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RO327

Alameda County
MAY 05 2003
Environmental Health

May 1, 2003

Mr. Amir Gholami
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Site Summary and Groundwater Monitoring Report**
2345 International Boulevard (formerly E. 14th Street)
Oakland, California
Fuel Leak Case No. RO0000327

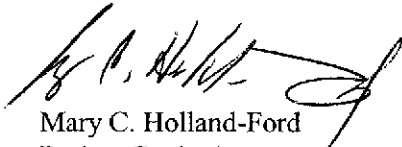


Dear Mr. Gholami:

On behalf of Mr. 's Aaron and Stanley Wong, Cambria Environmental Technology, Inc. (Cambria) has prepared this *Site Summary, Conduit Study and Monitoring Report* for the site referenced above. As requested by the Alameda County Health Care Services Agency, this report incorporates fourth quarter 2002 monitoring results.

We look forward to working with you on this project. If you have any questions or comments, please contact me at (510) 420-3307 or Mr. Bob Clark-Riddell at (510) 420-3303.

Sincerely,
Cambria Environmental Technology, Inc.


Mary C. Holland-Ford
Project Geologist

cc: Mr. Stanley Wong, 2200 East 12th Street, Oakland, California 94606

H:\Sb-2004 (UST Fund)\Stanley Wong (Credit Auto)\Correspondence\Transmittal letter May 2003.doc

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SITE SUMMARY, CONDUIT STUDY AND MONITORING REPORT

Credit World Auto Sales
2345 International Boulevard
Oakland, California 94601
Cambria Project No. 513-1000

April 30, 2003

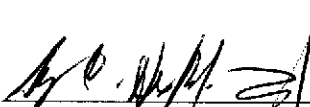
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SITE SUMMARY, CONDUIT STUDY AND MONITORING REPORT
Credit World Auto Sales
2345 International Boulevard
Oakland, California

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SITE SUMMARY, CONDUIT STUDY AND MONITORING REPORT

**Credit World Auto Sales
2345 International Boulevard
Oakland, California
Cambria Project No. 513-1000**

April 30, 2003



1.0 INTRODUCTION

Cambria Environmental Technology, Inc. (Cambria) is pleased to submit this *Site Summary, Conduit Study and Monitoring Report* (Report) for the above-referenced site on behalf of Mr. Stanley Wong. As requested by the Alameda County Health Care Services Agency (ACHCSA) on September 9, 2002, this report summarizes historical site activities and subsurface conditions, and presents our conclusions and recommendations for the site. This report also describes recent activities conducted by Cambria to facilitate evaluation of the site conditions. The recent activities conducted by Cambria include preparation of geologic cross-sections, a conduit study, groundwater monitoring, and free product removal. As verbally requested by new regulatory case worker Amir Gholami, this report discusses hydrocarbon trends, plume stability, methyl tert-butyl ether, and chlorinated hydrocarbons, and includes a risk evaluation. Mr. Gholami requested comparison of contaminant concentrations to risk-based screening levels (RBSLs) established by the San Francisco Bay Regional Water Quality Control Board (RWQCB).

2.0 SITE BACKGROUND

Site background information is presented below. Boring logs, analytical results and additional information from previous investigations is presented in Appendix A.

2.1 Site Use, Location and Description

The site located is located in a commercial/residential area at the southwest corner of the intersection of International Boulevard (formerly East 14th Street) and Miller Avenue in Oakland, California (Figure 1). The site is at an elevation of approximately 23 feet above mean sea level, based on City of Oakland datum. The site is currently operated by Credit World Auto Sales, a

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used car dealership. One building occupies the site, and the building is used as an office and automotive service bay. The remainder of the site is a paved parking area (Figure 2).

In August 1988, SCS removed four underground storage tanks (USTs) along with two dispenser islands and associated piping from the site (Figure 2). Soil samples from the fuel tank showed concentration of total petroleum hydrocarbons as gasoline (TPHg) and benzene. Soil samples from the used oil excavation area showed impact of total petroleum hydrocarbons as diesel (TPHd) and total oil and gas (TOG).



2.2 Site Investigation

Several phases of soil and groundwater assessments have been conducted at the site since 1988. Soil and groundwater analytical results from these investigations is summarized in Tables 2 and 3, respectively.


November 1988: California Environmental Consultants (CEC) advanced three soil borings to assess the extent hydrocarbon impact in the soil and groundwater in the vicinity of the former UST locations. Borings B-1 and B-2 were advanced adjacent to the former fuel USTs. TPHg and benzene, toluene ethylbenzene, and xylenes (BTEX) were detected in the soil and groundwater samples from both borings. Boring B-3, located near the former used oil UST location, showed concentrations of TOG and BTEX in soil and groundwater samples.

May to August 1991: Earth Systems Environmental advanced five onsite borings (TH-1 through TH-5) and installed three groundwater monitoring wells (MW-1 through MW-3) at the site to further delineate the onsite hydrocarbon impact. Borings B-1 and B-2 were advanced adjacent to the former fuel USTs. TPHg and BTEX were detected in the soil and groundwater. Soil and groundwater samples from boring B-3, located near the former used oil UST location, showed concentrations of TOG and BTEX. Groundwater was encountered 19 feet below grade surface (bgs) during this assessment.

July 1993: Tank Protect Engineering (Tank Protect) installed two monitoring wells (TMW-4 and TMW-5) at the site. No petroleum hydrocarbons were detected in soil samples from borings for wells TMW-4 and TMW-5. Separate-phase hydrocarbons (SPH) were observed in wells MW-1, MW-2 and TMW-5 and was removed by hand bailing. Groundwater flow direction beneath the

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site ranged from north-northeast to west-southwest with an average gradient of 0.029 feet/feet during this assessment. Tank Protect concluded that confined and unconfined groundwater is present beneath the site, and that wells MW-2 and MW-3 monitor an upper, unconfined water bearing zone while MW-1, TMW-4, and TMW-5 monitor both the upper unconfined zone and a lower, confined water bearing zone. Tank Protect concluded that sands logged in well MW-2 are characteristic of a buried stream channel, trending north-south beneath and across the site.



April 1997 to May 1997: Tank Protect advanced five borings (SB-1 through SB-5) to assess the offsite hydrocarbon impact. TPHg was detected in soil and water samples from boring SB-5 and benzene was detected in boring SB-2. Benzene and methyl tert-butyl ether (MTBE) were detected in groundwater from boring SB-5. No petroleum hydrocarbons or MTBE were detected in soil and groundwater samples from borings SB-1, SB-3, and SB-4. Tank Protect concluded that northern and southern extent of the hydrocarbon plume has been defined.

May 2001: Sequoia Environmental (Sequoia) advanced seven onsite borings (SB-1 through SB-7), converting boring SB-7 into monitoring well MW-6. No MTBE was detected in all soil samples. SPH was detected in wells MW-1, MW-2, MW-3 and TMW-5, and 4.5 gallons of SPH was removed by hand bailing from the monitoring wells. MTBE was not detected in all groundwater samples Sequoia reports groundwater flow to the west-southwest during this assessment.

Groundwater Monitoring: Groundwater monitoring of site wells was conducted regularly between August 1991 and December 1999, and was conducted once in 2001 and once again in 2002. Groundwater analytical data and groundwater elevation data is summarized in Table 3. Results of the groundwater monitoring are described later in this report.

2.3 Site Remediation

In August 1988, SCS removed four USTs, two dispensers and associated piping from the site (Figure 2). Several remedial activities have been conducted since UST removal.

2.3.1 Soil Excavation

December 1994 through October 1996: Tank Protect conducted multiple phases of soil excavation and verification sampling at the site. As shown on Figure 2, the excavation was conducted around the UST area in the center of the site, and the depth of the excavation ranged

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from 12 feet to 19 feet bgs. A total of 1,550 cubic yards (cy) of soil was excavated. Approximately 1,019 cy of the excavated soil was stockpiled on site, remediated via aeration and hydrogen peroxide treatment, and placed back into the excavation cavity with the approval of the ACHCSA. Approximately 531 cy of soil was removed from the site and disposed of at a licensed facility. The final verification samples detected a TPHg maximum concentration of 110 milligrams per kilogram (mg/kg) in sidewall samples, and 66 mg/kg in excavation bottom samples. Additional information on excavation activities and confirmation sampling results is presented in Appendix A.



2.3.2 SPH Removal

Due to the presence of SPH in site wells, Tank Protect installed a free product recovery system and bailed site wells during groundwater monitoring events. Groundwater monitoring and sampling results and SPH thickness information is presented in Table 3.

The free product removal system first consisted of a selective oil skimmer, down-well mounted bladder product pump, and two product storage drums. Tank Protect reported that trace quantities of free product were removed during between July 27 and August 18, 1995. To enhance free product recovery, Tank Protect installed a continuously operating free product recovery system in August 1997. Tank Protect reported removing 3 to 5 gallons of SPH between August 20, 1997 and January 14, 1998. SPH removal by manual bailing by Cambria is described below and summarized in Table 5.

2.3.3 Bio-Remediation System

A bio-remediation system was installed and operated at the site by Sequoia between March 2002 and July 2002. According to Sequoia, this system pumped water from four wells (MW-1, MW-2, MW-3 and TMW-5) into four "bioreactor" tanks containing microbes, nutrients, and hydrogen peroxide. The treated, microbe-rich water was then injected into the subsurface through an infiltration well (MW-1). Monthly project updates submitted by Sequoia do not provide detailed information about system layout, startup, or operation. Between March 2002 and July 2002, four bio-treatment events were reported where treated, microbe-rich water was injected into well MW-1. The system was shut down and removed in July 2002. Groundwater samples collected by Sequoia on June 20, 2002 after the initiation of bio-remediation activities were generally

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consistent with historical groundwater hydrocarbon concentration trends. Insufficient data is available to assess the effectiveness of the bio-remediation system.

2.3.4 Vacuum Truck Operations

Vacuum truck operations were conducted by Sequoia on July 20, 2002 as an interim remedial measure. Vacuum truck operations were performed to remove the SPH found in wells MW-2, MW-3 and TMW-5. Details are not available describing the length of vacuum truck operations or amount of SPH and groundwater recovered.



3.0 RECENT ACTIVITIES

Cambria prepared geologic cross-sections, conducted a conduit study, monitored site groundwater wells, and bailed SPH from site wells. These activities were required by ACHCSA and are described below.

3.1 Geologic Cross Sections

To illustrate the site's stratigraphic and hydrogeologic characteristics, Cambria constructed geologic cross sections A-A' and B-B' from boring logs (see Figures 3 and 4). The geologic cross sections illustrate that the stratigraphy consists primarily of low to moderately permeable clays and silts with interbedded higher permeability sand and gravel layers to the total depth explored of 36 feet bgs. Two water-bearing units were encountered, and confined and unconfined conditions may be present at the site. Soil analytical results and historic high and low groundwater depths are shown on the cross sections. The site geology and hydrogeology are described further in Section 4.

3.2 Conduit Study

Cambria performed a conduit study to evaluate the potential for subsurface utility conduits to serve as preferential pathways for hydrocarbon migration. To obtain information regarding buried utilities in the site vicinity, Cambria contacted the City of Oakland, Pacific Bell, Pacific Gas & Electric (PG&E), and East Bay Municipal Utilities District (EBMUD). The location, diameter and approximate depth of subsurface conduits beneath and adjacent the site are shown on Figure 5. A

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subsurface utility map from the City of Oakland Department of Engineering is included in Appendix B. Based on the City of Oakland map and telephone conversations with Pacific Bell, PG&E and EBMUD, the depth to nearby utilities ranges from approximately 3 to 18 feet bgs. A telephone line is located at approximately 3.5 feet bgs along International Blvd. A sanitary sewer crosses the site (presumably shallower than 5 feet bgs) and enters a 10-inch diameter sanitary sewer beneath the middle of International Boulevard, which is located at approximately 8 to 9 feet bgs (approximate 15 feet flow line elevation). A water line crosses the site (presumably shallower than 5 feet bgs) and enters a 36-inch diameter water main near the other side of International Blvd located at 5 feet bgs. A 24-inch diameter storm drain, also on the other side of International Blvd, is located approximately 3 feet bgs (top of conduit) to 5 feet bgs (bottom of conduit; approximate 18 feet flow line elevation). A sanitary sewer (presumably 6- or 8-inch diameter) is located near the other side of Miller Avenue at approximately 8 to 9 feet bgs (approximate 14 feet flow line elevation). A 75-inch diameter storm drain is located beneath Miller Avenue at approximately 10 to 16 feet bgs, with an approximate 7 feet flow line elevation as it passes the site. Overhead electrical service runs along Miller Avenue.

To compare sewer and utility depths to groundwater depth, Cambria reviewed existing surveying information. Because surveying datum information was not provided in reviewed reports, Cambria contacted the Renner Survey Company of Burlingame, California, who researched old records and determined that the site wells were surveyed to the City of Oakland bench mark datum (See Appendix C).

As described below, site groundwater has historically fluctuated primarily between approximately 9 and 17 feet bgs, and has occasionally risen to approximately 6 feet bgs at some locations. This information suggests that onsite utility conduits and the shallow offsite storm drain beneath International Boulevard, which are shallower than 6 feet bgs, have not historically intersected site groundwater. The two offsite sanitary sewer conduits, located at approximately 8 to 9 feet bgs, do not likely intersect groundwater during its typical fluctuation between 9 to 17 feet bgs, but likely do intersect groundwater during the occasional groundwater rise to approximately 6 feet bgs. Although groundwater could occasionally intersect these sanitary sewer conduits, the prevalent clay in the shallow site subsurface would limit the potential for hydrocarbons to migrate to nearby conduits. Furthermore, groundwater analytical results from offsite borings SB-1, SB-3 and SB-4, located between the site and the sanitary sewers, suggests hydrocarbons have not migrated offsite

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toward the sanitary sewers. As described below, no hydrocarbons were detected in soil or groundwater from these borings.

Our primary concern is the 75-inch storm drain beneath Miller Avenue located approximately 60 feet from site well SB-7/MW-6, which had SPH detected (0.04 feet) for the first time during monitoring in December 2002. This 75-inch diameter storm drain, located at approximately 16 feet bgs, apparently intersects groundwater almost year round and could be located within the upper sandy water-bearing unit. However, groundwater analytical results from offsite boring SB-1 (installed in 1997 and located between the site and storm drain) suggest that hydrocarbons have not migrated offsite toward the offsite storm drain (no hydrocarbons were detected in soil or groundwater from boring SB-1).



3.3 Groundwater Monitoring

Cambria conducted gauging and monitoring of site wells on October 21, 2002 and December 27, 2002. During the October 2002 gauging event, groundwater monitoring wells MW-1, MW-3 and MW-6 were not accessible. SPH thickness was observed in wells MW-2 and TMW-5 at 0.24 feet and 0.10 feet, respectively. SPH was not observed in well TMW-4. Depth to groundwater in site wells ranged from 13.6 to 16.98 feet bgs. During the December 27, 2002 monitoring event, SPH was observed in all site wells and groundwater sample collection was not performed due to the presence of SPH. Groundwater monitoring data is summarized on Table 3. A groundwater elevation contour map for December 27, 2002 is presented as Figure 6.

To more accurately estimate the groundwater flow direction at the site, Cambria has estimated the top of casing elevation for wells MW-3 and TMW-4. Site records indicate that other site wells were surveyed to the Oakland datum in June 2001, while wells MW-3 and TMW-4 were not resurveyed at that time. The resurveying in June 2001 by the Renner Survey Company effectively lowered the groundwater elevation of the other site wells (MW-1, MW-2, and TMW-5) by an average of 2.80 feet. Cambria assumes that the wells were previously surveyed to NGVD 29 datum, which is approximately 3 feet higher than the City of Oakland datum. To estimate the top of casing (TOC) elevation for wells MW-3 and TMW-4 with respect to City of Oakland datum, Cambria subtracted 3 feet from the prior TOC elevation from August 1993. Figure 6 and Table 3 present the revised groundwater elevation based on the Oakland datum.

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3.4 SPH Removal Activities

During the December 2002 monitoring event, SPH was observed in all site wells. Cambria technicians removed approximately 13.5 liters (21.78 pounds) of SPH from site wells by hand bailing on December 27, 2002. To estimate prior SPH removal by hand bailing and/or well purging by Tank Protect, Cambria multiplied the tabulated SPH thickness (feet) by the well casing area (i. e., 2-inch diameter casing = 0.60 liters per foot) for each purging/bailing event. Cambria estimates that approximately 69.6 pounds of SPH were bailed and/or purged by others. In addition, Tank Protect reported that a continuous free product recovery system removed approximately 3 to 5 gallons (18.3 to 30.5 pounds) between August 1997 and January 1998. As summarized on Table 5, Cambria estimates that 121.88 pounds of petroleum hydrocarbons have been removed from site wells to date.

4.0 SUBSURFACE CONDITIONS

The site geology, hydrogeology, chemicals of concern (COC), and hydrocarbon distribution in soil and groundwater are described below.

4.1 Geology

The site is located within the Coast Range geomorphic province of California. In general, the Coast Range province consists of Jurassic eugeosynclinal basement rocks and Cretaceous and Cenozoic sedimentary and volcanic rocks that have been faulted and folded with a northwest-southeast trend. The site lies within the Bay Plains Basin. Sediments beneath the site consist of coalescing alluvial deposits from the Diablo Range to the east known as the San Leandro Cone. According to the USGS Professional paper 943, the site is located on quaternary age alluvial deposits consisting of medium-grained, unconsolidated moderately sorted permeable fine sand, silt, and clayey silt with thin beds of coarse sand.

The site geology consists primarily of low to moderately permeability clays and silts with interbedded higher permeability sand and gravel layers to the total depth explored of 36 feet bgs. Aggregate base material (fill) under site asphalt at approximately one foot bgs is underlain by dry gray to black or brown clay ranging to total depths of 7½ to 12 feet bgs, with damp gray to green clay to ranging from approximately 17 to 23 feet bgs. This shallow clay is underlain by a

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discontinuous water-bearing unit from approximately 17 to 27 feet bgs, which consists of silty to clayey sand grading to brown clayey sand. The silty/clayey sand unit is shallowest near wells MW-2 and SB-7/MW-6. This water-bearing unit is underlain by gravelly clay to a depth of 32½ feet bgs. A deeper relatively permeable sand and gravel layer is present in boring for wells MW-1 and TMW-4 at depths of 31.5 to 35 feet bgs and 30.5 to 32.5 feet, respectively. It cannot be determined if the lower and upper higher permeability sand layers shown in the geologic cross sections are interconnected or separated by the lower permeability clay layers. Geologic cross-sections are shown on Figures 3 and 4. The upper and lower sand units may be discontinuous, and may be confined or unconfined.

The boring logs presented in Appendix A illustrate that wells MW-1 and MW-3 appear to be screened across two water-bearing units. Well TMW-4, screened from 14 to 34 feet bgs, may also be screened across the two water-bearing units; the well screens the lower water-bearing unit at 30 to 32.5 feet bgs and may encounter thin sand stringer units at approximately 15 feet bgs (Figure 4). Similarly, well MW-2 is screened from 15 to 35 feet bgs, and may encounter thin sand stringer units near the lower water-bearing unit at approximately 32 to 36 feet bgs (Figure 3). Based on historic high and low water levels shown on Figures 3 and 4, all site well screens are often fully submerged by site groundwater.

4.2 Hydrogeology

Major groundwater bearing materials beneath the Bay Plain Basin occur at depths ranging from 50 feet to more than 1,000 feet bgs. Groundwater from these aquifers is presently used largely for irrigation and industrial purposes. Regionally, groundwater flow is generally to from the Diablo Range toward San Francisco Bay. The nearest surface water body to the site is Brooklyn Basin Tidal Canal located ½ mile to the west.

Since 1991, the depth to groundwater beneath the site has ranged from approximately 6.5 to 17 feet bgs. However, the groundwater depth has typically fluctuated between approximately 10 to 15 feet bgs. The historical high and low groundwater depths are shown on Figures 3 and 4. Historically, the groundwater flow direction has varied significantly, generally flowing either northwestward or radially outward from the center of the site. Cambria and previous site consultants have inferred a radial direction of groundwater flow based on groundwater elevation data from site wells dating back to August 1993. A radial groundwater flow direction could be

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explained by water mounding within the UST cavity (from August 1993 to September 1994) or within the UST excavation (after December 1994 when excavation commenced). It is also possible that infiltrating rainwater enters the former UST excavation area through the asphalt cap or via the onsite water and sanitary sewer conduits presumably located in the unsaturated zone. The radial groundwater flow direction could also be explained by the apparent screening of some site wells across two water-bearing units. The well screen intervals (particularly well MW-1) could also contribute to groundwater mounding beneath the site since the lower water-bearing unit may be confined. However, as described in Section 4.1, the actual groundwater flow direction may be different if based on wells with appropriate screening. Wells are screened for up to 20 feet in length, are screened across two water-bearing units, and are often fully submerged by site groundwater. The well screen intervals do not allow proper evaluation of SPH thickness in the subsurface. Well completion data is summarized on Table 4. The estimated groundwater flow direction from past monitoring events is summarized on Table 1.

4.3 Hydrocarbon Distribution

The COCs at this site are petroleum hydrocarbons as described below. The extent of hydrocarbons in the site subsurface has been assessed by several investigations since 1988. One investigation in 1997 evaluated the offsite extent of hydrocarbons using soil borings. Described below are the COCs and the distribution of hydrocarbons in soil and groundwater.

4.3.1 Chemicals Of Concern

During site investigation activities, only petroleum hydrocarbons and MTBE have been detected in analyzed soil and groundwater. The detected petroleum hydrocarbons are predominately in the gasoline, oil and grease ranges. Oil and grease has been detected primarily near the former used oil UST.

MTBE has been detected in groundwater from one boring grab sample [12 micrograms per liter ($\mu\text{g/L}$)] and sporadically in select wells by Environmental Protection Agency (EPA) Method 8020. MTBE detection have *not* been confirmed by EPA Method 8260 analysis. No MTBE was detected in site soil. This information suggests that MTBE may not be a COC at this site, and that groundwater analysis by EPA Method 8260 is merited for any detected MTBE by EPA Method 8020.

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During removal of the former fuel USTs and the used oil UST (and during an investigation in 1988), select soil and groundwater samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260 and for halogenated VOCs (HVOCs) by EPA Method 8010. No HVOCs were detected in analyzed samples. Only BTEX compounds detected in samples analyzed for VOCs by EPA Method 8260. MTBE, VOC and HVOC data is presented in Tables 2 and 3. For purposes of the hydrocarbon distribution presented below, petroleum hydrocarbons are considered the COCs for the site.

4.3.2 Soil

Petroleum hydrocarbons were detected in 21 of the 25 borings with analyzed soil samples. Soil analytical results are summarized in Table 2. The extent of TPHg and benzene in soil is shown on Figures 8 and 9, respectively. The vertical extent of TPHg is shown on geologic cross-sections on Figures 3 and 4.

Soil analytical results indicate that petroleum hydrocarbons are primarily located in the capillary fringe and saturated zone at depths ranging from approximately 10 to 25 feet bgs. Shallower unsaturated soil has presumably been remediated by site excavation activities. Limited shallow soil data is available, and the maximum TPHg concentration detected in shallow (<10 feet bgs) was 2.4 mg/kg at 5.5 feet bgs in TMW-5, which was overexcavated around and adjacent the former USTs.

TPHg concentrations in soil are highest north and northwest of former UST excavation area (see Figure 8). The maximum detected TPHg concentrations in subsurface (≤ 10 feet bgs) soil are 4,320 mg/kg TPHg in MW-2 at 10 feet bgs, 1,800 mg/kg in SB-3 at 15 feet bgs, and 450 mg/kg in TH-4 at 19.5 feet bgs. Benzene concentrations in soil are also highest north and northwest of the former UST area, although elevated benzene concentrations are also detected southwest of the former USTs. The maximum benzene concentration detected was 61 mg/kg at 15 feet bgs in B-5, but this sample location from the 1988 UST removal may have been overexcavated. The maximum TOG concentration detected was 1,600 mg/kg in TH-4 at 19.5 feet bgs. This sample was near the former used oil UST location in the northwestern portion of the site.

The lateral extent of hydrocarbons in soil appears to be adequately defined by onsite and offsite borings in all directions, except for benzene in the west and southwest directions. No BTEX

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compounds were detected by the four offsite borings (SB-1, SB-3, SB-4, and SB-5) installed in 1997. TPHg was detected in only one of the four offsite borings, at a concentration of 91 mg/kg (SB-5). However, the three offsite borings with no TPHg or BTEX detected were apparently sampled in the saturated zone, at depths of approximately 22 and 27 feet bgs. The one boring sampled near the presumed capillary fringe (SB-5 sampled at 11.5 to 12 feet bgs) had the TPHg detection of 91 mg/kg. While *soil* sampling may not have adequately characterized capillary fringe soil, *groundwater* analytical results from these four offsite borings suggests that petroleum hydrocarbons have only migrated offsite in the northwest direction (near SB-5). No hydrocarbons were detected in grab groundwater north or south of the site, based on results from SB-1, SB-3 and SB-4 described below.



4.3.3 Groundwater

Groundwater monitoring data and analytical results indicate that SPH is present across the site in all monitoring wells, the SPH plume is not stable, elevated benzene is present onsite, and the hydrocarbon extent is not fully characterized. Groundwater analytical results and monitoring data are summarized in Table 3. The current and historic maximum SPH thickness observed in the site wells is presented in Figure 7. The historical extent of benzene concentration in groundwater is shown on Figure 10.

Cambria observed SPH in all site wells during the most recent monitoring event on December 27, 2002. As shown on Figure 7, the SPH thickness on this date ranged from 0.04 feet (MW-6) to 0.43 feet (MW-2). Most importantly, SPH was detected for the first time in wells TMW-4 and MW-6 during this monitoring event. The maximum SPH thickness reported in site wells has been 7.44 feet in MW-2 (March 1995), 4.36 feet in well MW-1 (June 2001), 0.46 feet in MW-3 (March 1995), and 0.10 feet in TMW-5 (December 2002) (see Figure 7). This indicates that the greatest SPH thickness has been observed north of the former USTs (MW-2) and west-southwest of the former USTs (MW-1 and MW-3). In general, SPH thickness increases when the groundwater elevation lowers, as especially observed in wells MW-1 and MW-3. The SPH appears to be primarily located in the upper sand unit, and is likely present in historic smear zone comprised of clayey soil and possibly thin interbedded sand units. In well MW-2, the SPH thickness is typically highest when the groundwater elevation rises, possibly due to the rising water table entering the upper sand unit where elevated TPHg was detected in soil and SPH is likely present. The submerged well screen is likely effecting the SPH thickness observed in well MW-2. The detection of SPH for the first time in perimeter site wells TMW-4 and MW-6 could be

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explained by SPH migration caused by groundwater mounding and the inferred radial groundwater flow direction. The SPH detection could also be explained by historic high groundwater elevation for wells TMW-4 and MW-6 during the recent monitoring.

Groundwater analytical results suggest that dissolved hydrocarbons are present across most of the site, with the highest concentrations near the former UST area. The historical benzene concentrations detected in site groundwater are shown on Figure 9. The highest benzene concentrations (>10,000 µg/L) have been detected in 26,000 µg/L in well TMW-5 (in the former UST area), 17,000 µg/L in boring B-2 immediately adjacent TMW-5, and 14,000 µg/L in boring B-1 just southwest of the former UST area. Elevated benzene concentrations (>1,000 µg/L) have been detected southwest of the former UST area (MW-1, MW-3, MW-6 and SB-5), and north of the former UST (MW-2).

The horizontal extent of the dissolved hydrocarbon plume has been adequately characterized in all directions except the southwest and eastern directions. Groundwater analytical results from offsite borings SB-1, SB-3 and SB-4 (1997) and perimeter borings SB-1, SB-2 and SB-6 (2001) suggest that little or no hydrocarbons have not migrated north, east and south of the site. No hydrocarbons were detected in groundwater samples from borings SB-1, SB-3, SB-4, SB-6, and low concentrations were detected in onsite borings SB-1 and SB-2. With the recent detection of SPH in TMW-4, the hydrocarbon plume is not adequately characterized in the eastern direction. With benzene and other hydrocarbons detected in each of the five borings/wells along the southwestern property boundary, the extent of dissolved hydrocarbons is not adequately characterized in the southwest direction. Offsite assessment in this direction has been constrained by the large building on the adjacent property.


5.0 RISK EVALUATION

To evaluate the potential risk from residual hydrocarbons, Cambria conducted a risk evaluation using the RWQCB guidance document *Application of Risk Based Screening Levels and Decision Making to Sites With Impacted Soil and Groundwater* (RWQCB 2001). To conduct the risk evaluation, Cambria compared residual contaminant concentration data to Tier 1 Risk Based Screening Levels (RBSLs) ('final RBSLs') established by the RWQCB. For constituents whose residual concentrations exceed the Tier 1 RBSLs, Cambria conducted a Tier 2 risk evaluation in

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accordance with the RWQCB guidance document. The Tier 2 risk evaluation involves modifying the Tier 1 RBSLs based on site-specific considerations. This risk evaluation can assist with the establishment of target cleanup levels for residual contaminants in soil and groundwater. This risk evaluation does not consider or apply to SPH present in the site subsurface.

5.1 Soil



Soil analytical results and select RBSLs for the COCs are summarized on Table 2. Table 2 shows the Tier 1 *final* RBSLs for both residential and commercial categories where site groundwater is not considered a current or potential drinking water resource. Cambria included the residential RBSLs due to the presence of residences north of the site; the building southwest of the site is commercial. Table 2 also shows the 'Tier 2' RBSLs for indoor air impacts, for residential and commercial categories. Cambria presents the RBSLs for surface soil (≤ 3 meters bgs). The RBSLs for *subsurface* soil (> 3 meters bgs) are identical or similar to the surface soil RBSLs and would be applicable to most soil analytical results which are > 3 meters bgs.


Petroleum hydrocarbon concentrations in soil exceeding the Tier 1 RWQCB RBSLs for surface soil have been detected in several borings at the site. As shown on Table 2, concentrations of TPHg, TOG, benzene, ethylbenzene and xylenes in some borings exceed the commercial Tier 1 final RBSLs. Figures 8 and 9 present the historical TPHg and benzene concentrations in soil, respectively, with concentrations exceeding the commercial final RBSL shown in bold. TPHg and benzene concentrations exceeding the Tier 1 final RBSLs are located nearby the former UST area, with one benzene RBSL exceedance further from the former UST area, located along the southwest property boundary at 20 feet bgs in SB-5 (2001).

To conduct a 'Tier 2' evaluation, Cambria considered modifying Tier 1 RBSLs based on site-specific considerations. All the final RBSLs (except for benzene) are derived for the risks associated with petroleum hydrocarbons leaching from soil into groundwater. Since the impacted soil is primarily in the capillary fringe/saturated zone, and since groundwater data is present, Cambria assumes that soil leaching is not a regulatory concern. With the site fully paved and no nearby ecological receptors, Cambria assumes that the RBSL protective of indoor air impact would be the appropriate RBSL for the site. Again, the indoor air impact RBSLs for residential and commercial site use are summarized on Table 2. If indoor air impact is considered the only potential completed pathway for exposure to residual compounds, only select benzene

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concentrations exceed the indoor air impact RBSL (commercial use). Figure 9 presents benzene concentrations exceeding the indoor air impact RBSL, which is the same as the Tier 1 RBSL for benzene. These exceedences are located near the former USTs and along the southwest property boundary at 20 feet bgs. No RBSLs for indoor air impacts are established for TPH compounds in soil.

5.2 Groundwater



Groundwater analytical results and select RBSLs for the COCs are summarized on Table 3. Table 3 shows the Tier 1 *final* RBSLs for sites where groundwater is not considered a current or potential drinking water resource. Table 3 also shows the 'Tier 2' RBSLs for indoor air impacts. The groundwater RBSLs are not differentiated into residential and commercial categories.

Petroleum hydrocarbon concentrations in groundwater exceeding the Tier 1 RWQCB RBSLs for surface soil have been detected in several borings/wells at the site. As shown on Table 3, concentrations of TPHg, TOG, benzene, toluene, ethylbenzene, xylenes, and MTBE in some groundwater samples exceed the commercial Tier 1 final RBSLs.

To conduct a 'Tier 2' evaluation, Cambria considered modifying Tier 1 RBSLs based on site-specific considerations. The site Tier 1 final RBSLs are derived for the risks associated with protection of aquatic life. With the site fully paved and no nearby ecological receptors, Cambria assumes that the RBSL protective of indoor air impact would be the appropriate RBSL for the site. Again, the indoor air impact RBSLs are summarized on Table 3. No RBSLs for indoor air impacts are established for TPH compounds in groundwater.

If indoor air impact is considered the only potential completed pathway for exposure to residual compounds, only select benzene concentrations exceed the indoor air impact RBSL. Because site surface soil consists primarily of clay, Cambria used the benzene RBSL associated with fine-grained soil (5,800 µg/L) rather than coarse-grained soil (84 µg/L). Figure 10 presents benzene concentrations exceeding the indoor air impact RBSL. The benzene RBSL exceedences are located primarily near the former UST area (TMW-5, B-1 and B-2). While RBSL exceedences were also detected along the southwest property boundary in a grab sample from boring SB-5, groundwater samples from nearby monitoring well MW-3 are likely more representative of dissolved benzene concentrations near the southwest boundary of the site.

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6.0 CONCLUSIONS

Cambria concludes the following based on our review of the site conditions:

1. Separate-phase hydrocarbons and elevated concentrations of petroleum hydrocarbons are present in site soil and groundwater. These petroleum hydrocarbons are primarily TPHg and BTEX compounds, and TOG near the former used oil UST location. Although MTBE has been detected sporadically in groundwater, MTBE has not been confirmed by EPA Method 8260 analysis. If MTBE is confirmed in the subsurface, the MTBE would likely be from another source since the USTs were removed in 1988 prior to common MTBE use.
2. The site hydrogeology consists of primarily of clays and silts with interbedded higher permeability sand and gravel layers to the total depth explored of 36 feet bgs. The two sand units (upper and lower) may be discontinuous, and may be confined or unconfined by the clay layers. The groundwater flow direction at the site has varied historically, generally flowing either northwestward or radially outward from the center of the site. A radial groundwater flow direction could be explained by water mounding within the UST excavation cavity or from the apparent screening of some site wells across the two water-bearing sand units. Cambria has concluded that wells MW-1 and MW-3 appear to be screen across two water-bearing units, wells MW-2 and TMW-4 may be screened into two water-bearing units, and all site well screens are often fully submerged by site groundwater.
3. Separate-phase hydrocarbons (i.e., free product) have been detected in all six site wells and are likely primarily located in the capillary fringe area and submerged in the upper sandy unit at the site. SPH thickness is typically greatest when groundwater levels decrease and expose the SPH, although SPH thickness is greatest in well MW-2 when the groundwater level rises into the upper sand unit. The recent detection of SPH in perimeter site wells TMW-4 and MW-6 for the first time suggests that the SPH plume is not stable.
4. Petroleum hydrocarbons in soil are primarily located in the capillary fringe and saturated zone at depths ranging from approximately 10 to 25 feet bgs, with the highest concentrations detected north and northwest of former UST excavation area and elevated benzene concentrations southwest of the former USTs. Shallower unsaturated soil has presumably been remediated by site excavation activities. The lateral extent of hydrocarbons in soil

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appears to be adequately defined by onsite and offsite borings in all directions, except for benzene in the west and southwest directions.


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5. Hydrocarbons are present in groundwater across most of the site, with the highest concentrations near the former UST area. The horizontal extent of the dissolved hydrocarbon plume has been adequately characterized in all directions except the southwest and eastern directions. With the recent detection of SPH in TMW-4, the hydrocarbon plume is not adequately characterized in the eastern direction. With benzene and other hydrocarbons detected in each of the five borings/wells along the southwestern property boundary, the extent of dissolved hydrocarbons is not adequately characterized in the southwest direction. Offsite assessment in this direction has been constrained by the large building on the adjacent property.
 6. Results of the conduit study indicate that dissolved hydrocarbons and SPH are migrating toward the 75-inch diameter storm drain beneath Miller Avenue located approximately 60 feet from site well MW-6. This storm drain, located at approximately 13 to 16 feet bgs, apparently intersects groundwater year-round, is fully submerged by groundwater periodically, and could be located within the upper sandy water-bearing unit. Groundwater analytical results from offsite boring SB-1, located between the site and the storm drain, suggest that hydrocarbons have not migrated offsite toward the offsite storm drain.
 7. Our risk evaluation indicates while TPH, TOG and BTEX concentrations in soil and groundwater exceed Tier 1 RBSLs, only *benzene* exceeds the proposed 'Tier 2' RBSLs based on site-specific considerations. The proposed Tier 2 RBSL for benzene is the RBSL for indoor air impact. The Tier 2 RBSL exceedences for benzene are located nearby the former UST area and along the southwest property boundary at 20 feet bgs.
 8. Although SPH and elevated petroleum hydrocarbons are present in the site subsurface, the migration and exposure to residual hydrocarbons can be managed. The current site capping by the building foundation and site pavement helps manages the risk. Site remediation would abate residual hydrocarbons and further reduce the risk associated with the subsurface hydrocarbons.

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7.0 RECOMMENDED ACTIVITIES

Based on our conclusions for the site, Cambria offers the recommendations presented below.

7.1 Additional Investigation, Well Replacement, and Well Surveying



Cambria recommends preparation of a workplan to further define the extent of hydrocarbons at the site. The proposed investigation would assess offsite soil and groundwater south and east of the site, beyond the recent observation of free product in site wells TMW-4 and MW-6. The investigation would further evaluate conditions between the site and the 75-inch diameter storm drain beneath Miller Avenue, which could act as a conduit for hydrocarbon migration. The investigation would include continuous coring to further evaluate soil hydrogeology and the depth of SPH. The workplan would also evaluate the existing well screen intervals and propose abandonment and replacement of wells. Finally, the investigation workplan would propose well installation for feasibility testing (recommended below). In conjunction with the additional investigation, Cambria recommends surveying of wells MW-3 and TMW-4 (and any new wells) to the City of Oakland datum. The other site wells have been surveyed to the Oakland datum, while wells MW-3 and MW-4 are presumably surveyed to NGVD 29 datum, which is approximately 3 feet higher than the Oakland datum.

7.2 Feasibility Testing

To facilitate evaluation of appropriate remedial alternatives, Cambria recommends conducting a feasibility test. The feasibility test would most likely use dual-phase extraction techniques to assess hydrocarbon recovery rates, vapor flow rates, groundwater extraction rates, SPH recovery rates and thickness in the formation, and radius of influence. Results of the feasibility testing would be used in preparation of a corrective action plan for site remediation. Cambria recommends preparation of a feasibility test plan in conjunction with the investigation workplan.

7.3 Interim Remedial Activities

Because of the unstable SPH plume and the continued presence of SPH in site wells, Cambria recommends implementing hydrocarbon recovery using passive skimmers and hand bailing. During the recent monitoring event Cambria hand bailed approximately 13.5 liters of SPH from

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site wells. To enhance SPH recovery, Cambria recommends installing passive SPH skimmers in wells MW-1 and MW-2, which have historically contained the highest SPH thickness at the site. The passive skimmers consist of an active buoy assembly designed to remove free product to a sheen. The buoy allows free product but not water to collect in the 2 liter (0.53 gallon) collection canister. The buoy system is equally effective with water table fluctuations as great as 24 inches.

Cambria proposes hand bailing of the remaining site wells that contain SPH. Cambria proposes monitoring/emptying of the skimmers and hand bailing on a monthly basis during the winter and spring months, and on a semi-monthly (every two weeks) during the dry summer and fall months. The monitoring, emptying and bailing schedule would be modified as dictated by the actual SPH recovery rates in the individual wells. SPH recovery may be discontinued upon implementation of a more permanent corrective action.

7.4 Quarterly Monitoring and Sampling

Cambria recommends continued quarterly groundwater monitoring to further evaluate SPH thickness, groundwater flow direction, and plume stability. All groundwater wells will be gauged and inspected for SPH on a quarterly basis. Groundwater samples will be collected from site wells without SPH and analyzed for TPHg by modified EPA Method 8015, and BTEX and MTBE by EPA Method 8020, with confirmation analysis for detectable MTBE by EPA Method 8260. Quarterly groundwater monitoring and SPH removal reports will be prepared.

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Table 1. Groundwater Flow Direction and Gradient

Credit World Auto Sales

2345 International Boulevard, Oakland, California

Date Measured	Hydraulic Gradient	Flow Direction
04-16-92	0.021	Northwest
06-11-93	0.026	Northwest
08-17-93	0.029	Radial
03-31-94	0.050	Radial
06-27-94	0.020	Radial
09-16-94	0.0179-0.0411	Radial
03-31-95	0.075	Radial
06-28-95	0.025-0.053	Radial
09-28-95	0.025	Northwest
12-26-95	0.048	Radial
03-22-96	0.034-0.132	Radial
06-20-96	0.016	Northwest
09-30-96	0.019	Northwest
12-27-96	0.024-0.029	North-Northwest
03-07-97	0.020-0.035	North-Northwest
06-28-97	0.027-0.04	Northwest
09-18-97	0.02-0.026	Radial
12-30-97	0.025-0.030	North-Northwest
03-25-98	0.021-0.033	Radial
06-29-98	0.013-0.019	Northwest
10-02-98	0.011-0.019	Northwest
12-08-98	0.23	Northwest
03-26-99	0.01	North-Northwest
06-15-99	0.01	Northwest
09-15-99	0.011	North-Northwest
12-28-99	0.02	North-Northwest

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**Table 2. Soil Analytical Data - Credit World Auto Sales
2345 International Boulevard, Oakland, California**

Sample Location	Date Sampled	Depth (feet)	TPHg (mg/kg)	TPHd (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	VOCs (mg/kg)	HVOCs (mg/kg)
<i>Residential Final RBSL - non drinking water Risk Driver</i>			400 soil leaching	500 soil leaching	500 soil leaching	0.180 indoor air	8.4 soil leaching	24 soil leaching	1.0 soil leaching	1.0 soil leaching	N/A	N/A
<i>Commercial Final RBSL - non drinking water Risk Driver</i>			400 soil leaching	500 soil leaching	500 soil leaching	0.39 indoor air	8.4 soil leaching	24 soil leaching	1.0 soil leaching	1.0 soil leaching	N/A	N/A
<i>Residential RBSL - indoor air impact</i>			NE	NE	NE	0.180	30	76	210	3.4 (68)	N/A	N/A
<i>Commercial RBSL - indoor air impact</i>			NE	NE	NE	0.390	89	220	210	12 (290)	N/A	N/A
SCS Engineers (UST Removal Sampling)												
B-1	8/25/1988	15	360	--	--	0.3	2.2	3.4	31	--	--	--
B-2	8/25/1988	15	1,500	--	--	3.0	6.4	2.5	160	--	--	--
B-3	8/25/1988	15	130	--	--	0.17	0.4	1.3	10	--	--	--
B-4	8/25/1988	--	150	--	--	0.8	1.9	8.7	86	--	--	--
B-5	8/25/1988	--	790	--	--	61	1.3	4.8	30	--	--	--
B-6	8/25/1988	--	1,300	--	--	1.5	4.7	9.6	75	--	--	--
B-7	8/25/1988	--	--	110	570	(<5.0)	(<5.0)	(5.0)	(48)	--	ND*	--
B-8	8/25/1988	--	--	65	780	(<5.0)	(<5.0)	(5.0)	(12)	--	ND*	--
California Environmental Consultants												
B-1	10/3/1988	15	3.4	--	--	0.31	<0.1	<0.1	0.14	--	--	--
B-2	10/3/1988	15	83	--	--	1.6	1.1	1.8	9.6	--	--	--
B-3	10/3/1988	15	--	--	88	(0.36)	(0.65)	(0.47)	(0.85)	--	ND*	ND
Earth Systems Environmental												
TH-1	8/21/1991	15-15.5	2,775	--	--	1.235	1.060	1.625	5.280	--	--	--
TH-2	8/21/1991	10-10.5	360	--	--	<0.005	<0.005	<0.005	0.770	--	--	--
TH-2	8/21/1991	29.5-30	50	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--
TH-3	8/22/1991	10-10.5	10	--	60	<0.005	<0.005	<0.005	<0.005	--	--	--
TH-3	8/22/1991	18.5-19	10	--	20	<0.005	<0.005	<0.005	<0.005	--	--	--
TH-4	8/22/1991	10-10.5	25	--	40	<0.005	<0.005	<0.005	0.175	--	--	--
TH-4	8/22/1991	19.5-20	450	--	1,600	<0.005	<0.005	<0.005	<0.005	--	--	--
TH-5	8/22/1991	10-10.5	10	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--
TH-5	8/22/1991	18-18.5	<5.0	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--
MW-1	5/22/1991	10-10.5	150	--	--	0.460	0.365	0.305	0.960	--	--	--
MW-1	5/22/1991	15-15.5	255	--	--	1.505	4.255	4.015	4.270	--	--	--
MW-2	8/21/1991	10-10.5	4,320	--	--	7.275	6.620	3.470	13.815	--	--	--
MW-2	8/21/1991	15-15.5	160	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--
MW-3	8/22/1991	10-10.5	50	--	90	<0.005	<0.005	<0.005	<0.005	--	--	--
MW-3	8/22/1991	15-15.5	25	--	40	<0.005	<0.005	<0.005	<0.005	--	--	--
Tank Protect Engineering												
TMW-4	7/22/1993	5.5-6	<0.500	--	--	<0.0050	<0.0050	<0.0050	<0.015	--	--	--
TMW-4	7/22/1993	10.5-11	<0.500	--	--	<0.0050	<0.0050	<0.0050	<0.015	--	--	--
TMW-4	7/22/1993	15.5-16	0.940	--	--	<0.0050	<0.0050	<0.0050	<0.015	--	--	--
TMW-5	7/23/1993	5.5-6	2.4	--	--	0.026	<0.0050	<0.0050	0.053	--	--	--
TMW-5	7/23/1993	10.5-11	14	--	--	0.900	<0.0050	1.6	<0.140	--	--	--
TMW-5	7/23/1993	15.5-16	16	--	--	0.840	<0.0050	0.690	1.3	--	--	--
SB-1	4/21/1997	26.5-27	<1.0	--	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SB-2	4/21/1997	16.5-17	3.7	--	--	0.012	0.0071	0.042	<0.005	<0.05	--	--
SB-3	5/1/1997	21.5-22	<1.0	--	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SB-4	5/1/1997	21.5-22	<1.0	--	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SB-5	5/1/1997	11.5-12	91	--	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--

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Table 2. Soil Analytical Data - Credit World Auto Sales
2345 International Boulevard, Oakland, California

Sample Location	Date Sampled	Depth (feet)	TPHg (mg/kg)	TPHd (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	VOCs (mg/kg)	HVOCs (mg/kg)
<i>Residential Final RBSL - non drinking water</i>			400	500	500	0.180	8.4	24	1.0	1.0	N/A	N/A
<i>Risk Driver</i>			soil leaching	soil leaching	soil leaching	indoor air	soil leaching	soil leaching	soil leaching	soil leaching		
<i>Commercial Final RBSL - non drinking water</i>			400	500	500	0.39	8.4	24	1.0	1.0	N/A	N/A
<i>Risk Driver</i>			soil leaching	soil leaching	soil leaching	indoor air	soil leaching	soil leaching	soil leaching	soil leaching		
<i>Residential RBSL - indoor air impact</i>			NE	NE	NE	0.180	30	76	210	3.4 (68)	N/A	N/A
<i>Commercial RBSL - indoor air impact</i>			NE	NE	NE	0.390	89	220	210	12 (290)	N/A	N/A
Sequoia Environmental												
SB-1	5/22/2001	10	240	--	--	<0.04	0.19	0.19	0.45	<0.20	--	--
SB-1	5/22/2001	15	3.0	--	--	<0.005	0.005	0.009	0.013	<0.05	--	--
SB-2	5/22/2001	10	89	--	--	<0.005	<0.005	0.033	0.25	<0.10	--	--
SB-2	5/22/2001	15	<1.0	--	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SB-2	5/22/2001	20	<1.0	--	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SB-3	5/22/2001	10	300	--	--	<0.01	<0.01	0.76	1.2	<0.20	--	--
SB-3	5/22/2001	15	1,800	--	--	3.3	5.5	48	53	<2.0	--	--
SB-3	5/22/2001	20	8.5	--	--	0.009	0.023	0.10	0.12	<0.05	--	--
SB-4	5/22/2001	10	<1.0	--	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SB-4	5/22/2001	15	230	--	--	0.23	<0.005	1.5	1.1	<0.10	--	--
SB-4	5/22/2001	20	<1.0	--	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SB-5	5/22/2001	15	25	--	--	0.035	<0.005	0.10	0.11	<0.05	--	--
SB-5	5/22/2001	20	1.9	--	--	0.62	<0.005	<0.005	<0.005	<0.05	--	--
SB-6	5/22/2001	10	<1.0	--	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SB-7 (MW-6)	5/22/2001	10	18	--	--	<0.005	<0.005	0.056	0.11	<0.05	--	--
SB-7 (MW-6)	5/22/2001	15	68	--	--	0.28	0.25	0.36	0.35	<0.10	--	--
SB-7 (MW-6)	5/22/2001	20	<1.0	--	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--

Abbreviations and Notes:

1,300 = concentrations exceeding commercial final RBSLs shown in bold.

TPHg = Total petroleum hydrocarbons as gasoline

Benzene, Toluene, Ethylbenzene, Xylenes by EPA Method 8020, and by 8260 if in parenthesis

MTBE methyl tert butyl ether by EPA Method 8020

VOCs = volatile organic compounds by EPA Method 8260

ND = not detected above laboratory detection limits

ND* = not detected with the exception of reported concentrations for benzene, toluene, ethylbenzene and xylenes

HVOCs = halogenated volatile organic compounds by EPA Method 8010

mg/kg = Milligrams per kilogram

<n = Below detection limit of n mg/kg

-- = Not analyzed

Residential RBSLs = Table B-1 - Risk Based Screening Level Components for Surface Soil (Potentially Impacted Groundwater is not a Current or Potential Source of Drinking Water) for commercial/industrial reuse for established by the SFBRWQCB, Interim Final December 2001. (The risk driver is also shown). MTBE RBSL for coarse soil (fine soil).

Commercial RBSLs = Table B-2 - Risk Based Screening Level Components for Surface Soil (Potentially Impacted Groundwater is not a Current or Potential Source of Drinking Water) for commercial/industrial reuse for established by the SFBRWQCB, Interim Final December 2001. (The risk driver is also shown). MTBE RBSL for coarse soil (fine soil).

RBSLs for indoor air = Tables B-1 and B-2 from SFBRWQCB above, Interim Final December 2001

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Table 3. Groundwater Analytical Data - Credit World Auto Sales, 2345 International Boulevard, Oakland, California

Sample ID/ Well ID	Date Sampled	Casing Elevation (feet)	Depth to GW (feet bgs)	Depth to SPH (feet bgs)	SPH Thickness (feet)	GW Elevation (feet)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	TOG (ug/L)	VOCs (ug/L)
Final RBSL - Potential Drinking Water Source							100	1.0	40	30	13	5.0	640	N/A
Risk Driver							human toxicity	aquatic life	aquatic life	aquatic life	aquatic life	taste & odor	aquatic life	
Final RBSL - Not a Potential Drinking Water Source							500	46	130	290	13	1,800	640	N/A
Risk Driver							aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	
RBSL - Indoor Air Impact							NE	84 (5800)	76000 (530000)	170,000	150000 (160000)	50000(4.9E+05)	NE	N/A
California Environmental Consultants														
B-1-W	10/3/1988	--	--	--	--	--	67,000	14,000	2,400	2,500	9,100	--	--	--
B-2-W	10/3/1988	--	--	--	--	--	110,000	17,000	2,600	3,000	12,000	--	--	--
B-3-W	10/3/1988	--	--	--	--	--	--	(490)	(160)	(770)	(1,300)	--	290,000	ND*
Tank Protect Engineering														
SB-1W	4/21/1997	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
SB-2W	4/21/1997	--	--	--	--	--	6,100	870	35	17	28	<5.0	--	--
SB-3W	5/1/1997	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
SB-4W	5/1/1997	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
SB-5W	5/1/1997	--	--	--	--	--	890	5.4	<0.50	1.4	<0.50	12	--	--
Sequoia Environmental														
SB-1	5/22/2001	--	--	--	--	--	11,000	8.1	23	81	7.1	<20	--	--
SB-2	5/22/2001	--	--	--	--	--	1,200	<0.5	3.5	5.5	<0.5	<5.0	--	--
SB-3	5/22/2001	--	--	--	--	--	53,000	790	110	2,000	2,000	<200	--	--
SB-4	5/22/2001	--	--	--	--	--	170,000	420	<45	1,500	800	<200	--	--
SB-5	5/22/2001	--	--	--	--	--	27,000	8,400	99	230	120	<500	--	--
SB-6	5/22/2001	--	--	--	--	--	50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--
Monitoring Well Sampling Data														
MW-1	12/30/1997	27.33 ^b	10.96	10.79	0.17	16.51	61,000	4,300	1,800	1,600	6,900	1,400	--	--
MW-1	3/24/1998	27.33	9.33	--	0.00	18.00	24,000	1,000	1,000	1,300	4,300	2,000	--	--
MW-1	6/29/1998	27.33	12.20	--	0.00	15.13	130,000	3,800	370	1,200	4,200	3,300	--	--
MW-1	10/2/1998	27.33	13.46	--	0.00	13.87	22,000	66	21	26	140	<0.50	--	--
MW-1	12/10/1998	27.33	10.49	--	0.00	16.84	32,000	4,600	970	1,700	4,900	<250	--	--
MW-1	3/26/1999	27.33	9.44	--	0.00	17.89	230,000	370	290	280	720	<0.50	--	--
MW-1	6/11/1999	27.33	12.56	12.55	0.01	14.78	180,000	210	170	220	400	<0.50	--	--
MW-1	9/15/1999	27.33	14.85	13.85	1.00	13.28	21,000	3,800	280	590	2,200	<250	--	--
MW-1	12/28/1999	27.33	14.50	13.18	1.32	13.89	27,000	48	36	46	83	<0.5	--	--
MW-1	6/13/2001	24.37 ^c	15.83	11.47	4.36	12.03	--	--	--	--	--	--	--	--
MW-1	12/27/2002	24.37	8.31	8.15	0.16	16.19	--	--	--	--	--	--	--	--

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Table 3. Groundwater Analytical Data - Credit World Auto Sales, 2345 International Boulevard, Oakland, California

Sample ID/ Well ID	Date Sampled	Casing Elevation (feet)	Depth to GW (feet bgs)	Depth to SPH (feet bgs)	SPH Thickness (feet)	GW Elevation (feet)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	TOG (ug/L)	VOCs (ug/L)	
Final RBSL - Potential Drinking Water Source							100	1.0	40	30	13	5.0	640	N/A	
Risk Driver							human toxicity	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	taste & odor	aquatic life	
Final RBSL - Not a Potential Drinking Water Source							500	46	130	290	13	1,800	640	N/A	
Risk Driver							aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life		
RBSL - Indoor Air Impact							NE	84 (5800)	76000 (530000)	170,000	150000 (160000)	50000(4.9E+05)	NE	N/A	
MW-2	8/23/1991	98.585 ^a	13.77	--	0.00	84.82	10,000	<5	<5	<5	<5	--	--	--	
MW-2	4/16/1992	25.92 ^b	15.38	12.57	2.81	12.79	--	--	--	--	--	--	--	--	
MW-2	6/11/1993	25.92	13.19	--	0.00	12.74	--	--	--	--	--	--	--	--	
MW-2	8/17/1993	25.92	14.04	14.03	0.01	11.89	49,000	94	240	250	980	--	--	--	
MW-2	3/28/1994	25.92	13.61	13.07	0.54	12.74	14,000	4,200	<250	910	1,400	--	--	--	
MW-2	6/27/1994	25.92	14.24	13.44	0.80	12.32	24,000	4,400	72	1,100	1,700	--	--	--	
MW-2	9/16/1994	25.92	17.82	13.36	4.46	11.67	40,000	2,300	250	2,000	4,100	--	--	--	
MW-2	3/31/1995	25.92	16.72	9.28	7.44	15.15	28,000	4,000	<120	1,100	1,400	--	--	--	
MW-2	6/28/1995	25.92	13.50	12.77	0.73	13.00	40,000	2,700	130	1,700	2,900	--	--	--	
MW-2	9/28/1995	25.92	14.63	14.09	0.54	11.72	7,500	420	14	250	190	<62	--	--	
MW-2	12/26/1995	25.92	12.58	11.68	0.90	14.06	22,000	1,300	88	950	1,800	<250	--	--	
MW-2	3/22/1996	25.92	11.46	11.31	0.15	14.58	9,800	2,200	<120	400	<380	<1,200	--	--	
MW-2	6/20/1996	25.92	13.08	12.71	0.37	13.14	35,000	770	<0.50	240	<0.50	550	--	--	
MW-2	9/30/1996	25.92	16.67	12.92	3.75	12.25	58,000	1,600	230	2,200	4,000	<5.0	--	--	
MW-2	12/27/1996	25.92	15.74	8.17	7.57	16.24	29,000	2,100	<0.50	1,200	1,800	<5.0	--	--	
MW-2	3/7/1997	25.92	12.55	--	0.00	13.37	13,000	1,300	37	290	180	<5.0	--	--	
MW-2	6/28/1997	25.92	11.98	11.94	0.04	13.97	12,000	840	<0.50	640	360	<5.0	--	--	
MW-2	9/18/1997	25.92	13.44	13.44	0.00	12.48	12,000	680	<0.50	320	84	<5.0	--	--	
MW-2	12/30/1997	25.92	11.31	--	0.00	14.61	13,000	1,100	40	350	220	<5.0	--	--	
MW-2	3/25/1998	25.92	10.02	--	0.00	15.90	8,100	1,300	51	410	230	670	--	--	
MW-2	6/29/1998	25.92	11.96	--	0.00	13.96	12,000	880	13	180	72	430	--	--	
MW-2	10/2/1998	25.92	13.74	--	0.00	12.18	47,000	140	100	110	200	<0.50	--	--	
MW-2	12/10/1998	25.92	12.91	10.81	2.10	14.69	26,000	1,000	210	1,500	1,900	<1,000	--	--	
MW-2	3/26/1999	25.92	9.06	8.86	0.20	17.02	110,000	190	150	120	380	<0.50	--	--	
MW-2	6/11/1999	25.92	12.18	--	0.00	13.74	190,000	310	250	320	540	<0.50	--	--	
MW-2	9/15/1999	25.92	15.59	12.59	3.00	12.73	25,000	720	<100	1,300	1,600	<1,000	--	--	
MW-2	12/28/1999	25.92	16.81	12.31	4.50	12.71	75,000	130	98	130	230	<0.50	--	--	
MW-2	6/13/2001	23.16 ^c	14.84	11.69	3.15	10.84	--	--	--	--	--	--	--	--	
MW-2	6/20/2002	23.16	14.80	14.10	0.70	8.92	53,000	2,200	140	3,300	3,000	<1,000	--	--	
MW-2	10/21/2002	23.16	16.98	16.74	0.24	6.37	--	--	--	--	--	--	--	--	
MW-2	12/27/2002	23.16	13.58	13.15	0.43	9.92	--	--	--	--	--	--	--	--	
MW-3	8/23/1991	99.25 ^a	15.07	--	0.00	84.18	<5,000	<5	<5	<5	<5	--	--	--	
MW-3	4/16/1992	27.57 ^b	14.14	13.98	0.16	13.56	--	--	--	--	--	--	--	--	
MW-3	6/11/1993	27.57	14.28	--	0.00	13.30	--	--	--	--	--	--	--	--	
MW-3	8/17/1993	27.57	15.77	--	0.00	11.80	9,600	4.1	17	28	54	--	--	--	
MW-3	3/28/1994	27.57	14.35	--	0.00	13.22	8,400	2,400	56	67	200	--	--	--	

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Table 3. Groundwater Analytical Data - Credit World Auto Sales, 2345 International Boulevard, Oakland, California

Sample ID/ Well ID	Date Sampled	Casing Elevation (feet)	Depth to GW (feet bgs)	Depth to SPH (feet bgs)	SPH Thickness (feet)	GW Elevation (feet)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	TOG (ug/L)	VOCs (ug/L)	
<i>Final RBSL - Potential Drinking Water Source</i>							100	1.0	40	30	13	5.0	640	N/A	
<i>Risk Driver</i>							human toxicity	aquatic life	aquatic life	aquatic life	aquatic life	taste & odor	aquatic life		
<i>Final RBSL - Not a Potential Drinking Water Source</i>							500	46	130	290	13	1,800	640	N/A	
<i>Risk Driver</i>							aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life		
<i>RBSL - Indoor Air Impact</i>							NE	84 (5800)	76000 (530000)	170,000	150000 (160000)	50000(4.9E+05)	NE	N/A	
MW-3	6/27/1994	27.57	14.77	--	0.00	12.80	9,900	3,300	<22	<25	73	--	--	--	
MW-3	9/16/1994	27.57	15.42	15.37	0.05	12.19	16,000	2,300	80	620	240	--	--	--	
MW-3	3/31/1995	27.57	12.98	12.52	0.46	14.96	16,000	2,800	70	<25	920	--	--	--	
MW-3	6/28/1995	27.57	14.20	14.15	0.05	13.41	11,000	2,300	32	81	240	--	--	--	
MW-3	9/28/1995	27.57	15.17	--	0.00	12.40	6,300	1,900	<42	200	<120	<420	--	--	
MW-3	12/26/1995	27.57	13.33	13.27	0.06	14.29	25,000	3,800	97	94	1,600	<250	--	--	
MW-3	3/22/1995	27.57	12.81	12.77	0.04	14.79	16,000	3,100	75	69	350	250	--	--	
MW-3	6/20/1996	27.57	13.95	13.88	0.07	13.68	8,500	1,400	28	140	15	220	--	--	
MW-3	9/24/1996	27.57	14.86	14.82	0.04	12.74	12,000	2,400	87	340	110	<5.0	--	--	
MW-3	12/27/1996	27.57	11.04	10.98	0.06	16.58	5,800	1,700	28	<0.50	42	240	--	--	
MW-3	3/10/1997	27.57	13.80	--	0.00	13.77	9,000	1,700	<0.50	110	<0.50	<5.0	--	--	
MW-3	6/28/1997	27.57	13.72	13.66	0.06	13.90	15,000	2,200	<0.50	160	190	<5.0	--	--	
MW-3	9/18/1997	27.57	14.76	--	0.00	12.81	28,000	3,800	<0.50	100	<0.50	<5.0	--	--	
MW-3	12/30/1997	27.57	12.97	--	0.00	14.60	21,000	2,200	<0.50	31	<0.50	300	--	--	
MW-3	3/24/1998	27.57	11.75	--	0.00	15.82	2,300	870	7.2	20	<0.50	85	--	--	
MW-3	6/29/1998	27.57	13.38	--	0.00	14.19	6,500	1,300	12	62	14	140	--	--	
MW-3	10/2/1998	27.57	14.42	--	0.00	13.15	11,000	31	27	35	69	<0.50	--	--	
MW-3	12/10/1998	27.57	12.55	--	0.00	15.02	<2,500	2,800	68	42	55	<250	--	--	
MW-3	3/26/1999	27.57	10.54	--	0.00	17.03	10,000	21	14	10	41	<0.50	--	--	
MW-3	6/15/1999	27.57	13.91	--	0.00	13.66	87,000	90	71	92	180	<0.50	--	--	
MW-3	9/15/1999	27.57	14.70	--	0.00	12.87	8,700	2,100	71	110	66	<100	--	--	
MW-3	12/28/1999	27.57	15.16	14.91	0.25	12.61	4,300	7.7	5.2	7.2	13	<0.50	--	--	
MW-3	6/13/2001	24.57 ^c	14.70	14.30	0.40	10.19	8,400	1,300	25	64	32	<20	--	--	
MW-3	6/20/2002	24.57 ^c	14.68	14.66	0.02	9.91	7,800	1,100	23	66	15	<50	--	--	
MW-3	12/27/2002	24.57 ^c	11.37	11.20	0.17	13.34	--	--	--	--	--	--	--	--	
TMW-4	8/17/1993	26.50 ^b	13.26	--	0.00	13.24	150	<0.50	0.8	1.4	3.7	--	--	--	
TMW-4	3/28/1994	26.50	12.40	--	0.00	14.10	<50	<0.50	<0.50	<0.50	<1.5	--	--	--	
TMW-4	6/27/1994	26.50	12.84	--	0.00	13.66	<50	<0.50	<0.50	<0.50	<1.5	--	--	--	
TMW-4	9/16/1994	26.50	13.58	--	0.00	12.92	<50	<0.50	<0.50	<0.50	<1.5	--	--	--	
TMW-4	3/31/1995	26.50	10.23	--	0.00	16.27	<50	<0.50	<0.50	<0.50	<1.5	--	--	--	
TMW-4	6/28/1995	26.50	12.21	--	0.00	14.29	<50	<0.50	<0.50	<0.50	<1.5	--	--	--	
TMW-4	9/28/1995	26.50	13.38	--	0.00	13.12	<50	<0.50	<0.50	<0.50	<1.5	<5.0	--	--	
TMW-4	12/26/1995	26.50	11.32	--	0.00	15.18	<50	<0.50	<0.50	<0.50	<1.5	<5.0	--	--	
TMW-4	3/22/1996	26.50	10.54	--	0.00	15.96	<50	<0.50	<0.50	<0.50	<1.5	<5.0	--	--	
TMW-4	6/20/1996	26.50	12.14	--	0.00	14.36	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	9/24/1996	26.50	13.01	--	0.00	13.49	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	12/27/1996	26.50	9.51	--	0.00	16.99	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	

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Table 3. Groundwater Analytical Data - Credit World Auto Sales, 2345 International Boulevard, Oakland, California

Sample ID/ Well ID	Date Sampled	Casing Elevation (feet)	Depth to GW (feet bgs)	Depth to SPH (feet bgs)	SPH Thickness (feet)	GW Elevation (feet)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	TOG (ug/L)	VOCs (ug/L)	
Final RBSL - Potential Drinking Water Source							100	1.0	40	30	13	5.0	640	N/A	
Risk Driver							human toxicity	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	taste & odor	aquatic life	
Final RBSL - Not a Potential Drinking Water Source							500	46	130	290	13	1,800	640	N/A	
Risk Driver							aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life		
RBSL - Indoor Air Impact							NE	84 (5800)	76000 (530000)	170,000	150000 (160000)	50000(4.9E+05)	NE	N/A	
TMW-4	3/10/1997	26.50	11.92	--	0.00	14.58	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	6/27/1997	26.50	10.70	--	0.00	15.80	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	9/18/1997	26.50	12.94	--	0.00	13.56	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	12/30/1997	26.50	10.92	--	0.00	15.58	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	3/25/1998	26.50	9.60	--	0.00	16.90	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	6/29/1998	26.50	11.32	--	0.00	15.18	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	10/2/1998	26.50	12.56	--	0.00	13.94	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	12/10/1998	26.50	10.44	--	0.00	16.06	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	3/26/1999	26.50	9.38	--	0.00	17.12	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	6/15/1999	26.50	11.58	--	0.00	14.92	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	9/15/1999	26.50	12.89	--	0.00	13.61	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	12/28/1999	23.50 ^c	12.92	--	0.00	10.58	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TMW-4	10/21/2002	23.50 ^c	12.70	--	0.00	10.80	--	--	--	--	--	--	--	--	
TMW-4	12/27/2002	23.50 ^c	9.07	8.95	0.12	14.53	--	--	--	--	--	--	--	--	
TMW-5	8/17/1993	26.51 ^b	12.98	12.95	0.03	13.55	120,000	640	730	790	3,600	--	--	--	
TMW-5	3/28/1994	26.51	11.39	--	0.00	15.12	70,000	23,000	1,500	4,100	15,000	--	--	--	
TMW-5	6/28/1994	26.51	12.24	--	0.00	14.27	56,000	26,000	940	5,500	26,000	--	--	--	
TMW-5	9/16/1994	26.51	13.02	12.97	0.05	13.53	96,000	17,000	720	3,500	12,000	--	--	--	
TMW-5	3/31/1995	26.51	7.38	--	0.00	19.13	64,000	13,000	470	3,500	6,100	--	--	--	
TMW-5	6/28/1995	26.51	11.31	11.25	0.06	15.25	65,000	9,000	240	2,600	5,300	--	--	--	
TMW-5	9/28/1995	26.51	14.42	--	0.00	12.09	79,000	17,000	1,800	2,700	7,000	<1,200	--	--	
TMW-5	12/26/1995	26.51	10.16	10.11	0.05	16.39	110,000	11,000	800	2,300	4,500	<1,200	--	--	
TMW-5	3/22/1996	26.51	7.59	7.54	0.05	18.96	--	--	--	--	--	--	--	--	
TMW-5	6/26/1996 ^d	--	7.12	--	0.00	--	30,000	4,000	180	1,500	2,500	830	--	--	
TMW-5	9/30/1996	--	7.42	--	0.00	--	6,900	1,600	79	130	370	<5.0	--	--	
TMW-5	12/27/1996	--	6.38	--	0.00	--	78,000	12,000	1,900	2,900	9,700	<5.0	--	--	
TMW-5	3/10/1997	--	11.12	--	0.00	--	84,000	9,900	1,100	2,600	8,800	<5.0	--	--	
TMW-5	8/17/1997	--	12.98	12.95	0.03	--	--	--	--	--	--	--	--	--	
TMW-5	9/18/1997	--	12.00	--	0.00	--	65,000	8,000	<0.5	2,000	4,700	<5.0	--	--	
TMW-5	12/30/1997	--	8.97	--	0.00	--	79,000	6,400	340	2,300	5,500	<5.0	--	--	
TMW-5	3/25/1998	--	7.32	--	0.00	--	20,000	6,000	260	2,700	5,800	2,400	--	--	
TMW-5	6/29/1998	--	11.50	--	0.00	--	--	--	--	--	--	--	--	--	
TMW-5	10/8/1998	--	12.56	--	0.00	--	46,000	120	98	120	240	<0.50	--	--	
TMW-5	12/8/1998	--	10.14	--	0.00	--	46,000	5,900	320	2,200	5,400	<1,200	--	--	
TMW-5	3/26/1999	--	7.08	--	0.00	--	35,000	69	61	37	120	<0.50	--	--	
TMW-5	6/11/1999	--	11.40	--	0.00	--	26,000	29	32	43	72	<0.50	--	--	

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Table 3. Groundwater Analytical Data - Credit World Auto Sales, 2345 International Boulevard, Oakland, California

Sample ID/ Well ID	Date Sampled	Casing Elevation (feet)	Depth to GW (feet bgs)	Depth to SPH (feet bgs)	SPH Thickness (feet)	GW Elevation (feet)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	TOG (ug/L)	VOCs (ug/L)	
<i>Final RBSL - Potential Drinking Water Source</i>							100	1.0	40	30	13	5.0	640	N/A	
<i>Risk Driver</i>							human toxicity	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	taste & odor	aquatic life	
<i>Final RBSL - Not a Potential Drinking Water Source</i>							500	46	130	290	13	1,800	640	N/A	
<i>Risk Driver</i>							aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life		
<i>RBSL - Indoor Air Impact</i>							NE	84 (5800)	76000 (530000)	170,000	150000 (160000)	50000(4.9E+05)	NE	N/A	
TMW-5	9/15/1999	--	12.52	--	0.00	--	37,000	7,300	400	2,400	6,000	<1,000	--	--	
TMW-5	12/28/1999	--	12.44	--	0.00	--	25,000	44	32	41	75	<0.50	--	--	
TMW-5	5/23/2001	23.85 ^c	11.31	--	0.00	12.54	--	--	--	--	--	--	--	--	
TMW-5	6/20/2002	23.85	11.29	11.24	0.05	12.60	51,000	5,100	290	2,300	5,800	<250	--	--	
TMW-5	10/21/2002	23.85	13.60	13.50	0.10	10.33	--	--	--	--	--	--	--	--	
TMW-5	12/27/2002	23.85	6.60	6.53	0.07	17.31	--	--	--	--	--	--	--	--	
MW-6	5/23/2001	23.81 ^c	12.47	--	0.00	11.34	--	--	--	--	--	--	--	--	
MW-6	6/13/2001	23.81	12.47	--	0.00	11.34	7,600	1,400	42	19	14	<10	--	--	
MW-6	6/20/2002	23.81	12.45	--	0.00	11.36	79	5.7	<0.5	<0.5	<0.5	<5.0	--	--	
MW-6	12/27/2002	23.81	7.24	7.20	0.04	16.60	--	--	--	--	--	--	--	--	
TRIP BLANK	8/17/1993	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	
TRIP BLANK	3/28/1994	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--	--	
TRIP BLANK	6/27/1994	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--	--	
TRIP BLANK	9/16/1994	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--	--	
TRIP BLANK	3/31/1995	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--	--	
TRIP BLANK	6/28/1995	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<5.0	--	--	
TRIP BLANK	9/28/1995	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--	--	
TRIP BLANK	12/26/1995	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<5.0	--	--	
TRIP BLANK	3/22/1996	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<5.0	--	--	
TRIP BLANK	9/24/1996	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TRIP BLANK	9/30/1996	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TRIP BLANK	6/20/1996	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TRIP BLANK	12/27/1996	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TRIP BLANK	3/10/1997	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
TRIP BLANK	9/18/1997	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	
TRIP BLANK	12/30/1997	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	
TRIP BLANK	3/25/1998	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	
TRIP BLANK	6/29/1998	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	
TRIP BLANK	10/2/1998	--	--	--	--	--	--	--	--	--	--	--	--	--	
TRIP BLANK	12/10/1998	--	--	--	--	--	--	--	--	--	--	--	--	--	
TRIP BLANK	3/26/1999	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	
TRIP BLANK	6/15/1999	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	
TRIP BLANK	9/15/1999	--	--	--	--	--	33,000	6,200	300	2,000	4,800	<1,000	--	--	
TRIP BLANK	12/28/1999	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	

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Table 3. Groundwater Analytical Data - Credit World Auto Sales, 2345 International Boulevard, Oakland, California

Sample ID/ Well ID	Date Sampled	Casing Elevation (feet)	Depth to GW (feet bgs)	Depth to SPH (feet bgs)	SPH Thickness (feet)	GW Elevation (feet)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	TOG (ug/L)	VOCs (ug/L)	
Final RBSL - Potential Drinking Water Source							100	1.0	40	30	13	5.0	640	N/A	
Risk Driver							human toxicity	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	taste & odor	aquatic life	
Final RBSL - Not a Potential Drinking Water Source							500	46	130	290	13	1,800	640	N/A	
Risk Driver							aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life	aquatic life		
RBSL - Indoor Air Impact							NE	84 (5800)	76000 (530000)	170,000	150000 (160000)	50000(4.9E+05)	NE	N/A	

Abbreviations and Methods:

bgs = below grade surface

(ug/L) = micrograms per Liter

Depth to GW = Depth to groundwater relative to top of casing

SPH = Separate phase hydrocarbons

TOG = Total oil and grease by modified EPA Method 3550

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

Benzene, Toluene, Ethylbenzene, Xylenes by EPA Method 8020, and by 8260 if in parenthesis

MTBE methyl tert butyl ether by EPA Method 8020

VOCs = volatile organic compounds by EPA Method 8260

ND* = not detected with the exception of reported concentrations for benzene, toluene, ethylbenzene and xylenes

GW Elevation = Groundwater elevation in relation to mean sea level; calculated according to the relationship GW elevation = TOC - DTW + (0.8)(SPH thickness)

a = Relative to site datum established by Earth Systems Engineering

b = Top of casing elevation surveyed 8/10/93 by professional engineer (assumed based on NGVD 29 datum that is approximately 3 feet higher than City of Oakland datum)

c = Top of casing elevation surveyed 6/13/01 to City of Oakland datum by Renner Survey Company of Burlingame, CA. for Sequoia Environmental. Wells MW-3 and MW-4 were not surveyed

d = Casing damaged during excavation activities; not surveyed

e = Assumed top of casing elevation relative to City of Oakland datum, estimated by subtracting 3.00 feet from previous elevation presumably from NGVD 29 datum

1,300 = concentrations exceeding commercial final RBSLs (not a potential drinking water resource) shown in bold

Final RBSL - Potential Drinking Water Source = Table F-1 - Components for Groundwater Screening Levels (Groundwater is not a Current or Potential Drinking

Water Resource) established by the SFRWQCB, Interim Final December 2001. (The risk driver is also shown)

Final RBSL - Not A Potential Drinking Water Source = Table F-2 - Components for Groundwater Screening Levels (Groundwater is not a Current or Potential Drinking

Water Resource) established by the SFRWQCB, Interim Final December 2001. (The risk driver is also shown).

RBSLs for indoor air = Tables F-1 and F-2 from SFRWQCB above, Interim Final December 2001

CAMBRIA

**Table 4. Well Completion Data - Credit World Auto Sales,
2345 International Boulevard, Oakland, California**

Well No.	Installation Date	Boring Diameter (inches)	Well Diameter (inches)	Screen Size (inches)	Total Depth (feet bgs)	Surface Seal (feet bgs)	Sand Pack Interval (feet bgs)	Screened Interval (feet bgs)
MW-1	5/22/1991	8	2	0.010	35	0-12	12-35	15-35
MW-2	8/21/1991	8	2	0.010	35	0-12	12-35	15-35
MW-3	8/22/1991	8	2	0.010	35	0-12	12-35	15-35
TMW-4	7/22/1993	8	2	0.010	36	0-12	12-34	14-34
TMW-5	7/23/1993	8	2	0.010	27	0-15	15-24	17-24
MW-6	5/22/2001	6.75	4	0.020	20	0-13	13-20	15-20

bgs = below ground surface
ft-msl = feet above mean sea level

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Table 5. Separate Phase Hydrocarbon Removal - Credit World Auto Sales
International Boulevard, Oakland, California

Sample ID/ Well ID	Date Sampled	Casing Elevation (feet)	Depth to GW (feet bgs)	Depth to SPH (feet bgs)	SPH Thickness (feet)	GW Elevation (feet)	Hydrocarbons Removed (liters)	Hydrocarbons Removed (lbs.)	Cumulative Hydrocarbons Removed (lbs.)
MW-1	12/30/1997	27.33	10.96	10.79	0.17	16.51	0.10	0.17	0.17
MW-1	6/11/1999	27.33	12.56	12.55	0.01	14.78	0.01	0.01	0.18
MW-1	9/15/1999	27.33	14.85	13.85	1.00	13.28	0.60	0.97	1.15
MW-1	12/28/1999	27.33	8.31	8.15	0.16	19.15	0.10	0.16	1.31
MW-1	6/13/2001	24.37	8.31	8.15	0.16	16.19	0.10	0.16	1.46
MW-1	12/27/2003	24.37	8.31	8.15	0.16	16.19	3.00	4.84	6.30
MW-2	6/28/1995	25.92	13.50	12.77	0.73	13.00	0.44	0.71	0.71
MW-2	9/28/1995	25.92	14.63	14.09	0.54	11.72	0.33	0.53	1.24
MW-2	12/26/1995	25.92	12.58	11.68	0.90	14.06	0.54	0.88	2.12
MW-2	3/22/1996	25.92	11.46	11.31	0.15	14.58	0.09	0.15	2.26
MW-2	6/20/1996	25.92	13.08	12.71	0.37	13.14	0.22	0.36	2.62
MW-2	9/30/1996	25.92	16.67	12.92	3.75	12.25	2.27	3.66	6.28
MW-2	12/27/1996	25.92	15.74	8.17	7.57	16.24	4.58	7.38	13.66
MW-2	6/28/1997	25.92	11.98	11.94	0.04	13.97	0.02	0.04	13.70
MW-2	9/18/1997	25.92	13.44	13.44	0.00	12.48	0.00	0.00	13.70
MW-2	12/10/1998	25.92	12.91	10.81	2.10	14.69	1.27	2.05	15.75
MW-2	3/26/1999	25.92	9.06	8.86	0.20	17.02	0.12	0.19	15.94
MW-2	9/15/1999	25.92	15.59	12.59	3.00	12.73	1.81	2.92	18.87
MW-2	12/28/1999	25.92	16.81	12.31	4.50	12.71	2.72	4.39	23.25
MW-2	6/13/2001	23.16	14.84	11.69	3.15	10.84	9.45	15.23	38.49
MW-2	6/20/2002	23.16	14.80	14.10	0.70	8.92	0.42	0.68	39.17
MW-2	10/21/2002	23.16	16.98	16.74	0.24	6.37	0.00	0.00	39.17
MW-2	12/27/2002	23.16	13.58	13.15	0.43	9.92	3.00	4.84	44.00
MW-3	4/16/1992	27.57	14.14	13.98	0.16	13.56	0.10	0.16	0.16
MW-3	9/16/1994	27.57	15.42	15.37	0.05	12.19	0.03	0.05	0.20
MW-3	3/31/1995	27.57	12.98	12.52	0.46	14.96	0.28	0.45	0.65
MW-3	6/28/1995	27.57	14.20	14.15	0.05	13.41	0.03	0.05	0.70
MW-3	12/26/1995	27.57	13.33	13.27	0.06	14.29	0.04	0.06	0.76
MW-3	3/22/1995	27.57	12.81	12.77	0.04	14.79	0.02	0.04	0.80
MW-3	6/20/1996	27.57	13.95	13.88	0.07	13.68	0.04	0.07	0.87
MW-3	9/24/1996	27.57	14.86	14.82	0.04	12.74	0.02	0.04	0.91
MW-3	12/27/1996	27.57	11.04	10.98	0.06	16.58	0.04	0.06	0.97
MW-3	6/28/1997	27.57	13.72	13.66	0.06	13.90	0.04	0.06	1.02
MW-3	12/28/1999	27.57	15.16	14.91	0.25	12.61	0.15	0.24	1.27
MW-3	6/13/2001	27.57	14.70	14.30	0.40	13.19	7.56	12.19	13.45
MW-3	6/20/2002	27.57	14.68	14.66	0.02	12.91	0.01	0.02	13.47
MW-3	12/27/2002	27.57	11.37	11.20	0.17	16.34	3.00	4.84	18.31
TMW-4	12/27/2002	26.50	9.07	8.95	0.12	17.53	1.50	2.42	2.42
TMW-5	8/17/1993	26.51	12.98	12.95	0.03	13.55	0.02	0.029	0.03
TMW-5	9/16/1994	26.51	13.02	12.97	0.05	13.53	0.03	0.049	0.08
TMW-5	6/28/1995	26.51	11.31	11.25	0.06	15.25	0.04	0.058	0.14
TMW-5	12/26/1995	26.51	10.16	10.11	0.05	16.39	0.03	0.049	0.19
TMW-5	3/22/1996	26.51	7.59	7.54	0.05	18.96	0.03	0.049	0.23

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Table 5. Separate Phase Hydrocarbon Removal - Credit World Auto Sales
International Boulevard, Oakland, California

Sample ID/ Well ID	Date Sampled	Casing Elevation (feet)	Depth to GW (feet bgs)	Depth to SPH (feet bgs)	SPH Thickness (feet)	GW Elevation (feet)	Hydrocarbons Removed (liters)	Hydrocarbons Removed (lbs.)	Cumulative Hydrocarbons Removed (lbs.)
TMW-5	8/17/1997	--	12.98	12.95	0.03	--	0.02	0.029	0.26
TMW-5	5/23/2001	23.85	11.31	--	0.00	12.54	9.45	15.23	15.47
TMW-5	6/20/2002	23.85	11.29	11.24	0.05	12.60	0.03	0.049	15.52
TMW-5	10/21/2002	23.85	13.60	13.50	0.10	10.33	0.00	0.00	15.52
TMW-5	12/27/2002	23.85	13.60	13.50	0.10	10.33	1.50	2.42	17.93
MW-6	12/27/2002	23.81	7.24	7.20	0.04	16.60	1.50	2.42	2.42
<i>Hydrocarbons removed by bailing or purging (lbs.) =</i>									<i>91.38</i>
<i>Hydrocarbons removed by free product removal system (see Note 1) (lbs) =</i>									<i>30.5</i>
<i>Total estimated hydrocarbons removed (lbs) =</i>									<i>121.88</i>

1. Tank Protect reported that the continuous free product removal system removed approximately 3 to 5 gallons between 8/20/97 and 1/14/98.

SPH Removal data provided for 5/23/01, 6/13/01, and 12/27/02 data.

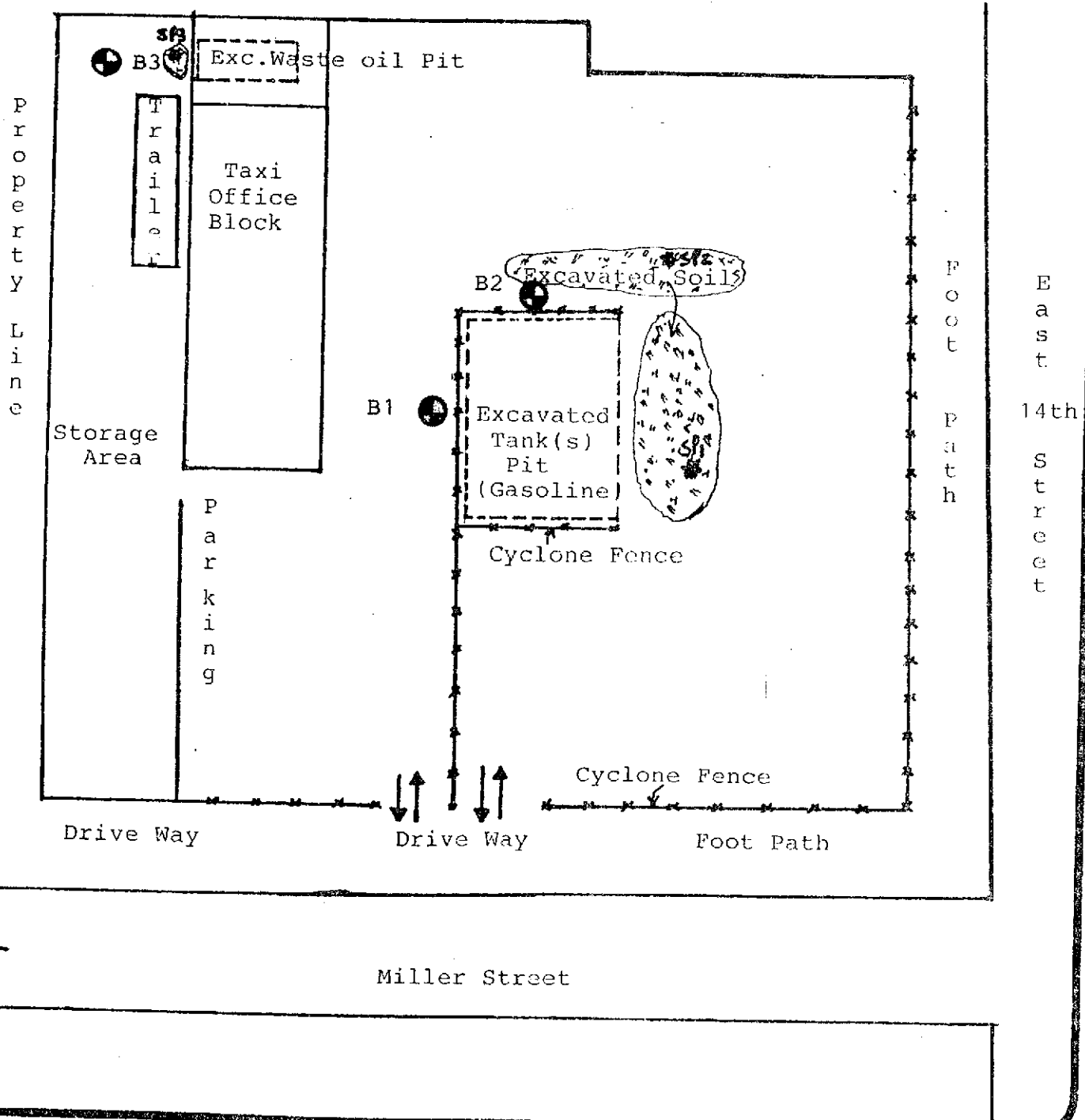
bgs = below ground surface

When data is unavailable, hydrocarbon removal volume prior to 12/27/2002 is estimated by multiplying the well casing area (2" diameter casing = 0.60L/ft) by SPH thickness (feet)



Appendix A

Background Information



10/3/88



CALIFORNIA ENVIRONMENTAL CONSULTANTS

Site Plan Showing Location of Three Borings at 2345 East 14th Street, Oakland, CA.
 Scale 1"=25' 0 12.5 25

FIGURE NO. 1
 CEC/SBW
 PROJECT NO. 88-11-2



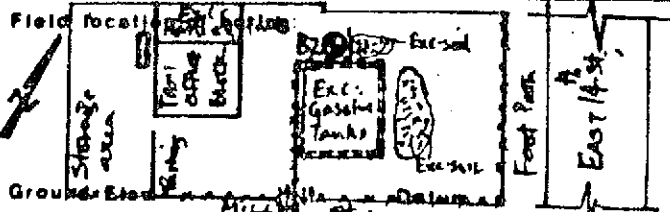
LOG OF EXPLORATORY BORING

PROJECT No. CEC/SBW 88-2 DATE Oct 3, 88
 CLIENT West Coast Tank Testing
 LOCATION 2345 East 14th Street
 LOGGED BY TS DRILLER Hew Drilling

BORING No. B2
 Sheet 1 of 1

Drilling method Solid Stem Auger
 CME-55 Mobile Drill Rig Hole dia. 6 inches

Casing installation date _____



Pocket Torri-vane TSF	Pocket Penetrometer TSF	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth Ft.	Sample	Soil Group Symbol (U.S.C.S.)
			1.94 inch dia. brass sleeves				
		3					
		4					
		7	B2-5		5		CL
		3					
		8					
		10	B2-10		10		CL
		10					
		15					
		15	B2-15		15		CL

Water level	19 ft	16 ft.
Time	9:30 AM	
Date	10.03.88	

DESCRIPTION

0-9" Asphalt/Base rock

Black silty clay w/ gasoline odor. Damp

Black to greenish silty clay w/ gasoline odor. Damp, soft to med. stiff.

Greenish, soft to med. stiff silty clay w/ some sand. Slight discoloration and damp.

Greenish to brown silty clay w/ some sand. Med. stiff and Damp. Slight discoloration observed.

▼ Water encountered at 19 feet. Boring bot o

CALIFORNIA

ENVIRONMENTAL

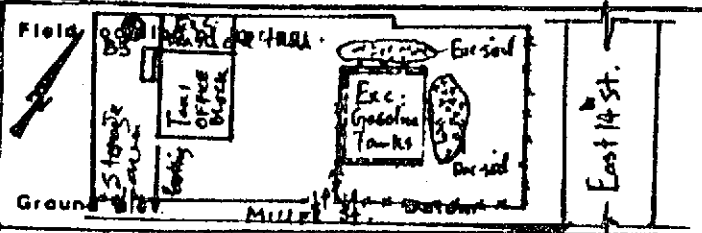
CONSULTANTS

1117 HAPPY VALLEY AVENUE • SAN JOSE, CA 95129 • (408) 725-2644



LOG OF EXPLORATORY BORING

PROJECT No. CRC/S-29-2 Date Oct 3, 88 BORING No. B3
 CLIENT West Coast Tank Testing
 LOCATION 2345 East 14th Street Sheet 1
 LOGGED BY TS DRILLER Hew Drilling of 1



Drilling method Solid Stem Auger
CME-55 Mobile Drill Rig Hole dia 6 inches
 Casing installation date _____

Peckel Terrane TSF	Peckel Penetrometer TSF	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth Ft.	Sample	Soil Group Symbol (U.S.C.S.)
			1.94 inch dia brass sleeves				
		2					CL
		2					
		3	B3-5		5		CL
		2					
		3					
		7	B3-10		10		CL
		5					
		8					
		12	B3-15		15		CL

Water level	21ft	16 Ft.
Time	10.35 AM	
Date	10.03.88	

DESCRIPTION

0-9" Asphalt/Base rock, dry.

Dry to damp black silty clay w/ sand. Some discoloration (reddish) & oily odor.

Blackish to brown damp silty clay, soft. w/ some reddish sand.

Damp, brown silty clay w/ reddish sand soft to med. stiff. Oily odor.

Damp, greenish and brown silty clay w/ fine. Med stiff. Oily odor. Some discoloration observed.

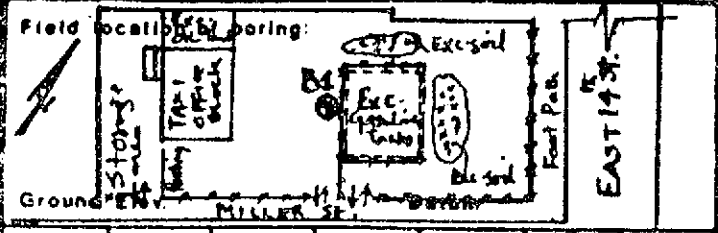
Water encountered at 21 feet. Boring bottom



LOG OF EXPLORATORY BORING

PROJECT No CEC/SB/72-88 DATE 2 Oct 3, 88
 CLIENT West Coast Tank Testing
 LOCATION 2345 East 14th Street
 LOGGED BY TS DRILLER Hew Drilling

BORING No B1
 Sheet 1
 of 1



Drilling method Solid Stem Auger
CME-55 Mobile Drill Rig Hole dia 6 inch

Casing installation data _____

Pocket Torr vane TSF	Pocket Penetrometer TSF	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth Ft.	Sample	Soil Group Symbol (U.S.C.S.)
			1.94 inch dia. brass sleeves				
		3					CL
		3					
		6	B1-5		5		CL
		4					
		6					
		10	B1-10		10		CL
		15					
		13					
		18	B1-15		15		CL & SM

Water level	19 ft	16 ft
Time	8.30 AM	
Date	10.02.88	

DESCRIPTION

0-2" Asphalt/Asph. Rock

Damp silty clay. Soft and Blackish

Blackish silty clay, soft to med. stiff with gasoline odor.

Damp greenish to Black silty clay w/ some sand content. Slight discoloration observed. Med. stiff w/ gasoline odor.

Moist greenish silty sandy clay w/ fines Med. stiff to stiff w/ slight discoloration

Ground water encountered at 19 feet. Boring bottom.



CHAIN OF SAMPLE CUSTODY RECORD

2307mm

Collector: Tanner Shah Date Sampled: 10.03.88 Time: _____

Location of Sampling: 2345 East 14th Street, Oakland, CA

Project Number: CEC/SBW 9.88.2 Survey Number: _____

Sample Type: SOIL

Container Type and Condition: Brass Sleeves 2 inch dia, 6 inch long on Ice

Contract Laboratory Record/Name: SEQUOIA ANALYTICAL LAB 2549 Middlefield Ln, Redwood City, CA 94061

Sample ID	Field Information
B ₁ -15'	Soil Sample from Boring B ₁ from 15' depth
B ₂ -15'	Soil Sample from Boring B ₂ from 15' depth
B ₃ -15'	Soil Sample from Boring B ₃ from 15' depth

Analysis Requested: (I) Analyze ~~and~~ samples individually by:

- ① Total Petroleum Hydro Carbons, TPH G, EPA Test Method 5030
- ② B, T, X & E by EPA Test Method 8020

(II) Analyze B₃-15 by ① EPA 5030

② EPA Method 8010 and 8020.

Results Needed By: ③ Oil & Grease 503 D & F.

Travel Blank:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Travel Blank to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Duplicate Samples:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Duplicates to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Field Blank:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Field Blank to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Background Soil Sample:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Background Soil Sample to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Chain of Custody:

- Field Personnel: [Signature]
- Courier: [Signature]
- Lab: [Signature]

Oct 3, 88
Date

Oct 3, 88
Date

10/3/88 2:30
Date

(Three brass sleeves - 2" dia & 6" long)



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9222 • FAX (415) 364-9233

California Environmental Consultants
1117 Happy Valley Avenue
San Jose, CA 95129
Attn: Munir Butt

Date Sampled: 10/03/88
Date Received: 10/03/88
Date Analyzed: 10/12/88
Date Reported: 10/31/88
Project:#CEC-SBW 9-88-2

TOTAL PETROLEUM FUEL
HYDROCARBONS WITH BTEX DISTINCTION

<u>Sample Number</u>	<u>Sample Description</u> Soil	<u>Low to Medium Boiling Point Hydrocarbons</u> ppm	<u>Benzene</u> ppm	<u>Toluene</u> ppm	<u>Ethyl Benzene</u> ppm	<u>Xylenes</u> ppm
8100025	B1-15'	3.4	0.31	N.D.	N.D.	0.14
8100026	B2-15'	83	1.6	1.1	1.8	9.6

Detection Limits: 1.0 0.05 0.1 0.1 0.1

Method of Analysis: EPA 5030 or 3810/8015/8020

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director



SEQUOIA ANALYTICAL

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California Environmental Consultants
1117 Happy Valley Avenue
San Jose, CA 95129
Attn: Munir Butt

Date Sampled: 10/03/88
Date Received: 10/03/88
Date Extracted: 10/06/88
Date Reported: 10/31/88
Project: #CEC/SBW 9-88-2

TOTAL OIL AND GREASE

<u>Sample Number</u>	<u>Sample Description</u> Soil	<u>Detection Limit</u> mg/kg	<u>Gravimetric Petroleum Oil</u> mg/kg
8100027	B3-15'	30	88

Method of Analysis: EPA 3550 with trichlorotrifluoroethane and gravimetric determination.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director



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California Environmental Consultants
1117 Happy Valley Avenue
San Jose, CA 95129
Attn: Munir Butt

Date Sampled: 10/03/88
Date Received: 10/03/88
Date Analyzed: 10/06/88
Date Reported: 10/31/88

Project: #CEC/SBW 9-88-2

HALOGENATED VOLATILE ORGANICS

Sample Number
8100027

Sample Description
Soil, B3-15'

<u>Analyte</u>	<u>Detection Limit</u>	<u>Sample Results</u>
	µg/kg	µg/kg
Bromodichloromethane.....	25	N.D.
Bromoform.....	25	N.D.
Bromomethane.....	25	N.D.
Carbon tetrachloride.....	25	N.D.
Chlorobenzene.....	25	N.D.
Chloroethane.....	130	N.D.
2-Chloroethylvinyl ether.....	25	N.D.
Chloroform.....	25	N.D.
Chloromethane.....	25	N.D.
Dibromochloromethane.....	25	N.D.
1,2-Dichlorobenzene.....	50	N.D.
1,3-Dichlorobenzene.....	50	N.D.
1,4-Dichlorobenzene.....	50	N.D.
1,1-Dichloroethane.....	25	N.D.
1,2-Dichloroethane.....	25	N.D.
1,1-Dichloroethene.....	25	N.D.
trans-1,2-Dichloroethene.....	25	N.D.
1,2-Dichloropropane.....	25	N.D.
cis-1,3-Dichloropropene.....	25	N.D.
trans-1,3-Dichloropropene.....	25	N.D.
Methylene chloride.....	50	N.D.
1,1,2,2-Tetrachloroethane.....	25	N.D.
Tetrachloroethene.....	25	N.D.
1,1,1-Trichloroethane.....	25	N.D.
1,1,2-Trichloroethane.....	25	N.D.
Trichloroethene.....	25	N.D.
Trichlorofluoromethane.....	25	N.D.
Vinyl chloride.....	50	N.D.

Method of Analysis: EPA 5030/8010
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director



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California Environmental Consultants
1117 Happy Valley Avenue
San Jose, CA 95129
Attn: Munir Butt

Date Sampled: 10/03/88
Date Received: 10/03/88
Date Analyzed: 10/06/88
Date Reported: 10/31/88
Project: #CEC/SBW 9-88-2

AROMATIC VOLATILE ORGANICS

Sample Number

8100027

Sample Description

Soil, B3-15'

<u>Analyte</u>	<u>Detection Limit</u> µg/kg	<u>Sample Results</u> µg/kg
Benzene.....	25	360
Chlorobenzene.....	25	N.D.
1,4-Dichlorobenzene.....	50	N.D.
1,3-Dichlorobenzene.....	50	N.D.
1,2-Dichlorobenzene.....	50	N.D.
Ethyl Benzene.....	25	470
Toluene.....	25	650
Xylenes.....	25	850

Method of Analysis: EPA 5030/8020

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

CHAIN OF SAMPLE CUSTODY RECORD

Collector: Tanner Shah Date Sampled: 10.03.88 Time: 2:30PM

Location of Sampling: 2345 East 14th Street, Oakland, CA

Project Number: CEC/SBN 9.88-2 Survey Number: _____

Sample Type: Grab Ground Water

Container Type and Condition: Six number 40ml Vials

Contract Laboratory Record/Name: SELVIA Analytical Lab, 2549 Middlefield Rd, Redwood City CA 94063

Sample ID	Field Information
<u>B₁-W</u>	<u>Grab Ground Water Sample from boring B₁</u>
<u>B₂-W</u>	<u>Grab Ground Water Sample from boring B₂</u>
<u>B₃-W</u>	<u>Grab Ground Water Sample from boring B₃</u>

Analysis Requested: I Analyze water samples B₁-W and B₂-W

- ① TPH G by EPA Test Method 5030
- ② B, T, X & C by EPA Test Method 602

II Analyze water sample B₃-W by:

- ① EPA Method 5030 and

Results Needed By: ② EPA 601 ③ EPA 602, ④ EPA 503 ARE.

Travel Blank:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Travel Blank to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Duplicate Samples:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Duplicates to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Field Blank:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Field Blank to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Background Soil Sample:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Background Soil Sample to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Chain of Custody:

1. [Signature]
Field Personnel

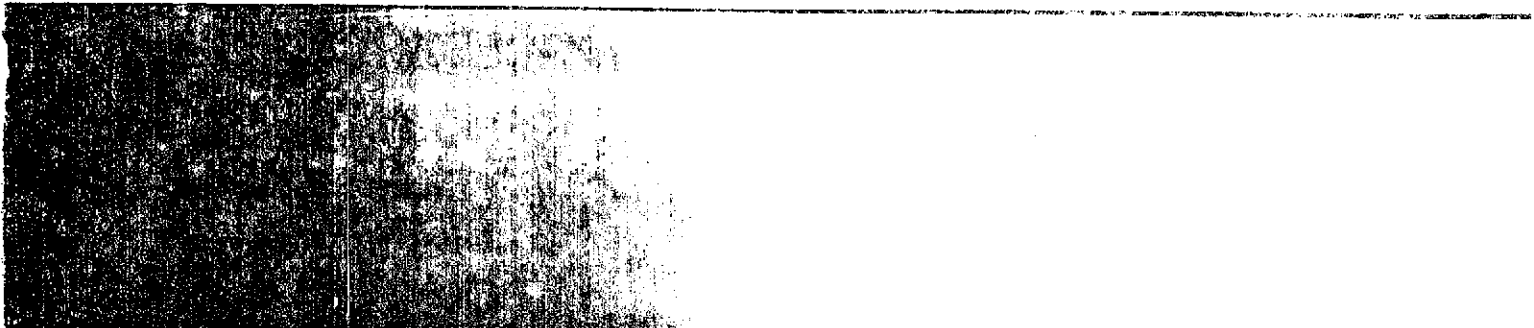
2. [Signature]
Courier

3. B. U.
Lab

[Signature] Oct 3, 88
Date

[Signature] Oct 3, 88
Date

[Signature] 10/3/88 2:30
Date





SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
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California Environmental Consultants
1117 Happy Valley Avenue
San Jose, CA 95129
Attn: Munir Butt

Date Sampled: 10/03/88
Date Received: 10/03/88
Date Analyzed: 10/06/88
Date Reported: 10/31/88
Project: #CEC-SBW 9-88-2

TOTAL PETROLEUM FUEL HYDROCARBONS WITH BTEX DISTINCTION

<u>Sample Number</u>	<u>Sample Description</u> Water	<u>Low to Medium Boiling Point Hydrocarbons</u> ppb	<u>Benzene</u> ppb	<u>Toluene</u> ppb	<u>Ethyl Benzene</u> ppb	<u>Xylenes</u> ppb
8100017	B1-W	67000	14000	2400	2500	9100
8100018	B2-W	110000	17000	2600	3000	12000

Detection Limits: 50 0.5 0.5 0.5 0.5

Method of Analysis: EPA 5030/8015/8020

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director



SEQUOIA ANALYTICAL

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California Environmental Consultants
1117 Happy Valley Avenue
San Jose, CA 95129
Attn: Munir Butt

Date Sampled: 10/03/88
Date Received: 10/03/88
Date Extracted: 10/28/88
Date Reported: 10/31/88
Project: #CEC/SBW 9-88-2

TOTAL OIL AND GREASE

<u>Sample Number</u>	<u>Sample Description</u> Water	<u>Detection Limit</u> ppm	<u>Gravimetric Petroleum Oil</u> ppm
8100019	B3-W	5.0	290

Method of Analysis: EPA 3550 with trichlorotrifluoroethane and gravimetric determination.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director



SEQUOIA ANALYTICAL

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California Environmental Consultants
1117 Happy Valley Avenue
San Jose, CA 95129
Attn: Munir Butt

Date Sampled: 10/03/88
Date Received: 10/03/88
Date Analyzed: 10/06/88
Date Reported: 10/31/88

Project: #CEC/SBW 9-88-2

HALOGENATED VOLATILE ORGANICS

<u>Sample Number</u>	<u>Sample Description</u>
8100019	Water, B3-W

<u>Analyte</u>	<u>Detection Limit</u>	<u>Sample Results</u>
	µg/L	µg/L
Bromodichloromethane.....	50	N.D.
Bromoform.....	50	N.D.
Bromomethane.....	50	N.D.
Carbon tetrachloride.....	50	N.D.
Chlorobenzene.....	50	N.D.
Chloroethane.....	250	N.D.
2-Chloroethylvinyl ether.....	50	N.D.
Chloroform.....	25	N.D.
Chloromethane.....	25	N.D.
Dibromochloromethane.....	25	N.D.
1,2-Dichlorobenzene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.
1,1-Dichloroethane.....	25	N.D.
1,2-Dichloroethane.....	25	N.D.
1,1-Dichloroethene.....	50	N.D.
trans-1,2-Dichloroethene.....	50	N.D.
1,2-Dichloropropane.....	25	N.D.
cis-1,3-Dichloropropene.....	250	N.D.
trans-1,3-Dichloropropene.....	250	N.D.
Methylene chloride.....	100	N.D.
1,1,2,2-Tetrachloroethane.....	25	N.D.
Tetrachloroethene.....	25	N.D.
1,1,1-Trichloroethane.....	25	N.D.
1,1,2-Trichloroethane.....	25	N.D.
Trichloroethene.....	25	N.D.
Trichlorofluoromethane.....	50	N.D.
Vinyl chloride.....	100	N.D.

Method of Analysis: EPA 5030/8010

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director



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1117 Happy Valley Avenue
San Jose, CA 95129
Attn: Munir Butt

Date Sampled: 10/03/88
Date Received: 10/03/88
Date Analyzed: 10/06/88
Date Reported: 10/31/88

Project: #CEC/SBW 9-88-2

AROMATIC VOLATILE ORGANICS

Sample Number

8100019

Sample Description

Water, B3-W

Analyte

Detection Limit µg/L

Sample Results µg/L

Benzene.....	25	490
Chlorobenzene.....	50	N.D.
1,4-Dichlorobenzene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.
Ethyl Benzene.....	25	770
Toluene.....	25	160
Xylenes.....	25	1300

Method of Analysis: EPA 5030/8020

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director



CHAIN OF SAMPLE CUSTODY RECORD

Collector: Tanner Shoh Date Sampled: 11.02.88 Time: 11 A.M.

Location of Sampling: 2345 East 14th Street,
Oakland, CA

Project Number: CEC/SRA.88.2.1 Survey Number: _____

Sample Type: Soil

Container Type and Condition: Brass Sleeves 2 inch ϕ 6 inch long on ice

Contract Laboratory Record/Name: SEQUOIA ANALYTICAL LAB, 680 Chesapeake Tr, Redwood City, CA 94061

Sample ID	Field Information
<u>SP1</u>	<u>Soil Sample from aerated pile 1 (Garden)</u>
<u>SP2</u>	<u>Soil Sample from aerated pile 2 (Pond)</u>
<u>SP3</u>	<u>Soil Sample from aerated pile 3 (Waste)</u>

Analysis Requested: I Analyze SP1 + SP2 samples individually by:
 ① Total Petroleum Hydrocarbons TPH-G EPA Test Method 5030
 ② B, T, X & EE by EPA Test Method 8020

③ Analyze SP3 by ① EPA 5030 ② EPA 8010 & 8020
 ③ Oil and Grease 503D & EE

Results Needed By: NOVEMBER 4, 88 (48 HOUR RUSH!)

- | | | | |
|-------------------------|---|---|---|
| Travel Blank: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Travel Blank to be Analyzed Separately: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Duplicate Samples: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Duplicates to be Analyzed Separately: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Field Blank: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Field Blank to be Analyzed Separately: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Background Soil Sample: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Background Soil Sample to be Analyzed Separately: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

Chain of Custody:

1. <u>[Signature]</u>	<u>NOV 2, 88</u>
Field Personnel	Date
2. <u>[Signature]</u>	<u>NOV 2, 88</u>
Courier	Date
3. <u>[Signature]</u>	<u>11/2/88 10:55 AM</u>
Lab	Date

(Three brass sleeves - 2" ϕ dia & length)



SEQUOIA ANALYTICAL

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California Environmental Consultants
1117 Happy Valley Avenue
San Jose, CA 95129
Attn: Munir Butt

Date Sampled: 11/02/88
Date Received: 11/02/88
Date Analyzed: 11/03/88
Date Reported: 11/07/88

Project: CEC/SBW9.88.2.1

TOTAL PETROLEUM FUEL
HYDROCARBONS WITH BTEX DISTINCTION

<u>Sample Number</u>	<u>Sample Description</u> Soil	<u>Low to Medium Boiling Point Hydrocarbons</u> ppm	<u>Benzene</u> ppm	<u>Toluene</u> ppm	<u>Ethyl Benzene</u> ppm	<u>Xylenes</u> ppm
8110126	SP1	1.3	N.D.	N.D.	N.D.	N.D.
8110127	SP2	13	N.D.	N.D.	N.D.	N.D.

Detection Limits: 1.0 0.05 0.1 0.1 0.1

Method of Analysis: EPA 5030 or 3810/8015/8020

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director



SEQUOIA ANALYTICAL

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California Environmental Consultants
1117 Happy Valley Avenue
San Jose, CA 95129
Attn: Munir Butt

Date Sampled: 11/02/88
Date Received: 11/02/88
Date Analyzed: 11/03/88
Date Reported: 11/07/88

Project: CEC/SBW9.88.2.1

HALOGENATED VOLATILE ORGANICS

Sample Number

8110128

Sample Description

Soil, SP3

<u>Analyte</u>	<u>Detection Limit</u>	<u>Sample Results</u>
	$\mu\text{g}/\text{kg}$	$\mu\text{g}/\text{kg}$
Bromodichloromethane.....	5.0	N.D.
Bromoform.....	5.0	N.D.
Bromomethane.....	5.0	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	25	N.D.
2-Chloroethylvinyl ether.....	5.0	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	5.0	N.D.
Dibromochloromethane.....	5.0	N.D.
1,2-Dichlorobenzene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.
1,1-Dichloroethane.....	5.0	N.D.
1,2-Dichloroethane.....	5.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.
trans-1,2-Dichloroethene.....	5.0	N.D.
1,2-Dichloropropane.....	5.0	N.D.
cis-1,3-Dichloropropene.....	5.0	N.D.
trans-1,3-Dichloropropene.....	5.0	N.D.
Methylene chloride.....	10	N.D.
1,1,2,2-Tetrachloroethane.....	5.0	N.D.
Tetrachloroethene.....	5.0	N.D.
1,1,1-Trichloroethane.....	5.0	N.D.
1,1,2-Trichloroethane.....	5.0	N.D.
Trichloroethene.....	5.0	N.D.
Trichlorofluoromethane.....	5.0	N.D.
Vinyl chloride.....	10	N.D.

Method of Analysis: EPA 5030/8010

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director



SEQUOIA ANALYTICAL

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Attn: Munir Butt

Date Sampled: 11/02/88
Date Received: 11/02/88
Date Analyzed: 11/03/88
Date Reported: 11/07/88
Project: CEC/SBW9.88.2.1

AROMATIC VOLATILE ORGANICS

Sample Number

8110128

Sample Description

Soil, SP3

Analyte

Detection Limit

µg/kg

Sample Results

µg/kg

benzene.....	5.0	.....	N.D.
chlorobenzene.....	5.0	.....	N.D.
,4-Dichlorobenzene.....	10	.....	N.D.
,3-Dichlorobenzene.....	10	.....	N.D.
,2-Dichlorobenzene.....	10	.....	N.D.
thyl Benzene.....	5.0	.....	N.D.
oluene.....	5.0	.....	N.D.
ylenes.....	5.0	.....	N.D.

Method of Analysis: EPA 5030/8020

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director



SEQUOIA ANALYTICAL

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California environmental Consultants
1117 Happy Valley Avenue
San Jose, CA 95129
Attn: Munir Butt

Date Sampled: 11/02/88
Date Received: 11/02/88
Date Extracted: 11/02/88
Date Reported: 11/07/88
Project: CEC/SBW9.88.2.1

TOTAL OIL AND GREASE

<u>Sample Number</u>	<u>Sample Description</u> Soil	<u>Detection Limit</u> mg/kg	<u>Gravimetric Petroleum Oil</u> mg/kg
8110128	SP3	30	1300

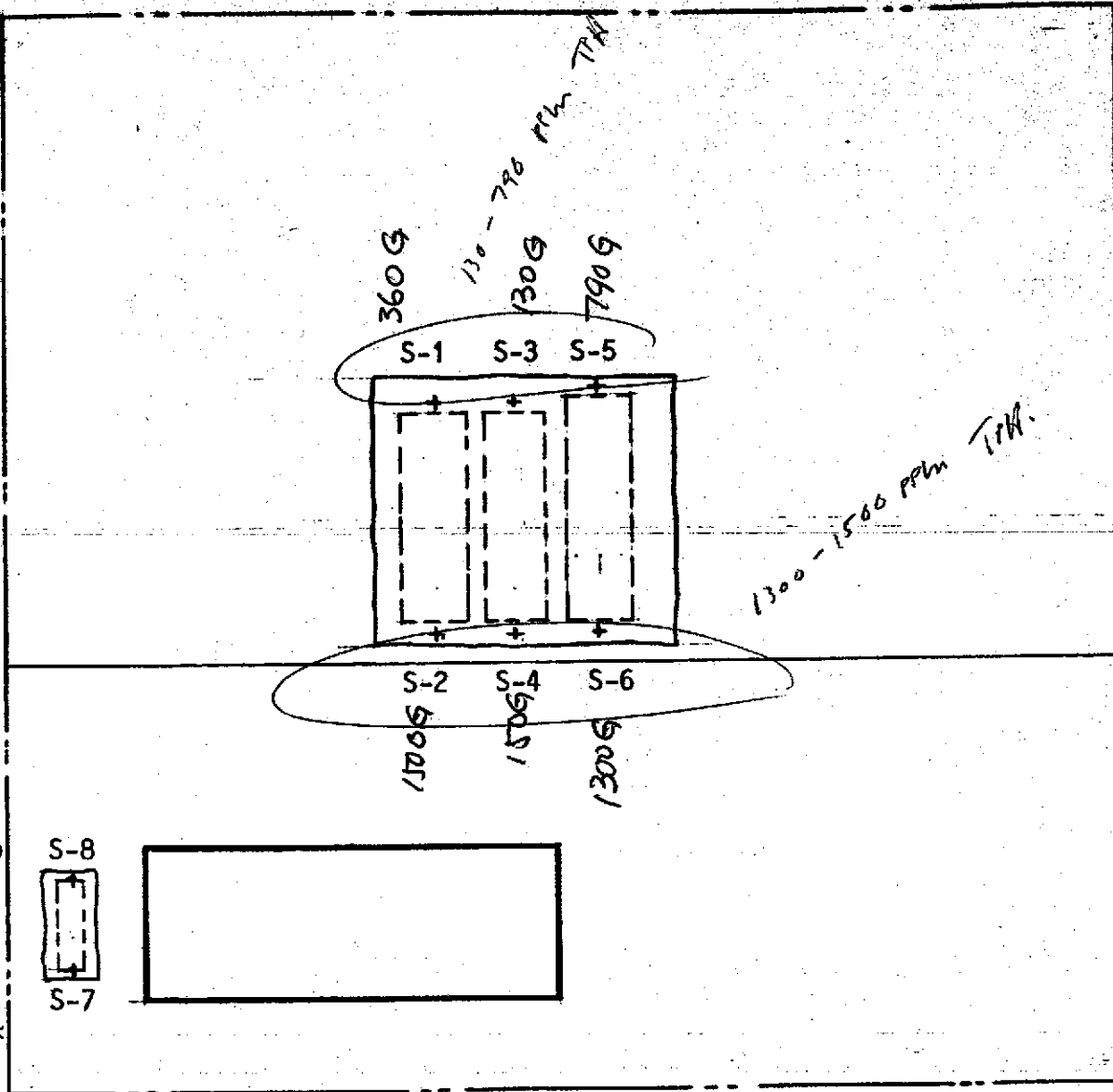
Method of Analysis: EPA 3550 with trichlorotrifluoroethane and gravimetric determination.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

East 14th Street



Miller

783
65
S70
110



704
D

S-1 - Sample

Not To Scale



SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS INC.
 8781-D BIERFA COURT
 DUBLIN, CA 94568

WEST COAST TANK COMPANY
 TAXI-TAXI
 OAKLAND, CALIFORNIA
 SITE PLAN

Project No 38812.01

Date 9-14-88

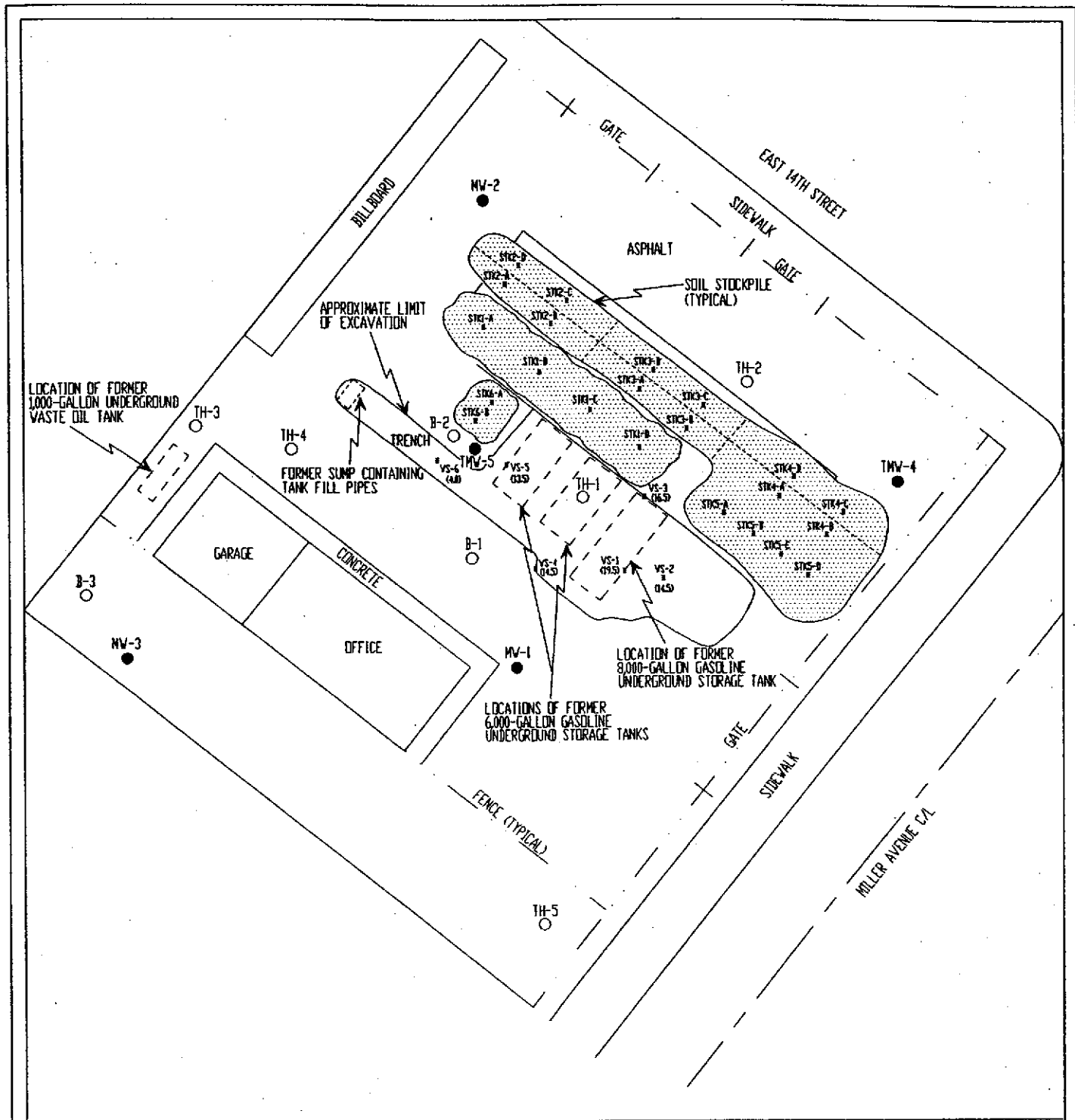
Page 1

TABLE I
Results of Analysis

Sample	Benzene	Toluene	Ethylbenzene	Xylene	Gasoline	Total Lead
B-1	0.3	2.2	3.4	31	360	4.6
B-2	3.0	6.4	2.5	160	1,500	316
B-3	0.17	0.4	1.3	10	130	4.8
B-4	0.8	1.9	8.7	86	150	255
B-5	61	1.3	4.8	30	790	259
B-6	1.5	4.7	9.6	75	1,300	197

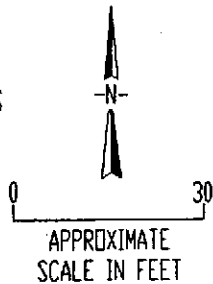
	Total Oil & Grease (503E)	Total Extractable Hydrocarbons as Diesel (8015 as Diesel)
B-7	570	110
B-8	783	65

ALL STOCK PILES NEED TO BE SAMPLED 4 LESS THAN 100 PPM TPH



LEGEND

- TMW-4 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY TPE
- MW-1 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY OTHERS
- B-1 NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- VS-1 NAME, LOCATION, AND DEPTH OF SOIL SAMPLE

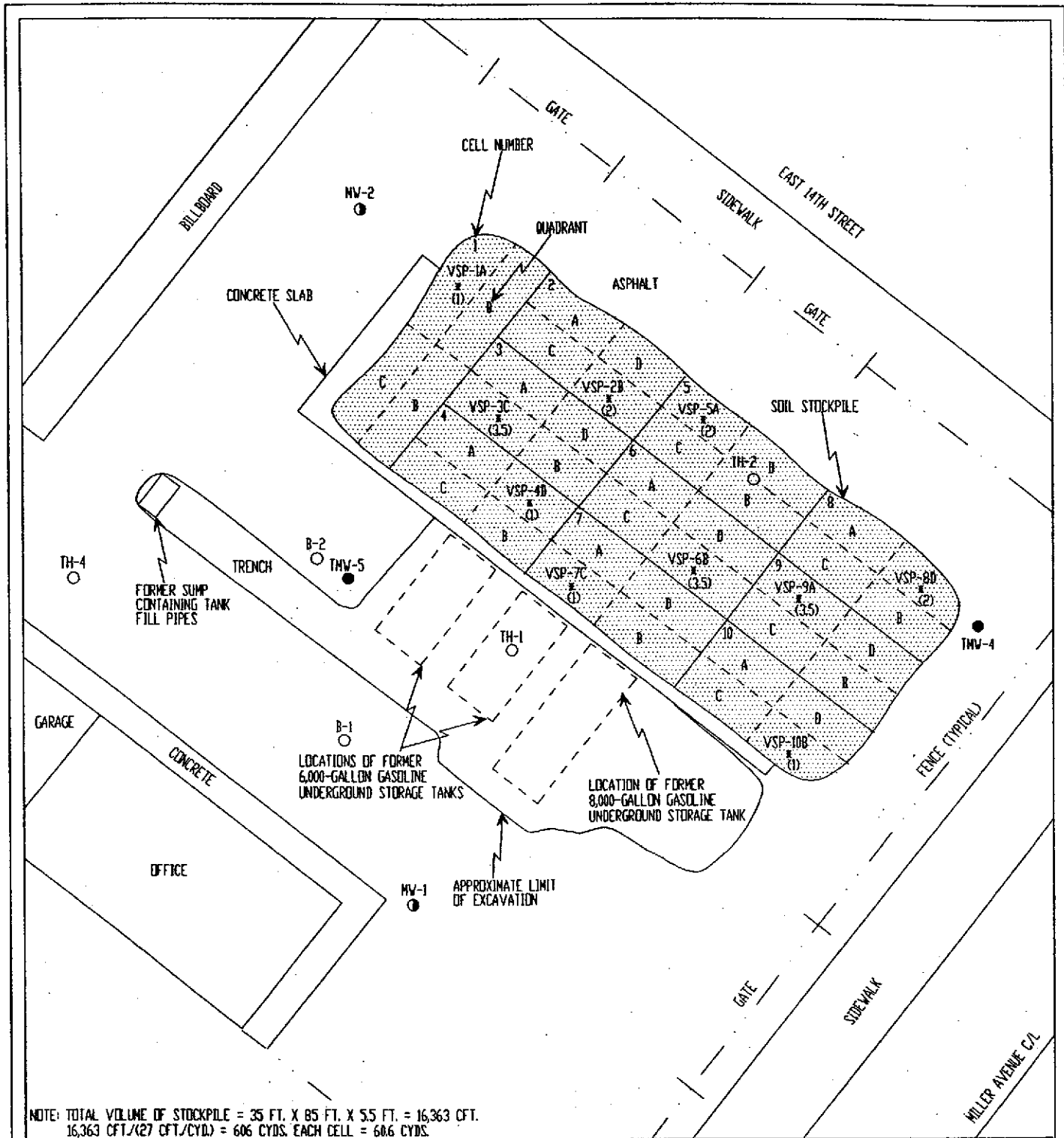


TANK PROTECT ENGINEERING

**SITE PLAN:
EXCAVATION (12/15/94)**

CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

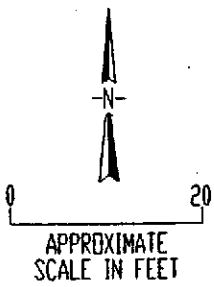
DATE	12/11/96
FIGURE	3
FILE #	267-3N
DRAWN BY	VK
CHECKED BY	LNH



NOTE: TOTAL VOLUME OF STOCKPILE = 35 FT. X 85 FT. X 5.5 FT. = 16,363 CFT.
 16,363 CFT. / (27 CFT./CYD.) = 606 CYDS. EACH CELL = 686 CYDS.

LEGEND

- TMW-4 ● NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY TPE
- MW-1 ● NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY OTHERS
- B-1 ○ NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- VSP-1A * (1) NAME, DEPTH AND APPROXIMATE LOCATION OF VERIFICATION SOIL SAMPLE

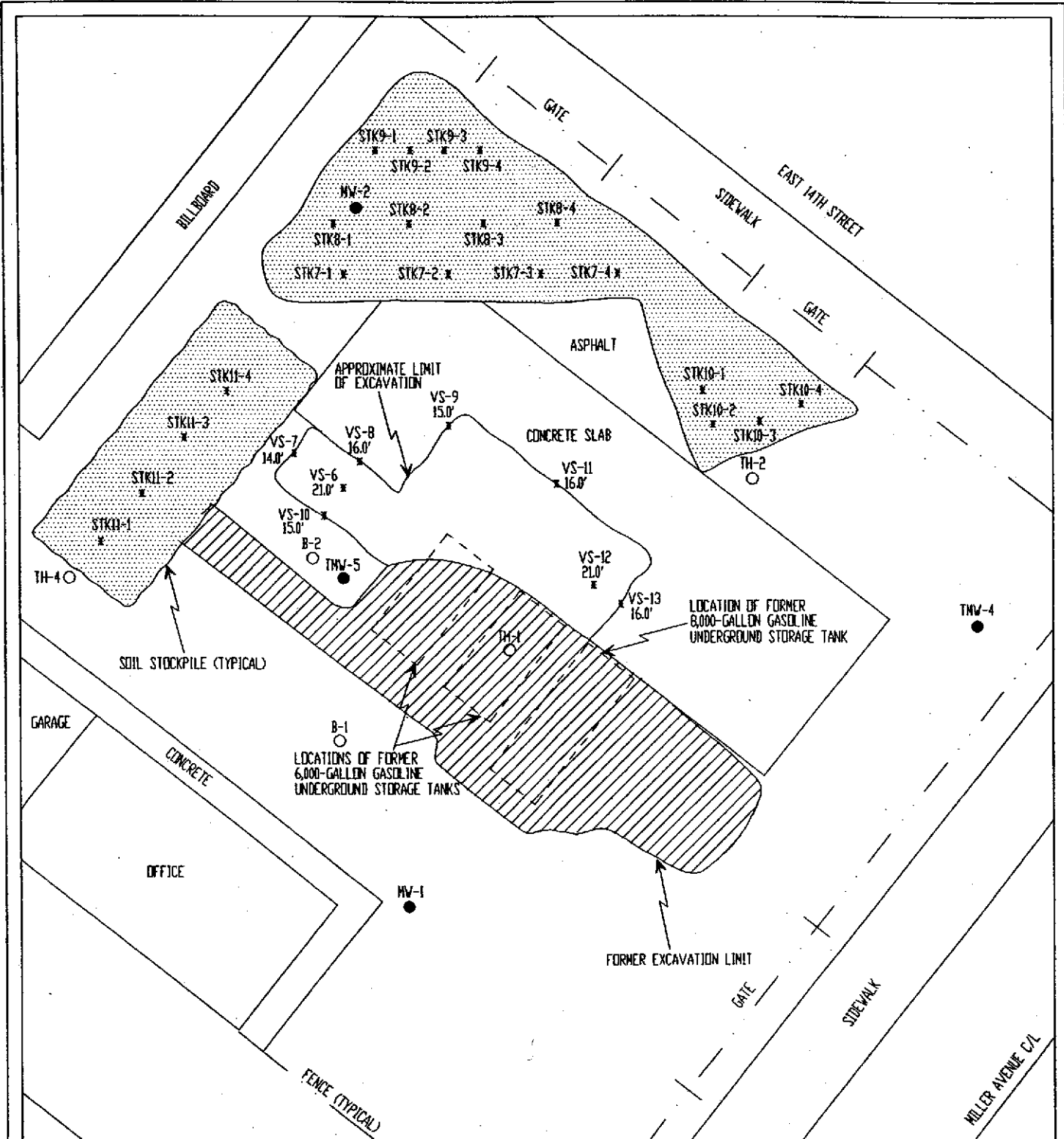


TANK PROTECT ENGINEERING

SITE PLAN:
 VERIFICATION STOCKPILE SAMPLING (5/12/95)

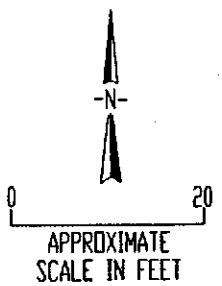
CREDIT WORLD AUTO SALES
 2345 E. 14TH STREET
 OAKLAND, CA 94601

DATE	12/11/96
FIGURE	4
FILE #	267-4N
DRAWN BY	VK
CHECKED BY	LNH



LEGEND

- THW-4 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY TPE
- MW-1 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY OTHERS
- B-1 NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- VS-9 15.0' * NAME, DEPTH, AND LOCATION OF SOIL SAMPLE
- ▨ AREA BACKFILLED

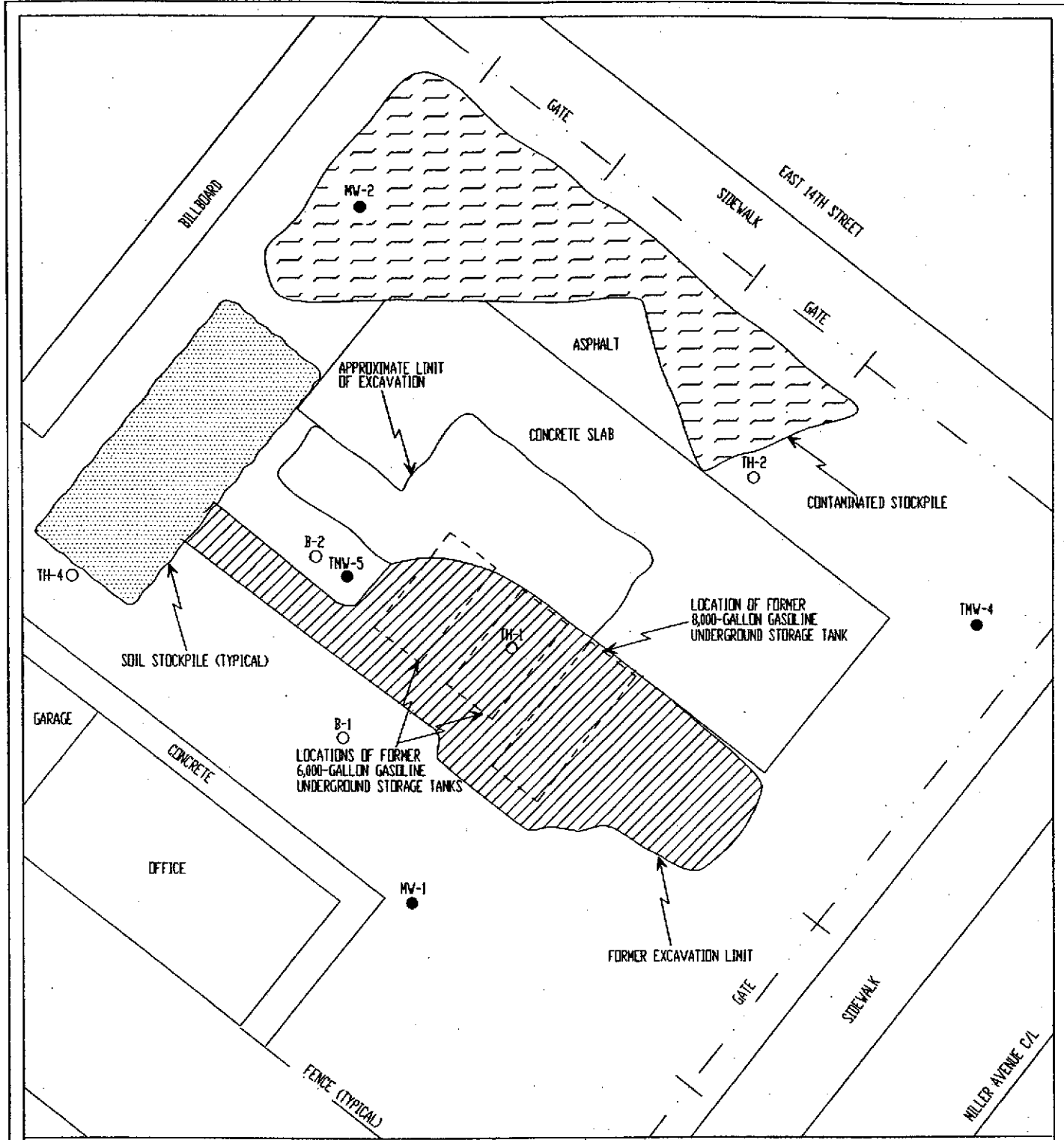


TANK PROTECT ENGINEERING

SITE PLAN:
EXCAVATION (6/30/95 THROUGH 7/5/95)

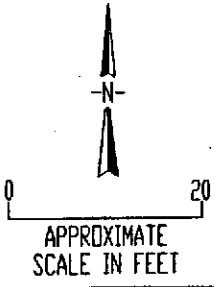
CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	12/11/96
FIGURE	5
FILE #	267-SN
DRAWN BY	VK
CHECKED BY	LWH



LEGEND

- TMW-4 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY TPE
- MW-1 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY OTHERS
- B-1 NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- ▨ LOCATION OF STOCKPILE SAMPLED (7/12/95)
- ▩ AREA BACKFILLED

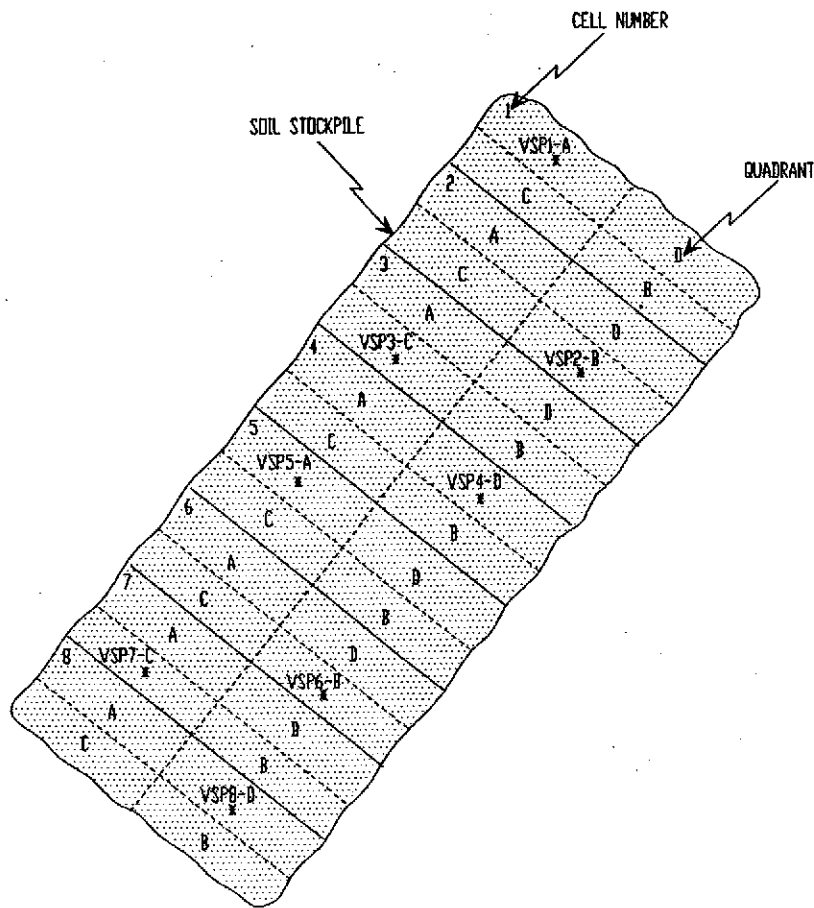


TANK PROTECT ENGINEERING

SITE PLAN:
LOCATION OF VERIFICATION STOCKPILE SAMPLING (7/12/95)

CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

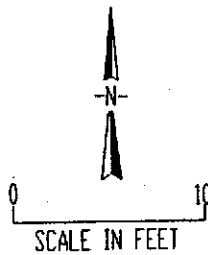
DATE	12/11/96
FIGURE	6
FILE #	267-6N
DRAWN BY	VK
CHECKED BY	LNI



NOTE: TOTAL VOLUME OF STOCKPILE 42X17X6 = 4284 CFT
 4284 CFT / 27 CFT/ CYD = 158.66 CYDS
 EACH CELL = 19.83 CYDS

LEGEND

VSP1-A NAME AND APPROXIMATE LOCATION
 * OF SOIL SAMPLE

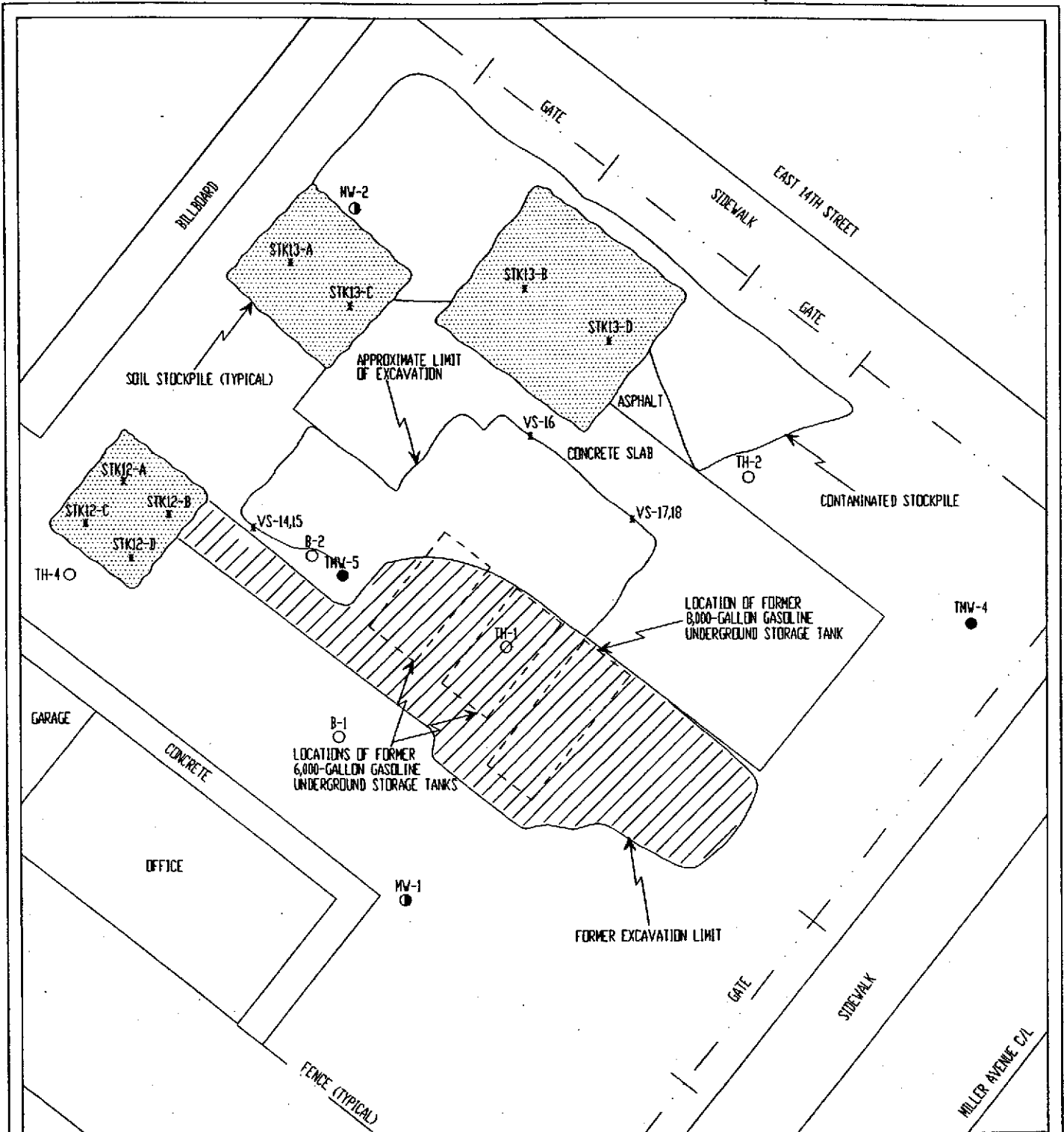


TANK PROTECT ENGINEERING

SITE PLAN:
 VERIFICATION STOCKPILE SAMPLING (7/12/95)

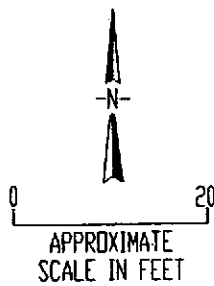
CREDIT WORLD AUTO SALES
 2345 E. 14TH STREET
 OAKLAND, CA 94601

DATE	12/11/96
FIGURE	7
FILE #	267-7N
DRAWN BY	VK
CHECKED BY	LNH



LEGEND

- TW-4 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY TPE
- MW-1 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY OTHERS
- B-1 NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- STK12A NAME AND LOCATION OF SOIL SAMPLE
- VS-16 NAME AND LOCATION OF SOIL SAMPLE
- AREA BACKFILLED

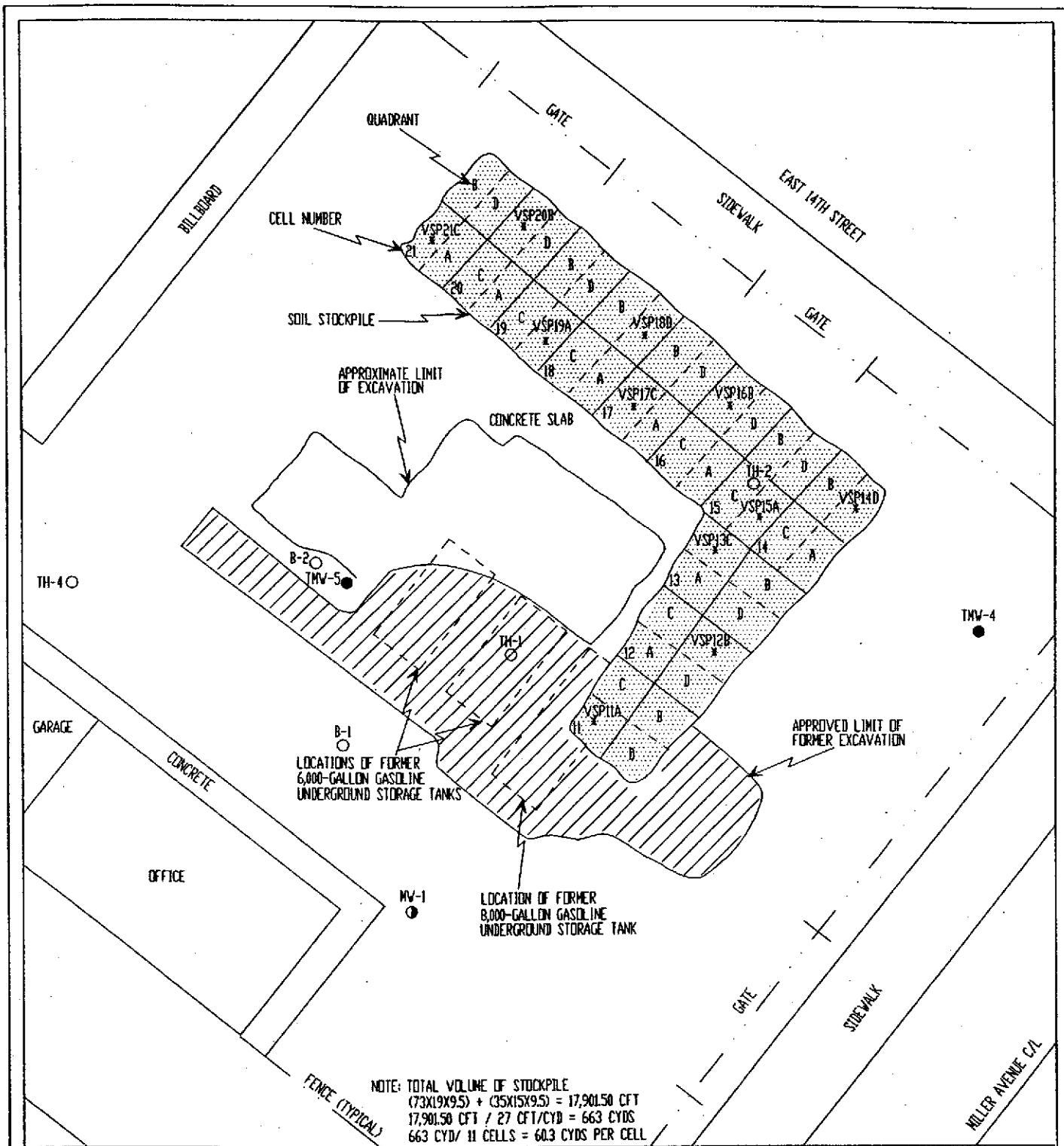


TANK PROTECT ENGINEERING

SITE PLAN:
EXCAVATION (7/28/95)

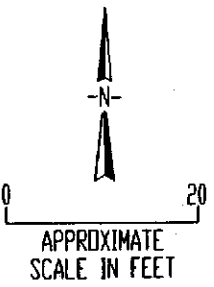
CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
DAKLAND, CA 94601

DATE	12/11/96
FIGURE	8
FILE #	267-8N
DRAWN BY	VK
CHECKED BY	LWH



LEGEND

- TMW-4 ● NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY TPE
- MW-1 ○ NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY OTHERS
- B-1 ○ NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- VSP11A * NAME AND LOCATION OF SOIL SAMPLE
- ▨ AREA BACKFILLED

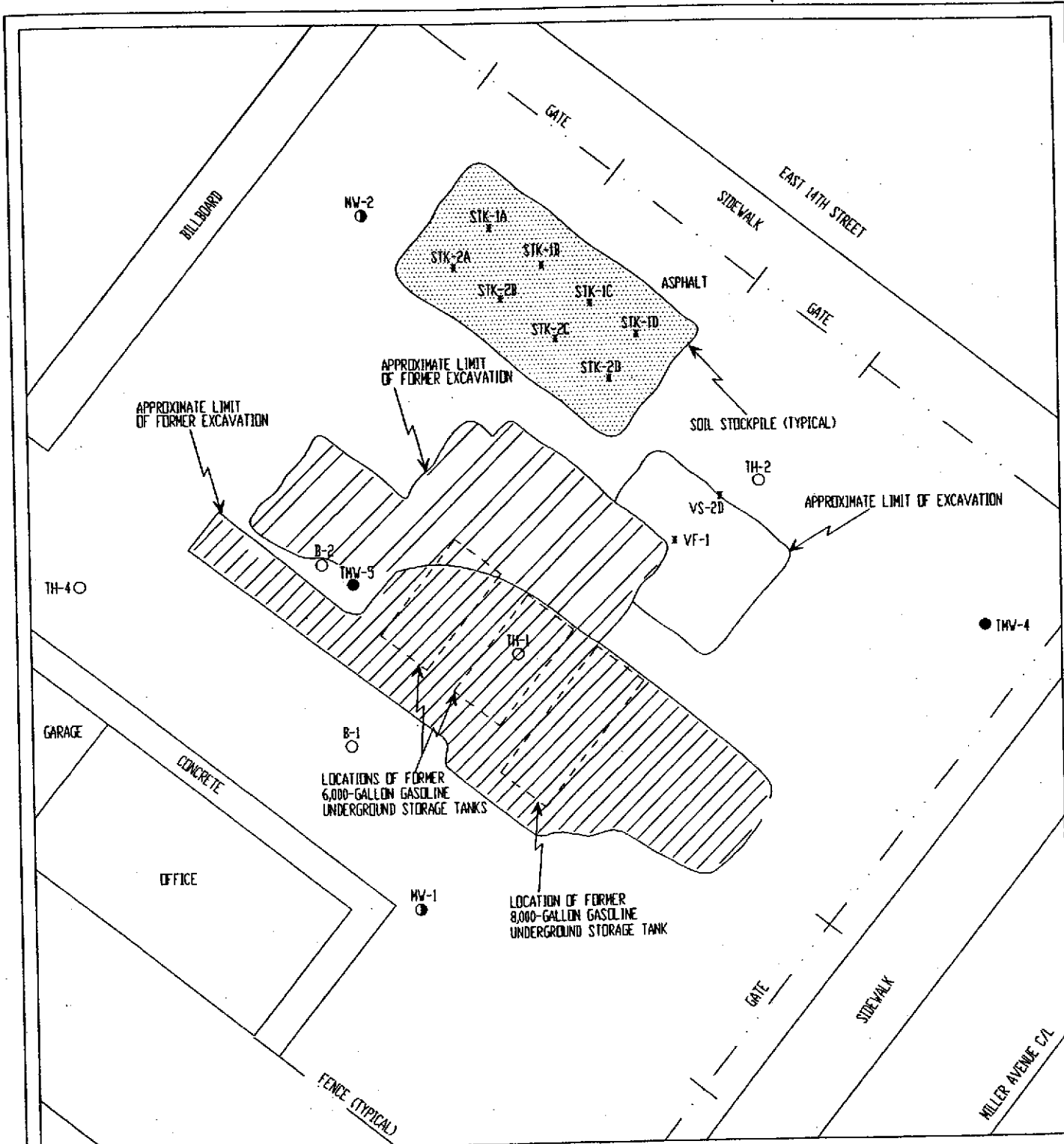


TANK PROTECT ENGINEERING

SITE PLAN:
 VERIFICATION STOCKPILE SAMPLING (10/2/95)

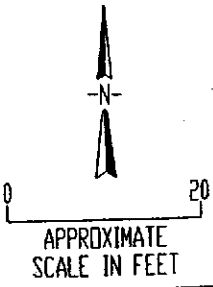
CREDIT WORLD AUTO SALES
 2345 E. 14TH STREET
 OAKLAND, CA 94601

DATE	12/11/96
FIGURE	9
FILE #	267-9N
DRAWN BY	VK
CHECKED BY	LMH



LEGEND

- TMW-4 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY TPE
- MV-1 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY OTHERS
- B-1 NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- * STK-1A NAME AND LOCATION OF SOIL SAMPLE
- ▨ AREA BACKFILLED

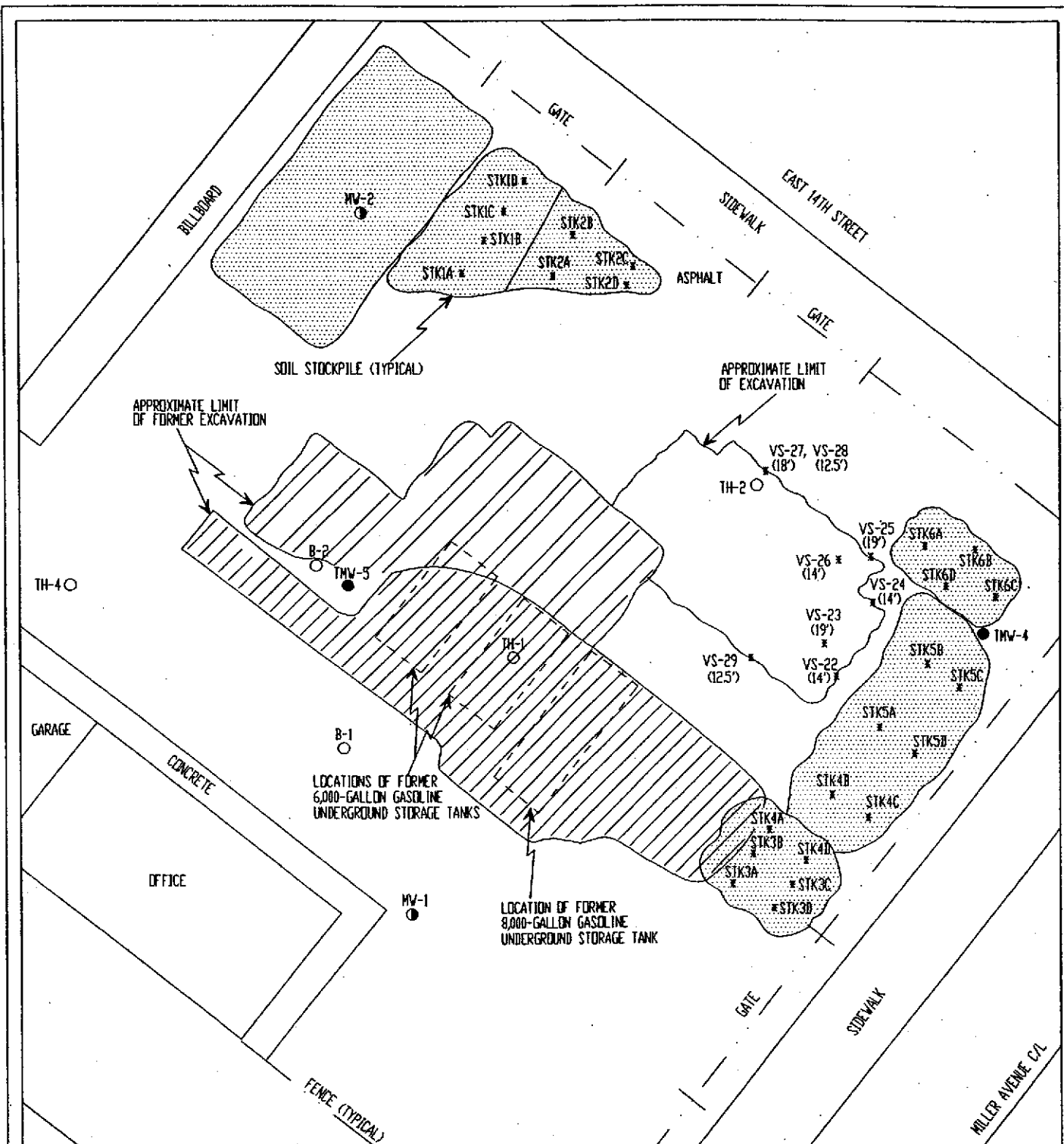


TANK PROTECT ENGINEERING






SITE PLAN:
EXCAVATION (5/24/96)

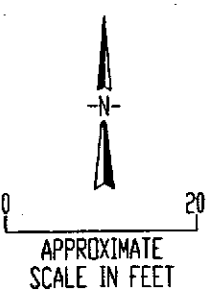
CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	12/11/96
FIGURE	10
FILE #	267-10N
DRAWN BY	VK
CHECKED BY	LNH



LEGEND

- 
THW-4 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY TPE
- 
MW-1 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY OTHERS
- 
B-1 NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- 
VS-27 (18') NAME, DEPTH, AND LOCATION OF SOIL SAMPLE
- 
AREA BACKFILLED

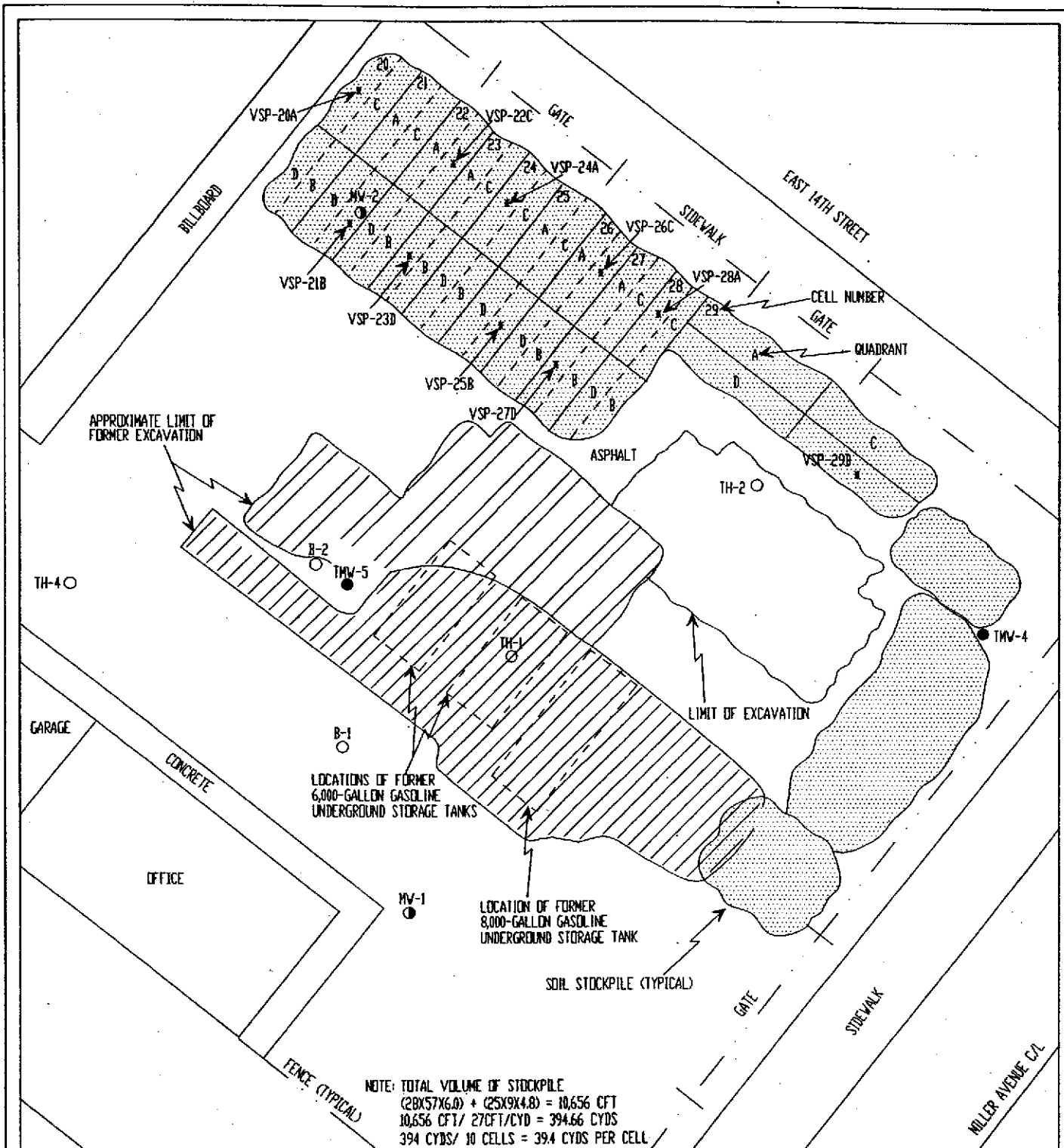


TANK PROTECT ENGINEERING

**SITE PLAN:
EXCAVATION (5/29 AND 5/30/96)**

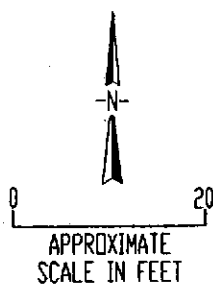
CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	12/11/96
FILE #	11
DRAWN BY	VK
CHECKED BY	LNH



LEGEND

- TMW-4 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY TPE
- MV-1 NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY OTHERS
- B-1 NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- * VSP-20A NAME AND LOCATION OF SOIL SAMPLE
- ▨ AREA BACKFILLED

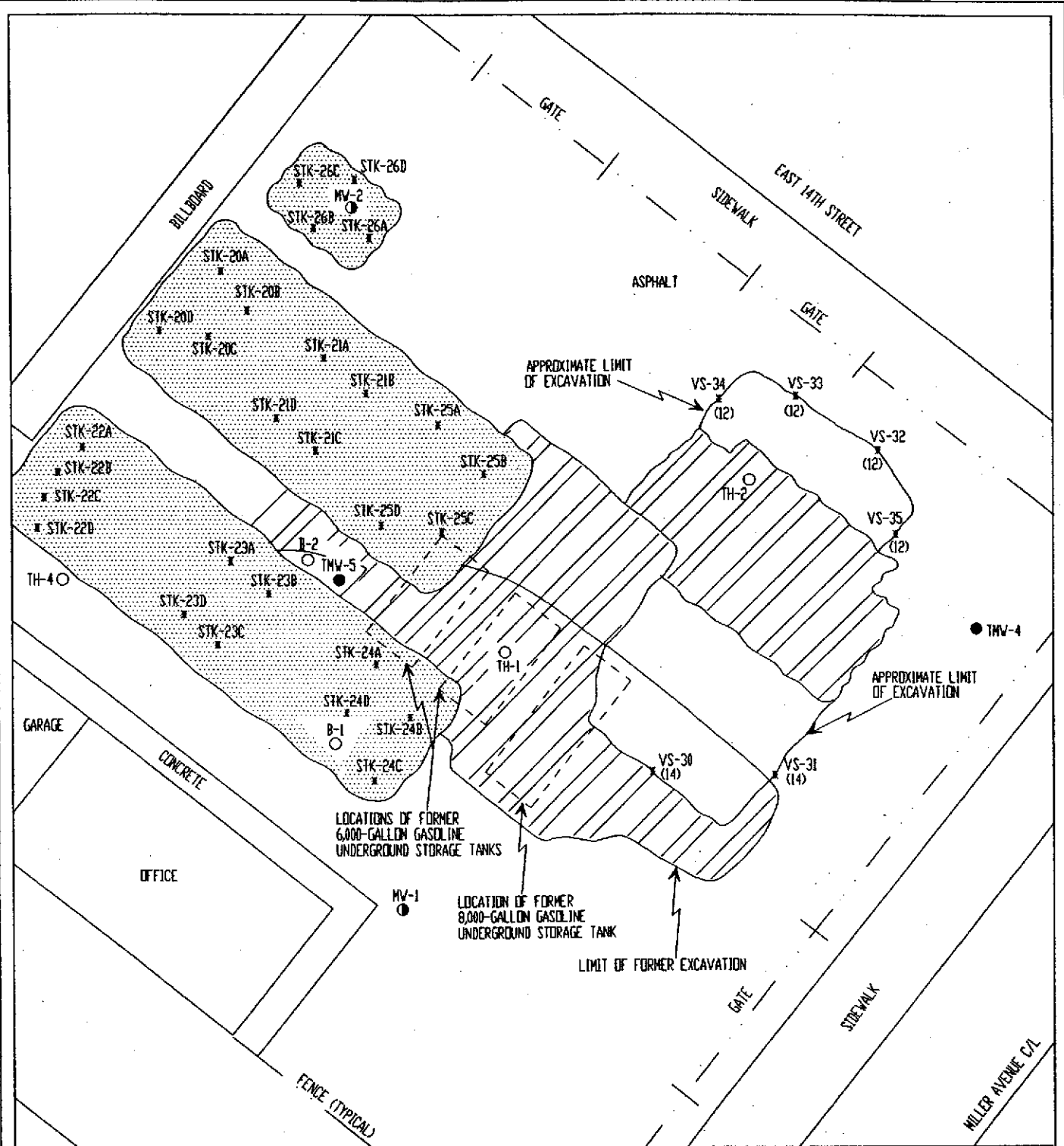


TANK PROTECT ENGINEERING

SITE PLAN:
 STOCKPILE SOIL SAMPLING (7/30/96)

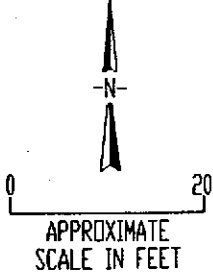
CREDIT WORLD AUTO SALES
 2345 E. 14TH STREET
 OAKLAND, CA 94601

DATE	12/11/96
FIGURE	12
FILE #	267-12N
DRAWN BY	VK
CHECKED BY	LNH



LEGEND

- VS-33 * (12) NAME, DEPTH, AND LOCATION OF SOIL SAMPLE
- TMW-4 ● NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY TPE
- MW-1 ● NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY OTHERS
- B-1 ○ NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- ▨ AREA BACKFILLED

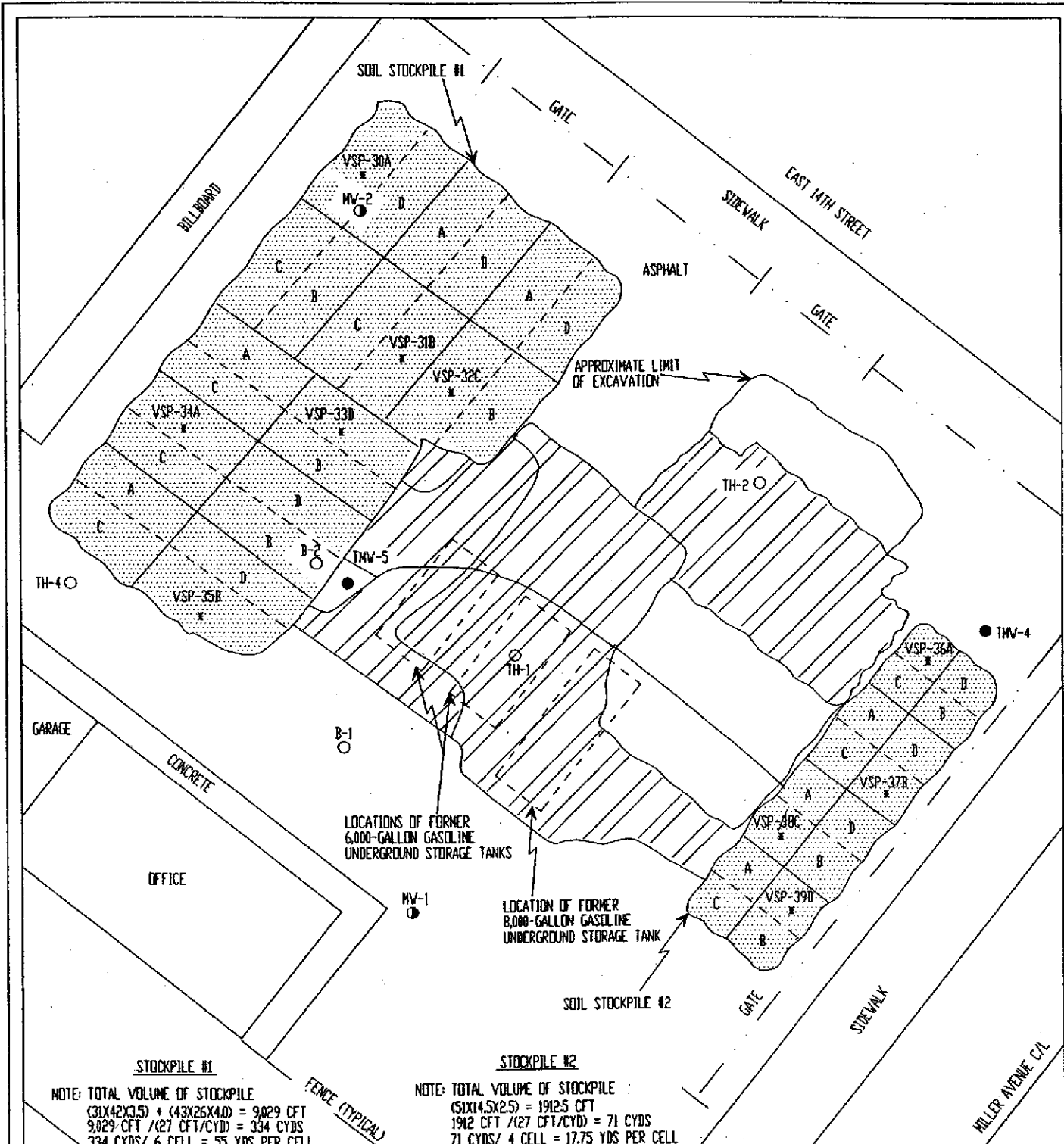


TANK PROTECT ENGINEERING

SITE PLAN:
EXCAVATION (9/16/96 AND 9/17/96)

CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	12/11/96
FIGURE	13
FILE #	267-13N
DRAWN BY	VK
CHECKED BY	LNH

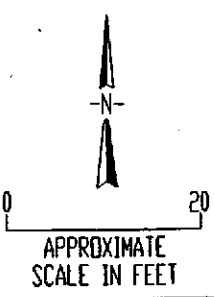


STOCKPILE #1
 NOTE: TOTAL VOLUME OF STOCKPILE
 $(31 \times 42 \times 3.5) + (43 \times 26 \times 4.0) = 9029 \text{ CFT}$
 $9029 \text{ CFT} / (27 \text{ CFT/CYD}) = 334 \text{ CYDS}$
 $334 \text{ CYDS} / 6 \text{ CELL} = 55 \text{ YDS PER CELL}$

STOCKPILE #2
 NOTE: TOTAL VOLUME OF STOCKPILE
 $(51 \times 14.5 \times 2.5) = 1912.5 \text{ CFT}$
 $1912 \text{ CFT} / (27 \text{ CFT/CYD}) = 71 \text{ CYDS}$
 $71 \text{ CYDS} / 4 \text{ CELL} = 17.75 \text{ YDS PER CELL}$

LEGEND

- VSP30-A * NAME AND APPROXIMATE LOCATION OF SOIL SAMPLE
- TMW-4 ● NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY TPE
- MW-1 ● NAME AND LOCATION OF GROUNDWATER MONITORING WELL INSTALLED BY OTHERS
- B-1 ○ NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- ▨ AREA BACKFILLED

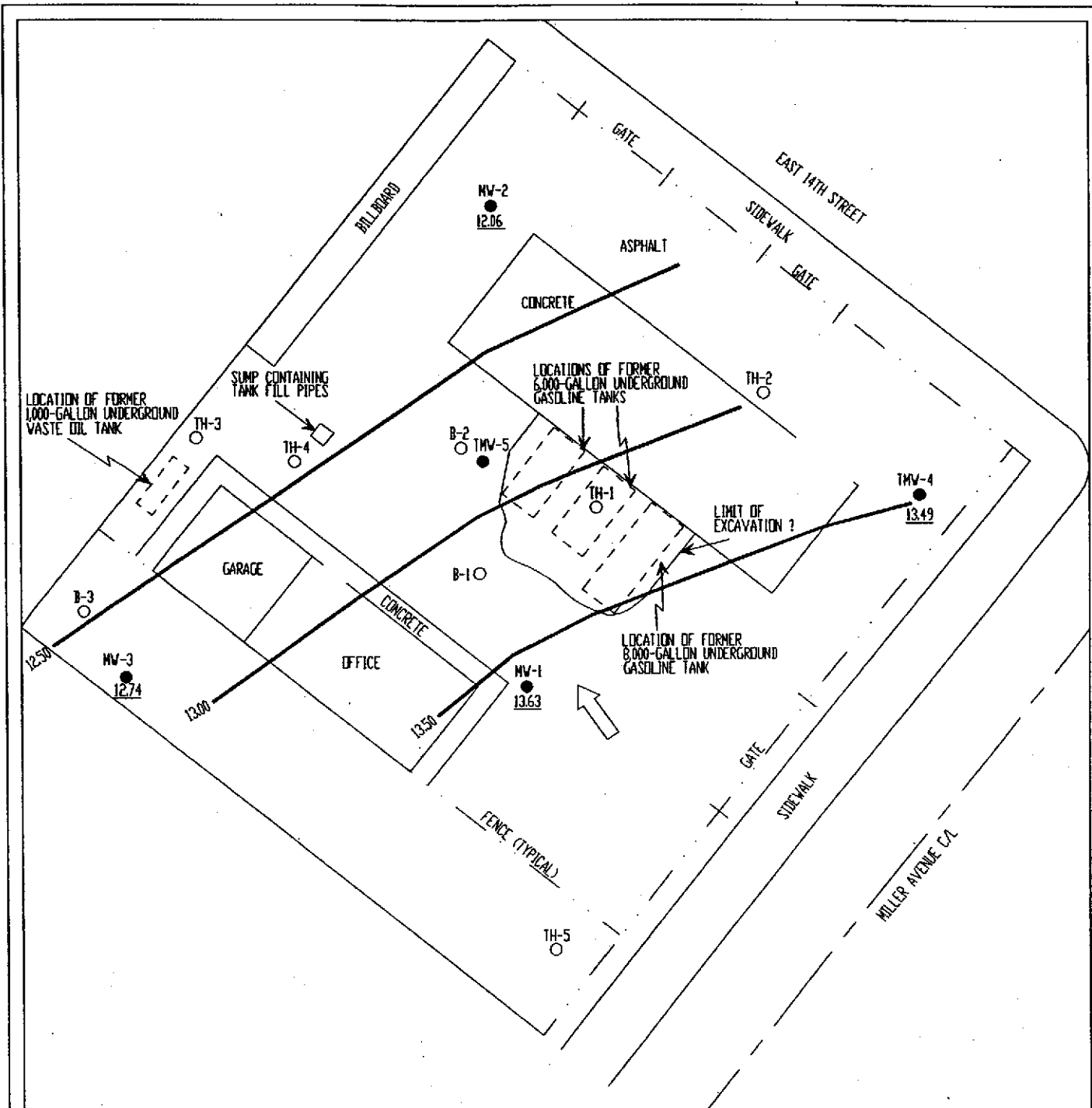


TANK PROTECT ENGINEERING

**SITE PLAN:
 VERIFICATION STOCKPILE SAMPLING (10/4/96)**

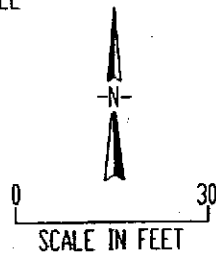
CREDIT WORLD AUTO SALES
 2345 E. 14TH STREET
 OAKLAND, CA 94601

DATE	12/11/96
FIGURE	14
FILE #	267-14N
DRAWN BY	VK
CHECKED BY	LNH



LEGEND

- TMW-4 NAME AND LOCATION OF MONITORING WELL INSTALLED BY TPE
- MW-1 NAME AND LOCATION OF MONITORING WELL INSTALLED BY OTHERS
- B-1 NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- 12.74 POTENTIOMETRIC ELEVATION
- 12.50- POTENTIOMETRIC CONTOUR
- ← GROUNDWATER FLOW DIRECTION

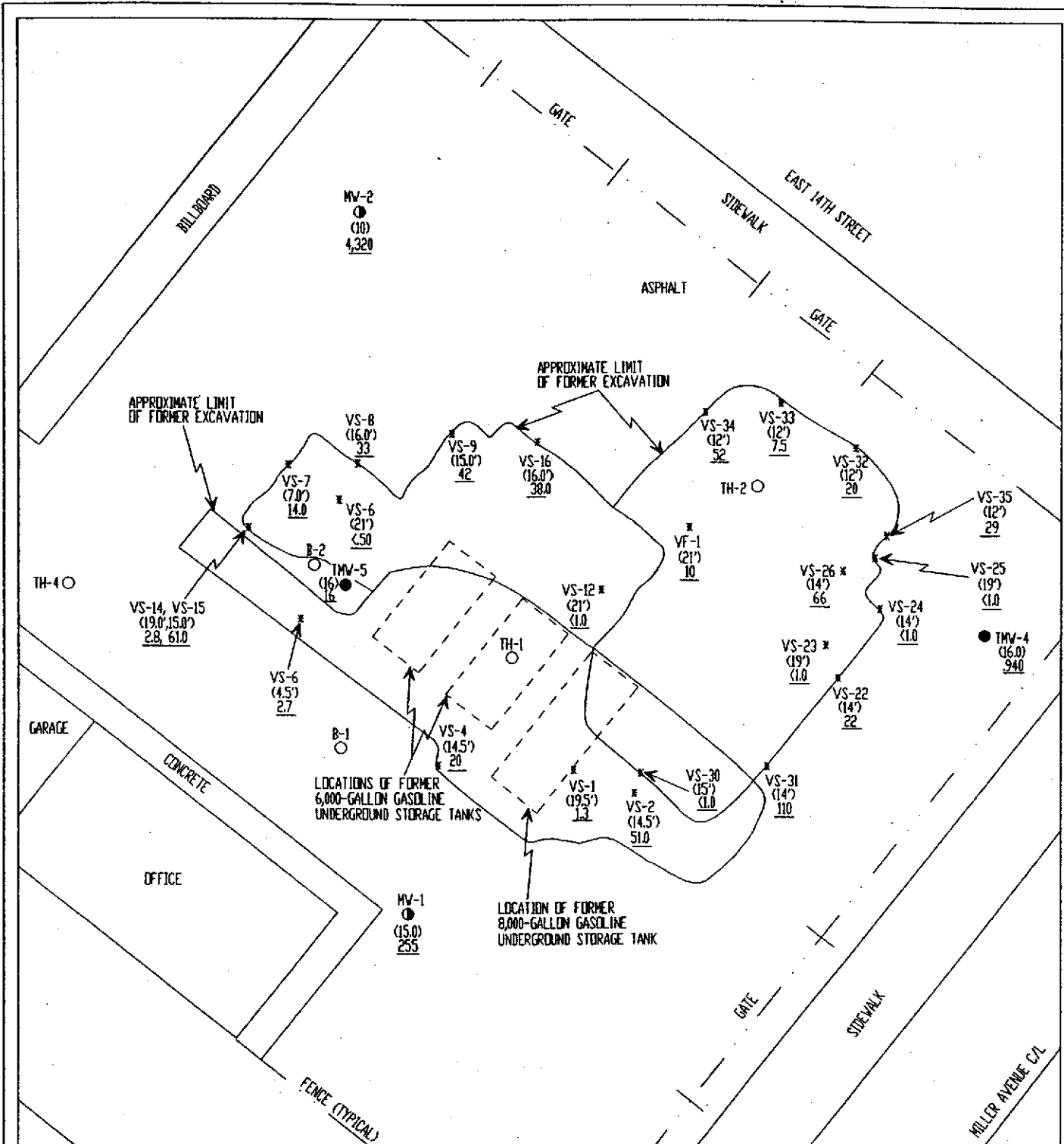


TANK PROTECT ENGINEERING

**SITE PLAN:
GROUNDWATER GRADIENT MAP (9/24 AND 9/30/96)**

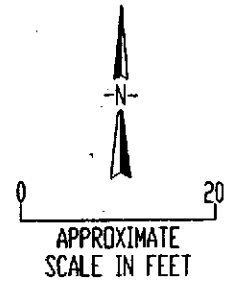
CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	12/11/96
FIGURE	15
FILE #	267-15N
DRAWN BY	VK
CHECKED BY	LNH



LEGEND

- NAME LOCATION OF MONITORING WELL (DEPTH OF SAMPLE COLLECTED DURING INSTALLATION)
- 100 CONCENTRATION TPHG (ppm)
- VS-27 (18') * NAME, DEPTH, AND LOCATION OF SOIL SAMPLE
- ▨ AREA BACKFILLED



TANK PROTECT ENGINEERING

SITE PLAN:
LOCATION OF FINAL VERIFICATION SOIL SAMPLING

CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	12/11/96
FIGURE	16
FILE #	267-16N
DRAWN BY	VK
CHECKED BY	LNH

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
(ppm¹)

Sample ID Name	Date	Depth (Feet)	TPHG	Methyl t-Butyl Ether	Benzene	Toluene	Ethyl-benzene	Xylenes
B-1	10/03/88	15.0	3.4	NA ⁴	.310	<0.1	<0.1	.140
B-2	10/03/88	15.0	83	NA	1.6	1.1	1.8	9.6
B-3	10/03/88	15.0	NA	NA	.360	.650	.470	.850
MW-1	05/22/91	10.0	150	NA	.460	.365	.305	.960
MW-1	05/22/91	15.0	255	NA	1.505	4.255	4.015	4.270
TH-1	08/21/91	15.0	2,775	NA	1.235	1.060	1.625	5.280
TH-2	08/21/91	10.0	360	NA	<0.005	<0.005	<0.005	0.770
TH-2	08/21/91	30.0	50	NA	<0.005	<0.005	<0.005	<0.005
MW-2	08/21/91	10.0	4,320	NA	7.275	6.620	3.470	13.815
MW-2	08/21/91	15.0	160	NA	<0.005	<0.005	<0.005	<0.005
TH-3 ²	08/22/91	10.0	10	NA	<0.005	<0.005	<0.005	<0.005
TH-3 ²	08/22/91	19.0	10	NA	<0.005	<0.005	<0.005	<0.005
TH-4 ²	08/22/91	10.0	25	NA	<0.005	<0.005	<0.005	0.175
TH-4 ²	08/22/91	20.0	450	NA	<0.005	<0.005	<0.005	<0.005
MW-3 ²	08/22/91	10.0	50	NA	<0.005	<0.005	<0.005	<0.005
MW-3 ²	08/22/91	15.0	25	NA	<0.005	<0.005	<0.005	<0.005
TH-5	08/22/91	10.0	10	NA	<0.005	<0.005	<0.005	<0.005
TH-5	08/22/91	18.0	<5	NA	<0.005	<0.005	<0.005	<0.005
TMW-4	07/22/93	5.5-6.0	<.500	NA	<0.005	<0.005	<0.005	<.015
TMW-4	07/22/93	10.5-11.0	<.500	NA	<0.005	<0.005	<0.005	<.015
TMW-4	07/22/93	15.5-16.0	.940	NA	<0.005	<0.005	<0.005	<.015
TMW-5	07/23/93	5.5-6.0	2.4	NA	.026	<0.005	<0.005	.053
TMW-5	07/23/93	10.5-11.0	14	NA	.900	<0.005	1.6	<.140
TMW-5	07/23/93	15.5-16.0	16	NA	.840	<0.005	.690	1.3
VS-1	12/06/94	19.5	1.3	NA	.010	.061	.027	.190
VS-2	12/06/94	14.5	51	NA	.61	.100	1.3	.940
VS-3	12/06/94	16.5	210	NA	1.1	.300	4.5	140

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
(ppm¹)

Sample ID Name	Date	Depth (Feet)	TPHG	Methyl t-Butyl Ether	Benzene	Toluene	Ethyl-benzene	Xylenes
VS-4	12/06/94	14.5	20	NA	1.2	.094	.470	2.4
VS-5	12/06/94	13.5	100	NA	.440	<.150	2.2	8.5
VS-6	12/06/94	4.0	2.7	NA	.046	<0.005	<0.005	<0.015
STK1-A,B,C,D	12/06/94	2.0-2.5	5.3	NA	<.014	<.014	.023	.12
STK2-A,B,C,D	12/06/94	2.0-2.5	9.2	NA	.015	<.014	.084	.300
STK3-A,B,C,D	12/06/94	3.5-4.0	45	NA	<.140	.180	.710	4.4
STK4-A,B,C,D	12/06/94	3.0-3.5	40	NA	.380	.140	.750	2.5
STK5-A,B,C,D	12/06/94	4.0-4.5	78	NA	.200	.780	1.2	8.1
STK6-A,B	12/06/94	2.0-2.5	9.8	NA	.052	<0.015	.046	.240
VSP-1A	05/12/95	1.0-1.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP-2B	05/12/95	2.0-2.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP-3C	05/12/95	3.5-4.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP-4D	05/12/95	1.0-1.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP-5A	05/12/95	2.0-2.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP-6B	05/12/95	3.5-4.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP-7C	05/12/95	1.0-1.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP-8D	05/12/95	2.0-2.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP-9A	05/12/95	3.5-4.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP-10B	05/12/95	1.0-1.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VS-6	06/30/95	21.0	<0.5	NA	<0.005	<0.005	<0.005	<0.015
VS-7	06/30/95	14.0	50	NA	.370	.070	.990	3.3
STK7(1-4)	07/03/95	3.0-3.5	290	NA	.560	.970	3.0	11.0
STK8(1-4)	07/03/95	2.0-2.5	49	NA	.100	.100	.550	1.8
STK9(1-4)	07/03/95	2.0-2.5	78	NA	.052	.036	.520	1.6
STK10(1,2,3,4)	07/03/95	3.0-3.5	22	NA	.012	.012	.032	.089
STK11(1,2,3,4) ³	07/03/95	3.0-3.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VS-8	07/03/95	16.0	33	NA	.036	.022	.066	.099

SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
(ppm¹)

Sample ID Name	Date	Depth (Feet)	TPHG	Methyl t-Butyl Ether	Benzene	Toluene	Ethyl-benzene	Xylenes
VS-9	07/05/95	15.0	42	NA	.060	.036	.089	.120
VS-10	07/05/95	15.0	130	NA	.180	.085	.250	.370
VS-11	07/05/95	16.0	81	NA	.073	.086	.160	.210
VS-12	07/05/95	21.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VS-13	07/05/95	16.0	75	NA	.048	.040	.078	.180
VSP 1A	07/12/95	1.0-1.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 2B	07/12/95	2.0-2.5	4.0	NA	<0.005	.017	.026	.099
VSP 3C	07/12/95	3.5-4.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 4D	07/12/95	1.0-1.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 5A	07/12/95	2.0-2.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 6B	07/12/95	3.5-4.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 7C	07/12/95	1.0-1.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 8D	07/12/95	2.0-2.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VS-14	07/28/95	19.0	2.8	NA	.300	.016	.094	.140
VS-15	07/28/95	15.0	61	NA	.470	.042	1.2	.730
VS-16	07/28/95	16.0	38	NA	.400	.043	.420	.590
VS-17	07/28/95	19.0	14	NA	.120	.018	.150	.110
VS-18	07/28/95	14.0	590	NA	3.1	2.4	10	52
STK12(A-D)	07/28/95	2.0-2.5	87	NA	.260	.140	1.6	3
STK13(A-D)	07/28/95	3.0-3.5	58	NA	.210	.097	.630	2.3
VSP 11A	10/03/95	1.5-2.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 12B	10/03/95	2.0-2.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 13C	10/03/95	3.0-3.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 14D	10/03/95	1.5-2.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 15A	10/03/95	2.0-2.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 16B	10/03/95	3.0-3.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 17C	10/03/95	1.5-2.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
 (ppm¹)

Sample ID Name	Date	Depth (Feet)	TPHG	Methyl t-Butyl Ether	Benzene	Toluene	Ethylbenzene	Xylenes
VSP 18D	10/03/95	2.0-2.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 19A	10/03/95	3.0-3.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 20B	10/03/95	1.5-2.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005
VSP 21C	10/03/95	2.0-2.5	<1.0	NA	<0.005	<0.005	<0.005	<0.005
STK-1 A,B,C,D	05/24/96	2.0-3.0	170	<0.005	.110	.160	.710	2.6
VS-2D	05/24/96	18.0	140	<0.005	.170	.210	.280	1.5
VF-1	05/24/96	21.0	10	<0.005	<0.005	.0074	.0095	.037
STK-2 A,B,C,D	05/24/96	2.0-3.0	320	<0.005	.100	.095	1.2	2.1
STK-1,A,B,C,D	05/29/96	2.5-3.0	1.7	<0.005	<0.005	<0.005	.005	.017
STK-2A,B,C,D	05/29/96	2.5-3.0	140	<0.005	.013	.026	.047	.094
VS-22	05/29/96	14.0	22	<0.005	.0065	<0.005	.020	.031
VS-23	05/29/96	19.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VS-24	05/29/96	14.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VS-25	05/29/96	19.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VS-26	05/29/96	14.0	66	<0.005	.0063	.022	.024	.130
VS-27	05/29/96	18.0	3.9	<0.005	<0.005	<0.005	<0.005	.033
VS-28	05/29/96	12.5	450	<0.005	.170	.120	.280	.390
STK-3A,B,C,D	05/30/96	2.5-3.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
STK-4A,B,C,D	05/30/96	2.5-3.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
STK-5A,B,C,D	05/30/96	2.5-3.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
STK-6A,B,C,D	05/30/96	2.5-3.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VS-29	05/30/96	12.5	470	<0.005	.049	.085	.250	.760
VSP-20A	07/30/96	1.5-2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-21B	07/30/96	2.5-3.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-22C	07/30/96	3.5-4.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-23D	07/30/96	1.5-2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-24A	07/30/96	2.5-3.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
(ppm¹)

Sample ID Name	Date	Depth (Feet)	TPHG	Methyl t-Butyl Ether	Benzene	Toluene	Ethyl-benzene	Xylenes
VSP-25B	07/30/96	3.5-4.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-26C	07/30/96	1.5-2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-27D	07/30/96	2.5-3.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-28A	07/30/96	3.5-4.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-29B	07/30/96	1.5-2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
STK-20A,B,C,D	09/16/96	2.0-2.5	44	<0.005	.075	.090	.110	.170
STK-22A,B,C,D	09/16/96	1.5-2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
STK-23A,B,C,D	09/16/96	1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VS-30	09/16/96	15	8.2	<0.005	.040	.054	.250	.210
VS-31	09/16/96	14	110	<0.005	.280	.210	.460	.490
STK-25A,B,C,D	09/17/96	1.0	210	<0.005	.180	.098	.120	.240
STK-26A,B,C,D	09/17/96	1.0	31	<0.005	.050	.063	.084	.250
VS-32	09/17/96	12	20	<0.005	.120	.120	.130	.280
VS-33	09/17/96	12	7.5	<0.005	.019	.034	.060	.200
VS-34	09/17/96	12	52	<0.005	.190	.140	.630	.660
VS-35	09/17/96	12	29	<0.005	.023	.130	.072	.500
STK-21A,B,C,D	09/17/96	1.0	90	<0.005	.120	.084	.190	.320
STK-24A,B,C,D	09/17/96	1.5-2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-30A	10/04/96	1.0-1.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-31B	10/04/96	1.5-2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-32C	10/04/96	2.0-2.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-33D	10/04/96	1.0-1.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-34A	10/04/96	1.5-2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-35B	10/04/96	2.0-2.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-36A	10/04/96	1.5-2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-37B	10/04/96	1.5-2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
VSP-38C	10/04/96	1.5-2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
(ppm¹)

Sample ID Name	Date	Depth (Feet)	TPHG	Methyl t-Butyl Ether	Benzene	Toluene	Ethylbenzene	Xylenes
VSP-39D	10/04/96	1.5-2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005

¹ PARTS PER MILLION.

² ALSO ANALYZED FOR TOTAL RECOVERABLE HYDROCARBONS BY ESE; SEE ESE 12/23/91 REPORT FOR ANALYTICAL RESULTS.

³ ALSO ANALYZED FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL: ALL ANALYTICAL RESULTS WERE NONDETECTABLE.

⁴ NOT ANALYZED.

TABLE 2
SUMMARY OF EXCAVATION GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ppb¹)

Sample ID Name	Date	TPHG	Benzene	Toluene	Ethyl-benzene	Xylenes
GB-1 ²	05/12/95	<50.0	<0.5	<0.5	<0.5	<0.5

¹ PARTS PER BILLION.

² EXCAVATION SAMPLE

EAST 14TH STREET

SIDWALK

FENCE

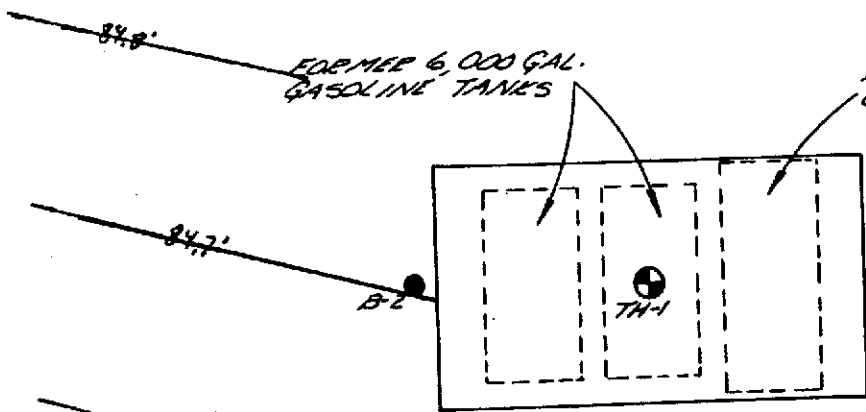
MW-2
EL - 98.585'
GWEL - 84.815'

TH-2

Proposed
MW-4

FORMER 6,000 GAL.
GASOLINE TANKS

FORMER 8000 GAL.
GASOLINE TANK



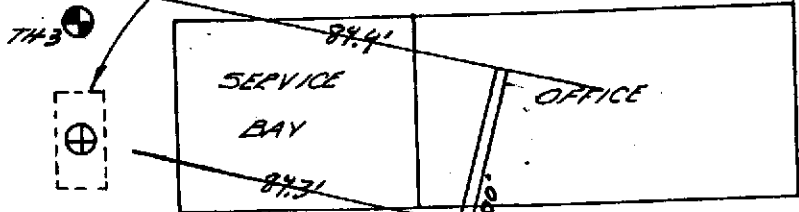
Proposed
TH-6

SIDWALK



TH-4 84.5'
FORMER 1,000 GAL.
WASTE OIL TANK

MW-1
EL - 100.00'
GWEL - 84.58'



TH-3

B-3

MW-3
EL - 99.75'
GWEL - 84.18'

Proposed
MW-5

LEGEND

- PREVIOUS BORINGS
- ⊕ CURRENT BORINGS & MONITORING WELLS

TH-5

FENCE

FENCE

MILLER AVENUE



Earth Systems
Environmental, Inc.
A Member of The Earth Systems Group

6701 McDivitt Drive, Suite B
Bakersfield, CA 93313
(805) 836-0901
FAX (805) 836-0911

TITLE

WONG'S TAXI TAXI

2314 EAST 14TH STREET
OAKLAND, CALIFORNIA

SITE MAP

Figure

8/21/91

2

JOB NO.

EB-8018-1



APPENDIX A
BORING LOGS

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WELL CONSTRUCTION	CHEMICAL ANALYSES		BLOW COUNT	DEPTH (feet)	SAMPLE INTERVAL	NUMBER	U.S.C.S. DESIGN.	SOIL DESCRIPTION
	Laboratory	Field						
	TPH (mg/kg)	PID (ppm)						
				0				
			4	5			m/s.m	Sand, silt to silty sand with minor clay, dark greenish gray, loose, dry, no stain, very slight odor
		20	7					
				10			g.? m/cL	Ground water in back filled pit @ 9' clay, silt to silty clay, dark greenish gray, wet, loose, no stain, no odor
				15			m/cL	Same as above TO 16'
	2775	ND			80143			

Geologist: ESB - Mark Magarino, R. G.

Driller: S B / S

PLATE

Wong's Taxi

LOG of BORING

TH-1

Project Number: EB-8014-1

8/2/91

Page / of /

WELL CONSTRUCTION	CHEMICAL ANALYSES		BLOW COUNT	DEPTH (feet)	SAMPLE INTERVAL	SAMPLE NUMBER	U.S.C.S. DESIGN.	SOIL DESCRIPTION
	Laboratory	Field						
	TPH (ng/kg)	PID (ppm)						
				0				
			4	5			CL/ML	Silty Clay with trace fine sand, dark greenish gray, slightly moist, medium dense, good plasticity, no stain, trace hydrocarbon like odor
	360	1050	6	10	8014-4	SM/ML	Silty sand with minor clay, light grayish green, slightly moist, loose, no stain, strong odor	
		200	7	15		CL	Fine clay minor silt, grayish brown, moist, good plasticity, no stain, moderate odor	
			14	20		SM/CL	Gravelly sand, significant clay and silt, yellowish brown, slightly moist, no stain, very slight odor	
		100	19	20		CL	Fine clay minor silt, grayish brown, moist, good plasticity, no stain, trace odor	
		20	19	25		CL	Same as above, moist, no odor	
	50	50	7	30	8014-5	CL	Same as above TA31'	

Geologist: ESE - Mark Magarino, R.G.
 Wong's Taxi
 Project Number: 89-8014-1

Driller: S O / S
LOG of BORING
 TH-2
 Page 1 of 1

WELL CONSTRUCTION	CHEMICAL ANALYSES		BLOW COUNT	DEPTH (feet)	SAMPLE INTERVAL	SAMPLE NUMBER	U.S.G.S. DESIGN.	SOIL DESCRIPTION
	Laboratory	Field						
	TPH (mg/kg)	PID (ppm)						
			4	5			CL/ML	Clay, trace sand, silt, yellowish brown, dark greenish gray,
	10	NO	6	10		8014-8	OL	Organic clay, dark greenish gray, slightly moist, good plasticity, no stain, no odor
		70	13	15			CL	Est. clay, minor silt, light green, moist, medium dense, good plasticity, no stain, minor hydrocarbon like odor
	10	70	13	20		8014-9	CL	Same as above, light brownish yellow, slight odor
		NO	2	25			CL	Same as above, very moist, no odor
		NO	11	30			SM/CL	Silty gravelly sand, significant clay, light yellowish brown, very moist, medium dense, no stain, no odor

Geologist: ESB - Mark Magurzo, R.G.

Driller: 50/5

Wong's Taxi

LOG of BORING

Project Number: EB-8014-1

8/2/91

TH-3

PLATE

Page 1 of 1

WELL CONSTRUCTION	CHEMICAL ANALYSES		BLOW COUNT	DEPTH (feet)	INTERVAL	SAMPLE NUMBER	U.S.C.S. DESIGN.	SOIL DESCRIPTION
	Laboratory	Field						
	TPH (ng/kg)	PID (ppm)						
				0				
			4	5			CL	Clay, dark greenish gray, slightly moist, medium dense, good plasticity, no stain
		80	6	10				
			4	10		8014-10	SM/CL	Generally chunky sand, dark gray to black, slightly moist, slightly dense, dark stain, moderate hydrocarbon like odor
	25	140	9	10				
			14	15			CL	Fat Clay, minor silt, light green, moist, medium dense, good plasticity, no stain, slight odor
		20	13	15				
			6	20		8014-11	SM	Clayey silty sand, light green, saturated, medium dense, no stain, moderate odor
	450	20	12	20				TOZ1

Geologist: ESE - Mark Maganger, R.G.

Driller: SB/S

PLATE

Wong's Taxi

LOG of BORING

TH-4

Project Number: EB-8014-1

8/2/91

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WELL CONSTRUCTION	CHEMICAL ANALYSES		BLOW COUNT	DEPTH (feet)	SAMPLE INTERVAL	SAMPLE NUMBER	U.S.G.S. DESIGN.	SOIL DESCRIPTION
	Laboratory	Field						
	TPH (mg/kg)	PID (ppm)						
				0				
				3				
		20	37	5			CL	Fat Clay, minor fine sand, dark greenish gray, slightly moist, medium dense, good plasticity, no stain, no odor
				7				
	10	20	30	10		2014-14	CL/ML	Clay with silty sand, dark greenish gray, slightly moist, no stain, no odor
				13				
		20	32	15			CL/SM	Medium sand clay, light green, moist, medium dense, no stain, no odor
				17				
				20				
	ND	10	14	20		2014-15	SM	Silty clayey sand, light yellowish gray, saturated, medium dense, no stain, no odor TO 21'

Geologist: 655 - Mark Magarye, R. G.

Driller: 5015

Wong's Taxi

LOG of BORING

Project Number: CB-8014-1

8/2/91

TH-5

PLATE

Page / of /

WELL CONSTRUCTION	CHEMICAL ANALYSES		BLOW COUNT	DEPTH (feet)	SAMPLE NUMBER	U.S.C.S. DESIGN.	SOIL DESCRIPTION
	Laboratory	Field					
TPH (mg/kg)	PID (ppm)						
WELL COVER				0			
2" PVC							
Neat Cement				5		OL	Organic Clay, trace silt, sand & gravel, dark gray to black, very slightly moist, medium dense, good plasticity, no stain, no odor
5' PVC				5			
Bentonite	150	35	3	10	8014-1	OL	Same as above, minor silt, shell fragments, moderate hydrocarbon like odor
				10			
2 1/2" Consistent Sand	255	45	9	15	8014-2	CL	Fat Clay, trace silt, grayish brown, moist, medium dense, good plasticity, gray stain, strong odor
				15			
2" PVC							
1" O.D. PVC							
5' PVC							
				20		SM	Silty Gravelly Sand, gray, saturated, loose, gray stain, moderate odor
				20			
				25		SM	Same as above, brown, no stain, no odor
				25			
				30		CL	Fat clay, minor sand brown, saturated, medium dense, good plasticity, no stain, no odor
				30		SW	well graded sand
				35		GW	well graded gravel
				35			70' 35'

Geologist: ESB - Mark Maganger, R. G.
 Wong's Taxi
 Project Number: EG-8014-1 5/2/91

Driller: Consolidated Testing
 LOG of BORING
 MW-1

PLATE
 Page 1 of 1

WELL CONSTRUCTION	CHEMICAL ANALYSES		BLOW COUNT	DEPTH (feet)	SAMPLE NUMBER	U.S.C.S. DESIGN.	SOIL DESCRIPTION
	Laboratory	Field					
	TPH (mg/kg)	PID (ppm)					
2 1/2" PVC Blank				0			
2 1/2" PVC Blank		90	13	5		CL/SM	Silty Clay with minor gravelly sand, dark greenish gray, slightly moist, medium dense, good plasticity, no staining, very slight hydrocarbon like odor
Bentonite	4320	360	7	10	8014-6	SM	Silty sand, slightly moist, dark gray, loose, gray staining, strong odor
2 1/2" PVC Blank	160	250	7	15	8014-7	SM/CL	Silty clayey sand with minor gravel, light greenish gray, moist, medium dense, no stain, very slight odor
2 1/2" PVC Blank				20		SM/CL	same as above, saturated, no odor
2 1/2" PVC Blank				25		CL	fat clay, greenish brown, saturated, medium dense, good plasticity, no staining, no odor
2 1/2" PVC Blank				30		CL	same as above
2 1/2" PVC Blank				35		CL	same as above

Geologist: ESE - Mark Magarac, R.G.

Driller: 5015

PLATE

Wong's Taxi

LOG of BORING

MW-2

Project Number: EB-8014-1

8/21/91

Page 1 of 1

WELL CONSTRUCTION	CHEMICAL ANALYSES		BLOW COUNT	DEPTH (feet)	INTERVAL	SAMPLE NUMBER	U.S.C.S. DESIGN.	SOIL DESCRIPTION
	Laboratory	Field						
	TPH (mg/kg)	PID (ppm)						
2" PVC Blank				0				
2" PVC Cement				5			CL/SM	fat clay, trace gravelly silt sand, dark greenish gray, slightly moist, medium dense, good plasticity, no stain, no odor
Bentonite	50	nd	8 1/2	10		904-12	OL	Organic clay, greenish brown, moist, medium dense, good plasticity, no stain, no odor
2 1/2 coarsestair sand	25	70	9 1/2	15		904-13	SM	silty sand, dark gray, moist, loose, no stain, no odor
2" PVC 5/10T				20			SM/CL	silty clayey sand, gray, saturated, medium dense, no stain, no odor
				25			CL	fat clay, greenish brown, saturated, medium dense, good plasticity, no stain, no odor
				30			CL	same as above
				35			SM	silty sand, light green, saturated, loose, no stain, no odor

Geologist: ESB - Mark Magarac, R.G. Driller: 5015

Wong's Taxi

Project Number: EB-8014-1 8/2/91

LOG of BORING

MW-3

PLATE

Page 1 of 1



APPENDIX B
ANALYTICAL REPORTS AND CHAIN OF CUSTODY

Nevada

Mobile Labs Inc.

Arizona

5327 Wingfoot Drive
Bakersfield, CA 93306
(805) 872-4750

Laboratory Results For :
Wong's Taxi Taxi
2345 East 14th Street
Oakland, CA

Date Received : 5/24/91
Date Analyzed : 5/27/91
Analyst : J.S. Johnson
Lab No. 910069

Sample Matrix ; Soils

	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes mg/kg	Tot Pet Hyds mg/kg
MW-1@10'	.460	.365	.305	.960	150
MW-1@15'	1.505	4.255	4.015	4.270	255
QA/QC Sample % Recovery	86	79	97	102	86 Gasoline

All Results Reported in Milligrams per Kilogram

ND = Non Detectable ; EPA 8020 (.005 mg/kg)

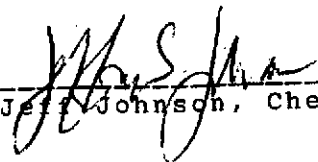
EPA 8015 Modified for Gasoline (5 mg/kg)

Analysis of Volatile Aromatics ; EPA 8020

*Analysis of Total Petroleum Hydrocarbons ; EPA 8015 Modified for Gasoline

*The TPH Method for Gasoline is the Calif DOHS Recommended Procedure

Certificate Number : E739



Jeff Johnson, Chemist

Mobile Labs Inc.

5327 WINGFOOT DRIVE
BAKERSFIELD, CALIFORNIA 93306

(805) 872-4750

CALIFORNIA • NEVADA • ARIZONA

CERTIFIED FULL SERVICE ON SITE ANALYTICAL LABORATORIES

PROJECT NO.: EB-8014-1				SITE NAME: Wong's Taxi			NO. OF CONTAINERS	HWY (Gas) EA8010 (Pet)	REMARKS							
SAMPLERS (SIGNATURE): <i>Mark R. Maguire</i>				SITE ADDRESS: 2345 East 19th Street, Oatland												
SAMPLE ID. NO.	DATE	TIME	COMP	GRAB	SAMPLE MATRIX	SAMPLE LOCATION DESIGNATION										
8014-1	5-22-91	11:45AM	N	N	Soil	MW-1@10'	1	✓								
8014-2	5-22-91	12:00PM	N	N	Soil	MW-1@15'	1	✓								
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY (SIGNATURE)			RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY (SIGNATURE)					
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY (SIGNATURE)			RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY (SIGNATURE)					
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)			DATE	TIME	REMARKS:							
<i>Mark R. Maguire</i>		5-24-91	5:30PM	<i>[Signature]</i>			5/24/91	1730								

Nevada

Mobile Labs Inc.

Arizona

5327 Wingfoot Drive
Bakersfield, CA 93306
(805) 872-4750

Laboratory Results For :
Wong's Taxi Taxi
2345 East 14th Street
Oakland, CA

Date Received : 8/23/91
Date Analyzed : 8/24/91
Analyst : J.S. Johnson
Lab No. 910124

Sample Matrix ; Soils

	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes mg/kg	Tot Pet Hyds mg/kg
TH-1@15'	1.235	1.060	1.625	5.280	2775
TH-2@10'	ND	ND	ND	.770	360
TH-2@30'	ND	ND	ND	ND	50
MW-2@10'	7.275	6.620	3.470	13.815	4320
MW-2@15'	ND	ND	ND	ND	160
TH-3@10'	ND	ND	ND	ND	10
TH-3@19'	ND	ND	ND	ND	10
TH-4@10'	ND	ND	ND	.175	25
TH-4@20'	ND	ND	ND	ND	450
MW-3@10'	ND	ND	ND	ND	50
MW-3@15'	ND	ND	ND	ND	25
TH-5@10'	ND	ND	ND	ND	10
TH-5@18'	ND	ND	ND	ND	ND

All Results Reported in Milligrams per Kilogram

ND = Non Detectable ; EPA 8020 (.005 mg/kg)

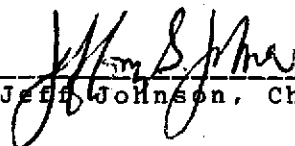
EPA 8015 Modified for Gasoline (5 mg/kg)

Analysis of Volatile Aromatics ; EPA 8020

*Analysis of Total Petroleum Hydrocarbons ; EPA 8015 Modified for Gasoline

*The TPH Method for Gasoline is the Calif DOHS Recommended Procedure

Certificate Number : E739


Jeff Johnson, Chemist

5327 Wingfoot Drive
Bakersfield, CA 93306
(805) 872-4750

Laboratory Results For :
Wong's Taxi Taxi
2345 East 14th Street
Oakland, CA

Date Received : 8/23/91
Date Analyzed : 8/24/91
Analyst : J.S. Johnson
Lab No. 910124

Sample Matrix Soil and Water

	Benzene ug/L	Toluene ug/L	Ethylbenzene ug/L	Xylenes ug/L	Tot Pet Hyds ug/L
MW-1 (Water)	2150	9345	2145	23,150	2,090,000
MW-2 (Water)	ND	ND	ND	ND	10,000
MW-3 (Water)	ND	ND	ND	ND	ND

Sample I.D.

Total Recoverable Hydrocarbons mg/kg

TH-3@10'	60
TH-3@19'	20
TH-4@10'	40
TH-4@20'	1600
MW-3@10'	90
MW-3@15'	40

All Results Reported in Milligrams per Kilogram or Micrograms per Liter
ND = Non Detectable ; EPA 602 (5 ug/L)

EPA 8015 Modified for Gasoline (5000 ug/L)
EPA 418.1 (10 mg/kg)

Analysis of Volatile Aromatics ; EPA 602

Analysis of Total Recoverable Hydrocarbons ; EPA 418.1

*Analysis of Total Petroleum Hydrocarbons ; EPA 8015 Modified for Gasoline

*The TPH Method for Gasoline is the Calif DOHS Recommended Procedure

Certificate Number : E739


Jeff Johnson, Chemist

Mobile Labs Inc.

5327 WINGFOOT DRIVE
BAKERSFIELD, CALIFORNIA 93306

(805) 872-4750

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CERTIFIED FULL SERVICE ON SITE ANALYTICAL LABORATORIES

PROJECT NO.:				SITE NAME:				NO. OF CONTAINERS					REMARKS			
SAMPLERS (SIGNATURE):				SITE ADDRESS:												
SAMPLE ID. NO.	DATE	TIME	COMP	GRAB	SAMPLE MATRIX	SAMPLE LOCATION DESIGNATION										
58-8A14-1				Along's Taxi				1	205 (Gas)	2020 (ATEX)	Y.B.L.					
Mark R. Magallon				2345 East 14th Street												
8014-3	8/2/91	10:20AM			soil	TH-1 @ 15'	✓							✓	✓	Gas Tank Only
8014-4		11:15AM				TH-2 @ 10'	✓							✓	✓	Gas Tank Only
8014-5		12:30PM				TH-2 @ 30'	✓							✓	✓	Gas Tank Only
8014-6		2:00PM				MW-2 @ 10'	✓							✓	✓	Gas Tank Only
8014-7		2:10PM				MW-2 @ 15'	✓							✓	✓	Gas Tank Only
8014-8	8/2/91	7:30AM				TH-3 @ 10'	✓							✓	✓	Gas and waste oil tanks
8014-9		8:20AM				TH-3 @ 19'	✓							✓	✓	Gas and waste oil tanks
8014-10		9:55AM				TH-4 @ 10'	✓							✓	✓	Gas and waste oil tanks
8014-11		10:15AM				TH-4 @ 20'	✓							✓	✓	Gas and waste oil tanks
8014-12		11:15AM				MW-3 @ 10'	✓							✓	✓	Gas and waste oil tanks
8014-13		11:50AM				MW-3 @ 15'	✓							✓	✓	Gas and waste oil tanks
8014-14		2:00PM				TH-5 @ 10'	✓							✓	✓	Gas Tank Only
8014-15		2:25PM				TH-5 @ 18'	✓							✓	✓	Gas Tank Only
RELINQUISHED BY: (SIGNATURE)			DATE	TIME	RECEIVED BY (SIGNATURE)			RELINQUISHED BY (SIGNATURE)			DATE	TIME	RECEIVED BY (SIGNATURE)			
RELINQUISHED BY: (SIGNATURE)			DATE	TIME	RECEIVED BY (SIGNATURE)			RELINQUISHED BY (SIGNATURE)			DATE	TIME	RECEIVED BY (SIGNATURE)			
RELINQUISHED BY: (SIGNATURE)			DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)			DATE	TIME	REMARKS:						
Mark R. Magallon			8/23/91	5:30PM	[Signature]			8/23/91	1735							



Mobile Labs Inc.

5327 WINGFOOT DRIVE
BAKERSFIELD, CALIFORNIA 93306

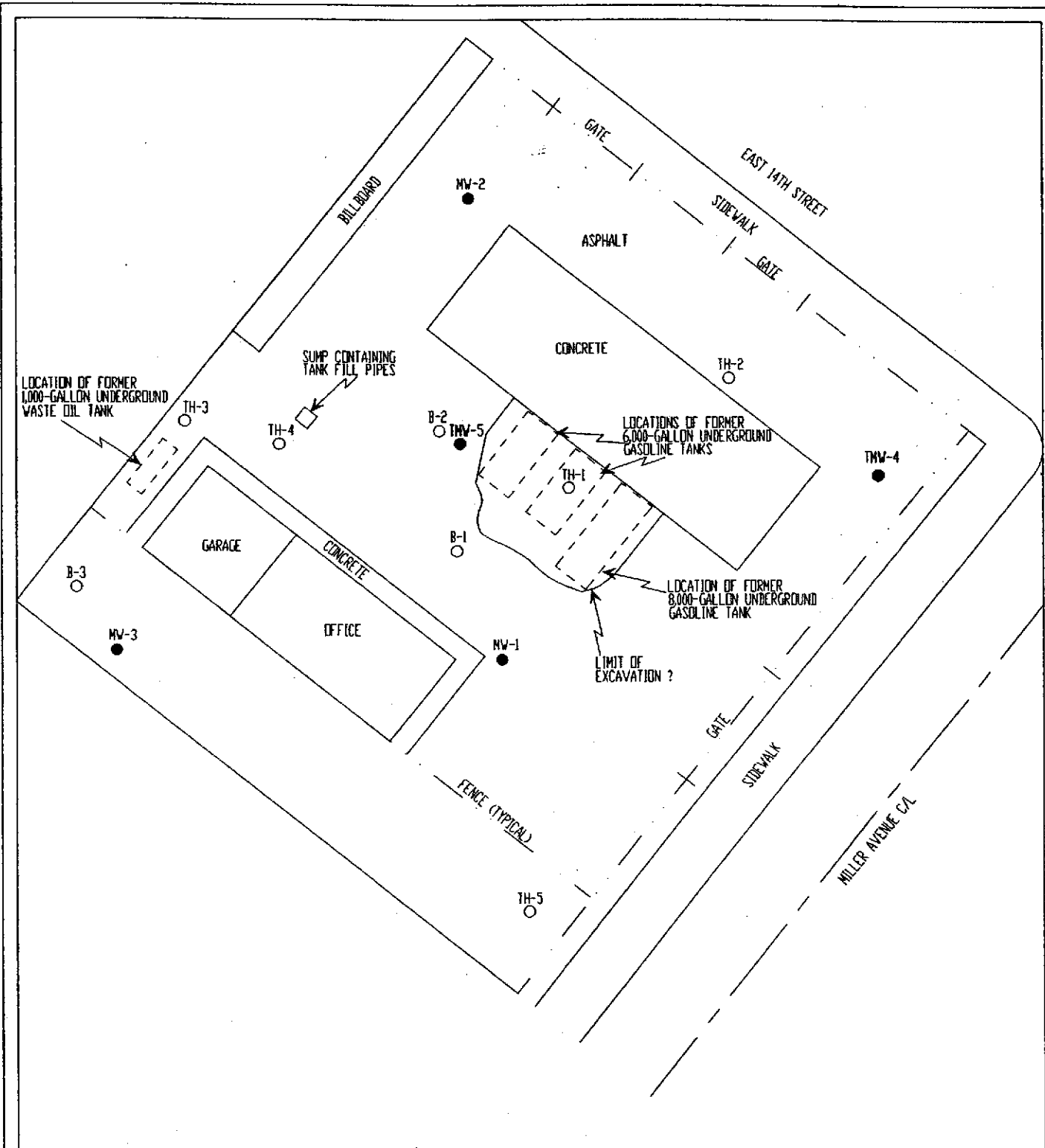
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
CERTIFIED FULL SERVICE ON SITE ANALYTICAL LABORATORIES

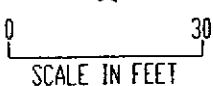
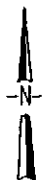
PROJECT NO.: EB-8014-1				SITE NAME: Wong's Taxi				NO. OF CONTAINERS	REMARKS	
SAMPLERS (SIGNATURE): <i>Mark Maganao</i>				SITE ADDRESS: 2345 East 14th Street						
SAMPLE ID. NO.	DATE	TIME	COMP	GRAB	SAMPLE MATRIX	SAMPLE LOCATION DESIGNATION				
MW-2	8/23/91	9:30AM			water	MW-2	4	✓✓✓✓		
MW-3	8/23/91	10:30AM			|	MW-3	1	✓✓✓		
MW-1	8/23/91	1:20AM			|	MW-1	1	✓✓✓		
RELINQUISHED BY: (SIGNATURE)				DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)				DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)				DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	REMARKS:	
<i>Mark Maganao</i>				8/23/91	5:35PM	<i>[Signature]</i>	8/23/91	1935		

*205 (6.45)
2020 (6.75)
418.1*



LEGEND

- 
 MW-4 NAME AND LOCATION OF MONITORING WELL INSTALLED BY TPE
- 
 MW-1 NAME AND LOCATION OF MONITORING WELL INSTALLED BY OTHERS
- 
 B-1 NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS

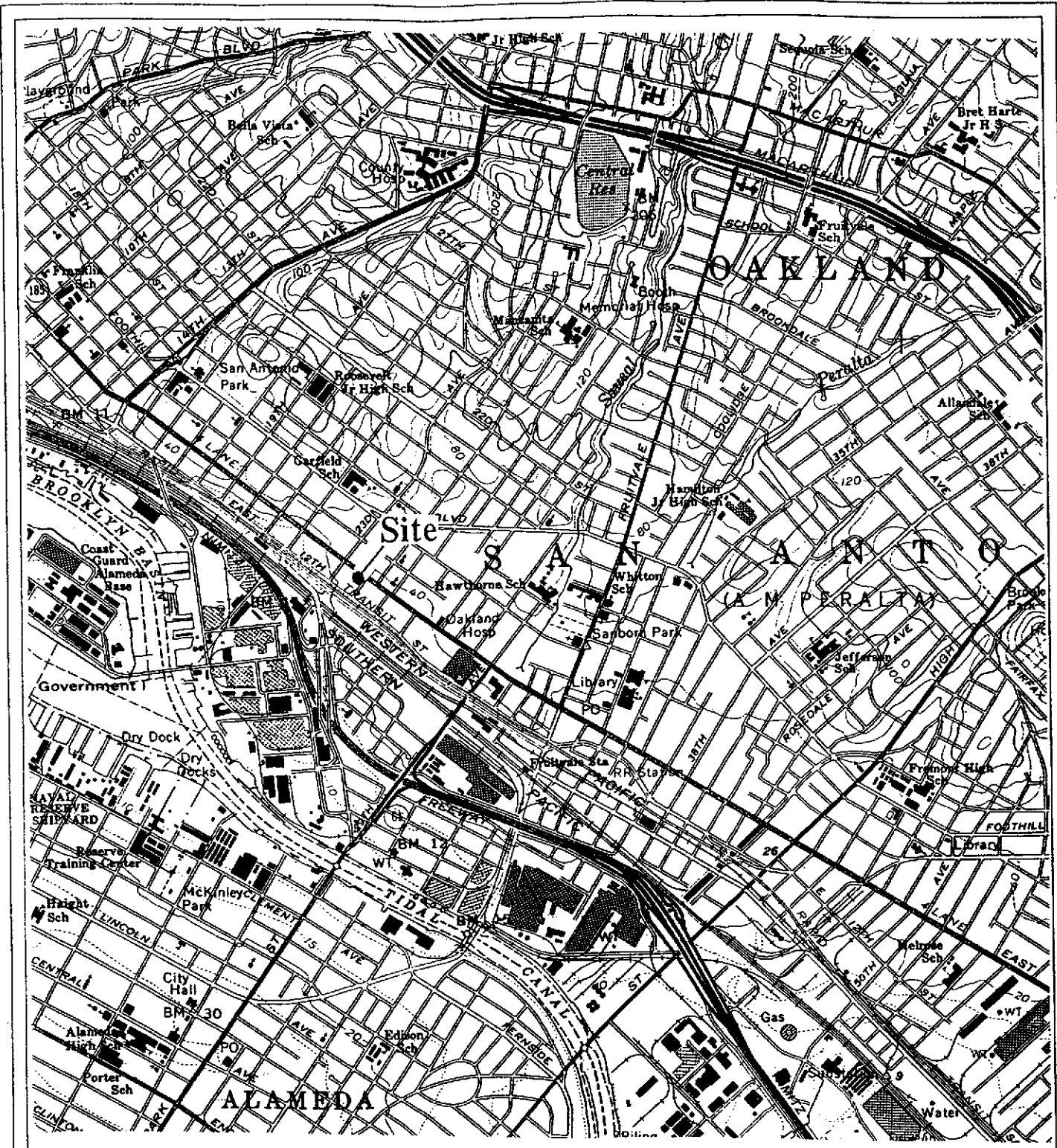


TANK PROTECT ENGINEERING

SITE PLAN

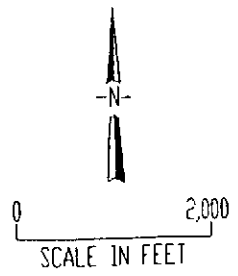
CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	10/4/93
FIGURE	2
FILE #	267-2
DRAWN BY	AK
CHECKED BY	JVM



LEGEND

REFERENCE: USGS 7.5 MINUTE SERIES
 QUADRANGLE MAP OAKLAND EAST,
 CALIFORNIA, PHOTOREVISED 1980



TANK PROTECT ENGINEERING

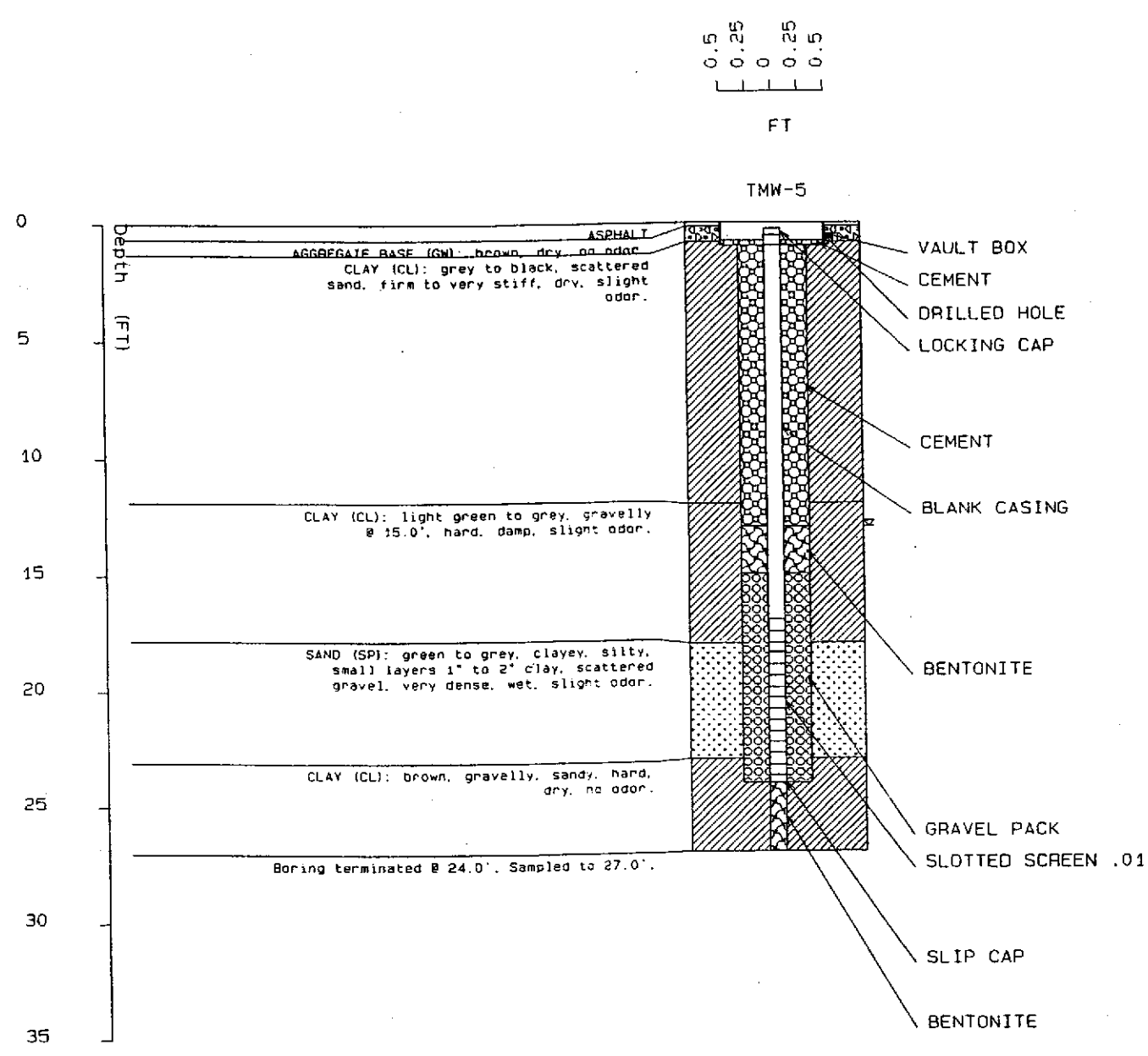
SITE VICINITY MAP

CREDIT WORLD AUTO SALES
 2345 E. 14TH STREET
 OAKLAND, CA 94601

DATE	6/14/93
FIGURE	1
FILE #	267-1
DRAWN BY	AK
CHECKED BY	JVM

APPENDIX F

CERTIFIED ANALYTICAL REPORTS AND
CHAIN-OF-CUSTODY DOCUMENTATION



LEGEND Static Water Level

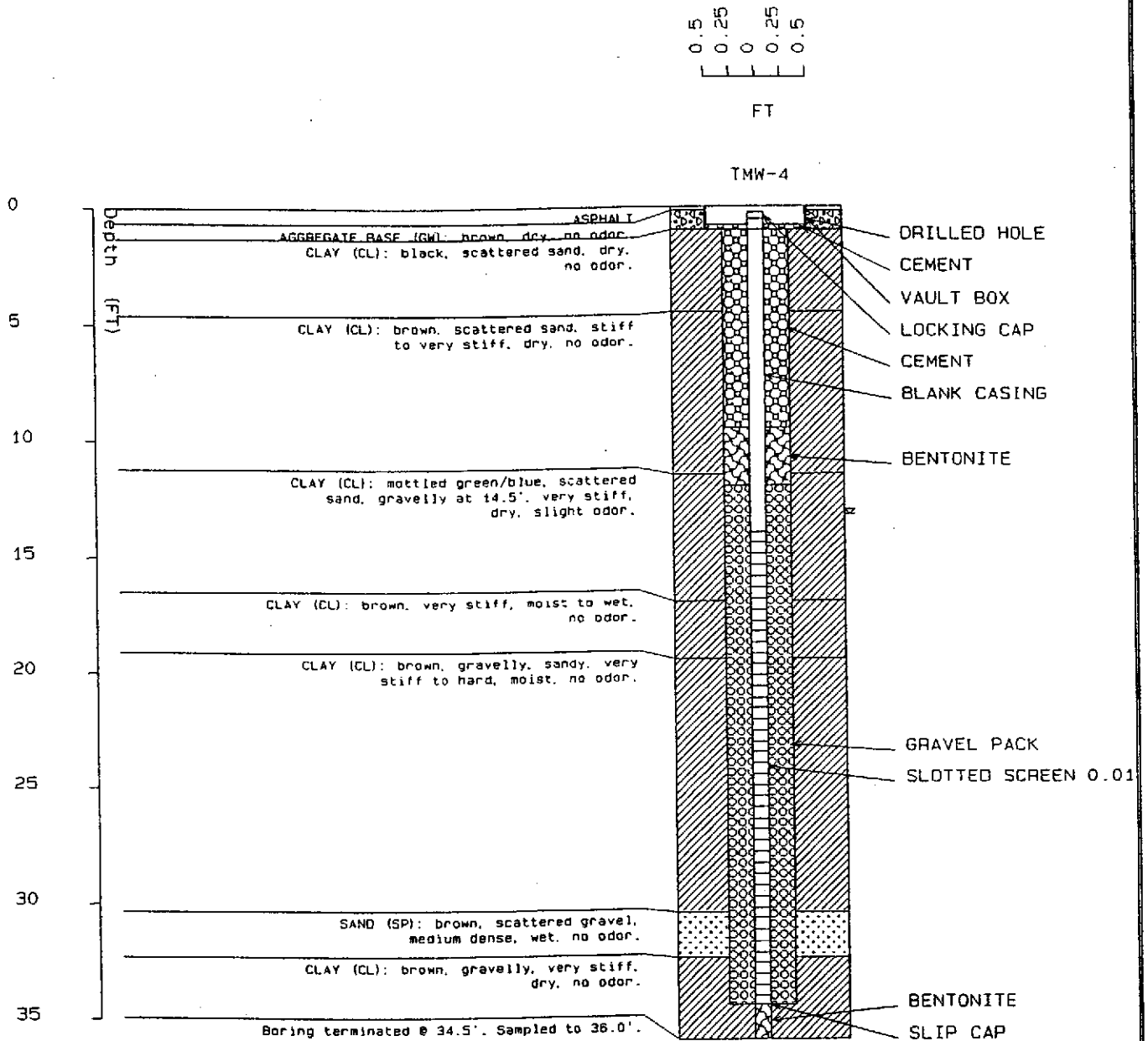
GW SP CL ASPHALT

WELL ID : TMW-5

2345 EAST 14TH STREET, OAKLAND, CA

TANK PROTECT ENGINEERING

Figure :



LEGEND

Σ Static Water Level



GW



SP



CL



ASPHALT

WELL ID : TMW-4

2345 EAST 14TH STREET, OAKLAND, CA

TANK PROTECT ENGINEERING

Figure :

LOG OF EXPLORATORY BORING

PROJECT NUMBER 267

BORING NO. TMW-5

PROJECT NAME 2345 EAST 14TH STREET, OAKLAND CA.

BY LNH

DATE 7/23/93

SURFACE ELEV. 27 FT

RECOVERY (FT/FT)	OVA (PPM)	PENETRA- TION (BLOWS/FT)	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
						ASPHALT	
						AGGREGATE BASE (GW): brown, dry, no odor.	
						CLAY (CL): grey to black, scattered sand, firm to very stiff, dry, slight odor.	
.75/1.5	0	7		5	1		
						CLAY (CL): light green to grey, gravelly @ 15.0', hard, damp, slight odor.	
1.5/1.5	>1000	20		10	2		
						CLAY (CL): light green to grey, gravelly @ 15.0', hard, damp, slight odor.	
1.2/1.5	>1000	>50		15	3		
	750					SAND (SP): green to grey, clayey, silty, small layers 1" to 2" clay, scattered gravel, very dense, wet, slight odor.	
1.5/1.5		>50		20	4		
1.5/1.5		>50				CLAY (CL): brown, gravelly, sandy, hard, dry, no odor.	
1.2/1.5		39				Boring terminated @ 24.0'. Sampled to 27.0'.	
1.5/1.5		>50					
1.5/1.5		49		25	5		

REMARKS: Boring drilled with continuous-flight, hollow-stem, 8-inch O.D. augers. Samples collected in a 2.0-inch I.D. California and standard penetration sampler.

APPENDIX E

LOGS OF EXPLORATORY BORINGS AND
WELL COMPLETION DETAILS

LOG OF EXPLORATORY BORING

PROJECT NUMBER 267

BORING NO. TMW-4

PROJECT NAME 2345 EAST 14TH STREET, OAKLAND CA.

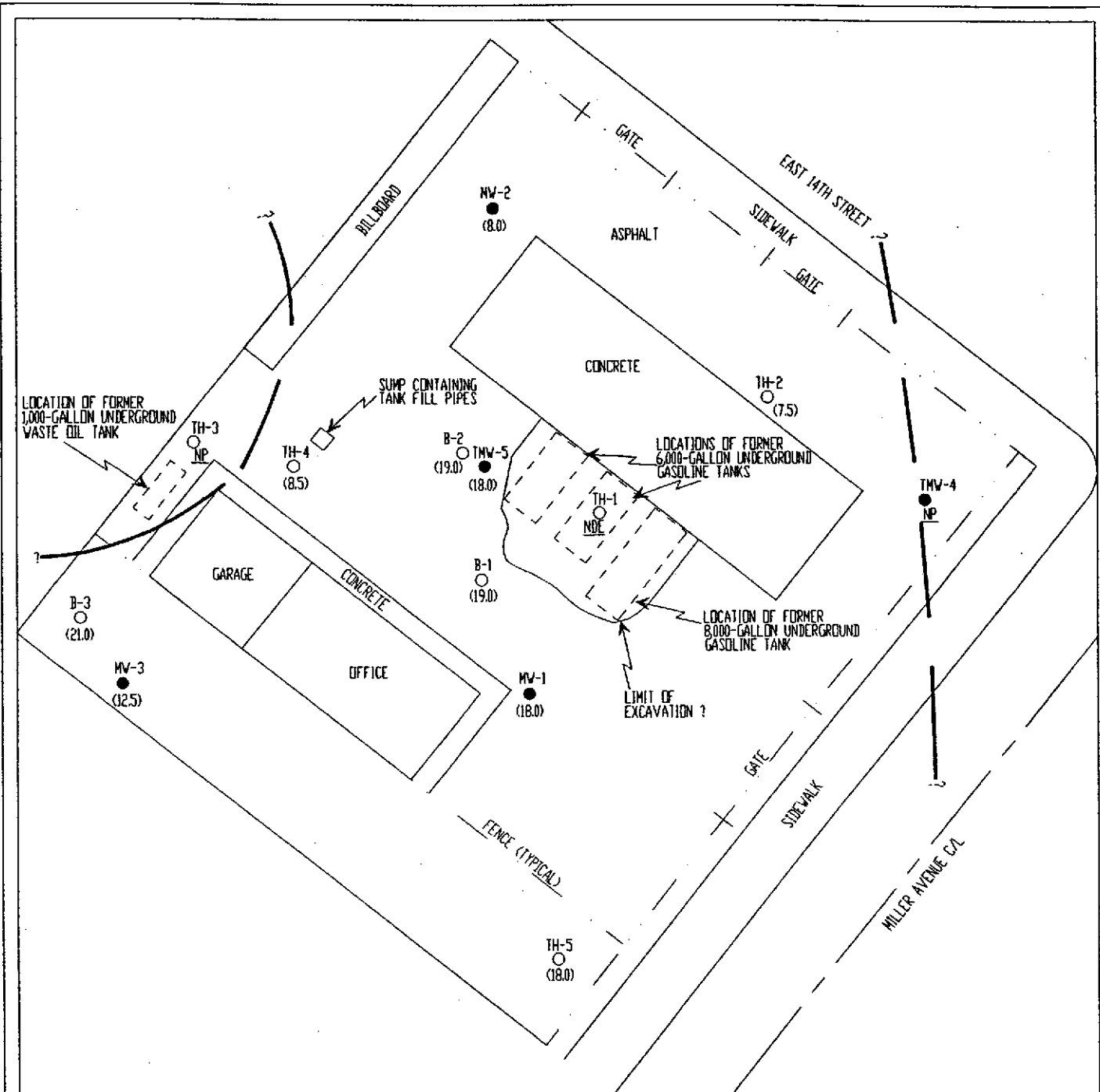
BY LNH

DATE 7/22/93

SURFACE ELEV. 27 FT

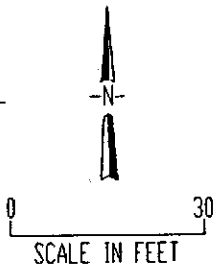
RECOVERY (FT/FT)	QVA (PPM)	PENETRA- TION (BLOWS/FT)	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
						ASPHALT	
						AGGREGATE BASE (GW):	brown, dry, no odor.
						CLAY (CL):	black, scattered sand, dry, no odor.
.75/1.5		9		5		CLAY (CL):	brown, scattered sand, stiff to very stiff, dry, no odor.
.75/1.5		20		10		CLAY (CL):	mottled green/blue, scattered sand, gravelly at 14.5', very stiff, dry, slight odor.
1.5/1.5		26		15		CLAY (CL):	brown, very stiff, moist to wet, no odor.
1.5/1.5		36		20		CLAY (CL):	brown, gravelly, sandy, very stiff to hard, moist, no odor.
1.5/1.5		46					
1.5/1.5		43					
1.5/1.5		33		25		SAND (SP):	brown, scattered gravel, medium dense, wet, no odor.
1.5/1.5		44				CLAY (CL):	brown, gravelly, very stiff, dry, no odor.
1.0/1.5		28		30			Boring terminated @ 34.5'. Sampled to 36.0'.
1.0/1.5		22					
1.5/1.5		29		35			

REMARKS: Boring drilled with continuous-flight, hollow-stem, 8-inch O.D. augers. Samples collected in a 2.0-inch I.D. California and standard penetration sampler.



LEGEND

- MW-4 ● NAME AND LOCATION OF MONITORING WELL INSTALLED BY TPE
- (12.5) DEPTH TO UPPER SAND MEMBER
- NP ○ UPPER SAND MEMBER NOT PRESENT
- NDE ○ BORING NOT DEEP ENOUGH
- MW-1 ● NAME AND LOCATION OF MONITORING WELL INSTALLED BY OTHERS
- B-1 ○ NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- UPPER SAND MEMBER BOUNDARY

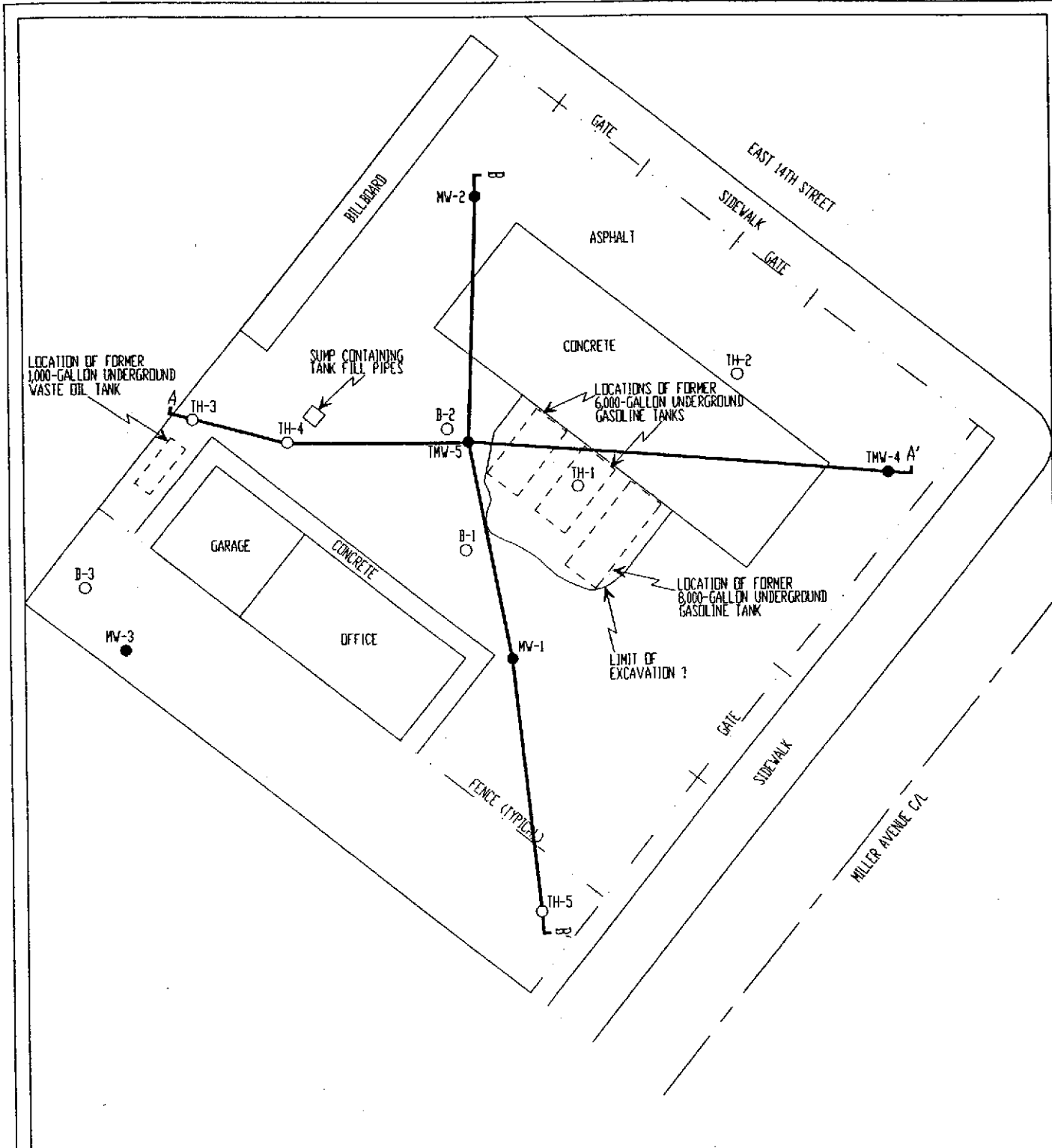


TANK PROTECT ENGINEERING

SITE PLAN
HORIZONTAL LIMITS OF UPPER SAND MEMBER

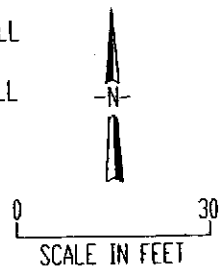
CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	10/4/93
FIGURE	6
FILE #	267-9
DRAWN BY	LHN
CHECKED BY	JVN



LEGEND

- MW-4 NAME AND LOCATION OF MONITORING WELL INSTALLED BY TPE
- MW-1 NAME AND LOCATION OF MONITORING WELL INSTALLED BY OTHERS
- B-1 NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- A-A' LOCATION OF GEOLOGIC CROSS SECTION

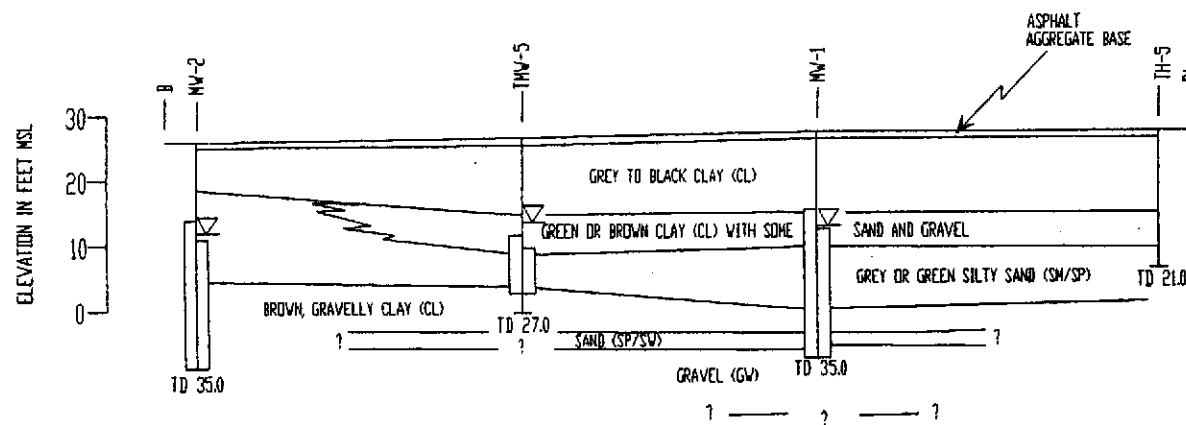


TANK PROTECT ENGINEERING

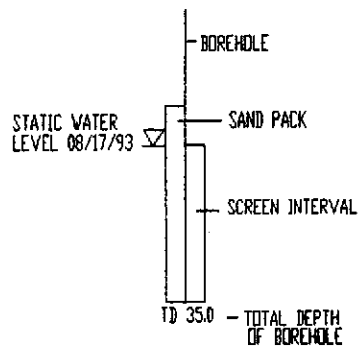
SITE PLAN
LOCATION OF GEOLOGIC CROSS SECTIONS A-A' AND B-B'

CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	9/13/93
FIGURE	5
FILE #	267-6
DRAWN BY	LMH
CHECKED BY	JVM



LEGEND

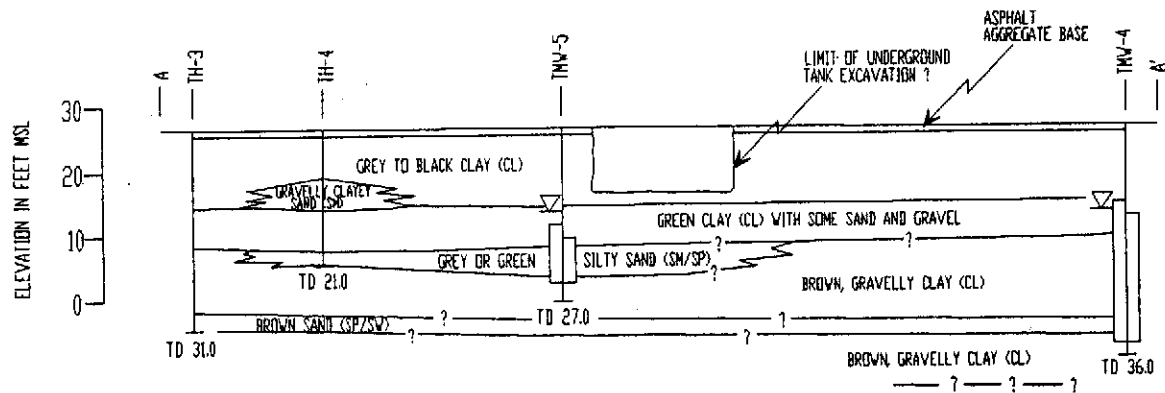


NO VERTICAL EXAGGERATION
 NOTE: SEE FIGURE 5 FOR LOCATION OF CROSS SECTION

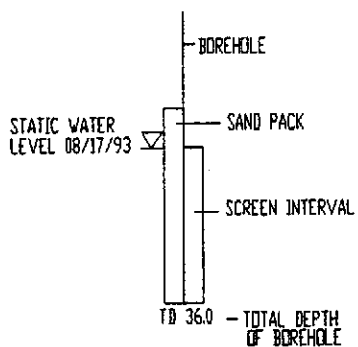
TANK PROTECT ENGINEERING

GEOLOGIC CROSS SECTION B-B'

CREDIT WORLD AUTO SALES 2345 E. 14TH STREET OAKLAND, CA 94601	DATE	10/4/93
	FIGURE	4
	FILE #	267-7
	DRAWN BY	LNH
	CHECKED BY	JVM



LEGEND



NO VERTICAL EXAGGERATION
 NOTE: SEE FIGURE 5 FOR LOCATION OF CROSS SECTION

TANK PROTECT ENGINEERING

GEOLOGIC CROSS SECTION A-A'

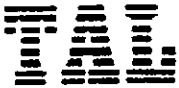
CREDIT WORLD AUTO SALES
 2345 E. 14TH STREET
 OAKLAND, CA 94601

DATE	9/13/93
FIGURE	3
FILE #	267-8
DRAWN BY	LJH
CHECKED BY	JVM

Trace Analysis Laboratory, Inc.

3423 Investment Boulevard, #8 • Hayward, California 94545

Telephone (510) 783-6960
Facsimile (510) 783-1512



August 2, 1993

Mr. Marc Zomorodi
Tank Protect Engineering
2821 Whipple Road
Union City, California 94587

Dear Mr. Zomorodi:

Trace Analysis Laboratory received six soil samples on July 26, 1993 for your Project No. 267C072393, Credit Auto World (our custody log number 3465).

These samples were analyzed for Total Petroleum Hydrocarbons as Gasoline and Benzene, Toluene, Ethylbenzene, and Xylenes. Our analytical report and the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

A handwritten signature in cursive script that reads "Scott T. Ferriman".

Scott T. Ferriman
Project Specialist

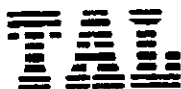
Enclosures

Trace Analysis Laboratory, Inc.

3423 Investment Boulevard, #8 • Hayward, California 94545

Telephone (510) 783-6960

Facsimile (510) 783-1512



LOG NUMBER: 3465
 DATE SAMPLED: 07/22/93
 DATE RECEIVED: 07/26/93
 DATE EXTRACTED: 07/26/93
 DATE ANALYZED: 07/27/93
 DATE REPORTED: 08/02/93

CUSTOMER: Tank Protect Engineering
 REQUESTER: Marc Zomorodi
 PROJECT: No. 267C072393, Credit Auto World, 2345 E. 14th Street

Sample Type: Soil

Method and Constituent:	Units	TMW-4, 4.5		TMW-4, 9.5		TMW-4, 14.5	
		Concen- tration	Reporting Limit	Concen- tration	Reporting Limit	Concen- tration	Reporting Limit
DHS Method:							
Total Petroleum Hydro- carbons as Gasoline	ug/kg	ND	500	ND	500	940	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Xylenes	ug/kg	ND	15	ND	15	ND	15

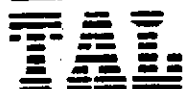
Concentrations reported as ND were not detected at or above the reporting limit.

Trace Analysis Laboratory, Inc.

3423 Investment Boulevard, #8 • Hayward, California 94545

Telephone (510) 783-6960

Facsimile (510) 783-1512



LOG NUMBER: 3465
 DATE SAMPLED: 07/22/93
 DATE RECEIVED: 07/26/93
 DATE EXTRACTED: 07/26/93
 DATE ANALYZED: 07/27/93
 DATE REPORTED: 08/02/93

CUSTOMER: Tank Protect Engineering
 REQUESTER: Marc Zomorodi
 PROJECT: No. 267C072393, Credit Auto World, 2345 E. 14th Street

Sample Type: Soil

Method and Constituent:	Units	TMW-4, 4.5		TMW-4, 9.5		TMW-4, 14.5	
		Concen- tration	Reporting Limit	Concen- tration	Reporting Limit	Concen- tration	Reporting Limit
DHS Method:							
Total Petroleum Hydro- carbons as Gasoline	ug/kg	ND	500	ND	500	940	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Xylenes	ug/kg	ND	15	ND	15	ND	15

Concentrations reported as ND were not detected at or above the reporting limit.



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

August 23, 1993

PEL # 9308082

TANK PROTECT ENGINEERING, INC.

Attn: Jeff

Re: Six water samples for Gasoline/BTEX analysis.

Project name: Credit World Auto Sales

Project location: 2345 E. 14th St.


Project number: 267081793

Date sampled: Aug 17, 1993
Date extracted: Aug 20-21, 1993

Date submitted: Aug 20, 1993
Date analyzed: Aug 20-21, 1993

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
MW-1	110000	270	690	730	3100
MW-2	49000	94	240	250	980
MW-3	9600	4.1	17	28	54
TMW-4	150	N.D.	0.8	1.4	3.7
TMW-5	120000	340	730	790	3600
TMW-6	N.D.	N.D.	N.D.	N.D.	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	93.1%	84.2%	89.5%	92.0%	94.1%
Duplicate Spiked Recovery	87.8%	80.2%	81.6%	88.5%	93.0%
Detection limit	50	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	602	602	602	602


David Duong
Laboratory Director



TANK PROTECT ENGINEERING

2021 WHIPPLE ROAD
 UNION CITY, CA 94587
 (415)429-8088
 (800)523-8088
 FAX(415)429-8089

LAB: JAL

TURNAROUND: Normal

P.O. #: 659

CHAIN OF CUSTODY

PAGE 1 OF 1

PROJECT NO.		SITE NAME & ADDRESS				(1) TYPE OF CONTAINER	ANALYTES REQUESTED							REMARKS			
267C 072393		Credit Auto World 2345 E. 14th Street					TOTAL LIGHT HC	AROMATIC HC	TOTAL HC (BTX)	OIL & GREASE	VOC SCAN (621's)	OTHER					
SAMPLER NAME, ADDRESS AND TELEPHONE NUMBER		ID NO.	DATE	TIME	SOIL	WATER	SAMPLING LOCATION										
Lee Huckins 2821 WHIPPLE ROAD, UNION CITY, CA 94587 (415) 429-8088																	
Tmw-4	7/22			X		4.5	Brass	X	X								
Tmw-4	7/22			X		9.5	Brass	X	X								
Tmw-4	7/22			X		14.5	Brass	X	X								
Tmw-5	7/23			X		4.5	Brass	X	X								
Tmw-5	7/23			X		9.5	Brass	X	X								
Tmw-5	7/23			X		14.5	Brass	X	X								
Relinquished by : (Signature)		Date / Time		Received by : (Signature)		Relinquished by : (Signature)		Date / Time		Received by : (Signature)							
Lee Huckins		7/26/93 10:16		Lee Meller		Lee Meller		7/26/93 10:35									
Relinquished by : (Signature)		Date / Time		Received by : (Signature)		Relinquished by : (Signature)		Date / Time		Received by : (Signature)							
Relinquished by : (Signature)		Date / Time		Received for Laboratory by: (Signature)		Date / Time		Remarks									
				Scott Ferrarius		7/26/93 10:35		P/u, soil, 6-BT, SF, Y-1, 5-day TAT									

DATE: 7/22/93



TANK PROTECT ENGINEERING

2821 WHIPPLE ROAD
 UNION CITY, CA 94587
 (415) 429-8088
 (800) 523-8088
 FAX (415) 429-8089

PEL # 9308082

INV # 23922

LAB: Priority Env.

TURNAROUND: Normal

P.O. #: 684

PAGE 1 OF 1

CHAIN OF CUSTODY

PROJECT NO.		SITE NAME & ADDRESS			(1) TYPE OF CONTAINER	ANALYTES REQUESTED							REMARKS
267 081793		Credit Auto World Auto Sales 2345 E 14th St				TOTAL LIGHT HC	AROMATIC HC	TOTAL HEAVY HC	OIL & GREASE	PCC SCAN (624's)	OTHER		
SAMPLER NAME, ADDRESS AND TELEPHONE NUMBER		Lee Hudkins 2821 WHIPPLE ROAD, UNION CITY, CA 94587 (415) 429-8088											
ID NO.	DATE	TIME	SOIL	WATER	SAMPLING LOCATION								
MW-1	8/17	1530		X		240ml vials	X	X					
MW-2	8/17	1230		X		240ml vials	X	X					
MW-3	8/17	1640		X		240ml vials	X	X					
MW-4	8/17	1120		X		240ml vial	X	X					
MW-5	8/17	1410		X		240ml vials	X	X					
MW-6	8/17	1645		X		240ml vials	X	X					

Relinquished by : (Signature) <i>Lee Hudkins</i>	Date / Time 8/20/93 9:00	Received by : (Signature) <i>Leri Mee</i>	Relinquished by : (Signature) <i>Leri Mee</i>	Date / Time 8/20/93 1:20	Received by : (Signature)
Relinquished by : (Signature)	Date / Time	Received by : (Signature) <i>Chadson</i>	Relinquished by : (Signature)	Date / Time	Received by : (Signature)
Relinquished by : (Signature)	Date / Time 8/20/93 9:20	Received for Laboratory by: (Signature) <i>PEL</i>	Date / Time	Remarks	

DATE: 8-20-93

APPENDIX G

GROUNDWATER MONITORING WELL CONSTRUCTION PROCEDURES

BOREHOLE DESIGN

Casing Diameter: The minimum diameter of well casings will be 2 inches (nominal).

Borehole Diameter: The diameter of the borehole will be a minimum of 4 inches and a maximum of 12 inches greater than the diameter of the well casing. The minimum annular space will be 2.5 inches as measured from the outside diameter of the casing to the drill hole wall.

Shallow (Unconfined Zone) Wells: When unconfined groundwater is encountered the borehole will be advanced through the aquifer to an underlying clay layer or aquitard. The screened interval will begin a minimum of 5 feet above the saturated zone or above the anticipated seasonal high level of groundwater. The screen will extend the full thickness of the aquifer or no more than 15 feet into the saturated zone, whichever is reached first. The well screen will not extend into the aquitard, nor will the screened interval exceed 20 feet in length.

Deep (Confined Zone) Wells: Any monitoring well to be screened below the upper aquifer will be installed as a double-cased well. A steel conductor casing will be placed through the upper water-bearing zone to prevent aquifer cross-contamination.

The conductor casing will be installed in the following manner: a large diameter borehole (typically 18 inches) will be drilled until it is determined that the first competent aquitard has been reached. A low carbon steel conductor casing will be placed in the borehole to the depth drilled. Centralizers will be used to center the casing in the borehole. The annular space between the conductor casing and the formation will be cement-grouted from bottom to top by tremie pipe method. The grout will be allowed to set for a minimum of 72 hours.

Drilling will continue inside the conductor casing, with a drill bit of smaller diameter than the conductor casing. If additional known aquifers are to be fully penetrated, the procedure will be repeated with successively smaller diameter conductor casings.

The bottom of the well screen in a confined aquifer will be determined by presence or lack of a clay layer or aquitard as described above. The screened interval in a confined zone shall extend across the entire saturated zone of the aquifer or up to a length of 20 feet, whichever is less. The screened zone and filter pack will not cross-connect to another aquifer.

CONSTRUCTION MATERIALS

Casing and Screen Materials: Well casing and screen will be constructed of clean materials that have the least potential for affecting the quality of the sample. The most suitable material for a particular installation will depend upon the parameters to be monitored. Acceptable materials include PVC, stainless steel, or low carbon steel.

Casing Joints: Joints will be connected by flush threaded couplers. Organic bonding compounds and solvents will not be used on joints.

Well Screen Slots: Well screen will be factory slotted. The size of the slots will be selected to allow sufficient groundwater flow to the well for sampling, minimize the passage of formation materials into the well, and ensure sufficient structural integrity to prevent the collapse of the intake structure.

Casing Bottom Plug: The bottom of the well casing will be permanently plugged, either by flush threaded screw-on or friction cap. Friction caps will be secured with stainless steel set screws. No organic solvents or cements will be applied.

Filter Pack Material: Filter envelope materials will be durable, water worn, and washed clean of silt, dirt, and foreign matter. Sand size particles will be screened silica sand. Particles will be well rounded and graded to an appropriate size for retention of aquifer materials.

Bentonite Seal Material: Bentonite will be pure and free of additives that may affect groundwater quality. Bentonite will be hydrated with clean water.

Grout Seal Material: Cement grout will consist of a proper mixture of Type 1/11 Portland cement, hydrated with clean water. Up to 3% bentonite may be added to the mixture to control shrinkage.

CONSTRUCTION PROCEDURES

Decontamination: All downhole tools, well casings, casing fittings, screens, and all other components that are installed in the well shall be thoroughly cleaned immediately before starting each well installation. When available, each component shall be cleaned with a high temperature, high pressure washer for a minimum of 5 minutes. When a washer is not available, components shall be cleaned with water and detergent or trisodium phosphate, rinsed in clean water, then rinsed in distilled water.

Soil and water sampling equipment and material used to construct the wells shall not donate to, capture, mask, nor alter the chemical composition of the soil and groundwater.

Drilling Methods: Acceptable drilling methods include solid and hollow-stem auger, percussion, direct circulation mud and air rotary, and reverse rotary. The best alternative is that which minimizes the introduction of foreign materials or fluids. If drilling fluid is employed, drilling fluid additives shall be limited to inorganic and non-hazardous compounds. Compressed air introduced into the borehole shall be adequately filtered to remove oil and particulates.

Casing Installation: The casing will be set under tension, when necessary, to ensure straightness. Centralizers will be used where necessary to prevent curvature or stress to the casing.

Sand Pack Installation: The sand pack will be installed so as to avoid bridging and the creation of void spaces. The tremie pipe method will be used where installation

conditions or local regulations require. Drilling mud, when used, will be thinned prior to packplacement. The sand pack shall cover the entire screened interval and rise a minimum of 2 feet above the highest perforation.

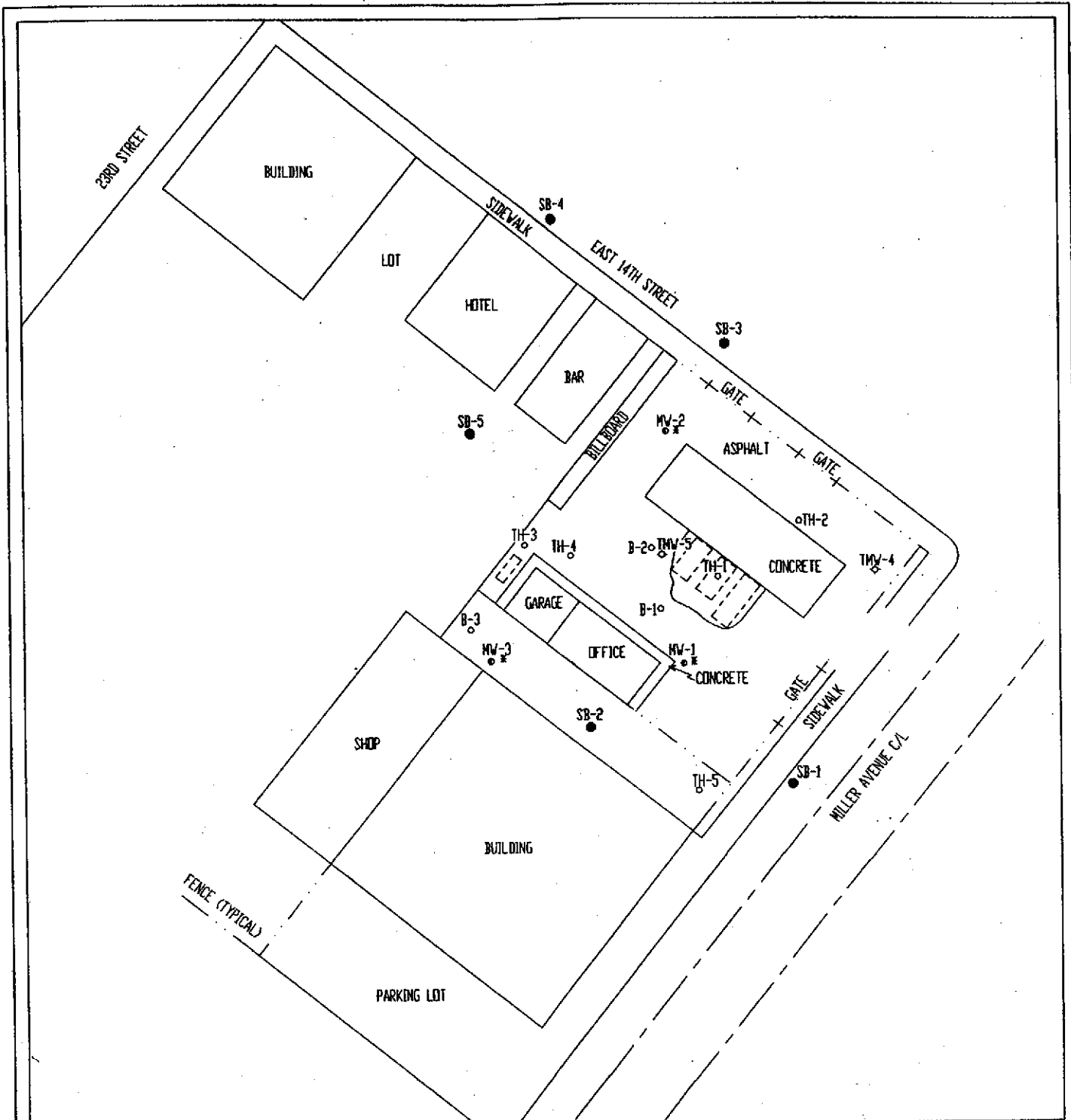
Bentonite Seal Placement: A bentonite seal will be placed above the sand pack by a method that prevents bridging. Bentonite pellets can be placed by free fall if proper sinking through annular water can be assured. Bentonite slurry will be placed by the tremie pipe method from the bottom upward. The bentonite seal will not be less than 1 foot in thickness.

Grout Seal Placement: The cement grout mixture will be hydrated with clean water and thoroughly mixed prior to placement. If substantial groundwater exists in the bore hole, the grout shall be placed by tremie pipe method from the bottom upward. In a dry borehole, the grout may be surface poured to a depth of 30 feet. Below a depth of 30 feet grout will be placed by tremie pipe. Grout will be placed in 1 continuous lift and will extend to the surface or to the well vault if the well head is completed below grade. A minimum of 5 feet of grout seal will be installed, unless impractical due to the shallow nature of the well.

Surface Completion: The well head will be protected from fluid entry, accidental damage, unauthorized access, and vandalism. A watertight, locking cap will be installed on the well casing. Access to the casing will be controlled by a keyed lock.

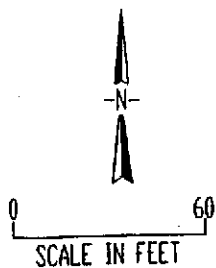
Well heads completed below grade will be completed in a concrete and/or steel vault, installed to drain surface runoff away from the vault.

Well Identification: Each well will be labeled to show well number, depth, hole and casing diameter, and screened interval.



LEGEND

- TMW-4 NAME AND LOCATION OF MONITORING WELL
 INSTALLED BY TPE
- MW-1 NAME AND LOCATION OF MONITORING WELL
 INSTALLED BY OTHERS
- B-1 NAME AND APPROXIMATE LOCATION OF
 SOIL BORING DRILLED BY OTHERS
- SB-1 LOCATION OF SOIL BORING
- □ □ □ LOCATION OF FORMER
 UNDERGROUND STORAGE TANK

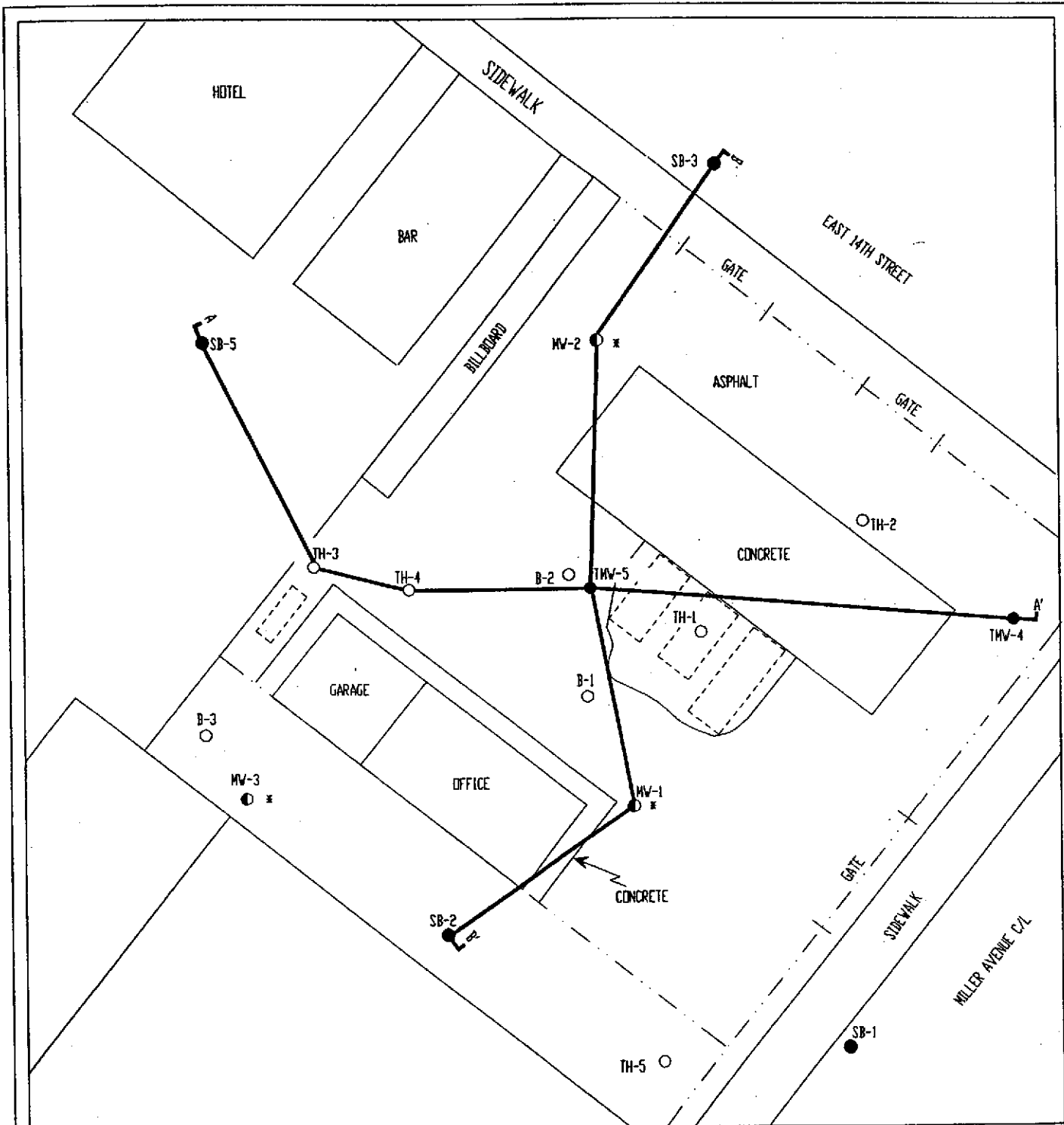


TANK PROTECT ENGINEERING





**SITE PLAN:
LOCATION OF SOIL BORINGS**

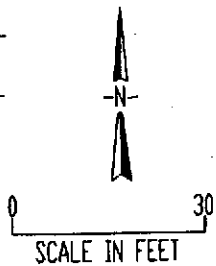
CREDIT WORLD AUTO SALES
 2345 E. 14TH STREET
 OAKLAND, CA 94601

DATE	5/21/97
FIGURE	3
FILE #	267-27N
DRAWN BY	VK
CHECKED BY	LNH



LEGEND

- 
 THV-4 NAME AND LOCATION OF MONITORING WELL INSTALLED BY TPE
- 
 MW-1 NAME AND LOCATION OF MONITORING WELL INSTALLED BY OTHERS
- 
 B-1 NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- 
 LOCATION OF GEOLOGIC CROSS SECTION

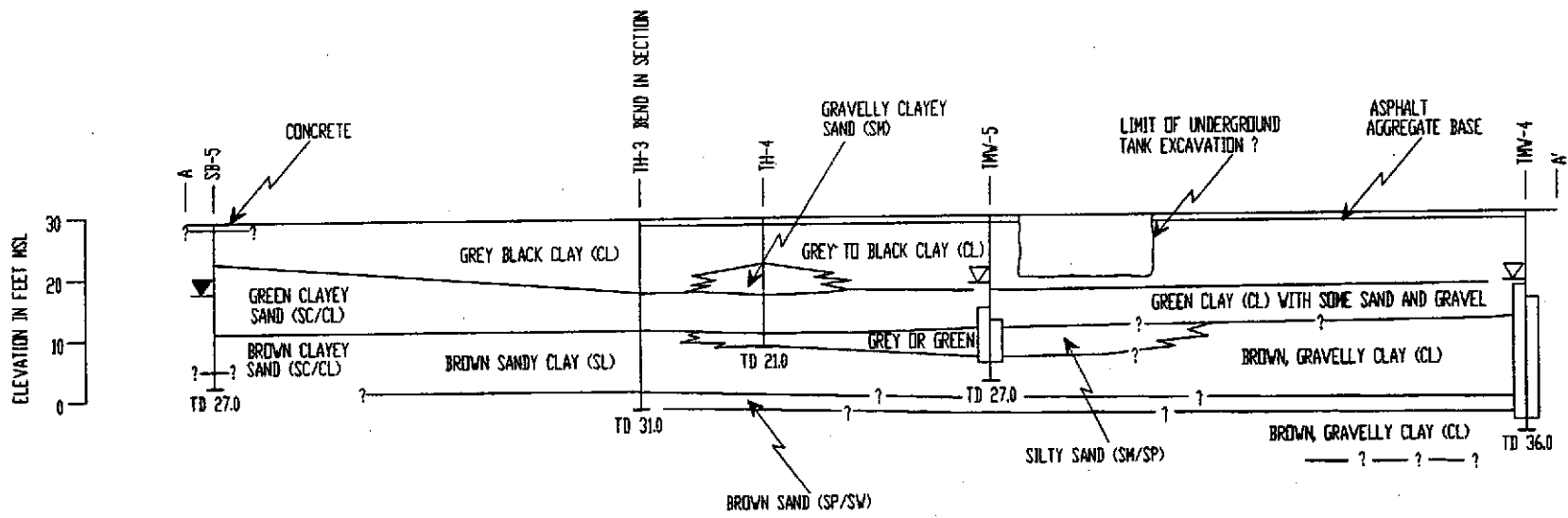


TANK PROTECT ENGINEERING

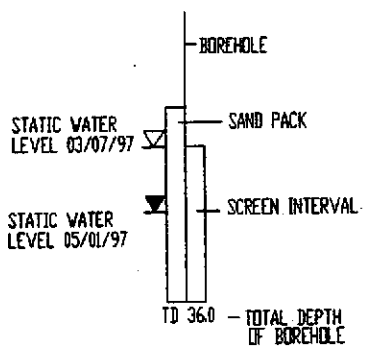
SITE PLAN
LOCATION OF GEOLOGIC CROSS SECTIONS A-A' AND B-B'

CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	5/21/97
FIGURE	4
FILE #	267-3IN
DRAWN BY	VK
CHECKED BY	LNI

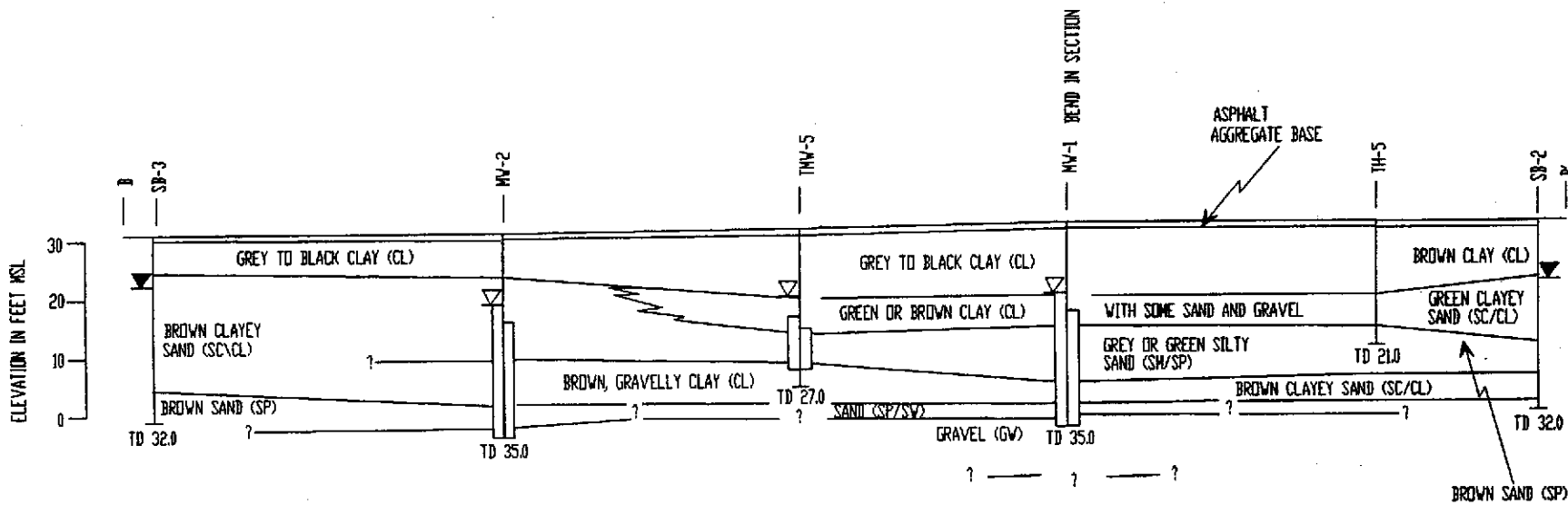


LEGEND

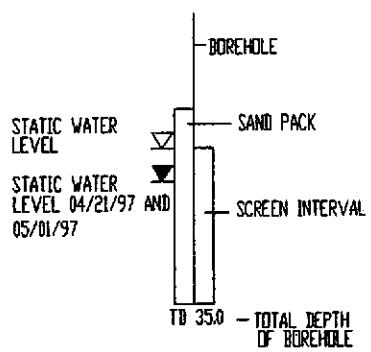


NO VERTICAL EXAGGERATION
 NOTE: SEE FIGURE 4 FOR LOCATION OF CROSS SECTION

TANK PROTECT ENGINEERING											
GEOLOGIC CROSS SECTION A-A'											
CREDIT WORLD AUTO SALES 2345 E. 14TH STREET OAKLAND, CA 94601	<table border="1"> <tr> <td>DATE</td> <td>5/21/97</td> </tr> <tr> <td>FIGURE</td> <td>5</td> </tr> <tr> <td>FILE #</td> <td>267-32</td> </tr> <tr> <td>DRAWN BY</td> <td>VK</td> </tr> <tr> <td>CHECKED BY</td> <td>LNH</td> </tr> </table>	DATE	5/21/97	FIGURE	5	FILE #	267-32	DRAWN BY	VK	CHECKED BY	LNH
DATE	5/21/97										
FIGURE	5										
FILE #	267-32										
DRAWN BY	VK										
CHECKED BY	LNH										



LEGEND

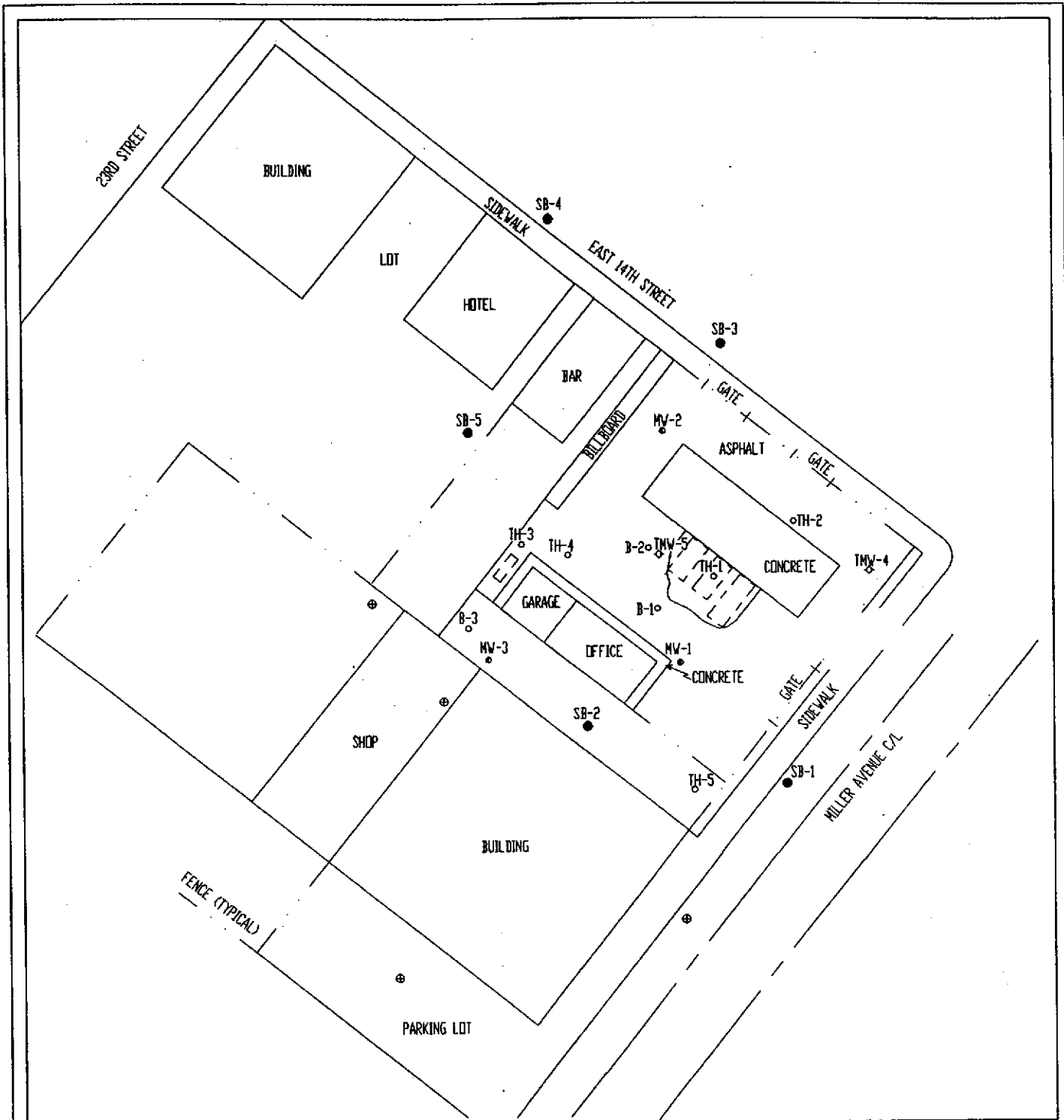


NO VERTICAL EXAGGERATION
NOTE: SEE FIGURE 4 FOR LOCATION OF CROSS SECTION

TANK PROTECT ENGINEERING

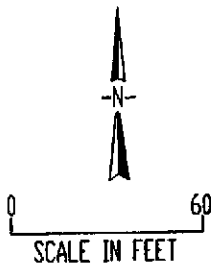
GEOLOGIC CROSS SECTION B-B'

CREDIT WORLD AUTO SALES 2345 E. 14TH STREET OAKLAND, CA 94601	DATE	5/21/97
	FIGURE	6
	FILE #	267-33
	DRAWN BY	VK
	CHECKED BY	LNI



LEGEND

- TMW-4 ○ NAME AND LOCATION OF MONITORING WELL INSTALLED BY TPE
- MW-1 ● NAME AND LOCATION OF MONITORING WELL INSTALLED BY OTHERS
- B-1 ○ NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- SB-1 ● NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY TPE
- ⊕ LOCATION OF PROPOSED SOIL BORING
- □ LOCATION OF FORMER UNDERGROUND STORAGE TANK



TANK PROTECT ENGINEERING

**SITE PLAN:
LOCATION OF PROPOSED SOIL BORINGS**

CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	5/21/97
FIGURE	10
FILE #	267-34N
DRAWN BY	VK
CHECKED BY	LNH

LOG OF EXPLORATORY BORING

PROJECT NUMBER 267

BORING NO. SB-1

PROJECT NAME 2345 E. 14th Street, Oakland CA

PAGE 1

BY LNH

DATE 4/21/97

SURFACE ELEV. 27 FT

RECOVERY (FT/FT)	OVA (PPM)	PENETRA- TION (BLOWS/FT)	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
				0		[Asphalt symbol]	ASPHALT
				5		[Aggregate Base symbol]	AGGREGATE BASE (GW): Brown, dry, no odor.
1.3/2.0	10	--		5	[Clay symbol]	[Clay symbol]	CLAY (CL): Black mottled green, scattered sand, silty, dry, no odor.
				10		[Sand symbol]	SAND (SP): Brown, fine-grained, moist to very moist, no odor.
.50/2.0	--	--		10	[Sand symbol]	[Sand symbol]	
1.5/2.0	10	--		15	[Sand symbol]	[Sand symbol]	
				20		[Clayey Sand symbol]	CLAYEY SAND (SC/SP): Brown, medium-grained, dry to moist, no odor.
2.0/2.0	8	--		20	[Clayey Sand symbol]	[Clayey Sand symbol]	
1.5/2.0	--	--		25	[Clayey Sand symbol]	[Clayey Sand symbol]	
2.0/2.0	2	--		30	[Clayey Sand symbol]	[Clayey Sand symbol]	Boring terminated at 32 feet. Boring sampled to 32 feet. No water level was obtained due to caving.
				35			

REMARKS: Drilled using the "GeoProbe method", 2.0 inch diameter boreholes. Samples collected in 1.0-inch by 6.0-inch acetate tubes.

LOG OF EXPLORATORY BORING

PROJECT NUMBER 267

BORING NO. SB-2

PROJECT NAME 2345 E. 14th Street, Oakland CA

PAGE 1

BY LNH

DATE 4/21/97

SURFACE ELEV. 27 FT

RECOVERY (FT/FT)	OVA (PPM)	PENETRA- TION (BLOWS/FT)	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
				5	1	ASPHALT	ASPHALT
				10	1	AGGREGATE BASE (GW)	AGGREGATE BASE (GW): Brown, dry, no odor.
1.3/2.0	8	--		11.5	1	CLAY (CL)	CLAY (CL): Brown, green at 11.5 feet, silty, stiff, dry to moist, hydrocarbon odor at 11.5.
				15	1	CLAYEY SAND (SC/CL)	CLAYEY SAND (SC/CL): Green, fine to medium-grained, moist, hydrocarbon odor.
2.0/2.0	46	--		20	1	SAND (SP)	SAND (SP): Brown, clayey, fine-grained, moist, no odor.
2.0/2.0	340	--		25	1	CLAYEY SAND (SC/SP)	CLAYEY SAND (SC/SP): Brown, fine-grained, wet, no odor.
2.0/2.0	8	--		30	1		Boring terminated at 32.0 feet. Boring sampled to 32.0 feet.
1.0/2.0	8	--		32.0	1		
2.0/2.0	21	--		35	1		

REMARKS: Drilled using the "GeoProbe method", 2.0 inch diameter boreholes. Samples collected in 1.0-inch by 6.0-inch acetate tubes.

LOG OF EXPLORATORY BORING

PROJECT NUMBER 267

BORING NO. SB-3

PROJECT NAME 2345 E. 14th Street, Oakland CA

PAGE 1

BY LNH

DATE 5/1/97

SURFACE ELEV. 27 FT

RECOVERY (FT/FT)	OVA (PPM)	PENETRA- TION (BLOWS/FT)	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
						ASPHALT	
						COBBLESTONE: Light brown, hard	
						CONCRETE	
1.0/2.0	39	-		5	█	CLAY (CL): Grey to black, sandy, stiff to very stiff, moist, no odor.	
1.0/2.0	40	-		10	█	CLAYEY SAND (SC/CL): Brown, scattered gravel, medium-grained, dry to moist, no odor.	
1.5/2.0	16	-		15	█		
1.5/2.0	56	-		20	█		
1.5/2.0	29	-		25	█		
2.0/2.0	18	-		30	█	SAND (SP): Brown, scattered gravel, fine-grained, moist to wet, no odor.	
				32.0		Boring terminated at 32.0 feet. Boring sampled to 32.0 feet.	
				35			

REMARKS: Drilled using the "GeoProbe method", 2.0 inch diameter boreholes. Samples collected in 1.0-inch by 6.0-inch acetate tubes.

LOG OF EXPLORATORY BORING

PROJECT NUMBER 267

BORING NO. SB-4

PROJECT NAME 2345 E. 14th Street, Oakland CA

PAGE 1

BY LNH

DATE 5/1/97

SURFACE ELEV. 27 FT

RECOVERY (FT/FT)	OVA (PPM)	PENETRA- TION (BLOWS/FT)	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
				5	1	ASPHALT	ASPHALT
2.0/2.0	12	-		10	1	SANDY CLAY (CL/SC)	SANDY CLAY (CL/SC): Brown mottled green, stiff, dry, no odor.
1.5/2.0	4	-		15	1	CLAYEY SAND (SC/CL)	CLAYEY SAND (SC/CL): Brown, organics, fine to medium grained, dry to moist, no odor.
2.0/2.0	6	-		20	1		
1.5/2.0	14	-		25	1		
2.0/2.0	4	-		30	1		Boring terminated at 27.0 feet. Boring sampled to 27.0 feet.
				35			

REMARKS: Drilled using the "GeoProbe method", 2.0 inch diameter boreholes. Samples collected in 1.0-inch by 6.0-inch acetate tubes.

LOG OF EXPLORATORY BORING

PROJECT NUMBER 267

BORING NO. SB-5

PROJECT NAME 2345 E. 14th Street, Oakland CA

PAGE 1

BY LNH

DATE 5/1/97

SURFACE ELEV. 27 FT

RECOVERY (FT/FT)	OVA (PPM)	PENETRA- TION (BLOWS/FT)	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
				5	1	CONCRETE	CONCRETE
1.0/2.0	12	-		10	2	AGGREGATE BASE (GW)	AGGREGATE BASE (GW): Brown, dry, no odor.
2.0/2.0	67	-		15	3	CLAY (CL)	CLAY (CL): Grey to black, sandy, soft, no odor.
2.0/2.0	6	-		20	4	CLAYEY SAND (SC/CL)	CLAYEY SAND (SC/CL): Green, fine-grained, dry, hydrocarbon odor.
2.0/2.0	11	-		25	5	CLAYEY SAND (SC/CL)	CLAYEY SAND (SC/CL): Brown, fine-grained, moist, no odor.
2.0/2.0	6	-		30	6	SANDY CLAY (CL/SC)	SANDY CLAY (CL/SC): Brown, organics, stiff, dry no odor.
2.0/2.0	6	-		35	7	CLAYEY SAND (SC/CL)	CLAYEY SAND (SC/CL): Brown, fine-grained, wet at 27.0 feet, no odor.
							Boring terminated at 27.0 feet. Boring sampled to 27.0 feet. A hydrocarbon sheen on the groundwater was observed.

REMARKS: Drilled using the "GeoProbe method", 2.0 inch diameter boreholes. Samples collected in 1.0-inch by 6.0-inch acetate tubes.

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Tank Protect Engineering
2821 Whipple Road
Union City, CA 94587
Attn: Lee Huckins

Date:	5/1/97
Date Received:	4/24/97
Date Analyzed:	4/25/97
Project #:	267042197
P.O. #:	1399
Sampled By:	Client

Certified Analytical Report

Soil Sample Analysis:

Test	SB-1 26.5-27.0	SB-2 16.5-17.0	Units	PQL	EPA Method #
Sample Matrix	Soil	Soil			
Sample Date	4/21/97	4/21/97			
Sample Time	1345	1000			
Lab #	D7160	D7161			
DF-Gas/BTEX	1	1			
TPH-Gas	ND	3.7	mg/kg	1.0 mg/kg	8015M
MTBE	ND	ND	mg/kg	0.05 mg/kg	8020
Benzene	ND	0.012	mg/kg	0.005 mg/kg	8020
Toluene	ND	0.0071	mg/kg	0.005 mg/kg	8020
Ethyl Benzene	ND	0.042	mg/kg	0.005 mg/kg	8020
Xylenes	ND	ND	mg/kg	0.005 mg/kg	8020

1. $DLR = DF \times PQL$
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)


Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Tank Protect Engineering
2821 Whipple Road
Union City, CA 94587
Attn: Lee Huckins

Date:	5/1/97
Date Received:	4/24/97
Date Analyzed:	4/25-4/28/97
Project #:	267042197
P.O. #:	1399
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	SB-1W	SB-2W	Units	PQL	EPA Method #
Sample Matrix	Water	Water			
Sample Date	4/21/97	4/21/97			
Sample Time	1540	1103			
Lab #	D7162	D7163			
DF-Gas/BTEX	1	20			
TPH-Gas	ND	6,100	µg/liter	50.0 µg/l	8015M
MTBE	ND	ND	µg/liter	5.0 µg/l	8020
Benzene	ND	870	µg/liter	0.5 µg/l	8020
Toluene	ND	35	µg/liter	0.5 µg/l	8020
Ethyl Benzene	ND	17	µg/liter	0.5 µg/l	8020
Xylenes	ND	28	µg/liter	0.5 µg/l	8020

1. $DLR = DF \times PQL$
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)


Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4970425

Matrix: Soil

Units: ug/kg

Date Analyzed: 04/25/97

Quality Control Sample: Blank Spike

PARAMETER	Method #	MB ug/kg	SA ug/kg	SR ug/kg	SP ug/kg	SP % R	SPD ug/kg	SPD %R	RPD	QC LIMITS (ADVISORY)	
										RPD	%R
Benzene	8020	<5.0	80	ND	104	130	98	123	5.9	25	50-150
Toluene	8020	<5.0	80	ND	103	129	95	119	8.1	25	50-150
Ethyl Benzene	8020	<5.0	80	ND	105	131	97	121	7.9	25	50-150
Xylenes	8020	<5.0	240	ND	313	130	289	120	8.0	25	50-150
Gasoline*	8015	<1000.00	1000	0.0	940	94	890	89	5.5	25	50-150

*LCS and LCSD were analyzed for this parameter

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2970425

Matrix: Soil

Units: ug/kg

Date Analyzed: 04/25/97

Quality Control Sample: Blank Spike

PARAMETER	Method #	MB ug/kg	SA ug/kg	SR ug/kg	SP ug/kg	SP % R	SPD ug/kg	SPD %R	RPD	QC LIMITS (ADVISORY)	
										RPD	%R
Benzene	8020	<5.0	80	0.0	79	99	76	95	3.9	25	50-150
Toluene	8020	<5.0	80	0.0	77	96	74	93	4.0	25	50-150
Ethyl Benzene	8020	<5.0	80	0.0	77	96	75	94	2.6	25	50-150
Xylenes	8020	<5.0	240	0.0	232	97	223	93	4.0	25	50-150
Gasoline*	8015	<1000.00	1000	0.0	990	99	1020	102	3.0	25	50-150

*LCS and LCSD were analyzed for this parameter.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2970428
Matrix: Soil
Units: ug/kg

Date Analyzed: 04/28/97
Quality Control Sample: D7377

PARAMETER	Method #	MB ug/kg	SA ug/kg	SR ug/kg	SP ug/kg	SP % R	SPD ug/kg	SPD %R	RPD	QC LIMITS (ADVISORY)	
										RPD	%R
Benzene	8020	<5.0	80	ND	78	98	76	95	2.6	25	50-150
Toluene	8020	<5.0	80	ND	77	96	75	94	2.6	25	50-150
Ethyl Benzene	8020	<5.0	80	ND	76	95	74	93	2.7	25	50-150
Xylenes	8020	<5.0	240	ND	228	95	225	94	1.3	25	50-150
Gasoline*	8015	<1000.00	1000	0.0	960	96	1000	100	4.1	25	50-150

*LCS and LCSD were analyzed for this parameter.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated



TANK PROTECT ENGINEERING
of Northern California, Inc.

2821 Whipple Rd., Union City, CA 94587-1233

(510) 429-8088 ■ (800) 523-8088 ■ Fax (510) 429-8089

LAB: Entek

TURNAROUND: 15 day

P.O. #: 1399

PAGE 1 OF 1

CHAIN OF CUSTODY

PROJECT NO.		SITE NAME & ADDRESS				(1) TYPE OF CONTAINER	ANALYTES REQUESTED							REMARKS
SAMPLER NAME, ADDRESS AND TELEPHONE NUMBER		ID NO.					TOTAL LIGHT HC	AROMATIC HC	TOTAL HEAVY HC	OIL & GREASE	VOC SEM (24's)	OTHER		
ID NO.	DATE	TIME	SOIL	WATER	SAMPLING LOCATION									
267042197		CWAS 2345 E 14th St												
Lee Hutchins 2821 WHIPPLE ROAD, UNION CITY, CA 94587 (415) 429-8088														
SB-1 206-210	4/21	1300	X		26.5-27.0	1 tube	✓	✓					D7160	
SB-2 206-116	4/21	1000	Y		16.5-17.0	1 tube	✓	✓					D7161	
SB-100	4/21	1500	X	X		3 sample	✓	✓					D7162	
SB-200	4/21	1103	Y	X		2.40me	✓	✓					D7163	
Relinquished by : (Signature)		Date / Time		Received by : (Signature)		Relinquished by : (Signature)		Date / Time		Received by : (Signature)				
Lee Hutchins		4/24/97 0830		Jellinger										
Relinquished by : (Signature)		Date / Time		Received by : (Signature)		Relinquished by : (Signature)		Date / Time		Received by : (Signature)				
Relinquished by : (Signature)		Date / Time		Received for Laboratory by: (Signature)		Date / Time		Remarks						

DATE: _____

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Tank Protect Engineering
2821 Whipple Road
Union City, CA 94587
Attn: Lee Huckins

Date:	5/6/97
Date Received:	5/2/97
Date Analyzed:	5/5/97
Project #:	267050297
P.O. #:	1404
Sampled By:	Client

Certified Analytical Report

Soil Sample Analysis:

Test	SB-3 21.5-22	SB-4 21.5-22	SB-5 11.5-12.0	Units	PQL	EPA Method #
Sample Matrix	Soil	Soil	Soil			
Sample Date	5/1/97	5/1/97	5/1/97			
Sample Time	11:23	13:52	9:10			
Lab #	D7700	D7701	D7702			
DF-Gas/BTEX	1	1	62			
TPH-Gas	ND	ND	91 ²	mg/kg	1.0 mg/kg	8015M
MTBE	ND	ND	ND	mg/kg	0.05 mg/kg	8020
Benzene	ND	ND	ND	mg/kg	0.005 mg/kg	8020
Toluene	ND	ND	ND	mg/kg	0.005 mg/kg	8020
Ethyl Benzene	ND	ND	ND	mg/kg	0.005 mg/kg	8020
Xylenes	ND	ND	ND	mg/kg	0.005 mg/kg	8020

1. DLR=DF x PQL
2. TPH-Gas chromatogram for Lab #D7702, although within the reporting range, does not match the typical Gas pattern
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)


Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Tank Protect Engineering
2821 Whipple Road
Union City, CA 94587
Attn: Lee Huckins


Date:	5/6/97
Date Received:	5/2/97
Date Analyzed:	5/5/97
Project #:	267050297
P.O. #:	1404
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	SB-3W	SB-4W	SB-5W	Units	PQL	EPA Method #
Sample Matrix	Water	Water	Water			
Sample Date	5/1/97	5/1/97	5/1/97			
Sample Time	12:20	14:00	10:25			
Lab #	D7703	D7704	D7705			
DF-Gas/BTEX	1	1	2			
TPH-Gas	ND	ND	890	µg/liter	50.0 µg/l	8015M
MTBE	ND	ND	12	µg/liter	5.0 µg/l	8020
Benzene	ND	ND	5.4	µg/liter	0.5 µg/l	8020
Toluene	ND	ND	ND	µg/liter	0.5 µg/l	8020
Ethyl Benzene	ND	ND	1.4	µg/liter	0.5 µg/l	8020
Xylenes	ND	ND	ND	µg/liter	0.5 µg/l	8020

1. $DLR = DF \times PQL$
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)


Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4970505
Matrix: Soil
Units: ug/kg

Date Analyzed: 05/05/97
Quality Control Sample: D7720

PARAMETER	Method #	MB ug/kg	SA ug/kg	SR ug/kg	SP ug/kg	SP % R	SPD ug/kg	SPD %R	RPD	QC LIMITS (ADVISORY)	
										RPD	%R
Benzene	8020	<5.0	80	ND	102	128	98	123	4.0	25	50-150
Toluene	8020	<5.0	80	ND	100	125	96	120	4.1	25	50-150
Ethyl Benzene	8020	<5.0	80	ND	101	126	97	121	4.0	25	50-150
Xylenes	8020	<5.0	240	ND	302	126	292	122	3.4	25	50-150
Gasoline*	8015	<1000.00	1000	0.0	1000	100	980	98	2.0	25	50-150

*LCS and LCSD were analyzed for this parameter

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG5970505

Matrix: Water

Units: µg/L

Date Analyzed: 05/05/97

Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY)	
										RPD	%R
Benzene	8020	<0.5	25	0.0	22	88	23	92	4.4	25	50-150
Toluene	8020	<0.5	25	0.0	24	96	24	96	0.0	25	50-150
Ethyl Benzene	8020	<0.5	25	0.0	25	100	25	100	0.0	25	50-150
Xylenes	8020	<0.5	75	0.0	69	92	69	92	0.0	25	50-150
Gasoline	8015	<50.0	625	0	636	102	656	105	3.1	25	50-150

Definition of Terms:

na: Not Analyzed in QC batch

MB: Method Blank

SA: Spike Added

SR: Sample Result

RPD(%): Duplicate Analysis - Relative Percent Difference

SP: Spike Result

SP (%R): Spike % Recovery

SPD: Spike Duplicate Result

SPD (%R): Spike % Recovery

NC: Not Calculated



TANK PROTECT ENGINEERING
 of Northern California, Inc.
 2821 Whipple Rd., Union City, CA 94587-1233

(510) 429-8088 ■ (800) 523-8088 ■ Fax (510) 429-8089

LAB: Entech

TURNAROUND: 48 hr

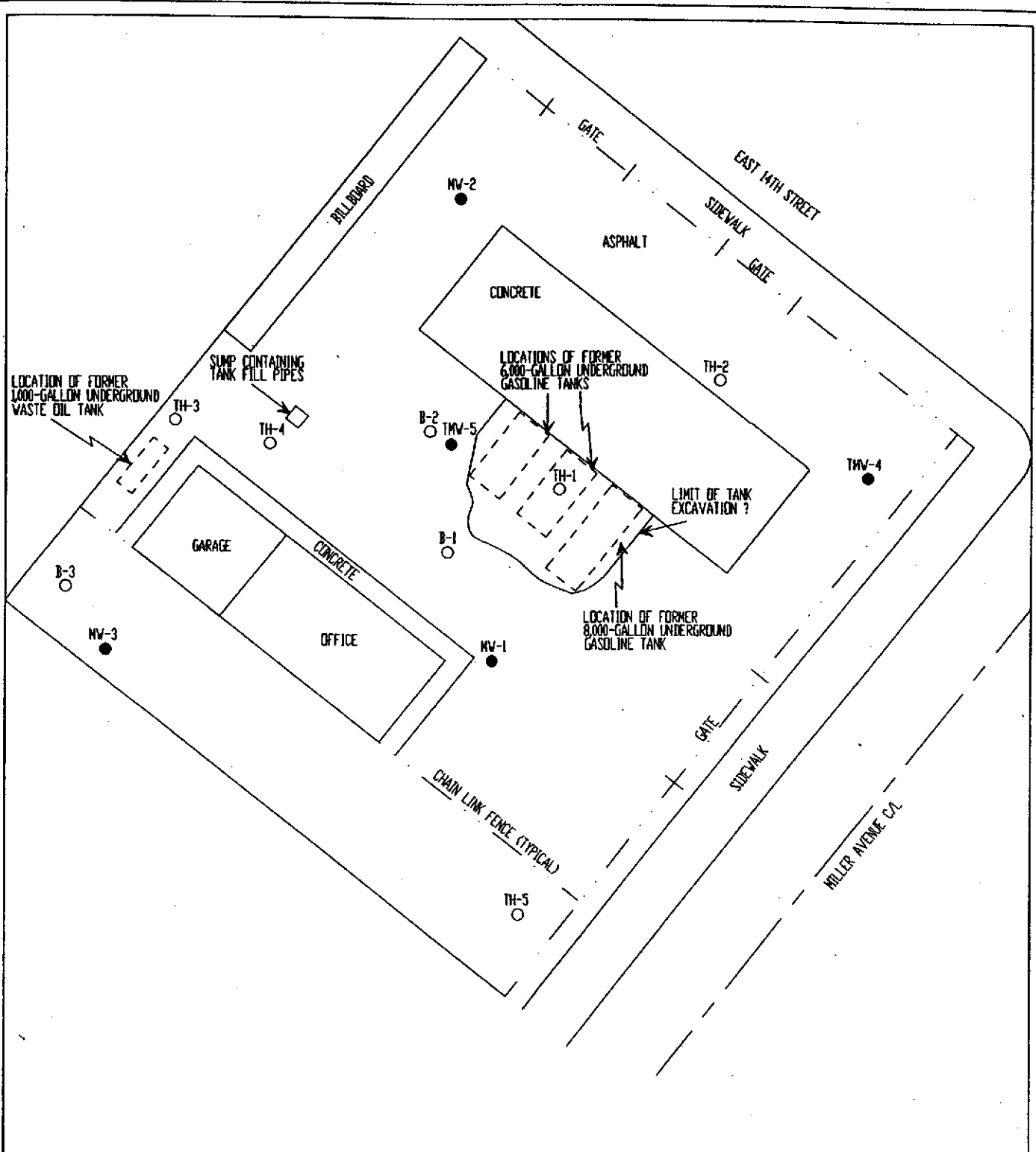
P.O. #: 1404

PAGE 1 OF 1

CHAIN OF CUSTODY

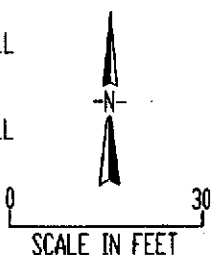
PROJECT NO.		SITE NAME & ADDRESS				(1) TYPE OF CONTAINER	ANALYTES REQUESTED							REMARKS				
267050297		CWAS 2345 E 14 th Street Oakland					TOTAL LIGHT HC	AROMATIC HC	TOTAL HEAVY HC	OIL & GREASE	VOC SOLV (24's)	OTHER						
SAMPLER NAME, ADDRESS AND TELEPHONE NUMBER		ID NO.	DATE	TIME	SOIL	WATER	SAMPLING LOCATION											
Lee Hickins 2821 WHIPPLE ROAD, UNION CITY, CA 94587 (415) 429-8088																		
SB-3	5/1	1123	X				21.5-22	1 tube	X	X							need MTBE	D7700
SB-4	5/1	1352	✓				21.5-22	1 tube	X	✓							" "	D7701
SB-5	5/1	910	X				11.5-12.0	1 tube	X	X							" "	D7702
SB-3w	5/1	1220	X	✓				2-40ml	X	X							" "	D7703
SB-4w	5/1	770	X	✓				2-40ml	X	X							" "	D7704
SB-5w	5/1	1025	X	✓				3-40ml	X	X							" "	D7705
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Date / Time		Received by: (Signature)				
Lee Hickins		5/19/15:20		[Signature]														
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Date / Time		Received by: (Signature)				
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature)		Date / Time		Remarks										

DATE: _____



LEGEND

- MW-4 ● NAME AND LOCATION OF MONITORING WELL INSTALLED BY TPE
- MW-1 ● NAME AND LOCATION OF MONITORING WELL INSTALLED BY OTHERS
- B-1 ○ NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS

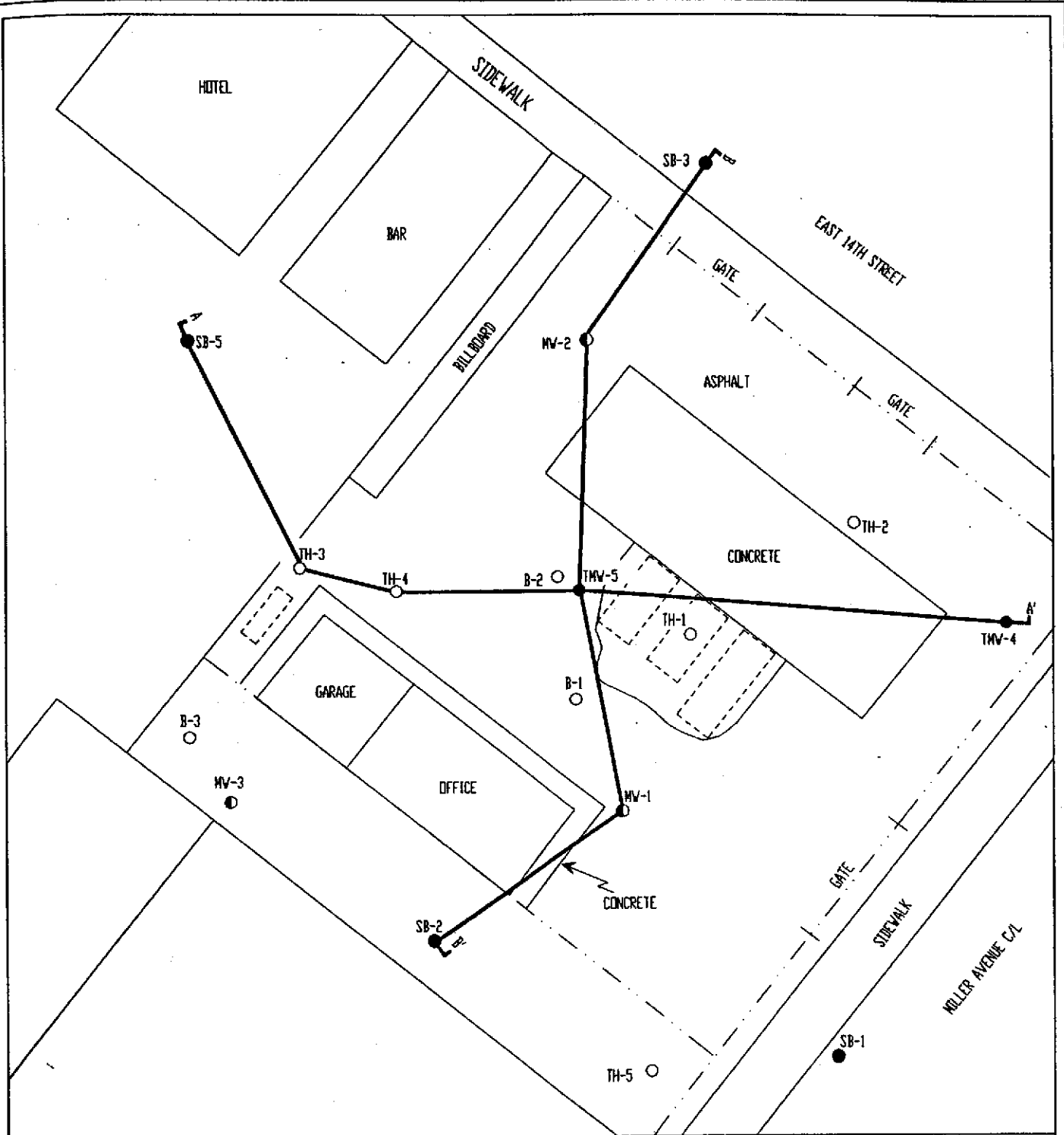


TANK PROTECT ENGINEERING




SITE PLAN

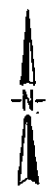
CREDIT WORLD AUTO SALES
 2345 E. 14TH STREET
 OAKLAND, CA 94601

DATE	10/20/97
FIGURE	2
FILE #	267-2N
DRAWN BY	VK
CHECKED BY	LMH



LEGEND

- 
 NAME AND LOCATION OF MONITORING WELL INSTALLED BY TPE
- 
 NAME AND LOCATION OF MONITORING WELL INSTALLED BY OTHERS
- 
 NAME AND APPROXIMATE LOCATION OF SOIL BORING DRILLED BY OTHERS
- 
 LOCATION OF GEOLOGIC CROSS SECTION



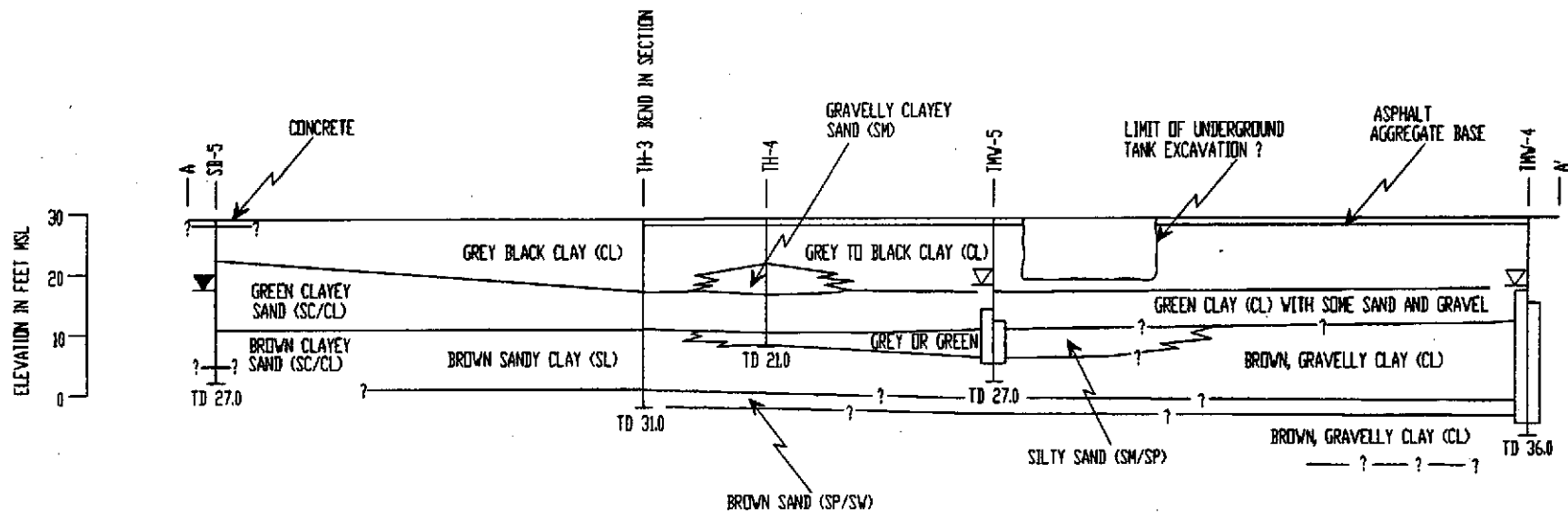
0 30
SCALE IN FEET

TANK PROTECT ENGINEERING

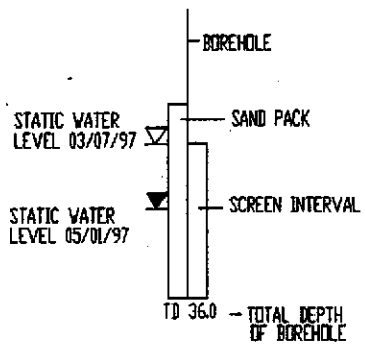
SITE PLAN
LOCATION OF GEOLOGIC CROSS SECTIONS A-A' AND B-B'

CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	10/20/97
FIGURE	3
FILE #	267-31N
DRAWN BY	VK
CHECKED BY	LNH



LEGEND



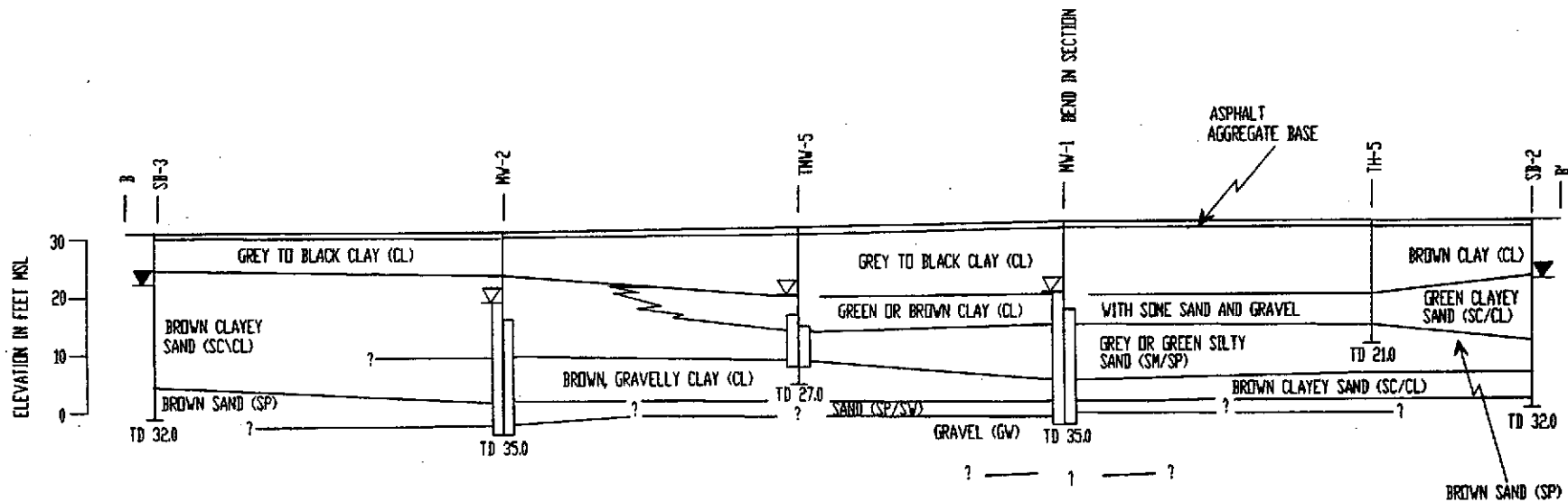
NO VERTICAL EXAGGERATION
 NOTE: SEE FIGURE 4 FOR LOCATION OF CROSS SECTION

TANK PROTECT ENGINEERING

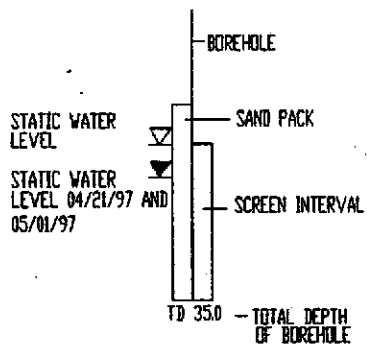
GEOLOGIC CROSS SECTION A-A'

CREDIT WORLD AUTO SALES
 2345 E. 14TH STREET
 OAKLAND, CA 94601

DATE	10/20/97
FIGURE	4
FILE #	267-32
DRAWN BY	VK
CHECKED BY	LNH



LEGEND

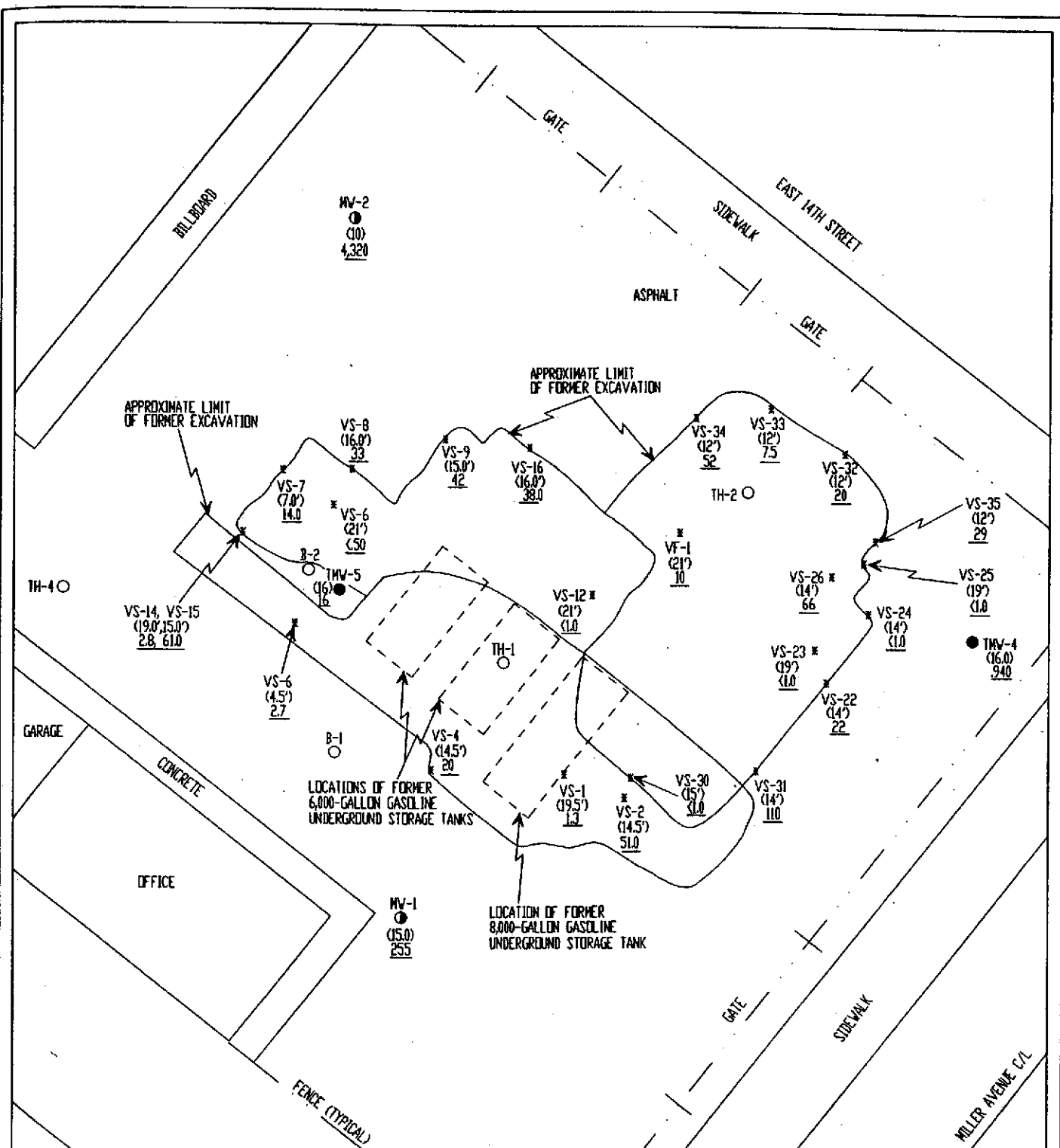


NO VERTICAL EXAGGERATION
 NOTE: SEE FIGURE 4 FOR LOCATION OF CROSS SECTION

TANK PROTECT ENGINEERING

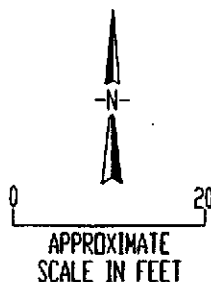
GEOLOGIC CROSS SECTION B-B'

CREDIT WORLD AUTO SALES 2345 E. 14TH STREET OAKLAND, CA 94601	DATE	10/28/97
	FIGURE	5
	FILE #	267-33
	DRAWN BY	VK
	CHECKED BY	LHM



LEGEND

- NAME LOCATION OF MONITORING WELL (DEPTH OF SAMPLE COLLECTED DURING INSTALLATION)
- 100 CONCENTRATION TPHG (ppm)
- VS-27 (18') * NAME, DEPTH, AND LOCATION OF SOIL SAMPLE



TANK PROTECT ENGINEERING

SITE PLAN:
LOCATION OF FINAL VERIFICATION SOIL SAMPLING

CREDIT WORLD AUTO SALES
2345 E. 14TH STREET
OAKLAND, CA 94601

DATE	10/20/97
FIGURE	7
FILE #	267-16N
DRAWN BY	VK
CHECKED BY	LNH

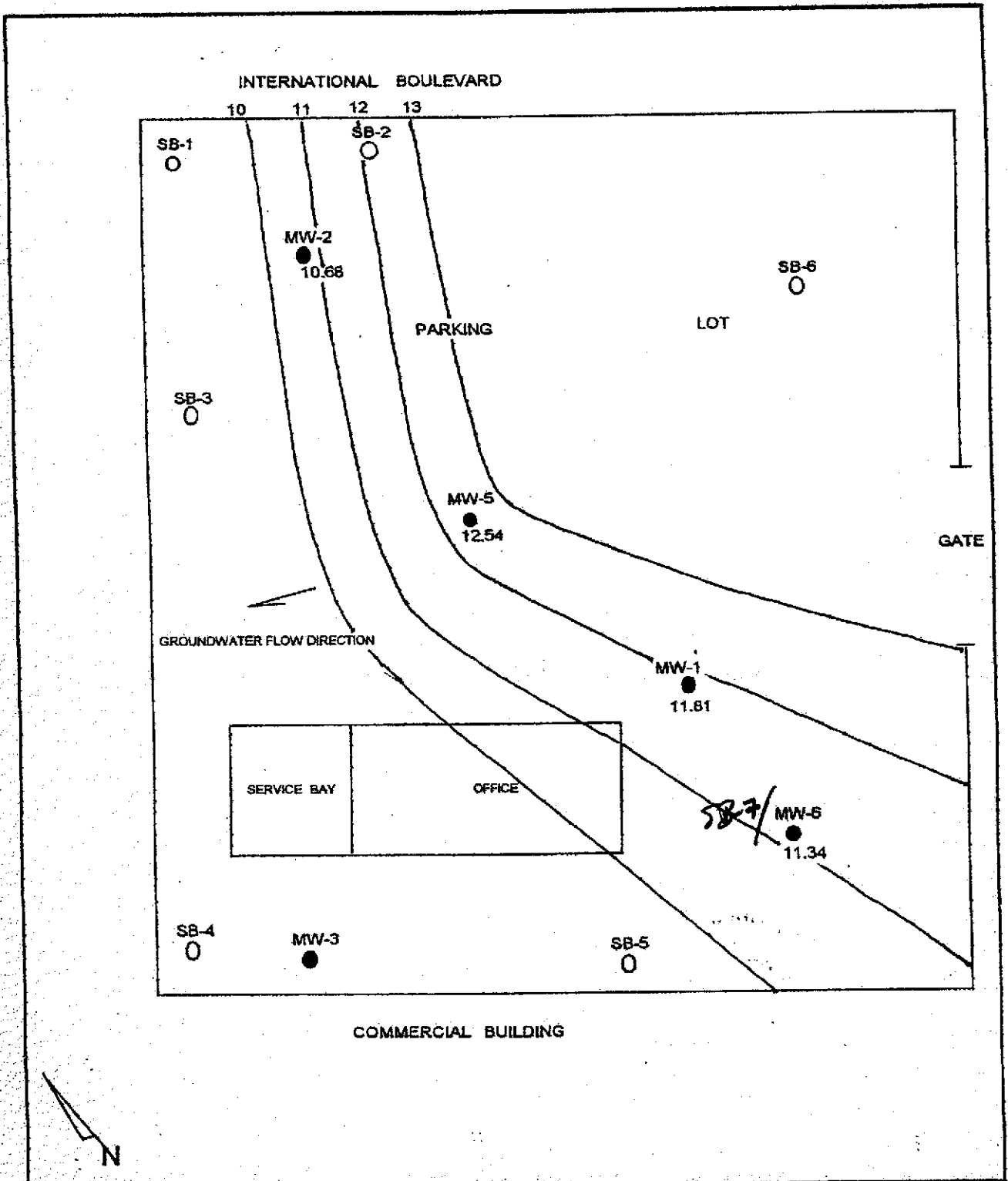


FIGURE 5

MAP TYPE: SITE PLAN (GROUNDWATER FLOW DIRECTION JUNE 13, 2001)		● MONITORING WELL LOCATION
SITE ADDRESS: 2345 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA 94612		DATE: JULY 10, 2001 SCALE: 1" = 25'
SEQUOIA ENVIRONMENTAL 111 Middle Avenue, Suite 5, San Leandro, CA 94577 (415) 511-1300		

BORING & MONITORING WELL LOG

CLIENT: Stanley Wong PROJECT NAME: Oakland
 PROJECT ADDRESS: 2345 International Boulevard, Oakland, California DATE DRILLED: May 22, 2001
 DRILLING METHOD: Hollow Stem Auger SAMPLER TYPE: CA Split Spoon Sampler
 TOTAL DEPTH OF BORING: 15 Feet WIDTH OF BORING: 6 3/4 - inches
 DEPTH TO GROUNDWATER AT THE TIME OF DRILLING: N/A STATIC WATER LEVEL: N/A
 CASING DIAMETER: N/A CASING LENGTH: N/A SCREEN DIAMETER: N/A
 SCREEN LENGTH: N/A SLOT SIZE: N/A
 DRILLING COMPANY: Bay Area Exploration DRILLING LIC.: C57-522125

CORE SAMPLE CONDITION LEGEND: Undisturbed Disturbed No Recovery

LOGGED BY: <u>Chris Wabuzoh</u>	REVIEWED BY: <u>Ola Balogun</u>	DEPTH	SOIL TYPE	PID (ppm)	RECOVERY	CONSTRUCTION		
						SEAL	CASING	SCREEN
ASPHALT covering								
SANDY CLAY: Brown; about 40% coarse, coarse to fine, hard angular to rounded sand; about 60% clay, moderate plasticity, dry to moist; no hydrocarbon odor; no reaction with hydrochloric acid (HCL).		5	CL	0	2,3,5			
SANDY CLAY: Greenish; about 40% coarse to fine, hard subangular to rounded sand; about 60% clay, moderate to high plasticity, moist; has hydrocarbon odor; no reaction with HCL.		10	CL	264	5,11,17			
CLAYEY SAND: Brown; about 40% clay, moderate to high plasticity; about 50% coarse to fine, hard rounded sand; about 10% gravel size about 1/4 inch; moist to saturated; no hydrocarbon odor; Groundwater water encountered.		15	CL	4	5,11,13			
		20						
		25						

BORING & MONITORING WELL LOG

BORING:
WEL: 45B-2

CLIENT: Stanley Wong PROJECT NAME: Oakland
 PROJECT ADDRESS: 2345 International Boulevard, Oakland, California DATE DRILLED: May 22, 2001
 DRILLING METHOD: Hollow Stem Auger SAMPLER TYPE: CA Split Spoon Sampler
 TOTAL DEPTH OF BORING: 20 Feet WIDTH OF BORING: 6 3/4 - inches
 DEPTH TO GROUNDWATER AT THE TIME OF DRILLING: N/A STATIC WATER LEVEL: N/A
 CASING DIAMETER: N/A CASING LENGTH: N/A SCREEN DIAMETER: N/A
 SCREEN LENGTH: N/A SLOT SIZE: N/A
 DRILLING COMPANY: Bay Area Exploration DRILLING LIC.: C57-522125

CORE SAMPLE CONDITION LEGEND: Undisturbed Disturbed No Recovery

LOGGED BY: <u>Chris Wabuzoh</u> REVIEWED BY: <u>Ola Balogun</u>	DEPTH	SOIL TYPE	PID (ppm)	RECOVERY	CONSTRUCTION		
					SEAL	CASING	SCREEN
ASPHALT covering							
SANDY CLAY: Brown; about 40% coarse to fine, hard angular to subrounded sand; about 60% clay, moderate plasticity; dry to moist; no hydrocarbon odor; no reaction with hydrochloric acid (HCL).	5	CL	0	4,6,9 <input checked="" type="checkbox"/>			
SANDY CLAY: Gray with iron staining; about 40% coarse to fine, hard subangular to rounded sand; about 60% clay, moderate to high plasticity, moist; has hydrocarbon odor; no reaction with HCL.	10	CL	270	4,10,12 <input checked="" type="checkbox"/>			
CLAYEY SAND: Brown; about 30% clay, moderate to high plasticity; about 60% coarse to fine, hard rounded sand; about 10% gravel size about 1/4 inch; moist; no hydrocarbon odor; no reaction with HCL.	15	SC	1	8,11,15 <input checked="" type="checkbox"/>			
SANDY CLAY: Brown; about 30% coarse to very fine, hard rounded sand; about 70% clay moderate to high plasticity; moist to saturated; no hydrocarbon odor; no reaction with HCL.	20	SC	0	5,10,15 <input checked="" type="checkbox"/>			
	25						

BORING & MONITORING WELL LOG

BORING
WELL USE 3

CLIENT: Stanley Wong PROJECT NAME: Oakland
 PROJECT ADDRESS: 2345 International Boulevard, Oakland, California DATE DRILLED: May 22, 2001
 DRILLING METHOD: Hollow Stem Auger SAMPLER TYPE: CA Split Spoon Sampler
 TOTAL DEPTH OF BORING: 20 Feet WIDTH OF BORING: 8 3/4 - inches
 DEPTH TO GROUNDWATER AT THE TIME OF DRILLING: N/A STATIC WATER LEVEL: N/A
 CASING DIAMETER: N/A CASING LENGTH: N/A SCREEN DIAMETER: N/A
 SCREEN LENGTH: N/A SLOT SIZE: N/A
 DRILLING COMPANY: Ray Area Exploration DRILLING LIC.: C57-522125

CORE SAMPLE CONDITION LEGEND: Undisturbed Disturbed No Recovery

LOGGED BY: <u>Chris Webuzoh</u> REVIEWED BY: <u>Ola Balogun</u>	DEPTH	SOIL TYPE	PID (ppm)	RECOVERY	CONSTRUCTION		
					SEAL	CASING	SCREEN
ASPHALT covering							
NO RECOVERY	0		0				
	5		4,8,11	<input type="checkbox"/>			
SANDY CLAY: Gray; about 30% coarse to fine, hard subangular to rounded sand; about 60% clay, moderate to high plasticity, moist; has hydrocarbon odor; no reaction with HCL.	10	CL	348	4,8,11			
	15	SC	400	7,11,18			
CLAYEY SAND: Gray; about 30% clay, moderate to high plasticity; about 60% coarse to fine, hard rounded sand; about 10% gravel size about 1/4 inch; moist; has hydrocarbon odor; no reaction with HCL.	20	SC	5	4,18,14			
SANDY CLAY: Brown; about 35% coarse to very fine, hard rounded sand; about 60% clay, moderate to high plasticity; about 5% gravel size about 1/4 inch; moist to saturated; no hydrocarbon odor; no reaction with HCL.	25						

BORING & MONITORING WELL LOG

BORING
WELL / SB

CLIENT: Stanley Wong PROJECT NAME: Oakland
 PROJECT ADDRESS: 2345 International Boulevard, Oakland, California DATE DRILLED: May 22, 2001
 DRILLING METHOD: Hollow Stem Auger SAMPLER TYPE: CA Split Spoon Sampler
 TOTAL DEPTH OF BORING: 20 Feet WIDTH OF BORING: 6 3/4 - inches
 DEPTH TO GROUNDWATER AT THE TIME OF DRILLING: N/A STATIC WATER LEVEL: N/A
 CASING DIAMETER: N/A CASING LENGTH: N/A SCREEN DIAMETER: N/A
 SCREEN LENGTH: N/A SLOT SIZE: N/A
 DRILLING COMPANY: Bay Area Exploration DRILLING LIC.: C57-522125

CORE SAMPLE CONDITION LEGEND:



Undisturbed



Disturbed



No Recovery

LOGGED BY: <u>Chris Wabuzoh</u>	REVIEWED BY: <u>Ola Balogun</u>	DEPTH	SOIL TYPE	PID (ppm)	RECOVERY	CONSTRUCTION		
						SEAL	CASING	SCREEN
ASPHALT covering								
SANDY CLAY: Dark brown; about 40% coarse to fine, hard, angular to subrounded sand; about 60% clay, moderate plasticity; moist; no hydrocarbon odor; no reaction with HCL.		5	CL	0	2,2,3			
SANDY CLAY: Dark gray; about 30% coarse to fine, hard subangular to rounded sand; about 70% clay, moderate to high plasticity, moist; has slight hydrocarbon odor; no reaction with HCL.		10	CL	100	4,8,10			
CLAYEY SAND: Greenish gray; about 40% coarse to fine, hard subangular to rounded sand; about 60% clay; moderate to high plasticity; moist; has hydrocarbon odor; no reaction with HCL.		15	SC	160	6,12,15			
CLAYEY SAND: Light brown; about 40% coarse to very fine, hard rounded sand; about 60% clay, moderate to high plasticity; some gravel size about 1/4 inch; moist to saturated; groundwater encountered; no hydrocarbon odor; no reaction with HCL.		20	SC	0	3,6,8			
		25						

BORING & MONITORING WELL LOG

BORING
WELL USE

CLIENT: Stanley Wong PROJECT NAME: Oakland
 PROJECT ADDRESS: 2345 International Boulevard, Oakland, California DATE DRILLED: May 22, 2001
 DRILLING METHOD: Hollow Stem Auger SAMPLER TYPE: CA Split Spoon Sampler
 TOTAL DEPTH OF BORING: 20 Feet WIDTH OF BORING: 6 3/4 - inches
 DEPTH TO GROUNDWATER AT THE TIME OF DRILLING: N/A STATIC WATER LEVEL: N/A
 CASING DIAMETER: N/A CASING LENGTH: N/A SCREEN DIAMETER: N/A
 SCREEN LENGTH: N/A SLOT SIZE: N/A
 DRILLING COMPANY: Bay Area Exploration DRILLING LIC.: C57-522125

CORE SAMPLE CONDITION LEGEND: Undisturbed Disturbed No Recovery

LOGGED BY: <u>Chris Wakuzoh</u> REVIEWED BY: <u>Ola Balogun</u>	DEPTH	SOIL TYPE	PID (ppm)	RECOVERY	CONSTRUCTION		
					SEAL	CASING	SCREEN
ASPHALT covering							
SANDY CLAY: Dark brown; about 40% coarse to fine, hard, angular to subrounded sand; about 60% clay, moderate plasticity, moist; no hydrocarbon odor; no reaction with HCL.	5	CL	0	2,3,5			
SANDY CLAY: Dark brown; about 30% coarse to fine, hard subangular to rounded sand; about 70% clay, moderate to high plasticity, moist; no hydrocarbon odor; no reaction with HCL.	10	CL	0	4,5,10			
CLAYEY SAND: Greenish; about 30% coarse to fine, hard subangular to rounded sand; 70% clay; moderate to high plasticity; some gravel; moist; has hydrocarbon odor; no reaction with HCL.	15	SC	40	5,13,16			
GRAVELLY SANDY CLAY: Brown; about 30% coarse to very fine, hard rounded sand; 50% clay, moderate to high plasticity; about 20% gravel size about 1/4 inch; moist to saturated; groundwater encountered; no hydrocarbon odor; no reaction with HCL.	20	CL	7	4,9,11			
	25						

BORING & MONITORING WELL LOG

BORING
WELL #58-B

CLIENT: Stanley Wong PROJECT NAME: Oakland
 PROJECT ADDRESS: 2345 International Boulevard, Oakland, California DATE DRILLED: May 22, 2001
 DRILLING METHOD: Hollow Stem Auger SAMPLER TYPE: CA Spill Spoon Sampler
 TOTAL DEPTH OF BORING: 10 Feet WIDTH OF BORING: 6 3/4 - inches
 DEPTH TO GROUNDWATER AT THE TIME OF DRILLING: N/A STATIC WATER LEVEL: N/A
 CASING DIAMETER: N/A CASING LENGTH: N/A SCREEN DIAMETER: N/A
 SCREEN LENGTH: N/A SLOT SIZE: N/A
 DRILLING COMPANY: B&V Area Exploration DRILLING LIC.: C57-522125

CORE SAMPLE CONDITION LEGEND: Undisturbed Disturbed No Recovery

LOGGED BY: <u>Chris Webuzoh</u>	REVIEWED BY: <u>Ota Balogun</u>	DEPTH	SOIL TYPE	PID (ppm)	RECOVERY	CONSTRUCTION						
						SEAL	CASING	SCREEN				
ASPHALT covering												
SANDY CLAY: Dark brown; about 40% coarse to fine, hard, angular to subrounded sand; about 60% clay, moderate plasticity, moist; no hydrocarbon odor; no reaction with HCL.						5	CL	0	2,2,2	<input checked="" type="checkbox"/>		
SANDY CLAY: Dark brown; about 30% coarse to fine, hard subangular to rounded sand; about 70% clay, moderate to high plasticity, moist; no hydrocarbon odor; no reaction with HCL.						10	CL	0	1,2,2	<input checked="" type="checkbox"/>		
						15						
						20						
						25						

BORING & MONITORING WELL LOG

MW-6/5 3-7
Oakland

CLIENT: Stanley Wong PROJECT NAME: Oakland

PROJECT ADDRESS: 2345 International Boulevard, Oakland, California DATE DRILLED: May 22, 2001

DRILLING METHOD: Hollow Stem Auger SAMPLER TYPE: CA SpR Spoon Sampler

TOTAL DEPTH OF BORING: 20 Feet WIDTH OF BORING: 6 3/4 - inches

DEPTH TO GROUNDWATER AT THE TIME OF DRILLING: N/A STATIC WATER LEVEL: N/A

CASING DIAMETER: 4 inches CASING LENGTH: 15 feet SCREEN DIAMETER: 4 inches

SCREEN LENGTH: 5 feet SLOT SIZE: 0.02 inch

DRILLING COMPANY: Bay Area Exploration DRILLING LIC.: C57-522125

CORE SAMPLE CONDITION LEGEND: Undisturbed Disturbed No Recovery

LOGGED BY: <u>Chris Webuzoh</u>	REVIEWED BY: <u>Olir Barlogun</u>	DEPTH	SOIL TYPE	PID (ppm)	RECOVERY	CONSTRUCTION						
						SEAL	CASING	SCREEN				
ASPHALT covering												
SANDY CLAY: Dark brown; about 40% coarse to fine, hard angular to subrounded sand; about 60% clay, moderate plasticity; moist; no hydrocarbon odor; no reaction with HCL.						5	CL	3	2,2,3	CEMENT GROUT		
SANDY CLAY: Gray; about 30% coarse to fine, hard subangular to rounded sand; about 60% clay, moderate to high plasticity; moist; has hydrocarbon odor; no reaction with HCL.						10	CL	36	4,5,8		CASING	
CLAYEY SAND: Gray; about 30% clay, moderate to high plasticity; about 60% coarse to fine, hard rounded sand; about 10% gravel size about 1/4 inch; moist; has hydrocarbon odor; no reaction with HCL.						15	SC	370	6,10,12			
SANDY CLAY: Brown; about 35% coarse to very fine, hard rounded sand; about 60% clay moderate to high plasticity; about 5% gravel size about 1/4 inch; moist to saturated; no hydrocarbon odor; no reaction with HCL.						20	CL	2	6,7,8			
						25						



McCAMPBELL ANALYTICAL INC.

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<http://www.mccampbell.com> E-mail: main@mccampbell.com

Sequoia Environmental 1111 Aladdin Ave., Suite B San Leandro, CA 94577	Client Project ID: #SW-02; Oakland	Date Sampled: 05/22/01
	Client Contact: Chris Wabuzoh	Date Received: 05/23/01
	Client P.O:	Date Extracted: 05/23-05/25/01
		Date Analyzed: 05/23-05/25/01

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*
 EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFD(5030)

Lab ID	Client ID	Matrix	TPH(g)*	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	% Recovery Surrogate
68163	SB1-10'	S	240,b,j	ND<0.20	ND<0.04	0.19	0.19	0.45	---
68164	SB1-15'	S	3.0,b,j	ND	ND	0.005	0.009	0.013	113
68165	SB2-10'	S	89,b,j	ND<0.10	ND	ND	0.033	0.25	---
68166	SB2-15'	S	ND	ND	ND	ND	ND	ND	108
68167	SB2-20'	S	ND	ND	ND	ND	ND	ND	107
68168	SB3-10'	S	300,b,j	ND<0.20	ND<0.01	ND<0.01	0.76	1.2	---
68169	SB3-15'	S	1800,x	ND<2.0	3.3	5.5	48	53	---
68170	SB3-20'	S	8.5,a	ND	0.009	0.023	0.10	0.12	---
68171	SB4-10'	S	ND	ND	ND	ND	ND	ND	103
68172	SB4-15'	S	230,b,j	ND<0.10	0.23	ND	1.5	1.1	---
68173	SB4-20'	S	ND	ND	ND	ND	ND	ND	99
68174	SB5-15'	S	25,a	ND	0.035	ND	0.10	0.11	---
68175	SB5-20'	S	1.9,c	ND	0.62	ND	ND	ND	102
68176	SB6-10'	S	ND	ND	ND	ND	ND	ND	96
68177	SB7-10'	S	18,j	ND	ND	ND	0.056	0.11	100
68178	SB7-15'	S	68,a	ND<0.10	0.28	0.25	0.36	0.35	---
68179	SB7-20'	S	ND	ND	ND	ND	ND	ND	104

Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L	5.0	0.5	0.5	0.5	0.5
	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L.

* cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director



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QC REPORT

Date: 05/23/01 Matrix: Soil

Extraction: TLC

Compound	Concentration: mg/kg				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	

SampleID: 52201

Instrument: GC-12

Surrogate1	0.000	95.000	102.000	100.00	95	102	7.1
Xylenes	0.000	0.306	0.316	0.30	102	105	3.2
Ethyl Benzene	0.000	0.100	0.104	0.10	100	104	3.9
Toluene	0.000	0.100	0.107	0.10	100	107	6.8
Benzene	0.000	0.099	0.106	0.10	99	106	6.8
MTBE	0.000	0.107	0.115	0.10	107	115	7.2
GAS	0.000	0.748	0.748	1.00	75	75	0.3

SampleID: 51701

Instrument: GC-11 A

Surrogate1	0.000	106.000	104.000	100.00	106	104	1.9
TPH (diesel)	0.000	316.000	293.000	300.00	105	98	7.6

$$\% \text{ Recovery} = \frac{(MS - Sample)}{Amount Spiked} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{2.100}$$

MCCAMPBELL ANALYTICAL INC.
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 PACHICO, CA 94353-9540
 Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD
 TURN AROUND TIME RUSH 24 HR 48 HR 72 HR 5 DAY

Report To: *Chris Wabuzoh* Bill To: *SAME*
 Company: *Sequoia Environmental*
1111 Haddin Avenue, Suite B
San Leandro, CA 94577
 Tele: *(510) 614-1900* Fax: *(510) 614-2923*
 Project #: *SN-02* Project Name:
 Project Location: *Oakland*
 Sampler Signature: *Chris Wabuzoh*

SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				EPA 601 / 9010	EPA 608 / 9090 PCB's ONLY	EPA 624 / 9240 / 9060	EPA 625 / 9270	PAH's / PNA's by EPA 825 / 8270 / 8310	CAM-17 Metals	LUFT-5 Metals	Lead (7240/7421/239/246/310)	BCI	PH	TSS	Specific Conductivity	Comments
		Date	Time			Water	Soil	Air	Sediment	Other	Ice	HCl	HNO ₃	Other														ETEX & TPH as Gas (602/8030 + 8015) MTRB	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 8067/8068)	Total Petroleum Hydrocarbons (418.1)
SB1-10'		5:20 PM	PM	1			✓				✓															68163	
SB1-15'			PM	1			✓				✓															68164	
SB2-10'			PM	1			✓				✓															68165	
SB2-15'			PM	1			✓				✓															68166	
SB2-20'			PM	1			✓				✓															68167	
SB3-10'			AM	1			✓				✓															68168	
SB3-15'			AM	1			✓				✓															68169	
SB2-20'			AM	1			✓				✓															68170	
SB4-10'			AM	1			✓				✓															68171	
SB4-15'			AM	1			✓				✓															68172	
SB4-20'			AM	1			✓				✓															68173	
SB5-15'			AM	1			✓				✓															68174	
SB5-20'			AM	1			✓				✓															68175	
SB6-10'			AM	1			✓				✓															68176	
SB7-10'		6:20 AM	PM	1			✓				✓															68177	

Relinquished By: *Chris Wabuzoh* Date: *5-23-00* Time: *1040*
 Received By: *Maria Vence*
 Relinquished By: _____ Date: _____ Time: _____
 Received By: _____
 Relinquished By: *KCP* Date: _____ Time: _____
 Received By: _____
 PRESERVATION APPROPRIATE: VOAS O&G METALS OTHER

Remarks: *Normal TAT*

B.I.N

McCAMPBELL ANALYTICAL INC.
 110 2nd AVENUE SOUTH, #D7
 PACIFIC, CA 94533-5540
 Telephone: (925) 798-1620 Fax: (925) 798-1622

Report To: *Chris Robinson* Bill To: *STME*
 Company: *Sequoia Environmental*
1111 Madden Avenue, Suite B
San Leandro, CA 94577
 Tel: (510) 614-1900 Fax: (510) 614-2923
 Project #: *Oakland SW-02* Project Name:
 Project Location: *Oakland*
 Sampler Signature: *Chris Robinson*

CHAIN OF CUSTODY RECORD
 TURN AROUND TIME RUSH 24 HR 48 HR 72 HR 5 DAY

SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other					
<i>SB7-15'</i>		<i>5:02:01</i>	<i>pm</i>	<i>1</i>			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>								
<i>SB7-20'</i>		<i>5:22:01</i>	<i>pm</i>	<i>1</i>			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>								

Analysis Request												Other			Comments				
BTX & TPH as Gas (826020 + 8015) MTBE	TPH as Dissol (8015)	Total Petroleum Oil & Grease (5520 E&F&B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB'S ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240742/239.2/6010)	RCI		pH	TSS	Specific Conductivity	
<input checked="" type="checkbox"/>																			

68178
68179

ICE? PRESERVATION
 GOOD CONDITION APPROPRIATE
 HEAD SPACE ABSENT CONTAINERS

WAS LOG METALS OTHER

Relinquished By: *Chris Robinson* Date: *5/23/01* Time: *10:10* Received By: *Maria Vencey*
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____

Remarks: *Normal T.A.T*



McCAMPBELL ANALYTICAL INC.

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Sequoia Environmental 1111 Aladdin Ave., Suite B San Leandro, CA 94577	Client Project ID: #SW-02; Oakland	Date Sampled: 05/22/01
		Date Received: 05/23/01
	Client Contact: Chris 'Wabuzoh	Date Extracted: 05/23-05/30/01
	Client P.O:	Date Analyzed: 05/23-05/30/01

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*
 EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)*	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Recovery Surrogate
68157	SB-1	W	11,000 _a	ND<20	8.1	23	81	7.1	---
68158	SB-2	W	1200 _{b,j}	ND	ND	3.5	5.5	ND	114
68159	SB-3	W	53,000 _{a,h}	ND<200	790	110	2000	2000	102
68160	SB-4	W	170,000 _{a,h}	ND<200	420	ND<45	1500	800	109
68161	SB-5	W	27,000 _a	ND<500	8400	99	230	120	106
68162	SB-6	W	ND	ND	ND	ND	ND	ND	104
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

* clustered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



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QC REPORT

Date: 05/23/01 Matrix: Water

Extraction: TTLC

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	

SampleID: 52201

Instrument: GC-12

Surrogate1	0.000	92.0	93.0	100.00	92	93	1.1
Xylenes	0.000	28.2	28.1	30.00	94	94	0.4
Ethyl Benzene	0.000	9.3	9.3	10.00	93	93	0.0
Toluene	0.000	9.3	9.2	10.00	93	92	1.1
Benzene	0.000	9.2	9.1	10.00	92	91	1.1
MTBE	0.000	10.5	10.4	10.00	105	104	1.0
GAS	0.000	92.2	90.9	100.00	92	91	1.5

SampleID: 52101

Instrument: GC-11 A

Surrogate1	0.000	114.0	114.0	100.00	114	114	0.0
TPH (diacet)	0.000	7875.0	7800.0	7500.00	105	104	1.0

$$\% \text{ Recovery} = \frac{(\text{MS} - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$\text{RPD} = \frac{(\text{MS} - \text{MSD})}{\text{MSD}} \cdot 100$$

2597125Q10.doc

McCAMPBELL ANALYTICAL INC.

118 2ND AVENUE SOUTH, #D7
PACHECO, CA 94553-5568

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

Report To: Chris Wabuzoh Bill To: Somme
 Company: Sequoia Environmental
1111 Madden Avenue, Suite B
Som Leandro, CA 94577
 Tele: (510)-614-1900 Fax: (510)-614-2923
 Project #: SW-02 Project Name:
 Project Location: Oakland
 Sampler Signature: Chris Wabuzoh

Analysis Request

Other

Comments

SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				BTEX & TPH in Gas (8020/208 + 8015) MTBE	TPH in Diesel (8015)	Total Petroleum Oil & Grease (5320 EAF/BAF)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 508 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LEAD 5 Metals	Lead (7240/7421/239 2/6010)	RCI	pH	TSS	Specific Conductivity									
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other																											
SB-1		5-27-01	PM	2		✓					✓	✓	✓																												
SB-2			PM	2		✓					✓	✓	✓																												68157 +
SB-3			PM	2		✓					✓	✓	✓																											68158 +	
SB-4			PM	2		✓					✓	✓	✓																											68159 +	
SB-5			PM	2		✓					✓	✓	✓																											68160 +	
SB-6		5-27-01	PM	2		✓					✓	✓	✓																											68161 +	
																																								68162 +	

KEEP PRESERVATION APPROPRIATE CONTAINERS
 GOOD CONDITION HEAD SPACE ABSENT VOIS/ORG/METALS/OTHER

Relinquished By: Chris Wabuzoh Date: 5-28-01 Time: 10:40
 Received By: Maria Venia
 Relinquished By: _____ Date: _____ Time: _____
 Received By: _____
 Relinquished By: _____ Date: _____ Time: _____
 Received By: _____

Remarks: Normal TAT



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Sequoia Environmental 1111 Aladdin Ave., Suite B San Leandro, CA 94577	Client Project ID: #SW-02	Date Sampled: 06/13/01
	Client Contact: Chris Wabuzoh	Date Received: 06/14/01
	Client P.O:	Date Extracted: 06/15/01
		Date Analyzed: 06/15/01

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*
EPA methods 5030, modified 801.5, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)*	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	% Recovery Surrogate
69777	MW-3	W	8400,a	ND<20	1300	25	64	32	110
69778	MW-6	W	7600,a	ND<10	1400	42	19	14	---
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		50 ug/L	5.0	0.5	0.5	0.5	0.5	
	S		1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

* cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

26307 2500

McCAMPBELL ANALYTICAL INC.

116 7th AVENUE SOUTH, #07
PACHECO, CA 94533-8568

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

Report To: *Chris Nabuzok* Bill To:
Company: *Segula Environmental*
1111 Gladden Avenue Suite B
San Leandro, CA 94577
Tel: *(510) 614-1900* Fax: *(910) 614-2923*
Project #: *SW-02* Project Name:

Project Location: *Dakeland*
Sampler Signature: *Chris Nabuzok*

Analysis Request **Other** **Comments**

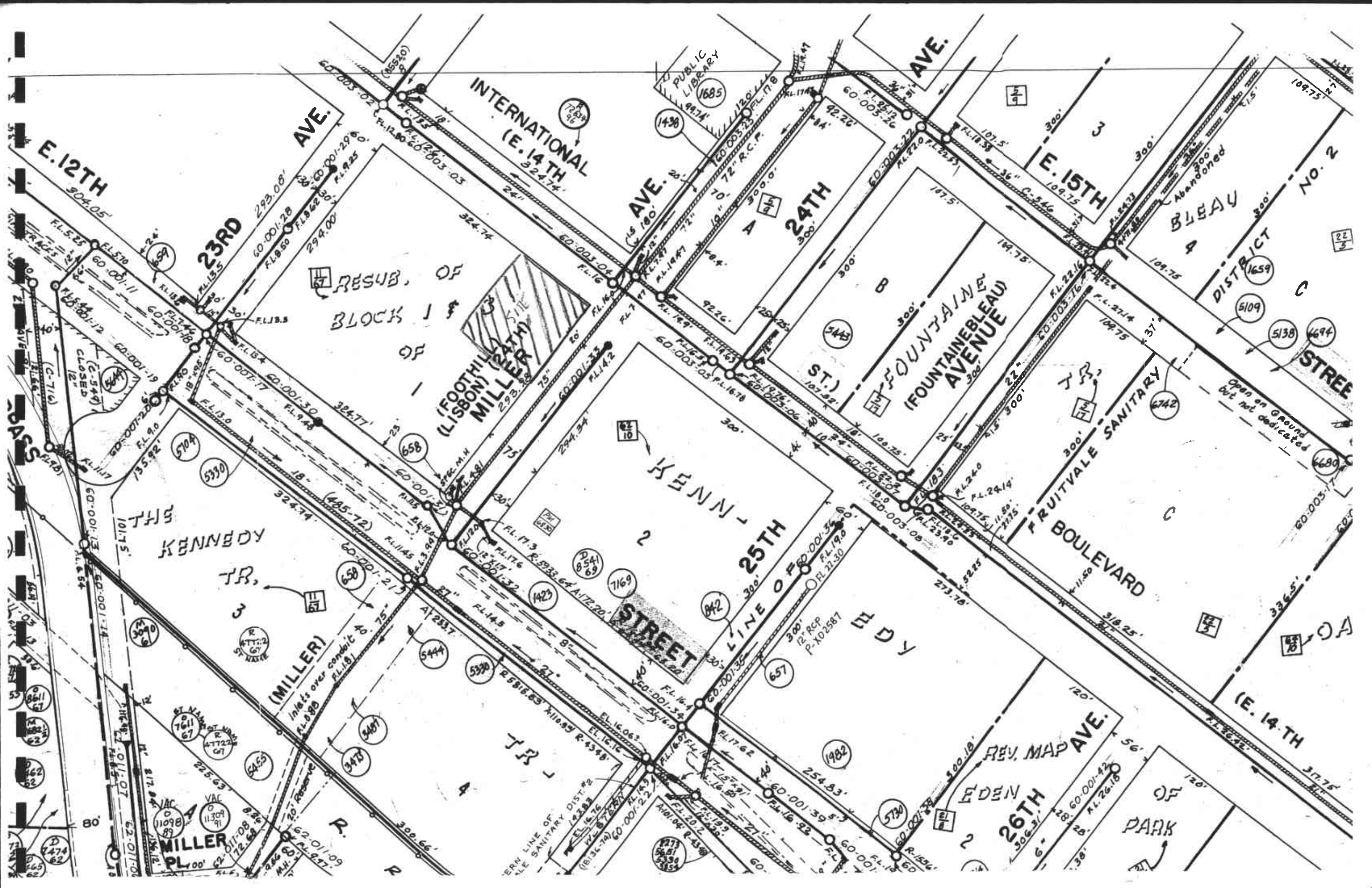
SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED		BTEX & TPH in Gas (6020/208 + NO15) MTR	TPH in Diesel (8015)	Total Petroleum Oil & Grease (5520 PAH/PAF)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8250	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LEAD 5 Metals	Lead (7240/421/239/26010)	RCI	pH	TSS	Specific Conductivity					
		Date	Time			Water	Soil	Air	Sledge	Other	Ice	HCl																			HNO ₃	Other			
<i>MW-3</i>		<i>6/30</i>	<i>PM</i>	<i>2</i>		<i>✓</i>					<i>✓</i>	<i>✓</i>																							
<i>MW-6</i>		<i>6/30</i>	<i>PM</i>	<i>2</i>		<i>✓</i>					<i>✓</i>	<i>✓</i>																						<i>69777</i>	<i>69778</i>

Shipped By: <i>Chris Nabuzok</i>	Date: <i>6-14</i>	Time: <i>1015</i>	Received By: <i>Maria Velazquez</i>
Shipped By:	Date:	Time:	Received By:
Shipped By:	Date:	Time:	Received By:

Remarks:

Appendix B

City of Oakland Subsurface Utility Map



E. 12TH

INTERNATIONAL
(E. 14TH)

23RD

AVE.

24TH

E. 15TH

BLEAU

DISTRICT NO. 2

RESUB. OF
BLOCK 1 OF

(FOOTHILL
(LISBON) MILL)

ST.

FOUNTAINBLEAU
AVENUE

STREET

KENNEDY

25TH

FRUITVALE SANITARY

BOULEVARD

THE KENNEDY TR.

TR.

STREET

EDEN

(E. 14TH)

MILLER

26TH

REV. MAP AVE.

OF PARK



Appendix C

City of Oakland Bench Mark Data
from Renner Surveying & Engineering

RENNER SURVEYING & ENGINEERING

3270 MENDOCINO AVENUE, SUITE E-2
SANTA ROSA CA, 95403
PHONE 707-569-9757 FAX 707-569-9762
reneng1@pacbell.net
(Home Office)

AND

228 LORTON AVENUE, SUITE 4
BURLINGAME, CA 94010
PHONE 650-685-8131 FAX 650-685-8313
(Survey Headquarters)

FAX TRANSMITTAL

To: Bob Clark Date: 03/18/03
Company: FAX No: 1-510-420-9170
From: Ernie Renner Re: DATUM
Subject: CITY OF OAKLAND

NUMBER OF PAGES TRANSMITTED INCLUDING TRANSMITTAL SHEET: 3
IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE CALL US @

RESPECTIVE HOME OR SURVEY OFFICE TELEPHONE NUMBER

ADDITIONAL COMMENTS AND/OR NOTES

NGVD 1929 is 3.0' higher - add three feet to our elevations.

Thank You
Ernie

RENNER SURVEYING & ENGINEERING

3270 MENDOCINO AVENUE, SUITE E-2
SANTA ROSA CA, 95403
PHONE 707-569-9757 FAX 707-569-9762
renengl@pacbell.net
(Home Office)

AND

228 LORTON AVENUE, SUITE 4
BURLINGAME, CA 94010
PHONE 650-685-8131 FAX 650-685-8313
(Survey Headquarters)

FAX TRANSMITTAL

To: Ernie Date: 3/17/03
Company: N/A FAX No: 510-525-1011
From: Robert Shellman Re: 1093-01
Subject: Datum

NUMBER OF PAGES TRANSMITTED INCLUDING TRANSMITTAL SHEET:2

Ernie: The current datum that the topo is on is a local Oakland city datum.

To convert to NGVD29' add 3ft to each elevation.

Robert

p.3

707-569-9762

p.2

16506858313

Ernest Renner

Valued Customer

Mar 18 03 04:27p

Mar 18 03 01:36p

DATUM

062-11 (8/82)

BENCH MARK DATA

CITY OF OAKLAND

Standard Disc In _____
Tagged Pin In _____
Monument Pin _____
Other cut square _____

Designation _____ 1509 _____
Elevation _____ 33.705 _____
Field Book _____ BL 43 _____ Page 45 _____
Order _____ III _____

City of Oakland Datum

LOCATION:

Square cut in cong. curb centerline return NW corner
East 14th Street and 27th Avenue.

To Corner ^{7/29}
ACLD '29
ADD 3' correct -

GARY FAUGHT 260029 01

510-615-5597 407

7101
ON EDGE WATER # NEAR HEGG

No. 14 SW
15SE

LONGCRAN

City Engineer's Office, Oakland Calif.

