aqua science engineers inc.

April 30, 1998

REPORT
of
SOIL AND GROUNDWATER ASSESSMENT
ASE JOB NO. 3231
at
The Oliver Rubber Facility
1200 65th Street
Oakland, California

Submitted by:

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1.0 INTRODUCTION

This report outlines the methods and findings of Aqua Science Engineers, Inc. (ASE)'s various soil and groundwater assessment activities conducted at the Oliver Rubber Company (ORCo) property located at 1200 65th Street in Oakland, California (Figures 1 and 2). The site assessment activities were initiated by ORCo as part of ORCo's Plant I closure activities.

ASE was contracted by ORCo to assist in the evaluation of pit, vault, and concrete floor integrity and document the findings. The determination of pit integrity was ORCo's first step in its methodology to identify subsurface areas that warrant sample collection and analyses. This methodology was discussed with Mr. Amir Gholami of the Alameda County Health Care Service Agency (ACHCSA) during a meeting held at the site on November 20, 1997 and confirmed in a letter dated December 12, 1997 (see Appendix A).

Based on the findings of the integrity evaluations (discussed in Section 3.0 of this report), ASE's March 20, 1998 "Workplan for a Soil and Groundwater Assessment" was submitted to the ACHCSA and was subsequently approved.

2.0 SITE HISTORY

The site has been used since the 1950's primarily as a rubber manufacturing plant. Virgin materials were combined and processed using various mixing machines, milling machines, and conveyors. The rubber product was then either extruded into strip form or molded into tire treads at ORCo's Plant II across Vallejo Street (see Figure 2). The milling machines and conveyor system sat on pedestals above shallow concrete pits. A cooling water system was incorporated within the production area to keep the machines operating at controlled temperatures. This cooling water was then recycled and reused. Chemicals were added to the cooling water to reduce the levels of scaling in the cooling tower, to reduce algae, and to control the pH.

The compound of interest for this investigation is RAFFEX 120. RAFFEX 120 is a heavy petroleum hydrocarbon with the viscosity of tar at elevated temperatures and is used during the production of the rubber for tire treads. A material safety data sheet (MSDS) for RAFFEX 120 is attached in Appendix B. The RAFFEX 120 was stored outside the plant in a subgrade concrete vault, which was heated with steam to maintain the liquid

consistency of the product. The RAFFEX was then pumped inside the building to the process area.

Zinc Stearate was also used during the extrusion of the rubber product to inhibit the product from adhering to itself as it was stacked onto pallets. This activity was performed at the Camelback Conveyor Pit (Figure 2). A copy of the MSDS for Zinc Stearate is included in Appendix B.

Various lubricating oils and greases were used in the milling and mixing machines. Spent lubricating oils and greases were drummed, profiled, and shipped off-site for recycling. Safety solvent cleaning stations were used at the facility during maintenance activities.

Beginning in January 1998 and completed during the week of March 16, 1998, this plant was decommissioned and cleaned by Mid-American Machine, Inc. (MMI) and DECON Environmental Services (DECON), respectively. All plant manufacturing equipment was removed and either shipped to various Oliver plants on the east coast or scrapped as metal salvage. Pressure washing liquids used to clean the building and pits were collected and disposed of off-site. The integrity of the pits and floors were evaluated after cleaning. Based on the findings of the integrity evaluations and ASE's recommendation for sampling locations, where possible, the pits were filled and capped to accommodate scheduled decommissioning activities. The scope of work conducted for this plant closure was discussed and agreed upon by members of Oliver staff and Mr. Amir Gholami of the ACHCSA during his visit to the plant on November 20, 1997. The letter confirming the scope of work is attached in Appendix A.

3.0 VAULTS, PITS AND CONCRETE FLOOR INSPECTIONS AND FINDINGS

On February 10, 1998 and February 17, 1998, ASE inspected the RAFFEX tank vault, various milling and manufacturing machine pits, and the concrete floor surface inside and outside the ORCo Plant I building for determination of concrete integrity (Figure 1). Visual inspection of the concrete surfaces was the sole inspection technique performed by ASE personnel.

The following areas were observed.

3.1 RAFFEX Tank Vault

The dimensions of this vault were approximately 35-feet long, 20-feet wide and 10-feet deep. The walls and floor of this vault were 6 to 8-inches thick concrete. This vault housed three (3) 5,000 gallon tanks which stored RAFFEX. The tanks were heated by a steam source to keep the RAFFEX product in a liquid state.

The floor of this vault appeared to be in relatively fair shape without any obvious holes or significant cracks. The walls of the vault did show signs of integrity failure based on the presence of numerous stains that were generated from shallow groundwater weeping through hairline cracks (see Photographs #1 and #2. The RAFFEX product however never came in contact with the hairline cracks observed on the walls of the vault. Cold joints made the transition from the floor to the walls of the vault. Based on the pooled water found within the vault, it was apparent that shallow groundwater was entering the vault through these cold joints. A sump was identified in the low part of the vault floor which was used to pump water out of the vault. Based on the presence of water within the vault, it appeared that the integrity of the vault was suspect (see Photograph #3). It was the opinion of ASE that if groundwater could come into the vault, water and RAFFEX may have the ability to leave the vault. ASE recommended collection of soil samples from this vault. Details of these samples are discussed in a later section of this report.

The offloading of the RAFFEX from tank trucks was performed at the RAFFEX offloading manifold as depicted on Figure 2. An underground steel pipe, contained in a secondary steel pipe, was used to transport the RAFFEX from the offloading area to the vaulted tanks. Since the subsurface beneath this pipe could not be inspected, ASE recommended soil samples to be collected upon the removal of this underground piping system. Details of these samples are discussed in a later section of this report.

3.2 Camelback Conveyor Pit

- The concrete bottom and sides of this pit appeared to be free of any evident or visible integrity failures such as cracks. This pit had a metal liner that was removed during decommissioning.
- Two (2) 4-inch diameter pipes were found exiting the pit. These exit pipes created a potential integrity failure situation that could have impacted the subsurface soil.

- Two electrical conduit boxes are located on the sidewall of the pit in two separate areas. The integrity of the boxes and conduits within them are a potential source of integrity failure.
- A 1/2-inch wide crack was observed at the edge of the pit/floor intersection. This crack is located adjacent to the location of one of the exit pipes within the pit which is apparently piped to the local sanitary sewer (see Photograph #4).
- Zinc Stearate was used exclusively in this area during the extrusion of the rubber product to inhibit the product from adhering to itself as it was stacked onto pallets. A copy of the MSDS for Zinc Stearate is included in Appendix B.

Based on ASE's inspection of the pit and the location of the proposed sampling locations, this pit was backfilled and resurfaced on February 12, 1998. ASE recommended that the subsurface soil be investigated by drilling soil borings and collecting soil samples on the outside of the pit in the areas of potential integrity concerns detailed above. Details of these samples are discussed in a later section of this report.

3.3 Cooling Water Pump Pits and Water Storage Pits

- The concrete bottom and sides of these associated pits appeared to be free of any evident or visible integrity failures such as cracks.
- Multiple pipes were found exiting the pits which appeared to transfer cooling water to and from the pump pit to the water storage pits. Because only water traveled within these pipes and pits, it appears to ASE that the potential impact to subsurface soil, if any, does not pose a significant concern.

Based on ASE's inspection of these pits, in which sampling was not recommended, these pits were backfilled and resurfaced on February 12, 1998. ASE did not recommend subsurface soil investigation activities related to these pits.

3.4 Three (3) Milling Machine Pits and Calendar Pit

- The concrete bottom and sides of these pits appeared to be free of any evident or visible integrity failures such as cracks.
- Multiple pipes were found exiting these pits; the termination point of some of these pipes has not been determined. These exit pipes create a potential integrity failure situation that could have impacted the subsurface soil (see Photographs #5 and #6).

- Cracks found around the top surface of several of these pits were noted. The cracks are a potential sign of integrity failure (see Photograph #7).
- The concrete pits which housed these various milling machines are noted to be as much as 3-feet thick, but not less than 2-feet thick, with extreme amounts of structural steel rebar for reinforcement.

Based on ASE's inspection of these pits, the thickness of the concrete beneath the pits and the location of the proposed sampling locations, these pits were backfilled and resurfaced during the week of February 23, 1998. ASE recommended that the subsurface soil associated with these pits be investigated by drilling soil borings and collecting soil samples on the outside of these pits in the areas of potential integrity concerns detailed above. Details of these samples are discussed in a later section of this report.

3.5 Three (3) Exposed-Soil Pits and One (1) Round Pit

- The concrete bottom and sides of several small pits were inspected and found to have dirt bottoms, rather than concrete bottoms, creating a potential pathway for contaminants into subsurface soil (see Photograph #8 and #9).
- Multiple entry pipes existing related to the round pit associated with the 84-inch mill. Due to the unknown use of this pit, there exists a potential concern for subsurface contamination due to the pipes described above.

ASE recommended that the subsurface soil associated with these pits be investigated by drilling soil borings and collecting soil samples adjacent to these pits. Based on the sampling results, which are discussed in a later section of this report, ASE has recommended to ORCo that these pits be backfilled and resurfaced.

3.6 Pallet Elevator Shaft

A pallet elevator was used at the site as depicted on Figure 2 and Photograph #10. The shaft of the elevator ended at a depth of 25-feet below ground surface. The shaft appeared to be in relatively fair shape upon its removal; however, the use of a soluble oil as the hydraulic fluid led to the possibility of subsurface soil contamination. Although hydraulic fluids are typically exempt as environmental concerns, ASE recommended a soil sample in this area to determine if the hydraulic ram/shaft had impacted the subsurface soil. Based on the sampling results, which are discussed in a later section of this report, ASE has recommended to ORCo that these pits be backfilled and resurfaced.

3.7 Concrete Floor Surface

Two floor cracks of concern were identified within the building; one in area adjacent to a milling pit, and one where used oils were stored prior to off-site disposal. There existed other cracks within the floor surface of the plant; however these various cracks were not in areas of manufacturing operations. ASE recommended that the subsurface soil associated with these cracks be investigated by drilling soil borings and collecting soil samples adjacent to them. Details of these samples are discussed in a later section of this report.

4.0 SCOPE OF WORK

ASE's basic scope of work for this project was to:

1) Conduct and document an inspection of the pits, vault and floor for signs of potential environmental concerns.

2) Prepare a workplan and site specific health and safety plan for approval by Mr. Amir Gholami and/or Ms. Susan Hugo of the ACHCSA.

3) Obtain a subsurface drilling permit from the Alameda County Public Works Agency (ACPWA).

4) Call Underground Service Alert (USA) to have all public utilities in the area marked prior to drilling.

5) Core drill through the concrete floor in each boring location.

6) Hand auger and or hydraulically drill soil borings within/adjacent to areas of concern raised during the inspection period. Collect soil and/or groundwater samples where appropriate.

7) Analyze samples collected during this project at a CAL-EPA certified analytical laboratory for all or a combination of the following: RAFFEX 120 by modified EPA Method 8015, hydrocarbon oil & grease (O&G) by Standard Method 5520 EF, volatile organic compounds (VOCs) by EPA Method 8010, and zinc by EPA Method 6010.

8) Backfill the borings with neat cement and finish with concrete.

9) Prepare a report detailing the methods and findings of the assessment activities. The report will include tabulated analytical results, drawings, and recommendations for remediation as necessary.

Details of the assessment are presented below.

5.0 SOIL BORING DRILLING AND SAMPLE COLLECTION

Prior to geoprobe drilling, ASE obtained a drilling permit from the Alameda County Public Works Agency, Water Resource Section (Permit # 98WR149). A copy of the drilling permit is included as Attachment C.

5.1 Soil and Groundwater Sampling - February 10, 1998

On February 10, 1998, Vickers Concrete Coring cored two 4-inch diameter holes in the concrete floor of the RAFFEX tank vault as shown on Figure 2. Artesian groundwater conditions were encountered upon breaking through the bottom of the vault floor. ASE staff geologist Charlie Rous immediately collected samples of the groundwater using a disposable bailer within the cored borehole. Care was taken to minimize cross-contamination between the groundwater emerging from the borehole and the water ponding on the vault floor. Grab groundwater samples GRAB-A and GRAB-B were collected from each boring. The water samples were collected into pre-cleaned 1-liter glass amber bottles, labeled, and placed into an ice chest containing ice for delivery to the certified analytical laboratory under chain of custody documentation.

Soil sample GRAB-A @ 3.5' was collected 3.5-feet below the vault floor. The soil sample was collected directly from the auger shoe and stored in a glass sample jar, labeled, and placed into an ice chest containing ice for delivery to the analytical laboratory under chain of custody documentation. A soil sample was not collected from soil boring GRAB-B due to the volume of water flowing from the boring.

Soil analytical results are presented in Table One. RAFFEX was detected in the soil sample at 380 parts per million (ppm). RAFFEX was detected in groundwater samples GRAB-A and GRAB-B at 8 ppm and 28 ppm, respectively. The results of the groundwater sample analyses prompted the need for further delineation of the RAFFEX in groundwater; details are discussed in a later section.

5.1a. Vault Backfilling

ASE recommended that the vault be backfilled and resurfaced due to the following:

- The depth of groundwater, being above the depth of the floor of the vault, would make it extremely difficult to excavate soil, and potentially dangerous to the adjacent railroad line.
- RAFFEX is a very heavy petroleum hydrocarbon, much like tar, with a low solubility and potential for mobility
- The RAFFEX tanks have been removed from the site, and the site is being decommissioned
- The area surrounding the ORCo facility is heavy industrial. It is unlikely that groundwater in the area will ever be used for human consumption.

The ACHCSA, in a telephone conversation, agreed with ASE's recommendation to backfill and resurface the vault. The vault was subsequently backfilled and compacted with a granular fill, followed by a cement cap.

5.2 Soil Sampling - March 11, 1998

On March 11, 1998, ASE senior project manager David Allen was on site to witness the removal of the underground pipeline that was used to transport the RAFFEX from the offloading manifold to the RAFFEX tank vault (see Photograph #11 and #12). Three soil samples were collected from the open trench using a hand auger. The samples were identified as Trench-A, Trench-B, and Trench-C. Each soil sample was collected approximately 1-foot below the bottom of the former piping system. Analytical results are tabulated on Table One. Results ranged from 3.8 ppm to 35 ppm RAFFEX.

5.3 Soil Sampling - April 8, 1998

On April 6, 1998 Pacific Concrete Cutting of San Bruno, California cored ten (10) 4-inch diameter concrete cores inside and outside the ORCo facility. On April 8, 1998 Kvilhaugh Well Drilling & Pump Company of Concord, California drilled soil borings BH-1 through BH-12 at the site using a Geoprobe hydraulic sampling rig (see Photograph #13). Soil boring locations are shown on Figure 2. These borings were placed in areas identified by Mr. Amir Gholami of the ACHCSA, ORCo personnel, and Mr. David Allen of ASE, as locations with the greatest potential for the presence of subsurface contaminants. As discussed in Section 5.1, the boring locations were based on the integrity evaluation activities and the results of the grab water samples collected from within the RAFFEX vault. The groundwater gradient was assumed to be to the west towards the San Francisco Bay beneath the site. The drilling was directed by ASE staff geologist Charlie Rous.

Soil borings BH-1 through BH-9 were all advanced inside the ORCo Plant I facility. These interior borings were advanced adjacent to pits, cracks, and the elevator shaft. Boring BH-10 was advanced outside, adjacent to the RAFFEX offloading manifold. Each soil boring was continuously cored from the concrete floor surface to the total depth explored for lithologic and hydrogeologic description. Borings BH-1 through BH-4 and BH-8 through BH-10 were advanced to approximately 5 feet below ground surface (bgs). Boring BH-7 was advanced to approximately 6 feet bgs. Due to poor sample recovery, borings BH-5 and BH-6 were advanced to approximately 9 feet bgs to retrieve an adequate soil sample. Borings BH-11 and BH-12 were advanced outside the building, downgradient of the former RAFFEX tank vault, to a depth of 9-feet and 8.5-feet bgs respectively in order to collect groundwater samples.

Undisturbed soil samples were retained approximately 1 foot below the bottom of each equipment footing or pit, or at the capillary fringe, as drilling progressed for possible chemical analysis. The samples were collected by driving a sampler lined with acetate tubes using hydraulic direct push methods. The tube was cut where an analysis was required. The tube was immediately trimmed, sealed with Teflon tape, plastic end caps and duct tape, labeled, sealed in plastic bags and stored in a cooler with wet ice for transport to Chromalab, Inc. of Pleasanton, California (ELAP #1094) under appropriate chain of custody documentation. Analytical results for the soil samples collected on April 8, 1998 are tabulated in Table Two.

5.4 Groundwater Sampling - April 8, 1998

A temporary PVC well casing was placed in Borings BH-11 and BH-12 for the collection of groundwater samples. Groundwater samples were removed from the borings using a pre-cleaned peristaltic pump and new tubing. The groundwater samples were contained in 1-liter amber glass bottles. The samples were labeled, placed in protective foam sleeves, and stored in a cooler with wet ice for transport to Chromalab under appropriate chain of custody documentation. Analytical results for the groundwater samples collected on April 8, 1998 are tabulated in Table Three. Upon completion of the soil and groundwater sampling, the borings were backfilled with neat cement to the ground surface.

All drilling equipment was cleaned with a TSP solution between sampling intervals and between borings to prevent potential cross-contamination.

5.5 Geology

Sediments encountered during drilling generally consisted of clayey silt to the total depth explored of approximately 9 feet bgs, with the exception of the presence of silty sand and gravel in Borings BH-4 through BH-6 and BH-12. Boring logs BH-1 through BH-12 are presented as Appendix D. Petroleum hydrocarbon impacted soil and groundwater were only noted in borings BH-11 and BH-12. Groundwater was encountered at approximately 4 feet bgs in borings BH-11 and BH-12, where it stabilized.

6.0 SOIL ANALYTICAL RESULTS

All of the soil samples described in Section 5 above were analyzed by Chromalab for all or a portion of the following: RAFFEX by modified EPA Method 8015, hydrocarbon oil & grease (O&G) by Standard Method 5520 EF, volatile organic compounds (VOCs) by EPA Method 8010, and zinc by EPA Method 6010. The analytical results are tabulated in Tables One and Two, and the certified analytical report and chain of custody documentation are included in Appendix E.

TABLE ONE
Soil Analytical Results
All results are in **parts per million**

SAMPLE ID.	MATRIX	TPH RAFFEX
GRAB-A @ 3.5'	SOIL	**380**
TRENCH-A	SOIL	**3.8**
TRENCH-B	SOIL	**35**
TRENCH-C	SOIL	**9.6**
EPA METHOD	---	8015M

Notes: Detectable concentrations are in **bold**

TABLE TWO

Soil Analytical Results
All results are in **parts per million**

SAMPLE ID.	TPH RAFFEX	OIL & GREASE	ZINC	All VOCs
BH-1 @ 3'	**10**	<50	**18**	<5.0 - <50
BH-2 @ 2.5'	**6.4**	<50	---	<5.0 - <50
BH-3 @ 3'	**3.1**	<50	---	<5.0 - <50
BH-4 @ 2'	**40**	<50	---	<5.0 - <50
BH-5 @ 5'	**36**	<50	---	<5.0 - <50
BH-6 @ 6'	**10**	<50	---	<5.0 - <50
BH-7 @ 5.5'	**4.7**	<50	---	<5.0 - <50
BH-8 @ 4'	**14**	**260**	---	<5.0 - <50
BH-9 @ 4'	**5.1**	<50	---	<5.0 - <50
BH-10 @ 3'	**7.5**	---	---	<5.0 - <50
BH-11 @ 6'	**74**	---	---	<5.0 - <50
BH-12 @ 5.5'	**20**	---	---	<5.0 - <50
EPA METHOD	8015M	5520 EF	6010	8010

Notes: Detectable concentrations are in **bold.**
Non-detectable concentrations are noted by the less than sign (<) followed by the laboratory detection limit.

7.0 GROUNDWATER ANALYTICAL RESULTS

The groundwater samples were analyzed by Chromalab for total extractable hydrocarbons as RAFFEX by modified EPA Method 8015. The analytical results are presented below in Table Three, and the certified analytical report and chain of custody forms are included in Appendix E.

TABLE THREE

Groundwater Analytical Results
All results are in **parts per million**

SAMPLE ID.	LOCATION	TPH RAFFEX
GRAB-A	INSIDE VAULT	**8**
GRAB-B	INSIDE VAULT	**28**
BH-11	DOWNGRADIENT OF VAULT	**1.2**
BH-12	DOWNGRADIENT OF VAULT	**4.6**
EPA METHOD	---	8015M

Note: Detectable concentrations are in **bold**

8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1 Former RAFFEX Tank Vault and Associated Piping

RAFFEX was detected in the soil and groundwater in borings BH-11 and BH-12; however, both the soil and groundwater concentrations within these downgradient borings were much less the concentrations of the samples collected from within the vault. The concentrations of RAFFEX found in the soil samples collected from BH-10 and from within the piping trench (Trench A, B, and C) were extremely low, and thus, do not present an environmental concern.

It is the opinion of ASE that for reasons previously mentioned (a) high viscosity and nature of RAFFEX, (b) industrial area, and (c) no use of groundwater in the area, contamination of RAFFEX related to the former vault has been sufficiently characterized and that further assessment or remedial activities are not warranted.

8.2 RAFFEX Within the ORCo Facility

Concentrations of RAFFEX ranging from 3.1 ppm to 40 ppm were identified in soil samples collected at shallow depths below the concrete floor within the ORCo facility.

It is the opinion of ASE, that none of these concentrations present a significant environmental concern, and that that further assessment or remedial activities are not warranted.

8.3 Oil & Grease Within the ORCo Facility

Of the nine soil borings drilled within the ORCo facility, only one contained oil & grease at a concentration of 260 ppm. This boring is located adjacent to a crack in the area previously used to store drums of waste lubricating oils and greases. Borehole BH-7 is approximately 30-feet away and within the same area of drum storage. BH-7 contained non-detectable amounts of oil & grease. Because none of the other boreholes contained concentrations of oil & grease, it is safe to assume that the 260 ppm is localized, and would not present a significant environmental concern because of the concrete surface. *It is the opinion of ASE, that the 260 ppm oil & grease in borehole BH-8 does not present a significant environmental concern, and that that further assessment or remedial activities are not warranted.*

8.4 Zinc Within the ORCo Facility

Zinc Stearate was used during the extrusion of the rubber product to inhibit the product from adhering to itself as it was stacked onto pallets. This process was performed adjacent to the location of borehole BH-1. Zinc was identified in the soil sample collected from BH-1 at 18 ppm.

It is the opinion of ASE that this concentration is insignificant and requires no further assessment or remedial activities.

9.0 REPORT LIMITATIONS

The results of this assessment represent conditions at the time of the soil and groundwater sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory.

This report does not fully characterize the site for contamination resulting from unknown sources or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-EPA certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Aqua Science Engineers appreciates the opportunity provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (510) 820-9391.

Respectfully submitted,

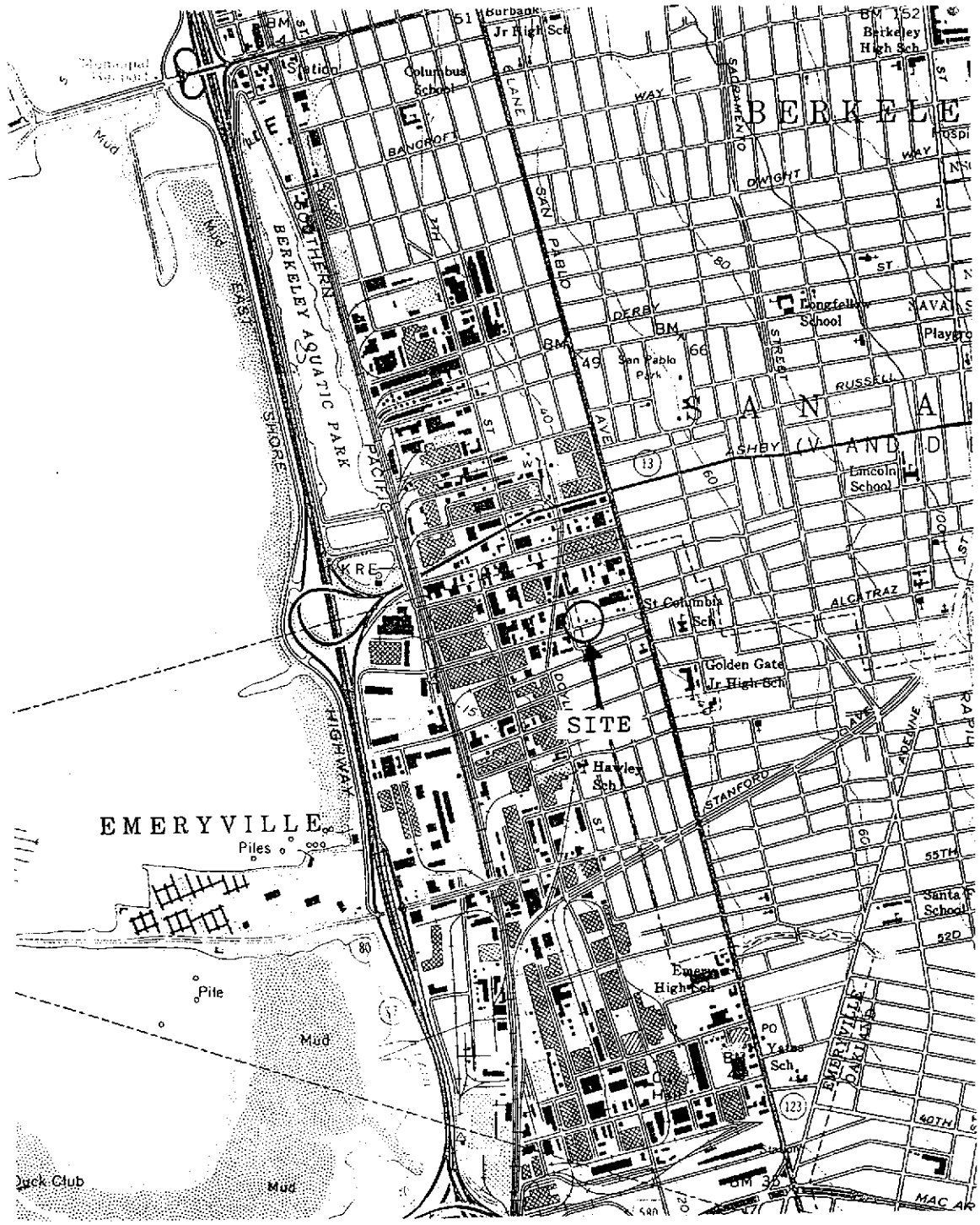
AQUA SCIENCE ENGINEERS, INC.

Charlie Rous
Staff Geologist

David Allen, R.E.A.
Senior Project Manager

Attachments

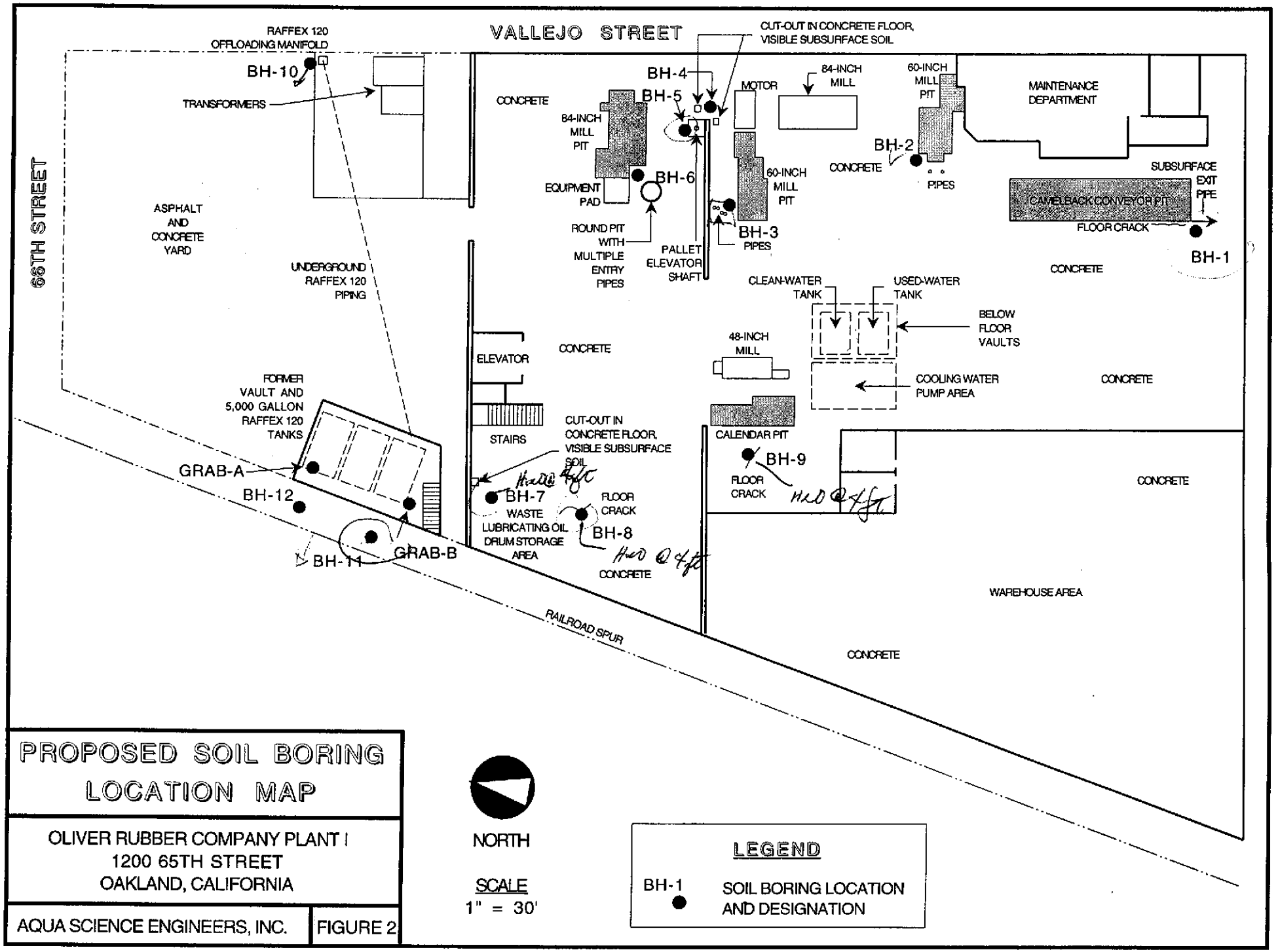
Distribution: Mr. Tom Palmer, The Standard Products Company
Mr. David Kuhre, The Oliver Rubber Company
Mr. Amir Gholami, ACHCSA
Ms. Susan Hugo, ACHCSA



SITE LOCATION MAP

OLIVER RUBBER COMPANY PLANT I
1200 65TH STREET
OAKLAND, CALIFORNIA

Aqua Science Engineers | Figure 1



PROPOSED SOIL BORING LOCATION MAP

OLIVER RUBBER COMPANY PLANT I
1200 65TH STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | FIGURE 2

NORTH

SCALE
1" = 30'

LEGEND

BH-1 ● SOIL BORING LOCATION AND DESIGNATION

PHOTOGRAPHS

Photograph 1 - RAFFEX Tank Vault

Groundwater weeping through hairline cracks.

Photograph 2 - RAFFEX Tank Vault

Closeup of weeping crack.

Photograph 3 - RAFFEX Tank Vault Sump

Photograph 4 - Camelback Conveyor Pit
Plug inserted in exit pipe; arrow pointing to crack in floor.

Photograph 5 - Milling Machine Pit Exit Pipes

Photograph 6 - Milling Machine Pit Exit Pipes

Photograph 7 - Milling Machine Pit Crack

Photograph 8 - Pit with exposed soil bottom.

Photograph 9 - Pit with exposed soil bottom.

Photograph 10 - Pallet Elevator Shaft

Photograph 11 - RAFFEX Underground Pipeline Removal

Photograph 12 - RAFFEX Underground Pipeline Removal

Photograph 13 - Geoprobe Soil Sampling Rig

APPENDIX A

Letter Dated December 12, 1997 to ACHCSA

THE STANDARD PRODUCTS co.

PRODUCT DEVELOPMENT DIVISION:
2401 SOUTH GULLEY ROAD, DEARBORN, MICHIGAN 48124-2486 • (313) 274-5024

Amir Gholami via Fax (510) 337-9335
Alameda County
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda CA 94502

12/12/97

Dear Mr. Gholami

This letter is to summarize the closure activities planned to be conducted at the Oliver Rubber facility located in Oakland and Emeryville. These activities are consistent with our discussions of November 20th when we met on the site to discuss the closure of the facility. Since then, we have further defined these activities with the assistance of contractors involved in this effort. This further definition delayed my response to you by several weeks.

As we discussed, the following hazardous waste closure activities will be conducted within 120 days after the termination of manufacturing operations:

- Obsolete raw materials, drained fluids, clean-up wastes, treatment residues, and other miscellaneous wastes that meet the definition of a California hazardous waste will be properly managed and recycled or disposed as a hazardous waste. An exception will be aqueous waste generated during cleaning activities that will be treated on site using a transportable treatment unit operated under a Permit-by-Rule application from the DTSC. Treated water will be analyzed to ensure compliance with applicable sanitary sewer requirements prior to discharge.

- Areas where oil containing hazardous waste were accumulated or stored will be cleaned using high pressure washing, sandblasting, and/or other effective methods. With the exception of aqueous wastes, clean-up residues will be properly characterized and recycled or disposed as a California hazardous waste as necessary.

- Areas where rubber tire tread buffing dust were accumulated or stored will be cleaned by sweeping and/or vacuuming followed by high pressure washing and/or other effective measures. With the exception of aqueous wastes, clean-up residues will be properly characterized and recycled or disposed as a California hazardous waste as necessary.

- The DTSC General Information Section in Sacramento will be notified to deactivate the site's generator ID number. Your office will also be copied on this notification.

We also discussed other environmental closure activities that will be conducted, and they include the following:

- Removal of three 5,000 gallon unregulated tanks and associated underground piping will be conducted. The tanks will be cleaned on site and then recycled as scrap metal.. The vault will be initially scraped and then further cleaned by high pressure washing, sandblasting, or other effective method. The integrity of the vault will be determined visually. Signs of questionable integrity will be further evaluated through subsurface soil samples. The majority of the underground piping will be removed, any visually contaminated soils will be removed by excavation, and the resulting excavation will be sampled. The portion of the piping under or through the transformer pad will be closed in place. The need to sample adjacent to this abandoned piping will be determined based on field observations. The Emeryville Fire Department will be notified, and any necessary permits will be obtained. Your office will be notified in advance of the sampling of the piping excavation and, if necessary, of the soils beneath the vault. With the exception of aqueous wastes, clean-up residues will be properly characterized and recycled or disposed as a California hazardous waste as necessary. The piping excavation and the vault will be backfilled and compacted after satisfactory completion of this work. A report will be prepared to summarize this work and findings.

- Cleaning and integrity determinations of equipment and process water pits will be conducted. The example we specifically discussed was the tread press pit that contains water and hydraulic oil. Cleaning will be accomplished by high pressure washing, sandblasting, or other effective methods. Integrity will be determined visually. Signs of questionable integrity will be further evaluated through subsurface soil samples. With the exception of aqueous wastes, clean-up residues will be properly characterized and recycled or disposed as a California hazardous waste as necessary. The pits will be backfilled and compacted after satisfactory completion of this work.

- Equipment will be drained if necessary and cleaned prior to removal from the site. Most equipment is expected to be sold for reconditioning/reuse or recycled for the scrap metal content. With the exception of aqueous wastes, clean-up residues will be properly characterized and recycled or disposed as a California hazardous waste as necessary.

- Cleaning of manufacturing areas by high pressure washing, sandblasting, or other effective methods will be conducted. With the exception of aqueous wastes, clean-up residues will be properly characterized and recycled or disposed as a California hazardous waste as necessary.

- Notification was sent to all authorities granting permits or licenses to the site which also solicited closure requirements and requirements for termination of permits and/or licenses. Termination of permits/licenses will be completed when appropriate.

- Environmental due diligence as associated with possible property transfers will continue. The due diligence process has already been completed on a significant portion of the site with no significant recognized environmental conditions. The remaining portion of the site will most probably also be evaluated by an environmental due diligence process. Documentation generated during the activities listed above will be referenced as part of the due diligence process.

Thank you for your visit to the site and the recommendations you provided. Dave Kuhre, Steve Brady, and myself look forward to working with you in the future.

Sincerely,

Tom Palmer
The Standard Products Company

cc: D Kuhre via Fax (510) 655-6319
S Brady
R Kessler via Fax (706) 354-1650

APPENDIX B

Material Safety Data Sheets

2306

SAN JOAQUIN REFINING CO., INC.
STANDARD & SHELL STREETS
P. O. BOX 5576
BAKERSFIELD CA 93388
(805) 327-4257

H HAZARD RATING
M 4 - SEVERE
I 3 - SERIOUS
S 2 - MODERATE
1 - SLIGHT
0 - MINIMAL

HEALTH
FLAMMABILITY
REACTIVITY
HMIS

MATERIAL SAFETY DATA SHEET
("ESSENTIALLY SIMILAR" TO FORM OSHA 20 MATERIAL SAFETY DATA SHEET)

PRODUCT NAME: RAFFEX 120 CODE: 3130
CHEMICAL FAMILY: PETROLEUM, HYDROCARBON
CHEMICAL NAME:
CAS NO. 64742-11-6, HEAVY NAPHTHENIC DISTILLATE SOLVENT EXTRACT

TYPICAL COMPOSITION: HEAVY NAPHTHENIC DISTILLATE SOLVENT EXTRACT 100%

EXPOSURE STANDARD, ACGIH TWA & OSHA PEL - OBSERVE 5 MG/M3 (CUBIC METER OF AIR) FOR MINERAL OILS

PHYSICAL DATA

INITIAL BOILING POINT, 'F: 550
VAPOR PRESSURE (MMHg): <0.1
VAPOR DENSITY (AIR=1): NA
SOLUBILITY IN WATER: NIL
APPEARANCE AND ODOR: BLACK LIQUID WITH LITTLE OR NO ODOR
SPECIFIC GRAVITY (H2O=1): 1.0
PERCENT VOLATILE, (% BY VOL.): NA
EVAPORATION RATE (ETHYL ETHER=1): <1

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT - COC,'F: 410
FLAMMABLE LIMITS: LEL NDA UEL NDA
EXTINGUISHING MEDIA: FOAM, WATER FOG, DRY CHEMICAL, CO2
SPECIAL FIRE FIGHTING PROCEDURES:
DO NO ENTER CONFINED FIRE SPACE WITHOUT PROPER PROTECTIVE EQUIPMENT INCLUDING SELF-CONTAINED BREATHING APPARATUS. SEE HAZARDOUS DECOMPOSITI PRODUCTS.

REACTIVITY DATA

STABILITY (THERMAL, LIGHT): STABLE
INCOMPATABILITY (MATERIALS TO AVOID): MAY REACT WITH STRONG OXIDIZERS.
HAZARDOUS DECOMPOSTION PRODUCTS: NORMAL COMBUSTION FORMS CARBON DIOXIDE AND WATER VAPOR, AND MAY PRODUCE OXIDES OF SULFUR AND NITROGEN. INCOMPLETE COMBUSTION CAN PRODUCE CARBON MONOXIDE.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

- CONTINUED ON NEXT PAGE -

SAN JOAQUIN REFINING CO. INC. MATERIAL SAFETY DATA SHEET

SPILL OR LEAK PROCEDURES

STEPS IN CASE OF SPILL: CLEAN UP USING ABSORBENT MATERIAL, SUCH AS EARTH OR SAND.
WASTE DISPOSAL METHOD: OBSERVE FEDERAL, STATE, AND LOCAL REGULATIONS COVERING CHEMICAL WASTE SPILLS.

SPECIAL PROTECTION INFORMATION FOR POTENTIAL ROUTES OF ENTRY

EYE: AVOID EYE CONTACT. FLUSH WITH PLENTY OF WATER. IF IRRITATION PERSIS SEEK MEDICAL ATTENTION.
SKIN: AVOID SKIN CONTACT. IF CONTACT OCCURS, WASH WITH SOAP AND WATER.
RESPIRATORY PROTECTION: IF OPERATING CONDITIONS CREATE AIRBORN CONCENTRA WHICH EXCEED THE EXPOSURE STANDARD, THE USE OF AN APPROVED NIOSH/OS RESPIRATOR FOR ORGANIC VAPORS OR AIR-SUPPLIED BREATHING EQUIPMENT I RECOMMENDED.
VENTILATION: USE ADEQUATE VENTILATION TO KEEP THE AIRBORN CONCENTRATIONS THIS MATERIAL BELOW THE ESTABLISHED EXPOSURE STANDARD.

SPECIAL PRECAUTIONS AND SAFE HANDLING

AVOID FIRE, SPARKS, OPEN FLAME. WEAR APPROPRIATE EQUIPMENT TO INSURE THAT PRODUCT DOES NOT CONTACT EYES OR SKIN.

HEALTH HAZARD DATA

EYES: THIS MATERIAL IS NOT EXPECTED TO CAUSE EYE IRRITATION.
SKIN: THIS MATERIAL IS NOT EXPECTED TO CAUSE SKIN IRRITATION.
INGESTION: NOT EXPECTED TO BE ACTUTELY TOXIC BY INGESTION. IF SWALLOWED DO NOT INDUCE VOMITING, CALL A PHYSICIAN.
INHALATION: FUMES MAY BE UNPLEASANT AND MAY PRODUCE NAUSEA. REMOVE THE PERSON TO FRESH AIR IF RESPIRATORY DISCOMFORT OCCURS.
EFFECT OF OVEREXPOSURE: INHALATION OF HIGH CONCENTRATIONS MAY CAUSE DIZZINESS, HEADACHE, OR NAUSEA.

SUSPECTED CANCER AGENT:
THIS PRODUCT CONTAINS PETROLEUM OILS SIMILAR TO ONES CATEGORIZED BY TH INTERNATIONAL AGENCY FOR RESEARCH ON CANCER AS CAUSING SKIN CANCER IN MICE WHEN REPEATEDLY APPLIED FOR MOST OF THE LIFETIME OF THE ANIMAL WI NO EFFORT MADE TO REMOVE THE OIL BETWEEN APPLICATIONS.

DATE REVISED: 7/94 REVISED BY:

NA = NOT APPLICABLE
NDA = NO DATA AVAILABLE

Crystal

MATERIAL SAFETY DATA SHEET

SLAB DIP 9035

SECTION I - IDENTITY

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
[redacted]	215-368-1661

ADDRESS (Number, Street, City, State, and Zip Code)
601 West 8th Street, Lansdale, PA 19446

CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS
N/A	GS-250 Zinc Stearate Dispersion
CHEMICAL FAMILY: Blend	FORMULA: N/A

SECTION II - HAZARDOUS INGREDIENTS

CAS NO.	PRINCIPAL HAZARDOUS COMPONENT(S)	%	TLV (units)
67-63-0	Isopropyl Alcohol		400 PPM
34590-94-8	Dipropylene Glycol Methyl Ether		
557-05-1	Zinc Stearate *	28	
*	Requires reporting as Zinc Compound under SARA Title III, Sec. 313		

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H_2O = 1)	N/A
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT, VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE (_____ = 1)	N/A
SOLUBILITY IN WATER	slight	REACTIVITY IN WATER	N/A
APPEARANCE AND ODOR	Whitepaste, Characteristic odor	pH	N/A

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT (Method used) Non-COC 110°F PMCC		FLAMMABLE LIMITS N/A	LOWER / UPPER
EXTINGUISHING MEDIA: Foam, CO_2 Dry Chemical		AUTO-IGNITION TEMPERATURE: N/A	

SPECIAL FIRE FIGHTING PROCEDURES
Wear self-contained breathing gear when fire-fighting in confined areas.

UNUSUAL FIRE AND EXPLOSION HAZARDS
N/A

SECTION V - PHYSICAL HAZARDS

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATABILITY (Materials to avoid)
Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS
Carbon Monoxide, Carbon Dioxide

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VI - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	Nusiance Dust
Effects of Overexposure 1. Inhalation	None expected
2. Eyes	May cause irritation
3. Skin	Prolonged or repeated contact may cause irritation
4. Ingestion	Unknown

Chemical Listed as Carcinogen or Potential Carcinogen	National Toxicology Program	Yes ☐ No ☒	I.A.R.C. Monographs	Yes ☐ No ☒	OSHA	Yes ☐ No ☒
OSHA Permissible Exposure Limit	ACGIH Threshold Limit Value		Other Exposure Limit Used			

Emergency and First Aid Procedures	
1. Inhalation	Remove to Fresh air
2. Eyes	Flush with water for 15 minutes and get medical attention
3. Skin	Wash with soap and water
4. Ingestion	Consult a Physician

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Shovel into containers for reuse or disposal. Scrub area with detergent

WASTE DISPOSAL METHOD

Incineration or landfill in accordance with Federal, State and Local regulations.

SECTION VII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)* Not required

VENTILATION	LOCAL EXHAUST N/A	SPECIAL N/A	
	MECHANICAL *(General)* N/A	OTHER N/A	
PROTECTIVE GLOVES wear for prolonged contact		EYE PROTECTION Goggles	
OTHER PROTECTIVE EQUIPMENT N/A			

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTION TO BE TAKEN IN HANDLING AND STORING

Store indoors - Keep away from heat, sparks and flames.

OTHER PRECAUTIONS

Empty container may contain explosive vapors. Keep away from heat, sparks and flames. Do not cut, puncture or weld on or near this container.

Prepared by T. Fickert Title Technical Director

Signature Ted Fickert Date 12/22/88

Crystal INC.

APPENDIX C

Drilling Permit

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651
PHONE (510) 670-5575 ANDREAS GODFREY FAX (510) 670-5262
(510) 670-5248 ALVIN KAN

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 1499 65th Street
Oakland 94608

California Coordinates Source _____ ft. Accuracy ± ___ ft.
CCN _____ ft. CCE _____ ft.
PN _____

CLIENT
Name OLIVER RUBBER COMPANY
Address 1499 65TH STREET Phone 654-7716
City Oakland Zip 94608

APPLICANT
Name Aqua Science Engineers
Attn: Alvin Kay Fax (925) 837-4853
Address 6111 Lakeside Commons Drive #204 Phone (925) 820-9391
City San Ramon, CA Zip 94583

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☒
Monitoring	☐	Well Destruction	☐

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other _____	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☒ Geoprobe		

DRILLER'S LICENSE NO. C-57 482390

WELL PROJECTS
Drill Hole Diameter _____ in. Maximum
Casing Diameter _____ in. Depth 15 ft.
Surface Seal Depth _____ ft. Number 12

GEOTECHNICAL PROJECTS
Number of Borings 12 Maximum
Hole Diameter 2 in. Depth 15 ft.

ESTIMATED STARTING DATE 4-8-98
ESTIMATED COMPLETION DATE 4-8-98

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Rachel C. Kay DATE 3-31-98

FOR OFFICE USE

PERMIT NUMBER 98 WR 149
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A) GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
(2) Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
(3) Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(D) GEOTECHNICAL
Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC
Fill hole above anode zone with concrete placed by tremie

F. WELL DESTRUCTION
See attached.

G. SPECIAL CONDITIONS

APPROVED A. Kan DATE 4/6/98

APPENDIX D

Boring Logs

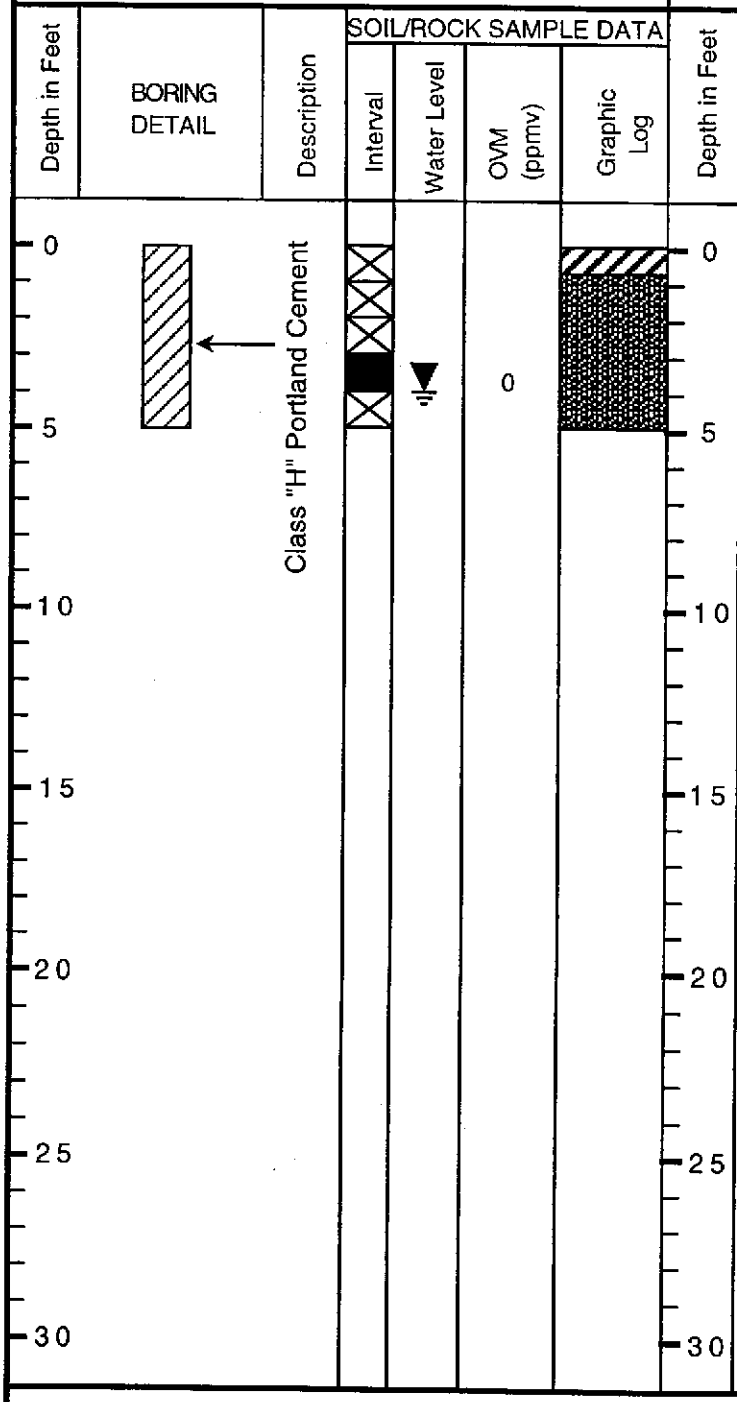
SOIL BORING LOG AND COMPLETION DETAILS

Boring BH-1

Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland, CA	Page 1 of 1
Driller: Kvilhaug Well Drilling	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter Direct Push
Logged By: Charlie Rous	Date Drilled: April 8, 1998	Checked By: Robert E. Kitay, R.G. RK

WATER AND WELL DATA

Depth of Water First Encountered: 4'	Total Depth of Well Completed: NA
Static Depth of Water in Boring: 4'	Well Screen Type and Diameter: NA
Total Depth of Boring: 5.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Concrete
	Clayey SILT (ML); black; soft; damp; 60-70% silt; 25-35% clay; 5% medium sand; low plasticity; low estimated K; no odor
5	@3'; as above; greenish gray; moist; no odor
	End of boring at 5.0'
10	
15	
20	
25	
30	

AQUA SCIENCE ENGINEERS, INC.

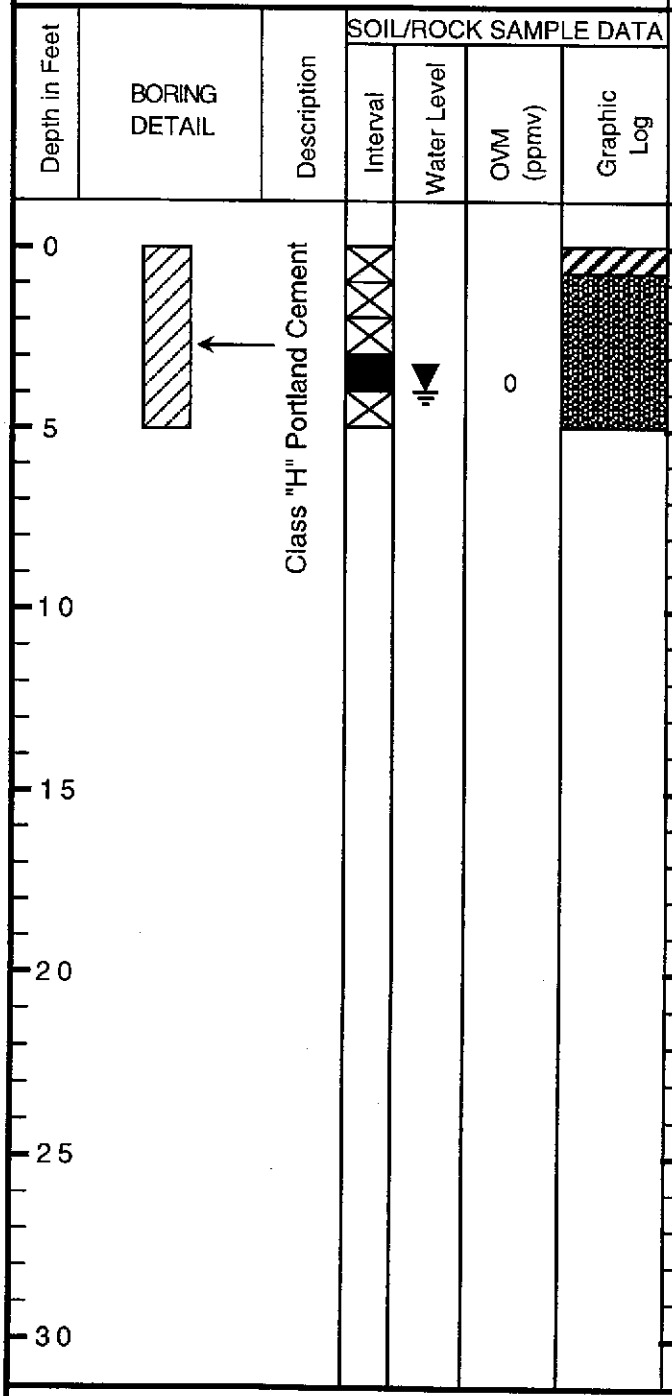
SOIL BORING LOG AND COMPLETION DETAILS

Boring BH-2

Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland, CA	Page 1 of 1
Driller: Kvilhaug Well Drilling	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter Direct Push
Logged By: Charlie Rous	Date Drilled: April 8, 1998	Checked By: Robert E. Kitay, R.G. RK

WATER AND WELL DATA

Depth of Water First Encountered: 4'	Total Depth of Well Completed: NA
Static Depth of Water in Boring: 4'	Well Screen Type and Diameter: NA
Total Depth of Boring: 5.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Concrete

Clayey SILT (ML); yellowish brown with dark brown and black; soft; moist; 50-60% silt; 30-40% clay; 10-20% medium to coarse sand; low plasticity; low estimated K; no odor

End of boring at 5.0'

AQUA SCIENCE ENGINEERS, INC.

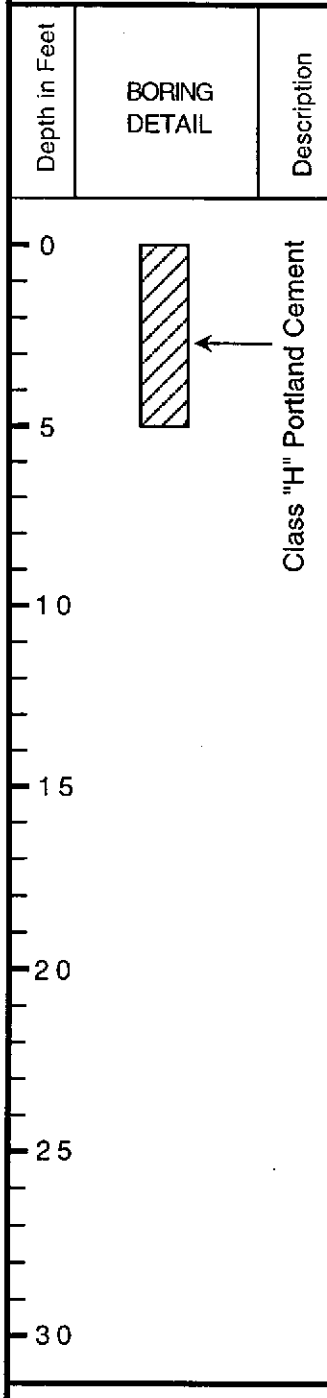
SOIL BORING LOG AND COMPLETION DETAILS

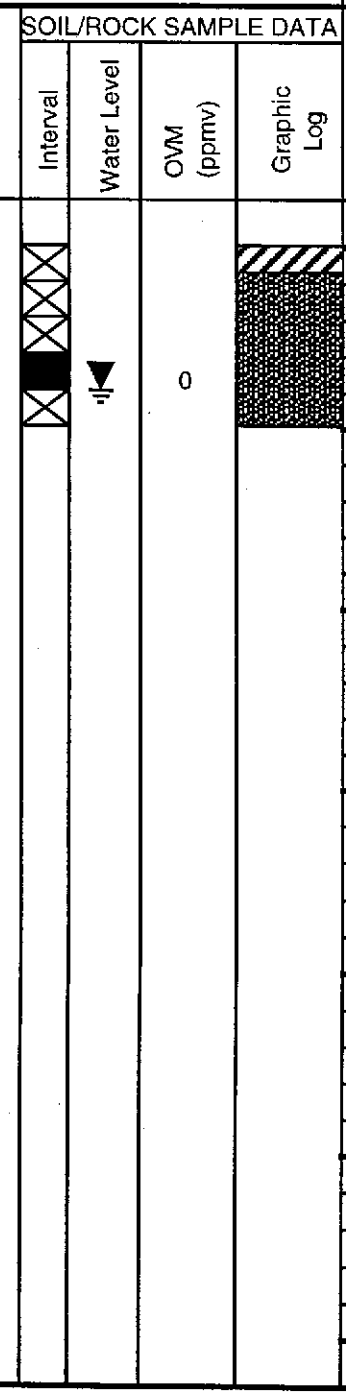
Boring BH-3

Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland, CA	Page 1 of 1
Driller: Kvilhaug Well Drilling	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter Direct Push
Logged By: Charlie Rous	Date Drilled: April 8, 1998	Checked By: Robert E. Kitay, R.G. RK

WATER AND WELL DATA

Depth of Water First Encountered: 4'	Total Depth of Well Completed: NA
Static Depth of Water in Boring: 4'	Well Screen Type and Diameter: NA
Total Depth of Boring: 5.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler





DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Concrete

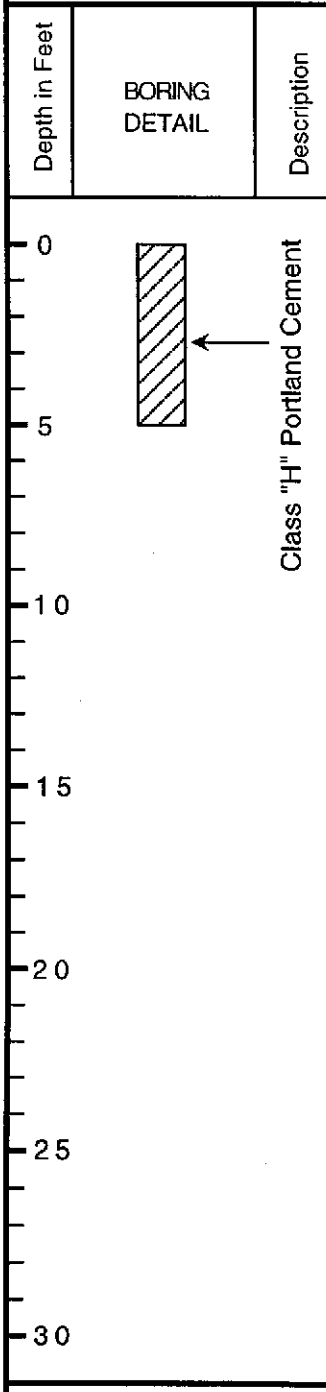
Clayey SILT (ML); dark grayish brown; soft; moist; 60-70% silt; 20-30% clay; 10% fine to medium sand; low plasticity; low estimated K; no odor

End of boring at 5.0'

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND COMPLETION DETAILS		Boring BH-4
Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland, CA	Page 1 of 1
Driller: Kvilhaug Well Drilling	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter Direct Push
Logged By: Charlie Rous	Date Drilled: April 8, 1998	Checked By: Robert E. Kitay, R.G. RK

WATER AND WELL DATA	
Depth of Water First Encountered: 4'	Total Depth of Well Completed: NA
Static Depth of Water in Boring: 4'	Well Screen Type and Diameter: NA
Total Depth of Boring: 5.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler

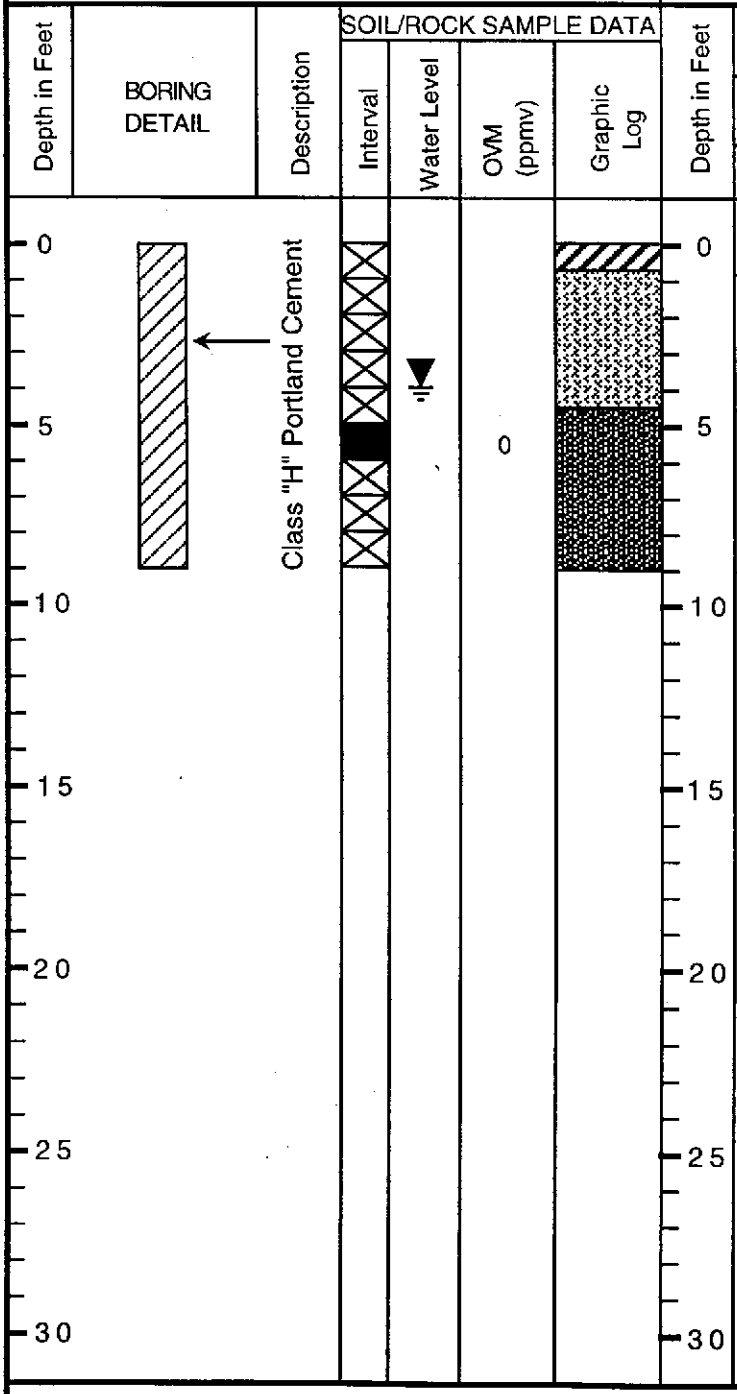


Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Concrete
0	Silty SAND (SM); yellowish brown with olive, gray, and pale yellow; loose; moist; 60-70% medium to coarse sand; 20-30% silt; 10% angular pebbles; non-plastic; medium estimated K; no odor
5	End of boring at 5.0'
10	
15	
20	
25	
30	

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND COMPLETION DETAILS		Boring BH-5
Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland, CA	Page 1 of 1
Driller: Kvilhaug Well Drilling	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter Direct Push
Logged By: Charlie Rous	Date Drilled: April 8, 1998	Checked By: Robert E. Kitay, R.G. RK

WATER AND WELL DATA	
Depth of Water First Encountered: 4'	Total Depth of Well Completed: NA
Static Depth of Water in Boring: 4'	Well Screen Type and Diameter: NA
Total Depth of Boring: 9.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Concrete

Silty SAND (SM); yellowish brown with olive, gray, and pale yellow; loose; moist; 60-70% medium to coarse sand; 20-30% silt; 10% angular pebbles; non-plastic; medium estimated K; no odor

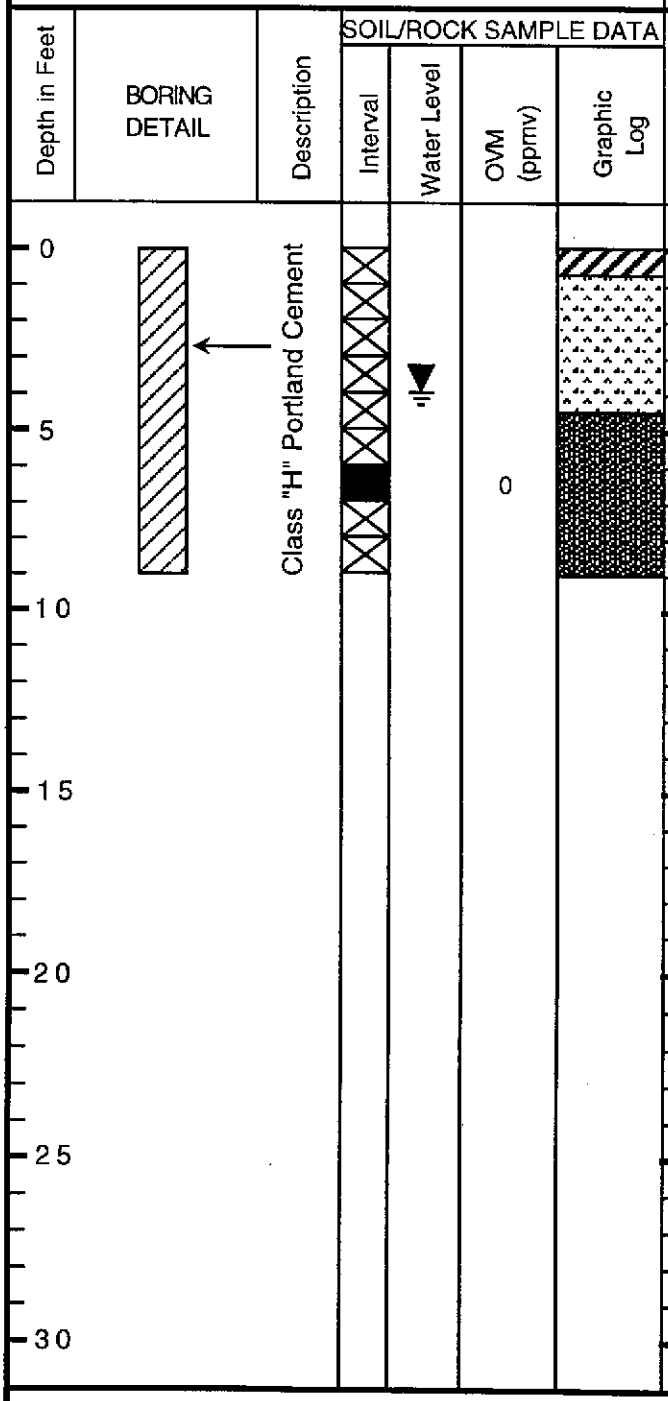
Clayey SILT (ML); dark greenish gray to black; stiff; moist; 50-60% silt; 30-40% clay; 10% coarse sand and angular pebbles; low plasticity; low estimated K; no odor

End of boring at 9.0'

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND COMPLETION DETAILS		Boring BH-6
Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland, CA	Page 1 of 1
Driller: Kvilhaug Well Drilling	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter Direct Push
Logged By: Charlie Rous	Date Drilled: April 8, 1998	Checked By: Robert E. Kitay, R.G. RK

WATER AND WELL DATA	
Depth of Water First Encountered: 4'	Total Depth of Well Completed: NA
Static Depth of Water in Boring: 4'	Well Screen Type and Diameter: NA
Total Depth of Boring: 9.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Concrete

Silty GRAVEL (GM); yellowish brown with pale yellow, white, and gray; dense; moist; 80% angular gravel; 10% silt; 10% medium to coarse sand; non-plastic; medium estimated K; no odor

Clayey SILT (ML); dark greenish gray; soft; moist; 60-70% silt; 30-40% clay; low plasticity; low estimated K; no odor

End of boring at 9.0'

AQUA SCIENCE ENGINEERS, INC.

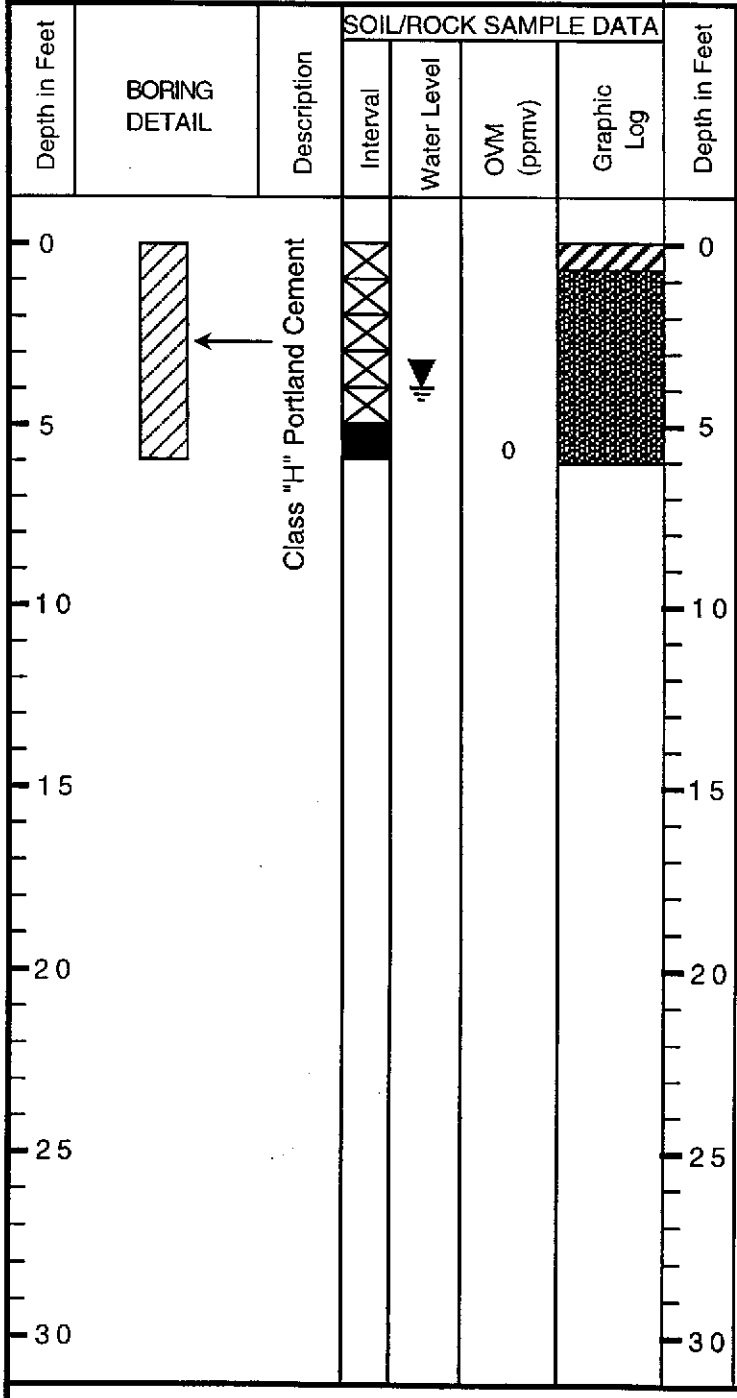
SOIL BORING LOG AND COMPLETION DETAILS

Boring BH-7

Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland, CA	Page 1 of 1
Driller: Kvilhaug Well Drilling	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter Direct Push
Logged By: Charlie Rous	Date Drilled: April 8, 1998	Checked By: Robert E. Kitay, R.G. RK

WATER AND WELL DATA

Depth of Water First Encountered: 4'	Total Depth of Well Completed: NA
Static Depth of Water in Boring: 4'	Well Screen Type and Diameter: NA
Total Depth of Boring: 6.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Concrete

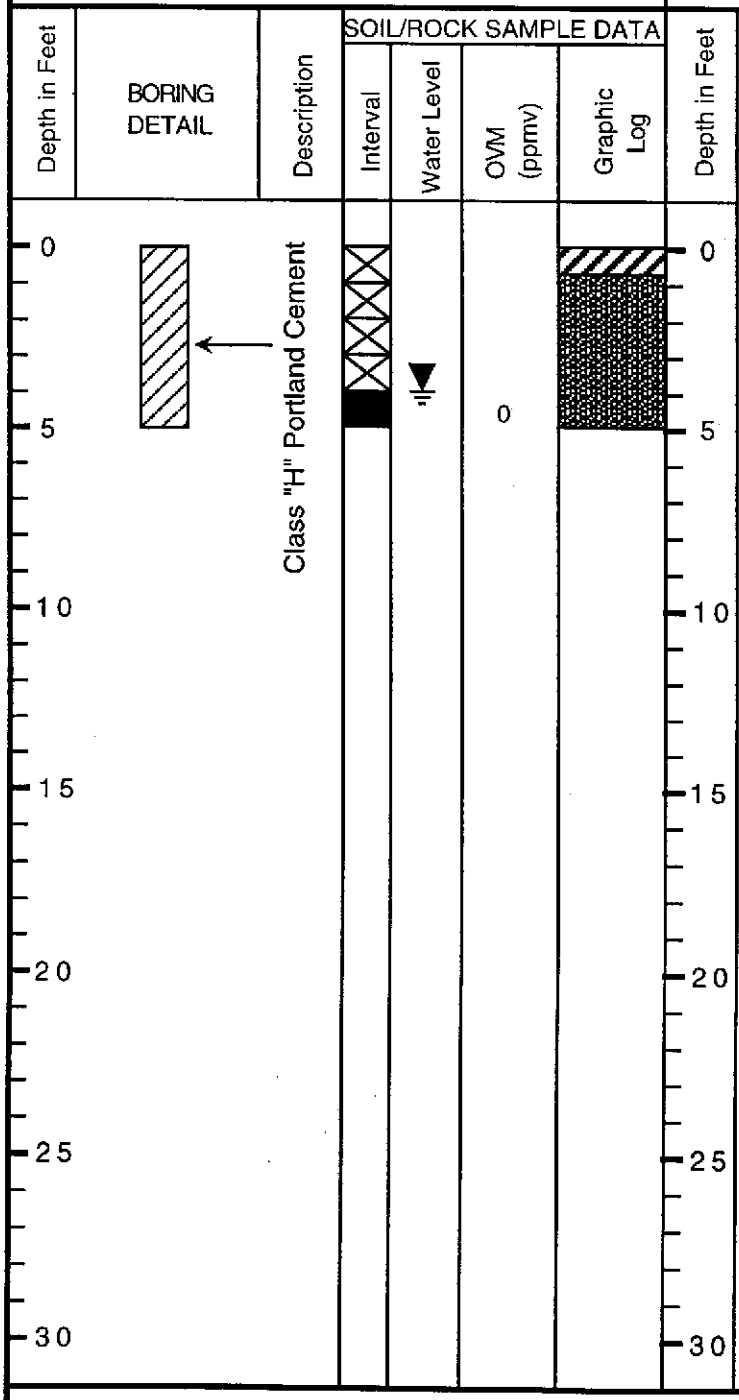
Clayey SILT (ML); dark yellowish brown; soft; moist; 50-60% silt; 20-30% clay; 10% medium sand; 10% angular gravel; low plasticity; low estimated K; no odor

Refusal at 6.0'

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND COMPLETION DETAILS		Boring BH-8
Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland, CA	Page 1 of 1
Driller: Kvilhaug Well Drilling	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter Direct Push
Logged By: Charlie Rous	Date Drilled: April 8, 1998	Checked By: Robert E. Kitay, R.G. RK

WATER AND WELL DATA	
Depth of Water First Encountered: 4'	Total Depth of Well Completed: NA
Static Depth of Water in Boring: 4'	Well Screen Type and Diameter: NA
Total Depth of Boring: 5.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Concrete

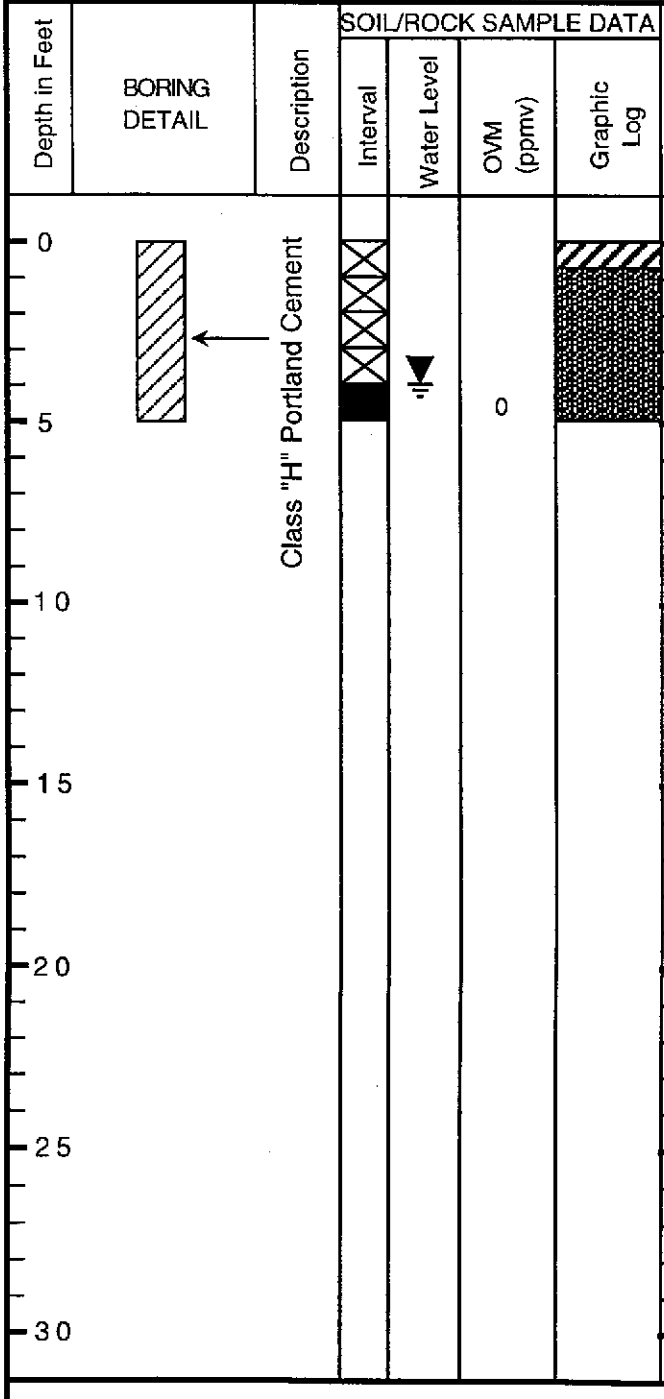
Clayey SILT (ML); black; soft; damp; 50-60% silt; 30% clay; 10-20% angular pebbles; low plasticity; low estimated K; no odor

End of boring at 5.0'

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND COMPLETION DETAILS		Boring BH-9
Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland, CA	Page 1 of 1
Driller: Kvilhaug Well Drilling	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter Direct Push
Logged By: Charlie Rous	Date Drilled: April 8, 1998	Checked By: Robert E. Kitay, R.G. RK

WATER AND WELL DATA	
Depth of Water First Encountered: 4'	Total Depth of Well Completed: NA
Static Depth of Water in Boring: 4'	Well Screen Type and Diameter: NA
Total Depth of Boring: 5.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Concrete
	Clayey SILT (ML); black; soft; damp; 60-70% silt; 30-40% clay; moderate plasticity; low estimated K; no odor
5	@2.5'; as above; dark greenish gray; no odor
	End of boring at 5.0'

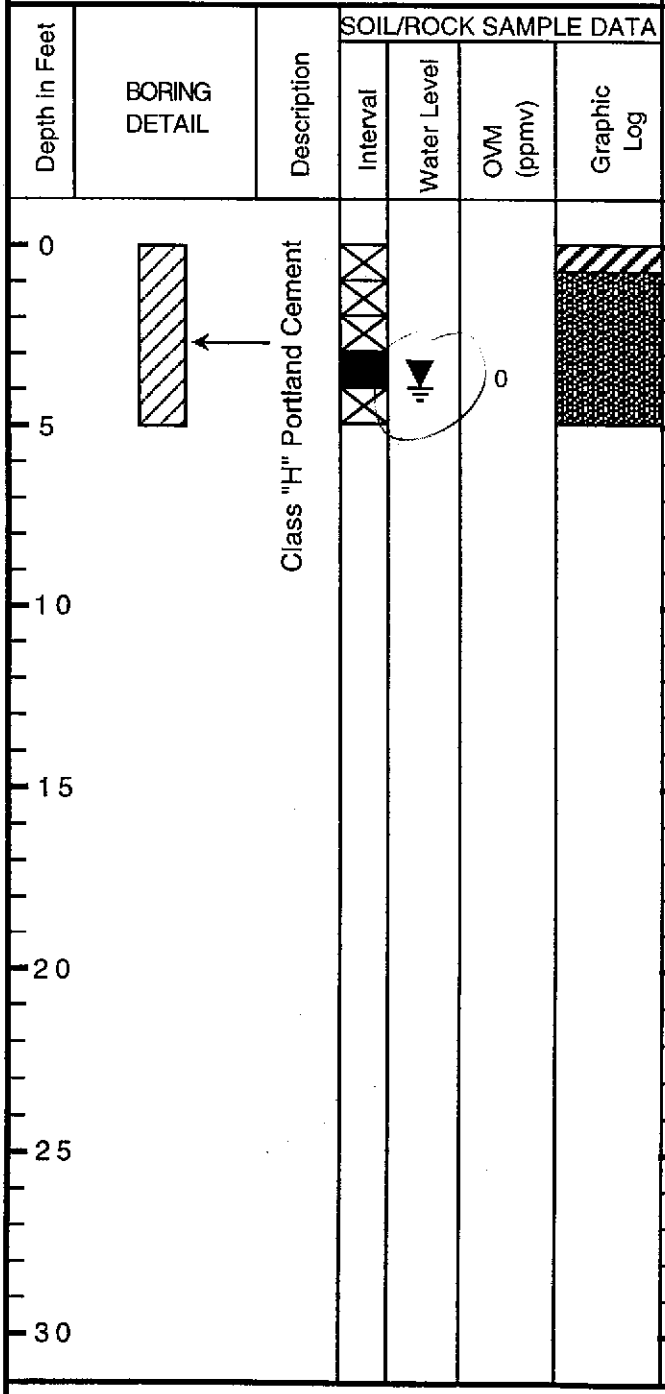
SOIL BORING LOG AND COMPLETION DETAILS

Boring BH-10

Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland, CA	Page 1 of 1
Driller: Kvilhaug Well Drilling	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter Direct Push
Logged By: Charlie Rous	Date Drilled: April 8, 1998	Checked By: Robert E. Kitay, R.G. RK

WATER AND WELL DATA

Depth of Water First Encountered: 4'	Total Depth of Well Completed: NA
Static Depth of Water in Boring: 4'	Well Screen Type and Diameter: NA
Total Depth of Boring: 5.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler

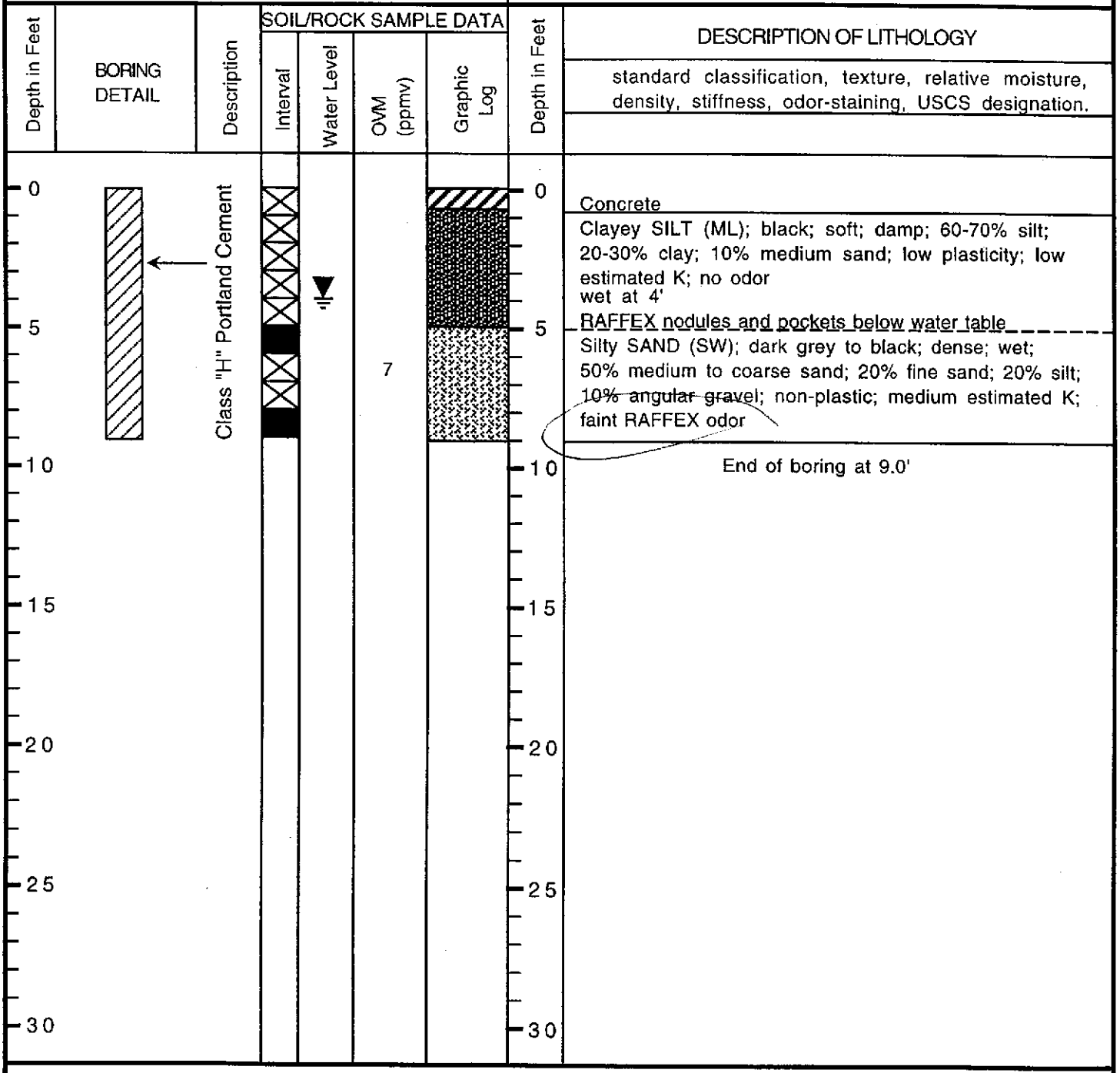


Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Concrete
	Clayey SILT (ML); black; soft; damp; 50-60% silt; 20-30% clay; 20% coarse sand to angular pebbles; low plasticity; low estimated K; no odor
5	@2.5'; as above; dark greenish gray; no odor
	End of boring at 5.0'
10	
15	
20	
25	
30	

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND COMPLETION DETAILS		Boring BH-11
Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland, CA	Page 1 of 1
Driller: Kvilhaug Well Drilling	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter Direct Push
Logged By: Charlie Rous	Date Drilled: April 8, 1998	Checked By: Robert E. Kitay, R.G. RK

WATER AND WELL DATA	
Depth of Water First Encountered: 4'	Total Depth of Well Completed: NA
Static Depth of Water in Boring: 4'	Well Screen Type and Diameter: NA
Total Depth of Boring: 9.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



AQUA SCIENCE ENGINEERS, INC.

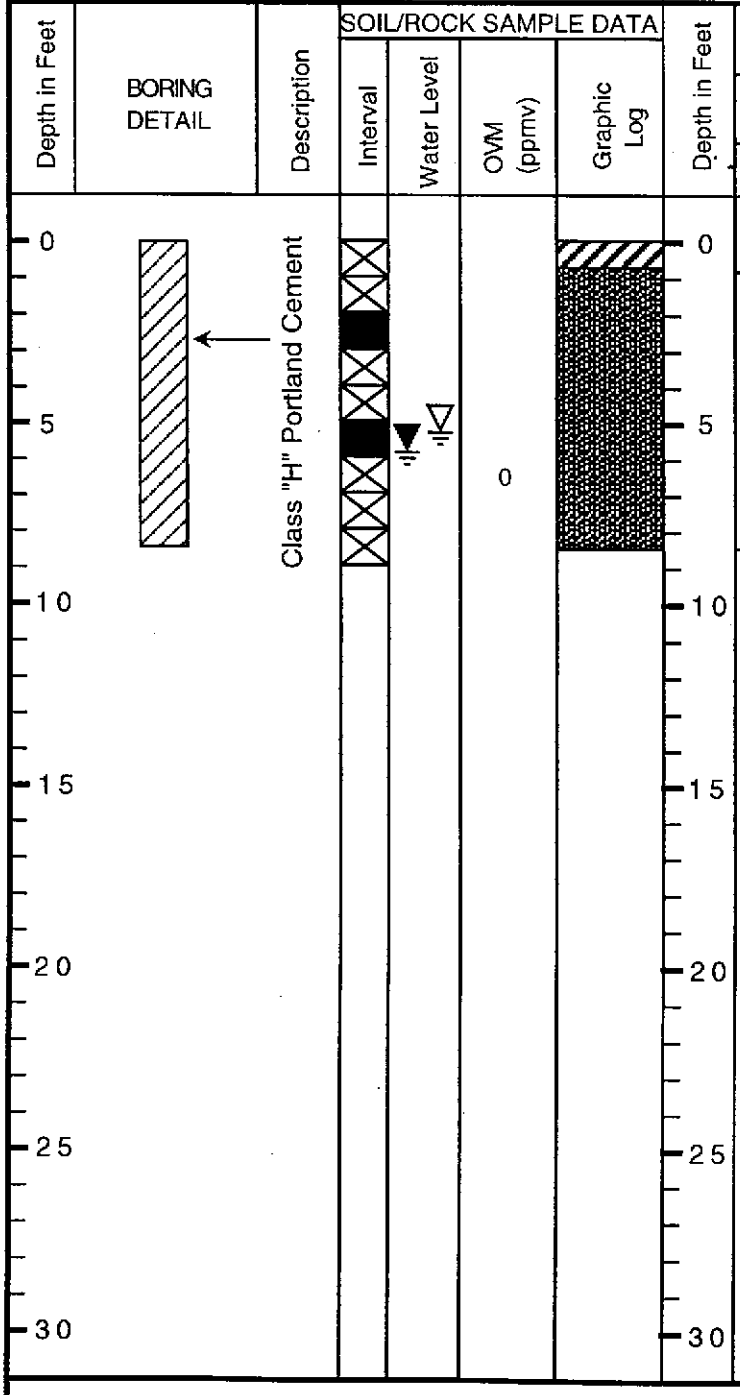
SOIL BORING LOG AND COMPLETION DETAILS

Boring BH-12

Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland, CA	Page 1 of 1
Driller: Kvilhaug Well Drilling	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter Direct Push
Logged By: Charlie Rous	Date Drilled: April 8, 1998	Checked By: Robert E. Kitay, R.G. RK

WATER AND WELL DATA

Depth of Water First Encountered: 5.7'	Total Depth of Well Completed: NA
Static Depth of Water in Boring: 5.3'	Well Screen Type and Diameter: NA
Total Depth of Boring: 8.5'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Asphalt

Clayey SILT (ML); black; stiff; damp to moist; 50-60% silt; 30-40% clay; 10% medium to coarse sand; low plasticity; low estimated K; no odor

@ 6'; as above; wet; 40-50% silt; 30-40% clay; 20% angular pebbles; low plasticity; low estimated K; faint odor

End of boring at 8.5'

AQUA SCIENCE ENGINEERS, INC.

APPENDIX E

Certified Analytical Report
and
Chain of Custody Documentation

CHROMALAB, INC.

Environmental Services (SDB)

March 12, 1998 *Submission #:* 9803134

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER *Project#:* 3231
Received: March 11, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: TRENCH-C
Spl#: 174625 *Matrix:* SOIL *Extracted:* March 11, 1998
Sampled: March 11, 1998 *Run#:*11576 *Analyzed:* March 11, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	9.6	1.0	N.D.	102	1

Note: *Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.*

Bruce Havlik
Chemist

Carolyn House
Chemist

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(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

March 12, 1998 *Submission #:* 9803134

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER *Project#:* 3231
Received: March 11, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: TRENCH-B
Spl#: 174624 *Matrix:* SOIL *Extracted:* March 11, 1998
Sampled: March 11, 1998 *Run#:*11576 *Analyzed:* March 11, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	35	2.0	N.D.	102	2

Note: Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

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CHROMALAB, INC.

Environmental Services (SDB)

March 12, 1998 *Submission #:* 9803134

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER *Project#:* 3231
Received: March 11, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **TRENCH-A**
Spl#: 174623 *Matrix:* SOIL *Extracted:* March 11, 1998
Sampled: March 11, 1998 *Run#:*11576 *Analyzed:* March 11, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	3.8	1.0	N.D.	102	1

Note: Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

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Carolyn House
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CHROMALAB, INC.

Environmental Services (SDB)

February 12, 1998 *Submission #:* 9802149

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER RUBBER *Project#:* 3231
Received: February 10, 1998

re: 3 samples for TEPH analysis.
Method: *EPA 8015M*

Matrix: WATER *Extracted:* February 11, 1998
Sampled: February 10, 1998 *Run#:* 11122 *Analyzed:* February 11, 1998

Spl#	CLIENT SPL ID	Kerosene (ug/L)	Raffex (ug/L)	Motor Oil (ug/L)
170250	GRAB-A	N.D.	8000	N.D.
	Note: Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.			
170251	GRAB-B	N.D.	28000	N.D.
	Note: Quantitation base upon a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.			

Matrix: SOIL *Extracted:* February 11, 1998
Sampled: February 10, 1998 *Run#:* 11126 *Analyzed:* February 11, 1998

Spl#	CLIENT SPL ID	Kerosene (ug/L)	Raffex (mg/Kg)	Motor Oil (mg/Kg)
170252	GRAB-A@3.5'	N.D.	380	N.D.
	Note: Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.			
Reporting Limits		1.0	1.0	50
Blank Result		N.D.	N.D.	N.D.
Blank Spike Result (%)		--	99.8	--

Mark A Havlik For
Bruce Havlik
Chemist

Carolyn House
Chemist

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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC
Atten: Charlie Rous
Project: OLIVER *Project#:* 3231
Received: April 9, 1998
re: One sample for Volatile Organics by GC/MS analysis.
Method: *8010 Compounds by Method 8260A Sept 1994*

Client Sample ID: BH-1@ 3'
Spl#: 180006 *Matrix:* SOIL
Sampled: April 8, 1998 *Run#:* 12189 *Analyzed:* April 14, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	95.1	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	106	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	102	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

for Olga Newton
Michael Verona
Operations Manager

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Federal ID #68-0140157

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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC
Atten: Charlie Rous
Project: OLIVER *Project#:* 3231
Received: April 9, 1998
re: One sample for Volatile Organics by GC/MS analysis.
Method: *8010 Compounds by Method 8260A Sept 1994*

Client Sample ID: BH-2@ 2.5'
Spl#: 180007 *Matrix:* SOIL
Sampled: April 8, 1998 *Run#:* 12189 *Analyzed:* April 14, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	95.1	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	106	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	102	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

for Michael Verona
Michael Verona
Operations Manager

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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC
Atten: Charlie Rous
Project: OLIVER *Project#:* 3231
Received: April 9, 1998
re: One sample for Volatile Organics by GC/MS analysis.
Method: *8010 Compounds by Method 8260A Sept 1994*

Client Sample ID: BH-3@ 3'
Spl#: 180008 *Matrix:* SOIL
Sampled: April 8, 1998 *Run#:* 12189 *Analyzed:* April 14, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	95.1	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	106	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	102	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

for Michael Verona
Michael Verona
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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC
Atten: Charlie Rous
Project: OLIVER *Project#:* 3231
Received: April 9, 1998
re: One sample for Volatile Organics by GC/MS analysis.
Method: *8010 Compounds by Method 8260A Sept 1994*

Client Sample ID: BH-4@ 2'
Spl#: 180009 *Matrix:* SOIL
Sampled: April 8, 1998 *Run#:* 12189 *Analyzed:* April 14, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	95.1	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	106	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	102	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

for Oleg Newdoor
Michael Verona
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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC
Atten: Charlie Rous
Project: OLIVER *Project#:* 3231
Received: April 9, 1998
re: One sample for Volatile Organics by GC/MS analysis.
Method: *8010 Compounds by Method 8260A Sept 1994*

Client Sample ID: BH-5@ 5'
Spl#: 180010 *Matrix:* SOIL
Sampled: April 8, 1998 *Run#:* 12196 *Analyzed:* April 15, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	94.7	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	105	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	103	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

for Oleg Vendson
Michael Verona
Operations Manager

510-837-4853 PM 04/16
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Federal ID #68-0140157

V057 0:0C0405 JIEWEI

CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC
Atten: Charlie Rous
Project: OLIVER *Project#:* 3231
Received: April 9, 1998
re: One sample for Volatile Organics by GC/MS analysis.
Method: *8010 Compounds by Method 8260A Sept 1994*

Client Sample ID: BH-7@ 5.5'
Spl#: 180011 *Matrix:* SOIL
Sampled: April 8, 1998 *Run#:* 12196 *Analyzed:* April 15, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	
BROMOFORM	N.D.	5.0	N.D.	--	
BROMOMETHANE	N.D.	10	N.D.	--	
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	
CHLOROBENZENE	N.D.	5.0	N.D.	94.7	
CHLOROETHANE	N.D.	10	N.D.	--	
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	
CHLOROFORM	N.D.	5.0	N.D.	--	
CHLOROMETHANE	N.D.	10	N.D.	--	
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	105	
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	
TRICHLOROETHENE	N.D.	5.0	N.D.	103	
VINYL CHLORIDE	N.D.	5.0	N.D.	--	
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	

June Zhao
Chemist

for Michael Verona
Michael Verona
Operations Manager

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Federal ID #68-0140157

V057 0:0C0405 JIEWEI

CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC
Atten: Charlie Rous
Project: OLIVER *Project#:* 3231
Received: April 9, 1998
re: One sample for Volatile Organics by GC/MS analysis.
Method: *8010 Compounds by Method 8260A Sept 1994*

Client Sample ID: BH-6@ 6'
Spl#: 180012 *Matrix:* SOIL
Sampled: April 8, 1998 *Run#:* 12196 *Analyzed:* April 15, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	94.7	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	105	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	103	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

for Alleg Vendson
Michael Verona
Operations Manager

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V057 0:0C0405 JIEWEI

CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC
Atten: Charlie Rous
Project: OLIVER *Project#:* 3231
Received: April 9, 1998
re: One sample for Volatile Organics by GC/MS analysis.
Method: *8010 Compounds by Method 8260A Sept 1994*

Client Sample ID: BH-8@ 4'
Spl#: 180013 *Matrix:* SOIL
Sampled: April 8, 1998 *Run#:* 12196 *Analyzed:* April 15, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	94.7	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	105	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	103	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

for Olley Newton
Michael Verona
Operations Manager

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V057 D:QC0405 JIEWEI

CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC
Atten: Charlie Rous
Project: OLIVER *Project#:* 3231
Received: April 9, 1998
re: One sample for Volatile Organics by GC/MS analysis.
Method: *8010 Compounds by Method 8260A Sept 1994*

Client Sample ID: BH-9@ 4'
Spl#: 180014 *Matrix:* SOIL
Sampled: April 8, 1998 *Run#:* 12196 *Analyzed:* April 15, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	94.7	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	105	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	103	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

for Michael Verona
Michael Verona
Operations Manager

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC
Atten: Charlie Rous
Project: OLIVER *Project#:* 3231
Received: April 9, 1998
re: One sample for Volatile Organics by GC/MS analysis.
Method: *8010 Compounds by Method 8260A Sept 1994*

Client Sample ID: BH-10@ 3'
Spl#: 180015 *Matrix:* SOIL
Sampled: April 8, 1998 *Run#:* 12196 *Analyzed:* April 15, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	94.7	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	105	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	103	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

for Michael Verona
Michael Verona
Operations Manager

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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC
Atten: Charlie Rous
Project: OLIVER *Project#:* 3231
Received: April 9, 1998
re: One sample for Volatile Organics by GC/MS analysis.
Method: *8010 Compounds by Method 8260A Sept 1994*

Client Sample ID: BH-11@ 6'
Spl#: 180016 *Matrix:* SOIL
Sampled: April 8, 1998 *Run#:* 12196 *Analyzed:* April 15, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	94.7	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	105	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	103	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

Note: Surrogate Recoveries demonstrate Matrix interference.

June Zhao
Chemist

for Alley Nicholson
Michael Verona
Operations Manager

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Federal ID #68-0140157

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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC
Atten: Charlie Rous
Project: OLIVER *Project#:* 3231
Received: April 9, 1998
re: One sample for Volatile Organics by GC/MS analysis.
Method: *8010 Compounds by Method 8260A Sept 1994*

Client Sample ID: BH-12B 5.5'
Spl#: 180017 *Matrix:* SOIL
Sampled: April 8, 1998 *Run#:* 12196 *Analyzed:* April 15, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	94.7	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	105	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	103	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

for Michael Verona
Michael Verona
Operations Manager

510-837-4853 PM 04/16
1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

V057 0:QC0405 JIEWEI

CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **BH-1@ 3'**
Spl#: 180006 *Matrix:* SOIL *Extracted:* April 14, 1998
Sampled: April 8, 1998 *Run#:*12163 *Analyzed:* April 15, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	10	1.0	N.D.	100	1

Note: Quantitation based on a one point RAFFEX standard. The hydrocarbon pattern in this sample match the RAFFEX reference.

Carolyn House
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Bruce Havlik
Chemist

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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis
Method: *EPA 8015M*

Client Sample ID: **BH-2@ 2.5'**
Spl#: 180007 *Matrix:* SOIL *Extracted:* April 14, 1998
Sampled: April 8, 1998 *Run#:*12163 *Analyzed:* April 15, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	6.4	1.0	N.D.	100	1

Note: Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

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S015 0:0C0405 SYSADM 16

CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: BH-3@ 3'
Spl#: 180008 *Matrix:* SOIL *Extracted:* April 14, 1998
Sampled: April 8, 1998 *Run#:*12163 *Analyzed:* April 15, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	3.1	1.0	N.D.	100	1

Note: Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **BH-4@ 2'**
Spl#: 180009 *Matrix:* SOIL *Extracted:* April 14, 1998
Sampled: April 8, 1998 *Run#:*12163 *Analyzed:* April 15, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	40	1.0	N.D.	100	1

Note: Quantitation based on a one point RAFFEX standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

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Federal ID #68-0140157

SD15 0:0C0405 SYSADM 1

CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **BH-5@ 5'**
Spl#: 180010 *Matrix:* SOIL *Extracted:* April 15, 1998
Sampled: April 8, 1998 *Run#:*12202 *Analyzed:* April 16, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	36	1.0	N.D.	103	1

Note: Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in the sample match the RAFFEX reference.

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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **BH-7@ 5.5'**
Spl#: 180011 *Matrix:* SOIL *Extracted:* April 15, 1998
Sampled: April 8, 1998 *Run#:*12202 *Analyzed:* April 16, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	4.7	1.0	N.D.	103	1

Note: Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

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Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TPPH analysis.
Method: *EPA 8015M*

Client Sample ID: **BH-6@ 6'**
Spl#: 180012 *Matrix:* SOIL *Extracted:* April 15, 1998
Sampled: April 8, 1998 *Run#:*12202 *Analyzed:* April 16, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	10	1.0	N.D.	103	1

Note: Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in the sample matched the RAFFEX reference.

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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **BH-8@ 4'**
Spl#: 180013 *Matrix:* SOIL *Extracted:* April 15, 1998
Sampled: April 8, 1998 *Run#:*12202 *Analyzed:* April 16, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	14	1.0	N.D.	103	1

Note: Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern matched the RAFFEX reference.

Carolyn House
Chemist

Bruce Havlik
Chemist

CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: BH-9@ 4'
Spl#: 180014 *Matrix:* SOIL *Extracted:* April 15, 1998
Sampled: April 8, 1998 *Run#:*12202 *Analyzed:* April 16, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	5.1	1.0	N.D.	103	1

Note: Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern matched the RAFFEX reference.

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Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **BH-10@ 3'**
Spl#: 180015 *Matrix:* SOIL *Extracted:* April 14, 1998
Sampled: April 8, 1998 *Run#:*12163 *Analyzed:* April 15, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	7.5	1.0	N.D.	100	1

Note: Quantitation based on a one point RAFFEX standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

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Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **BH-11@ 6'**
Spl#: 180016 *Matrix:* SOIL *Extracted:* April 14, 1998
Sampled: April 8, 1998 *Run#:*12163 *Analyzed:* April 15, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	74	1.0	N.D.	100	1

Note: Quantitation based on a one point RAFFEX standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

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S015 O:QC0405 SYSADM 1

CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **BH-12@ 5.5'**
Spl#: 180017 *Matrix:* SOIL *Extracted:* April 14, 1998
Sampled: April 8, 1998 *Run#:*12163 *Analyzed:* April 15, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	20	1.0	N.D.	100	1

Note: Quantitation based on a one point RAFFEX standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

Carolyn House
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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: 11 samples for Oil and Grease analysis.
Method: *5520 E&F*

Matrix: SOIL *Extracted:* April 16, 1998
Sampled: April 8, 1998 *Run#:* 12230 *Analyzed:* April 16, 1998

Spl#	CLIENT SPL ID	OIL & GREASE (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
180006	BH-1@ 3'	N.D.	50	N.D.	97.8	1
180007	BH-2@ 2.5'	N.D.	50	N.D.	97.8	1
180008	BH-3@ 3'	N.D.	50	N.D.	97.8	1
180009	BH-4@ 2'	N.D.	50	N.D.	97.8	1
180010	BH-5@ 5'	N.D.	50	N.D.	97.8	1
180011	BH-7@ 5.5'	N.D.	50	N.D.	97.8	1
180012	BH-6@ 6'	N.D.	50	N.D.	97.8	1
180013	BH-8@ 4'	260	50	N.D.	97.8	1
180014	BH-9@ 4'	N.D.	50	N.D.	97.8	1
180015	BH-10@ 3'	N.D.	50	N.D.	97.8	1
180016	BH-11@ 6'	N.D.	50	N.D.	97.8	1

for
Lulu Frazier
Analyst

Michael Verona
Operations Manager

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E015 0:0C0405 LULU 17

CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for Miscellaneous Metals analysis.
Method: *EPA 3010A/3050A/6010A Nov 1990*

Client Sample ID: BH-1@ 3'
Spl#: 180006 *Matrix:* SOIL *Extracted:* April 14, 1998
Sampled: April 8, 1998 *Run#:* 12172 *Analyzed:* April 14, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
ZINC	18	1.0	N.D.	105	1

Shafi Barekzai
Chemist

John S. Labash
Inorganics Supervisor

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M010 D:0C0405 ACHRIS 06

CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: BH-11
Spl#: 180018 *Matrix:* WATER *Extracted:* April 13, 1998
Sampled: April 8, 1998 *Run#:*12149 *Analyzed:* April 16, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	1200	59	N.D.	61.2	1

Note: Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

Carolyn House
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CHROMALAB, INC.

Environmental Services (SDB)

April 16, 1998 *Submission #:* 9804168

AQUA SCIENCE ENGINEERS INC

Atten: Charlie Rous

Project: OLIVER *Project#:* 3231
Received: April 9, 1998

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **BH-12**
Spl#: 180019 *Matrix:* WATER *Extracted:* April 13, 1998
Sampled: April 8, 1998 *Run#:*12149 *Analyzed:* April 16, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
RAFFEX	4600	62	N.D.	61.2	1

Note: Quantitation based on a one point REFFEX reference standard. The hydrocarbon pattern in this sample matched the Raffex reference.

Carolyn House
Chemist

Bruce Havlik
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149 / 170249 - 170253

Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, #4,
San Ramon, CA 94583
(510) 820-9391 - FAX (510) 837-4853

Chain of Custody 38132

DATE 2/10/98 PAGE 1 OF 1

SAMPLERS (SIGNATURE) (PHONE NO.) 8209391

PROJECT NAME OLIVER RUBBER NO. 3231

ADDRESS 1150 65th Ave. OAKLAND

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:
24 hr TAT
Results by Thursday Am

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES
GRAB-A	2/10/98	11:15	H_2O	3 VOA
GRAB-A	↓	11:15	↓	3 l
GRAB-B	↓	11:45	↓	3 VOA
GRAB-B	↓	11:45	↓	3 l
GRAB-A@3.5'	2/10/98	12:00	SOIL	1
GRAB-B@3'	↓	12:15	↓ ↓	1
RAFFEX 120	2/10/98	12:30		(

TPH-GASOLINE (EPA 5030/8015)
TPH-GASOLINE/BTEX (EPA 5030/8015-8020)
TPH-DIESEL (EPA 3510/8015)
PURGABLE AROMATICS (EPA 602/CC20)
PURGABLE HALOCARBONS (EPA 601/8010)
VOLATILE ORGANICS (EPA 624/8240)
BASE/NUETRALS, ACIDS (EPA 625/8270)
OIL & GREASE (EPA 5520 E&F or B&F)
LUFT METALS (5) (EPA 6010+7000)
TITLE 22 (CAM 17) (EPA 6010+7000)
TCLP (EPA 1311/1310)
STLC CAM WET (EPA 1311/1310)
REACTIVITY
CORROSIVITY
IGNITABILITY
HOLD
8015 TPHM EXTRACTABLES

SUBM #: 9802149 REP: PM
CLIENT: ASE
DUE: 02/11/98 TO 02/18/98
REF #: 38132

RUSH

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:
17:00			1700
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)
Charlie Rous 2/10/98			Mike Naraq 2/10
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)
Company- ASE	Company-	Company-	Company- CL

COMMENTS:
24 hr TAT
RUN RAFFEX FIRST, THEN RUN OTHER SAMPLES AND COMPARE TO RAFFEX EXTRACTION

1/4/174623 - 174628

SUBM #: 9803134 REP: PM
CLIENT: ASE
DUE: 03/12/98
REF #:38649

38649

CHROMALAB, INC.

Environmental Services (SDB) (DOHS 1094)

Chain of Custody

DATE _____ PAGE _____ OF _____

PROJ. MGR DAVE ALLEN
COMPANY ATWA SCIENCE
ADDRESS SAN RAMON

SAMPLERS (SIGNATURE) _____ 820-9389 (PHONE NO.) (FAX NO.)

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel, TEPH (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)		LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17) .	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)	8015 EXT	AS RAFFEK		NUMBER OF CONTAINERS
TRENCH -A	3/11	9:15	SOIL																			X			
TRENCH -B	↓	9:25	↓																			X			
TRENCH -C	↓	9:40	↓																			X			

RUSH

PROJECT INFORMATION

PROJECT NAME: OLIVER
PROJECT NUMBER: 3231
P.O. #:

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS
HEAD SPACE
REC'D GOOD CONDITION/COLD
CONFORMS TO RECORD

TAT	STANDARD 5-DAY			24	48	72	OTHER

SPECIAL INSTRUCTIONS/COMMENTS:
NEED RESULTS BY 3/12 8 a.m. FAXED

RELINQUISHED BY 1	RELINQUISHED BY 2	RELINQUISHED BY 3
(SIGNATURE) (TIME) 10:40	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
(PRINTED NAME) DALLEN (DATE) 3/11	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
(COMPANY) ASE	(COMPANY)	(COMPANY)
RECEIVED BY 1	**RECEIVED BY 2**	**RECEIVED BY (LABORATORY) 3**
(SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) C Cassidy 10:43 (TIME)
(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) Colleen Cassidy 3/11/98 (DATE)
(COMPANY)	(COMPANY)	(LAB) Chromalab

04168/180006-180019

39247

Aqua Science Engineers, Inc.
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San Ramon, CA 94583
(510) 820-9391 - FAX (510) 837-4853

SUBM #: 9804168 REP: PM
CLIENT: ASE
DUE: 04/16/98
REF #: 39247

Chain of Custody

DATE 4.9.98 PAGE 1 OF 2

SAMPLERS (SIGNATURE) (PHONE NO.) 820.9391

PROJECT NAME OLIVER NO. 3231

ADDRESS OAKLAND

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GASOLINE (EPA 5030/8015)	TPH-GASOLINE/BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/8020)	PURGABLE HALOCARBONS (EPA 601 8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NUETRALS, ACIDS (EPA 625/8270)	OIL & GREASE (EPA 5520 E&F or B&F)	LUFT METALS (5) (EPA 6010+7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CAM WET (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY	TPH-RAFFEX	ZINC			
BH-1@3'	4/8	8:35	SOIL	1					X			X						X	X			
BH-2@2.5'		9:05		1					X			X						X				
BH-3@3'		9:17		1					X			X						X				
BH-4@2'		9:28		1					X			X						X				
BH-5@5'		9:50		1					X			X						X				
BH-7@5.5'		10:31		1					X			X						X				
BH-6@6'		10:10		1					X			X						X				
BH-8@4'		10:50		1					X			X						X				
BH-9@4'		11:00		1					X			X						X				
BH-10@3'		11:25		1					X			X						X				
BH-11@6'		12:35		1					X			X						X				

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
(signature) 13:45	(signature) 1345	(signature) 1730	(signature) 1705	STANDARD T.A.T.
(printed name) D. Allen (date) 4/9/98	(printed name) G. Morris (date) 4.9.98	(printed name) G. Morris (date) 4-9-98	(printed name) Chris Pauley (date) 4/9/98	
Company- ASE	Company-	Company-	Company-	

9804168 39241

Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, #4,
San Ramon, CA 94583
(510) 820-9391 - FAX (510) 837-4853

Chain of Custody

DATE 4·7·98 PAGE 2 OF 2

SAMPLERS (SIGNATURE) D. Allen (PHONE NO.) 820·9391

PROJECT NAME OLIVER NO. 3231

ADDRESS OAKLAND

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS: See Comments

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GASOLINE (EPA 5030/8015)	TPH-GASOLINE/BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/8020)	PURGABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NUETRALS, ACIDS (EPA 625/8270)	OIL & GREASE (EPA 5520 B&F) or B&F	LUFT METALS (5) (EPA 6010+7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CAM WET (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY	TPH-RAFFEX
BH-12@5.5'	4·8	13:25	SOIL	1														X
BH-11	4·8	12:00	Water	2(a,b)														X
BH-12	4·8	13:30	Water	2(a,b)														X

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
D. Allen 13:45	1345	1775	1705	Analyze the liters marked "A" for TPH-RAFFEX.
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)	
D. Allen 4/7/98	B. Marcum 4·9·98	B. Marcum 4·9·98	4/9/98	STANDARD T.A.T
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	
Company- ASE	Company-	Company-	Company	