ENVIRONMENTAL SITE INVESTIGATION REPORT GENERAL TIRE OAKLAND FACILITY GENERAL TIRE, INC. 1201 14<sup>TH</sup> AVENUE OAKLAND, CALIFORNIA

October 26, 1994

## Report Prepared For:

General Tire, Inc. One General Street Akron, Ohio 44329-0001

Environmental Site Investigation Report General Tire Oakland Facility General Tire, Inc. 1201 14<sup>th</sup> Avenue Oakland, California

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## TABLE OF CONTENTS ENVIRONMENTAL SITE INVESTIGATION REPORT GENERAL TIRE OAKLAND FACILITY GENERAL TIRE, INC. 1201 14<sup>TH</sup> AVENUE OAKLAND, CALIFORNIA

	Page
TABLE OF CONTENTS	i
EXECUTIVE SUMMARY	. 1
1.0 INTRODUCTION	
1.1 SITE DESCRIPTION	
1.2 BACKGROUND	
1.3 SCOPE OF WORK, OBJECTIVES, AND REPORT ORGANIZATION	
1.3.1 Scope of Work	
1.3.2 Objectives of the Site Investigation	
1.3.3 Report Organization	. 7
2.0 ENVIRONMENTAL SETTING	
2.1 GEOGRAPHY	
2.2 CLIMATE	
2.3 REGIONAL GEOLOGY	
2.4 REGIONAL HYDROGEOLOGY	
2.5 SURFACE WATER	. 10
3.0 FIELD INVESTIGATION PROCEDURES	. 11
3.1 REQUIREMENTS PRIOR TO DRILLING	. 11
3.2 SOIL SAMPLING AND MONITORING WELL INSTALLATION,	
SAMPLING, AND ANALYSIS	
3.2.1 Soil Sampling and Analysis	. 11
3.2.2 Groundwater Monitoring Wells Construction, Development,	
Sampling and Analysis	
3.2.2.2 Sample Collection Procedures and Analysis	
3.3 QUALITY CONTROL SAMPLES	. 19
3.4 DECONTAMINATION AND POST-SAMPLING PROCEDURES	
3.5 SAMPLE DOCUMENTATION	
3.6 SAMPLE SHIPMENT	
3.7 MONITORING WELLS SURVEY	. 20
4.0 DATA ANALYSIS	. 21
4.1 SOIL SAMPLE RESULTS	

# TABLE OF CONTENTS<sup>Continued</sup> ENVIRONMENTAL SITE INVESTIGATION REPORT GENERAL TIRE OAKLAND FACILITY GENERAL TIRE, INC. 1201 14<sup>TH</sup> AVENUE OAKLAND, CALIFORNIA

5.1 CC	USIONS AND RECOMMENDATIONS 32 ONCLUSIONS 32 COMMENDATIONS 34
6.0 REFER	ENCES 35
LIST OF FIG	GURES
Figure 1-1	Regional Site Location Map
Figure 1-2	Facility and Area Map 4
Figure 3-1	Locations of Groundwater Monitoring Wells
Figure 3-2	Locations of Boreholes
Figure 4-1	September 1993 Soil Sampling Results
Figure 4-2	June 1994 Soil Sampling Results
Figure 4-3	October 1993 Groundwater Sampling Results 27
Figure 4-4	June 1994 Groundwater Sampling Results
Figure 4-5	October 1993 Groundwater Elevations and Gradient on
•	October 5, 1993
Figure 4-6	June 1994 Groundwater Elevations and Gradient on
	June 17, 1994
LIST OF TA	<u>BLES</u>
Table 1-1	March 1992 Groundwater Analytical Results for MW-1, Detected
	Chemicals
Table 1-2	March 1992 Oil Analytical Results for Hydraulic Reservoirs 6
Table 3-1	1993 and 1994 Soil Sample Laboratory Analyses 14
Table 3-2	Well Construction Details
Table 3-3	1993 and 1994 Groundwater Levels and Free Product
	Measurements
Table 3-4	Comparison of Analytical Results of Field Duplicate Samples 19
Table 3-5	Monitoring Well Survey Data
Table 4-1	1993 and 1994 Soil Results, Detected Chemicals 21
Table 4-2	1993 and 1994 Groundwater Results, Detected Chemicals 31

## TABLE OF CONTENTS<sup>continued</sup> ENVIRONMENTAL SITE INVESTIGATION REPORT GENERAL TIRE OAKLAND FACILITY GENERAL TIRE, INC. 1201 14<sup>TH</sup> AVENUE OAKLAND, CALIFORNIA

## **LIST OF APPENDICES**

- Appendix A Drilling Permits, Water Well Driller's Reports, and Borehole Logs, General Tire Oakland Facility
- Appendix B Non-Hazardous Waste Transport Forms
- Appendix C Laboratory Analytical Reports and Chain-of-Custody Forms, General Tire Oakland Facility
- Appendix D Elevation Survey Results, Kier & Wright Civil Engineers & Surveyors, Inc., November 22, 1993, General Tire Oakland Facility
- Appendix E Summary Tables of 1993 and 1994 Groundwater and Soil Samples Analytical Results, General Tire Oakland Facility

## **EXECUTIVE SUMMARY**

## ENVIRONMENTAL SITE INVESTIGATION REPORT GENERAL TIRE OAKLAND FACILITY

During a Phase I and II Environmental Site Assessment of General Tire's Oakland facility, groundwater contamination was identified. To address the groundwater contamination at the subject site, General Tire, Inc., retained Jonas & Associates Inc., (J&A) to conduct an environmental site investigation.

The objectives of the site investigation were to: 1) determine the extent of soil contamination beneath the site; 2) identify the groundwater gradient; 3) determine the quality of groundwater entering the General Tire Oakland facility; and 4) identify any other PRPs.

To meet the objectives, eight boreholes were drilled. Two of the boreholes were converted to groundwater monitoring wells. Twenty-four (24) soil samples were collected for laboratory analysis. Two rounds of groundwater samples were collected from the two new and one existing monitoring wells. The samples were analyzed for various suspected chemicals. Well elevations were surveyed to Mean Sea Level and their locations tied to City of Oakland monuments. The groundwater gradient has been determined to be towards south/southeasterly direction.

The chemicals of concern are halogenated organic compounds (VOCs). VOCs have been detected in both groundwater and soil samples collected from the upgradient well MW-2. VOCs have been detected in the downgradient monitoring well MW-1. However, detected chemicals in the upgradient well are higher in concentrations than the downgradient well.

According to General Tire, Inc., the detected VOCs were not used at the subject facility. There are no known underground storage tanks at the facility.

Based on the information assembled at the General Tire Oakland facility during this investigation, it appears that the existing contamination probably originated off site and proceeded to migrate beneath the subject site. Of the seven halogenated organic compounds detected, five may be due to the degradation of a parent compound, PCE, which is typically used in dry cleaning operations.

Therefore, by submission of this report, General Tire, Inc., respectfully requests that Alameda County Health Care Services identify other Potential Responsible Parties (PRP); and relieve General Tire, Inc., of any further environmental investigations at this site. Sites undergoing environmental investigations located within a one-half mile radius of General Tire Oakland facility were identified and were presented in an Environmental Site Investigation Work Plan prepared by J&A on June 4, 1993, and was submitted to Alameda County Health Care Services.

## SITE INVESTIGATION REPORT GENERAL TIRE OAKLAND FACILITY 1201 14<sup>th</sup> Avenue, Oakland, California

## 1.0 INTRODUCTION

## 1.1 SITE DESCRIPTION

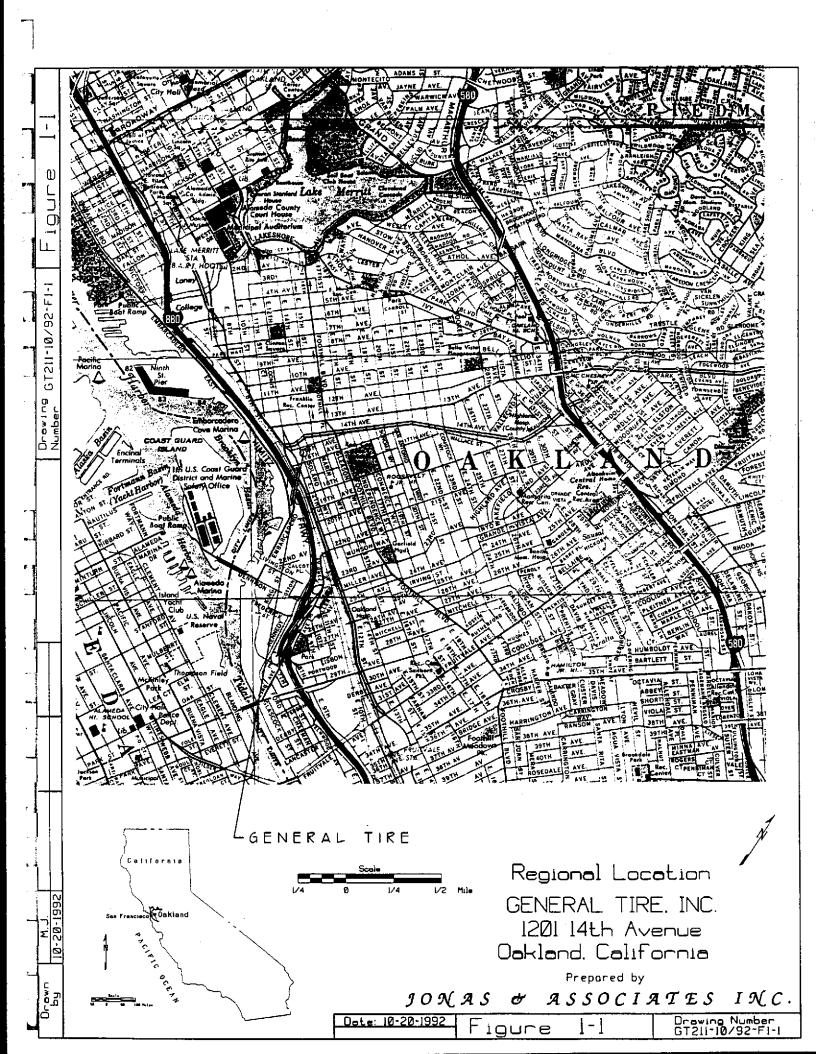
The General Tire Oakland facility is located at 1201 14<sup>th</sup> Avenue, in the City of Oakland, County of Alameda, California. On the property is a single story, irregularly shaped building of approximately 9,400 square feet. It was built in 1960 and is situated along the north edge of a triangular shaped lot with dimensions of approximately 126' by 248' by 279'. The facility is currently vacant and has been inactive since 1991. When active, the business was primarily tire repair and sales with some minor auto repair (EMG, 1990).

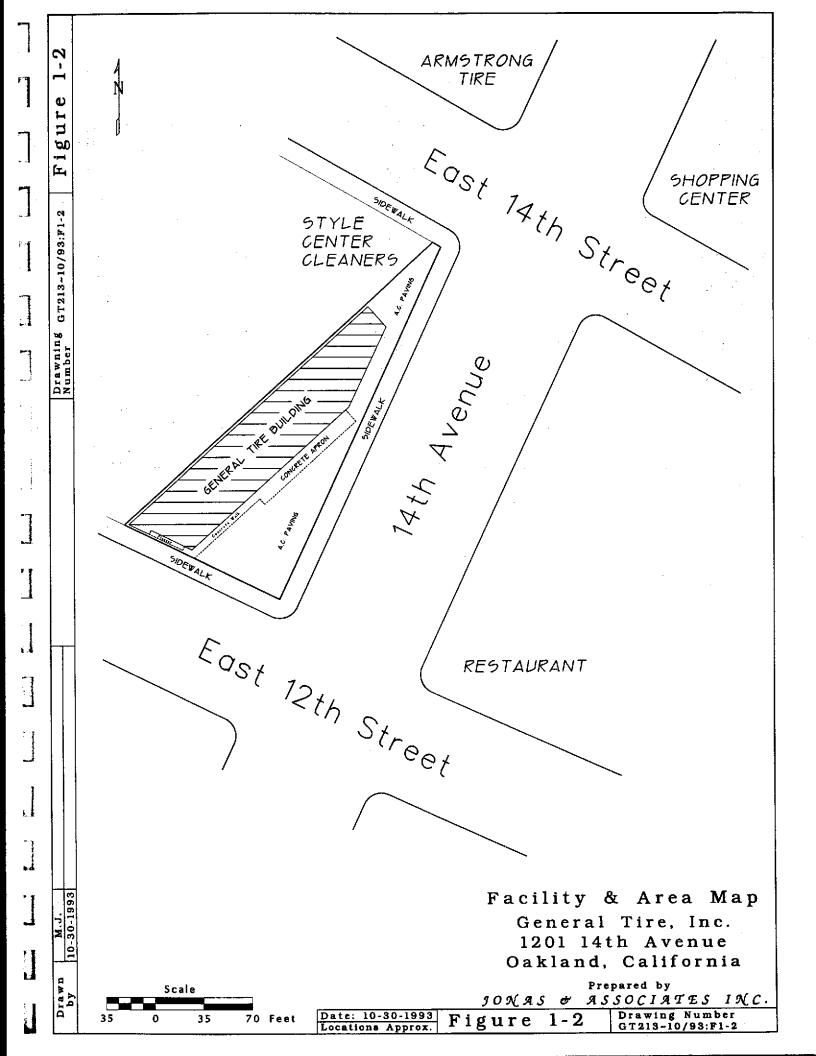
The facility is in a mixed commercial and residential area. A dry cleaner with onsite dry cleaning is adjacent to the facility to the north. Across 14<sup>th</sup> Avenue to the south is a restaurant located in what appears to have been a gas station. To the west are several sets of railroad tracks and the Nimitz Freeway; beyond the freeway is the Port of Oakland. To the east, on the corner of East 12<sup>th</sup> Street and 14<sup>th</sup> Avenue, is Armstrong Tire, which appears to operate a business similar to General Tire, Inc. Figure 1-1 is a regional site location map. Figure 1-2 is a facility map. In the remaining portion of the report, the General Tire Oakland facility will also be referred to as the subject site or facility.

## 1.2 BACKGROUND

A Phase I Environmental Site Assessment was performed by Environmental Mitigation Group (EMG) in 1990. EMG found that hydraulic fluid was used at the facility. Hydraulic fluid (which was stored below ground in concrete vaults) was used to operate two post lifts. During EMG's site visit, the two post lifts were observed by EMG's personnel to be inoperable. Liquid was also reported to have been present in the pits between the posts.

The facility was placed for sale in 1991. In March 1992, a prospective buyer retained H<sup>+</sup>GCL to perform a Phase II Investigation of the property. The purpose of the Phase II Investigation, as identified by H<sup>+</sup>GCL, was to determine if groundwater and hydraulic fluid on the site contained polychlorinated biphenyls (PCBs), chlorinated solvents, or petroleum hydrocarbons and to determine whether asbestos containing material was present on the site. H<sup>+</sup>GCL made the following recommendations:





- 1. Installation of a groundwater monitoring well on the property, and sampling and analysis of the groundwater for PCBs, chlorinated solvents, and petroleum hydrocarbons.
- 2. Sampling and analysis of the hydraulic fluid reservoirs on the property for PCBs.
- 3. Sampling of suspect asbestos-containing materials present on the site.

## 1992 Monitoring Well Installation and Groundwater Sampling and Analysis

In March 1992, the prospective buyer requested that H\*GCL install a monitoring well (MW-1) in front of the building to assess groundwater quality. The monitoring well was constructed of 2.0-inch-inner diameter, flush-jointed, Schedule 40 PVC risers attached to factory perforated 0.020-inch, slotted PVC well screen sections. A groundwater sample was obtained from the well and analyzed for the presence of pesticides and PCBs by EPA Method 3510/3520, volatile halogenated organic compounds by EPA Method 8010, and total petroleum hydrocarbons as diesel by modified EPA Method 8015. Table 1-1 presents the analytical results.

Table 1-1
March 1992 Groundwater Results for MW-1

Sample	Analysis	Constituent	Results (ppm) <sup>1</sup>
MW-1	TPH <sup>2</sup> VOCs <sup>3</sup>	diesel 1,1-dichloroethane cis-1,2-dichloroethene trans-1,2-dichloroethene 1,1,1-trichloroethane trichloroethylene	0.190 ppm 0.015 ppm 0.019 ppm 0.004 ppm 0.003 ppm 0.012 ppm

 $<sup>^{1}</sup>$  ppm = parts per million

## 1992 Sampling and Analysis of Hydraulic Fluid Reservoirs

Samples were also collected by H<sup>+</sup>GCL from two of the six hydraulic fluid reservoirs located in the building's garage area. These samples were analyzed for PCBs by EPA Method 3580/8080. Table 1-2 presents the oil analytical results for hydraulic reservoirs.

<sup>&</sup>lt;sup>2</sup> TPH = Total petroleum hydrocarbons (EPA Method 8015)

<sup>&</sup>lt;sup>3</sup> VOCs = Volatile halogenated organic compounds (EPA Method 8010)

Table 1-2
March 1992 Oil Analytical Results for Hydraulic Reservoirs

Sample	Analysis	Constituent	Results
01-011	PCBs 8080/3580	Aroclor 1232	$6.4~\mathrm{ppm^1}$
02-Oil	PCBs 8080/3580	PCBs	$ND^2$

<sup>&</sup>lt;sup>1</sup> ppm = parts per million.

## 1.3 SCOPE OF WORK, OBJECTIVES, AND REPORT ORGANIZATION

## 1.3.1 Scope of Work

To address the suspected groundwater contamination at the subject site, General Tire, Inc., retained Jonas & Associates Inc., (J&A) to perform the following tasks:

- Task 1 Assist in regulatory notification
- Task 2 Perform a historical review of records/files on surrounding sites of concern
- Task 3 Prepare a site investigation work plan
- Task 4 Conduct site investigation and prepare a site investigation report

Tasks 1, 2, and 3 have been completed. A notification report was submitted to the Alameda County Health Care Agency (ACHCA) on February 5, 1993. Results of the Task 2 study are presented in an Environmental Site Investigation Work Plan, dated June 4, 1993. This Work Plan was submitted to the ACHCA. In a correspondence dated July 12, 1993, ACHCA requested that General Tire, Inc., incorporate additional tasks in the Work Plan. On July 19, 1993, as an addendum to the Work Plan, J&A, on behalf of General Tire, Inc., addressed and incorporated ACHCA's request for an expanded scope of work. The Work Plan and its addendum were approved by ACHCA (verbal approval in August 1993). In September 1993, J&A initiated Task 4. Task 4 was completed and a report was submitted to the ACHCA on February 16, 1994. As requested by Ms. Madhulla Logan, Project Manager at the ACHCA, additional site investigation was performed in June of 1994.

This report includes background information; presents a summary of work performed under Task 4 of the investigation; and provides a summary of analytical results, conclusions and recommendations.

<sup>&</sup>lt;sup>2</sup> ND = Not detected above the method detection limit.

## 1.3.2 Objectives of the Site Investigation

The objectives of the site investigation were to: 1) determine the extent of soil contamination beneath the site; 2) identify the groundwater gradient; 3) determine the quality of groundwater entering the General Tire Oakland facility; and 4) identify any other PRPs.

To meet the objectives, eight boreholes were drilled. Two of the boreholes were converted to groundwater monitoring wells. Two rounds of groundwater samples and twenty-four (24) soil samples were collected for laboratory analysis.

The laboratory analytical results have been evaluated. Environmental settings and a detailed discussion of the site investigation are discussed in the remaining portion of this report.

## 1.3.3 Report Organization

This Environmental Site Investigation Report contains the following six sections and five appendices:

Section 1.0 <u>Introduction</u>, provides a site description; background; objectives of the site investigation; and report organization.

Section 2.0 <u>Environmental Settings</u>, presents geography; climate; regional geology; regional hydrogeology; and surface water.

Section 3.0 <u>Field Investigation Procedures</u>, includes requirements prior to drilling; soil sampling and monitoring wells installation, sampling, and analysis; quality control samples; decontaminations and post-sampling procedures; sample documentation; sample shipment; and monitoring wells survey.

Section 4.0 Data Analysis, presents soil and groundwater sampling results.

Section 5.0 <u>Conclusions and Recommendations</u>, provides a summary of conclusions and recommendations for future actions.

Section 6.0 <u>References</u>, presents a list of documents used in preparation of this report.

Appendices A through E include water well driller's reports, permits and well logs for monitoring wells MW-1 through MW-3; non-hazardous waste transport forms; laboratory analytical reports and chain-of-custody forms; elevation survey results; and summary tables of 1993 - 1994 groundwater and soil samples analytical results.

## 2.0 ENVIRONMENTAL SETTING

## 2.1 GEOGRAPHY

The site is located at 1201 14<sup>th</sup> Avenue, Oakland, California, in the northwest portion of Alameda County. Local land use includes commercial, light industrial, and residential. The general topography in the area of the site is relatively flat.

## 2.2 CLIMATE

The climatic pattern in the San Francisco Bay Area is characterized by partly cloudy moderate summers without significant precipitation, and mild winters with precipitation from passing storms.

Temperatures at the site area are moderated by San Francisco Bay. Average mean monthly temperatures range from approximately 43° F to 70° F. The warmest month tends to be September and the coolest is January.

Average annual precipitation south of the site at the Oakland Airport is 18.7 inches. Approximately 95 percent of regional precipitation occurs October through April, and is primarily associated with eastward moving storm systems. Morning drizzle is relatively common during the summer. Snowfall is rare.

## 2.3 REGIONAL GEOLOGY

Oakland is located in the Coast Ranges' geomorphic province, at an average elevation of 70 feet. The area is tectonically active being situated between the Hayward Fault on the east and the San Andreas Fault on the west. The underlying bedrock consists of Mesozoic volcanic and meta-volcanic rocks found throughout the Coast Ranges.

Geologically, the depositional history within the San Francisco Bay Area is relatively young (less than two to three million years old). Deposition along the flanks of local uplands was largely controlled by repeated variations in sea level and precipitation. Changes in sea level were caused by the cyclic advance and retreat of continental ice during the last ice age, which ended approximately 10,000 years ago. During the last Pleistocene glacial period, sea level was 300 to 400 feet lower than what it is today (Halley et al. 1979). A 400 foot lowering of sea level would have San Francisco Bay receding beyond the Golden Gate. During the ice age, local climate was probably wetter. All of these events contributed to changing sedimentation patterns, with a possible coarsening of clastics downslope due to a lowering of the hydraulic base-level during the ice age and increased precipitation. Alternatively, during periods of high sea level the San Francisco Bay rose into the valleys, and finer-grained estuarine sediments were deposited. Generally, alluvial deposits are coarser in the uplands and fine downslope. In the San Francisco Bay Area alluvial fan sediments

interface with estuarine marsh deposits along the border of the current and prehistoric Bay.

Dominant processes depositing local sediments were probably alluvial, fluvial, and estuarine. Superimposed on the alluvial, fluvial, and estuarine processes was cyclic Pleistocene glaciation, causing the dramatic changes in sea level and significant variation in regional precipitation. This depositional history probably has resulted in a complex sedimentary sequence characterized by irregular interbedding and interfingering of coarse- and fine-grained deposits. Because the site is located close to San Francisco Bay, many of the more recent and shallow sediments are probably fine-grained and characteristic of lower fan deposits and estuarine marshes. Coarser sediments may have been deposited in the ancestral drainage.

## 2.4 REGIONAL HYDROGEOLOGY

The site is apparently located at the distal end of a westward-sloping alluvial plain bordering estuarine marsh environments. The alluvial plain is probably Quaternary in age, representing relatively recent deposits. Generally, alluvial plains tend to contain consolidated to unconsolidated clays, silts, sands, and gravels, and bordering the San Francisco Bay, organic-rich clays and silts. These deposits also tend to increase in thickness westward from their base at the Oakland Hills. The alluvial deposits are considered to be underlain by the bedrock of the Mesozoic Franciscan Formation. The Franciscan Formation is a complex assemblage of serpentinite, greenstone, graywacke, chert, shale, sandstone, and schist, found on many of the ridges and mountains in the San Francisco Bay Region.

Dominant processes depositing local sediments were probably alluvial, fluvial, and estuarine. Superimposed on the alluvial, fluvial, and estuarine processes was cyclic Pleistocene glaciation, causing the dramatic changes in sea level and significant variation in regional precipitation. This depositional history probably has resulted in a complex sedimentary sequence characterized by irregular interbedding and interfingering of coarse- and fine-grained deposits. Because the site is located close to San Francisco Bay, many of the more recent and shallow sediment are probably fine-grained and characteristic of lower fan deposits and estuarine marshes. Coarser sediments may have been deposited in the ancestral drainages. Generally, alluvial deposits are coarser in the uplands and fine downslope. In the San Francisco Bay Area alluvial fan sediments interface with estuarine marsh deposits along the border of the current and prehistoric Bay.

The site probably lies within the Alameda Bay Plain Groundwater Basin. Most groundwater is currently not used due to a general tendency for low permeability in local alluvium, limited thickness of transmissive units, and salt water intrusion along the border of the bay. Because wells with good borehole documentation are rare, the basin's hydrogeologic conditions are not well characterized.

Much of the groundwater recharge into the alluvium underlying the site is probably from drainage through sediments in the flatland and higher up on the alluvial fan. Across the basin, recharge from infiltration of rainfall is probably limited by the low permeability of shallow clays and by the large amount of paved areas with drainage collection. Because much of the site is covered with bare soil, infiltration leading to some groundwater recharge may occur at the facility.

Local groundwater is probably influence by the sloughs, bays, and inlets of San Francisco Bay. But because of the significant presence of clay in the subsurface and the elevation of the facility above mean sea level, and TDS levels of less than 750 mg/L, it is unlikely that groundwater levels show diurnal changes due to tidal interaction. But tidal influences at the site cannot be ruled out until water levels are periodically measured over a period of twelve to twenty-four hours. A diurnal change of generally two lows and two highs during a twenty-four hour period would indicate that groundwater levels under the property are influenced by tidal changes in the estuary and bay.

Shallow groundwater probably eventually discharges into San Francisco Bay. San Francisco Bay is the probable destination of most groundwater in the Oakland area unless it is captured by groundwater extraction wells. But because of its general poor quality, groundwater is generally not used for domestic uses and the area does not have large scale agriculture.

A library search was performed to obtain information on the hydrogeology in the general area of the Oakland, California site. Apparently, very little information is available. In general, two potential aquifers in the general area are the Merritt Sand and the Alameda Formation (DWR 1982). The Merritt Sand is composed of a fine-grained sand, silt, and clay. The Alameda Formation is a marine deposit that commonly contains alternating layers of sandy clay and sand. Permeability of the Alameda Formation is moderate to low. The Alameda Formation is used as a limited source of water within the Oakland area. However, limited data is available on the number of active wells, recharge rate, regional groundwater levels, and water quality.

Groundwater level in the area of the site is encountered at depths varying between six and ten feet below the ground surface, and it flows in a south/southeasterly direction.

## 2.5 SURFACE WATER

The facility is located approximately 1,000 feet northeast of Brooklyn Basin, which connects with San Francisco Bay through the Oakland Inner Harbor. No ponds are located on or adjacent to the subject property. Lake Merritt is located approximately one mile northwest of the facility. The closest stream course is Sausal Creek, which is located approximately 1.2 miles east of the property.

## 3.0 FIELD INVESTIGATION PROCEDURES

The scope of work for the 1993 and 1994 site investigation studies included the following tasks:

- 1. Installation of two additional groundwater monitoring wells (MW-2, MW-3).
- 2. Collection and analysis of two rounds of groundwater samples from the three wells.
- 3. Collection and analysis of twenty-four (24) soil samples.

This section of the report presents procedures used for drilling, soil sampling, well installation, and groundwater sampling and analysis.

## 3.1 REQUIREMENTS PRIOR TO DRILLING

The locations of existing underground utility lines were determined prior to drilling activities. This determination was made through discussions with the facility owner and through consultation with the utility district. Approval to install the monitoring wells was obtained from the County. Appendix A contains water well driller's reports and permits for monitoring wells MW-2 and MW-3.

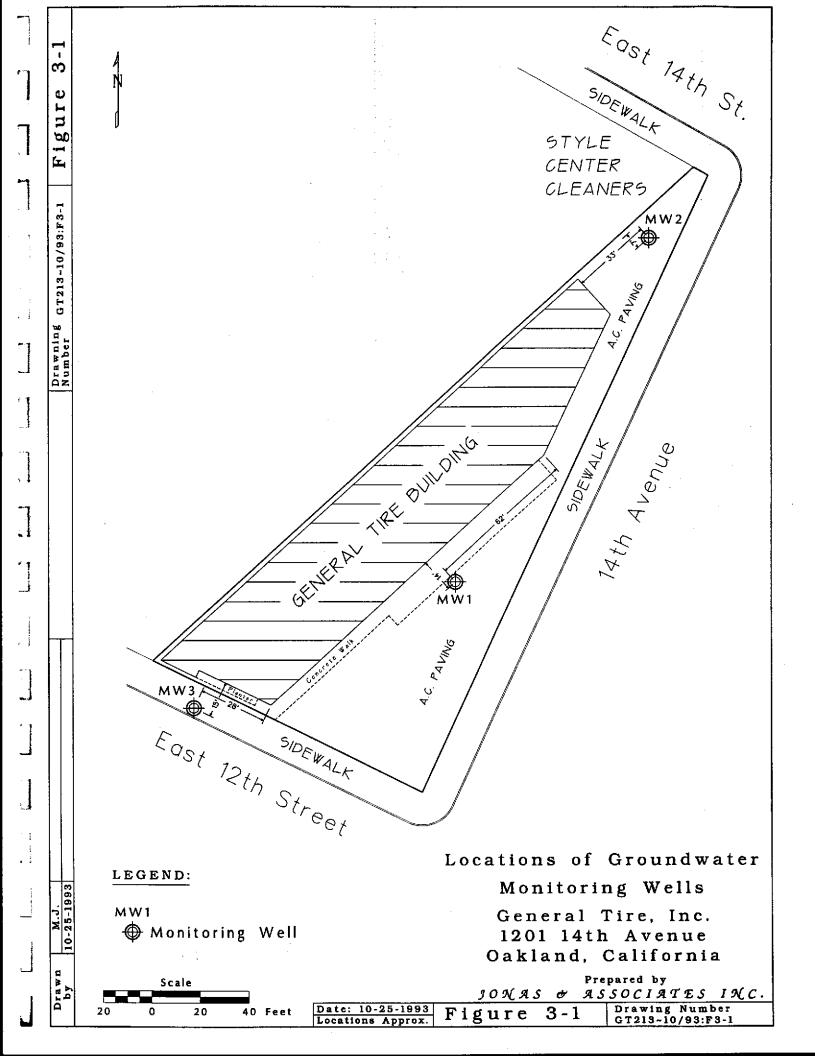
## 3.2 SOIL SAMPLING AND MONITORING WELL INSTALLATION, SAMPLING, AND ANALYSIS

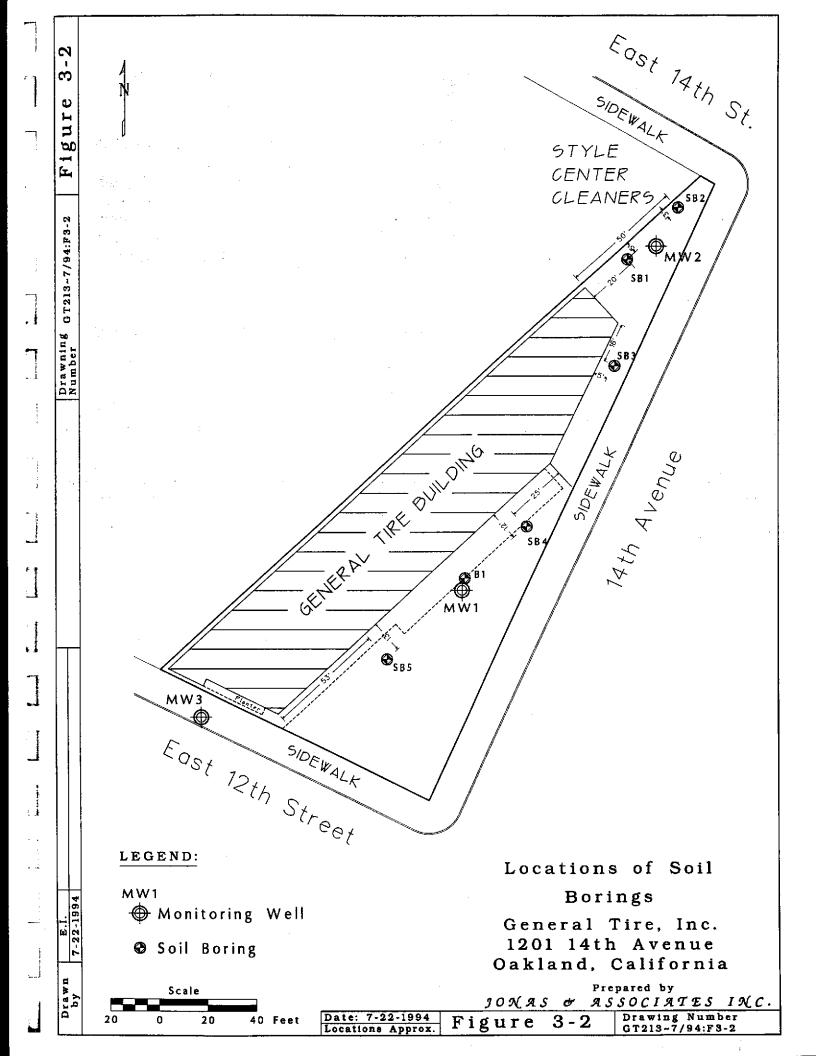
## 3.2.1 Soil Sampling and Analysis

On September 7, 1993, Advance Drilling Co., Inc., drilled three boreholes to a depth of 16.5-feet below ground surface (bgs). Two of the boreholes were constructed as groundwater monitoring wells. The other borehole was only used for collection of soil samples. Three soil samples were collected from each borehole, at depths of 5-, 10-, and 15-feet bgs.

A second round of soil samples was collected on June 30, 1994. Five boreholes were drilled to a depth of 9-feet bgs, and again three soil samples were collected from each borehole, at depths of 2-, 5-, and 9-feet bgs. Figures 3-1 and 3-2 show the location of the groundwater monitoring wells and soil sample borehole locations, respectively.

Soil samples were collected using a modified California split spoon drive sampler fitted with clean 2-inch diameter brass tubes. Samples were submitted to ChromaLab, Inc., (ChromaLab) for laboratory analysis. Soil sample numbers, depths and analyses performed are summarized in Table 3-1.





As stated previously, two of the boreholes (MW-2 and MW-3) from the 1993 drilling were converted to groundwater monitoring wells. The boreholes were drilled utilizing a hollow-stem auger. Hollow-stem auger drilling is accomplished through use of a hollow central shaft with an attached spiral scroll. Each section of the auger is aligned so that a continuous scroll is formed. A bit is attached at the bottom of the first auger flight. Cuttings created by the bit are removed by the scroll as the auger stem is turned. This method is suitable for relatively shallow drilling in unconsolidated formations.

The cuttings were collected in 55-gallon drums, labeled and later transported to B&J Landfill, 6426 Hay Road, Vacaville, California for land disposal. Non-Hazardous Waste Transport Forms are included in Appendix B.

Table 3-1 1993 and 1994 Soil Sample Laboratory Analyses General Tire Oakland Oakland, California

Sample Number	Date Sampled	Sample Depth (feet)	Sample Analysis
B1-5	9/7/93	5	PCBs (EPA Method: 8080)
B1-10	9/7/93	10	
B1-15	9/7/93	15	
MW2-5	9/7/93	5	Total extractable petroleum hydrocarbons as diesel, kerosene, motor oil (TEPH-d,k,mo) - EPA Methods 3510/8015;  Total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethyl benzene and total xylenes (BTEX) - EPA Method 5030/8015/8020; and  Volatile Halogenated Organic Compounds (VOCs) - EPA Method 8010
MW2-10	9/7/93	10	
MW2-15	9/7/93	15	
MW3-5	9/7/93	5	TEPH-d,k,mo; TPH-g; BTEX; and VOCs
MW3-10	9/7/93	10	
MW3-15	9/7/93	15	

## Table 3-1<sup>(Continued)</sup> 1993 and 1994 Soil Sample Laboratory Analyses General Tire Oakland Oakland, California

Sample Number	Date Sampled	Sample Depth (feet)	Sample Analysis
SB1-2.5	6/30/94	2.5	TEPH-d,k,mo; TPH-g; BTEX; and VOCs
SB1-5	6/30/94	5	•
SB1-9	6/30/94	9	
SB2-2.5	6/30/94	2.5	
SB2-5	6/30/94	5	
SB2-9	6/30/94	9	• · · · · · · · · · · · · · · · · · · ·
SB3-2.5	6/30/94	2.5	
SB3-5	6/30/94	5	
SB3-9	6/30/94	9	
SB4-2.5	6/30/94	2.5	
SB4-5	6/30/94	5	
SB4-9	6/30/94	9	•
SB5-2.5	6/30/94	2.5	
SB5-5	6/30/94	5	
SB5-9	6/30/94	9	

## 3.2.2 Groundwater Monitoring Wells Construction, Development, Sampling and Analysis

The two groundwater monitoring wells were completed with a 10-foot long PVC screen, 4 inches in diameter, with a 0.02-inch slot size. The screen was connected to a section of 5-foot long PVC riser pipe. In anticipation of encountering floating product, the screen was extended approximately two feet above the water table. All joints were flush threaded and no solvents or cements were used on the PVC. Well logs are presented in Appendix A. A filter pack consisting of silica #3 sand was placed in the annular space at the well screen and carried 2 feet above the top of the screen. A bentonite seal, ½-foot thick and composed of ½-inch pellets, was placed above the sand pack, and the remaining annular space was filled with a neat cement-bentonite grout. Frequent steel tape measurements were made during placement of materials to ensure that proper amounts of material were placed and that seals were properly positioned. The grout consisted of neat Portland cement modified with bentonite to reduce shrinkage. The ratio of cement to bentonite was approximately 20:1 on a weight basis. The grout was tamped regularly to avoid formation of voids. Table 3-2 summarizes well construction details for the two new

wells (MW-2, MW-3) and the existing well (MW-1) which was installed by a previous consultant in 1992.

Table 3-2
Well Construction Details
General Tire Oakland
Oakland, California

	Date	Casing	~ Depth in feet bgs				Borehole	
Well Number	Well Completed Diameter	Diameter	Screen {0.020"}	Sand Pack	Bentonite Seal	Portland Cement <sup>1</sup>	Borehole	Diameter
MW-1	3/1992	2"	5'5" - 15' 6"	3'5" - 16' 5"	2'- 3'5"	1/4 - 2'	16'5"	8
MW-2	9/7/1993	4"	5½ - 15½	5 - 16½	4½ - 5	1/4 - 41/2	16½	81/2"
MW-3	9/7/1993	4"	5½ - 15½	5 - 161/2	4½ - 5	1/4 - 41/2	161/2	81/2"

note: 1) Portland Cement mixed with ~5% bentonite for plasticity.

When constructing the wells, maximum effort was made to avoid contamination of the well construction materials. The PVC construction materials were assumed to be procured clean from the fabricators. The procedures listed below were followed to prevent contamination:

- » Clean screens and casings were utilized;
- » All filter-pack material was added directly from the bag (spilled material was not taken from the ground and placed in the boring);
- » The steel tape used to sound for depth during installation was steam-cleaned prior to boring installation;
- » No foreign material was allowed to enter the well casing during construction;
- » Frequent soundings were made when placing the filter pack, bentonite, and grout into the annular space; and
- » Recorded all final measurements, problems, and comments in the field log book.

<sup>2)</sup> bgs = below ground surface.

## 3.2.2.1 Well Development

When well construction was complete and the grout column was cured for a minimum of 24 hours, well development was performed by use of a submersible pump. Well development was initiated by lowering a submersible pump into the well. The pump was placed in the center of the well screen. Approximately five well volumes were removed during development. Well volume was calculated using the formula:

$$V = \pi(h/4) \{D_c^2(1-n) + nD_p^2\}$$

where  $V = \text{volume of standing water in borehole and well, } ft^3$ 

 $\pi = 3.14$ 

 $D_p = diameter of boring, ft$ 

 $D_c$  = diameter of well casing, ft

n = porosity of the filter pack, decimal fraction

h = height of standing water in well, ft

The variable h is determined by subtracting the depth to water from the total well depth. The value for n is assumed at 0.3. To convert the well volume to gallons, V is multiplied by 7.48 gallons per cubic feet. Water level is measured with an electronic sounding device.

To develop the monitoring wells, the wells were purged until the discharge was relatively clear, colorless, and free of particulates. Water from equipment steam cleaning and well development was stored in 55-gallon drums, labeled and later transported to Gibson Environmental for treatment. Appendix B contains the Water Transport Form from Gibson Environmental.

## 3.2.2.2 Sample Collection Procedures and Analysis

On September 14, 1993, MW-2 and MW-3 were developed by Advance Drilling Co., Inc. On October 5, 1993, and again on June 17, 1994, MW-1, MW-2, and MW-3 were purged by J&A. Prior to purging, a clear bailer was used to collect a sample from each monitoring well. The sample was inspected in the field for floating product, odor, and sheen. Free product was not observed in any of the wells.

After checking for free product, the wells were then purged using a bailer. At least three saturated well volumes of water was removed. During purging, field measurements of the groundwater temperature, conductivity, and pH were made and recorded periodically. Water samples for laboratory analysis were not collected

until temperature, conductivity, and pH stabilized. Table 3-3 includes groundwater levels and free product measurements.

Table 3-3
1993 and 1994 Groundwater Levels and Free Product Measurements
General Tire Oakland
Oakland, California

Date	Well ID	Water Le	vel o of Casing:	Free Product
		Depth	Elevation	
10/5/93	MW-1	8.73'	9.56'	no free product
10/5/93	MW-2	6.80'	13.38'	no free product
10/5/93	MW-3	10.5'	9.05'	no free product
6/17/94	MW-1	7.8'	10.49'	no free product
6/17/94	MW-2	6.14	14.04'	no free product
6/17/94	MW-3	8.43'	11.12'	no free product

Notes - » Elevation with respect to Mean Sea Level (M.S.L.) and Kier & Wright survey.

After purging the standing water from the wells, they were then sampled with a bailer. One sample per well was collected and submitted for chemical analysis. During the first round of sampling a duplicate sample was collected from monitoring well MW-2 for laboratory analysis. Samples were collected in glass vials, specifically designed to prevent the loss of volatile constituents from the samples. The glass vials were carefully filled and checked to insure that no head space existed in sample containers. Presence of head space would result in volatilization of volatile constituents. All bottles were labeled before filling to prevent misidentification. Once filled, samples were placed in an ice chest with ice packs sufficient to ensure a proper temperature of 4° Celsius. Coolers were carefully packed to prevent damage to sample containers. All coolers were picked up by ChromaLab, Inc., a State-certified analytical laboratory located in San Ramon, California, within 24 hours after sampling. Field Chain-of-Custody records, completed at the time of sample collection, accompanied the samples inside the cooler during shipment to ChromaLab.

All groundwater samples submitted to ChromaLab were analyzed for Total TPH-d (EPA Methods 3510 and 8015), and VOCs (EPA Method 601). Appendix C includes all the raw laboratory analytical data.

## 3.3 QUALITY CONTROL SAMPLES

For quality control, during the October 1993 groundwater sampling, one duplicate groundwater sample (MW-d) was collected from MW-2 and submitted for laboratory analysis. In addition, the laboratory also performed a matrix spike. Both the duplicate and the matrix spike samples were analyzed for the entire suite of parameters listed in Section 3.2.2.2, "Sample Collection Procedures and Analysis". Table 3-4 presents detected analytical results for both MW-2 groundwater samples.

Table 3-4
Comparison of Analytical Results of
Field Duplicate Samples
General Tire Oakland

Detected Chemical Constituent	Chemical Concentrations (ppm) <sup>1</sup> Sample MW-2	Chemical Concentrations (ppm) Sample Number MW-d
kerosene	0.49	0.11
motor oil	0.7	ND<0.5 <sup>2</sup>
vinyl chloride	0.0015	ND<0.0005
1,1-dichloroethene	0.001	0.0009
cis-1,2-dichloroethene	0.031	0.029
trichloroethene	0.046	0.041
tetrachloroethene	0.040	0.040

<sup>&</sup>lt;sup>1</sup> ppm = parts per million.

## 3.4 DECONTAMINATION AND POST-SAMPLING PROCEDURES

Decontamination of equipment took place in a decontamination zone designated at the site. Drilling and sample equipment was decontaminated prior to initial use and at the completion of sampling activities. All non-disposable equipment was decontaminated according to the procedures summarized below:

- » Manual scrub with non-phosphate soap solution plus tap water wash;
- » Fresh water rinse:
- » Distilled/deionized water rinse;
- » Air dry; and
- » Distilled/deionized water rinse.

 $<sup>^{2}</sup>$  ND<0.5 = Not detected above the method detection limit of 0.5 ppm.

### 3.5 SAMPLE DOCUMENTATION

Sample documentation included field logbooks, sample labels, and Chain-of-Custody records. All field documentation was written legibly in waterproof ink. Errors were crossed out with a single line, initialed, and dated, but not obliterated. Each sample was assigned a unique identification number that allows retrieval of information regarding the sample.

### 3.6 SAMPLE SHIPMENT

The J&A Technical Manager notified the Sales Manager at ChromaLab a week before sampling was scheduled to begin, so that the laboratory could prepare and ship the necessary coolers and sample bottles to the field team in advance. The samples were received by ChromaLab within 24 hours of sampling.

Samples were packaged for shipment in a cooler chilled with bags of ice. Foam padding was used to protect sample containers. The original Chain-of-Custody record was placed in a plastic pouch affixed to the inside lid of the cooler. The Field Manager retained a copy of the form. When possession of the samples was transferred, the individuals relinquishing and accepting custody wrote their names, the names of their organizations, and the time and date of custody transfer on the Chain-of-Custody record. Appendix C contains the laboratory analytical reports and Chain-of-Custody records.

### 3.7 MONITORING WELLS SURVEY

On November 22, 1993 all three monitoring wells (MW-1 through MW-3) were surveyed by Kier & Wright Civil Engineers & Surveyors, Inc. Appendix D of this report presents the documentation associated with the results of the survey. Locations of the wells were identified using the City of Oakland Benchmark No. 1521, 15th Avenue and 14th Street. Table 3-5 provides a summary of the well survey data.

Table 3-5 Monitoring Well Survey Data General Tire Oakland Oakland, California

Well	Easting	Northing	M.S.L. <sup>1</sup> Elevation
MW-1	1495579.17	474023.22	Top PVC <sup>2</sup> : 18.29' rim <sup>3</sup> : 18.58'
MW-2	1495664.73	474169.72	Top PVC: 20.18' rim: 20.77'
MW-3	1495474.96	473977.93	Top PVC: 19.55' rim: 19.99'

M.S.L. = Mean Sea Level.

Top PVC = Top north edge of PVC casing.

 $<sup>^{3}</sup>$  rim = North rim of box.

## 4.0 DATA ANALYSIS

## 4.1 SOIL SAMPLE RESULTS

As stated previously, three soil samples were collected from each of the eight boreholes. Samples were collected from depths of 5-, 10-, and 15-feet bgs during the September 1993 round of sampling; and from depths of 2-, 5-, and 9-feet bgs during the June 1994 sampling event. With the exception of soil samples collected from Borehole B1, all other soil samples were analyzed for TPH-g; TEPH-d,k,mo; BTEX; and VOCs. Soil samples from collected from Borehole B1 were analyzed for PCBs only. Appendix E includes summary tables of all the laboratory analytical results. Table 4-1 includes chemicals detected in the soil samples analyzed.

Table 4-1 1993 - 1994 Soil Results General Tire Oakland Oakland, California

Sample I.D.	Analysis	Constituent	Concentration
B1-5	PCBs	PCBs	ND'
B1-10	Same as B1-5	Same as B1-5	ND
B1-15	Same as B1-5	Same as B1-5	ND
MW2-5	VOCs TEPH-d,k,mo TPH-g	cis-1,2-DCE TCE PCE All other parameters tested for	0.0059 mg/kg 0.0066 mg/kg 0.073 mg/kg ND
MW2-10	Same as MW2-5	cis-1,2-DCE TCE PCE trans-1,2-DCE TEPH-mo All other parameters tested for	0.24 mg/kg 0.36 mg/kg 0.11 mg/kg 0.0087 mg/kg 18 mg/kg ND
MW2-15	Same as MW2-5	All parameters tested for	ND
MW3-5	Same as MW2-5	TEPH-mo All other parameters tested for	18 mg/kg ND
MW3-10	Same as MW2-5	All parameters tested for	ND
MW3-15	Same as MW2-5	All parameters tested for	ND
SB1-2	VOCs TEPH-d, k, mo TPH-g	TEPH-mo All parameters tested for	12 mg/kg

## Table 4-1<sup>(Continued)</sup> 1993 - 1994 Soil Results General Tire Oakland Oakland, California

Sample I.D.	Analysis	Constituent	Concentration
SB1-5	Same as SB1-2	TEPH-d TEPH-mo TCE PCE	55 mg/kg 150 mg/kg 0.0072 mg/kg 0.046 mg/kg
SB1-9	Same as SB1-2	cis 1,2-DCE	0.016 mg/kg
SB2-2	Same as SB1-2	PCE	0.016 mg/kg
SB2-5	Same as SB1-2	PCE	0.0075 mg/kg
SB2-9	Same as SB1-2	cis 1,2-DCE TCE PCE	0.016 mg/kg 0.027 mg/kg 0.023 mg/kg
SB3-2	Same as SB1-2	TCE PCE trans 1,2-DCE	0.022 mg/kg 0.0073 mg/kg 0.0062 mg/kg
SB3-5	Same as SB1-2	PCE	0.016 mg/kg
SB3-9	Same as SB1-2	TCE PCE	0.011 mg/kg 0.0069 mg/kg
SB4-2	Same as SB1-2	All parameters tested for	ND
SB4-5	Same as SB1-2	TEPH-mo cis 1,2-DCE trans 1,2-DCE	32 mg/kg 0.012 mg/kg 0.0066 mg/kg
SB4-9	Same as SB1-2	All parameters tested for	ND
SB5-2	Same as SB1-2	All parameters tested for	ND
SB5-5	Same as SB1-2	TEPH-mo	340 mg/kg
SB5-9	Same as SB1-2	All parameters tested for	ND

note:  $ND^1 = Not$  detected above the method detection limit.

TEPH-d, k, mo = Total Extractable Petroleum Hydrocarbons as diesel, kerosene and motor oil (3550/8015)

VOCs = Volatile Halogenated Organic Compounds (EPA Method 8010)

cis-1,2-DCE = cis-1,2-Dichloroethene

TCE: Trichloroethene
PCE = Tetrachloroethene

trans-1,2-DCE = trans-1,2-Dichloroethene

Figures 4-1 and 4-2 show the borehole locations and detected chemical concentrations for the 1993 and 1994 rounds of sampling, respectively. Analytical results per borehole are described below.

## Borehole B1

As illustrated in Figure 4-1, PCBs were not detected in the three soil samples collected from Borehole B1. This borehole was drilled adjacent to MW-1 for the purpose of determining if the soil may have been impacted by any potential leaks from the hydraulic lifts. This analysis was performed at ACHCS' request.

### Borehole MW-2

Two of the soil samples (MW2-5 and MW2-10) collected from the borehole of MW-2 contained cis-1,2-DCE (0.0059 mg/kg - 0.24 mg/kg); TCE (0.0066 mg/kg - 0.36 mg/kg); and PCE (0.073 mg/kg - 0.11 mg/kg). As shown in Table 4-1, these detected chemical concentrations were higher in the deeper sample (MW2-10) than the shallower one (MW2-5). In addition, in MW2-10, trans-1,2-DCE (0.0087 mg/kg) and TEPH-mo (18 mg/kg) were also detected. These parameters were not detected in MW2-5. Soil sample MW2-15 did not contain any analyzed chemicals. All the other analytes tested for were not detected in any soil samples collected from this borehole.

## Borehole MW-3

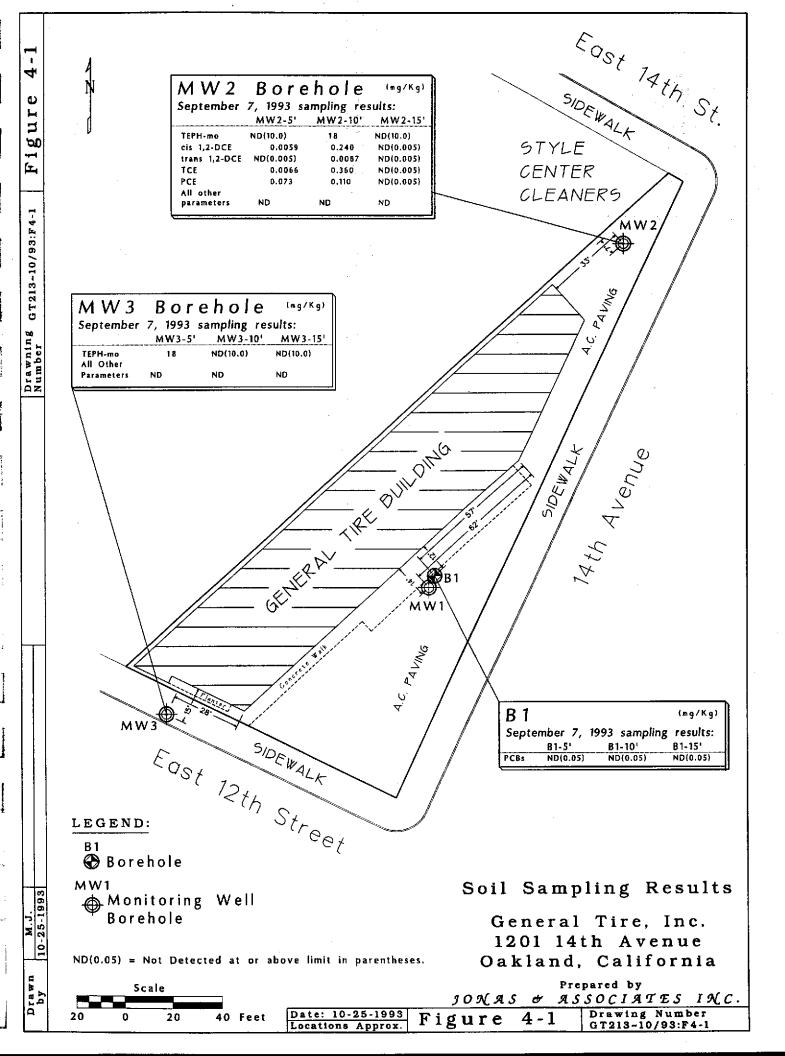
Soil sample MW3-5 contained 18 mg/kg of TEPH-mo. All the other chemicals tested for were not detected in any soil samples collected from this borehole.

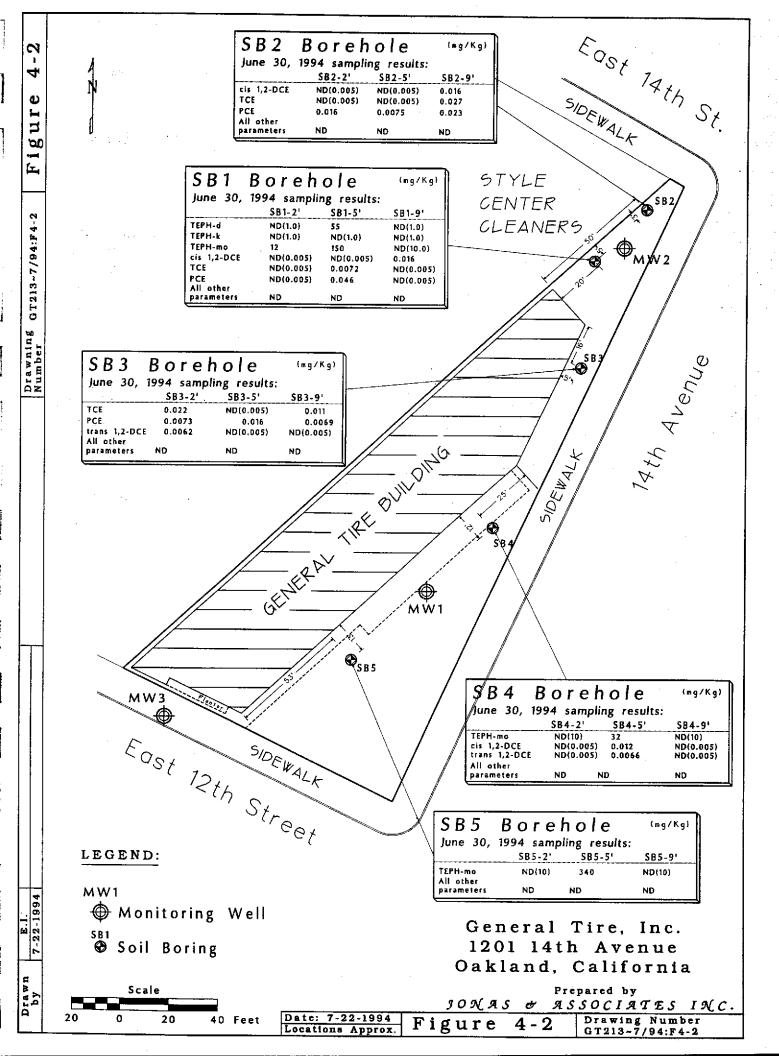
## Borehole SB1

TEHP-mo was detected in SB1-2 at a concentration of 12 mg/kg. Chemicals detected in SB1-5 included: TCE (0.0072 mg/kg); PCE (0.046 mg/kg); TEPH-d (55 mg/kg); and TEPH-mo (150 mg/kg). SB1-9 contained 0.016 mg/kg of cis 1,2-DCE. All the other chemicals tested for were not detected in any of the samples collected from this borehole.

## Borehole SB2

PCE was detected in all three samples collected from Borehole SB2 at the following concentrations: SB2-2 (0.016 mg/kg); SB2-5 (0.0075 mg/kg); and SB2-9 (0.023 mg/kg). Cis 1,2-DCE (0.016 mg/kg) and TCE (0.027 mg/kg) were also detected in





SB2-9. All the other chemicals tested for were not detected in any of the samples collected from this borehole.

## Borehole SB3

TCE was detected in SB3-2 (0.022 mg/kg) and SB3-9 (0.011 mg/kg). Trans 1,2-DCE was detected in SB3-2 (0.0062 mg/kg). PCE was detected in all three samples collected from this borehole at the following concentrations: SB3-2 (0.0073 mg/kg); SB3-5 (0.016 mg/kg); and SB3-9 (0.0069 mg/kg). All the other analytes tested for were not detected in any of the samples collected from this borehole.

## Borehole SB4

TEPH-mo (32 mg/kg), cis 1,2-DCE (0.012 mg/kg), and trans 1,2-DCE (0.0066 mg/kg) were detected only in sample SB4-5. All the other analytes tested for were not detected in any of the samples collected from this borehole.

## Borehole SB5

TEPH-mo (340 mg/kg) was detected in sample SB5-5. All the other analytes tested for were not detected in any of the samples collected from this borehole.

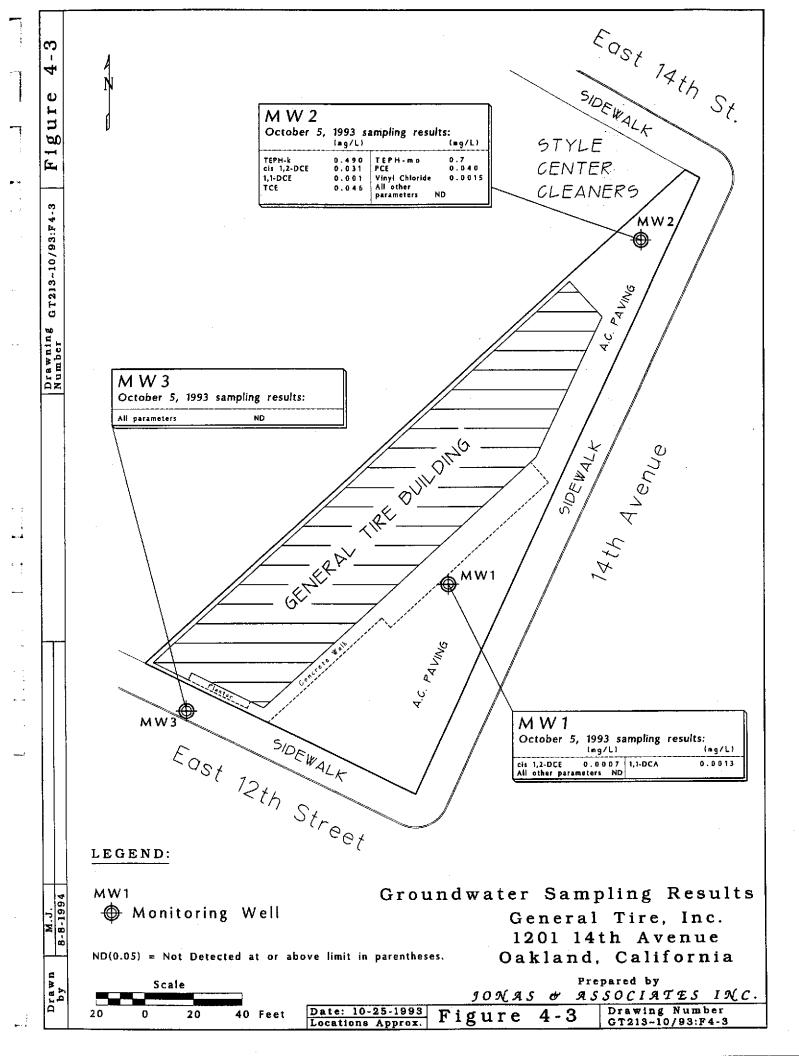
## 4.2 GROUNDWATER SAMPLE RESULTS

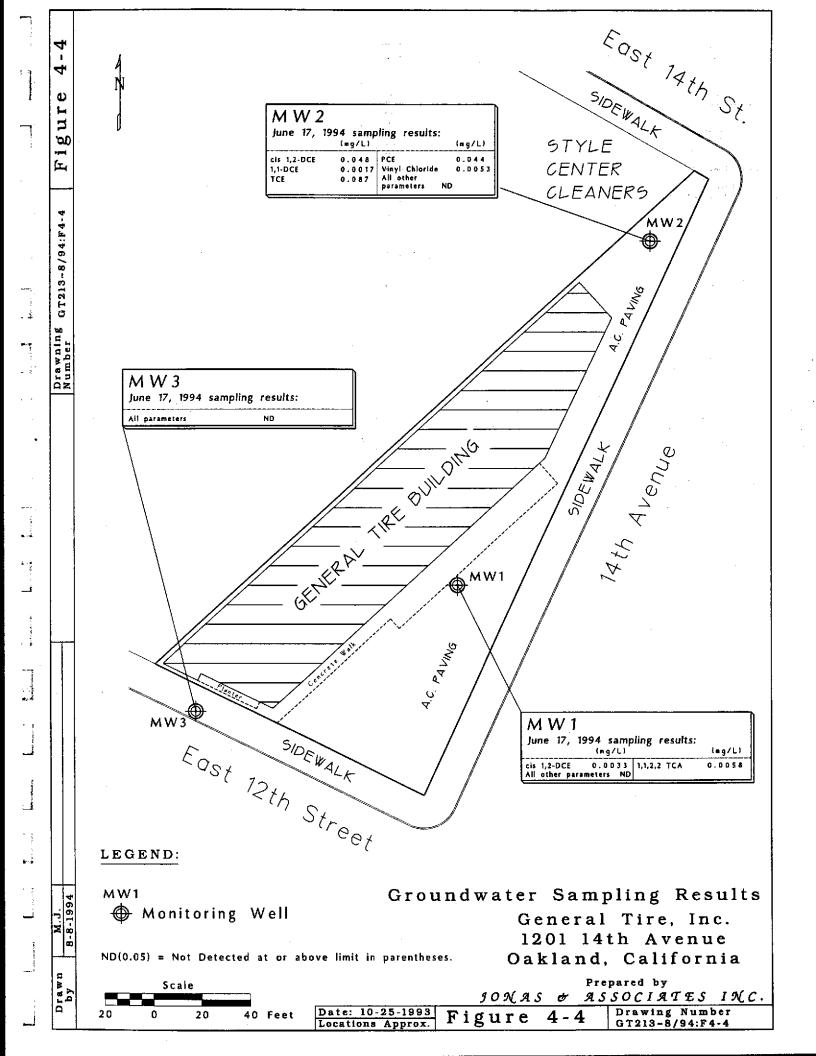
As stated previously, groundwater samples from monitoring wells MW-1 through MW-3 were collected and analyzed for TPH-d, and VOCs during the October 1993 and June 1994 sampling events. Appendix E includes summary tables of all the analytical results. Table 4-2 located on page 30 of this report, presents a summary of detected chemicals.

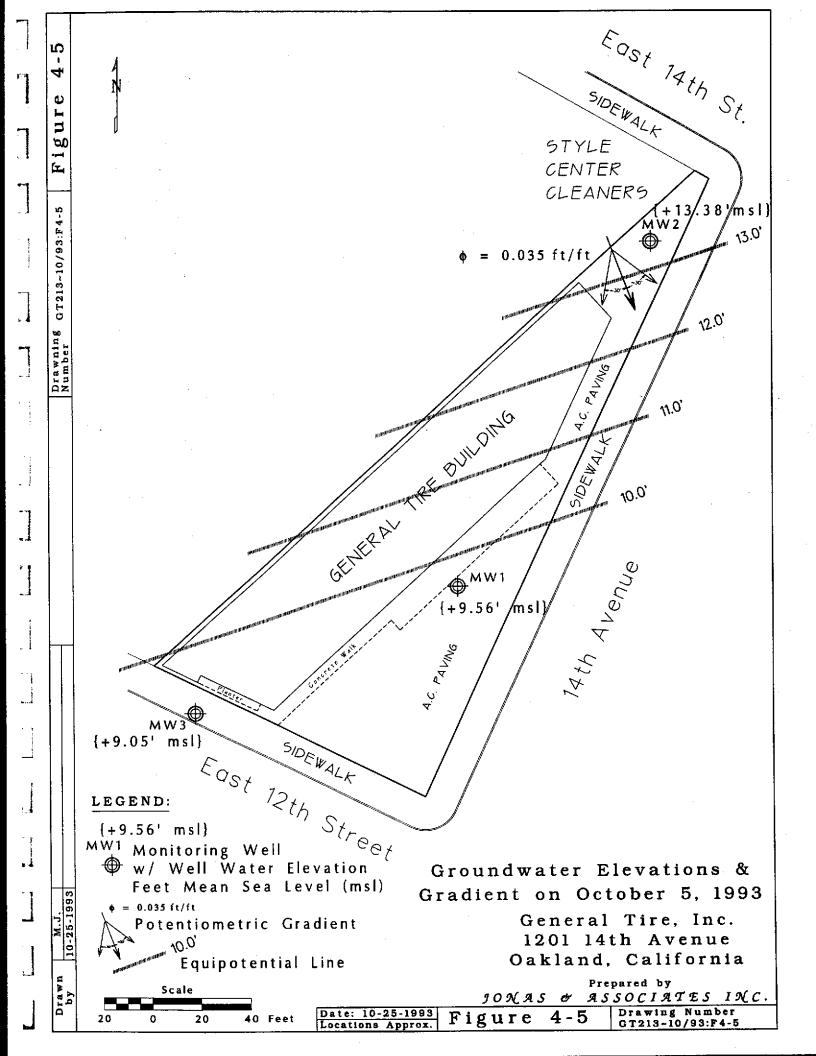
Figures 4-3 and 4-4 present the well locations, detected chemicals and their concentration levels for the October 1993 and June of 1994 groundwater sampling events. Figures 4-5 and 4-6 show the gradient and groundwater elevations for the aforementioned rounds of sampling.

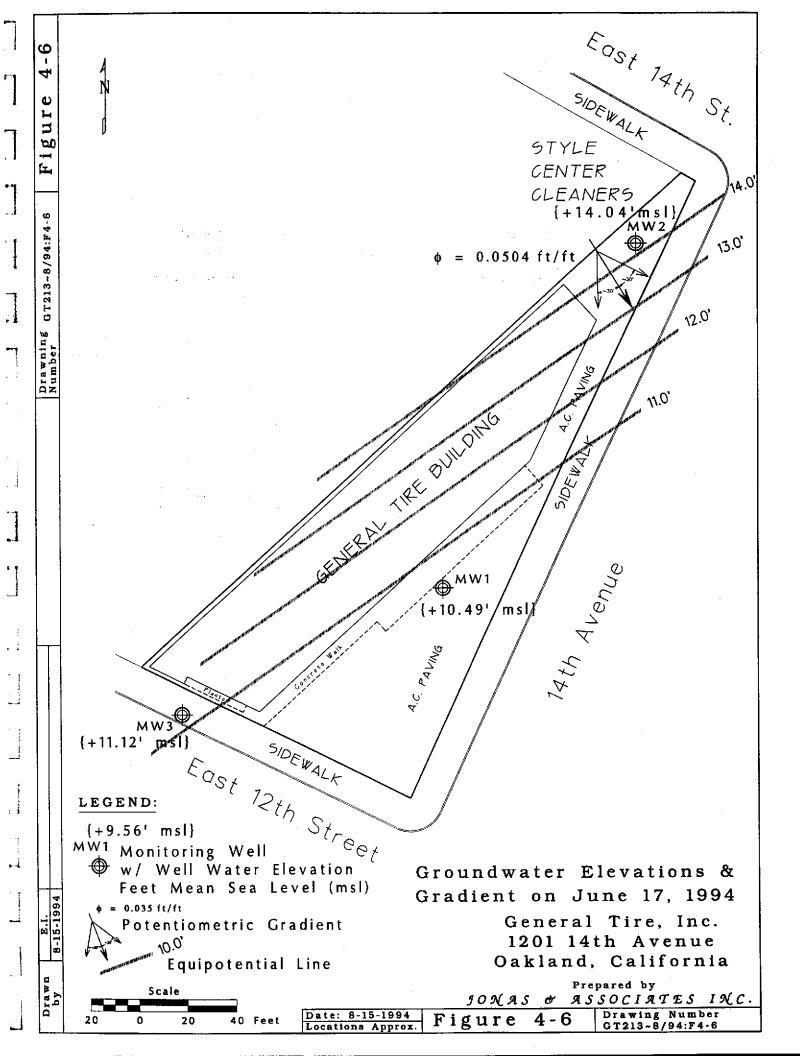
As illustrated in Figures 4-5 and 4-6, groundwater beneath the subject site flows in a south/southeasterly direction. MW-1 is considered a downgradient well, and MW-2 is considered an upgradient well.

Analytical results for each groundwater monitoring well are described below.









# Table 4-2 1993 - 1994 Groundwater Results General Tire Oakland Oakland, California

Sample I.D.	Analysis	Constituent	October 1993 Results (ppm)	June 1994 Results (ppm)
MW-1	VOCs TEPH-d,k,mo	cis-1,2-DCE 1,1-DCA 1,1,2,2-TCA All other parameters tested for	0.0007 0.0013 ND ND	0.0033 ND 0.0058 ND
MW-2	Same as MW-1	cis-1,2-DCE 1,1-DCE TCE PCE VC TEPH-mo TEPH-k All other parameters tested for	0.031 0.001 0.046 0.040 0.0015 0.7 0.490 ND	0.048 0.0017 0.087 0.044 0.0053 ND ND
MW-3	Same as MW-1	All the parameters tested for	ND	ND

notes: TEPH-d, k, mo = Total Extractable Petroleum Hydrocarbons as diesel, kerosene and motor oil (3550/8015)

VOCs = Volatile Halogenated Organic Compounds (EPA Method 8010)

cis-1,2-DCE = cis-1,2-Dichloroethene

trans-1,2-DCE = trans-1,2-Dichloroethene

TCE: Trichloroethene
PCE = Tetrachloroethene
VC = Vinyl Chloride
DCA = 1,1-Dichloroethane

1,1,2,2-TCA = 1,1,2,2-Tetrachloroethane

ND<sup>1</sup> = Not detected above the method detection limit.

#### Groundwater Monitoring Well MW-1

Two VOCs were detected in MW-1 during both rounds of sampling events. During the 1993 sampling event, cis-1,2-DCE and 1,1-DCA were detected in this well sample. In 1994, cis-1,2-DCE was detected again; however, 1,1-DCA was not detected in the groundwater sample, instead 1,1,2,2-TCA was detected. The detected concentrations were greater during the June 1994 sampling round versus the October 1993 sampling event.

#### Groundwater Monitoring Well MW-2

As presented in Table 4-2 and Figures 4-3 and 4-4, seven chemicals were detected in the upgradient well MW-2 during the October 1993 sampling event. Five of the same chemicals were detected during the June 1994 sampling round. TEPH-mo and -k were not detected in the June 1994 groundwater sample collected from MW-2. The detected chemical concentrations were greater in the June 1994 samples than the October 1993 samples.

#### Groundwater Monitoring Well MW-3

All of the chemicals tested for were not detected in MW-3 well.

#### 5.0 CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 CONCLUSIONS

In general, the detected chemical constituents in soil and groundwater samples are chlorinated ethenes and TEPH-d,k,mo. A discussion of these chemical constituents is presented below.

#### Chlorinated ethenes

As presented in Section 4.1 of this report, five to six chlorinated ethenes were detected in soil samples collected from Boreholes MW2, SB1, SB2 and SB3. These boreholes are located in the northern part of the subject site. Chlorinated ethenes are also detected in the groundwater samples collected from MW-1 and MW-2. Detected concentrations are higher in the upgradient well MW-2 (also located in the northern section of the property) than the downgradient well MW-1.

Two chlorinated ethenes were detected in SB4. Chlorinated ethenes were not detected in the soil samples collected from Boreholes SB5 and MW3. Chlorinated ethenes were also not detected in the two rounds of groundwater samples collected from MW-3.

With the exception of 1,1-DCA and 1,1,2,2-TCA, all of the compounds detected may be potential degradation products of PCE.

The degradation pathways of chlorinated aliphatic compounds may occur through a combination of abiotic and biotic steps (Vogel, et al., 1987). The exact micro

environment necessary for each individual step is still a topic open to on-going research. Biotic steps require microorganisms, whereas abiotic steps do not require microbes. Abiotic processes take place on mineral surfaces or in solutions where proper conditions exist. Both biotic and abiotic steps take place under aerobic and anaerobic conditions. As examples applicable to this site, there are two possible degradation pathways of chlorinated aliphatic compounds which may explain the occurrence of certain compounds found in the soil and groundwater beneath the site.

The relationship for the chlorinated ethenes at the site is summarized as:

(1) PCE  $\rightarrow$ TCE  $\rightarrow$ 1,1-DCE or cis-1,2-DCE or trans-1,2-DCE  $\rightarrow$ VC

An alternative pathway which can produce chlorinated ethenes from ethanes can be summarized as:

(2) 1,1,1-TCA  $\rightarrow$ 1,1-DCA  $\rightarrow$ cis-1,2-DCE  $\rightarrow$ trans-1,2-DCE  $\rightarrow$ chloroethane(CE)  $\rightarrow$ VC

PCE is typically used in dry cleaning fluid; degreasing and drying metals and other solids; solvent for waxes, greases, fats, oils, gums; manufacturing printing inks and paint removers; preparation of fluorocarbons and trichloroacetic acid; vermifuge; heat-transfer medium; and organic synthesis (Montgomery, 1991).

According to General Tire, Inc., none of the solvents detected were used on site. However, Style Center Cleaners has been operating adjacent (north) to the subject site. It appears that the existing contamination probably originated off site and proceeded to migrate beneath the subject site. Possible pathways for off-site source(s) to impact General Tire's facility are:

- » groundwater transport;
- » transport through capillary fringe;
- » vapor transport from groundwater to vadose zone; and
- » neighboring vadose zone source(s)

1,1-DCA and 1,1,2,2-TCA were detected only in groundwater samples from MW-1, and they were not detected in any of the soil samples. The sources of these two chemicals is currently unknown. However, as presented above, 1,1-DCA may be degradation product of a parent compound 1,1,1-TCA. 1,1,1-TCA was detected in MW-1 during the 1992 groundwater sampling event. During both sampling rounds, 1,1,1-TCA was not detected above the reported detection limit. Typical uses of 1,1,1-TCA are: organic synthesis; solvent for metal cleaning of precision

instruments; textile processing; aerosol propellants; and pesticide (Montgomery, 1991).

#### Total Extractable Petroleum Hydrocarbons

TEPH-mo has been detected at a concentration range of 12 mg/kg to 340 mg/kg in soil samples collected from Boreholes MW2, MW3, SB1, SB4, and SB5. TEPH-d (55 mg/kg) was detected only in the soil sample collected from Borehole SB1. TEPH-k was not detected in any of the soil samples.

TEPH-mo and -k were detected in the 1993 groundwater sample collected from MW-2. However, it was not detected in this well during the 1994 sampling round. TEPH-d,k,mo were not detected in any of the groundwater samples collected from MW-1 and MW-3.

As stated previously, MW-2 is the upgradient well. Therefore, it is possible that the detected TEPH-mo and -k originated off-site, and proceeded to migrate beneath the subject site.

#### 5.2 RECOMMENDATIONS

Based on the information assembled during this investigation at the General Tire Oakland facility, it appears that the existing contamination probably originated offsite and proceeded to migrate beneath the subject site via any of the following potential pathways: groundwater transport, transport through capillary fringe, vapor transport from groundwater to vadose zone, and neighboring vadose zone source spreading on the subject site.

Therefore, by submission of this report, General Tire, Inc., respectfully requests that Alameda County Health Care Services identify other Potential Responsible Parties (PRP); and relieve General Tire, Inc., of any further environmental investigations at this site.

#### 6.0 REFERENCES

- A.C.C. Environmental Consultants, October 9, 1992. Tank Closure Report, Peralta Community College -Maintenance Yard.
- Alameda County, Department of Environmental Health, May 4, 1990. Inspection Report.
- Alameda County, Department of Environmental Health, May 4, 1990. Inspection Report.
- Alameda County, Department of Environmental Health, May 4, 1990. Inspection Report.
- Alameda County, Department of Environmental Health, May 6, 1991. Hazardous Materials Management Plan.
- Alameda County, Health Care Services Agency, June 5, 1991. Facility Questionnaire.
- Alameda County. March 4 1985. Hazardous Waste Generator Inspection and Compliance Report.
- Barney M. Chen, Hazardous Materials Specialist, Alameda County, July 18, 1990. Letter to Mr. James Oliver, PES Environmental. Reference: Soil and Groundwater Investigation at East 12<sup>th</sup> Street and 14<sup>th</sup> Avenue, Oakland.
- Barney M. Chen, Hazardous Materials Specialist, Alameda County, October 29, 1991. Letter to Mr. George Brooks, Manager Environmental Control, Crowley Maritime Corporation.
- Baseline Environmental Consulting, April 12, 1989. Report Tank Removal and Remediation Activities.
- Baseline Environmental Consulting, December 1991. Report on Underground Storage Tank Removals.
- California Department of Water Resources, 1982, <u>Phase I Water Well Survey</u>, <u>Proposed Oakland Inner Harbor Deepening Project, Central District, September 1982.</u>
- Canonie Environmental Services Corp., April 3, 1989. Completion Report Underground Storage Tank Removal.

- ChromaLab, Inc., January 11, 1994, Correspondence from Jill Thomas, Quality Assurance Manager at ChromaLab, Inc., to Romena Jonas, Project Manager, Jonas & Associates Inc.
- Clayton Environmental Consultants, September 1992. Revised Work Plan for Subsurface Investigation at Liquid Carbonic Corporation.
- Department of Health Services, August 24, 1988. Preliminary Assessment Recommendations for Further Action.
- Environmental Management Inc., December 7,1987. Notification of Hazardous Waste Discharge by Crosby & Overton.
- Environmental Mitigation Group, December 13, 1990. Phase I Environmental Assessment Report, Commercial Tire Company, 1201 14<sup>th</sup> Avenue, Oakland, California.
- EPA, SF, 8/11/1989. TSCA#6 PCB Investigation. Inspection Report.
- ERM-West, May 1989. Remedial Investigation Report for Embarcadero Cove State Superfund Site.
- ERM-West, May 19, 1989. Risk Assessment for Embarcadero Cove State Superfund Site.
- H<sup>+</sup>GCL, April 1992. Phase II Investigation, 1201 14<sup>th</sup> Avenue, Oakland, California.
- J. G. McTague, Chevron, September 4, 1985. Letter to Mr. Dale Boyer, Regional Water Quality Control Board.
- Mardo Kaprealian, Kaprealian Engineering Inc., January 13, 1987. Letter to Mr. Paul Paradiso, Paradiso Construction Company.
- Mark Youngkin, Geologist, Environmental Technology, August 14, 1989. Letter to Mr. Ed Bronstein, American Ink Products.
- Merck Index, Ninth Edition, Merck & Co., Inc.
- Notification to Counties of Hazardous Waste Discharge, January 31, 1991.
- Rafat Shahid, Chief, Hazardous Materials Division, Alameda County, May 25, 1988. Letter to Goodyear Tire and Rubber Co.
- Rafat A. Shahid, Chief, Hazardous Materials Division, Alameda County, July 21, 1988. Letter to Mr. Robert A. Stolzman, Harding Lawson Associates, Inc.

- Sanborn Insurance Map, Oakland, 1903 and 1928.
- Steve Jones, Operations Manager, Rhodes-Jamieson, July 25, 1985. Letter to Mr T.M. Gerow, Alameda County Health Agency.
- Triangle Environmental, Inc., January 26, 1991. Precision Tank and Line Test Results.
- Versar Inc., May 6, 1992. Preliminary Investigation and Evaluation Report
- Versar Inc., June 13, 1991. Site Investigation Work Plan, Pacific Dry Dock and Repair Yard II.
- Versar Inc.. October 2, 1990. Site Assessment Report for Pacific Dry Dock and Repair Yards 1 and 2.
- Vogel, Timothy M., Craig S. Criddle, and Perry L. McCarty. 1987. Transformations of Halogenated Aliphatic Compounds. Environmental Science and Technology., Vol. 21, No. 8, August 1987 pgs 722-736., Copyright American Chemical Society.

Appendix A

Drilling Permits, Water Well Driller's Reports, and Borehole Logs

General Tire Oakland Facility



# **ZONE 7 WATER AGENCY**

FOR APPLICANT TO COMPLETE

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2600" FAX (510) 462-3014

FOR OFFICE USE

#### DRILLING PERMIT APPLICATION

DOATION OF PROJECT 1201 14th Avenue	PERMIT NUMBER 93509
Oakland, CA 94606	LOCATION NUMBER
MW-2 & MW-3	
Name General Tire Inc.  Address One General Street Voice  Ty Akron, Ohio Zip 216-798-2537 Phone	PERMIT CONDITIONS  Circles Permit Requirements Apply
APPLICANT 33329-00) ZiP	_
ame Jonas & Associates Inc.	(A)GENERAL
1056 Dale Place Fax 510-680-6511	1. A permit application should be submitted so as to arrive at the
Address Voice	Zone 7 office five days prior to proposed starting date.
ty Concord, CA Zp 94518	2. Submit to Zone 7 within 60 days after completion of permitte
TYPE OF PROJECT  **Yell Construction Geotechnical Investigation    Cethodic Protection General	work the original Department of Water Resources Water We Drivers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.  2. Parmit is void if project not begun within 90 days of approve
Water Supply Contamination Monitoring X Well Destruction	B.)WATER WELLS, INCLUDING PIEZOMETERS
Domestic Industrial Other Monitoring unicipal Irrigation MW-2  DRILLING METHOD: Hud Rotary Air Rotary Auger X Hable Other  DRILLER'S LICENSE NO. 607458 (C-57)	<ol> <li>Minimum surface seal thickness is two inches of cament groplaced by tremia.</li> <li>Minimum seal depth is 50 feet for municipal and industrial value 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 GEOTEGHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremiad dement groupshall be used in place of compacted cuttings.</li> <li>D. CATHODIC. Fill hole above anode zone with concrete placed by tremial.</li> </ol>
Drill Hole Diameter 8.5 in. Maximum  Casing Diameter 4 in. Depth 16.5 ft.  Surface Sea Depth 4 ft. Number 2	E. WELL DESTRUOTION. See attached.
ECTECHNICAL PROJECTS	
Hole Dizmeter in Depth to	
THATED STARTING DATE 9/7/93  ESTIMATED COMPLETION DATE 9/7/93  Welleby agree to comply with all requirements of this permit and Alameda Bunty Ordinance No. 73-68	Approved Hong Hong Date 13 Se:
GNATURE ROOMENA DATE 9/9/93	919

# ZONE ALESONATION OF THE STATE O

APPLICANTS

## 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	FOR OFFICE USE
LOCATION OF PROJECT 1201 14th Avenue  Oakland, CA 94606	PERMIT NUMBER 94373 LOCATION NUMBER
CHENT Lime General Tire Inc.	PERMIT CONDITIONS
AddressOne General Street Phone (216) 798-2537  Ty Akron, Ohio Dp 33329-0001	Circled Permit Requirements Apply
APPLICANT Name Jonas & Associates Inc. Suite 209  Indiress2815 Mitchell Drive Phone (510) 933-5360 City Walnut Creek, CA Zip 94598  If PE OF PROJECT Well Construction Geotechnical Investigation If Cathodic Protection General Water Supply Contamination X Monitoring Well Destruction Industrial Other Municipal Industrial Other Municipal Industrial Other  Municipal Industrial Other  Municipal Industrial Other  DRILLER'S LICENSE NO. 607458 (C-57)  ELL PROJECTS Drill Hole Diameter in Maximum Casing Diameter in Depth ft. Surface Soal Depth ft. Number	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 50 days after completion of permitted work the original Department of Water Resources Water Well Dritters 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 bentontle 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.
Number of Borings 5 Maximum Hole Diameter 4 in. Depth 15 ft.  FSTIMATED STARTING DATE 6/30/94	<i>H</i> a
I hereby agree to comply with all requirements of this permit and Alameda bunty Ordinance No. 73-58.	Approved Myman Hong Date 29 Jun 94 Wyman Heng

31992

# CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

# REMOVED

# CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

# REMOVED

Borehole #: B 1 Site: General Tire

Oakland (GT-213)

Sheet: 1 of 1

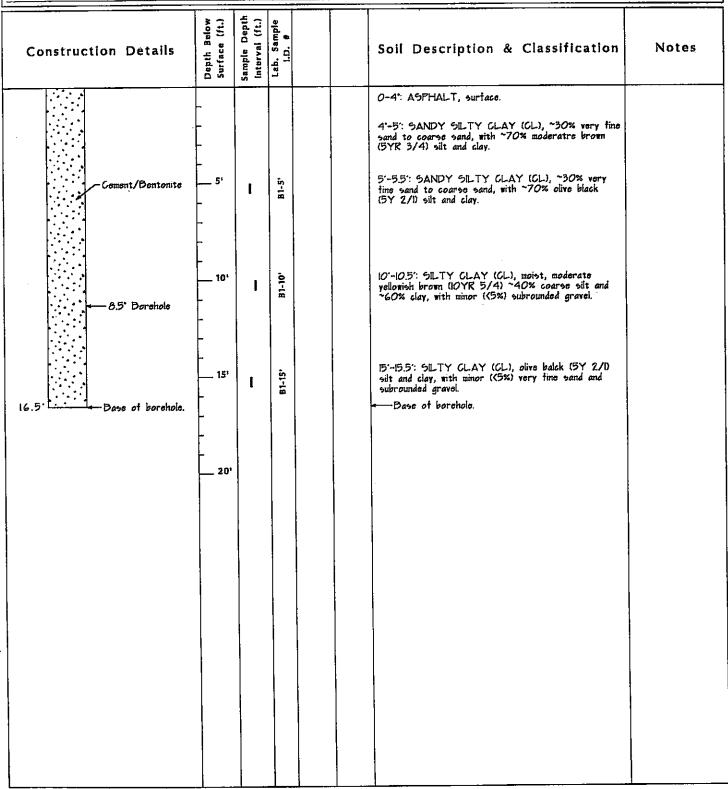
Driller: Advance Drilling Co. Inc. Rig: CME-75

Method: Hollow Stem Auger

Started: September 7, 1993 Finished: September 7, 1993 Location: ~5' NE of MW1 Surface Elev.: @MW1 18.58' msl Boring Depth: 16.5 feet bgs Screen Depth: no screen

Field Supervisor: Romena Jonas Supervising Engineer/Geologist: Dr. Jeff Sullivan, R.G.

Note: Borehole located approximately 5 feet northeast of MW1.



#### DRILLING & CONSTRUCTION WELL LOG

Well #: MW2

Site: General Tire
Oakland (GT-213)

Sheet: 1 of 1

Driller: Advance Drilling Co. Inc. Rig: CME-75 Method: Hollow Stem Auger
Started: September 7, 1993 Finished: September 7, 1993 Location: north of building
Surface Elev.: TopPVC:20.18';Lid/gs:20.77' Boring Depth: 16.5' bgs Screen Depth: 5.5'-15.5' bgs
Field Supervisor: Romena Jonas Supervising Engineer/Geologist: Dr. Jeff Sullivan, R.G.

Note:

Construction Details	Depth Below Surface (ft.)	Sample Depth interval (ft.)	Lab. Sample LD. #	G.W. Depth  Z. drilling  W/casing	Graphic Log	Soil Description & Classification	Notes
Well cap  Coment/Dentonite  Blank 4° PVC casing	- -					0-4" ASPHALT, surface.  4"-5" SANDY SLTY CLAY (CL), ~30% very fine sand to coarse sand, with ~70% moderate brown (SYR 3/4) silt and clay.	
Dentonite	- - -	ι	MW2-5'	_ 🗷		5'-5.5': SILTY SANDY GRAVEL (GM), ~60% subangular gravel, ~40% very coarse sand, and olive black (IOG 4/2) silt, with minor (5%) clay.	6.80° Well water depth on 10/5/9
-4' PVC Screen 0.020' elot	- - 10'	1	MW2-10'			10-10.5: SANDY SILTY CLAY (CL), moist, moderate yellowish brown (10YR 5/4) and grayish green (100 4/2) ~35% coarse silt, ~55% clay, and ~10% very fine sand.	
5: Well cap 5: Dase of borshole.	- - - - -	1	MW2-15'	- 32		15'-15.5': SILTY CLAY (CL), moist, olive black (5Y 2/1) silt and clay, with minor ((5%) very fine sand. Some wood chips.  ——Dase of borehole 16.5'.	IZT First Water on 9/7/93
	- 20'						
					į	4 4	

#### DRILLING & CONSTRUCTION WELL LOG

Well #: MW3 Site: General Tire

Oakland (GT-213) Sheet: 1 of 1

Driller: Advance Drilling Co. Inc. Rig: CME-75 Started: September 7, 1993 Finished: September 7, 1993 Location: south of building

Method: Hollow Stem Auger

Surface Elev.: TopPVC:19.55';Lid/gs:19.99' Boring Depth: 16.5' bgs Screen Depth: 5.5'-15.5' bgs

Field Supervisor: Romena Jonas Supervising Engineer/Geologist: Dr. Jeff Sullivan, R.G.

Construction Details	Depth Below Surface (ft.)	Sample Depth Interval (ft.)	Lab. Sample I.D. #	G.W. Depth  A drilling  W/casing	Graphic Log	Soil Description & Classification	Notes
₩eil cap						0-4": ASPHALT, surface.	
Gement/Dentonite  Dlank 4' PVC casing						4'-5': SANDY SILTY CLAY (CL), ~30% very fine sand to coarse sand, with ~70% moderate brown (5YR 3/4) silt and clay.	
4.5. Dentonite	<b>5</b> '	1	MW3-5'			5'-5.5': CLAYEY SAND (SC), moist, ~90% subangular to subrounded sand, ~10% light brown (SYR 5/6) clay.	
4. PVC Screen 0.020 slot	10'		MW3-10'	- <b>X</b>		10'-10.5': SILTY CLAY (CL), olive black (5Y 2/1) eilt and clay, with minor ((5%) very fine eand and subrounded gravel.	10.51 Well water depth on 10/5/93
#3 Sand  #3 Sand  Well cap  16.5:  Dase of borehole.	15'	1	MW3-15'			15'-15.5': SILTY GLAY (GL), moist, ~45% coarse silt and ~55% dark yellowish brown (IOYR 4/2) clay.  Dase of borehole 16.5'.	
	20'						

Borehole #: SB1

Site: General Tire

Oakland (GT-213)
Sheet: 1 of 1

Driller: Advance Drilling Co. Inc.
Started: June 30, 1994

Surface Elev.:

Boring Depth: 9 feet bgs

Screen Depth: no screen

Field Supervisor: Romena Jonas Supervising Engineer/Geologist: Dr. Homer Johnstone P.E.

Note: Borehole located approximately 10 feet southwest of MW2.

Construction Details	Depth Below Surface (ft.)	Sample Depth Interval (ft.) Lab. Sample	G.W. Depth	Graphic Log	Soil Description & Classification	Notes
Gement/Bentonite  6° Borehole  Danc of borehole.		1	C.7.18c C.18c		O-4": ASPHALT, surface.  2"-2.5": SANDY CLAY (CL), ~40% 20 to 40 grade subrounded to subangular sand, with ~60% moderate brown (SYR 3/4) silt and clay.  5"-5.5": SANDY SILTY CLAY (CL), ~15% coarse sand, with ~85% dursky yellowish brown (IOYR 2/2) silt and clay.  4"-9.5": SILTY CLAY (CL), moist, dark yellowish brown (IOYR 4/2) to dusky yellowish brown (IOYR 2/2) silt and clay. Minor fine sand.  — Dase of borehale.	0-4": ASPHALT  "9.0": Groundwater, Base of Borehole.
		<u> </u>				

Borehole #: SB2

Site: General Tire

Oakland (GT-213) Sheet: 1 of 1

Driller: Advance Drilling Co. Inc.
Started: June 30, 1994

Surface Elev.:
Field Supervisor: Romena Jonas

Rig: CME-75

Method: Hollow Stem Auger

Finished: June 30, 1994

Location: 20' NE of MW2

Screen Depth: no screen

Supervising Engineer/Geologist: Dr. Homer Johnstone P.E.

Note: Borehole located approximately 20 feet northeast of MW2.

Construction Details    To go							
Coment/Bentonite  2'-2.5': SANDY SILTY CLAY (CL), ~20% fine and with ~60% dusky yellowish brown (IOYR 2/2) silt and clay.  5'-5.5': SILTY CLAY (CL), moist moderate yellowish brown (IOYR 5/4) silt and clay. Minor time sand.  9'-9.5': SILTY CLAY (CL), moist, dusky yellowish brown (IOYR 2/2) silt and clay with minor time sand.  Dasc of borehols.  10'  10'  10'  10'  10'  10'  10'  10	Construction Details	Depth Below Surface (ft.) Sample Depth	lab. Sample	G.W. Depth & drilling	Graphic Log	Soil Description & Classification	Notes
	6 Borchole	- - - - - - - - - - - - - - - - - - -	\$B2-5; \$B2-2'			2'-2.5': SANDY SILTY CLAY (CL), ~20% fine and with ~80% dusky yellowish brown (IOYR 2/2) silt and clay.  5'-5.5': SILTY CLAY (CL), moist moderate yellowish brown (IOYR 5/4) silt and clay. Minor time sand.  9-9.5': SILTY CLAY (CL), moist, dusky yellowish brown (IOYR 2/2) silt and clay with minor time sand.	~90': Grandvater.

Borehole #: SB3

Site: General Tire Oakland (GT-213)

Sheet: 1 of 1

Driller: Advance Drilling Co. Inc.
Started: June 30, 1994

Surface Elev.:

Field Supervisor: Romena Jonas

Note: Borehole located approximately 40 feet southwest of MW2.

Rig: CME-75

Method: Hollow Stem Auger

Location: 40' SW of MW2

Screen Depth: no screen

Supervising Engineer/Geologist: Dr. Homer Johnstone P.E.

							· · · · · · · · · · · · · · · · · · ·	
C	onstruction Details	Depth Below Surface (ft.)	Sample Depth Interval (ft.)	Lab. Sample LD. #	G.W. Depth & drilling	Graphic Log	Soil Description & Classification	Notes
	Coment/Dentonite	-	ī	\$83-2'		1,1,1,1	0-4": ASPHALT, surface.  2'-25": SANDY SILTY GLAY (GL), ~25% very fine sand to course sand with ~75% dusky yellowish brown (IOYR 2/2) silt and clay.	0-4": ASPHALT
	6 Dorehole	- 5'	1	SB3.5			5'-5.5': SANDY SILTY CLAY (CL), ~15% very fine early with 85% moderate yellowish brown (10YR 5/4) silt and clay.	
q	Dass of borehole.	10'	1	\$B3-9°	፟፟፟፟፟፟፟፟		9'-95': SANDY SILTY CLAY (CL), ~10% very fine sand with ~40% dusky yellowish brown (10YR 2/2) silt and clay.  ——Base of borehole.	~9.0": Groundwater, Base of Borchols.
		- -						
		15'						
1		<b>;</b>						

Borehole #: SB4

Site: General Tire

Oakland (GT-213)

Sheet: 1 of 1

Driller: Advance Drilling Co. Inc. Rig: CME-75 Method: Hollow Stem Auger
Started: June 30, 1994 Finished: June 30, 1994 Location: 32' NE of MW1
Surface Elev.: Boring Depth: 9 feet bgs Screen Depth: no screen
Field Supervisor: Romena Jonas Supervising Engineer/Geologist: Dr. Homer Johnstone P.E.
Note: Borehole located approximately 32 feet northeast of MW1.

Construction Details	Depth Below Surface (ft.)	Sample Depth Interval (ft.)	Lab. Sample LD. #	G.W. Depth St drilling	Graphic Log	Soil Description & Classification	Notes
Coment/Dentonite	-	1	SB4-2'		1,1,1,1	0-4": ASPHALT, surface.  2"-2.5": SANDY SILTY CLAY (CL), "15% fine sand with "85% dusky yellowish brown (10YR 2/2) silt and clay.	0-4" ASPHALT
6 Barchole	- - 5'	l 	SB4-5'			5'-5.5': SANDY SILTY CLAY (CL), ~20% coarse sand with 80% dark yellowish brown (10YR 4/2) to dusky yellowish brown (10YR 2/2) silt and clay.	
Page of borehole.	- - -	1	\$B4.9°	区		9'-9.5: SILTY CLAY (CL), moderate yellowish brown (IOYR 5/4) caly and silt with minor amounts of very time sand.  ——Base of borehole.	~9.0°: Groundwater. Dase of Dorchols
	10' - -	1					
	151						
						·	:

Borehole #: SB5

Site: General Tire

Oakland (GT-213)

Sheet: 1 of 1

Driller: Advance Drilling Co. Inc.
Started: June 30, 1994

Surface Elev.:
Field Supervisor: Romena Jonas

Note: Borehole located approximately 40 feet southwest of MW1.

Rig: CME-75

Method: Hollow Stem Auger

Location: 40' SW of MW1

Screen Depth: no screen

Supervising Engineer/Geologist: Dr. Homer Johnstone P.E.

Construction Details	Depth Below Surface (ft.)	Sample Depth Interval (ft.)	Lab. Sample I.D. #	G.W. Depth & drilling	Graphic Log	Soil Description & Classification	Notes
Goment/Dentonite  6' Borchole  9' Base of borchole.	5'	1	SB5.9' SB5.5' SB5.2'	X		O-4": ASPHALT, surface.  2'-2.5": SANDY SILTY CLAY (CL), ~10% very fine sand with ~90% dusky yellowish brown (IOYR 2/2) silt and clay.  5'-5.5": SANDY SILTY CLAY (CL), ~15% fine sand with ~85% dark (IOYR 4/2) to dusky (IOYR 2/2) yellowish brown silt and clay.  4'-9.5": SILTY CLAY (CL), moist olive gray (SYR 3/2) silt and clay with minor amounts of very fine sand.  Base of borehole.	0-4": ASPHALT  ~9.0": Groundwater, Dase of Dorehole.
	10°						

Appendix B Non-Hazardous Waste Transport Forms

### NON-HAZARDOUS WASTE TRANSPORT FORM

	GENERATOR IN	FORMATION		
1	NAME:	GENERAL TIR	E INC.	<del></del>
	ADDRESS:	ONE GENERAL	L ST.	<del></del>
	CITY,STATE,ZIP:	AKRON, OHIO	33329PHONE #:	
	DESCRIPTION OF SOFL	SOIL GENERATED DOE:	OURING TRENCHING, DRILLING, OR EXCAVATION SVENT.	
			A MANAGERIA	' in lake
ı	THE CONTRACTOR CERTIFIES THE		(Typed or printed full name & signature)	(Date)
•	SITE INFORMA		ADDRESS	CY
	STA#	TWM JOB #		.75
1	1201-14TH	30904-DS	1201 14TH AVE., OAKLAND, CA	. 73
2.				
4				
5				
6				
8 -				
9				
10				
11 12				
٠-			TOTAL CU. YARDS:	.75
	TRANSPORTER	DUNCODMAT	TON	
	NAME:	•	WASTESTREAM MANAGEMENT, INC.	· • · · · · · · · · · · · · · · · · · ·
	ADDRESS:	950 AMES AV		
	CITY,STATE,ZIP:	MILPITAS, CA	A 95035 PHONE #: (408) 942-895.	1 1.12.92
	TRUCK ID #: 57	DAMA	(Typed or printed full name & signature)	(Date)
	TSD FACILITY	INFORMATI	ON	
	NAME:	B & J LANDF		
	ADDRESS:	6426 HAY RD	<del></del>	
	CITY,STATE,ZIP:	VACAVILLE,		5
	BILL TO: APPROVAL #:	IWM, INC.	(Typed or printed full named signature)	/-/7-54 (Date)

IWM, INC.

PAGE 03

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	•	, ,
	?	ľ

{TF	}		TF NUMBER:	
(	•	WA	TER TRANSPORT FORM	
	GENERATOR IN	FORMATION		
	NAME:	GENERAL TIRE	INC.	
	ADDRESS:	ONE GENERAL	ST.	
	CITY,STATE,ZIP:	AKRON, OHIO	33329 PHONE #:	
	description of water	GENERATED DURING THE	ED DURING SAMPLING OF DEVELOPMENT OF MONITORING WELLS. AUGSE RINSATE REPETALLATION OF MONITORING WELLS. GROUND WATER FROM AQUIPER PERFORMANCE FAIN DISSOLVED HYDROCARSONS.	12/11/93
	THE GENERATOR CERTIFIES TH AS DESCRIBED IS NON-KAZARD	1	(Typed or printed full name & signature)	(Date)
	SITE INFORMA	TION		
	STA#	IWM JOB#	ADDRESS	GALS
t	1201-14TH	30903-DW	1201 14TH AVE. OAKLAND, CA	70
2				
3				
4				
5	···			
6 7		1		
8				
9				
10	)			
		•	TOTAL GALLONS:	16
	TRANSPORTER			
	NAME:	INTEGRATED	WASTESTREAM MANAGEMENT, INC.	
	ADDRESS:	950 AMES AVE		
	CITY,STATE,ZIP:	MILPITAS, CA	95035 PHONE #; (408) 942	
	TRUCK ID #: /0.2	For	Turnen nain much much	(Date)
			(Typed or printed full name & signature)	(Dino)
-	TSD FACILITY	INFORMATIC	N	
	NAME:	GIBSON ENVI	RONMENTAL	<u> </u>
	ADDRESS:	475 SEAPORT		
	CITY.STATE.ZIP	REDWOOD CI	TY. CA 94063 PHONE #: (415) 36	
	RELEASE #:	13374	TONATUR H MERINE fort might	/-//- 57 (Date)
	•		(Typed or printed full name & signature)	(DEE)

Appendix C Laboratory Analytical Reports and Chain-of-Custody Forms General Tire Oakland Facility

Environmental Laboratory (1094)

**5 DAYS TURNAROUND** 

September 14, 1993

ChromaLab File No.: 9309091

JONAS & ASSOCIATES, INC.

Attn: Romena Jonas

RE: Eight soil samples for Gasoline and BTEX analysis

Project Name: GENERAL TIRE-OAKLAND

Project Number: GT-213

Date Sampled: Sept. 7, 1993 Date Submitted: Sept. 7, 1993

Date Analyzed: Sept. 13, 1993

#### RESULTS:

Sample	Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes
<del>-</del>					_
I.D.	(mg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	( <u>µg/Kg)</u>
MW2-5'	N.D.	N.D.	N.D.	N.D.	N.D.
MW2-10'					
	N.D.	N.D.	N.D.	N.D.	N.D.
MW2-15'	N.D.	N.D.	N.D.	N.D.	N.D.
MW3-5'	N.D.	N.D.	N.D.	N.D.	N.D.
MW3-10'	N.D.	N.D.	N.D.	N.D.	N.D.
MW3-15'	N.D.	N.D.	N.D.	N.D.	N.D.
DRUM-MW2	N.D.	N.D.	N.D.	N.D.	N.D.
DRUM-MW3	N.D.	N.D.	N.D.	N.D.	N.D.
DT AND	.v. 5				
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	108%	97%	98%	95%	95%
DUP SPIKE RECOVERY		100%	101%	100%	99%
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/8015	8020	8020	8020	8020

ChromaLab, Inc.

Billy Thach Analytical Chemist

Eric Tam

Laboratory Director

CC

Environmental Laboratory (1094)

5 DAYS TURNAROUND

September 14, 1993

ChromaLab File No.: 9309091

JONAS & ASSOCIATES, INC.

Attn: Romena Jonas

RE: Eight soil samples for TEPH analysis

Project Name: GENERAL TIRE-OAKLAND

Project Number: GT-213

Date Sampled: Sept. 7, 1993 Date Submitted: Sept. 7, 1993
Date Extracted: Sept. 11, 1993 Date Analyzed: Sept. 11, 1993

#### RESULTS:

Sample	Kerosene	Diesel	Motor Oil
_I.D.	(mg/Kg)	(mg/Kg)	(mq/Kg)
MW2-5'	N.D.	N.D.	N.D.
MW2-10'	N.D.	N.D.	18
MW2-15'	N.D.	N.D.	N.D.
MW3-5'	N.D.	N.D.	18
MW3-10'	N.D.	N.D.	N.D.
MW3-15'	N.D.	N.D.	N.D.
DRUM-MW2	N.D.	N.D.	N.D.
DRUM-MW3	N.D.	9.3	50
BLANK	N.D.	N.D.	N.D.
SPIKE RECOVERY		95%	
DUP SPIKE RECOVERY		95%	
DETECTION LIMIT	1.0	1.0	10.0
METHOD OF ANALYSIS	3550/8015	3550/8015	3550/8015

ChromaLab, Inc.

Alex Tam

Analytical Chemist

Eric Tam

Laboratory Director

CC

September 14, 1993

ChromaLab File#: 9309091

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Project#: GT-213

Submitted: September 7, 1993

re: One sample for Volatile Halogenated Organics analysis.

Sample: MW2-5'

Matrix: SOIL

Lab #: 14854-761 Sampled: September 7, 1993 Analyzed: September 8, 1993

Method: EPA 8010

	•	REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	N.D.	5 5 5 5 5 5	N.D.	
VINYL CHLORIDE	N.D.	5 .	N.D.	· ·
BROMOCHLOROMETHANE	N.D.	5	N.D.	
CHLOROETHANE	N.D.	5	N.D.	
√TRICHLOROFLUOROMETHANE	N.D.	5	N.D.	
1,1-DICHLOROETHENE	N.D.	5	N.D.	108
METHYLENE CHLORIDE	N.D.	T00	N.D.	
TRANS-1,2-DICHLOROETHENE	N.D.	5	N.D.	
CIS-1,2-DICHLOROETHENE	5.9	5	N.D.	
1,1-DICHLOROETHANE	N.D.	5	N.D.	
CHLOROFORM	N.D.	5	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	5	N.D.	
CARBON TETRACHLORIDE	N.D.	5	N.D.	
1,2-DICHLOROETHANE	N.D.	5	Ŋ.D.	
TRICHLOROETHENE	6.6	5	N.D.	
1,2-DICHLOROPROPANE	N.D.	5	N.D.	- <del>-</del>
BROMODICHLOROMETHANE	N.D.	5	N.D.	<b></b>
2-CHLOROETHYL VINYL ETHER	N.D.	5	N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5	Ŋ.D.	
CIS-1,3-DICHLOROPROPENE	Ŋ.D.	5	N.D.	
1,1,2-TRICHLOROETHANE	N.D.	5	N.D.	
TETRACHLOROETHENE	73_	. 5	N.D.	97
DIBROMOCHLOROMETHANE	Ŋ.D.	5	N.D.	
CHLOROBENZENE	N.D.	5	Ŋ.D.	
BROMOFORM	Ŋ.D.	5	Ŋ.D.	
1,1,2,2-TETRACHLOROETHANE	N.D.	ž	Ŋ.D.	103
1,3-DICHLOROBENZENE	N.D.	5	Ŋ.D.	
1,4-DICHLOROBENZENE	N.D.	មានមានមានមានមានមានមានមានមានមានមានមានមាន	Ŋ.D.	
1,2-DICHLOROBENZENE	N.D.	ž	N.D.	
FREON 113	N.D.	5	N.D.	- <del>-</del>

ChromaLab, Inc.

Analyst

September 14, 1993

ChromaLab File#: 9309091

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Project#: GT-213

Submitted: September 7, 1993

re: One sample for Volatile Halogenated Organics analysis.

Sample: MW2-10'

Matrix: SOIL

Sampled: September 7, 1993 Analyzed: September 8, 1993 Lab #: 14855-761

Method: EPA 8010

	•	REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)		(%)
CHLOROMETHANE	N.D.		N.D.	<u> </u>
VINYL CHLORIDE	N.D.	. 5	N.D.	
BROMOCHLOROMETHANE	N.D.	5	N.D.	
CHLOROETHANE	N.D.	5	N.D.	
TRICHLOROFLUOROMETHANE	N.D.	5 5 5 5 5 5 5	N.D.	<u></u>
1,1-DICHLOROETHENE	N.D.	5	N.D.	108
METHYLENE CHLORIDE	N.D.	100	N.D.	·
TRANS-1,2-DICHLOROETHENE	8.7	5	N.D.	w
CIS-1,2-DICHLOROETHENE	240	5	N.D.	
1,1-DICHLOROETHANE	N.D.	- 5	N.D.	
CHLOROFORM	N.D.	5	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	5	N.D.	
CARBON TETRACHLORIDE	N.D.	5	N.D.	<b></b> '
1,2-DICHLOROETHANE	N.D.	5	N.D.	
TRICHLOROETHENE	360	5	N.D.	94
1,2-DICHLOROPROPANE	N.D.	5	N.D.	
BROMODICHLOROMETHANE	N.D.	5	N.D.	
2-CHLOROETHYL VINYL ETHER	N.D.	5	N.D.	<del></del>
TRANS-1,3-DICHLOROPROPENE	N.D.	5	N.D.	<del>-</del> -
CIS-1,3-DICHLOROPROPENE	N.D.	5	N.D.	<del>-</del> -
1,1,2-TRICHLOROETHANE	N.D.	- 5	N.D.	<del>-</del> -
TETRACHLOROETHENE	110	5	N.D.	97
DIBROMOCHLOROMETHANE	N.D.	5	N.D.	. <del></del>
CHLOROBENZENE	N.D.	5	Ŋ.D.	. <del></del>
BROMOFORM	N.D.	5	Ŋ.D.	
1,1,2,2-TETRACHLOROETHANE	N.D.	5	N.D.	103
1,3-DICHLOROBENZENE	N.D.	5	N.D.	
1,4-DICHLOROBENZENE	N.D.	5	Ŋ.D.	
1,2-DICHLOROBENZENE	N.D.	ភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភ	N.D.	
FREON 113	N.D.	5	N.D.	

ChromaLab, Inc

Environmental Laboratory (1094)

September 14, 1993

ChromaLab File#: 9309091

5 DAYS TURNAROUND

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Submitted: September 7, 1993

Project#: GT-213

re: One sample for Volatile Halogenated Organics analysis.

Sample: MW2-15' Matrix: SOIL

Sampled: September 7, 1993 Analyzed: September 8, 1993 Lab #: 14856-761

Method: EPA 8010

	•	REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(uq/Kq)	(ug/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	N.D.	5	N.D.	<b></b>
VINYL CHLORIDE	N.D.	5	N.D.	
BROMOCHLOROMETHANE	N.D.	555555	N.D.	
CHLOROETHANE	N.D.	5	N.D.	<del>-</del> -
TRICHLOROFLUOROMETHANE	N.D.	5	N.D.	
1,1-DICHLOROETHENE	N.D.	5	N.D.	
METHYLENE CHLORIDE	N.D.	100	N.D.	
TRANS-1,2-DICHLOROETHENE	Ŋ.D.	5	N.D.	
CIS-1,2-DICHLOROETHENE	N.D.	5	Ŋ.D.	·
1,1-DICHLOROETHANE	N.D.	5	N.D.	
CHLOROFORM	Ŋ.D.	5	N.D.	
1,1,1-TRICHLOROETHANE	Ŋ.D.	. 5	N.D.	
CARBON TETRACHLORIDE	N.D.	5	N.D. N.D.	
1,2-DICHLOROETHANE	N.D.	5	N.D.	94
TRICHLOROETHENE	N.D.	5	N.D.	J4 
1,2-DICHLOROPROPANE	N.D. N.D.	ח	N.D.	
BROMODICHLOROMETHANE	N.D.	5	N.D.	
2-CHLOROETHYL VINYL ETHER	N.D.	5	N.D.	
TRANS-1,3-DICHLOROPROPENE CIS-1,3-DICHLOROPROPENE	N.D.	Ę	N.D.	
1,1,2-TRICHLOROETHANE	N.D.	ξ	N.D.	· <del></del>
TETRACHLOROETHENE	N.D.	· 5	N.D.	97
DIBROMOCHLOROMETHANE	N.D.	Š	N.D.	<del>-</del> -
CHLOROBENZENE	N.D.	5	N.D.	<del>-</del> -
BROMOFORM	N.D.	5	N.D.	<del>-</del> -
1,1,2,2-TETRACHLOROETHANE	N.D.	5	N.D.	103
1,3-DICHLOROBENZENE	N.D.	5	N.D.	
1,4-DICHLOROBENZENE	N.D.	5	N.D.	<b></b>
1,2-DICHLOROBENZENE	N.D.	555555555555555555555555555555	N.D.	
FREON 113	N.D.	5	N.D.	

ChromaLab, Inc.

Analyst

September 14, 1993

ChromaLab File#: 9309091

GT-213

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Project#:

September 7, 1993 Submitted:

re: One sample for Volatile Halogenated Organics analysis.

Sample: MW3-5'

Matrix: SOIL

Lab #: 14851-761 Sampled: September 7, 1993 Analyzed: September 8, 1993

Method: EPA 8010

		REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	N.D.		N.D.	
VINYL CHLORIDE	N.D.	5 5 5 5 5 5	N.D.	<del>-</del> - '
BROMOCHLOROMETHANE	N.D.	5	N.D.	
CHLOROETHANE	N.D.	5	N.D.	
TRICHLOROFLUOROMETHANE	N.D.	5	N.D.	<del>-</del>
1,1-DICHLOROETHENE	N.D.		N.D.	108
METHYLENE CHLORIDE	N.D.	100	N.D.	<u></u>
TRANS-1,2-DICHLOROETHENE	N.D.	5	N.D.	
CIS-1,2-DICHLOROETHENE	N.D.	5	N.D.	
1,1-DICHLOROETHANE	N.D.	5	N.D.	<del>-</del> -
CHLOROFORM	N.D.	5	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	5	N.D.	
CARBON TETRACHLORIDE	N.D.	5	N.D.	
1,2-DICHLOROETHANE	N.D.	5	N.D.	<del>-</del> -
TRICHLOROETHENE	N.D.	5	N.D.	94
1,2-DICHLOROPROPANE	N.D.	5	Ŋ.D.	
BROMODICHLOROMETHANE	N.D.	5	N.D.	
2-CHLOROETHYL VINYL ETHER	N.D.	5	N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5	Ŋ.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	5	Ŋ.D.	
1,1,2-TRICHLOROETHANE	N.D.	5	N.D.	
TETRACHLOROETHENE	N.D.	. 5	N.D.	97
DIBROMOCHLOROMETHANE	N.D.	5	N.D.	
CHLOROBENZENE	N.D.	5	Ŋ.D.	<del>- '-</del>
BROMOFORM	N.D.	5	Ŋ.D.	<del></del> -
1,1,2,2-TETRACHLOROETHANE	N.D.	5	N.D.	103
1,3-DICHLOROBENZENE	N.D.	ភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភ	N.D.	<del>-</del> -
1,4-DICHLOROBENZENE	Ŋ.D.	5	Ŋ.D.	
1,2-DICHLOROBENZENE	N.D.	5	N.D.	
FREON 113	N.D.	5	N.D.	<b></b>

ChromaLab, Inc.

Analyst

September 14, 1993

ChromaLab File#: 9309091

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Submitted: September 7, 1993

Project#: GT-213

re: One sample for Volatile Halogenated Organics analysis.

Sample: MW3-10'

*Matrix:* SOIL

Lab #: 14852-761 Sampled: September 7, 1993 Analyzed: September 8, 1993

Method: EPA 8010

		REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	N.D.		N.D.	
VINYL CHLORIDE	N.D.	5 5 5 5 5 5	N.D.	
BROMOCHLOROMETHANE	N.D.	5	N.D.	
CHLOROETHANE	N.D.	5	N.D.	
TRICHLOROFLUOROMETHANE	N.D.	5	N.D.	<del>-</del> ,
1,1-DICHLOROETHENE	N.D.		N.D.	108
METHYLENE CHLORIDE	N.D.	. 100	N.D.	·
TRANS-1,2-DICHLOROETHENE	N.D.	5	N.D.	
CIS-1,2-DICHLOROETHENE	N.D.	5	N.D.	
1,1-DICHLOROETHANE	N.D.	• • 5	N.D.	
CHLOROFORM	N.D.	5	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	5	N.D.	
CARBON TETRACHLORIDE	N.D.	5	N.D.	
1,2-DICHLOROETHANE	N.D.	5	N.D.	<del></del> -
TRICHLOROETHENE	N.D.	5	N.D.	94
1,2-DICHLOROPROPANE	N.D.	5	N.D.	
BROMODICHLOROMETHANE	N.D.	5	N.D.	
2-CHLOROETHYL VINYL ETHER	N.D.	5	N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5	N.D.	·
CIS-1,3-DICHLOROPROPENE	N.D.	5	N.D.	- <del>-</del>
1,1,2-TRICHLOROETHANE	N.D.	5	N.D.	
TETRACHLOROETHENE	N.D.	. 5	N.D.	97
DIBROMOCHLOROMETHANE	Ŋ.D.	5	N.D.	
CHLOROBENZENE	N.D.	5	N.D.	
BROMOFORM	N.D.	5	N.D.	<del></del>
1,1,2,2-TETRACHLOROETHANE	N.D.	5	N.D.	103
1,3-DICHLOROBENZENE	N.D.	ភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភ	N.D.	
1,4-DICHLOROBENZENE	N.D.	5	N.D.	
1,2-DICHLOROBENZENE	N.D.	5	N.D.	
FREON 113	N.D.	5	N.D.	<del>-</del> -

ChromaLab, Inc.

Analvst

September 14, 1993

ChromaLab File#: 9309091

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Submitted: September 7, 1993

Project#: GT-213

re: One sample for Volatile Halogenated Organics analysis.

Sample: MW3-15'

*Matrix:* SOIL

Lab #: 14853-761 Sampled: September 7, 1993 Analyzed: September 8, 1993

Method: EPA 8010

Method: EFA 6010				
		REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	N.D.	5	N.D.	=,=
VINYL CHLORIDE	N.D.	5	N.D.	<b></b>
BROMOCHLOROMETHANE	N.D.	5	N.D.	<b></b> .
CHLOROETHANE	N.D.	5	N.D.	
TRICHLOROFLUOROMETHANE	N.D.	5 5 5 5 5 5 5	N.D.	
1,1-DICHLOROETHENE	N.D.		N.D.	108
METHYLENE CHLORIDE	N.D.	100	N.D.	
TRANS-1,2-DICHLOROETHENE	N.D.	5	N.D.	· <del>-</del> -
CIS-1,2-DICHLOROETHENE	N.D.	5 .	N.D.	<del>-</del> -
1,1-DICHLOROETHANE	N.D.	5	N.D.	, <del></del>
CHLOROFORM	N.D.	5	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	5	N.D.	
CARBON TETRACHLORIDE	N.D.	5	N.D.	<del></del>
1,2-DICHLOROETHANE	N.D.	5	N.D.	
TRICHLOROETHENE	N.D.	5	N.D.	94
1,2-DICHLOROPROPANE	N.D.	5	N.D.	
BROMODICHLOROMETHANE	N.D.	5	Ŋ.D.	
2-CHLOROETHYL VINYL ETHER	N.D.	5	N.D.	<b></b> ,
TRANS-1,3-DICHLOROPROPENE	N.D.	5	N.D.	<del></del>
CIS-1,3-DICHLOROPROPENE	Ŋ.D.	5	N.D.	
1,1,2-TRICHLOROETHANE	N.D.	5	N.D.	
TETRACHLOROETHENE	N.D.	5	N.D.	97
DIBROMOCHLOROMETHANE	N.D.	5	Ŋ.D.	
CHLOROBENZENE	N.D.	5	Ŋ.D.	<del></del>
BROMOFORM	Ŋ.D.	5	Ŋ.D.	100
1,1,2,2-TETRACHLOROETHANE	N.D.	Ę	N.D.	103
1,3-DICHLOROBENZENE	Ŋ.D.	5	N.D.	
1,4-DICHLOROBENZENE	N.D.	þ	N.D.	
1,2-DICHLOROBENZENE	N.D.	សសសសសសសសសសសសសសសសសសសសសស	N.D.	
FREON 113	N.D.	5	N.D.	

ChromaLab, Inc.

Analyst

mar-

September 14, 1993

ChromaLab File#: 9309091

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Project#: GT-213

Submitted: September 7, 1993

re: One sample for Volatile Halogenated Organics analysis.

Sample: DRUM-MW2 Matrix: SOIL

Lab #: 14862-761 Sampled: September 7, 1993 Analyzed: September 8, 1993

Method: EPA 8010

•		REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(uq/Kq)	(%)
CHLOROMETHANE	N.D.		N.D.	
VINYL CHLORIDE	N.D.	5 5 5 5 5 5	N.D.	
BROMOCHLOROMETHANE	N.D.	5	N.D.	= -
CHLOROETHANE	N.D.	5	N.D.	
TRICHLOROFLUOROMETHANE 1,1-DICHLOROETHENE METHYLENE CHLORIDE	N.D.	5	N.D.	
1,1-DICHLOROETHENE	N.D.		N.D.	108
METHYLENE CHLORIDE	Ŋ.D.	100	N.D.	·
TRANS-1,2-DICHLOROETHENE	N.D.	5	N.D.	
CIS-1,2-DICHLOROETHENE	14_	5	N.D.	<b></b> .
1,1-DICHLOROETHANE	N.D.	5	Ŋ.D.	
CHLOROFORM	N.D.	5	Ŋ.D.	
1,1,1-TRICHLOROETHANE	N.D.	5	N.D.	<u>-</u> -
CARBON TETRACHLORIDE	Ŋ.D.	5	Ŋ.D.	<del></del>
1,2-DICHLOROETHANE	N.D.	5 5	Ŋ.D.	
TRICHLOROETHENE	12	Ď	N.D.	94
1,2-DICHLOROPROPANE	N.D.	ב	N.D.	
BROMODICHLOROMETHANE 2-CHLOROETHYL VINYL ETHER	N.D. N.D.	ס	N.D.	
TRANG_1 2 DICHTORODDODENE	N.D.	5	N.D. N.D.	
TRANS-1,3-DICHLOROPROPENE CIS-1,3-DICHLOROPROPENE	N.D.	ם ב	N.D.	
1,1,2-TRICHLOROETHANE	N.D.	5	N.D.	<b></b>
TETRACHLOROETHENE	75	1	N.D.	97
DIBROMOCHLOROMETHANE	N.D.	JE	N.D.	<i>3  </i>
CHLOROBENZENE	N.D.		N.D.	
BROMOFORM	N.D.	Š	N.D.	
1,1,2,2-TETRACHLOROETHANE	Ñ.D.	š	N.D.	103
1,3-DICHLOROBENZENE	N.D.	Š	N.D.	
1,4-DICHLOROBENZENE	N.D.	5	N.D.	
1,2-DICHLOROBENZENE	N.D.	ភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភ	N.D.	
FREON 113	N.D.	5	N.D.	

ChromaLab, Inc,

Analyst

Environmental Laboratory (1094)

**5 DAYS TURNAROUND** 

September 14, 1993

ChromaLab File#: 9309091

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Submitted: September 7, 1993 Project#: GT-213

re: One sample for Volatile Halogenated Organics analysis.

Sample: DRUM-MW3

Matrix: SOIL

Lab #: 14861-761

Sampled: September 7, 1993 Analyzed: September 8, 1993

Method: EPA 8010

	•	REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(uq/Kq)	(ug/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	N.D.		N.D.	
VINYL CHLORIDE	N.D.	555555	N.D.	. <del></del>
BROMOCHLOROMETHANE	N.D.	5	N.D.	
CHLOROETHANE	N.D.	5	N.D.	<b></b>
TRICHLOROFLUOROMETHANE	N.D.	5	N.D.	·
1,1-DICHLOROETHENE	N.D.	5	N.D.	108
METHYLENE CHLORIDE	N.D.	100	N.D.	. <del></del>
TRANS-1,2-DICHLOROETHENE	N.D	5	N.D.	
CIS-1,2-DICHLOROETHENE	N.D.	5	N.D.	
1,1-DICHLOROETHANE	N.D.	5	N.D.	<del>-</del> -
CHLOROFORM	N.D.	5	N.D.	<del>-</del> -
1,1,1-TRICHLOROETHANE	N.D.	5	N.D.	. = =
CARBON TETRACHLORIDE	N.D.	5	Ŋ.D.	
1,2-DICHLOROETHANE	N.D.	5	N.D.	
TRICHLOROETHENE	N.D.	5	Ŋ.D.	94
1,2-DICHLOROPROPANE	<u>N</u> .D.	. 5	N.D.	
BROMODICHLOROMETHANE	N.D.	5	Ŋ.D.	
2-CHLOROETHYL VINYL ETHER		5	N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5	Ŋ.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	5	Ŋ.D.	
1,1,2-TRICHLOROETHANE	N.D.	5	N.D.	
TETRACHLOROETHENE	Ŋ.D.	ā	N.D.	97
DIBROMOCHLOROMETHANE	N.D.	5	Ŋ.D.	
CHLOROBENZENE	N.D.	5	N.D.	
BROMOFORM	N.D.	ž	N.D.	103
1,1,2,2-TETRACHLOROETHANE	N.D.	5	N.D.	103
1,3-DICHLOROBENZENE	N.D.	<b>ភ</b> សភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភភ	N.D.	<b></b>
1,4-DICHLOROBENZENE	N.D.	ב	N.D.	
1,2-DICHLOROBENZENE FREON 113	N.D.	5 5	N.D. N.D.	
FREON 113	N.D.	)	N.D.	- <del>-</del>

ChromaLab, Inc.

Analyst

Environmental Laboratory (1094)

5 DAYS TURNAROUND

September 13, 1993

ChromaLab File No.: 9309091

JONAS & ASSOCIATES, INC.

Attn: Romena Jonas

RE: Four soil samples for PCB analysis

Project Name: GENERAL TIRE-OAKLAND

Project Number: GT-213

Date Sampled: September 7, 1993 Date Submitted: September 7, 1993 Date Extracted: September 13, 1993 Date Analyzed: September 13, 1993

#### RESULTS:

Sample I.D.	PCB (mg/Kg)
B1-5'	N.D.
B1-10'	N.D.
B1-15'	N.D.
DRUM B1	N.D.
BLANK	N.D.
DETECTION LIMIT	0.05
METHOD OF ANALYSIS	8080

ChromaLab, Inc.

Alex Tam

Analytical Chemist

Eric Tam

Laboratory Director

CLIENT: JONAS

DUE:

09/14/93

2239 C REF: 13185

### Chain of Custody

DATE 9/7/93 PAGE / OF 2 PROJEGO KOMENO Jonas **ANALYSIS REPORT** Jonas & Associates Inc. PURGEABLE AROMATICS BTEX (EPA 602, 8020) ADDRESS 1056 Dale Place ភ PRIORITY POLLUTANT METALS (13) VOLATILE ORGANICS (EPA 624, 8240, 524.2) TOTAL OIL & GREASE (EPA 5520 E&F) Concord, CA 94518 CAM METALS (17) PHENOLS (EPA 604, 8040) SAMPLERS (SIGNATURE) (PHONE NO.) EXTRACTION (TCLP, STLC) (510) 676-8554 SAMPLE ID. TIME MATRIX LABID. 9/7/93 9:00 501/ MW 3- 10' 9/7/93 9:06 50:1 9/7/93 9:15 301/ 7/7/93 10:10 50:1 MW2-10' 7/7/93 10:20 50:/ 7/7/73 16:30 Soil 9/7/93 11:45 50:1 9/7/93 11:50 Soil 9/7/13 11:55 5011 RELINQUISHED BY 1. RELINQUISHED BY RELINQUISHED BY Romana 4:45 (TIME) TOTAL NO. OF CONTAINERS Grenare Tire- Oakland CHAIN OF CUSTODY SEALS (SIGNATURE) Romena Jonas 9/7/93
(PAINTED NAME) (DATE) REC'D GOOD CONDITION/COLD SHIPPING ID NO (PRINTED NAME) (DATE) (PRINTED NAME) (DATE) Pick-up CONFORMS TO RECORD Jonas & Associates Inc. (COMPANY) ChromaLab, Inc. RECEIVED BY RECEIVED BY RECEIVED BY (LABORATORY) SPECIAL INSTRUCTIONS/COMMENTS (SIGNATURE) (SIGNATURE) (PRINTED NAME) (PRINTED NAME) (COMPANY)

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

Chain of Custody

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Romena 1811					TPH .	TPH - Gasoline (5030, 8015) WBTeX (EPA 602, 8020)	TPH - Ciesel (EPA 3510/3550, 8	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	3 4	SEA	TOTAL OIL & GREASE (EPA 5520 E&F)	STIC	PHENOLS (EPA 604, 8040)	TOTAL RECOVERA	}	WETALS: Cd, Cr, Pb.	CAM METALS (17)	PRIORITY POLLUTANT	ě a	1/2	\$ 8	1	Ø	
SAMPLE ID.	DATE	TIME	MATRIX	ELAB ID.	11		li: U	5 E	5 8	8 @	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	(F P	PESTICIDES/PCB (EPA 608, 8080)	至前	유		Σ	\ \f	뜻	EXTRACTION (TCLP, STLC)	TEPH	2 12	1/2	8	34
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PROJECT NAME	2011.	TOTAL	NO. OF CO	NTAINERS		3	ak	) Ma	me L	2-24.0	_ 4!	45	1												-
General Tire L PROJECT NUMBER GT-213	OPK 19MU	CHAIN	OF CUSTO	DY SEALS		<u></u>	ISIGN	ATURE)				(TIME	) (SIC	NATURE	)			ŋ	IME) (S	SIGNATU	JRE)				(TIME)
GT-213		HEC.D	GOOD CON	IDITION/CO	LD		Kez	ED NAM	يكم	1145	7)	7/9_3	<u> </u>						_		·				
SHIPPING ID NO Pick-up		CONFO	DRMS TO RE	ECORD	i		Ι'					(DATE	' I '	NTED N	AME)			(O	41E) (1	PRINTEC	NAME				(DATE)
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Chromalab, Inc				<u> </u>			RECE	IVED B	Y			1	. RE	CEIVED	BY	· -						LABOR	ATORY		3
SPECIAL INSTRUCTIONS/C	OMMENTS																		i		-	11			^^ /
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Environmental Laboratory (1094)

**5 DAYS TURNAROUND** 

October 13, 1993

ChromaLab File No.: 9310075

JONAS & ASSOCIATES, INC.

Attn: Romena Jonas

RE: Four water samples for TEPH analysis

Project Name: GENERAL TIRE-OAKLAND

Project Number: GT-213

Date Sampled: October 5, 1993 Date Submitted: October 6, 1993

Date Extracted: October 8, 1993 Date Analyzed: October 8, 1993

#### RESULTS:

Sample	Kerosene	Diesel	Motor Oil
I.D.	(μg/L)	(µg/L)	(mg/L)
MW-1	N.D.	N.D.	N.D.
MW-2	490*	N.D.	0.7
MW-3	N.D.	N.D.	N.D.
MW-D	110*	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.
SPIKE RECOVERY		123%	
DUP SPIKE RECOVERY		115%	
DETECTION LIMIT	50	50	0.5
METHOD OF ANALYSIS	3510/8015	3510/8015	3510/8015

\*Unknown hydrocarbon found in early Kerosene quantified as Kerosene.

ChromaLab, Inc.

Alex Tam

Analytical Chemist

Eric Tam

Laboratory Director

CC

October 13, 1993

ChromaLab File#: 9310075

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Project#: GT-213

Submitted: October 6, 1993

re: One sample for Volatile Halogenated Compounds analysis.

Sample: MW1-10593

Matrix: WATER

Lab #: 24248-1116 Sampled: October 5, 1993 Analyzed: October 12, 1993

Method: EPA 601

REPORTING B		SPIKE
RESULT LIMIT R	ESULT RESUI	T
ANALYTE (ug/L) (ug/L) (u	g/L) (%)	<u>,                                     </u>
CHIOROMETHANE N.D. 0.5	N.D	•
VINYL CHLORIDE N.D. 0.5	N.D	-
BROMOCHLOROMETHANE N.D. 0.5	N.D	-
CHLOROETHANE N.D. 0.5	N.D	-
	N.D	
1,1-DICHLOROETHENE N.D. 0.5	N.D. 11	
METHYLENE CHLORIDE N.D. 20	N.D	-
TRANS-1,2-DICHLOROETHENE N.D. 0.5	N.D	•
	N.D	-
1,1-DICHLOROETHANE 1.3 0.5	N.D	-
CHLOROFORM N.D. 0.5 1,1,1-TRICHLOROETHANE N.D. 0.5	N.D	-
1,1,1-TRICHLOROETHANE N.D. 0.5	N.D	-
CÁRBON TETRACHLORIDE N.D. 0.5	N.D	_
	N.D. 10	01
TRICHLOROETHENE N.D. 0.5 1,2-DICHLOROPROPANE N.D. 0.5	N.D	
BROMODICHLOROMETHANE N.D. 0.5	N.D	_
2-CHLOROETHYLVINYL ETHER N.D. 0.5	N.D	_
TRANS-1,3-DICHLOROPROPENE N.D. 0.5	N.D	_
	N.D	_
1,1,2-TRICHLOROETHANE N.D. 0.5 TETRACHLOROETHENE N.D. 0.5	N.D	_
TETRACHLOROETHENE N.D. 0.5	N.D. 10	06
DIBROMOCHLOROMETHANE N.D. 0.5	N.D	
CHLOROBENZENE N.D. 0.5	N.D	_
BROMOFORM N.D. 0.5	N.D	-
1,1,2,2-TETRACHLOROETHANE N.D. 0.5	N.D. 10	04
1,3-DICHLOROBENZENE N.D. 0.5	N.D	-
1,4-DICHLOROBENZENE N.D. 0.5	N.D	-
1,2-DICHLOROBENZENE N.D. 0.5	N.D	-
FREON 113 N.D. 0.5	N.D	-

ChromaLab. Inc

David Wintergrass

Chemist

Eric Tam

October 13, 1993

ChromaLab File#: 9310075

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Project#: GT-213

Submitted: October 6, 1993

re: One sample for Volatile Halogenated Compounds analysis.

Sample: MW2-10593 Matrix: WATER

Lab #: 24249-1116 Sampled: October 5, 1993 Analyzed: October 12, 1993

Method: EPA 601

		REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/L)	(ug/L)	(ug/L)	(%)
CHLOROMETHANE	Ñ.D.	0.5	N.D.	
VINYL CHLORIDE	1.5	0.5	N.D.	
BROMOCHLOROMETHANE	N.D.	0.5	N.D.	
CHLOROETHANE	N.D.	0.5	N.D.	
TRICHLOROFLUOROMETHANE	N.D.	0.5	N.D.	
1,1-DICHLOROETHENE	1.0	0.5	N.D.	118
METHYLENE CHLORIDE	N.D.	20	N.D.	
TRANS-1,2-DICHLOROETHENE	N.D.	0.5	N.D.	
CIS-1,2-DICHLOROETHENE	31	0.5	N.D.	·
1,1-DICHLOROETHANE	N.D.	0.5	N.D.	
CHLOROFORM	N.D.	0.5	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	0.5	N.D.	
CARBON TETRACHLORIDE	N.D.	0.5	N.D.	
1,2-DICHLOROETHANE	N.D.	0.5	N.D.	
TRICHLOROETHENE	46	0.5	N.D.	101
1,2-DICHLOROPROPANE	N.D.	0.5	N.D.	
BROMODICHLOROMETHANE	N.D.	0.5	N.D.	
2-CHLOROETHYLVINYL ETHER	N.D.	0.5	N.D.	<del></del>
TRANS-1,3-DICHLOROPROPENE	N.D.	0.5	N.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	0.5	N.D.	
1,1,2-TRICHLOROETHANE	N.D.	0.5	N.D.	
TETRACHLOROETHENE	40	0.5	N.D.	106
DIBROMOCHLOROMETHANE	N.D.	0.5	N.D.	
CHLOROBENZENE	N.D.	0.5	Ŋ.D.	
BROMOFORM	N.D.	0.5	N.D.	
1,1,2,2-TETRACHLOROETHANE	N.D.	0.5	N.D.	104
1,3-DICHLOROBENZENE	Ŋ.D.	0.5	N.D.	
1,4-DICHLOROBENZENE	N.D.	0.5	Ŋ.D.	
1,2-DICHLOROBENZENE	N.D.	0.5	Ŋ.D.	
FREON 113	N.D.	0.5	N.D.	

ChromaLab, Inc

David Wintergrass

Chemist

Eric Tam

October 13, 1993

ChromaLab File#: 9310075

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Project#: GT-213

Submitted: October 6, 1993

re: One sample for Volatile Halogenated Compounds analysis.

Sample: MW3-10593 Matrix: WATER

Lab #: 24250-1116 Sampled: October 5, 1993 Analyzed: October 12, 1993

Method: EPA 601

Mechod. Bry our				
		REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/L)	(ug/L)	(ug/L )	(%)
CHLOROMETHANE	N.D.	0.5	N.D.	
VINYL CHLORIDE	N.D.	0.5	N.D.	
BROMOCHLOROMETHANE	N.D.	0.5	N.D.	<u></u>
CHLOROETHANE	N.D.	0.5	N.D.	
TRICHLOROFLUOROMETHANE	N.D.	0.5	N.D.	·
1,1-DICHLOROETHENE	N.D.	0.5	N.D.	118
METHYLENE CHLORIDE	N.D.	20	N.D.	. <del></del>
TRANS-1,2-DICHLOROETHENE	N.D.	0.5	N.D.	
CIS-1,2-DICHLOROETHENE	N.D.	0.5	N.D.	
CIS-1,2-DICHLOROETHENE 1,1-DICHLOROETHANE	N.D.	0.5	N.D.	
CHLOROFORM	N.TD.	0.5	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	0.5	N.D.	· <del></del>
CARBON TETRACHLORIDE	N.D.	0.5	N.D.	
1,2-DICHLOROETHANE	N.D.	0.5	N.D.	<del>-</del> -
TRICHLOROETHENE	N.D.	0.5	N.D.	101
1,2-DICHLOROPROPANE	N.D.	0.5	N.D.	
BROMODICHLOROMETHANE	N.D.	0.5	N.D.	
2-CHLOROETHYLVINYL ETHER	N.D.	0.5	N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	0.5	N.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	0.5	N.D.	
1,1,2-TRICHLOROETHANE	N.D.	0.5	N.D.	
TETRACHLOROETHENE	N.D.	0.5	N.D.	106
DIBROMOCHLOROMETHANE	N.D.	0.5	N.D.	. <b>– –</b>
CHLOROBENZENE	N.D.	0.5	N.D.	
BROMOFORM	N.D.	0.5	N.D.	<b></b>
1,1,2,2-TETRACHLOROETHANE	N.D.	0.5	Ŋ.D.	104
1,3-DICHLOROBENZENE	N.D.	0.5	Ŋ.D.	<del>-</del> '-
1,4-DICHLOROBENZENE	N.D.	0.5	Ŋ.D.	
1,2-DICHLOROBENZENE	Ŋ.D.	0.5	Ŋ.D.	
FREON 113	N.D.	0.5	N.D.	

ChromaLab, Inc

David Wintergrass

Chemist

Eric Tam

October 13, 1993

ChromaLab File#: 9310075

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Project#:

Submitted: October 6, 1993

re: One sample for Volatile Halogenated Compounds analysis.

Sample: MWd-10593

Matrix: WATER

Lab #: 24251-1116 Sampled: October 5, 1993 Analyzed: October 12, 1993

Method: EPA 601

		REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/L )	(ug/L )	(ug/L)	(%)
CHLOROMETHANE	N.D.	0.5	N.D.	
VINYL CHLORIDE	N.D.	0.5	N.D.	<b></b> .
BROMOCHLOROMETHANE	N.D.	0.5	N.D.	<b>-</b> -,
CHLOROETHANE	N.D.	0.5	N.D.	<b></b> ·
TRICHLOROFLUOROMETHANE	N.D.	0.5	N.D.	
1,1-DICHLOROETHENE	0.90	0.5	N.D.	118
METHYLENE CHLORIDE	N.D.	20	N.D.	<del></del>
TRANS-1,2-DICHLOROETHENE	N.D.	0.5	N.D.	<del>-</del> -
CIS-1,2-DICHLOROETHENE	29	0.5	N.D.	
1,1-DICHLOROETHANE	N.D.	0.5	N.D.	
CHLOROFORM	N.D.	0.5	N.D.	<del>-</del> -
1,1,1-TRICHLOROETHANE	N.D.	0.5	N.D.	
CARBON TETRACHLORIDE	N.D.	0.5	N.D.	
1,2-DICHLOROETHANE	N.D.	0.5	Ŋ.D.	
TRICHLOROETHENE	41	0.5	N.D.	101
1,2-DICHLOROPROPANE	N.D.	0.5	N.D.	
BROMODICHLOROMETHANE	N.D.	0.5	N.D.	
2-CHLOROETHYLVINYL ETHER	N.D.	0.5	N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	0.5	N.D.	
CIS-1,3-DICHLOROPROPENE	N.D. N.D.	0.5 0.5	N.D. N.D.	
1,1,2-TRICHLOROETHANE TETRACHLOROETHENE	N.D. 40	0.5	N.D.	106
DIBROMOCHLOROMETHANE	N.D.	0.5	N.D.	100
CHLOROBENZENE	N.D.	0.5	N.D.	
BROMOFORM	N.D.	0.5	N.D.	
1,1,2,2-TETRACHLOROETHANE	N.D.	0.5	N.D.	104
1,3-DICHLOROBENZENE	N.D.	0.5	N.D.	104
1,4-DICHLOROBENZENE	N.D.	0.5	N.D.	
1,2-DICHLOROBENZENE	N.D.	0.5	N.D.	= -
FREON 113	N.D.	0.5	N.D.	= -
	11.1.	0.5		

ChromaLab, Inc

David Wintergrass

Chemist

Eric Tam

CHRCIALAE, NC: 1239 19a F 1#1 [ ] n RE | Ca | Ta 9 [ ] | Ch. n CL. 10 C, ] 510/831-1788 • Facsimile 510/831-8798

DATE \_10/05/93 .... PAGE 1 **ANALYSIS RE** Romena Jonas PROJ. MGR. CHARLE TO SERVER COMPANY JONAS & ASSOCIATES INC. CLIMIT DDE: ADDRESS 1056 Dale Place VOLATILE ORGANICS (EPA 624, 8240, 524.2) REP: 1 0 6 3 Concord, California 94518 TPH - Gasoline (EPA 5030, 8015) PESTICIDES/PCB (EPA 608, 8080) SAMPLERS (SIGNATURE) (PHONE NO.) PRIORITY METALS () (EPA 604. (510) 676-8554 Jonas & Associates Inc. TIME MATRIX LABID. SAMPLE ID. DATE 4 10/5/9B X X MW1-10593 Water 10/5/98 20 Water X X MW2-10593 10/5/98/0:50 Water Mw3-10593 10/5/93/2:25 Water MWd-10593 PROJECT INFORMATION SAMPLE RECEIPT **RELINQUISHED BY** RELINQUISHED BY RELINGUISHED BY PROJECT NAME: TOTAL NO. OF CONTAINERS General Tire - Oakland Romena Jonas (SIGNATURE) (SIGNATURE) (SIGNATUFIE) PROJECT HUMBER: **CHAIN OF CUSTODY SEALS** Romena Nones 10/6/97 GT-213 REC'D GOOD CONDITION/COLD PRINTED NAME (PRINTED NAME) PARTIED NAME DATE SHIPPING ID. NO. Pick-up CONFORMS TO RECORD Jonas & Associates Inc. LAB NO. (COMPANY) (COMPANY) CUMPANY ChromaLab RECEIVED BY RECEIVED BY RECEIVED BY (LABORATORY) **SPECIAL INSTRUCTIONS/COMMENTS:** ISIGNATURE (TUME) (SIGNATURE) PRINTED NAME) PARTY PARTY PRINTED NAME (DATE) PRINTED NAME (DATE) Chromalab, Inc. (COMPANY) (COMPANT)

Environmental Services (SDB)

July 7, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

GENERAL TIRE OAKLAND Project:

Received: June 30, 1994 Project#: GT-213

15 samples for Gasoline and BTEX analysis.

Matrix: SOIL

Sampled: June 30, 1994

"Method: EPA 5030/8015M/8020

Lab Run#: 3283

Analyzed: July 5, 1994

Ethyl Total Gasoline Benzene Toluene Benzene Xylenes , Lab # SAMPLE ID (mg/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) 56215 SB1-2' N.D. N.D. N.D. N.D. N.D. 5*6216* SB1-5' N.D. N.D. N.D. N.D. N.D. 56217 SB1-9' N.D. N.D. N.D. N.D. N.D. N.D. -56218 SB2-2' N.D. N.D. N.D. N.D. 56219 SB2-5' N.D. N.D. N.D. N.D. N.D. ₹56220 SB2-91 N.D. N.D. N.D. N.D. N.D. 56221 SB3-2' N.D. N.D. N.D. N.D. N.D. ₩66222 SB3-5' N.D. N.D. N.D. N.D. N.D. N.D. N.D. 5*6223* SB3-9' N.D. N.D. N.D. <sup>1</sup>-5*6224* SB4-2' N.D. N.D. N.D. N.D. N.D. N.D. N.D. 56225 SB4-5' N.D. N.D. N.D. N.D. N.D. \*56226 SB4-9' N.D. N.D. N.D.

N.D. 56227 SB5-2' N.D. N.D. N.D. N.D. 56228 SB5-5' N.D. N.D. N.D. N.D. N.D. 56229 SB5-91 N.D. N.D. N.D. N.D. N.D. 5.0 5.0 5.0 Reporting Limits 1.0 5.0

Blank Result N.D. N.D. N.D. N.D. N.D. -Blank Spike Result (%) 115 102 102 102 99

ChromaLab, Inc.

Billy/Thach

Chemist

Ali Kharrazi Organic Manager

Ali Khans

Environmental Services (SDB)

July 11, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE OAKLAND

Project#: GT-213

Received: June 30, 1994

re: 15 samples for TEPH analysis

Matrix: SOIL

Sampled: June 30, 1994

Analyzed: July 7-8, 1994

Method: 3550/8015

Sample #	Client Sample ID	Kerosene (mg/Kg)	Diesel (mg/Kg)	Motor Oil (mg/Kg)
56215	SB1-2'	N.D.	N.D.	12 <sup>b</sup>
56216	SB1-5'	N.D.	55*	150
56217	SB1-9'	N.D.	N.D.	N.D.
56218	SB2-2'	N.D.	N.D.	N.D.
56219	SB2-5'	N.D.	N.D.	N.D.
56220	SB2-9'	N.D.	N.D.	N.D.
56221	SB3-2'	N.D.	N.D.	N.D.
56222	SB3-5'	N.D.	N.D.	N.D.
56223	SB3-9'	N.D.	N.D.	N.D.
56224	SB4-2'	N.D.	N.D.	N.D.
56225	SB4-5'	N.D.	N.D.	32 <sup>b</sup>
56226	SB4-9'	N.D.	N.D.	N.D.
56227	SB5-2'	N.D.	N.D.	N.D.
56228	SB5-5'	N.D.	N.D.	340 <sup>b</sup>
56229	SB5-9'	N.D.	N.D.	N.D.

a - Unknown Hydrocarbon in diesel range quantified as diesel.

b - Unknown Hydrocarbon in motor oil range quantified as motor oil.

Blank	N.D.	N.D.	N.D.
Spike Recovery		96%	
Dup Spike Recovery	<b></b>	99%	
Reporting Limit	1.0	1.0	10

ChromaLab, Inc.

Shirat Chullaborn

Sirirat Chullakorn Analytical Chemist Ali Kharrazi Organic Manager

Ali Khay

gg

Environmental Services (SDB)

July 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE OAKLAND

Project#: GT-213

Received: June 30, 1994

re: One sample for Volatile Halogenated Organics analysis.

. Sample ID:SB1-2'

Matrix: SOIL

Sampled: June 30, 1994

Spl #:56215 Run: 3371 Analyzed: July 2, 1994

"Method: EPA 8010

		REPORTING	BLANK	BLANK SPIKE
and the second s	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(uq/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	Ñ.D.	5.0	N.D.	
VINYL CHLORIDE BROMOMETHANE	N.D.	5.0	N.D.	
BROMOMETHANE	N.D.	5.0	N.D.	
_CHLOROETHANE	N.D.	5.0 5.0 5.0	N.D.	
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	<b></b>
. 社,1-DICHLOROETHENE	N.D.	5.0	$\underline{\mathbf{N}}.\underline{\mathbf{D}}.$	97
METHYLENE CHLORIDE	N.D.	25	N.D.	<del>-</del>
TRANS-1,2-DICHLOROETHENE CIS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
CIS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
1,1-DICHLOROETHANE	N.D.	5.0	Ŋ.D.	
CHLOROFORM	Ŋ.D.	5.0 5.0	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	
CARBON TETRACHLORIDE	N.D.	5.0		•• <del>-</del>
1,2-DICHLOROETHANE	Ŋ.D.	5.0	N.D.	~ <del>-</del> -
TRICHLOROETHENE	Ŋ.D.	5.0	N.D.	95
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	
2-CHLOROETHYL VINYL ETHER		5.0	N.D. N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	
CIS-1,3-DICHLOROPROPENE 1,1,2-TRICHLOROETHANE	N.D.	5.0 5.0	N.D. N.D.	
TETRACHLOROETHANE	N.D.	5.0	N.D.	
DIBROMOCHLOROMETHANE	N.D. N.D.	5.0	N.D.	
CHLOROBENZENE	N.D.	5.0 5.0	N.D.	
BROMOFORM	N.D.	5.0	N.D.	
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	
1,2-DICHLOROBENZENE	N.D.	5.0 5.0	N.D.	
FREON 113	N.D.	5.0	N.D.	
* · · · · · · · · · · · · · · · · · · ·	14.1.	5.0		

ChromaLab, Inc.

Aaron McMichael

Chemist

Ali Kharrazi

Organic Manager

Environmental Services (SDB)

July 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE OAKLAND

Project#:

GT-213

Received: June 30, 1994

re: One sample for Volatile Halogenated Organics analysis.

Sample ID:SB1-5

Matrix: SOIL

Sampled: June 30, 1994

Spl #:56216 Run: 3371 Analyzed: July 2, 1994

Method: EPA 8010

		REPORTING	BLANK	BLANK SPIKE
* · ·	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	N.D.	5.0	N.D.	
VINYL CHLORIDE	N.D.	5.0	N.D.	· <b></b>
BROMOMETHANE	N.D.	5.0	N.D.	
_CHLOROETHANE	N.D.	5.0	N.D.	
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	<del></del>
,1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
METHYLENE CHLORIDE	N.D.	25	N.D.	
_TRANS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	· <u>-</u> -
CIS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	
CHLOROFORM	N.D.	5.0	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	
TRICHLOROETHENE	7.2	5.0	N.D.	95
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	
2-CHLOROETHYL VINYL ETHER	N.D.	5.0	N.D.	<b></b>
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	Ŋ.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	Ŋ.D.	
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	<del></del>
TETRACHLOROETHENE	46_	5.0	N.D.	÷ =
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	
CHLOROBENZENE	N.D.	5.0	N.D.	102
BROMOFORM	N.D.	5.0	Ŋ.D.	<del>-</del> -
1,1,2,2-TETRACHLOROETHANE	Ŋ.D.	5.0	й.D.	
~1,3-DICHLOROBENZENE	Ŋ.D.	5.0	N.D.	<del>-</del> -
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	
1,2-DICHLOROBENZENE	N.D.	5.0	Ŋ.D.	<del></del>
FREON 113	N.D.	5.0	N.D.	

ChromaLab, Inc.

Aaron McMichael

Chemist

Environmental Services (SDB)

July 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE OAKLAND

Project#: GT-213

Received: June 30, 1994

re: One sample for Volatile Halogenated Organics analysis.

.iSample ID:SB1-9

Matrix: SOIL

Sampled: June 30, 1994

Spl #:56217 Run: 3371 Analyzed: July 7, 1994

-Method: EPA 8010

	*	REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)		(%)
CHLOROMETHANE	N.D.	5.0	N.D.	·
VINYL CHLORIDE	N.D.	5.0	N.D.	
BROMOMETHANE	N.D.	5.0	N.D.	
CHLOROETHANE	N.D.	5.0	N.D.	·
TRICHLOROFLUOROMETHANE	N.D.	5.0 5.0	N.D.	
, 1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
METHYLENE CHLORIDE	N.D.	25 5.0	N.D.	
TRANS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
CIS-1,2-DICHLOROETHENE	16	5.0	N.D.	
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	
CHLOROFORM	N.D.	5.0	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	
CARBON TETRACHLORIDE	N.D.	5.0		
1,2-DICHLOROETHANE	Ŋ.D.	5.0	N.D.	<b></b>
TRICHLOROETHENE	N.D.	5.0	N.D.	95
1,2-DICHLOROPROPANE	Ŋ.D.	5.0	N.D.	
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	
2-CHLOROETHYL VINYL ETHER	N.D.	5.0	N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	
1,1,2-TRICHLOROETHANE	Ŋ.D.	5.0	N.D.	
TETRACHLOROETHENE	N.D.	5.0	N.D.	
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	
CHLOROBENZENE	N.D.	5.0	N.D.	102
BROMOFORM	Ŋ.D.	5.0	N.D.	
1,1,2,2-TETRACHLOROETHANE	Ŋ.D.	5.0	Ŋ.D.	
1,3-DICHLOROBENZENE	N.D.	5.0	Ŋ.D.	
1,4-DICHLOROBENZENE	Ŋ.D.	5.0	Ŋ.D.	
1,2-DICHLOROBENZENE	N.D.	5.0	Ŋ.D.	
FREON 113	N.D.	5.0	N.D.	

ChromaLab, Inc.

Aaron McMichael

Chemist

Environmental Services (SDB)

July 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE OAKLAND

*Project#:* 

Received: June 30, 1994

\_re: One sample for Volatile Halogenated Organics analysis.

Eample ID:SB2-21

Matrix: SOIL

Sampled: June 30, 1994

Spl #:56218 Run: 3371 Analyzed: July 2, 1994

"Method: EPA 8010

		REPORTING	BLANK	BLANK SPIKE
a i	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	N.D.	5.0	N.D.	
JINYL CHLORIDE	N.D.	5.0	N.D.	- <b>-</b>
BROMOMETHANE	N.D.	5.0	N.D.	
CHLOROETHANE	N.D.	5.0	N.D.	
IRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	. <b></b> .
, 1, 1-DICHLOROETHENE	N.D.	5.0	N.D.	. 97
METHYLENE CHLORIDE	N.D.	25	N.D.	
TRANS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
CIS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
[L,1-DICHLOROETHANE	N.D.	5.0	N.D.	
CHLOROFORM	N.D.	5.0	N.D.	
, 1, 1, 1-TRICHLOROETHANE	N.D.	5.0	N.D.	
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	
TRICHLOROETHENE	N.D.	5.0	N.D.	95
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	
BROMODICHLOROMETHANE	N.D.	5.0	Ŋ.D.	
2-CHLOROETHYL VINYL ETHER	N.D.	5.0	Ŋ.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	
TETRACHLOROETHENE DIBROMOCHLOROMETHANE	16	5.0	N.D.	
CHLOROBENZENE	N.D.	5.0	N.D.	102
SROMOFORM	N.D. N.D.	5.0 5.0	N.D.	102
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D. N.D.	
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	·
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	
FREON 113	N.D.	5.0	N.D.	

ChromaLab, Inc.

Aaron McMichael

Chemist

Organic Manager

Environmental Services (SDB)

uly 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

tten: Romena Jonas

Project: GENERAL TIRE OAKLAND

Project#: GT-213

Received: June 30, 1994

re: One sample for Volatile Halogenated Organics analysis.

Jample ID:SB2-5

Matrix: SOIL

Sampled: June 30, 1994

Spl #:56219 Run: 3371 Analyzed: July 2, 1994

Tethod: EPA 8010

		REPORTING	BLANK	BLANK SPIKE
	RESULT	LIMIT	RESULT	RESULT
. NALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	N.D.	5.0	N.D.	
VINYL CHLORIDE	N.D.	5.0	N.D.	
BROMOMETHANE	N.D.	5.0	N.D.	
-CHLOROETHANE	N.D.	5.0	N.D.	
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	
.1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
METHYLENE CHLORIDE	N.D.	25	N.D.	
_TRANS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	<del>-</del> -
FIS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	<b></b>
CHLOROFORM	Ŋ.D.	5.0	N.D.	
,1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	<del></del>
CARBON TETRACHLORIDE	N.D.	5.0	Ŋ.D.	
,2-DICHLOROETHANE	N.D.	5.0	Ŋ.D.	
TRICHLOROETHENE	N.D.	5.0	N.D.	95
1,2-DICHLOROPROPANE	N.D.	5.0	N.D. N.D.	
BROMODICHLOROMETHANE	Ŋ.D.	5.0	й.р.	
- CHLOROETHYL VINYL ETHER	й.Б.	5.0	N.D.	
TRANS-1,3-DICHLOROPROPENE	Ŋ.D.	5.0	N.D.	
CIS-1,3-DICHLOROPROPENE [,1,2-TRICHLOROETHANE	Ŋ.D.	5.0	N.D.	
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	
TETRACHLOROETHENE	7.5	5.0	N.D.	·
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D. N.D.	102
CHLOROBENZENE	N.D.	5.0 5.0	N.D.	
BROMOFORM	N.D.		N.D.	
1,1,2,2-TETRACHLOROETHANE 1,3-DICHLOROBENZENE	N.D.	5.0 5.0	N.D.	
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	
1,4-DICHLOROBENZENE	N.D. N.D.	5.0	N.D.	
2,2-DICHLOROBENZENE	יע.ע	5.0	N.D.	
FREON 113	N.D.	3.0	14.17.	

ChromaLab, Inc.

Aaron McMichael

Chemist

Environmental Services (SDB)

uly 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

tten: Romena Jonas

Project: GENERAL TIRE OAKLAND

E OAKLAND Project#: GT-213

:eceived: June 30, 1994

re: One sample for Volatile Halogenated Organics analysis.

Jample ID:SB2-91

Matrix: SOIL

Sampled: June 30, 1994

Spl #:56220 Run: 3371 Analyzed: July 2, 1994

"Method: EPA 8010

		REPORTING BLANK							
- <del>Li</del>	RESULT	LIMIT	RESULT	RESULT					
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)					
CHLOROMETHANE	N.D.	5.0	Ň.D.						
'INYL CHLORIDE	N.D.	5.00 5.00 5.00 5.00	N.D.	<del></del>					
BROMOMETHANE	N.D.	5.0	N.D.						
CHLOROETHANE	N.D.	5.0	N.D.						
RICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	<del>-</del> -					
.,1-DICHLOROETHENE	N.D.	5.0	N.D.	97					
METHYLENE CHLORIDE	N.D.	25	N.D.						
TRANS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.						
CIS-1,2-DICHLOROETHENE	16	5.0	N.D.	. <b></b>					
,1-DICHLOROETHANE	N.D.	5.0 5.0	Ŋ.D.	<del>-</del> -					
CHLOROFORM	N.D.	5.0	N.D.						
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.						
TARBON TETRACHLORIDE	N.D.	5.0 5.0 5.0 5.0	N.D.						
,2-DICHLOROETHANE	N.D.	5.0	Ŋ.D.						
TRICHLOROETHENE	27	5.0	N.D.	95					
1,2-DICHLOROPROPANE	Ŋ.D.	5.0	N.D.	<del>-</del> -					
ROMODICHLOROMETHANE	N.D.	5.0 5.0	N.D.						
#-CHLOROETHYL VINYL ETHER TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.						
TRANS-1,3-DICHLOROPROPENE	Ŋ.D.	5.0 5.0	N.D.						
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D. N.D.						
,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.						
CETRACHLOROETHENE DIBROMOCHLOROMETHANE	23 N.D.	5.0 5.0	N.D.						
CHLOROBENZENE	N.D.	5.0	N.D.	102					
BROMOFORM	N.D.	5.0	N.D.						
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.						
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	<b>-</b> -					
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.						
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	<del></del>					
REON 113	N.D.	5.0	N.D.						
	21 0 40 1	J. 0							

ChromaLab, Inc.

Aaron McMichael

Chemist

Ali Kharrazi

Organic Manager

**Environmental Services (SDB)** 

uly 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

tten: Romena Jonas

Project: GENERAL TIRE OAKLAND

eceived: June 30, 1994

Project#: GT-213

re: One sample for Volatile Halogenated Organics analysis.

\_ample ID:SB3-2'

Matrix: SOIL

Sampled: June 30, 1994

Spl #:56221 Run: 3371 Analyzed: July 2, 1994

Method: EPA 8010

		REPORTING	BLANK	BLANK SPIKE
•	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
HLOROMETHANE	N.D.	5.0	N.D.	
INYL CHLORIDE	N.D.	5.0	N.D.	
BROMOMETHANE	N.D.	5.0 5.0	N.D.	<del>-</del>
CHLOROETHANE	N.D.	5.0	N.D.	
RICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	
, 1-DICHLOROETHENE	N.D.	5.0	N.D.	97
METHYLENE CHLORIDE	N.D.	25	N.D.	
TRANS-1,2-DICHLOROETHENE	6.2	5.0	N.D.	
IS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
1-DICHLOROETHANE	Ŋ.D.	5.0 5.0 5.0	N.D.	<b>-</b> , <b>-</b>
CHLOROFORM	Ŋ.D.	5.0	N.D.	<del>-</del> -
1,1,1-TRICHLOROETHANE	N.D.	5.0 5.0 5.0 5.0	N.D.	
ARBON TETRACHLORIDE	N.D.	5.0	N.D.	
, 2-DICHLOROETHANE TRICHLOROETHENE	N.D. 22	5.0	N.D.	95
1,2-DICHLOROPROPANE		5.0	N.D.	95
ROMODICHLOROMETHANE	N.D. N.D.	5.0	N.D. N.D.	
-CHLOROETHYL VINYL ETHER	N.D.	5.0	N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0 5.0 5.0 5.0	N.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	
ETRACHLOROETHENE	7.3	5.0	N.D.	
DIBROMOCHLOROMETHANE	Ń.D.	5.0	N.D.	
CHLOROBENZENE	N.D.	5.0	N.D.	102
ROMOFORM	N.D.	5.0	N.D.	
,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	
T, 3-DICHLOROBENZENE	N.D.	5.0	N.D.	
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	
, 2-DICHLOROBENZENE	N.D.	5.0	N.D.	
REON 113	N.D.	5.0	N.D.	

ChromaLab, Inc.

Aaron McMichael

hemist

Ali Kharrazi

Organic Manager

**Environmental Services (SDB)** 

uly 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

itten: Romena Jonas

Project: GENERAL TIRE OAKLAND

Project#: GT-213

leceived: June 30, 1994

re: One sample for Volatile Halogenated Organics analysis.

.Jample ID:SB3-5'

Matrix: SOIL

Sampled: June 30, 1994

Spl #:56222 Run: 3371 Analyzed: July 2, 1994

-Method: EPA 8010

		REPORTING	BLANK	BLANK SPIKE
en <del>and</del> The second of the second of	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ua/Ka)	(ua/Ka)	(%)
CHLOROMETHANE	N.D.	Ē A	71 5	
INYL CHLORIDE	N.D.	5.0	N.D.	
BROMOMETHANE	N.D.	5.0	N.D.	
_CHLOROETHANE	N.D.	5.0	N.D.	- <del>-</del>
RICHLOROFLUOROMETHANE	N.D.	5.0 5.0	N.D. N.D. N.D. N.D. N.D.	
METHYLENE CHLOROETHENE TRANS-1,2-DICHLOROETHENE	N.D. N.D.	5.0	N.D.	97
METHYLENE CHLORIDE	N.D.	25	N.D.	
TRANS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
CIS-1,2-DICHLOROETHENE ,1-DICHLOROETHANE CHLOROFORM	N.D.	5.0	N.D.	<del></del>
1-DICHLOROETHANE	N.D.	5.0	N.D.	
CHLOROFORM		5.0	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	
' CARBON TETRACHLORIDE	N.D.	5.0	N.D.	
_, 2-DICHLOROETHANE	N.D.	555555555555555555555555555555555555555	N.D.	<b></b>
TRICHLOROETHENE 1,2-DICHLOROPROPANE	N.D. N.D. N.D.	5.0	N.D.	95
1,2-DICHLOROPROPANE	N.D. N.D.	5.0	N.D.	
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	
2-CHLOROETHYL VINYL ETHER	N.D.	5.0	N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	
3ROMODICHLOROPROPANE 3ROMODICHLOROMETHANE 2-CHLOROETHYL VINYL ETHER TRANS-1,3-DICHLOROPROPENE CIS-1,3-DICHLOROPROPENE 1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	
E, I, Z-TRICHLOROETHANE	N.D.	5.0	м.р.	
	Τ0	5.0	й.р.	
DIBROMOCHLOROMETHANE	Ŋ.D.	5.0	N.D.	100
CHLOROBENZENE BROMOFORM	N.D.	5.0	N.D.	102
	N.D.	5.0	N.D.	
1,1,2,2-TETRACHLOROETHANE 1,3-DICHLOROBENZENE	N.D.	5.0	N.D. N.D. N.D. N.D. N.D. N.D. N.D.	<del></del>
1,4-DICHLOROBENZENE	N.D. N.D.	5.0 5.0	N.D.	<b></b>
1,4-DICHLOROBENZENE 1,2-DICHLOROBENZENE	N.D. N.D.		N.D.	
FREON 113	N.D.	5.0 5.0		
TREON 113	N.D.	5.0	N.D.	

ChromaLab, Inc.

Aaron McMichael

Chemist

Ali Kharrazi

**Environmental Services (SDB)** 

uly 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

itten: Romena Jonas

Project: GENERAL TIRE OAKLAND

Project#: GT-213

!eceived: June 30, 1994

re: One sample for Volatile Halogenated Organics analysis.

Jample ID:SB3-9'

Matrix: SOIL

Sampled: June 30, 1994 Spl #:56223 Run: 3371 Analyzed: July 7, 1994

"Method: EPA 8010

4		REPORTING	BLANK	BLANK SPIKE
r wad	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	N.D.	5.0	Ň.D.	
FINYL CHLORIDE BROMOMETHANE CHLOROETHANE	N.D.	5.0	N.D.	'
BROMOMETHANE	N.D.	5.0	N.D.	· <del></del>
-CHLOROETHANE	N.D.	5.0 5.0 5.0 5.0 5.0 25	N.D.	<del>-</del> -
RICHLOROFLUOROMETHANE	N.D.	5.0	N.D. N.D. N.D.	<del></del>
.1,1-DICHLOROETHENE METHYLENE CHLORIDE	N.D.	5.0	N.D.	97
METHYLENE CHLORIDE	N.D.	25	N.D.	
TRANS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
CIS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	
CHLOROFORM	N.D.	5.0 5.0	N.D. N.D. N.D. N.D.	
,1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	
TARBON TETRACHLORIDE	N.D.	5.0	и.р.	
, 2-DICHLOROETHANE	N.D. 11	5.0 5.0 5.0 5.0	N.D.	95
TRICHLOROETHENE 1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	95 
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	
F-CHLOROETHYL VINYL ETHER	N.D.	5.0	N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	
_CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	
1,1,2-TRICHLOROETHANE	N.D.	5.0 5.0 5.0	Ñ.D.	
PETRACHLOROETHENE	6.9	5.0	N.D.	
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	
CHLOROBENZENE	N.D.	5.0	N.D.	102
BROMOFORM	N.D.	5.0	N.D. N.D.	
,1,2,2-TETRACHLOROETHANE		5.0	N.D.	
1,3-DICHLOROBENZENE	N.D.	5.0		·
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	
, 2-DICHLOROBENZENE	N.D.	5.0 5.0	N.D.	
REON 113	N.D.	5.0	N.D.	

ChromaLab, Inc.

Aaron McMichael

Chemist

Ali Kharrazi

Organic Manager

Environmental Services (SDB)

uly 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

tten: Romena Jonas

Project: GENERAL TIRE OAKLAND

eceived: June 30, 1994

GT-213 Project#:

One sample for Volatile Halogenated Organics analysis.

: ample ID:SB4-2'

Matrix: SOIL

Sampled: June 30, 1994

Spl #:56224 Run: 3371 Analyzed: July 2, 1994

method: EPA 8010

		REPORTING	BLANK	
	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
HLOROMETHANE	N.D.	5.0	N.D.	
INYL CHLORIDE	N.D.	5.0	N.D.	
BROMOMETHANE	N.D.	5.0 5.0	N.D.	
CHLOROETHANE	N.D.	5.0	N.D.	
RICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	<del></del>
,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
METHYLENE CHLORIDE	N.D.	25	N.D.	· <b></b>
TRANS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
IS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	" <b>-</b> -
, 1-DICHLOROETHANE	N.D.	5.0	N.D.	, <del></del>
CHLOROFORM	N.D.	5.0	N.D.	·
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	·
ARBON TETRACHLORIDE	N.D.	5.0	N.D.	
J, 2-DICHLOROETHANE	N.D.	5.0	N.D.	<del></del>
TRICHLOROETHENE	N.D.	5.0	N.D.	95
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	
ROMODICHLOROMETHANE	N.D.	5.0	N.D.	·
	N.D.	5.0	N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	<del></del>
CIS-I,3-DICHLOROPROPENE	N.D.	5.0	N.D.	<b>+</b> -
,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	<del></del>
ETRACHLOROETHENE	N.D.	5.0	N.D.	
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	
CHLOROBENZENE	N.D.	5.0	N.D.	102
'ROMOFORM	N.D.	5.0	N.D.	<del>-</del> -
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	
T,3-DICHLOROBENZENE	N.D.	5.0	Ŋ.D.	
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	
,2-DICHLOROBENZENE	N.D.	5.0	Ŋ.D.	
REON 113	N.D.	5.0	N.D.	<b></b>

ChromaLab, Inc.

Aaron McMichael

hemist

**Environmental Services (SDB)** 

uly 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

tten: Romena Jonas

Project: GENERAL TIRE OAKLAND

eceived: June 30, 1994

Project#: GT-213

re: One sample for Volatile Halogenated Organics analysis.

: ample ID:SB4-5'

Matrix: SOIL

Sampled: June 30, 1994 Spl #:56225 Run: 3371 Analyzed: July 2, 1994

rethod: EPA 8010

	•	REPORTING	BLANK	BLANK SPIKE
in the second of	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(uq/Kq)	(ug/Kg)	(%)
HLOROMETHANE	N.D.	5.0	N.D.	
INYL CHLORIDE	N.D.	5.0 5.0	N.D.	
BROMOMETHANE	N.D.	5.0	N.D.	<b>-</b>
CHLOROETHANE	N.D.	5.0	N.D.	<b></b>
RICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	
,1-DICHLOROETHENE METHYLENE CHLORIDE	N.D.	5.0	N.D.	97
METHYLENE CHLORIDE	N.D.	25	N.D.	
TRANS-1,2-DICHLOROETHENE	6.6	5.0	N.D. N.D.	
IS-1,2-DICHLOROETHENE	12_	5.0		
, 1-DICHLOROETHANE	N.D.	5.0	Ŋ.D.	
IS-1,2-DICHLOROETHENE ,1-DICHLOROETHANE CHLOROFORM	N.D.	5.0	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	·
ARBON TETRACHLORIDE	N.D.	5.0	N.D.	- <del>-</del>
J, 2-DICHLOROETHANE	N.D.	5.0	N.D.	
TRICHLOROETHENE	Ŋ.D.	5.0	Ŋ.D.	95
1,2-DICHLOROPROPANE	N.D.	5.0	Ŋ.D.	
ROMODICHLOROMETHANE	N.D.	5.0	Ŋ.D.	
-CHLOROETHYL VINYL ETHER	N.D.	5.0	N.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	<del></del>
,1,2-TRICHLOROETHANE	N.D.	5.0 5.0	N.D. N.D.	
ETRACHLOROETHENE DIBROMOCHLOROMETHANE	N.D. N.D.	5.0	N.D.	
CHLOROBENZENE	N.D.	5.0 5.0	N.D.	102
'ROMOFORM	N.D.	5.0	N.D.	102
,1,2,2-TETRACHLOROETHANE		5.0		
T, 3-DICHLOROBENZENE	N.D.	5.0	N.D.	
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	
, 2-DICHLOROBENZENE	N.D.	5.0	N.D.	
REON 113	N.D.	5.0	N.D.	
11011 111	11.17.	J. 0	****	

ChromaLab, Inc.

Aaron McMichael

hemist

**Environmental Services (SDB)** 

uly 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

.tten: Romena Jonas

.Project: GENERAL TIRE OAKLAND

teceived: June 30, 1994

Project#: GT-213

re: One sample for Volatile Halogenated Organics analysis.

. Fample ID:SB4-9

Matrix: SOIL

Sampled: June 30, 1994 Spl #:56226 Run: 3371 Analyzed: July 2, 1994

-Method: EPA 8010

· · · · · · · · · · · · · · · · · · ·		REPORTING	BLANK	BLANK SPIKE
e see å Transport og til en state og t	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(uq/Kq)	(ug/Kg)	(%)
HLOROMETHANE INYL CHLORIDE BROMOMETHANE	N.D.	5.0	N.D.	<del></del> -
, INYL CHLORIDE	N.D.	5.0	N.D.	<del></del> ,
BROMOMETHANE	N.D.	5.0	N.D.	
CHLORUETHANE	N.D.	5.0	N.D.	
RICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	
1,1-DICHLOROETHENE	N.D.	50	N.D.	97
METHYLENE CHLORIDE	N.D.	25	N.D.	<b>-</b> -
_TRANS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	<del>-</del> -
IS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	<del></del> '
	N.D.	5.0	N.D.	
CHLOROFORM	N.D.	5.0 5.0 5.0	N.D.	
1,1,1-TRICHLOROETHANE EARBON TETRACHLORIDE	N.D.	5.0	N.D.	
ARBON TETRACHLORIDE	N.D.	5.0	N.D.	
, 2-DICHLOROETHANE	N.D.	5.0	N.D.	
TRICHLOROETHENE	Ŋ.D.	5.0	N.D.	95
1,2-DICHLOROPROPANE	Ŋ.D.	5.0	N.D.	
ROMODICHLOROMETHANE	Ŋ.D.	5.0	N.D.	
-CHLOROETHYL VINYL ETHER TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	Ŋ.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	Ŋ.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	Ŋ.D.	
1,1,2-TRICHLOROETHANE	N.D.	5.0	й.D.	
TETRACHLOROETHENE	N.D.	5.0	и.D.	
DIBROMOCHLOROMETHANE	Ŋ.D.	5.0	N.D.	100
CHLOROBENZENE	Ŋ.D.	5.0	N.D.	102
ROMOFORM	Ŋ.D.	5.0	N.D.	
,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	
1,3-DICHLOROBENZENE	N.D.	5.0 5.0	N.D.	
1,4-DICHLOROBENZENE	N.D.	5.0	N.D. N.D.	
, 2-DICHLOROBENZENE	N.D.		N.D. N.D.	
"REON 113	N.D.	5.0	14.17.	

ChromaLab, Inc.

Aaron McMichael

Chemist

**Environmental Services (SDB)** 

July 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE OAKLAND

Project#: GT-213

Received: June 30, 1994

re: One sample for Volatile Halogenated Organics analysis.

Sample ID:SB5-2'

Matrix: SOIL

Sampled: June 30, 1994 Spl #:56227 Run: 3371 Analyzed: July 5, 1994

-Method: EPA 8010

		REPORTING	BLANK	BLANK SPIKE
· • • • • • • • • • • • • • • • • • • •	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	N.D.	5.0	N.D.	
VINYL CHLORIDE	N.D.	5.0	N.D.	
BROMOMETHANE	N.D.	5.0	N.D.	
_CHLOROETHANE	N.D.	5.0	N.D.	
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	·
LL,1-DICHLOROETHENE	N.D.	5.0	Ŋ.D.	97
METHYLENE CHLORIDE	N.D.	25	Ŋ.D.	
_TRANS-1,2-DICHLOROETHENE	N.D.	5.0	Ŋ.D.	
CIS-1,2-DICHLOROETHENE	N.D.	5.0 5.0	N.D.	<del></del> '
_L,1-DICHLOROETHANE	N.D.	5.0	N.D.	
CHLOROFORM	N.D.	5.0	N.D.	
, 1, 1, 1-TRICHLOROETHANE	N.D.	5.0	N.D.	
CARBON TETRACHLORIDE	Ŋ.D.	5.0	Ŋ.D.	
_L,2-DICHLOROETHANE	N.D.	5.0	N.D.	
TRICHLOROETHENE	Ŋ.D.	5.0	N.D.	95
1,2-DICHLOROPROPANE	Ŋ.D.	5.0	Ŋ.D.	
BROMODICHLOROMETHANE	N.D.	5.0	Ŋ.D.	
2-CHLOROETHYL VINYL ETHER	N.D.	5.0	N.D.	
TRANS-1,3-DICHLOROPROPENE	Ŋ.D.	5.0	Ŋ.D.	
CIS-1,3-DICHLOROPROPENE	Ŋ.D.	5.0	Ŋ.D.	
L,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	
	Ŋ.D.	5.0	N.D.	
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	100
CHLOROBENZENE	N.D.	5.0	N.D.	102
BROMOFORM	N.D.	5.0	N.D.	
L,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	
1,3-DICHLOROBENZENE	N.D.	5.0	N.D. N.D.	
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	<b></b>
1,2-DICHLOROBENZENE	N.D.	5.0		
FREON 113	N.D.	5.0	N.D.	

ChromaLab, Inc.

Aaron McMichael

Chemist

Environmental Services (SDB)

July 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE OAKLAND

Received: June 30, 1994

Project#: GT-213

\_re: One sample for Volatile Halogenated Organics analysis.

Sample ID:SB5-5'

Matrix: SOIL

Sampled: June 30, 1994 Spl #:56228 Run: 3371 Analyzed: July 5, 1994

Method: EPA 8010

		REPORTING	BLANK	BLANK SPIKE
- 1	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
CHLOROMETHANE	N.D.	5.0	N.D.	
VINYL CHLORIDE	N.D.	5.0 5.0	N.D.	<del>-</del> -,
BROMOMETHANE	N.D.	5.0	N.D.	<del></del>
CHLOROETHANE	N.D.	5.0	N.D.	<del>-</del> , -
TRICHLOROFLUOROMETHANE	N.D.	5.0	Ŋ.D.	
. 1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
METHYLENE CHLORIDE	N.D.	25	N.D.	
TRANS-1,2-DICHLOROETHENE	N.D.	5.0	Ŋ.D.	•
CIS-1,2-DICHLOROETHENE	N.D.	5.0 ~	N.D.	
_1,1-DICHLOROETHANE	N.D.	5.00 5.00 5.00	Ŋ.D.	
CHLOROFORM	N.D.	5.0	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	
1,2-DICHLOROETHANE	Ŋ.D.	5.0	N.D.	95
TRICHLOROETHENE	N.D.	5.0	N.D.	
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	
BROMODICHLOROMETHANE	Ŋ.D.	5.0	N.D. N.D.	<b></b>
2-CHLOROETHYL VINYL ETHER	N.D.	5.0	N.D.	<b>~ -</b>
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0 5.0	N.D.	<del></del>
CIS-1,3-DICHLOROPROPENE 1,1,2-TRICHLOROETHANE	N.D. N.D.	5.0	N.D.	
TETRACHLOROETHENE	N.D.	5.0	N.D.	
DIBROMOCHLOROMETHANE	N.D.	5.0 5.0 5.0 5.0	N.D.	
CHLOROBENZENE	N.D.	5.0	N.D.	102
BROMOFORM	N.D.	5.0	N.D.	
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	<b></b>
1,3-DICHLOROBENZENE	N.D.	5.0 5.0	N.D.	<del></del>
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	
FREON 113	N.D.	5.0	N.D.	
		<del>-</del>		

ChromaLab, Inc.

Aaron McMichael

Chemist

Ali Kharrazi

Organic Manager

Environmental Services (SDB)

July 12, 1994

Submission #: 9407004

JONAS & ASSOCIATES, INC.

itten: Romena Jonas

Project: GENERAL TIRE OAKLAND

Received: June 30, 1994

Project#:

One sample for Volatile Halogenated Organics analysis.

;;ample ID:SB5-9'

Matrix: SOIL

Sampled: June 30, 1994

Spl #:56229 Run: 3371 Analyzed: July 5, 1994

"Yethod: EPA 8010

		REPORTING	BLANK	BLANK SPIKE
**************************************	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)
HLOROMETHANE	Ň.D.	5.0	N.D.	·
FINYL CHLORIDE	N.D.	5.0	N.D.	
BROMOMETHANE	N.D.	5.0	N.D.	
_CHLOROETHANE	N.D.	5.0	N.D.	
FRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	·
, [, 1-DICHLOROETHENE	N.D.	5.0	N.D.	97
METHYLENE CHLORIDE	N.D.	25	N.D.	. <del></del>
_TRANS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	
CIS-1,2-DICHLOROETHENE	N.D.	5.0	N.D.	'
1.1-DICHLOROETHANE	N.D.	5.0	N.D.	
CHLOROFORM	N.D.	5.0 5.0	N.D.	<del></del>
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	<b></b>
'CARBON TETRACHLORIDE	N.D.	5.0	N.D.	
, 2-DICHLOROETHANE	N.D.	5.0	N.D.	
TRICHLOROETHENE	Ŋ.D.	5.0	Ŋ.D.	95
1,2-DICHLOROPROPANE	N.D.	5.0	й.D.	
BROMODICHLOROMETHANE	N.D.	5.0	и.D.	
-CHLOROETHYL VINYL ETHER	N.D.	5.0	и.D.	
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	Ŋ.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	Ŋ.D.	
,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	
TETRACHLOROETHENE	N.D.	5.0	N.D.	<b></b>
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	100
CHLOROBENZENE	N.D.	5.0	N.D. N.D.	102
BROMOFORM	N.D.	5.0		
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D. N.D.	
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	<b></b>
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	
.,2-DICHLOROBENZENE REON 113	N.D.	5.0	N.D.	
*KEON II3	N.D.	5.0	N.D.	<del></del>

ChromaLab, Inc.

Aaron McMichael

Chemist

DATE 6/30/94 PAGE ! OF >

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SAMPLERS (SIGNATURE)				HONE NO.)	\$ E	80.4	83	A 49	₹ 5	40.5	14 ES	<u> </u>	<u>g</u> 8	8040)	TECOVERABLE		ö	(11) S	17		2010	7.8		,	CONTAINERS
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Parama to	ma	K)0-9	733-5	3 60	- ₹	i i	TPH - Diesel (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	A 26 26	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTHALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520 E&F)	17.8 19.8	N S	TOTAL RE		METALS: Cd. Cr. Pb.	AM METALS	PRIORITY POLLUTANT	AAC S	707	0			NUMBER
KMENT TO SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	후반	TPH - Gasoline (5030, 8015) w/BTeX (EPA 502,8020)	를 B	P. B.	PURGEABLE HALOCARBONS (EPA 601, 8010)	Š (f)	BAS (EP/	DE (F)	PESTICIDES/PCB (EPA 608, 8080)	PHENOLS (EPA 604, 8			MET	ਕ੍ਰ ਹ	ž. Ž	EXTRACTION (TCLP, STLC)	>	TEPH	56		5
SB1-21	4/30/94																				1	1	1		
SB1-51	1	<b>v</b> :32	1																				-   -   		}
SB1-91		8:37																						-	<del> </del>
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PROJECT NAME  PROJECT NUMBER  GT-213	02/14	CHAIN	OF CUSTO	NTAINERS DY SEALS		9_	(SIGN/	ATURE)	- <del></del>		<u> </u>	(TIME)	ISIG	NATURE	)			(ī	IME) (	SIGNATU	IRE)		· · · · · · · · · · · · · · · · · · ·	· • • · • · · · · · · · · · · · · · · ·	(TIME)
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2239 Omega Road, #1 • San Ramon, California 94583 510/831-1788 • Facsimile 510/831-8798

### Chain of Custody

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PROJ MGR. ROMPNA: JONES COMPANY Sones & ASSECTATES INC.		<b>,</b>	Ţ						AN	ALVSIS	REPO	DRT		1				<b>.</b>	- <sub>1</sub>	<b>,</b> .	
COMPANY Sonas & A SI SCIATES INC.		G		ا	SNS						18.1)										
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ADDRESS 2815 NITCHED Drive, Suite 2 Walnut Creek, CA 94592		88	8	3020	Ö	NG:	A 6	ASE	m		RABLE (S (EPA		. d		I A	•	0		875X		N Y
SAMPLERS (SIGNATURE) (PHONI	= =	TPH - Gasoline (5030, 8015) wBTeX (EPA 602,8020)	TPH - Diesel (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 801, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520 E&F)	PESTICIDES/PCB (EPA 608, 8080)	Ş	TOTAL RECOVER HYDROCARBONS		METALS: Cd, Cr, Pb.	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	2 -	010	, K.			CONTAINERS
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SAMPLEID. DATE TIME MATRIX LA	BID, 🖺 🗓	F 🔻	무필	P B B B B	5 (1)	8 8	BA G	호 <u>해</u>	# E	1 2 0	5 ₹		<u>با</u> کا	రే	E Z	25	ž	1	F		ž
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PROJECT INFORMATION SAMPLE F		,	RELIN	ПСИІВН	ED BY			1.	REI	LINOUIS	HED B	Y			2 [	ELINO	UISHEI	D BY		•	3
GENERAL TIPE ORKAND TOTAL NO. OF CONTAI		Pa				· ·			_					·						· .	
PROJECT NUMBER  CHAIN OF CUSTODY SI  BECT GOOD CONDITION	EALS 		(SIGNA	ITURE)			i	(TIME)	t2:G	NATURE	) .		•	(I	IME) (	SIGNATU	RE)				(TIME)
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SPECIAL INSTRUCTIONS/COMMENTS: NOTMAL-TURN-Around			(SIGNA	TURE)			<del></del>	(TIME)	(SIG	NATURE	•			(T)	IME)	PHYTU	RE)	D	1	1 6	TIME
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Environmental Services (SDB)

June 27, 1994

Submission #: 9406232 Revised: July 7, 1994

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Received: June 20, 1994

Project#: GT-213

re: 3 samples for TEPH analysis

Matrix: WATER

Sampled: June 17, 1994

Method: 3510/8015

Analyzed: June 25, 1994

Sample #	Client Sample ID	Kerosene (μg/L)	Diesel (µg/L)	Motor Oil (mg/L)
55247 55248 55249	MW3-61794 MW2-61794 MW1-61794	N.D. N.D. N.D.	N.D. N.D. N.D.	N.D. N.D. N.D.
Blank Spike Recove Dup Spike Re Reporting L	ecovery	N.D.  50	N.D. 89% 84% 50	N.D.  0.5

ChromaLab, Inc.

Shinat Aullaton

Sirirat Chullakorn Analytical Chemist Ali Kharrazi Organic Manager

gg

Environmental Services (SDB)

June 27, 1994

Submission #:

9406232

JONAS & ASSOCIATES, INC.

Atten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

*Project#:* GT-213

Received: June 20, 1994

re: One sample for Volatile Halogenated Compounds analysis.

Fample: MW1-61794

Matrix: WATER

Sampled: June 17, 1994

Lab#: 55249 Run: 3222 Analyzed: June 27, 1994

Method: EPA 601

	DELCTIT M	REPORTING	BLANK	
- <u>-                                  </u>	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(uq/L)	(ug/L )	(uq/L )	(%)
'CHLOROMETHANE	N.D.	0.5	N.D.	
VINYL CHLORIDE	N.D.	0.5	N.D.	. <b>– –</b>
BROMOMETHANE	N.D.	0.5 0.5	N.D.	<del>_</del> ·
CHLOROETHANE	N.D.	0.5	N.D.	
TRICHLOROFLUOROMETHANE	N.D.	0.5	N.D.	<b>-</b> -
L,1-DICHLOROETHENE	N.D.	0.5 5 0.5	N.D.	- 91
METHYLENE CHLORIDE	N.D.	5	N.D.	
TRANS-1,2-DICHLOROETHENE	N.D.	ň s	N.D.	
CIS-1,2-DICHLOROETHENE	3.3	0.5	N.D.	
,1-DICHLOROETHANE	N.D.	0.5	N.D.	
CHLOROFORM	N.D.	0.5	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	0.5	N.D.	
ARBON TETRACHLORIDE	N.D.	0.5	N.D.	
, 2-DICHLOROETHANE	N.D.	0.5	N.D.	
TRICHLOROETHENE	N.D.	0.5	N.D.	96
1,2-DICHLOROPROPANE	N.D.	0.5	N.D.	
BROMODICHLOROMETHANE	N.D.	0.5	N.D.	
E-CHLOROETHYLVINYL ETHER	N.D.	0.5	N.D.	
* TRANS-1,3-DICHLOROPROPENE	N.D.	0.5	N.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	0.5		
1,1,2-TRICHLOROETHANE	0.57	0.5	N.D. N.D.	<b></b>
ETRACHLOROETHENE	N.D.	0.5		<b></b>
-DIBROMOCHLOROMETHANE	N.D.	0.5	N.D.	<b></b>
CHLOROBENZENE	N.D.	0.5	N.D.	
· BROMOFORM	N.D.	0.5	Ŋ.D.	97
	N.D.	0.5	N.D.	
,1,2,2-TETRACHLOROETHANE	0.58	0.5	N.D.	
4,3-DICHLOROBENZENE	N.D.	0.5	N.D.	<del></del>
1,4-DICHLOROBENZENE	N.D.	0.5	N.D.	
1,2-DICHLOROBENZENE	N.D.	0.5	N.D.	
REON 113	N.D.	0.5	N.D.	

ChromaLab, Inc.

Taron MEMichael

Aaron McMichael

Themist

Ali Kharrazi

Organic Manager

**Environmental Services (SDB)** 

une 27, 1994

Submission #:

9406232

JONAS & ASSOCIATES, INC.

tten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Project#: GT-213

eceived: June 20, 1994

re: One sample for Volatile Halogenated Compounds analysis.

ample: MW2-61794

Matrix: WATER

Sampled: June 17, 1994

Lab#: 55248 Run: 3222 Analyzed: June 24, 1994

Method: EPA 601

	•	REPORTING	BLANK	BLANK SPIKE
No.	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/L )	(ug/L)	(ug/L )	(%)
HLOROMETHANE INYL CHLORIDE BROMOMETHANE CYLOROFTHANE	N.D.	0.5	Ň.D.	
INYL CHLORIDE	5.3	0.5	N.D.	
BROMOMETHANE	N.D.	n 5	M D	
	N.D.	0.5	N.D. N.D. N.D. N.D. N.D. N.D.	
RICHLOROFLUOROMETHANE ,1-DICHLOROETHENE METHYLENE CHLORIDE TRANS-1,2-DICHLOROETHENE	N.D.	0.5	${ t N.D.}$	·
,1-DICHLOROETHENE METHYLENE CHLORIDE TRANS-1 2-DICHLOROETHENE	1.7	0.5	Ŋ.D.	91
METHYLENE CHLORIDE	N.D.	· 5	N.D.	
TRANS-1,2-DICHLOROETHENE IS-1,2-DICHLOROETHENE ,1-DICHLOROETHANE CHLOROFORM	1.3	0.5	N.D.	
IS-1,2-DICHLOROETHENE	48_	5	N.D.	
,1-DICHLOROETHANE	N.D.	0.5	N.D.	<del></del>
CHLOROFORM	N.D.	0.5	N.D.	
I, I, I - IRICHLORUE I HANE	N.D.	0.5	N.D.	
ARBON TETRACHLORIDE	N.D.	0.5	N.D. N.D. N.D. N.D.	₩ =
, 2-DICHLOROETHANE	N.D.	0.5	N.D. N.D. N.D. N.D. N.D.	
TRICHLOROETHENE	87_	5	й.Б.	96
1,2-DICHLOROPROPANE ROMODICHLOROMETHANE	N.D.	0.5	N.D.	
ROMODICHLOROMETHANE	N.D.	0.5	N.D.	<b></b>
-CHLOROETHYLVINYL ETHER	N.D.	0.5	N.D.	
TRANS-1,3-DICHLOROPROPENE CIS-1,3-DICHLOROPROPENE	N.D.	0.5	N.D.	
CIS-1,3-DICHLOROPROPENE	N.D. N.D.	() 5	NI 13	
7,1,2-TRICHLOROETHANE	N.D.	0.5	N.D.	· · · · · · · · · · · · · · · · ·
ETRACHLOROETHENE	44	ָ ס ר	N.D. N.D. N.D. N.D.	
DIBROMOCHLOROMETHANE	N.D.	0.5	N.D.	97
CHLOROBENZENE	и.р.	0.5	N.D.	97
ROMOFORM	Ŋ.D.	0.5	N.D.	
, 1, 2, 2-TETRACHLOROETHANE	N.D.	0.5 0.5	N.D. N.D. N.D.	
1,3-DICHLOROBENZENE	N.D.	0.5	N.D.	
1,4-DICHLOROBENZENE ,2-DICHLOROBENZENE	N.D. N.D.	0.5		
REON 113	N.D. N.D.	0.5	N.D.	
TT2	и. D.	0.5	14.17.	

ChromaLab, Inc.

Aaron McMichael

Chemist

Environmental Services (SDB)

une 27, 1994

Submission #:

9406232

JONAS & ASSOCIATES, INC.

tten: Romena Jonas

Project: GENERAL TIRE-OAKLAND

Project#: GT-213

Received: June 20, 1994

re: One sample for Volatile Halogenated Compounds analysis.

| ample: MW3-61794

Matrix: WATER

Sampled: June 17, 1994

Lab#: 55247 Run: 3222 Analyzed: June 24, 1994

-Method: EPA 601

		REPORTING	BLANK	BLANK SPIKE
*·	RESULT	LIMIT	RESULT	RESULT
ANALYTE	(ug/L)	(uq/L )	(ug/L )	(%)
"HLOROMETHANE	Ñ.D.	0.5	N.D.	
'INYL CHLORIDE	N.D.	0.5 0.5	N.D.	: <b>_</b> -
BROMOMETHANE	N.D.	0.5	N.D.	
CHLOROETHANE	N.D.	0.5	N.D.	<b></b>
"RICHLOROFLUOROMETHANE	N.D.	0.5 0.5 5 0.5	N.D.	
,1-DICHLOROETHENE METHYLENE CHLORIDE	N.D.	0.5	N.D.	91
METHYLENE CHLORIDE	N.D.	5	N.D.	. <b>-</b>
TRANS-1.2-DICHLOROETHENE	N.D.	0.5	N.D.	<b></b>
:IS-1,2-DICHLOROETHENE	N.D.	0.5	N.D.	
:IS-1,2-DICHLOROETHENE ,1-DICHLOROETHANE	N.D.		N.D.	
	N.D.	0.5	N.D.	
1,1,1-TRICHLOROETHANE	N.D.	0.5	N.D. N.D.	~ ~
ARBON TETRACHLORIDE	N.D.	0.5	N.D.	
.,2-DICHLOROETHANE	N.D.	0.5	Ŋ.D.	
TRICHLOROETHENE	N.D.	0.5	Ŋ.D.	96
1,2-DICHLOROPROPANE	N.D.	0.5	N.D.	
ROMODICHLOROMETHANE	Ŋ.D.	0.5	N.D.	
-CHLOROETHYLVINYL ETHER		0.5	N.D.	· <b></b>
'IRANS-1,3-DICHLOROPROPENE	N.D.	0.5	Ŋ.D.	
CIS-1,3-DICHLOROPROPENE	N.D.	0.5	N.D.	
1,2-TRICHLOROETHANE	N.D.	0.5	N.D.	
"ETRACHLOROETHENE	N.D.	0.5 0.5 0.5	Ŋ.D.	·
DIBROMOCHLOROMETHANE	N.D.	0.5	Ŋ.D.	~ ~
CHLOROBENZENE	N.D.	0.5	Ŋ.D.	97
ROMOFORM	N.D.	0.5	N.D.	
,1,2,2-TETRACHLOROETHANE	Ŋ.D.	0.5 0.5	N.D.	<del></del>
-1,3-DICHLOROBENZENE	N.D.	0.5	Ŋ.D.	
1,4-DICHLOROBENZENE	N.D.	0.5		
2,2-DICHLOROBENZENE	Ŋ.D.	0.5	N.D.	
REON 113	N.D.	0.5	N.D.	<del></del>

ChromaLab, Inc.

Aaron McMichael

Chemist

Ali Kharrazi

Organic Manager

**DOHS 1094** 

SUBH #: 9406232 CLICAT: JONAS

DUU: 06/27/94

#(F - 16928

Chain of Custody

DATE 6/17/94 PAGE OF

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PROJ MGR ROM COMPANY JONAS ADDRESS 2815 Walnut SAMPLERS (SIGNATURE) ROMAN	MM	510	-933-	940NE NO.	H - Gasoline	Gasoline EX (EPA 6	TPH - Diesel (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601) 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 325)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)		METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)			;	NUMBER OF CONTAINERS	
SAMPLE 10.	DATE	TIME	(2 mone	C PRESERV	2 - =	- s		2 20		>=	B =	1 3		<u> </u>	FI				- Z		W :					ı
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General Tire - PROJECT NUMBER G7-213 P.O. # G7-213		CONFI	ORMS TO	<del></del>	OLD		(PRIN	MEAL TED NAM AG 5 &	E) . Asa	-	76	DATE DAYS	(PA	INTED N	AME)			, (D	ATE) (F	PRINTED	NAME)			·, [	(DATE)	İ
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Appendix D
Elevation Survey Results
Kier & Wright Civil Engineers & Surveyors, Inc.
November 22, 1993
General Tire Oakland Facility



#### KIER & WRIGHT

Civil Engineers & Surveyors, Inc. :

November 22, 1993 Job No. 93586

Mr. Romena Jonas Jonas & Associates, Inc. Environmental Consultants 1056 Dale Place Concord, CA 94518

RE: GENERAL TIRE FACILITY

Dear Romena:

As you have requested we have surveyed the 3 monitoring wells at the General Tire Facility in Oakland. The elevations were surveyed to Mean Seaf Level and their locations tied to City of Oakland Monuments.

If we can be of further service or if you have any questions, please do not hesitate to give us a call.

Sincerely,

KIER & WRIGHT

Ken Porter

KRP/rl

Enclosure

### Table of Elevations & Coordinates on Monitoring Wells General Tire, Inc. 1201 14th Avenue Oakland, California

Well No.	Northing	Easting	Elevation
MW-1	474023.22	1495579.17	18.58 at punch on N. rim of box 18.29 at notch in PVC casing
MW-2	474169.72	1495664.73	20.77 at punch on N. rim of box 20.18 at notch in PVC casing
MW-3	473977.93	1495474.96	19.99 at punch on N. rim of box 19.55 at notch on in PVC casing
Benchmark:		crete curb centerli	., 15th Avenue and 14th Street. ne at return Northeast corner of

Elevation = 32.84 M.S.L.

#### Basis of Bearings and Coordinates:

The bearing South 51° 55' 03" East taken on the monument line of East 12th Street between the City of Oakland Monument located 11 feet North of the centerline of East 12th Street and 11 feet West of the centerline of 14th Avenue (coordinate values North 473900.35 / East 1495592.99) and the City of Oakland Monument located 11 feet North of the centerline of East 12th Street and 11 feet West of the centerline of 16th Avenue (coordinate values North 473520.89 / East 1496077.24) was taken as the basis of all bearings and coordinates shown hereon.

Appendix E
Summary Tables of 1993 and 1994 Groundwater and Soil Samples
Analytical Results
General Tire Oakland Facility

GENERAL TIRE OAKLAND FACILITY SEPTEMBER 1993 AND JUNE 1994 SOIL ANALYTICAL RESULTS

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## Table S2 GENERAL TIRE OAKLAND FACILITY SOIL ANALYTICAL RESULTS VOLATILE ORGANICS - METHOD: 8010 {milligrams chemical per kilogram soil}

Sampl <del>e</del> I.D.	Sampling Date	Depth (feet)	Matrix	Lab	Bromodichioro methane		Bromo- chloromethane	Carbon Tetrachloride	Chloro- benzene	Chloro- ethane	2-Chloroethyl Vinyl Ether	Chloroform	Chloro- methane
MW2-5'	9/7/93	5'	soil	CrLab	ND (0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
MW2-10"	9/7/93	10'	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)
MW2-15'	9/7/93	15'	lioa	CrLab	ND(0.005)	ND (0.005)	ND(0,005)	ND (0.005)	ND (0.005)	ND(0,005)	ND(0.005)	ND (0.005)	ND(0.005)
MW3-5'	9/7/93	5'	soil	CrLab	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0,005)	ND (0.005)	ND (0.005)	ND(0.005)
MW3-10'	9/7/93	10'	soil	CrLab	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
MW3-15'	9/7/93	15'	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND (0.005)
DRUM-MW2	9/7/93	Composite	soil	CrLab	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0,005)	ND(0.005)	ND(0.005)	ND(0.005)
DRUM-MW3	9/7/93	Composite	soi!	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0,005)
Sampling on	June 30, 19	94											
SB1-2'	6/30/94	2'	soil	CrLab	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
SB1-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)
SB1-9'	6/30/94	9'	soil	CrLab	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND (0.005)	NO(0.005)
SB2-2'	6/30/94	2'	soil	CrLab	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0,005)
SB2-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)
SB2-9'	6/30/94	9'	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)
SB3-2'	6/30/94	2'	soil	CrLab	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)
SB3-5'	6/30/94	5'	soil	CrLab	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)
SB3-9'	6/30/94	9'	soil	CrLab	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)
SB4-2'	6/30/94	2'	soil	CrLab	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)
SB4-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)
SB4-9'	6/30/94	<b>9</b> .	soil	CrLab	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)
SB5-2'	6/30/94	2'	lioa	CrLab	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)
SB5-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)
SB5-9'	6/30/94	8.	soil	CrLab	ND (0.005)	ND(0,005)	ND (0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(0.005)

notes:

CrLab: ChromaLab Inc.

ND(0.005) = Not Detected above the laboratory detection limit in parentheses.

# Table S2<sup>con't</sup> GENERAL TIRE OAKLAND FACILITY SOIL ANALYTICAL RESULTS VOLATILE ORGANICS - METHOD: 8010 {milligrams chemical per kilogram soil}

Sample I.D.	Sampling Date	Depth (feet)	Matrix	Lab	Dibromo- chloromethane		1,3-Dichloro- benzene	1,4-Dichloro- benzene	1.1-Dichloro- ethane	1.2-Dichloro- ethane	1, 1-Dichloro- ethene		cis-1,3-Di- chloropropene	trans-1,3-Di- chloropropene
MW2-5'	9/7/93	5'	lioa	CrLab	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
MW2-10'	9/7/93	10'	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0,005)	ND (0.005)
MW2-15'	9/7/93	15'	soil	CrLab	ND(0,005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)
MW3-5'	9/7/93	5'	soil	CrLab	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)
MW3-10'	9/7/93	10'	soil	CrLab	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0,005)	ND(0.005)	ND (0.005)	ND(0.005)
MW3-15'	9/7/93	15'	soil	CrLab	ND(0.005)	ND(0,005)	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)
DRUM-MW2	9/7/93	Composite	șoil	CrLab	ND (0.005)	ND(0.005)	ND (0.005)	ND(0,005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0,005)	ND(0.005)
DRUM-MW3	9/7/93	Composite	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Sampling on	June 30, 199	94												
SB1-2'	6/30/94	2'	soil	CrLab	ND (0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)
SB1-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)
SB1-9'	6/30/94	9'	soil	CrLab	ND(0,005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)
SB2-2'	6/30/94	2*	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)
SB2-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
SB2-9'	6/30/94	8.	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)
SB3-2'	6/30/94	2'	soil	CrLab	ND(0.005)	ND (0.005)	ND(0,005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
SB3-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
SB3-9'	6/30/94	9'	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)
SB4-2'	6/30/94	2'	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0,005)	ND(0.005)	ND(0.005)	ND (0.005)
SB4-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
SB4-9'	6/30/94	8,	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)
S85-2'	6/30/94	2'	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)
SB5-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0,005)	ND(0,005)
SB5-9'	6/30/94	9.	soil	CrLab	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)

notes: CrLab: Chromalab Inc.

ND(0.004) = Not Detected above the laboratory detection limit in parentheses.

## Table S2<sup>con't</sup> GENERAL TIRE OAKLAND FACILITY SOIL ANALYTICAL RESULTS VOLATILE ORGANICS - METHOD: 8010 {milligrams chemical per kilogram soil}

Sample I.D.	Sampling Date	Depth (feet)	Matrix	Lab	Freon	Methylene Chloride	1,1,2,2-Tetra- chloroethane	Tetra- chloroethene	1,1,1-Tri- chloroethane	1,1,2-Trt- chloroethane		Trichlorofluoro methane	- Trans-1,2- Dichloroethene
MW2-5'	9/7/93	5'	soil	CrLab	ND(0.005)	ND(0.1)	ND(0,005)	0.073	ND (0.005)	ND(0.005)	0.0066	ND (0.005)	ND(0.005)
MW2-10'	9/7/93	10'	soil	CrLab	ND(0.005)	ND(0.1)	ND(0.005)	0.110	ND (0.005)	ND(0.005)	0.360	ND (0.005)	0,0087
MW2-15'	9/7/93	15'	soil	CrLab	ND (0.005)	ND(0.1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)
MW3-5'	9/7/93	5'	soil	CrLab	ND (0.005)	ND(0.1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)
MW3-10'	9/7/93	10'	soil	CrLab	ND (0.005)	ND(0.1)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)
MW3-15'	9/7/93	15'	soil	CrLab	ND(0.005)	ND(0.1)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
DRUM-MW2	9/7/93	Composite	soil	CrLab	ND (0.005)	ND(0.1)	ND(0.005)	0.075	ND(0.005)	ND(0.005)	0.012	ND(0.005)	ND(0.005)
DRUM-MW3	9/7/93	Composite	soil	CrLab	ND(0.005)	ND(0.1)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Sampling on	June 30, 199	94											
SB1-2'	6/30/93	2'	soil	CrLab	ND(0.005)	ND(0.025)	ND(0,005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)
SB1-5'	6/30/93	5'	soil	CrLab	ND(0.005)	ND(0.025)	ND(0.005)	0.046	ND (0.005)	ND (0.005)	0.0072	ND (0.005)	ND(0.005)
SB1-9'	6/30/93	9,	soll	CrLab	ND(0.005)	ND(0.025)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)
SB2-2'	6/30/93	2'	soit	CrLab	ND (0.005)	ND(0.025)	ND(0.005)	0.016	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)
SB2-5'	6/30/93	5'	soil	CrLab	ND(0.005)	ND(0.025)	ND (0.005)	0.0075	ND(0.005)	ND(0,005)	ND (0.005)	ND (0.005)	ND(0.005)
SB2-9'	6/30/93	9'	soil	CrLab	ND(0,005)	ND(0.025)	ND(0.005)	0.023	ND(0.005)	ND (0.005)	0.027	ND (0.005)	ND(0.005)
SB3-2'	6/30/93	5,	soil	CrLab	ND(0.005)	ND(0.025)	ND(0.005)	0,0073	ND(0.005)	ND(0.005)	0.022	ND (0.005)	0.0062
SB3-5'	6/30/93	5'	soil	CrLab	ND(0.005)	ND(0.025)	ND(0.005)	0.016	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)
SB3-9'	6/30/93	9'	soil	CrLab	ND(0.005)	ND(0.025)	ND(0.005)	0,0069	ND(0.005)	ND(0.005)	0.011	ND (0.005)	ND(0.005)
SB4-2'	6/30/93	2'	soil	CrLab	ND(0.005)	ND(0.025)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0,005)	ND(0.005)
SB4-5'	6/30/93	5'	soil	CrLab	ND (0.005)	ND(0.025)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.0066
SB4-9'	6/30/93	9,	soil	CrLab.	ND(0.005)	ND(0.025)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)
SB5-2'	6/30/93	2'	soil	CrLab	ND(0.005)	ND (0.025)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)
\$B5-5'	6/30/93	5'	soil	CrLab	ND(0.005)	ND(0.025)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
S85-9'	6/30/93	9,	soil	CrLab	ND (0.005)	ND(0.025)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)

notes:

CrLab: Chromalab Inc.

ND(0.005) = Not Detected above the laboratory detection limit in parentheses.

Table S2<sup>cont</sup>
GENERAL TIRE OAKLAND FACILITY
SOIL ANALYTICAL RESULTS
VOLATILE ORGANICS - METHOD: 8010
{milligrams chemical per kilogram soil}

Sample I.D.	Sampling Date	Depth (feet)	Matrix	Lab	Vinyl Chloride	Cis-1,2-Dichloro- ethene
MW2-5'	9/7/93	5'	soil	CrLab	ND(0.005)	0.0059
MW2-10'	9/7/93	10'	soil	CrLab	ND(0.005)	0.240
MW2-15'	9/7/93	15'	soil	CrLab	ND(0.005)	ND (0.005)
MW3-5'	9/7/93	5'	soil	CrLab	ND(0.005)	ND(0.005)
MW3-10'	9/7/93	10'	soil	CrLab	ND(0.005)	ND (0.005)
MW3-15'	9/7/93	15'	soil	CrLab	ND(0,005)	ND (0.005)
DRUM-MW2	9/7/93	Composite	soil	CrLab	ND(0.005)	0.014
DRUM-MW3	9/7/93	Composite	soil	CrLab	ND(0.005)	ND (0.005)
Sampling on	June 30, 199	14				
SB1-2'	6/30/94	2'	soil	CrLab	ND(0.005)	ND(0.005)
SB1-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND (0.005)
SB1-9'	6/30/94	9'	soil	CrLab	ND(0.005)	0.016
SB2-2'	6/30/94	2'	soll	CrLab	ND(0.005)	ND(0.005)
SB2-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND (0.005)
SB2-9'	6/30/94	9'	soil	CrLab	ND(0.005)	0.016
SB3-2'	6/30/94	2'	soil	CrLab	ND(0.005)	ND(0.005)
SB3-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND(0.005)
SB3-9'	6/30/94	8,	soil	CrLab	ND(0.005)	ND(0.005)
SB4-2'	6/30/94	2'	soil	CrLab	ND(0.005)	ND (0.005)
SB4-5'	6/30/94	5'	soil	CrLab	ND(0.005)	0.012
SB4-9'	6/30/94	9,	soil	CrLab	ND(0.005)	ND (0.005)
SB5-2'	6/30/94	2'	soil	CrLab	ND(0.005)	ND (0.005)
SB5-5'	6/30/94	5'	soil	CrLab	ND(0.005)	ND (0.005)
SB5-9'	6/30/94	9,	soil	CrLab	ND(0.005)	ND (0.005)

notes: CrLab: Chromalab Inc.

ND(0.005) = Not Detected above the laboratory detection limit in parentheses.

### Table S3 GENERAL TIRE OAKLAND FACILITY SOIL SAMPLE RESULTS PCBs - METHOD: 8080 {milligrams chemical per kilogram soil}

Sample I.D.	Sampling Date	Depth (feet)	Matrix	Lab	PCBs	
B1-5' B1-10'	9/7/93 9/7/93	5' 10'	soil soil	CrLab CrLab	ND(0.05) ND(0.05) ND(0.05)	
B1-15' DRUM B1	9/7/93 9/7/93	15' Composi	soil te soil	CrLab CrLab	ND(0.05)	

notes:

CrLab: Chromalab Inc.

ND(0.05) = Not Detected above the laboratory detection limit in parentheses.

### Table S1 GENERAL TIRE OAKLAND SOIL ANALYTICAL RESULTS

#### PETROLEUM HYDROCARBONS - METHOD: 5030/8015/8020/3550

{milligrams chemical per kilogram soil}

Sampie I.D.	Sampling Date	Depth (feet)	Matrix	Lab	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	TEPH Diesel	TEPH Kerosene	TEPH Motor Oil
MW2-5'	9/7/93	5'	soil	CrLab	ND(1.0)	ND (0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(1.0)	ND(1.0)	ND(10.0)
MW2-10'	9/7/93	10'	soil	CrLab	ND(1.0)	ND (0.005)	ND(0,005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	18
MW2-15'	9/7/93	15'	soil	CrLab	ND(1.0)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(1.0)	ND(1:0)	ND(10.0)
MW3-5'	9/7/93	5'	soil	CrLab	ND(1.0)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	18
MW3-10'	9/7/93	10'	soll	CrLab	ND(1.0)	ND (0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND(10.0)
MW3-15'	9/7/93	15'	soil	CrLab	ND(1.0)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND(10.0)
Drum-MW2	9/7/93	Composite	soil	CrLab	ND(1.0)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND(10.0)
Drum-MW3	9/7/93	Composite	soil	CrLab	ND(1.0)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	9.3	NO(1.0)	50
Sampling on	June 30, 199	94										
SB1-2'	6/30/94	2'	soil	CrLab	ND(1.0)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	12
SB1-5'	6/30/94	5'	soil	CrLab	ND(1.0)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	55	ND(1.0)	150
SB1-9'	6/30/94	9'	soil	CrLab	ND(1.0)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND(10.0)
SB2-2'	6/30/94	2'	soll	CrLab	ND(1.0)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND(10.0)
SB2-5'	6/30/94	5'	soil	CrLab	ND(1.0)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND(10.0)
SB2-9'	6/30/94	9,	soil	Crtab	ND(1.0)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND(10.0)
SB3-2'	6/30/94	2'	soil	CrLab	ND(1.0)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND(10.0)
SB3-5'	6/30/94	5'	soil	CrLab	ND(1.0)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND (10.0)
SB3-9'	6/30/94	9'	soil	CrLab	ND(1.0)	ND(0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND(10.0)
SB4-2'	6/30/94	2'	soil	CrLab	ND(1.0)	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND(10.0)
SB4-5'	6/30/94	5'	soil	CrLab	ND(1.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(1.0)	ND(1.0)	32
SB4-9'	6/30/94	9'	soil	CrLab	ND(1.0)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND(10.0)
SB5-2'	6/30/94	2'	soil	CrLab	ND(1.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(1.0)	ND(1.0)	ND(10.0)
SB5-5'	6/30/94	5'	soil	CrLab	ND(1.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(1.0)	ND(1.0)	340
SB5-9'	6/30/94	8,	soil	CrLab	ND(1.0)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND(1.0)	ND(1.0)	ND(10.0)

notes:

CrLab: Chromalab Inc.

ND(0.005) = Not Detected above the laboratory detection limit in parentheses.

NA = Not Analyzed.

TPH: Total Petroleum Hydrocarbons

TEPH: Total Extractable Petroleum Hydrocarbons

### Table GW2 GENERAL TIRE OAKLAND FACILITY GROUNDWATER ANALYTICAL RESULTS VOLATILE ORGANICS - METHOD: 601 {parts per million}

Water

Sample L.D.	Sampling Date	Elevation (feet)	Matrix	Lab	Bromodichloro- methane		Bromo- chloromethane	Carbon Tetrachloride	Chloro- benzene	Chloro- ethane	2-Chloroethyl Vinyl Ether	Chloroform	Chloro- methane
MW1-10593	10/5/93	9,56'	water	CrLab	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)
MW2-10593	10/5/93	13.38'	water	CrLab	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
MW3-10593	10/5/93	9.04	water	CrLab	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
MWd-10593	10/5/93		water	CrLab	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0,005)	ND(0.005)	ND(0,005)	ND (0.005)	ND (0.005)
Sampling on	June 17, 199	4											
MW1-61794	6/17/94	9,56'	water	CrLab	ND (0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND (0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND (0.0005)
MW2-61794	6/17/94	13.38'	water	CrLab	ND (0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND (0.0005)	ND(0.0005)	ND(0.0005)	ND (0.0005)
MW3-61794	6/17/94	9.04*	water	CrLab	ND (0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0,0005)	ND (0.0005)	ND(0.0005)	ND(0.0005)	ND (0.0005)

notes:

CrLab: ChromaLab Inc.

ND(0.005) = Not Detected above the laboratory detection limit in parentheses.

# Table GW2<sup>cont</sup> GENERAL TIRE OAKLAND FACILITY GROUNDWATER ANALYTICAL RESULTS VOLATILE ORGANICS - METHOD: 601 {parts per million}

Sample I.D.	Sampling Date	Water Elevation (feet)		Lab	Dibromo- chloromethane	1,2-Dichloro- benzene	1,3-Dichloro- benzene	1,4-Dichloro- benzene	1,1-Dichloro- ethane	1,2-Dichloro- ethane	1,1-Dichloro- ethene			trans-1,3-Di- chloropropene
MW1-10593	10/5/93	9.56'	water	CrLab	ND(0.005)	ND(0,005)	ND (0.005)	ND(0.005)	0.0013	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)
MW2-10593	10/5/93	13.38'	water	CrLab	ND(0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND (0.005)	ND (0.005)	0.001	ND (0.005)	ND(0.005)	ND(0.005)
MW3-10593	10/5/93	9.04'	water	CrLab	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND(0.005)	ND (0.005)
MWd-10593	10/5/93	_	water	CrLab	ND (0.005)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0,005)	ND(0.005)	0.0009	ND(0.005)	ND(0.005)	ND (0.005)
Sampling on	June 17, 1994	1												
MW1-61794	6/17/94	9.56'	water	CrLab	ND (0.0005)	ND (0.0005)	ND(0.0005)	ND (0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND (0.0005)	ND(0.0005)	ND(0,0005)
MW2-61794	6/17/94	13.38'	water	CrLab	ND(0.0005)	ND (0.0005)	ND(0.0005)	ND (0.0005)	ND(0.0005)	ND(0.0005)	0.0017	ND(0.0005)	ND (0.0005)	ND(0,0005)
MW3-61794	6/17/94	9.04	water	CrLab	ND(0.0005)	ND (0.0005)	ND(0.0005)	ND (0.0005)	ND(0.0005)	ND (0.0005)	ND(0.0005)	ND(0.0005)	ND (0.0005)	ND(0.0005)

notes:

CrLab: Chromalab Inc.

ND(0.004) = Not Detected above the laboratory detection limit in parentheses.

## Table GW2<sup>cont</sup> GENERAL TIRE OAKLAND FACILITY GROUNDWATER ANALYTICAL RESULTS VOLATILE ORGANICS - METHOD: 601 {parts per million}

Sample I.D.	Sampling Date	Water Elevation (feet)	r n Matrix	Lab	Freon	Methylene Chloride	1,1,2,2-Tetra- chloroethane	Tetra- chloroethene	1,1,1-Tri- chloroethane	1.1.2-Tri- chloroethane	Tri- chloroethene	Trichlorofluore methane	o- Trans-1.2 Dichloroethene
MW1-10593	10/5/93	9.56'	water	CrLab	ND(0.005)	ND(0.1)	ND(0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
MW2-10593	10/5/93	13.38'	water	CrLab	ND (0.005)	ND(0.1)	ND(0.005)	0.040	ND (0.005)	ND(0.005)	0.046	ND (0.005)	ND(0.005)
MW3-10593	10/5/93	9.04'	water	CrLab	ND (0.005)	ND(0.1)	ND (0.005)	ND (0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND (0.005)	ND(0,005)
MWd-10593	10/5/93		water	CrLab	ND(0.005)	ND(0.1)	ND(0.005)	0.040	ND(0.005)	ND(0.005)	0.041	ND (0.005)	ND(0,005)
Sampling on	June 17, 199	14											
MW1-61794	6/17/94	9.56	water	CrLab	ND(0.0005)	ND(0.005)	0.00058	ND(0.0005)	ND (0.0005)	0.00057	ND (0.0005)	ND (0.0005)	ND (0.0005)
MW2-61794	6/17/94	13.38	water	CrLab	ND(0.0005)	ND(0.005)	ND (0.0005)	0.044	ND (0.0005)	ND(0.0005)	0.087	ND (0.0005)	0.0013
MW3-61794	6/17/94	9.04'	water	CrLab	ND(0.0005)	ND (0.005)	ND(0.0005)	ND (0,0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND(0.0005)

notes:

CrLab: Chromalab Inc.

ND(0.005) = Not Detected above the laboratory detection limit in parentheses.

# Table GW2<sup>cont</sup> GENERAL TIRE OAKLAND FACILITY GROUNDWATER ANALYTICAL RESULTS VOLATILE ORGANICS - METHOD: 601 {parts per million}

		Water				
Sample I.D.	Sampling Date	Elevation (feet)	Matrix	Lab	Vinyl C Chloride	is-1,2-Dichloro- ethene
MW1-10593	10/5/93	9.56'	water	CrLab	ND(0.005)	0.0007
MW2-10593	10/5/93	13.38'	water	CrLab	0.0015	0.031
MW3-10593	10/5/93	9.04'	water	CrLab	ND(0.005)	ND(0.005)
MWd-10593	10/5/93		water	CrLab	ND(0.005)	0.029
Sampling on	June 17, 199	4				÷
MW1-61794	6/17/94	9.56'	water	CrLab	ND(0.0005)	0.0033
MW2-61794	6/17/94	13.38'	water	CrLab	0.0053	0.048
MW3-61794	6/17/94	9.04'	water	CrLab	ND(0.0005)	ND(0.0005)

notes: Ci

CrLab: Chromalab Inc.

ND(0.005) = Not Detected above the laboratory detection limit in parentheses.

# Table GW1 GENERAL TIRE OAKLAND GROUNDWATER ANALYTICAL RESULTS PETROLEUM HYDROCARBONS - METHOD: 3510/8015 {parts per million}

Sample I.D.	Sampling Date	Water Elevation (feet)	r n Matrix	Lab	TEPH Diesel	TEPH Kerosene	TEPH Motor Oil	
MW1-10593	10/5/93	9,56'	water	CrLab	ND(0.05)	ND(0.05)	ND (0.5)	
MW2-10593	10/5/93	13.38	water	CrLab	ND(0.05)	0.490	0.7	
MW3-10593	10/5/93	9.05	water	CrLab	ND (0.05)	ND(0.05)	ND (0.5)	
MWd-10593	10/5/93	_	water	CrLab	ND(0.05)	0.110	ND (0.5)	
Sampling on	June 17, 199	4						
MW1-61794	6/17/93	9.56	water	CrLab	ND (0.05)	ND(0.05)	ND(0.5)	
MW2-61794	6/17/93	13.38	water	CrLab	ND(0.05)	ND(0.05)	ND(0.5)	
MW3-61794	6/17/93	9.05	water	CrLab	ND (0.05)	ND(0.05)	ND(0.5)	

notes:

CrLab: Chromalab Inc.

ND(0.05) = Not Detected above the laboratory detection limit in parentheses.

TEPH = total extractable petroleum hydrocarbon