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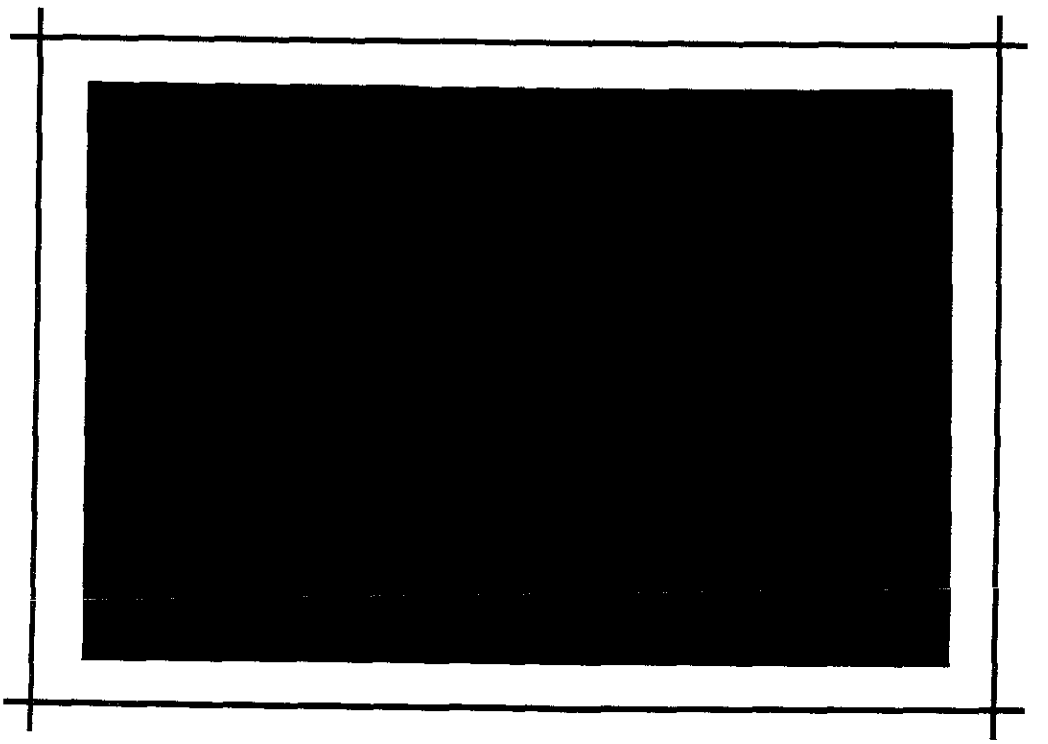


ENVIRONMENTAL SERVICES AND REMEDIATION CONTRACTING

aqua science engineers inc.

February 28, 1994

SITE CLOSURE REPORT

at
The Oliver Rubber Company
1200 65th Street
Emeryville, California

for:

The Oliver Rubber Company
1200 65th Street
Emeryville, CA 94608

submitted by:

AQUA SCIENCE ENGINEERS, INC.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
(510) 820-9391

REGISTERED PROFESSIONAL ENGINEER
DAVID M. SCHULTZ
No. 38738
Exp 4-94
CIVIL
STATE OF CALIFORNIA

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICIES

INTRODUCTION

Site Location (Site), See Figure 1, Site Location Map
1200 65th Street
Emeryville, California

Property Owner
The Oliver Rubber Company
1200 65th Street
Emeryville, California
Contact: Mr. Ron Kessler
(510) 654-7711

Environmental Consulting Firm
Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
Contact: Robert Kitay, Project Manager
(510) 820-9391

Agency Review
Alameda County Health Care Services Agency (ACHCSA)
80 Swan Way, Room 350
Oakland, CA 94621
Contact: Ms. Susan Hugo

RWQCB, San Francisco Bay Region
2101 Webster Street, Fourth Floor
Oakland, CA 94612
Contact: Mr. Rich Hiett

Please accept the following information as a formal application for "Site Closure" at 1200 65th Street, Emeryville, California. Aqua Science Engineers, Inc. (ASE) has been contracted by the property owner, The Oliver Rubber Company, to perform the necessary tasks essential for obtaining site closure.

SITE DESCRIPTION

The site is located at the corner of 65th Street at Hollis Street within the city limits of Emeryville, California. The site is approximately 1/16 mile east of Interstate 80, and 1/2 mile north of Highway 580 (Figures 1 and 2). The site is currently used as a manufacturing plant for rubber products. The topography of the immediate area is relatively flat and located at approximately 20 feet above mean sea level. Local drainage is primarily controlled by storm drains.

PREVIOUS WORK

On November 1, 1991, ASE removed two 8,000-gallon underground, non-halogenated solvent storage tanks from the site. Total petroleum hydrocarbons as gasoline (TPH-G) and volatile organic compound (VOC) concentrations were detected in the sidewalls of both excavations. Approximately 250 cubic yards of soil were removed from the site following overexcavation activities, and a total of 3790 gallons of water were removed from the tank pits on November 5 and 14, 1991. Only 27 parts per million (ppm) TPH-G remained in the excavation sidewalls following the overexcavation. The report documenting the underground tank removals and related activities is included as Appendix A.

On July 24, 1992, ASE removed one 1,000-gallon underground bunker oil storage tank from the site and removed approximately 36 cubic yards of soil from the tank area. Up to 490 ppm total petroleum hydrocarbons as diesel (TPH-D) and 1,500 ppm oil and grease (O&G) were detected in the excavation sidewalls. The report documenting the underground tank removal and related activities is included as Appendix B.

In October 1992, three groundwater monitoring wells were installed, developed and sampled. The report documenting this investigation is included as Appendix C.

In December 1992, ASE overexcavated approximately 50 cubic yards of hydrocarbon bearing soil in the vicinity of the former bunker oil tank. Confirmation soil samples were collected at the direction of Ms. Susan Hugo of the ACHCSA. Only 48 parts per million (ppm) O&G and 30 ppm TPH-D remained. The report documenting the overexcavation is included as Appendix D.

The groundwater monitoring wells were again sampled in January, May and July of 1993. No hydrocarbons or solvents were detected during any of the groundwater sampling periods. The quarterly groundwater monitoring reports are included as Appendices E through G.

INVESTIGATIVE METHODS

All work was conducted after workplans were approved by the ACHCSA and RWQCB, and all wells were installed under permit from the Alameda County Flood Control and Water Conservation District (Zone 7).

Drilling and Soil Borings

On October 1, 1992, ASE drilled three soil borings at the site which were converted into monitoring wells MW-1, MW-2 and MW-3 as well as borings SB-1 and SB-2. The borings were drilled using a CME-75 drill rig equipped with 8-inch outside diameter (O.D.) continuous flight hollow-stem augers. All drilling equipment was steam-cleaned prior to use and between borings.

Soil Sampling Procedures

Undisturbed soil samples were collected at 5 and 10 foot depths in the boring for well MW-1 and at 5, 10 and 15 foot depths in the borings for wells MW-2 and MW-3. Samples were collected at 10 foot depth only in boring SB-1 and SB-2. The samples were collected using a 2-inch diameter split-barrel drive sampler lined with pre-cleaned brass tubes. The sampler was advanced ahead of the auger tip by successive blows from a 140 lb. hammer dropped 30-inches. The samples to be analyzed at a certified analytical laboratory were immediately trimmed, capped with double thickness aluminum foil, plastic end caps and tape, labeled, and placed in an ice chest containing ice for transport to the analytical laboratory under chain of custody. The remaining tubes were used for visual soils classification and field screening for volatile compounds using an organic vapor meter (OVM). The sampler was cleaned prior to use and between sampling intervals with a TSP solution and rinsed with tap water.

Construction of Monitoring Wells

The wells were constructed using 2-inch diameter, 0.020-inch slotted, flush threaded, schedule 40 well screen and blank casing. All three wells were screened between 5 and 25-feet below ground surface (bgs) to monitor the first water bearing zone encountered. The casing was lowered through the augers and #3 Monterey sand was placed in the annular space between the borehole and the casing from the bottom of the borehole to approximately one foot above the top of the well screen. Two feet of bentonite pellets were placed above the sand and were hydrated with tap water. The remainder of the borings were filled to near original grade with cement/bentonite grout. The wells were completed with water-tight locking wellplugs and flush mounted, traffic-rated well boxes. The well installation report is included as Appendix C.

Well Development

On October 2, 1992, each well was developed using surge block agitation and PVC bailer evacuation. Approximately 50 gallons of water were removed from each well during development. All equipment used in the well was steam-cleaned prior to use. Development purge water was contained in 55-gallon DOT 17H steel drums pending analytical results.

Groundwater Sampling

Groundwater samples were collected from the wells on October 5, 1992 and January 18, April 16 and July 14, 1993. After checking for free-floating hydrocarbons and measuring the depth to water in each well, each well was purged of a least five well casing volumes of groundwater using steam-cleaned pumps or bailers. After the appropriate amount of water was removed from each well, ASE collected groundwater samples from the wells using disposable polyethylene bailers. Water was decanted from the bailers into 40-ml volatile organic analysis (VOA) vials and 1-liter amber glass bottles. Samples were preserved with acid as necessary, labeled and stored on ice for transport to the certified analytical laboratory under chain of custody.

Analytical Methods

Soil Samples

Confirmation soil samples collected after the solvent tank removal and overexcavation activities were analyzed by Chromalab, Inc. of San Ramon, California (CDHS #E694) for TPH-G by EPA Method 5030/8015, TPH-D by EPA Method 3550/8015, and volatile organic compounds (VOCs) by EPA Method 8240.

Confirmation soil samples collected after overexcavation activities in the former bunker fuel tank area were analyzed by Priority Environmental Labs of Milpitas, California (CDHS #1708) for TPH-D by EPA Method 3550/8015, benzene, toluene, ethylbenzene and total xylenes (BTEX) by EPA Method 8020 and O&G by EPA Method 5520 D&F.

During the drilling operation, soil samples for analyses were collected in the boring for well MW-1 at 10-feet bgs, in the boring for well MW-2 at 5, 10 and 15-feet bgs, in the boring for well MW-3 at 5 and 15-feet bgs. The soil samples were submitted to and analyzed by Priority Environmental Labs of Milpitas, California. The samples from MW-1, SB-1 and SB-2 were analyzed for TPH-D by EPA Method 3350/8015, BTEX by EPA Method 8020, VOCs by EPA Method 8010 and O&G by EPA Method 5520 E&F. In addition, the sample from 15-feet bgs in MW-1 was analyzed semi-volatile organic compounds

(SVOCs) by EPA Method 8270. The soil samples from MW-2 and MW-3 were analyzed for VOCs by EPA Methods 8010, 8020 and 8240. Analytical results for soil are included in Table 1.

Groundwater Samples

All groundwater samples were submitted to and analyzed by Priority Environmental Labs of Milpitas, California.

Groundwater samples were analyzed for all or a combination of the following: total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 5030/8015, TPH-D by EPA Method 3510/8015, BTEX by EPA Method 602, O&G by EPA Method 5520D&F, VOCs by EPA Method 8240, SVOCs by EPA Method 8270, pH by EPA Method 9045 and conductivity by EPA Method 120.1. All analytical results for groundwater are tabulated in Table 2.

EXTENT OF HYDROCARBON PRESENCE IN SOIL AND GROUNDWATER

Soil

Confirmation soil samples collected after the overexcavation in the former solvent tank area indicated that up to 27 ppm TPH-G remained in excavation sidewalls following overexcavation activities.

Confirmation soil samples collected after the overexcavation in the former bunker fuel tank area indicated that 2.9 ppm TPH-D, 0.0084 ppm benzene, 0.014 ppm toluene, 0.0073 ppm ethylbenzene, 0.024 ppm total xylenes, and 48 ppm O&G were in the northern sidewall and 30 ppm TPH-D, 0.0066 ppm ethylbenzene and 0.012 ppm total xylenes were in the western sidewall. No hydrocarbons were detected in the southern sidewall.

Only 0.013 ppm trichlorofloromethane was detected in the 5-foot sample from MW-2, and 0.0029 ppm 1,1-dichloroethene and 11 ppm chloroform were detected in the 15-foot sample from MW-2. No other hydrocarbons or VOCs were detected in any analyzed soil sample collected during the drilling operation.

Groundwater

No hydrocarbons or VOCs have been detected in groundwater samples collected from any site well during the four quarters sampled.

HYDROLOGY

Regional Hydrology

The site lies in the East Bay Plain groundwater basin. The East Bay Plain groundwater basin is generally characterized by a very thick alluvial sequence. The basin extends from the base of the Berkeley Hills in the east to the San Francisco Bay in the west. Groundwater generally flows from the hills in the east toward the bay in the west.

Site Hydrology

The soils encountered as drilling progressed were logged by an ASE geologist using the Unified Soil Classification System (USCS). In general, the borings consist of low permeability clay and silty clay.

Groundwater Gradient

Groundwater has consistently flowed to the west beneath the site at a gradient of between 0.009 and 0.02 feet/foot. The wells were surveyed by ASE relative to a project datum at the time of the well installation. Survey information, depths to groundwater and groundwater elevations relative to the project datum are presented in Table 3. Groundwater elevation contour maps for each quarter are presented as Figures 3 through 6.

Seasonal Variations of Groundwater

There was approximately a 4-foot seasonal variation in groundwater elevations with groundwater being at its lowest during the October 1992 measurements and at its highest during the January 1993 measurements.

Aquifer Characteristics

The wells appear to be screened in clay and silty clay units of very low to low permeability.

BENEFICIAL USES OF GROUNDWATER

Well Inventory

ASE contacted Alameda County Public Works Agency for a listing of registered wells within one-half mile of the site (Appendix H). There are 77 registered wells within one-half mile of the site. Of these wells, 74 are listed as monitoring or test wells, one is listed as a domestic well, one is listed as an irrigation well, one is listed as a cathodic protection well and two are of

unknown uses. Both the domestic and irrigation wells are on properties that contain monitoring wells and are not likely water production wells.

Contaminant Fate Transport

Contaminant fate transport is not applicable since groundwater has not been impacted.

Sources of Drinking Water Determination

The City of Emeryville receives their water from the East Bay Municipal Utility District (EBMUD). EBMUD imports the majority of their water from the Mokelumne River system. EBMUD does not utilize groundwater for its water supply (Alameda County Flood Control and Water Conservation District, 1988).

REMEDIATION ACTIVITIES AND EFFECTIVENESS

Remediation was limited to the removal of the underground fuel storage tanks, the overexcavation and removal/disposal of over 300 cubic yards of hydrocarbon bearing soil from the site and the removal/disposal of a total of 3790 gallons of water from the tank pits.

SUMMARY AND CONCLUSIONS

After analytical results indicated that elevated hydrocarbon concentrations were present in soil samples collected beneath the former location of several fuel and solvent tanks at the time the tank removals, ASE overexcavated and disposed of over 300 cubic yards of hydrocarbon bearing soil from the site and installed three groundwater monitoring wells. The wells were sampled on a quarterly basis for four consecutive quarters. No hydrocarbons or VOCs were detected in any groundwater sample.

RECOMMENDATIONS

Since no hydrocarbons have been detected in any site well for four consecutive quarters, Aqua Science Engineers recommends that site closure be granted, and that the three monitoring wells be properly destroyed.

REFERENCES CITED

Alameda County Flood Control and Water Conservation District, Geohydrology and Groundwater - Quality Overview, East Bay Plain Area, Alameda County, California, 205(J) Report, June 1988.

REPORT LIMITATIONS

The results of this investigation represent conditions at the time of the groundwater monitoring well installation, sampling and for the specific locations at which the samples were collected, and for the specific parameters analyzed for by the laboratory.

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

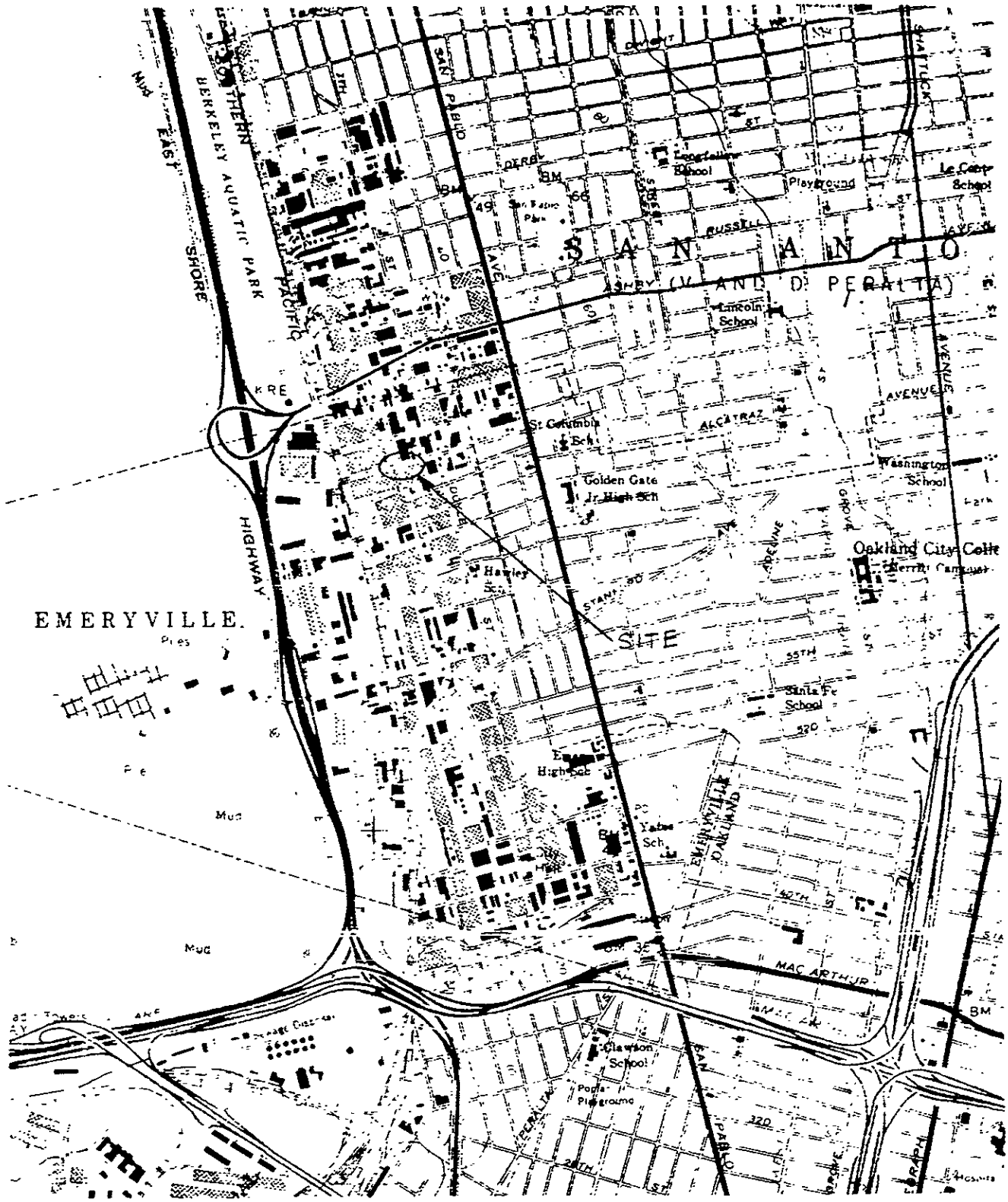
Should you have any questions or comments regarding this report, please feel free to call us at (510) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

Robert E. Kitay, R.E.A.
Project Geologist

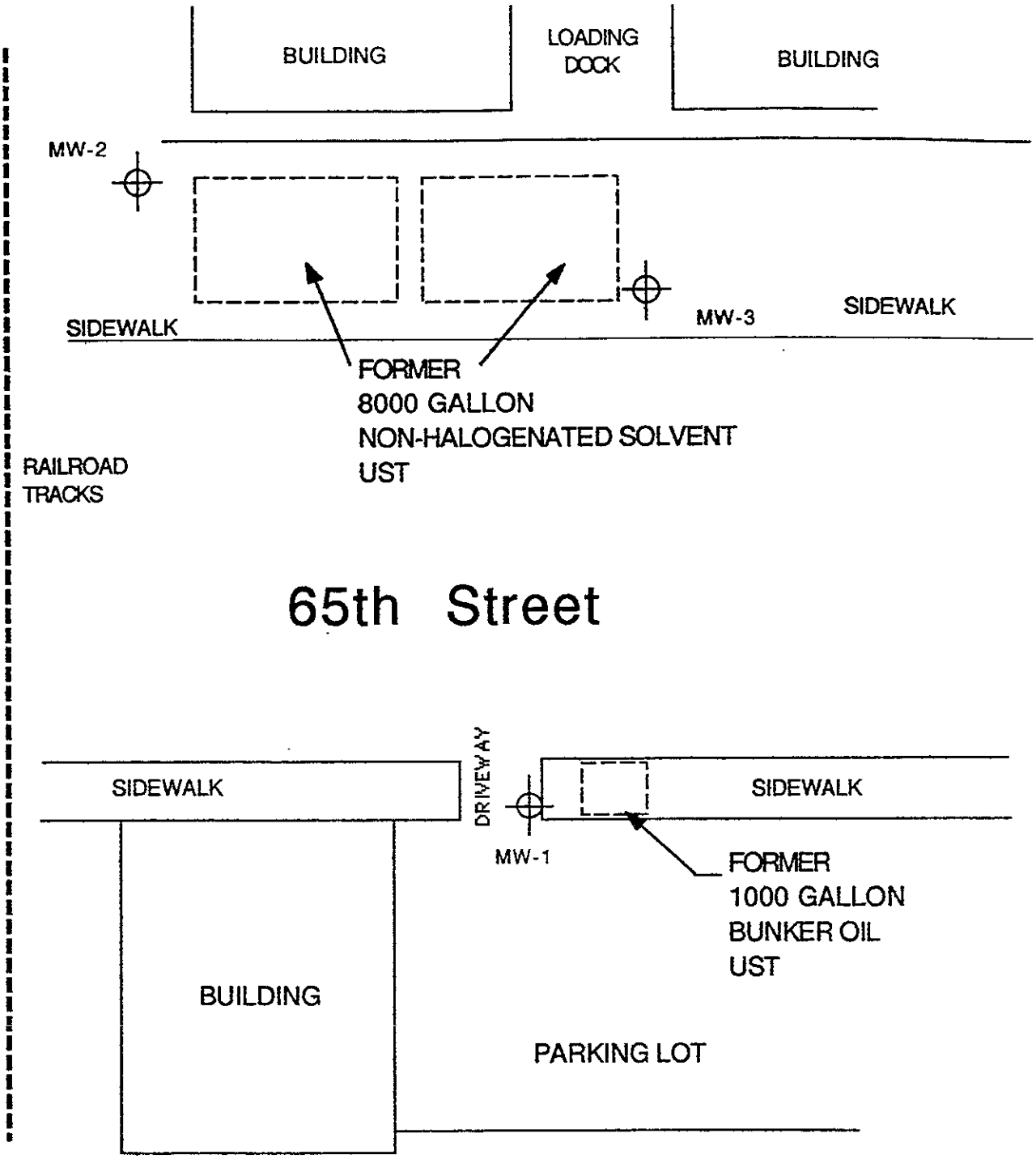
FIGURES



SITE LOCATION MAP

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure 1



LEGEND

MW-1 Monitoring Well

N

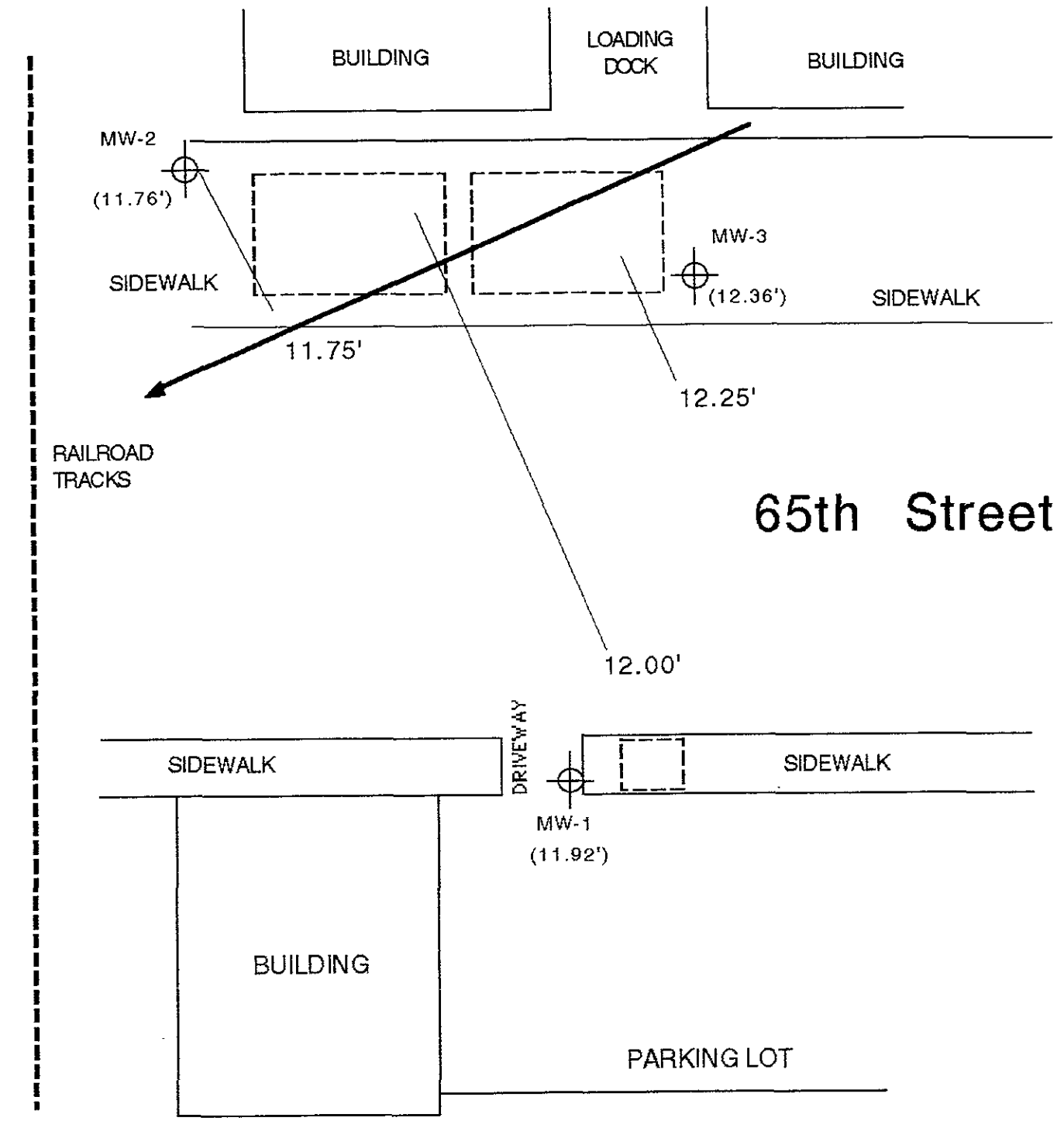
0 ft. 20 ft.

SCALE

SITE PLAN

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure 2



LEGEND

MW-1
(11.92')
Monitoring Well with groundwater depth in feet above mean sea level

Groundwater Gradient direction

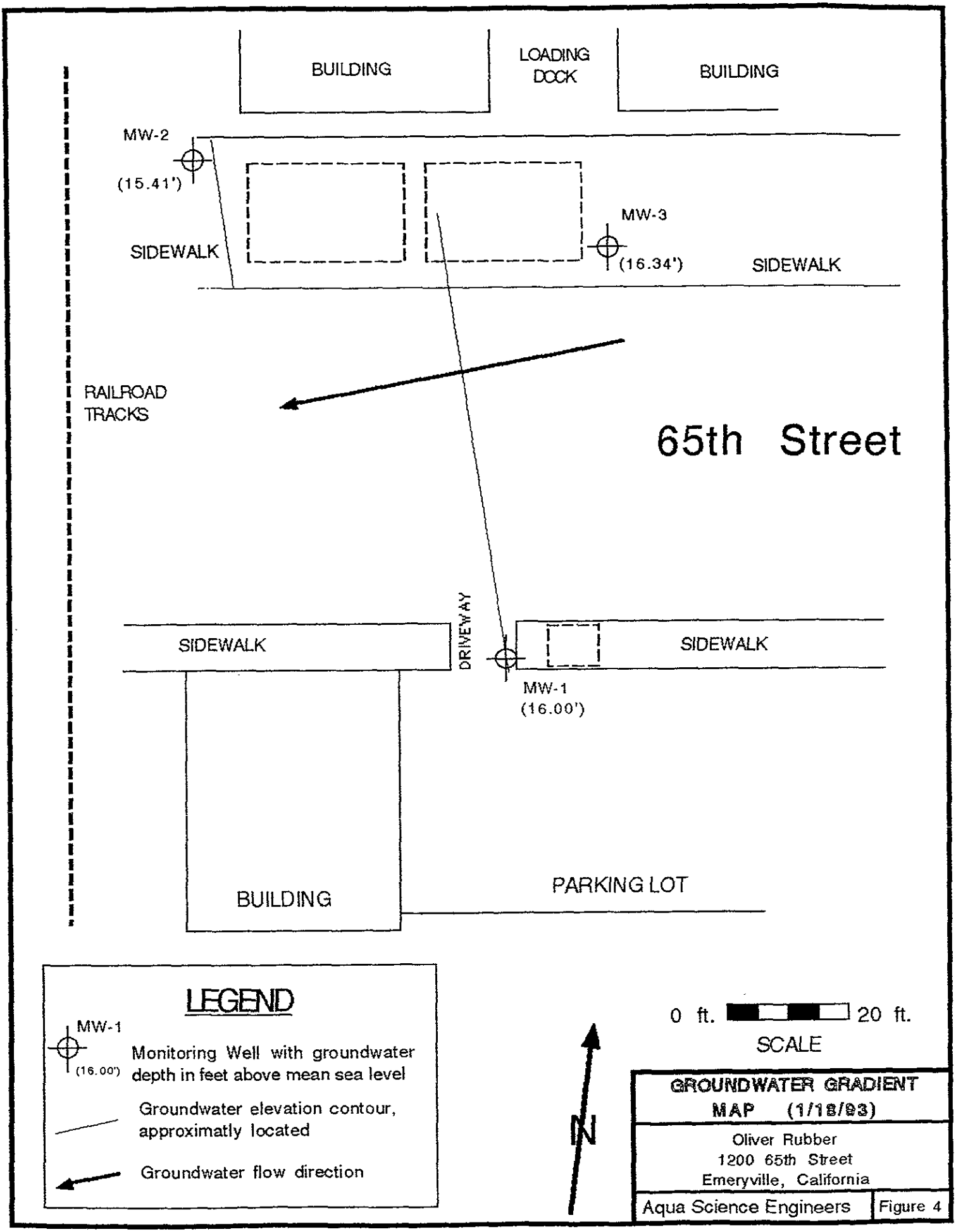
N

0 ft. 20 ft.
SCALE

GROUNDWATER GRADIENT MAP (10/1/92)

Oliver Rubber
1200 65th Street
Emeryville, California

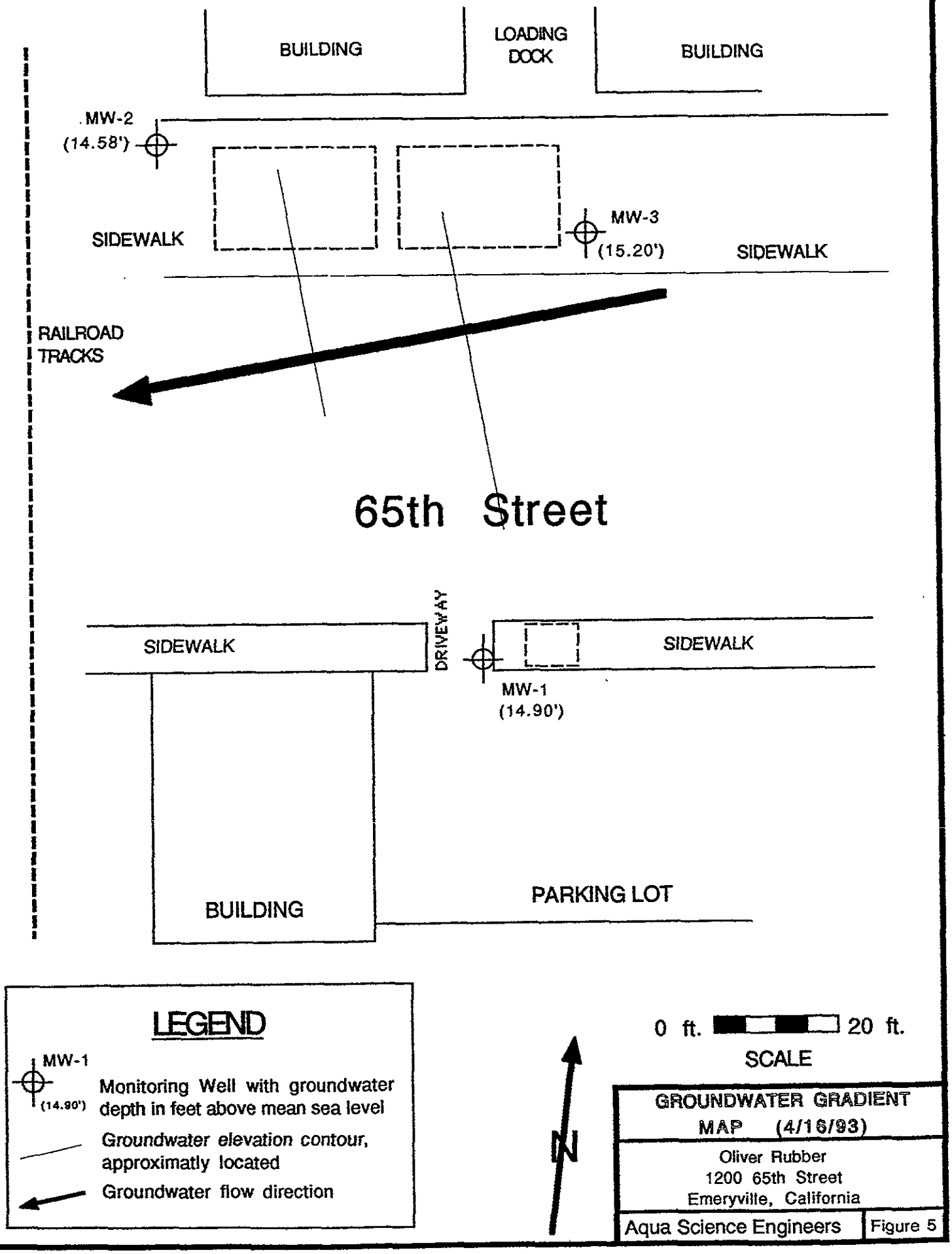
Aqua Science Engineers | Figure 3

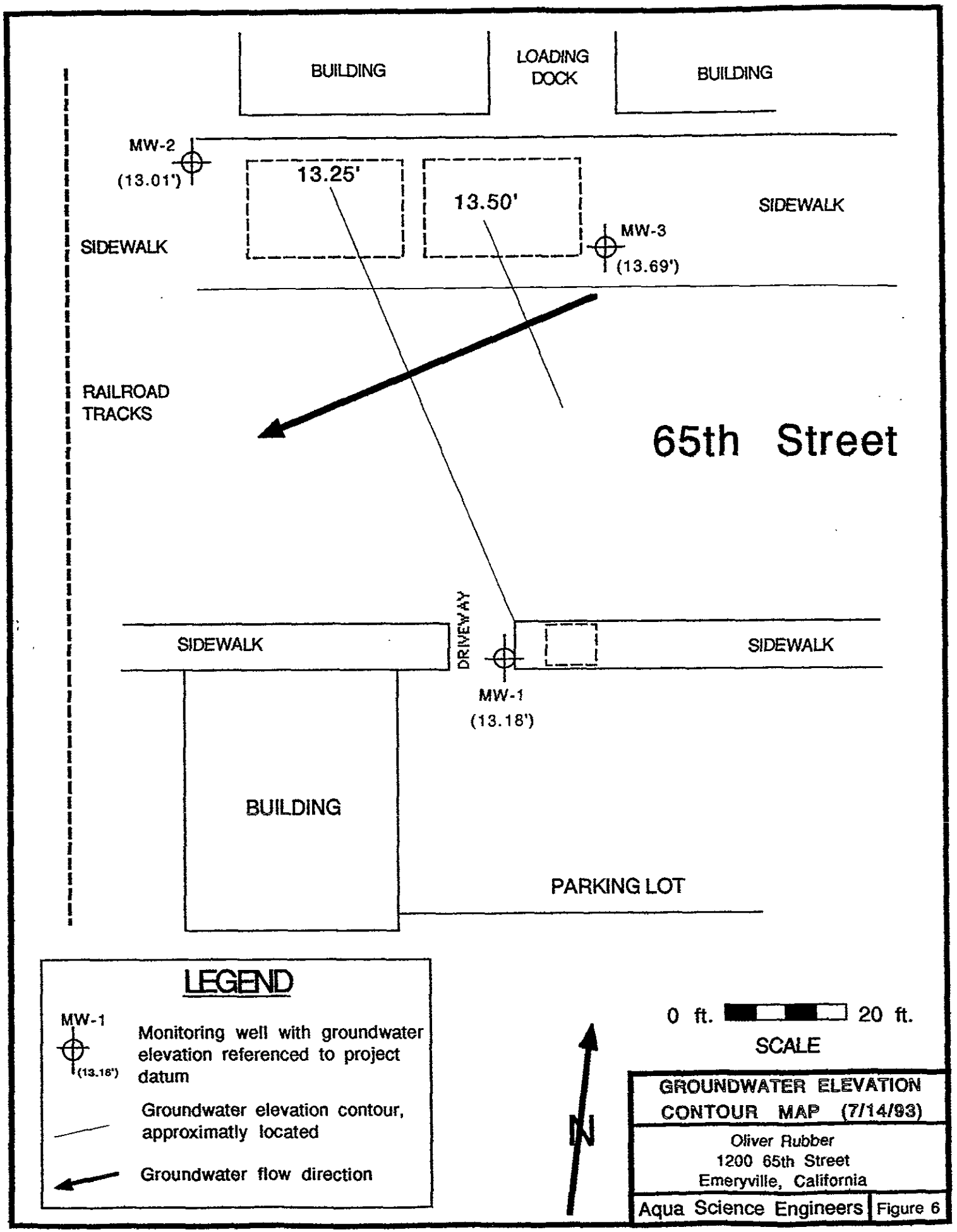


GROUNDWATER GRADIENT MAP (1/18/93)

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure 4


BUILDING
LOADING DOCK
BUILDING
MW-2
(14.58')
SIDEWALK
MW-3
(15.20')
SIDEWALK
RAILROAD TRACKS
65th Street
SIDEWALK
DRIVEWAY
SIDEWALK
MW-1
(14.90')
BUILDING
PARKING LOT
LEGEND
MW-1
(14.90')
Monitoring Well with groundwater depth in feet above mean sea level
Groundwater elevation contour, approximatly located
Groundwater flow direction
N
0 ft.
20 ft.
SCALE
GROUNDWATER GRADIENT MAP (4/16/93)
Oliver Rubber
1200 65th Street
Emeryville, California
Aqua Science Engineers
Figure 5


BUILDING
LOADING DOCK
BUILDING
MW-2
(13.01')
13.25'
13.50'
SIDEWALK
SIDEWALK
MW-3
(13.69')
RAILROAD TRACKS
65th Street
DRIVEWAY
SIDEWALK
SIDEWALK
MW-1
(13.18')
BUILDING
PARKING LOT
LEGEND
MW-1
(13.18')
Monitoring well with groundwater elevation referenced to project datum
Groundwater elevation contour, approximatly located
Groundwater flow direction
N
0 ft.
20 ft.
SCALE
GROUNDWATER ELEVATION CONTOUR MAP (7/14/93)
Oliver Rubber
1200 65th Street
Emeryville, California
Aqua Science Engineers
Figure 6

TABLES

TABLE ONE
Soil Sample Analyses Results
Hydrocarbons and VOCs
(parts per million)

Well#/ Sample Depth	TPH-D	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Oil and Grease	Other VOCs
MW-1- 10'	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<10	---
MW-1- 15'	---	---	---	---	---	---	N.D.[a]
MW-2- 5'	---	---	---	---	---	---	b
MW-2- 10'	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---
MW-2- 15'	---	<0.0050	<0.0050	<0.0050	<0.0050	---	c
MW-3- 5'	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---
MW-3- 10'	---	---	---	---	---	---	N.D.
MW-3- 15'	---	<0.0050	<0.0050	<0.0050	<0.0050	---	N.D.
SB-1-10'	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<10	---
SB-2-10'	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<10	---

--- = Not analyzed
N.D. = Not detected at detection limits
a = No semi-volatile organic compounds (SVOCs) detected at detection limits
b = 0.013 ppm trichlorofloromethane detected by EPA Method 8240; no other compounds detected
c = 0.0029 ppm 1,1-dichloroethene and 0.011 ppm chloroform detected by EPA Method 8010; no other compounds detected

TABLE TWO
Groundwater Sample Analyses Results
(parts per billion)

Well #	TPH-G	TPH-D	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Oil & Grease	VOCs
MW-1								
10-05-92	---	<50	<0.5	<0.5	<0.5	<0.5	<500	---
01-18-93	---	<50	<0.5	<0.5	<0.5	<0.5	<500	---
04-16-93	---	<50	<0.5	<0.5	<0.5	<0.5	<500	---
07-14-93	---	<50	<0.5	<0.5	<0.5	<0.5	<500	---
MW-2								
10-05-92	---	---	---	---	---	---	---	N.D.
01-18-93	<50	---	<0.5	<0.5	<0.5	<0.5	---	N.D.
04-16-93	<50	---	---	---	---	---	---	N.D.
07-14-93	<50	---	---	---	---	---	---	N.D.
MW-3								
10-05-92	---	---	---	---	---	---	---	N.D.
01-18-93	<50	---	<0.5	<0.5	<0.5	<0.5	---	N.D.
04-16-93	<50	---	---	---	---	---	---	N.D.
07-14-93	<50	---	---	---	---	---	---	N.D.
Analytical Method	5030/ 8015	3510/ 8015	602	602	602	602	5520 B&F	624

--- = Not analyzed
N.D. = Not detected at analytical detection limit

TABLE THREE
Summary of Groundwater Elevation Data

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-1	10-01-92	20.00	8.08	11.92
	01-18-93		4.00	16.00
	04-16-93		5.10	14.90
	07-14-93		6.82	13.18
MW-2	10-01-92	19.21	7.45	11.76
	01-18-93		3.80	15.41
	04-16-93		4.62	14.59
	07-14-93		6.20	13.01
MW-3	10-01-92	19.80	7.44	12.36
	01-18-93		3.46	16.34
	04-16-93		4.60	15.20
	07-14-93		6.11	13.69

APPENDIX A

Tank Removal Report
December 5, 1991

aqua science engineers inc.

December 5, 1991

PROJECT REPORT
UNDERGROUND STORAGE TANK CLOSURE
at
Oliver Rubber Company
1200 65th Street, Emeryville, CA.

Prepared for:

The Oliver Rubber Co.
1200 65th Street, Oakland, CA.

Submitted by:

AQUA SCIENCE ENGINEERS, INC.
1041 Shary Circle
CONCORD, CA

TABLE OF CONTENTS

1.0 INTRODUCTION

This report documents the removal and related activities of the underground storage tank closure performed for the Oliver Rubber Company located at 1200 65th Street in Emeryville, Calif. (FIGURE 1). The following tanks were removed from the site; two (2) 8,000 gallon tanks. The tanks previously contained non-halogenated organic solvents. The scope of services provided by Aqua Science Engineers, Inc. (ASE) is in accordance with ASE proposal No. 91-179 and includes the following tasks:

- o Obtain permits from the Alameda County Health Care Services Agency, City of Emeryville Fire Department and City of Emeryville Building Department.
- o Notify Cal-OSHA and the Bay Area Air Quality Management District.
- o Remove and dispose of residual liquids from the tanks.
- o Remove and dispose of the underground storage tanks.
- o Sample native soil and groundwater adjacent the tanks.
- o Prepare a report of methods and findings.

2.0 PERMITS

The application for permits to remove the underground storage tank were obtained from the Alameda County Health Care Services Agency, Emeryville Fire Department and Emeryville Building Department. Notice of construction was given to the Bay Area Air Quality Management District and CAL-OSHA. Copies of the permits and notification documents are contained in Appendix A.

3.0 MOBILIZATION

ASE mobilized for on-site work on October 24, 1991, commencing with removal of concrete surface materials and installation of soil shoring in the form of soldier piles. Project personnel included: David Prull-Project Engineer, Steve DeHope- Construction Manager, Tom McMullen-Driller and Craig Barr-Technical Labor.

Soil borings conducted in preparation for soldier piles revealed the soil cross-section in the area of the tanks to be of clayey silts with some fine sand and an increased content of fine sand to the depth of groundwater, approximately 9.5 feet below grade.

3.1 EXCAVATION

The services of the Underground Service Alert network were utilized to identify primary utilities in the work area. Representatives of Pacific Gas and Electric were contacted regarding procedures used to negotiate a 1" natural gas line in the work area.

Excavation of the storage tanks was initiated on October 30, 1991. A concrete vault surrounding the tanks on all sides and bottom was exposed in the process of excavation (Figure 2: Partial Site Plan). Soil was removed along the outside perimeter of the vault to a depth of approximately 10 feet below grade. Maximum depth of excavation was 11.0 feet below grade.

Cleaning of the tanks and removal of residual liquid waste from the tanks was commenced on October 31. Approximately 260 gallons of residual liquid and tank rinsate was removed by Waste Oil Recovery Systems and disposed of at the Demenno Kerdoon facility in Compton, CA. A copy of the Hazardous Waste Manifest is appended to this report.

Fill piping consisting of 4" Dia. galvanized steel was removed from locations above the tanks. Product supply piping consisted of 1.5" Dia. galvanized steel pipe contained in 4" clay tile pipe casing. Vent lines consisted of 1.5" Dia. galvanized steel pipe contained in 4" clay tile pipe casing. The location of product ping is shown on the partial site plan, (Figure 2: Partial Site Plan). All piping appeared in good condition with no hole or defects noted. No overspill protection devices were in place at the fill locations.

Native material outside the perimeter of the UGST containment vaults consisted of a light brown clayey silt with some medium/fine sand and little medium/fine gravel to a depth of approximately 4 feet below grade. Light grey clayey silts with increasing content of fine sand was encountered in the elevations between 4 feet and 11 feet below grade. Groundwater was encountered during the excavation at a depth of approximately 9.5 feet below grade. Tank backfill material inside the concrete vaults was classified as an imported 3/8" crushed gravel with fines.

Air quality sampling was conducted at the edge of the excavation using an organic vapor analyzer model 580A by TEI. Volatile organic vapors were not detected in the air near the edge of the excavation. Mild petroleum odors were noted periodically during soil removal operations.

All tank piping was observed intact with no obvious holes or weakness. No overspill protection devices where in place. All excavated materials were placed on 10 ml. plastic sheeting and covered.

3.2 REMOVAL

Prior to tank removal on the morning of November 1, 1991, ASE inerted the tanks by adding dry ice at the rate of at least 1.5 pounds per 100 gallons of tank volume. After verifying a safe LEL of the tank atmosphere, the tanks were removed from the excavation. The tank removal operations were witnessed by the City of Emeryville Fire Department, Alameda Health Care Services Agency Inspector- Susan Hugo, David Prull of ASE, and Robert Flynn of Oliver Rubber. The tanks were transported by Erickson Trucking Inc. and Trident Truck Lines to the Erickson Tank Disposal Facility in Richmond, CA, on the date of removal. Copies of the Hazardous Waste Manifests and Tank Disposal Certificates are contained in Appendix B.

The tanks were constructed of a single ply 1/4" plate steel. No protective coatings were evident on the tank exterior. No holes, cracks or defects in the exterior of either tank were noted.

4.0 SAMPLING AND ANALYSIS

Soil samples were collected from the excavation along the outside perimeter of the tank vaults (approximately 11:00 AM, 11/5/91) by Civil Engineer, David Prull (ASE) trained in sampling protocol. Soil sampling was at the direction of the Alameda County Health Care Services Agency Inspector- Susan Hugo.

Six soil sample were collected ~~from~~ the walls of the excavation in the native material approximately 6" above groundwater. Samples were collected by driving a precleaned brass sample sleeve into the soil using a hand driven slide hammer and sample shoe. All samples were secured using aluminum foil, teflon caps and sealed with duct tape. The sample was immediately placed in a cooler with dry ice and delivered to the laboratory within 24 hours. A copy of the Chain of Custody is appended to this report.

A sample of groundwater was secured from the standing groundwater outside the containment vaults. Prior to sampling, approximately 1290 gallons of groundwater were removed from the excavation and groundwater allowed to recharge. Groundwater was removed by Waste Oil Recovery systems and transported as hazardous waste to the Demmeno Kerdoon recycling facility in Compton, CA. A copy of the Hazardous Waste Manifest is appended to this report. Groundwater in the excavation was allowed to regenerate before a sample was collected with a PVC bailer. The sample was carefully transfered into 40 ml VOA vials with care taken to preclude entrained air. Additional sample material was collected in 1 liter amber bottles. All samples were labeled, placed in a cooler with ice and transported to the analyzing laboratory within 24 hours. A copy of the Chain of Custody is appended to this report.

All samples were submitted for analysis to the state certified laboratory, Chromalab, Inc. in San Ramon, California (415) 831-1788. The samples taken were analyzed for Total Petroleum Hydrocarbons as Gasoline and Diesel, and Volatile Organics. Soil samples were chemically analyzed for Lead. The results of the sampling are partially tabulated as TABLE 1: Analytical Results of Soil and Groundwater Sampling. Copies of signed laboratory data sheets are found in Appendix C.

TABLE 1: ANALYTICAL RESULTS
SOIL AND GROUNDWATER SAMPLING
Oliver Rubber Company, Emeryville, CA 11/5/91

SAMPLE I.D.	TPH GASOLINE ppm	TPH DIESEL ppm	n-Heptane ppb	Methyl Cyclohexane ppb	Trimethyl Cyclopentanes ppb
S-1	250	N.D.	690	10000	2800
S-2	1.8	N.D.	120	340	320
S-3	27	N.D.	2300	4400	5200
S-4	N.D.	N.D.	21	56	63
S-5	18	N.D.	1500	3400	3700
S-6	N.D.	N.D.	12	53	26

SAMPLE I.D.	TPH GASOLINE ppb	TPH DIESEL ppb	n-Heptane ppb	Methyl Cyclohexane ppb	Trimethyl Cyclopentanes ppb
GW-1	1900	2900	30	380	160

On November 14 ,1991 approximately 15 cubic yards of soil were removed from the area of soil sample S-1. Excavation of soils was conducted to a depth of approximately 10.0 feet below grade. Soil samples S-7 and S-8 were secured from the walls of the newly excavated area. The location of soil samples are shown on the partial site plan (FIGURE 2: Partial Site Plan). The results of the soil sample results are tabulated in Table 2: Analytical Results of Soil and Groundwater Sampling.

On November 14, 1991 approximately 2500 gallons of groundwater was removed from the excavation and vaults. The water was transported by Kern Vacuum Service under non-hazardous manifest to the McKittrick Waste Disposal Site, McKittrick, CA. A copy of the manifest is provided in Appendix B. A sample of groundwater was obtained subsequent to groundwater removal and recharge. The results of the water sample results are tabulated in Table 2: Analytical Results of Soil and Groundwater Sampling.

All remaining soil inside the concrete vaults was removed on November 14, 1991. The soil was placed on visqueen and covered with visqueen. The depth to the concrete bottom of the vaults is approximately 12 feet below grade.

TABLE 2: ANALYTICAL RESULTS
SOIL AND GROUNDWATER SAMPLING
Oliver Rubber Company, Emeryville, CA 11/14/91

SAMPLE I.D.	TPH GASOLINE ppm	TPH DIESEL ppm	All 8240 Compounds
S-7	1.3	N.D.	N.D.
S-8	N.D.	N.D.	N.D.

SAMPLE I.D.	TPH GASOLINE ppb	TPH DIESEL ppb	Methyl, Propyl CycloPentane ppb	Di-Methyl CycloPentane ppb	Methyl Cyclopentane ppb
GW-2	1600	N.D.	30	100	50

6.0 BACKFILLING AND RESURFACING

Subsequent to cleaning the concrete vaults and over-excavating the Southwest corner of the tank pit, backfilling the work area was initiated. Backfill consisted of clean quarried material procured from the EBX facility in Hayward, CA. Soil backfill was classified as mill fine or 1/4" gravel with fines. Soil backfill was placed in one foot lifts and compacted from an elevation of approximately 12'-0" below grade to 1'-0" below grade. A subbase material consistent with a Class II AB road base was compacted in the elevations between 1'-0" and 0'-4" below grade. Portland concrete and asphaltic concrete were used to complete the restoration.

All soil removed from the tank excavation is was profiled for disposal. Copies of the analytical test data for stockpiles numbered 1 through 5 (STKP 1-5) appear in Appendix C

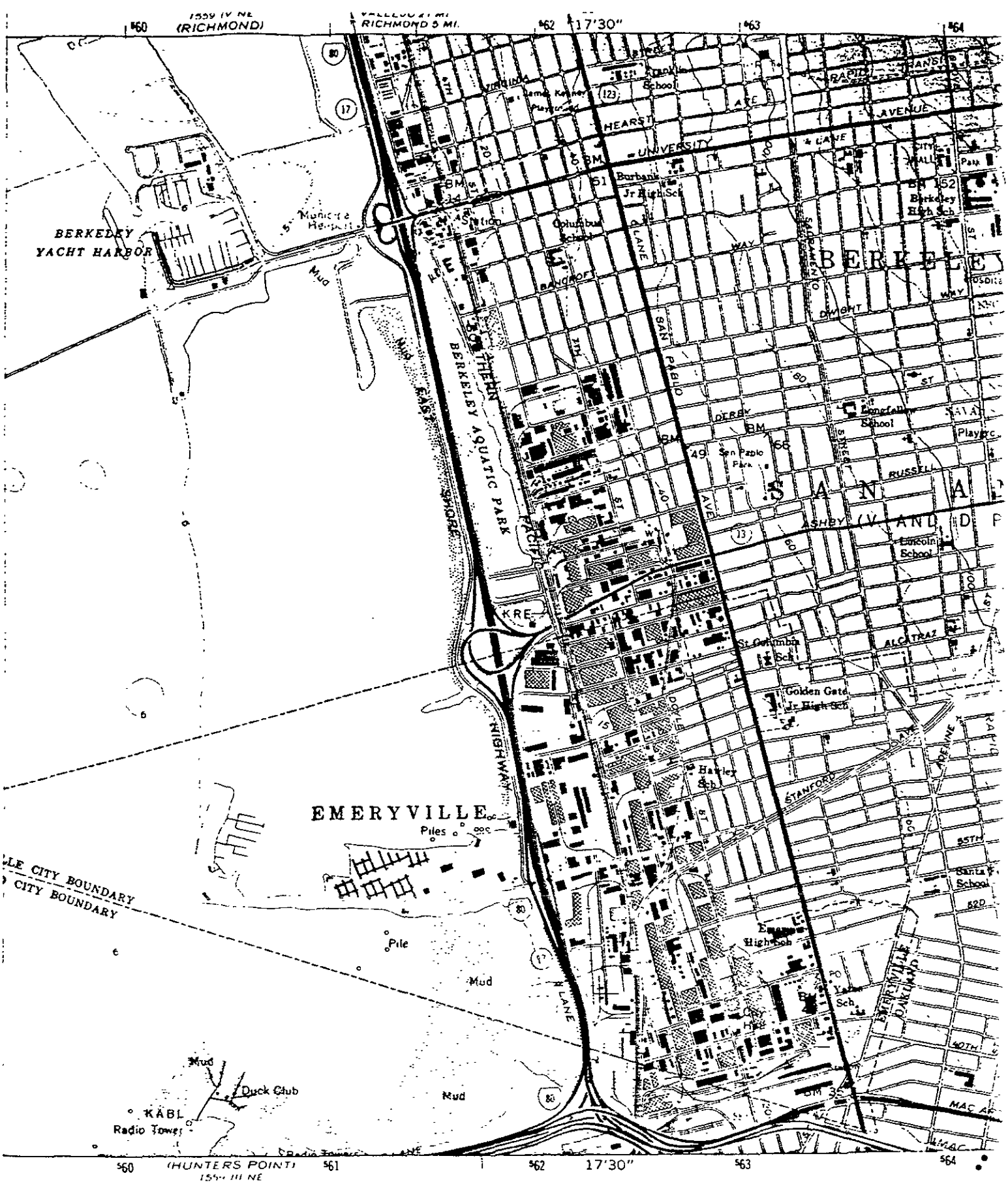
7.0 DISCUSSION AND CONCLUSIONS

Two underground storage tank and related plumbing were removed from the site of the Oliver Rubber Co. in Emeryville, CA. The size of the tanks was noted at 8,000 gallons each, constructed of a single layer steel plate and last contained non-halogenated organic solvents. Subsequent to tank removal the tanks were inspected for signs of leaks, holes or weaknesses; none were found.

Analytical testing of soil samples and groundwater samples in the tank excavation revealed detectable concentrations of volatile organics. All soil removed from the excavation and subsequent over-excavated (approx. 250 cubic yards) were disposed of at Class II and Class III landfill facilities as determined by profiling. All side wall soil samples taken from the overexcavated tank pit were reported to maintain concentrations of total petroleum hydrocarbons as gasoline at less than 27 parts per million. A groundwater sample collected from standing groundwater in the tank excavation prior to backfilling was reported to maintain concentrations of total petroleum hydrocarbons as gasoline at 1.6 parts per million.

The tank excavation was backfilled with clean quarried fill material and resurfaced to match surroundings.

FIGURE 1 - SITE MAP

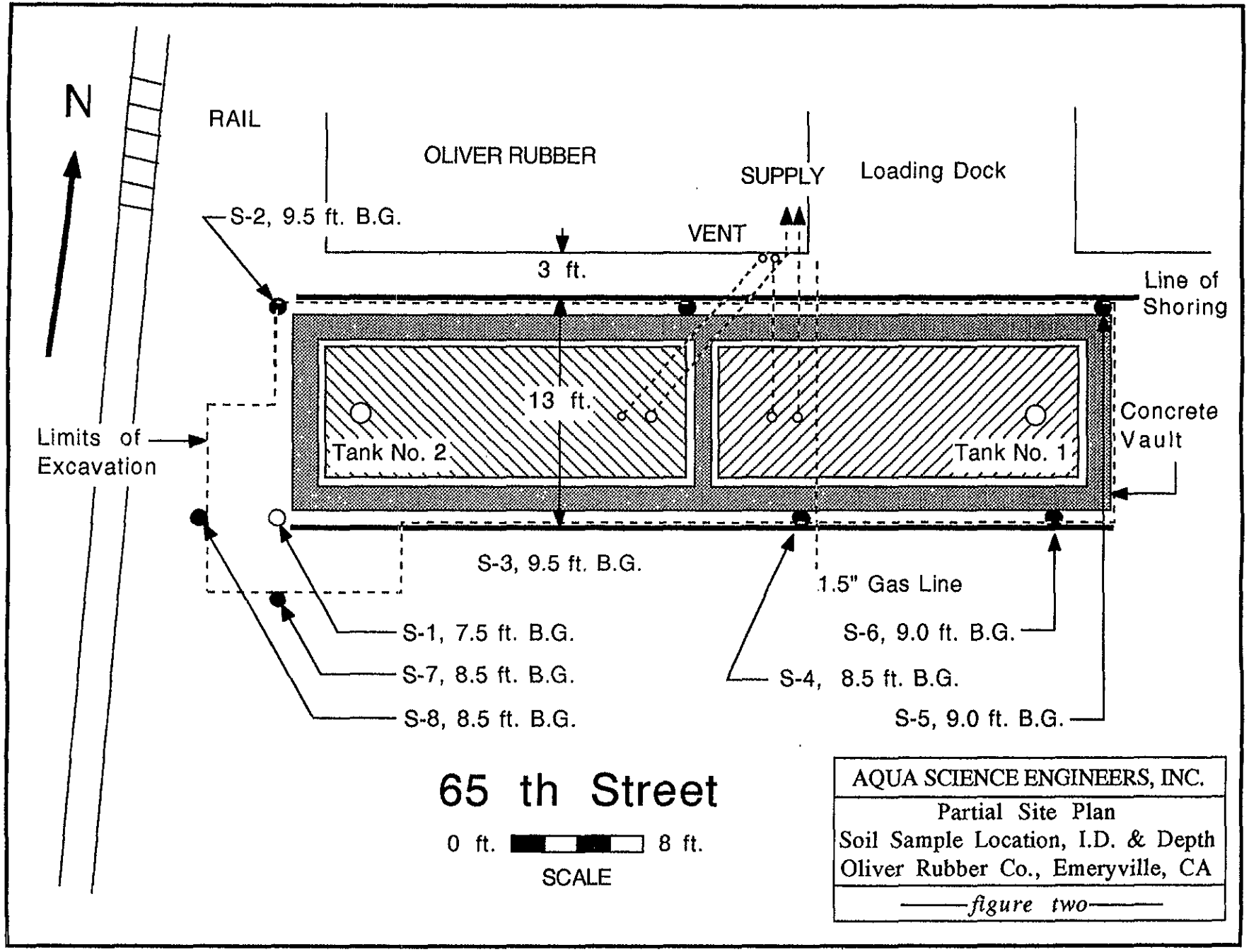


AQUA SCIENCE ENGINEER

Figure 1: Site Plan

U.S. Geological Survey, 19

FIGURE 2 - PARTIAL SITE PLAN



AQUA SCIENCE ENGINEERS, INC.

Partial Site Plan
Soil Sample Location, I.D. & Depth
Oliver Rubber Co., Emeryville, CA

figure two

APPENDIX A - PERMITS

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 415/271-4320

Project Specialist (print) SUSAN L. HUGO

ACCEPTED
DEPARTMENT OF ENVIRONMENTAL HEALTH
470 - 27th Street, Third Floor
Oakland, CA 94612
Telephone: (415) 874-7237

These plans have been reviewed and found to be acceptable and essentially meet the requirements of State and local health laws. Changes to your plans indicated by Department are to assure compliance with State and laws. The project shall not be considered in compliance until all necessary required building permits for construction

One copy of these accepted plans must be on the job site available to all contractors and craftsmen involved in the removal.

Any changes or alterations of these plans and specifications must be submitted to this Department and to the Fire Department Building Inspection Dept. prior to determine if such changes meet the requirements of State and local laws. Notify this Department at least 48 hours prior to the following required inspections:

Removal of Tank and Piping
Sampling
Final Inspection

Issuance of a permit to operate is dependent on compliance with accepted plans and all applicable laws and regulations.

THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS.

Please make changes made on page 5.
Susan L. Hugo
10/30/91

UNDERGROUND TANK CLOSURE PLAN
*** * * Complete according to attached instructions * * ***

1. Business Name OLIVER RUBBER CO.
   Business Owner STANDARD PRODUCTS CO.
2. Site Address 1200 65TH ST.
   City EMMERYVILLE, CA. Zip 94608 Phone (510) 654-7711
3. Mailing Address P.O. BOX 8447
   City OAKLAND, CA Zip 94662 Phone (510) 654-7711
4. Land Owner OLIVER RUBBER
   Address 1200 65th ST. City, State EMMERYVILLE, CA Zip 94608
5. Generator name under which tank will be manifested
   OLIVER RUBBER CO.
   EPA I.D. No. under which tank will be manifested CAC000644416

10/8/91 GOOD FOR 90 DAYS

rev 12/90

ERYVILLE FIRE DEPARTMENT
E PREVENTION BUREAU
03 HOLLIS STREET
MERYVILLE, CA 94608
55-7678

CITY OF EMERYVILLE

FIRE CODE PERMIT

№ 1153

RMISSION IS HEREBY GRANTED Aqua Science Engineers, Inc.

~~OPERATE~~
~~MAINTAIN~~ Remove 2 UG tanks
~~STORE~~

N PREMISES LOCATED AT 1200-65th Street, (Oliver Rubber)

RIODIC INSPECTIONS ARE A CONDITION OF THIS PERMIT WHICH IS ISSUED IN ACCORDANCE
ITH UNIFORM FIRE CODE, AS SPECIFIED IN SECTION 4.108 OF SAID CODE.

DITION REQUIREMENTS EFD requires 48-hr notice prior to removal; Alameda County representative to be present on site.

G. CO. DISTRICT # NA EXPIRATION DATE: 11/11/91

THIS PERMIT MUST BE POSTED WITH BUSINESS LICENSE

PERMIT APPROVED BY
George L Warren 10/11/91
~~FIRE MARSHAL~~ INSPECTOR DATE

F.P.B. Permit No.
Due Date:
Original X
Renewal

Date: 10/07/91
Fee: $50.00 p/tank
5.
Cash Ck. No. X
Receipt No.
Received by:
① 014023 } 2 checks
② 014037 } 2 Tanks

Plans submitted? Checked by: (GROUP-TYPE AND AREA)
Occupancy Group? Other Occupancies in Building?
Floor to be Used: Area to be Used? sq. ft. Previous Occupancy?
BUILDING: Height Stories, ft. Type of Construction? Is there a basement?
Location-Exterior Wall Openings? Type of Protection
Is there 20 sq. ft. of Opening in every 50' on one exterior wall in—Cellar? Basement? Story?
Distance from Property Line on North? South? East? West?
EXITS: Number? Total Width? How far Apart? Do Exits Lead to Street?
Number of Exits from Hazardous Area (over 200 sq. ft.)? Panic Bars?
Do Doors Swing Out? Exit Signs? Illuminated?
Number of Stairways? Width? Open or Enclosed?
Exterior Stairway or Fire Escape? (WHICH) Where Located? Distance from Street?
FIRE PROTECTION: Standpipes: Wet? Dry? Sprinklers?
Number and Type of Extinguishers?
Other Fire Protection?
Is Flameproofing Required? Is it Satisfactory?

DATE OF INSPECTION:
REMARKS: EFD requires 48-hour notice prior to removal; Alameda County Environmental Health representative to be on-site.

Signed George L Warren FIRE INSPECTOR No.

ACKNOWLEDGMENT

Bay Area Air Quality Management District acknowledges receipt of your Tank Removal/Contaminated Soil Excavation Notification Form received on 10·9·91.

RECEIVED
AQUA SCIENCE ENG.

REGULATION 8, RULE 40
Aeration of Contaminated Soil and Removal of Underground Storage Tanks

NOTIFICATION FORM

X Removal or Replacement of Tanks

___ Excavation of Contaminated Soil

FORMATION GROSE

ZIP 94608

OWNER NAME Oliver Rubber Co.

SPECIFIC LOCATION OF PROJECT In the sidewalk on the north side of 65th St., cross St.;Hollis

TANK REMOVAL

SCHEDULED STARTUP DATE October 21, 1991

VAPORS REMOVED BY:

[ ] WATER WASH

[X] VAPOR FREEING (CO^2)

[ ] VENTILATION

CONTAMINATED SOIL EXCAVATION

SCHEDULED STARTUP DATE ___

STOCKPILES WILL BE COVERED? YES ___ NO ___

ALTERNATIVE METHOD OF AERATION (DESCRIBE BELOW):

(MAY REQUIRE PERMIT)

CONTRACTOR INFORMATION

NAME Aqua Science Engineers, Inc. CONTACT David Prull, Project Manager

ADDRESS 1041 Shary Circle PHONE (510) 685-6700

CITY, STATE, ZIP Concord, CA 94518

CONSULTANT INFORMATION
(IF APPLICABLE)

NAME Aqua Science Engineers, Inc. CONTACT David Prull, Project Manager

ADDRESS 1041 Shary Circle PHONE (510) 685-6700

CITY, STATE, ZIP Concord, CA 94518

FOR OFFICE USE ONLY

DATE RECEIVED FAX ___ BY ___

DATE POSTMARKED 10·9·91 BY RC (init.)

CC: INSPECTOR NO. 502 I-375 DATE 10.11.91 BY ___ (init.)

UPDATE: CONTACT NAME ___ DATE ___ BY ___ (init.)

BAAQMD N # ___ DATA ENTRY 10·11·91

1/91

• See reverse for instructions

Permit Application and Job Notification Form

Construction Demolition Trenches Excavations Buildings Structures Falsework Scaffolding

mailed 10-9-91 MD

State of California
Department of Industrial Relations
Division of Occupational Safety & Health

District (Name) OAKLAND
Date 10-7-91
No. 544356- ANNUAL

Sections 6500 6501 and 6502 of the California Labor Code require that certain activities which by their nature involve substantial risk of injury may not be performed without a permit issued by DOSH The Labor Code requires that the applicant supply and that the Division review information necessary to evaluate the safety of the worksite subject to permit requirements A permit will not be issued until evidence has been demonstrated that the place of employment will be safe and healthful

"Applicant" refers to the employer applying for the Permit

Employer AQUA SCIENCE ENGINEERS
Address 1041 SHARY CIRCLE
CONCORD, CA 94518
Phone 1-800-678-9391

Project Safety Contact MICHAEL DIRK
Employer's Representative. GERALD SASSE, VP
Title & Phone No VP 1-800-678-9391
Employer's State Contractor's License No. 487000

Check Applicable Items: "Applicant" refers to the employer applying for the Permit

Applicant is
____ General Building Contractor
__X__ General Engineering Contractor
____ Specialty Contractor
Specialty Contractor Type _____
____ Other _____ _____

____ General Contractor Option
Initial this blank if applicant elects to assume responsibility for obtaining a single permit to cover one multi-employer project (e.g., a high-rise construction project The duties of employers at the site to obey safety and health laws are not changed by this election A list of employers on site will be attached by the Division to this application and the list will be updated as necessary

Type of Permit Sought.

____ **Annual**
____ **Single Project**
__X__ **Job Start Notification Only**

____ **Multiple Project** (If projects to be covered are similar in all important aspects, work is performed by the same employer and information concerning each project covered is provided.)

For
____ **Construction of** ____ Building ____ Structure
____ **Demolition of** ____ Building ____ Structure
__X__ Trench and or Excavation
____ Tower Crane Erection Dismantling
____ Scaffolding and/or Falsework and or Vertical Shoring

Any permit based on this application is issued with the understanding that the applicant has knowledge of occupational safety and health orders applicable to the project(s) described in this application and attachments and that the applicant and supervising personnel will take special care to insure compliance with safety orders reviewed with the applicant by the Division in the application process

Issuance of the permit is also conditioned upon the following

1) Upon initiation of any new project not described in this application, the holder of an annual permit will provide the Division with a completed Project Description Form describing the new project prior to the start of work, preferably at least one week in advance of start-up date A phone call may be used to meet the deadline but will not be considered valid notice unless followed in writing by mailing a completed Project Description Form
2) The applicant has implemented a written accident prevention program and Code of Safe Practices which meet the requirements of 8 California Administrative Code Section 1509
3) The Division will be notified of significant changes in information provided with this application if such changes might affect the safety of the activity
4) The applicant understands that under the permit program, DOSH schedules routine inspections by authorized personnel for the purpose of verifying that holders of permits are meeting their obligation to provide a safe work place for their employees The Division reserves the right to revoke a permit if it is unable to promptly verify compliance with the terms and conditions of the permit and its issuance
5) The applicant understands that failure to comply with any of the above listed conditions for obtaining a permit could result in denial suspension or revocation of the permit Employers may appeal these actions to the Director of the Department of Industrial Relations (California Labor Code Section 6500 et seq and 8 California Administrative Code Section 341)

Is the applicant conducting any activities to be covered by this permit application in partnership or joint venture with any other persons or corporations conducting activities requiring permits? Yes ____ No __X__ If yes give details _____

Have any permits for any project to be covered by this permit application previously been applied for or obtained? Yes __X__ No ____ If yes when 1/91 from what district office CONCORD or whose name M. DIRK

Form Cal/OSHA S-691

Specific jobsite location 1200 65th STREET
Nearest major cross street HOLLIS
City EMERYVILLE
County ALAMEDA
Name and title of jobsite supervisor STEVE DEHOPE PROJECT MGR.

Field phone N/A
Office phone (510) 685-6700
No. of employees 3
Starting date 10-21-91
Anticipated completion date 11-1-91
High Voltage Lines in Proximity X No ___ Yes

TYPE OF JOB

INSTRUCTIONS: THE APPROPRIATE ITEM(s) must be completed and signed by a person knowledgeable about the project, for each jobsite to be covered by a permit. Please fill in or check off blanks where appropriate

Construction of: ___ Building ___ Structure Type ___ Steel Frame ___ Tiered ___ Concrete
___ Tilt-up ___ Wood frame ___ Liftslab ___ Precast ___ Slip Form ___ Depth ___ No. of Stories
Description ___

Scaffolding Height ___ ___ Metal ___ Wood ___ Metal over 125 ft
___ Wood over 60 ft (require design by California Registered Civil Engineer, plans at site) [CSO 1643, 1644(c)(7)]
Job description ___

Falsework/Vertical Shoring Maximum Height ___ Maximum Span ___ Material ___
Job description ___

Tower Crane Erection/Dismantling
Maximum Radius ___ Capacity ___ Make and model of crane ___
Foundation and/or support(s) for crane on this site designed/constructed by (see Section 1584(a), CSO) ___
Will crane be stepped or jumped as construction proceeds (see CSO Section 1584.1) ___Yes ___No
Name of crane certifier ___

Demolition of: ___ Building Structure Type ___ Height ___ No. of Stories ___
___ Steel frame ___ Wood frame ___ Concrete ___ Demolition Ball ___ Clam ___ Explosives
___ Loader/tractors Other ___
CSO Article 31 - Demolition

Excavations/Trenches Depth range (min./max.) 0'-13' Width range (min./max.) 0'-13' Total Length 50'
Ground Protection Method: Shoring X Sloping ___ Trench Shield ___ Alternate ___
Project description: REMOVAL OF TWO UNDERGROUND STORAGE TANKS IN THE SAME LOCATION

Division Use Only

Fee ___
Paid ___
Approved ___
Conference ___
Other ___

I hereby certify that, to the best of my knowledge, the above information and assertions are true and correct and that I/the applicant have knowledge of and will comply with the foregoing.

Signature: [signature]
Title: HEALTH & SAFETY MANAGER
Date: 10-7-91

APPENDIX B - HAZARDOUS WASTE MANIFEST and CERTIFICATE OF DISPOSAL

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *Form designed for use on elite (12-pitch typewriter).*

See Instructions on Back of Page 6 and Front of Page 7

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address	A. State Manifest Document Number
4. Generator's Phone	B. State Generator's ID
5. Transporter 1 Company Name / 6. US EPA ID Number	C. State Transporter's ID / D. Transporter's Phone
7. Transporter 2 Company Name / 8. US EPA ID Number	E. State Transporter's ID / F. Transporter's Phone
9. Designated Facility Name and Site Address / 10. US EPA ID Number	G. State Facility's ID / H. Facility's Phone

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.					State / EPA/Other
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above	K. Handling Codes for Wastes Listed Above
	a. b. c. d.

15. Special Handling Instructions and Additional Information

16.

GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year

GENERATOR

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL R[illegible]PONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *Form designed for use on elite (12-pitch typewriter).*

See Instructions on Back of Page 6 and Front of Page 7

Department of Health Servic
Toxic Substances Control Divis
Sacramento, Califor

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAC000644416 Manifest Document No. 7166662

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OLIVER RUBBER COMPANY P.O. BOX 8447
OAKLAND, CALIFORNIA 94662

4. Generator's Phone (510) 654-7711

A. State Manifest Document Number 90796546

B. State Generator's ID

5. Transporter 1 Company Name: ERICKSON TRUCKING
6. US EPA ID Number: CAD009461639 2
C. State Transporter's ID 205166
D. Transporter's Phone 510 235 1393

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Erickson, Inc.
255 Parr Blvd.
Richmond, Ca. 94801
10. US EPA ID Number: CAD009461639 2
G. State Facility's ID CADO09461639 2
H. Facility's Phone (510) 235-1393

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Empty Storage Tank NON-RCRA Hazardous Waste Solid.	001	TP	08000	P	State 512 EPA/Other NONE
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Qty ONE Empty Storage Tank (s) # 7459, ___, ___, ___, ___, Tank (s) have been inerted with 15 lbs. Dry Ice per 1000 Gal. Capacity.

K. Handling Codes for Wastes Listed Above
a. 01 b.
c. d.

15. Special Handling Instructions and Additional Information
Keep away from sources of ignition. Always wear hardhats when working around U.S.T.'s 24 Hr. Contact Name RON KESSLER & Phone (510) 654-7711

16.
GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: RON KESSLER — Signature: Ron Kessler — Month 1 Day 10 Year 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAVID BUNCE — Signature: David Bunce — Month 1 Day 10 Year 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: DONALD H. GOSSON JR. — Signature: Donald H. Gosson Jr. — Month 1 Day 10 Year 91

Do Not Write Below This Line

White TSDF SENDS THIS COPY TO DOHS W... P.O. Box 3000 Sacramento, CA ...

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

90796546

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *Form designed for use on elite (12-pitch typewriter).*

See Instructions on Back of Page 6 and Front of Page 7

Department of Health Service
Toxic Substances Control Divisi
Sacramento, Californ

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
CAC000644416	7666		

3. Generator's Name and Mailing Address
OLIVER RUBBER COMPANY P.O. BOX 8447
OAKLAND, CALIFORNIA 94662
4. Generator's Phone 510 654-7712

A. State Manifest Document Number: 90796567
B. State Generator's ID:

5. Transporter 1 Company Name: TRIDENT TRUCK LINES
6. US EPA ID Number: CAD982484370
C. State Transporter's ID: 204349
D. Transporter's Phone: (510) 783-2881

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
ERICKSON, INC.
255 PARR BLVD.
RICHMOND, CA. 94801
10. US EPA ID Number: CAD009466392
G. State Facility's ID: CAD009466392
H. Facility's Phone: (510) 235-1393

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE EMPTY STORAGE TANK NON-RCRA HAZARDOUS WASTE SOLID	001	TP	08000	P	State 512 / EPA/Other NONE
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
ONE EMPTY STORAGE TANK #7460 ICED WITH 400 POUNDS DRY ICE. TANK HAS A CAPACITY OF 8000 GALLONS.

K. Handling Codes for Wastes Listed Above
a. 01 b.
c. d.

15. Special Handling Instructions and Additional Information
24 HOUR CONTACT: RON KESSLER
PHONE: (510) 654-7711

16.

GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: RON KESSLER — Signature: [signature] — Month 11 Day 01 Year 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: MIKE VERNAZZA — Signature: [signature] — Month 11 Day 01 Year 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: DONALD H. ROSSO JR. — Signature: [signature] — Month 11 Day 01 Year 91

Do Not Write Below This Line

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

[illegible] OF THIS COPY [illegible]

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RES. ONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

90796567

THIS MEMORANDUM

is an acknowledgement that a bill of lading has been issued and is not the Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper's No. 019

CARRIER: Erickson, Trucking Inc. SCAC Carrier's No. 019 Date

TO: Consignee LMC Corp.
Street 600 So. 4th St.
Destination Richmond, Ca. 94805 Zip

FROM: Shipper Erickson, Inc.
Street 255 Parr Blvd.
Origin Richmond, Ca. 94801 Zip

Route: Vehicle Number 102 Lead

No. Shipping Units	HM	Kind of Packages, Description of Articles (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	HAZARD CLASS	I.D. Number	WEIGHT (subject to correction)	RATE	LABELS REQUIRED (or exemption)
5		NON-D.O.T. Regulated Material Non-Hazardous, Gas Free					
		Underground Storage Tanks For Scrap.	NONE	N/A	N/A	N/A	NONE
		76794-4443-7439					
		76dd0-7459					
		76860-7489 / 76836-7482					

Remit C.O.D. to:
Address:
City: State: Zip:

COD Amt: $

C.O.D. FEE: Prepaid ☐ Collect ☐ $

NOTE — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding $ Per

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
(Signature of Consignor)

FREIGHT CHARGES ☐ PREPAID ☐ COLLECT

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

Is to certify that the above-named materials are properly classified, described, packaged, marked labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Per Don Rossen

PLACARDS REQUIRED No PLACARDS SUPPLIED ☐ YES ☐ NO — FURNISHED BY CARRIER
DRIVER SIGNATURE:

SHIPPER: Erickson, Inc.
PER: Don Rossen.
DATE: 11-7-91

CARRIER: Erickson
PER:
DATE: 11/7/91

EMERGENCY RESPONSE TELEPHONE NUMBER: ( )

Monitored at all times the Hazardous Material is in transportation including storage incidental to transportation (172.604).

9-BLS-A3
(Rev. 9/90)

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster whose signature is on this certificate who is a recognized authority of accuracy as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture

LMC METALS
A DIVISION OF SIMSMETAL USA CORPORATION
600 SOUTH 4th STREET
RICHMOND, CALIFORNIA 94804
(415) 236-0606

TICKET# 65554

MATL.10201-1 UNP
PRICE / TON:$ PAY WEIGHT: 9060
TOTAL PRICE:$
WEIGHT ADJUSTMENT: 0 PERCENT:*****%
INBOUND WEIGHT: 40780 Lbs.

ACCOUNT:22168801
ERICKSON INC.
255 PARR BLVD.
RICHMOND , CA
CASH I.D.:

TRUCK NO. LICENSE NO.
DRIVER:1 /

40780	(M)	Gross Weight Lbs.	11/07/91- 8:29	FRT. CODE:1	COST:$ 0.00
1720		Tare Weight Lbs.	11/07/91- 8:54		
9060		Net Weight Lbs.			

FOR SALVAGE VEHICLE SALES: I hereby certify under penalty of perjury, that any vehicles sold have been cleared for dismantling with the Department of Motor Vehicles.

HOLD HARMLESS AGREEMENT: Seller will indemnify and hold buyer harmless from damages, demands, and liabilities, including reasonable attorney's fees, resulting from the breach of any warranty hereunder, and buyer agrees to be responsible for damage to vehicle during unloading.

BILL OF SALE: I warrant that I am the owner (or owner's representative) of the material described herein, and have the right to sell same, that it contains no hazardous material not allowed by Federal or State law, and that for payment hereby received, I sell and convey title to LMC METALS

SIGNATURE OF SELLER OR AGENT

LMC METALS WEIGHMASTER 2-11623

THIS SHIPPING ORDER

must be legibly filled in, in Ink, in Indelible Pencil, or in Carbon, and retained by the Agent.

2733

Shipper's No. 019

Carrier's No. Date

CARRIER: Erickson, Trucking Inc. SCAC

TO: Consignee	LMC Corp.	FROM: Shipper	Erickson, Inc.
Street Destination	600 So. 4th St.	Street Origin	255 Parr Blvd.
	Richmond, Ca. 94805 Zip		Richmond, Ca. 94801 Zip

Route: Vehicle Number

No. Shipping Units	Kind of Packages, Description of Articles (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	HAZARD CLASS	I.D. Number	WEIGHT (subject to correction)	RATE	LABELS REQUIRED (or exemption)
4	NON-D.O.T. Regualted Material Non-Hazardous, Gas		Free			
	Underground Storage Tanks For Scrap.	NONE	N/A	N/A	N/A	NONE
	76818-7466-7465					
	76787-7447					
	76662-7460					

Remit C.O.D. to:
Address:
City: State: Zip:

COD Amt: $

C.O.D. FEE: Prepaid ☐ Collect ☐ $

NOTE — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding $ Per

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
(Signature of Consignor)

FREIGHT CHARGES ☐ PREPAID ☐ COLLECT

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

Per Don Rosson

PLACARDS REQUIRED NO

PLACARDS SUPPLIED ☐ YES ☐ NO — FURNISHED BY CARRIER

DRIVER SIGNATURE:

SHIPPER: ~~Erickson, Inc.~~
PER: ~~Don Rosson.~~
DATE: 11-4-91

CARRIER:
PER:
DATE:

EMERGENCY RESPONSE TELEPHONE NUMBER: ( )

Monitored at all times the Hazardous Material is in transportation including storage incidental to transportation (172.604).

Agent must detach and retain this Shipping Order and must sign the Original Bill of Lading.

9-BLS-A3
(Rev. 9/90)

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster whose signature is on this certificate who is a recognized authority of accuracy as prescribed Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agricultu

LMC METALS
A DIVISION OF SIMSMETAL USA CORPORATION
800 SOUTH 4th STREET
RICHMOND, CALIFORNIA 94804
(415) 236-0606

TICKET# 65266

MATL.10201-1 UNP
PRICE / TON:$ PAY WEIGHT: 15560
TOTAL PRICE:$
WEIGHT ADJUSTMENT: 0 PERCENT:*****%
INBOUND WEIGHT: 44200 Lbs.

ACCOUNT:22168801
ERICKSON INC.
255 PARR BLVD.
RICHMOND , CA
CASH I.D.:

TRUCK NO. LICENSE NO.
DRIVER:1

44200	(M)	Gross Weight Lbs.	11/04/91- 14:23	FRT. CODE:1 COST:$ 0.00
28640		Tare Weight Lbs.	11/04/91- 15:01	
15560		Net Weight Lbs.		

SIGNATURE OF SELLER OR AGENT

LMC METALS WEIGHMASTER 2-11401

FOR SALVAGE VEHICLE SALES: I hereby certify, under penalty of perjury, that any vehicles sold have been cleared for dismantling with the Department of Motor Vehicles.

HOLD HARMLESS AGREEMENT: Seller will indemnify and hold buyer harmless from damages, demands and liabilities, including reasonable attorney's fees, resulting from the breach of any warranty hereunder and driver agrees to be responsible for damage to vehicle during unloading.

BILL OF SALE: I warrant that I are the owner (or owner's representative) of the material described hereon and have the right to sell same, that it contains no hazardous material as defined by Federal or State law and that for payment hereby received, I sell and convey title to LMC METALS

DAY OR NIGHT TELEPHONE (510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 07209

CUSTOMER AQUA SCI

JOB NO. 76662

FOR: Erickson, Inc. TANK NO. 7459

LOCATION: Richmond DATE: 11/06/91 TIME: 12:57:37

TEST METHOD Visual Gastech/1314 SMPN LAST PRODUCT SOL

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 8000 Gallon Tank CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9%

LOWER EXPLOSIVE LIMIT LESS THAN 0.1%

"ERICKSON INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY."

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

K. Hughes — REPRESENTATIVE

TITLE

OK — INSPECTOR

CP599

DAY OR NIGHT TELEPHONE (510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 07208

CUSTOMER AQUA SCI

JOB NO. 76662

FOR: Erickson, Inc. TANK NO. 7460

LOCATION: Richmond DATE: 11/04/91 TIME: 12:44:13

TEST METHOD Visual Gastech/1314 SMPN LAST PRODUCT SOL

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 8000 Gallon Tank CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9%

LOWER EXPLOSIVE LIMIT LESS THAN 0.1%

"ERICKSON INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY."

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

K Hughes — REPRESENTATIVE

TITLE

DC — INSPECTOR

CP599

State of California—Health and Welfare Agency
Form Approved OMB No 2050—0039 (Expires 9-30-91)
Please print or type. *(Form designed for use on elite (12-pitch typewriter).*

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number: 90130628

B. State Generator's ID

5. Transporter 1 Company Name | 6. US EPA ID Number | C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number | E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address | 10. US EPA ID Number | G. State Facility's ID

H. Facility's Phone

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.					State / EPA/Other
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information

16.

GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

Well, Tank No. _____

Field or Area _____

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

No 14028

NON-HAZARDOUS WASTE HAULER RECORD

TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name Olivia Rubber Co.
Field Address P.O. Box 8447
City, State, Zip Oakland Ca. 94662
Phone 510 654 7711
Order Placed By Steve DeHope
Signature of Authorized Agent
Steve DeHope
Date 11-14-91
Title Construction Supervisor

WASTE TO BE DISPOSED
Type Ground water

2
Generating Location 1200 65th
Special Handling Instructions:
☐ Gloves ☐ Goggles ☐ Other _____
Quantity 2500 gal. ~~Bbls.~~

DESIGNATED FACILITY

3
Name McKittrick Waste Disp. Site
Address Star Route Box 4
City, State, Zip McKittrick CA
Phone _____

TRANSPORTER (Hauler Must Complete)

Name KVS Transportation Inc
Address P.O. Box 5337
City, State, Zip Bakersfield CA 93388
Phone 805 589 5220
Signature of Authorized Agent or Driver
Stephen Bateman
Date 11-14-91

Ticket # _____ Unit No. 740 / 420
Pick Up Date 11-14-91 Time _____ ~~AM~~ ☐ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
1191-10292 PS Acct # 105

DISPOSAL FACILITY (Facility Operator Must Complete)

Name _____
Address _____
City, State, Zip _____
Phone _____ / Disp. Ticket # _____
Signature of Authorized Agent Date

Quantity Received _____ Bbls. Date _____
Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☐ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

GENERATOR COPY

FORM 20

12/88

APPENDIX C - LABORATORY ANALYSIS and CHAIN OF CUSTODY

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File No.: 1191042

AQUA SCIENCE ENGINEERS, INC.

Attn: David Prull

RE: Six soil and one water sample for Gasoline and Diesel analyses

Project Name: OLIVER RUBBER CO.
Project Location: 1200 65th St., Emeryville, CA
Project Number: Job 2410
Date Sampled: Nov. 5, 1991 Date Submitted: Nov. 5, 1991
Date Extracted: Nov. 7, 1991 Date Analyzed: Nov. 7, 1991

RESULTS:

Sample I.D.	Gasoline (mg/kg)	Diesel (mg/kg)
S-1	250*	N.D.
S-2	1.8*	N.D.
S-3	27*	N.D.
S-4	N.D.	N.D.
S-5	18*	N.D.
S-6	N.D.	N.D.
DETECTION LIMIT	1.0	1.0
METHOD OF ANALYSIS	5030/8015	3550/8015

Sample I.D.	Gasoline (µg/l)	Diesel (µg/l)
GW-1	1900*	2900
BLANK	N.D.	N.D.
SPIKED RECOVERY	96.3%	89.7%
DUPLICATE SPIKED RECOVERY	94.2%	92.5%
DETECTION LIMIT	50	50
METHOD OF ANALYSIS	5030/8015	3510/8015

*Unknown hydrocarbon quantified as gasoline.

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
510/831-1788 • Facsimile 510/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 8, 1991 ChromaLab File No.: 1191042

AQUA SCIENCE ENGINEERS, INC.

Attn: David Prull

RE: Six soil samples for Lead analysis

Project Name: OLIVER RUBBER CO.
Project Location: 1200 65th St., Emeryville, CA
Project Number: Job 2410
Date Sampled: Nov. 5, 1991 Date Submitted: Nov. 5, 1991
Date Extracted: Nov. 8, 1991 Date Analyzed: Nov. 8, 1991

RESULTS:

Sample I.D.	Lead (mg/kg)
S-1	6.96
S-2	6.86
S-3	4.45
S-4	6.59
S-5	7.47
S-6	6.54
BLANK	N.D.
SPIKED RECOVERY	104%
DUPLICATE SPIKED RECOVERY	92%
DETECTION LIMIT	0.05
METHOD OF ANALYSIS	7420

ChromaLab, Inc.

Refaat A. Mankarious
Inorganics Supervisor

Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
510/831-1788 • Facsimile 510/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 — ChromaLab File # 1191042 A

Aqua Science Engineers, Inc. — Attn: David Prull
Date Sampled: Nov. 05, 1991 — Date Submitted: Nov. 05, 1991
Date Analyzed: Nov. 07, 1991

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: S-1
Method of Analysis: 8240 — Detection Limit: 10 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.4% 95.6%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	93.4% 96.1%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	94.0% 96.7%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	92.4% 95.8%
ETHYLBENZENE	15	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	14	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

(CONTINUED ON NEXT PAGE)

2239 Omega Road, #1 • San Ramon, California 94583
510/831-1788 • Facsimile 510/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File # 1191042 A

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: S-1
Method of Analysis: 8240 Detection Limit: 10 µg/kg

ADDITIONAL COMPOUND NAME	µg/kg
n-HEXANE	N.D.
n-HEPTANE	690
CYCLOHEXANE	3500
METHYL CYCLOHEXANE	10000
DIMETHYL CYCLOPENTANE	N.D.
TRIMETHYL CYCLOPENTANES	2800

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
510/831-1788 • Facsimile 510/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 — ChromaLab File # 1191042 B

Aqua Science Engineers, Inc. — Attn: David Prull
Date Sampled: Nov. 05, 1991 — Date Submitted: Nov. 05, 1991
Date Analyzed: Nov. 07, 1991

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: S-2
Method of Analysis: 8240 — Detection Limit: 10 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.4% 95.6%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	93.4% 96.1%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	94.0% 96.7%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	92.4% 95.8%
ETHYLBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	N.D.	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

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Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File # 1191042 B

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: S-2
Method of Analysis: 8240 Detection Limit: 10 µg/kg

ADDITIONAL

COMPOUND NAME	µg/kg
n-HEXANE	N.D.
n-HEPTANE	120
CYCLOHEXANE	N.D.
METHYL CYCLOHEXANE	340
DIMETHYL CYCLOPENTANE	N.D.
TRIMETHYL CYCLOPENTANES	320

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Lab Director

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 — ChromaLab File # 1191042 C

Aqua Science Engineers, Inc. — Attn: David Prull
Date Sampled: Nov. 05, 1991 — Date Submitted: Nov. 05, 1991
Date Analyzed: Nov. 07, 1991

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: S-3
Method of Analysis: 8240 — Detection Limit: 10 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.4% 95.6%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	93.4% 96.1%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	94.0% 96.7%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	92.4% 95.8%
ETHYLBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	N.D.	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File # 1191042 C

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: S-3
Method of Analysis: 8240 Detection Limit: 10 µg/kg

ADDITIONAL COMPOUND NAME	µg/kg
n-HEXANE	N.D.
n-HEPTANE	2300
CYCLOHEXANE	N.D.
METHYL CYCLOHEXANE	4400
DIMETHYL CYCLOPENTANE	N.D.
TRIMETHYL CYCLOPENTANES	5200

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Lab Director

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991

ChromaLab File # 1191042 D

Aqua Science Engineers, Inc.
Date Sampled: Nov. 05, 1991
Date Analyzed: Nov. 07, 1991

Attn: David Prull
Date Submitted: Nov. 05, 1991

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: S-4
Method of Analysis: 8240

Detection Limit: 10 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.4% 95.6%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	93.4% 96.1%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	94.0% 96.7%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	92.4% 95.8%
ETHYLBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	N.D.	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File # 1191042 D

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: S-4
Method of Analysis: 8240 Detection Limit: 10 µg/kg

ADDITIONAL COMPOUND NAME	µg/kg
n-HEXANE	N.D.
n-HEPTANE	21
CYCLOHEXANE	N.D.
METHYL CYCLOHEXANE	56
DIMETHYL CYCLOPENTANE	N.D.
TRIMETHYL CYCLOPENTANES	63

ChromaLab, Inc.

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Chief Chemist

Eric Tam
Lab Director

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 — ChromaLab File # 1191042 E

Aqua Science Engineers, Inc. — Attn: David Prull
Date Sampled: Nov. 05, 1991 — Date Submitted: Nov. 05, 1991
Date Analyzed: Nov. 07, 1991

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: S-5
Method of Analysis: 8240 — Detection Limit: 10 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.4% 95.6%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	79	93.4% 96.1%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	94.0% 96.7%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	92.4% 95.8%
ETHYLBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	N.D.	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991

ChromaLab File # 1191042 E

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: S-5
Method of Analysis: 8240

Detection Limit: 10 µg/kg

ADDITIONAL COMPOUND NAME	µg/kg
n-HEXANE	N.D.
n-HEPTANE	1500
CYCLOHEXANE	N.D.
METHYL CYCLOHEXANE	3400
DIMETHYL CYCLOPENTANE	N.D.
TRIMETHYL CYCLOPENTANES	3700

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Lab Director

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 — ChromaLab File # 1191042 F

Aqua Science Engineers, Inc. — Attn: David Prull
Date Sampled: Nov. 05, 1991 — Date Submitted: Nov. 05, 1991
Date Analyzed: Nov. 07, 1991

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: S-6
Method of Analysis: 8240 — Detection Limit: 10 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.4% 95.6%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	93.4% 96.1%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	94.0% 96.7%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	92.4% 95.8%
ETHYLBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	N.D.	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File # 1191042 F

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: S-6
Method of Analysis: 8240 Detection Limit: 10 µg/kg

ADDITIONAL COMPOUND NAME	µg/kg
n-HEXANE	N.D.
n-HEPTANE	12
CYCLOHEXANE	N.D.
METHYL CYCLOHEXANE	53
DIMETHYL CYCLOPENTANE	N.D.
TRIMETHYL CYCLOPENTANES	26

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Lab Director

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 — ChromaLab File # 1191042 G

Aqua Science Engineers, Inc. — Attn: David Prull
Date Sampled: Nov. 05, 1991 — Date Submitted: Nov. 05, 1991
Date Analyzed: Nov. 07, 1991

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: GW-1
Method of Analysis: 624 — Detection Limit: 2.0 µg/l

COMPOUND NAME	µg/l	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.4% 95.6%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	2.1	93.4% 96.1%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	2.0	94.0% 96.7%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	92.4% 95.8%
ETHYLBENZENE	2.0	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	18	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

(CONTINUED ON NEXT PAGE)

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File # 1191042 G

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: GW-1
Method of Analysis: 624 Detection Limit: 2.0 µg/l

ADDITIONAL COMPOUND NAME	µg/l
n-HEXANE	N.D.
n-HEPTANE	30
CYCLOHEXANE	43
METHYL CYCLOHEXANE	380
DIMETHYL CYCLOPENTANE	N.D.
TRIMETHYL CYCLOPENTANES	160

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Lab Director

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Federal ID #68-0140157

aqua science engineers inc.

Aqua Science Engineers Inc.
PO Box 535, San Ramon, CA 94583 • 415-820-9391

Chain of Custody

DATE Nov 5 PAGE 1 OF 1

PROJ. OLIVER RUBBER CO.
COMPANY OLIVER RUBBER CO.
ADDRESS 1200 65TH ST.
EMERYVILLE, CA.

SAMPLERS (SIGNATURE) D. C. Prull (PHONE NO.) (510) 685-6700

ANALYSIS REQUEST

CHROMALAB FILE # 1191042
ORDER # 4054

SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	TPH - Gasoline (EPA 5030)	TPH - Gasoline (5030) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510, 3550)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240)	BASE/NEUTRALS, ACIDS (EPA 624/627, 8270)	TOTAL OIL & GREASE (EPA 5030E)	PESTICIDES/PCB (EPA 608, 8080)	PHENOLS (EPA 604, 8040)			TOTAL LEAD METALS: ■, ■, Pb, ■	CAM METALS (18) w/Cr VI	PRIORITY POLLU METALS (13)						NUMBER OF C
S-1	11/5/91	11:30	S		X		X			X							X								1
S-2	11/5/91	11:40	S		X		X			X							X								1
S-3	11/5/91	11:50	S		X		X			X							X								1
S-4	11/5/91	12:00	S		X		X			X							X								1
S-5	11/5/91	12:10	S		X		X			X							X								1
S-6	11/5/91	12:20	S		X		X			X							X								1
GW-1	11/5/91	16:40	W		X		X			X							X								4
										↳	NAPTHENES CYCLOHEXANE N-HEXANE N-HEPTANE METHYLCYCLOHEXANE														

PROJECT INFORMATION

PROJECT OLIVER RUBBER
PO NO JOB 2410
SHIPPING ID NO N/A
ATTN DAVID PRULL

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS	10
CHAIN OF CUSTODY SEALS	
REC'D GOOD CONDITION/COLD	
CONFORMS TO RECORD	
LAB NO.	

SPECIAL INSTRUCTIONS/COMMENTS:
48 HR. TURN. FAX RESULTS BY THURS 11/7/91.

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3.
(Signature) D. C. Prull (Time) 18:00	(Signature) (Time)	(Signature) (Time)
(Printed Name) DAVID C. PRULL (Date) 11/5/91	(Printed Name) (Date)	(Printed Name) (Date)
(Company) AQUA SCIENCE	(Company)	(Company)
RECEIVED BY 1.	**RECEIVED BY 2.**	**RECEIVED BY (LABORATORY) 3.**
Gary Cook 18:00		
(Signature) Gary Cook (Time) 11/5/91	(Signature) (Time)	(Signature) (Time)
(Printed Name) Chroma Lab (Date)	(Printed Name) (Date)	(Printed Name) (DATE)
(Company)	(Company)	(LAB)

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File No.: 1191022

AQUA SCIENCE ENGINEERS, INC.

Attn: David Prull

RE: four soil samples for Gasoline and Diesel analyses

Project Name: OLIVER RUBBER CO.
Project Location: 1200 65th St., Emeryville, CA
Project Number: Job 2410
Date Sampled: Nov. 4, 1991 Date Submitted: Nov. 4, 1991
Date Extracted: Nov. 6, 1991 Date Analyzed: Nov. 7, 1991

RESULTS:

Sample I.D.	Gasoline (mg/kg)	Diesel (mg/kg)
STKP1	1.7	N.D.
STKP2	1.8	N.D.
STKP3	1.7	N.D.
STKP4	N.D.	N.D.
BLANK	N.D.	N.D.
SPIKED RECOVERY	96.3%	89.7%
DUPLICATE SPIKED RECOVERY	94.2%	92.5%
DETECTION LIMIT	1.0	1.0
METHOD OF ANALYSIS	5030/8015	3550/8015

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File No.: 1191022

AQUA SCIENCE ENGINEERS, INC.

Attn: D. Prull

RE: Four composite samples for Lead analysis

Project Name: OLIVER RUBBER CO.
Project Location: 1200 65th St., Emeryville, CA
Project Number: 2410
Date Sampled: Nov. 4, 1991 Date Submitted: Nov. 4, 1991
Date Extracted: Nov. 5, 1991 Date Analyzed: Nov. 5, 1991

RESULTS:

Sample I.D.	Lead (mg/kg)
STKP1(A-D)	5.31
STKP2(A-D)	21.9
STKP3(A-D)	15.6
STKP4(A-D)	5.78
BLANK	N.D.
DETECTION LIMIT	2.5
METHOD OF ANALYSIS	6010

ChromaLab, Inc.

Refaat A. Mankarious
Inorganics Supervisor

Eric Tam
Laboratory Director

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Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

December 4, 1991 ChromaLab File No.: 1191022

AQUA SCIENCE ENGINEERS, INC.

Attn: David Prull

RE: Four rush composited soil samples for Oil & Grease analysis

Project Name: OLIVER RUBBER CO.
Project Location: 1200 65th St., Emeryville, CA
Project Number: 2410
Date Sampled: Nov. 4, 1991 Date Submitted: Nov. 4, 1991
Date Extracted: Dec. 4, 1991 Date Analyzed: Dec. 4, 1991

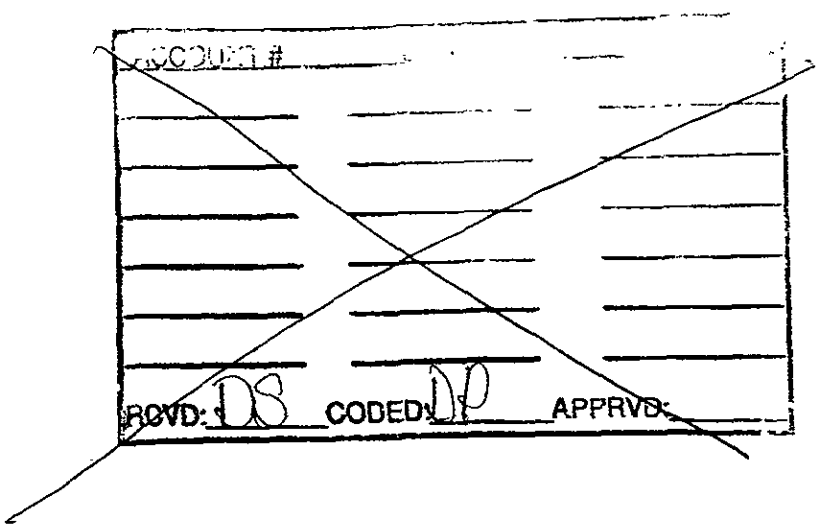
RESULTS:

Sample I.D.	Oil & Grease (mg/kg)
STKP1(A-D)	210
STKP2(A-D)	14
STKP3(A-D)	63
STKP4(A-D)	N.D.
BLANK	N.D.
DETECTION LIMIT	10
METHOD OF ANALYSIS	5520 E&F

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam (by DD)
Eric Tam
Laboratory Director



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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 — ChromaLab File # 1191022 A

Aqua Science Engineers, Inc. — Attn: David Prull
Date Sampled: Nov. 05, 1991 — Date Submitted: Nov. 05, 1991
Date Analyzed: Nov. 06, 1991

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: STKP 1
Method of Analysis: 8240 — Detection Limit: 10 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.4% 95.6%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	93.4% 96.1%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	94.0% 96.7%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	92.4% 95.8%
ETHYLBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	17	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File # 1191022 A

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: STKP 1
Method of Analysis: 8240 Detection Limit: 10 µg/kg

ADDITIONAL COMPOUND NAME	µg/kg
n-HEXANE	N.D.
n-HEPTANE	200
CYCLOHEXANE	150
METHYL CYCLOHEXANE	1500
DIMETHYL CYCLOPENTANE	980
TRIMETHYL CYCLOPENTANES	780

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Lab Director

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991

ChromaLab File # 1191022 B

Aqua Science Engineers, Inc.
Attn: David Prull
Date Sampled: Nov. 05, 1991
Date Submitted: Nov. 05, 1991
Date Analyzed: Nov. 06, 1991

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: STKP 2
Method of Analysis: 8240
Detection Limit: 10 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.4% 95.6%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	93.4% 96.1%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	94.0% 96.7%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	92.4% 95.8%
ETHYLBENZENE	21	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	190	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File # 1191022 B

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: STKP 2
Method of Analysis: 8240 Detection Limit: 10 µg/kg

ADDITIONAL COMPOUND NAME	µg/kg
n-HEXANE	N.D.
n-HEPTANE	150
CYCLOHEXANE	N.D.
METHYL CYCLOHEXANE	470
DIMETHYL CYCLOPENTANE	240
TRIMETHYL CYCLOPENTANES	270

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Lab Director

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991

ChromaLab File # 1191022 C

Aqua Science Engineers, Inc.
Date Sampled: Nov. 05, 1991
Date Analyzed: Nov. 06, 1991

Attn: David Prull
Date Submitted: Nov. 05, 1991

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: STKP 3
Method of Analysis: 8240

Detection Limit: 10 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.4% 95.6%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	93.4% 96.1%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	94.0% 96.7%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	92.4% 95.8%
ETHYLBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	27	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File # 1191022 C

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: STKP 3
Method of Analysis: 8240 Detection Limit: 10 µg/kg

ADDITIONAL COMPOUND NAME	µg/kg
n-HEXANE	N.D.
n-HEPTANE	99
CYCLOHEXANE	N.D.
METHYL CYCLOHEXANE	370
DIMETHYL CYCLOPENTANE	150
TRIMETHYL CYCLOPENTANES	250

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Lab Director

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 — ChromaLab File # 1191022 D

Aqua Science Engineers, Inc. — Attn: David Prull
Date Sampled: Nov. 05, 1991 — Date Submitted: Nov. 05, 1991
Date Analyzed: Nov. 06, 1991

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: STKP 4
Method of Analysis: 8240 — Detection Limit: 10 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.4% 95.6%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	93.4% 96.1%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	94.0% 96.7%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	92.4% 95.8%
ETHYLBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	N.D.	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 7, 1991 ChromaLab File # 1191022 D

Project Name: Oliver Rubber Co.
Project Number: Job 2410
Sample I.D.: STKP 4
Method of Analysis: 8240 Detection Limit: 10 µg/kg

ADDITIONAL COMPOUND NAME	µg/kg
n-HEXANE	N.D.
n-HEPTANE	55
CYCLOHEXANE	N.D.
METHYL CYCLOHEXANE	220
DIMETHYL CYCLOPENTANE	N.D.
TRIMETHYL CYCLOPENTANES	190

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Lab Director

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Federal ID #68-0140157

aqua science engineers inc.

Aqua Science Engineers Inc.,
PO Box 535, San Ramon, CA 94583 • 415-820-9391

Chain of Custody

DATE Nov 7, 1991 PAGE 1 OF 1

PROJ. OLIVER RUBBER CO.
COMPANY OLIVER RUBBER CO.
ADDRESS 1200 65TH ST.
EMERYVILLE, CA.

SAMPLERS (SIGNATURE) D. C. Prull (PHONE NO.) (510) 685-6700

CHROMALAB FILE # 1191022
ORDER # 4027

ANALYSIS REQUEST

SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	TPH - Gasoline (EPA 5030)	TPH - Gasoline (5030) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510, 3550)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240)	BASE/NEUTRALS, ACIDS (EPA 624/627, 8270) *	TOTAL OIL & GREASE (EPA 5030E)	PESTICIDES/PCB (EPA 608, 8080)	PHENOLS (EPA 604, 8040)			TOTAL LEAD METALS: ■, ■, Pb, ■	CAM METALS (18) w/Cr VI	PRIORITY POLL METALS (13)						NUMBER OF
STKP1 (A-D)	11/4/91	11:30	S		X		X			X							X								4
STKP2 (A-D)	11/4/91	11:30	S		X		X			X							X								4
STKP3 (A-D)	11/4/91	11:30	S		X		X			X							X								4
STKP4 (A-D)	11/4/91	11:30	S		X		X			X							X								4

* i. NAPTHENES
ii. CYCLOHEXANE
iii. n-HEXANE
iv. n-HEPTANE
v. METHYL CYCLOHEXANE

PROJECT INFORMATION

PROJECT OLIVER RUBBER
PO NO JOB 2410
SHIPPING ID NO N/A
VIA D. PRULL

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS	16
CHAIN OF CUSTODY SEALS	
REC'D GOOD CONDITION/COLD	
CONFORMS TO RECORD	
LAB NO.	

SPECIAL INSTRUCTIONS/COMMENTS:
48 hr. TURN. FAX RESULTS BY THURS. 11/7/91. Composit EACH SET OF FOUR AS A SINGLE SAMPLE

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3.
(Signature) D. C. Prull (Time) 5:10	(Signature) (Time)	(Signature) (Time)
(Printed Name) DAVID PRULL (Date) 11/4/91	(Printed Name) (Date)	(Printed Name) (Date)
(Company) AQUA SCIENCE	(Company)	(Company)
RECEIVED BY 1.	**RECEIVED BY 2.**	**RECEIVED BY (LABORATORY) 3.**
(Signature) (Time)	(Signature) (Time)	(Signature) (Time) 17:10
(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (DATE)
(Company)	(Company)	(LAB) CHROMALAB 11.4.91

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 21, 1991 ChromaLab File No.: 1191135

AQUA SCIENCE ENGINEERS, INC.

Attn: David Prull

RE: Three soil samples for Gasoline and Diesel analyses

Project Name: OLIVER RUBBER
Project Location: 1200 65th St., Emeryville
Project Number: 2410
Date Sampled: Nov. 14, 1991 Date Submitted: Nov. 14, 1991
Date Extracted: Nov. 19-20,1991 Date Analyzed: Nov. 19-20,1991

RESULTS:

Sample I.D.	Gasoline (mg/kg)	Diesel (mg/kg)
S-7	1.3	N.D.
S-8	N.D.	N.D.
STKP5*	N.D.	N.D.
BLANK	N.D.	N.D.
SPIKED RECOVERY	98.0%	92.6%
DUPLICATE SPIKED RECOVERY	93.8%	88.0%
DETECTION LIMIT	1.0	1.0
METHOD OF ANALYSIS	5030/8015	3550/8015

*Composited soil sample.

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam (by DD)
Eric Tam
Laboratory Director

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Federal ID #68-0140157

CHROMALAB, INC.

5 DAYS TURNAROUND

Analytical Laboratory (E694)

November 22, 1991 ChromaLab File # 1191135 A

Client: Aqua Science Engineers Attn: Dave Prull
Date Sampled: Nov. 14, 1991 Date Submitted: Nov. 14, 1991
Date Analyzed: Nov. 21, 1991

Project Name: Oliver Rubber, 1200 65th St., Emeryville
Project Number: 2410
Sample I.D.: S-7
Method of Analysis: 8240 Detection Limit: 5.0 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.3% 96.4%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	95.7% 90.4%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	93.4% 95.8%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	91.0% 93.6%
ETHYLBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	N.D.	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam
Lab Director

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Federal ID #68-0140157

CHROMALAB, INC.

5 DAYS TURNAROUND

Analytical Laboratory (E694)

November 22, 1991 ChromaLab File # 1191135 B

Client: Aqua Science Engineers Attn: Dave Prull
Date Sampled: Nov. 14, 1991 Date Submitted: Nov. 14, 1991
Date Analyzed: Nov. 21, 1991

Project Name: Oliver Rubber, 1200 65th St., Emeryville
Project Number: 2410
Sample I.D.: S-8
Method of Analysis: 8240 Detection Limit: 5.0 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.3% 96.4%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	95.7% 90.4%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	93.4% 95.8%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	91.0% 93.6%
ETHYLBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	N.D.	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
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Federal ID #68-0140157

CHROMALAB, INC.

5 DAYS TURNAROUND

Analytical Laboratory (E694)

November 22, 1991 ChromaLab File # 1191135 C

Client: Aqua Science Engineers Attn: Dave Prull
Date Sampled: Nov. 14, 1991 Date Submitted: Nov. 14, 1991
Date Analyzed: Nov. 21, 1991

Project Name: Oliver Rubber, 1200 65th St., Emeryville
Project Number: 2410
Sample I.D.: STKP5 (4 in 1 soil composite)
Method of Analysis: 8240 Detection Limit: 5.0 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	92.3% 96.4%
METHYLENE CHLORIDE	26	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	95.7% 90.4%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	93.4% 95.8%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	91.0% 93.6%
ETHYLBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	N.D.	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

(CONTINUED ON NEXT PAGE)

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 22, 1991 ChromaLab File # 1191135 C

Project Name: Oliver Rubber, 1200 65th St., Emeryville
Project Number: 2410
Sample I.D.: STKP5 (4 in 1 soil composite)
Method of Analysis: 8240 Detection Limit: 10 µg/kg

ADDITIONAL COMPOUND NAME	µg/kg
n-HEXANE	N.D.
n-HEPTANE	N.D.
METHYLCYCLOPENTANE	80
CYCLOHEXANE	150
METHYL CYCLOHEXANE	1400
DIMETHYL CYCLOPENTANE	270
TRIMETHYL CYCLOPENTANES	510

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Lab Director

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aqua science engineers inc.

Aqua Science Engineers, Inc.
PO Box 535, San Ramon CA 94583
(415) 820-9391

Chain of Custody

DATE 11/14/91 PAGE 1 OF 1

SAMPLERS (SIGNATURE) David C. Paul (PHONE NO.) (510)685-6700

PROJECT NAME OLIVER RUBBER NO. 2410

ADDRESS 1200 65TH ST EMERYVILLE

ANALYSIS REQUEST

CHROMALAB FILE # 1191135
ORDER # 4174

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)	PCB (EPA 608/8080)	PHENOLS (EPA 6	LUFT M (EPA 6	PRIORI (EPA 6	TITLE (EPA 6	TCLP (EPA 1	STLC- (EPA 1	REACTI CORROS.	IGNITABILITY
S-7	11/14/91	15:15	S	1	X		X			X											
S-8	11/14/91	15:15	S	1	X		X			X											
STKPS	11/14/91	15:15	S	4	X		X			X			COLLATE				AS	1	ANALYTICAL		
												ALL STANDARD TURN									

1. RELINQUISHED BY:	1. RECEIVED BY:	2. RELINQUISHED BY:	2. RECEIVED BY LABORATORY:
(signature) 15:20 (time)	(signature) 15:20 (time)	(signature) 16:15 (time)	(signature) 16:15 (time)
DAVID PAUL 11/14/91 (printed name) (date)	Gerald Sasse 11/14/91 (printed name) (date)	Gerald Sasse 11/14/91 (printed name) (date)	Yiu Keung Tam 11/14/91 (printed name) (date)
Company- ASE	Company- ASE	Company- ASE	Company- CHROMALAB, INC.

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

December 6, 1991 ChromaLab File No.: 1191154

AQUA SCIENCE ENGINEERS, INC.

Attn: David Prull

RE: Three water samples for STLC Lead analysis

Project Name: OLIVER RUBBER
Project Location: 1200 65th St., Emeryville
Project Number: 2410
Date Sampled: Nov. 15, 1991 Date Submitted: Nov. 15, 1991
Date Extracted: Dec. 3, 1991 Date Analyzed: Dec. 5, 1991

RESULTS:

Sample I.D.	STLC Lead (mg/L)
STKP 2	0.32
STKP 3	10.4
STKP 5	0.74
BLANK	N.D.
SPIKED RECOVERY	97%
DUPLICATE SPIKED RECOVERY	81%
DETECTION LIMIT	0.05
METHOD OF ANALYSIS	7420

ChromaLab, Inc.

Refaat A. Mankarious
Inorganics Supervisor

Eric Tam
Laboratory Director

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DEC 14 1991
AQUA SCIENCE ENG.

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Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 22, 1991 ChromaLab File No.: 1191154

AQUA SCIENCE ENGINEERS, INC.

Attn: David Prull

RE: One water sample for Gasoline analysis and Diesel analysis

Project Name: OLIVER RUBBER
Project Number: 2410
Date Sampled: Nov. 15, 1991 Date Submitted: Nov. 15, 1991
Date Extracted: Nov. 20, 1991 Date Analyzed: Nov. 20, 1991

RESULTS:

Sample I.D.	Gasoline (µg/l)	Diesel (µg/l)
GW-2	1600*	N.D.
BLANK	N.D.	N.D.
SPIKE RECOVERY	98.0%	92.6%
DETECTION LIMIT	50	50
METHOD OF ANALYSIS	5030/8015	3510/8015

* Hydrocarbons found in Gasoline range and quantified as Gasoline.

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam (by DD)
Eric Tam
Laboratory Director

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CHROMALAB, INC.

5 DAYS TURNAROUND

Analytical Laboratory (E694)

November 25, 1991 — ChromaLab File # 1191154 D

Client: Aqua Science Engineers — Attn: Dave Prull
Date Sampled: Nov. 15, 1991 — Date Submitted: Nov. 15, 1991
Date Analyzed: Nov. 22, 1991

Project Name: Oliver Rubber, 1200 65th St., Emeryville
Project Number: 2410
Sample I.D.: GW-2
Method of Analysis: 624 — Detection Limit: 2.0 µg/l

COMPOUND NAME	µg/l	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	90.5% 93.7%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	N.D.	90.1% 88.6%
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	N.D.	91.2% 93.3%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	90.8% 91.5%
ETHYLBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	N.D.	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

(CONTINUED ON NEXT PAGE)

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

ChromaLab File # 1191154 D

Project Name: Oliver Rubber, 1200 65th St., Emeryville
Project Number: 2410
Sample I.D.: GW-2
Method of Analysis: 624 Detection Limit: 2.0 µg/l

TENTATIVELY

IDENTIFIED COMPOUNDS	CONCENTRATION (µg/l)
1-METHYL-2-PROPYL-CYCLOPENTANE	190
1,2-DIMETHYL-CYCLOPENTANE	100.
METHYL-CYCLOPENTANE	50.

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam
Lab Director

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aqua science engineers inc.

Aqua Science Engineers, Inc.
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Chain of Custody

DATE 11/15/91 PAGE 1 OF 1

SAMPLERS (SIGNATURE) David R. Peull (PHONE NO.) (510) 685-6700

PROJECT NAME OLIVER RUBBER NO. 2410

ADDRESS 2600 65TH ST. EMERYVILLE

ANALYSIS REQUEST

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)	PCB (EPA 608/8080)	PHENOLS (EPA 604/8040)	LUFT METALS (5) (EPA 6010+7000)	PRIORITY POLLUT. (13) (EPA 6010 ICP + 7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CAM WET Pb (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY
STKP2	11/15/91	12:00	S	1															X	
STKP3	11/15/91	12:00	S	1															X	
STKP5	11/15/91	12:00	S	1															X	
GW-2	11/15/91	10:00	W	3	X		X			X										

CHROMALAB FILE # 1191154
ORDER # 4196

1. RELINQUISHED BY:	1. RECEIVED BY:	2. RELINQUISHED BY:	2. RECEIVED BY LABORATORY:
David R. Peull 16:05			16:05
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)
DAVID PEULL 11/15/91			Yiu Keung Tam 11-15-91
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)
Company- ASE	Company-	Company-	Company- CHROMALAB, INC.

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

December 23, 1991 ChromaLab File No.: 1291148

AQUA SCIENCE ENGINEERS

RE: Two soil samples for total and WET Lead analysis

Project Name: OLIVER RUBBER
Project Number: 2410
Date Sampled: Dec. 18, 1991 Date Submitted: Dec. 18, 1991
Date Extracted: Dec. 18, 1991 Date Analyzed: Dec. 23, 1991

RESULTS:

Sample I.D.	Lead (mg/Kg)	WET Lead (mg/L)
STKP 3	30	1.5
STKP 5	45	1.2
BLANK	N.D.	N.D.
SPIKE RECOVERY	65%	100%
DUPLICATE SPIKE RECOVERY	67%	95%
DETECTION LIMIT	2.5	0.05
METHOD OF ANALYSIS	7420	7420

ChromaLab, Inc.

Refaat A. Mankarious
Inorganics Supervisor

Eric Tam
Laboratory Director

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aqua science engineers inc.

Aqua Science Engineers, Inc.
PO Box 535, San Ramon CA 94583
(415) 820-9391

Chain of Custody

DATE 12/18/91 PAGE 1 OF 1

SAMPLERS (SIGNATURE) (PHONE NO.)
(510)685-6700

PROJECT NAME OLIVER RUBBER NO. 2410

ADDRESS 1200 65TH ST, OAKLAND, CA.

ANALYSIS REQUEST

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)	PCB (EPA 608/8080)	PHENOLS (EPA 604/8040)	LUFT METALS (5) Pb ONLY (EPA 6010+7000)	PRIORITY POLLUT. (13) (EPA 6010 ICP + 7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CAM WET Pb ONLY (EPA 1311/1310)	REACTIVITY	CORROSIVITY	IGNITABILITY
STKP 3	12/18	12:00	S	1											X				X			
STKP 5	12/18	12:00	S	1											X				X			

CHROMALAB FILE # 1291148
ORDER # 4547

1. RELINQUISHED BY:	1. RECEIVED BY:	2. RELINQUISHED BY:	2. RECEIVED BY LABORATORY:
(signature) (time) 16:10	(signature) (time) 16:10	(signature) (time) 16:50	(signature) (time) 16:50
DAVID PRULL 12/18/91	GERALD SASSE 12/18/91	GERALD SASSE 12/18/91	
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)
Company- ASE	Company- ASE	Company- ASE	Company-

DUE MM 12/23

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

December 27, 1991 ChromaLab File No.: 1291219

AQUA SCIENCE ENGINEERS, INC.

RE: One soil sample for Title 22 CAM Metals (17) analysis

Project Name: OLIVER RUBBER
Project Number: 2410
Date Sampled: Dec. 26, 1991 Date Submitted: Dec. 26, 1991
Date Analyzed: Dec. 27, 1991

RESULTS: Sample I.D.: STK1

Metals	Concentration (mg/Kg)	Detection Limit (mg/Kg)	Regulatory Levels (mg/Kg)
Antimony (Sb)	N.D.	1.00	500
Arsenic (As)	2.1	0.25	500
Barium (Ba)	111	0.25	10000
Beryllium (Be)	N.D.	0.05	75
Cadmium (Cd)	1.7	0.05	100
Cobalt (Co)	9.6	0.50	8000
Chromium (Cr)	14	0.50	2500
Copper (Cu)	12	0.05	2500
Mercury (Hg)	0.1	0.05	20
Lead (Pb)	80	0.50	1000
Molybdenum (Mo)	N.D.	0.25	3500
Nickel (Ni)	30	0.50	2000
Selenium (Se)	N.D.	0.50	100
Silver (Ag)	N.D.	0.25	500
Thallium (Tl)	N.D.	2.00	700
Vanadium (V)	19	0.50	2400
Zinc (Zn)	24	0.25	5000

Method of Analysis: 3050/6010/7000

ChromaLab, Inc.

Refaat A. Mankarious
Inorganics Supervisor

Eric Tam
Laboratory Director

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

December 27, 1991 ChromaLab File No.: 1291219

AQUA SCIENCE ENGINEERS, INC.

RE: One soil sample for Title 22 CAM Metals (17) analysis

Project Name: OLIVER RUBBER
Project Number: 2410
Date Sampled: Dec. 26, 1991 Date Submitted: Dec. 26, 1991
Date Analyzed: Dec. 27, 1991

RESULTS: Sample I.D.: STK2

Metals	Concentration (mg/Kg)	Detection Limit (mg/Kg)	Regulatory Levels (mg/Kg)
Antimony (Sb)	N.D.	1.00	500
Arsenic (As)	N.D.	0.25	500
Barium (Ba)	106	0.25	10000
Beryllium (Be)	N.D.	0.05	75
Cadmium (Cd)	2.1	0.05	100
Cobalt (Co)	8.0	0.50	8000
Chromium (Cr)	18.0	0.50	2500
Copper (Cu)	14.0	0.25	2500
Lead (Pb)	6.0	0.50	1000
Mercury (Hg)	1.0	0.05	20
Molybdenum (Mo)	N.D.	0.25	3500
Nickel (Ni)	25.0	0.50	2000
Selenium (Se)	10.0	0.50	100
Silver (Ag)	N.D.	0.25	500
Thallium (Tl)	22.0	2.00	700
Vanadium (V)	21.0	0.50	2400
Zinc. (Zn)	38.0	0.25	5000

Method of Analysis: 3050/6010/7000

ChromaLab, Inc.

Refaat A. Mankarious
Inorganics Supervisor

Eric Tam
Laboratory Director

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(415) 820-9391

Chain of Custody

DATE Dec 26 '91 PAGE 1 OF 1

SAMPLERS (SIGNATURE) Craig Hertz (PHONE NO.) 510 685-6700

PROJECT NAME OLIVER RUBBER NO. 2410

ADDRESS 1200 65TH ST OAKLAND

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:
24 HR TURN AROUND PLEASE

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)	PCB (EPA 608/8080)	PHENOLS (EPA 604/8040)	LUFT METALS (5) (EPA 6010+7000)	PRIORITY POLLUT. (13) (EPA 6010 ICP + 7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CAM WET (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY
STK 1	12/26	1:30	S	1													X			
STK 2	12/26	1:30	S	1													X			

CHROMALAB FILE # 1291219
ORDER # 4628

1. RELINQUISHED BY:	1. RECEIVED BY:	2. RELINQUISHED BY:	2. RECEIVED BY LABORATORY:
Craig Hertz 2:30			14:30
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)
Craig Hertz 12/26			Yiu Keung Tam 12-26-91
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)
Company- ASE	Company-	Company-	Company- CHROMALAB

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

December 5, 1991 ChromaLab File No.: 1191022

AQUA SCIENCE ENGINEERS, INC.

Attn: David Prull

RE: Four composited soil samples for Reactivity, Corrosivity, and Ignitability

Project Name: OLIVER RUBBER
Project Number: 2410
Date Sampled: Nov. 4, 1991 Date Submitted: Nov. 4, 1991
Date Analyzed: Dec. 5, 1991

RESULTS:

Sample I.D.	Reactivity	Corrosivity	Ignitability
STKP 1 (A-D)	No	pH 7.5	No
STKP 2 (A-D)	No	pH 7.4	No
STKP 3 (A-D)	No	pH 7.7	No
STKP 4 (A-D)	No	pH 8.1	No
BLANK	No	pH 7.0	No
METHOD OF ANALYSIS	SEC.66705	SEC.66708	SEC.66702

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam (by DD)
Eric Tam
Laboratory Director

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CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

December 12, 1991 ChromaLab File # 1191135 C

Client: Aqua Science Engineers Attn: Dave Prull

Re: One soil composite sample for Reactivity, Corrosivity and Ignitability analyses

Project Name: Oliver Rubber, 1200 65th St., Emeryville
Project Number: 2410
Sample I.D.: STKP5 (4 in 1 soil composite)

Date Sampled: Nov. 14, 1991 Date Submitted: Nov. 14, 1991
Date Analyzed: Dec. 10, 1991

Results:

Sample I.D.	Reactivity	Corrosivity	Ignitability
STKP 5	No	pH 7.6	No
BLANK	No	pH 7.0	No
METHOD OF ANALYSIS	Sec.66075	Sec.66708	Sec.66702

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

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APPENDIX B

Tank Removal Report
July 16, 1992

aqua science engineers inc.

July 16, 1992

PROJECT REPORT
UNDERGROUND STORAGE TANK CLOSURE
at
Oliver Rubber Company
1200 65th Street, Emeryville, CA.

Prepared for:

The Oliver Rubber Co.
1200 65th Street, Oakland, CA.

Submitted by:

AQUA SCIENCE ENGINEERS, INC.
1041 Shary Circle
CONCORD, CA

TABLE OF CONTENTS

1.0 INTRODUCTION

This report documents the removal and related activities of the underground storage tank closure performed for the Oliver Rubber Company located at 1200 65th Street in Emeryville, Calif. (FIGURE 1). A 1,000 gallon underground storage tank last containing "Bunker Oil" low grade fuel oil. The scope of services provided by Aqua Science Engineers, Inc. (ASE) is in accordance with ASE proposal No. 92-017 and included the following tasks:

- o Obtain permits from the Alameda County Health Care Services Agency, City of Emeryville Fire Department and City of Emeryville Building Department.
- o Notify Cal-OSHA and the Bay Area Air Quality Management District.
- o Remove and dispose of residual liquids from the tank.
- o Remove and dispose of the underground storage tank.
- o Sample native soil adjacent the tank.
- o Prepare a report of methods and findings.

2.0 PERMITS

The application for permits to remove the underground storage tank were obtained from the Alameda County Health Care Services Agency, Emeryville Fire Department and Emeryville Building Department. Notice of construction was given to the Bay Area Air Quality Management District and CAL-OSHA. Copies of the permits and notification documents are contained in Appendix A.

3.0 MOBILIZATION

ASE mobilized for on-site work on June 24, 1992, commencing with removal of concrete surface materials. Project personnel included: Craig Hertz- Project Engineer, Steve DeHope- Construction Manager, and Gerald Sasse-Technical Labor.

3.1 EXCAVATION

The services of the Underground Service Alert network were utilized to identify primary utilities in the work area.

Excavation of the storage tank was initiated on July 24, 1992. Soil was removed along the outside perimeter of the vault to a depth of approximately 9 feet below grade. All piping was removed from the immediate vicinity around the tank. No overspill protection devices were in place at the fill locations.

Cleaning of the tanks and removal of residual liquid waste from the tanks was commenced on July 24. Approximately 550 gallons of residual liquid and tank rinsate was removed by Waste Oil Recovery Systems and disposed of at the Demenno Kerdoon facility in Compton, CA. A copy of the Hazardous Waste Manifest is appended to this report.

Native material surrounding the tank consisted of a light brown clayey silt with some medium/fine sand and little medium/fine gravel to a depth of approximately 4 feet below grade. Light grey clayey silts with increasing content of fine sand was encountered in the elevations between 4 feet and 11 feet below grade. Groundwater was not encountered during the excavation. Although groundwater was previously determined, from a former tank removal project on this site, to be at approximately 9.5 feet below grade. Tank backfill material around the tank was classified as an imported 3/8" crushed gravel with fines.

Air quality sampling was conducted at the edge of the excavation using an organic vapor analyzer model 580A by TEI. Volatile organic vapors were not detected in the air near the edge of the excavation. Mild petroleum odors were noted periodically during soil removal operations.

All tank piping was observed intact with no obvious holes or weakness. No overspill protection devices were in place. All excavated materials were placed on 10 ml. plastic sheeting and covered.

3.2 REMOVAL

Prior to tank removal on the morning of July 24, 1992, ASE inerted the tanks by adding dry ice at the rate of at least 1.5 pounds per 100 gallons of tank volume. After verifying a safe LEL of the tank atmosphere, the tanks were removed from the excavation. The tank removal operations were witnessed by the City of Emeryville Fire Department and the Alameda Health Care Services Agency Inspector-Susan Hugo. The tank was transported by Dexanna, Inc. to the Erickson Tank Disposal Facility in Richmond, CA, on the date of removal. Copies of

the Hazardous Waste Manifests and Tank Disposal Certificates are contained in Appendix B.

The tank was constructed of a single ply 5/16" riveted plate steel. No protective coatings were evident on the tank exterior. The exterior of the tank was examined and corrosion, pitting, and holes were observed.

4.0 SAMPLING AND ANALYSIS

Soil samples were collected from the excavation 2 feet below each end of the tank (BE & BW: Figure 1). Soil samples were taken between 2:30 and 3:30 PM by Project Engineer, Craig Hertz of ASE trained in sampling protocol by a registered civil engineer. Soil sampling was performed at the direction of the Alameda County Health Services Department Inspector- Susan Hugo.

Overexcavation and resampling was performed on the following day (June 25, 1992). Soil samples were collected along the side walls within the tank excavation (SW-N, SW-S, SW-E, SW-W) at approximately 6-7 feet below grade. The sampling locations are shown on the site map in Figure 1 and the results are shown below in Table One.

Soil samples were collected by driving a 6-inch by 2-inch brass tube into the soil using a wooden mallet when necessary. The sample of stock piled soil (STKP 1-A) was taken as a composite of four subsamples. The four samples were composited as one sample at the labratory. All soil samples were secured using aluminum foil, teflon caps and sealed with duct tape. All samples were put on ice and transported to an analyzing labratory under Chain of Custody procedures. A copy of the Chain of Custody is appended to this report.

All samples were submitted for analysis to the state certified laboratory, Priority Environmental Labs in Milpitas, California (408) 946-9636. The samples taken within the excavation were analyzed for Total Petroleum Hydrocarbons as Diesel, BTEX and Oil & Grease. The results of the soil sampling within the excavation are tabulated as TABLE 1: Analytical Results of Soil Sampling. Copies of signed laboratory data sheets are found in Appendix C.

TABLE 1: SOIL SAMPLE ANALYTICAL RESULTS

Sample No.	TPH Diesel (ppm)	Oil & Grease (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)
BE	ND	ND	ND	ND	ND	ND
BW	390	670	ND	ND	ND	ND
SW-W	130	450	19	6.7	ND	33
SW-E	ND	ND	ND	ND	ND	ND
SW-N	490	1500	42	48	5.9	100
SW-S	470	1300	8.6	19	27	130

* - Composited sample
ND - Non Detectable at analytical method limits
ppm - parts per million
ppb - parts per billion

On June 24 and June 25 approximately 36 cubic yards of soil were removed from the tank area. Excavation of soils was conducted to a depth of approximately 7.0 feet below grade.

The stockpiled soil was sampled and analyzed for Total Recoverable Hydrocarbons (EPA 418.1), BTEX (EPA 1311/602), Reactivity (Title 22), Corosivity (Title 22), Ignitability (Title 22), Semi Volatile Organics (EPA 8270). The results indicated 1200 ppm of Total Petroleum Hydrocarbons, a pH of 7.6 for Corrosivity, and Method 8270 revealed 380 ppb of 2-Methylnaphthalene.

5.0 BACKFILLING AND RESURFACING

The excavation was not backfilled and was covered with 1" trenchplate.

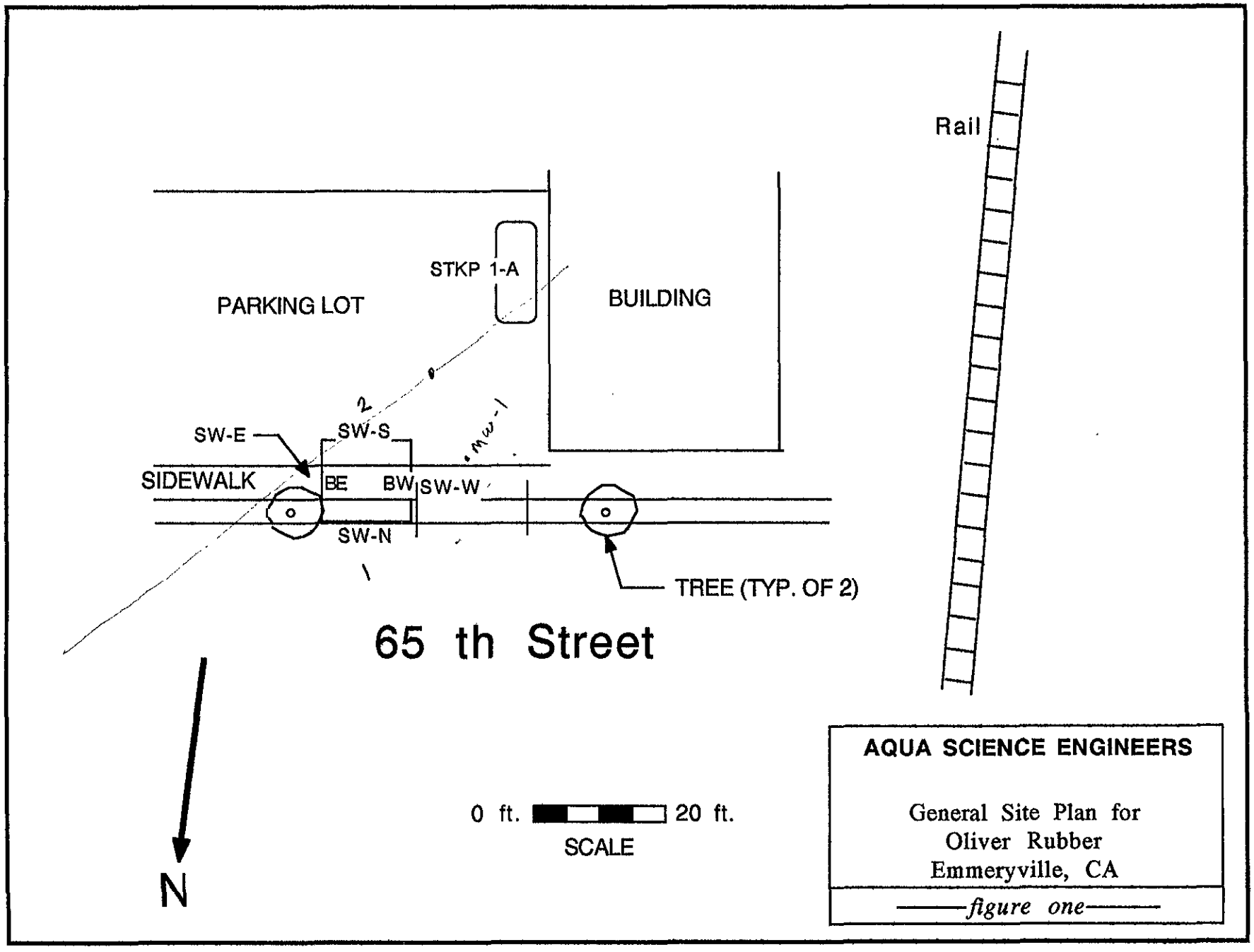
All soil removed from the tank excavation were disposed of at a Class III Landfill. The acceptance certificate from BFI Waste Systems is located in Appendix B. Aggregate Systems Transport, a licensed hazardous waste hauler, transported the soil to the landfill under a non-hazardous waste manifest.

6.0 DISCUSSION AND CONCLUSIONS

One underground storage tank and related plumbing were removed from the site of the Oliver Rubber Co. in Emeryville, CA. The size of the tanks was noted at 1,000 gallons, constructed of a single layer steel plate and last contained diesel oil. Subsequent to tank removal, inspection of the tank revealed signs of corrosion, holes and pitting.

Analytical testing of soil samples in the tank excavation revealed detectable concentrations of diesel, Oil & Grease, Benzene, Toulene, Ethyl-Benzene and Xylenes. All soil removed from the excavation and subsequent over-excavated (approx. 36 cubic yards) were profiled for disposal and disposed of at a Class III Landfill. An underground storage tank unauthorized release form was prepared by Aqua Science Engineers and filed with the Alameda County Health Care Services Department. A copy of this form is in Appendix D.

The tank excavation was not backfilled, but covered with a 1" trenchplate.



AQUA SCIENCE ENGINEERS

General Site Plan for
Oliver Rubber
Emmeryville, CA

figure one

APPENDIX A

PERMITS

APPLICATION FOR PERMIT TO OPERATE, MAINTAIN OR STORE

Make check payable to: CITY OF EMERYVILLE

Mail to: Emeryville Fire Department
Fire Prevention Bureau
6303 Hollis Street
Emeryville, CA 94608

596-3750
PHONE: ~~658-7678~~

F.P.B. Permit No. 1157

Due Date: _____

Original X

Renewal _____

To: ~~Xxxxxxx~~ Remove UG tank ~~store~~ ☐ Specify use if Public Assembly

Pursuant to Section 4.108 of uniform Fire Code 1988 edition

Application made by: Aqua Science Engineers, Inc.

Location: 1200 65th st. Oakland ca 94662

Signed Craig Heat Applicant Phone # 685-6700

Date: 04/21/92

Fee: $35.00(initial)

Cash ____ Ck. No. 14723

Receipt No. _____

Received by: _____

DO NOT WRITE BELOW THIS LINE

---

aqua science engineers inc.

1041 SHARY CIRCLE CONCORD, CA 94518

CivicBank of Commerce
1814 Franklin Street
Oakland, CA 94612

90-4095
1211

014723

NO. 14723

****FIFTY DOLLARS AND 00/100*****

DATE	AMOUNT
4-20-92	$50.00

PAY TO THE ORDER OF CITY OF EMERYVILLE

VOID IF NOT CASHED WITHIN 3 MONTHS

Gerald W. Lane

⑈014723⑈ ⑆121140959⑆ 10502197 69⑈

Is Flameproofing required: _____ Is it satisfactory: _____

DATE OF INSPECTION: _____

REMARKS: $35.00 filing fee; on-site inspection fee of $50.00 p/hour (1st hour no charge); applicant to secure permits from Alameda County, City Building Dept., Public Works (right-of-way encroachment).

X = CK# 14723 / $50.00

Signed George K Warren FIRE INSPECTOR No. _____

Permit Application and Job Notification Form

Construction Demolition Trenches Excavations Buildings Structures Falsework Scaffolding

State of California
Department of Industrial Relations
Division of Occupational Safety & Health

District (Name) _____
Date _____
No. _____

Sections 6500, 6501 and 6502 of the California Labor Code require that certain activities which by their nature involve substantial risk of injury may not be performed without a permit issued by DOSH The Labor Code requires that the applicant supply and that the Division review, information necessary to evaluate the safety of the worksite subject to permit requirements. A permit will not be issued until evidence has been demonstrated that the place of employment will be safe and healthful

"Applicant" refers to the employer applying for the Permit

Employer AQUA SCIENCE ENGINEERS, INC.
Address: 1041 SHARY CIRCLE
CONCORD, CA 94518
Phone: 510-685-6700

Project Safety Contact: STEVE DEHOPE
Employer's Representative. " "
Title & Phone No: Construction Supervisor
Employer's State Contractor's License No.: 487000

Check Applicable Items: "Applicant" refers to the employer applying for the Permit

Applicant is:
____ General Building Contractor
____ General Engineering Contractor
XX Specialty Contractor
Specialty Contractor Type HAZ
____ Other: _____

____ General Contractor Option
Initial this blank if applicant elects to assume responsibility for obtaining a single permit to cover one multi-employer project, e.g., a high-rise construction project. The duties of employers at the site to obey safety and health laws are not changed by this election. A list of employers on site will be attached by the Division to this application and the list will be updated as necessary

Type of Permit Sought:

____ **Annual**
____ **Single Project**
XX **Job Start Notification Only**

____ **Multiple Project.** (If projects to be covered are similar in all important aspects work is performed by the same employer, and informtion concerning each project covered is provided.)

For
____ **Construction of:** ____ Building ____ Structure
XX **Demolition of:** ____ Building ____ Structure
____ Trench and/or Excavation
____ Tower Crane Erection, Dismantling
____ Scaffolding and/or Falsework and/or Vertical Shoring

Any permit based on this application is issued with the understanding that the applicant has knowledge of occupational safety and health orders applicable to the project(s) described in this application and attachments, and that the applicant and supervising personnel will take special care to insure compliance with safety orders reviewed with the applicant by the Division in the application process

Issuance of the permit is also conditioned upon the following:

1) Upon initiation of any new project not described in this application, the holder of an annual permit will provide the Division with a completed Project Description Form describing the new project prior to the start of work, preferably at least one week in advance of start-up date A phone call may be used to meet the deadline but will not be considered valid notice unless followed in writing by mailing a completed Project Description Form
2) The applicant has implemented a written accident prevention program and Code of Safe Practices which meet the requirements of 8 California Administrative Code Section 1509
3) The Division will be notified of significant changes in information provided with this application if such changes might affect the safety of the activity
4) The applicant understands that, under the permit program DOSH schedules routine inspections by authorized personnel for the purpose of verifying that holders of permits are meeting their obligation to provide a safe work place for their employees The Division reserves the right to revoke a permit if it is unable to promptly verify compliance with the terms and conditions of the permit and its issuance
5) The applicant understands that failure to comply with any of the above listed conditions for obtaining a permit could result in denial, suspension or revocation of the permit Employers may appeal these actions to the Director of the Department of Industrial Relations (California Labor Code, Section 6500 et. seq., and 8 California Administrative Code, Section 341)

Is the applicant conducting any activities to be covered by this permit application in partnership or joint venture with any other persons or corporations conducting activities requiring permits? Yes ____ No X If "yes" give details _____

Have any permits for any project to be covered by this permit application previously been applied for or obtained? Yes ____ No X If "yes" when _____ from what district office _____ in whose name _____

Permit Application and Job Notification Form (Continued)

Specific jobsite location 1259 65th Street
Emeryville, CA 94608
Nearest major cross street Hollis Street
City Emeryville
County Alameda
Name and title of jobsite supervisor Steve DeHope

Field phone 510-409-3536
Office phone 510-685-6700
No. of employees 3
Starting date 6-24-92
Anticipated completion date 6-30-92
High Voltage Lines in Proximity ___ No ___ Yes

TYPE OF JOB

INSTRUCTIONS: THE APPROPRIATE ITEM(S) must be completed and signed by a person knowledgeable about the project, for each jobsite to be covered by a permit. Please fill in or check off blanks where appropriate

Construction of: ___ Building ___ Structure Type ___ ___ Steel Frame ___ Tiered ___ Concrete
___ Tilt-up ___ Wood frame ___ Liftslab ___ Precast ___ Slip Form ___ Depth ___ No. of Stories
Description ___

Scaffolding Height ___ ___ Metal ___ Wood ___ Metal over 125 ft.
___ Wood over 60 ft. (require design by California Registered Civil Engineer, plans at site) [CSO 1643, 1644(c)(7)]
Job description ___

Falsework/Vertical Shoring Maximum Height ___ Maximum Span ___ Material ___
Job description ___

Tower Crane Erection/Dismantling
Maximum Radius ___ Capacity ___ Make and model of crane ___
Foundation and/or support(s) for crane on this site designed/constructed by (see Section 1584(a), CSO) ___
Will crane be stepped or jumped as construction proceeds (see CSO Section 1584.1) ___Yes ___No
Name of crane certifier ___

Demolition of: ___ Building Structure Type ___ Height ___ No. of Stories ___
___ Steel frame ___ Wood frame ___ Concrete ___ Demolition Ball ___ Clam ___ Explosives
___ Loader/tractors Other ___
CSO Article 31 - Demolition

Excavations/Trenches Depth range (min./max) 9' Width range (min./max.) 8' Total Length 10'
Ground Protection Method: Shoring ___ Sloping ___ Trench Shield ___ Alternate ___
Project description: Underground storage tank Removal

Division Use Only

Fee ___
Paid ___
Approved ___
Conference ___
Other ___

I hereby certify that, to the best of my knowledge, the above information and assertions are true and correct and that I/the applicant have knowledge of and will comply with the foregoing.

Signature: ___
Title: Project Engineer
Date: 6-16-92

ACKNOWLEDGMENT

Bay Area Air Quality Management District acknowledges receipt of your Tank Removal/Contaminated Soil Excavation Notification Form received on 6/17/92 Blg.

REGULATION 8, RULE 40 Urgent

Aeration of Contaminated Soil and Removal of Underground Storage Tanks

NOTIFICATION FORM

X Removal or Replacement of Tanks

___ Excavation of Contaminated Soil

NFORMATION

ZIP 94608

OWNER NAME Oliver Rubber Company

SPECIFIC LOCATION OF PROJECT Side Walk Area

TANK REMOVAL

SCHEDULED STARTUP DATE 6-24-92

VAPORS REMOVED BY:

[ ] WATER WASH

[X] VAPOR FREEING (CO^2)

[ ] VENTILATION

CONTAMINATED SOIL EXCAVATION

SCHEDULED STARTUP DATE ___

STOCKPILES WILL BE COVERED? YES ___ NO ___

ALTERNATIVE METHOD OF AERATION (DESCRIBE BELOW):

___

(MAY REQUIRE PERMIT)

CONTRACTOR INFORMATION

NAME Aqua Science Eng. CONTACT Steve DeHope

ADDRESS 1041 Shary Circle PHONE (510) 685-6700

CITY, STATE, ZIP Concord Ca. 94518

CONSULTANT INFORMATION
(IF APPLICABLE)

NAME ___ CONTACT ___

ADDRESS ___ PHONE ( ) ___

CITY, STATE, ZIP ___

FOR OFFICE USE ONLY

DATE RECEIVED FAX 6/17/92 BY Blg (Init.)

DATE POSTMARKED ___ BY ___ (Init.)

CC: INSPECTOR NO. 524 DATE 6/17/92 BY Blg (Init.)

UPDATE: CONTACT NAME ___ DATE ___ BY ___ (Init.)

BAAQMD N # ___ DATA ENTRY 6/17/92

1/91

See reverse for instructions

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 415/271-4320

Project Specialist (print) SUSAN L. HUGO

ACCEPTED

DEPARTMENT OF ENVIRONMENTAL HEALTH
470 - 27th Street, Third Floor
Oakland, CA 94612
Telephone: (415) 874-7237

These plans have been reviewed and found to be acceptable and essentially meet the requirements of State and local health laws. Changes to your plans indicated by this Department are to assure compliance with State and local laws. This project proposal herein is now released for issuance of ~~any~~ required building permits for construction.

Any ~~revisions~~ or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspection Department to determine if such changes require approval of State and local laws. Notify this Department at least 48 hours prior to the following required inspections:

✓ Removal of Tank and Piping
✓ Sampling
✓ Final Inspection

Issuance of a permit to operate is dependant on compliance with accepted plans and all applicable laws and regulations.

THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS.

Please make changes noted on page 5.
Susan L Hugo
4/17/92

UNDERGROUND TANK CLOSURE PLAN

*** * * Complete according to attached instructions * * ***

1. Business Name OLIVER RUBBER Co.
   Business Owner STANDARD PRODUCTS CO.
2. Site Address 1259 65th STREET
   City EMERYVILLE Zip 94608 Phone (510) 654-7711
3. Mailing Address P.O. BOX 8447
   City OAKLAND, CA Zip 94608 Phone (510) 654-7711
4. Land Owner OLIVER RUBBER Co.
   Address 1200 65th ST City, State EMERYVILLE, CA Zip 94608
5. Generator name under which tank will be manifested
   OLIVER RUBBER Co.
   EPA I.D. No. under which tank will be manifested CAC000679616

rev 12/90

6. Contractor AQUA SCIENCE ENGINEERS

Address 1041 SHARY CIRCLE

City CONCORD, CA Phone (510) 685-6700

License Type ENG. A ID# 487000

7. Consultant AQUA SCIENCE ENGINEERS

Address 1041 SHARY CIRCLE

City CONCORD, CA Phone (510) 685-6700

8. Contact Person for Investigation

Name DAVID PRULL Title PROJECT MANAGER

Phone (510) 685-6700

9. Number of tanks being closed under this plan (1)

Length of piping being removed under this plan 0 Ft.

Total number of tanks at facility 2

10. State Registered Hazardous Waste Transporters/Facilities (see instructions).

** Underground tanks are hazardous waste and must be handled ** as hazardous waste

a) Product/Residual Sludge/Rinsate Transporter

Name WASTE OIL RECO. EPA I.D. No. CAD000626515

DOHS-843

Hauler License No. CAL-DHS-106399 License Exp. Date 4/92

Address 6401 LEONA STREET

City OAKLAND State CA Zip 94605

b) Product/Residual Sludge/Rinsate Disposal Site

Name DEMENNO KERDOON EPA I.D. No. CAT080013352

Address 2000 N. ALAMEDA

City COMPTON State CA Zip 90221

c) Tank and Piping Transporter

Name ERICKSON, INC. EPA I.D. No. CAD009466392

Hauler License No. 0019 License Exp. Date 5-92

Address 255 PARR BOULEVARD

City RICHMOND State CA Zip 94801

d) Tank and Piping Disposal Site

Name ERICKSON, INC. EPA I.D. No. CAD009466392

Address 255 PARR BOULEVARD

City RICHMOND State CA Zip 94801

11. Experienced Sample Collector

Name DAVID C. PRULL

Company AQUA SCIENCE ENGINEERS

Address 1041 SHARY CIRCLE

City CONCORD State CA Zip 94518 Phone (510) 685-6700

12. Laboratory

Name CHROMALAB, INC.

Address 2239 OMEGA RD. #1

City SAN RAMON State CA Zip 94583

State Certification No. E-694

13. Have tanks or pipes leaked in the past? Yes [ ] No [X]

If yes, describe. _____

14. **Describe methods to be used for rendering tank inert**

DRY ICE AT A RATE OF 1.5 POUNDS PER 100 GALLONS OF TANK VOLUME AS A MINIMUM

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be plugged.

The Bay Area Air Quality Management District (771-6000), along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of explosion proof combustible gas meters to verify tank inertness. **It is the contractor's responsibility to bring a working combustible gas meter on site to verify tank inertness.**

15. Tank History and Sampling Information

Tank		Material to be sampled (tank contents, soil, groundwater, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
500 GAL.	INSTALLATION DATE UNKNOWN LAST USE DATE UNKNOWN TANK CURRENTLY CONTAINS LOW GRADE "BUNKER OIL"	SOIL & GROUNDWATER INTERFACE OR 2' BELOW TANK INVERT GROUNDWATER IF ENCOUNTERED	(1) SOIL SAMPLE MIDDLE OF TANK APPROX. 9.0 FT. BELOW GRADE (1) WATER SAMPLE IF GROUNDWATER ENCOUNTERED

One soil sample must be collected for every 20 feet of piping that is removed. A ground water sample must be collected should any ground water be present in the excavation.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated)	**Sampling Plan**
10 yd.	1 SAMPLE, COLLATED FROM 4 SUB-SAMPLES SELECTED RANDOMLY, ANALYZE FOR TANK CONTENT

Stockpiled soil must be characterized depending on disposal method.

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. **Chemical methods and associated detection limits to be used for analyzing samples**

    The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
BUNKER OIL (FUEL OIL)	EPA GC-FID (3550)	3550	1. ppm
TOTAL OIL & GREASE	STANDARD METHED 5520 E&F	STANDARD METHOD 5520 E&F	50 ppm (Soil
TPH diesel	3550	GC FID	1.0 ppm (Soil
BTX&E	5030	8020 or 8240	.005 ppm (Soil)

17. **Submit Site Health and Safety Plan (See Instructions)**

18. Submit Worker's Compensation Certificate copy

Name of Insurer OHIO CASUALTY GROUP

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)

21. **Report any leaks or contamination to this office within 5 days of discovery.** The report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report form. (see Instructions)

22. Submit a closure report to this office within 60 days of the tank removal. This report must contain all the information listed in item 22 of the instructions.

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true.

I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.

Signature of Contractor

Name (please type) DAVID C. PRULL

Signature David C. Prull

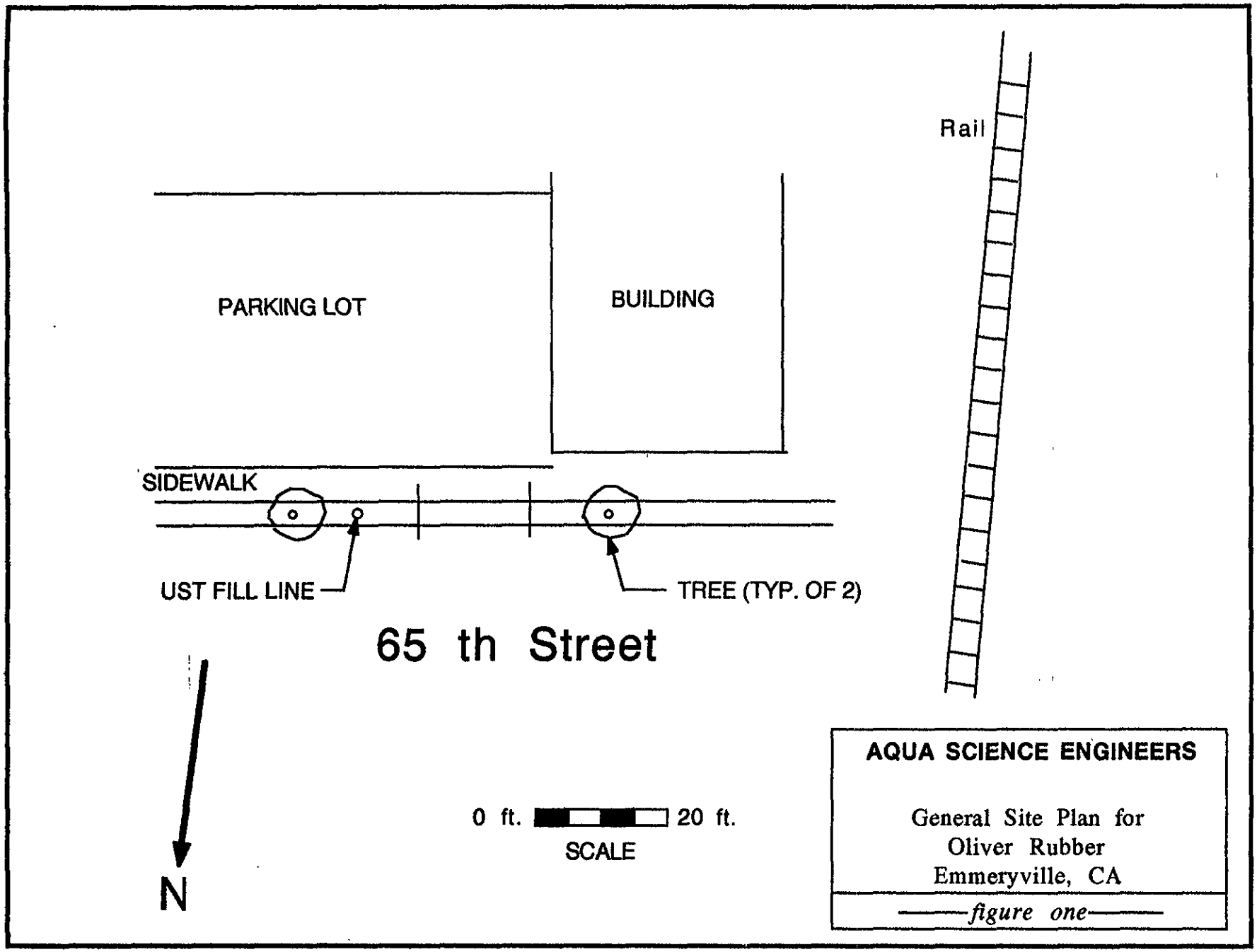
Date 3/23/92

Signature of Site Owner or Operator

Name (please type) RUTH KESSLER

Signature Ruth Kessler

Date 3/27/92


Rail
PARKING LOT
BUILDING
SIDEWALK
UST FILL LINE
TREE (TYP. OF 2)
65 th Street
N
0 ft.
20 ft.
SCALE
AQUA SCIENCE ENGINEERS
General Site Plan for
Oliver Rubber
Emmeryville, CA
figure one

HEALTH & SAFETY PLAN

for the

OLIVER RUBBER JOBSITE
1259 65th STREET
EMERYVILLE, CA

prepared by

Aqua Science Engineers, Inc.
1041 Shary Circle
Concord, CA 94518
1 (800) 678-9391

AQUA SCIENCE ENGINEERS, INC.
HEALTH & SAFETY PLAN
for the
OLIVER RUBBER JOBSITE

A. GENERAL DESCRIPTION

Site: 1259 65TH STREET, EMERYVILLE CALIFORNIA

Work Scope:
1. PROVIDE EXCAVATION SERVICES FOR TANK REMOVAL.
2. PROVIDE EXTRICATION OF ONE 500 GALLON UNDERGROUND STORAGE TANKS.
3. SAMPLE SOIL AND WATER UPON SUCCESSFUL COMPLETION OF TANK REMOVAL. EXECUTE BACKFILLING OPERATIONS.
4. RESURFACE EXCAVATION AREA AND RESTORE TO PREVIOUS USABLE CONDITION.

NOTE: UST CURRENTLY CONTAINS "BUNKER OIL," LOW GRADE FUEL OIL.

SAFETY POLICY:

This Health and Safety Plan is written specifically for the Oliver Rubber jobsite, located at 1259 65th Street, Emeryville California. This plan does not include specific procedures for tank removal and/or soil offhaul, but addresses hazards associated with these and related activities. All persons on site will follow OSHA safe operating practices as outlined in 29 CFR 1910 and 1926, as well as established guidelines from their respective companies or organizations.

Plan Prepared by: David Prull Date: 3/23/92

Plan Approved by: David Prull Date: 3/23/92

Proposed Start Date: April 7, 1992

Overall Hazard Level: Serious: Low:
Moderate: XX Unknown:

Project Organization:

Site Manager for A.S.E.: Steve DeHope
A.S.E. Safety Officer: David Prull
Other A.S.E Personnel: Craig Hertz

B. SITE/WASTE CHARACTERISTICS

Waste Type(s): Solid: XX Sludge:
Liquid: XX Gas:

Characteristics: PETROLEUM FUEL RESIDUALS, FLAMMABLE, TOXIC

Site Parameter: THE EXCAVATION PIT AS WELL AS ANY STOCKPILED MATERIAL ARE IDENTIFIED AS EXCLUSION ZONES. A MINIMUM BOUNDARY OF THREE FEET SURROUNDING BOTH IS TO BE MAINTAINED IN AS MUCH AS IS POSSIBLE. AT NO TIME SHALL ANY PERSONNEL ENTER THE EXCAVATION WITHOUT A SAFETY WATCH PERSON STANDING BY OBSERVING THE ENTRY PERSON'S ACTIVITY.

C. HAZARD EVALUATION

CHEMICAL HAZARDS

Potential chemical hazards include skin and eye contact or inhalation exposure to potentially toxic concentrations of hydrocarbon vapors. The potential toxic compounds that may exist at the site are listed below, with descriptions of specific health effects of each. The list includes the primary potential toxic constituents that may be found in gasoline, and the ingredients that are found in the petroleum solvent residue of the second tank. (excerpted from NIOSH Pocket Guide to Chemical Hazards, June 1990).

GASOLINE TANK

1. BENZENE

a. Colorless, clear, highly flammable liquid (class 1B) with characteristic odor.
b. High exposure levels may cause acute restlessness, convulsions, depression, respiratory failure. *BENZENE IS A SUSPECTED CARCINOGEN.*
c. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight hour period is 1.0 ppm.

2. TOLUENE

a. Colorless, flammable liquid (class 1B) with a sweet benzene-like odor.
b. High exposure levels may cause fatigue, euphoria, confusion, dizziness. *TOLUENE IS LESS TOXIC THEN BENZENE.*
c. PEL for a ten hour TWA is 100 ppm.

3. XYLENE

a. Colorless, flammable liquid (class 1B or IC depending on isomers) with aromatic odors.
b. high exposure levels may case dizziness, drowsiness, narcosis.
c. PEL for a ten hour TWA is 100 ppm.

4. ETHYLBENZENE

a. Clear, colorless, highly flammable liquid (class 1B) with characteristic odor.
b. High exposure levels may cause irritation to skin, nose and throat, constriction in chest, loss of consciousness, respiratory failure.
c. PEL for an eight hour TWA is 100 ppm.

ALL SUBSTANCES AS THEY EXIST ON SITE ARE EXPECTED TO BE STABLE.

Site Status: ACTIVE: XX INACTIVE:

Site History: THE SITE IS CURRENTLY PARKING AREA ASSOCIATED WITH A RUBBER PRODUCT MANUFACTURING PLANT. A FACILITIES BUILDING HISTORICALLY LOCATED AT THE SITE.

PHYSICAL HAZARDS

No person will climb on any excavated material piles without a safety person observing that activity. Personnel shall otherwise maintain the maximum distance possible from the pit while performing their activities. On-site hazards include physical injuries due to the proximity of workers to engine-driven heavy equipment and tools. Equipment used during excavation may include a backhoe or other excavator, a crane for lifting the tanks and a mechanical tamper or other equipment as part of the subsequent backfilling operations. Only trained personnel will operate machines, tools and equipment; all equipment will be kept clean and in good repair. MANDATORY SAFETY CLOTHING REQUIRED AROUND HEAVY EQUIPMENT WILL INCLUDE A HARDHAT AND STEEL-TOED BOOTS AT A MINIMUM.

ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH OSHA GUIDELINES.

Daily inspections of the excavation, the adjacent areas, and protective systems are to be made by a qualified person while personnel are on site. Attention will be made to note if any evidence of potential cave-in exists.

HAVE AT LEAST ONE DRY CHEMICAL MODEL PA-200 A-B-C FIRE EXTINGUISHER PRESENT.

LEVEL OF PROTECTION

A contamination Reduction Zone (CRZ) will be maintained and adjusted as work proceeds and moves around the site. The workers on site will wear level 'D' protective clothing. (This protection level may be upgraded after on-site conclusions of data are completed). THE LEVEL OF PROTECTION FOR PERSONNEL WORKING IN THE AREA WILL BE UPGRADED IF; the organic vapor levels in the equipment operator's breathing zone exceeds 5 ppm above background levels continuously for more then five minutes. In this event, personnel protective equipment will include full face respirators with double-cartridge filters for organic vapors and particulates, in addition to hardhat, steel-toed boots and coveralls. Excavation will cease, equipment shutdown, and personnel will withdraw from the area if either 1.) the organic concentration in the operator's breathing zone exceeds 200 ppm for 5 minutes or 2.) the organic vapor concentration two feet above the excavation exceeds 2,000 ppm or 25% of the lower explosive limit. If work proceeds in an environment where organic vapor concentrations exceed 200 ppm, a self contained breathing apparatus or airline respirator will be utilized by the personnel.

Levels of Protective Clothing are defined on the following pages as described in the "EPA Standard Operating Safety Guidelines":

LEVEL A PROTECTION

Components:

1.) Pressure-demand, supplied air respirator that is MSHA and NIOSH approved. Respirators may be pressure demand, self contained breathing apparatus (SCBA), or pressure demand, airline respirator with an escape bottle for atmospheres with an extreme IDLH.

2.) Fully encapsulating chemical resistant suit.

3.) Inner, chemical resistant gloves.

4.) Disposable gloves and boot covers, worn over the fully encapsulating suit.

5.) 2-way radio communications is highly recommended.

LEVEL B PROTECTION
Components:

1.) Pressure-demand, supplied air respirator that is MSHA and NIOSH approved. Respirators may be pressure demand, self contained breathing apparatus (SCBA), or pressure demand, airline respirator with an escape bottle for atmospheres with an extreme IDLH.

2.) Chemical resistant clothing which includes overalls and long sleeved jacket or, hooded one or two piece chemical splash suit or disposable chemical resistant one piece suit..

3.) Outer chemical resistant gloves.

4.) Inner chemical resistant gloves.

5.) Chemical resistant, steel toed and shank boots.

6.) Disposable chemical resistant boot covers.

7.) Hardhat.

8.) 2-way radio communications is highly recommended.

LEVEL C PROTECTION
Components:

1.) Air purifying respirator, full face, with twin cartridge or cannister equipped filters, that are MSHA and NIOSH approved.

2.) Chemical resistant clothing which includes coveralls or, hooded one-piece or two-piece chemical splash suit or chemical resistant hood and apron; disposable chemical resistant coveralls.

3.) Outer chemical resistant gloves.

4.) Inner chemical resistant gloves.

5.) Chemical resistant, steel toed and shank boots.

6.) Disposable chemical resistant boot covers.

7.) Hardhat.

8.) 2-way radio communications is recommended.

LEVEL D PROTECTION

Components:

1.) Coveralls.

2.) Gloves.

3.) Leather boots, shoes or chemical resistant, with steel toe and shank.

4.) Safety glasses or chemical splash goggles.

5.) Hardhat or face shield.

COMBUSTIBLE GAS AND ORGANIC VAPOR MONITORING

Site personnel will monitor ambient levels of combustible gas vapors using a Thermo Environmental Instruments model 580A or a Gastech model GX-88 OVM. Volatile organic vapor levels greater then 5 ppm above background levels in the hot zone are not anticipated. If the OVM measurements do not decrease below 5 ppm, level 'C' protection will be required. The site Project Manager will be notified if organic vapor levels in the air samples exceed ambient concentrations.

A wetting agent or some form of dust control is recommended to reduce the airborne dust level and subsequent particulate hazard. HEPA respirator cartridges are also recommended as needed.

SITE ENTRY PROCEDURES

Any personnel entering the site will observe all conditions set forth by the owner of the property, including vehicle travel speeds, restricted areas and conduct.

Eating, drinking, smoking and other practices which increase the probability of hand-to-mouth transfer of contamination is prohibited in the work zone. All field personnel will be instructed to thoroughly wash their hands and face upon leaving the work area for breaks or cessation of day's activities. A first aid kit and at least one 20 pound A-B-C fire extinguisher will be available at the site.

DECONTAMINATION PROCEDURES

If required, equipment and personnel decontamination areas will be designated by the Project Manager at the start of the project. To prevent the transfer of contamination from the work site into clean areas, all tools will be cleaned adequately prior to final removal from the work zone. Protective clothing such as Tyvek coveralls, latex gloves, boot covers, etc. will be changed on a daily basis or at the discretion of the Project Manager on site. All disposable protective clothing will be put into plastic bags and disposed of in a proper manner. All respirator cartridges will be discarded and replaced with fresh units on a daily basis, disposal will be in the same manner as the protective clothing. Excavated soils will be stockpiled in an area designated by the Project Manager, until chemical analysis has been performed on representative samples.

In the event of a medical emergency, the injured party will be taken through decontamination procedures, if possible. However, the procedures may be omitted when it may aggravate or cause further harm to the injured party. Member of the work team will accompany the injured party to the medical facility to advise on matters concerning chemical exposure.

Personnel Protection Level will be Level 'D'. Protective clothing levels may be upgraded in the event that on site conclusions determine a greater then anticipated danger to personnel.

SPECIAL CONDITIONS

Site Entry: NORMAL, NO SPECIAL CONDITIONS

Decontamination-

Personnel and Equipment: IF REQUIRED, PERSONNEL AND EQUIPMENT WILL BE DECONTAMINATED A PER USEPA STANDARD OPERATING SAFETY GUIDELINES. A SMALLER MODIFIED DECONTAMINATION LINE MAY BE USED DUE TO SPACE RESTRICTIONS.

Work Limitations (time, weather):

NONE ARE ANTICIPATED. HOWEVER, PERSONNEL WORKING ON SITE MAY EXPERIENCE ELEVATED TEMPERATURES DURING THE WORK DAY. IN THE EVENT THAT AMBIENT TEMPERATURES REACH OR EXCEED 80 DEGREES FAHRENHEIT, THE FOLLOWING GUIDELINES ARE RECOMMENDED.

1. Periods of work should be reduced to no less then one hour time frames and separated by breaks intended to reduce personnel stress due to reduced natural ventilation from wearing protective clothing.

2. All personnel wearing level C protective clothing or greater, will be subject to medical monitoring of body temperature after work periods, by the following guidelines;

a. Heart Rate (HR) should be measured by counting the radial pulse rate for 30 seconds and doubling count for the correct pulse rate. This should be done as early as possible in the resting period. The HR at the beginning of the rest period should not exceed 110 beats per minute. If the HR is higher, the next work period should be shortened by 10 minutes, while the length of the rest period remains the same. If the HR is 100 beats per minute at the beginning of the next rest period, the following work period should be shortened by an additional 10 minutes.

b. Body temperatures should be measured orally with a clinical thermometer as soon as possible in each resting period. Oral Temperatures (OT) should not exceed 99 degrees Fahrenheit. If it does, the next work period should be reduced by 10 minutes while the length of the resting period remains the same. If the OT exceeds 99 degrees Fahrenheit at the beginning of the next work period, the following work period should be reduced by an additional 10 minutes. OT should be measured at the end of each rest period to ensure that the body's temperature has dropped below 99 degrees Fahrenheit.

Body Water Loss (BWL) from sweating, could result in dehydration and further complications and stress on personnel working in protective clothing under adverse weather conditions. It is strongly recommended that plenty of stress relief beverages be available on site to replace body fluids. Commercial drink mixes that provide electrolyte balancing solutions or water are adequate for replacing body fluids.

Alternate methods of heat stress reduction can be made available such as,

Portable showers or hose-down facilities,
Shelter cover to protect against direct sunlight,
Rotating teams of personnel wearing protective clothing,
Performing extremely arduous tasks early in the workday.

EMERGENCY INFORMATION

In the event of an injury or suspected chemical exposure, the first responsibility of the Project Manager will be to prevent any further injury. This objective will normally require an immediate stop to work until the situation is remedied. The Project Manager may order the evacuation of the work party. Other primary responsibilities in the event of an accident will be the first aid and decontamination of the injured team member(s). The injured party will be moved to a designated safe area and initial first aid will be rendered.

Employees are asked to make every effort and take personnel responsibility to prevent accidents involving machinery or any other aspect of the job, either by individual action or by notifying the Project Manager immediately of any unsafe condition that may exist.

In the event of an unexpected hazardous material discovery on site, the following actions will be taken by any employee involved;

1. The person having uncovered the unexpected material will notify the Project Manager and other workers of the danger. The site will be cleared of personnel if deemed necessary by the Project Manager. If site evacuation is required, appropriate local agencies such as the Fire Department or Health Department will be notified as well.

2. Immediate action will be taken to contain the hazardous material, provided the workers involved are properly attired with adequate protective clothing to avoid exposure.

3. Proper containment procedures will be determined for the hazardous material encountered prior to cleanup commencing. All personnel involved in the containment effort will be properly protected to prevent exposure. Backup personnel will be similarly protected while monitoring the work being done for any additional dangers.

4. The container(s) will be staged on site, away from the major activity areas and in such a way that if loss of containment occurs, the material will be withheld from further spread by a secondary containment berm or vessel.

5. The owner or agent controller of the property will be notified promptly of the incident and will be apprised as to the options available for proper disposal.

ACUTE EXPOSURE SYMPTOMS AND FIRST AID

EXPOSURE ROUTE	SYMPTOMS	FIRST AID
Skin	Dermatitis, itching redness, swelling	Wash immediately with soap and water contact ambulance if evacuation is needed.
Eyes	Irritation, watering	Flush with water, transport directly to emergency room, if necessary.
Inhalation	Vertigo, tremors stupor, dizziness	Move person to fresh air, cover source of exposure.
Ingestion	Nausea, vomiting	Call Poison Control Center, DO NOT INDUCE VOMITING, transport to medical facility.

Local Resources:

HEALTH AND SAFETY CONTACT FOR ASE:

Michael D. Dirk
Office: (415) 820-9391

Ambulance
Police : **911**
Fire

POISON CONTROL: SF (415) 476-6600

Emergency Route to nearest Medical Facility:

Exit site, Travel WEST on 65th Street
LEFT on San Pablo Avenue
RIGHT on Ashby Avenue (Hwy. 13)
RIGHT on Colby Plaza

HOSPITAL IS NEAR THE CORNER OF ASHBY AY COLBY PLAZA

Hospital: - ALTA BATES HOSPITAL

3001 COLBY PLAZA, BERKELEY 540-0337 ext 6

AQUA SCIENCE ENGINEERS

signature page for

Oliver Rubber Jobsite

The below signed personnel have read this plan, understand it's content, and agree to follow the guidelines set forth.

Name (print)	Signature	Project Assignment	Date
STEVE DeHope		project MANAGER	6/24/92
Gerald W Sasse	Gerald Sasse	OPERATOR	6/24/92

APPENDIX B

HAZARDOUS WASTE MANIFEST

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. Form designed for use on elite (12-pitch typewriter).

See instructions on back of page 6.

Department of Health Services
Toxic Substances Control Program
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
C A C 0 1 0 0 6 7 9 6 1 6	8 3 1 6 0 5		

GENERATOR

3. Generator's Name and Mailing Address
Oliver Rubber Co.
P.O. Box 8447 - Oakland, California 94608

4. Generator's Phone (510) 654-7711

A. State Manifest Document Number: 91688534

B. State Generator's ID:

5. Transporter 1 Company Name: Dexanna, Ltd.

6. US EPA ID Number: C A D 9 8 2 4 3 8 5 6 6

C. State Transporter's ID: 308783

D. Transporter's Phone: (510) 687-1292

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
Erickson, Inc. 255 Parr Blvd.
Richmond, California 94801

10. US EPA ID Number: C A D 0 0 9 4 6 6 3 9 2

G. State Facility's ID:

H. Facility's Phone: (510) 235-1393

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Waste Empty Storage Tank NON-RCRA Hazardous Waste Solid.	0 0 1	T P	1 0 7 5 0	P	State 512 EPA/Other NONE
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
Qty. 1 Empty Storage Tank # 8992. Tank has been inerted with 15 lbs. Dry Ice per 1000 gals. capacity.

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Keep away from sources of ignition. Always wear hardhats when working around U.S.T.'s. Site location: 1259 - 65th Street Emeryville, California 24 Hr. Contacr Name: Ron Kessler - Phone Number (510) 654-7711

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
		0 6	1 2	1 9 1 2

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Lawrence F. DeKalb	Lawrence F. DeKalb	0 6	1 2	1 9 1 2

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

91688534

DHS 8022A (12/90)
EPA 8700—22

Yellow GENERATOR RETAINS

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL (916) 427-4341

GENERATOR

TRANSPORTER

FACILITY

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	
a. PETROLEUM DISTILLATE (GASOLINE) FLAMMABLE LIQUID NA 1270	001	TT	1600	G	
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

a. OIL b. c. d.

15. Special Handling Instructions and Additional Information

WORK ROUTE ... TIMING

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
D. ...	...	06	21	92

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
...	...	06	21	92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 853702

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: Oliver Rubber Co.
Address: 1200 65th St Emeryville CA 94662
Phone No.: 510-654-7711

Generating Location: Oliver Rubber Co.
Address: 1200 65th St Emeryville CA 94662
Phone No.: 510-654-7711

BFI Waste Code: CA 405 071092 40811

Description of Waste	Quantity	Units	Containers No.	Containers Type
Soil contaminated with oil & Grease	18	Y	01	T

Type: D - Drum; C - Carton; B - Bag; T - Truck; P - Pounds; Y - Yards; O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steve DeHope — Generator Authorized Agent Name
Signature
07/15/92 — Shipment Date

TRANSPORTER

Truck No.: #201
Phone No.: (510) 732-6873
Transporter Name: A.S.T.
Driver Name (Print): TIM E. GOLDMAN
Address: P.O. Box 2105 Castro Valley, Calif.
Vehicle License No./State: 1U21207
Vehicle Certification: NON-HAZ.

I hereby certify that the above named material was picked up at the generator site listed above.
Driver Signature
07/15/92 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.
Driver Signature
07/15/92 — Delivery Date

DESTINATION

Site Name: Vasco Road Landfill
Phone No.: 510-447-0491
Address: 4001 N Vasco Rd Livermore 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
Signature
07/15/92 — Receipt Date

PASS CODE

10/86

BFI260-720

Waste Systems™
BROWNING-FERRIS INDUSTRIES

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: Oliver Rubber Co. Generating Location: Oliver Rubber Co.

Address: 1200 65th St. Emeryville CA 94662 Address: 1200 65th St. Emeryville CA 94662

Phone No. 510-6547711 Phone No. 510-6547711

BFI Waste Code: CA 405 071092 40811

Description of Waste: Soil contaminated with oil & grease

Quantity	Units	Containers No.	Containers Type
18	Y	01	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steve Dettloff — Generator Authorized Agent Name; Signature; 071592 — Shipment Date

TRANSPORTER

Truck No. # 304 Phone No. (510) 732-6873

Transporter Name A.S.T Driver Name (Print) Don Clark

Address P.O. Box 2655 Vehicle License No./State 4F09086

Castro Valley Vehicle Certification Non-HAZ

I hereby certify that the above named material was picked up the generator site listed above.

Don Clark — Driver Signature; 071592 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature; 071592 — Delivery Date

DESTINATION

Site Name Vasco Road Landf.ll Phone No. 510-4470491

Address 4001 N. Vasco Rd Livermore 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent; Signature; 071592 — Receipt Date

PASS CODE

/86

BFI260-720

APPENDIX C

LABORATORY ANALYSIS and CHAIN OF CUSTODY

APPENDIX D

UNDERGROUND STORAGE TANK
UNAUTHORIZED RELEASE FORM

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY ☐ YES ☒ NO

HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED ? ☐ YES ☒ NO

REPORT DATE: 07 / 01 / 92 (M / D / Y)

CASE #:

FOR LOCAL AGENCY USE ONLY

I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.

SIGNED _____ DATE _____

REPORTED BY

NAME OF INDIVIDUAL FILING REPORT: Craig Hertz

PHONE: (510) 685-6700

SIGNATURE:

REPRESENTING ☒ OWNER/OPERATOR ☐ REGIONAL BOARD ☐ LOCAL AGENCY ☐ OTHER _____

COMPANY OR AGENCY NAME: Aqua Science Engineers, Inc.

ADDRESS: 1041 Shary Circle (STREET) Concord (CITY) CA (STATE) 94518 (ZIP)

RESPONSIBLE PARTY

NAME: Oliver Rubber Co. ☐ UNKNOWN

CONTACT PERSON: Ron Kessler

PHONE: (510) 654-7711

ADDRESS: 1200 (STREET) 65 Street (CITY) Emeryville (STATE) CA (ZIP)

SITE LOCATION

FACILITY NAME (IF APPLICABLE): Oliver Rubber Co.

OPERATOR: Ron Kessler

PHONE: (510) 654-7711

ADDRESS: 1200 (STREET) 65th Street (CITY) Emeryville (COUNTY) Alameda (ZIP)

CROSS STREET: San Pablo

IMPLEMENTING AGENCIES

LOCAL AGENCY / AGENCY NAME: Alameda County Health Care Services

CONTACT PERSON: Susan Hugo

PHONE: (510) 2714320

REGIONAL BOARD: RWQCB San Francisco Bay Region

CONTACT PERSON: Eddy So

PHONE: (510) 6580588

SUBSTANCES INVOLVED

(1) NAME: Diesel Oil — QUANTITY LOST (GALLONS): _____ ☒ UNKNOWN

(2) NAME: _____ — QUANTITY LOST (GALLONS): _____ ☐ UNKNOWN

DISCOVERY/ABATEMENT

DATE DISCOVERED: 06 / 24 / 92 (M / D / Y)

HOW DISCOVERED: ☐ INVENTORY CONTROL ☐ SUBSURFACE MONITORING ☐ NUISANCE CONDITIONS ☐ TANK TEST ☒ TANK REMOVAL ☐ OTHER _____

DATE DISCHARGE BEGAN: ☒ UNKNOWN

HAS DISCHARGE BEEN STOPPED ? ☒ YES ☐ NO IF YES, DATE 06 / 24 / 92

METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY)

☐ REMOVE CONTENTS ☒ CLOSE TANK & REMOVE ☐ REPAIR PIPING ☐ REPAIR TANK ☐ CLOSE TANK & FILL IN PLACE ☐ CHANGE PROCEDURE ☐ REPLACE TANK ☐ OTHER _____

SOURCE/CAUSE

SOURCE OF DISCHARGE: ☐ TANK LEAK ☒ UNKNOWN ☐ PIPING LEAK ☐ OTHER

CAUSE(S): ☐ OVERFILL ☐ RUPTURE/FAILURE ☐ SPILL ☐ CORROSION ☒ UNKNOWN ☐ OTHER _____

CASE TYPE

CHECK ONE ONLY

☒ UNDETERMINED ☐ SOIL ONLY ☐ GROUNDWATER ☐ DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)

CURRENT STATUS

CHECK ONE ONLY

☐ NO ACTION TAKEN ☐ PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED ☐ POLLUTION CHARACTERIZATION
☒ LEAK BEING CONFIRMED ☐ PRELIMINARY SITE ASSESSMENT UNDERWAY ☐ POST CLEANUP MONITORING IN PROGRESS
☐ REMEDIATION PLAN ☐ CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) ☐ CLEANUP UNDERWAY

REMEDIAL ACTION

CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS)

☒ EXCAVATE & DISPOSE (ED) ☐ REMOVE FREE PRODUCT (FP) ☐ ENHANCED BIO DEGRADATION (IT)
☐ CAP SITE (CD) ☐ EXCAVATE & TREAT (ET) ☐ PUMP & TREAT GROUNDWATER (GT) ☐ REPLACE SUPPLY (RS)
☐ CONTAINMENT BARRIER (CB) ☐ NO ACTION REQUIRED (NA) ☐ TREATMENT AT HOOKUP (HU) ☐ VENT SOIL (VS)
☐ VACUUM EXTRACT (VE) ☐ OTHER (OT) _____

COMMENTS

HSC 5 1629

APPENDIX C

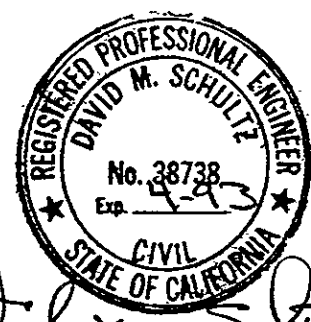
Environmental Site Assessment
October 28, 1992

aqua science engineers inc.

October 28, 1992

PROJECT REPORT
for
PHASE II SOIL AND GROUNDWATER ASSESSMENT, NO. 2571
at
The Oliver Rubber Company
1200 65th Street
Emeryville, California

Prepared for:
Mr. Ron Kessler
The Oliver Rubber Company
1200 65th Street
Emeryville, California



Prepared by:
AQUA SCIENCE ENGINEERS, INC.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
(510) 820-9391

EXECUTIVE SUMMARY

A limited groundwater and subsurface site investigation was conducted at The Oliver Rubber Company, 1200 65th Street, Emeryville, California as follow up to underground storage tank removals conducted in 1991 and 1992. The site assessment activities were initiated by the property owner in accordance with the Alameda County Health Care Services Agency (ACHCSA) requirements (see Appendix A for a copy of the "Direction Letter"). The purpose of this site assessment was to: (1) further define the limits of elevated concentrations of petroleum hydrocarbon and solvent contamination which was found in the soil upon excavation of the former underground storage tanks, and (2) to assess the potential for groundwater contamination caused by the leaking tanks or associated product lines. Prior to commencement of field activities, the work plan was approved by the ACHCSA, and well permits will be obtained from the Alameda County Flood Control and Water Conservation District, Zone 7 (see Appendix F for copies of the permit).

The project included the installation of three (3) groundwater monitoring wells and two (2) soil borings. Soil samples were to be collected at five foot intervals until saturated material was encountered. Groundwater samples were to be collected once well installation and well development activities were concluded. Both the soil and groundwater samples were tested at a State of California Certified Laboratory for all or a combination of the following constituents:

Total Petroleum Hydrocarbons as Diesel (TPH-d) (EPA 3550/8015)
BTEX (EPA 8020)
Volatile Organics (EPA 8240)
Oil & Grease (EPA 5520)
Purgeable Halocarbons (EPA 8010)
Acid/Base Extractables (EPA 8270)

The above-referenced analytical tests resulted in Non Detectable (N.D.) levels of constituents in the groundwater samples submitted. Soil samples submitted for analytical testing for the above-referenced constituents resulted primarily in N.D. levels of contamination. It is the opinion of ASE that the tank-removal, and overexcavation activities performed in early 1991 and mid 1992 sufficiently removed the contamination that could have possibly posed a significant threat to the groundwater on site. Groundwater sampling activities performed on October 1, 1992 resulted in N.D. levels of all constituents of which were tested.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

1.0 INTRODUCTION

The following is a report on the further soil investigation and initial groundwater assessment conducted at The Oliver Rubber Company, 1200 65th Street, Emeryville, CA on October 1, 1992. The investigation/assessment was conducted on behalf of representatives of Oliver Rubber, the current property owner, per the written request of the Alameda County Health Care Services Agency (see the "Direction Letter" attached in Appendix A). This report is intended as a supplement to the "Tank Pull" reports by Aqua Science Engineers, Inc. (ASE) dated December 5, 1991 and July 16, 1992. The December 5, 1991 report details the removal of 2 - 8,000 gallon, underground, steel, non-halogenated organic solvent tanks; the July 16, 1992 report details the removal of 1 - 1,000 gallon, underground, steel "Bunker Oil" tank. The purpose of the investigation detailed in this report was to define the direction and gradient of groundwater flow, and to investigate the possible existence and extent of soil and/or groundwater contamination resulting from the leakage of the underground storage tanks.

2.0 SITE BACKGROUND

2.1 Physical Location

The site is located at the corner of 65th Street at Hollis Street. The site is approximately 1/16 mile west of Interstate 80, and 1/16 mile south of Highway 13, within the City limits of Emeryville, California. The site is currently used as a manufacturing setting for rubber products. The topography of the immediate area is generally even and located at approximately 20 feet above mean sea level. (see Figure 1: Site Location Map).

2.2 Background and Site History

Between December 5, 1991 and July 16, 1992, (3) underground storage tanks were removed from the property by ASE; two of the tanks had 8,000 gallon capacities and contained non-halogenated solvents; one of the tanks had a 1,000 gallon capacity, and contained bunker oil. Underground tank removal activities were documented by ASE in a reports referenced in the previous sections.

2.3 General Geology/Hydrogeology

The site rests on unconsolidated sediments primarily composed of clay. The eastern shoreline of the San Francisco Bay is located approximately 1/16 mile west of the site. Shallow groundwater in the area is located approximately 8-10 feet below grade at the site, and is assumed to flow in a westerly direction towards the San Francisco Bay.

2.4 Review of Preliminary Soil Assessment, Baseline, March 1990

Details of the "Tank Pull" reports which include tank removals, disposals, and soil and water sampling and analysis, can be found in ASE reports dated December 5, 1991 and July16, 1992. Detectable levels of Total Petroleum Hydrocarbons (TPH) as Diesel, Oil and Grease, and several constituents of Volatile Organics were found in the sidewalls of both excavations upon backfilling activities. It was determined that groundwater monitoring wells would be necessary to investigate the possibility of groundwater contamination due to leaking tanks.

3.0 SCOPE OF WORK

What follows is the report covering the methods and findings regarding the initial groundwater assessment and additional soil investigation as outlined in the September 10, 1992 workplan.

The scope of work performed for the initial groundwater investigation and further limited soil assessment, included the following tasks:

- Installation of three 25 foot depth groundwater monitoring wells and two soil borings.
- Collection of soil samples at five foot intervals during drilling of the wells and within the capillary fringe.
- Surveying of the monitoring wells.
- Collection of groundwater depth measurements from the wells to determine the direction of groundwater flow and gradient at the site.
- Collection of groundwater samples from the wells.

- Chemical analysis of soil and groundwater samples included testing for all or combinations of the following EPA methods tests: TPH as Diesel and the fractions BTEX (3510/8015, 8020), Volatile Organics (8240), Oil and Grease (5520) Purgeable Halocarbons (8010), and Acid/Base Extractables (8270).

4.0 DRILLING AND GROUNDWATER WELL CONSTRUCTION

A total of three wells were installed at the site on October 1, 1992. The locations of the ground water monitoring wells (MW-1, MW-2, and MW-3) are indicated in Figure 2, Site Plan. The soil borings for well installation were drilled to 25 feet below ground surface using a CME-75 drill rig equipped with 8 inch O.D. continuous flight, hollow stem augers. All drilling equipment was steam cleaned before use and between borings. Water saturated soil was first encountered at approximately 15-17 feet in each of the monitoring well borings.

Two-inch diameter schedule-40 PVC well casing with 0.020-inch slots was installed from 25 feet to 5 feet below the surface in each boring. Two-inch diameter schedule-40 PVC blank casing was installed above the slotted casing, to the surface. The well casings were capped, on the bottom with a two-inch threaded female plug and on top with a two inch locking security plug. The annular space of the wells was packed with No. 3 Monterey sand from the bottom of the borings to 4.5 feet below the surface. 2.0 feet of bentonite clay was placed above the sand packs. Class "H" Portland Cement was placed above the bentonite seals, to the surface. The well heads were secured with concrete vaulted, water-tight, locking, steel, street boxes. Monitoring Well Logs details are provided in Appendix D.

The ground water wells were developed on October 2, 1992, using a 2-inch PVC bailer. The wells were initially surged to correct any sand pack bridging which may have occurred, and to remove any "fines" from the sand pack. Approximately 50 gallons of water was bailed from each well and placed in 55-gallon 17H steel drums for temporary on-site storage.

5.0 SOIL SAMPLE COLLECTION AND CHEMICAL ANALYSIS

Soil samples were collected in groundwater monitoring well MW-1, at 5, 10, and 15 foot depths. MW-2 and MW-3 soil borings were collected at 5, 10, and 15 foot depths. Soil Borings SB-1 and SB-2 (see Figure 2, Site Plan) had soil samples collected at 10 feet only. The samples were collected using a two-inch I.D. California split-spoon sampler holding three pre-cleaned two-inch O.D. by six-inch length sample tubes. The tube nearest the shoe from each sample interval was secured with double thickness aluminum foil, plastic end caps, and tape then immediately placed in an ice chest containing "blue" ice for cold storage. The next sample tube nearest the shoe was emptied into a zip-loc plastic storage bag and placed in sunlight, to enhance the volatilization of organic carbon from the soil matrix. After approximately 1/2 hour, the sample was screened in the field with a "Gastechtor Super Surveyor", model No. 1314. The Gastechtor is equipped with a combustible gas sensor calibrated with hexane.

The soil samples were submitted to Priority Environmental Labs located in Milpitas, California for definitive chemical analysis. Soil samples from MW-1, SB-1, and SB-2 were analyzed for TPH as diesel, BTEX, Oil & Grease, Purgeable Halocarbons, and Acid/Base Extractables, by EPA methods 3550/8015, 8020; 5520 D&F; 8010; and 8270 respectively, (the 15 foot MW-1 sample was the only soil sampled submitted for analysis by 8270). MW-2 and MW-3 soil samples were analyzed for Volatile Organics, Purgeable Halocarbons, and BTEX by EPA methods 8240, 8010, and 8020 respectively. Priority Environmental Laboratory is CSDHS certified for the chemical analyses preformed for this investigation. The chemical analyses provided by Priority Environmental Laboratory regarding soil samples are provided below as tables 1 & 2. Copies of the Soil laboratory analytical reports and sample chain-of-custody documents are provided in Appendix B.

TABLE 1
Summary of Chemical Analysis of SOIL Samples
TPH Diesel, BTEX, and Oil & Grease
EPA Methods 3550/8015, 8020, and 5520 D&F

Sample I.D.	TPH Diesel (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Oil & Grease (ppm)
MW-1-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2-10'	---	N.D.	N.D.	N.D.	N.D.	---
MW-2-15'	---	N.D.	N.D.	N.D.	N.D.	---
MW-3-5'	---	N.D.	N.D.	N.D.	N.D.	---
MW-3-15'	---	N.D.	N.D.	N.D.	N.D.	---
SB-1-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SB-2-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
EPA METHOD	3550/ 8015	8020	8020	8020	8020	5520 D&F

ND Non Detectable at analytical method limits
ppm parts per million
ppb parts per billion
--- not analyzed

TABLE 2
Summary of Chemical Analysis of SOIL Samples
Purgeable Halocarbons, and Volatile Organics
EPA Methods 8010, and 8240

CONSTITUENT	MW-2-5' (ppb)	MW-2-15' (ppb)
TRICHLOROFLOROMETHANE	13	---
1,1-DICHLOROETHENE	---	2.9
CHLOROFORM	---	11
EPA METHOD	8240	8010

ppb parts per billion
--- not analyzed

*All other constituents tested for as part of these methods were found to be N.D. See Appendix B for copies of sample results.

6.0 GROUND WATER SAMPLE COLLECTION AND CHEMICAL ANALYSIS

Ground water measurements and identification of any "free-product" were collected before any water was purged from the wells. No free product was identified and no odor could be recognized from any of the wells. One ground water sample was collected from each of the three groundwater monitoring wells on October 5, 1992, after removal of approximately five well volumes of water and 90% well recharge. The well was purged using a 2-inch PVC bailer. The well purge water was placed in 55-gallon steel 17H drums and stored on site pending analytical results. The samples were collected using disposable, sterile, polyethylene, single check valve bailers. The samples were placed in pre-cleaned, sterile, 40 ml. glass VOA vials, then immediately placed in an ice chest for cold storage. They were later transported to Priority Environmental Laboratory in Milpitas, California using proper Chain-of-Custody procedures, for chemical analysis. The Groundwater analytical results and chain-of-custody records are included in Appendix C. Well Sampling Field Logs are attached in Appendix E.

The groundwater samples collected for this project were analyzed for TPH as diesel, BTEX, Oil & Grease, Volatile Organics, and Acid/Base Extractables, by EPA methods 3550/8015, 8020; 5520 D&F; 8240; and 8270 respectively, (the MW-1 sample was the only water sample submitted for analysis by 8270). The results are tabulated below in tables 3, 4 & 5; Groundwater laboratory analytical results and chain-of-custody records are attached in Appendix C.

TABLE 3
Summary of Chemical Analysis of WATER Samples
TPH as Diesel, BTEX, and Oil & Grease
EPA Methods 3510/8015, 602, and 5520 C&F

Sample I.D.	TPH Diesel (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Oil & Grease (ppm)
MW-1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	---	---	---	---	---	---
MW-3	---	---	---	---	---	---
EPA METHOD	3510/ 8015	602	602	602	602	5520 C&F

N.D. Non Detectable at analytical method limits
ppm parts per million
ppb parts per billion
--- not analyzed

TABLE 4
Summary of Chemical Analysis of Water Samples
Volatile Organics and Acid/Base Extractables
EPA Methods 8240 and 8270

Sample I.D.	All Volatile Organics	All Acid/Base Extractables
MW-1	---	N.D.
MW-2	N.D.	---
MW-3	N.D.	---

N.D. Non Detectable at analytical method limits
--- not analyzed

TABLE 5
Summary of Chemical Analysis of Water Samples
pH and Conductivity
EPA Methods 9045 and 120.1

Sample I.D.	pH	Conductivity
MW-1	6.8	930
MW-2	7.0	1100
MW-3	6.7	670
EPA Method	9045	120.1

7.0 GEOLOGY AND GROUNDWATER GRADIENT

The native soil types encountered while drilling were primarily composed of blue-green organic clay (CL) from approximately 1 ft. to 10 feet, from 10 to the bottom of hole depth (25 feet), brown/blue-green, silty clay was observed. Water saturated soil was first encountered during drilling at approximately 15-17 feet in the monitoring well borings. A graphical description of the soil types are provided on the well construction logs (see Appendix D).

The elevations of the tops of the well casings were surveyed relative to mean sea level (MSL) on October 1, 1992. The depths to groundwater were measured in each well on the day of the survey using a water level sounder (Solinst). Two measurements were taken in each well to confirm groundwater depth. The depth to water and the top of casing survey data were used to calculate a groundwater flow direction and gradient. A summary of the elevation data is provided below.

TABLE 6
Summary of Groundwater Well Survey Data

Well Number	Depth to Water	Top of Casing Elevation	Groundwater Elevation
MW-1	8.08 ft.	20.0 ft. AMSL	11.92 ft. AMSL
MW-2	7.45 ft.	19.21 ft. AMSL	11.76 ft. AMSL
MW-3	7.44 ft.	19.80 ft. AMSL	12.36 ft. AMSL

A three-point problem was solved for well combinations MW-1, MW-2 and MW-3. A graphic representation of the three-point problem indicating groundwater flow direction and gradient is presented in the Groundwater Gradient Map, Figure 3. The current direction of groundwater flow is west across the site at a gradient of 0.02 ft/ft.

8.0 CONCLUSIONS

Based on the results of the chemical analyses, and supplemental investigative work, it is the opinion of Aqua Science Engineers, Inc. that the tank excavations and the over-excavations of contaminated soils previously conducted at the subject site during late 1991 and mid 1992 by ASE adequately removed contamination which may have posed a potential threat to groundwater at the site. Furthermore, any impact that the soil contamination may have had on groundwater appears to be insignificant at this time (groundwater samples, MW-1, MW-2, and MW-3 resulted in N.D. levels of TPH as Diesel and the fractions BTEX, Oil & Grease, Volatile Organics, and Acid/Base Extractables).

The chemical analysis of soil samples from the three monitoring wells and from the two soil borings resulted primarily in non-detectable (N.D.) levels of contamination. Only in MW-2 soil samples was any contamination detected; furthermore, the concentrations of the constituents that did appear (Trichlorofloromethane, 1,1-Dichloroethene, and Chloroform) only resulted in trace levels of contamination, 0.013 ppm being the largest.

9.0 RECOMMENDATIONS

Aqua Science Engineers recommends the depth to groundwater in the wells be measured and groundwater samples be collected on a quarterly basis for a period of 1 year to confirm the findings of this investigation. The groundwater samples should be analyzed for TPH as Diesel, and the fractions BTEX using EPA Method 5030/8015, 602 in MW-1; for Volatile Organics using EPA Method 8240/624 in MW-2 and MW-3. The laboratory chosen to perform the analyses must be CSDHS certified for both of these methods. A report of quarterly findings should be produced for review by the Regional Water Quality Control Board, San Francisco Bay Region, and The Alameda County Health Care Services Agency.

10.0 REPORT LIMITATIONS

The results of this investigation represent conditions at the time and specific location at which soil and groundwater samples were collected, and for the specific parameters analyzed for by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the underground storage tanks at the site, or for parameters not analyzed for by the laboratory. All of the laboratory work cited in this report was prepared under the direction of independent CSDHS certified laboratory. The independent laboratory is solely responsible for the contents and conc'usions of the chemical analysis data.

Respectfully submitted,

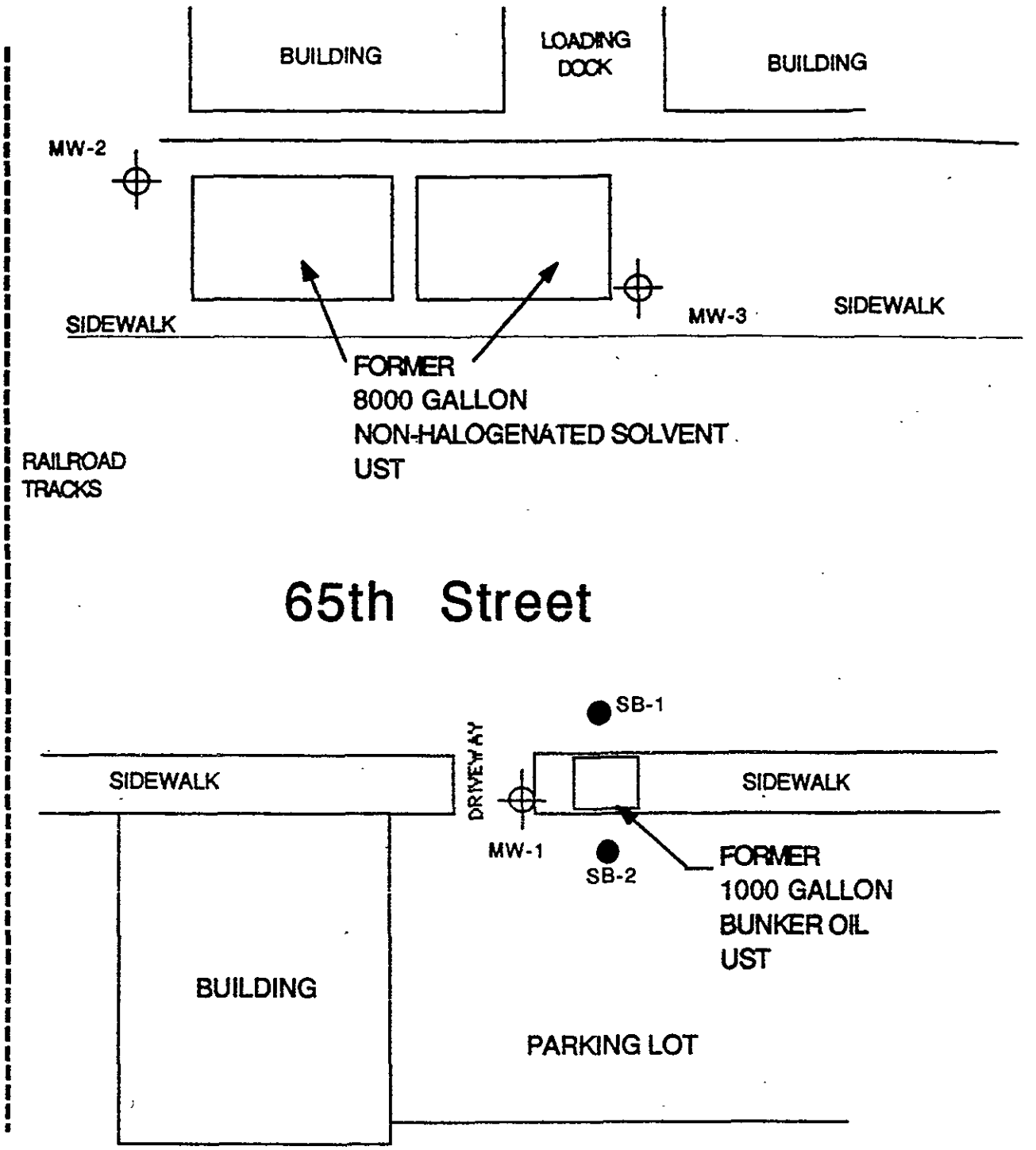
AQUA SCIENCE ENGINEERS, INC.

David Allen
Project Manager

SITE LOCATION MAP

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure 1



LEGEND

SB-1 — Soil Boring

MW-1 — Monitoring Well

N

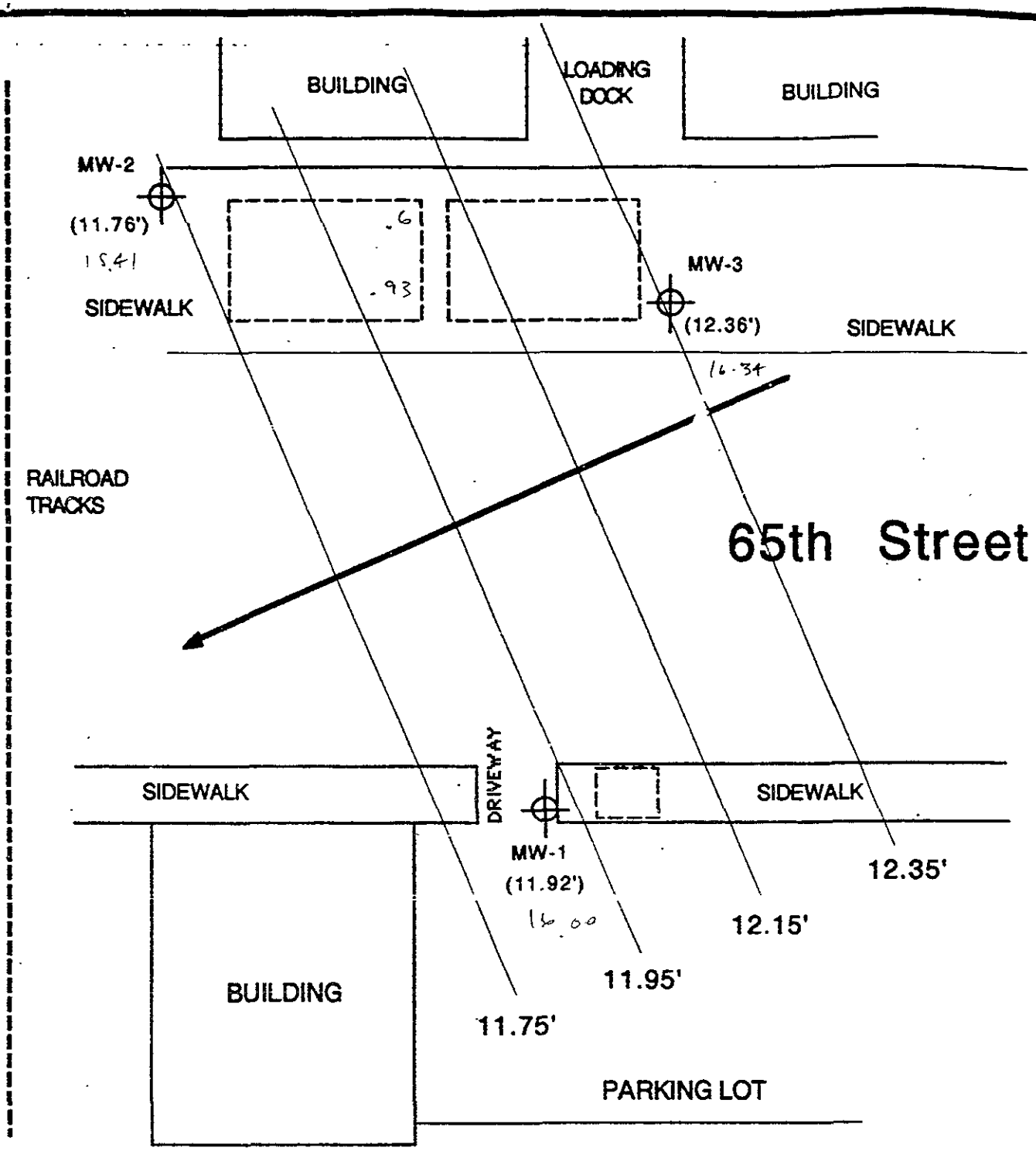
0 ft. — 20 ft.

SCALE

SITE PLAN

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure 2



LEGEND

MW-1
(11.92')
Monitoring Well with groundwater depth in feet above mean sea level

Groundwater Gradient direction

N

0 ft. 20 ft.
SCALE

GROUNDWATER GRADIENT MAP (10/1/92)

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure 3

APPENDIX A

Alameda County Health Care Services Agency
"Direction Letter"

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

RECEIVED
SEP 2 1992
AQUA SCIENCE ENG.

September 24, 1992
STID# 1330

Mr. Ron Kessler
Oliver Rubber Company
1200 65th Street
Emeryville, California 94608

RE: Oliver Rubber Company
1200 65th Street, Emeryville, California 94608

Dear Mr. Kessler:

The Alameda County Department of Environmental Health, Hazardous Materials Division has recently reviewed the files concerning the removal of three underground storage tanks at the referenced site. This office is also in receipt and has completed its review of the " Workplan for Groundwater Contamination Assessment" dated September 10, 1992 submitted by Aqua Science Engineers Inc.

Based on this review, this department concurs with the basic elements of the workplan. However, the following issues must be addressed before the workplan can be implemented:

* Soil sample (SW-W) collected after limited overexcavation in June 25, 1992 on the west wall of the former bunker oil underground storage tank excavation still showed considerable levels of contamination. Total petroleum hydrocarbon as diesel (130 ppm), oil & grease (450 ppm), benzene (19 ppb), toluene (6.7 ppb), xylene (33 ppb) were detected. The lateral extent of soil contamination in the area west of the former bunker oil tank excavation must be determined.

* Stockpiled soil from the former bunker oil tank contained significant levels of semi-volatile organics, specifically 2-Methylnaphthalene (0.38 ppm). Analysis of the soil and groundwater samples collected in the area of the former bunker oil tank must include Method 8270 for Semi-Volatile Organics in addition to Total Petroleum Hydrocarbon as diesel (TPH-d), oil & grease (O & G), and benzene, toluene, ethyl benzene, xylene (BTEX).

* Please explain how the protocol for one soil sample per hole will be selected for laboratory testing. Soil samples must be collected every five feet as per RWQCB's guidelines. Field instruments are acceptable as a screening tools only. Any evidence of soil contamination such as odor, visual staining or field instrument readings must be verified by analysis from a state certified laboratory.

Groundwater
MW 2-3

* Groundwater elevation readings must be performed every month for twelve consecutive months and reduced to every quarter after the first year. Groundwater monitoring wells must be sampled on a quarterly basis and analyzed for target compounds. MW-1 must be analyzed for TPH-d, BTXE, ~~semivolatile organics (8270)~~, oil & grease. MW-2 and MW-3 must be sampled for ~~TPH-g, BTXE and~~ volatile organic compounds (8240). After four quarters of non detectable levels have been achieved, the frequency of sampling events will be evaluated and/or a recommendation for signoff/case closure by RWQCB will be determined.

* Please submit a time schedule for all phases of the investigation and remediation activities and the anticipated time when cleanup will be completed at the site.

A report must be submitted within **30 days** after completion of this investigation. Until cleanup is complete, you will need to submit reports to this office and to RWQCB every three months (or at a more frequent interval, if specified at any time by either agency). In addition, the following items must be incorporated in your future reports or workplans:

- a cover letter from the responsible party or tank owner stating the accuracy of the report and whether he/she concurs with the conclusions and recommendations in the report or workplan

- site map delineating contamination contours for soil and groundwater based on recent data should be included and the status of the investigation and cleanup must be identified

- proposed continuing or next phase of investigation / cleanup activities must be included to inform this department or the RWQCB of the responsible party or tank owner's intention

- any changes in the groundwater flow direction and gradient based on the measured data since the last sampling event must be explained

- historical records of groundwater level in each well must be tabulated to indicate the fluctuation in water levels

- tabulate analytical results from all previous sampling events; provide laboratory reports (including quality control/quality assurance) and chain of custody documentation

All reports and proposals must be submitted under seal of a California Registered Geologist or Registered Civil Engineer with a statement of qualifications for each lead professionals involved with the project. Copies of reports must also be submitted to :

Rich Hiett
RWQCB, San Francisco Bay Region
2101 Webster Street, Fourth Floor
Oakland, California 94612

Because we are overseeing this site under the designated authority of the Regional Water Quality Control Board, this letter constitutes a formal requests for technical reports pursuant to California Water Code Section 13267 (b). Any extensions of stated deadlines or changes in the workplan must be confirmed in writing and approved by this agency or RWQCB.

Please contact me at (510) 271-4530 if you have any questions concerning this letter.

Sincerely,

Susan L. Hugo
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Asst. Agency Director, Environmental Health
Rich Hiett, San Francisco Bay RWQCB
Mark Thomson, Alameda County District Attorney's Office
Edgar B. Howell, Chief, Hazardous Materials Division - files
David Allen - Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, # 4
San Ramon, California 94583

APPENDIX B

California EPA Certified Laboratory
Report of Soil Samples
and
Chain of Custody Record

PRIORITY ENVIRONMENTAL LABS

October 08, 1992 PEL # 9210011

AQUA SCIENCE ENGINEERS, INC.

Attn: David Allen
Re: Seven soil samples for BTEX, Diesel, and Oil & Grease analyses.

Project name: Oliver Rubber
Project location: 1200 65th St. -Emeryville, CA.
Project number: 2571

Date sampled: Oct 01, 1992 Date submitted: Oct 06, 1992
Date extracted: Oct 06-08, 1992 Date analyzed: Oct 06-08, 1992

RESULTS:

SAMPLE I.D.	Dieselk (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)	Oil & Grease (mg/Kg)
SB 1-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SB 2-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW 1-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW 2-10'	---	N.D.	N.D.	N.D.	N.D.	---
MW 2-15'	---	N.D.	N.D.	N.D.	N.D.	---
MW 3-5'	---	N.D.	N.D.	N.D.	N.D.	---
MW 3-15'	---	N.D.	N.D.	N.D.	N.D.	---
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	
Spiked Recovery	93.4%	97.6%	102.4%	98.2%	103.5%	---
Duplicate Spiked Recovery	88.2%	86.0%	80.3%	89.0%	93.5%	---
Detection limit	1.0	5.0	5.0	5.0	5.0	10
Method of Analysis	3550 / 8015	8020	8020	8020	8020	5520 D & F

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

Precision Analytical Laboratory, Inc.

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Received: 10/07/92
Reported: 10/13/92
Job #: 73991

Attn: David Duong
Priority Environmental Labs
1764 Houret Court
Milpitas, CA 95035

Project: #9210011
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 (Low Level)
mg/Kg

Lab I.D.: 73991-2
Client I.D.: MW1-15'

ACID COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenol	ND<0.08	0.08
2-chlorophenol	ND<0.06	0.06
2-methyl phenol	ND<0.09	0.09
4-methyl phenol	ND<0.10	0.10
2-nitrophenol	ND<0.06	0.06
2,4-dimethylphenol	ND<0.10	0.10
2,4-dichlorophenol	ND<0.10	0.10
4-chloro-3-methylphenol	ND<0.10	0.10
2,4,5-trichlorophenol	ND<0.07	0.07
2,4,6-trichlorophenol	ND<0.08	0.08
2,4-dinitrophenol	ND<0.40	0.40
4-nitrophenol	ND<0.10	0.10
2-methyl-4,6-dinitrophenol	ND<0.10	0.10
Pentachlorophenol	ND<0.30	0.30
BASE/NEUTRAL COMPOUNDS		
N-nitrosodimethylamine	ND<0.10	0.10
Bis(2-chloroethyl)ether	ND<0.04	0.04
1,3-dichlorobenzene	ND<0.50	0.50
1,4-dichlorobenzene	ND<0.50	0.50
1,2-dichlorobenzene	ND<0.40	0.40
Bis-(2-chloroisopropyl)ether	ND<0.20	0.20

ND = Not Detected

Surinder Sodhi (For)
Jaime Chow
Laboratory Director

JC/td

OUTSTANDING QUALITY AND SERVICE
CALIFORNIA STATE CERTIFIED LABORATORY

Precision Analytical Laboratory, Inc.

[illegible] RICHMOND [illegible] 94806 PHONE (510) [illegible] FAX [illegible]

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Received: 10/07/92
Reported: 10/13/92
Job #: 73991

Attn: David Duong
Priority Environmental Labs

Project: #9210011
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab I.D.: 73991-2
Client I.D.: MW1-15'

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
N-nitrosodi-n-propylamine	ND<0.10	0.10
Hexachloroethane	ND<0.50	0.50
Nitrobenzene	ND<0.06	0.06
Isophorone	ND<0.09	0.09
Bis-(2-chloroethoxy)methane	ND<0.10	0.10
1,2,4-trichlorobenzene	ND<0.30	0.30
Napthalene	ND<0.20	0.20
Hexachlorobutadiene	ND<0.50	0.50
2-chloronaphthalene	ND<0.05	0.05
2-methyl naphthalene	ND<0.20	0.20
4-chloroaniline	ND<0.10	0.10
2-nitroaniline	ND<0.10	0.10
3-nitroaniline	ND<0.10	0.10
4-nitroaniline	ND<0.10	0.10
Hexachlorocyclopentadiene	ND<0.20	0.20
Dimethyl phthalate	ND<0.04	0.04
Acenaphthylene	ND<0.04	0.04
Acenaphthene	ND<0.04	0.04
2,4-dinitrotoluene	ND<0.10	0.10
2,6-dinitrotoluene	ND<0.06	0.06
Diethyl phthalate	ND<0.10	0.10
4-chlorophenylphenylether	ND<0.05	0.05
Fluorene	ND<0.20	0.20
N-nitrosodiphenylamine	ND<0.09	0.09
4-bromophenylphenylether	ND<0.07	0.07

OUTSTANDING QUALITY AND SERVICE
CALIFORNIA STATE CERTIFIED LABORATORY

Precision Analytical Laboratory, Inc.

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Received: 10/07/92
Reported: 10/13/92
Job #: 73991

Attn: David Duong
Priority Environmental Labs

Project: #9210011
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab I.D.: 73991-2
Client I.D.: MW1-15'

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Hexachlorobenzene	ND<0.20	0.20
Phenanthrene	ND<0.10	0.10
Anthracene	ND<0.20	0.20
Di-n-butylphthalate	ND<0.20	0.20
Fluoranthene	ND<0.50	0.50
Benzidine	ND<1	1
Pyrene	ND<0.60	0.60
Benzylbutylphthalate	ND<0.10	0.10
3,3'-dichlorobenzidine	ND<0.30	0.30
Benzo(a)anthracene	ND<0.30	0.30
Bis-(2-ethylhexyl)phthalate	ND<0.30	0.30
Chrysene	ND<0.30	0.30
Di-n-octylphthalate	ND<0.13	0.13
Benzo(b)fluoranthene	ND<0.20	0.20
Benzo(k)fluoranthene	ND<0.40	0.40
Benzo(a)pyrene	ND<0.09	0.09
Indeno(1,2,3-cd)pyrene	ND<0.20	0.20
Dibenzo(a,h)anthracene	ND<0.20	0.20
Benzo(ghi)perylene	ND<0.20	0.20

ND = Not detected

OUTSTANDING QUALITY AND SERVICE
CALIFORNIA STATE CERTIFIED LABORATORY

PRIORITY ENVIRONMENTAL LABS

October 09, 1992 PEL # 9210011

AQUA SCIENCE ENGINEERS, INC. Attn: David Allen
Project Name: Oliver Rubber Project Number: 2571
Project location:1200 65th St.-Emeryville,CA

Sample I.D.: MW 2-5'
Date Sampled: Oct 05, 1992 Date Submitted: Oct 06, 1992
Date Analyzed: Oct 09, 1992

Method of Analysis: EPA 8240 Detection limit: 5.0 ug/Kg

COMPOUND NAME	CONCENTRATION (ug/Kg)	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	-----
Bromomethane	N.D.	-----
Chloroethane	N.D.	83.1
Trichlorofluoromethane	13	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	85.8
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	80.6
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	86.3
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	92.4
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	87.8
Benzene	N.D.	92.5
Dibromochloromethane	N.D.	-----
Toluene	N.D.	95.3
Chlorobenzene	N.D.	91.8
Ethylbenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	102.9
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PRIORITY ENVIRONMENTAL LABS

October 08, 1992 PEL # 9210011

AQUA SCIENCE ENGINEERS, INC. Attn: David Allen
Project name: Oliver Rubber Project location:1200 65th St.-Emeryville,CA
Project number: 2571

Sample I.D.: MW 2-15'

Date Sampled: Oct 01, 1992 Date Submitted: Oct 06, 1992
Date Analyzed: Oct 06-07, 1992

Method of Analysis: EPA 8010 Detection limit: 1.0 ug/Kg

COMPOUND NAME	CONCENTRATION (ug/Kg)	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	89.1
Bromomethane	N.D.	-----
Chloroethane	N.D.	-----
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	2.9	-----
Methylene Chloride	N.D.	82.6
1,2-Dichloroethene (TOTAL)	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	11	90.4
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	97.2
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	-----
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	94.0
Dibromochloromethane	N.D.	-----
Chlorobenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong
Laboratory Director

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PRIORITY ENVIRONMENTAL LABS

October 09, 1992 PEL # 9210011

AQUA SCIENCE ENGINEERS, INC. Attn: David Allen
Project Name: Oliver Rubber Project Number: 2571
Project location:1200 65th St.-Emeryville,CA

Sample I.D.: MW 3-10'
Date Sampled: Oct 05, 1992 Date Submitted: Oct 06, 1992
Date Analyzed: Oct 09, 1992

Method of Analysis: EPA 8240 Detection limit: 5.0 ug/Kg

COMPOUND NAME	CONCENTRATION (ug/Kg)	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	-----
Bromomethane	N.D.	-----
Chloroethane	N.D.	83.1
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	85.8
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	80.6
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	86.3
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	92.4
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	87.8
Benzene	N.D.	92.5
Dibromochloromethane	N.D.	-----
Toluene	N.D.	95.3
Chlorobenzene	N.D.	91.8
Ethylbenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	102.9
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PRIORITY ENVIRONMENTAL LABS

October 08, 1992 PEL # 9210011

AQUA SCIENCE ENGINEERS, INC. Attn: David Allen
Project name: Oliver Rubber Project location:1200 65th St.-Emeryville,CA
Project number: 2571

Sample I.D.: MW 3-15'

Date Sampled: Oct 01, 1992 Date Submitted: Oct 06, 1992
Date Analyzed: Oct 06-07, 1992

Method of Analysis: EPA 8010 Detection limit: 1.0 ug/Kg

COMPOUND NAME	CONCENTRATION (ug/Kg)	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	89.1
Bromomethane	N.D.	-----
Chloroethane	N.D.	-----
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	82.6
1,2-Dichloroethene (TOTAL)	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	90.4
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	97.2
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	-----
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	94.0
Dibromochloromethane	N.D.	-----
Chlorobenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

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

Chain of Cus

PEL # 9210011
INV # 23110
DATE 10-2-92 PAGE 1 OF 1

SAMPLERS (SIGNATURE) David Allen (PHONE NO.) 510. 820.9391

PROJECT NAME OLIVER RUBBER NO. 2371
ADDRESS 1200 65th ST. EMERYVILLE CA

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

REGULAR TURNAROUND TIMES!

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	827-				
SB1-10'	10/1/92	12 noon	SOIL	1			X	X				X										
SB2-10'	"	"	SOIL	1			X	X				X										
MW1-10'	"	1pm	SOIL	1			X	X				X										
MW1-15'	"	"	SOIL	1														X				
MW2-5'	"	10am	SOIL	1						X												
MW2-10'	"	"	SOIL	1				X														
MW2-15'	"	"	SOIL	1				X	X													
MW3-5'	"	9am	SOIL	1				X														
MW3-10'	"	"	SOIL	1						X												
MW3-15'	"	"	SOIL	1				X	X													

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
(signature) (time)	(signature) (time)	(signature) (time)	(signature) 8 AM (time)	
DAVID ALLEN 10/6			DAVID DUONG 10/06/92	
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	
Company- ASE	Company-	Company-	Company- PEL	

APPENDIX C

California EPA Certified Laboratory
Report of Groundwater Samples
and
Chain of Custody Record

PRIORITY ENVIRONMENTAL LABS

October 08, 1992

PEL # 9210010

AQUA SCIENCE ENGINEERS, INC.

Attn: David Allen
Re: Three water samples for BTEX, Diesel, Oil & Grease, pH and Conductivity analyses.

Project name: Oliver Rubber
Project location: 1200 65th , Emeryville, CA.
Project number: 2571

Date sampled: Oct 05, 1992
Date extracted: Oct 06-07, 1992

Date submitted: Oct 06, 1992
Date analyzed: Oct 06-07, 1992

RESULTS:

SAMPLE I.D.	pH	Conductivity (uS)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Oil & Grease (mg/L)
MW 1	6.8	930	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW 2	7.0	1100	---	---	---	---	---	---
MW 3	6.7	670	---	---	---	---	---	---
Blank	7.0	0.0	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	---	---	93.4%	97.6%	102.4%	98.2%	103.5%	---
Detection limit	0.2	10	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	9045	120.1	3510 / 8015	602	602	602	602	5520 C & F

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE RICHMOND, CA 94806 PHONE (510) 222 3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Received: 10/07/92
Reported: 10/13/92
Job #: 73991

Attn: David Duong
Priority Environmental Labs
1764 Houret Court
Milpitas, CA 95035

Project: #9210011
Matrix: Water

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 625 - Water
µg/L

Lab I.D.: 73991-1
Client I.D.: MW1

ACID COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenol	ND<5	5
2-chlorophenol	ND<1	1
2-nitrophenol	ND<1	1
2,4-dimethylphenol	ND<1	1
2,4-dichlorophenol	ND<1	1
4-chloro-3-methylphenol	ND<1	1
2,4,6-trichlorophenol	ND<1	1
2,4-dinitrophenol	ND<2	2
4-nitrophenol	ND<2	2
2-methyl-4,6-dinitrophenol	ND<1	1
Pentachlorophenol	ND<2	2
BASE/NEUTRAL COMPOUNDS		
N-nitrosodimethylamine	ND<5	5
Bis(2-chloroethyl)ether	ND<1	1
1,3-dichlorobenzene	ND<1	1
1,4-dichlorobenzene	ND<1	1
1,2-dichlorobenzene	ND<1	1
Bis-(2-chloroisopropyl)ether	ND<1	1

ND = Not detected

Surinder Sidhu (For)
Jaime Chow
Laboratory Director

JC/td

OUTSTANDING QUALITY AND SERVICE
CALIFORNIA STATE CERTIFIED LABORATORY

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE RICHMOND CA 94806 PHONE (510) 222 3002 FAX (510) 222-1251

STATE LICENSE NO. 1150

Received: 10/07/92
Reported: 10/13/92
Job #: 73991

Attn: David Duong
Priority Environmental Labs

Project: #9210011
Matrix: Water

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 625 - Water
µg/L

Lab I.D.: 73991-1
Client I.D.: MW1

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
N-nitrosodi-n-propylamine	ND<1	1
Hexachloroethane	ND<1	1
Nitrobenzene	ND<1	1
Isophorone	ND<1	1
Bis-(2-chloroethoxy)methane	ND<2	2
1,2,4-trichlorobenzene	ND<2	2
Napthalene	ND<3	3
Hexachlorobutadiene	ND<1	1
2-chloronaphthalene	ND<1	1
2-methyl naphthalene	ND<2	2
4-chloroaniline	ND<1	1
2-nitroaniline	ND<1	1
3-nitroaniline	ND<1	1
4-nitroaniline	ND<1	1
Hexachlorocyclopentadiene	ND<1	1
Dimethyl phthalate	ND<10	10
Acenaphthylene	ND<1	1
Acenaphthene	ND<1	1
2,4-dinitrotoluene	ND<1	1
2,6-dinitrotoluene	ND<1	1
Diethyl phthalate	ND<1	1
4-chlorophenylphenylether	ND<1	1
Fluorene	ND<1	1
N-nitrosodiphenylamine	ND<1	1
4-bromophenylphenylether	ND<1	1
Hexachlorobenzene	ND<1	1

ND = Not detected

OUTSTANDING QUALITY AND SERVICE
CALIFORNIA STATE CERTIFIED LABORATORY

Precision Analytical Laboratory, Inc

4[illegible] LAKESIDE DRIVE [illegible]

STATE LICENSE NO. 1150

Received: 10/07/92
Reported: 10/13/92
Job #: 73991

Attn: David Duong
Priority Environmental Labs

Project: #9210011
Matrix: Water

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 625 - Water
µg/L

Lab I.D.: 73991-1
Client I.D.: MW1

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenanthrene	ND<1	1
Anthracene	ND<1	1
Di-n-butylphthalate	ND<3	3
Fluoranthene	ND<2	2
Benzidine	ND<30	30
Pyrene	ND<3	3
Benzylbutylphthalate	ND<1	1
3,3'-dichlorobenzidine	ND<40	40
Benzo(a)anthracene	ND<1	1
Bis-(2-ethylhexyl)phthalate	ND<12	12
Chrysene	ND<2	2
Di-n-octylphthalate	ND<2	2
Benzo(b)fluoranthene	ND<3	3
Benzo(k)fluoranthene	ND<3	3
Benzo(a)pyrene	ND<1	1
Indeno(1,2,3-cd)pyrene	ND<5	5
Dibenzo(a,h)anthracene	ND<3	3
Benzo(ghi)perylene	ND<2	2

ND = Not detected

OUTSTANDING QUALITY AND SERVICE
CALIFORNIA STATE CERTIFIED LABORATORY

PRIORITY ENVIRONMENTAL LABS

October 09, 1992 PEL # 9210010

AQUA SCIENCE ENGINEERS, INC. Attn: David Allen
Project Name: Oliver Rubber Project Number: 2571
Project location:1200 65th St.-Emeryville,CA

Sample I.D.: MW 2
Date Sampled: Oct 05, 1992 Date Submitted: Oct 06, 1992
Date Analyzed: Oct 09, 1992

Method of Analysis: EPA 624 Detection limit: 0.5 ug/L

COMPOUND NAME	CONCENTRATION (ug/L)	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	-----
Bromomethane	N.D.	-----
Chloroethane	N.D.	83.1
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	85.8
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	80.6
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	86.3
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	92.4
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	87.8
Benzene	N.D.	92.5
Dibromochloromethane	N.D.	-----
Toluene	N.D.	95.3
Chlorobenzene	N.D.	91.8
Ethylbenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	102.9
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PRIORITY ENVIRONMENTAL LABS

October 09, 1992 PEL # 9210010

AQUA SCIENCE ENGINEERS, INC. Attn: David Allen
Project Name: Oliver Rubber Project Number: 2571
Project location:1200 65th St.-Emeryville,CA

Sample I.D.: MW 3
Date Sampled: Oct 05, 1992 Date Submitted: Oct 06, 1992
Date Analyzed: Oct 09, 1992

Method of Analysis: EPA 624 Detection limit: 0.5 ug/L

COMPOUND NAME	CONCENTRATION (ug/L)	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	-----
Bromomethane	N.D.	-----
Chloroethane	N.D.	83.1
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	85.8
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	80.6
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	86.3
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	92.4
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	87.8
Benzene	N.D.	92.5
Dibromochloromethane	N.D.	-----
Toluene	N.D.	95.3
Chlorobenzene	N.D.	91.8
Ethylbenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	102.9
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

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

Chain of Custo

PEL # 9210010
INV # 23109

DATE 10/5/92 PAGE 1 OF 1

SAMPLERS (SIGNATURE) David Allen (PHONE NO.)

PROJECT NAME OLIVER RUBBER NO. 2271

ADDRESS 1200 65th ST EMERYVILLE CA

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:
STANDARD
TURNAROUND TIMES

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	827c.	pH	Conductivity		
MW1	10/5	3pm	H_2O	4			X	X				X						X	X	X		
MW2	"	"	H_2O	1						X									X	X		
MW3	"	"	H_2O	1						X									X	X		

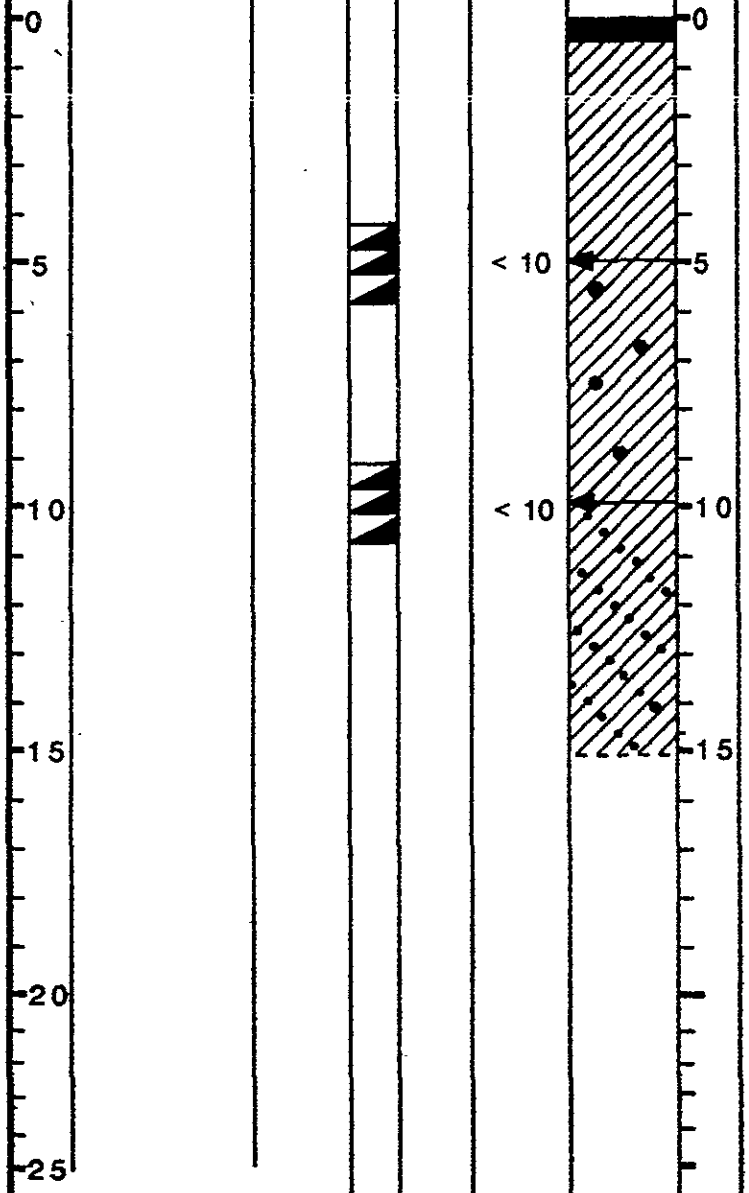
RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
David Allen 5pm			[signature] 3 (2 AM	
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)	
DAVID ALLEN 10/6			DAVID BUNG 10/6/92	
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	
Company- ASE	Company-	Company-	Company- PEI	

APPENDIX D

Soil Boring Logs and Well Logs

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS		BORING NO. SB1
Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland	Page 1 of 1
Driller: WEST HAZMAT	Type of Rig: Simco 2400 SK-1	Type and Size of Auger: 6.00" O.D., H.S.
Logged By: WCL	Date Drilled: 10/01/92	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA	
Depth of Water First Encountered:N/A	Total Depth of Well Completed: N/A
	Well Screen Type and Diameter: N/A
Static Depth of Water in Well: N/A.	Well Screen Slot Size:N/A
Total Depth of Boring: 15'	Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon



Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. And (40-50%) / With (40-25%) / Some (25-10%) / Trace (10-0%)
0	Approximately 4" of asphalt
	Dark Gray Clay (CL) from 2 to 5 feet
5	Blue-Green Clay (CL), some plant mattter, cobbles, slight moisture, no odor
10	Brown clay (CL), some plant matter slight moisture, no odor
15	Brown clay (CL), some plant matter, very moist some pebbles, no odor EOH = 15'

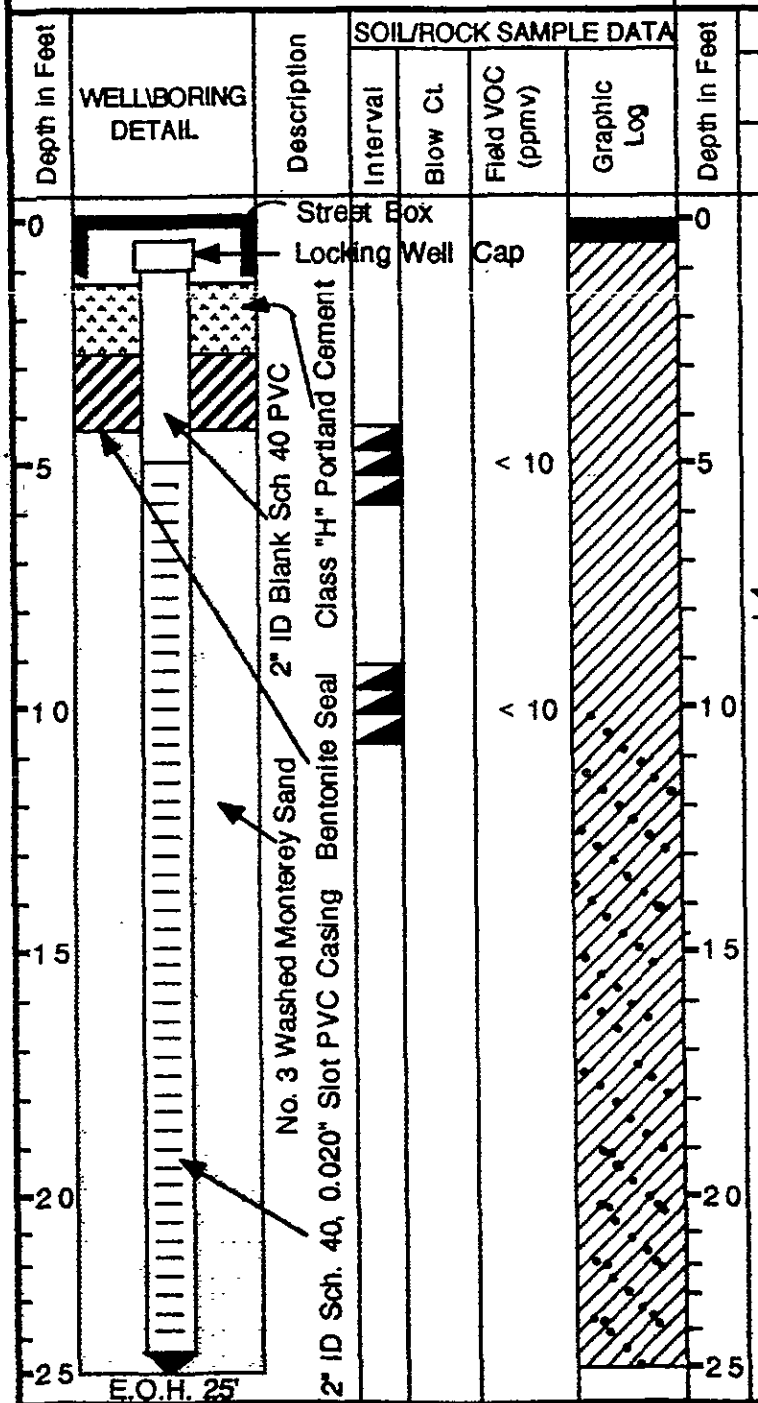
SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS		BORING NO. SB2
Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland	Page 1 of 1
Driller: WEST HAZMAT	Type of Rig: Simco 2400 SK-1	Type and Size of Auger: 6.00" O.D., H.S.
Logged By: WCL	Date Drilled: 10/01/92	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA	
Depth of Water First Encountered:N/A	Total Depth of Well Completed: N/A
Static Depth of Water in Well: N/A.	Well Screen Type and Diameter: N/A
Total Depth of Boring: 15'	Well Screen Slot Size:N/A
	Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon

Depth in Feet	WELL\BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA: Interval	Blow Ct	Field VOC (ppmv)	Graphic Log	Depth in Feet	DESCRIPTION OF LITHOLOGY (standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. And (40-50%) With (40-25%) Some (25-10%) Trace (10-0%))
0							0	Approximately 4" of asphalt
								Dark Gray Clay (CL), no odor
5					< 10		5	Blue-Green Clay (CL), some plant mattter, slight moisture, no odor
10					< 10		10	Brown, silty clay (CL), some plant matter slight moisture, abundant pebbles, no odor
15							15	Brown, silty clay (CL), some plant matter very moist, abundant pebbles, no odor EOH = 15'
20								
25								

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS		WELL NO. MW1
Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland	Page 1 of 1
Driller: WEST HAZMAT	Type of Rig: Simco 2400 SK-1	Type and Size of Auger: 6.00" O.D., H.S.
Logged By: WCL	Date Drilled: 10/01/92	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA	
Depth of Water First Encountered: ~ 15'	Total Depth of Well Completed: 25.0'
Static Depth of Water in Well: 8.08' Below T.O.C.	Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC
Total Depth of Boring: 25'	Well Screen Slot Size: 0.020"
	Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon



DESCRIPTION OF LITHOLOGY

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

And (40-50%) With (40-25%) Some (25-10%) Trace (10-0%)

Approximately 4" of asphalt

Dark Gray Clay (CL) from 2 to 5 feet

Blue-Green Clay (CL), trace silt (≈ 10%), slight moisture, no odor

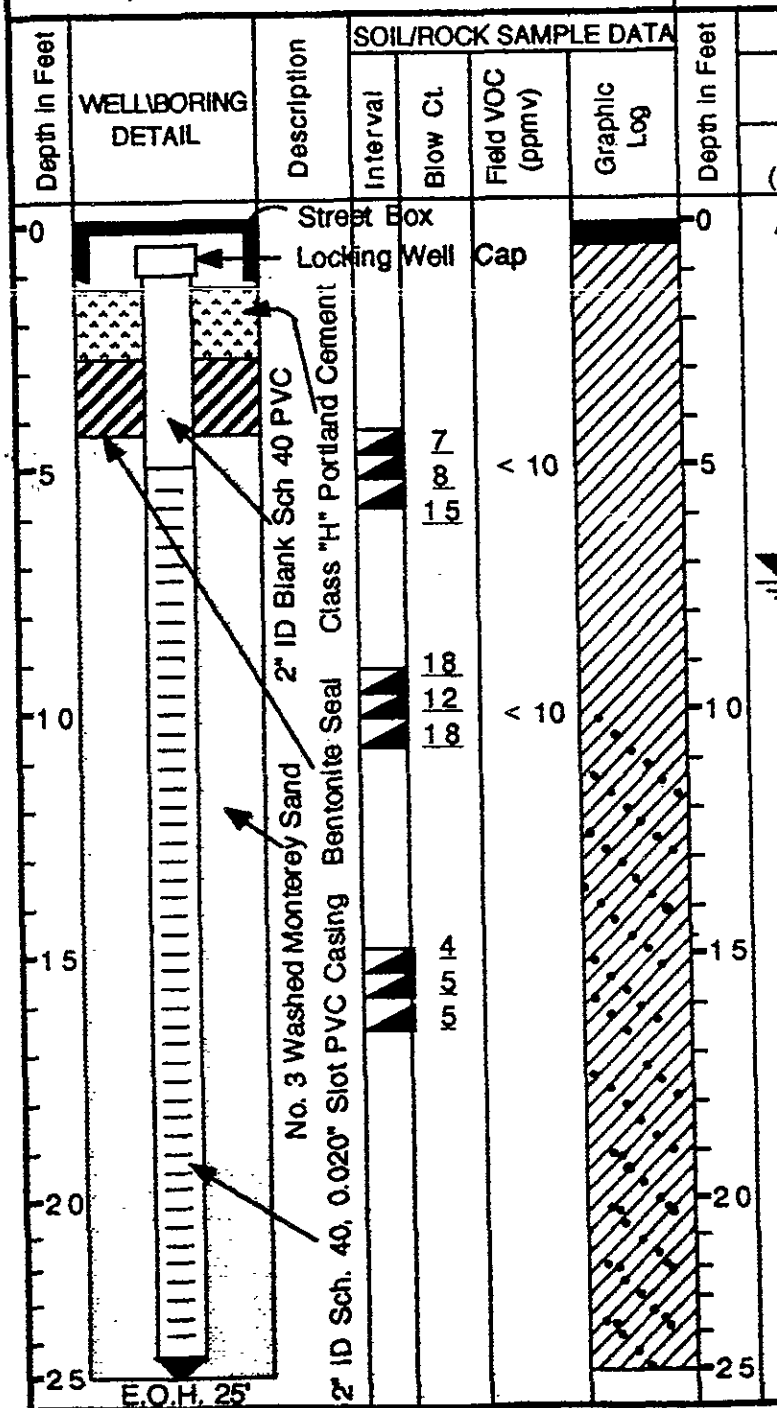
Static Water Level = 8.08'

Brown clay (CL), with silt (≈ 40%), some blue-green mottling, slight moisture, no odor

Brown clay (CL), with silt (≈ 40%), some pebbles, very moist, no odor

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS		WELL NO. MW2
Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland	Page 1 of 1
Driller: WEST HAZMAT	Type of Rig: CME 75	Type and Size of Auger: 8.0" O.D., H.S.
Logged By: WCL	Date Drilled: 10/01/92	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA	
Depth of Water First Encountered: ~ 15'	Total Depth of Well Completed: 25.0'
Static Depth of Water in Well: 7.45' Below T.O.C.	Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC
Total Depth of Boring: 25'	Well Screen Slot Size: 0.020"
	Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon



DESCRIPTION OF LITHOLOGY

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

And (40-50%)	With (40-25%)	Some (25-10%)	Trace (10-0%)

Approximately 4" of asphalt

Fine, Sandy, Silty Clay (SP-ML-CL) blue-green color, unrecognizable odor slight moisture

Static Water Level = 7.45'

Fine, Sandy, Silty, Clay (SP-ML-CL) brown with blue-green mottling, some pebbles no noticeable odor

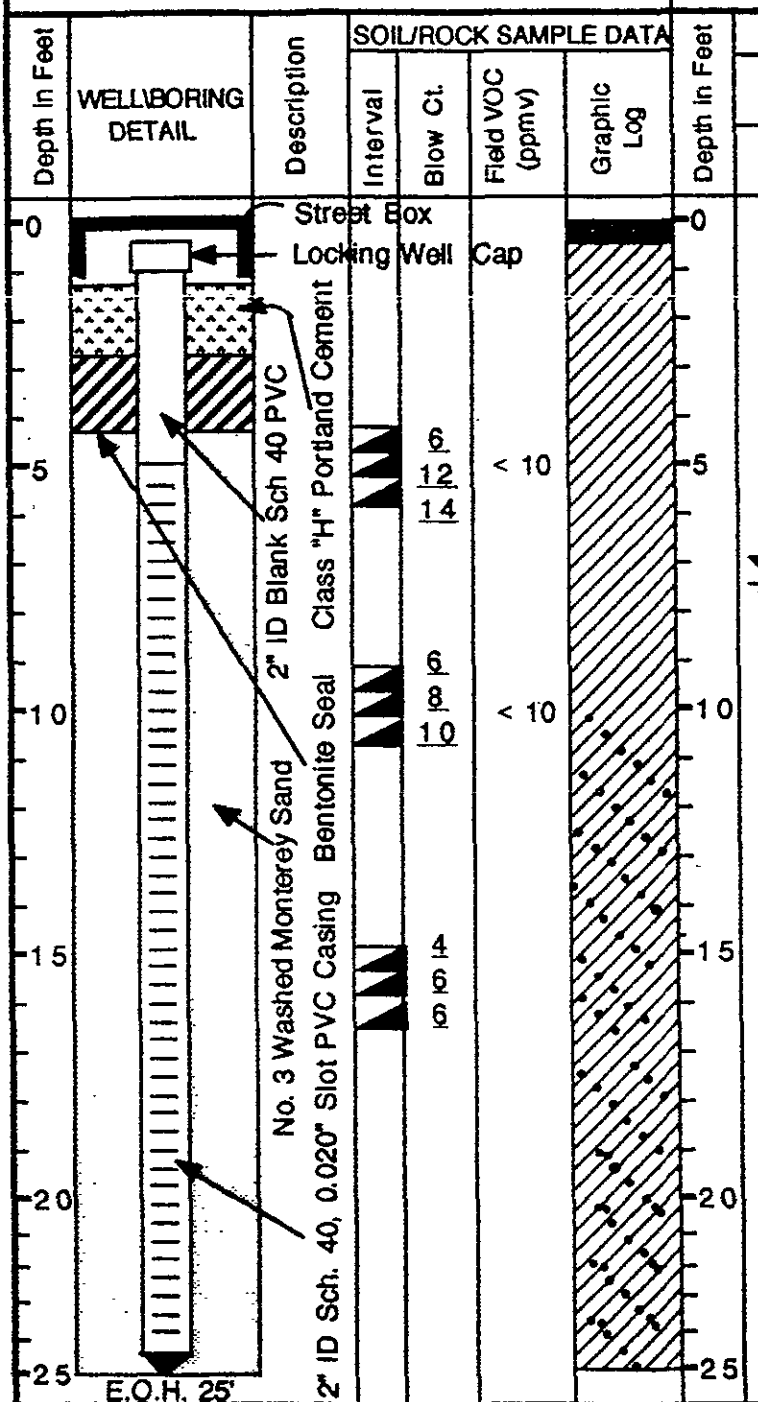
Brown Silty Clay (CL), with some plant fragments and pebbles, very moist, no odor

As Above.

As Above.

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS		WELL NO. MW3
Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland	Page 1 of 1
Driller: WEST HAZMAT	Type of Rig: CME 75	Type and Size of Auger: 8.0" O.D., H.S.
Logged By: WCL	Date Drilled: 10/01/92	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA	
Depth of Water First Encountered: ~ 17'	Total Depth of Well Completed: 25.0'
Static Depth of Water in Well: 7.44' Below T.O.C.	Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC
Total Depth of Boring: 25'	Well Screen Slot Size: 0.020"
	Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon



DESCRIPTION OF LITHOLOGY

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

And (40-50%)	With (40-25%)	Some (25-10%)	Trace (10-0%)

Approximately 4" of asphalt

Blue-green Clay (CL)
moderate, unrecognizable odor
slight moisture

Static Water Level = 7.45'

Bown with blue-green Clay (CL)
brown with blue-green mottling, some plant fragments, moderately moist,
no noticeable odor

Brown with slight blue-green mottling Clay (CL), with silt,with abundant pebbles, very moist,
no odor

As Above.

Brown Clay with silt (CL), mottled with plant fragments, moderately moist, no odor

As Above.

APPENDIX E

Well Sampling Field Logs

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc. San Ramon, CA 94583

Project Name: Oliver Rubber Co.
Project Address: 1200 65th Street, Emeryville
Job # 2571 Date of sampling: 10-5-92
Completed by: Dave Allen
Well Number / Designation: MW-1
Top of casing elevation: 20.0'
Total depth of well casing: 25' Well diameter: 2"
Depth to water (before sampling): 8.08'
Thickness of floating product if any: N/A
Depth of well casing in water: 16.92'
Req'd volume of groundwater to be purged before sampling: 10 Gallons
Approximate volume of groundwater purged: 10 Gallons
Type of seal at grade: Portland Cement
Type of cap on the casing: Expandable, Locking
Is the seal water tight? Yes Is the cap water tight? Yes
Number of samples (containers) collected (2) -1 Liters, (2) 40 ml VOA
Did 40 ml VOA vials have headspace: No
Were sample containers chilled after sampling & for delivery ? Yes.
Are Chain of Custody documents accompanying the samples: Yes
Sample temperature: 19°C
Sample pH: 6.8 Test method: 9045

Physical description of water during initial bailing period:
Turbid, grey
Physical description of water sample: Clear

Type of analysis requested: 3510/8015
8020
8240
8270

Type of bailer/sampling equipment used: PVC & Disposable

Equipment decontamination procedures: TSP & Water

Disposition of bailed water volume:
Remained on site, drummed.

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc. San Ramon, CA 94583

Project Name: Oliver Rubber Co.
Project Address: 1200 65th Street, Emeryville
Job # 2571 Date of sampling: 10-5-92
Completed by: Dave Allen
Well Number / Designation: MW-2
Top of casing elevation: 19.2'
Total depth of well casing: 25' Well diameter: 2"
Depth to water (before sampling): 7.45'
Thickness of floating product if any: N/A
Depth of well casing in water: 17.55'
Req'd volume of groundwater to be purged before sampling: 10 Gallons
Approximate volume of groundwater purged: 10 Gallons
Type of seal at grade: Portland Cement
Type of cap on the casing: Expandable, Locking
Is the seal water tight? Yes Is the cap water tight? Yes
Number of samples (containers) collected (2) 40 ml VOA
Did 40 ml VOA vials have headspace: No
Were sample containers chilled after sampling & for delivery ? Yes
Are Chain of Custody documents accompanying the samples: Yes
Sample temperature: 19°C
Sample pH: 7.0 Test method: 9045

Physical description of water during initial bailing period:
Turbid, grey
Physical description of water sample: Clear

Type of analysis requested: 8240

Type of bailer/sampling equipment used: PVC & Disposable

Equipment decontamination procedures: TSP & Water

Disposition of bailed water volume:
Remained on site, drummed

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc. San Ramon, CA 94583

Project Name: Oliver Rubber Co.
Project Address: 1200 65th Street, Emeryville
Job # 2571 Date of sampling: 10-5-92
Completed by: Dave Allen
Well Number / Designation: MW-3
Top of casing elevation: 19.80'
Total depth of well casing: 25' Well diameter: 2"
Depth to water (before sampling): 7.44'
Thickness of floating product if any: N/A
Depth of well casing in water: 17.46'
Req'd volume of groundwater to be purged before sampling: 10 Gallons
Approximate volume of groundwater purged: 10 Gallons
Type of seal at grade: Portland Cement
Type of cap on the casing: Expandable, Locking
Is the seal water tight? Yes Is the cap water tight? Yes
Number of samples (containers) collected (2) 40 ml VOA
Did 40 ml VOA vials have headspace: No
Were sample containers chilled after sampling & for delivery ? Yes
Are Chain of Custody documents accompanying the samples: Yes
Sample temperature: 19° C
Sample pH: 6.7 Test method: 9045

Physical description of water during initial bailing period:
Turbid, grey
Physical description of water sample: Clear

Type of analysis requested: 8240

Type of bailer/sampling equipment used: PVC & Disposable

Equipment decontamination procedures: TSP & Water

Disposition of bailed water volume:
Remained on site, drummed.

APPENDIX F

Permits

ZONE 7

15 September 1992

Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road
San Ramon, CA 94583

Gentlemen:

Enclosed is drilling permit 92444 for a monitoring well construction project at 1200 - 65th Street in Oakland for Ron Kessler.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or me at 484-2600.

Very truly yours,

Craig A. Mayfield

Craig A. Mayfield
Water Resources Engineer III

CM:mm
Enc.

RECEIVED
SEP
AQUA SCIENCE ENG

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT OLIVER RUBBER COMPANY
1200 65th Street
Oakland, CA 94662

CLIENT
Name Mr. Ron Kessler
Address 1200 65th Street Phone 510-654-7711
City Oakland, CA Zip 94662

APPLICANT
Name Aqua Science Engineers, Inc.
Address 2411 Old Crow Canyon Road, #4, 820-9391
City San Ramon, CA Zip 94583

TYPE OF PROJECT

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

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. 487000

WELL PROJECTS

Drill Hole Diameter	8.5	in.	Maximum		
Casing Diameter	2.0	in.	Depth	25	ft.
Surface Seal Depth	5.0	ft.	Number	1	

GEOTECHNICAL PROJECTS

Number of Borings	2		Maximum		
Hole Diameter	8.5	in.	Depth	15	ft.

ESTIMATED STARTING DATE 9-14-92
ESTIMATED COMPLETION DATE 9-14-92

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

APPLICANT'S SIGNATURE David Allen Date 9-9-92

FOR OFFICE USE

PERMIT NUMBER 92444
LOCATION NUMBER ___

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 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 WELLS, INCLUDING PIEZOMETERS
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. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) 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.

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

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 11 Sep 9
Wyman Hong

3199

APPENDIX D

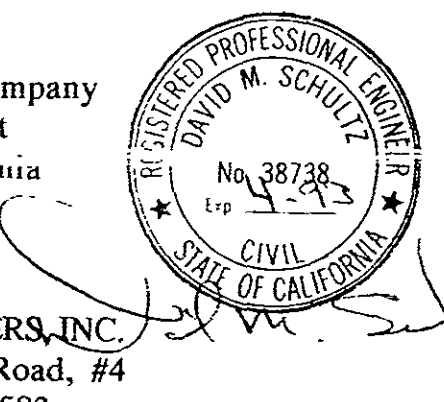
Overexcavation Report
December 22, 1992

aqua science engineers inc.

December 22, 1992

FINAL REPORT
OF
BUNKER-OIL OVEREXCAVATION ACTIVITIES
at
The Oliver Rubber Company
1200 65th Street
Emeryville, California

Prepared for:
Mr. Ron Kessler
The Oliver Rubber Company
1200 65th Street
Emeryville, California



Prepared by:
AQUA SCIENCE ENGINEERS, INC.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583

aqua science engineers inc.

December 22, 1992

The Oliver Rubber Company
Emeryville, CA 94662

ATTENTION: Mr. Ron Kessler

SUBJECT: Overexcavation of Former Bunker Oil Tank Excavation
Oliver Rubber
Emeryville, CA

ASE JOB NO.: 2571

Mr. Kessler:

INTRODUCTION

Aqua Science Engineers, Inc. (ASE) was contracted by our client, Oliver Rubber Company to perform overexcavation duties in the area of the former Bunker Oil tank (see Figure 1, Site Plan). The overexcavation was prompted by Ms. Susan Hugo of the Alameda County Health Care Services Agency (ACHCSA) in the form of a letter from her agency addressed to Oliver Rubber, dated December 1, 1992. In brief, the letter stated that in order to apply for and potentially receive site closure, the elevated levels of soil contamination in the direct proximity of the former bunker oil tank would need to be remediated to levels far below what was detected during original excavation activities. During initial excavation and sampling activities, three of the four excavation sidewalls of the former bunker oil excavation indicated elevated levels of diesel and oil and grease contamination as follows:

Location	Diesel (ppm)	Oil & Grease (ppm)
SW-N	490	1500
SW-S	470	1300
SW-W	130	450

Therefore, on December 18, 1992, ASE personnel mobilized on site to remediate (overexcavate and offhaul) the known areas of soil contamination.

Aqua Science Engineers Inc. P.O. Box 535 San Ramon CA 94583 • 415-820-9391 • FAX 415-837-4853

OVEREXCAVATION

ASE personnel, Steve DeHope, and selected subcontractors arrived on site the morning of December 18, 1992. All personnel was currently certified with 29CFR 1910.120 training. Previous soil borings and a monitoring well in the general proximity of the former excavation had delineated the extent of the contamination. It was ASE's intent to excavate from within the former excavation up to the known areas of non-contaminated soils. The removed soil would be stockpiled on site, analyzed, and appropriately disposed of at a local certified landfill.

The overexcavation activities began by removing the backfill material of the initial excavation. That material, known to be free of contamination, was stockpiled separately to be used again as backfill. A gas line was encountered during excavation; however it was determined to be "dead", and was subsequently removed. Once all the backfill material was excavated, contaminated sidewalls were excavated to the limits of the soil borings and monitoring well surrounding the excavation (see Figure 1). The dimensions of the overexcavated area grew to approximately 19 feet by 10 feet, and 8 feet deep before all of the contaminated soil appeared to ~~have been~~ excavated. Visual inspections along with use of a hand-held organic vapor meter (OVM 580A) were used to define the extent of the soil contamination.

SIDEWALL SOIL SAMPLING

Ms. Susan Hugo arrived on site at approximately 2:00 p.m. to verify that the "new" excavation sidewalls were excavated to the proper limits. Soil samples were collected by ASE personnel at locations chosen by Ms. Hugo. A soil sample was collected from each of the three excavation sidewalls (SW-N, SW-S, SW-W), and one composited soil sample was collected from the excavated material (STKP-1A). The soil samples were collected in brass tubes, covered on each end with aluminum foil, capped and sealed with tape. Each sample was then appropriately labeled and stored in a cooler with ice prior to transport to the analytical laboratory. The soil samples were transported to Priority Environmental Labs in Milpitas, CA, a state certified analytical laboratory, under proper chain-of-custody requirements. The soil samples were analyzed for Total Petroleum Hydrocarbons as Diesel (EPA method 3550/8015), the fractions BTEX (EPA method 8020), and for Oil & Grease (EPA method 5520 D&F). The results of the soil analytical testing are tabulated below as Table One, and copies of the original laboratory report is attached in Appendix A.

TABLE ONE
Summary of Chemical Analysis of SOIL Samples
TPH Diesel, BTEX, and Oil & Grease

Sample I.D.	TPH Diesel (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Oil & Grease (ppm)
SW-N	2.9	8.4	14	7.3	24	48
SW-S	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SW-W	30	N.D.	N.D.	6.6	12	N.D.
STKP-IA*	36	N.D.	N.D.	N.D.	N.D.	150
EPA METHOD	3550/ 8015	8020	8020	8020	8020	5520 D&F

ND Non-Detectable at analytical method limits
ppm parts per million
ppb parts per billion
* Composite sample

STOCKPILED SOIL

The excavated material (approximately 50 cubic yards) was stockpiled on site and will be loaded, trucked, and properly disposed of at a local landfill once further "soil profiling" has occurred. ASE anticipates disposal as Non-Hazardous material at a local Class III landfill. The stockpiled soil is covered with visqueen.

BACKFILLING AND RESURFACING

The excavation was backfilled with a combination of the original backfill material and imported base rock. The excavation was backfilled to 4 inches below grade, and will be resurfaced to match existing conditions at a later date.

CONCLUSIONS AND RECOMMENDATIONS

ASE spoke with Ms. Hugo of the ACHCSA immediately after soil sample results were faxed from the laboratory to our office. The results appeared to be low enough that further action regarding the soil in the direct proximity of the former bunker oil excavation would not be necessary. Furthermore, site closure is now possible once quarterly groundwater monitoring has proven that groundwater has not been impacted by petroleum hydrocarbon contamination. ASE recommends continuing

quarterly groundwater monitoring for a period of at least one year. Site closure may be applied for pending favorable quarterly monitoring results.

REPORT LIMITATIONS

The results of this investigation represent conditions at the time of the soil sampling and specific location at which the samples were collected, and for the specific parameters analyzed for by the laboratory.

It does not fully characterize the site for contamination resulting from sources other than the former bunker oil tank, or for parameters not analyzed for by the laboratory. All of the laboratory work cited in this report was prepared under the direction of independent CSDHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

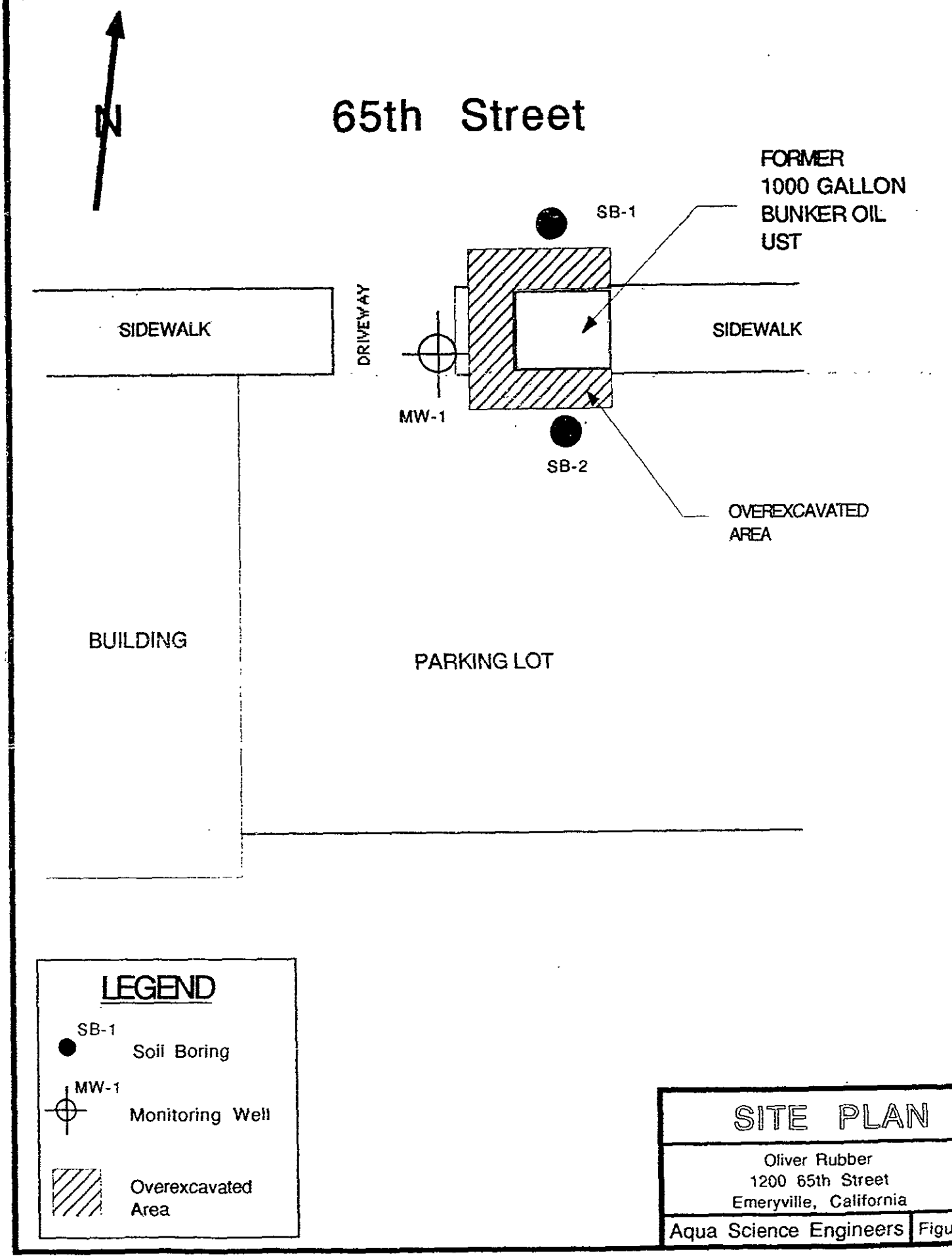
Should questions or concerns arise regarding this report, please feel free to give us a call at (510) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

David Allen
Project Manager

cc: Ms. Susan Hugo, ACHCSA
Mr. Rich Hiett, RWQCB, San Francisco Bay Region



SITE PLAN

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure1

APPENDIX A

CAL EPA Certified
Laboratory Analytical Results
and
Chain-of-Custody Document

PRIORITY ENVIRONMENTAL LABS

Priority Environmental Analytical Laboratory

December 21, 1992

PEL # 9212042

AQUA SCIENCE ENGINEERS, INC.

Attn: Steve DeHope
Re: Four soil samples for BTEX, Diesel, and Oil & Grease analyses.

Project name: Oliver Rubber

Date sampled: Dec 18, 1992
Date extracted: Dec 19-20, 1992

Date submitted: Dec 19, 1992
Date analyzed: Dec 19-20, 1992

RESULTS:

SAMPLE I.D.	Diesel (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)	Oil & Grease (mg/Kg)
SW-N	2.9	8.4	14	7.3	24	48
SW-S	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SW-W	30	N.D.	N.D.	6.6	12	N.D.
STKP-1A*	36	N.D.	N.D.	N.D.	N.D.	150
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	104.3%	82.4%	87.6%	92.0%	90.9%	---
Duplicate Spiked Recovery	90.2%	88.6%	93.5%	91.4%	102.3%	---
Detection limit	1.0	5.0	5.0	5.0	5.0	50
Method of Analysis	3550 / 8015	8020	8020	8020	8020	5520 D & F

* Composited soil sample.

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-96

Priority Environmental Labs
1764 Houret Court
Milpitas, CA 95035
(408) 946-9636

PEL # 9212042

INV # 23278

Chain of Custody

1764 Houret Ct. Milpitas, CA. 95035 Tel: 408-946-9636 Fa

DATE: 12 / 19 / 92 PAGE: 1 OF: 1

PROJECT MGR: STEVE DeHope
COMPANY: A.S.E.
ADDRESS: 2411 Old Crow Canyon Rd
PHONE: 510 - 820 - 9391 FAX:
SIGNATURE: [signature]

ANALYSIS REPORT

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TPH-Gasoline (EPA 5030/8015)	TPH-Gasoline/BTEX	TPH-Diesel (EPA 3510/3550/8015)	Purgeable Aromatics (EPA 602/8020)	[illegible]	[illegible]	[illegible]	NUMBER OF CONTAINERS
SW-S	12-18		S				X	X	X			1
SW-N	12-18		S				X	X	X			1
SW-W	12-18		S				X	X	X			1
STKP-1A	12-18		S				X	X	X			4

PROJECT INFORMATION
PROJECT NAME: Oliver Rubber
PROJECT NUMBER:

SAMPLE RECEIPT
TOTAL # OF CONTAINERS: 7
RECD. GOOD COND./COLD: yes

INSTRUCTIONS & COMMENTS: Composite STKP

RELINQUISHED BY: 1	RECEIVED BY: 1	RELINQUISHED BY: 2	RECEIVED BY: 2
STEVE DeHope			
SIGNATURE: [signature] Date: 12-19	SIGNATURE: [signature] Date: 12/19/92	SIGNATURE: Date:	SIGNATURE: Date:
NAME: A.S.E. Time:	NAME: DAVID DUONG Time:	NAME: Time:	NAME: Time:
COMPANY:	COMPANY: ASE	COMPANY:	COMPANY:

APPENDIX E

Quarterly Monitoring Report
January 29, 1993

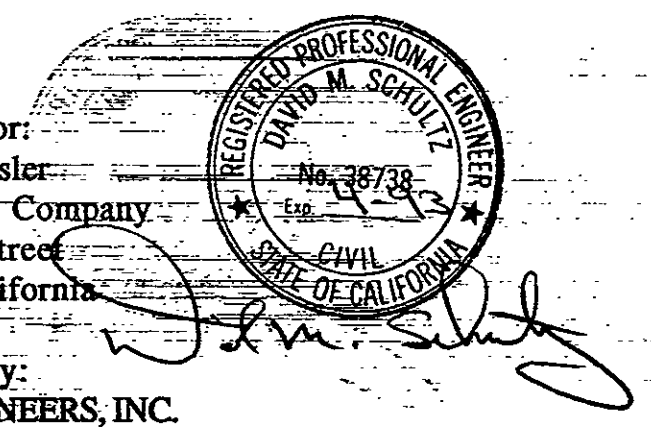
aqua science engineers inc.

January 29, 1993

QUARTERLY
GROUNDWATER MONITORING REPORT
SECOND QUARTER - JANUARY 18, 1993

for

The Oliver Rubber Company
1200 65th Street
Emeryville, California



Prepared for:
Mr. Ron Kessler
The Oliver Rubber Company
1200 65th Street
Emeryville, California

Prepared by:
AQUA SCIENCE ENGINEERS, INC.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583

1.0 INTRODUCTION

Site Location (Site), See Figure 1, Site Location Map
1200 65th Street
Emeryville, CA

Property Owner
The Oliver Rubber Company
1200 65th Street
Emeryville, CA
Contact: Mr. Ron Kessler
(510) 654-7711

Environmental Consulting Firm
Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
Contact: David Allen, Project Manager
(510) 820-9391

Agency Review
Alameda County Health Care Services Agency (ACHCSA)
80 Swan Way, Room 350
Oakland, CA 94621
Contact: Ms. Susan Hugo

RWQCB, San Francisco Bay Region
2101 Webster Street, Fourth Floor
Oakland, CA 94612
Contact: Mr. Rich Hiett

The following is a report detailing the second quarter of a four quarter groundwater monitoring program, as required by the RWQCB and the ACHCSA. Aqua Science Engineers, Inc. (ASE) has prepared this report on behalf of the property owner, The Oliver Rubber Company. This report is intended as a supplement to the following reports: "Project Report - Phase II Soil and Groundwater Assessment", produced by ASE in October, 1992 where three monitoring wells were installed; "Tank Pull" reports by Aqua Science Engineers, Inc. (ASE) dated December 5, 1991 and July 16, 1992. The December 5, 1991 report details the removal of 2 - 8,000 gallon, underground, steel, non-halogenated organic solvent tanks; the July 16, 1992 report details the removal of 1 - 1,000 gallon, underground, steel "Bunker Oil" tank.

2.0 SITE BACKGROUND

2.1 Physical Location

The site is located at the corner of 65th Street at Hollis Street. The site is approximately 1/16 mile west of Interstate 80, and 1/16 mile south of Highway 13, within the City limits of Emeryville, California. The site is currently used as a manufacturing setting for rubber products. The topography of the immediate area is generally even and located at approximately 20 feet above mean sea level. (see Figure 1: Site Location Map).

2.2 Background and Site History

Between December 5, 1991 and July 16, 1992, (3) underground storage tanks were removed from the property by ASE; two of the tanks had 8,000 gallon capacities and contained non-halogenated solvents; one of the tanks had a 1,000 gallon capacity, and contained bunker oil. Underground tank removal activities were documented by ASE in a reports referenced in the previous sections. Detectable levels of Total Petroleum Hydrocarbons (TPH) as Diesel, Oil and Grease, and several constituents of Volatile Organics were found in the sidewalls of both excavations upon backfilling activities. It was determined that groundwater monitoring wells would be necessary to investigate the possibility of groundwater contamination due to leaking tanks.In October of 1992, three groundwater monitoring wells were installed, developed and sampled for chemical contamination. The results of this investigation can be found in the October 1992, ASE report.

2.3 General Geology/Hydrogeology

The site rests on unconsolidated sediments primarily composed of clay. The eastern shoreline of the San Francisco Bay is located approximately 1/16 mile west of the site. Shallow groundwater in the area is located approximately 10-12 feet below grade at the site, and flows in a westerly direction towards the San Francisco Bay.

3.0 DRILLING AND GROUNDWATER WELL CONSTRUCTION

A total of three wells were installed at the site on October 1, 1992. The locations of the ground water monitoring wells (MW-1, MW-2, and MW-3) are indicated in Figure 2, Site Plan. The soil borings for well installation were drilled to 25 feet below ground surface using a CME-75 drill rig equipped with 8 inch O.D. continuous flight, hollow stem augers. All drilling equipment was steam cleaned before use and between borings. Water saturated soil was first encountered at approximately 15-17 feet in each of the monitoring well borings.

Two-inch diameter schedule-40 PVC well casing with 0.020-inch slots was installed from 25 feet to 5 feet below the surface in each boring. Two-inch diameter schedule-40 PVC blank casing was installed above the slotted casing, to the surface. The well casings were capped, on the bottom with a two-inch threaded female plug and on top with a two inch locking security plug. The annular space of the wells was packed with No. 3 Monterey sand from the bottom of the borings to 4.5 feet below the surface. 2.0 feet of bentonite clay was placed above the sand packs. Class "H" Portland Cement was placed above the bentonite seals, to the surface. The well heads were secured with concrete vaulted, water-tight, locking, steel, street boxes.

What follows is the results of groundwater sampling and analysis during the second quarter period. Included in this section are the results of the previous quarter's results.

4.0 GROUND WATER SAMPLE COLLECTION AND CHEMICAL ANALYSIS

On January 18, 1993, ASE personnel arrived on site. Ground water measurements and identification of any "free product" were collected before any water was purged from the wells. No free product was identified and no odor could be recognized from any of the wells. One ground water sample was collected from each of the three groundwater monitoring wells after removal of approximately five well volumes of water and 90% well recharge. The well was purged using a 2-inch PVC bailer. The well purge water was placed in 55-gallon steel 17H drums and stored on site pending analytical results. The samples were collected using disposable, sterile, polyethylene, single check valve bailers. The samples were placed in pre-cleaned, sterile, 40 ml. glass VOA vials, then immediately placed in an ice chest for cold storage. They were later transported to Priority Environmental Laboratory in

Milpitas, California using proper Chain-of-Custody procedures, for chemical analysis. The Groundwater analytical results and chain-of-custody records are included in Appendix A. Well Sampling Field Logs are attached in Appendix B.

The groundwater samples collected for this quarter were analyzed for all or a combination of the following: TPH as Gasoline, TPH as Diesel, BTEX, Oil & Grease, Volatile Organics, pH, and Conductivity. The results are tabulated below in tables One, Two and Three. These tables also contain results from the previous quarter.

TABLE ONE
Summary of Chemical Analysis of WATER Samples
TPH as Gas, Diesel, BTEX, and Oil & Grease
EPA Methods 5030/8015, 3510/8015, 602, and 5520 C&F

Sample I.D.	TPH Gas (ppb)	TPH Diesel (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Oil & Grease (ppm)
10/5/92							
MW-1	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	---	---	---	---	---	---	---
MW-3	---	---	---	---	---	---	---
1/18/93							
MW-1	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	N.D.	---	N.D.	N.D.	N.D.	N.D.	---
MW-3	N.D.	---	N.D.	N.D.	N.D.	N.D.	---
EPA METHOD	5030/ 8015	3510/ 8015	602	602	602	602	5520 C&F

N.D. Non Detectable at analytical method limits
ppm parts per million
ppb parts per billion
--- not analyzed

TABLE TWO
Summary of Chemical Analysis of Water Samples
Volatile Organics
EPA Method 624

Sample I.D.	All Volatile Organics
10/5/92	
MW-1	---
MW-2	N.D.
MW-3	N.D.
1/18/93	
MW-1	---
MW-2	N.D.
MW-3	N.D.
EPA METHOD	624

N.D. Non Detectable at analytical method limits
--- not analyzed

TABLE THREE
Summary of Chemical Analysis of Water Samples
pH and Conductivity
EPA Methods 9045 and 120.1

Sample I.D.	pH	Conductivity
10/5/92		
MW-1	6.8	930
MW-2	7.0	1100
MW-3	6.7	670
1/18/93		
MW-1	6.6	1000
MW-2	6.7	1030
MW-3	6.7	650
EPA METHOD	9045	120.1

5.0 GROUNDWATER GRADIENT AND DIRECTION

The elevations of the tops of the well casings were surveyed relative to mean sea level (MSL) several days after their installation. The depths to groundwater were measured in each well on January 18,1993 using a water level sounder (Solinst). Two measurements were taken in each well to confirm groundwater depth. The depth to water and the top of casing survey data were used to calculate a groundwater flow direction and gradient. A summary of the elevation data is provided below for the January 18 sampling date.

TABLE FOUR
Summary of Groundwater Well Survey Data

Well Number	Depth to Water	Top of Casing Elevation	Groundwater Elevation
MW-1	4.0 ft.	20.0 ft. AMSL	16.00 ft. AMSL
MW-2	3.8 ft.	19.21 ft. AMSL	15.41 ft. AMSL
MW-3	3.46 ft.	19.80 ft. AMSL	16.34 ft. AMSL

A three-point problem was solved for well combinations MW-1, MW-2 and MW-3. A graphic representation of the three-point problem indicating groundwater flow direction and gradient is presented in the Groundwater Gradient Map, Figure 3. The current direction of groundwater flow is west across the site at a gradient of 0.013 ft/ft. Previously, the groundwater gradient was calculated as flowing west at 0.02 ft/ft.

~~ASE has been conducting monthly groundwater level measurements at the site as well. The data in Table Five is as follows (IN FEET ABOVE MEAN SEA LEVEL):~~

~~**TABLE FIVE**~~
Monthly Groundwater Elevations

	MW-1	MW-2	MW-3
~~OCTOBER~~	~~11.92'~~	~~11.76'~~	~~12.36'~~
~~NOVEMBER~~	~~12.32'~~	~~11.80'~~	~~12.44'~~
~~DECEMBER~~	12.54'	12.14'	12.64'
JANUARY	16.00'	15.41'	16.34'

6.0 CONCLUSIONS

Based on the results of the chemical analyses, for the second successive quarter groundwater sampling and analysis has resulted in Non-Detectable (N.D.) levels of the constituents of which were tested.

7.0 RECOMMENDATIONS

Aqua Science Engineers recommends continuing with the groundwater monitoring program. The next sampling period will occur in the month of April, 1993. Should groundwater sampling and analysis result in N.D. levels of the constituents of which are being test, ASE will recommend applying for site closure.

8.0 REPORT LIMITATIONS

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

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

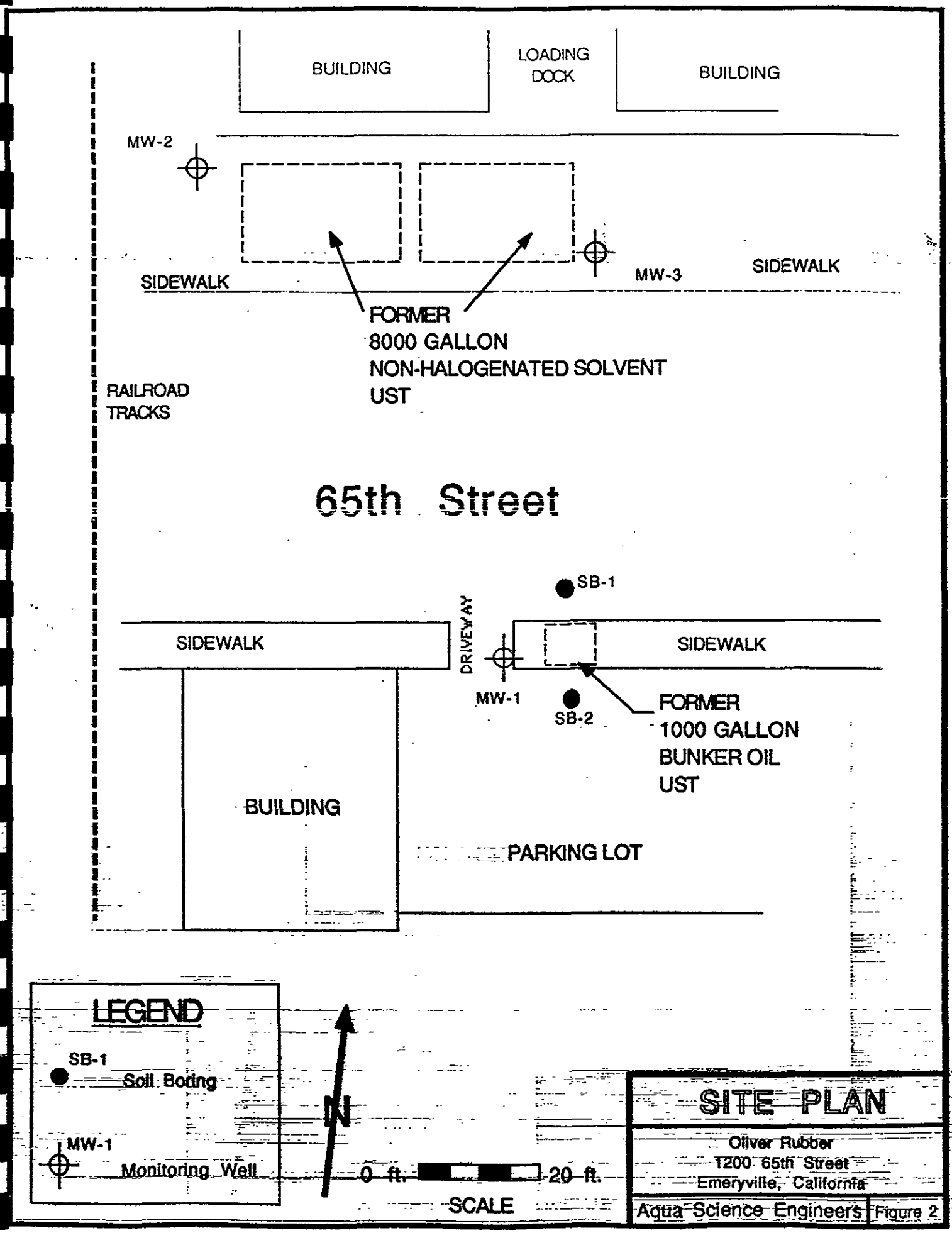
David Allen
Project Manager

cc: Mr. Ron Kessler, The Oliver Rubber Company
Ms. Susan Hugo, ACHCSA
Mr. Rich Hiett, RWQCB, San Francisco Bay Region

SITE LOCATION MAP

Oliver Rubber
1200 65th Street
Emeryville, California

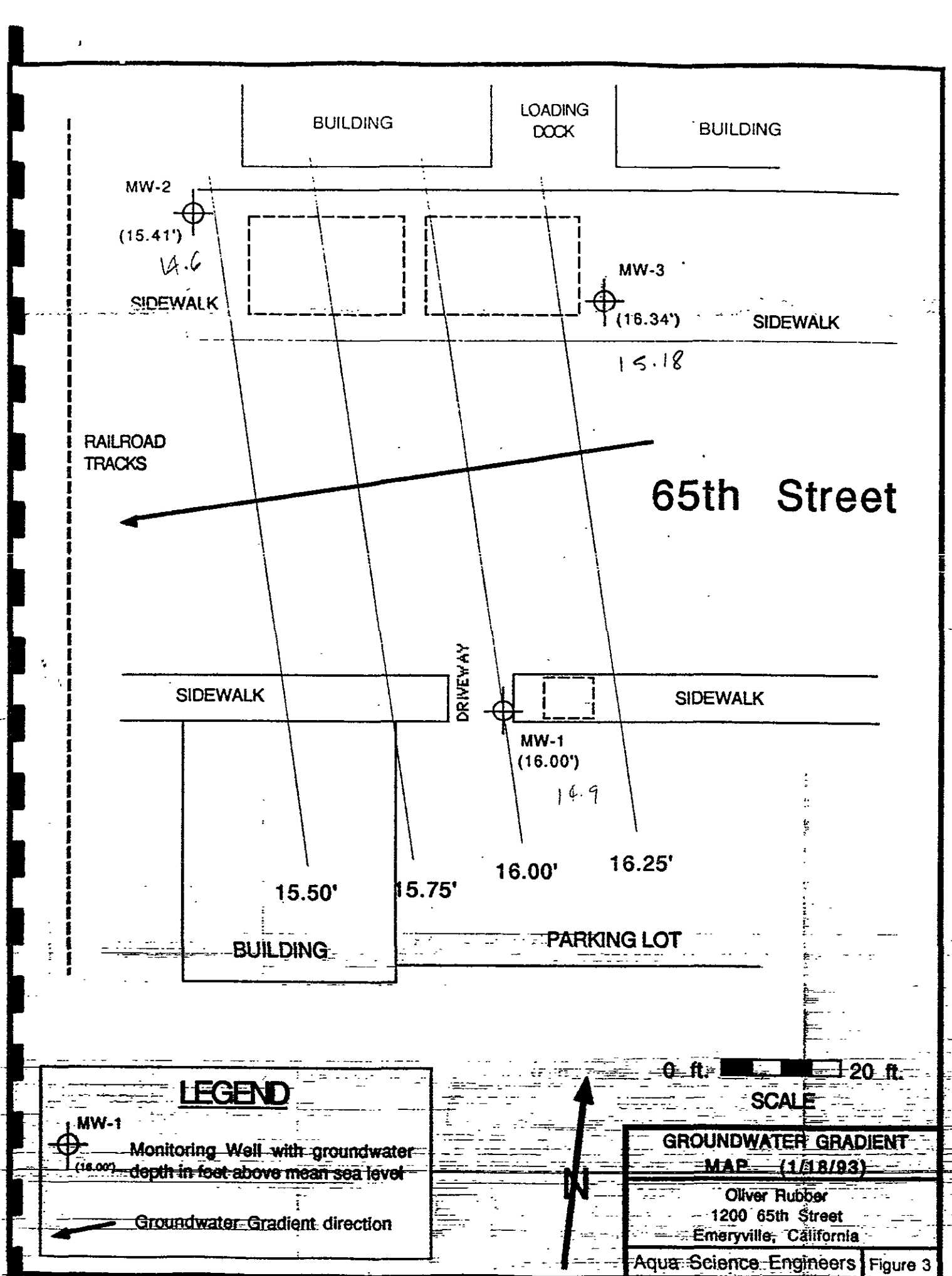
Aqua Science Engineers | Figure 1



SITE PLAN

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure 2


BUILDING
LOADING DOCK
BUILDING
MW-2
(15.41')
14.6
SIDEWALK
MW-3
(16.34')
SIDEWALK
15.18
RAILROAD TRACKS
65th Street
SIDEWALK
DRIVEWAY
SIDEWALK
MW-1
(16.00')
16.9
15.50'
15.75'
16.00'
16.25'
BUILDING
PARKING LOT
LEGEND
MW-1
(16.00') Monitoring Well with groundwater depth in feet above mean sea level
Groundwater Gradient direction
0 ft.
20 ft.
SCALE
GROUNDWATER GRADIENT MAP (1/18/93)
Oliver Rubber
1200 65th Street
Emeryville, California
Aqua Science Engineers
Figure 3

APPENDIX A

California EPA Certified Laboratory
Report of Groundwater Samples
and
Chain of Custody Record

PRIORITY ENVIRONMENTAL LABS

PEL # 9301028

January 21, 1993

AQUA SCIENCE ENGINEERS, INC.

Attn: Steve DeHope
Re: Three water samples for pH, Gasoline/BTEX, Diesel, Oil & Grease, and Conductivity analyses.

Project name: Oliver Rubber
Project location: 1200 65th St. -Emeryville
Project number: 2571

Date sampled: Jan 18 1993
Date extracted: Jan 19-20, 1993

Date submitted: Jan 19, 1993
Date analyzed: Jan 19-20, 1993

RESULTS:

SAMPLE I.D.	pH	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Oil & Grease (mg/L)	Conductivity uS
MW-1	6.6	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1000
MW-2	6.7	N.D.	---	N.D.	N.D.	N.D.	N.D.	---	1030
MW-3	6.7	N.D.	---	N.D.	N.D.	N.D.	N.D.	---	650
Blank	7.0	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.0
Spiked Recovery	---	82.9%	94.6%	84.1%	85.5%	94.2%	91.8%	---	---
Duplicate Spiked Recovery	---	93.5%	92.7%	96.4%	98.9%	93.0%	94.8%	---	---
Detection limit	0.05	50	50	0.5	0.5	0.5	0.5	0.5	10
Method of Analysis	9040	5030 / 8015	3510 / 8015	602	602	602	602	5520 C & E	120.1

David Duong
Laboratory Director

PRIORITY ENVIRONMENTAL LABS

PEL # 9301028

January 21, 1993

AQUA SCIENCE ENGINEERS, INC.
Attn: Steve DeHope
Project number: 2571
Project name: Oliver Rubber
Project location: 1200 65th St.,-Emeryville

Sample I.D.: MW-2

Date Sampled: Jan 18, 1993
Date Submitted: Jan 19, 1993
Date Analyzed: Jan 20-21, 1993

Method of Analysis: EPA 624
Detection limit: 0.5 ug/L

COMPOUND NAME	CONCENTRATION (ug/L)	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	81.7
Bromomethane	N.D.	-----
Chloroethane	N.D.	-----
Trichlorofluoromethane	N.D.	84.6
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	83.5
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	97.2
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	-----
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	92.1
Benzene	N.D.	-----
Dibromochloromethane	N.D.	-----
Toluene	N.D.	-----
Chlorobenzene	N.D.	-----
Ethylbenzene	N.D.	-----
Bromoform	N.D.	98.9
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	94.6
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong
Laboratory Director

PRIORITY ENVIRONMENTAL LABS

January 21, 1993

PEL # 9301028

AQUA SCIENCE ENGINEERS, INC.
Project name: Oliver Rubber
Project location: 1200 65th St.,-Emeryville

Attn: Steve DeHope
Project number: 2571

Sample I.D.: MW-3

Date Sampled: Jan 18, 1993
Date Analyzed: Jan 20-21, 1993

Date Submitted: Jan 19, 1993

Method of Analysis: EPA 624

Detection limit: 0.5 ug/L

COMPOUND NAME	CONCENTRATION (ug/L)	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	81.7
Bromomethane	N.D.	-----
Chloroethane	N.D.	-----
Trichlorofluoromethane	N.D.	84.6
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	83.5
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	97.2
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	-----
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	92.1
Benzene	N.D.	-----
Dibromochloromethane	N.D.	-----
Toluene	N.D.	-----
Chlorobenzene	N.D.	-----
Ethylbenzene	N.D.	-----
Bromoform	N.D.	98.9
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	94.6
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong
Laboratory Director

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

Chain of Custody

PEL # 9301028
INV # 23325

DATE 1-19-93 PAGE 1 OF 1

SAMPLERS (SIGNATURE) (PHONE NO.) (510) 820-9391

PROJECT NAME Oliver Rubber NO. 2521

ADDRESS 1200 65th St Emeryville

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:
Standard Turnaround

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/NEUTRALS, 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	PH	Conductivity
MW-1	1-18		W	5			X					X						X	X
MW-2	1-18		W	3		X				X								X	X
MW-3	1-18		W	3		X				X								X	X

RELINQUISHED BY: (signature)	(time)	RECEIVED BY: (signature)	(time)	RELINQUISHED BY: (signature)	(time)	RECEIVED BY LABORATORY: (signature)	(time)	COMMENTS:
STEVE Dotty	1-19-93					DAVID DUONG	01/19/93	
(printed name)	(date)	(printed name)	(date)	(printed name)	(date)	(printed name)	(date)	
Company- A.S.E.		Company-		Company-		Company- PEL		

APPENDIX B

Well Sampling Field Logs

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc. San Ramon, CA 94583

Project Name: Oliver Rubber Co.
Project Address: 1200 65th St., Emeryville, CA
Job # 2571 Date of sampling: 1/18/93
Completed by: Steve DeHope
Well Number / Designation: MW-2
Top of casing elevation: 19.2'
Total depth of well casing: 24.6' Well diameter: 2"
Depth to water (before sampling): 3.8'
Thickness of floating product if any: N/A
Depth of well casing in water: 20.8'
Req'd volume of groundwater to be purged before sampling: 16 Gallons
Approximate volume of groundwater purged: 16 Gallons
Type of seal at grade: Portland
Type of cap on the casing: Expanding locking cap
Is the seal water tight? Yes Is the cap water tight? Yes
Number of samples (containers) collected
Did 40 ml VOA vials have headspace: No.
Were sample containers chilled after sampling & for delivery ? Yes
Are Chain of Custody documents accompanying the samples: Yes
Sample temperature: 19° C
Sample pH: 6.7 Test method: 9040
Conductivity: 1030 Test Method: 120.1

Physical description of water during initial bailing period:
Slightly cloudy & silty

Physical description of water sample: Almost clear

Type of analysis requested: TPH Gas
BTEX
BH
COnductivity

Type of bailer/sampling equipment used: PVC and disposable

Equipment decontamination procedures: TSP wash, tap water rinse

Disposition of bailed water volume:
Drummed on site.

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc, San Ramon, CA 94583

Project Name: Oliver Rubber Co.
Project Address: 1200 65th St., Emeryville, CA
Job # 2571 Date of sampling: 1/18/93
Completed by: Steve DeHope
Well Number / Designation: MW-3
Top of casing elevation: 18.80'
Total depth of well casing: 24.66' Well diameter: 2"
Depth to water (before sampling): 3.46'
Thickness of floating product if any: N/A
Depth of well casing in water: 21.2'
Req'd volume of groundwater to be purged before sampling: 16 Gallons
Approximate volume of groundwater purged: 16 Gallons
Type of seal at grade: Portland
Type of cap on the casing: Expanding locking cap
Is the seal water tight? Yes Is the cap water tight? Yes
Number of samples (containers) collected
Did 40 ml VOA vials have headspace: No
Were sample containers chilled after sampling & for delivery ? Yes
Are Chain of Custody documents accompanying the samples: Yes
Sample temperature: 19° C
Sample pH: 6.7 Test method: 9040
Conductivity: 650 Test Method" 120.1
Physical description of water during initial bailing period:
Cloudy & clearing
Physical description of water sample: Almost clear

Type of analysis requested:
TPH Gas
BTEX
pH
Conductivity

Type of bailer/sampling equipment used: PVC and disposable
Equipment decontamination procedures: TSP wash, tap water rinse
Disposition of bailed water volume:
Drummed on site.

APPENDIX F

Quarterly Monitoring Report
May 3, 1993

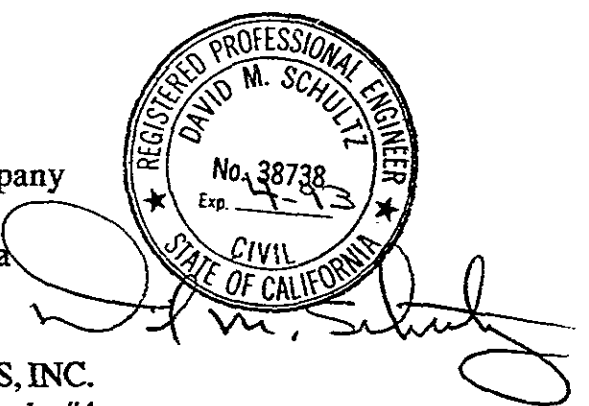
aqua science engineers inc.

May 3, 1993

QUARTERLY
GROUNDWATER MONITORING REPORT
THIRD QUARTER - APRIL 16, 1993

for

The Oliver Rubber Company
1200 65th Street
Emeryville, California



Prepared for:
Mr. Ron Kessler
The Oliver Rubber Company
1200 65th Street
Emeryville, California

Prepared by:
AQUA SCIENCE ENGINEERS, INC.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583

1.0 INTRODUCTION

Site Location (Site), See Figure 1, Site Location Map
1200 65th Street
Emeryville, CA

Property Owner
The Oliver Rubber Company
1200 65th Street
Emeryville, CA
Contact: Mr. Ron Kessler
(510) 654-7711

Environmental Consulting Firm
Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
Contact: David Allen, Project Manager
(510) 820-9391

Agency Review
Alameda County Health Care Services Agency (ACHCSA)
80 Swan Way, Room 350
Oakland, CA 94621
Contact: Ms. Susan Hugo

RWQCB, San Francisco Bay Region
2101 Webster Street, Fourth Floor
Oakland, CA 94612
Contact: Mr. Rich Hiett

The following is a report detailing the third quarter of a four quarter groundwater monitoring program, as required by the RWQCB and the ACHCSA. Aqua Science Engineers, Inc. (ASE) has prepared this report on behalf of the property owner, The Oliver Rubber Company. This report is intended as a supplement to the following reports: "Project Report - Phase II Soil and Groundwater Assessment", produced by ASE in October, 1992 where three monitoring wells were installed; "Tank Pull" reports by Aqua Science Engineers, Inc. (ASE) dated December 5, 1991 and July 16, 1992. The December 5, 1991 report details the removal of 2 - 8,000 gallon, underground, steel, non-halogenated organic solvent tanks; the July 16, 1992 report details the removal of 1 - 1,000 gallon, underground, steel "Bunker Oil" tank.

2.0 SITE BACKGROUND

2.1 Physical Location

The site is located at the corner of 65th Street at Hollis Street. The site is approximately 1/16 mile west of Interstate 80, and 1/16 mile south of Highway 13, within the City limits of Emeryville, California. The site is currently used as a manufacturing setting for rubber products. The topography of the immediate area is generally even and located at approximately 20 feet above mean sea level. (see Figure 1: Site Location Map).

2.2 Background and Site History

Between December 5, 1991 and July 16, 1992, (3) underground storage tanks were removed from the property by ASE; two of the tanks had 8,000 gallon capacities and contained non-halogenated solvents; one of the tanks had a 1,000 gallon capacity, and contained bunker oil. Underground tank removal activities were documented by ASE in a reports referenced in the previous sections. Detectable levels of Total Petroleum Hydrocarbons (TPH) as Diesel, Oil and Grease, and several constituents of Volatile Organics were found in the sidewalls of both excavations upon backfilling activities. It was determined that groundwater monitoring wells would be necessary to investigate the possibility of groundwater contamination due to leaking tanks.In October of 1992, three groundwater monitoring wells were installed, developed and sampled for chemical contamination. The results of this investigation can be found in the October 1992, ASE report.

2.3 General Geology/Hydrogeology

The site rests on unconsolidated sediments primarily composed of clay. The eastern shoreline of the San Francisco Bay is located approximately 1/16 mile west of the site. Shallow groundwater in the area is located approximately 10-12 feet below grade at the site, and flows in a westerly direction towards the San Francisco Bay.

3.0 DRILLING AND GROUNDWATER WELL CONSTRUCTION

A total of three wells were installed at the site on October 1, 1992. The locations of the ground water monitoring wells (MW-1, MW-2, and MW-3) are indicated in Figure 2, Site Plan. The soil borings for well installation were drilled to 25 feet below ground surface using a CME-75 drill rig equipped with 8 inch O.D. continuous flight, hollow stem augers. All drilling equipment was steam cleaned before use and between borings. Water saturated soil was first encountered at approximately 15-17 feet in each of the monitoring well borings.

Two-inch diameter schedule-40 PVC well casing with 0.020-inch slots was installed from 25 feet to 5 feet below the surface in each boring. Two-inch diameter schedule-40 PVC blank casing was installed above the slotted casing, to the surface. The well casings were capped, on the bottom with a two-inch threaded female plug and on top with a two inch locking security plug. The annular space of the wells was packed with No. 3 Monterey sand from the bottom of the borings to 4.5 feet below the surface. 2.0 feet of bentonite clay was placed above the sand packs. Class "H" Portland Cement was placed above the bentonite seals, to the surface. The well heads were secured with concrete vaulted, water-tight, locking, steel, street boxes.

What follows is the results of groundwater sampling and analysis during the third quarter period. Included in this section are the results of the previous quarter's results.

4.0 GROUND WATER SAMPLE COLLECTION AND CHEMICAL ANALYSIS

On April 16, 1993, ASE personnel arrived on site. Groundwater measurements and identification of any "free-product" were collected before any water was purged from the wells. No free product was identified and no odor could be recognized from any of the wells. One ground water sample was collected from each of the three groundwater monitoring wells after removal of approximately five well volumes of water and 90% well recharge. The well was purged using a 2-inch PVC bailer. The well purge water was placed in 55-gallon steel 17H drums and stored on site pending analytical results. The samples were collected using disposable, sterile, polyethylene, single check valve bailers. The samples were placed in pre-cleaned, sterile, 40 ml. glass VOA vials, then immediately placed in an ice chest for cold storage. They were later transported to Priority Environmental Laboratory in

Milpitas, California using proper Chain-of-Custody procedures, for chemical analysis. The Groundwater analytical results and chain-of-custody records are included in Appendix A. Well Sampling Field Logs are attached in Appendix B.

The groundwater samples collected for this quarter were analyzed for all or a combination of the following: TPH as Gasoline, TPH as Diesel, BTEX, Oil & Grease, Volatile Organics, pH, and Conductivity. The results are tabulated below in Tables One, Two and Three. These tables also contain results from the previous quarter.

TABLE ONE
Summary of Chemical Analysis of WATER Samples
TPH as Gas, Diesel, BTEX, and Oil & Grease
EPA Methods 5030/8015, 3510/8015, 602, and 5520 C&F

Sample I.D.	TPH Gas (ppb)	TPH Diesel (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Oil & Grease (ppm)
10/5/92							
MW-1	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	---	---	---	---	---	---	---
MW-3	---	---	---	---	---	---	---
1/18/93							
MW-1	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	N.D.	---	N.D.	N.D.	N.D.	N.D.	---
MW-3	N.D.	---	N.D.	N.D.	N.D.	N.D.	---
4/16/93							
MW-1	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	N.D.	---	---	---	---	---	---
MW-3	N.D.	---	---	---	---	---	---
EPA METHOD	5030/ 8015	3510/ 8015	602	602	602	602	5520 C&F

N.D. Non Detectable at analytical method limits
ppm parts per million
ppb parts per billion
--- not analyzed

TABLE TWO
Summary of Chemical Analysis of Water Samples
Volatile Organics
EPA Method 624

Sample I.D.	All Volatile Organics
10/5/92	
MW-1	---
MW-2	N.D.
MW-3	N.D.
1/18/93	
MW-1	---
MW-2	N.D.
MW-3	N.D.
4/16/93	
MW-1	---
MW-2	N.D.
MW-3	N.D.
EPA METHOD	624

N.D. Non Detectable at analytical method limits
--- not analyzed

TABLE THREE
Summary of Chemical Analysis of Water Samples
pH and Conductivity
EPA Methods 9045 and 120.1

Sample I.D.	pH	Conductivity
4/16/93		
MW-1	6.8	810
MW-2	7.2	720
MW-3	6.9	970
EPA METHOD	9045	120.1

5.0 GROUNDWATER GRADIENT AND DIRECTION

The elevations of the tops of the well casings were surveyed relative to mean sea level (MSL) several days after their installation. The depths to groundwater were measured in each well on April 16,1993 using a water level sounder (Solinst). Two measurements were taken in each well to confirm groundwater depth. The depth to water and the top of casing survey data were used to calculate a groundwater flow direction and gradient. A summary of the elevation data is provided below for the April 16, 1993 sampling date.

TABLE FOUR
Summary of Groundwater Well Survey Data

Well Number	Depth to Water	Top of Casing Elevation	Groundwater Elevation
MW-1	5.1 ft.	20.0 ft. AMSL	16.00 ft. AMSL
MW-2	4.62 ft.	19.21 ft. AMSL	15.41 ft. AMSL
MW-3	4.6 ft.	19.80 ft. AMSL	16.34 ft. AMSL

A three-point problem was solved for well combinations MW-1, MW-2 and MW-3. A graphic representation of the three-point problem indicating groundwater flow direction and gradient is presented in the Groundwater Gradient Map, Figure 3. The current direction of groundwater flow is west across the site at a gradient of 0.009 ft/ft. Previously, the groundwater gradient was calculated as flowing west at 0.013 ft/ft.

6.0 CONCLUSIONS

Based on the results of the chemical analyses, groundwater sampling and analysis has resulted in Non-Detectable (N.D.) levels of the constituents of which were tested.

7.0 RECOMMENDATIONS

Aqua Science Engineers recommends continuing with the groundwater monitoring program. The next sampling period will occur in the month of July, 1993. Should groundwater sampling and analysis result in N.D. levels of the constituents of which are being tested for four (4) subsequent quarters, ASE will recommend applying for site closure.

8.0 REPORT LIMITATIONS

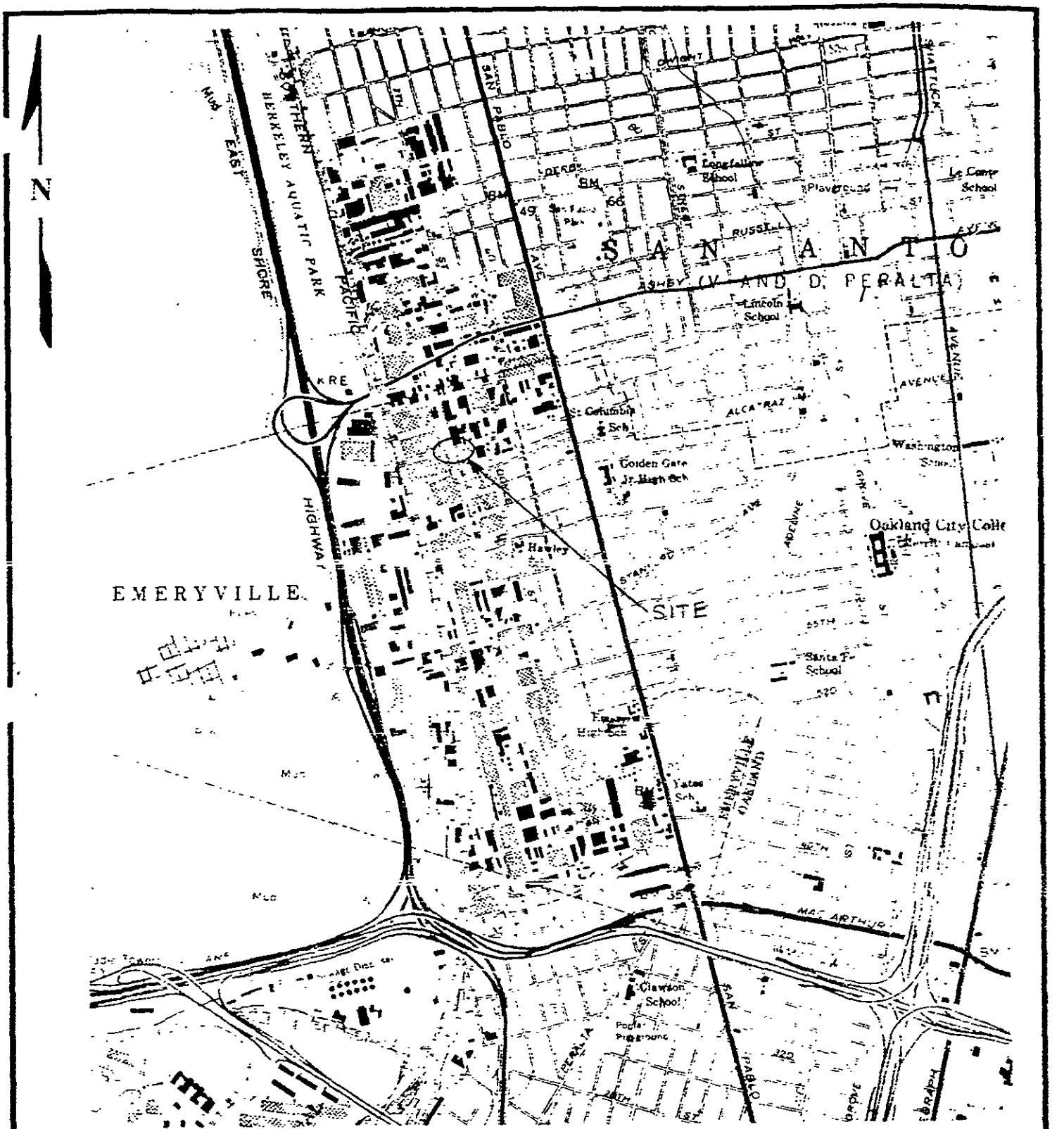
The results of this investigation represent conditions at the time at which groundwater samples were collected, and for the specific parameters analyzed for by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the underground storage tanks at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

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

David Allen
Project Manager

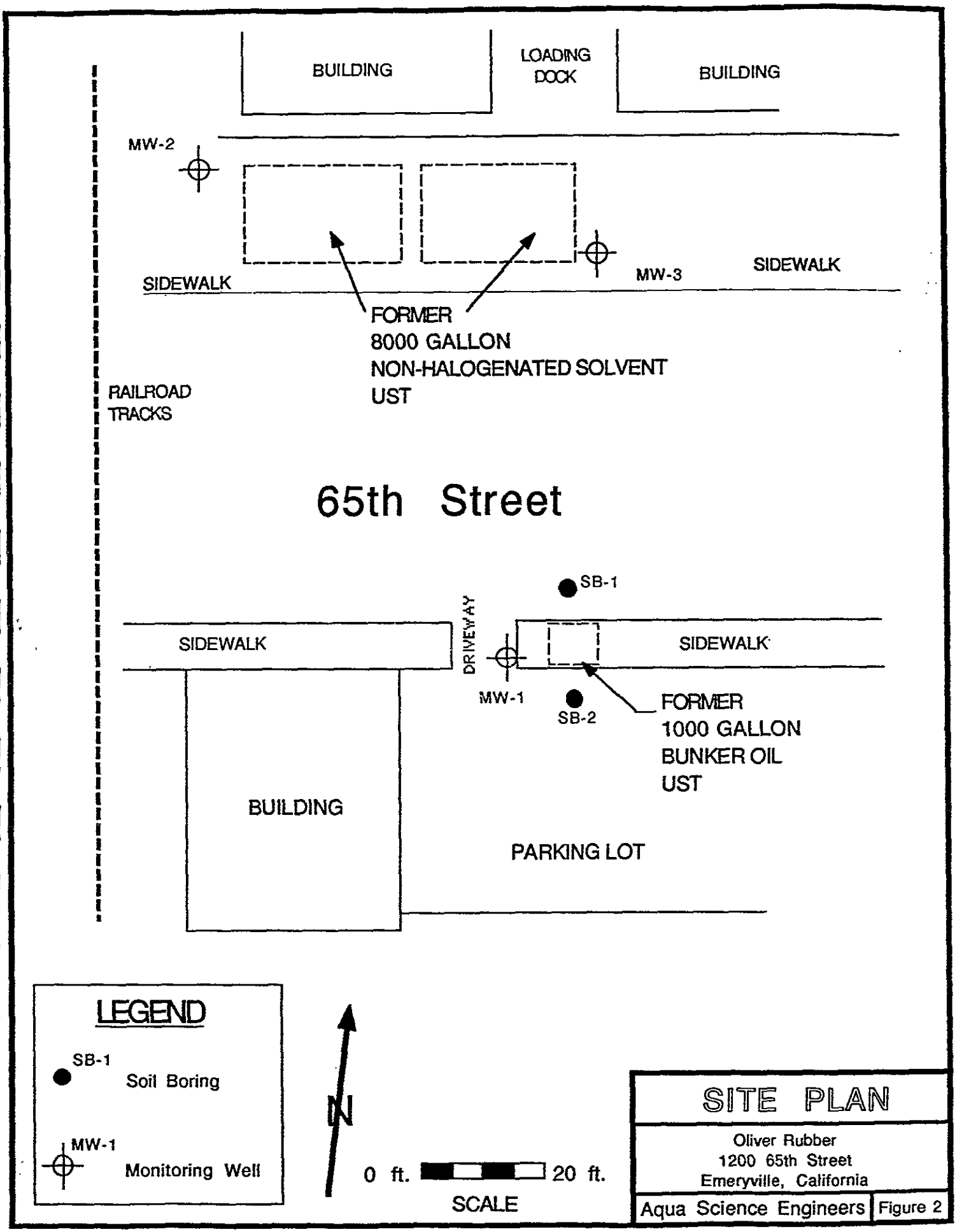
cc: Mr. Ron Kessler, The Oliver Rubber Company
Ms. Susan Hugo, ACHCSA
Mr. Rich Hiett, RWQCB, San Francisco Bay Region



SITE LOCATION MAP

Oliver Rubber
1200 65th Street
Emeryville, California

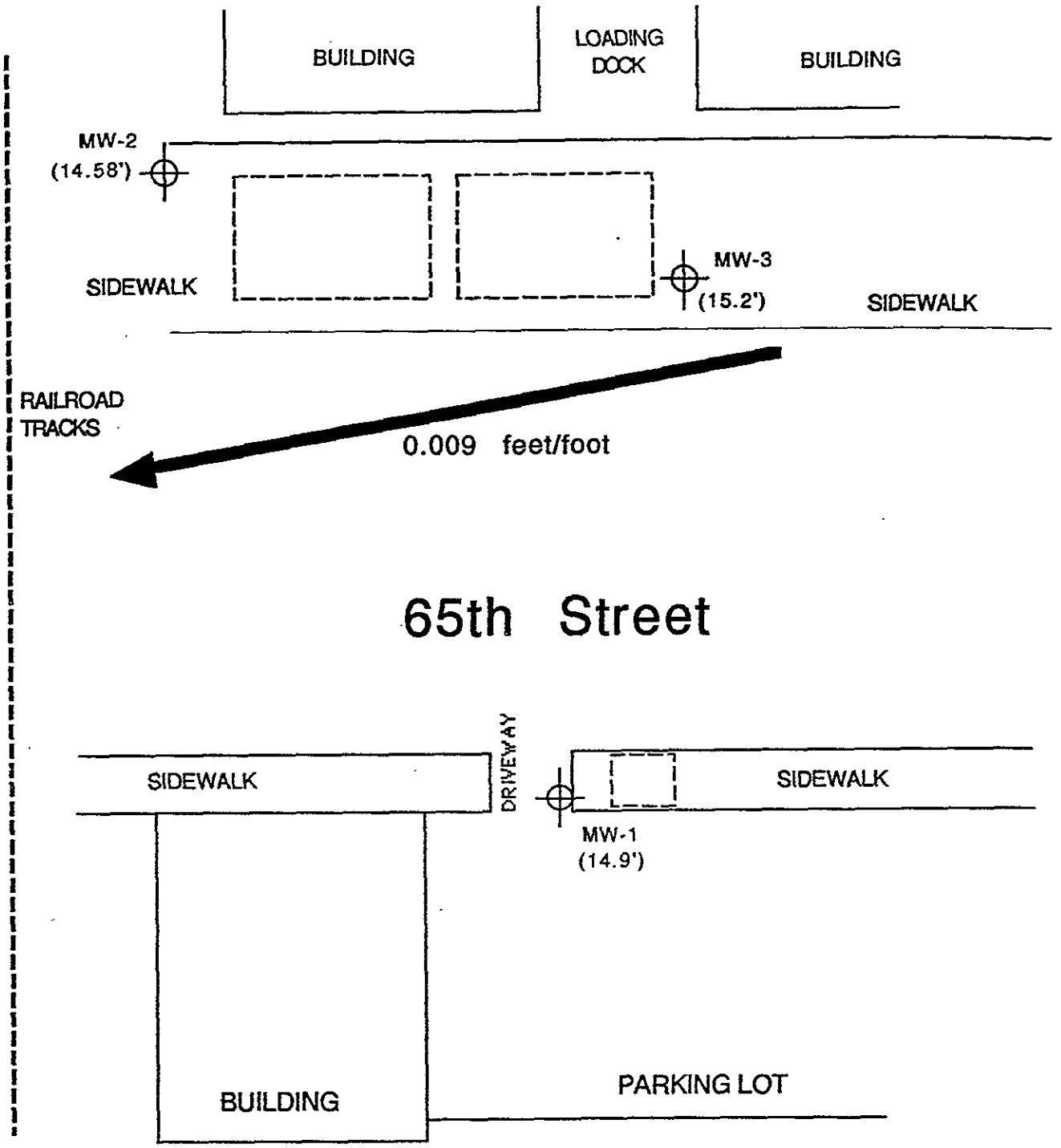
Aqua Science Engineers | Figure 1



SITE PLAN

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure 2



LEGEND

MW-1
(14.9')
Monitoring Well with groundwater depth in feet above mean sea level

Groundwater Gradient direction

N

0 ft. 20 ft.
SCALE

GROUNDWATER GRADIENT MAP (4/16/93)

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure 3

APPENDIX A

California EPA Certified Laboratory
Report of Groundwater Samples
and
Chain of Custody Record

PRIORITY ENVIRONMENTAL LABS

Pleasanton Environmental Analytical Laboratory

April 19, 1993 PEL # 9304041

AQUA SCIENCE ENGINEERS, INC.

Attn: Steve DeHope
Re: Three water samples for pH, Gasoline/BTEX, Diesel, Oil & Grease, and Conductivity analyses.

Project name: Oliver Rubber Co.
Project location: 1200 65th St., - Emeryville
Project number: 2516

Date sampled: Apr 16, 1993 Date submitted: Apr 16, 1993
Date extracted: Apr 16-17, 1993 Date analyzed: Apr 16-17, 1993

RESULTS:

SAMPLE I.D.	pH	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Oil & Grease (mg/L)	Conductivity (uS)
MW-1	6.8	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	810
MW-2	---	N.D.	---	---	---	---	---	---	---
MW-3	6.9	N.D.	---	---	---	---	---	---	970
Blank	7.0	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0
Spiked Recovery	---	80.4%	93.1%	90.2%	94.3%	91.6%	104.2%	---	---
Detection limit	0.05	50	50	0.5	0.5	0.5	0.5	0.5	10
Method of Analysis	9045	5030/ 8015	3510/ 8015	602	602	602	602	5520 C & F	120.1

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

May 03, 1993 PEL # 9304041

AQUA SCIENCE ENGINEERS, INC.

Attn: Steve DeHope
Re: One water sample for pH and Conductivity analysis.

Project name: Oliver Rubber Co.
Project location: 1200 65th St., - Emeryville
Project number: 2516

Date sampled: Apr 16, 1993 Date submitted: Apr 16, 1993
Date extracted: May 03, 1993 Date analyzed: May 03, 1993

RESULTS:

SAMPLE I.D.	pH	Conductivity (uS)
MW-2	7.2	720
Blank	7.0	0
Detection limit	0.05	10
Method of Analysis	9045	120.1

David Duong
Laboratory Director

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

April 19, 1993 PEL # 9304041

AQUA SCIENCE ENGINEERS, INC. Attn: Steve DeHope

Project name:Oliver Rubber Co. Project number: 2516
Project location: 1200 65th St., - Emeryville
Sample I.D.: MW-2

Date Sampled: Apr 16, 1993 Date Submitted: Apr 16, 1993
Date Analyzed: Apr 16-19, 1993

Method of Analysis: EPA 624 Detection limit: 0.5 ug/L

COMPOUND NAME	CONCENTRATION (ug/L)	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	83.1
Bromomethane	N.D.	-----
Chloroethane	N.D.	-----
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	87.6
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	90.2
Chloroform	N.D.	-----
1,1,1-Trichloroethane	N.D.	88.1
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	82.0
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	-----
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	94.4
Benzene	N.D.	-----
Dibromochloromethane	N.D.	-----
Toluene	N.D.	-----
Chlorobenzene	N.D.	-----
Ethylbenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	100.9
Freon 113	N.D.	-----
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong
Laboratory Director

1764 Houret Court Milpitas CA 95035 Tel: 408 946 9636 Fax: 408 946 9663

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

April 19, 1993 PEL # 9304041

AQUA SCIENCE ENGINEERS, INC. Attn: Steve DeHope

Project name:Oliver Rubber Co. Project number: 2516
Project location: 1200 65th St., - Emeryville
Sample I.D.: MW-3

Date Sampled: Apr 16, 1993 Date Submitted: Apr 16, 1993
Date Analyzed: Apr 16-19, 1993

Method of Analysis: EPA 624 Detection limit: 0.5 ug/L

COMPOUND NAME	CONCENTRATION (ug/L)	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	83.1
Bromomethane	N.D.	-----
Chloroethane	N.D.	-----
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	87.6
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	90.2
Chloroform	N.D.	-----
1,1,1-Trichloroethane	N.D.	88.1
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	82.0
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	-----
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	94.4
Benzene	N.D.	-----
Dibromochloromethane	N.D.	-----
Toluene	N.D.	-----
Chlorobenzene	N.D.	-----
Ethylbenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	100.9
Freon 113	N.D.	-----
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong
Laboratory Director

1764 Houret Court Milpitas CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PEL # 9304083

INV # 23534

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

Chain of Custo

DATE 4-16-93 PAGE 1 OF 1

SAMPLERS (SIGNATURE) (PHONE NO.)
SW Dettore (510) 820-9391

PROJECT NAME Oliver Rubber Co. NO. 2516
ADDRESS 1200 65th St Emeryville

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH GASOLINE (EPA 5030/8015)	TPH [illegible]/BTEX (EPA [illegible] 8020)	TPH DIESEL (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/8020)	PURGABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NUSTRALS, 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	P.H.	Conductivity
MW-1	4-16	3:00	W	4		X	X					X						X	X
MW-2	4-16	3:15	W		X					X								X	X
MW-3	4-16	3:30	W		X					X								X	X

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)	
STEVE Dettore 2:00			DAVID DUONG 2:00 PM	
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	
Company- ASE, 4-16-93	Company-	Company-	Company- PEL 4/16/93	

APPENDIX B

Well Sampling Field Logs

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc. San Ramon, CA 94583

Project Name: Oliver Rubber Co.
Project Address: 1200 65th St., Emeryville, CA
Job # 2571 Date of sampling: 4/16/93
Completed by: Steve DeHope
Well Number / Designation: MW-1
Top of casing elevation: 20.0'
Total depth of well casing: 25' Well diameter: 2"
Depth to water (before sampling): 5.1'
Thickness of floating product if any: None
Depth of well casing in water: 19.9'
Req'd volume of groundwater to be purged before sampling: 16 Gallons
Approximate volume of groundwater purged: 16 Gallons
Type of seal at grade: Portland
Type of cap on the casing: Expanding locking cap
Is the seal water tight? Yes Is the cap water tight? Yes
Number of samples (containers) collected
Did 40 ml VOA vials have headspace: No
Were sample containers chilled after sampling & for delivery ? Yes
Are Chain of Custody documents accompanying the samples: Yes
Sample temperature: 19° C
Sample pH: 6.8 Test method: 9040
Conductivity: 810 Test Method: 120.1
Physical description of water during initial bailing period:
Slightly cloudy & clearing
Physical description of water sample: Clear

Type of analysis requested: TPH Diesel
BTEX
Oil & Grease
pH
Conductivity

Type of bailer/sampling equipment used: PVC and disposable

Equipment decontamination procedures: TSP Wash, tap water rinse

Disposition of bailed water volume:
Drummed on site.

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc, San Ramon, CA 94583

Project Name: Oliver Rubber Co.
Project Address: 1200 65th St., Emeryville, CA
Job # 2571 Date of sampling: 4/16/93
Completed by: Steve DeHope
Well Number / Designation: MW-2
Top of casing elevation: 19.2'
Total depth of well casing: 24.6' Well diameter: 2"
Depth to water (before sampling): 4.62'
Thickness of floating product if any: N/A
Depth of well casing in water: 19.98'
Req'd volume of groundwater to be purged before sampling: 16 Gallons
Approximate volume of groundwater purged: 16 Gallons
Type of seal at grade: Portland
Type of cap on the casing: Expanding locking cap
Is the seal water tight? Yes Is the cap water tight? Yes
Number of samples (containers) collected
Did 40 ml VOA vials have headspace: No.
Were sample containers chilled after sampling & for delivery ? Yes
Are Chain of Custody documents accompanying the samples: Yes
Sample temperature: 19° C
Sample pH: 7.2 Test method: 9040
Conductivity: 720 Test Method: 120.1

Physical description of water during initial bailing period:
Slightly cloudy & silty

Physical description of water sample: Almost clear

Type of analysis requested: TPH Gas
Volatile Organics
pH
COnductivity

Type of bailer/sampling equipment used: PVC and disposable

Equipment decontamination procedures: TSP wash, tap water rinse

Disposition of bailed water volume:
Drummed on site.

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc. San Ramon, CA 94583

Project Name: Oliver Rubber Co.
Project Address: 1200 65th St., Emeryville, CA
Job # 2571 Date of sampling: 4/16/93
Completed by: Steve DeHope
Well Number / Designation: MW-3
Top of casing elevation: 19.80'
Total depth of well casing: 24.66' Well diameter: 2"
Depth to water (before sampling): 4.6'
Thickness of floating product if any: N/A
Depth of well casing in water: 20.06'
Req'd volume of groundwater to be purged before sampling: 16 Gallons
Approximate volume of groundwater purged: 16 Gallons
Type of seal at grade: Portland
Type of cap on the casing: Expanding locking cap
Is the seal water tight? Yes Is the cap water tight? Yes
Number of samples (containers) collected
Did 40 ml VOA vials have headspace: No
Were sample containers chilled after sampling & for delivery ? Yes
Are Chain of Custody documents accompanying the samples: Yes
Sample temperature: 19° C
Sample pH: 6.9 Test method: 9040
Conductivity: 970 Test Method" 120.1
Physical description of water during initial bailing period:
Cloudy & clearing
Physical description of water sample: Almost clear

Type of analysis requested:
TPH Gas
Volatile Organics
pH
Conductivity

Type of bailer/sampling equipment used: PVC and disposable

Equipment decontamination procedures: TSP wash, tap water rinse

Disposition of bailed water volume:
Drummed on site.

APPENDIX G

Quarterly Monitoring Report
July 27, 1993

aqua science engineers inc.

July 27, 1993

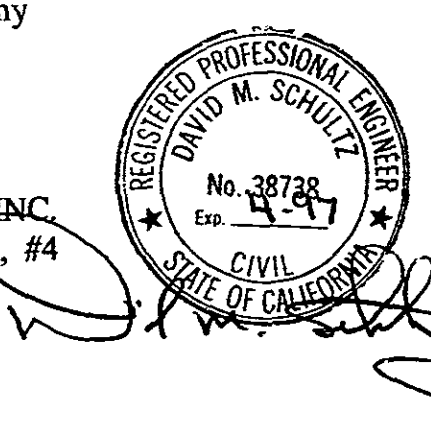
QUARTERLY
GROUNDWATER MONITORING REPORT
FOURTH QUARTER - July 14, 1993

for

The Oliver Rubber Company
1200 65th Street
Emeryville, California

Prepared for:
Mr. Ron Kessler
The Oliver Rubber Company
1200 65th Street
Emeryville, California

Prepared by:
AQUA SCIENCE ENGINEERS, INC.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583



1.0 INTRODUCTION

Site Location (Site), See Figure 1, Site Location Map
1200 65th Street
Emeryville, CA

Property Owner
The Oliver Rubber Company
1200 65th Street
Emeryville, CA
Contact: Mr. Ron Kessler
(510) 654-7711

Environmental Consulting Firm
Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
Contact: David Allen, Project Manager
(510) 820-9391

Agency Review
Alameda County Health Care Services Agency (ACHCSA)
80 Swan Way, Room 350
Oakland, CA 94621
Contact: Ms. Susan Hugo

RWQCB, San Francisco Bay Region
2101 Webster Street, Fourth Floor
Oakland, CA 94612
Contact: Mr. Rich Hiett

This report details the fourth quarter of a quarterly groundwater monitoring program, as required by the RWQCB and the ACHCSA. Aqua Science Engineers, Inc. (ASE) has prepared this report on behalf of the property owner, The Oliver Rubber Company. This report is intended as a supplement to the following reports: "Project Report - Phase II Soil and Groundwater Assessment", produced by ASE in October, 1992 where three monitoring wells were installed; "Tank Pull" reports by Aqua Science Engineers, Inc. (ASE) dated December 5, 1991 and July 16, 1992. The December 5, 1991 report details the removal of two 8,000-gallon, underground, steel, non-halogenated organic solvent tanks; the July 16, 1992 report details the removal of one 1,000-gallon, underground, steel "Bunker Oil" tank.

2.0 SITE BACKGROUND

2.1 Physical Location

The site is located at the corner of 65th Street at Hollis Street within the city limits of Emeryville, California. The site is approximately 1/16 mile west of Interstate 80, and 1/16 mile south of Highway 13. The site is currently used as a manufacturing plant for rubber products. The topography of the immediate area is generally even and located at approximately 20 feet above mean sea level. (see Figure 1: Site Location Map).

2.2 Background and Site History

Between December 5, 1991 and July 16, 1992, ASE removed two 8,000-gallon underground, non-halogenated solvent storage tanks and one 1,000-gallon underground bunker oil storage tank. Underground tank removal activities were documented by ASE in the reports referenced in the previous sections. Detectable concentrations of total petroleum hydrocarbons as diesel (TPH-D), oil and grease, and several volatile organic compounds were found in the sidewalls of both excavations upon backfilling activities. It was determined that groundwater monitoring wells would be necessary to investigate the possibility of groundwater contamination from the leaking tanks. In October of 1992, three groundwater monitoring wells were installed, developed and sampled. The results of this investigation can be found in the October 1992 ASE report.

2.3 General Geology/Hydrogeology

The site rests on unconsolidated sediments primarily composed of clay. The eastern shoreline of the San Francisco Bay is located approximately 1/16 mile west of the site. Shallow groundwater in the area is located approximately 10-12 feet below grade at the site, and flows in a westerly direction towards the San Francisco Bay.

3.0 DRILLING AND GROUNDWATER WELL CONSTRUCTION

Monitoring wells MW-1, MW-2 and MW-3 were installed at the site on October 1, 1992 (Figure 2, Site Plan). The soil borings for well installation were drilled to 25 feet below ground surface using a CME-75 drill rig equipped with 8-inch diameter continuous flight, hollow-stem augers. All drilling equipment was steam-cleaned prior to use and between each boring. Groundwater was first encountered at approximately 15-17 feet below ground surface in each boring.

Two-inch diameter, 0.020-inch slotted, schedule 40 PVC well screen was installed from the bottom of each boring to 5 feet below the ground surface. Two-inch diameter schedule-40 PVC blank casing was installed above the slotted casing to the gound surface. The well casings were capped on the bottom with 2-inch diameter threaded female plugs and on top with 2-inch diameter locking security plugs. The annular space of each well was packed with No. 3 Monterey sand from the bottom of the boring to 4.5 feet below the surface. A 2-feet thick hydrated bentonite layer was placed above the sand pack. Class "H" Portland Cement was placed above the bentonite seal to the gound surface. The well heads were secured with concrete vaulted, water-tight, locking, steel, street boxes.

Presented below are the methods and findings of the fourth quarter of groundwater monitoring. Also included in this section are results of the previous quarter's sampling.

4.0 GROUND WATER SAMPLE COLLECTION AND CHEMICAL ANALYSIS

On July 14, 1993, ASE personnel arrived on-site. After measuring and recording the depths to groundwater in MW-1, MW-2, and MW-3, ASE purged five well casing volumes of groundwater from each well using an electric PVC pump. No free product or odor was noted from any well. After each well was purged, groundwater samples were collected from the well using polyethylene bailers. These bailers were washed with TSP soap and triple rinsed before use. A bailer blank was collected from each bailer just prior to use by pouring distilled water into each bailer and then decanting the water from the bailer into a 40-ml glass volatile organic analysis (VOA) vial. The bailer blanks were then transported to the laboratory with the groundwater samples and were held pending analytical results of the groundwater samples.

The groundwater samples were decanted from the bailer into VOA vials. All samples were labeled, placed in protective foam sleeves and placed on crushed ice for transport to Priority Environmental Labs in Milpitas, California (DHS No. 1707) under chain-of-custody. The analytical reports and chain-of-custody records are included in Appendix A. Well Sampling Field Logs are attached in Appendix B. Well purge water was placed in a 55-gallon steel DOT 17H drums and stored on-site pending analytical results.

The groundwater samples collected this quarter were analyzed for all or a combination of the following: TPH-G, TPH-D, benzene, toluene, ethylbenzene and xylenes (BTEX), oil & grease, volatile organic compounds (VOCs), pH, and electrical conductivity. The results are tabulated below in Tables One, Two and Three. These tables also contain results from previous quarters.

TABLE ONE

Summary of Chemical Analysis of WATER Samples
TPH as Gas, Diesel, BTEX, and Oil & Grease
EPA Methods 5030/8015, 3510/8015, 602, and 5520 C&F

Sample I.D.	TPH Gas (ppb)	TPH Diesel (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Oil & Grease (ppm)
10/5/92							
MW-1	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	---	---	---	---	---	---	---
MW-3	---	---	---	---	---	---	---
1/18/93							
MW-1	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	N.D.	---	N.D.	N.D.	N.D.	N.D.	---
MW-3	N.D.	---	N.D.	N.D.	N.D.	N.D.	---
4/16/93							
MW-1	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	N.D.	---	---	---	---	---	---
MW-3	N.D.	---	---	---	---	---	---
7/14/93							
MW-1	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	N.D.	---	---	---	---	---	---
MW-3	N.D.	---	---	---	---	---	---
EPA METHOD	5030/ 8015	3510/ 8015	602	602	602	602	5520 C&F

N.D. Non Detectable at analytical method limits
ppm parts per million
ppb parts per billion
--- not analyzed

TABLE TWO
Summary of Chemical Analysis of Water Samples
Volatile Organics
EPA Method 624

Sample I.D.	All Volatile Organics
10/5/92	
MW-1	---
MW-2	N.D.
MW-3	N.D.
1/18/93	
MW-1	---
MW-2	N.D.
MW-3	N.D.
4/16/93	
MW-1	---
MW-2	N.D.
MW-3	N.D.
7/14/93	
MW-1	---
MW-2	N.D.
MW-3	N.D.
EPA METHOD	624

N.D. Non Detectable at analytical method limits
--- not analyzed

TABLE THREE
Summary of Chemical Analysis of Water Samples
pH and Conductivity
EPA Methods 9045 and 120.1

Sample I.D.	pH	Conductivity
4/16/93		
MW-1	6.8	810
MW-2	7.2	720
MW-3	6.9	970
EPA METHOD	9045	120.1

5.0 GROUNDWATER GRADIENT AND DIRECTION

The top of casing elevation of each well was surveyed relative to a project datum at the time of the well installation. The depths to groundwater were measured in each well on July 14, 1993 using an electric Solinst water level sounder. The top of casing elevations and July 14, 1993 depth to groundwater measurements are presented below in table four.

TABLE FOUR
Summary of Groundwater Well Survey Data

Well Number	Depth to Water (ft)	Top of Casing Elevation (project datum)	Groundwater Elevation (project elevation)
MW-1	6.82	20.00	13.18
MW-2	6.20	19.21	13.01
MW-3	6.11	19.80	13.69

Groundwater elevation contours are plotted on Figure 3. Goundwater flows to the west-southwest beneath the site at a gradient of 0.009 ft/ft which is consistent with previous results.

6.0 CONCLUSIONS

No hydrocarbons or volatile organic compounds were detected in any groundwater sample.

7.0 RECOMMENDATIONS

Since no hydrocarbons or volatile organic compounds have ever been detected in groundwater samples from any site well, and since the wells have now been sampled for four subsequent quarters, ***please consider this report as a formal request for site closure.***

8.0 REPORT LIMITATIONS

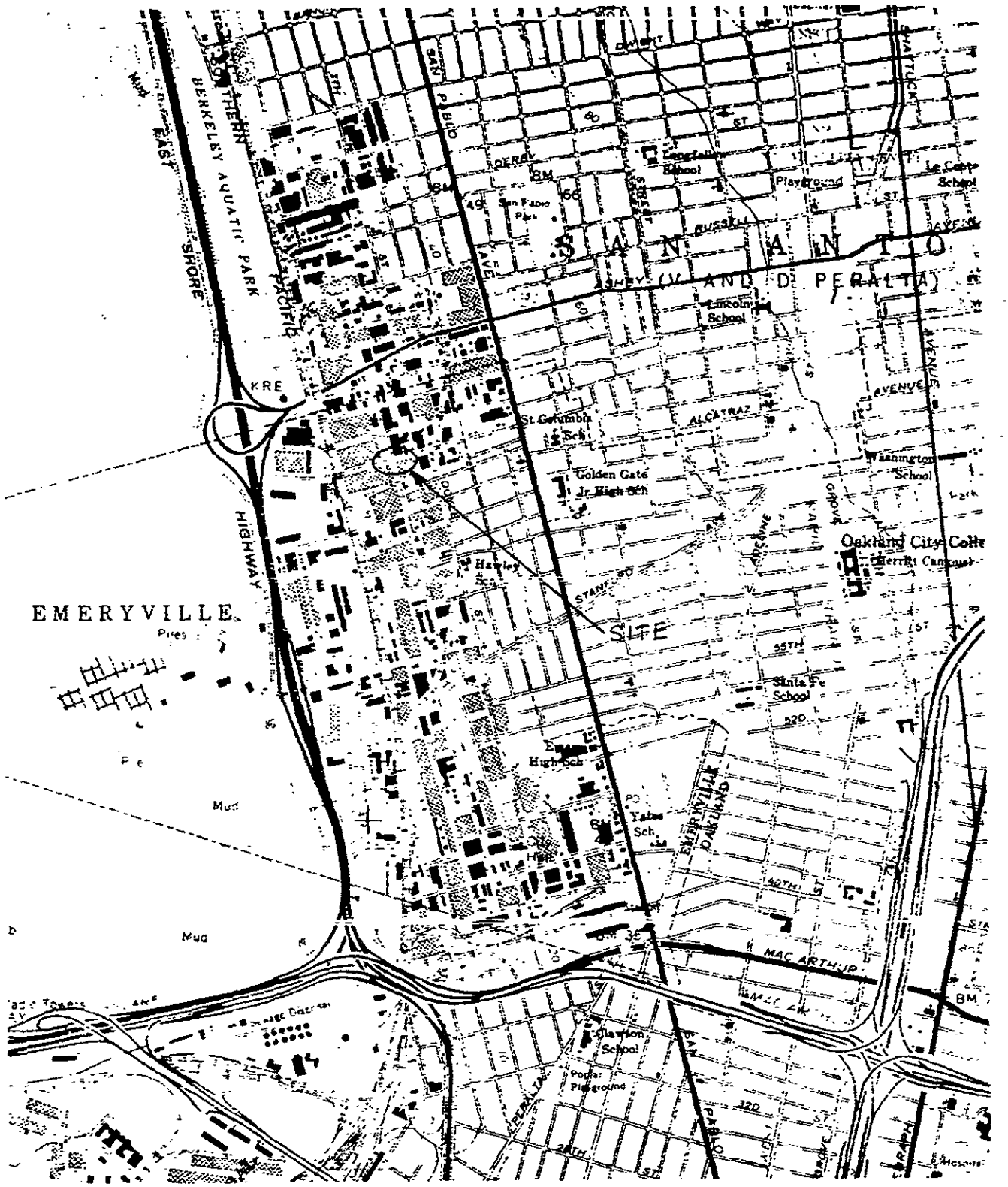
The results of this investigation represent conditions at the time at which groundwater samples were collected, and for the specific parameters analyzed for by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the former underground storage tanks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

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

Robert E. Kitay
Project Geologist

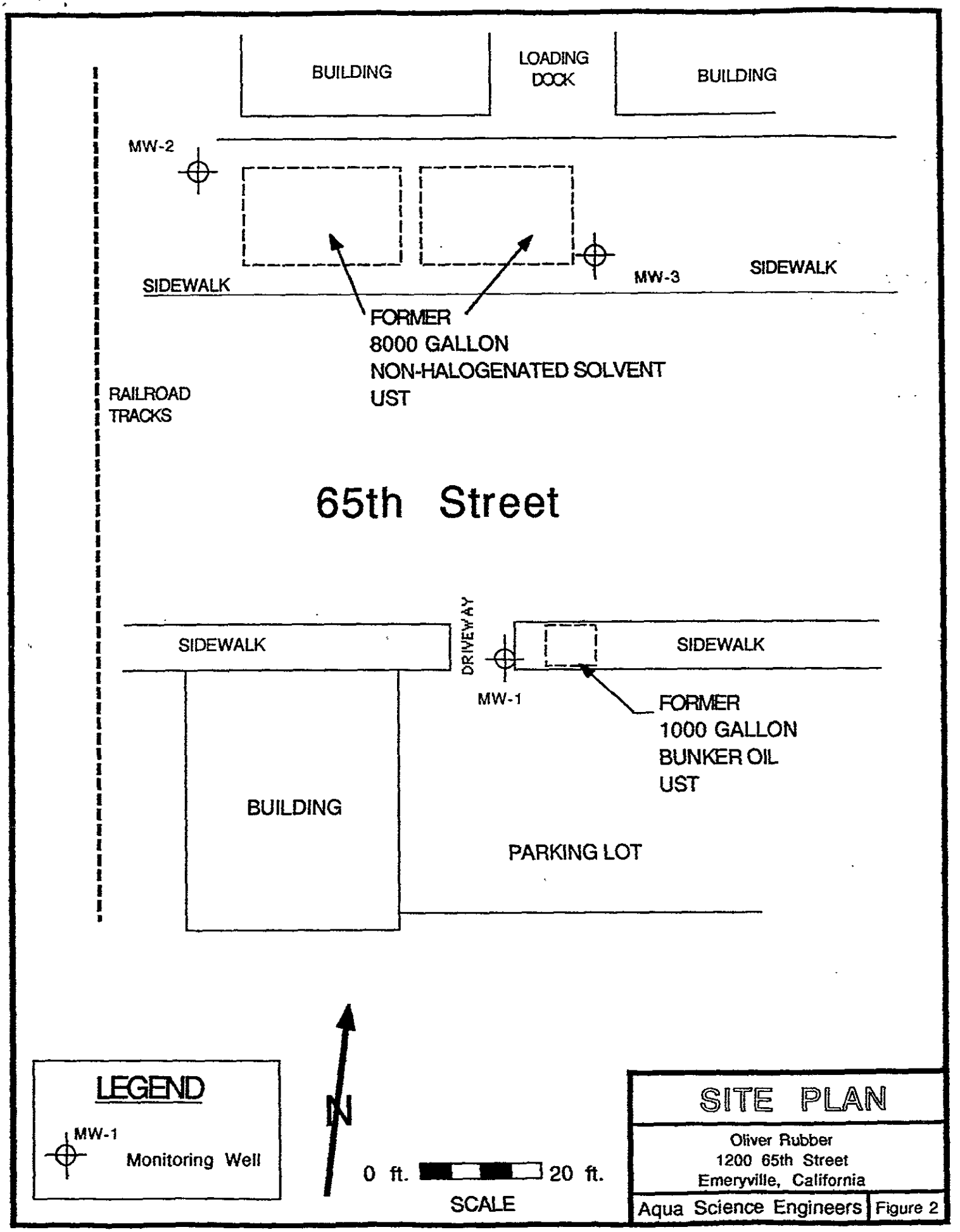
cc: Ms. Susan Hugo, ACHCSA
Mr. Rich Hiett, RWQCB, San Francisco Bay Region



SITE LOCATION MAP

Oliver Rubber
1200 65th Street
Emeryville, California

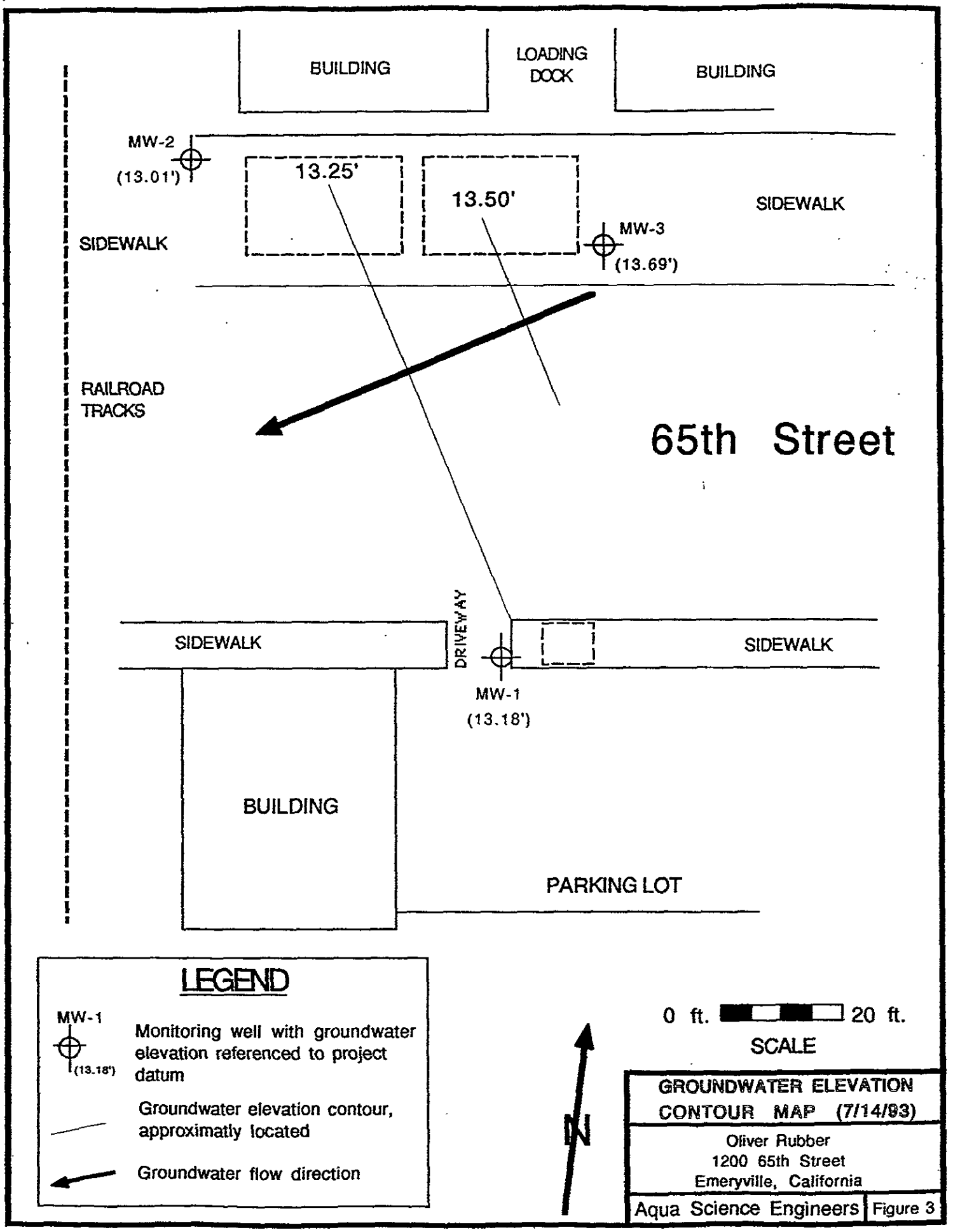
Aqua Science Engineers | Figure 1



SITE PLAN

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure 2


BUILDING
LOADING DOCK
BUILDING
MW-2
(13.01')
13.25'
13.50'
SIDEWALK
SIDEWALK
MW-3
(13.69')
RAILROAD TRACKS
65th Street
DRIVEWAY
SIDEWALK
SIDEWALK
MW-1
(13.18')
BUILDING
PARKING LOT
LEGEND
MW-1
(13.18')
Monitoring well with groundwater elevation referenced to project datum
Groundwater elevation contour, approximatly located
Groundwater flow direction
N
0 ft.
20 ft.
SCALE
GROUNDWATER ELEVATION CONTOUR MAP (7/14/93)
Oliver Rubber
1200 65th Street
Emeryville, California
Aqua Science Engineers
Figure 3

APPENDIX A

California EPA Certified Laboratory
Report of Groundwater Samples
and
Chain of Custody Record

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

July 17, 1993 PEL # 9307036

AQUA SCIENCE ENGINEERS, INC.

Attn: David Allen
Re: Three water samples for pH, Gasoline/BTEX, Diesel, Oil & Grease, and Conductivity analyses.

Project name: Oliver Rubber Company
Project location : 1200 65th street _ Emeryville , CA .
Project number: 2516

Date sampled: Jul 14, 1993 Date submitted: Jul 16, 1993
Date extracted: Jul 16-17, 1993 Date analyzed: Jul 16-17, 1993

RESULTS:

SAMPLE I.D.	pH	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Oil & Grease (mg/L)	Conductivity (uS)
MW-1	7.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	730
MW-2	7.8	N.D.	---	---	---	---	---	---	880
MW-3	7.7	N.D.	---	---	---	---	---	---	620
Blank	7.0	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0
Spiked Recovery	---	88.2%	94.1%	85.2%	87.6%	82.4%	93.0%	---	---
Duplicate Spiked Recovery	---	95.1%	93.6%	94.8%	96.7%	90.4%	102.5%	---	---
Detection limit	0.05	50	50	0.5	0.5	0.5	0.5	0.5	10
Method of Analysis	9045	5030 / 8015	3510 / 8015	602	602	602	602	5520 C & F	120.1

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9665

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

July 19, 1993 PEL # 9307036

AQUA SCIENCE ENGINEERS, INC. Attn: David Allen
Project name :Oliver Rubber Company Project number: 2516
Project location: 1200 65th St., - Emeryville, CA.
Sample I.D.: MW-3

Date Sampled: Jul 14, 1993 Date Submitted: Jul 16, 1993
Date Analyzed: Jul 19, 1993
Method of Analysis: EPA 624 Detection limit: 0.5 ug/L

COMPOUND NAME	CONCENTRATION (ug/L)	SPIKE RECOVERY (%)
Acetone	N.D.	-----
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	81.2
Bromomethane	N.D.	-----
Chloroethane	N.D.	-----
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	90.7
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	86.4
1,1-Dichloroethane	N.D.	83.5
Chloroform	N.D.	-----
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	91.7
Trichloroethene	N.D.	94.3
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	-----
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	85.5
Benzene	N.D.	94.1
Dibromochloromethane	N.D.	-----
Toluene	N.D.	87.8
Chlorobenzene	N.D.	93.9
Ethylbenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	104.6
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	90.9
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

July 19, 1993

PEL # 9307036

AQUA SCIENCE ENGINEERS, INC. Attn: David Allen
Project name :Oliver Rubber Company Project number: 2516
Project location: 1200 65th St., - Emeryville, CA.
Sample I.D.: MW-2

Date Sampled: Jul 14, 1993 Date Submitted: Jul 16, 1993
Date Analyzed: Jul 19, 1993
Method of Analysis: EPA 624 Detection limit: 0.5 ug/L

COMPOUND NAME	CONCENTRATION (ug/L)	SPIKE RECOVERY (%)
Acetone	N.D.	-----
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	81.2
Bromomethane	N.D.	-----
Chloroethane	N.D.	-----
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	90.7
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	86.4
1,1-Dichloroethane	N.D.	83.5
Chloroform	N.D.	-----
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	91.7
Trichloroethene	N.D.	94.3
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	-----
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	85.5
Benzene	N.D.	94.1
Dibromochloromethane	N.D.	-----
Toluene	N.D.	87.8
Chlorobenzene	N.D.	93.9
Ethylbenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	104.6
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	90.9
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

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

Chain of Custody

PEL # 9307036

INV # 23793

DATE 7-14-93 PAGE 1 OF 1

SAMPLERS (SIGNATURE) Robert C. Kitay (PHONE NO.) (510) 820-9391

PROJECT NAME Oliver Rubber Company NO. 2516

ADDRESS 1200 65th Street, Emeryville, CA

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	pH	Conductivity	HOLD		
MW 1	7/1	13:30	Water	3		X	X					X										
MW 2	7/1	12:25	Water	4	X					X								X	X			
MW 3	7/1	13:00	Water	4	X					X								X	X			
BB-1	7/14	13:30	Water	1														X	X			
BB 2	7/14	12:20	Water	1																X		
BB 3	7/1	13:40	Water	1																X		
																				X		

RELINQUISHED BY	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)	
G.W. Sasse 7/16/93			DAVID DUONG 07/16/93	
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	
Company- ASE	Company-	Company-	Company- IEL	

APPENDIX B

Well Sampling Field Logs

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc, San Ramon, CA 94583

Project Name: OLIVER Rubber
Project Address: 1200 65th Street, Emeryville
Job # 2571 Date of sampling: 7-14-93
Completed by: RCK
Well Number / Designation: MW-1
Top of casing elevation: 17.80'
Total depth of well casing: 24.64' Well diameter: 2"
Depth to water (before sampling): 6.82'
Thickness of floating product if any: None
Depth of well casing in water: 17.82'
Req'd volume of groundwater to be purged before sampling: 15 gallons
Approximate volume of groundwater purged: 15 gallons
Type of seal at grade: cement
Type of cap on the casing: locking
Is the seal water tight? Y-S Is the cap water tight? Y-S
Number of samples (containers) collected 3
Did 40 ml VOA vials have headspace: NO
Were sample containers chilled after sampling & for delivery ? Y-S
Are Chain of Custody documents accompanying the samples: Y-S
Sample temperature: 17°C
Sample pH: _____ Test method: 9040
Conductivity: _____ Test method: 120.1
Physical description of water during initial bailing period:
Slightly silty
Physical description of water sample: clear

Type of analysis requested: TPH-G
Volatile Organics
pH
Conductivity

Type of bailer/sampling equipment used: polyethylene

Equipment decontamination procedures: TSP wash and triple rinse. Bailer blank BG 3 collected before use.

Disposition of bailed water volume:
Drummed on-site

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc. San Ramon, CA 94583

Project Name: OLIVER Rubber
Project Address: 1200 65th Street, Emeryville, CA
Job # 2571 Date of sampling: 7.14.93
Completed by: REII
Well Number / Designation: MW-2
Top of casing elevation: 19.2'
Total depth of well casing: 24.48' Well diameter: 2"
Depth to water (before sampling): 6.20
Thickness of floating product if any: None
Depth of well casing in water: ~~[illegible]~~ REII 18.28'
Req'd volume of groundwater to be purged before sampling: 15 gallons
Approximate volume of groundwater purged: 16 gallons
Type of seal at grade: cement
Type of cap on the casing: locking
Is the seal water tight? Yes Is the cap water tight? Yes
Number of samples (containers) collected 4
Did 40 ml VOA vials have headspace: No
Were sample containers chilled after sampling & for delivery ? Yes
Are Chain of Custody documents accompanying the samples: Yes
Sample temperature: 19°C
Sample pH: _____ Test method: 9040
Conductivity: _____ Test method: 120.1
Physical description of water during initial bailing period:
Slightly silty
Physical description of water sample: clear

Type of analysis requested:
TPH-G
Volatile Organics
pH
Conductivity

Type of bailer/sampling equipment used: polyethylene

Equipment decontamination procedures: TSP wash and triple tap water rinse Bailer blank EB-2 collected before use

Disposition of bailed water volume:
Drummed on site

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc, San Ramon, CA 94583

Project Name: OLIVER RUBBER
Project Address: 1200 65th Street, Emeryville, CA
Job # 2571 Date of sampling: 7-14-93
Completed by: REL
Well Number / Designation: MW-3
Top of casing elevation: 20.0'
Total depth of well casing: ~~24~~ 24.02' Well diameter: 2"
Depth to water (before sampling): 6.11'
Thickness of floating product if any: none
Depth of well casing in water: 17.91
Req'd volume of groundwater to be purged before sampling: 15 gallons
Approximate volume of groundwater purged: 15 gallons
Type of seal at grade: cement
Type of cap on the casing: locking
Is the seal water tight? Yes Is the cap water tight? Yes
Number of samples (containers) collected 4
Did 40 ml VOA vials have headspace: No
Were sample containers chilled after sampling & for delivery ? Yes
Are Chain of Custody documents accompanying the samples: Yes
Sample temperature: 19°C
Sample pH: Test method: 9040
Conductivity: Test method: 120.1
Physical description of water during initial bailing period:
slightly silty
Physical description of water sample: clear

Type of analysis requested:
TPH-D
BTEX
O.I. & Grease
pH
Conductivity

Type of bailer/sampling equipment used: polyethylene

Equipment decontamination procedures: TSP wash and triple tap water rinse Bailer blank B2 3 collected before sampling

Disposition of bailed water volume:
Drummed on site

APPENDIX H

Area Well Survey

.5 mile radius from 65th & Hollis
03/01/1994

.5 mile radius from 65th & Hollis (Page 1)

WELL #	CITY	ADDRESS	OWNER	PHONE	USE	DR.DATE	DIAM	TOT.DEPTH	DTW	ST.ELEV	WA.ELEV	YIELD	LOG	WQ	WL	DATAORGN	MARGIN
1S/4W 10L10	BER	2850 7th Street	Edwards-Temescal	0	TES	10/91	2	26	20	0	0	0	D	0	0		D
1S/4W 10L11	BER	2850 7th Street	Edwards-Temescal	0	TES	10/91	2	26	13	0	0	0	D	0	0		D
1S/4W 10L12	BER	2850 7th Street	Edwards-Temescal	0	TES	10/91	2	26	14	0	0	0	D	0	0		D
1S/4W 10L13	BER	2850 7th Street	Edwards-Temescal	0	TES	10/91	2	26	14	0	0	0	D	0	0		D
1S/4W 10L14	BER	2850 7th Street	Edwards-Temescal	0	TES	10/91	2	26	15	0	0	0	D	0	0		D
1S/4W 10L15	BER	2850 7th Street	Edwards-Temescal	0	TES	10/91	2	26	20	0	0	0	D	0	0		D
1S/4W 10L16	BER	2850 7th Street	Edwards-Temescal	0	TES	10/91	2	26	13	0	0	0	D	0	0		D
1S/4W 10L17	BER	2850 7th Street	Edwards-Temescal	0	TES	10/91	2	26	13	0	0	0	D	0	0		D
1S/4W 10L18	BER	2850 7th Street	Edwards-Temescal	0	TES	10/91	2	26	14	0	0	0	D	0	0		D
1S/4W 10L19	BER	2850 7th Street	Edwards-Temescal	0	TES	10/91	2	26	13	0	0	0	D	0	0		D
1S/4W 10N 2	BER	700 HEINZ STREET	WAREHAM DEVELOPMENT	0	TES	11/88	2	20	8	0	0	0	D	0	0		L
1S/4W 10N 3	BER	800 HEINZ ST	WAREHAM DEVELOPMENT	0	TES	11/88	2	21	0	0	0	0	D	0	0		L
1S/4W 10P 1	BER	7th & Ashby	Rinehart Oil Inc. W-1	0	MON	5/89	2	27	12	0	0	0	D	0	0		D
1S/4W 10Q 1	BER	900 MURRAY AVE	UNIV. OF CAL BERKELEY	0	MON	08/30	2	21	9	0	0	0	D	0	0		L
1S/4W 10Q 2	BER	900 MURRAY AVE	UNIV. OF CAL BERKELEY	0	MON	08/88	2	20	9	0	0	0	D	0	0		L
1S/4W 10Q 3	BER	2995 SAN PABLO AVE	CHEVRON STATION #90194	0	MON	11/88	4	30	11	0	0	0	G	0	0		L
1S/4W 10Q 4	BER	2995 SAN PABLO AVE	CHEVRON STATION #90194	0	MON	1/88	4	31	11	0	0	0	G	0	0		L
1S/4W 10Q 5	BER	2995 SAN PABLO AVE	CHEVRON STATION #90194	0	MON	11/88	4	32	12	0	0	0	G	0	0		L
1S/4W 10Q 6	BER	2995 SAN PABLO AVE	CHEVRON STATION #90194	0	MON	11/88	4	36	10	0	0	0	G	0	0		L
1S/4W 10Q 7	BER	2995 SAN PABLO AVE	CHEVRON STATION #90194	0	MON	11/88	4	30	6	0	0	0	G	0	0		L
1S/4W 10Q 8	BER	2995 SAN PABLO AVE	CHEVRON STATION #90194	0	MON	11/88	4	21	5	0	0	0	G	0	0		L
1S/4W 15A 1	OAK	6549 San Pablo Ave.	Myers Container Corp.	0	MON	8/88	2	70	63	0	0	0	D	0	0		D
1S/4W 15A 2	OAK	6549 San Pablo Ave.	Myers Container Corp.	0	TES	10/90	2	19	14	0	0	0	D	0	0		D
1S/4W 15A 3	OAK	6549 San Pablo Ave.	Myers Container Corp.	0	TES	10/90	2	14	11	0	0	0	D	0	0		D
1S/4W 15A 4	OAK	6549 San Pablo Ave.	Myers Container Corp.	0	TES	10/90	2	15	14	0	0	0	D	0	0		D
1S/4W 15A 5	OAK	6549 San Pablo Ave.	Myers Container Corp.	0	TES	10/90	2	15	10	0	0	0	D	0	0		D
1S/4W 15A 6	OAK	6549 San Pablo	Myers Container Corp	0	MON	1/92	2	15	26	36	10	0	G	0	0		D
1S/4W 15A 7	OAK	6549 San Pablo	Myers Container Corp W-6	0	MON	10/91	2	15	10	34	24	1091	G	0	0		D
1S/4W 15A 8	OAK	6549 San Pablo Ave	Myers Container Corp W-9	0	MON	10/91	1	17	17	40	23	0	G	0	0		D
1S/4W 15A 9	OAK	6549 San Pablo Ave	Myers Container Corp W11	0	MON	10/91	1	16	15	41	26	0	G	0	0		D
1S/4W 15A10	OAK	6549 San Pablo Ave	Myers Container Corp W10	0	MON	1/92	2	15	10	36	26	0	G	0	0		D
1S/4W 15B	OAK	1200 65th St.	Oliver Rubber Co.	0	BOR	10/92	0	15	0	0	0	0	G	0	0		D
1S/4W 15B 1	OAK	1171 Ocean Avenue	Linde Gases, BAYOX	0	MON	12/89	2	29	9	0	0	0	G	1	1		D
1S/4W 15B 2	OAK	6549 San Pablo	Myers Container Corp	0	MON	10/91	0	0	0	0	0	0	G	0	0		D
1S/4W 15B 3	OAK	6549 San Pablo	Myers Container Corp	0	MON	10/91	0	0	0	0	0	0		0	0		D
1S/4W 15B 4	OAK	6549 San Pablo	Myers Container W-7	0	MON	10/91	2	14	11	35	24	0	G	0	0		D
1S/4W 15B 5	OAK	6549 San Pablo	Myers Container W-8	0	MON	10/91	2	14	10	35	25	0	G	0	0		D
1S/4W 15B 6	OAK	1200 65th St.	Oliver Rubber Co. MW1	0	MON	10/92	2	25	8	0	0	0	G	0	0		D
1S/4W 15B 7	OAK	1200 65th St.	Oliver Rubber Co. MW2	0	MON	10/92	2	25	8	0	0	0	G	0	0		D
1S/4W 15B 8	OAK	1200 65th St.	Oliver Rubber Co. MW3	0	MON	10/92	2	25	7	0	0	0	G	0	0		D
1S/4W 15C 1	EME	1301 65TH ST	CHARLES GENSLER	0	MON	06/88	2	23	11	0	0	0	D	0	0		L
1S/4W 15C 2	EME	6529 Hollis St	GROVE VALVE & REGULATOR	0	MON	2/92	4	25	13	21	8	0	G	0	0		D
1S/4W 15C 3	EME	6529 Hollis St	GROVE VALVE & REGULATOR	0	MON	2/92	4	25	23	16	-7	0	G	0	0		D
1S/4W 15C 4	EME	6529 Hollis St	GROVE VALVE & REGULATOR	0	MON	2/92	4	25	23	17	-6	0	G	0	0		D
1S/4W 15D 1	EME	6707 Bay Street	MRCP Realty Properties	0	TES	1/90	4	22	13	0	0	0	D	0	0		D
1S/4W 15D 2	EME	6707 Bay Street	MRCP Realty Properties	0	TES	1/90	4	22	15	0	0	0	D	0	0		D
1S/4W 15E 1	EME	1650 65th St.	BENEFIT CAPITAL CO(OAK)	0	DES	7/87	2	30	12	0	0	0	D	0	0		L
1S/4W 15E 2	EME	1600 64th Street	Emeryville Rdvlpmnt Agncy	0	MON	12/89	2	20	7	0	0	0	D	0	0		D
1S/4W 15E 3	EME	1600 64th Street	Emeryville Rdvlpmnt Agncy	0	MON	12/89	2	16	6	0	0	0	D	0	0		D
1S/4W 15E 4	EME	1600 64th Street	Emeryville Rdvlpmnt Agncy	0	MON	12/89	2	17	6	0	0	0	D	0	0		D
1S/4W 15E 5	EME	1650 65th Street	P.O. Partners	0	MON	9/89	2	29	12	0	0	0	D	0	0		D
1S/4W 15E 6	EME	1650 65th Street	P.O. Partners	0	MON	11/89	4	18	9	0	0	0	D	0	0		D
1S/4W 15E 7	EME	1650 65th Street	P.O. Partners	0	MON	11/89	4	16	9	0	0	0	D	0	0		D
1S/4W 15E 8	EME	1650 65th Street	P.O. Partners	0	MON	11/89	4	18	8	0	0	0	D	0	0		D
1S/4W 15E 9	EME	64th Street/Christie Av.	The Martin Company	0	MON	03/87	2	14	6	0	0	0	D	0	0		D
1S/4W 15E10	EME	64th St/Christie Avenue	The Martin Company	0	MON	04/87	2	13	3	0	0	0	D	0	0		D
1S/4W 15E11	EME	1650 65th Street	P.O. Partners	0	IRR	9/90	6	470	0	0	0	25	D	0	0		D
1S/4W 15E12	EME	6475 Christie Avenue	P.O. Partners	0	MON	3/90	4	22	9	0	0	0	D	0	0		D
1S/4W 15E13	EME	6475 Christie Avenue	P.O. Partners	0	MON	3/90	4	19	8	0	0	0	D	0	0		D
1S/4W 15E14	EME	64th St. & Christie Ave.	Christie Avenue Partners	0	MON	4/90	2	10	2	0	0	0	D	0	0		D
1S/4W 15E15	EME	64th St. & Christie Ave.	Christie Avenue Partners	0	MON	4/90	2	15	5	0	0	0	D	0	0		D
1S/4W 15E16	EME	64th St & Christie Ave	Christie Avenue Partners	0	MON	4/90	2	16	8	0	0	0	D	0	0		D

.5 mile radius from 65th & Hollis (Page 2)

WELL #	CITY	ADDRESS	OWNER	PHONE	USE	DR.DATE	DIAM	TOT.DEPTH	DTW	ST.ELEV	WA.ELEV	YIELD	LOG	WQ	WL	DATAORGN	MARGIN
1S/4W 15E17	EME	64th St. & Christie Ave.	Christie Avenue Partners	0	MON	4/90	2	18	4	0	0	0	D	0	0	D	
1S/4W 15E18	EME	64th St & Christie Ave	Christie Avenue Partners	0	MON	6/90	2	14	5	0	0	0	D	0	0	D	
1S/4W 15E19	EME	64th St. & Christie Ave	Christie Avenue Partners	0	MON	8/90	2	34	28	181	153	0	G	0	0	D	
1S/4W 15F 1	EME	63rd ST & OVERLAND AVE	WAREHAM DEVELOPMENT	0	MON	11/87	2	25	4	0	0	0	D	0	0	L	
1S/4W 15F 2	EME	63rd ST & OVERLAND AVE.	WAREHAM DEVELOPMENT	0	MON	11/87	2	25	6	0	0	0	D	0	0	L	
1S/4W 15F 3	OAK	1351 Ocean Avenue	HFH Limited	0	DOM	6/88	5	140	80	0	0	15	D	0	0	D	
1S/4W 15F 3	OAK	1351 OCEAN AV.	HFH LTD.	0	MON	11/88	2	15	10	0	0	0	D	0	0	L	
1S/4W 15F 4	EME	64th Street/Christie Av.	The Martin Company	0	MON	03/87	2	12	7	0	0	0	D	0	0	D	
1S/4W 15F 5	EME	64th St/Christie Avenue	The Martin Company	0	MON	04/87	2	13	6	0	0	0	D	0	0	D	
1S/4W 15F 6	EME	64th St/Christie Avenue	The Martin Company	0	MON	04/87	2	12	5	0	0	0	D	0	0	D	
1S/4W 15F 7	EME	64th St/Christie Avenue	The Martin Company	0	MON	04/87	2	14	6	0	0	0	D	0	0	D	
1S/4W 15F 8	EME	64th St/Christie Avenue	The Martin Company	0	MON	04/87	2	13	6	0	0	0	D	0	0	D	
1S/4W 15G 1	OAK	62 & VALLEJO	PG&E	0	CAT	8/76	0	120	0	0	0	0	D	0	0	L	
1S/4W 15K 1	EME	HOLLIS ST. & 59TH	BONTA COLLINS	0			0	0	0	0	0	0				A	
1S/4W 15L	EME	Landergan St. & Powell St	Emeryville Amtrak	0	BOR	12/92	0	79	0	9	9	0	G	0	0	D	
1S/4W 15L 2	EME	64th St/Christie Avenue	The Martin Company	0	MON	04/87	2	13	5	0	0	0	D	0	0	D	
1S/4W 15L 3	EME	6121 Hollis St	U.S. Postal Service	0	TES	1/92	2	19	8	0	0	0	D	0	0	D	
2S/3W 34M 1	EME	HOLLIS ST. & 59TH	BONTA COLLINS	0			0	0	0	0	0	0				A	

WELL INVENTORY FILE

Definitions and abbreviations for items listed in the well inventory file are as follows:

[**WELLNO**] Well number - Wells are numbered according to their location in the rectangular system of the Public Land Survey. The part of the number preceding the slash indicates the township; the part following the slash indicates the range and section number; the letter following the section number indicates the 40-acre subdivision; and the final digit is a serial number for wells in each 40-acre subdivision.

[**DAT**] Date - The month and year when drilling or boring was completed.

[**ELEV**] Surface elevation - The surface elevation of the well, if known, in feet above mean sea level. A zero designates an unknown elevation.

[**TD**] Total depth - The depth of the well. This usually designates the completed well depth. If the well has a well log available on file, then the total drilled depth of the well is given. The inventory does not show total depth data for geotechnical borings. This is because only one state well number is assigned to one boring at a site, and there are usually several borings of different depth.

[**DTW**] Depth to water - This category usually indicates the standing groundwater level in the well on the date of completion. The "depth to first water encountered" is recorded in the inventory when it is the only water level data reported on the well driller's report.

[**USE**] Use - The well use (or in the case of cathodic protection wells and geotechnical borings, the reason for the excavation) as indicated in the well driller's report or data sheets. A plus sign (+) after the well use indicates a well in the current ACFC & WCD monitoring network.

[**ABN**] Abandoned well - A well whose use has been permanently discontinued or which is in such a state of disrepair that no water can be produced. In the inventory, this may include wells which are covered or capped but not properly destroyed.

[**DES**] Destroyed well - A well that has been properly filled so that it cannot produce water nor act as a vertical conduit for the movement of groundwater.

[**DOM**] Domestic well - A water well which is used to supply water for the domestic needs of an individual residence or systems of four or less service connections or "hookups".

[INA] Inactive well - A well not routinely operating but capable of being made operable with a minimum of effort. Also called a "standby well".

[IND] Industrial well - A water well used to supply industry on an individual basis.

[IRR] Irrigation well - A water well used to supply water only for irrigation or other agricultural purposes. In the inventory, this category includes large capacity wells as well as small capacity wells for lawn irrigation.

[MON] Monitoring or observation well - Wells constructed for the purpose of observing or monitoring groundwater conditions. (see piezometer).

[MUN] Municipal well - A water well used to supply water for domestic purposes in systems subject to Chapter 7, Part 1,
Division 5 of the California Health and Safety Code. Included are wells supplying public water systems classified by the Department of Health Services. (Also referred to as community water supply wells).

[PIE] Piezometer - A piezometer is a well specifically designated to measure the hydraulic head within a zone small enough to be considered a point as contrasted with a well that reflects the average head of the aquifer for the screened interval.

[STO] Stock - A water well used primarily for livestock.

[TES] Test well and test hole - A test well is constructed for the purpose of obtaining the information needed to design a well prior to its construction. Such wells are not to be confused with "test holes" which are temporary in nature (i.e., uncased excavations whose purpose is the immediate determination of existing geologic and hydrologic conditions). Test wells are cased and can be converted to observation or monitoring wells, and under certain circumstances, to production wells. In the inventory, "TES" includes both test wells and test holes.

[?] Unidentified use - This indicates water wells whose use could not be ascertained from the available well data.

[CAT] Cathodic protection well - Any artificial excavation constructed by any method for the purpose of installing equipment or facilities for the protection from

corrosion by electrochemical methods of metallic equipment (usually piping) in contact with the ground; commonly referred to as cathodic protection.

[GEO] Geotechnical boring - A temporary boring made to determine certain engineering properties of soils. An asterisk (*) indicates that the state well number assigned to the boring represents more than one boring at a particular site.

[LOG] Log - This category indicates whether a geologic record, or log, for the well or boring is available in the Agency's files. Abbreviations are as follows:

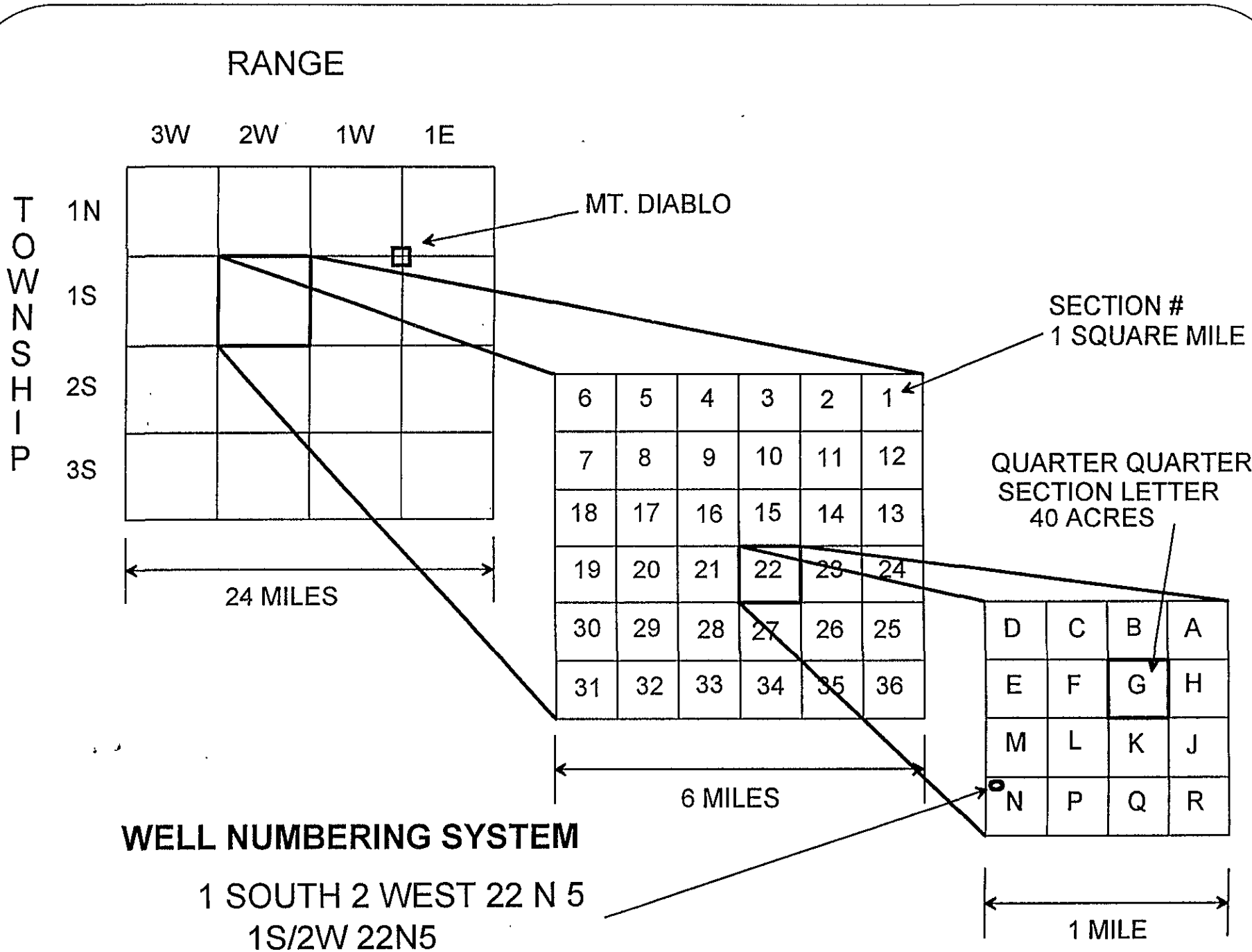
D - well driller's log
G - geotechnical boring log
E - electric (resistivity) log or other subsurface geophysical logs.

[WQ] Water quality data available - This category indicates which wells have water quality data available in ACFC & WCD files. The numbers 1 through 9 signify the number of sets of water quality measurements available for that well. A plus sign (+) indicates that 10 or more sets of data are available. A "0" indicates that no data is available.

[WL] Water level data available - This category indicates which wells have water level data other than the data reported on the well driller's logs. The numbers 1 through 9 signify the number of water level measurements available. A plus sign (+) indicates that 10 or more measurements are available for that well.
A "0" indicates that no data is available.

[YLD] Yield - The maximum pumping rate in gallons per minute that can be supplied by a well without lowering the water level in the well below the pump intake. This data is taken from pump test data recorded in the driller's records. Some of the yield data reflects current production rates and does not reflect maximum yield values determined in a capacity test.

[DIA] Diameter - The diameter in inches of the main casing in a well. May also indicate the diameter of a hand-dug well. Diameter data is not recorded for geotechnical borings.


RANGE
3W
2W
1W
1E
TOWNSHIP
1N
1S
2S
3S
MT. DIABLO
SECTION #
1 SQUARE MILE
6 5 4 3 2 1
7 8 9 10 11 12
18 17 16 15 14 13
19 20 21 22 23 24
30 29 28 27 26 25
31 32 33 34 35 36
QUARTER QUARTER
SECTION LETTER
40 ACRES
D C B A
E F G H
M L K J
N P Q R
24 MILES
6 MILES
1 MILE
WELL NUMBERING SYSTEM
1 SOUTH 2 WEST 22 N 5
1S/2W 22N5