           |       |             |                     |
|                              |      | -                             |      |   |              |             |           |       |             | Collect sample 2:45 |

Note observations of odor, sheen, and other signs of contamination under comments. Record turbidity as clear, translucent, opaque, cloudy, or turbid.



627/80906-80908

# STREAMBORN CHAIN-OF-CUSTODY FORM

27044

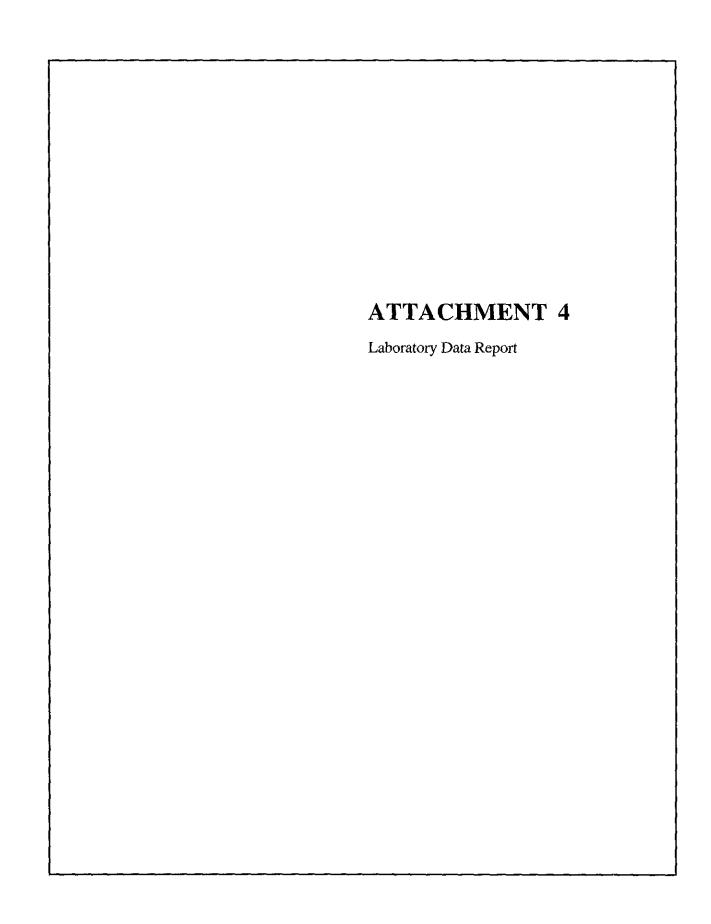
| Project Name: 21031 Western Blvd. | Project Location: 21031 Western Blvd., Hayward CA | Project Number: P178 |
|-----------------------------------|---|----------------------|
| Sampler: Keith Beury              | Laboratory: Chromalab                             | Laboratory Number:   |

|                       |                |       | N    | Matri | ix    | Ту   | /pe       | Cor      | ntainers |              |            | Tui             | narou | nd |                   | Anal | yses |  | SUBM ( | a: 960362<br>T: STREAM         |  |
|-----------------------|----------------|-------|------|-------|-------|------|-----------|----------|----------|--------------|------------|-----------------|-------|----|-------------------|------|------|--|--------|--------------------------------|--|
| Sample<br>Designation | Date           | Time  | Soil | Water | Vapor | Grab | Composite | Quantity | Type     | Preservative | Filtration | 10-Working Days |       |    | TPH-gasoline/BTEX |      |      |  | DUE:   | @4/@5/<br>:27@44<br>Laboratory |  |
| MW-1(22Mar96)         | 22 Mar<br>1996 | 11:05 |      | X     |       | х    |           | 3        | VOA      |              |            | X               |       | -  | Х                 |      |      |  |        |                                |  |
| MW-2(22Mar96)         | 22 Mar<br>1996 | 12:55 |      | X     |       | X    |           | 3        | VOA      |              |            | X               |       |    | Х                 |      |      |  |        |                                |  |
| MW-3(22Mar96)         | 22 Mar<br>1996 | 14:45 |      | X     |       | X    |           | 3        | VOA      |              |            | X               |       |    | X                 |      |      |  |        |                                |  |

Note: Sampler and laboratory to observe preservative, condition, integrity, etc. of samples and record (under "Comments") any exceptions from standard protocols.

| Relinquished By: Kirk Bewry | Received By:            | Date: 7-22-86 Time: 1654 |
|-----------------------------|-------------------------|--------------------------|
| Relinquished By:            | Received By: Chry Konty | Date: 3/2/94 Time: 1915  |

. STREAMBORN Mail: PO Box 8330, Berkeley CA 94707-8330 Office: 900 Santa Fe Ave, Albany CA 94706 510/528-4234 Fax: 528-2613



# CHROMALAB, INC.

**Environmental Services (SDB)** 

March 29, 1996

Submission #: 9603627

STREAMBORN

Atten: Keith Beury

Project: 21031 WESTERN BLVD.

Project#: P178

Received: March 22, 1996

re: 3 samples for Gasoline and BTEX compounds analysis.

Method: EPA 5030/8015M/8020

Matrix: WATER

Sampled: March 22, 1996 Run#: 891

Analyzed: March 28, 1996

| Spl# CLIENT SPL ID    | Gasoline<br>(ug/L) | Benzene<br>(ug/L) | Toluene<br>(ug/L) | Ethyl<br>Benzene<br>(ug/L) | Yylenes<br>(ug/L) |  |
|-----------------------|--------------------|-------------------|-------------------|----------------------------|-------------------|--|
| 80906 MW-1 (22MAR96)  | N.D.               | N.D.              | N.D.              | N.D.                       | N.D.              |  |
| 80907 MW-2 (22MAR96)  | N.D.               | N.D.              | N.D.              | N.D.                       | N.D.              |  |
| 80908 MW-3 (22MAR96)  | N.D.               | N.D.              | N.D.              | N.D.                       | N.D.              |  |
| Reporting Limits      | 50                 | 0.50              | 0.50              | 0.50                       | 0.50              |  |
| Blank Result          | N.D.               | N.D.              | N.D.              | N.D.                       | N.D.              |  |
| Blank Spike Result (% | ) 92.2             | 117               | 109               | 112                        | 115               |  |

Billy Thach Chemist Marianne Alexander Gas/BTEX Supervisor