Ms. Barbara Jakub, P.G.
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Grimit Auto Repair and Service, 1970 Seminary Boulevard, Oakland, California (Fuel Leak Case No. RO0000413)

Dear Ms. Jakub:

Stratus Environmental, Inc. (Stratus) has recently prepared a report entitled *Feasibility Study/Corrective Action Plan* on my behalf. The report was prepared in regards to Alameda County Fuel Leak Case No. RO0000413, for Grimit Auto Repair and Service, 1970 Seminary Boulevard, Oakland, California.

I have reviewed a copy of this report, sent to me by representatives of Stratus, and "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge".

If you have any questions, please contact me via electronic mail at peggy.h.garcia@sbcglobal.net, or my daughter Angel LaMarca at angelcpt@gmail.com.

Sincerely,

Peggy Garcia, Trustee

Ms. Peggy Garcia, Trustee, Grimit Family Trust

cc: Angel LaMarca

STRATUS
ENVIRONMENTAL, INC.

3330 Cameron Park Drive, Ste 550
Cameron Park, California 95682
(530) 676-6004 ~ Fax: (530) 676-6005

August 8, 2012
Project No. 2090-1970-01

Ms. Barbara Jakub, P.G.
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(via GeoTracker & Alameda County FTP site)

Re: Feasibility Study/Corrective Action Plan
Former Grimit Auto Repair and Service
1970 Seminary Avenue
Oakland, California
(Fuel Leak Case No. RO0000413)

Dear Ms. Jakub:

Stratus Environmental, Inc. (Stratus) has prepared this *Feasibility Study/Corrective Action Plan* (FS/CAP), on behalf of the Grimit Family Trust, for the Former Grimit Auto Repair and Service (the Site), located at 1970 Seminary Avenue, Oakland, California (see Figures 1 and 2). Subsurface petroleum hydrocarbon and volatile organic compound (VOC) impact to the subsurface, including onsite free phase liquid hydrocarbons (free product), has previously been identified in the vicinity of the site. In a letter dated May 31, 2012, Alameda County Environmental Health Department (ACEHD) requested that a FS/CAP report be prepared for the subject property. The May 31, 2012 letter indicated that contaminant cleanup levels and cleanup goals for chemicals of concern (COCs) be specified in the report, in accordance with the groundwater designation specified by the San Francisco Bay Regional Water Quality Control Board's (SF-RWQCB) Basin Plan for the area surrounding the site. ACEHD also stated that the FS/CAP must evaluate the cost effectiveness of at least 3 viable alternatives for mitigating the site contaminants, and propose implementation of the most cost effective corrective action remedial approach within these viable alternatives.

This document summarizes historical environmental investigations completed at the site and available information relevant to the ongoing environmental case, such as site geology and hydrogeology and the known extent of contaminant impact to the subsurface. Based on this site specific information, and our experience implementing similar remedial projects in the past, Stratus has selected three remedial alternatives which we believe would be most appropriate for mitigating contaminants situated within the vadose zone and 'upper water bearing interval'. This report presents a technical

description regarding each of these three technologies and their applicability to the site, and presents costs associated with each approach through the estimated life-cycle of the remedial project.

SITE DESCRIPTION AND BACKGROUND

The following section of this report was prepared using information obtained from reports prepared by Stratus and a previous consultant representing the Grimit Family Trust at the subject site.

The site is located on a small land parcel within a predominately residential neighborhood in central Oakland, along Seminary Avenue. An automotive repair business (Amor's Auto Electric Repair) is currently operated on the property. The proprietor of this business leases the facility from the estate of Mr. Doyle Grimit.

Environmental-related activities began at the site in 1989, at the time of removal of three gasoline underground storage tanks (USTs) and one waste oil tank. All four tanks were reportedly installed in the 1930's and each tank had a capacity of 550 gallons. No fuel has been dispensed from the property since 1989; no USTs were replaced following the tank removals. A hydraulic lift, formerly located inside a building on the property, was removed in 2001.

Subsurface investigation of petroleum hydrocarbon impact to the subsurface was initiated in September 1990, with the advancement of borings EB-1 through EB-3 and the installation of one monitoring well MW-1 (see Figure 2 or 3 for all boring/well locations). Two additional groundwater monitoring wells (MW-2 and MW-3) were completed in 1994. In 1996, a third phase of subsurface assessment was performed, involving the advancement of borings EB-4 through EB-7, and the construction of monitoring wells MW-4 through MW-6. In 1997, three additional groundwater monitoring wells (MW-7 through MW-9) were drilled and installed. A review of Figure 2 and/or Figure 3 indicates that all of these borings and wells are situated onsite.

In May 1991, a limited overexcavation was performed near the location of the former waste oil UST, resulting in the removal of approximately 20 cubic yards of petroleum impacted soil. The excavation extended to approximately 7.5 feet below ground surface (bgs), and had dimensions of 10 feet in length by 7 feet in width. Following removal of the hydraulic lift, and visual observations of impacted soil beneath the lift, a second excavation was performed which removed approximately 27 cubic yards of impacted soil. This excavation extended to approximately 10 feet in depth, and had dimensions of 7.5 feet in length by 10.5 feet in width. The configuration of the property (building location) limited the size of both excavations.

In 1997, Terra Vac Corporation performed a remediation pilot test that evaluated the feasibility of using dual phase extraction (DPE) technology to mitigate site contaminants. Terra Vac concluded, based on the findings of their pilot testing work, that DPE was a viable remedial alternative for the site. Additional information regarding the Terra Vac DPE pilot test is provided later in this document.

Groundwater monitoring and sampling has been performed at the site since 1990, following the installation of monitoring well MW-1. Petroleum sheen and/or free product have been noted at well MW-1 since the inception of the monitoring period. Sampling of other wells has indicated the presence of oil and grease (O&G), gasoline range organics (GRO), benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds), methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), and several volatile organic compounds (VOCs), including tetrachloroethene (PCE), trichloroethene (TCE), vinyl chloride (VC), and dichloroethene (DCE). The extent of these contaminants in the subsurface will be discussed later in this report.

In November/December 2011, Stratus directed the advancement of four onsite cone penetrometer test/laser induced fluorescence (CPT/LIF) borings onsite (CPT-1, CPT-2, CPT-3, and CPT-3A), soil and groundwater sampling borings near CPT-1, and the installation of six onsite soil vapor sampling wells (SV-1A/B through SV-3A/B). Subsequent sampling of the soil vapor wells indicated that concentrations of petroleum hydrocarbons and VOCs in soil vapor were generally low. In January 2012, Stratus oversaw the advancement of offsite direct push borings DP-1 through DP-14 for the purpose of soil sample collection, lithologic analysis, and groundwater sample collection. The locations of the borings and soil vapor sampling wells advanced/installed between November 2011 and January 2012 are included on Figure 2 and/or Figure 3.

SITE GEOLOGY AND HYDROGEOLOGY

Fine grained soils (clay/silt mixtures), with interbedded clayey sand and clayey gravel strata, are predominately encountered in the subsurface extending from surface grade to depths of approximately 40 to 52 feet bgs. Groundwater is first encountered within these soils, and for the purposes of this report, groundwater observed/sampled above 40 feet bgs is considered the "upper water bearing interval". Saturated sand, silty sand, silty gravel, and gravel strata have predominately been observed below 42 to 50 feet bgs during site investigative work. For the purpose of this report, these coarser-grained saturated strata are referred to as the "second water bearing interval", and appear to be laterally continuous across the site vicinity. At most boring locations, the thickness of the "second water bearing interval" soils has not been established; however, at borings DP-1 and DP-11, finer grained soils were observed near the base of the boring (total depth 56 feet bgs), with sandy strata noted from approximately 47 to 55 feet bgs (DP-1) and gravelly strata observed from only 52 to 54 feet bgs (DP-11). Stratus is unable to

determine at this time if the fine grained soils observed at the DP-1 and DP-11 locations extend laterally to provide a basal contact for the "second water bearing interval", or represents only a local fine grained soil interbed within an aquifer that extends deeper into the subsurface. Figures 4 through 6 illustrate interpreted geological relationships in cross section; surface traces of each cross section (A to A', B to B', and C to C') are included on Figure 3.

Monitoring of groundwater levels at the site has been performed for approximately 22 years. Historical groundwater elevation data are provided in Appendix A. Groundwater levels in the monitoring wells have shown significant variability across the well network, apparently due to differences in the well screen length, with the deeper wells generally measuring lower groundwater elevations than the shallower screened wells. At deeper screened well MW-1, groundwater levels have ranged from approximately 11.8 to 21.5 feet bgs between 1990 and 2012; at shallower screened well MW-8, groundwater levels have ranged from approximately 3.4 to 5.8 feet bgs.

During the historical groundwater monitoring period, several well surveys based upon different benchmark datums have been used in the computation of groundwater elevations and flow directions. Groundwater flow directions have also been interpreted with and without segregating data from wells that may or may not have had submerged well screens at the time of sampling (which have varied through the monitoring period as water levels have fluctuated). The historical and current flow direction interpretations illustrate variability in groundwater flow direction beneath the site, regardless of how the groundwater elevation data is segregated or clustered together. We believe that the absence of a consistent groundwater flow direction may have limited lateral migration of fuel contaminants dissolved in groundwater, particularly within the "upper water bearing interval" (the extent of impact to groundwater is discussed later in this report). Figures 7 and 8 present interpretations of groundwater flow direction using data collected during the first quarter 2012.

EXTENT OF PETROLEUM HYDROCARBON IMPACT

Soil

Historical soil analytical results for select soil samples collected during subsurface investigative work are provided in Appendix B. It should be noted that soil analytical data summary tables were not prepared for samples collected from borings DP-1 through DP-14 in January 2012, since no contaminants were detected in 47 of the 48 samples submitted for chemical analysis, and thus data from this investigation is not included in Appendix B. Given the findings of the January 2012 site assessment, it appears that a majority of the contaminant mass to soil is situated onsite.

The highest concentrations of GRO were reported in samples collected near the former waste oil UST, during the 1990 overexcavation work. Samples collected from the base of this excavation contained GRO at concentrations of 260 and 270 milligrams per kilogram (mg/Kg). O&G were detected in all of the compliance soil samples analyzed during this overexcavation, at concentrations ranging from 410 mg/Kg to 15,000 mg/Kg. Low to moderately elevated concentrations of BTEX were generally reported in the compliance soil samples; benzene was detected at a maximum level of 2.4 mg/Kg beneath one of the gasoline USTs.

During the subsurface investigative work, petroleum hydrocarbons were detected in most soil samples submitted for analysis; however, given the relatively shallow groundwater levels in the site vicinity, most of these samples appear to have been collected within the 'smear zone' which results from groundwater level fluctuations. The highest levels of GRO in soil were reported at boring MW-2, in a soil sample collected between about 10.5 and 11 feet bgs (910 mg/Kg). BTEX concentrations in soil are typically low.

Concentrations of VOCs in soil have typically been reported below laboratory instrument reporting limits in the samples submitted for chemical analysis. PCE and TCE have been detected at maximum concentrations of 1.8 mg/Kg and 0.82 mg/Kg, respectively (both from boring EB-4, from a sample collected between 14.5 and 15 feet bgs).

Soil Vapor

Soil vapor samples have been collected once at the subject site, from the onsite soil vapor monitoring wells, in mid-December 2011 (5 total samples). Appendix C provides a table documenting the results of this soil vapor sampling work. Toluene, PCE, and chlorobenzene were detected in each of the December 2011 shallow soil vapor samples, at concentrations ranging from 8.6 micrograms per cubic meter ($\mu g/m^3$) to 32 $\mu g/m^3$, 78 $\mu g/m^3$ to 660 $\mu g/m^3$, and 8.9 $\mu g/m^3$ to 30 $\mu g/m^3$, respectively. GRO/TPHG (10,000 $\mu g/m^3$), benzene (6.7 $\mu g/m^3$), total xylenes (5.8 $\mu g/m^3$), acetone (17 $\mu g/m^3$), methylene chloride (3.1 $\mu g/m^3$), carbon disulfide (72 $\mu g/m^3$), and 2,2,4-trimethylpentane (480 $\mu g/m^3$) were also detected in sample SV-3B. Methane was not detected in any of the samples.

For preliminary screening purposes, Stratus compared analytical results of the soil vapor samples to both the commercial and residential values listed in SF-RWQCB's *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, Interim Final – November 2007 (revised May 2008); Table E-2, Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (which are based on an excess cancer risk of 1E-06 and a hazard quotient of 0.2). Environmental Screening Level (ESL) values (if established) for contaminants detected in shallow soil vapor at the site are included on the Appendix C table for reference. Two of the five PCE sample results

exceeded residential ESLs, and one GRO/TPHG sample result reached the residential ESL level. All soil vapor sample results were within commercial ESLs.

Groundwater

Historical groundwater analytical data collected during subsurface investigative work and groundwater well sampling is provided in Appendix D. Figures 9 and 10 summarize well sampling results using data collected during the first quarter 2012 for petroleum hydrocarbons and VOCs, respectively.

Upper Water Bearing Interval

Based on the available data, a majority of the petroleum hydrocarbon and VOC impact to the 'upper water bearing interval' remains onsite. Free product is regularly measured in well MW-1 and at the time of the first quarter 2012 well sampling event, GRO was detected in 5 of the 8 wells samples (at a maximum concentration of 4,000 micrograms per liter [µg/L]). MTBE and other fuel oxygenate impact to groundwater is negligible (MTBE was only detected in one well sample from January 2012, at a level of 3.1 µg/L). During the January 2012 offsite investigation, only one detection of GRO and PCE was reported across Seminary Avenue to the west of the site (at DP-2). No GRO, BTEX, or VOCs were detected across Harmon Avenue to the north-northeast of the site; however, oil and grease was detected in shallow groundwater at the DP-8 location. Figures 11, 13, and 15 illustrate GRO, PCE, and TCE concentrations, respectively, for groundwater samples collected from borings DP-1 through DP-14 and wells MW-1 through MW-9 in January 2012 above 40 feet bgs.

In late 2011, Stratus and a subcontractor performed laser induced fluorescence (LIF) testing at the CPT boring locations in order to evaluate the lateral extent of free product impact to the upper water bearing interval (see Figure 2 for boring locations). General information regarding the CPT/LIF technologies and instrumentation, and LIF/CPT logs generated during the late 2011 work, are provided in Appendix E. A review of the LIF data collected from boring CPT-1, which was advanced within a few feet of well MW-1, indicates that the highest concentrations of petroleum hydrocarbons were detected by LIF between approximately 23 and 28 feet bgs, which is below the 21-year historical water level fluctuation range near well MW-1 (11.8 and 21.5 feet bgs). Given this observation, free product present in well MW-1 may be originating within soil horizons present between approximately 23 and 28 feet bgs, and rising to float above the static water level within the well casing. The highest LIF instrument response for petroleum hydrocarbons is generally correlative with coarser grained soil (sand/gravel) logged by CPT a short distance below static water table levels.

The LIF instrument detected hydrocarbons at approximately 24 feet bgs at boring CPT-2 and approximately 23 to 26 feet bgs at CPT-3A. However, a much lower level of instrument response was reported at these locations relative to CPT-1. Given the much lower instrument response to petroleum hydrocarbons at borings CPT-2 and CPT-3A, it is our interpretation that free product does not extend laterally to these areas of the site. In our opinion, the LIF is likely detecting dissolved petroleum hydrocarbons at these depths and locations within the limits of the known contaminant plume, and not free product. If this is the case, free product only extends a very short distance laterally from the MW-1/CPT-1 area.

Second Water Bearing Interval

Assessment of the second water bearing interval was exclusively performed during the late 2011/early 2012 site assessment work. In general, within the second water bearing interval, GRO and VOC's (in particular PCE, but also TCE and cis-1,2-DCE) impact a larger area of the subsurface than in groundwater situated within the upper water bearing interval. Figures 12, 14, and 16 depict GRO, PCE, and TCE concentrations, respectively, for groundwater samples from the second water bearing interval in December 2011 or January 2012 at borings CPT-1 and DP-1 through DP-14. GRO concentrations decrease significantly between the upper water bearing interval and the second water bearing interval based on the available analytical data (and consistent with LIF data findings), and concentrations of other petroleum hydrocarbons (including BTEX) are negligible or non-detectable.

In our interpretation of the available data, it does not appear that contaminants (particularly GRO and PCE) within the second water bearing interval are migrating in a preferred direction away from the site. Instead, contaminants were detected in borings located in all directions (north/south/east/west) from the site. The distribution of contaminants is suggestive of variable groundwater flow within the second water bearing interval.

REMEDIATION PILOT TESTING

In 1997, Terra Vac Corporation performed a remediation pilot test that evaluated the feasibility of using DPE technology to mitigate site contaminants. During the test, 2-inch diameter monitoring well MW-1 was utilized for simultaneous extraction of groundwater and soil vapors from the subsurface, and two temporary observation points (OB-1 and OB-2) were used for measurement of induced vacuum in the area surrounding well MW-1. Terra Vac's report documenting the equipment used to perform the pilot study, the test procedures, and findings of the work, is provided in Appendix F. During the test procedure, an applied vacuum of 12 inches of mercury resulted in an induced air flow rate of approximately 11 standard cubic feet per minute. Limited (but measureable) induced

vacuums were noted at OB-1 and OB-2, which were situated at distances of approximately 14 and 25 feet, respectively, from MW-1. A groundwater extraction rate of approximately 0.7 gallons per minute was achieved. Terra Vac concluded, based on the findings of their pilot testing work, that DPE was a viable remedial alternative for the site.

FEASIBILITY STUDY

As directed by ACEHD, in the May 31, 2012 letter, Stratus has selected three remedial technologies that we believe could be effective in mitigating shallow contaminant impact to the subsurface, based on our understanding of the geologic and hydrogeologic conditions and the extent of contaminant impact in the site vicinity. The remedial technologies were chosen and evaluated in accordance with the requirements identified in the Central Valley Region Regional Water Quality Control Board's (CVRWQCB) *Appendix A-Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites* (April 16, 2004). For each remedial alternative, Stratus has prepared an estimate of the costs necessary to complete remediation pilot testing, install the remediation system, conduct operation and maintenance, as needed, throughout the anticipated life-cycle of the remedial project, and conduct groundwater monitoring during the remedial efforts and for one year following the end of the remediation project. A list of assumptions used in developing each cost estimate is also provided for each remedial alternative selected for evaluation.

Remediation Objectives and Cleanup Goals

As requested by ACEHD in the May 31, 2012 letter, Stratus has provided contamination cleanup goals that are in accordance with the SF-RWQCB Basin Plan for the subject site. These cleanup goals follow ESLs that were developed by the SF-RWQCB and presented in a document titled *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* (Interim Final November 2007, Revised May 2008). Since the site is located in a residential neighborhood, residential ESLs for site COCs are presented below.

It should be noted that the State Water Resources Control Board (SWRCB) recently adopted a low-threat policy for evaluating closure of underground fuel leak cases. Given this condition, the criteria established by the SWRCB's low-threat closure policy may be more appropriate for managing future environmental work activities at the site, instead of matrix-specific cleanup goals for select contaminants. However, in order to maintain compliance with ACEHD's requests in the May 31, 2012 letter, Stratus has provided site specific cleanup goals dictated by the local Basin Plan and ESLs.

Soil Cleanup Goals

Given the relatively shallow groundwater levels in the site vicinity, the cleanup goals stated below are presented only for a shallow soil scenario (less than 10 feet bgs) and are based on leaching potential above groundwater under an assumption of commercial land use.

Contaminant	ESL-Based Soil Cleanup Level (mg/Kg)	Pathway Basis for Goal
GRO	83	Groundwater Protection
Benzene	0.044	Groundwater Protection
Toluene	2.9	Groundwater Protection
Ethylbenzene	3.3	Groundwater Protection
Xylenes	2.3	Groundwater Protection
PCE	0.34	Groundwater Protection
TCE	0.46	Groundwater Protection
Vinyl Chloride*	0.021	Groundwater Protection

* = No vinyl chloride is known to have been detected in soil samples.

Groundwater Cleanup Goals

The groundwater in the area surrounding the site has been designated in the SF-RWQCB Basin Plan as of beneficial or potentially beneficial use. Stratus has thus listed below cleanup levels that are based on this classification. Stratus would like to emphasize that although groundwater in the site vicinity is designated as beneficial or potentially beneficial, it appears very unlikely that this water would be developed as a water supply. The City of Oakland apparently does not have "any plans to develop local ground-water resources for drinking water purposes, because of existing or potential saltwater intrusion, contamination, or poor or limited quantity"[1]. Given this observation, that the area surrounding the site is served by an existing municipal water supply, it is our opinion that the ESL-based cleanup goals stated below are overly conservative. Stratus is thus

[1] *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report* (San Francisco Bay-RWQCB, June 1999),

suggesting that ACEHD consider allowing for more lenient groundwater cleanup objectives for the site.

Contaminant	ESL-Based Groundwater Cleanup Level (µg/L)	Pathway Basis for Goal
GRO	100	Ceiling Value
Benzene	1.0	Drinking Water Toxicity
Toluene	40	Ceiling Value
Ethylbenzene	30	Ceiling Value
Xylenes	20	Ceiling Value
PCE	5.0	Drinking Water Toxicity
TCE	5.0	Drinking Water Toxicity
VC	0.5	Drinking Water Toxicity

Soil Vapor Cleanup Goals

The cleanup goals stated below are for concentrations of the specified contaminants in shallow soil (less than 5 feet bgs). These cleanup objectives presume that a residential land use scenario is appropriate.

Contaminant	ESL-Based Soil Vapor Cleanup Level (µg/m^3)	Pathway Basis for Goal
GRO	10,000	Vapor Intrusion
Benzene	84	Vapor Intrusion
Toluene	63,000	Vapor Intrusion
Ethylbenzene	980	Vapor Intrusion
Xylenes	21,000	Vapor Intrusion

PCE	410	Vapor Intrusion
TCE	1,200	Vapor Intrusion
VC	31	Vapor Intrusion
Chlorobenzene	210,000	Vapor Intrusion

Summary of Site Conditions:

The following site conditions were used in evaluating the remedial alternatives identified in this section.

- The site is an active automobile repair facility. No underground storage facilities remain in-place at the site.
- The site is surrounded by a predominately residential neighborhood.
- The site is on a relatively small parcel of land, with limited space available for positioning of remediation equipment.
- Static groundwater levels beneath the site are relatively shallow.
- The site is impacted with GRO, O&G, BTEX, and VOCs, including PCE, TCE, VC, and DCE. Concentrations of fuel oxygenates, including MTBE, are negligible.
- Limited overexcavation work has already been performed to remove impacted soil near the former waste oil UST.
- Most of the contaminant mass (which is predominately petroleum hydrocarbons) appears to be situated within a 'smear zone' that has resulted from fluctuations in groundwater levels, and remains onsite.
- Remedial efforts would focus on mitigating contaminants situated above approximately 35 feet bgs.

Remedial Option #1: Temporary Dual Phase Extraction (DPE, Phase 1 of Remediation), Followed by Ozone Injection (OI, Phase 2 of Remediation)

Under this scenario, Stratus would utilize DPE technology to initially target removal of contaminant mass from the subsurface in the dissolved and vapor phases (including free product). A portable DPE system would be operated for limited period of time (likely about 3 to 5 months), until influent concentrations of contaminants in the vapor phase declined appreciably and free product had been abated. At that time, DPE equipment

would be demobilized from the site. A second phase of remediation would then be implemented, which would involve injecting ozone into the saturated zone in order to continue groundwater remedial efforts.

DPE involves the simultaneous extraction of soil vapors and groundwater from the subsurface. A DPE system will address removal of the adsorbed phase hydrocarbons in the soil above and below the water table, as well as the hydrocarbons dissolved in groundwater. Relatively high vacuums (20 to 23 inches of mercury ["Hg]) are applied to a stinger (1 to 1 ¼ inch diameter) placed in the extraction well, using a liquid ring blower to extract soil vapors and groundwater. Once the soil vapor and groundwater are removed from the subsurface, they are separated in the air/water separator of the DPE system. The hydrocarbon-laden vapors and groundwater are then channeled to separate treatment systems. The soil vapors are typically treated with thermal or catalytic oxidizers, and the groundwater is treated using granular activated carbon (GAC) vessels prior to discharge. At this site, due to the presence of VOCs within the groundwater, use of a thermal oxidizer would be required in order to properly abate the extracted air stream. Operation of the DPE system in catalytic mode would not likely result in proper destruction of the vapor phase VOC contaminants.

As discussed earlier in this document, DPE pilot testing has already been performed at this site, and given the findings of this work, it appears as though DPE would be a viable remedial alternative. Stratus has prepared a figure which illustrates an approximate layout for a network of extraction wells that could be used to implement temporary DPE remediation across the portion of the site with documented contaminant impact to the shallow subsurface (Figure 17A). Under this scenario, Stratus has assumed that a 20-foot radius of influence (ROI) around each extraction well would result from multi-well DPE, and the well locations and spacing depicted on Figure 17A (six extraction wells) reflect this 20-foot ROI estimate.

An advantage of performing DPE on a temporary basis is that remedial efforts could begin in a much shorter period of time than if a permanent system was constructed. In addition, the large upfront costs that would be required to purchase and construct a permanent remediation system would not be incurred. A disadvantage of operating DPE on a temporary basis is that propane (instead of natural gas) would need to be used to supply the thermal oxidizer of the DPE system, which would result in higher utility costs during the time of operation. However, these higher utility costs would be more than offset by the cost savings that would result from not purchasing and installing a full scale DPE system. In addition, by using a rental DPE system and evaluating DPE data on an ongoing basis, the technology would only be used while contaminants were being extracted at a relatively high rate, and once DPE had served its maximum benefit to the project, the equipment could be removed from the property and replaced with a less expensive remedial alternative to finalize remedial efforts (in this case, OI). Given the limited space available at the site,

use of a temporary DPE system would be inconvenient to the vehicle repair business located on the property. However, use of the DPE system for only a few months would be much less inconvenient than installing a permanent DPE system, which would occupy a large area of the site for an extended period of time.

In-situ chemical oxidation (ISCO) involves injection of oxidants such as ozone, hydrogen peroxide, potassium permanganate, dissolved oxygen, etc., into the subsurface using specially designed wells. These oxidants break down the petroleum hydrocarbons and VOCs to carbon dioxide and water. Some of the unreacted or residual oxidant breaks down to oxygen, resulting in dissolved oxygen, which aids in bioremediation of petroleum hydrocarbons. The performance of these chemical oxidation technologies varies from site to site depending on site geology, hydrogeology, and the nature and concentration of COCs. Of the above-mentioned oxidants, based on our experience and published literature, ozone injection appears to be the most effective in-situ remedial measure in mitigating the petroleum hydrocarbon and VOC impact to groundwater. The effectiveness of ISCO is dependent on the delivery of oxidants to impacted areas, which in turn is dependent on the subsurface lithology.

Following temporary DPE remediation, under this scenario, Stratus would perform remaining groundwater remedial efforts using OI technology. Ten OI wells would be installed onsite to allow for implementation of ISCO, and subgrade conveyance piping would be connected to each well. A hypothetical layout of a network of OI wells, subgrade piping network, and remedial system location is presented on Figure 17B.

An advantage of using OI is that both petroleum hydrocarbon and VOC contaminants can be mitigated using this technology. Another advantage of installing an OI system is that the remedial equipment can be installed within a very small area, and given the limited space available on the subject property, this alternative would likely be preferred by the property tenant. In addition, once the equipment was procured and installed, operating costs would be low, as only a few hundred dollars per month would be needed to provide utility service. A disadvantage of using OI would be that a Waste Discharge Requirement (WDR) permit would need to be obtained from the RWQCB in order to implement a full-scale remedial project, and the WDR would specify which chemical analyses would need to be performed (for various metals, anions, etc., including hexavalent chromium and bromate). It has been our past experience that these chemical analysis costs are high, substantially increasing the total cost of analyzing a groundwater sample from a single well (versus analysis for petroleum hydrocarbon and VOC contaminants only).

The following assumptions were used in order to consider temporary DPE (Phase 1 of remediation) and OI (Phase 2 of remediation) for use at the site and in developing this cost estimate:

- Adequate electrical power (typically 3-phase, 140 amp required for DPE) can be obtained from the local power grid and a transformer upgrade is not required.
- East Bay Municipal Utility District (EBMUD) will allow for discharge of treated groundwater to the sanitary sewer system under an appropriate permit.
- An air discharge permit can be obtained from the Bay Area Air Quality Management District (BAAQMD).
- DPE would be performed for a period of four (4) months, and then this equipment would be demobilized from the site.
- A WDR permit can be obtained from the RWQCB, if necessary.
- OI would be performed for a period of 2.5 years, followed by one year of post OI groundwater monitoring.

The Table below presents a summary of the estimated costs to implement the temporary DPE remedial alternative (Phase 1), followed by OI remediation of groundwater (Phase 2).

Task	**Estimated Cost**
Design and Permitting (Phase 1)	$8,000
Well Installation (Phase 1)	$22,000
DPE Remediation (Phase 1)	$120,000
Design and Permitting (Phase 2)	$12,000
Well Installation (Phase 2)	$40,000
Equipment and Construction (Phase 2)	$105,000
Operation and Maintenance and Reporting (Phase 2, 2.5 years)	$60,000
Utility Cost (Phase 2, 2.5 years)	$6,000
Groundwater Monitoring and Sampling (3.5 years)	$80,000
Total	**$453,000.00**

Remedial Option #2: Soil Vapor Extraction (SVE), Groundwater Extraction and Treatment (GET), and Air Sparging (AS)

A groundwater extraction and treatment (GET) system typically involves continuous pumping of groundwater from an extraction well, or network of wells, situated within the area of known impact. Extracted groundwater is subsequently routed to a treatment system, normally consisting of GAC vessels, prior to discharge to the sanitary sewer or storm drain. This remediation technology is effective if the significant subsurface petroleum hydrocarbon impact is in the dissolved phase and a constant groundwater yield can be attained. However, the operation and maintenance costs can be relatively high if it involves extracting and treating high volumes of groundwater.

Soil vapor extraction (SVE) is a well established remedial technology that is generally effective in removing hydrocarbon laden soil vapors from vadose zone soils. The extracted soil vapors are then abated in a thermal/catalytic oxidizer prior to discharge to the atmosphere. Simultaneous groundwater pumping and SVE can significantly improve the performance of an SVE system if groundwater levels can be drawn down sufficiently to allow for removal of contaminants that have become concentrated near the uppermost interface of the vadose zone and saturated zone. Air sparging (AS) into the saturated zone would be used to volatilize dissolved petroleum hydrocarbons, with subsequent hydrocarbon recovery by the SVE system.

Combined SVE, GET, and AS would likely have similar benefits as DPE, since both the vadose and shallow saturated zones are targeted for remediation. Given the shallow water table and the presence of predominately fine grained soils in the shallow saturated zone, it is our opinion that mitigation of the 'smear zone' and saturated zone would likely be less effective using combined SVE, GET, and AS than using DPE. Given this assumption, we believe that a longer period of time would be needed to remediate the site using SVE/GET/AS than by DPE. As discussed earlier with DPE, a thermal oxidizer would be needed to perform SVE, since a catalytic oxidizer would likely be unable to sufficiently abate VOCs for air discharge permit requirements. Based on our understanding of the site geology, relatively low quantities of groundwater would likely be generated during shallow groundwater pumping, thus minimizing groundwater treatment and disposal expenses.

Implementation of SVE/GET/AS requires significant capital investment, utility, and operation/maintenance costs. Given the level of investment that would be required to procure remedial equipment, Stratus would recommend performing remediation pilot testing (at a minimum for SVE and GET). In the absence of pilot testing data, Stratus has prepared a figure that illustrates the hypothetical layout of a network of wells that could be used to perform SVE/GET/AS (see Figure 18).

Another disadvantage of the SVE/GET/AS remedial approach would be that a significant amount of space would be needed in order to construct a fenced enclosure of sufficient size to store all of the remediation equipment. In addition, in order to implement the SVE/GET/AS remedial approach, obtaining a building permit would be necessary, which would facilitate a review of the project by the City of Oakland. Based on our experience, it appears likely that noise abatement equipment would need to be incorporated into the remediation system design in order to obtain a building permit for the system. Residences are located immediately adjacent to the site, and it has been our experience that noise abatement is required in residential areas where AS and SVE equipment are utilized. Design of the remediation system would likely require input and approval from an acoustical engineer, which would add to both the design costs and equipment procurement costs for the site.

The following assumptions were used in order to consider SVE/GET/AS remediation for use at the site and in developing this cost estimate:

- Adequate electrical power (typically 3-phase, 140 amp) can be obtained from the local power grid and a transformer upgrade is not required.
- EBMUD will allow for discharge of treated groundwater to the sanitary sewer system under an appropriate permit.
- An air discharge permit can be obtained from the BAAQMD.
- A building permit that includes a provision to operate SVE and AS equipment (likely with noise abatement requirements) can be obtained from the City of Oakland.
- SVE/GET/AS would be performed for a period of three years, followed by one year of groundwater monitoring.

The table below presents a summary of the estimated costs to implement the SVE/GET/AS remedial alternative.

Task	**Estimated Cost**
Pilot Testing (including Work Plan, Well Installation, and Report)	$60,000
Design and Permitting	$30,000
Well Installation	$45,000

Equipment and Construction	$180,000
Operation and Maintenance (3 years)	$70,000
Utility Cost (3 years)	$160,000
Groundwater Monitoring and Sampling (4 years)	$48,000
Total	**$593,000.00**

Remedial Option #3: SVE and OI

Under this scenario, SVE (using a thermal oxidizer) and OI, which have both been previously discussed in this report, would be used to mitigate soil and groundwater, respectively. SVE would likely be less effective in removing contaminant mass from the subsurface than if operated simultaneously with groundwater pumping, due to the inability to draw down the water table for exposure of adsorbed 'smear zone' contaminants. As discussed earlier, LIF testing appeared to indicate that the highest concentrations of contaminants were present between the depths of 23 and 28 feet bgs, which is below the historical groundwater level fluctuation range. Given this condition, it is possible that SVE would not be effective in mitigating free product impact beneath the site. Stratus would recommend performing pilot testing in order to evaluate the effectiveness of SVE, however, it might be difficult to evaluate whether SVE would be effective in removing free product from the site during a limited duration pilot test. Despite these uncertainties, and in the absence of pilot testing data, Stratus has prepared a figure illustrating the hypothetical layout of remediation wells that would be used to implement SVE/OI (see Figure 19). For the purposes of this estimate, Stratus assumes that a longer period of time would be necessary to perform SVE remediation relative to remedial option #2, since no groundwater would be extracted to assist in exposing smear zone soils for improved recovery of soil vapors.

Implementing the SVE/OI remedial alternative would require significant upfront costs, because both an SVE system and an OI system would need to be purchased. Installation of the SVE/OI equipment would be inconvenient to the property tenant given the amount of space that this equipment would occupy; however, a smaller area would be needed to store the SVE and OI systems than if SVE/GET/AS were selected as the remedial alternative for the site.

The following assumptions were used in order to consider SVE/OI remediation for use at the site and in developing this cost estimate:

- Adequate electrical power (typically 3-phase, 140 amp) can be obtained from the local power grid and a transformer upgrade is not required.
- An air discharge permit can be obtained from the BAAQMD.
- A building permit that includes a provision to operate SVE equipment (likely with noise abatement requirements) can be obtained from the City of Oakland.
- A WDR permit can be obtained from the RWQCB, if necessary.
- SVE and OI would be performed for a period of four years, followed by one year of groundwater monitoring.

The Table below presents a summary of the estimated costs to implement the SVE/OIremedial approach described above.

Task	**Estimated Cost**
Pilot Testing (including Work Plan, Well Installation, and Report)	$38,000
Design and Permitting	$25,000
Well Installation	$50,000
Equipment and Construction	$210,000
Operation and Maintenance (4 years)	$64,000
Utility Cost (4 years)	$225,000
Groundwater Monitoring and Sampling (5 years)	$125,000
Total	**$737,000.00**

DISCUSSION

Stratus has evaluated three potential remedial alternatives for use at the site and based on our comparison of cost, technical viability, and site applicability, we believe that temporary DPE, followed by installation of an OI remedial system, represents the most

appropriate remedial alternative for this site. Following a review of this document by ACEHD personnel, and approval of this recommendation, Stratus will proceed with preparation of a CAP that provides details associated with the implementation of temporary DPE, followed by construction and operation of an OI remedial system.

LIMITATIONS

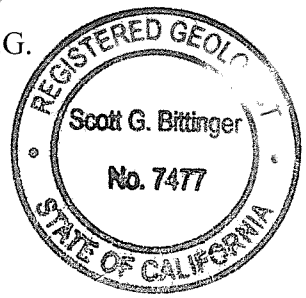
This report was prepared in general accordance with accepted standards of care that existed at the time this work was performed. No other warranty, expressed or implied, is made. Conclusions and recommendations are based on field observations and data obtained from this work and previous investigations. It should be recognized that definition and evaluation of geologic conditions is a difficult and somewhat inexact science. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface conditions present. More extensive studies may be performed to reduce uncertainties. This report is solely for the use and information of our client unless otherwise noted.

If you have any questions or comments concerning this report, please contact Scott Bittinger at (530) 676-2062 or Jay Johnson at (530) 676-6000.

Sincerely,

STRATUS ENVIRONMENTAL, INC.

Scott G. Bittinger, P.G.
Project Manager

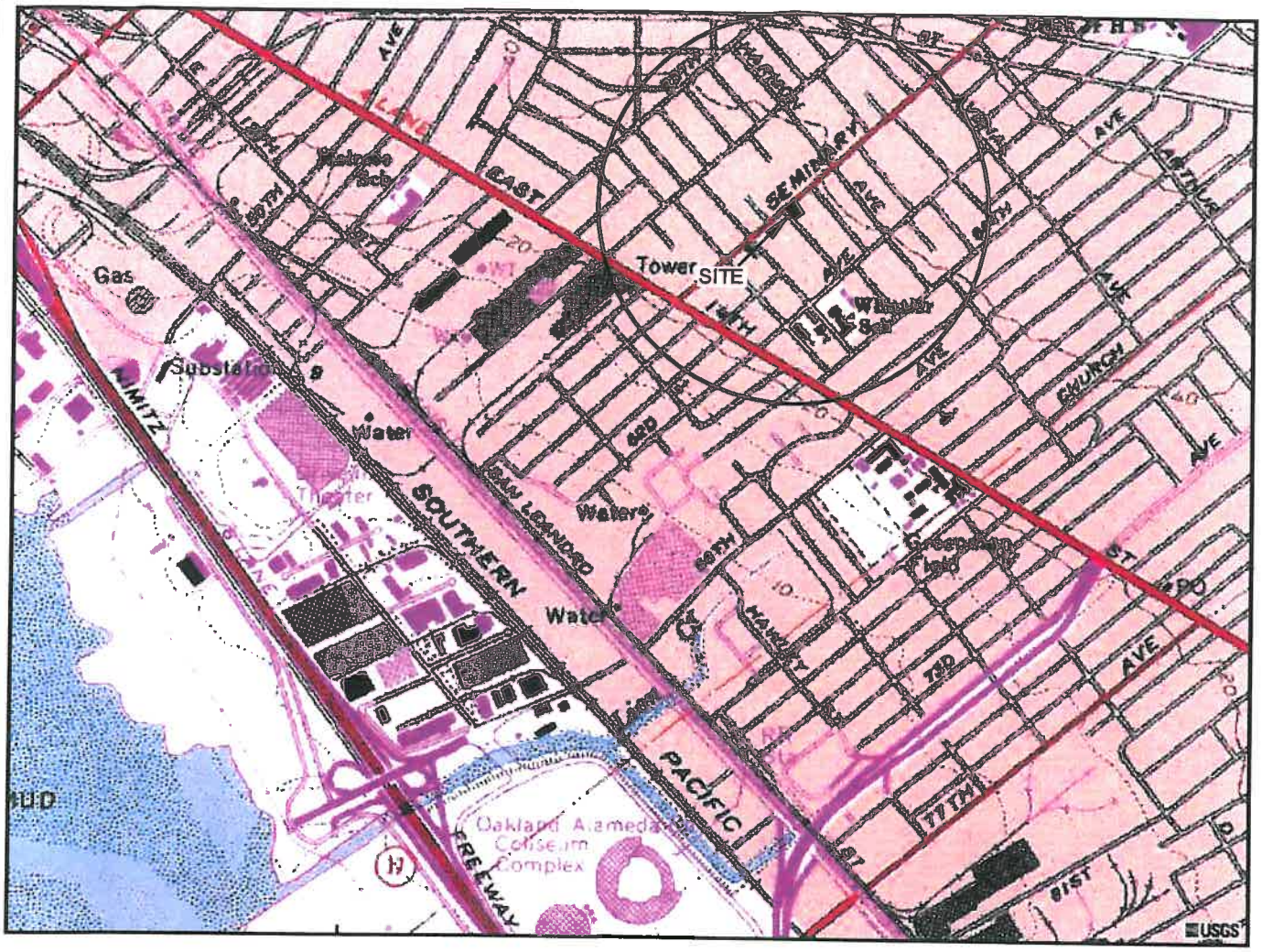


Jay R. Johnson, P.G.
Principal Geologist

Attachments:

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Site Vicinity Map
Figure 4	Geologic Cross Section A to A'
Figure 5	Geologic Cross Section B to B'
Figure 6	Geologic Cross Section C to C'
Figure 7	Groundwater Elevation Contour Map, Shallow Screened Wells, First Quarter 2012
Figure 8	Groundwater Elevation Contour Map, Deep Screened Wells, First Quarter 2012
Figure 9	Petroleum Hydrocarbon Groundwater Analytical Summary, First Quarter 2012
Figure 10	Halogenated VOC Groundwater Analytical Summary, First Quarter 2012
Figure 11	GRO in Groundwater, Upper Water Bearing Interval
Figure 12	GRO in Groundwater, Second Water Bearing Interval
Figure 13	PCE in Groundwater, Upper Water Bearing Interval
Figure 14	PCE in Groundwater, Second Water Bearing Interval
Figure 15	TCE in Groundwater, Upper Water Bearing Interval
Figure 16	TCE in Groundwater, Second Water Bearing Interval
Figure 17A	Hypothetical Layout of Temporary DPE System (Phase 1 of Remediation)
Figure 17B	Hypothetical Layout of Ozone Injection System (Phase 2 of Remediation)
Figure 18	Hypothetical Layout of SVE, GET, and AS Remedial System
Figure 19	Hypothetical Layout of SVE and Ozone Injection Remediation System
Appendix A	Historical Groundwater Elevation Data
Appendix B	Historical Soil Analytical Data
Appendix C	December 2011 Soil Vapor Analytical Sampling Results
Appendix D	Historical Groundwater Analytical Data
Appendix E	Laser Induced Fluorescence (LIF) Data
Appendix F	1997 Dual Phase Extraction Pilot Test Report Prepared by Terra Vac Corporation

cc: Ms. Angel LaMarca and Ms. Peggy Garcia, Trustee, Grimit Family Trust



GENERAL NOTES:
BASE MAP FROM U.S.G.S.
OAKLAND, CA.
7.5 MINUTE TOPOGRAPHIC
PHOTOREVISED 1996

N

QUADRANGLE LOCATION

0 1800 FT

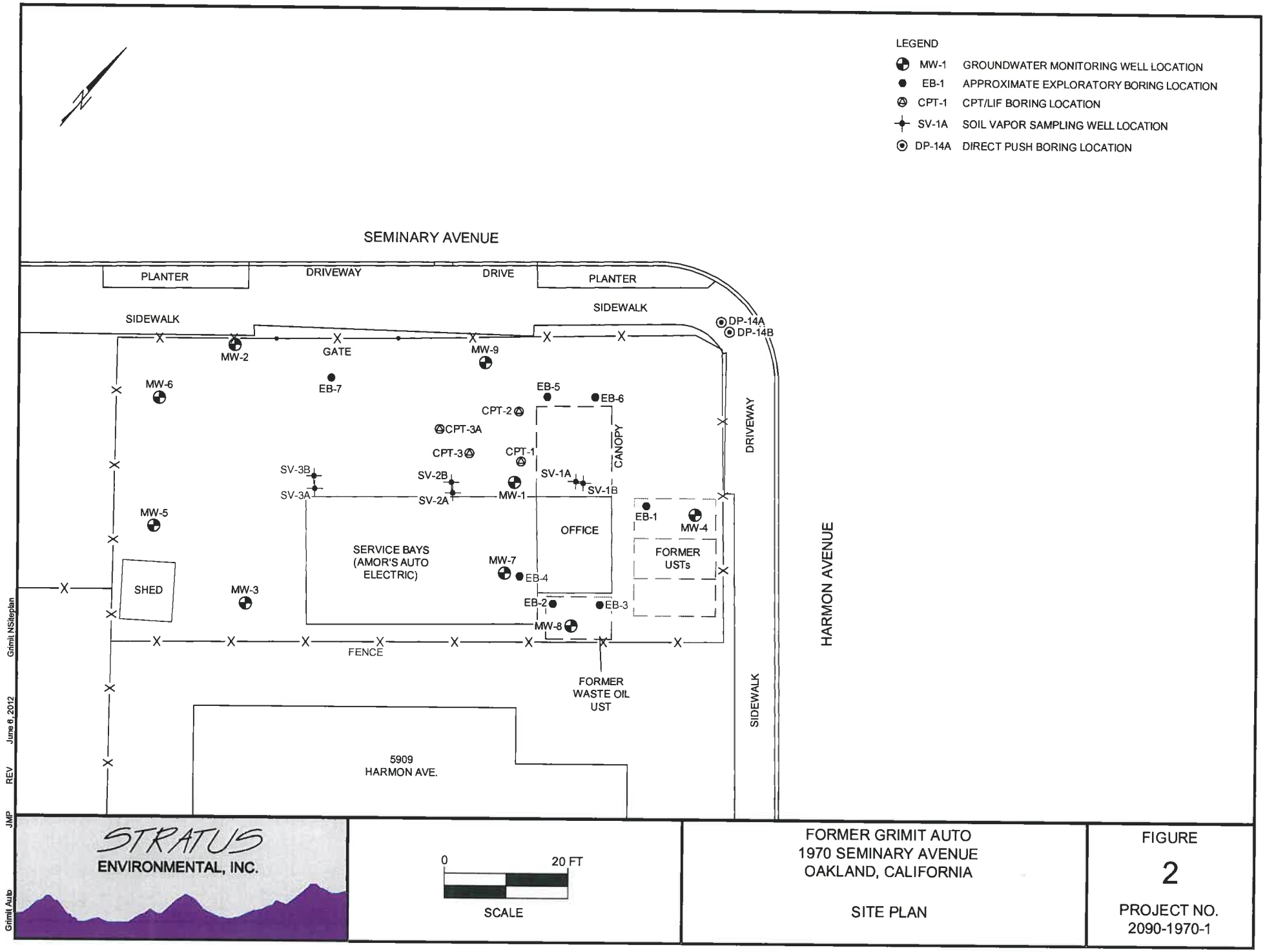
APPROXIMATE SCALE

STRATUS
ENVIRONMENTAL, INC.

FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

SITE LOCATION MAP

FIGURE
1
PROJECT NO.
2090-1970-01



STRATUS ENVIRONMENTAL, INC.

0 20 FT

SCALE

FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

SITE PLAN

FIGURE
2

PROJECT NO.
2090-1970-1

LEGEND

- MW-1 GROUNDWATER MONITORING WELL LOCATION
- EB-1 APPROXIMATE EXPLORATORY BORING LOCATION
- CPT-1 CPT/LIF BORING LOCATION
- SV-1A SOIL VAPOR SAMPLING WELL LOCATION
- DP-1A DIRECT PUSH BORING LOCATION
- A A' CROSS SECTION TRACE

1947 SEMINARY AVE.
1951 SEMINARY AVE.
1955 SEMINARY AVE.
1969 A/B SEMINARY AVE.
1975 SEMINARY AVE.
HARMON AVENUE
SEMINARY AVENUE
HOLWAY STREET
5900 HOLWAY ST.
5906 HOLWAY ST.
5909 HARMON AVE.
5912 HOLWAY ST.
5900 HARMON AVE.
PLANTER
DRIVEWAY
DRIVE
SIDEWALK
GATE
CANOPY
SERVICE BAYS (AMOR'S AUTO ELECTRIC)
OFFICE
FORMER USTs
SHED
FENCE
FORMER WASTE OIL UST
MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9
EB-1 EB-2 EB-3 EB-4 EB-5 EB-6 EB-7
CPT-1 CPT-2 CPT-3 CPT-3A
SV-1A SV-1B SV-2A SV-2B SV-3A SV-3B
DP-1A DP-1B DP-2A DP-2B DP-3A DP-3B DP-4A DP-4B DP-5A DP-5B DP-6A DP-6B
DP-7A DP-7B DP-8A DP-8B DP-9A DP-9B DP-10A DP-10B DP-11A DP-11B DP-12A DP-12B DP-13A DP-13B DP-14A DP-14B
A A' B B' C C'

0 30 FT
SCALE

STRATUS ENVIRONMENTAL, INC.

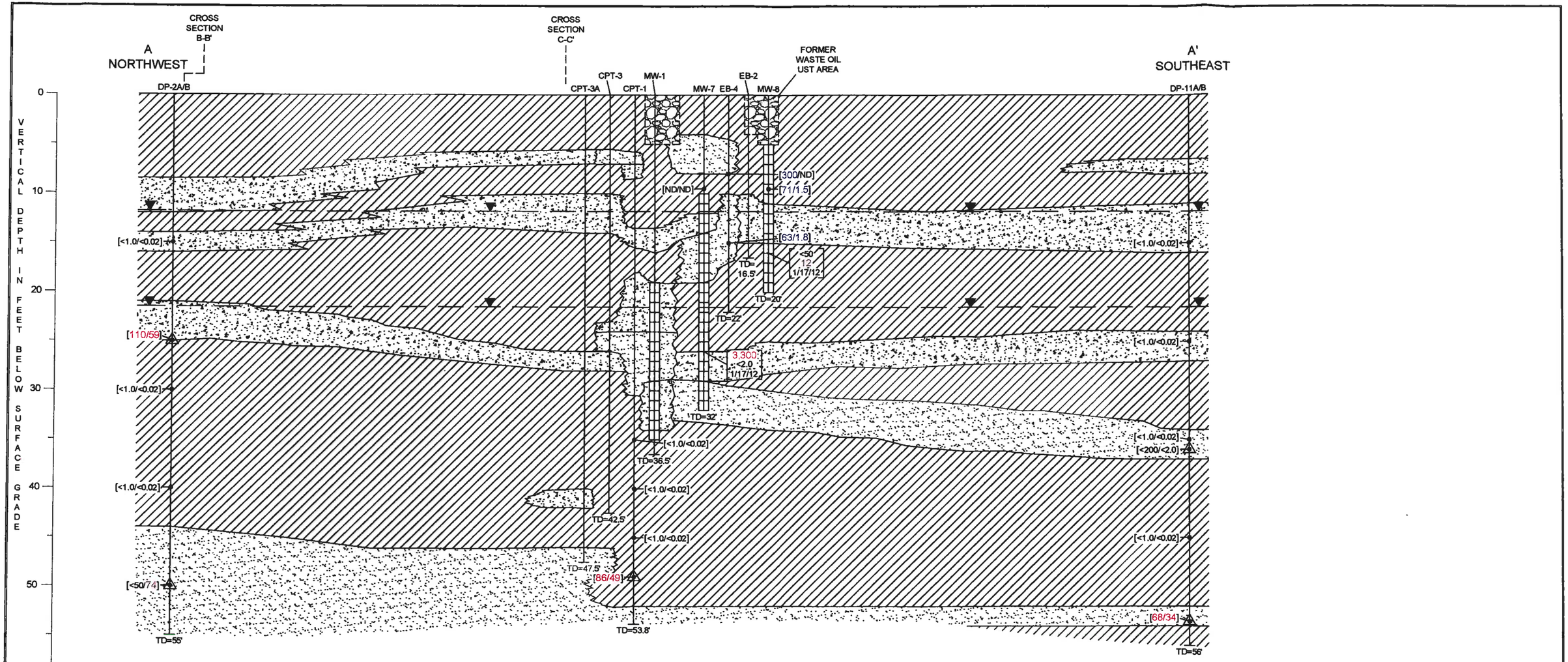
FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

SITE VICINITY MAP

FIGURE
3

PROJECT NO.
2090-1970-1

Grimit AutoAssesment102312 JMP REV February 8, 2012 Grimit Site Vicinity Map



LEGEND:

- APPROXIMATE CONTACT BETWEEN SOIL TYPES
- HISTORICAL DEPTH TO GROUNDWATER RANGE (1990 - 2012)
- SCREENED INTERVAL OF WELL
- TD=20' — TOTAL DEPTH OF BORING IN FEET BELOW SURFACE GRADE

[110/59] — GROUNDWATER SAMPLE LOCATION
GASOLINE RANGE ORGANICS(GRO), TETRACHLOROETHENE (PCE) CONCENTRATION IN MICROGRAMS PER LITER (µg/L). SAMPLES COLLECTED JANUARY 2012 OR DECEMBER 2011 (CPT-1)

[300/ND] — SOIL SAMPLE LOCATION
GASOLINE RANGE ORGANICS(GRO), TETRACHLOROETHENE (PCE) CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/Kg).

NA = NOT ANALYZED
ND = NON-DETECT

- SILT/CLAY MIXTURES
- SAND, SILTY SAND, GRAVEL, SILTY GRAVEL
- CLAYEY SAND, CLAYEY GRAVEL
- GRAVEL FILL

[3,300 / <2.0 / 1/17/12] — GRO IN MICROGRAMS PER LITER µg/L; TETRACHLOROETHENE (PCE) IN µg/L; DATE WELL SAMPLED

VERT. SCALE 0 – 10 FT

HORZ. SCALE 0 – 20 FT

NOTE: BORING LOGS FROM OTHER CONSULTING FIRMS WERE UTILIZED IN PREPARATION OF THIS CROSS SECTION

GrimitAssessment022012 JMP REV February 27, 2012 Grimit Cross Sections

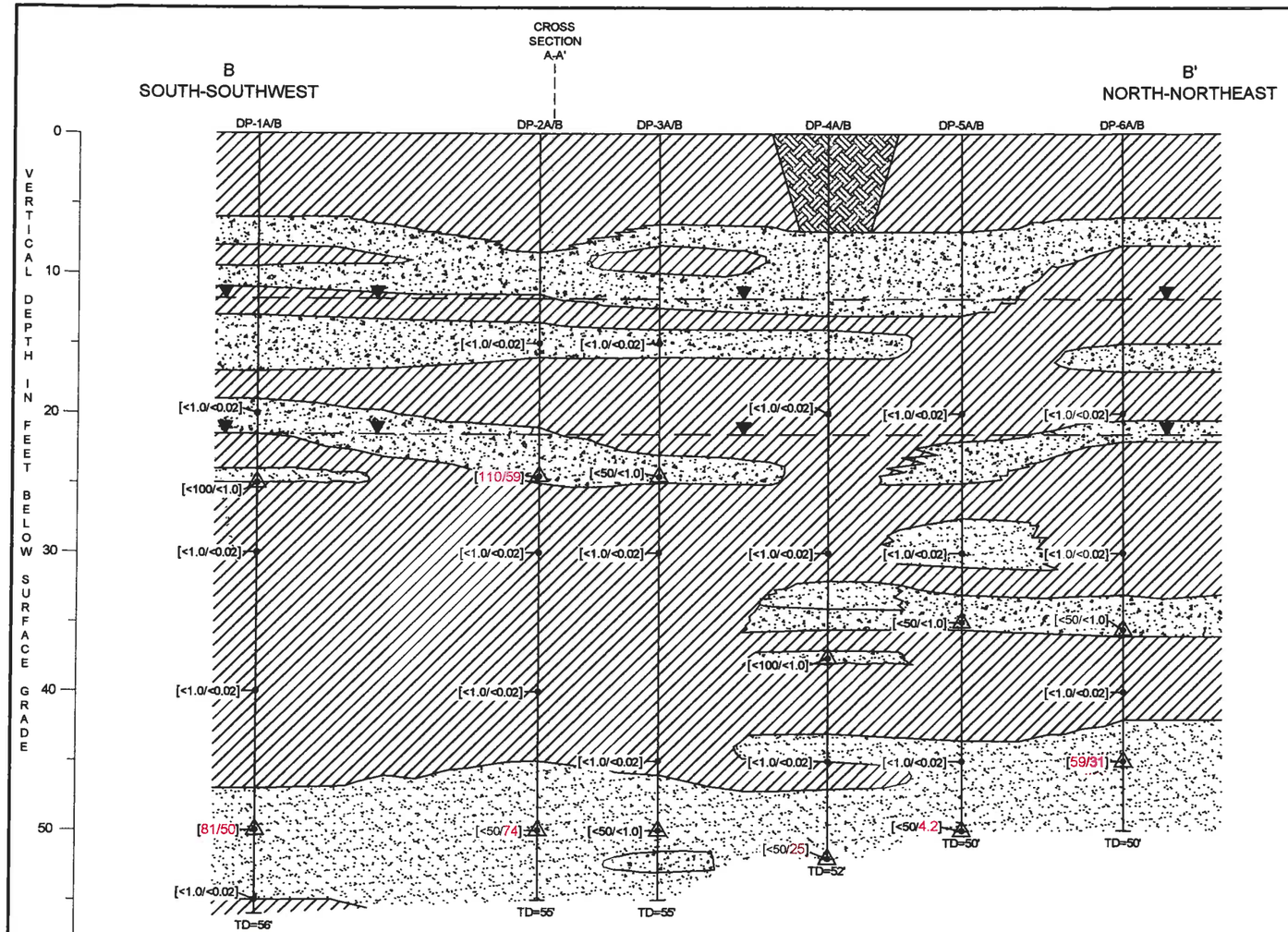
STRATUS ENVIRONMENTAL, INC.

FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

GEOLOGIC CROSS SECTION A-A'

FIGURE
4

PROJECT NO.
2090-1970-1



LEGEND:

APPROXIMATE CONTACT BETWEEN SOIL TYPES

HISTORICAL DEPTH TO GROUNDWATER RANGE (1990 - 2012)

TD=50' TOTAL DEPTH OF BORING IN FEET BELOW SURFACE GRADE

[110/59] GROUNDWATER SAMPLE LOCATION
GASOLINE RANGE ORGANICS(GRO), TETRACHLOROETHENE (PCE) CONCENTRATION IN MICROGRAMS PER LITER (µg/L). SAMPLES COLLECTED JANUARY 2012

[<1.0/<0.02] SOIL SAMPLE LOCATION
GASOLINE RANGE ORGANICS(GRO), TETRACHLOROETHENE (PCE) CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/Kg).

SILT/CLAY MIXTURES

SAND, SILTY SAND, GRAVEL

CLAYEY SAND, CLAYEY GRAVEL

GRAVEL FILL

SOIL/CONSTRUCTION DEBRIS FILL (W/ BRICKS, CONCRETE,SOIL, ETC.)

VERT. SCALE 0 – 10 FT

0 – 20 FT HORZ. SCALE

JMP REV February 27, 2012 Grimit Cross Sections

GrimitAssessment\020312

STRATUS ENVIRONMENTAL, INC.

FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

GEOLOGIC CROSS SECTION B-B'

FIGURE
5

PROJECT NO.
2090-1970-1

CROSS SECTION A-A'

C
SOUTHWEST

C'
NORTHEAST

DP-13A/B | MW-6 | MW-2 | EB-7 | CPT-3A | MW-9 | CPT-2 | DP-14A/B | DP-8A/B

VERTICAL DEPTH IN FEET BELOW SURFACE GRADE

0
10
20
30
40
50
60
70

[<1.0<0.02]
[910/NA]
[ND/NA]
[10/NA]
81
<1.0
1/17/12
TD=21.5'
[130/ND]
TD=23.5'
[ND/NA]
<50
<1.0
1/17/12
TD=36.5'
[<50/<1.0]
[<1.0<0.02]
[82/28]
TD=58'
TD=47.5'
TD=46.6'
TD=20'
1,400
<1.0
1/17/12
[1.2/<0.02]
[230/<1.0]
[53/40]
TD=50'
[<1.0<0.02]
[<200/<2.0]
[64/47]
TD=58'

LEGEND:

APPROXIMATE CONTACT BETWEEN SOIL TYPES

HISTORICAL DEPTH TO GROUNDWATER RANGE (1990 - 2012)

SCREENED INTERVAL OF WELL

TD=20' TOTAL DEPTH OF BORING IN FEET BELOW SURFACE GRADE

[64/47] GROUNDWATER SAMPLE LOCATION
GASOLINE RANGE ORGANICS(GRO), TETRACHLOROETHENE (PCE) CONCENTRATION IN MICROGRAMS PER LITER (µg/L). SAMPLES COLLECTED JANUARY 2012

[1.2/<0.02] SOIL SAMPLE LOCATION
GASOLINE RANGE ORGANICS(GRO), TETRACHLOROETHENE (PCE) CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/Kg).

NA = NOT ANALYZED
ND = NON-DETECT

SILT/CLAY MIXTURES

SAND, SILTY SAND, GRAVEL

CLAYEY SAND, CLAYEY GRAVEL

GRAVEL FILL

SOIL/CONSTRUCTION DEBRIS FILL (W/ BRICKS, CONCRETE,SOIL, ETC.)

<50 GRO IN MICROGRAMS PER LITER µg/L
<1.0 TETRACHLOROETHENE (PCE) IN µg/L
1/17/12 DATE WELL SAMPLED

VERT. SCALE 0 – 10 FT

HORZ. SCALE 0 – 20 FT

NOTE: BORING LOGS FROM OTHER CONSULTING FIRMS WERE UTILIZED IN PREPARATION OF THIS CROSS SECTION

GrimitAssessment020312 JMP REV February 27, 2012 Grimit Cross Sections

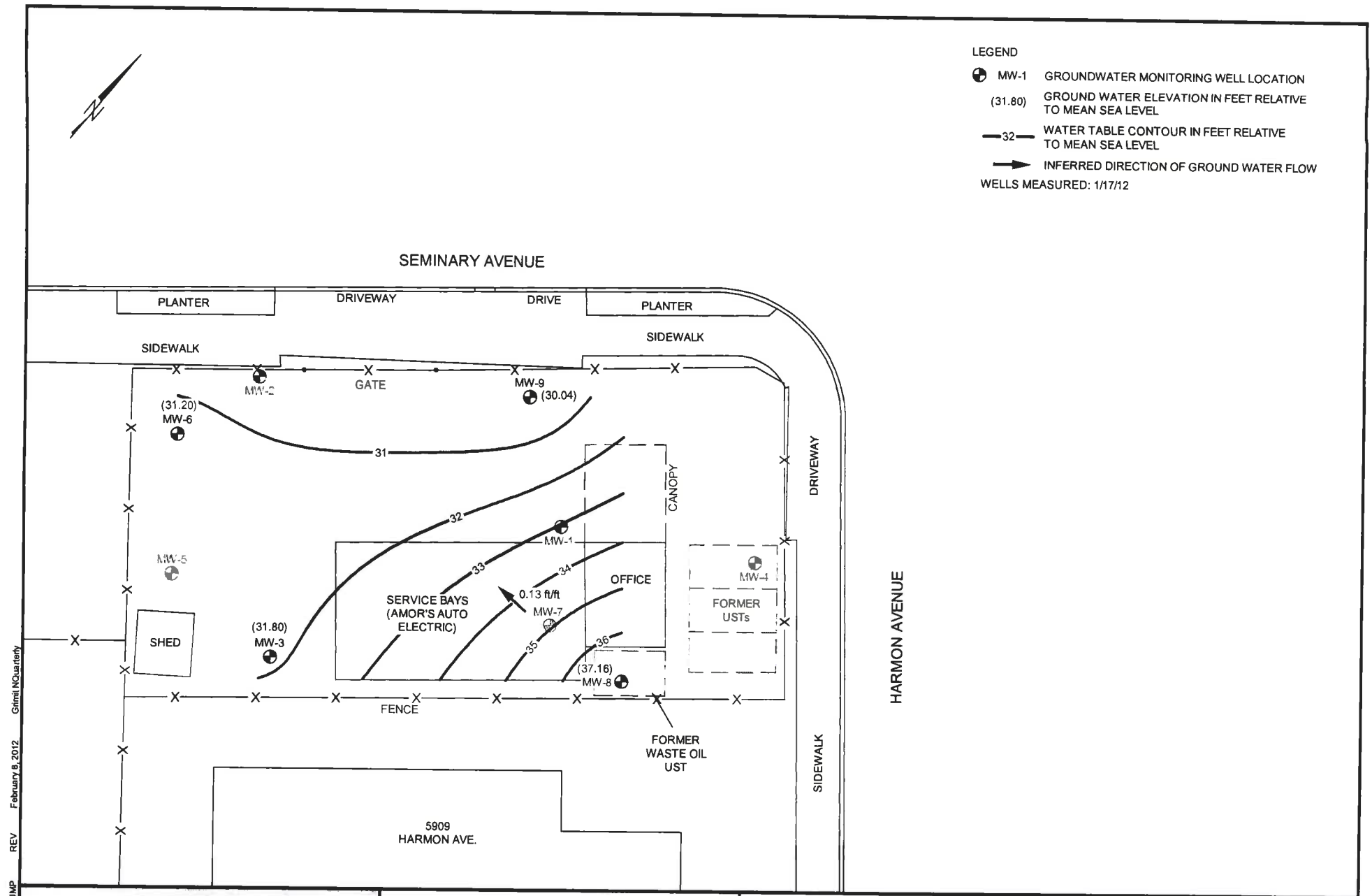
STRATUS
ENVIRONMENTAL, INC.

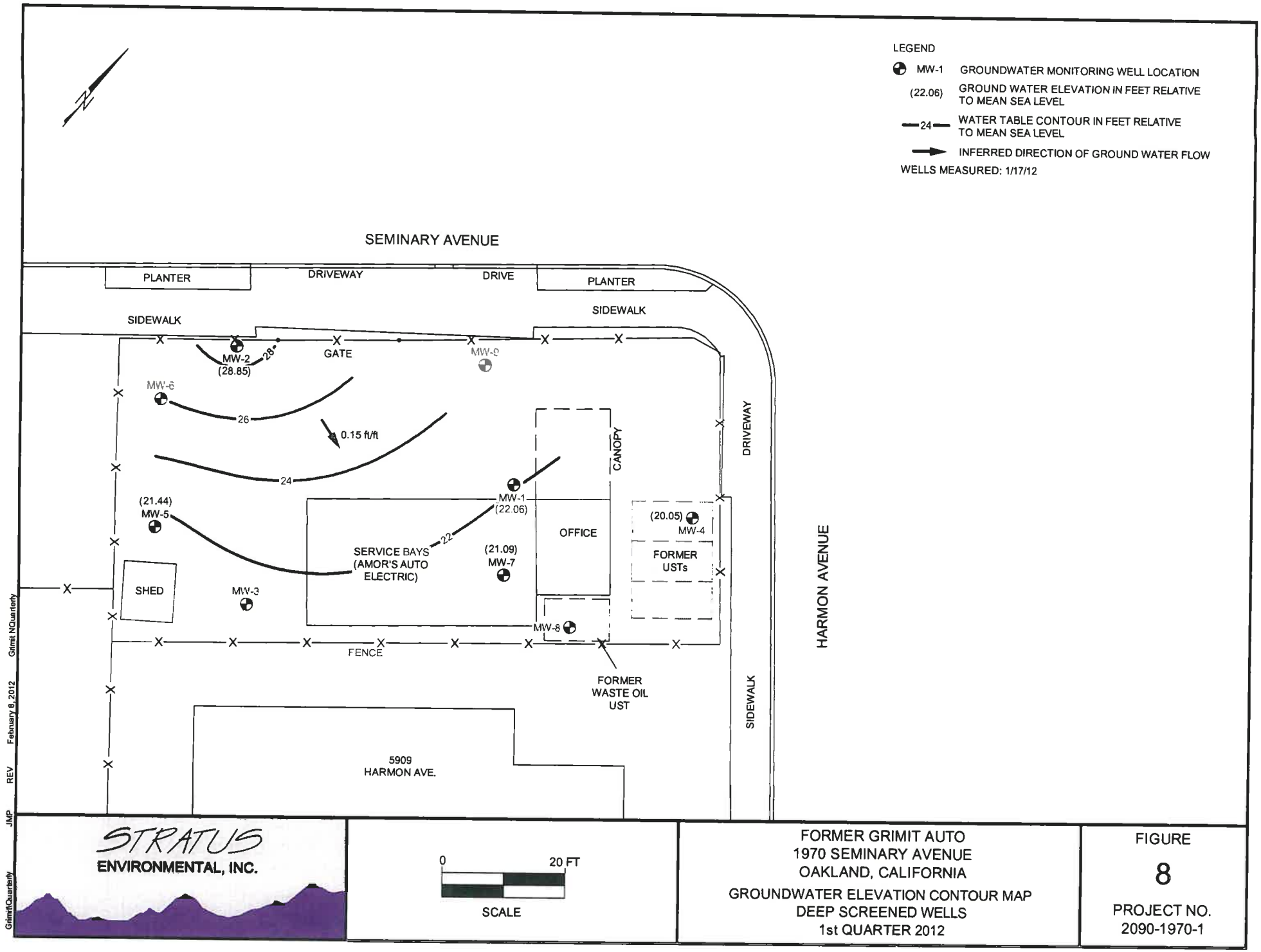
FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

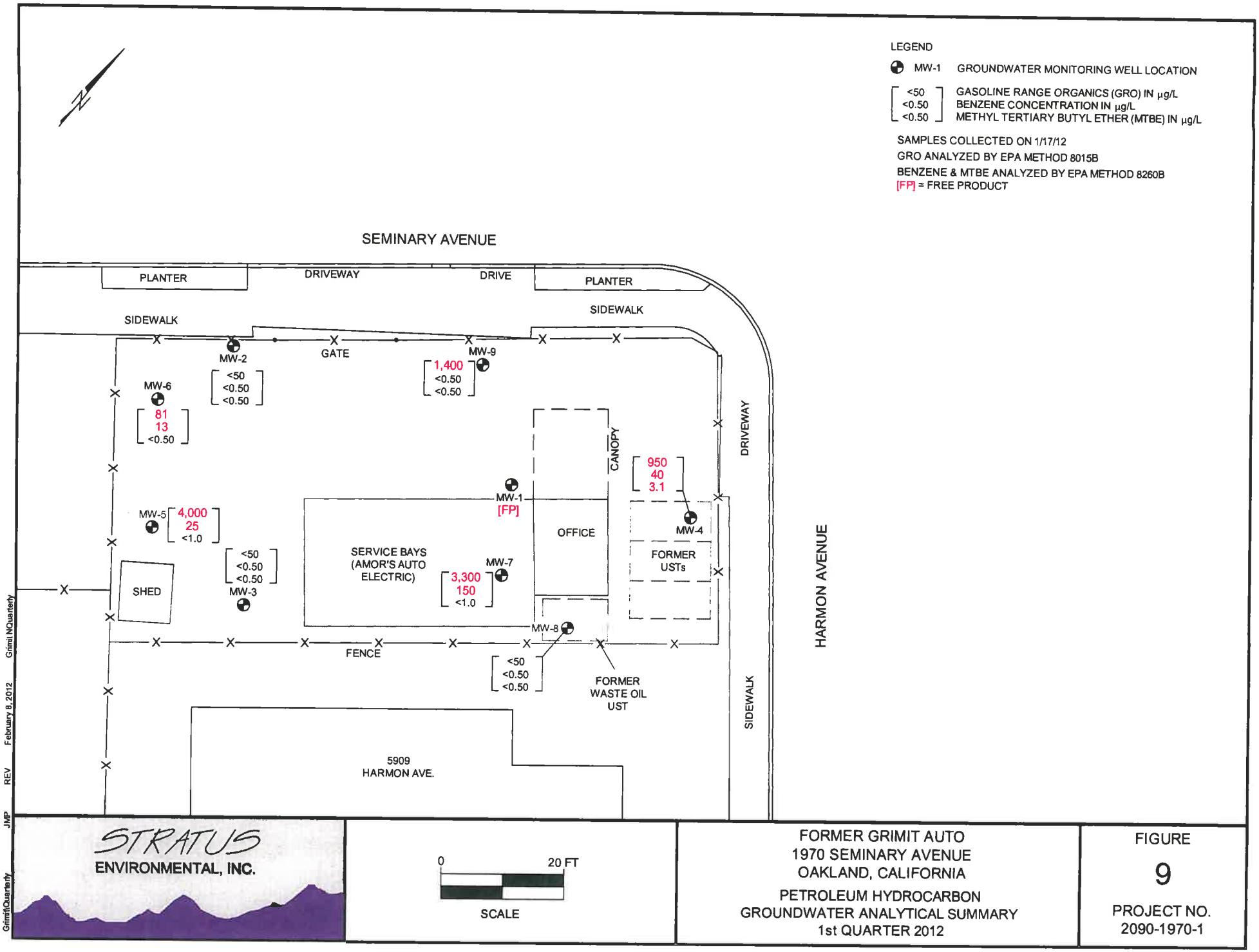
GEOLOGIC CROSS SECTION C-C'

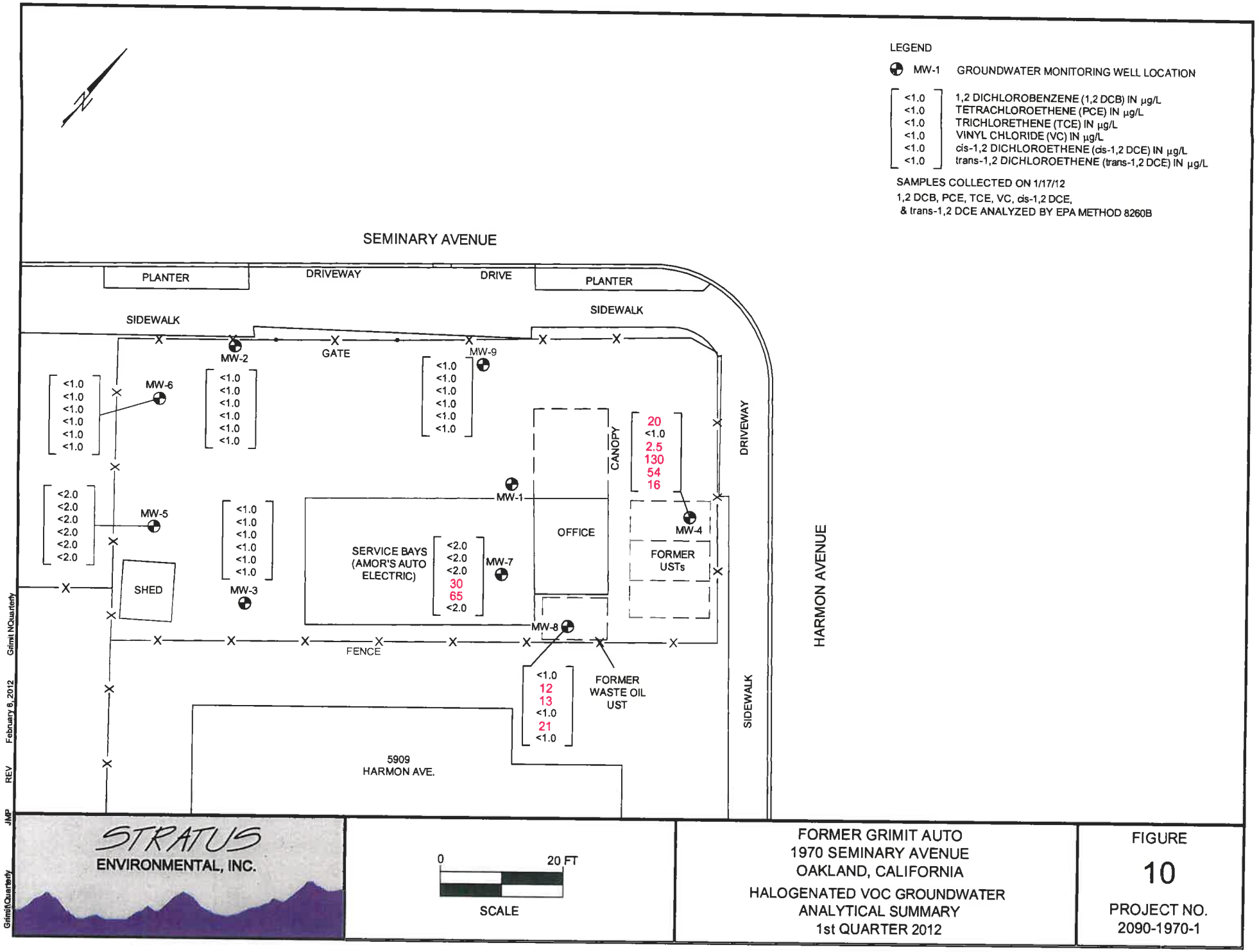
FIGURE
6

PROJECT NO.
2090-1970-1


LEGEND
MW-1 GROUNDWATER MONITORING WELL LOCATION
(31.80) GROUND WATER ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL
32 WATER TABLE CONTOUR IN FEET RELATIVE TO MEAN SEA LEVEL
INFERRED DIRECTION OF GROUND WATER FLOW
WELLS MEASURED: 1/17/12
SEMINARY AVENUE
PLANTER
DRIVEWAY
DRIVE
PLANTER
SIDEWALK
SIDEWALK
MW-2
GATE
MW-9
(30.04)
(31.20)
MW-6
31
32
33
34
35
36
CANOPY
DRIVEWAY
MW-1
MW-5
SERVICE BAYS
(AMOR'S AUTO
ELECTRIC)
0.13 ft/ft
MW-7
OFFICE
MW-4
FORMER
USTs
SHED
(31.80)
MW-3
(37.16)
MW-8
FENCE
FORMER
WASTE OIL
UST
HARMON AVENUE
SIDEWALK
5909
HARMON AVE.
JMP
REV
February 9, 2012
GrimitNQuarterly
GrimitQuarterly
STRATUS
ENVIRONMENTAL, INC.
0
20 FT
SCALE
FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA
GROUNDWATER ELEVATION CONTOUR MAP
SHALLOW SCREENED WELLS
1st QUARTER 2012
FIGURE
7
PROJECT NO.
2090-1970-1


LEGEND
MW-1 GROUNDWATER MONITORING WELL LOCATION
(22.06) GROUND WATER ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL
24 WATER TABLE CONTOUR IN FEET RELATIVE TO MEAN SEA LEVEL
INFERRED DIRECTION OF GROUND WATER FLOW
WELLS MEASURED: 1/17/12
N
SEMINARY AVENUE
PLANTER
DRIVEWAY
DRIVE
PLANTER
SIDEWALK
SIDEWALK
MW-2
(28.85)
28
GATE
MW-9
MW-6
26
0.15 ft/ft
24
CANOPY
DRIVEWAY
(21.44)
MW-5
MW-1
(22.06)
22
SERVICE BAYS
(AMOR'S AUTO
ELECTRIC)
OFFICE
(20.05)
MW-4
FORMER
USTs
(21.09)
MW-7
SHED
MW-3
MW-8
FENCE
FORMER
WASTE OIL
UST
HARMON AVENUE
SIDEWALK
5909
HARMON AVE.
JMP REV February 8, 2012 Grimit NQuarterly
GrimitQuarterly
STRATUS
ENVIRONMENTAL, INC.
0
20 FT
SCALE
FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA
GROUNDWATER ELEVATION CONTOUR MAP
DEEP SCREENED WELLS
1st QUARTER 2012
FIGURE
8
PROJECT NO.
2090-1970-1


LEGEND
MW-1 GROUNDWATER MONITORING WELL LOCATION
<50 GASOLINE RANGE ORGANICS (GRO) IN µg/L
<0.50 BENZENE CONCENTRATION IN µg/L
<0.50 METHYL TERTIARY BUTYL ETHER (MTBE) IN µg/L
SAMPLES COLLECTED ON 1/17/12
GRO ANALYZED BY EPA METHOD 8015B
BENZENE & MTBE ANALYZED BY EPA METHOD 8260B
[FP] = FREE PRODUCT
SEMINARY AVENUE
PLANTER
DRIVEWAY
DRIVE
PLANTER
SIDEWALK
SIDEWALK
MW-2
GATE
MW-9
MW-6
<50
<0.50
<0.50
1,400
<0.50
<0.50
81
13
<0.50
CANOPY
DRIVEWAY
950
40
3.1
MW-1
[FP]
MW-5
4,000
25
<1.0
OFFICE
MW-4
SERVICE BAYS
(AMOR'S AUTO
ELECTRIC)
FORMER
USTs
<50
<0.50
<0.50
MW-7
3,300
150
<1.0
SHED
MW-3
HARMON AVENUE
MW-8
FENCE
<50
<0.50
<0.50
FORMER
WASTE OIL
UST
SIDEWALK
5909
HARMON AVE.
JMP
REV
February 8, 2012
Grimit NQuarterly
GrimitQuarterly
STRATUS
ENVIRONMENTAL, INC.
0
20 FT
SCALE
FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA
PETROLEUM HYDROCARBON
GROUNDWATER ANALYTICAL SUMMARY
1st QUARTER 2012
FIGURE
9
PROJECT NO.
2090-1970-1



STRATUS ENVIRONMENTAL, INC.

FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA
HALOGENATED VOC GROUNDWATER
ANALYTICAL SUMMARY
1st QUARTER 2012

FIGURE
10
PROJECT NO.
2090-1970-1

JMP REV February 8, 2012 Grimit NQuarterly

GrimitQuarterly

LEGEND

- MW-1 GROUNDWATER MONITORING WELL LOCATION
- EB-1 APPROXIMATE EXPLORATORY BORING LOCATION
- CPT-1 CPT/LIF BORING LOCATION
- SV-1A SOIL VAPOR SAMPLING WELL LOCATION
- DP-1A DIRECT PUSH BORING LOCATION
- [<50] GASOLINE RANGE ORGANICS (GRO) IN µg/L

GRO ANALYZED BY EPA METHOD 8015B
SAMPLES COLLECTED IN JANUARY 2012
[FP] = FREE PRODUCT
[NS] = SAMPLE ATTEMPT FAILED

1947 SEMINARY AVE.
1951 SEMINARY AVE.
1955 SEMINARY AVE.
1969 A/B SEMINARY AVE.
1975 SEMINARY AVE.
HARMON AVENUE

[<100] DP-1A DP-1B
[110] DP-2A DP-2B
[<50] DP-3A DP-3B
[<100] DP-4A DP-4B
[<50] DP-5A DP-5B
[<50] DP-6A DP-6B

SEMINARY AVENUE

[<50] DP-13A DP-13B
PLANTER
DRIVEWAY
DRIVE
PLANTER
[230] DP-14A DP-14B
SIDEWALK
SIDEWALK
MW-2 [<50]
GATE
EB-7
[1,400]
MW-9
CPT-2
EB-5
EB-6
MW-6 [81]
CPT-3A
CPT-3
CPT-1
SV-1A
CANOPY
DRIVEWAY
SV-3B
SV-2B
SV-3A
SV-2A
MW-1 [FP]
SV-1B
[950] MW-4
[4,000] MW-5
SERVICE BAYS (AMOR'S AUTO ELECTRIC)
[3,300] MW-7
OFFICE
EB-1
FORMER USTs
[<50] MW-3
EB-4
EB-3
EB-2
MW-8
[<50]
FENCE
FORMER WASTE OIL UST
SHED
HOLWAY STREET
5900 HOLWAY ST.
DP-12A DP-12B
5906 HOLWAY ST.
5909 HARMON AVE.
5912 HOLWAY ST.
SIDEWALK
HARMON AVENUE
[<200] DP-11A DP-11B

[NS] DP-7A DP-7B
[<200] DP-8A DP-8B
[<50] DP-9A DP-9B
[<50] DP-10A DP-10B
5900 HARMON AVE.

STRATUS ENVIRONMENTAL, INC.

0 30 FT
SCALE

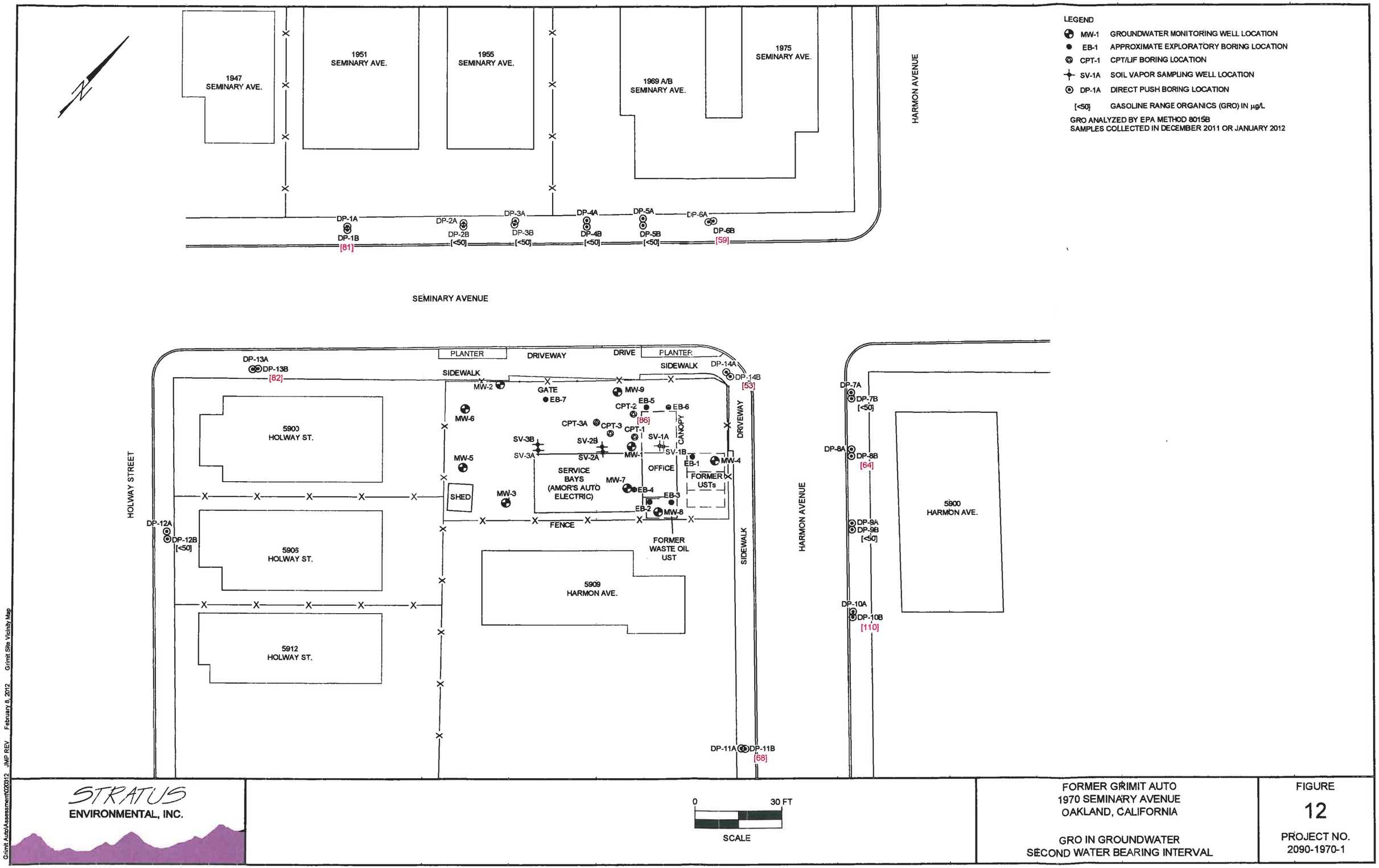
FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

GRO IN GROUNDWATER
UPPER WATER BEARING INTERVAL

FIGURE
11

PROJECT NO.
2090-1970-1

Grimit AutoAssessment\020312 JMP REV August 3, 2012 Grimit Site Vicinity Map



STRATUS ENVIRONMENTAL, INC.

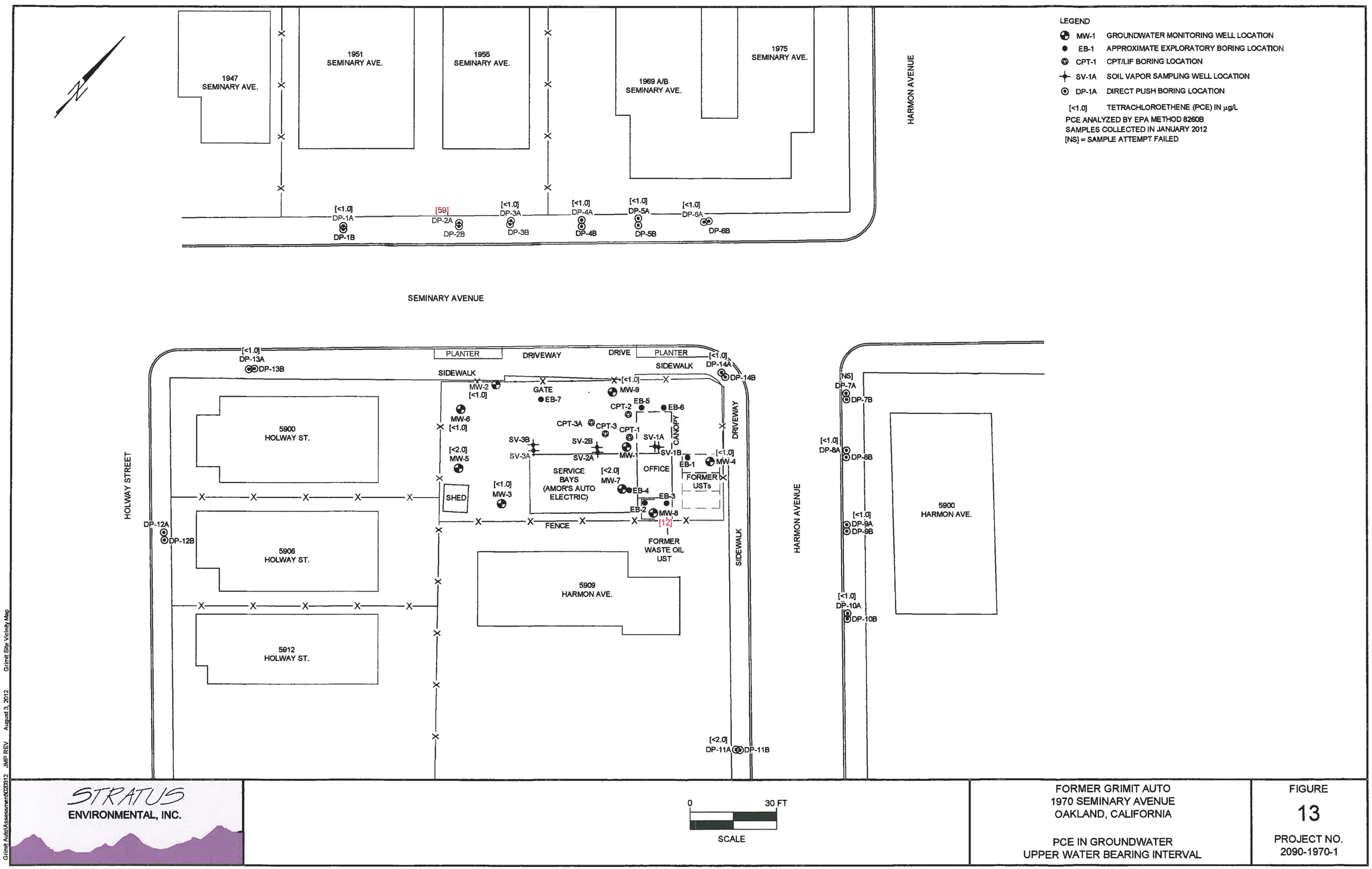
FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

GRO IN GROUNDWATER
SECOND WATER BEARING INTERVAL

FIGURE
12

PROJECT NO.
2090-1970-1

Grimit AutoAssessment020312 JMP REV February 8, 2012 Grimit Site Vicinity Map



STRATUS ENVIRONMENTAL, INC.

FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

PCE IN GROUNDWATER
UPPER WATER BEARING INTERVAL

FIGURE
13

PROJECT NO.
2090-1970-1

Grimit AutoAssessment\020912 JMP REV August 3, 2012 Grimit Site Vicinity Map

LEGEND

MW-1	GROUNDWATER MONITORING WELL LOCATION
EB-1	APPROXIMATE EXPLORATORY BORING LOCATION
CPT-1	CPT/LIF BORING LOCATION
SV-1A	SOIL VAPOR SAMPLING WELL LOCATION
DP-1A	DIRECT PUSH BORING LOCATION
[<1.0]	TETRACHLOROETHENE (PCE) IN µg/L

PCE ANALYZED BY EPA METHOD 8260B
SAMPLES COLLECTED IN DECEMBER 2011 OR JANUARY 2012

1947 SEMINARY AVE.
1951 SEMINARY AVE.
1955 SEMINARY AVE.
1969 A/B SEMINARY AVE.
1975 SEMINARY AVE.
HARMON AVENUE
DP-1A DP-1B [50]
DP-2A DP-2B [74]
DP-3A DP-3B [<1.0]
DP-4A DP-4B [25]
DP-5A DP-5B [4.2]
DP-6A DP-6B [31]

SEMINARY AVENUE

DP-13A DP-13B [28]
PLANTER
DRIVEWAY
DRIVE
PLANTER
SIDEWALK
SIDEWALK
DP-14A DP-14B [40]
MW-2
GATE
EB-7
MW-9
CPT-2
EB-5 [49]
EB-6
MW-6
CPT-3A
CPT-3
CPT-1
SV-1A
SV-3B
SV-2B
SV-3A
SV-2A
MW-1
SV-1B
CANOPY
DRIVEWAY
EB-1
MW-4
MW-5
SERVICE BAYS (AMOR'S AUTO ELECTRIC)
OFFICE
FORMER USTs
MW-7
EB-4
EB-3
SHED
MW-3
EB-2
MW-8
FENCE
FORMER WASTE OIL UST
SIDEWALK
HARMON AVENUE
HOLWAY STREET
5900 HOLWAY ST.
5906 HOLWAY ST.
5909 HARMON AVE.
5912 HOLWAY ST.
DP-12A DP-12B [94]
DP-11A DP-11B [34]
DP-7A DP-7B [34]
DP-8A DP-8B [47]
DP-9A DP-9B [7.2]
DP-10A DP-10B [84]
5900 HARMON AVE.

0 30 FT
SCALE

STRATUS ENVIRONMENTAL, INC.

FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

PCE IN GROUNDWATER
SECOND WATER BEARING INTERVAL

FIGURE
14

PROJECT NO.
2090-1970-1

Grimit AutoAssessment020312 JMP REV February 9, 2012 Grimit Site Vicinity Map

LEGEND

- MW-1 GROUNDWATER MONITORING WELL LOCATION
- EB-1 APPROXIMATE EXPLORATORY BORING LOCATION
- CPT-1 CPT/LIF BORING LOCATION
- SV-1A SOIL VAPOR SAMPLING WELL LOCATION
- DP-1A DIRECT PUSH BORING LOCATION
- [<1.0] TRICHLOROETHENE (TCE) IN µg/L

TCE ANALYZED BY EPA METHOD 8260B
SAMPLES COLLECTED IN JANUARY 2012
[NS] = SAMPLE ATTEMPT FAILED

1947 SEMINARY AVE.
1951 SEMINARY AVE.
1955 SEMINARY AVE.
1969 A/B SEMINARY AVE.
1975 SEMINARY AVE.
HARMON AVENUE
[<1.0] DP-1A DP-1B
[<1.0] DP-2A DP-2B
[<1.0] DP-3A DP-3B
[<1.0] DP-4A DP-4B
[<1.0] DP-5A DP-5B
[<1.0] DP-6A DP-6B

SEMINARY AVENUE

[<1.0] DP-13A DP-13B
PLANTER
DRIVEWAY
DRIVE
PLANTER
[<1.0] DP-14A DP-14B
SIDEWALK
SIDEWALK
MW-2 [<1.0]
GATE
EB-7
[<1.0] MW-9
CPT-2 EB-5 EB-6
CPT-3A CPT-3 CPT-1
SV-1A
CANOPY
DRIVEWAY
SV-3B SV-2B
SV-3A SV-2A
MW-1
SV-1B
[2.5] MW-4
EB-1
MW-6 [<1.0]
[<2.0] MW-5
SERVICE BAYS (AMOR'S AUTO ELECTRIC)
[<2.0] MW-7
EB-4
OFFICE
FORMER USTs
EB-3
EB-2
MW-8 [13]
[<1.0] MW-3
SHED
FENCE
FORMER WASTE OIL UST
HOLWAY STREET
DP-12A DP-12B
5900 HOLWAY ST.
5906 HOLWAY ST.
5909 HARMON AVE.
5912 HOLWAY ST.
SIDEWALK
HARMON AVENUE
[<2.0] DP-11A DP-11B
[NS] DP-7A DP-7B
[<1.0] DP-8A DP-8B
[<1.0] DP-9A DP-9B
[<1.0] DP-10A DP-10B
5900 HARMON AVE.

0 30 FT
SCALE

STRATUS ENVIRONMENTAL, INC.

FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

TCE IN GROUNDWATER
UPPER WATER BEARING INTERVAL

FIGURE
15
PROJECT NO.
2090-1970-1

Grimit AutoAssessment020312 JMP REV August 3, 2012 Grimit Site Vicinity Map

LEGEND

- MW-1 GROUNDWATER MONITORING WELL LOCATION
- EB-1 APPROXIMATE EXPLORATORY BORING LOCATION
- CPT-1 CPT/LIF BORING LOCATION
- SV-1A SOIL VAPOR SAMPLING WELL LOCATION
- DP-1A DIRECT PUSH BORING LOCATION
- [<1.0] TRICHLOROETHENE (TCE) IN µg/L

TCE ANALYZED BY EPA METHOD 8260B
SAMPLES COLLECTED IN DECEMBER 2011 OR JANUARY 2012

1947 SEMINARY AVE.
1951 SEMINARY AVE.
1955 SEMINARY AVE.
1969 A/B SEMINARY AVE.
1975 SEMINARY AVE.
HARMON AVENUE
DP-1A DP-1B [4.3]
DP-2A DP-2B [1.4]
DP-3A DP-3B [<1.0]
DP-4A DP-4B [<1.0]
DP-5A DP-5B [<1.0]
DP-6A DP-6B [<1.0]

SEMINARY AVENUE

PLANTER
DRIVEWAY
DRIVE
PLANTER
SIDEWALK
SIDEWALK
DP-13A DP-13B [<1.0]
DP-14A DP-14B [<1.0]
MW-2
GATE
MW-9
EB-7
EB-5
CPT-2
EB-6
[9.0]
MW-6
CPT-3A
CPT-3
CPT-1
SV-1A
CANOPY
DRIVEWAY
SV-3B
SV-2B
MW-1
SV-1B
SV-3A
SV-2A
OFFICE
EB-1
MW-4
MW-5
SERVICE BAYS (AMOR'S AUTO ELECTRIC)
MW-7
FORMER USTs
EB-4
EB-3
SHED
MW-3
EB-2
MW-8
FENCE
FORMER WASTE OIL UST
SIDEWALK
HOLWAY STREET
HARMON AVENUE
5900 HOLWAY ST.
5906 HOLWAY ST.
5909 HARMON AVE.
5912 HOLWAY ST.
5900 HARMON AVE.
DP-12A DP-12B [<1.0]
DP-11A DP-11B [4.0]
DP-7A DP-7B [<1.0]
DP-8A DP-8B [<1.0]
DP-9A DP-9B [<1.0]
DP-10A DP-10B [<1.0]

STRATUS ENVIRONMENTAL, INC.

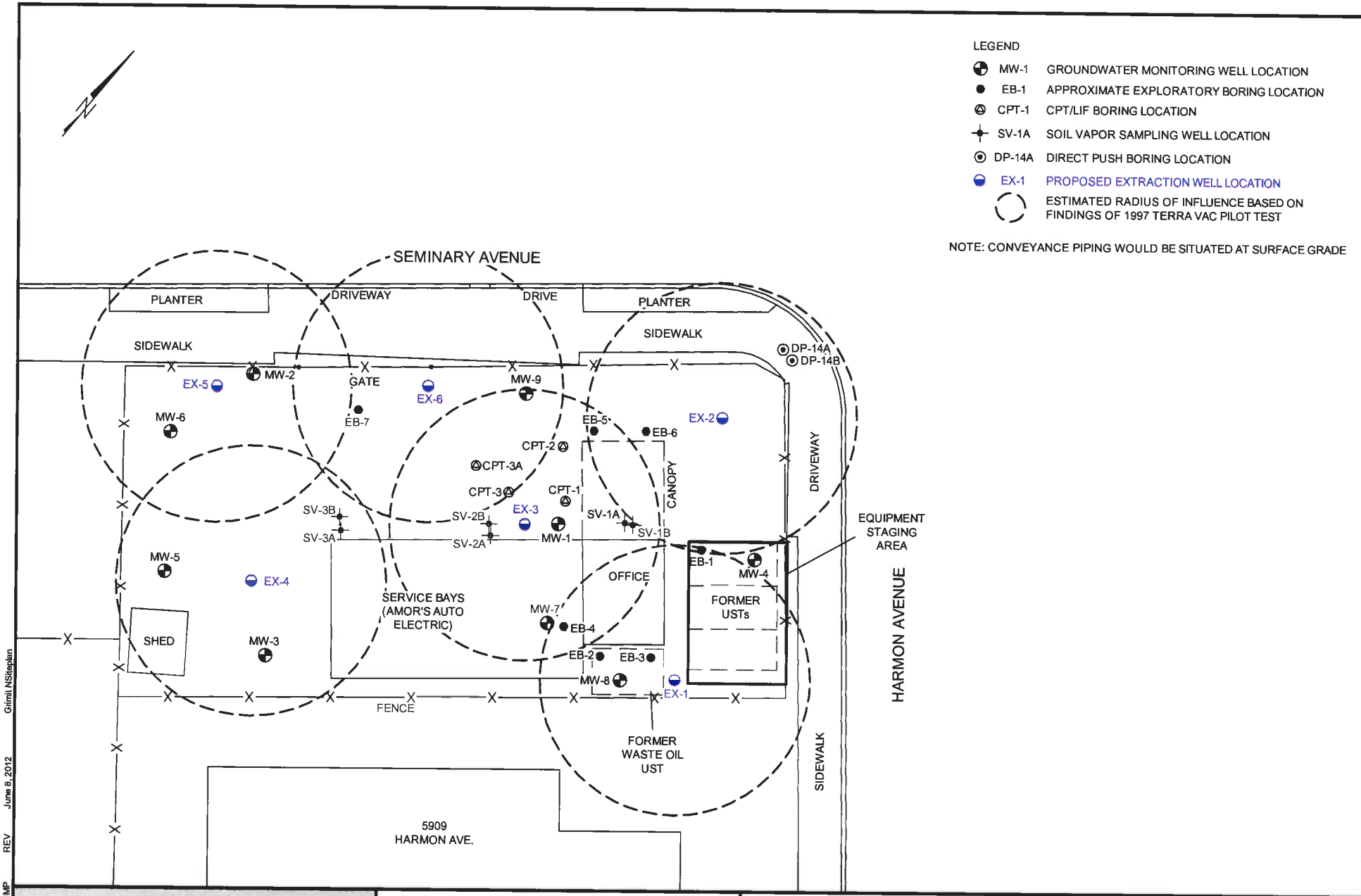
0 30 FT
SCALE

FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

TCE IN GROUNDWATER
SECOND WATER BEARING INTERVAL

FIGURE
16
PROJECT NO.
2090-1970-1

Grimit Auto\Assessment\020312 JMP REV February 8, 2012 Grimit Site Vicinity Map



Grimit NSiteplan
June 8, 2012
REV
JMP
Grimit AutoCAP

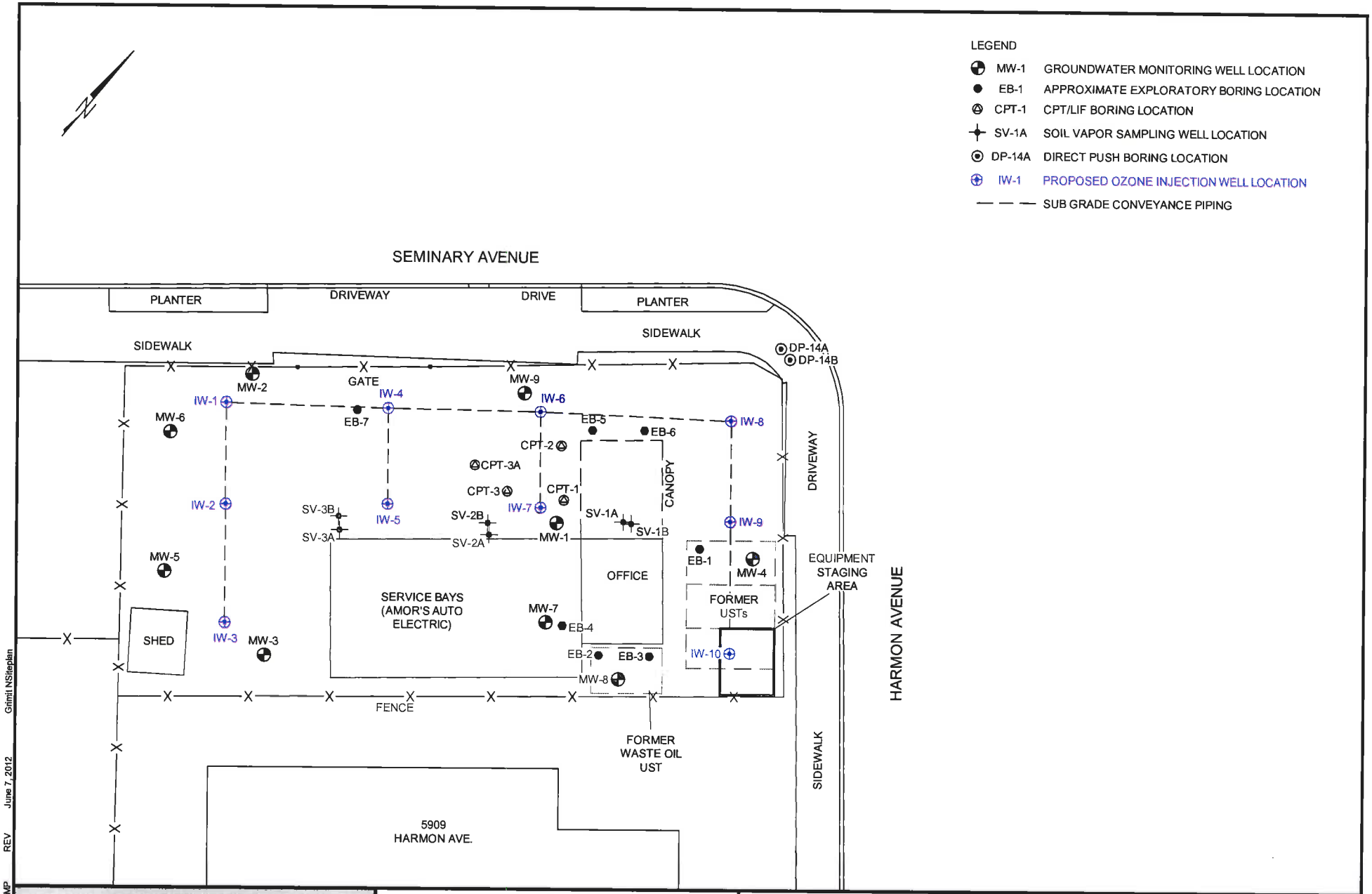
STRATUS ENVIRONMENTAL, INC.

0 20 FT
SCALE

FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

HYPOTHETICAL LAYOUT OF TEMPORARY DPE SYSTEM (PHASE 1 OF REMEDIATION)

FIGURE
17A
PROJECT NO.
2090-1970-1



Grimit Auto\CAP JMP REV June 7, 2012 Grimit NSiteplan

STRATUS ENVIRONMENTAL, INC.

0 20 FT

SCALE

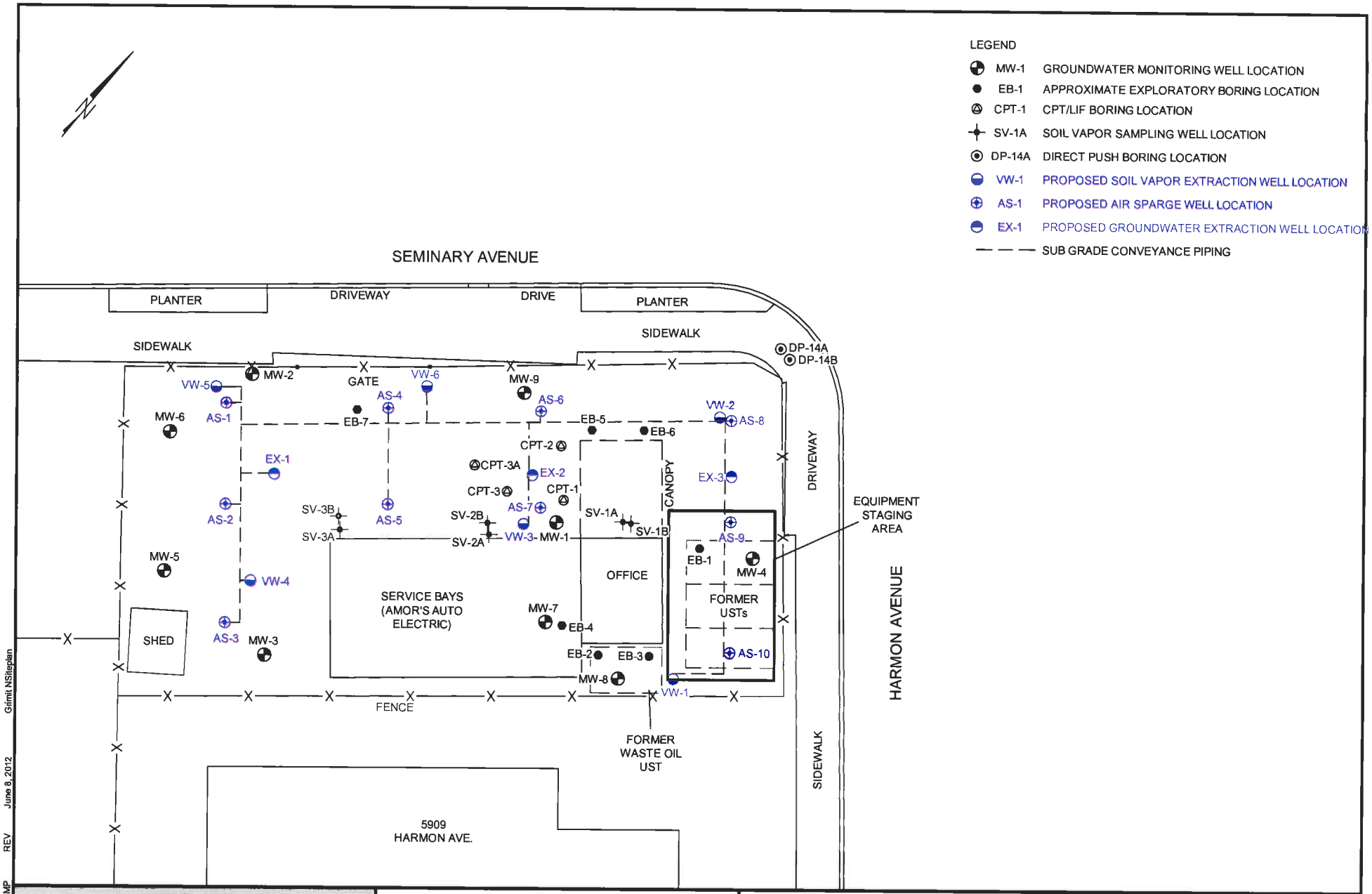
FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

HYPOTHETICAL LAYOUT OF OZONE INJECTION SYSTEM (PHASE 2 OF REMEDIATION)

FIGURE

17B

PROJECT NO.
2090-1970-1



Grimit NSiteplan June 8, 2012 REV JMP Grimit Auto\CAP

STRATUS ENVIRONMENTAL, INC.

0 20 FT

SCALE

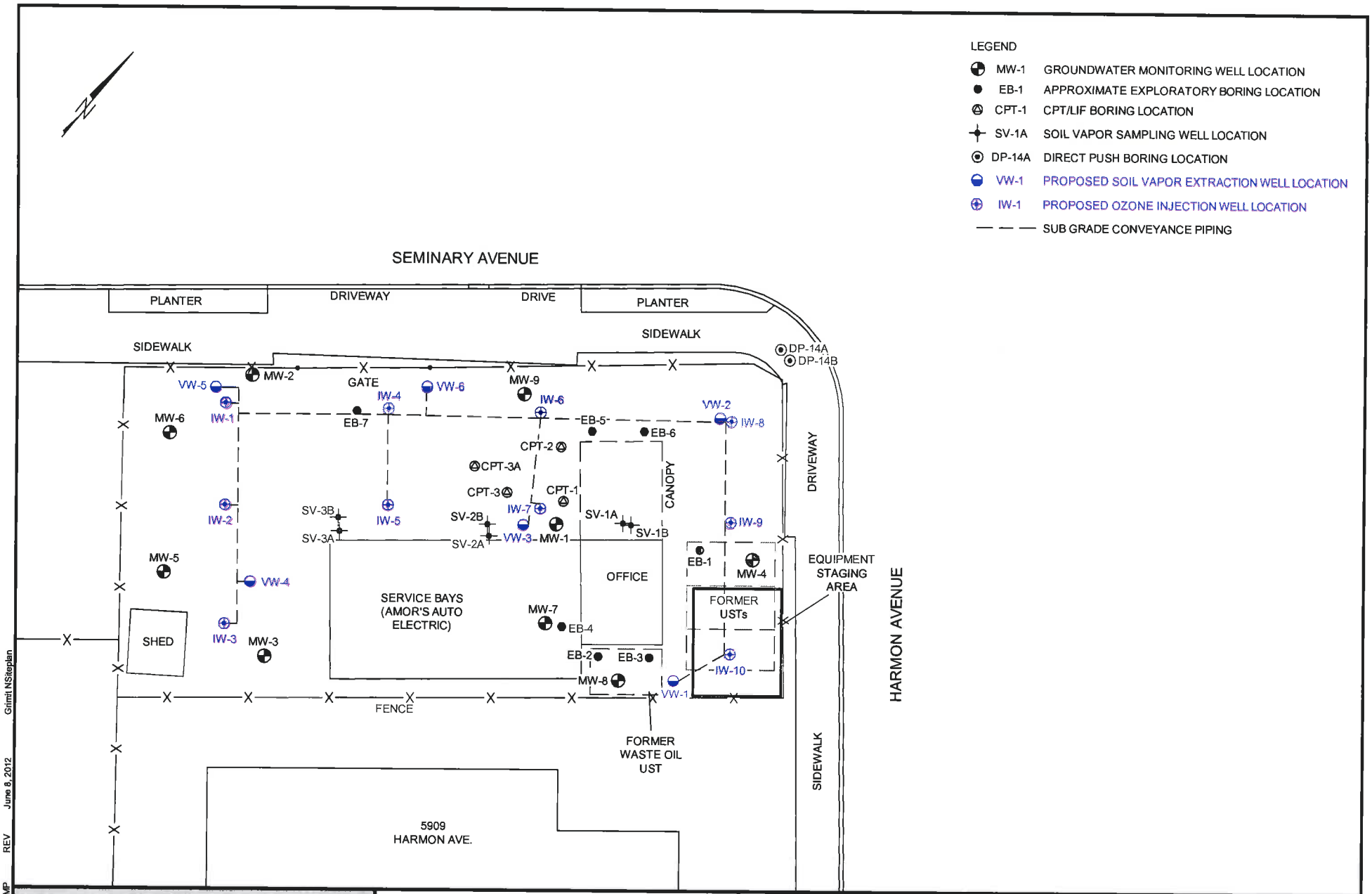
FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

HYPOTHETICAL LAYOUT OF SVE, GET, & AS REMEDIATION SYSTEM

FIGURE

18

PROJECT NO.
2090-1970-1



Grimit NSteplan
June 8, 2012
REV
JMP
Grimit Auto\CAP

STRATUS ENVIRONMENTAL, INC.

0 20 FT
SCALE

FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

HYPOTHETICAL LAYOUT OF SVE & OZONE INJECTION REMEDIATION SYSTEM

FIGURE
19
PROJECT NO.
2090-1970-1

APPENDIX A

HISTORICAL GROUNDWATER ELEVATION DATA

TABLE 1A

GROUND WATER ELEVATION DATA
(All Measurements in Feet)

Well Number and Date of Measurement	Reference Elevation (2)	Depth To Water (measured)	Thickness of Free-Phase Petroleum Hydrocarbon (10)	Depth to Water (adjusted for Free-Phase Petroleum Hydrocarbon)	Ground Water Elevation (measured) (2)	Ground Water Elevation (adjusted for Free-phase Petroleum Hydrocarbons)
MW-1 ("deep")						
8/6/90	37.00	21.5	Sheen	21.5	15.5	15.5
1/28/92		21.0	Sheen	21.0	16.0	16.0
4/27/92		20.95	Sheen	20.95	16.05	16.05
8/10/92		22.20	Not recorded	22.20	14.80	14.80
2/11/94		15.93 (3)	Sheen	15.93 (3)	21.07 (3)	21.07 (3)
2/28/94		13.85 (4)	N/A	13.85 (4)	23.15 (4)	23.15 (4)
9/9/94		20.19	Sheen	20.19	16.81	16.81
12/28/94		14.91	Sheen	14.91	22.09	22.09
4/13/95		14.18	Sheen	14.18	22.82	22.82
11/1/95		20.90	Sheen	20.90	16.10	16.10
3/8/96		11.82	N/A	11.82	25.18	25.18
3/25-26/96	36.97	13.54	Sheen	13.54	23.43	23.43
10/7/96		21.78 **(11)**	Sheen	21.78	15.19	15.19
1/15/97		13.34 **(11)**	Sheen	13.34	23.63	23.63
6/23/97	36.99	19.91	Sheen	19.91	17.08	17.08
10/6/97		21.55	Sheen	21.55	15.44	15.44
12/12/98		16.24	Sheen	16.24	20.75	20.75
4/24/99		14.21	Sheen	14.21	22.78	22.78
12/18/99		19.28	0.01	19.28	17.71	17.72
7/22/00		21.93	Sheen	21.93	15.93	15.93
1/29/01		19.49	0.01	19.48	17.50	17.51
7/28/01		19.84	Sheen	19.84	17.15	17.15
2/3/02		16.03	0.01	16.02	20.96	20.97
7/23/02		20.45	0.01	20.44	16.54	16.55
1/20/03		15.08	0.02	15.06	21.91	21.93
7/30/03		19.06	0.02	19.04	17.93	17.95
1/27/04		16.45	Sheen	16.45	20.54	20.54
7/22/04	40.02	20.22	0.08	20.14	19.80 (7)	19.88
1/20/05		13.92	Sheen	13.92	26.10	26.10
7/20/05		16.76	Sheen	16.76	23.26	23.26
1/26/06		14.40	0.01	14.39	25.62	25.63
7/27/06		17.66	Sheen	17.66	22.36	22.36
1/24/07		17.43	0.02	17.41	22.59	22.61
7/18/07		19.31	0.17	19.14	20.71	20.88
2/15/08		14.80	0.02	14.78	25.22	25.24
7/25/08		20.21	0.42	19.79	19.82	20.24
1/23/09		19.71 **(9)**	0.08	19.64	20.31 **(9)**	20.39

Well Number and Date of Measurement	Reference Elevation (2)	Depth To Water	Relative Ground Water Elevation (2)
MW-2 ("deep")			
2/11/94	36.40	14.16 (3)	22.24 (3)
2/28/94		16.01 (4)	20.39 (4)
9/9/94		18.96	17.44
12/28/94		21.42	14.98
4/13/95		19.69	16.71
11/1/95		21.91	14.49
3/8/96		14.56 (6)	21.84 (6)
3/25-26/96	36.39	10.84	25.55
10/7/96		18.41	17.98
1/15/97		10.07	26.32
6/23/97	36.40	13.73	22.67
10/6/97		17.03	19.37
12/12/98		11.39	25.01
4/24/99		10.45	25.95
12/18/99		13.22	23.18
7/22/00		13.73	22.67
1/29/01		12.25	24.15
7/28/01		16.73 (6)	19.67 (6)
2/3/02		11.40	25.00
7/23/02		13.42	22.98
1/20/03		10.49	25.91
7/30/03		13.47	22.93
1/27/04		11.72	24.68
7/22/04	39.42	13.86	25.56 (7)
1/20/05		10.24	29.18
7/20/05		12.34	27.08
1/26/06		10.60	28.82
7/27/06		13.02	26.40
1/24/07		15.76	23.66
7/18/07		13.91	25.51
2/15/08		10.94	28.48
7/25/08		14.29	25.13
1/23/09		20.17 (9)	19.25 (9)
MW-3 ("shallow")			
2/11/94	36.94	6.97 (3)	29.97 (3)
2/28/94		7.74 (4)	29.20 (4)
9/9/94		9.68	27.26
12/28/94		8.15	28.79
4/13/95		8.05	28.89
11/1/95		7.82	29.12
3/8/96		5.69	31.25
3/25-26/96	36.94	6.91	30.03
10/7/96		9.51	27.43
1/15/97		6.23	30.71
6/23/97	36.94	9.65	27.29

Well Number and Date of Measurement	Reference Elevation (2)	Depth To Water	Relative Ground Water Elevation (2)
MW-3 ("shallow") cont'			
10/6/97		10.53	26.41
12/12/98		7.12	29.82
4/24/99		7.17	29.77
12/18/99		8.51	28.43
7/22/00		9.41	27.53
1/29/01		7.23	29.71
7/28/01		8.63	28.31
2/3/02		7.99	28.95
7/23/02		10.17	26.77
1/20/03		6.76	30.18
7/30/03		10.13	26.81
1/27/04		7.65	29.29
7/22/04	39.95	11.29	28.66 (7)
1/20/05		6.24	33.71
7/20/05		9.03	30.92
1/26/06		6.49	33.46
7/27/06		8.80	31.15
1/24/07		8.75	31.20
7/18/07		11.29	28.66
2/15/08		6.79	33.16
7/25/08		12.40	27.55
1/23/09		9.72 (9)	30.23 (9)
MW-4 ("deep")			
3/25-26/96	36.46	14.14	22.32
10/7/96		22.31	14.15
1/15/97		13.78	22.68
6/23/97	36.47	20.90	15.57
10/6/97		22.77	13.60
12/12/98		17.16	19.31
4/24/99		14.55	21.92
12/18/99		20.46	16.01
7/22/00		20.67	15.80
1/29/01		18.06	18.41
7/28/01		20.80	15.67
2/3/02		15.53	20.94
7/23/02		20.26	16.21
1/20/03		15.26	21.21
7/30/03		20.23	16.24
1/27/04		17.15	19.32
7/22/04	39.49	21.28	18.21 (7)
1/20/05		14.20	25.29
7/20/05		17.64	21.85
1/26/06		14.42	25.07
7/27/06		18.51	20.98
1/24/07		18.43	21.06

Well Number and Date of Measurement	Reference Elevation (2)	Depth To Water	Relative Ground Water Elevation (2)
7/18/07		20.59	18.90
MW-4 ("deep") cont'			
2/15/08		15.11	24.38
7/25/08		21.12	18.37
1/23/09		19.99 (9)	19.50 (9)
MW-5 ("deep")			
3/25-26/96		15.63	21.14
10/7/96		22.86	13.91
1/15/97		17.33	19.44
6/23/97	36.77	21.91	14.86
10/6/97		24.26	12.51
12/12/98		20.66	16.11
4/24/99		17.19	19.58
12/18/99		22.71	14.06
7/22/00		21.42	15.35
1/29/01		20.79	15.98
7/28/01		21.07	15.70
2/3/02		17.67	19.10
7/23/02		20.16	16.61
1/20/03		17.21	19.56
7/30/03		20.32	16.45
1/27/04		18.34	18.43
7/22/04	39.79	20.90	18.89 (7)
1/20/05		15.89	23.90
7/20/05		17.97	21.82
1/26/06		15.49	24.30
7/27/06		18.50	21.29
1/24/07		18.76	21.03
7/18/07		20.12	19.67
2/15/08		16.35 (9)	23.44 (9)
7/25/08		20.57	19.22
1/23/09		19.42 (9)	20.37 (9)
MW-6 ("shallow")			
3/25-26/96	36.42	8.52	27.90
10/7/96		12.82	23.60
1/15/97		7.72	28.70
6/23/97	36.42	11.42	25.00
10/6/97		12.67	23.75
12/12/98		9.15	27.27
4/24/99		8.56	27.86
12/18/99		10.53	25.89
7/22/00		11.50	24.92
1/29/01		9.34	27.08
7/28/01		N/A	N/A

Well Number and Date of Measurement	Reference Elevation (2)	Depth To Water	Relative Ground Water Elevation (2)
MW-6 ("shallow") cont'			
2/3/02		9.32	27.10
7/23/02		11.33	25.09
1/20/03		8.49	27.93
7/30/03		11.35	25.07
1/27/04		9.20	27.22
7/22/04	39.44	11.13	28.31 (7)
1/20/05		7.65	31.79
7/20/05		10.02	29.42
1/26/06		8.13	31.31
7/27/06		10.59	28.85
1/24/07		10.09	29.35
7/18/07		11.06	28.38
2/15/08		8.17	31.27
7/25/08		11.30	28.14
1/23/09		9.82 (9)	29.62 (9)
MW-7 ("deep")			
6/23/97	36.83	19.93	16.90
10/6/97		21.43	15.40
12/12/98		16.56	20.27
4/24/99		14.48	22.35
12/18/99		19.40	17.43
7/22/00		19.85	16.98
1/29/01		17.59	19.24
7/28/01		20.05	16.78
2/3/02		15.89	20.94
7/23/02		19.57	17.26
1/20/03		15.36	21.47
7/30/03		19.21	17.62
1/27/04		16.84	19.99
7/22/04	39.84	20.17	19.67 (7)
1/20/05		14.44	25.40
7/20/05		17.26	22.58
1/26/06		14.55	25.29
7/27/06		18.13	21.71
1/24/07		18.03	21.81
7/18/07		19.76	20.08
2/15/08		15.44	24.40
7/25/08		20.50	19.34
1/23/09		19.08 (9)	20.76 (9)
MW-8 ("shallow")			
6/23/97	36.55	5.74	30.81
10/6/97		5.69	30.86
12/12/98		4.01	32.54
4/24/99		4.40	32.15

Well Number and Date of Measurement	Reference Elevation (2)	Depth To Water	Relative Ground Water Elevation (2)
MW-8 ("shallow") cont'			
12/18/99		4.91	31.64
7/22/00		5.47	31.08
1/29/01		3.01	33.54
7/28/01		4.92	31.63
2/3/02		3.82	32.73
7/23/02		5.11	31.44
1/20/03		3.57	32.98
7/30/03		5.23	31.32
1/27/04		4.26	32.29
7/22/04	39.49	5.42	34.07 (7)
1/20/05		3.39	36.10
7/20/05		5.14	34.35
1/26/06		3.70	35.75
7/27/06		5.63	33.86
1/24/07		4.87	34.62
7/18/07		5.41	34.08
2/15/08		3.77	35.72
7/25/08		5.67	33.82
1/23/09		3.55 (9)	35.94 (9)
MW-9 ("shallow")			
6/23/97	36.70	17.04	19.66
10/6/97		19.17	20.53
12/12/98		14.18	22.52
4/24/99		12.33	24.37
12/18/99		16.14	20.56
7/22/00		15.78	20.92
1/29/01		14.65	22.05
7/28/01		15.33	21.37
2/3/02		12.59	24.11
7/23/02		15.27	21.43
1/20/03		12.27	24.43
7/30/03		14.85	21.85
1/27/04		11.72	24.98
7/22/04	39.71	15.17	24.54 (7)
1/20/05		10.16	29.52
7/20/05		12.12	27.59
1/26/06		10.12	29.59
7/27/06		12.52	27.19
1/24/07		12.63	27.08 (8)
7/18/07		13.77	25.94 (8)
2/15/08		10.78	28.93
7/25/08		13.93	25.78
1/23/09		13.08 (9)	26.63 (9)

Notes on following page

Notes

(1) N/A = not applicable.
(2) Elevations from a survey conducted by Andreas Deak, California Licensed Land Surveyor, March 21, 1996 and June 23, 1997, City of Oakland datum; and by Virgil D. Chavez Land Surveying, California Licensed Land Surveyor, July 22, 2004, NGVD 29 datum.
(3) Well under pressure when locking cap removed; water level may not have been stabilized.
(4) Depth to water was measured over a 120 minute period; indicated depths appear to be stabilized readings.
(5) Surveyed elevations of wells MW 1 and MW-2 varied to 0.02 foot on March 21, 1996 survey as compared to February 11, 1994 survey; previously calculated measurements of elevation have **not** been modified to reflect the new survey data. Similar slight survey differences on June 20, 1997 have not been corrected.
(6) Well not stabilized (water level rising).
(7) (Initial elevation to NGVD datum).
(8) Corrected elevation.
(9) Well possibly not equilibrated.
(10) Approximate, measured in bailer
(11) Corrected 3/09

TABLE 1
GROUNDWATER ELEVATION SUMMARY
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date	Depth to Water (ft)	Well Casing Elevation (ft MSL)	LPH Apparent Thickness (ft)	Elevation (corrected*) (ft MSL)
MW-1	07/22/00	21.93	36.99	sheen	15.06
(deep)	01/29/01	19.49	36.99	0.01	17.51
	07/28/01	19.84	36.99	sheen	17.15
	02/03/02	16.03	36.99	0.01	20.97
	07/23/02	20.45	36.99	0.01	16.55
	01/20/03	15.08	36.99	0.02	21.92
	07/30/03	19.06	36.99	0.02	17.94
	01/27/04	16.45	36.99	sheen	20.54
	07/22/04	20.22	40.02	0.08	19.86
	01/20/05	13.92	40.02	sheen	26.10
	07/20/05	16.76	40.02	sheen	23.26
	01/26/06	14.40	40.02	0.01	25.63
	07/27/06	17.66	40.02	sheen	22.36
	01/24/07	17.43	40.02	0.02	22.60
	07/18/07	19.31	40.02	0.17	20.84
	02/15/08	14.80	40.02	0.02	25.23
	07/25/08	20.21	40.02	0.42	20.12
	1/23/2009 [1]	19.71	40.02	0.08	20.37
	07/20/09	19.58	40.02	0.125	20.53
	1/25/2010 [1]	13.69	40.02	0.125	26.42
	07/29/10	21.20	40.02	0.40	19.12
	01/31/11	19.12	40.02	0.21	21.06
	07/12/11	20.90	40.02	0.30	19.34
	01/17/12	20.89	42.91	0.06	22.06
MW-2	07/22/00	13.73	36.40	--	22.67
(deep)	01/29/01	12.25	36.40	--	24.15
	7/28/2001 [1]	16.73	36.40	--	19.67
	02/03/02	11.40	36.40	--	25.00
	07/23/02	13.42	36.40	--	22.98
	01/20/03	10.49	36.40	--	25.91
	07/30/03	13.47	36.40	--	22.93
	01/27/04	11.72	36.40	--	24.68
	07/22/04	13.86	39.42	--	25.56
	01/20/05	10.24	39.42	--	29.18
	07/20/05	12.34	39.42	--	27.08
	01/26/06	10.60	39.42	--	28.82
	07/27/06	13.02	39.42	--	26.40
	01/24/07	15.76	39.42	--	23.66
	07/18/07	13.91	39.42	--	25.51
	02/15/08	10.94	39.42	--	28.48
	07/25/08	14.29	39.42	--	25.13
	1/23/2009 [1]	20.17	39.42	--	19.25
	07/20/09	15.16	39.42	--	24.26
	1/25/2010 [1]	15.66	39.42	--	23.76
	07/29/10	12.58	39.42	--	26.84
	01/31/11	20.15	39.42	--	19.27
	07/12/11	11.12	39.42	--	28.30
	01/17/12	13.47	42.32	--	28.85

TABLE 1
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Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date	Depth to Water (ft)	Well Casing Elevation (ft MSL)	LPH Apparent Thickness (ft)	Elevation (corrected*) (ft MSL)
MW-3	07/22/00	9.41	36.94	--	27.53
(shallow)	01/29/01	7.23	36.94	--	29.71
	07/28/01	8.63	36.94	--	28.31
	02/03/02	7.99	36.94	--	28.95
	07/23/02	10.17	36.94	--	26.77
	01/20/03	6.76	36.94	--	30.18
	07/30/03	10.13	36.94	--	26.81
	01/27/04	7.65	36.94	--	29.29
	07/22/04	11.29	39.95	--	28.66
	01/20/05	6.24	39.95	--	33.71
	07/20/05	9.03	39.95	--	30.92
	01/26/06	6.49	39.95	--	33.46
	07/27/06	8.80	39.95	--	31.15
	01/24/07	8.75	39.95	--	31.20
	07/18/07	11.29	39.95	--	28.66
	02/15/08	6.79	39.95	--	33.16
	07/25/08	12.40	39.95	--	27.55
	1/23/2009 [1]	9.72	39.95	--	30.23
	07/20/09	10.81	39.95	--	29.14
	1/25/2010 [1]	7.67	39.95	--	32.28
	07/29/10	10.42	39.95	--	29.53
	01/31/11	9.57	39.95	--	30.38
	07/12/11	9.87	39.95	--	30.08
	01/17/12	11.05	42.85	--	31.80
MW-4	07/22/00	20.67	36.47	--	15.80
(deep)	01/29/01	18.06	36.47	--	18.41
	07/28/01	20.80	36.47	--	15.67
	02/03/02	15.53	36.47	--	20.94
	07/23/02	20.26	36.47	--	16.21
	01/20/03	15.26	36.47	--	21.21
	07/30/03	20.23	36.47	--	16.24
	01/27/04	17.15	36.47	--	19.32
	07/22/04	21.28	36.49	--	15.21
	01/20/05	14.20	36.49	--	22.29
	07/20/05	17.64	36.49	--	18.85
	01/26/06	14.42	36.49	--	22.07
	07/27/06	18.51	36.49	--	17.98
	01/24/07	18.43	36.49	--	18.06
	07/18/07	20.59	36.49	--	15.90
	02/15/08	15.11	36.49	--	21.38
	07/25/08	21.12	36.49	--	15.37
	1/23/2009 [1]	19.99	36.49	--	16.50
	07/20/09	20.58	36.49	--	15.91
	1/25/2010 [1]	15.07	36.49	--	21.42
	07/29/10	21.25	36.49	--	15.24
	01/31/11	18.24	36.49	--	18.25
	07/12/11	19.38	36.49	--	17.11
	01/17/12	22.34	42.39	--	20.05

TABLE 1
GROUNDWATER ELEVATION SUMMARY
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date	Depth to Water (ft)	Well Casing Elevation (ft MSL)	LPH Apparent Thickness (ft)	Elevation (corrected*) (ft MSL)
MW-5	07/22/00	21.42	36.77	--	15.35
(deep)	01/29/01	20.79	36.77	--	15.98
	07/28/01	21.07	36.77	--	15.70
	02/03/02	17.67	36.77	--	19.10
	07/23/02	20.16	36.77	--	16.61
	01/20/03	17.21	36.77	--	19.56
	07/30/03	20.32	36.77	--	16.45
	01/27/04	18.34	36.77	--	18.43
	07/22/04	20.90	39.79	--	18.89
	01/20/05	15.89	39.79	--	23.90
	07/20/05	17.97	39.79	--	21.82
	01/26/06	15.49	39.79	--	24.30
	07/27/06	18.50	39.79	--	21.29
	01/24/07	18.76	39.79	--	21.03
	07/18/07	20.12	39.79	--	19.67
	2/15/2008 [1]	16.35	39.79	--	23.44
	07/25/08	20.57	39.79	--	19.22
	1/23/2009 [1]	19.42	39.79	--	20.37
	07/20/09	20.35	39.79	--	19.44
	1/25/2010 [1]	16.33	39.79	--	23.46
	07/29/10	19.47	39.79	--	20.32
	01/31/11	17.70	39.79	--	22.09
	07/12/11	17.91	39.79	--	21.88
	01/17/11	21.25	42.69	sheen	21.44
MW-6	07/22/00	11.50	36.42	--	24.92
(shallow)	01/29/01	9.34	36.42	--	27.08
	07/28/01	NA	36.42	--	NA
	02/03/02	9.32	36.42	--	27.10
	07/23/02	11.33	36.42	--	25.09
	01/20/03	8.49	36.42	--	27.93
	07/30/03	11.35	36.42	--	25.07
	01/27/04	9.20	36.42	--	27.22
	07/22/04	11.13	39.44	--	28.31
	01/20/05	7.65	39.44	--	31.79
	07/20/05	10.02	39.44	--	29.42
	01/26/06	8.13	39.44	--	31.31
	07/27/06	10.59	39.44	--	28.85
	01/24/07	10.09	39.44	--	29.35
	07/18/07	11.06	39.44	--	28.38
	02/15/08	8.17	39.44	--	31.27
	07/25/08	11.30	39.44	--	28.14
	1/23/2009 [1]	9.82	39.44	--	29.62
	07/20/09	11.02	39.44	--	28.42
	1/25/2010 [1]	6.58	39.44	--	32.86
	07/29/10	10.72	39.44	--	28.72
	01/31/11	8.58	39.44	--	30.86
	07/12/11	9.32	39.44	--	30.12
	01/17/12	11.14	42.34	--	31.20

TABLE 1
GROUNDWATER ELEVATION SUMMARY
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date	Depth to Water (ft)	Well Casing Elevation (ft MSL)	LPH Apparent Thickness (ft)	Elevation (corrected*) (ft MSL)
MW-7	07/22/00	19.85	36.83	--	16.98
(deep)	01/29/01	17.59	36.83	--	19.24
	07/28/01	20.05	36.83	--	16.78
	02/03/02	15.89	36.83	--	20.94
	07/23/02	19.57	36.83	--	17.26
	01/20/03	15.36	36.83	--	21.47
	07/30/03	19.21	36.83	--	17.62
	01/27/04	16.84	36.83	--	19.99
	07/22/04	20.17	39.84	--	19.67
	01/20/05	14.44	39.84	--	25.40
	07/20/05	17.26	39.84	--	22.58
	01/26/06	14.55	39.84	--	25.29
	07/27/06	18.13	39.84	--	21.71
	01/24/07	18.03	39.84	--	21.81
	07/18/07	19.76	39.84	--	20.08
	02/15/08	15.44	39.84	--	24.40
	7/25/2008 [1]	20.50	39.84	--	19.34
	01/23/09	19.08	39.84	--	20.76
	07/20/09	20.20	39.84	--	19.64
	1/25/2010 [1]	15.30	39.84	--	24.54
	07/29/10	19.60	39.84	--	20.24
	01/31/11	17.63	39.84	--	22.21
	07/12/11	17.77	39.84	--	22.07
	01/17/12	21.63	42.72	sheen	21.09
MW-8	07/22/00	5.47	36.55	--	31.08
(shallow)	01/29/01	3.01	36.55	--	33.54
	07/23/02	5.11	36.55	--	31.44
	01/20/03	3.57	36.55	--	32.98
	07/30/03	5.23	36.55	--	31.32
	01/27/04	4.26	36.55	--	32.29
	07/22/04	5.42	36.55	--	31.13
	01/20/05	3.39	36.55	--	33.16
	07/20/10	5.14	39.49	--	34.35
	01/26/06	3.70	39.49	--	35.79
	07/27/06	5.63	39.49	--	33.86
	01/24/07	4.87	39.49	--	34.62
	07/18/07	5.41	39.49	--	34.08
	02/15/08	3.77	39.49	--	35.72
	07/25/08	5.67	39.49	--	33.82
	1/23/2009 [1]	3.55	39.49	--	35.94
	07/20/09	5.71	39.49	--	33.78
	1/25/2010 [1,2]	1.15	39.49	--	38.34
	07/29/10	5.40	39.49	--	34.09
	01/31/11	3.16	39.49	--	36.33
	07/12/11	4.63	39.49	--	34.86
	01/17/12	5.26	42.42	--	37.16

TABLE 1
GROUNDWATER ELEVATION SUMMARY
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date	Depth to Water (ft)	Well Casing Elevation (ft MSL)	LPH Apparent Thickness (ft)	Elevation (corrected*) (ft MSL)
MW-9 (shallow)	07/22/00	15.78	36.70	--	20.92
	01/29/01	14.65	36.70	--	22.05
	07/28/01	15.33	36.70	--	21.37
	02/03/02	12.59	36.70	--	24.11
	07/23/02	15.27	36.70	--	21.43
	01/20/03	12.27	36.70	--	24.43
	07/30/03	14.85	36.70	--	21.85
	01/27/04	11.72	36.70	--	24.98
	07/22/04	15.17	39.71	--	24.54
	01/20/05	10.16	39.71	--	29.55
	07/20/05	12.12	39.71	--	27.59
	01/26/06	10.12	39.71	--	29.59
	07/27/06	12.52	39.71	--	27.19
	01/24/07	12.63	39.71	--	27.08
	07/18/07	13.77	39.71	--	25.94
	02/15/08	10.78	39.71	--	28.93
	07/25/08	13.93	39.71	--	25.78
	1/23/2009 [1]	13.08	39.71	--	26.63
	07/20/09	13.63	39.71	--	26.08
	1/25/2010 [1]	11.35	39.71	--	28.36
	07/29/10	12.49	39.71	--	27.22
	01/31/11	11.98	39.71	--	27.73
	07/12/11	11.98	39.71	--	27.73
	01/17/12	12.57	42.61	--	30.04

Legend/Key:

ft MSL = feet above mean sea level
[1] = Well possibly not calibrated
[2] = Well not stabilized; water level rising

APPENDIX B

HISTORICAL SOIL ANALYTICAL DATA

TABLE 2A

SUMMARY OF ANALYTICAL TEST RESULTS - SOIL
Petroleum Hydrocarbons
(Results reported in parts per million (ppm), mg/kg) (1, 2)

Sample	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil and Grease (diesel)	HVOC
Initial UST Removal Confirmation Testing							
Gasoline USTs 11/17/89							
South tank W 9.5'	22	<0.025	<0.025	<0.075	<0.075	NA	NA
South tank E 7.5'	<10	<0.025	<0.025	<0.075	<0.075	NA	NA
Center tank 8'	20	<0.025	0.031	<0.075	0.200	NA	NA
North tank N 9.5'	<10	0.068	<0.025	<0.075	<0.075	NA	NA
North tank E 9.5'	21	2.4	2.9	0.320	1.7	NA	NA
Waste Oil UST 11/17/89							
1	NA	0.093	0.510	0.480	1.7	5500/760/360 (6)	**ND**
2	NA	0.160	0.400	0.810	2.4	7200/460 /190(6)	**ND**
Previous Kaldveer Investigation 8/3/90 and 8/13/90							
EB-1							
16.0	4	NA	NA	NA	NA	NA	NA
21.0	0.5	NA	NA	NA	NA	NA	NA
26.0	50	NA	NA	NA	NA	NA	NA
EB-2							
10.0	NA	NA	NA	NA	NA	4,200	NA
16.0	NA	NA	NA	NA	NA	ND	NA
EB-3							
10.0	NA	NA	NA	NA	NA	2,800	NA
16.0	NA	NA	NA	NA	NA	150	NA
Waste Oil Tank Overexcavation Confirmation Testing 5/16/91							
1 (south side)	190	ND	ND	0.58	1.3	15,000/2700/570 (6)	NA
2 (west side)	ND	ND	ND	ND	ND	1,200/61/<1 (6)	NA
3 (east side)	4.4	ND	ND	0.0083	0.021	11,000/4400/<1(6)	NA
4 (north side)	12	0.0042	ND	0.0091	0.021	410/250/<1 (6)	NA
5 (west floor)	270	ND	3.5	1.3	ND	5,500/670/140 (6)	NA
6 (east floor)	260	ND	ND	1.2	2.5	3,500/680/110 (6)	NA
Stockpile	11	0.0031	ND	0.044	0.094	1,500/710/<1 (6)	NA
Initial Hoexter Investigation January 1994							
MW-2							
10.5-11.0	910	ND	0.76	4.2	6.1	38	NA
16.0-16.5	ND	ND	0.022	ND	ND	ND	NA
20.5-21.0							
25.5-26.0 (3)	ND	ND	ND	ND	ND	ND	NA

Sample	TPH-Gasoline	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil and Grease	HVOC
MW-3								
10.5-11.0	ND	ND	0.020	ND		ND	ND	NA
20.5-21.0	1.2	0.17	0.047	ND		0.085	NA	NA
April, 1996 Hoexter Investigation								
EB-4								
7.5-8.0	300	ND	ND	3.3		8.3	820	ND
14.5-15.0	63	ND	ND	ND		0.82	3600	Det (5)
EB-5								
3.5-4.0	ND	ND	ND	ND		ND	NA	NA
7.5-8.0	130	ND	ND	0.55		1.3	NA	NA
12.5-13.0	120	ND	ND	0.84		1.4	NA	NA
18.0-18.5								
19.5-20.0 (3)	4.5	0.025	0.015	0.028		0.078	240	Det (5)
EB-7								
9.0-9.5	ND	ND	ND	ND		ND	ND	NA
14.0-14.5	ND	ND	ND	ND		ND	NA	NA
20.0-20.5								
23.0-23.5 (3)	130	ND	0.38	1.9		2.9	620	ND
MW-4								
16.0-16.5	13	NA	0.038	0.015	ND	0.023	NA	NA
26.0-26.5								
31.0-31.5 (3)	68	NA	0.21	0.092	0.15	0.39	190	NA
36.0-36.5	5.4	NA	ND	0.008	0.015	0.011	NA	NA
MW-5								
11.0-11.5	9.7	NA	ND	0.019	ND	0.038	NA	NA
21.0-21.5	ND	NA	ND	ND	ND	ND	NA	NA
21.0-21.5								
35.5-36.0 (3)	NA	NA	NA	NA	NA	NA	ND	NA
MW-6								
11.0-11.5								
16.0-16.5 (3)	10	NA	0.037	0.033	0.18	0.46	ND	NA
June, 1997 Hoexter Investigation								
MW-7								
9.0-9.5	ND	ND	ND	ND	ND	ND	ND	Det (5)
MW-8								
9.0-9.5	71	ND	0.095	0.087	0.13	0.28	2400	Det (5)
Hydraulic Lift Overexcavation Confirmation Testing EKI July 2001								
								TPH-Diesel
NW 8.5	82 (7)	NA	<0.25	NA	0.79	0.53	490	160 (7)
NE 8.5	110 (7)	NA	2.4	NA	<0.25	3	310	74 (7)
SW 8.0	47 (7)	NA	<0.25	NA	<0.25	<5	790	200 (7)
SE 9.0	490 (7)	NA	<0.5	NA	2,4	4,4	3,300	1,100 (7)
Bottom 9.5	<1	NA	<0.005	NA	<0.005	<0.005	<50	<50

Notes

(1) ND = non-detect
(2) NA = not applicable
(3) Composite
(4) Chromatogram patterns/comments
    G - gas
    WG - weathered gas
    NGM - non-gas mix, > C9
    NDM - non-diesel mix, generally C7 - C12/13
(5) Detected: see Table 2B
(6) TOG/Motor Oil/Diesel
(7) Laboratory reported that the chromatogram patterns did not match gasoline or diesel standards

TABLE 2B

SUMMARY OF ANALYTICAL TEST RESULTS - SOIL
HALOGENATED VOLATILE ORGANIC COMPOUNDS

(Results reported in parts per **million**, mg/kg) (1) (2)

Sample	CA	1,2 DCB	1,2 DCA	cis 1,2 DCE	trns 1,2 DCE	1,2 DCP	PCE	TCE	VCL
EB-4									
7.5-8.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
14.5-15.0	ND	1.7	ND	ND	ND	ND	1.8	0.82	ND
EB-5									
18.0-18.5									
19.5-20.0 (3)	ND	ND	ND	ND	ND	ND	0.52	ND	ND
EB-7									
20.0-20.5									
23.0-23.5 (3)	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-7									
9.0-9.5	ND	ND	ND	ND	ND	ND	ND	0.0081	ND
MW-8									
9.0-9.5	ND	0.055	ND	0.031	ND	ND	1.5	0.22	ND

Notes

(1) ND = non-detect
(2) NA = not applicable
(3) Composite
(4) Abbreviations as follows:

CA	Chloroethane
1,2 DCB	1,2 Dichlorobenzene
1,2 DCA	1,2 Dichloroethane
cis 1,2 DCE	cis 1,2 Dichloroethene
trans 1,2 DCE	trans 1,2 Dichloroethene
1,2 DCP	1,2 Dichloropropane
PCE	Tetrachloroethene (perchloroethene)
TCE	Trichloroethene
VCL	Vinyl chloride

APPENDIX C

DECEMBER 2011 SOIL VAPOR ANALYTICAL SAMPLING RESULTS

TABLE 1
SOIL VAPOR ANALYTICAL RESULT SUMMARY
Former Grimit Auto
1970 Seminary Avenue, Oakland, California

Sample ID	Sample Depth (feet bgs)	Date	TPHg ($\mu g/m^3$)	Benzene ($\mu g/m^3$)	Toluene ($\mu g/m^3$)	Total Xylenes ($\mu g/m^3$)	PCE ($\mu g/m^3$)	Freon 11 ($\mu g/m^3$)	Acetone ($\mu g/m^3$)	Chlorobenzene ($\mu g/m^3$)
Environmental Screening Level (ESL)[1] (commercial property/residential property)			**29,000/10,000**	**280/84**	**180,000/63,000**	**58,000/21,000**	1,400/410	NONE	**1,800,000 / 660,000**	**580,000 / 210,000**
SV-1A	4.5-5	12/13/11	<170	<2.6	8.6	<3.6	**660**	<4.6	14	12
SV-1B	6.25-6.75	12/13/11	<170	<2.7	13	<3.6	**490**	<4.7	12	17
SV-2A	4.5-5	12/13/11	<170	<2.7	9.9	<3.6	240	43	<8.0	9.1
SV-3A	4.5-5	12/13/11	<190	<2.9	7.6	<4.0	160	<5.1	<8.7	8.9
SV-3B	8.25-8.75	12/13/11	10,000	6.7	32	5.8	78	<4.8	17	30

Sample ID	Sample Depth (feet bgs)	Date	Methylene Chloride ($\mu g/m^3$)	Carbon Disulfide ($\mu g/m^3$)	2,2,4-TMP ($\mu g/m^3$)	Oxygen (percent)	Carbon Dioxide (percent)	Methane (percent)
Environmental Screening Level (ESL)[1] (commercial property/residential property)			**17,000/5,200**	**NONE**	**NONE**			
SV-1A	4.5-5	12/13/11	<2.8	<10	<3.8	20	0.75	<0.00016
SV-1B	6.25-6.75	12/13/11	<2.9	<10	<3.9	20	0.83	<0.00017
SV-2A	4.5-5	12/13/11	<2.9	42	<3.9	18	1.2	<0.00017
SV-3A	4.5-5	12/13/11	<3.2	<11	<4.3	19	1.7	<0.00018
SV-3B	8.25-8.75	12/13/11	3.1	72	480	18	1.8	<0.00017

TABLE 1

SOIL VAPOR ANALYTICAL RESULT SUMMARY

Former Grimit Auto

1970 Seminary Avenue, Oakland, California

Sample ID	Sample Depth (feet bgs)	Date	TPHg ($\mu g/m^3$)	Benzene ($\mu g/m^3$)	Toluene ($\mu g/m^3$)	Total Xylenes ($\mu g/m^3$)	PCE ($\mu g/m^3$)	Freon 11 ($\mu g/m^3$)	Acetone ($\mu g/m^3$)	Chlorobenzene ($\mu g/m^3$)

Legend:

TPHg = Total petroleum hydrocarbons as gasoline

PCE = Tetrachloroethene

2,2,4-TMP = 2,2,4-Trimethylpentane

ug/m^3 = micrograms per cubic meter

Analytical Laboratory

Air Toxics, LTD. (NELAP 02110CA)

Notes:

[1] = *RWQCB-SF Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final – November 2007 (revised May 2008)* ; Table E-2, Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (lowest commercial established risk value)

VOCs not included on this table had non-detectable concentrations reported by laboratory

BOLD font indicates analyte exceeds residential ESL for PCE

Analytical Methods

VOC's presented on this table were analyzed using EPA Method TO-15 Modified

Atmospheric gases presented on this table were analyzed using ASTM Method D-1946 Modified

APPENDIX D

HISTORICAL GROUNDWATER ANALYTICAL DATA

TABLE 3A

SUMMARY OF ANALYTICAL TEST RESULTS - GROUND WATER
Petroleum Hydrocarbons
(Results reported in parts per **billion**, ppb/ug/l) (1)

Well and Date	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil & Grease HVOC (7)
MW-1 ("deep")							
8/6/90 (2)	54,000	NA	3,500	3,200	1,900	9,400	7,600
1/28/92	2,000,000	NA	7,400	17,000	28,000	120,000	7,500 (5)
4/27/92 (3)	500,000	NA	3,400	6,400	10,000	45,000	440,000 (6)
4/27/92 (4)	175,000	NA	4,200	4,400	3,200	14,600	N/A
8/10/92	170,000	NA	4,200	4,200	3,300	15,900	120,000 (6)
2/11/94	1,800,000	NA	ND<5,000	5,100	5,200	23,900	16,000 (6)
9/9/94	23,000,000	NA	56,000	61,000	9,100	137,000	880,000 (6)
12/28/94	55,000	NA	3,700	5,300	1,400	5,800	83,000 (6)
4/13/95	45,000	NA	2,800	3,400	1,200	5,100	50,000 (5)
11/1/95	44,000	NA	2,600	3,400	1,400	5,900	52,000 (5)
3/25/96	45,000	NA	3,000	4,100	1,600	6,800	46,000 (5) (7)
10/8/96	55,000	490	3,300	4,500	1,700	7,100	11,000 (5) (7)
1/16/97	48,000	310	2,600	3,200	1,300	5,300	110,000 (5) (7)
6/23/97	40,000	ND<100	2,300	3,500	1,500	6,300	190,000 (5) (7)
10/7/97	45,000	ND<680	2,500	3,600	1,700	6,800	150,000 (5) (7)
12/12/98	39,000	ND<1,500	3,000	100	1,400	5,800	67,000 (5) (7)
4/24/99	33,000	ND<200	2,300	3,300	1,100	4,100	140,000 (5) (7)
4/24/99 (8)	41,000	1,100	2,500	3,700	1,500	5,700	N/A
12/18/99	43,000	ND<200	2,600	3,800	1,400	5,800	110,000 (5) (7)
7/22/00	37,000	ND<200	2,200	2,600	1,300	5,200	320,000 (5) (7)
1/29/01	36,000	ND<200	2,100	2,300	1,200	4,500	76,000 (5) (7)
7/28/01	99,000	ND<250	1,500	2,300	1,700	6,600	86,000 (5) (7)
2/3/02	42,000	ND<500	1,200	1,300	1,100	3,900	42,000 (5) (7)
7/23/02	53,000	ND<1,000	1,700	2,800	1,500	5,100	170,000 (5) (7)
1/20/03	33,000	ND<2,000	2,100	2,500	1,300	4,400	65,000 (5) (7)
7/30/03	24,000	ND<500	1,300	1,500	760	2,700	55,000 (5)
1/27/04	21,000	ND<250	1,600	1,500	1,100	3,200	220,000 (5)
7/22/04	31,000	ND<1,000	1,500	1,700	1,200	4,100	780,000 (5) (7)
1/20/05	25,000	ND<270	1,300	1,400	1,000	2,800	72,000 (5) (7)
7/20/05A (11)	22,000	ND<150	1,100	1,600	830	2,600	500,000 (5) (7)
7/20/05B (11)	24,000	ND<1,000	830	960	670	2,200	N/A
1/26/06	28,000	ND<500	1,600	1,500	1,200	3,500	64,000 (5) (7)
7/27/06 (A) (12)	25,000	ND<250	810	1,000	1,100	3,200	N/A
7/27/06 (C) (12)	15,000	ND<400	880	1,200	950	2,800	2,500,000 (5) (7)
1/25/07	32,000	ND<700	990	960	1100	3,500	170,000 (5)
7/19/07	32,000	ND<1,200	600	740	950	2,500	1,100,000 (5)
2/15/08	28,000	ND<900	930	780	940	2,500	3,500,000 (5) (7)
7/25/08 (1A) (13)	28,000	ND<700	540	580	750	2,000	(see table 6)
7/25/08(1D) (13)	28,000	ND<1,000	930	1,000	1,200	3,700	N/A
1/23/09	52,000	ND<350	420	350	1,400	3,600	1,000,000 (5) (7)
MW-2 ("deep")							
2/11/94	130	NA	22	1.1	5.2	7.3	ND (6)
9/9/94	1,000	NA	89	ND	ND	6.9	ND (6)
12/28/94	330	NA	100	3.8	5.4	4.7	5100 (6)
4/13/95	1,300	NA	280	6.9	33	23	ND (5)
11/1/95	100	NA	9.9	ND	ND	ND	ND (5)
3/25/96	4,500	NA	470	57	220	280	ND (5) (7)
10/8/96	710	41	1.9	0.54	1.0	1.0	ND (5) (7)
1/16/97	330	12	41	2.4	1.3	9.9	ND (5) (7)
6/23/97	280	10	12	0.69	ND	13	NA (7)
10/7/97	320	ND<35	4.5	ND	ND	ND	NA (7)
12/12/98	290	ND<11	21	0.76	10	19	ND (5) (7)
4/24/99	360	21	36	1.3	9.2	19	ND<5000 (5) (7)
12/18/99	210	ND<200	13	ND	2.9	7.7	ND<5000 (5) (7)
7/22/00	180	ND<5	10	ND	4.5	6.0	ND<5000 (5) (7)

Well and Date	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil & Grease HVOC (7)
MW-2 ("deep") continued							
1/29/01	130	ND<5	16	ND	1.9	3.8	ND<5000 (5) (7)
7/28/01	ND<50	ND<5	2.7	ND	0.64	0.69	ND<5000 (5) (7)
2/3/02	140	ND<5	5.5	ND	9.0	12	ND<5000 (5) (7)
7/23/02	780	ND<15	52	2.0	44	6.2	ND<5000 (5) (7)
1/20/03	1,900	ND<50	120	10	120	94	ND<5000 (5) (7)
7/30/03	710	ND<20	43	1.8	24	5.9	ND<5000 (5) (7)
1/27/04	180	ND<5	10	ND<0.5	3.2	10	ND<5000 (5) (7)
7/22/04	ND<50	ND<5	0.90	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
1/20/05	96	ND<5	1.3	ND<0.5	1.5	1.0	ND<5000 (5) (7)
7/20/05	430	ND<5	17	1.5	2.3	1.2	ND<5000 (5) (7)
1/26/06	120	ND<5	5.3	ND<0.5	0.64	3.3	ND<5000 (5) (7)
7/27/06	89	ND<5	3.1	ND<0.5	1.93.1	ND<5000 (5) (7)	
1/25/07	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
7/19/07	100	ND<5	1.1	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
2/15/08	460	ND<15	25	0.75	3.7	3.2	ND<5000 (5) (7)
7/25/08	ND<50	ND<5	0.66	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
1/23/09	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
MW-3 ("shallow")							
2/11/94	ND	NA	ND	ND	ND	ND	ND (6)
9/9/94	710	NA	10	ND	ND	3.5	ND (6)
12/28/94	2,300	NA	7.8	ND	130	73	ND (6)
4/13/95	1,700	NA	2.9	ND	61	24	ND (5)
11/1/95	1,100	NA	4.4	ND	27	22	ND (5)
3/25/96	2,300	NA	4.0	0.96	120	65	ND (5) (7)
10/8/96	160	ND	ND	0.5	1.2	0.77	ND (5) (7)
1/16/97	1,800	7.1	2.8	0.68	48	66	ND<5000 (5) (7)
6/23/97	ND	ND	ND	ND	ND	ND	NA (7)
10/7/97	ND	ND	ND	ND	ND	ND	NA (7)
12/12/98	1,900	ND	1.8	0.78	78	42	ND (5) (7)
4/24/99	2,100	ND	1.5	0.85	79	43	ND<5000 (5) (7)
12/18/99	330	ND	0.51	ND	ND	ND	ND<5000 (5) (7)
7/22/00	230	ND	0.89	2.4	ND	ND	ND<5000 (5) (7)
1/29/01	450	ND<5	1.1	1.6	11	3.6	ND<5000 (5)
7/28/01	ND<50	ND<5	ND<0.5	ND	ND	ND	ND<5000 (5)
2/3/02	98	ND<5	ND<0.5	ND	ND	ND	ND<5000 (5)
7/23/02	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5)
1/20/03	700	ND<5	1.6	0.56	41	21	ND<5000 (5)
7/30/03	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5)
1/27/04	85	ND<5	ND<0.5	ND<0.5	ND<0.5	0.87	ND<5000 (5)
7/22/04	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5)
1/20/05	440	ND<5	0.81	0.67	7.1	2.6	ND<5000 (5)
7/20/05	130	ND<5	ND<0.5	1.2	ND<0.5	ND<0.5	ND<5000 (5)
1/26/06	790	ND<5	1.0	1.0	12	3.4	ND<5000 (5)
7/27/06	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5)
1/25/07	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5)
7/19/07	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5)
2/15/08	74	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5)
7/25/08	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5)
1/23/09	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5)
MW-4 ("deep")							
3/26/96	9,900	NA	4,000	40	71	100	ND (5) (7)
10/8/96	7,800	140	3,900	33	31	40	ND (5) (7)
1/16/97	4,800	84	1,900	21	2.5	27	5,200 (5) (7)
6/23/97	6,200	160	2,800	20	20	23	ND (5) (7)
10/7/97	4,400	85	1,800	14	18	14	ND (5) (7)
12/12/98	3,500	110	1,500	13	39	14	ND (5) (7)
4/24/99	3,100	ND<10	1,700	22	67	21	7,500 (5) (7)
12/18/99	2,600	33	1,000	12	32	10	ND<5000 (5) (7)
7/22/00	2,700	60	940	14	31	12	7,000 (5) (7)
1/29/01	2,500	ND<5	980	11	35	5	ND<5000 (5) (7)
7/28/01	1,100	27	250	6.3	19	4.8	90,000 (5) (7)

Well and Date	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil & Grease HVOC (7)
MW-4 ("deep") continued							
2/3/02	2,100	ND<25	890	23	41	20	7,400 (5) (7)
7/23/02	1,200	ND<17	490	11	22	8.8	ND<5000 (5) (7)
1/20/03	1,900	ND<80	740	11	32	12	ND<5000 (5) (7)
7/30/03	1,700	ND<150	440	8.9	18	6.1	ND<5000 (5) (7)
1/27/04	1,100	ND<10	350	10	17	5.0	31,000 (5) (7)
7/22/04	910	ND<100	210	7.9	19	6.5	54,000 (5) (7)
1/20/05	1,900	ND<200	550	36	63	43	ND<5000 (5) (7)
7/20/05	1,300	ND<25	310	11	36	12	ND<5000 (5) (7)
1/26/06	1,900	ND<75	500	16	40	12	26,000 (5) (7)
7/27/06	980	ND<20	340	13	18	8.8	85,000 (5) (7)
1/25/07	910	ND<120	230	5	15	4	7,100 (5) (7)
7/19/07	960	ND<100	150	3.9	9.9	3.4	ND<5000 (5) (7)
2/15/08	1,500	ND<150	310	12	18	11	12,000 (5) (7)
7/25/08	1,000	ND<110	54	3.1	5.5	2.0	7,800 (5) (7)
1/23/09	1,000	ND<150	200	5	9.3	2.3	ND<5,000 (5) (7)
MW-5 ("deep")							
3/26/96	1,200	NA	43	8.2	83	95	ND (5) (7)
10/8/96	6,700	190	260	92	410	370	ND (5) (7)
1/16/97	3,000	90	150	68	190	180	ND (5) (7)
6/23/97	12,000	150	410	170	920	800	NA (7)
10/7/97	10,000	ND<480	310	62	530	500	NA (7)
12/12/98	11,000	ND<660	400	120	740	480	ND (5) (7)
4/24/99	9,300	ND<100	390	290	820	770	ND<5000 (5) (7)
12/18/99	7,000	ND<100	250	52	500	300	ND<5000 (5) (7)
7/22/00	14,000	ND<100	290	140	770	630	12,000 (5) (7)
1/29/01	8,200	ND<5	180	42	420	250	11,000 (5) (7)
7/28/01	9,100	ND<70	190	67	540	430	ND<5000 (5) (7)
2/3/02	11,000	ND<100	250	160	730	540	ND<5000 (5)
7/23/02	6,400	ND<110	160	67	540	390	ND<5000 (5)
1/20/03	7,300	ND<170	190	80	480	310	ND<5000 (5) (7)
7/30/03	8,700	ND<300	170	35	470	300	ND<5000 (5) (7)
1/27/04	7,600	ND<400	220	50	460	290	ND<5000 (5)
7/22/04	10,000	ND<250	200	38	510	400	ND<5000 (5)
1/20/05	8,500	ND<250	130	63	430	280	ND<5000 (5) (7)
7/20/05	7,900	74	110	47	350	250	ND<5000 (5) (7)
1/26/06	8,000	ND<350	170	53	410	270	ND<5000 (5)
7/27/06	5,300	ND<150	110	35	380	250	ND<5000 (5)
1/25/07	1,300	ND<30	17	6.1	34	46	ND<5,000 (5) (7)
7/19/07	10,000	ND<210	99	15	250	200	ND<5,000 (5) (7)
2/15/08	9,900	ND<200	120	26	290	200	ND<5,000 (5) (7)
7/25/08	5,600	ND<110	120	20	210	190	ND<5,000 (5) (7)
1/23/09	6,600	ND<180	68	18	220	110	ND<5,000 (5) (7)
MW-6 ("shallow")							
3/26/96	9,900	NA	1,000	150	470	720	ND (5) (7)
10/8/96	1,300	57	120	2.3	1.4	4.0	ND (5) (7)
1/15/97	6,500	220	570	65	170	630	ND (5) (7)
6/23/97	3,100	100	410	16	110	140	NA (7)
10/7/97	960	ND<74	78	3.4	1.8	5.8	NA (7)
12/12/98	2,500	ND<160	230	10	92	110	ND (5) (7)
4/24/99	2,900	ND<10	430	33	160	200	ND<5000 (5) (7)
12/18/99	2,300	ND<200	170	6.6	56	63	ND<5000 (5) (7)
7/22/00	2,200	ND<10	290	9.6	80	43	ND<5000 (5) (7)
1/29/01	2,500	ND<10	220	11	150	230	ND<5000 (5) (7)
7/28/01	NA	NA	NA	NA	NA	NA	NA
2/3/02	2,500	ND<50	290	18	88	330	ND<5000 (5) (7)
7/23/02	1,100	ND<20	160	6.5	54	35	ND<5000 (5) (7)
1/20/03	3,800	ND<80	370	33	220	300	ND<5000 (5) (7)
7/30/03	2,000	ND<70	250	4.8	50	24	ND<5000 (5) (7)
1/27/04	2,600	ND<400	420	20	170	180	ND<5000 (5) (7)
7/22/04	1,200	ND<45	110	3.2	36	17	ND<5000 (5) (7)
1/20/05	3,100	ND<25	280	21	180	250	ND<5000 (5) (7)

Well and Date	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil & Grease HVOC (7)
MW-6 ("shallow") continued							
7/20/05	730	ND<10	66	4.4	25	26	ND<5000 (5) (7)
1/26/06	1,900	ND<60	180	12	120	140	ND<5000 (5) (7)
7/27/06	670	ND<9	120	5	17	15	ND<5000 (5) (7)
1/25/07	650	ND<15	99	2.7	20	16	ND<5000 (5) (7)
7/19/07	4,200	ND<50	360	18	47	55	ND<5000 (5) (7)
2/15/08	2,100	ND<60	200	10	100	97	ND<5000 (5) (7)
7/25/08	370	ND<10	27	3.1	2.2	2.7	ND<5,000 (5) (7)
1/23/09	330	ND<20	69	3.6	11	8.1	ND<5,000 (5) (7)
MW-7 ("deep")							
6/23/97	8,700	ND<20	950	260	520	380	ND (5) (7)
10/7/97	7,500	ND<310	1,100	86	280	150	ND (5) (7)
12/12/98	5,000	ND<190	640	43	200	55	ND (5) (7)
4/24/99	5,500	ND<10	640	180	290	210	ND<5000 (5) (7)
12/18/99	5,500	ND<10	570	27	91	31	ND<5000 (5) (7)
7/22/00	7,400	ND<80	620	180	240	180	10,000 (5) (7)
1/29/01	4,000	ND<10	410	21	22	21	7,000 (5) (7)
7/28/01	4,200	ND<70	540	120	110	110	ND<5000 (5) (7)
2/3/02	6,300	ND<25	560	110	190	140	ND<5000 (5) (7)
7/23/02	3,400	ND<50	440	6.3	87	61	ND<5000 (5) (7)
1/20/03	4,500	ND<170	380	32	30	36	ND<5000 (5) (7)
7/30/03	5,300	ND<400	460	34	43	52	ND<5000 (5) (7)
1/27/04	3,000	ND<90	350	15	13	18	ND<5000 (5) (7)
7/22/04	3,600	ND<170	440	10	10	25	ND<5000 (5) (7)
1/20/05	3,200	ND<25	320	31	29	34	19,000 (5) (7)
7/20/05	8,400	ND<500	550	230	300	410	ND<5000 (5) (7)
1/26/06	3,300	ND<300	450	31	45	37	32,000 (5) (7)
7/27/06	3,800	ND<240	530	85	38	94	ND<5,000 (5) (7)
1/25/07	2,500	ND<60	320	6.9	3.3	10	ND<5,000 (5) (7)
7/19/07	2,700	ND<90	280	10.0	5.9	18	ND<5,000 (5) (7)
2/15/08	2,900	ND<120	230	15	12	18	27,000 (5) (7)
7/25/08	3,700	ND<100	400	25	26	87	ND<5,000 (5) (7)
1/23/09	2,500	NC<30	230	5.4	2.9	5.6	ND<5,000 (5) (7)
MW-8 ("shallow")							
6/23/97	610	5.9	25	1.4	4.3	2.4	ND (5) (7)
10/7/97	120	ND	6.9	ND	ND	ND	ND (5) (7)
12/12/98	ND	ND	ND	ND	ND	ND	ND (5) (7)
4/24/99	ND	ND	ND	ND	ND	ND	ND<5000 (5) (7)
12/18/99	ND	ND	ND	ND	ND	ND	ND<5000 (5) (7)
7/22/00	ND	ND	ND	ND	ND	ND	ND<5000 (5) (7)
1/29/01	ND	ND<5	0.87	ND	ND	ND	ND<5000 (5) (7)
7/28/01	ND	ND<5	ND	ND	ND	ND	ND<5000 (5) (7)
2/3/02	ND	16	ND	ND	ND	ND	ND<5000 (5) (7)
7/23/02	ND<50	ND<5	0.87	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
1/20/03	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
7/30/03	ND<50	ND<5	2.0	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
1/27/04	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
7/22/04	ND<50	ND<5	1.2	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
1/20/05	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
7/20/05	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
1/26/06	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
7/27/06	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
1/25/07	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
7/19/07	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
2/15/08	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
7/25/08	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
1/23/09	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)

Well and Date	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil & Grease HVOC (7)
MW-9 ("shallow")							
6/23/97	32,000	250	340	280	1,500	4,300	ND (5) (7)
10/7/97	33,000	ND<690	880	350	1900	4,700	ND (5) (7)
12/12/98	3,400	ND<78	160	14	220	210	ND (5) (7)
4/24/99	3,100	22	130	18	220	190	ND (5) (7)
12/18/99	7,500	100	220	44	440	650	ND<5000 (5) (7)
7/22/00	4,900	ND<10	93	15	240	250	71,000 (5) (7)
1/29/01	3,800	ND<10	160	35	260	310	5,000
7/28/01	5,700	ND<20	43	27	210	420	ND<5000 (5) (7)
2/3/02	7,800	ND<50	98	51	450	640	ND<5000 (5) (7)
7/23/02	2,300	ND<50	29	14	120	96	ND<5000 (5) (7)
1/20/03	5,000	ND<80	76	25	350	340	ND<5000 (5)
7/30/03	570	ND<5	7.2	1.2	14	4.8	ND<5000 (5) (7)
1/27/04	820	ND<20	14	2.6	35	35	ND<5000 (5) (7)
7/22/04	460	ND<25	5.3	1.2	4.0	7.2	ND<5000 (5) (7)
1/20/05a	330	ND<5	6.2	1.5	8.9	12	ND<5000 (5) (7)
1/20/05b (10)	150	ND<5	1.5	0.55	2.6	3.7	N/A
7/20/05	260	ND<5	1.7	2.0	ND<0.5	1.2	ND<5000 (5) (7)
1/26/06	260	ND<5	1.0	2.9	ND<0.5	0.64	ND<5000 (5)
7/27/06	410	ND<5	1.1	1.4	0.52	ND<0.5	ND<5000 (5)
1/25/07	440	ND<5	1.4	1.5	2.9	7.5	ND<5000 (5)
7/19/07	300	ND<20	1.4	2.4	0.51	ND<0.5	ND<5000 (5)
2/15/08	490	ND<5	2.8	5.2	7.1	22	ND<5000 (5)
7/25/08	520	ND<20	1.0	4.1	0.63	ND<0.5	ND<5000 (5)
1/23/09	250	ND<15	ND<0.5	3.7	ND.0.5	1.5	ND<5000 (5)
EB-4 ("grab" gw sample)							
3/8/96	15,000	NA	780	840	1,300	590	7,500 (5) (7)
MCL	NA	13/5 (9)	1	150	700	1,750	NA

Notes

(1) ND - non-detect; N/A - not applicable
(2) Kaldveer Associates report, September, 1990
(3) Sequoia Analytical Laboratory
(4) Applied Remediation Laboratory
(5) Gravimetric Method
(6) Infrared Method
(7) **HVOC detected:** see Table 3
(8) Free-phase product observed in bailer (additional sample)
(9) Primary and secondary MCL, respectively.
(10) Supplemental sample following initial bailer volume removal.
(11) Sample discharged from bottom of bailer (**A**); and top of bailer (**B**)
(12) Sample discharged from top of bailer (**A**); and bottom of bailer (**C**)
(13) Sample collected from top of water column below floating phase product (**1A**) and from well depth of 32' (**1D**)

TABLE 3B

SUMMARY OF ANALYTICAL TEST RESULTS - GROUND WATER
Fuel Additive Compounds (Oxygenated Volatile Organics) (3)
(Results reported in parts per **billion** (ppb), ug/l) (1)

Sample	DIPE	ETBE	MTBE	TAME	TBA	EDB	1,2-DCA	Ethanol	Methanol
MW-1 ("deep")									
7/25/08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1/23/09	ND<5.0	ND<5.0	ND<5.0	ND<5.0	**61**	ND<5.0	ND<5.0	ND<500	ND<5000
MW-2 ("deep")									
7/25/08	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	**1.3**	ND<50	ND<500
1/23/09	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**2.4**	ND<0.5	**7.8**	ND<50	ND<500
MW-3 ("shallow")									
7/25/08	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5	ND<50	ND<500
1/23/09	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5	ND<50	ND<500
MW-4 ("deep")									
7/25/08	ND<2.5	ND<2.5	**12**	ND<2.5	**34**	ND<2.5	ND<2.5	ND<250	ND<2500
1/23/09	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<20	ND<0.5	ND<5.0	ND<500	ND<5000
MW-5 ("deep")									
7/25/08	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<20	ND<0.5	ND<5.0	ND<500	ND<5000
1/23/09	ND<1.0	ND<1.0	ND<1.0	ND<1.0	**16**	ND<1.0	**2.6**	ND<100	ND<1000
MW-6 ("shallow")									
7/25/08	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**9.1**	ND<0.5	**0.75**	ND<50	ND<500
1/23/09	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**8.6**	ND<0.5	ND<0.5	ND<50	ND<500
MW-7 ("deep")									
7/25/08	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<20	ND<5.0	ND<5.0	ND<500	ND<5000
1/23/09	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<20	ND<0.5	ND<5.0	ND<500	ND<5000
MW-8 ("shallow")									
7/25/08	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	ND<0.5	ND<0.5	ND<50	ND<500
1/23/09	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5	ND<50	ND<500
MW-9 ("shallow")									
7/25/08	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	ND<0.5	ND<0.5	ND<50	ND<500
1/23/09	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	ND<0.5	ND<0.5	ND<50	ND<500

Notes on following page

Notes

1 - **ND** - non-detect.
2 - **N/A** - not applicable.
3 - Explanations of abbreviations:

Abbreviation	Explanation
MTBE	Methyl tertiary-Butyl Ether
Ethanol	Ethanol
Methanol	Methanol
TBA	tertiary-Butanol
DIPE	Di-isopropyl ether
ETBE	Ethyl tertiary-Butyl Ether
TAME	tertiary-Amyl Methyl Ether
EDB	Ethylene Dibromide (1,2-Dibromoethane)
1,2-DCA	1,2-Dichloroethane

TABLE 3C

SUMMARY OF ANALYTICAL TEST RESULTS – GROUND WATER
Halogenated Volatile Organic Compounds (HVOC)
(Results reported in parts per **billion**, ppb/ug/l) (1) (2)

Well and Date	CA	1,2 DCB	1,2 DCA	cis 1,2 DCE	trns 1,2 DCE	1,2 DCP	PCE	TCE	VCL
MW-1 ("deep")									
3/25/96	ND<5	7.2	5.3	82	ND<5	ND<5	ND<5	7.8	25
10/8/96	ND<20	ND<20	ND<20	45	ND<20	ND<20	ND<20	ND<20	26
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97	ND<2	10	4.1	130	3.7	ND<2	5.0	23	54
10/7/97	3.5	7.4	2.2	82	3.8	ND<2	ND<3	9.5	68
12/12/98	ND<2.5	7.4	ND<2.5	26	ND<2.5	ND<2.5	ND<2.7	ND<2.5	7.3
4/24/99 (8)	2.1	9.9	3.5	61	2.8	2.0	ND<4.2	ND<1.5	22
12/18/99 (9)	3.3	8.0	1.2	12	2.8	1.2	ND<0.5	ND<0.5	7.2
7/22/00 (10)	ND<2.5	16.0	ND<2.5	15	ND<2.5	ND<2.5	ND<5.0	ND<2.5	8.2
1/29/01 (11)	ND<10.0	23.0	ND<10	23	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0
7/28/01 (12)	7.4	9.0	0.97	14	6.4	0.95	ND<0.5	ND<0.5	15
2/3/02 (13)	5.5	10.0	1.4	23	5.5	0.59	ND<0.5	ND<0.5	7.4
7/23/02 (14)	ND<10.0	2.5	ND<10.0	15	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0
1/20/03	ND<10.0	11	ND<10.0	36	ND<10.0	ND<10.0	ND<10.0	ND<10.0	11
7/30/03	ND<20.0	ND<20.0	ND<20.0	ND<20.0	ND<20.0	ND<20.0	ND<20.0	ND<20.0	ND<20.0
1/27/04	ND<50.0	ND<50.0	ND<50.0	ND<50.0	ND<50.0	ND<50.0	ND<50.0	ND<50.0	ND<50.0
7/22/04	ND<50.0	ND<50.0	ND<50.0	ND<50.0	ND<50.0	ND<50.0	ND<50.0	ND<50.0	ND<50.0
1/20/05 (19)	81	ND<5.0	ND<5.0	27	ND<5.0	ND<5.0	ND<5.0	ND<5.0	32
7/20/05A (21)	ND<5.0	9.8	ND<5.0	14	ND<5.0	ND<5.0	ND<5.0	ND<5.0	15
7/20/05B (21)	17	ND<10.0	ND<10.0	12	ND<10.0	ND<10.0	ND<10.0	ND<10.0	21
1/26/06	ND<25	ND<25	ND<25	ND<25	ND<25	ND<25	ND<25	ND<25	ND<25
7/27/06A (24)	26	ND<10	ND<10	12	ND<10	ND<10	ND<10	ND<10	20
7/27/06C (24)	ND<10	ND<10	ND<10	10	ND<10	ND<10	ND<10	ND<10	42
1/25/07	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
7/19/07	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500
2/15/08	ND<5	ND<5	ND<5	14	ND<5	ND<5	ND<5	ND<5	16
7/25/08 (1C) (29)	ND<50,000	ND<50,000	ND<50,000	ND<50,000	ND<50,000	ND<50,000	ND<50,000	ND<50,000	ND<50,000
7/25/08 (1E) (29)	ND<100	ND<100	ND<100	ND<100	ND<100	ND<100	ND<100	ND<100	ND<100
1/23/09	ND<5	ND<5	ND<5	6.4	ND<5	ND<5	ND<5	ND<5	ND<5
MW-2 ("deep")									
3/25/96	ND<0.5	ND<0.5	8.7	11	ND<0.5	1.0	ND<0.5	3.2	0.92
10/8/96	ND<0.5	ND<0.5	15	9.6	ND<0.5	1.1	ND<0.5	6.6	ND<0.5
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97	ND<0.5	ND<0.5	9.7	8.0	ND<0.5	0.86	ND<0.5	9.6	ND<0.5
10/7/97	ND<0.5	ND<0.5	18	11	ND<0.5	1.2	ND<0.5	15	ND<0.5
12/12/98	ND<0.5	ND<0.5	16	9.4	ND<0.5	1.1	ND<1	7.5	ND<0.5
4/24/99	ND<0.5	ND<0.5	13	7.8	ND<0.5	0.92	ND<0.5	8.4	ND<0.5
12/18/99	ND<0.5	ND<0.5	15	9.0	ND<0.5	1.5	ND<0.5	ND<0.5	ND<0.5
7/22/00	ND<0.5	ND<0.5	17	10	ND<0.5	1.2	ND<1.0	12.0	ND<0.5
1/29/01	ND<0.5	ND<0.5	12	9.1	ND<0.5	0.9	ND<5.0	12.0	ND<0.5
7/28/01	ND<0.5	ND<0.5	9.7	7.8	ND<0.5	0.95	ND<5.0	12.0	ND<0.5
2/3/02	ND<0.5	ND<0.5	7.1	6.7	ND<0.5	0.72	ND<0.5	9.0	ND<0.5
7/23/02	ND<0.5	ND<0.5	1.7	2.1	ND<0.5	ND<0.5	ND<0.5	0.97	ND<0.5
1/20/03	ND<0.5	ND<0.5	1.6	2.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/30/03	ND<0.5	ND<0.5	1.7	1.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/27/04	ND<0.5	ND<0.5	14	8.9	ND<0.5	ND<0.5	ND<0.5	9.4	ND<0.5
7/22/04	ND<0.5	ND<0.5	6.6	6.5	ND<0.5	ND<0.5	ND<0.5	8.0	ND<0.5
1/20/05	ND<0.5	ND<0.5	8.7	7.8	ND<0.5	0.69	ND<0.5	12.0	ND<0.5
7/20/05	ND<0.5	ND<0.5	2.0	2.1	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5
1/26/06	ND<0.5	ND<0.5	10	7.7	ND<0.5	0.69	ND<0.5	13.0	ND<0.5
7/27/06	ND<0.5	ND<0.5	13	10	ND<0.5	0.88	ND<0.5	13.0	ND<0.5
1/25/07	ND<0.5	ND<0.5	5.5	9.1	ND<0.5	0.64	ND<0.5	16.0	ND<0.5
7/19/07	ND<0.5	ND<0.5	5.3	4.6	ND<0.5	ND<0.5	ND<0.5	7.5	ND<0.5
2/15/08	ND<0.5	ND<0.5	ND<0.5	2.0	ND<0.5	ND<0.5	ND<0.5	2.1	ND<0.5
7/25/08	ND<0.5	ND<0.5	1.3	1.5	ND<0.5	ND<0.5	ND<0.5	4.8	ND<0.5
1/23/09	ND<0.5	ND<0.5	7.8	9.4	ND<0.5	0.88	ND<0.5	16	ND<0.5

Well and Date	CA	1,2 DCB	1,2 DCA	cis 1,2 DCE	trns 1,2 DCE	1,2 DCP	PCE	TCE	VCL
MW-3 ("shallow")									
3/25/96	ND<0.5	ND<0.5	0.56	1.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
10/8/96	ND<0.5	ND<0.5	1.1	0.87	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97	ND<0.5	ND<0.5	0.54	0.76	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
10/7/97	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
12/12/98	ND<0.5	ND<0.5	0.51	0.82	ND<0.5	ND<0.5	ND<1	ND<0.5	ND<0.5
4/24/99	ND<0.5	ND<0.5	ND<0.5	0.65	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
12/18/99	ND<0.5	ND<0.5	0.72	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/22/00	ND<0.5	ND<0.5	0.52	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5
1/29/01	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
7/28/01	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
2/3/02	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/23/02	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/20/03	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/30/03	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/27/04	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/22/04	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/20/05	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/20/05	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/26/06	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/27/06 (25)	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/25/07	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/19/07	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
2/15/08	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/25/08	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/23/09	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-4 ("deep")									
3/26/96	ND<8	22	ND<8	300	9.2	ND<8	38	150	44
10/8/96	ND<15	22	4.9	320	ND<15	ND<15	52	130	60
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97 (5)	3.6	21	5.3	340	10	ND<3	11	110	83
10/7/97	ND<8.0	20	ND<8.0	380	9.9	ND<8.0	ND<12	56	56
12/12/98 (7)	ND<3.5	18	ND<3.5	150	12	ND<8	ND<4.5	12	57
4/24/99	ND<8.5	20	ND<8.5	390	12	ND<8.5	33	240	43
12/18/99	ND<10.0	27	ND<10.0	390	13	ND<10.0	ND<10.0	39	ND<10.0
7/22/00	ND<10.0	38	ND<10.0	620	ND<10.0	ND<10.0	ND<10.0	19	97
1/29/01	ND<5.0	35	ND<5.0	380	15	ND<5.0	ND<5.0	19	97
7/28/01	ND<7.5	29	ND<5.0	310	18	ND<5.0	ND<5.0	8.4	150
2/3/02 (13)	ND<7.0	22	ND<7.0	310	16	ND<7.0	ND<7.0	20	120
7/23/02	ND<0.5	30	ND<0.5	240	17	ND<0.5	ND<0.5	ND<0.5	230
1/20/03	ND<10.0	28	ND<10.0	200	16	ND<10.0	ND<10.0	69	84
7/30/03	ND<10.0	32	ND<10.0	230	13	ND<10.0	ND<10.0	13	290
1/27/04 (17)	ND<5.0	41	ND<5.0	370	25	ND<5.0	ND<5.0	32	310
7/22/04 (18)	ND<5.0	23	ND<5.0	120	13	ND<5.0	ND<5.0	9.6	280
1/20/05 (19)	ND<5.0	28	ND<5.0	320	23	ND<5.0	ND<5.0	81	130
7/20/05 (22)	ND<5.0	32	ND<5.0	230	18	ND<5.0	ND<5.0	ND<5.0	170
1/26/06 (23)	ND<5.0	31	ND<5.0	320	22	ND<5.0	ND<5.0	39	330
7/27/06 (25)	ND<5.0	24	ND<5.0	180	24	ND<5.0	ND<5.0	19	390
1/25/07	ND<5.0	25	ND<5.0	170	15	ND<5.0	ND<5.0	ND<10	380
7/19/07 (27)	ND<5.0	28	ND<5.0	180	27	ND<5.0	ND<5.0	21	460
2/15/08 (28)	ND<5.0	31	ND<5.0	200	25	ND<5.0	ND<5.0	22	130
7/25/08 (30)	5.5	18	ND<2.5	110	17	ND<2.5	ND<2.5	21	87
1/23/09 (31	ND<5.0	27	ND<5.0	150	23	ND<5.0	ND<5.0	ND<5.0	190
MW-5 ("deep")									
3/26/96	1.4	ND<0.5	2.1	6.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10
10/8/96	ND<2.5	ND<2.5	4.9	4.4	ND<2.5	ND<2.5	ND<2.5	ND<2.5	9.4
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97 (5)	2.0	2.1	2.0	7.2	0.71	ND<0.5	ND<0.5	ND<0.5	13
10/7/97	1.9	1.4	2.8	3.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10
12/12/98	1.4	2.0	1.1	3.7	ND<1	ND<1	ND<1.5	ND<1	5.8
4/24/99	ND<1	1.9	1.9	4.8	ND<1	ND<1	ND<1	ND<1	6.3

Well and Date	CA	1,2 DCB	1,2 DCA	cis 1,2 DCE	trns 1,2 DCE	1,2 DCP	PCE	TCE	VCL
MW-5 ("deep") continued									
12/18/99	1.6	1.7	1.8	1.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.9
7/22/00	1.8	2.4	1.4	2.6	ND<1.0	ND<1.0	ND<1.0	ND<1.0	5.0
1/29/01	ND<1.0	2.2	2.6	2.2	ND<1.0	ND<1.0	ND<1.0	ND<1.0	2.2
7/28/01	1.4	1.3	1.7	1.4	ND<1.0	ND<1.0	ND<1.0	ND<1.0	2.6
2/3/02 (13)	1.8	2.0	2.1	3.9	0.95	ND<0.5	ND<0.5	ND<0.5	4.6
7/23/02	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
1/20/03	ND<1.0	1.4	1.4	1.6	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1.3
7/30/03	ND<1.0	1.2	1.1	1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	2.0
1/27/04	ND<1.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
7/22/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
1/20/05	1.1	0.84	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
7/20/05	ND<1.0	ND<1.0	1.3	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
1/26/06	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
7/27/06	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
1/25/07 (26)	ND<0.5	ND<0.5	1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/19/07	ND<0.5	0.51	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
2/15/08	ND<0.5	ND<0.5	ND<0.5	0.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/25/08	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
1/23/09	ND<1.0	ND<1.0	2.6	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
MW-6 ("shallow")									
3/26/96	ND<0.5	ND<0.5	3.9	15	ND<0.5	1.9	0.77	2	ND<0.5
10/8/96	ND<0.5	ND<0.5	2.3	9.9	ND<0.5	ND<0.5	ND<0.5	0.57	ND<0.5
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97	ND<0.5	ND<0.5	1.6	10	ND<0.5	ND<0.5	ND<0.5	0.63	0.50
10/7/97	ND<0.5	ND<0.5	3.4	7.9	ND<0.5	ND<0.5	ND<0.5	0.82	ND<0.5
12/12/98 (7)	ND<0.5	ND<0.5	1.5	8.4	ND<0.5	ND<0.5	ND<1	ND<0.5	ND<0.5
4/24/99	ND<0.5	ND<0.5	2.3	17	ND<0.5	0.89	ND<1	0.73	0.59
12/18/99	ND<0.5	ND<0.5	2.2	8.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.62
7/22/00	ND<0.5	ND<0.5	1.2	9.3	ND<0.5	ND<0.5	ND<1.0	ND<0.5	0.97
1/29/01	ND<0.5	ND<0.5	1.1	11	ND<0.5	ND<0.5	ND<5.0	ND<0.5	0.77
7/28/01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2/3/02	ND<0.5	ND<0.5	1.5	13	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/23/02	ND<1.0	ND<1.0	ND<1.0	9.3	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
1/20/03	ND<1.0	ND<1.0	1.8	14	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
7/30/03	ND<1.0	ND<0.5	1.3	7.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.7
1/27/04 (17)	ND<2.5	ND<2.5	ND<2.5	8.4	ND<2.5	ND<2.5	ND<2.5	ND<2.5	3.2
7/22/04	ND<0.5	ND<0.5	1.3	3.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/20/05	ND<0.5	ND<0.5	0.99	8.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
720/05	ND<0.5	ND<0.5	0.79	4.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.65
1/26/06	ND<0.5	ND<0.5	0.81	6.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.90
7/27/06	ND<0.5	ND<0.5	0.82	4.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.10
1/25/07	ND<0.5	ND<0.5	ND<0.5	2.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.30
7/19/07	ND<0.5	ND<0.5	0.73	2.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.30
2/15/08	ND<0.5	ND<0.5	ND<0.5	4.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.79
7/25/08	ND<0.5	ND<0.5	0.75	0.81	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/23/09	ND<0.5	ND<0.5	ND<0.5	0.53	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-7 ("deep")									
6/23/97	0.93	1.6	ND<0.5	2.4	1.2	ND<0.5	9.8	17	1.5
10/7/97	ND<2	ND<2	ND<2	8.5	2.4	ND<2	38	110	ND<2
12/12/98	ND<2	2.2	ND<2	97	ND<2	ND<2	ND<3.5	ND<2	ND<2
4/24/99	ND<2	2.4	ND<2	31	ND<2	ND<2	9.3	82	ND<2
12/18/99 (9)	ND<3	5.7	ND<3	120	ND<3	ND<3	ND<3	12	ND<3
7/22/00 (10)	ND<5	18	ND<5	170	ND<5	ND<5	ND<5	8	ND<5
1/29/01 (11)	ND<5	18	ND<5	170	ND<5	ND<5	ND<5	8	ND<5
7/28/01 (12)	ND<5	11	ND<5	170	ND<5	ND<5	ND<5	6.9	6.1
2/3/02	ND<5.0	ND<5.0	ND<5.0	94	ND<5.0	ND<5.0	ND<5.0	30	ND<5.0
7/23/02	ND<10.0	12.0	ND<10.0	180	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0
1/20/03	ND<2.5	ND<2.5	ND<2.5	50	ND<2.5	ND<2.5	11	ND<2.5	ND<2.5
7/30/03	ND<2.5	ND<2.5	ND<2.5	130	ND<2.5	ND<2.5	ND<2.5	ND<2.5	9.5
1/27/04	ND<5.0	ND<5.0	ND<5.0	130	ND<5.0	ND<5.0	ND<5.0	20	24
7/22/04	ND<5.0	ND<5.0	ND<5.0	120	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0

Well and Date	CA	1,2 DCB	1,2 DCA	cis 1,2 DCE	trns 1,2 DCE	1,2 DCP	PCE	TCE	VCL
MW-7 ("deep") continued									
1/20/05	ND<2.5	2.7	ND<2.5	110	ND<2.5	ND<2.5	ND<2.5	20	28
7/20/05	ND<5.0	ND<5.0	ND<5.0	250	ND<5.0	ND<5.0	ND<5.0	ND<5.0	29
1/26/06	ND<5.0	ND<5.0	ND<5.0	110	ND<5.0	ND<5.0	ND<5.0	19	37
7/27/06	ND<5.0	ND<5.0	ND<5.0	350	ND<5.0	ND<5.0	ND<5.0	ND<5.0	55
1/25/07	ND<0.5	ND<0.5	ND<0.5	29	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.9
7/19/07 (27)	ND<0.5	ND<0.5	ND<0.5	210	ND<0.5	ND<0.5	ND<0.5	ND<0.5	31
2/15/08 (28)	ND<0.5	5.5	ND<0.5	220	ND<0.5	ND<0.5	ND<0.5	28	20
7/25/08	ND<5.0	ND<5.0	ND<5.0	99	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
1/23/09	ND<5.0	ND<5.0	ND<5.0	190	ND<5.0	ND<5.0	ND<5.0	ND<5.0	26
MW-8 ("shallow")									
6/23/97	ND<1	5.4	ND<1	64	ND<1	ND<1	97	100	ND<1
10/7/97	ND<0.5	1.1	ND<0.5	16	ND<0.5	ND<0.5	30	27	ND<0.5
12/12/98	ND<0.5	ND<0.5	ND<0.5	3.4	ND<0.5	ND<0.5	4.8	4.7	ND<0.5
4/24/99	ND<0.5	ND<0.5	ND<0.5	1.9	ND<0.5	ND<0.5	3.4	3.4	ND<0.5
12/18/99	ND<0.5	ND<0.5	ND<0.5	5.3	ND<0.5	ND<0.5	5.9	6.4	ND<0.5
7/22/00	ND<0.5	ND<0.5	ND<0.5	1.7	ND<0.5	ND<0.5	2.4	1.6	ND<0.5
1/29/01	ND<0.5	ND<0.5	ND<0.5	10	ND<0.5	ND<0.5	ND<5.0	8.8	ND<0.5
7/28/01	ND<0.5	ND<0.5	ND<0.5	2.6	ND<0.5	ND<0.5	ND<1.5	2.1	ND<0.5
2/3/02	ND<0.5	ND<0.5	ND<0.5	6.6	ND<0.5	ND<0.5	3.3	4.6	ND<0.5
7/23/02	ND<0.5	ND<0.5	ND<0.5	8.4	ND<0.5	ND<0.5	3.5	5.2	ND<0.5
1/20/03	ND<0.5	ND<0.5	ND<0.5	7.3	ND<0.5	ND<0.5	6	6.7	ND<0.5
7/30/03	ND<0.5	ND<0.5	ND<0.5	25	ND<0.5	ND<0.5	15	20	ND<0.5
1/27/04	ND<0.5	ND<0.5	ND<0.5	4	ND<0.5	ND<0.5	3.1	3.1	ND<0.5
7/22/04	ND<0.5	ND<0.5	ND<0.5	20	ND<0.5	ND<0.5	8.3	13	ND<0.5
1/20/05	ND<0.5	ND<0.5	ND<0.5	6.5	ND<0.5	ND<0.5	5.2	5.1	ND<0.5
7/20/05	ND<0.5	ND<0.5	ND<0.5	1.7	ND<0.5	ND<0.5	1.4	1.2	ND<0.5
1/26/06	ND<0.5	ND<0.5	ND<0.5	7.3	ND<0.5	ND<0.5	6.6	6.2	ND<0.5
7/27/06	ND<0.5	ND<0.5	ND<0.5	10	ND<0.5	ND<0.5	6.8	7.3	ND<0.5
1/25/07	ND<0.5	ND<0.5	ND<0.5	11	ND<0.5	ND<0.5	6.3	6.9	ND<0.5
7/19/07	ND<0.5	ND<0.5	ND<0.5	0.52	ND<0.5	ND<0.5	0.94	0.73	ND<0.5
2/15/08	ND<0.5	ND<0.5	ND<0.5	7.5	ND<0.5	ND<0.5	5.6	5.4	ND<0.5
7/25/08	ND<0.5	ND<0.5	ND<0.5	0.58	ND<0.5	ND<0.5	ND<0.5	0.50	ND<0.5
1/23/09	ND<0.5	ND<0.5	ND<0.5	4.9	ND<0.5	ND<0.5	2.7	3.3	ND<0.5
MW-9 (shallow")									
6/23/97 (5)	ND<1	2.1	ND<1	7.4	ND<1	ND<1	3.5	1.4	ND<1
10/7/97 (6)	ND<0.5	1.6	2.1	21	ND<0.5	0.7	ND<2	0.53	2.7
12/12/98	ND<0.5	0.7	0.53	1.9	ND<0.5	ND<0.5	ND<1	ND<0.5	ND<0.5
4/24/99	ND<0.5	0.81	0.52	3.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
12/18/99	ND<0.5	1.1	0.67	3.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.63
7/22/00	ND<1	1.4	ND<1	1.6	ND<1	ND<1	ND<1	ND<1	ND<1
1/29/01	ND<0.5	1.2	0.71	ND<0.5	8.2	ND<0.5	ND<5.0	ND<0.5	0.53
7/28/01	ND<0.5	0.87	ND<0.5	0.92	ND<0.5	ND<0.5	ND<5.0	2.5	ND<0.5
2/3/02	ND<0.5	1.2	ND<0.5	2.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/23/02	ND<2.5	3.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
1/20/03	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
7/30/03	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/27/04	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/22/04	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/20/05a (19)	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/20/05b (20)	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/20/05	ND<0.5	0.59	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/26/06	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/27/06	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/25/07	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/19/07 (27)	ND<0.5	0.68	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
2/15/08	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/25/08	ND<0.5	0.52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/23/09	ND<0.5	0.69	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Well and Date	CA	1,2 DCB	1,2 DCA	cis 1,2 DCE	trns 1,2 DCE	1,2 DCP	PCE	TCE	VCL
EB-4 (grab)									
3/8/96	ND	ND	ND	42	ND	ND	130	340	ND
MCL	NA	600	0.5	6	10	5	7	5	0.5

Notes

(1) ND = non-detect; reporting limit 0.5 ug/l (ppb) unless otherwise stated
(2) N/A = not applicable
(3) Composite
(4) Abbreviations as follows:

CA	Chloroethane	1,2 DCP	1,2 Dichloropropane
1,2 DCB	1,2 Dichlorobenzene	PCE	Tetrachloroethene (perchloroethene)
1,2 DCA	1,2 Dichloroethane	TCE	trichloroethene
cis 1,2 DCE	cis 1,2 Dichloroethene	VCL	vinyl chloride
trans 1,2 DCE	trans 1,2 Dichloroethene		

(5) 6/23/97 additional detections:
MW-4: 4.8 ppb 1,4-Dichlorobenzene
MW-5: 0.53 ppb 1,4-Dichlorobenzene
MW-9: 2.1 ppb chloroform (tetrachloromethane)
(6) 10/7/97 additional detections:
MW-9: 0.65 chloroform (tetrachloromethane)
(7) 12/12/98 additional detections:
MW-4: 6.2 ppb 1,3-Dichlorobenzene
MW-4: 4.8 ppb 1,4-Dichlorobenzene
MW-6: 8.9 ppb 1,1,1-Trichloroethane
(8) 4/24/99 additional detections:
MW-1: 1.6 ppb Chloroform
MW-1: 2.5 ppb 1,4-Dichlorobenzene
(9) 12/18/99 additional detections:
MW-1: 1.3 ppb Dibromochloromethane
MW-1: 1.2 ppb 1,3-Dichlorobenzene
MW-1: 2.2 ppb 1,4-Dichlorobenzene
MW-1: 9.9 ppb 1,4-Dichlorobenzene
(10) 7/22/00 additional detections:
MW-1: 5.0 ppb 1,4 Dichlorobenzene
MW-7: 6.1 ppb 1,4 Dichlorobenzene
(11) 1/29/01 additional detections:
MW-1: 23.0 ppb 1,3 Dichlorobenzene
MW-4: 6.3 ppb 1,3 Dichlorobenzene
MW-4: 9.0 ppb 1,4 Dichlorobenzene
(12) 7/28/01 additional detections:
MW-1: 0.60 ppb 2-Chloroethyl Vinyl Ether
MW-1: 1.2 ppb 1,3 Dichlorobenzene
MW-1: 3.0 ppb 1,4 Dichlorobenzene
MW-4: 26 ppb 1,4 Dichlorobenzene
MW-7: 5.9 ppb 1,4 Dichlorobenzene
(13) 2/3/02 additional detections:
MW-1: 0.73 ppb 2-Chloroethyl Vinyl Ether
MW-1: 1.8 ppb 1,3 Dichlorobenzene
MW-1: 3.8 ppb 1,4 Dichlorobenzene
MW-4: 9.8 ppb 1,4 Dichlorobenzene
MW-5: 0.59 ppb 1,4 Dichlorobenzene
(14) 7/23/02 additional detections:
MW-1: 112 ppb 1,3 Dichlorobenzene
(15) 1/20/03 additional detections: (none)
(16) 7/30/03 additional detections: (none)

Notes to Table continued

(17) 1/27/04 additional detections:
MW-4: 11 ppb 1,3-Dichlorobenzene
MW-4: 9.7 ppb 1,4-Dichlorobenzene
MW-4: 12 ppb 1,1,2-Trichloroethane
MW-6: 13 ppb 1,1,2-Trichloroethane
(18) 7/22/04 additional detections:
MW-4: 6.9 ppb 1,3-Dichlorobenzene
MW-4: 6.2 ppb 1,4-Dichlorobenzene

(19) 1/20/05 additional detections:
MW-1: 60 ppb Chloromethane
MW-4: 5.5 ppb 1,3-Dichlorobenzene
MW-4: 7.4 ppb 1,4-Dichlorobenzene
MW-9: 0.92 ppb Bromodichloromethane
(20) Supplemental sample following initial bailer volume removal
(21) Sample discharged from bottom of bailer (A); and top of bailer (B)
7/20/05 additional detections:
MW-4: 9.3 ppb 1,3-Dichlorobenzene
MW-4: 9.1 ppb 1,4-Dichlorobenzene
(23) 1/26/06 additional detections:
MW-4: 8.2 ppb 1,3-Dichlorobenzene
MW-4: 8.5 ppb 1,4-Dichlorobenzene
(24) Sample discharged from top of bailer (A); and bottom of bailer (C)
(25) 7/27/06 additional detections:
MW-3: 5.0 ppb 1,1,2 Trichloroethane
MW-4: 6.6 ppb 1,3-Dichlorobenzene
MW-4: 6.4 ppb 1,4-Dichlorobenzene
(26) 1/25/07 additional detections:
MW-5: 1.1 ppb Chloroform
(27) 7/19/07 additional detections
MW-4: 11 ppb 1,3-Dichlorobenzene
MW-4: 8.4 ppb 1,4-Dichlorobenzene
MW-7: 41 ppb 1,1,2-Trichloroethane
MW-9: 1.6 ppb bromodichloromethane
(28) 2/15/08 additional detections
MW-4: 10 ppb 1,3-Dichlorobenzene
MW-4: 8.9 ppb 1,4-Dichlorobenzene
MW-7: 6.2 ppb chloromethane
(29) Sample collected from top of water column below floating phase product (1C) and from well depth of 32' (1E)
(30) 7/25/08 additional detections
MW-4: 7.0 ppb 1,3-Dichlorobenzene
MW-4: 5.6 ppb 1,4-Dichlorobenzene
(31) 1/23/09 additional detections
MW-4: 11 ppb 1,3-Dichlorobenzene
MW-4: 7.3 ppb 1,4-Dichlorobenzene

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY FOR PETROLEUM HYDROCARBONS
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	GRO (µg/L)	Oil & Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Napthalene (µg/L)
MW-1	07/22/00	37,000	320,000[1,2]	2,200	2,600	1,300	5,200	NS
(deep)	01/29/01	36,000	76,000[1,2]	2,100	2,300	1,200	4,500	NS
	07/28/01	99,000	86 000[1,2]	1,500	2,300	1,700	6,600	NS
	02/03/02	42,000	42,000[1,2]	1,200	1,300	1,100	3,900	NS
	07/23/02	53,000	170,000[1,2]	1,700	2,800	1,500	5,100	NS
	01/20/03	33,000	65,000[1,2]	2,100	2,500	1,300	4,400	NS
	07/30/03	24,000	55,000[1]	1,300	1,500	760	2,700	NS
	01/27/04	21,000	220,000[1]	1,600	1,500	1,100	3,200	NS
	07/22/04	31,000	780,000[1,2]	1,500	1,700	1,200	4,100	NS
	01/20/05	25000	72,000[1,2]	1,300	1400	1,000	2,800	NS
	07/20/05	22,000	500,000[1,2]	1,100	1,600	830	2,600	NS
	01/26/06	28000	64,000[1,2]	1,600	1,500	1,200	3,500	NS
	07/27/06	25,000	NA	810	1,000	1,100	3,200	NS
	01/25/07	32,000	170,000[1]	990	960	1,100	3,500	NS
	07/19/07	32,000	1,100,000[1]	600	740	950	2,500	NS
	02/15/08	28,000	3,500,000[1,2]	930	780	940	2,500	NS
	07/25/08	28,000	NA	540	580	750	2,000	NA
	01/23/09	52,000	1,000,000[1,2]	420	350	1,400	3,600	NS
	07/21/09	19,000	46,000[1]	530	500	890	2,300	NS
	01/25/10	23,000	140,000[1,2]	780	540	850	2,200	NS
	07/29/10			Not Sampled - Free Product present				
	01/31/11			Not Sampled - Free Product present				
	07/12/11			Not Sampled - Free Product present				
	01/17/12			Not Sampled - Free Product present				

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Well Number	Date Collected	GRO (µg/L)	Oil & Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Napthalene (µg/L)
MW-2 (deep)	07/22/00	180	<5,000[1,2]	10	ND	4.5	6.0	NS
	01/29/01	130	<5,000[1,2]	16	ND	1.9	3.8	NS
	07/28/01	<50	<5,000[1,2]	2.7	ND	0.64	0.69	NS
	02/03/02	140	<5,000[1,2]	5.5	ND	9.0	12	NS
	07/23/02	780	<5,000[1,2]	52	2.0	44	6.2	NS
	01/20/03	1,900	<5,000[1,2]	120	10	120	94	NS
	07/30/03	710	<5,000[1,2]	43	1.8	24	5.9	NS
	01/27/04	180	<5,000[1,2]	10	<0.5	3.2	10	NS
	07/22/04	<50	<5,000[1,2]	0.90	<0.5	<0.5	<0.5	NS
	01/20/05	96	<5,000[1,2]	1.3	<0.5	1.5	1.0	NS
	07/20/05	430	<5,000[1,2]	17	1.5	2.3	1.2	NS
	01/26/06	120	<5,000[1,2]	5.3	<0.5	0.64	3.3	NS
	07/27/06	89	<5,000[1,2]	3.1	<0.5	1.9	3.1	NS
	01/25/07	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	07/19/07	100	<5,000[1,2]	1.1	<0.5	<0.5	<0.5	NS
	02/15/08	460	<5,000[1,2]	25	0.75	3.7	3.2	NS
	07/25/08	<50	<5,000[1,2]	0.66	<0.5	<0.5	<0.5	<0.5
	01/23/09	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	07/21/09	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	01/25/10	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	07/29/10	170	<5,000	<0.50	<0.50	<0.50	<0.50	NS
	01/31/11	<50	<5,000	<0.50	<0.50	<0.50	0.60	NS
	07/12/11	410	<5,000	1.3	<0.50	0.55	<0.50	NS
	01/17/12	<50	<5,000	<0.50	<0.50	<0.50	<0.50	NS

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY FOR PETROLEUM HYDROCARBONS
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	GRO (µg/L)	Oil & Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Napthalene (µg/L)
MW-3	07/22/00	230	<5,000[1,2]	0.89	2.4	ND	ND	NS
(shallow)	01/29/01	450	<5,000[1]	1.1	1.6	11	3.6	NS
	07/28/01	<50	<5,000[1]	<0.5	ND	ND	ND	NS
	02/03/02	98	<5,000[1]	<0.5	ND	ND	ND	NS
	07/23/02	<50	<5,000[1]	<0.5	<0.5	<0.5	<0.5	NS
	01/20/03	700	<5,000[1]	1.6	0.56	41	21	NS
	07/30/03	<50	<5,000[1]	<0.5	<0.5	<0.5	<0.5	NS
	01/27/04	85	<5,000[1]	<0.5	<0.5	<0.5	0.87	NS
	07/22/04	<50	<5,000[1]	<0.5	<0.5	<0.5	<0.5	NS
	01/20/05	440	<5,000[1]	0.81	0.67	7.1	2.6	NS
	07/20/05	130	<5,000[1]	<0.5	1.2	<0.5	<0.5	NS
	01/26/06	790	<5,000[1]	1.0	1.0	12	3.4	NS
	07/27/06	<50	<5,000[1]	<0.5	<0.5	<0.5	<0.5	NS
	01/25/07	<50	<5,000[1]	<0.5	<0.5	<0.5	<0.5	NS
	07/19/07	<50	<5,000[1]	<0.5	<0.5	<0.5	<0.5	NS
	02/15/08	74	<5,000[1]	<0.5	<0.5	<0.5	<0.5	NS
	07/25/08	<50	<5,000[1]	<0.5	<0.5	<0.5	<0.5	<0.5
	01/23/09	<50	<5,000[1]	<0.5	<0.5	<0.5	<0.5	NS
	07/21/09	<50	<5,000[1]	<0.5	<0.5	<0.5	<0.5	NS
	01/25/10	150	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	07/29/10	<50	<5,000	<0.50	<0.50	<0.50	<0.50	NS
	01/31/11	<50	<5,000	<0.50	<0.50	<0.50	<0.50	NS
	07/12/11	<50	<5,000	<0.50	<0.50	<0.50	<0.50	NS
	01/17/12	<50	<5,000	<0.50	<0.50	<0.50	<0.50	NS

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Well Number	Date Collected	GRO (µg/L)	Oil & Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Napthalene (µg/L)
MW-4 (deep)	07/22/00	2,700	7,000[1,2]	940	14	31	12	NS
	01/29/01	2500	<5,000[1,2]	980	11	35	5	NS
	07/28/01	1,100	90,000[1,2]	250	6.3	19	4.8	NS
	02/03/02	2,100	7,400[1,2]	890	23	41	20	NS
	07/23/02	1,200	<5,000[1,2]	490	11	22	8.8	NS
	01/20/03	1,900	<5,000[1,2]	740	11	32	12	NS
	07/30/03	1,700	<5,000[1,2]	440	8.9	18	6.1	NS
	01/27/04	1,100	31,000[1,2]	350	10	17	5.0	NS
	07/22/04	910	54,000[1,2]	210	7.9	19	6.5	NS
	01/20/05	1,900	<5,000[1,2]	550	36	63	43	NS
	07/20/05	1,300	<5,000[1,2]	310	11	36	12	NS
	01/26/06	1,900	26,000[1,2]	500	16	40	12	NS
	07/27/06	980	85,000[1,2]	340	13	18	8.8	NS
	01/24/07	910	7,100[1,2]	230	5	15	4	NS
	07/18/07	960	<5,000[1,2]	150	3.9	9.9	3.4	NS
	02/15/08	1,500	12,000[1,2]	310	12	18	11	NS
	07/25/08	1,000	7,800[1,2]	54	3.1	5.5	2.0	4.7
	01/23/09	1,000	<5,000[1,2]	200	5	9.3	2.3	NS
	07/20/09	940	12,000[1,2]	230	8.8	6.5	8.0	NS
	01/25/10	1,000	29,000[1,2]	240	6.9	20	8.9	NS
	07/29/10	1,000	<5,000	190	7.8	15	4.0	NS
	01/31/11	1,300	20,000 / <5,000[3]	280	14	17	4.6	NS
	07/12/11	1,300	<5,000	88	5.8	18	0.84	NS
	01/17/12	950	<5,000	40	2.1	6.6	0.99	NS

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MW-5	07/22/00	14,000	12,000[1,2]	290	140	770	630	NS
(deep)	01/29/01	8,200	11,000[1,2]	180	42	420	250	NS
	07/28/01	9,100	<5,000[1,2]	190	67	540	430	NS
	02/03/02	11,000	<5,000[1]	250	160	730	540	NS
	07/23/02	6,400	<5,000[1]	160	67	540	390	NS
	01/20/03	7,300	<5,000[1,2]	190	80	480	310	NS
	07/30/03	8,700	<5,000[1,2]	170	35	470	300	NS
	01/27/04	7,600	<5,000[1]	220	50	460	290	NS
	07/22/04	10,000	<5,000[1]	200	38	510	400	NS
	01/20/05	8,500	<5,000[1,2]	130	63	430	280	NS
	07/20/05	7,900	<5,000[1,2]	110	47	350	250	NS
	01/26/06	8,000	<5,000[1]	170	53	410	270	NS
	07/27/06	5,300	<5,000[1]	110	35	380	250	NS
	01/25/07	1,300	<5,000[1,2]	17	6.1	34	46	NS
	07/19/07	10,000	<5,000[1,2]	99	15	250	200	NS
	02/15/08	9,900	<5,000[1,2]	120	26	290	200	NS
	07/25/08	5,600	<5,000[1,2]	120	20	210	190	16
	01/23/09	6,600	<5,000[1,2]	68	18	220	110	NS
	07/21/09	5,600	<5,000[1]	81	21	210	160	NS
	01/25/10	2,800	<5,000[1,2]	32	11	100	64	NS
	07/29/10	2,900	<5,000	23	6.9	130	70.6	NS
	01/31/11	4,400	<5,000	25	12	170	78.1	NS
	07/12/11	5,700	<5,000	30	11	190	89	NS
	01/17/12	4,000	<5,000	25	5.4	150	54.1	NS

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY FOR PETROLEUM HYDROCARBONS
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	GRO (µg/L)	Oil & Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Napthalene (µg/L)
MW-6	07/22/00	2,200	<5,000[1,2]	290	9.6	80	43	NS
(shallow)	01/29/01	2,500	<5,000[1,2]	220	11	150	230	NS
	07/28/01	NA	<5,000[1,2]	NA	NA	NA	NA	NA
	02/03/02	2,500	<5,000[1,2]	290	18	88	330	NS
	07/23/02	1,100	<5,000[1,2]	160	6.5	54	35	NS
	01/20/03	3,800	<5,000[1,2]	370	33	220	300	NS
	07/30/03	2,000	<5,000[1,2]	250	4.8	50	24	NS
	01/27/04	2,600	<5,000[1,2]	420	20	170	180	NS
	07/22/04	1,200	<5,000[1,2]	110	3.2	36	17	NS
	01/20/05	3,100	<5,000[1,2]	280	21	180	250	NS
	07/20/05	730	<5,000[1,2]	66	4.4	25	26	NS
	01/26/06	1,900	<5,000[1,2]	180	12	120	140	NS
	07/27/06	670	<5,000[1,2]	120	5	17	15	NS
	01/25/07	650	<5,000[1,2]	99	2.7	20	16	NS
	07/19/07	4,200	<5,000[1,2]	360	18	47	55	NS
	02/15/08	2,100	<5,000[1,2]	200	10	100	97	NS
	07/25/08	370	<5,000[1,2]	27	3.1	2.2	2.7	<0.5
	01/23/09	330	<5,000[1,2]	69	3.6	11	8.1	NS
	07/21/09	290	<5,000[1,2]	40	1.9	9.3	7.8	NS
	01/25/10	740	<5,000[1,2]	80	4.9	54	62	NS
	07/29/10	220	<5,000	25	0.68	7.3	4.9	NS
	01/31/11	1,100	<5,000	85	5.3	75	69.4	NS
	07/12/11	610	<5,000	47	2.5	34	27	NS
	01/17/12	81	<5,000	13	0.62	4.6	5.8	NS

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GROUNDWATER ANALYTICAL SUMMARY FOR PETROLEUM HYDROCARBONS
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	GRO (µg/L)	Oil & Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Napthalene (µg/L)
MW-7	07/22/00	7,400	10,000[1,2]	620	180	240	180	NS
(deep)	01/29/01	4,000	7,000[1,2]	410	21	22	21	NS
	07/28/01	4,200	<5,000[1,2]	540	120	110	110	NS
	02/03/02	6,300	<5,000[1,2]	560	110	190	140	NS
	07/23/02	3,400	<5,000[1,2]	440	6.3	87	61	NS
	01/20/03	4,500	<5,000[1,2]	380	32	30	36	NS
	07/30/03	5,300	<5,000[1,2]	460	34	43	52	NS
	01/27/04	3,000	<5,000[1,2]	350	15	13	18	NS
	07/22/04	3,600	<5,000[1,2]	440	10	10	25	NS
	01/20/05	3,200	19,000[1,2]	320	31	29	34	NS
	07/20/05	8,400	<5,000[1,2]	550	230	300	410	NS
	01/26/06	3,300	32,000[1,2]	450	31	45	37	NS
	07/27/06	3,800	<5,000[1,2]	530	85	38	94	NS
	01/25/07	2,500	<5,000[1,2]	320	6.9	3.3	10	NS
	07/19/07	2,700	<5,000[1,2]	280	10	5.9	18	NS
	02/15/08	2,900	27,000[1,2]	230	15	12	18	NS
	07/25/08	3,700	<5,000[1,2]	400	25	26	87	10
	01/23/09	2,500	<5,000[1,2]	230	5.4	2.9	5.6	NS
	07/21/09	3,400	<5,000[1,2]	230	75	33	140	NS
	01/25/10	3,900	5,200[1,2]	260	15	5.2	24	NS
	07/29/10	3,600	<5,000	190	38	13	67.6	NS
	01/31/11	5,400	14,000 / <5,000[3]	210	29	13	28.7	NS
	07/12/11	5,500	<5,000	150	45	7.9	51.9	NS
	01/17/12	3,300	<5,000	150	8.5	2.1	12.3	NS

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY FOR PETROLEUM HYDROCARBONS
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	GRO (µg/L)	Oil & Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Napthalene (µg/L)
MW-8	07/22/00	ND	<5,000[1,2]	ND	ND	ND	ND	NS
(shallow)	01/29/01	ND	<5,000[1,2]	0.87	ND	ND	ND	NS
	07/28/01	ND	<5,000[1,2]	ND	ND	ND	ND	NS
	02/03/02	ND	<5,000[1,2]	ND	ND	ND	ND	NS
	07/23/02	<50	<5,000[1,2]	0.87	<0.5	<0.5	<0.5	NS
	01/20/03	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	07/30/03	<50	<5,000[1,2]	2.0	<0.5	<0.5	<0.5	NS
	01/27/04	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	07/22/04	<50	<5,000[1,2]	1.2	<0.5	<0.5	<0.5	NS
	01/20/05	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	07/20/05	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	01/26/06	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	07/27/06	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	01/25/07	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	07/19/07	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	02/15/08	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	07/25/08	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	<0.5
	01/23/09	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	07/21/09	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	01/25/10	<50	<5,000[1,2]	<0.5	<0.5	<0.5	<0.5	NS
	07/29/10	<50	<5,000	<0.50	<0.50	<0.50	<0.50	NS
	01/31/11	<50	<5,000	<0.50	<0.50	<0.50	<0.50	NS
	07/12/11	61	<5,000	1.1	<0.50	<0.50	<0.50	NS
	01/17/12	<50	<5,000	<0.50	<0.50	<0.50	<0.50	NS

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY FOR PETROLEUM HYDROCARBONS
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	GRO (µg/L)	Oil & Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Napthalene (µg/L)
MW-9	07/22/00	4,900	71,000[1.2]	93	15	240	250	NS
(shallow)	01/29/01	3,800	5,000	160	35	260	310	NS
	07/28/01	5,700	<5,000[1,2]	43	27	210	420	NS
	02/03/02	7,800	<5,000[1,2]	98	51	450	640	NS
	07/23/02	2,300	<5,000[1,2]	29	14	120	96	NS
	01/20/03	5,000	<5,000[1]	76	25	350	340	NS
	07/30/03	570	<5,000[1,2]	7.2	1.2	14	4.8	NS
	01/27/04	820	<5,000[1,2]	14	2.6	35	35	NS
	07/22/04	460	<5,000[1,2]	5.3	1.2	4.0	7.2	NS
	01/20/05	330	<5,000[1,2]	6.2	1.5	8.9	12	NS
	07/20/05	260	<5,000[1,2]	1.7	2.0	<0.5	1.2	NS
	01/26/06	260	<5,000[1]	1.0	2.9	<0.5	0.64	NS
	07/27/06	410	<5,000[1]	1.1	1.4	0.52	<0.5	NS
	01/24/07	440	<5,000[1]	1.4	1.5	2.9	7.5	NS
	07/18/07	300	<5,000[1]	1.4	2.4	0.51	<0.5	NS
	02/15/08	490	<5,000[1]	2.8	5.2	7.1	22	NS
	07/25/08	520	<5,000[1]	1.0	4.1	0.63	<0.5	<0.5
	01/23/09	250	<5,000[1]	<0.5	3.7	<0.5	1.5	NS
	07/20/09	910	<5,000[1,2]	2.5	4.8	2.6	2.4	NS
	01/25/10	550	<5,000[1,2]	2.2	6.5	11	33	NS
	07/29/10	670	<5,000	<0.50	<0.50	<0.50	1.1	NS
	01/31/11	560	<5,000	<0.50	<0.50	<0.50	0.80	NS
	07/12/11	930	<5,000	<0.50	<0.50	2.6	5.1	NS
	01/17/12	1,400	<5,000	<0.50	<0.50	2.8	4.8	NS

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY FOR PETROLEUM HYDROCARBONS
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	GRO (µg/L)	Oil & Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Napthalene (µg/L)

Legend/Key:
GRO = Gasoline range organics
ND= "not-detected" or below the
Oil and Grease = analyzed by EPA Method 1664A.
GRO = analyzed by EPA Method 8015B; all other analytes sampled by EPA Method 8260B
NA= Not available
NS= Not sampled
ft msl = feet above mean sea leve
µg/L = micrograms per liter
[1]=Gravimetric Method
[2]= HVOC detected
[3]= Reported as HEM / SGT HE

TABLE 4
ANALYTICAL RESULTS FOR FUEL OXYGENATES AND ADDITIVES
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	MTBE (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	1,2-EDB (µg/L)
MW-1	07/25/08	NA	NA	NA	NA	NA	NA	NA	NA	NA
(deep)	01/23/09	<5.0	61	<5.0	<5.0	<5.0	<5,000	<500	<5.0	<5.0
	07/21/09	<10.0	80	<10.0	<10.0	<10.0	<10,000	<1,000	<10.0	<10.0
	01/25/10	<5.0	<20	<5.0	<5.0	<5.0	<5,000	<500	<5.0	<5.0
	07/29/10	Not Sampled - Free Product present								
	01/31/11	Not Sampled - Free Product present								
	07/12/11	Not Sampled - Free Product present								
	01/17/12	Not Sampled - Free Product present								
MW-2	07/25/08	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	1.3	<0.5
(deep)	01/23/09	<0.5	2.4	<0.5	<0.5	<0.5	<500	<50	7.8	<0.5
	07/21/09	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	9.7	<0.5
	01/25/10	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	3.8	<0.5
	07/29/10	<0.50	<10	<1.0	<1.0	<1.0	<5,000	<5,000	1.2	<2.0
	01/31/11	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	9.5	<2.0
	07/12/11	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
	01/17/12	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
MW-3	07/25/08	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
(shallow)	01/23/09	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	07/21/09	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	01/25/10	<0.5	2.4	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	07/29/10	<0.50	<10	<1.0	<1.0	<1.0	<5,000	<5,000	<1.0	<2.0
	01/31/11	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
	07/12/11	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
	01/17/12	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
MW-4	07/25/08	12	34	<2.5	<2.5	<2.5	<2,500	<250	<2.5	<2.5
(deep)	01/23/09	<5.0	<20	<5.0	<5.0	<5.0	<5,000	<500	<5.0	<0.5
	07/21/09	6.9	19	<2.5	<2.5	<2.5	<2,500	<250	<2.5	<2.5
	01/25/10	<5.0	<20	<5.0	<5.0	<5.0	<5,000	<500	<5.0	<0.5
	07/29/10	3.9	21	<2.0	<2.0	<2.0	<5,000	<5,000	<2.0	<4.0
	01/31/11	3.9	<30	<3.0	<3.0	<3.0	NS	NS	<3.0	<6.0
	07/12/11	3.1	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
	01/17/12	3.1	16	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
MW-5	07/25/08	<5.0	<20	<5.0	<5.0	<5.0	<5,000	<500	<5.0	<0.5
(deep)	01/23/09	<1.0	16	<1.0	<1.0	<1.0	<1,000	<100	2.6	<1.0
	07/21/09	<2.5	<10	<2.5	<2.5	<2.5	<2500	<250	<2.5	<2.5
	01/25/10	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	07/29/10	<1.0	<20	<2.0	<2.0	<2.0	<5,000	<5,000	<2.0	<4.0
	01/31/11	<1.0	<20	<2.0	<2.0	<2.0	NS	NS	<2.0	<4.0
	07/12/11	<2.5	<50	<5.0	<5.0	<5.0	NS	NS	<5.0	<10
	01/17/12	<1.0	<20	<2.0	<2.0	<2.0	NS	NS	<2.0	<4.0

TABLE 4
ANALYTICAL RESULTS FOR FUEL OXYGENATES AND ADDITIVES
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	MTBE (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	1,2-EDB (µg/L)
MW-6 (shallow)	07/25/08	<0.5	9.1	<0.5	<0.5	<0.5	<500	<50	0.75	<0.5
	01/23/09	<0.5	8.6	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	07/21/09	<0.5	8.2	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	01/25/10	<0.5	7.4	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	07/29/10	<0.50	<10	<1.0	<1.0	<1.0	<5,000	<5,000	<1.0	<2.0
	01/31/11	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
	07/12/11	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
	01/17/12	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
MW-7 (deep)	07/25/08	<5.0	<20	<5.0	<5.0	<5.0	<5,000	<500	<5.0	<5.0
	01/23/09	<5.0	<20	<5.0	<5.0	<5.0	<5,000	<500	<5.0	<5.0
	07/21/09	<2.5	<10	<2.5	<2.5	<2.5	<2500	<250	<2.5	<2.5
	01/25/10	<5.0	<20	<5.0	<5.0	<5.0	<5,000	<500	<5.0	<0.5
	07/29/10	<5.0	<100	<10	<10	<10	<5,000	<5,000	<10	<20
	01/31/11	<1.5	<30	<3.0	<3.0	<3.0	NS	NS	<3.0	<6.0
	07/12/11	<2.0	<40	<4.0	<4.0	<4.0	NS	NS	<4.0	<8.0
	01/17/12	<1.0	<20	<2.0	<2.0	<2.0	NS	NS	<2.0	<4.0
MW-8 (shallow)	07/25/08	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	01/23/09	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	07/21/09	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	01/25/10	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	07/29/10	<0.50	<10	<1.0	<1.0	<1.0	<5,000	<5,000	<1.0	<2.0
	01/31/11	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
	07/12/11	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
	01/17/12	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
MW-9 (shallow)	07/25/08	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	0.75	<0.5
	01/23/09	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	07/21/09	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	01/25/10	<0.5	<2.0	<0.5	<0.5	<0.5	<500	<50	<0.5	<0.5
	07/29/10	<0.50	<10	<1.0	<1.0	<1.0	<5,000	<5,000	<1.0	<2.0
	01/31/11	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
	07/12/11	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0
	01/17/12	<0.50	<10	<1.0	<1.0	<1.0	NS	NS	<1.0	<2.0

Legend/Key:

MTBE = Methyl tertiary butyl ether

TBA = Tertiary butyl alcohol

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

1,2-EDB = Ethylene Dibromide (1,2-Dibromoethane)

NA= Not Available

µg/L = micrograms per liter

TABLE 5
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	CA (µg/L)	1,2-DCB (µg/L)	1,2-DCA (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,2-DCP (µg/L)	PCE (µg/L)	TCE (µg/L)	VC (µg/L)
MW-1	7/22/2000[1]	<2.5	16.0	<2.5	15	<2.5	<2.5	<5.0	<2.5	8.2
(deep)	1/29/2001[1]	<10.0	23.0	<10	23	<10.0	<10.0	<10.0	<10.0	<10.0
	7/28/2001[1]	7.4	9.0	0.97	14	6.4	0.95	<0.5	<0.5	15
	2/3/2002[1]	5.5	10.0	1.4	23	5.5	0.59	<0.5	<0.5	7.4
	7/23/2002[1]	<10.0	2.5	<10.0	15	<10.0	<10.0	<10.0	<10.0	<10.0
	01/20/03	<10.0	11	<10.0	36	<10.0	<10.0	<10.0	<10.0	11
	07/30/03	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
	01/27/04	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
	07/22/04	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
	1/20/2005[1]	81	<5.0	<5.0	27	<5.0	<5.0	<5.0	<5.0	32
	7/20/2005[1]	<5.0	9.8	<5.0	14	<5.0	<5.0	<5.0	<5.0	15
	01/26/06	<25	<25	<25	<25	<25	<25	<25	<25	<25
	7/27/2006[1]	26	<10	<10	12	<10	<10	<10	<10	20
	01/25/07	<10	<10	<10	<10	<10	<10	<10	<10	<10
	07/19/07	<500	<500	<500	<500	<500	<500	<500	<500	<500
	02/15/08	<5	<5	<5	14	<5	<5	<5	<5	16
	7/25/2008[1]	<50,000	<50,000	<50,000	<50,000	<50,000	<50,000	<50,000	<50,000	<50,000
	01/23/09	<5	<5	<5	6.4	<5	<5	<5	<5	<5
	07/21/09	<10	<10	<10	<10	<10	<10	<10	<10	<10
	01/25/10	<5	<5	<5	11	<5	<5	<5	<5	<5
	07/29/10	Not Sampled - Free Product present								
	01/31/11	Not Sampled - Free Product present								
	07/12/11	Not Sampled - Free Product present								
	01/17/12	Not Sampled - Free Product present								
MW-2	07/22/00	<0.5	<0.5	17	10	<0.5	1.2	<0.5	12.0	<0.5
(deep)	01/29/01	<0.5	<0.5	12	9.1	<0.5	0.9	<0.5	12.0	<0.5
	07/28/01	<0.5	<0.5	9.7	7.8	<0.5	0.95	<0.5	12.0	<0.5
	02/03/02	<0.5	<0.5	7.1	6.7	<0.5	0.72	<0.5	9.0	<0.5
	07/23/02	<0.5	<0.5	1.7	2.1	<0.5	<0.5	<0.5	0.97	<0.5
	01/20/03	<0.5	<0.5	1.6	2.0	<0.5	<0.5	<0.5	<0.5	<0.5
	07/30/03	<0.5	<0.5	1.7	1.4	<0.5	<0.5	<0.5	<0.5	<0.5
	01/27/04	<0.5	<0.5	14	8.9	<0.5	<0.5	<0.5	9.4	<0.5
	07/22/04	<0.5	<0.5	6.6	6.5	<0.5	<0.5	<0.5	8.0	<0.5
	01/20/05	<0.5	<0.5	8.7	7.8	<0.5	0.69	<0.5	12.0	<0.5
	07/20/05	<0.5	<0.5	2.0	2.1	<0.5	<0.5	<0.5	1.2	<0.5
	01/26/06	<0.5	<0.5	10	7.7	<0.5	0.69	<0.5	13.0	<0.5
	07/27/06	<0.5	<0.5	13	10	<0.5	0.88	<0.5	13.0	<0.5
	01/25/07	<0.5	<0.5	5.5	9.1	<0.5	0.64	<0.5	16.0	<0.5
	07/19/07	<0.5	<0.5	5.3	4.6	<0.5	<0.5	<0.5	7.5	<0.5
	02/15/08	<0.5	<0.5	<0.5	2.0	<0.5	<0.5	<0.5	2.1	<0.5
	07/25/08	<0.5	<0.5	1.3	1.5	<0.5	<0.5	<0.5	4.8	<0.5
	01/23/09	<0.5	<0.5	7.8	9.4	<0.5	0.88	<0.5	16	<0.5
	07/21/09	<0.5	<0.5	9.7	8.3	<0.5	0.89	<0.5	15	<0.5
	01/25/10	<0.5	<0.5	3.8	4.8	<0.5	<0.5	<0.5	9.0	<0.5
	07/29/10	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	01/31/11	<1.0	<1.0	9.5	6.5	<1.0	<1.0	<1.0	12	<1.0
	07/12/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	01/17/12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 5
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	CA (µg/L)	1,2-DCB (µg/L)	1,2-DCA (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,2-DCP (µg/L)	PCE (µg/L)	TCE (µg/L)	VC (µg/L)
MW-3	07/22/00	<0.5	<0.5	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
(shallow)	01/29/01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/28/01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	02/03/02	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/23/02	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	01/20/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/30/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	01/27/04	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/22/04	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	01/20/05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/20/05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	01/26/06	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	7/27/2006[1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	01/25/07	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/19/07	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	02/15/08	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/25/08	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	01/23/09	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/21/09	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1/25/2010[1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/29/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	01/31/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	07/12/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	01/17/12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-4	07/22/00	<10	38	<10	620	<10	<10	<10	19	97
(deep)	01/29/01	<5.0	35	<5.0	380	15	<5.0	<5.0	19	97
	07/28/01	<7.5	29	<5.0	310	18	<5.0	<5.0	8.4	150
	2/3/2002[1]	<7.0	22	<7.0	310	16	<7.0	<7.0	20	120
	07/23/02	<0.5	30	<0.5	240	17	<0.5	<0.5	<0.5	230
	01/20/03	<10.0	28	<10.0	200	16	<10.0	<10.0	69	84
	07/30/03	<10.0	32	<10.0	230	13	<10.0	<10.0	13	290
	1/27/2004[1]	<5.0	41	<5.0	370	25	<5.0	<5.0	32	310
	7/22/2004[1]	<5.0	23	<5.0	120	13	<5.0	<5.0	9.6	280
	1/20/2005[1]	<5.0	28	<5.0	320	23	<5.0	<5.0	81	130
	7/20/2005[1]	<5.0	32	<5.0	230	18	<5.0	<5.0	<5.0	170
	1/26/2006[1]	<5.0	31	<5.0	320	22	<5.0	<5.0	39	330
	7/27/2006[1]	<5.0	24	<5.0	180	24	<5.0	<5.0	19	390
	01/25/07	<5.0	25	<5.0	170	15	<5.0	<5.0	<10	380
	7/19/2007[1]	<5.0	28	<5.0	180	27	<5.0	<5.0	21	460
	2/15/2008[1]	<5.0	31	<5.0	200	25	<5.0	<5.0	22	130
	7/25/2008[1]	5.5	18	<2.5	110	17	<2.5	<2.5	21	87
	1/23/2009[1]	<5.0	27	<5.0	150	23	<5.0	<5.0	<5.0	190
	7/21/2009[1]	<2.5	22	<2.5	84	14	<2.5	<2.5	15	150
	1/25/2010[1]	<5.0	25	<5.0	210	28	<5.0	<5.0	<5.0	240
	07/29/10	<2.0	23	<2.0	51	17	<2.0	<2.0	<2.0	190
	01/31/11	<3.0	22	<3.0	93	18	<3.0	<3.0	<3.0	160
	07/12/11	<1.0	18	<1.0	52	17	<1.0	<1.0	<1.0	100
	01/17/12	<1.0	20	<1.0	54	16	<1.0	<1.0	2.5	130

TABLE 5
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	CA (µg/L)	1,2-DCB (µg/L)	1,2-DCA (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,2-DCP (µg/L)	PCE (µg/L)	TCE (µg/L)	VC (µg/L)
MW-5	07/22/00	1.8	2.4	1.4	2.6	<1.0	<1.0	<1.0	<1.0	5.0
(deep)	01/29/01	<1.0	2.2	2.6	2.2	<1.0	<1.0	<1.0	<1.0	2.2
	07/28/01	1.4	1.3	1.7	1.4	<1.0	<1.0	<1.0	<1.0	2.6
	2/3/2002[1]	1.8	2.0	2.1	3.9	0.95	<0.5	<0.5	<0.5	4.6
	07/23/02	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
	01/20/03	<1.0	1.4	1.4	1.6	<1.0	<1.0	<1.0	<1.0	1.3
	07/30/03	<1.0	1.2	1.1	1.0	<1.0	<1.0	<1.0	<1.0	2.0
	1/27/2004[1]	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	07/22/04	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	01/20/05	1.1	0.84	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	07/20/05	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	01/26/06	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
	07/27/06	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
	01/25/07	<0.5	<0.5	1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/19/07	<0.5	0.51	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	02/15/08	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5
	07/25/08	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	01/23/09	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	07/21/09	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
	01/25/10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5
	07/29/10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	01/31/11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	07/12/11	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	01/17/12	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
MW-6	07/22/00	<0.5	<0.5	1.2	9.3	<0.5	<0.5	<0.5	<0.5	0.97
(shallow)	01/29/01	<0.5	<0.5	1.1	11	<0.5	<0.5	<0.5	<0.5	0.77
	07/28/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
	02/03/02	<0.5	<0.5	1.5	13	<0.5	<0.5	<0.5	<0.5	<0.5
	07/23/02	<1.0	<1.0	<1.0	9.3	<1.0	<1.0	<1.0	<1.0	<1.0
	01/20/03	<1.0	<1.0	1.8	14	<1.0	<1.0	<1.0	<1.0	<1.0
	07/30/03	<1.0	<0.5	1.3	7.6	<0.5	<0.5	<0.5	<0.5	2.7
	1/27/2004[1]	<2.5	<2.5	<2.5	8.4	<2.5	<2.5	<2.5	<2.5	3.2
	07/22/04	<0.5	<0.5	1.3	3.3	<0.5	<0.5	<0.5	<0.5	<0.5
	01/20/05	<0.5	<0.5	0.99	8.7	<0.5	<0.5	<0.5	<0.5	<0.5
	07/20/05	<0.5	<0.5	0.79	4.5	<0.5	<0.5	<0.5	<0.5	0.65
	01/26/06	<0.5	<0.5	0.81	6.2	<0.5	<0.5	<0.5	<0.5	1.90
	07/27/06	<0.5	<0.5	0.82	4.4	<0.5	<0.5	<0.5	<0.5	1.10
	01/25/07	<0.5	<0.5	<0.5	2.4	<0.5	<0.5	<0.5	<0.5	1.30
	07/19/07	<0.5	<0.5	0.73	2.2	<0.5	<0.5	<0.5	<0.5	1.30
	02/15/08	<0.5	<0.5	<0.5	4.9	<0.5	<0.5	<0.5	<0.5	0.79
	07/25/08	<0.5	<0.5	0.75	0.81	<0.5	<0.5	<0.5	<0.5	<0.5
	01/23/09	<0.5	<0.5	<0.5	0.53	<0.5	<0.5	<0.5	<0.5	<0.5
	07/21/09	<0.5	<0.5	<0.5	0.66	<0.5	<0.5	<0.5	<0.5	<0.5
	01/25/10	<0.5	<0.5	<0.5	0.94	<0.5	<0.5	<0.5	<0.5	<0.5
	08/02/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	01/31/11	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0
	07/12/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	01/17/12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 5
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	CA (µg/L)	1,2-DCB (µg/L)	1,2-DCA (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,2-DCP (µg/L)	PCE (µg/L)	TCE (µg/L)	VC (µg/L)
MW-7	7/22/2000[1]	<5	18	<5	170	<5	<5	<5	8	<5
(deep)	1/29/2001[1]	<5	18	<5	170	<5	<5	<5	8	<5
	7/28/2001[1]	<5	11	<5	170	<5	<5	<5	6.9	6.1
	02/03/02	<5.0	<5.0	<5.0	94	<5.0	<5.0	<5.0	30	<5.0
	07/23/02	<10.0	12.0	<10.0	180	<10.0	<10.0	<10.0	<10.0	<10.0
	01/20/03	<2.5	<2.5	<2.5	50	<2.5	<2.5	11	<2.5	<2.5
	07/30/03	<2.5	<2.5	<2.5	130	<2.5	<2.5	<2.5	<2.5	9.5
	01/27/04	<5.0	<5.0	<5.0	130	<5.0	<5.0	<5.0	20	24
	07/22/04	<5.0	<5.0	<5.0	120	<5.0	<5.0	<5.0	<5.0	<5.0
	01/20/05	<2.5	2.7	<2.5	110	<2.5	<2.5	<2.5	20	28
	07/20/05	<5.0	<5.0	<5.0	250	<5.0	<5.0	<5.0	<5.0	29
	01/26/06	<5.0	<5.0	<5.0	110	<5.0	<5.0	<5.0	19	37
	07/27/06	<5.0	<5.0	<5.0	350	<5.0	<5.0	<5.0	<5.0	55
	01/25/07	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	<0.5	5.9
	7/19/2007[1]	<0.5	<0.5	<0.5	210	<0.5	<0.5	<0.5	<0.5	31
	2/15/2008[1]	<0.5	5.5	<0.5	220	<0.5	<0.5	<0.5	28	20
	07/25/08	<5.0	<5.0	<5.0	99	<5.0	<5.0	<5.0	<5.0	<5.0
	01/23/09	<5.0	<5.0	<5.0	190	<5.0	<5.0	<5.0	<5.0	26
	07/21/09	<2.5	<2.5	<2.5	82	<2.5	<2.5	<2.5	<2.5	<2.5
	01/25/10	<5.0	<5.0	<5.0	98	<5.0	<5.0	<5.0	<5.0	19
	07/29/10	<10	<10	<10	810	<10	<10	<10	<10	70
	01/31/11	<3.0	<3.0	<3.0	100	<3.0	<3.0	<3.0	5.1	24
	07/12/11	<4.0	<4.0	<4.0	190	<4.0	<4.0	<4.0	<4.0	43
	01/17/12	<2.0	<2.0	<2.0	65	<2.0	<2.0	<2.0	<2.0	30
MW-8	07/22/00	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	2.4	1.6	<0.5
(shallow)	01/29/01	<0.5	<0.5	<0.5	10	<0.5	<0.5	<5.0	8.8	<0.5
	07/28/01	<0.5	<0.5	<0.5	2.6	<0.5	<0.5	<1.5	2.1	<0.5
	02/03/02	<0.5	<0.5	<0.5	6.6	<0.5	<0.5	3.3	4.6	<0.5
	07/23/02	<0.5	<0.5	<0.5	8.4	<0.5	<0.5	3.5	5.2	<0.5
	01/20/03	<0.5	<0.5	<0.5	7.3	<0.5	<0.5	6	6.7	<0.5
	07/30/03	<0.5	<0.5	<0.5	25	<0.5	<0.5	15	20	<0.5
	01/27/04	<0.5	<0.5	<0.5	4	<0.5	<0.5	3.1	3.1	<0.5
	07/22/04	<0.5	<0.5	<0.5	20	<0.5	<0.5	8.3	13	<0.5
	01/20/05	<0.5	<0.5	<0.5	6.5	<0.5	<0.5	5.2	5.1	<0.5
	07/20/05	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	1.4	1.2	<0.5
	01/26/06	<0.5	<0.5	<0.5	7.3	<0.5	<0.5	6.6	6.2	<0.5
	07/27/06	<0.5	<0.5	<0.5	10	<0.5	<0.5	6.8	7.3	<0.5
	01/25/07	<0.5	<0.5	<0.5	11	<0.5	<0.5	6.3	6.9	<0.5
	07/19/07	<0.5	<0.5	<0.5	0.52	<0.5	<0.5	0.94	0.73	<0.5
	02/15/08	<0.5	<0.5	<0.5	7.5	<0.5	<0.5	5.6	5.4	<0.5
	07/25/08	<0.5	<0.5	<0.5	0.58	<0.5	<0.5	<0.5	0.50	<0.5
	01/23/09	<0.5	<0.5	<0.5	4.9	<0.5	<0.5	2.7	3.3	<0.5
	07/21/09	<0.5	<0.5	<0.5	2.3	<0.5	<0.5	1.8	2.3	<0.5
	01/25/10	<0.5	<0.5	<0.5	1.6	<0.5	<0.5	1.2	1.2	<0.5
	07/29/10	<1.0	<1.0	<1.0	7.3	<1.0	<1.0	5.1	5.3	1.1
	01/31/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	07/12/11	<1.0	<1.0	<1.0	31	<1.0	<1.0	12	15	2.4
	01/17/12	<1.0	<1.0	<1.0	21	<1.0	<1.0	12	13	<1.0

TABLE 5
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
Grimit Auto Repair & Automotive Service, 1970 Seminary Avenue, Oakland, California

Well Number	Date Collected	CA (µg/L)	1,2-DCB (µg/L)	1,2-DCA (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,2-DCP (µg/L)	PCE (µg/L)	TCE (µg/L)	VC (µg/L)
MW-9	07/22/00	<1	1.4	<1	1.6	<1	<1	<1	<1	<1
(shallow)	01/29/01	<0.5	1.2	0.71	<0.5	8.2	<0.5	<5.0	<0.5	0.53
	07/28/01	<0.5	0.87	<0.5	0.92	<0.5	<0.5	<5.0	2.5	<0.5
	02/03/02	<0.5	1.2	<0.5	2.4	<0.5	<0.5	<0.5	<0.5	<0.5
	07/23/02	<2.5	3.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
	01/20/03	<1	<1	<1	<1	<1	<1	<1	<1	<1
	07/30/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	01/27/04	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/22/04	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1/20/2005[1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/20/05	<0.5	0.59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	01/26/06	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/27/06	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	01/25/07	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	7/19/2007[1]	<0.5	0.68	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	02/15/08	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/25/08	<0.5	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	01/23/09	<0.5	0.69	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/20/09	<0.5	0.68	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	01/25/10	<0.5	0.68	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	07/29/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	01/31/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	07/12/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	01/17/12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Legend/Key:

CA= Chlorethane

1,2-DCB= 1,2-Dichlorobenzene

1,2-DCA= 1,2-dichloroethane

cis-1,2-DCE= cis-1,2-dichloroethene

trans-1,2-DCE= -1,2-dichloroethene

1,2-DCP =1,2-dichloropropane

PCE= Tetrachloroethylene (perchloroethene)

TCE= trichloroethene

VC= vinyl chloride

ND= "not-detected" or below the Method Detection Limits

NA= Not Available

ft msl = feet above mean sea level

µg/L = micrograms per liter

[1] = Aadditional detections of VOCs noted, refer to GRIMIT/SEMINARY1-10GWSMPLREPORT, dated February 3, 2010.

Note: The table presents the analytical results of select chemical parameters based on historical presence at the site.

TABLE 3D

SUMMARY OF ANALYTICAL TEST RESULTS – GROUND WATER
Polynuclear Aromatic Hydrocarbons (PNA/PAH)
(Results reported in parts per billion, ppb/ug/l) (1) (2) (3)

Well and Date	Phenanthrene	Naphthalene
MW-1 ("deep")		
6/23/97	**12**	**2200**
10/7/97	ND<100	**810**
7/25/08	N/A	N/A
MW-2 ("deep")		
7/25/08 (4)	N/A	ND<0.5
MW-3 ("shallow")		
7/25/08 (4)	N/A	ND<0.5
MW-4 ("deep")		
7/25/08 (4)	N/A	**4.7**
MW-5 ("deep")		
7/25/08 (4)	N/A	**16**
MW-6 ("shallow")		
7/25/08 (4)	N/A	ND<0.5
MW-7 ("deep")		
7/25/08 (4)	N/A	**10**
MW-8 ("shallow")		
7/25/08 (4)	N/A	ND<0.5
MW-9 ("shallow")		
7/25/08 (4)	N/A	ND<0.5
MCL	N/A	N/A

Notes

(1) ND = non-detect
(2) N/A = not applicable
(3) Detected compounds only
(4) Analyte included in 8260B target list.

TABLE 3E

SUMMARY OF ANALYTICAL TEST RESULTS – GROUND WATER
Additional Chemical Parameters
(Results reported in parts per **million**, mg/l) (1)

Well and Date	Dissolved Oxygen	Ferrous Iron	Nitrate	Sulfate
MW-1 ("deep")				
10/8/96	**1.5** (3)	ND	ND	ND
1/16/97	**1.4** (3)	**3.6**	ND	ND
1/23/09	N/A	N/A	N/A	N/A
MW-2 ("deep")				
10/8/96	**3.7** (3)	ND	**3**	**25**
1/16/97	**5.4** (3)	**0.28**	**3**	**25**
1/23/09	N/A	N/A	N/A	N/A
MW-3 ("shallow")				
10/8/96	**3.8** (3)	ND	ND	**5**
1/16/97	**5.2** (3)	ND	ND	**5**
1/23/09	**0.01** (4)	N/A	N/A	N/A
MW-4 ("deep")				
10/8/96	**3.0** (3)	ND	ND	ND
1/16/97	**4.7** (3)	**0.75**	ND	**5**
1/23/09	N/A	N/A	N/A	N/A
MW-5 ("deep")				
10/8/96	**2.8** (3)	ND	ND	**8**
1/16/97	**3.4** (3)	**0.38**	ND	**9**
1/23/09	N/A	N/A	N/A	N/A
MW-6 ("shallow")				
10/8/96	**2.7** (3)	ND	ND	**6**
1/16/97	**2.7** (3)	**0.28**	ND	**8**
1/23/09	**0.54** (4)	N/A	N/A	N/A
MW-7 ("deep")				
10/8/96	No data: well not in existence at time of testing.			
1/16/97	No data: well not in existence at time of testing.			
1/23/09	N/A	N/A	N/A	N/A
MW-8 ("shallow")				
10/8/96	No data: well not in existence at time of testing.			
1/16/97	No data: well not in existence at time of testing.			
1/23/09 (5.0')	**1.78** (4)	N/A	N/A	N/A
1/23/09 (11.5')	**1.59** (4)	N/A	N/A	N/A
MW-9 ("shallow")				
10/8/96	No data: well not in existence at time of testing.			
1/16/97	No data: well not in existence at time of testing.			
1/23/09	N/A	N/A	N/A	N/A

Notes on following page

Notes

(1) ND = non-detect
(2) N/A = not applicable
(3) Sample transmitted to analytical laboratory, measured in lab by EPA Method 360.1
(4) Field measurement (see report text)

TABLE 3F

SUMMARY OF ANALYTICAL TEST RESULTS – GROUND WATER
Fuel Fingerprint With Silica Gel Clean Up

Well and Date	Fuel Fingerprint
MW-1 ("deep")	
2/3/02	Significant hydrocarbon pattern between C6 and C12 that resembles gasoline. Also shows a hydrocarbon pattern between C18 and C30 that resembles oil. (See note 2).
7/25/08	Analyzed sample MW-1B (floating phase fuel product). Significant hydrocarbon pattern within the gasoline range (C6-C12) and the stoddard solvent range (C9-C12). To a lesser degree an oil range (C18-C30) pattern is also observed. (See note 3). Analytical results (note: carbon ranges overlap and thus total detection greater than 100 per cent): TPH-G (C6-C12): 920,000 mg/L. TPH-D (C10-C23): 230,000mg/L TPH-MO (C18-C36): 160,000 mg/L.
MW-2 ("deep")	
2/3/02	ND < 50 ug/L
MW-3 ("shallow")	
2/3/02	ND < 50 ug/L
MW-4 ("deep")	
2/3/02	Significant hydrocarbon pattern between C9 and C12 that resembles stoddard solvent. Also shows a hydrocarbon pattern between C18 and C30 that resembles oil. (See note 2).
MW-5 ("deep")	
2/3/02	Significant hydrocarbon pattern between C6 and C12 that resembles fresh gasoline. (See note 2).
MW-6 ("shallow")	
2/3/02	Significant hydrocarbon pattern between C6 and C12 that resembles fresh gasoline. (See note 2).
MW-7 ("deep")	
2/3/02	Significant hydrocarbon pattern between C6 and C12 that resembles fresh gasoline. (See note 2).
MW-8 ("shallow")	
2/3/02	ND < 50 ug/L
MW-9 ("shallow")	
2/3/02	Significant hydrocarbon pattern between C6 and C12 that resembles fresh gasoline. (See note 2).

Notes

(1) ND = non-detect
(2) See laboratory report in February 26, 2002 ground water sampling report for chromatograms.
(3) See laboratory report in July 2008 ground water sampling report for chromatograms.

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
2012 SUBSURFACE INVESTIGATION
Former Grimit Auto Facility
1970 Seminary Avenue, Oakland, California

Well Number / Sample ID	Depth (Feet bgs)	Date Collected	GRO (µg/L)	O&G (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	TCE (µg/L)	1,2-DCB (µg/L)	1,2-DCA (µg/L)
Boring DP-1													
DP-1-25	21-25	01/09/12	<100	NA	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
DP-1-50	47-50	01/10/12	**81**	NA	<0.5	<0.5	<0.5	<0.5	**6.7**	**50**	**4.3**	<1.0	**1.0**
Boring DP-2													
DP-2-25	21-25	01/10/12	**110**	NA	<0.5	<0.5	<0.5	<0.5	<1.0	**59**	<1.0	<1.0	<1.0
DP-2-50	47-50	01/10/12	<50	NA	<0.5	<0.5	<0.5	<0.5	**1.7**	**74**	**1.4**	<1.0	<1.0
Boring DP-3													
DP-3-25	21-25	01/12/12	<50	NA	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
DP-3-50	49-53	01/12/12	<50	NA	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
Boring DP-4													
DP-4-38	34-38	01/20/12	<100**	NA	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
DP-4-52	48-52	01/20/12	<50	NA	<0.5	<0.5	<0.5	<0.5	<1.0	**25**	<1.0	<1.0	<1.0
Boring DP-5													
DP-5-36	32-36	01/19/12	<50	NA	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
DP-5-50	46-50	01/19/12	<50	NA	<0.5	<0.5	<0.5	<0.5	<1.0	**4.2**	<1.0	<1.0	<1.0
Boring DP-6													
DP-6-36	32-36	01/23/12	<50	NA	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
DP-6-45	42-46	01/23/12	**59**	NA	<0.5	<0.5	<0.5	<0.5	<1.0	**31**	<1.0	<1.0	<1.0
Boring DP-7													
DP-7-50	46-50	01/13/12	<50	NA	<0.5	<0.5	<0.5	<0.5	<1.0	**34**	<1.0	<1.0	<1.0
Boring DP-8													
DP-8-37	33-37	01/19/12	<200**	**26,000/ 20,000***	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
DP-8-56	52-56	01/17/12	**64**	<5,000	<0.5	<0.5	<0.5	<0.5	<1.0	**47**	<1.0	<1.0	<1.0

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
2012 SUBSURFACE INVESTIGATION
Former Grimit Auto Facility
1970 Seminary Avenue, Oakland, California

Well Number / Sample ID	Depth (Feet bgs)	Date Collected	GRO (µg/L)	O&G (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	TCE (µg/L)	1,2-DCB (µg/L)	1,2-DCA (µg/L)
Boring DP-9													
DP-9-18	15-18	01/16/12	<50	NA	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
DP-9-52	49-52	01/16/12	<50	NA	<0.5	<0.5	<0.5	<0.5	<1.0	**7.2**	<1.0	<1.0	<1.0
Boring DP-10													
DP-10-36	33-36	01/23/12	<50	NA	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
DP-10-55	52-55	01/16/12	**110**	NA	<0.5	<0.5	<0.5	<0.5	<1.0	**84**	<1.0	<1.0	<1.0
Boring DP-11													
DP-11-36	32-36	01/19/12	<200**	<5,000	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
DP-11-54	50-54	01/17/12	**68**	NA	<0.5	<0.5	<0.5	**0.86**	**18**	**34**	**4.0**	**1.0**	<1.0
Boring DP-12													
DP-12-60	56-60	01/12/12	<50	NA	<0.5	<0.5	<0.5	<0.5	<1.0	**94**	<1.0	<1.0	<1.0
Boring DP-13													
DP-13-37	33-37	01/20/12	<50	NA	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
DP-13-58	54-58	01/20/12	**82**	NA	**0.51**	<0.5	<0.5	<0.5	<1.0	**28**	<1.0	<1.0	<1.0
Boring DP-14													
DP-14-36	32-36	01/23/12	**230**	NA	<0.5	**1.1**	**1.2**	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
DP-14-50	46-50	01/18/12	**53**	<5,000	<0.5	<0.5	<0.5	<0.5	<1.0	**40**	<1.0	<1.0	<1.0

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
2012 SUBSURFACE INVESTIGATION
Former Grimit Auto Facility
1970 Seminary Avenue, Oakland, California

Well Number / Sample ID	Depth (Feet bgs)	Date Collected	GRO (µg/L)	O&G (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	TCE (µg/L)	1,2-DCB (µg/L)	1,2-DCA (µg/L)

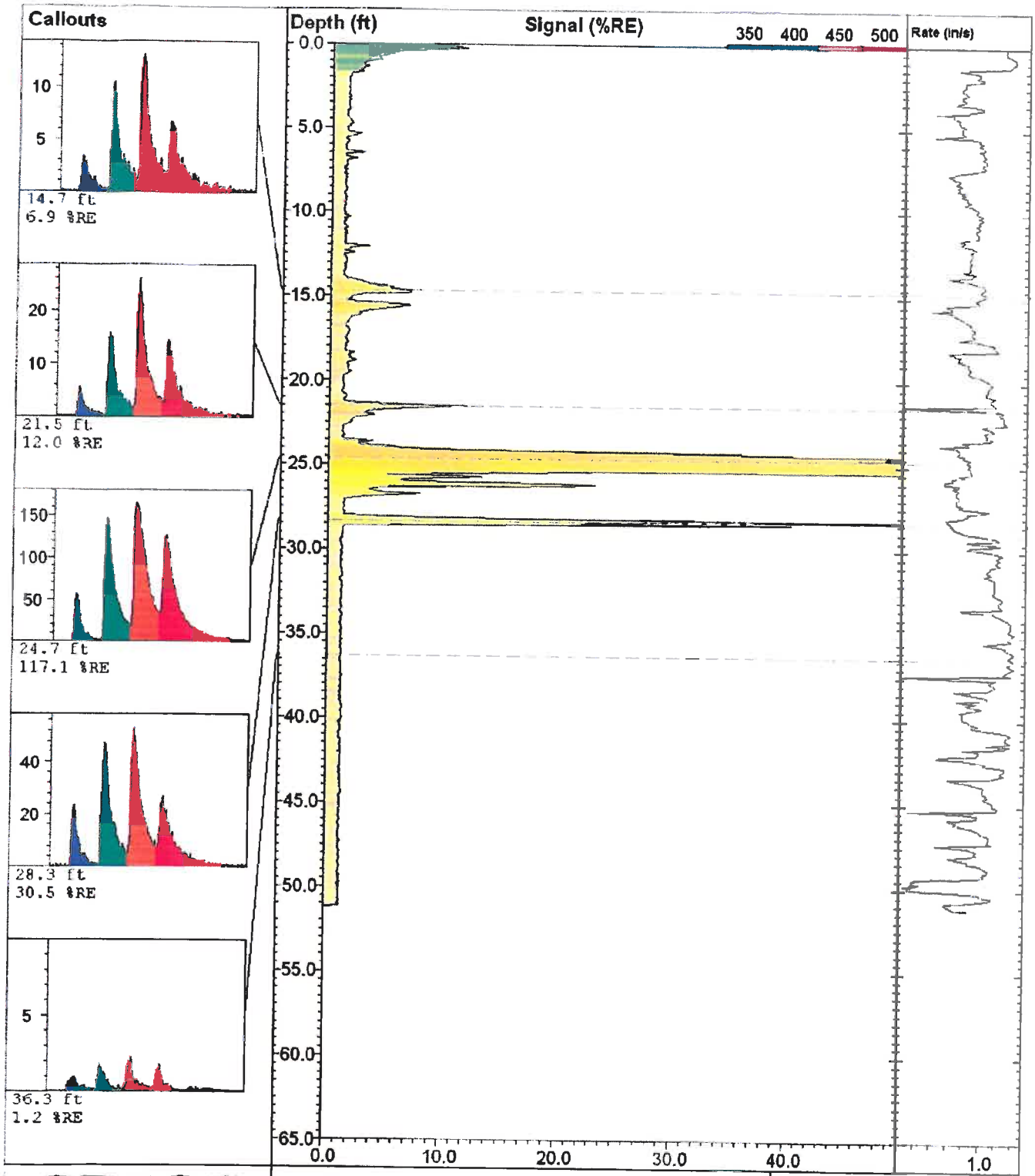
Notes:
Concentrations of all other analyzed petroleum hydrocarbons and volatile organic compounds were below laboratory instrument detection limits
NA = Not Analyzed
GRO = Gasoline Range Organics
O&G = Oil and Grease
MTBE = Methyl tertiary butyl ether
cis-1,2-DCE = cis-1,2-Dichloroethene
1,2-DCA = 1,2-Dichloroethane
PCE = Tetrachloroethene
TCE = Trichloroethene
1,2-DCB = 1,2-Dichlorobenzene
* = Oil and Grease analysis result includes silica gel treatment
** = Reporting limits increased due to sample foaming

Analyzing Laboratory
Alpha Analytical, Inc. (ELAP No. 2019)

Laboratory Methods
GRO analyzed using EPA Method SW8015B
VOCs analyzed using EPA Method SW8260B
O&G analyzed using EPA Method 1664A (with silica gel treatment on one sample)

APPENDIX E

LASER INDUCED FLUORESCENCE (LIF) DATA



GREGG

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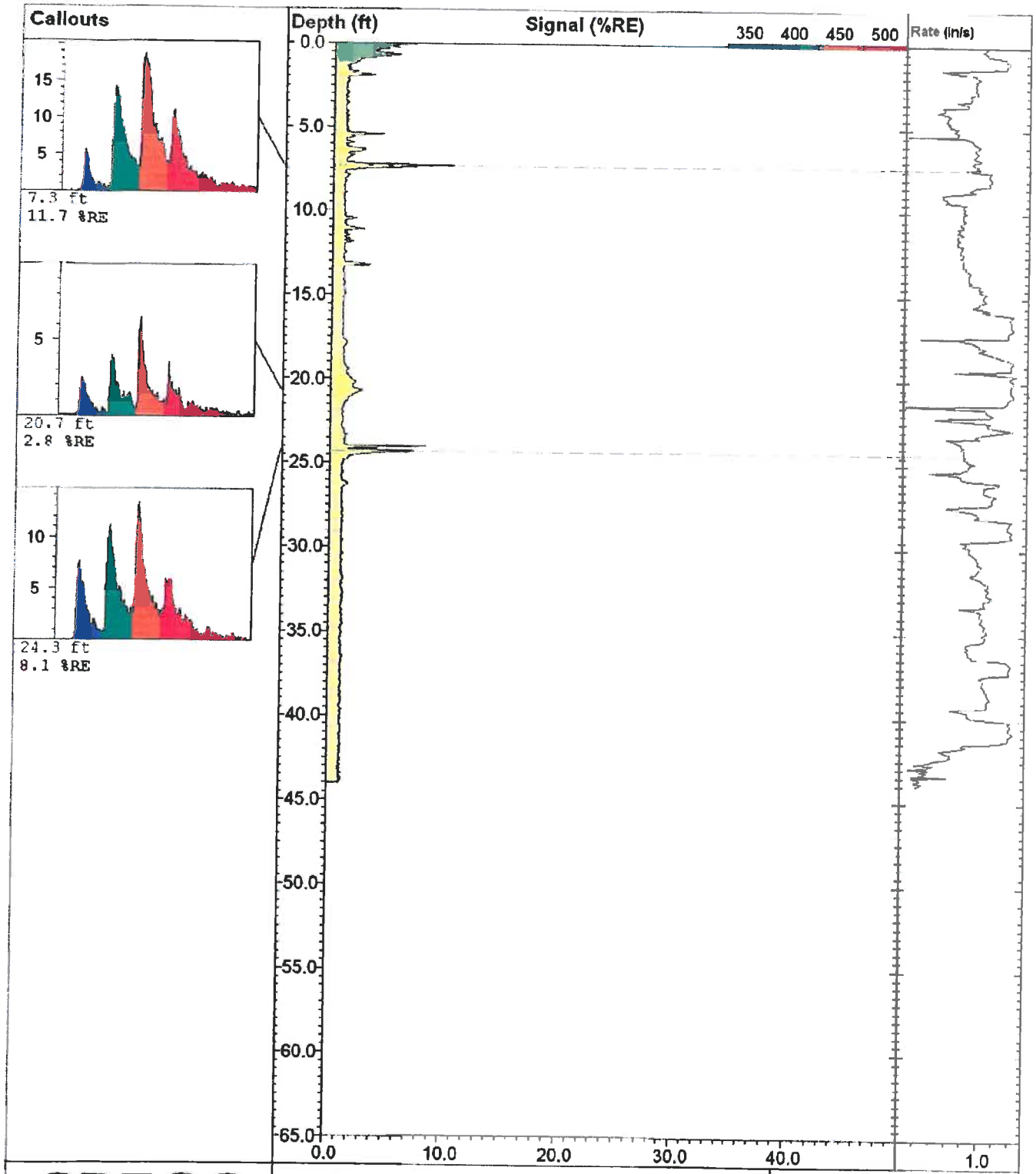
UCPt-01

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Grimit Auto**	*Latitude / Datum:* Unavailable / **NA**	*Final depth:* **51.17 ft**
Client: **Stratus**	*Longitude / Fix:* Unavailable / **NA**	*Max signal:* **438.3 % @ 25.22 ft**
Job: **2090.1970**	*Operator/Unit:* John/UVOST**1009**	*Date & Time:* **2011-12-01 14:28 PST**



GREGG

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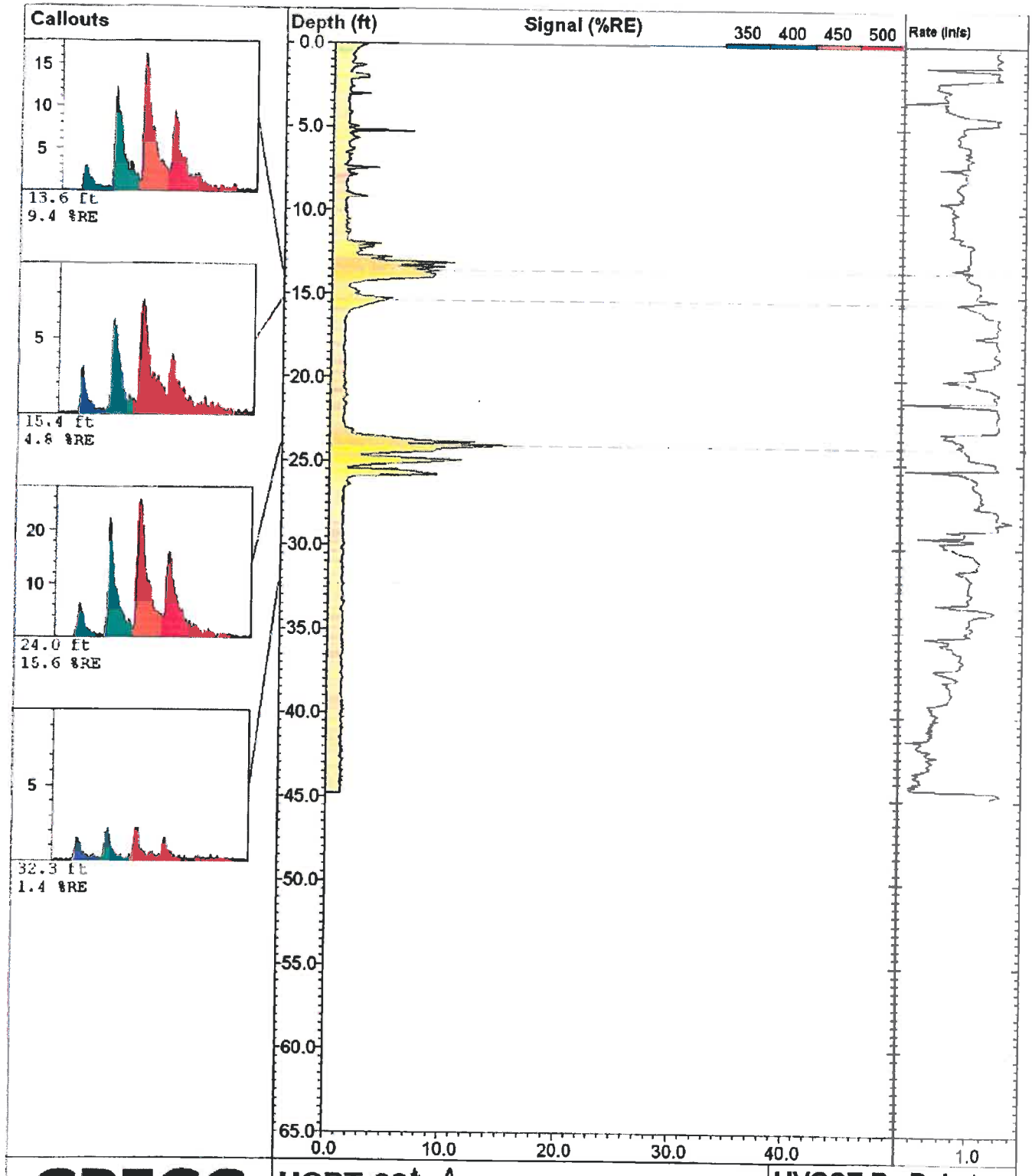
UCPT-02

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Grimit Auto**	*Latitude / Datum:* Unavailable / NA	*Final depth:* **44.03 ft**
Client: **Stratus**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **11.7 % @ 7.32 ft**
Job: **2090.1970**	*Operator/Unit:* John /UVOST**1009**	*Date & Time:* **2011-12-02 09:04 PST**



GREGG

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UCPT-03 A

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Grimit Auto**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **44.80 ft**
Client: **Stratus**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **15.6 % @ 24.04 ft**
Job: **2090.1970**	*Operator/Unit:* **John /UVOST1009**	*Date & Time:* **2011-12-02 11:34 PST**

Close Page

Home Page

CONE PENETRATION TESTING EQUIPMENT

LASER INDUCED FLUORESCENCE (UVOST)

Gregg Drilling & Testing, Inc. conducts Laser Induced Fluorescence (LIF) cone penetration tests using an Ultra-Violet Optical Screening Tool (UVOST) module that is located behind the standard piezocone, Figure UVOST. The UVOST works on the principle that polycyclic aromatic hydrocarbons (PAH's), located in soil and/or groundwater fluoresce when irradiated by ultra violet light. Different types of PAHs will fluoresce at different wave lengths leaving a characteristic fluorescence signature. Measuring the intensity and wavelength of the fluoresced PAH allows one to assess the type and relative concentration of PAH present in the CPT-UVOST sounding.

Performing CPT-UVOST soundings at multiple locations across a site allows for an accurate determination of the site stratigraphy and piezometric profile along with the location of the residual phase NAPL present at the site. These data can be used to select appropriate boring, sampling and monitoring well locations which allows for a more rapid, accurate and cost effective site assessment and remediation program when compared with the traditional multiphase drilling and sampling program.

The UVOST (Ultra-Violet Optical Screening Tool) module in conjuction with Cone Penetration Testing (CPT) can provide detailed stratigraphic logging plus hydrocarbon contaminant screening.

How it works:

- UV light from a laser is emitted through a window in the cone causing hydrocarbon molecules to fluoresce.
- Fiber optic cables transmit fluorescence to the surface where intensity and decay are recorded every 2 inches.
- Decay signatures determine the type of hydrocarbon contaminant and signal intensity determines the location.

Benefits:

- Capability to push up to 600 feet per day.
- Cost effective method to determine extent, location and type of contaminant.
- Color coded logs offer qualitative information and can be produced in the field for real-time decision making.
- No samples or cuttings and significant time savings over traditional drilling and sampling.
- Minimal site and environmental impact.

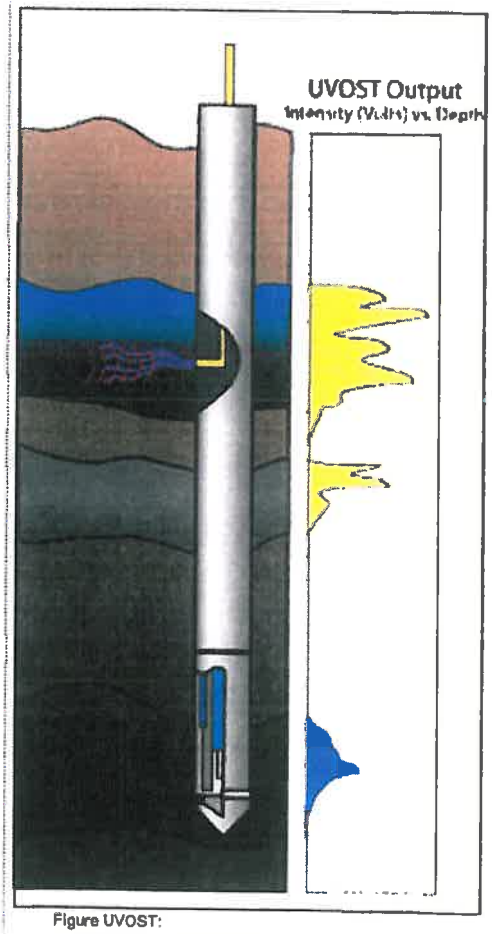

Figure UVOST:
UVOST system deployed with the CPT

ADDITIONAL INFORMATION

View/Print:: UVOST Datasheet

See Also: Technical Methodology

2726 Walnut Avenue, Signal Hill, CA 90755 • Email: info@greggdrilling.com

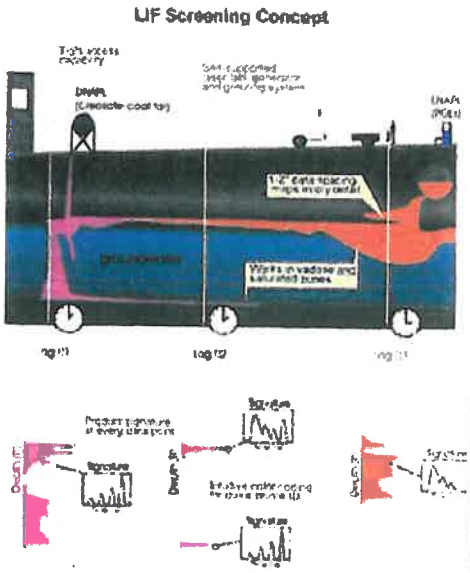

Figure Concept *(figure courtesy of Dakota Technologies)*

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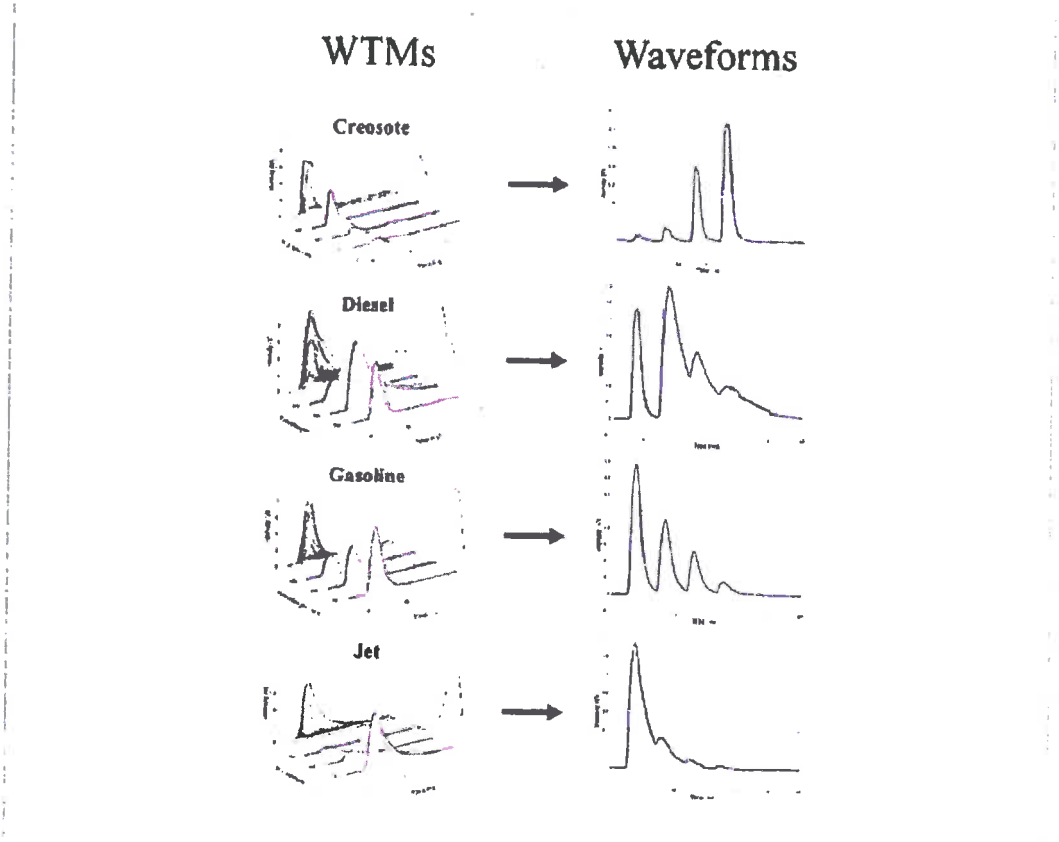
LIF Introduction

Fluorescence is a property of some compounds where absorbed light stimulates the release of photons (light) of a longer wavelength. Fluorescence, a property of many aromatic hydrocarbons, can be used to detect small amounts of substance in/on a much larger matrix. Here we will discuss the use of Laser Induced Fluorescence (LIF) for purposes of site investigation.

The fluorescence of PAHs has both a spectral and temporal component. Real-world environmental samples typically contain at least several (if not dozens) of different PAHs along with other fluorophores, and the PAH fluorescence spectra overlap to form broad and fairly featureless spectral and temporal emission (compared to pure PAH spectra). If we were to record the temporal decay waveforms across the entire spectrum we would record what is called a wavelength-time matrix (WTM) that would describe the fluorescence emission completely. Dakota's LIF systems monitor four unique bands of this emission in real-time.



WTM's of common fuels

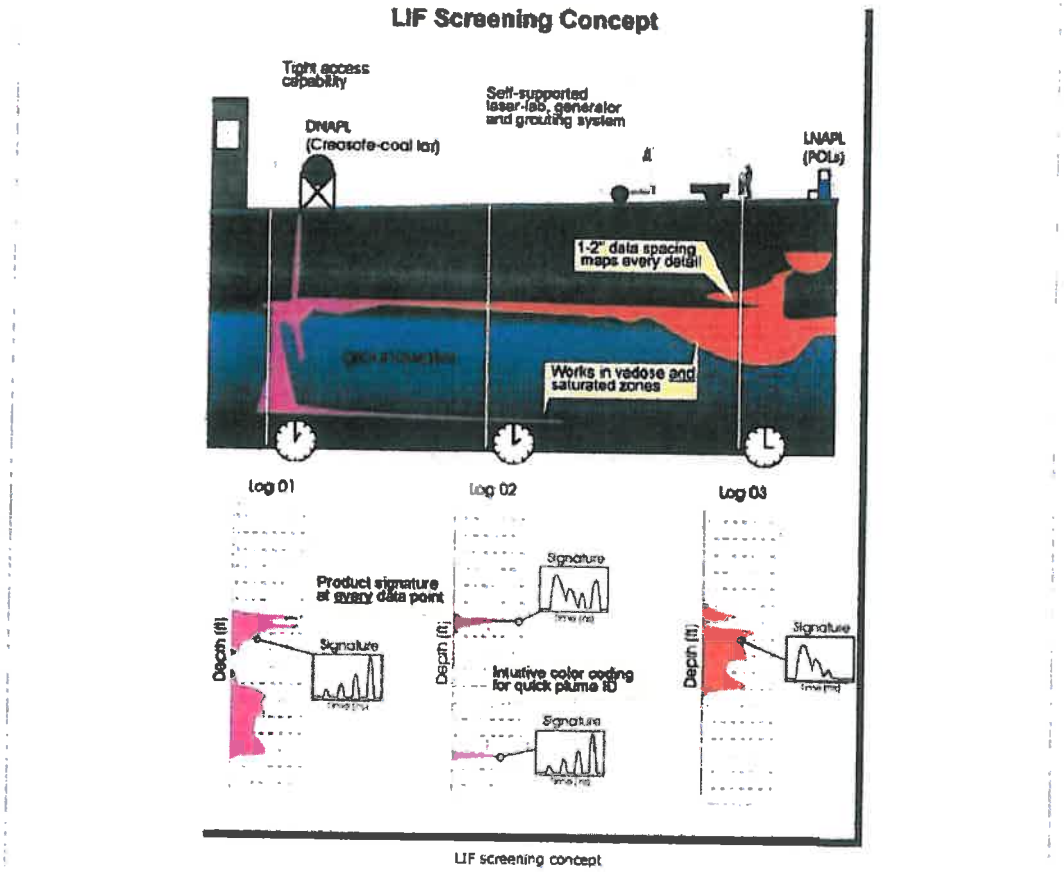
How It Works

The system developed by Dakota sends excitation light through fiber optic cable strung within rods. The light exits through a window in the side of the probe. As the probe is advanced the soil is exposed to the excitation light. If fluorescent compounds exist (i.e. contaminants) light is emitted. The "signal" light is transmitted through a fiber, back up hole to be analyzed. Responses are indicated in real-time on a graph of signal vs. depth. The graph can also display color logs and waveforms to aid in identification of the contaminant present.

Benefits of LIF

- Production rate - 200 to 400 ft. per day depending on soil conditions and grouting methods.
- No samples - LIF collects and displays data in real time. Therefore no samples are collected.
- Decontamination - With a special rod wiper and no sampling equipment, decontamination is virtually eliminated.

- Quick results - Results can be printed out before the rods can be extracted from the ground. Providing real-time decision making and results in a true seek-and-find style of site characterization.



LIF screening concept

Publications

"In situ Characterization of NAPL with TarGOST® at MGP Sites" (external link, valid 2006-07): R. St. Germain, S. Adamek and T. Rudolph, Land Contamination & Reclamation, 14(2), 573-578(6) (2006)

"Case study: confirmation of TarGOST laser-induced fluorescence DNAPL delineation with soil boring data" (external link, valid 2006-07): M. B. Okin, S. M. Carroll, W. R. Fisher, and R. W. St. Germain, Land Contamination & Reclamation, 14(2), 573-578(6) (2006)

"Demonstration of a Method for the Direct Determination of PAHs in Submerged Sediments" (external link, valid 2006-07): T. Grundl, J. Aldstadt, J. Harb, R. St. Germain, and R. Scheweitzer, Environ. Sci. Technol., 14(2), 37(6), 1189-1197 (2003)

"An In-Situ Laser-Induced Fluorescence System for Polycylic Aromatic Hydrocarbon-Contaminated Sediment" (external link, valid 2006-07): J. Aldstadt, R. St. Germain, T. Grundl, and R. Scheweitzer, United States Environmental Protection Agency, Great Lakes National Program Office (2002)

"Chemometric treatment of multimode laser-induced fluorescence (LIF) data of fuel-spiked soils" (external link, valid 2006-07): M. H. Van Benthem, B. C. Mitchell, G. D. Gillispie, and R. W. St. Germain, Advanced Technologies for Environmental Monitoring and Remediation, Tuan Vo-Dinh, Editor, Proc. SPIE, 2835, 167-179 (1996)

< Prev Next >

[Back]

APPENDIX F

1997 DUAL PHASE EXTRACTION PILOT TEST REPORT PREPARED BY TERRA VAC CORPORATION

TERRA VAC

DUAL VAPOR EXTRACTION PILOT STUDY
GRIMIT AUTO AND REPAIR
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

Prepared For:

Doyle Grimit
14366 Lark Street
San Leandro, California 94578

Prepared By:

Terra Vac Corporation
1651 Alvarado Street
San Leandro, California 94577

Robert Tarr
Staff Engineer

Mark P. Frye
Project Engineer

February 5,1997

DUAL VAPOR EXTRACTION PILOT STUDY
GRIMIT AUTO AND REPAIR
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

1.0 Introduction

At the request of Doyle Grimit, Terra Vac performed a dual vapor extraction pilot study at the Grimit Auto and Repair site. The purpose of the study was to collect data on the performance of dual vapor extraction technology when applied at the site. Terra Vac understands that this report will be used to evaluate remedial options for addressing hydrocarbon impacted soil and groundwater beneath the site.

2.0 Site Description

The project site is located at 1970 Seminary Avenue in Oakland, California. The neighborhood generally consists of residential houses with nearby one, two, or three-story apartment buildings. The property is bordered by Seminary Avenue on the northwest and Harmon Avenue on the northeast. The site comprises an automobile service building with an office, an attached canopy, and a small detached storage building.

The site is paved throughout with the exception of an approximate 900 square foot area where the former underground storage tanks (UST) were located. The UST area was over-excavated and clean soil was used as backfill.

3.0 Pilot Study Summary

The pilot study was conducted to determine; (a) the radius of influence of an applied vacuum to an existing well on-site, and (b) the resultant groundwater flow rate from that well. To complete this, Terra Vac mobilized a system which comprised of:

- 10HP blower;
- Generator;
- Carbon canister;
- Well head adapting equipment;
- Knock out pot; and
- other miscellaneous equipment.

An existing on-site well was used as the extraction well for this pilot study. The extraction well was adapted with fittings for the 10HP blower to induce a vacuum of approximately 12" Hg. The fittings included a slurp tube that extended down the well that was used to extract

groundwater. The groundwater removed from the extraction well is separated from the knock out pot. Monitoring well MW-1 was selected because the screened interval allowed soil vapors to be drawn from the surrounding subsurface area.

The radius of influence was monitored from two 1-inch black iron pipes driven into the subsurface. The driven pipes are hereinafter, referred to as observation points. Vacuum gauges connected to the observation points were used to measure the amount of vacuum produced in the soil at different distances from the extraction well.

Monitoring well MW-1 has a two-inch casing and is screened across the interval extending approximately 15 to 35 feet below grade. Prior to the start of the study, groundwater was encountered at a depth of approximately 14 feet below grade. The observation points, OB-1 and OB-2, were driven approximately six feet into the subsurface. The locations of MW-1, OB-1, and OB-2 are shown on Figure 1.

Terra Vac mobilized test equipment to the site on January 28, 1997. A 34 foot-long slurp tube was set in MW-1 and the dual vapor extraction system was operated for slightly over three hours. Throughout the duration of the study, Terra Vac monitored the vacuum applied to the slurp tube, induced air flow rates out of the extraction well, the amount of vacuum applied to the well casing and formation, and the resultant vacuum at the observation points. The rate at which groundwater was extracted from MW-1 was also noted. Two samples of the extracted soil vapors were collected and analyzed by Terra Vac for total petroleum hydrocarbons and benzene, toluene, ethylbenzene, and xylenes. Tabulated field data is presented in Table 1.

4.0 Pilot Study Results

An evaluation of the monitoring data indicates the following:

- The induced air flow rate from the extraction well was approximately 11 standard cubic feet per minute with an applied vacuum of 12 inches of mercury column.

- A significant amount of bleed air was required to maintain air flow and groundwater removal within the extraction well casing. Extraction flow rates are expected to increase significantly with continuous application of vacuum to the low permeable materials as a result of dewatering. Wells screened exclusively for dual vacuum extraction will also enhance flow rates.

- The vacuum effectively applied to the well casing and formation was approximately 4 inches of mercury column.

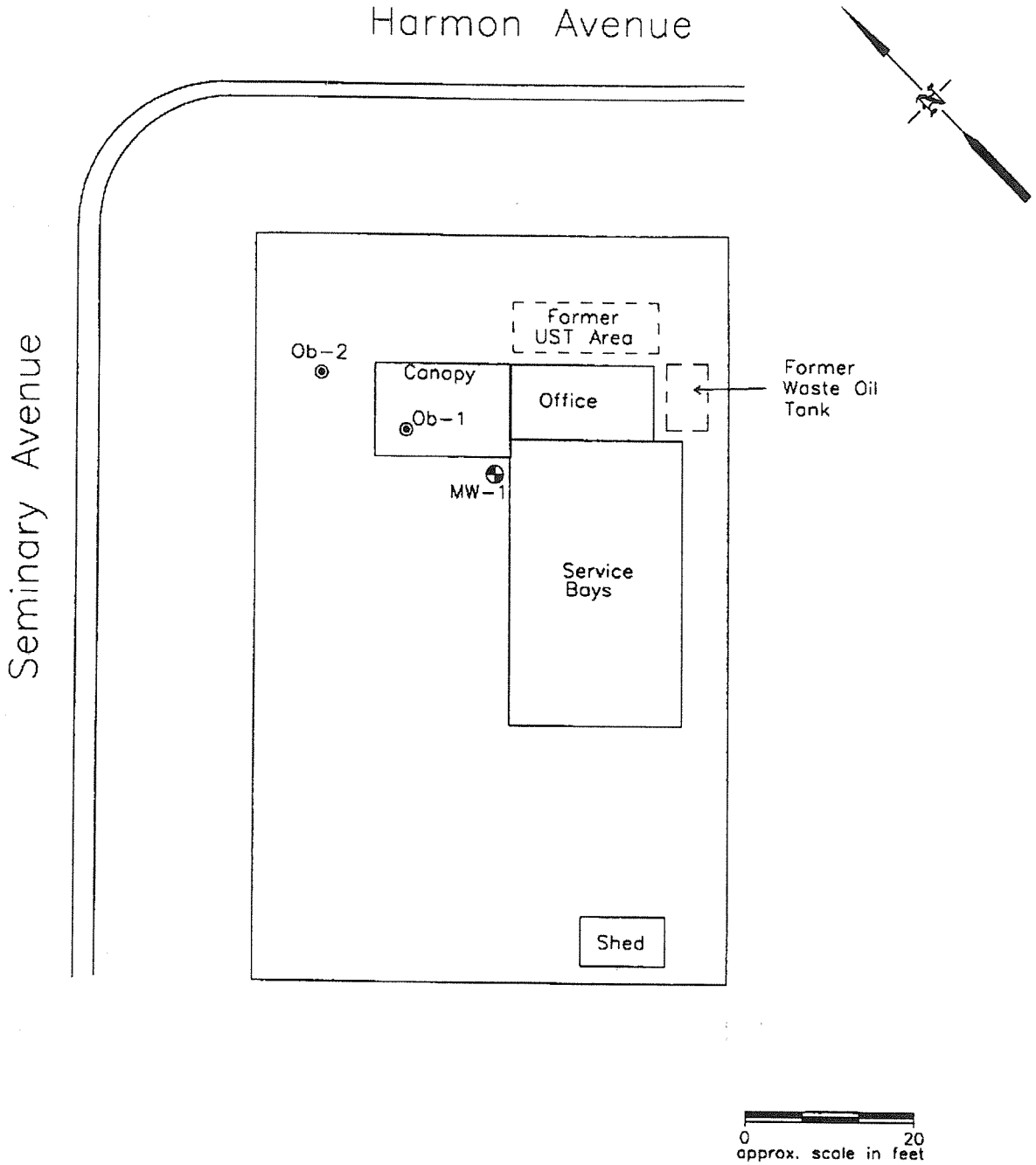
- A vacuum of approximately 0.2 inches of water column was observed in OB-1 at the end of three hours of test operation. OB-1 was located at a distance of approximately 14 feet from MW-1. At the same time, a vacuum of approximately 0.1 inches of water column

was observed in OB-2 which was located at a distance of approximately 25 feet from MW-1. The amount of vacuum observed in OB-1 is significant and is indicative of some degree of connectivity between MW-1 and OB-1. There appeared to be some connectively between MW-1 and OB-2, however the amount of induced vacuum was not as significant.

- A total of 130 gallons of groundwater were extracted during three hours of testing corresponding to an overall groundwater extraction rate of approximately 0.7 gallons per minute.

5.0 Conclusion

The radius of influence of operating the dual vapor extraction system extended to at least 14 feet, with a trace influence at approximately 25 feet from MW-1. The initial TPH-g concentrations decreased from 39.7 mg/L to to 12.6 mg/L during this study. Based on these facts, Terra Vac believes Dual Vapor Extraction, the process of extracting vapor and groundwater simultaneously, is a viable alternative to effectively and rapidly remove the subsurface contaminants at the Grimit Auto and Repair site.



LEGEND

◓ = Dual Vapor Extraction Well

Ob-1
◉ = Observation Well

Site Map
Grimit Auto and Repair
1970 Seminary Ave.
Oakland, CA

Project	30-0195	Drawn	RJT
Date	1/31/97	Revision	2/10/97
Scale	1"= 20'	Checked	

TERRA VAC
1651 Alvarado Street
San Leandro, CA 94577
(510) 351-8900 Fax: -0221

Figure 1

Table 1
Grimit Auto and Repair
Pilot Test Field Data
28 January 1997

Time	Vacuum ("Hg)	MW-1("Hg)	Ob-1 ("H2O)	Ob-2 ("H2O)	Bleed	Pitot	Remarks
1213	13.0	0.0	0.00	0.03	Open	0	Drawing H2O down
1214	(--)	0.0	0.00	(--)	Open	(--)	Stop system
1217	12.0	0.0	0.00	0.03	Open	0	Start system
1220	12.8	4.0	0.00	0.03	1/4 Open	0.8	Moderate water flow
1223	12.0	3.5	0.00	0.02	1/2 Open	0.3	**Took vapor sample 1**
1227	12.0	3.5	0.06	0.02	3/4 Open	0.2	Low water flow
1232	12.0	3.5	0.00	0.02	3/4 Open	0.6	Moderate water flow
1242	12.0	3.8	0.00	0.02	3/4 Open	0.2	Moderate water flow
1257	12.0	4.0	0.00	0.02	3/4 Open	0.2	Moderate water flow
1304	12.0	4.0	0.18	0.04	3/4 Open	0.2	Moderate water flow
1325	12.0	4.0	0.15	0.04	3/4 Open	0.4	Moderate water flow
1348	12.0	4.0	0.00	0.01	3/4 Open	0.3	Low water flow
1412	12.0	4.0	0.00	0.05	3/4 Open	3.6	Low water flow
1430	12.0	4.0	0.00	0.00	3/4 Open	5.6	Moderate water flow
1445	12.0	4.0	0.00	0.00	3/4 Open	5	Moderate water flow
1500	12.0	4.0	0.04	0.10	3/4 Open	5	Moderate water flow
1503	(--)	(--)	(--)	(--)	(--)	(--)	**Took vapor sample 2**
1504	12.0	4.0	0.10	0.10	3/4 Open	0.3	Moderate water flow
1510	12.0	4.0	0.20	0.09	3/4 Open	0.5	Moderate water flow
1515	12.0	4.0	0.18	0.08	3/4 Open	0.5	Moderate water flow
1520	12.0	4.0	0.18	0.08	3/4 Open	0.5	Moderate water flow