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SITE SUMMARY REPORT

2901 Glascock Street
Oakland, California

This report has been prepared for:

Signature Properties

4670 Willow Road, Suite 200, Pleasanton, California 94588

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Project No. 1731-2G

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TABLE OF CONTENTS

SITE SUMMARY REPORT
2901 GLASCOCK STREET
OAKLAND, CALIFORNIA

1.0 INTRODUCTION

1.1 Purpose

This Site summary report was prepared to summarize the planned redevelopment of 2901 Glascock Street in Oakland, California (Site), to summarize historical Site usage and results of previous subsurface investigations, and to summarize planned remedial actions required to obtain case closure.

1.2 Site Description

The approximately 2-acre Site is bounded by Glascock Street to the northeast, Oakland Estuary to the southwest, University of California's crew house to the southeast, and a residential development (under construction) to the northwest (Figures 1 and 2). Currently, the Site is owned by the John and Charlene Weber Trust.

The Site is occupied almost entirely by an approximately 72,000-square-foot warehouse. The warehouse is constructed of wood and steel frame with corrugated metal paneling. A private apartment is located inside the southwest corner of the warehouse. On the exterior of the northwest side of the warehouse, an approximately 30-foot wide fenced strip extending from Glascock Street to the estuary is present. Along the estuary on the west side of the warehouse, an abandoned wood-plank dock is present. The Site, adjacent to the estuary, is bordered by a concrete foundation/seawall.

ICONCO, a demolition and salvage contractor, uses the Site for storage of equipment, minor maintenance of heavy equipment (bulldozers, loaders, etc.) and for office space.

1.3 Planned Redevelopment

During June to July 2003, all on-site structures will be demolished. Soil remedial actions are planned during August 2003. The Site will be combined with the adjacent crew house parcel (2909 Glascock Street) and 303/315 Derby Avenue. Signature Properties is planning to construct 100-town homes on the approximately 4-acre combined parcels beginning September 2003. The current plans include garages and living rooms on the first level with a walk-up entrance to second and third floor living areas. A public access promenade is planned along the waterfront that will include a pedestrian path and landscaping. The Site will be remediated to concentrations that will be protective of human health in a residential setting. The town homes will be built with vapor/gas barriers beneath building slabs and/or crawl spaces between the slab and living areas to reduce the potential for migration of soil vapors into living spaces.

1.4 Geology and Hydrogeology

1.4.1 Subsurface Materials

Based on subsurface exploration performed on-Site and on 303/315 Derby Avenue, subsurface materials are consistent between the 303/315 Derby Avenue and the Site. Fills of varying thickness were observed beneath the Site to depths of approximately 1 to 5 feet below existing grade. The fills have been encountered either directly beneath existing floor of the warehouse or at the surface in the unpaved areas. The fills can generally be characterized as medium dense to very dense gravelly sands with varying amounts of fines (either silts or clays) and silty clays. Brick and rock fragments also were observed mixed with the fill.

Directly below the fill is a layer of stiff to very stiff interbedded clay and silt from depths of approximately 3 to 13 feet. Below this layer is a predominantly dense silty sandy layer from approximately 13 to 20 feet. Significant quantities of silt and clay appear to be present in the sandy matrix.

1.4.2 Hydrogeology

During previous investigations, ground water has been encountered in the silty sand layer at a depth of approximately 13 feet. Static ground water levels measured in on-Site wells range from approximately 4 to 8 feet, indicating that the ground water is under confined conditions. Ground water flow has been measured toward the southwest, toward the estuary. The ground water depths, flow direction, and gradient are consistent with 303 and 315 Derby Avenue.

1.5 Sensitive Receptors

Ground water flow beneath 2901 Glascock Street has consistently been toward the southwest, toward the Oakland Estuary. Therefore, the Oakland Estuary is a sensitive receptor for the Site. There are no active on-Site water supply wells. Based on historical information reviewed for 2901 Glascock Street, there do not appear to have been water supply wells on-Site. In addition, no records were reviewed indicating that water supply wells are or have been located on adjacent sites. Because ground water flows from the Site into the estuary, there are no down-gradient properties that could potentially have water supply wells.

2.0 SITE HISTORY

Site history information was obtained from documents provided by ICONCO, aerial photographs, and fire insurance maps. Historical fire insurance maps are included in Appendix A.

In 1911, the Site appeared to be developed with Gorham Engineering Company's manufacturing facility for gasoline engines and boats. A wharf that extended into the Oakland Estuary, a lumber storage shed, boat shed, a lumber storage building, and two structures (boat building facility and marine engine manufacturer) with wood plank floors on concrete foundations were present on the west side of the Site. A ship-way (ramp) was present running north-south from the boat building facility to

the estuary. The eastern portion of the Site was occupied by the California Launch Works building (Lowney Associates, 2001).

The current on-Site building reportedly was constructed in approximately 1927. The original flooring inside the building was made of wood plank on concrete foundations on the west half of the building and creosote-covered wood blocks on the east half of the building. The wood floor reportedly has been covered with a concrete slab or gravel in most areas (Lowney Associates, 2001).

Between 1927 and 1992, occupants of the Site reportedly included Oliver United Filters and Dorr-Oliver, Inc. (filter manufacturers), Barker Machinery Company, and American Building Components. Mr. John Barker of Barker Brothers reportedly was the original purchaser of the property. Mr. Gust Nichandros reportedly purchased the property approximately 5 years later and owned the property for approximately 30 years. Dorr-Oliver Inc. (formerly Oliver United Filters) reportedly performed milling at the Site from World War I to approximately 1964. In 1992, American Building Components foreclosed on the Site (Lowney Associates, 2001).

The John and Charlene Weber Trust has owned the property since approximately 1996. An inventory list in a Hazardous Materials Management Plan for ICONCO in June 2001 revealed a daily average of approximately 271 cubic feet of argon; 2,810 cubic feet of oxygen; 114 cubic feet of nitrogen; 140 cubic feet of acetylene; 250 pounds of dimethyl methane (propane); 210 gallons of highly refined base oils; 16 gallons of anti-freeze; 20 gallons of petroleum-based solvents; 20 gallons of used anti-freeze; and 300 gallons of waste oil were stored on-Site. The hazardous materials appeared appropriately stored; no indications of leakage or spillage were observed (Lowney Associates, 2001).

3.0 PREVIOUS INVESTIGATIONS

The following section summarizes previous on-Site investigations and remedial activities performed at 2901 Glascock Street. Tables summarizing soil analytical results from previous investigations are included in Appendix B. Historic ground water monitoring analytical results are included in Appendix C.

3.1 Underground Storage Tanks

In February 1993, one approximately 4,000-gallon fuel oil and one approximately 20,000-gallon bunker oil underground storage tanks (USTs) were removed from the Site by Pacific Rim Services, Inc. The 4,000-gallon UST was located in the central portion of the warehouse and the 20,000 gallon UST was located in the southeast corner of the warehouse. Two confirmation soil samples were collected from the first UST (4,000-gallon) excavation; four confirmation soil samples and four confirmation ponded water samples were collected from the second UST (20,000-gallon) excavation. Laboratory analyses detected up to 1,900 parts per million (ppm) total oil and grease and 3,800 ppm total petroleum hydrocarbons in the diesel range (TPHd) in the soil at a depth of approximately 12 feet. These concentrations were below the Site-specific cleanup goals approved by the California Regional Water Quality Control Board (CRWQCB) for the site (Section 4.0). Over-excavation of contaminated soil was performed in both UST excavations. The report was not clear whether samples were collected after the over-excavation was performed (Pacific Rim Services, 1993).

3.2 Soil Quality

3.2.1 1993 through 1995 Investigations

In January 1993, five soil samples (#1 through #5) were collected to evaluate on-Site soil quality. The soil samples were analyzed for total petroleum hydrocarbons in the gasoline range (TPHg), TPHd, and benzene, toluene, ethylbenzene, and xylene (BTEX). Detectable concentrations of BTEX (0.05 ppm or less) and total purgeable hydrocarbons (190 ppm) were detected in one sample (#4) collected from a depth of approximately 1½ feet near the location of the approximately 20,000-gallon fuel oil UST. Concentrations of total purgeable hydrocarbons (12 ppm) were detected in another sample (#1) collected from a depth of approximately 6 feet near the approximately 4,000-gallon fuel oil UST; no BTEX compounds were detected in this sample (Pacific Rim Services, 1993). These concentrations were below the Site-specific cleanup goals approved for the site. Analytical results are summarized in Appendix B.

In September 1994, as discussed in Section 3.3, monitoring wells MW-1 through MW-4 were installed on-site. Laboratory analyses of soil samples collected during well installation did not detect petroleum hydrocarbons above the Site-specific cleanup goals. The highest concentrations (greater than 1,000 ppm) were detected in a soil sample collected from a depth of approximately 14 feet from the MW-2 boring, located in the southeast corner of the Site approximately 5 feet from the former 20,000-gallon fuel oil UST. Petroleum hydrocarbons were generally non-detect in soil samples collected from the MW-4 boring, located approximately 10 feet from the former 4,000-gallon fuel oil UST. Well locations are shown on Figure 2 and analytical results are summarized in Appendix B.

In March 1995, to help evaluate soil and ground water quality beneath the site, eight soil borings (SB-1 through SB-4 and SB-7 through SB-10) were advanced on Site to depths of up to approximately 17 feet. No petroleum fuel hydrocarbons were detected in soil above the Site-specific cleanup goals in the 19 soil samples analyzed. TPHg and TPHd were detected above 1,000 ppm in 4 soil samples collected from the capillary fringe at depths of approximately 8 to 12 feet, including 980 ppm TPHd in boring SB-2, 1,700 ppm TPHg in SB-7, and 5,700 ppm and 2,300 ppm TPHmo in SB-9 (Craig, 1995). Petroleum hydrocarbons generally were less than approximately 300 ppm in other samples analyzed. In addition, BTEX compounds generally were not detected. Analytical results for the soil samples are presented in the summary tables included in Appendix B.

In April 1995, two trenches (EP-1 and EP-2; Figure 2) were excavated to depths of approximately 4 feet and 13 borings (EB-1 through EB-10, MW-5, MW-6, and MW-7) were drilled to depths ranging from 5½ to 15 feet below ground surface. Exploratory boring MW-7 (subsequently converted to a monitoring well) was located off-site on Glascock Street; the other borings were located on-Site. Twenty-one selected soil samples collected from the trenches and borings were analyzed for TPHd, TPHg, oil and grease (O&G), BTEX, metals, and/or PCBs. In general, concentrations of contaminants were either non-detect or below Site-specific cleanup goals. However, TPHd was detected at a concentration of 9,600 ppm in the surface sample collected from trench EP-2; an elevated concentration of O&G (11,000 ppm) was detected in EB-10 at a depth of approximately 1 foot. In addition, up to 1,800 ppm TPHd was

detected in a soil sample collected from a depth of approximately 3 feet in boring MW-5 (Craig, 1995). Soil exceeding the cleanup goals was subsequently excavated (Section 3.5).

During the April 1995 investigation, PCBs were detected in trench EP-2 at the surface (48,000 ppm) and at 2 feet (2 ppm); PCBs also were detected in a sample collected from an approximate depth of 1 foot in boring EB-10 (4 ppm). The excavation and off-site disposal of the PCB-impacted soil is discussed in Section 3.5. A soil sample also was collected from the metal shavings encountered in the northwest corner of the building; lead was detected at a concentration (5,300 ppm), which exceeds the total threshold limit concentration (TTLC) for lead (1,000 ppm), California's hazardous waste criteria. The lead-impacted soil will be removed after building demolition in August 2003 (Section 6.0) Analytical results for the soil samples are presented in the summary tables included in Appendix B.

In November 1995, 14 additional borings were drilled (B-2 through B-15; Figure 2) on site. Ten soil samples collected from eight of the 14 borings were analyzed for petroleum hydrocarbons. TPHd (1,700 ppm) was detected in a soil sample collected from a depth of approximately 5 feet from boring B-13; this sample location was subsequently over-excavated (Section 3.5). Petroleum hydrocarbon concentrations were either not detected or detected below cleanup goals in the other nine soil samples. Soil samples from nine of the 14 borings were analyzed for metals. Three of the nine samples contained lead concentrations greater than 200 ppm (298 ppm to 520 ppm); these samples were collected from borings in the northwest corner of the Site where metal filings were encountered. As discussed below, MW-8 was installed during the November 1995 investigation. One soil sample collected from an approximate depth of 1 foot during well installation contained an elevated lead concentration of 803 ppm. Monitoring well MW-8 also was located in the northwest corner of the Site in the area where metal filings were encountered; removal of the metal-filings is discussed in Section 6. Soil samples from nine locations also were analyzed for PCBs. PCBs were detected in a soil sample collected from boring B-12 at a concentration of 130 ppm (W.A. Craig, 1995). Boring B-12 was located in the area of former trench EP-1 on the north side of the site; this soil will be removed as discussed in Section 6. Soil analytical results are presented in the summary tables included in Appendix B.

The 1996 report by PEG, addressed to the Alameda County Health Care Services Agency (ACHCSA), recommended excavation and off-site disposal of metals impacted soil in the northwest corner of the building, and PCB-impacted soil north of the building. PEG recommended the use of oxygen releasing compounds (ORC) to enhance the natural biodegradation of petroleum hydrocarbons in the ground water. The approach was approved by the ACHCSA; performance of the remedial actions is discussed in Section 3.5.

3.3.2 2001 Investigation

In October 2001, 12 borings (EB-9 through EB-20) were drilled by Lowney Associates to approximate depths of 4 to 8 feet. Borings EB-9 through EB-11, EB-13, and EB-17 were drilled at randomly selected locations in former manufacturing or maintenance areas; borings EB-18 through EB-20 were drilled on the northwest side of the warehouse to evaluate for the presence of PCBs; borings EB-15 and EB-16 were

drilled to evaluate the lateral extent of metal-impacted soil/metal shavings previously encountered in the northwest corner of the warehouse; and borings EB-12 and EB-14 were drilled within approximately 20 feet of southern property boundary to evaluate the presence of fill along the edge of the estuary. Fourteen soil samples were collected from the on-Site fill and native soil and were analyzed for total arsenic, lead, and chromium (EPA Test Method 6010), polyaromatic hydrocarbons (PAHs) (EPA Test Method 8310), and PCBs (EPA Test Method 8082). Six of these 14 samples also were analyzed for the remaining 17 California Assessment Manual (CAM) metals (EPA Test Method 6010/7000). Laboratory analytical results are presented in Appendix B.

Metal concentrations detected in on-Site fill appeared to be consistent with typical background concentrations and/or below the residential RBSLs, with the exception of lead in boring EB-11, lead and copper in boring EB-14, and arsenic in boring EB-20. The soil sample collected from EB-11 at a depth of approximately 5½ feet contained an approximately 3-inch thick layer of apparent ash. The apparent ash was not encountered in other borings drilled during this investigation or reported in borings from previous investigations by others. This apparent ash, therefore, appears limited in extent. Laboratory analyses of a sample collected from the apparent ash detected PAHs below residential RBSLs, although lead was detected at 330 ppm. The residential RBSL for lead is 200 ppm. If encountered during construction, the ash will be removed from the site for appropriate off-site disposal (Section 6.0).

The concentration of lead (600 ppm) and copper (5,600 ppm) detected in the sample collected from EB-14 exceeded the CRWQCB's residential RBSLs (200 ppm and 225 ppm, respectively). EB-14 was drilled in the area of the metal filings. The removal of the metal filings/metal-impacted soil is discussed in Section 6.

Elevated arsenic concentrations (33 ppm to 100 ppm) were detected in three soil samples collected from borings EB-18, EB-19, and EB-20, located the outdoor storage area on the north side of the building. Background concentrations for arsenic in the San Francisco Bay Area are typically less than approximately 8 ppm. Two soil samples collected from borings EB-18 and EB-19 contained PCBs (0.37 ppm and 0.39 ppm, respectively), which exceed the residential RBSL (0.22 ppm). Based on the results of this and previous investigations, the extent of PCBs exceeding the RBSL and arsenic above background levels appears limited in extent. The removal of this soil is discussed in Section 6.

PAHs were detected in fill samples but at concentrations below residential RBSLs. Analytical results are presented in the summary tables included in Appendix B.

3.4 Ground Water Grab Sampling - 1995

Laboratory analyses of ground water grab samples collected in March 1995 from borings SB-1 through SB-4 and SB-7 through SB-10 detected elevated concentrations (17,000 ppb to 210,000 ppb) TPHd in four of eight samples analyzed. TPHg exceeded 1,000 ppb in three samples, and benzene ranged from non-detect (less than 0.5 ppb) to 16 ppb (Craig, 1995).

To further evaluate ground water quality, ground water grab samples were collected from borings EB-1 through EB-4 in April 1995 and analyzed for TPHg, TPHd, and BTEX; no petroleum hydrocarbons were detected above laboratory reporting limits,

except total xylenes were detected at a concentration of 1.1 ppb in the sample collected from EB-2. Borings B-1 through B-4 were located in the northern portion of the Site (Figure 2) (Craig, 1995).

3.5 Ground Water Monitoring Well Installation and Monitoring

In September 1994, four monitoring wells (MW-1 through MW-4) were installed on site. Monitoring well construction details are summarized in Table B-2 in Appendix B. Monitoring wells MW-2 and MW-4 were installed in the assumed down-gradient direction of the former 20,000-gallon and 4,000-gallon USTs, respectively; MW-1 was installed in the assumed down-gradient direction between the two USTs and MW-3 was installed outside the warehouse in the assumed up-gradient direction of the USTs. Petroleum product was observed on ground water during installation of wells MW-1 and MW-2 (sheen to approximately 0.02 feet). No free product was observed during the drilling of MW-3. A slight petroleum odor was reported during the drilling of MW-4. Ground water samples from MW-3 and MW-4 were submitted for laboratory analysis; TPHd was detected at a concentration of 320 ppb in the samples collected from MW-3. TPHg and BTEX were not detected above laboratory reporting limits; the samples were not analyzed for MTBE (Craig, 1995).

In April 1995, three additional monitoring wells (MW-5 through MW-7) were installed on site. During sampling of the seven on-Site monitoring wells, a sheen was observed in MW-1, MW-2, and MW-6 (Craig, 1995). In November 1995, MW-8 was installed at the down-gradient edge of the Site to evaluate the impact of hydrocarbons in shallow ground water adjacent to the estuary. In September 1996, monitoring well MW-5 was destroyed (Craig, 1996).

Ground water monitoring analytical results are summarized in Appendix C. In general, petroleum hydrocarbon concentrations have been decreasing at the Site since the injection of oxygen releasing compounds (ORC) (Section 3.7). Based on concentrations observed in well MW-7, the presence of MTBE in on-Site wells appears to be from an off-site source. In addition, no volatile organic compounds (VOCs) were detected in ground water samples collected from on-Site monitoring wells from 1995 through February 2002, with the exception of sporadic low concentrations (below drinking water standards) of 1,1-dichloroethene, 1,2-dichloroethane, and chloromethane. In addition, TCE was detected at 1.3 ppb in well MW-8 in 1995; subsequent analyses through 2001 did not detect TCE. TPHg, benzene, and MTBE have been below approved residential and ecological cleanup goals for the Site (Section 4.1) during the previous six quarters; TPHd slightly exceeded the ecological cleanup goal in well MW-2 during November 2002. Monitoring well MW-2, however, is located approximately 240 feet from the estuary, the nearest ecological receptor.

3.6 Soil Remediation - 1995 and 1996

In May 1995, soil containing elevated concentrations of PCBs was excavated from the area around EP-2. Approximately 300 cubic yards of material was over-excavated from an approximately 220-square-foot area and removed from the Site for disposal (Craig, 1995).

In the third and fourth quarter of 1996, over-excavation of soil containing TPHd concentrations above 1,000 ppm was performed to a depth of approximately 3 to

5 feet. The areas included the areas around B-13, MW-5, and EB-10 (Figure 2). The area around EP-2 was additionally excavated to remove soil with PCBs. Laboratory analyses of 20 confirmation soil samples collected after the soil excavation did not detect petroleum hydrocarbons above cleanup goals. PCB concentrations were below the Site-specific cleanup goal (0.22 ppm), with the exception of 35 ppm PCBs detected in a soil sample (EP-2-W-2) collected from the northwest property line. Because excavation beyond the property line was not possible, the location of sample EP-2-W-2 was left in-place. Analytical results for the confirmation samples are presented in the summary tables included in Appendix B.

3.7 Ground Water Remediation – 1997 to present

Oxygen release compound (ORC) was placed into MW-1, MW-2, and MW-6 in the second quarter of 1997. ORC is a mixture of magnesium peroxide that is designed to produce a slow and sustained release of molecular oxygen when in contact with soil moisture and ground water. The released oxygen stimulates the natural biological metabolism of the contaminants in the ground water. In August 1999, 15 borings were drilled on the Site and backfilled with 10 feet of ORC slurry in accordance with the ACHCSA approved work plan for additional remediation. The locations of the borings are presented in Figure 2. ORC was again placed into wells MW-1, MW-2, and MW-6 in September 1999 (IT, 2002).

Ground water samples have been collected quarterly and analyzed for petroleum fuel hydrocarbons and VOCs. In addition, ground water samples also are analyzed for biodegradation indicators, included ferrous iron, nitrate, and sulfate. Before and after purging, field measurement of dissolved oxygen and oxidation-reduction potential are collected. The concentrations of petroleum fuel hydrocarbons have decreased significantly since 1997.

4.0 CLEANUP GOALS

As part of the redevelopment plan, Signature Properties also plans to purchase and redevelop 303 and 315 Derby Avenue. A corrective action plan (CAP) (Lowney Associates, October 31, 2002) was prepared to cleanup 303 and 315 Derby Avenue to residential and ecological cleanup goals. The Derby Avenue property is located approximately 50 feet from the Site and is also adjacent to the Oakland Estuary. Geology and hydrogeology conditions at the Derby Avenue property are consistent with subsurface conditions at the Site. Therefore, the cleanup goals developed for the Derby property also will be applied to the Site.

App D

The residential occupancy objectives and ecological cleanup goals presented in the CAP have been approved by the California Regional Water Quality Control Board (CRWQCB). The cleanup goals for contaminants of concern (COCs) detected in soil and ground water beneath the Derby property include TPHg, TPHd, BTEX compounds, and MTBE. Ecological cleanup goals will be applied to a 50-foot wide buffer (from top of estuary bank) along the estuary. The residential occupancy objectives will be applied to the remainder of the property. The CRWQCB staff agreed that they will not object to residential occupancy of the Derby property when the residential occupancy objectives are met. The conditional approval letter for the CAP is presented in Appendix D.

The residential occupancy goals and ecological cleanup goals are presented in Table 1 below. Table 1 also includes arsenic, copper, and polychlorinated biphenyls (PCBs), which were not included in the CAP for 303 and 315 Derby Avenue but which were detected on 2901 Glascock Street. The cleanup goal for arsenic (8 ppm) is from the CRWQCB's RBSL document, which considers arsenic below 8 ppm to be background. The residential RBSLs for copper and PCBs also were used for the cleanup goals in Table 1.

Table 1. Ground Water Residential Occupancy Objectives and Soil and Ground Water Cleanup Goals

Compound	Site-Wide Ground Water Residential Occupancy Objectives (ppb)	Ecological Buffer Zone Ground Water Cleanup Goals (ppb)	Soil Cleanup Goals (ppm)	
TPHg	97,500	3,700	0 to 3 feet	500 ppm total gasoline/diesel/residual fuels
TPHd	Removal of free product*	640	3 to 7 feet	1,000 ppm total gasoline/diesel/residual fuels, with 500 ppm maximum gasoline
			7 feet to top of capillary fringe	5,000 ppm total gasoline/diesel/residual fuels (plus removal of gross free product)
Benzene	5,800	71	0 to 7 feet	2.4 ppm
			7 feet to top of capillary fringe	4.7 ppm
Toluene	530,000	130		8.4
Ethyl-benzene	170,000	290		24
Xylenes	160,000	130		10
MTBE	2.7E+07	1,800		10
Lead	NE	NE		200
Arsenic	NE	NE		8.0
Copper	NE	NE		225
PCBs	NE	NE		0.22

* If TPHd concentrations are above 5,000 ppb TPHd, ground water at the sampling point needs to be evaluated for presence of free product (greater than 1/10-inch thick floating on ground water).

NE No ground water cleanup goal established.

5.0 EXTENT OF CONTAMINANTS

5.1 Ground Water

Petroleum hydrocarbon concentrations in ground water at the Site have been decreasing. During November 2002, no petroleum fuel hydrocarbons were detected above the ecological cleanup goals approved by the CRWQCB, with the exception of 830 parts per billion (ppb) total petroleum hydrocarbons as diesel (TPHd) detected in monitoring well MW-2. Monitoring well MW-2 is located approximately 240 feet from the estuary on the northeast, up-gradient portion of the Site (Figure 2). The estuary, considered the Site's only sensitive receptor (Section 1.5), is located to the southwest. Based on the ground water flow direction and analytical data, the estuary does not appear to be significantly impacted by the petroleum hydrocarbons detected beneath 2901 Glascock Street.

In addition, the petroleum fuel concentrations detected in ground water beneath 2901 Glascock Street, including MW-2, were below the residential occupancy objectives for the Site. Ground water concentrations, from the most recent ground water monitoring report by others (Shaw Environmental, Inc., January 15, 2003), are presented on Figure 2.

5.2 Soil – Petroleum Hydrocarbons

Previous investigations identified several locations with detectable concentrations of petroleum hydrocarbons in soil. Corrective actions included the over-excavation of petroleum-impacted soil. After the soil removal actions performed in 1995 and 1996, no petroleum fuel hydrocarbon concentrations have been detected above the soil cleanup goals for the Site.

5.3 Soil – Metals and PCBs

Two limited areas with concentrations in soil exceeding the cleanup goals have been identified (Figure 2). These areas will require corrective actions prior to residential redevelopment. The first area contains elevated concentrations of metals (lead at 600 ppm and copper at 5,600 ppm), which appear to be the result of metal filings encountered located in the northwest corner of the warehouse. The second area is an apparently limited area of polychlorinated biphenyls (PCBs) and arsenic located in the exterior unpaved area on the north side of the warehouse. The elevated arsenic concentrations (100 ppm) were detected in the soil sample collected from boring EB-20; the PCB concentrations were detected in soil samples collected from borings EB-18 (0.37 ppm) and EB-19 (0.39 ppm). Removal of soil from these two areas is discussed in Section 6.

6.0 GROUND WATER CLOSURE REQUEST AND SOIL REMOVAL

6.1 Ground Water

As discussed above, the petroleum fuel concentrations detected in ground water beneath 2901 Glascock Street are below the residential occupancy objectives for the Site. In addition, the ecological cleanup goals were exceeded only in one well (MW-2), located approximately 240 feet from the estuary. Based on the measured ground water flow direction and ground water analytical results from down-gradient well MW-6, the diesel above the ecological cleanup goal appears limited on-Site and does not extend to the estuary. Therefore, no corrective actions with regard to ground water quality are proposed for the Site and the ground water appears ready for case closure.

6.2 Soil

A risk management plan (RMP) (Lowney Associates, January 14, 2002) was prepared for the Site. The RMP presents protocols for management of impacted soils discussed in Section 5.3 and presented on Figure 2. Management protocols include over-excavation of soils with concentrations exceeding cleanup goals during demolition of on-Site structures. Impacted soil would be stockpiled inside the identified cleanup zones on top of and covered by a low-permeability liner. The stockpiled soil will be evaluated and removed for appropriate off-Site disposal. In addition, verification samples will be collected for every approximately 20 feet of excavation sidewall and one verification soil sample will be collected for every approximately 1,000 square feet of excavation base. Soil samples will be collected in brass liners. The verification samples will be analyzed for the target chemicals. Additional details on the soil management protocols are presented in the RMP.

The RMP also includes protocols for management of additional suspect soils (not already identified), if encountered during demolition and construction. Based on the historical industrial use of the site, additional pockets of impacted soil may be encountered after the building is demolished. If pockets of suspect fill (i.e., gross free product, strong odors, ash) are encountered during Site development, additional sampling or analyses and/or soil removal may be required.

The elevated lead detected at boring EB-11 at a depth of approximately 5½ feet (330 ppm) appeared associated with an approximately ¼-foot thick ash layer. The ash appears limited in extent. If this layer were excavated during construction, it would require appropriate testing, handling, and disposal. Additional details on the soil management protocols are presented in the RMP.

7.0 POST-REMEDIATION HEALTH RISK

To estimate post remediation cumulative Site risks, unit risk values (URVs) and unit hazard values (UHVs) were calculated for each chemical of concern. For ground water contaminants, URVs/UHVs are calculated for the indoor air exposure pathway only. The URV/UHV defines the carcinogenic risk or non-carcinogenic hazard per ug/l of the chemical detected in Site groundwater.

For soil contaminants, the URV defines the multi-pathway carcinogenic risk or non-carcinogenic hazard per mg/kg of the chemical detected in Site soil. The total carcinogenic risk for a chemical of concern is quantified by multiplying the chemical's soil concentration by its URV. If multiple sample results are used for the calculation, the 95% UCL concentration was used to calculate risks. For multiple chemicals detected, each risk product is summed to provide an area specific aggregate cumulative carcinogenic risk.

Post-remedial risks and hazards were then calculated using URVs and UHVs and assuming that worst-case exposure point concentrations are represented by Site clean up goals identified in Table 1. Table 2 summarizes the calculated risks and hazards. Because concentrations of target compounds likely will be significantly less than the cleanup goals after Site cleanup, and not all target compounds likely will be present at one given location, actual total post-remedial risks likely will be significantly lower than the total post-remedial risks presented in Table 2.

Table 2. Post Remedial Risk and Hazard Summary

	Risk GW Volatilization	Hazard GW Volatilization	Risk Soil Contact & Inhalation	Hazard Soil Contact & Inhalation
TPHg	NA	0.2	NA	0.225
TPHd	NA	NA	NA	NA
Benzene	1E-06	NA	1E-06	NA
Toluene	NA	0.2	NA	0.019
Ethyl-benzene	NA	0.2	NA	0.02
Xylenes	NA	0.2	NA	0.006
MTBE	7.3E-09*	NA	4.4E-08*	NA
Lead	NA	NA	NA	NA
PCBs	NA	NA	1E-06	NA
Total	1E-06	0.8	1E-06**	0.27

* Based on maximum concentration detected in ground water and soil by EPA 8260.

** Because PCBs were not detected in the benzene-impacted area of the site, the benzene and PCB risks are not additive.

8.0 LIMITATIONS

This report was prepared for the sole use of Signature Properties, and the John and Charlene Weber Trust. We make no warranty, expressed or implied, except that our services have been performed in accordance with environmental principles generally accepted at this time and location. The chemical and other data presented in this report can change over time and are applicable only to the time this study was performed. We are not responsible for the data presented by others.

9.0 REFERENCES

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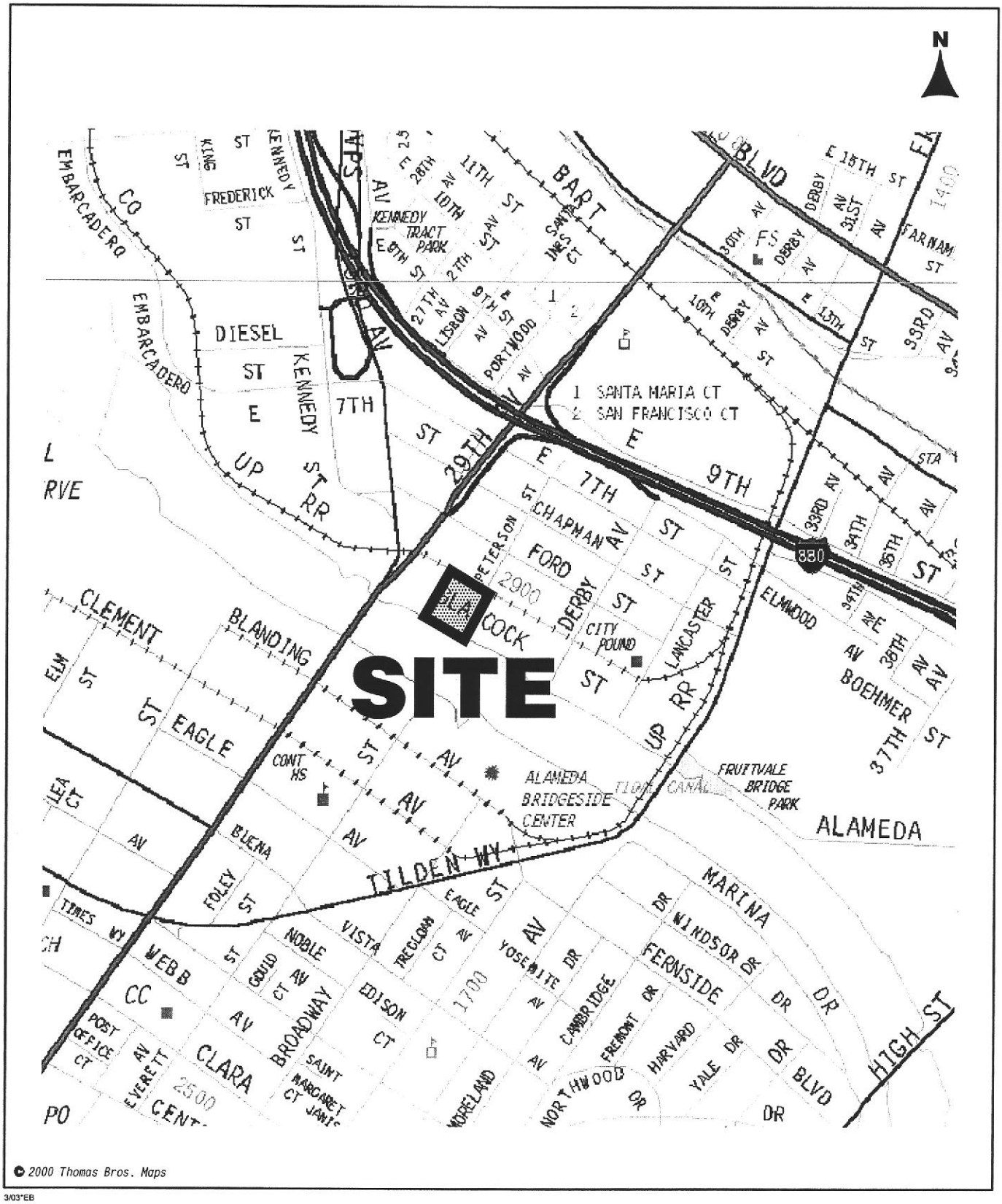
* * * * * * * * * * * *



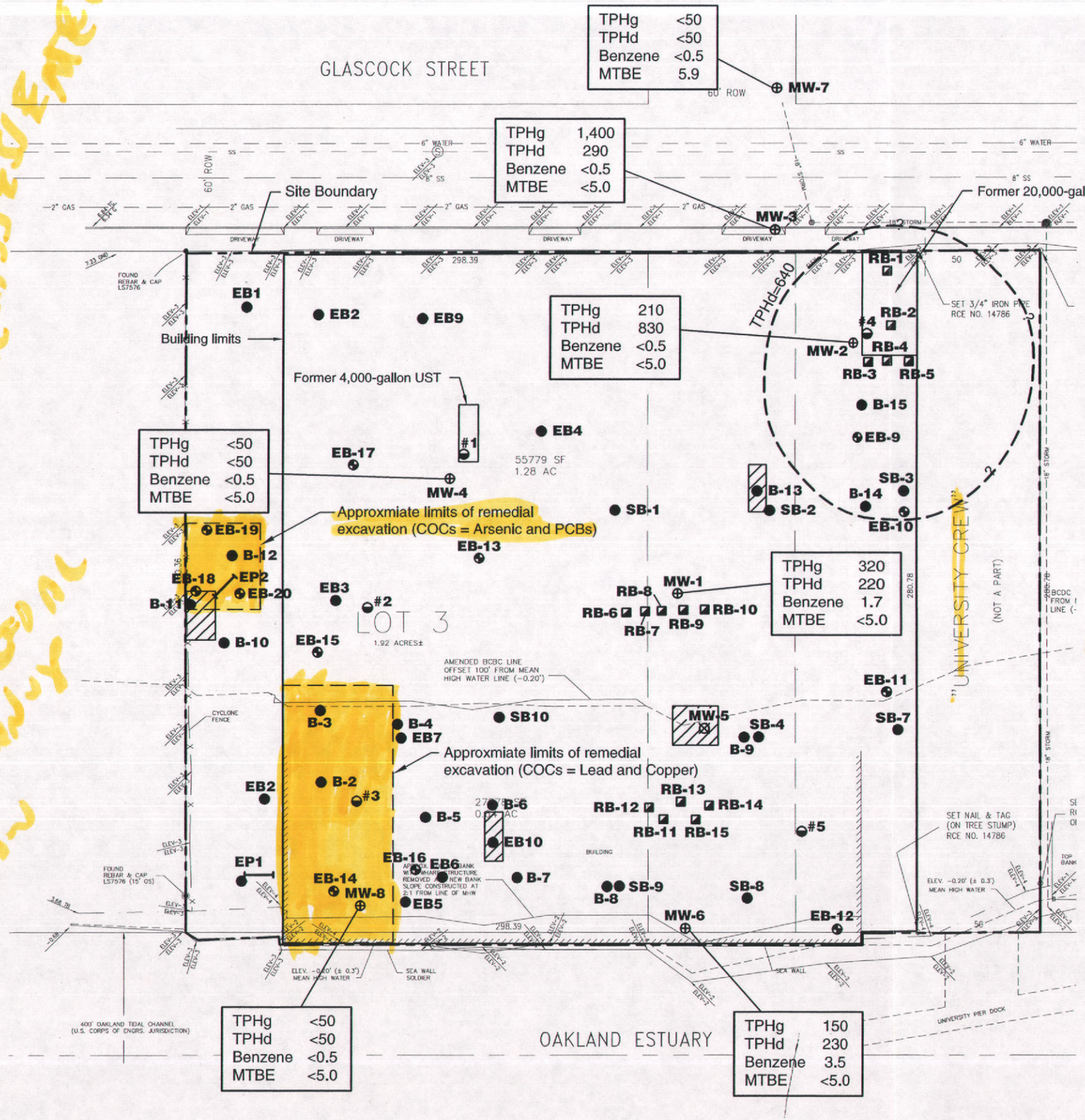
3/03*EB

VICINITY MAP

2901 GLASCOCK STREET
Oakland, California

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 1
1731-2G



LEGEND

- ◑ - Approximate location of exploratory boring (Lowney 2002)
- ◓ - Approximate location of exploratory boring (Lowney 2001)
- ⊕ - Approximate location of extraction/monitoring well
- △ - Approximate location of soil vapor boring
- ◪ - Approximate location of remediation boring (1999)
- ● - Approximate location of soil sample (1995)
- ⊢ - Approximate location of test pit (1995)
- ◒ - Approximate location of soil sample (1993)
- ⊠ - Approximate location of destroyed ground water monitoring well
- ▨ - Soil excavation areas (1996)
- – – – - Ground water concentrations exceeding ecological cleanup goals

Note:
Analytical results in parts per billion
Ground water results from November 2002 ground water monitoring event

Scale 0 50 feet

Base by KCA Engineers.

EXTENT OF CONTAMINATION

2901 GLASCOCK STREET
Oakland, California

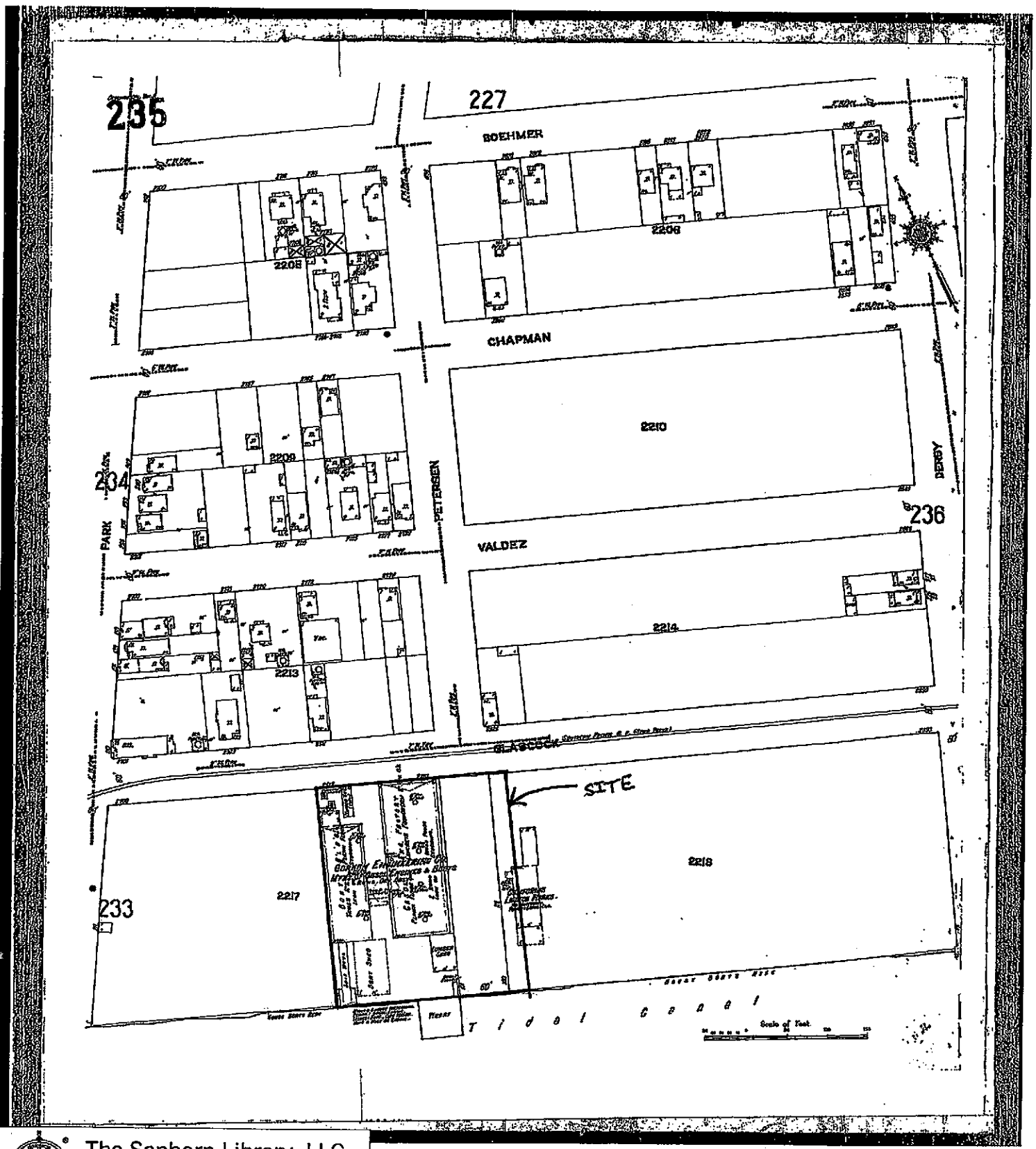
LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

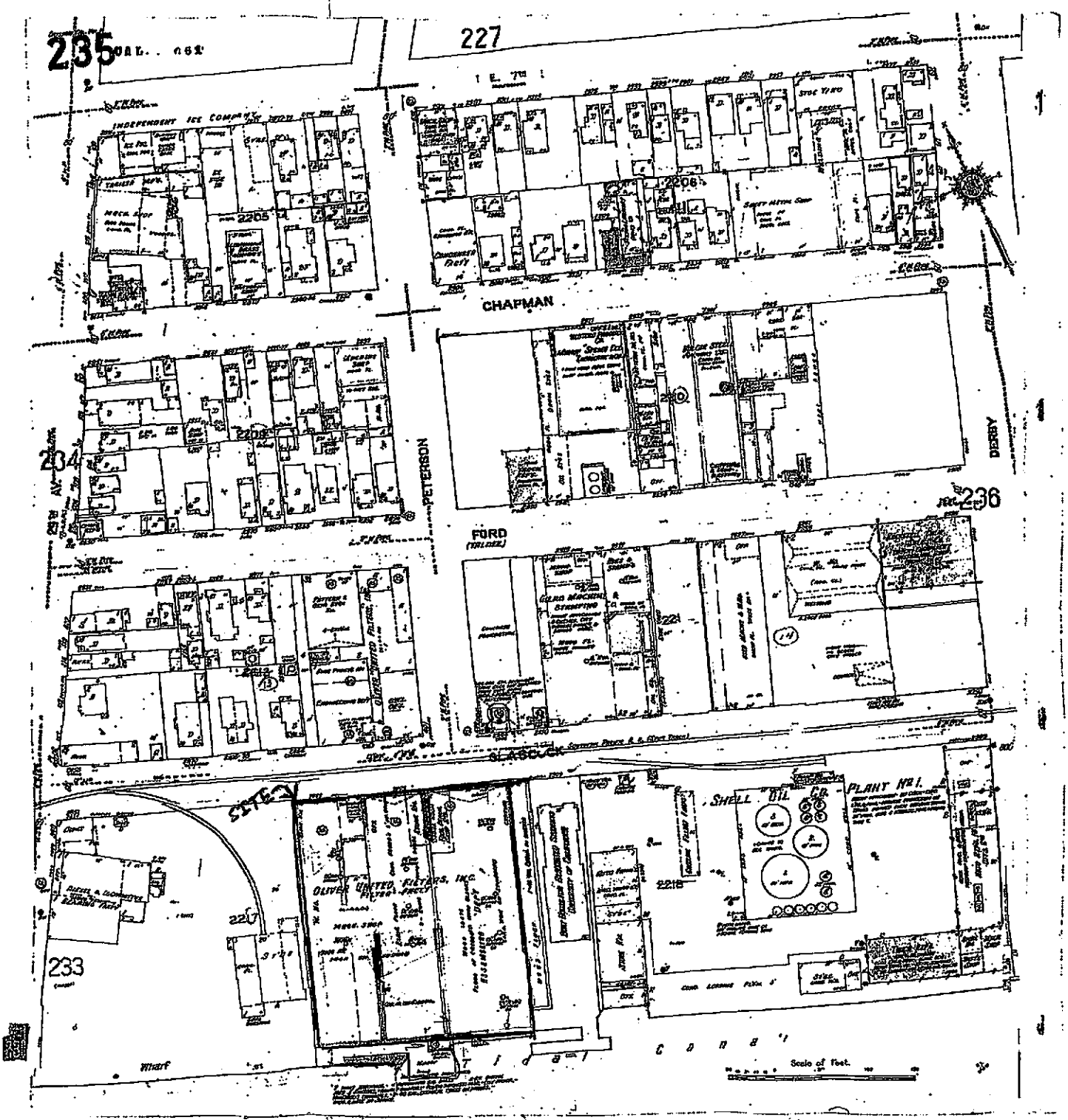
FIGURE 2
1731-2G

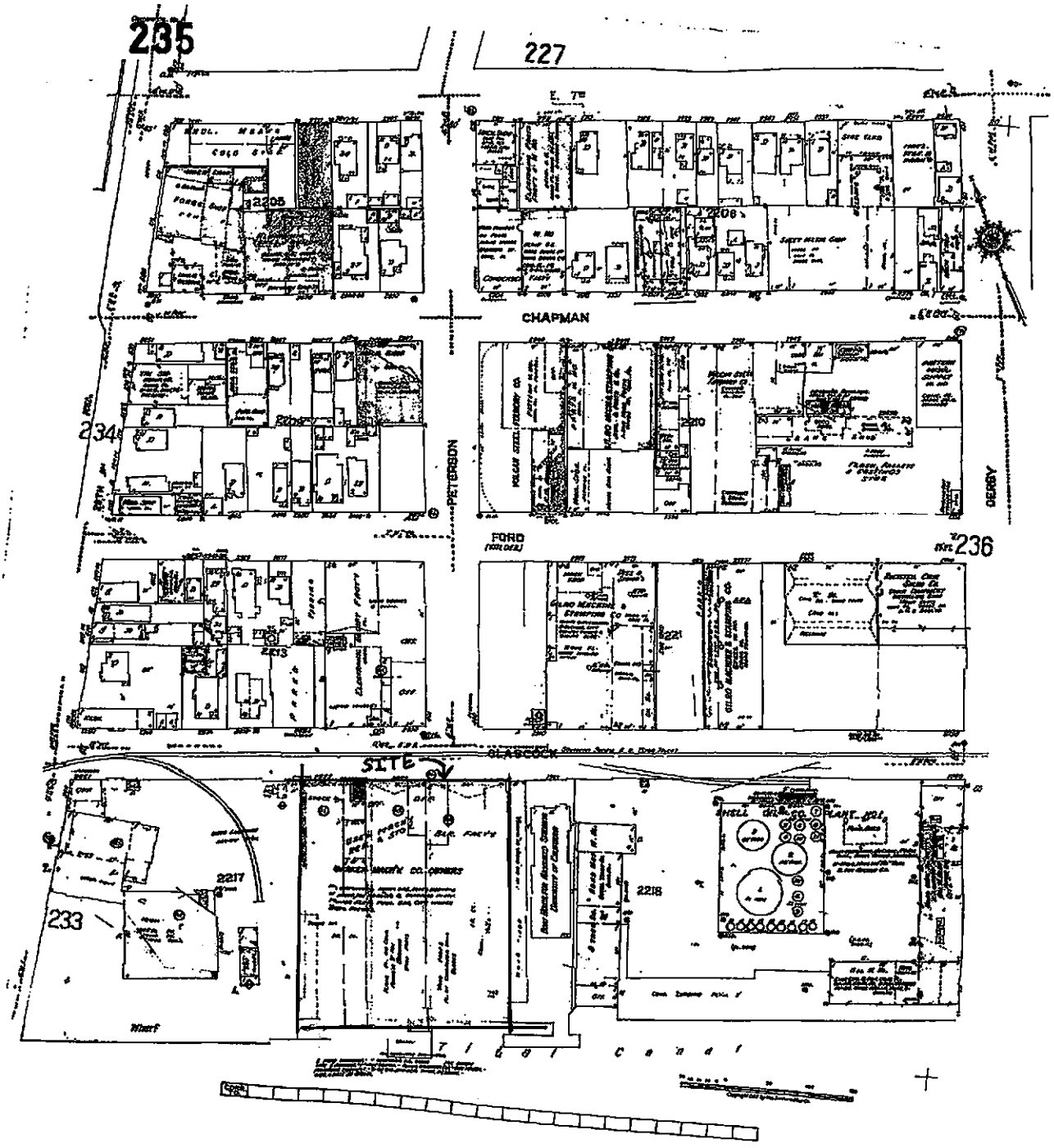
3/03*EB

APPENDIX A

HISTORICAL SANBORN MAPS







APPENDIX B

HISTORICAL SOIL SAMPLING ANALYTICAL RESULTS

Table B-1:
Total Petroleum Hydrocarbons and PCBs in Soil (ppm)
2901 Glascock Street

Boring/ Sample ID	Depth (feet)	Date Sampled	TPHg	TPHd	TPHmo	TPH o&g	TRPH	Benzene	Toluene	Ethyl-benzene	Xylene	MTBE	PCBs	PAHs	Consultant	Cleanup Goals Exceeded (Y/N)	Description
# 1	6	1/27/93	<0.2	<1	--	--	--	<0.001	<0.005	<0.001	<0.001	--	--	--	PRE	N	
# 2	5	1/27/93	<0.2	<1	--	--	--	<0.001	<0.005	<0.001	<0.005	--	--	--	PRE	N	
# 3	1.5	1/27/93	<0.2	<1	--	--	--	<0.001	<0.001	<0.001	<0.01	--	--	--	PRE	N	
# 4	1.5	1/27/93	<5	<25	--	--	--	<0.03	0.03	0.05	1.3	--	--	--	PRE	N	
# 5	1.5	1/27/93	<0.5	<3	--	--	--	<0.003	<0.003	<0.003	<0.003	--	--	--	PRE	N	
1	9	2/23/93	<1	<1	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	PRE	N	Confirmation samples from 4,000-gallon UST removal
2	9	2/23/93	1	1,400	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	PRE	N	Confirmation samples from 4,000-gallon UST removal
1 soil	12	2/26/93	--	2,800	--	1,400	--	<0.030	<0.030	0.49	0.09	--	--	--	PRE	N	Confirmation samples from 20,000-gallon UST removal
2 soil	12	2/26/93	--	3,800	--	1,900	--	<0.030	<0.030	0.09	<0.030	--	--	--	PRE	N	Confirmation samples from 20,000-gallon UST removal
3 soil	12	2/26/93	--	1,200	--	390	--	<0.030	<0.030	<0.030	<0.030	--	--	--	PRE	N	Confirmation samples from 20,000-gallon UST removal
4 soil	12	2/26/93	--	1,300	--	520	--	<0.030	<0.030	<0.030	<0.030	--	--	--	PRE	N	Confirmation samples from 20,000-gallon UST removal
MW-1	5	9/23/94	<1.0	<10	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
MW-1	10	9/23/94	48	300	--	--	--	<0.005	0.005	<0.005	0.086	--	--	--	W. A. Craig Inc.	N	
MW-1	15	9/23/94	4.3	130	46	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
MW-2	4.5	9/23/94	26	250	--	--	--	<0.005	<0.005	0.017	0.021	--	--	--	W. A. Craig Inc.	N	
MW-2	9	9/23/94	52	830	--	--	--	<0.005	0.018	<0.005	0.190	--	--	--	W. A. Craig Inc.	N	
MW-2	14.5	9/23/94	50	7,900	3,900	--	--	0.039	0.022	0.61	0.84	--	--	--	W. A. Craig Inc.	N	
MW-3	5	9/23/94	<1.0	<10	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
MW-3	9.5	9/23/94	110	780	--	--	--	<0.04	<0.04	<0.04	0.30	--	--	--	W. A. Craig Inc.	N	
MW-3	15	9/23/94	<1.0	<10	<40	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
MW-4	5	9/23/94	<1.0	<10	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
MW-4	9	9/23/94	<1.0	<10	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
MW-4	14	9/23/94	1.9	<10	<40	--	--	<0.005	<0.005	<0.005	0.007	--	--	--	W. A. Craig Inc.	N	
SB-1	9	3/29/95	100	500	230	--	--	<0.01	<0.01	<0.01	0.15	--	--	--	W. A. Craig Inc.	N	
SB-1	14	3/29/95	24	220	99	--	--	<0.005	0.006	<0.005	0.043	--	--	--	W. A. Craig Inc.	N	
SB-2	8	3/29/95	130	980	410	--	--	<0.005	0.020	<0.005	0.15	--	--	--	W. A. Craig Inc.	N	
SB-2	13	3/29/95	56	300	120	--	--	<0.005	0.006	<0.005	0.098	--	--	--	W. A. Craig Inc.	N	
SB-3	7	3/29/95	79	540	220	--	--	<0.05	<0.05	<0.05	<0.05	--	--	--	W. A. Craig Inc.	N	
SB-3	12	3/29/95	42	210	81	--	--	<0.005	0.007	<0.005	0.076	--	--	--	W. A. Craig Inc.	N	
SB-3	15.5	3/29/95	1.6	57	22	--	--	<0.005	<0.005	<0.005	0.008	--	--	--	W. A. Craig Inc.	N	
SB-4	8	3/29/95	4.1	320	420	--	--	<0.005	<0.005	<0.005	0.008	--	--	--	W. A. Craig Inc.	N	
SB-4	13	3/29/95	3.7	66	83	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
SB-4	18	3/30/95	1.4	1.5	<10	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
SB-7	8	3/30/95	1,700	1,100	280	--	--	3	9.9	19	81	--	--	--	W. A. Craig Inc.	N	
SB-7	11.5	3/30/95	170	230	54	--	--	0.42	0.78	1.7	5.9	--	--	--	W. A. Craig Inc.	N	
SB-7	16.5	3/30/95	5.4	21	<10	--	--	<0.005	0.021	0.030	0.077	--	--	--	W. A. Craig Inc.	N	
SB-8	8	3/30/95	<1.0	10	34	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
SB-8	13	3/30/95	12	230	220	--	--	<0.005	0.008	0.005	0.022	--	--	--	W. A. Craig Inc.	N	
SB-8	17	3/30/95	18	270	180	--	--	0.009	0.020	0.007	0.040	--	--	--	W. A. Craig Inc.	N	
SB-9	8	3/30/95	56	960	570	--	--	<0.005	<0.005	0.010	0.035	--	--	--	W. A. Craig Inc.	N	
SB-9	12.5	3/30/95	590	5700	2,300	--	--	<0.1	0.15	0.33	2.4	--	--	--	W. A. Craig Inc.	N	
SB-10	16.5	3/30/95	<1.0	<1.0	<10	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
EB-1	5	4/17/95	<1.0	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
EB-2	4	4/17/95	<1.0	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	<0.1	--	W. A. Craig Inc.	N	
EB-3	3	4/17/95	<1.0	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
EB-3	4	4/17/95	<1.0	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
EB-5	4	4/17/95	<1.0	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
EB-6	2	4/18/95	<1.0	7.9	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
EB-7	5.5	4/18/95	<1.0	<1.0	--	--	<50	<0.005	<0.005	<0.005	<0.005	--	0.4	--	W. A. Craig Inc.	N	
EB-8	5.5	4/18/95	<1.0	1.8	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
EB-9	5.5	4/18/95	<1.0	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
EB-10	1	4/18/95	31	2,500	--	--	11,000	<0.02	0.15	0.21	1.6	--	4	--	W. A. Craig Inc.	Y	Removed from site
EP-1	1	4/17/95	<1.0	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	<0.1	--	W. A. Craig Inc.	N	
EP-1	4	4/17/95	<1.0	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
EP-2	0	4/17/95	51.0	9,600	--	--	--	0.14	0.18	0.49	7.2	--	48,000	--	W. A. Craig Inc.	Y	Removed from site

Table B-1:
Total Petroleum Hydrocarbons and PCBs in Soil (ppm)
2901 Glascock Street

Boring/ Sample ID	Depth (feet)	Date Sampled	TPHg	TPHd	TPHmo	TPH o&g	TRPH	Benzene	Toluene	Ethyl-benzene	Xylene	MTBE	PCBs	PAHs	Consultant	Cleanup Goals Exceeded (Y/N)	Description
EP-2	2	4/17/1995	<1.0	1.8	--	--	--	<0.005	<0.005	<0.005	<0.005	--	2	--	W. A. Craig Inc.	N	
EP-2	4	4/17/1995	<1.0	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
Sand Blast	0	4/18/1995	--	<1.0	--	--	--	0.029	0.017	0.030	0.014	--	--	--	W. A. Craig Inc.	N	
Shavings	2	4/18/1995	--	20	--	--	--	0.86	1.4	1.9	4.7	--	--	--	W. A. Craig Inc.	N	
MW-5	3	4/27/1995	--	1,200	1,900	--	--	--	--	--	--	--	--	--	W. A. Craig Inc.	Y	Removed from site
MW-5	8	4/27/1995	<1.0	<1.0	<10	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
MW-5	12	4/27/1995	99	1,800	730	--	--	<0.005	0.017	0.023	0.20	--	--	--	W. A. Craig Inc.	N	
MW-6	8	4/27/1995	8.7	620	390	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
MW-6	12	4/27/1995	4.7	46	21	--	--	<0.005	<0.005	<0.005	0.005	--	--	--	W. A. Craig Inc.	N	
MW-7	10	4/27/1995	<1.0	<1.0	<10	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	W. A. Craig Inc.	N	
PCB-1	--	5/12/1995	--	--	--	--	--	--	--	--	--	--	16,000	--	W. A. Craig Inc.	Y	Removed from site
PCB-2	--	5/12/1995	--	--	--	--	--	--	--	--	--	--	7,600	--	W. A. Craig Inc.	Y	Removed from site
PCB-3	--	5/12/1995	--	--	--	--	--	--	--	--	--	--	3,600	--	W. A. Craig Inc.	Y	Removed from site
B-2	1	11/10/1995	--	--	--	--	--	--	--	--	--	--	0.66	--	PEG	Y	Will be removed during August 2003
B-3	6	11/10/1995	--	<200	720	--	--	--	--	--	--	--	--	--	PEG	N	
B-4	1	11/10/1995	--	--	--	--	--	--	--	--	--	--	0.03	--	PEG	N	
B-5	1	11/10/1995	--	--	--	--	--	--	--	--	--	--	<0.017	--	PEG	N	
B-6	1	11/10/1995	--	11	22	--	--	--	--	--	--	--	<0.017	--	PEG	N	
B-6	5	11/10/1995	--	<10	<10	--	--	--	--	--	--	--	--	--	PEG	N	
B-7	1	11/10/1995	--	32	45	--	--	--	--	--	--	--	0.019	--	PEG	N	
B-7	5	11/10/1995	--	<10	<10	--	--	--	--	--	--	--	--	--	PEG	N	
B-8	5	11/10/1995	--	<10	<10	--	--	--	--	--	--	--	--	--	PEG	N	
B-9	5	11/10/1995	--	12	<10	--	--	--	--	--	--	--	--	--	PEG	N	
B-10	1	11/10/1995	--	--	--	--	--	--	--	--	--	--	0.044	--	PEG	N	
B-11	1	11/10/1995	--	--	--	--	--	--	--	--	--	--	0.21	--	PEG	N	
B-12	1	11/10/1995	--	--	--	--	--	--	--	--	--	--	130	--	PEG	Y	Will be removed during August 2003
B-13	5	11/10/1995	--	1,700	850	--	--	--	--	--	--	--	--	--	PEG	Y	Removed from site
B-14	5	11/10/1995	--	<10	<10	--	--	--	--	--	--	--	--	--	PEG	N	
B-15	5	11/10/1995	--	<10	<10	--	--	--	--	--	--	--	--	--	PEG	N	
MW-8	1	11/10/1995	--	--	--	--	--	--	--	--	--	--	1.5	--	PEG	N	
B-13-N	3	10/1/1996	--	<10	<10	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
B-13-S	3	10/1/1996	--	26	48	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
B-13-E	3	10/1/1996	--	<10	<10	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
B-13-BT	5	10/1/1996	--	<10	<10	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
EB-10-N	3	10/1/1996	--	<10	<10	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
EB-10-S	3	10/1/1996	--	<10	<10	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
EB-10-E	3	10/1/1996	--	23	83	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
EB-10-W	3	10/1/1996	--	32	110	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
EB-10-BT	5	10/1/1996	--	<10	12	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
MW-5-N	3	10/1/1996	--	150	100	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
MW-5-S	3	10/1/1996	--	<10	<10	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
MW-5-E	3	10/1/1996	--	220	230	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
MW-5-W	3	10/1/1996	--	13	29	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
MW-5-BT	5	10/1/1996	--	22	15	--	--	--	--	--	--	--	--	--	PEG	N	Confirmation sample
EP2-N	1.5	10/1/1996	--	<10	<10	--	--	--	--	--	--	--	0.16	--	PEG	N	Confirmation sample
EP2-S	1.5	10/1/1996	--	<10	11	--	--	--	--	--	--	--	<0.033	--	PEG	N	Confirmation sample
EP2-E	1.5	10/1/1996	--	<10	<10	--	--	--	--	--	--	--	0.1	--	PEG	N	Confirmation sample
EP2-W	1.5	10/1/1996	--	500	210	--	--	--	--	--	--	--	2,600	--	PEG	Y	Confirmation sample (removed from site)
EP2-W-2	1.5	12/5/1996	--	--	--	--	--	--	--	--	--	--	35	--	PEG	Y	Confirmation sample. Collected from property line.
EP2-BT	3	10/1/1996	--	<10	<10	--	--	--	--	--	--	--	<0.033	--	PEG	N	Confirmation sample
EB-9	2-2½	10/1-2/01	--	--	--	--	--	--	--	--	--	--	<0.05	<RBSL	Lowney Associates	N	
EB-10	4-4½	10/1-2/01	--	--	--	--	--	--	--	--	--	--	<0.05	ND	Lowney Associates	N	
EB-11	4½-5	10/1-2/01	--	--	--	--	--	--	--	--	--	--	<0.05	ND	Lowney Associates	N	
EB-11	5½-6	10/1-2/01	--	--	--	--	--	--	--	--	--	--	<0.05	<RBSL	Lowney Associates	N	
EB-12	3-3½	10/1-2/01	--	--	--	--	--	--	--	--	--	--	<0.05	<RBSL	Lowney Associates	N	

Table B-1:
Total Petroleum Hydrocarbons and PCBs in Soil (ppm)
2901 Glascock Street

Boring/ Sample ID	Depth (feet)	Date Sampled	TPHg	TPHd	TPHmo	TPH o&g	TRPH	Benzene	Toluene	Ethyl-benzene	Xylene	MTBE	PCBs	PAHs	Consultant	Cleanup Goals Exceeded (Y/N)	Description
EB-12	4-4½	10/1-2/01	--	--	--	--	--	--	--	--	--	--	<0.05	ND	Lowney Associates	N	
EB-14	4-4½	10/1-2/01	--	--	--	--	--	--	--	--	--	--	<0.05	ND	Lowney Associates	N	
EB-15	3-3½	10/1-2/01	--	--	--	--	--	--	--	--	--	--	0.062	<RBSL	Lowney Associates	N	
EB-16	3½-4	10/1-2/01	--	--	--	--	--	--	--	--	--	--	0.21	<RBSL	Lowney Associates	N	
EB-16	4½-5	10/1-2/01	--	--	--	--	--	--	--	--	--	--	0.11	<RBSL	Lowney Associates	N	
EB-17	2½-3	10/1-2/01	--	--	--	--	--	--	--	--	--	--	<0.05	ND	Lowney Associates	N	
EB-18	2-2½	10/1-2/01	--	--	--	--	--	--	--	--	--	--	0.37	<RBSL	Lowney Associates	Y	Will be removed during August 2003
EB-19	2½-3	10/1-2/01	--	--	--	--	--	--	--	--	--	--	0.39	<RBSL	Lowney Associates	Y	Will be removed during August 2003
EB-20	2½-3	10/1-2/01	--	--	--	--	--	--	--	--	--	--	0.12	<RBSL	Lowney Associates	N	

<RBSL - PAH concentrations are below respective residential PRG, City of Oakland RBSL, and CRWQCB RBSL concentrations

PRE - Pacific Rim Environmental
PEG - Pacific Environmental Group

Table B-2. Well Construction Details

Well #	Status	Boring Depth (feet)	Boring Diameter (inches)	Casing Depth (feet)	Casing Diameter (inches)	Screen Interval (feet bgs)	Screen Size (inches)	Annulus Interval (feet bgs)	Annulus Material	Bentonite Interval (feet bgs)	Upper Seal Interval (feet bgs)	Upper Seal Material	Installed by	Installation Date
MW-1	Active	19.5	8	19.5	2	19.5-5.0	0.02	19.5-4.0	#3 Sand	4.0-3.0	3.0-0.0	Cement Grout	W.A.Craig	09/23/94
MW-2	Active	20.0	8	20.0	2	20.0-5.0	0.02	20.0-4.0	#3 Sand	4.0-3.0	3.0-0.0	Cement Grout	W.A.Craig	09/23/94
MW-3	Active	20.0	8	20.0	2	20.0-5.0	0.02	20.0-4.0	#3 Sand	4.0-3.0	3.0-0.0	Cement Grout	W.A.Craig	09/23/94
MW-4	Active	20.0	8	20.0	2	20.0-5.0	0.02	20.0-4.0	#3 Sand	4.0-3.0	3.0-0.0	Cement Grout	W.A.Craig	09/23/94
MW-5	Destroyed	20.0	8	20.0	2	20.0-10.0	0.02	20.0-9.0	2/12 sand	9.0-8.0	8.0-0.0	Cement Grout	W.A.Craig	04/27/95
MW-6	Active	20.0	8	20.0	2	20.0-10.0	0.02	20.0-9.0	2/12 sand	9.0-8.0	8.0-0.0	Cement Grout	W.A.Craig	04/27/95
MW-7	Active	18.0	8	18.0	2	18.0-8.0	0.02	18.0-7.0	2/12 sand	7.0-6.0	6.0-0.0	Cement Grout	W.A.Craig	04/27/95
MW-8	Active	19.0	8	19.0	2	19.0-4.0	0.02	19.0-3.5	2/12 sand	3.5-2.5	2.5-0.0	Cement Grout	W.A.Craig	11/16/95

APPENDIX C
HISTORICAL GROUND WATER MONITORING
ANALYTICAL RESULTS

Table 1
Groundwater Elevation Data

2901 Glascock Street
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-1	10/06/94	10.76	NA	NA
	01/20/95		6.67	4.09
	05/15/95		7.08	3.68
	08/28/95		8.06	2.70
	12/06/95		8.24	2.52
	01/18/96	10.76	6.35	4.41
	03/08/96		6.52	4.24
	07/02/96		8.35	2.41
	12/17/96		6.85	3.91
	03/21/97		7.90	2.86
	06/25/97		9.20	1.56
	09/29/97		8.90	1.86
	12/11/97		7.10	3.66
	03/27/98		7.50	3.26
	06/26/98		8.65	2.11
	09/11/98		8.35	2.41
	12/24/98		8.50	2.26
	03/31/99		7.75	3.01
	06/17/99		8.70	2.06
	09/13/99		8.83	1.93
	12/28/99		9.10	1.66
	03/02/00		6.65	4.11
	06/30/00		8.30	2.46
	09/29/00		8.57	2.19
	12/28/00		8.23	2.53
	03/26/01		8.00	2.76
	06/28/01		8.60	2.16
	09/18/01		8.46	2.30
	11/01/01		8.35	2.41
	02/12/02		8.17	2.59
	05/31/02		8.33	2.43
	08/29/02		8.55	2.21
	11/25/02		8.16	2.60
MW-2	10/06/94	10.62	7.17	3.45
	01/20/95		4.64	5.98
	05/15/95		5.66	4.96
	08/28/95		6.26	4.36
	12/06/95		7.30	3.32
	01/18/96	10.63	4.85	5.78
	03/08/96		4.38	6.25
	07/02/96		6.60	4.03
	12/17/96		5.10	5.53
	03/21/97		6.25	4.38
	06/25/97		8.01	2.62
	09/29/97		8.45	2.18
	12/11/97		5.63	5.00
	03/27/98		6.50	4.13
	06/26/98		7.55	3.08
	09/11/98		7.15	3.48
	12/24/98		6.77	3.86
	03/31/99		5.80	4.83
	06/17/99		7.10	3.53
	09/13/99		7.66	2.97
	12/28/99		8.25	2.38
	03/02/00		4.90	5.73

Table 1
Groundwater Elevation Data

2901 Glascock Street
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-2	06/30/00		6.71	3.92
(cont'd)	09/29/00		7.40	3.23
	12/28/00		6.93	3.70
	03/26/01		5.40	5.23
	06/28/01		7.80	2.83
	09/18/01		8.30	2.33
	11/01/01		8.10	2.53
	2/12/02		6.68	3.95
	5/31/02		7.04	3.59
	8/29/02		7.70	2.93
	11/25/02		7.46	3.17
MW-3	10/06/94	9.87	6.57	3.30
	01/20/95		4.47	5.40
	05/15/95		5.08	4.79
	08/28/95		6.18	3.69
	12/06/95		6.44	3.43
	01/18/96	9.87	4.15	5.72
	03/08/96		4.76	5.11
	07/02/96		6.45	3.42
	12/17/96		4.92	4.95
	03/21/97		5.72	4.15
	06/25/97		6.35	3.52
	09/29/97		6.35	3.52
	12/11/97		4.70	5.17
	03/27/98		5.15	4.72
	06/26/98		6.17	3.70
	09/11/98		6.40	3.47
	12/24/98		6.27	3.60
	03/31/99		5.35	4.52
	06/17/99		6.60	3.27
	09/13/99		6.85	3.02
	12/28/99		6.72	3.15
	03/02/00		4.70	5.17
	06/30/00		6.25	3.62
	09/29/00		6.67	3.20
	12/28/00		6.21	3.66
	03/26/01		5.75	4.12
	06/28/01		6.33	3.54
	09/18/01		6.92	2.95
	11/01/01		6.45	3.42
	2/12/02		5.68	4.19
	5/31/02		5.99	3.88
	8/29/02		6.50	3.37
	11/25/02		6.15	3.72
MW-4	10/06/94	10.64	7.96	2.68
	01/20/95		5.95	4.69
	05/15/95		6.28	4.36
	08/28/95		7.38	3.26
	12/06/95		7.80	2.84
	01/18/96	10.64	5.60	5.04
	03/08/96		5.93	4.71
	07/02/96		7.95	2.69
	12/17/96		6.35	4.29
	03/21/97		7.30	3.34
	06/25/97		7.95	2.69

Table 1
Groundwater Elevation Data

2901 Glascock Street
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-4	09/29/97		7.65	2.99
(cont'd)	12/11/97		5.75	4.89
	03/27/98		6.60	4.04
	06/26/98		7.85	2.79
	09/11/98		7.85	2.79
	12/24/98		7.93	2.71
	03/31/99		7.15	3.49
	06/17/99		8.25	2.39
	09/13/99		8.40	2.24
	12/28/99		8.24	2.40
	03/02/00		5.75	4.89
	06/30/00		7.84	2.80
	09/29/00		8.10	2.54
	12/28/00		7.97	2.67
	03/26/01		7.42	3.22
	06/28/01		7.78	2.86
	09/18/01		8.20	2.44
	11/01/01		7.83	2.81
	02/12/02		7.35	3.29
	05/31/02		7.88	2.76
	08/29/02		7.93	2.71
	11/25/02		7.60	3.04
MW-5	05/15/95	10.61	7.54	3.07
	08/28/95		8.44	2.17
	12/06/95		8.34	2.27
	01/18/96	10.61	7.15	3.46
	03/08/96		7.54	3.07
	07/02/96		9.45	1.16
	12/17/96		NA a - well destroyed -	NA
MW-6	05/15/95	10.27	7.46	2.81
	08/28/95		8.06	2.21
	12/06/95		8.78	1.49
	01/18/96	10.28	7.85	2.43
	03/08/96		8.64	1.64
	07/02/96		11.50	-1.22
	12/17/96		9.40	0.88
	03/21/97		9.00	1.28
	06/25/97		11.50	-1.22
	09/29/97		9.95	0.33
	12/11/97		8.50	1.78
	03/27/98		10.10	0.18
	06/26/98		12.10	-1.82
	09/11/98		9.90	0.38
	12/24/98		10.15	0.13
	03/31/99		10.18	0.10
	06/17/99		11.05	-0.77
	09/13/99		10.63	-0.35
	12/28/99		10.55	-0.27
	03/02/00		8.90	1.38
	06/30/00		11.51	-1.23
	09/29/00		10.35	-0.07
	12/28/00		9.08	1.20
	03/26/01		8.68	1.60

Table 1
Groundwater Elevation Data

2901 Glascock Street
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-6 (cont'd)	06/28/01		9.45	0.83
	09/18/01		9.00	1.28
	11/01/01		8.75	1.53
	02/12/02		9.10	1.18
	05/31/02		11.01	-0.73
	08/29/02		10.10	0.18
	11/25/02		9.07	1.21
MW-7	05/15/95	9.85	3.46	6.39
	08/28/95		4.49	5.36
	12/06/95		5.04	4.81
	01/18/96	9.86	3.10	6.76
	03/08/96		3.18	6.68
	07/02/96		4.40	5.46
	12/17/96		3.45	6.41
	03/21/97		3.75	6.11
	06/25/97		4.75	5.11
	09/29/97		5.05	4.81
	12/11/97		3.45	6.41
	03/27/98		3.45	6.41
	06/26/98		4.00	5.86
	09/11/98		4.95	4.91
	12/24/98		4.30	5.56
	03/31/99		3.50	6.36
	03/31/99		4.85	5.01
	09/13/99		5.30	4.56
	12/28/99		5.07	4.79
	03/02/00		3.00	6.86
	06/30/00		4.30	5.56
	09/29/00		5.17	4.69
	12/28/00		4.71	5.15
	03/26/01		3.52	6.34
	06/28/01		4.70	5.16
	09/18/01		5.44	4.42
	11/01/01		4.91	4.95
	02/12/02		3.70	6.16
	05/31/02		4.06	5.80
	08/29/02		5.05	4.81
	11/25/02		4.56	5.30
MW-8	01/18/96	10.61	7.15	3.46
	03/08/96		NA	NA
	07/02/96		10.80	-0.19
	12/17/96		8.52	2.09
	03/21/97		8.60	2.01
	06/25/97		10.27	0.34
	09/29/97		8.75	1.86
	12/11/97		7.20	3.41
	03/27/98		8.85	1.76
	06/26/98		10.70	-0.09
	09/11/98		9.40	1.21
	12/24/98		9.85	0.76
	03/31/99		9.58	1.03
	03/31/99		10.55	0.06
	09/13/99		10.38	0.23
	12/28/99		9.80	0.81
	03/02/00		7.76	2.85

Table 1
Groundwater Elevation Data

2901 Glascock Street
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
	06/30/00		10.63	-0.02
	09/29/00		10.18	0.43
	12/28/00		8.37	2.24
	03/26/01		8.75	1.86
	06/28/01		8.95	1.66
	09/18/01		8.82	1.79
	11/01/01		8.75	1.86
	02/12/02		8.73	1.88
	05/31/02		10.57	0.04
	08/29/02		9.50	1.11
	11/25/02		8.95	1.66

MSL = Mean sea level
TOC = Top of casing
NA = Not available
a. Well MW-5 was destroyed in September 1996.

Table 2
Groundwater Analytical Data
TPPH as Gasoline, BTEX Compounds, TEPH as Diesel and Motor Oil, and MtBE

2901 Glascock Street
Oakland, California

Well Number	Date Sampled	TPPH as Gasoline (µg/L)		Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	TEPH as Diesel (µg/L)		TEPH as Motor Oil (µg/L)		MTBE (µg/L)
MW-1	10/06/94	NS		NS	NS	NS	NS	NS		NS		NS
	01/20/95	670		5.3	ND	ND	1.1	1,900		NA		NA
	05/15/95	290		7.9	ND	ND	1.4	3,400		NA		NA
	08/28/95	250		5.4	ND	ND	1.1	1,800		NA		NA
	11/29/95	NA		NA	NA	NA	NA	ND		ND		NA
	12/06/95	770		4.8	ND	ND	1.3	39,000		NA		NA
	01/18/96	NA		NA	NA	NA	NA	23,000		NA		NA
	03/08/96	360		2,600	ND	ND	1.9	16,000		NA		24
	07/02/96	5,300	a	ND	ND	ND	ND	6,600		ND		ND
	12/17/96	540	b	3.4	ND	ND	0.83	2,800	c	1,600	d	60
	03/21/97	590		5.5	0.66	ND	ND	5,500	e	5,000	d	71
	05/16/97	NA		NA	NA	NA	NA	NA		NA		NA
	06/25/97	470	h	ND	ND	ND	ND	39,000	e	26,000	d	45
	09/29/97	510	h	2.2	ND	ND	ND	5,000	e	4,000	d	37
	12/11/97	ND		ND	ND	ND	ND	1,900	e	1,300	d	ND
	03/27/98	280	k	5.0	0.60	ND	ND	4,600	e	3,900	d	890
	06/26/98	450	f	2.6	ND	ND	ND	1,700	e	1,300	d	41
	09/11/98	230	l	2.8	ND	ND	1.8	3,000	m	ND		8.7
	09/11/98	NA		NA	NA	NA	NA	620	g	520	d	NA
	12/24/98	380	b	5.0	ND	ND	ND	2,100	g	1,600	d	ND
	03/31/99	190	b	3.0	ND	ND	1.4	10,000	e	6,600	d	55
	06/17/99	133		3.27	ND	ND	ND	1,920	g	2,770	d	11.9
	09/13/99	523		2.70	ND	ND	ND	493		ND		ND
	12/28/99	574		3.2	ND	ND	1.2	429		ND		55.9
	03/02/00	209		1.99	ND	ND	1.24	4,620		ND		9.36
	06/30/00	920	b	3.59	1.59	0.64	2.92	530	g	ND		ND
	09/29/00	5,520	b	ND	ND	ND	11.8	956	e	662	d	ND
	12/28/00	1,270	b	5.34	ND	ND	ND	4,920	g	3,330	d	34.1
	03/26/01	492	b	3.58	ND	ND	ND	614	g	ND		20.1
	06/28/01	430		1.8	ND	ND	1.4	11,000		7,100	d	6
	09/18/01	210	b	6.3	ND	ND	1.1	NA		NA		20
	11/01/01	130	b	3.4	ND	ND	ND	120	g	ND		ND
	02/12/02	250	b	2.3	ND	ND	ND	120	t	ND		ND
	05/31/02	310	u	3.4	ND	ND	ND	130	t	ND		ND
	08/29/02	420	u	1.8	ND	ND	ND	8,700	t	2,400		ND
	11/25/02	320	u	1.7	ND	ND	ND	220	t	ND		ND
MW-2	10/06/94	NS		NS	NS	NS	NS	NS		NS		NS
	01/20/95	520		2.2	1.9	ND	1.3	4,000		NA		NA
	05/15/95	310		2.3	1.9	ND	1.4	5,100		NA		NA
	08/28/95	320		2.9	2.9	ND	2.6	4,100		NA		NA
	11/29/95	NS		NS	NS	NS	NS	NS		NS		NS
	12/06/95	210		2.0	2.2	ND	0.57	17,000		NA		NA
	01/18/96	NA		NA	NA	NA	NA	22,000		NA		NA
	03/08/96	310		2.4	1.9	ND	1.4	56,000		NA		ND
	07/02/96	9,300	a	ND	ND	ND	ND	19,000		ND		ND
	12/17/96	140	b	1.1	2.0	ND	1.4	10,000	e	5,400	d	ND
	03/21/97	230		2.1	1.9	ND	ND	17,000	e	16,000	d	ND
	05/16/97	NA		NA	NA	NA	NA	NA		NA		NA
	06/25/97	630	h	ND	ND	ND	ND	16,000	e	13,000	d	ND
	09/29/97	300	h	1.3	0.66	ND	ND	32,000	e	20,000	d	ND
	12/11/97	ND		ND	ND	ND	ND	4,800	e	4,000	d	ND
	03/27/98	94	k	1.3	1.30	ND	ND	15,000	e	11,000	d	18
	06/26/98	490	b	ND	ND	ND	ND	11,000	e	5,900	d	ND
	09/11/98	550	l	ND	ND	ND	ND	11,000	n	ND		ND
	09/11/98	NA		NA	NA	NA	NA	6,100	g	ND		NA
	12/24/98	990	b	ND	6.8	9.1	17	2,000	g	1,200	d	ND
	3/3/1/99	580	p	1.3	2.2	ND	0.99	21,000	g	14,000	d	ND

Table 2
Groundwater Analytical Data
TPPH as Gasoline, BTEX Compounds, TEPH as Diesel and Motor Oil, and MtBE

2901 Glascock Street
Oakland, California

Well Number	Date Sampled	TPPH as Gasoline (µg/L)		Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	TEPH as Diesel (µg/L)		TEPH as Motor Oil (µg/L)		MTBE (µg/L)
MW-2	06/17/99	525		ND	ND	ND	ND	ND		ND		ND
	09/13/99	392		1.28	3.98	ND	1.22	1,380		617		ND
	12/28/99	2,950		ND	ND	ND	ND	963		627		ND
	03/02/00	528		1.2	1.85	ND	0.78	9,100		0.612		ND
	06/30/00	1,020	b	1.71	1.59	0.544	2.47	1,480	e	ND		ND
	09/29/00	1,710	b	2.92	ND	ND	ND	2,030	g	1,200	d	ND
	12/28/00	6,010	b	ND	ND	ND	ND	7,130	e	ND		ND
	03/26/01	2,070	b	ND	ND	ND	ND	2,090	c	1,220	d	ND
	06/28/01	4,100		ND	ND	ND	ND	30,000		19,000	d	ND
	09/18/01	980	b	1.0	1.4	ND	0.88	NA		NA		2.6
	11/01/01	490	b	ND	0.92	ND	ND	640	g	ND		ND
	02/12/02	3,500	b	ND	ND	ND	ND	970	t	ND		ND
	05/31/02	270	u	ND	2.6	ND	ND	820	t	ND		ND
	08/29/02	130	u	ND	ND	ND	ND	14,000	t	3,800		ND
	11/25/02	210	u	ND	1.7	ND	ND	830	t	ND		ND
MW-3	10/06/94	NA		ND	ND	ND	ND	320		NA		NA
	01/20/95	86		ND	ND	ND	ND	460		NA		NA
	05/15/95	60		ND	ND	ND	ND	310		NA		NA
	08/28/95	ND		ND	ND	ND	ND	310		NA		NA
	11/29/95	NS		NS	NS	NS	NS	NS		NS		NS
	12/06/95	120		ND	ND	ND	ND	1,000		NA		NA
	01/18/96	NA		NA	NA	NA	NA	210		NA		NA
	03/08/96	67		ND	ND	ND	ND	1,000		NA		7.2
	07/02/96	230	a	ND	ND	ND	ND	640		ND		ND
	12/17/96	240	f	ND	ND	ND	ND	560	e	ND		ND
	03/21/97	760	h	ND	ND	ND	0.94	2,100	e	1900	d	5.6
	05/16/97	NA		NA	NA	NA	NA	NA		NA		NA
	06/25/97	180	h	ND	ND	ND	0.58	610	g	ND		5.3
	09/29/97	84	i	ND	ND	ND	ND	470	g	ND		ND
	12/11/97	ND		ND	ND	ND	ND	380	e	ND		ND
	03/27/98	ND		ND	ND	ND	ND	220	g	ND		ND
	06/26/98	68	b	ND	ND	ND	ND	210	g	ND		ND
	09/11/98	110	l	ND	ND	ND	ND	320	o	ND		ND
	09/11/98	NA		NA	NA	NA	NA	210	g	ND		NA
	12/24/98	ND		ND	ND	ND	ND	220	g	ND		ND
	03/31/99	73	q	ND	ND	ND	ND	680	r	580	r	ND
	06/17/99	72		ND	ND	ND	0.696	325	g	516	d	ND
	09/13/99	80		ND	ND	ND	ND	203		ND		12.7
	12/28/99	331		ND	ND	ND	1.16	314		ND		6.92
	03/02/00	84		ND	ND	ND	ND	1,370		ND		ND
	06/30/00	87.5	b	ND	ND	ND	0.599	100		ND		ND
	09/29/00	85.0	b	ND	ND	ND	0.849	495	g	ND		8.45
	12/28/00	1,530	b	ND	ND	ND	ND	667	g	ND		ND
	03/26/01	585	b	ND	ND	ND	ND	587	c	ND		ND
	06/28/01	610		0.66	ND	ND	ND	8,800		5,200	d	ND
	09/18/01	870	b	1.3	ND	ND	1.6	NA		NA		ND
	11/01/01	700	b	ND	ND	ND	ND	400	g	ND		ND
	02/12/02	420	b	ND	ND	ND	ND	350	t	ND		ND
	05/31/02	160	u	ND	ND	ND	ND	240	t	ND		ND
	08/29/02	170	u	ND	ND	ND	ND	790	t	ND		ND
	11/25/02	1,400	u	ND	ND	ND	ND	290	t	ND		ND
MW-4	10/06/94	NA		ND	ND	ND	ND	ND		NA		NA
	01/20/95	ND		ND	ND	ND	ND	ND		NA		NA
	05/15/95	ND		ND	ND	ND	ND	ND		NA		NA

Table 2
Groundwater Analytical Data
TPPH as Gasoline, BTEX Compounds, TEPH as Diesel and Motor Oil, and MtBE

2901 Glascock Street
Oakland, California

Well Number	Date Sampled	TPPH as Gasoline (µg/L)		Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	TEPH as Diesel (µg/L)		TEPH as Motor Oil (µg/L)		MTBE (µg/L)
MW-4	08/28/95	ND		ND	ND	ND	ND	ND		NA		NA
	11/29/95	NA		NA	NA	NA	NA	NA		NA		NA
	12/06/95	ND		ND	ND	ND	ND	57		NA		NA
	01/18/96	NA		NA	NA	NA	NA	ND		NA		NA
	03/08/96	ND		ND	ND	ND	ND	100		NA		ND
	07/02/96	ND		ND	ND	ND	ND	ND		ND		ND
	12/17/96	ND		ND	ND	ND	ND	310	g	530	d	ND
	03/21/97	ND		ND	ND	ND	ND	180	g	500	d	ND
	06/25/97	ND		ND	ND	ND	ND	120	g	ND		ND
	09/29/97	ND		ND	ND	ND	ND	130	g	ND		ND
	12/11/97	ND		ND	ND	ND	ND	57	g	ND		ND
	03/27/98	ND		ND	ND	ND	ND	ND		ND		ND
	06/26/98	ND		ND	ND	ND	ND	ND		ND		ND
	09/11/98	ND		ND	ND	ND	ND	ND		ND		ND
	09/11/98	NA		NA	NA	NA	NA	230	g	ND		NA
	12/24/98	ND		ND	ND	ND	ND	65	g	ND		ND
	03/31/99	ND		ND	ND	ND	ND	140	r	ND		ND
	06/17/99	ND		ND	ND	ND	ND	ND		ND		ND
	09/13/99	ND		ND	ND	ND	ND	ND		ND		ND
	12/28/99	ND		ND	ND	ND	ND	ND		ND		4.14
	03/02/00	ND		ND	ND	ND	ND	247		ND		ND
	06/30/00	ND		ND	ND	ND	ND	112	g	ND		ND
	09/29/00	ND		ND	ND	ND	ND	68.3	g	ND		ND
	12/28/00	ND		ND	ND	ND	ND	80.9	g	ND		ND
	03/26/01	ND		ND	ND	ND	ND	96.2	g	ND		ND
	06/28/01	ND		ND	ND	ND	ND	ND		ND		ND
	09/18/01	ND		ND	ND	ND	ND	NA		NA		ND
	11/01/01	ND		ND	ND	ND	ND	ND		ND		ND
	02/12/02	92	b	ND	ND	ND	ND	ND		ND		ND
	05/31/02	ND		ND	ND	ND	ND	ND		ND		ND
	08/29/02	ND		ND	ND	ND	ND	ND		ND		ND
	11/25/02	ND		ND	ND	ND	ND	ND		ND		ND
MW-5	05/15/95	ND		ND	ND	ND	ND	490		NA		NA
	08/28/95	ND		ND	ND	ND	ND	170		NA		NA
	11/29/95	NS		NS	NS	NS	NS	NS		NS		NS
	12/06/95	ND		ND	ND	ND	ND	250		NA		NA
	01/18/96	NA		NA	NA	NA	NA	49		NA		NA
	03/08/96	ND		ND	ND	ND	ND	210		ND		12
	07/02/96	200	a	ND	ND	ND	ND	110		ND		ND
	-- Well Destroyed in September 1996 --											
MW-6	05/15/95	120		5.6	0.88	ND	2.1	1,100		NA		NA
	08/28/95	140		6.1	0.77	ND	2.3	2,100		NA		NA
	11/29/95	NA		NA	NA	NA	NA	35,000		5,400		NA
	12/06/95	140		4.6	0.89	ND	1.7	38,000		NA		NA
	01/18/96	NA		NA	NA	NA	NA	59,000		NA		NA
	03/08/96	160		3.4	0.57	ND	1.9	14,000		NA		ND
	07/02/96	3,300	a	3.1	ND	ND	ND	2,300		1,300		ND
	12/17/96	150	b	3.4	0.93	ND	1.7	15,000	e	14,000	d	14
	03/21/97	300		3.5	0.91	ND	0.79	18,000	e	17,000	d	19
	05/16/97	NA		NA	NA	NA	NA	NA		NA		NA
	06/25/97	590	h	3.2	ND	ND	ND	9,300	e	7,900	d	15
	09/29/97	490	h	2.6	0.83	ND	1.5	7,900	e	7,900	d	13
	12/11/97	ND		ND	ND	ND	ND	5,600	e	5,100	j	ND
	03/27/98	ND		ND	ND	ND	ND	1,500	e	1,400	d	ND
	06/26/98	290	f	5.3	ND	ND	1.1	9,200	e	6,400	d	11
	09/11/98	660	l	500	ND	ND	ND	4,200	m	ND		6.5

Table 2
Groundwater Analytical Data
TPPH as Gasoline, BTEX Compounds, TEPH as Diesel and Motor Oil, and MtBE

2901 Glascock Street
Oakland, California

Well Number	Date Sampled	TPPH as Gasoline (µg/L)		Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	TEPH as Diesel (µg/L)		TEPH as Motor Oil (µg/L)		MTBE (µg/L)
MW-6	09/11/98	NA		NA	NA	NA	NA	1,600	g	1,300	d	NA
	12/24/98	ND		ND	ND	ND	ND	1,000	g	690	d	ND
	03/31/99	330	b	4.2	0.83	ND	1.5	22,000	e	16,000	d	ND
	06/17/99	504		4.56	0.863	0.573	1.2	1,460	s	7,090	d	9.85
	09/13/99	192		4.74	1.24	ND	3.64	826		694		6.2
	12/28/99	3690		4.4	ND	ND	ND	527		ND		16.2
	03/02/00	336		4.92	1.18	ND	1.89	1,600		ND		4.75
	06/30/00	8550	b	58.9	73.1	ND	56.7	590	g	ND		ND
	09/29/00	642	b	4.41	0.793	ND	1.32	863	g	ND		14.4
	12/28/00	500	b	4.89	ND	ND	ND	6,750	g	3,440	d	ND
	03/26/01	14000	b	ND	ND	ND	ND	773	c	ND		ND
	06/28/01	620	b	3.3	0.76	0.58	1.6	31,000		22,000	d	3.9
	09/18/01	430	b	3.1	0.54	2.6	2.8	NA		NA		4.1
	11/01/01	600	b	2.5	ND	ND	0.52	290	g	ND		ND
	02/12/02	860	b	3.7	ND	ND	ND	350	t	ND		ND
	05/31/02	210	u	5.5	0.76	ND	2.1	280	t	ND		ND
	08/29/02	120	u	2.7	0.88	ND	1.4	8,600	t	2,900		ND
	11/25/02	150	u	3.5	0.99	ND	1.1	230	t	ND		ND
MW-7	05/15/95	110		ND	ND	ND	ND	ND		NA		NA
	08/28/95	ND		ND	ND	ND	ND	ND		NA		NA
	11/29/95	NA		NA	NA	NA	NA	NA		NA		NA
	12/06/95	62		ND	ND	ND	ND	ND		NA		NA
	01/18/96	NA		NA	NA	NA	NA	ND		NA		NA
	03/08/96	ND		ND	ND	ND	ND	ND		NA		ND
	07/02/96	ND		ND	ND	ND	ND	ND		ND		580
	12/17/96	ND		ND	ND	ND	ND	120	g	ND		100
	03/21/97	ND		ND	ND	ND	ND	79	g	ND		190
	06/25/97	ND		ND	ND	ND	ND	58	g	ND		580
	09/29/97	ND		ND	ND	ND	ND	ND		ND		310
	12/11/97	ND		ND	ND	ND	ND	ND		ND		ND
	03/27/98	ND		ND	ND	ND	ND	ND		ND		ND
	06/26/98	ND		ND	ND	ND	ND	ND		ND		110
	09/11/98	ND		ND	ND	ND	ND	ND		ND		110
	09/11/98	NA		NA	NA	NA	NA	140	g	ND		NA
	12/24/98	ND		ND	ND	ND	ND	ND		ND		150
	03/31/99	ND		ND	ND	ND	ND	78	r	ND		11
	06/17/99	ND		ND	ND	ND	ND	53.7	g	ND		59.1
	09/13/99	ND		ND	ND	ND	ND	ND		ND		55.3
	12/28/99	ND		ND	ND	ND	ND	ND		ND		67.6
	03/02/00	ND		ND	ND	ND	ND	334		ND		16.1
	06/30/00	ND		ND	ND	ND	ND	95.8		ND		35.8
	09/29/00	ND		ND	ND	ND	ND	70.0	g	ND		50.4
	12/28/00	ND		ND	ND	ND	ND	73.8	g	ND		41.5
	03/26/01	ND		ND	ND	ND	ND	76.1	g	ND		11.1
	06/28/01	ND		ND	ND	ND	ND	ND		ND		40
	09/18/01	ND		ND	ND	ND	ND	NA		NA		16
	11/01/01	ND		ND	ND	ND	ND	ND		ND		7.6
	02/12/02	ND		ND	ND	ND	ND	ND		ND		ND
	05/31/02	ND		ND	ND	ND	ND	ND		ND		ND
	08/29/02	ND		ND	ND	ND	ND	ND		ND		8.2
	11/25/02	ND		ND	ND	ND	ND	ND		ND		5.9
MW-8	11/29/95	NA		NA	NA	NA	NA	NA		NA		NA
	01/18/96	NA		NA	NA	NA	NA	ND		NA		NA
	03/08/96	NS		NS	NS	NS	NS	NS		NS		NS
	07/02/96	ND		0.74	0.88	ND	0.82	ND		ND		ND
	12/17/96	ND		ND	ND	ND	ND	53	g	ND		ND

Table 2
Groundwater Analytical Data
TPPH as Gasoline, BTEX Compounds, TEPH as Diesel and Motor Oil, and MtBE

2901 Glascock Street
Oakland, California

Well Number	Date Sampled	TPPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	TEPH as Diesel (µg/L)		TEPH as Motor Oil (µg/L)		MTBE (µg/L)
MW-8	03/21/97	ND	ND	ND	ND	ND	ND		ND		ND
	06/25/97	ND	ND	ND	ND	ND	ND		ND		ND
	09/29/97	ND	ND	ND	ND	ND	ND		ND		ND
	12/11/97	270	8.0	1.8	5.7	14	ND		ND		72
	03/27/98	ND	ND	ND	ND	ND	ND		ND		ND
	06/26/98	ND	ND	ND	ND	ND	ND		ND		ND
	09/11/98	ND	ND	ND	ND	ND	ND		ND		ND
	09/11/98	NA	NA	NA	NA	NA	130	g	ND		NA
	12/24/98	ND	ND	ND	ND	ND	ND		ND		ND
	03/31/99	ND	ND	ND	ND	ND	ND		ND		ND
	06/17/99	ND	ND	ND	ND	ND	10,400	g	12,700	d	ND
	09/13/99	ND	ND	ND	ND	ND	ND		ND		ND
	12/28/99	ND	ND	ND	ND	ND	ND		ND		ND
	03/02/00	ND	ND	ND	ND	ND	50.6		ND		ND
	06/30/00	ND	ND	ND	ND	ND	77.5		ND		ND
	09/29/00	ND	ND	ND	ND	ND	ND		ND		ND
	12/28/00	ND	ND	ND	ND	ND	66.7	g	ND		ND
	03/26/01	ND	ND	ND	ND	ND	67.9	g	ND		ND
	06/28/01	ND	ND	ND	ND	ND	ND		ND		ND
	09/18/01	ND	ND	ND	ND	ND	NA		NA		ND
	11/01/01	ND	ND	ND	ND	ND	ND		ND		ND
	02/12/02	ND	ND	ND	ND	ND	ND		ND		ND
	05/31/02	ND	ND	ND	ND	ND	ND		ND		ND
	08/29/02	ND	ND	ND	ND	ND	ND		ND		ND
	11/25/02	ND	ND	ND	ND	ND	ND		ND		ND

TPPH = Total purgeable petroleum hydrocarbons
TEPH = Total extractable petroleum hydrocarbons
MtBE = Methyl tert-butyl ether
µg/L = Micrograms per liter
NS = Not sampled
ND = Not detected (see certified analytical reports for detection limits)
NA = Not analyzed

a. Chromatogram pattern is not gasoline, but volatile fraction of diesel quantified as gasoline.
b. Chromatogram pattern is not gasoline, but unidentified hydrocarbons in C6 - C12 range.
c. Chromatogram pattern is a mixture of weathered diesel and unidentified hydrocarbons in C9 - C24 range.
d. Chromatogram pattern is not motor oil, but unidentified hydrocarbons in C16 - C36 range.
e. Chromatogram pattern is weathered diesel in C9 - C24 range.
f. Chromatogram pattern is not gasoline, but unidentified hydrocarbons > C10.
g. Chromatogram pattern is not diesel, but unidentified hydrocarbons in the C9 - C24 range.
h. Chromatogram pattern is weathered gasoline.
i. Chromatogram pattern is not gasoline, but unidentified hydrocarbons in C6 - C8 range.
j. Chromatogram pattern is not motor oil, but unidentified hydrocarbons in the C16 to C34 range.
k. Chromatogram pattern is not gasoline, but unidentified hydrocarbons > C5.
l. Chromatogram pattern is not gasoline, but unidentified hydrocarbons > C12.
m. Chromatogram pattern is a mixture of weathered diesel and unidentified hydrocarbons in the C18 - C40 range.
n. Chromatogram pattern is a mixture of weathered diesel and unidentified hydrocarbons in the C9 - C40 range.
o. Chromatogram pattern is not diesel, but unidentified hydrocarbons in the C9 - C40 range.
p. Chromatogram pattern is a mixture of gasoline and unidentified hydrocarbons > C10.
q. Chromatogram pattern is not gasoline, but unidentified hydrocarbons > C8.
r. Chromatogram pattern is unidentified hydrocarbons in the C9 - C40 range.
s. Chromatogram pattern is a mixture of weathered diesel and unidentified hydrocarbons in the C15 - C24 range.
t. Chromatogram pattern does not match the pattern of laboratory diesel standard.
u. Chromatogram pattern does not match the pattern of laboratory gasoline standard.

Table 3

Groundwater Inorganic Analytical Data

Ferrous Iron, Nitrate as NO_3, Sulfate as SO_4, Dissolved Oxygen, Oxidation-Reduction Potential

2901 Glascock Street
Oakland, California

Well	Date Sampled	Ferrous Iron (mg/L)	Nitrate as NO_3 (mg/L)	Sulfate as SO_4 (mg/L)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential
MW-1	06/17/99	----	----	----	1.8	----
	09/13/99	----	----	----	4.6	----
	12/28/99	----	----	----	8.3	----
	03/02/00	----	----	----	6.2	----
	06/30/00	----	----	----	6.0	----
	09/29/00	----	----	----	5.2	----
	12/28/00	0.311	ND*	12.0	2.0/2.0	-71/-100
	03/26/01	0.247*	ND	12.0	1/2	-96/-106
	06/28/01	ND	0.4	10	10/9.6	39/-98
	09/18/01	ND	ND	10	8/3	-54/-86
	11/01/01	ND	1.6	9.9	4.2/2.8	-10/19
	02/12/02	ND	ND	9.0	9.4/4.0	0.57/0.78
	05/31/02	ND	0.71[a]	8.2	2.0	31
	08/29/02	ND	1.80	14	4.2/2.4	-90/-102
	11/25/02	ND	ND	14	4.2/3.1	-35/-40
MW-2	06/17/99	----	----	----	2.2	----
	09/13/99	----	----	----	2.0	----
	12/28/99	----	----	----	NM (cloudy)	----
	03/02/00	----	----	----	5.2	----
	06/30/00	----	----	----	5.4	----
	09/29/00	----	----	----	4.8	----
	12/28/00	0.0505	ND*	0.33	2.0/2.0	-69/-72
	03/26/01	0.482*	ND	ND	2/2	-61/-95
	06/28/01	ND	0.9	0.84	2.8/1.6	-80/-71
	09/18/01	0.10	ND	1.1	2/2	-73/-91
	11/01/01	ND	1.6	13	1.2/1.0	-57/-99
	02/12/02	ND	ND	ND	1/1	53/51
	05/31/02	ND	ND	ND	0.8	10
	08/29/02	ND	ND	1.2	4.2/2.8	-60/-82
	11/25/02	ND	ND	ND	4.2/2.4	-61/-81
MW-3	12/28/00	0.0580	ND*	12.0	2.0/2.0	56/-46
	03/26/01	0.051*	5.9	17.5	NM	NM
	06/28/01	ND	0.6	1.8	1.2	-140
	09/18/01	ND	ND	0.61	NM	NM
	11/01/01	ND	ND	1.6	NM	NM
	02/12/02	ND	2.6	13.0	NM	NM
	05/31/02	ND	ND	4.9	1.8	-102
	08/29/02	ND	ND	1.4	NM	NM
	11/25/02	0.6300	ND	4.1	NM	NM
MW-4	12/28/00	0.0308	22*	48.0	4.0/4.0	5/20
	03/26/01	1.37*	20.4	48.0	NM	NM
	06/28/01	0.17	25.0	49	2.4	78
	09/18/01	0.18	28.0	54	NM	NM
	11/01/01	ND	30.0	61	NM	NM
	02/12/02	ND	33.0	58	NM	NM
	05/31/02	ND	30[a]	59	2.2	121
	08/29/02	ND	41.0	67	NM	NM
	11/25/02	ND	32.0	57	NM	NM

Table 3

Groundwater Inorganic Analytical Data

Ferrous Iron, Nitrate as NO_3, Sulfate as SO_4, Dissolved Oxygen, Oxidation-Reduction Potential

2901 Glascock Street
Oakland, California

Well	Date Sampled	Ferrous Iron (mg/L)	Nitrate as NO_3 (mg/L)	Sulfate as SO_4 (mg/L)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential
MW-6	06/17/99	----	----	----	1.6	----
	09/13/99	----	----	----	2.2	----
	12/28/99	----	----	----	NM (cloudy)	----
	03/02/00	----	----	----	1.8	----
	06/30/00	----	----	----	1.4	----
	09/29/00	----	----	----	1.8	----
	12/28/00	0.444	ND*	0.24	3.0/3.0	-61/-104
	03/26/01	0.765*	ND	ND	2/2	-102/-138
	06/28/01	ND	0.3	0.72	1.2/1.0	-117/-112
	09/18/01	ND	ND	0.64	3/2	-53/-112
	11/01/01	ND	ND	1.3	2.0/2.4	-119/-115
	02/12/02	ND	ND	2	1.0/1.0	-121/-107
	05/31/02	ND	ND	ND	1.0	23
	08/29/02	ND	ND	ND	2.2/4.2	-60/-70
	11/25/02	0.61	ND	ND	3.0/2.0	-92/-85
MW-7	12/28/00	ND	80.0*	100	2.0/3.0	-15/11
	03/26/01	0.199*	69.6	96.8	NM	NM
	06/28/01	0.12	73.0	100	3.2	12
	09/18/01	ND	82.0	96	NM	NM
	11/01/01	ND	77.0	98	NM	NM
	02/12/02	ND	69.0	93	NM	NM
	05/31/02	ND	53[a]	83	3.1	138
	08/29/02	ND	74	99	NM	NM
	11/25/02	ND	69	96	NM	NM
MW-8	12/28/00	ND	50.0*	120	4.0/4.0	82/84
	03/26/01	139*	32.5	138	NM	NM
	06/28/01	0.15	36.0	160	6.2	99
	09/18/01	ND	42.0	120	NM	NM
	11/01/01	ND	43.0	110	NM	NM
	02/12/02	ND	37.0	120	NM	NM
	05/31/02	ND	35[a]	110	8.4	142
	08/02/02	ND	42.0	130	NM	NM
	11/25/02	ND	42.0	120	NM	NM

mg/L	= Milligrams per Liter
NM	= Not measured
ND	= Not detected (see certified analytical reports for detection limits)
*	= Sample analyzed outside of the EPA recommended holding time
a	= Nitrate reported as total nitrate
2.0/3.0	= Before purging well/After purging well

Table 4
Groundwater Analytical Data
PCBs, Metals, and VOCs

Former Dorr-Oliver Site
2901 Glascock Street
Oakland, California

Well Number	Date Sampled	PCBs (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Lead (µg/L)	Nickel (µg/L)	Zinc (µg/L)	VOCs (µg/L)
MW-1	11/29/95	NA	NA	NA	NA	NA	NA	ND
	01/18/96	NA	ND	ND	ND	ND	ND	NA
	06/25/97	NA	NA	NA	NA	NA	NA	NA
	03/27/98	NA	NA	NA	NA	NA	NA	NA
	03/31/99	NA	ND	5.8	1	21	12	ND f
	02/12/02	NA	NA	NA	NA	NA	NA	NA
MW-2	11/29/95	NA	NA	NA	NA	NA	NA	NA
	01/18/96	NA	ND	ND	ND	ND	ND	NA
	06/25/97	NA	NA	NA	NA	NA	NA	NA
	03/27/98	NA	NA	NA	NA	NA	NA	NA
	03/31/99	NA	ND	ND	0.8	11	11	ND g
	02/12/02	NA	NA	NA	NA	NA	NA	NA
MW-3	11/29/95	NA	NA	NA	NA	NA	NA	NA
	01/18/96	NA	ND	ND	ND	ND	51.2	NA
	06/25/97	NA	NA	NA	NA	NA	NA	NA
	03/27/98	NA	NA	NA	NA	NA	NA	NA
	03/31/99	NA	ND	ND	ND	5.7	3.2	ND h
	02/12/02	NA	NA	NA	NA	NA	NA	NA
MW-4	11/29/95	NA	NA	NA	NA	NA	NA	ND a
	01/18/96	NA	ND	ND	ND	ND	20.5	NA
	06/25/97	NA	NA	NA	NA	NA	NA	NA
	03/27/98	NA	NA	NA	NA	NA	NA	NA
	03/31/99	NA	ND	ND	ND	6.2	3.7	ND j
	02/12/02	NA	NA	NA	NA	NA	NA	NA
MW-5	11/29/95	NA	NA	NA	NA	NA	NA	NA
	01/18/96	NA	ND	ND	ND	ND	22.6	NA
	-- Well Destroyed in September 1996 --							
MW-6	11/29/95	ND	ND	822	107	1,190	851	ND
	01/18/96	NA	ND	ND	ND	ND	ND	NA
	06/25/97	NA	ND	0.14	ND	0.2	0.18	ND d
	03/27/98	NA	ND	ND	ND	ND	0.017	ND e
	03/31/99	NA	ND	13	7.2	27	45	ND k
	02/12/02	NA	0.0060	0.11	0.039	0.14	0.15	ND m
MW-7	11/29/95	NA	NA	NA	NA	NA	NA	ND b
	01/18/96	NA	ND	ND	ND	ND	25.1	NA
	06/25/97	NA	NA	NA	NA	NA	NA	NA
	03/27/98	NA	NA	NA	NA	NA	NA	NA
	03/31/99	NA	ND	ND	ND	8.5	14	ND l
	02/12/02	NA	NA	NA	NA	NA	NA	NA
MW-8	11/29/95	ND	ND	319	42.0	381	309	ND c
	01/18/96	NA	ND	ND	ND	ND	ND	NA
	06/25/97	NA	ND	0.54	ND	0.69	0.42	ND
	03/27/98	NA	ND	0.013	ND	ND	0.02	ND
	03/31/99	NA	ND	12	8.8	16	13	ND
	02/12/02	NA	ND	0.036	ND	0.057	0.054	ND

Table 4
Groundwater Analytical Data
PCBs, Metals, and VOCs

Former Dorr-Oliver Site
2901 Glascock Street
Oakland, California

PCBs = Polychlorinated bi-phenyls
VOCs = Volatile organic compounds
µg/L = Micrograms per liter
NA = Not analyzed
ND = Not detected (see certified analytical reports for detection limits)

a. 0.61 µg/L 1,1-Dichloroethane
b. 0.79 µg/L 1,1-Dichloroethane
   0.74 µg/L *trans*-1,2-Dichloroethene
c. 0.53 µg/L Vinyl Chloride
   1.3 µg/L Trichloroethene
d. 2.5 µg/L Chloroethene
   0.97 µg/L 1,1-Dichloroethane
   3.4 µg/L *trans*-1,2-Dichloroethene
   1.4 µg/L Vinyl Chloride
e. 2.1 µg/L Chloroethene
   1.1 µg/L 1,1-Dichloroethane
   0.85 µg/L cis-1,2-Dichloroethene
   3.2 µg/L *trans*-1,2-Dichloroethene
f. 1.2 µg/L 1,1-Dichloroethane
   4.7 µg/L cis-1,2-Dichloroethene
   6.2 µg/L trans-1,2-Dichloroethene
g. 0.93 µg/L 1,1-Dichloroethane
   4.0 µg/L Vinyl Chloride
h. 4.3 µg/L Chloroethane
   1.2 µg/L Chloromethane
j. 0.98 µg/L 1,1-Dichloroethane
   0.58 µg/L 1,1-Dichloroethene
k. 0.79 µg/L 1,1-Dichloroethane
   2.3 µg/L *trans*-1,2-Dichloroethene
l. 0.64 µg/L 1,1-Dichloroethane
   0.87 µg/L 1,1-Dichloroethene
   0.71 µg/L cis-1,2-Dichloroethene
   1.4 µg/L *trans*-1,2-Dichloroethene
m. 0.83 µg/L 1,1-Dichloroethane
   2.1 µg/L *trans*-1,2-Dichloroethene

APPENDIX D

DECEMBER 3, 2002 CAP CONDITIONAL APPROVAL LETTER FOR 303 AND 315 DERBY AVENUE

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 FAX (510) 622-2460

Gray Davis
Governor

December 3, 2002
File No. 01S0576 (BG)

Signature Properties
Attn: Mr. Mark Stice
4670 Willow Road, Suite 200
Pleasanton, CA 94588

SUBJECT: Conditional Approval of Corrective Action Plan for 2909 Glascock Street and 303 and 315 Derby Avenue, Oakland, Alameda County

Dear Mr. Stice:

You have informed the Regional Board of Signature Properties' (Signature) intent to acquire three adjoining properties located at 2909 Glascock Street and at 303 and 315 Derby Avenue, Oakland, Alameda County (the Derby Avenue Site) and a fourth adjoining property, 2901 Glascock Street (the Glascock Street Site) and develop the majority of these properties for residential use and the balance for the relocation/expansion of the existing Cal Crew use. You have provided the Regional Board with an October 31, 2002, Corrective Action Plan that consolidates an April 16, 2002, Corrective Action Plan and subsequent amendments dated July 19, 2002, September 16, 2002, and October 15, 2002. You have requested Regional Board concurrence with the proposed remediation strategy and cleanup standards

As discussed below, I conditionally approve the Corrective Action Plan. I also hereby confirm that the Glascock Street Site is an active fuel underground storage tank (UST) site under regulatory oversight of the Alameda County Department of Environmental Health (ACDEH), that ACDEH has separately established remediation standards for the Glascock Street Site, and that ACDEH will continue to provide regulatory oversight of the Glascock Street Site through site closure.

Background

The Derby Avenue and Glascock Street Sites are collectively about 5 acres in size and are located immediately adjacent to the Oakland Estuary. Signature proposes a residential townhouse development with 100 residential units and the relocation/expansion of the existing Cal Crew use at these Sites. Development will include: 1) demolition of all existing structures (with the possible exception of the Cal Crew boathouse or a brick warehouse building adjacent to Derby Avenue), 2) relocation of Cal Crew to the southeasterly portion of the Site, 3) excavation and off-site disposal of shallow soils which exceed objectives for soil remediation or reuse, 4) groundwater and capillary fringe treatment with oxygen releasing compound (ORC), 5) Site development, including shoreline reconstruction/improvements as may be required by other agencies, and 6) long term groundwater monitoring and risk management.

Site development is planned to begin during Spring 2003; soil and groundwater remediation is planned to occur during Summer 2003; and construction of the residential units could begin during Fall 2003.

303 and 315 Derby Avenue

The 303 and 315 Derby Avenue properties were used historically for bulk fuel storage and distribution. They were developed with above ground (AGT) and underground storage tanks (UST), associated

piping, loading racks, and a vehicle maintenance building. Shell Oil Company (1925 – 1980) and later Simmons Terminal Corporation (1980 – 1985) stored fuels and fuel additives in 9 AGTs and 3 USTs with a combined capacity of 69,730 barrels (2,028,660 gallons). The USTs were reportedly removed by the current owner in or about 1985. All but two of the AGTs and a loading rack were removed after 1985.

The properties were purchased by the current property owner, the John and Charlene Weber Trust, in or about August 1985 and are occupied by ICONCO, a construction and demolition contracting business headed by John Weber.

Investigations of the properties in 1985, 2000, and 2001, indicated widespread hydrocarbon contamination in shallow soils and groundwater beneath the Site and the presence of measurable free product in existing monitoring wells. Groundwater occurs at an approximate depth of 10 to 15 feet below ground surface (bgs) and an apparently continuous sand layer underlies the Site at approximately 15 to 25 feet bgs. High concentrations of fuel constituents are detected in the location of the former AGTs and USTs, along Glascock Streeet, along the bulkhead adjacent to the Estuary, and adjacent to a storm drain along the northwestern property boundary. The storm drain is also the hydraulic low point for the property groundwater gradient and may serve as a preferential pathway for petroleum hydrocarbon releases to the Estuary. The properties were added to the LUST database in 1984 as a result of releases at the Site.

2909 Glascock Street

The 2909 Glascock Street property is owned by the University of California and is occupied by the Cal Crew boathouse and dock. Although no significant sources of potential contamination were identified during a Phase I environmental assessment performed by Lowney Asociates, this property may be impacted by contamination emanating from the Derby Avenue properties.

2901 Glascock Street

The 2901 Glascock Street property is also owned by the John and Charlene Weber Trust and used by ICONCO. It is currently occupied by a large warehouse which covers most of the property. Two underground fuel storage tanks were removed from the property in February 1993, and the property is and shall remain an active fuel UST site under ACDEH regulatory oversight.

Corrective Action Plan

The Corrective Action Plan for the Derby Avenue Site includes the following elements:

* removal of any residual free phase product, to the extent practicable;

* protection of human health and ecological resources through the attainment of Site specific cleanup standards (attached); designation of a ecological buffer zone (50 feet inland of top of bank) within which cleanup standards are based on protection of saltwater aquatic life; designation of a residential zone (the remainder of the Derby Avenue Site) within which cleanup standards are based on protection of human health under indoor air, direct contact, and nuisance exposure scenarios;

* building design criteria to include risk management measures such as organic/water vapor barriers or sub-floor ventilation systems to minimize potential adverse effects on indoor air quality;

* excavation and off-site disposal of soils that exceed Site-specific objectives for soil remediation or on-site soil reuse; excavation is planned to an approximate depth of seven feet bgs or to the depth of obvious gross contamination, whichever is greater, and excepting contaminated soils extending laterally within a capillary fringe smear zone;

* placement of a layer of ORC, a mixture of magnesium peroxide, at the bottom of the excavation and backfilling with imported fine grained clean fill;

* ORC injection to deeper groundwater (10 to 20 feet bgs) across the Site and as a reactive barrier along the shoreline. A series of ORC injections repeated at regular intervals may be necessary to attain Site remediation standards within a reasonable time period;

* A soil sampling protocol that is consistent with Regional Board staff's draft memorandum for on-site soil reuse; and

* A long-term groundwater monitoring plan to document ambient conditions and compliance with Site remediation standards.

Conclusion

I concur that the proposed site cleanup standards will adequately protect human health and ecological resources. I approve the Corrective Action Plan on the condition that Signature submit the following technical reports or documents at the appropriate times.

Risk Management Plan that: includes a soil and groundwater management plan for the actions that will be taken during and after Site development to avoid adverse human or ecological health impacts; identifies any on-going risk management measures and the parties responsible for implementation; requires that a deed restriction be recorded that requires three feet of clayey material between the groundwater surface and any building foundation (Compliance with the deed restriction shall be confirmed in writing by a registered Geotechnical Engineer based on visual inspection of the backfill process or existing data such as boring logs. Compliance shall be enforced and tracked through the City of Oakland's permit tracking system.); includes a plain language Fact Sheet to inform prospective purchasers regarding Site conditions (ie. Site history, remedial actions taken, conditions at the time units are offered for sale, potential human health effects, potential future liabilities due to contamination at the Site, and other); and includes the Public Report and Covenants, Conditions, and Restrictions for the Derby Avenue and Glascock Street Sites.

Health and Safety Plan for Construction or Maintenance Activities

Sampling Plan for how Signature will evaluate the effects of groundwater treatment and characterize ambient conditions (ie. verify that an adequate number of samples are collected and that samples are collected outside the zone of influence for groundwater injection).

Interim Remedial Actions: Technical report documenting completion and evaluating the benefits and effectiveness of interim remedial actions.

Soil and Groundwater Remediation: Technical report describing the soil and groundwater remediation actions taken (methods and measures), documenting completion of soil and groundwater remediation, and evaluating the effectiveness, benefits, and impacts of the remedial action.

Responsible Party Status

Once Signature completes the proposed property acquisition, Signature will become, due to its ownership of the property, a primarily responsible party in connection with the remediation of contamination at the Derby Avenue Site. The Regional Board recognizes that Signature did not cause the contamination at the Site and that there exist other parties responsible for releases that caused the contamination at the Site. The Regional Board expects that upon Signature's acquisition of the property, Signature will satisfactorily implement the Corrective Action Plan until closure is obtained.

If you have any questions, please contact Betty Graham of my staff at (510) 622-2358 [e-mail bg@rb2.swrcb.ca.gov].

Sincerely,

Stephen A. Hill
Toxics Cleanup Division Chief

For Loretta K. Barsamian
Executive Officer

Attachment - Soil and Ground Water Cleanup Standards for the Derby Avenue Site

cc: Mailing List

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ATTACHMENT

Soil and Ground Water Cleanup Standards for the Derby Avenue Site

Compound	Site-Wide Ground Water Residential Occupancy Standards (ppb)	Ecological Buffer Zone Ground Water Cleanup Standards (ppb)	Site-Wide Soil Cleanup Standards (ppm)
TPHg	97,500	3,700	0 to 3 feet 500 ppm total gasoline/diesel/residual fuels
TPHd	Removal of free product*	640	3 to 7 feet 1,000 ppm total gasoline/diesel/residual fuels, with 500 ppm maximum gasoline 7 feet to top of capillary fringe 5,000 ppm total gasoline/diesel/residual fuels (plus removal of gross free product)
Benzene	5,800	71	0 to 7 feet 2.4 ppm 7 feet to top of capillary fringe 4.7 ppm
Toluene	530,000	130	8.4
Ethyl-benzene	170,000	290	24
Xylenes	160,000	130	10
MTBE	2.7E+07	1,800	10
Lead	NA	NA	200

* If TPHd concentrations are above 5,000 ppb TPHd, ground water at the sampling point needs to be evaluated for presence of free product (greater than 1/10-inch thick floating on ground water).