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ATC ASSOCIATES INC.

6602 Owens Dr. Suite 100
Pleasanton, California 94588
www.atc-enviro.com
925.460.5300
Fax 925.463.2559

May 17, 2005

Mr. Donald Hwang
Alameda County Department of Public Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: Work Plan Addendum – Site Assessment Activity
76 Service Station No. 0843 / WNO 2807
ATC Job Number: 75.75118.2807-75W02
1629 Webster St.
Alameda, California

Dear Mr. Hwang:

ATC Associates Inc. (ATC) has prepared this Work Plan on behalf of ConocoPhillips Company for the above referenced property. Proposed scope of services presented herein include the installation of two additional monitor wells to that previously proposed in the June 23, 2004 *Work Plan For Subsurface Investigation* prepared by Miller Brooks Environmental Inc.

The purpose of the additional monitor wells is to further define the lateral extent of the dissolved MtBE and benzene hydrocarbon plumes. Based on the current monitor well network, there is insufficient control along Pacific Avenue and further north. As referenced on Figure 2, the proposed monitor wells will be located adjacent to Pacific Avenue, one near the Alameda Art Center and one near the Subway commercial business building. Groundwater collected from soil boring GP-5 and MW-6 have recent dissolved MtBE concentrations ranging from 2,000 to 2,500 ug/l. Dissolved benzene concentrations from the same locations have ranged from <10 ug/l to 39 ug/l in the last quarter.

SITE DESCRIPTION

The site is located on the southwestern corner of Webster Street and Pacific Avenue, in Alameda, California as shown on the Site Vicinity Map (Figure 1). The site currently operates as an auto repair facility. The locations of the former underground storage tanks (USTs), dispensers, and other selected site features are shown on the Proposed Monitor Well Location Map, Figure 2. Properties in the vicinity of the site are occupied by residential and commercial developments.

SITE BACKGROUND AND ACTIVITY

June 1998 - Tosco Marketing Company (Tosco, now ConocoPhillips) removed two 10,000-gallon gasoline underground storage tanks (USTs), one 550-gallon used oil UST, product lines, and dispensers. Two holes approximately ¾-inch in diameter were observed in the used oil tank during removal. Approximately 338 tons of hydrocarbon impacted soil and backfill were removed from beneath the former USTs, dispensers, and product lines during the UST removal activities.

March 1999 – Four soil borings (B1 through B4) were advanced at the site and converted to monitor wells MW-1 through MW-4. Groundwater was encountered from 8 to 15 feet below ground surface (bgs). Static water was observed at between 4 and 6 feet bgs subsequent to well installation.

December 1999 – Two offsite soil borings (B5 and B6) were advanced and subsequently converted to monitor wells MW5 and MW6. Groundwater was encountered at approximately 10 feet below ground surface (bgs). Static water was observed at 7 feet bgs subsequent to well installation.

March 2001 - An underground utility survey was conducted to identify and locate underground utilities beneath and in the vicinity of the site that could provide potential preferential pathways for groundwater flow.

May 2001 - Five direct-push soil borings (GP-1 through GP-5) were installed to evaluate whether underground utilities in the vicinity of the site are providing preferential pathways for groundwater flow and the migration of dissolved hydrocarbons. The results of the investigation indicated that there was insufficient evidence to suggest that underground utility lines were providing preferential pathways for the off-site migration of dissolved petroleum hydrocarbons.

December 2001 - Twelve direct-push soil borings (GP-6 through GP-17) were completed to further assess the extent of residual hydrocarbons in the vadose zone beneath the site. The results of the investigation indicated that the extent of the residual hydrocarbon impact detected in the previous investigations was limited and that remedial action was not warranted.

June/July 2002 - A groundwater receptor survey was conducted. Three irrigation wells were located within a ½ - mile radius of the site. The wells were reportedly located approximately 1,980 feet west and 2,245 feet southwest of the site, cross or up gradient of the site.

December 2002 - One on-site monitoring well (MW-2) was destroyed during remedial excavation of hydrocarbon-impacted soil. This well was completed in the vicinity of the former eastern dispenser island and was replaced with on-site backfill monitoring well MW-2A. Approximately 292 tons of hydrocarbon-impacted soil were removed from beneath the former eastern dispenser island.

September 2003 - A *Request and Work Plan for Closure* prepared by ERI was submitted to the Alameda County Health Care Services Agency, dated September 10, 2003. The report summarized why no further action is needed for the site; the report also included plans to destroy the existing wells upon regulatory acceptance for no further action.

In here somewhere, a regulator must has written a letter saying "not so fast".

June 2004 – A Work Plan was submitted to install one monitor well down gradient of MW-5.

SITE GEOLOGY AND HYDROGEOLOGY

Sediments encountered in on- and off-site soil borings generally consist of heterogeneous mixtures of fine-grained sand with silt and clay to 21 feet bgs. Static groundwater as measured in wells MW-1 though MW-6 has ranged between 4 and 8 feet bgs. The aquifer appears to be semi-confined to unconfined. Groundwater flow is generally towards the north-northeast with an average hydraulic gradient of 0.007 ft/ft.

PROPOSED SCOPE OF WORK

The proposed scope of work includes the following activities:

- Conduct utility clearance and obtain drilling permits from the Alameda County Public Works Agency;
- Obtain right-of-way permits from the Alameda County Public Works Agency to advance soil borings and install monitor wells in the City right-of-way,
- Obtain an encroachment permit from the State of California Department of Transportation (CalTrans) to advance borings/monitor well installation in the CalTrans right-of-way,
- Install two (additional) monitor wells to approximately 25 feet bgs with the initial 5 feet of each boring completed with "air-knife" technology as shown on Figure 2;
- Collect soil and groundwater samples for laboratory analysis from each monitor well borehole location;
- Contract a licensed land surveyor to generate a site map and survey the new monitor wells;
- Upload monitor well x, y, z coordinates and analytical laboratory data into the State of California Geotracker System per requirements of AB 2886; and
- Prepare report of findings.

Pre-Field Investigation Activities

ATC will conduct a utility survey prior to conducting the field investigation. Underground Services Alert (USA) will be notified at least 48 hours prior to installing the proposed monitor wells, and the services of a private utility locating company will be utilized to reduce the risk of damage to any utilities beneath the property. Additionally, prior to installing each monitor well the first 5-feet of each borehole will be cleared using an air knife or hydrovak rig.

ATC will prepare a site-specific Health and Safety (H&S) plan in accordance Title 8, Section 5192 of the California Code of Regulations. The H&S plan will contain a list of emergency contacts, as well as a hospital route map to the nearest emergency facility.

A drilling permit will be obtained from the Alameda County Department of Environmental Health prior to scheduling the field work.

Monitor Well Installation and Soil Sampling Procedures

Each monitor well (refer to Figure 2) will be installed by a C-57 licensed contractor using a drill rig equipped with 8-inch diameter hollow-stem augers. A sufficient number of clean augers will be brought on site by the drilling contractor each day of the field work. All decontamination of the auger flights will occur at the drilling contractor's off site facility.

Soil samples will be collected and logged continuously using a California-modified split-spoon sampler. Soil samples will be collected using 6-inch long by 2-inch diameter brass sample tubes. The middle sample tube from each interval will be sealed with Teflon tape and plastic end caps and placed in a chest cooled with ice for delivery to the analytical laboratory for chemical analysis. The remaining soil collected from the sample tubes will be used for field screening and lithologic description purposes. Soil samples from each sample interval will be field screened for the presence of volatile organic compounds (VOCs) using a photoionization detector (PID). It is anticipated that two soil samples per boring will be

collected for laboratory analysis. The PID readings will be recorded on the soil boring log by the field geologist. All soil samples will be logged using the Unified Soil Classification System (USCS).

Each monitor well will be constructed using 2-inch diameter polyvinyl chloride (PVC) well casing and screen (0.010-slot). The sand pack will consist of #2/12 Monterey sand, and each well will be sealed with hydrated bentonite chips and Portland cement. Each well will be set to grade and the well head covered with a traffic-rated vault box. Figure 3 depicts a typical monitor well construction diagram.

Monitor Well Development and Sampling Procedures

After a minimum of 48 hours has elapsed following the completion of each well, the wells will be developed using a surge block and centrifugal pump equipped with disposable polyethylene tubing. A minimum of 10 well casing volumes will be removed from each well during the development process.

After the wells have been developed and a minimum of 24 hours has elapsed, the monitoring wells will be sampled for laboratory analysis. Each well will be purged using a centrifugal pump equipped with 3/8-inch disposable polyethylene tubing. A minimum of three well casing volumes will be purged from each well prior to collecting groundwater samples for laboratory analysis. Water temperature, conductivity, pH, and dissolved oxygen will be monitored during the purging of each well to ensure that groundwater from the surrounding formation has entered the well casing prior to sample collection. These environmental parameter readings will be noted on field sampling data sheets, copies of which will be provided in the report of findings.

Groundwater samples from each well will be collected from the tubing once the environmental parameters have stabilized. New polyethylene tubing and bailers will be used to purge and sample each well. After groundwater samples have been collected, the sample containers (40 milliliter glass vials) will be placed in a chest cooled with ice and transported to a state-certified laboratory for chemical analysis.

Laboratory Analysis

All soil and groundwater samples will be submitted under chain of custody protocol to Severn Trent Laboratories, Inc., a California-certified laboratory located in Pleasanton, California. The soil and groundwater samples will be analyzed for TPPH using United States Environmental Protection Agency (US EPA) Method 8015 and BTEX, MtBE, DIPE, ETBA, TAME, and ethanol using EPA Method 8260B. Groundwater samples collected from each well will also be analyzed for total dissolved solids (TDS) using US EPA Method 160.1. In addition, for waste profiling purposes, one soil sample will be analyzed for total lead and TCLP lead using EPA Method 6010. Proper chain-of-custody procedures will be followed for sample shipment.

Site Survey and Electronic Deliverable Format (EDF) Upload

ATC will contract with a licensed land surveyor to generate an accurate site map, as well as provide top of casing elevation and horizontal coordinates for each monitoring well location. The information will be used to produce an accurate site map for the report, as well as to upload analytical data to the State's Geotracker System.

Waste Disposal

All soil cuttings, rinsate fluids and purge water generated during this investigation will be temporarily stored onsite in appropriately labeled 55-gallon Department of Transportation (DOT)-approved drums pending disposal arrangements. The fluids and solids will be transported offsite by a licensed waste hauler once an approved destination for the waste is found.

Report

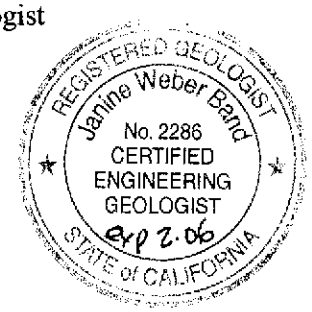
The findings of the field investigation will be presented in a Subsurface Investigation Report. The contents of the report will include a sample location map, copies of the analytical laboratory data sheets, soil boring/monitor well construction logs, a cross section and conclusions and recommendations for additional investigation and/or monitoring, if appropriate.

If you have any questions regarding the contents of this work plan, please give me a call at (925) 225-7817. Mr. Thomas Kosel, the ConocoPhillips Site Manager, may also be contacted at (916) 558-7666 for additional questions.

Sincerely,
ATC ASSOCIATES INC.

David A. Evans
Senior Project Manager

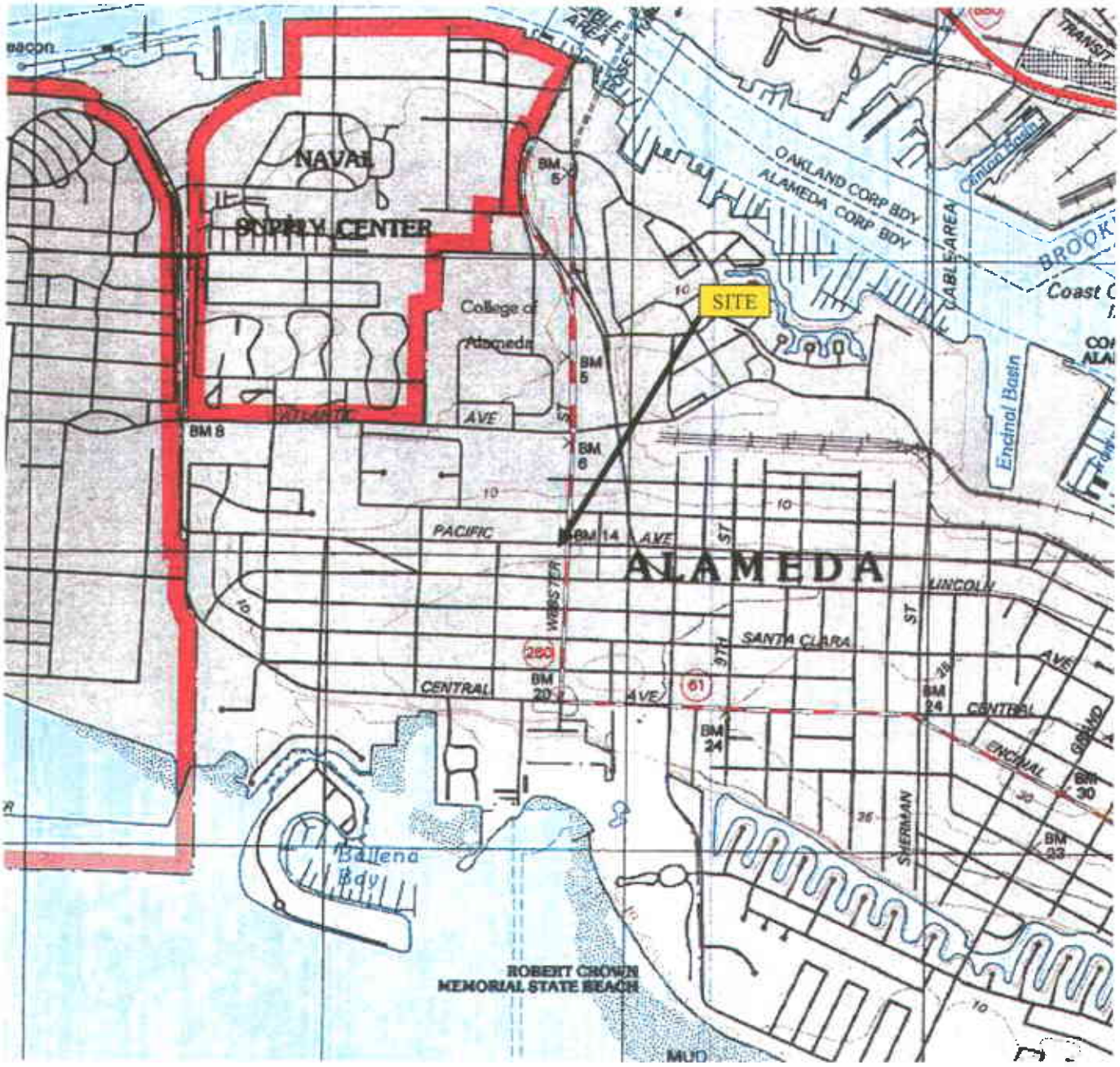
Janine Weber-Band, PhD, CEG #2286
Principal Geologist



Cc: Thomas Kosel – ConocoPhillips (electronic copy)

Attachments:

Figure 1 – Site Vicinity Map
Figure 2 – Site Map with Proposed well Locations
Figure 3 – Well Construction Diagram



0 .5 1 MILE

0 1000 FEET 0 500 1000 METERS

SOURCE: USGS OAKLAND EAST QUADRANGLE, CALIFORNIA (7.5 MINUTE SERIES) TOPOGRAPHIC MAP. OBTAINED FROM THE 2000 NATIONAL GEOGRAPHIC TOPO! SOFTWARE.

VATC ASSOCIATES INC

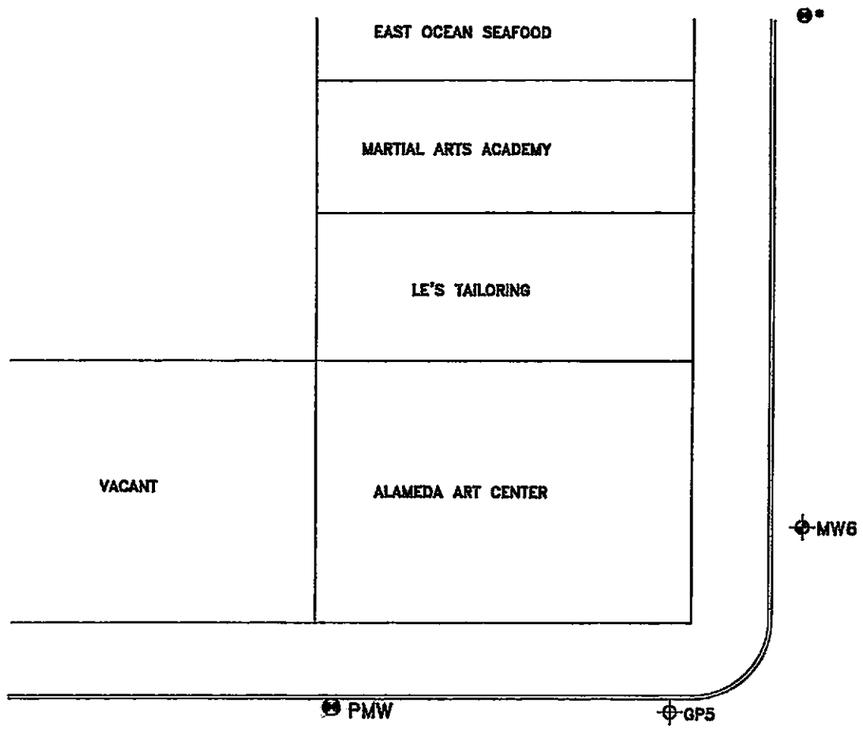
6602 Owens Drive, Suite 100
Pleasanton, CA 94588
(925) 460-5300

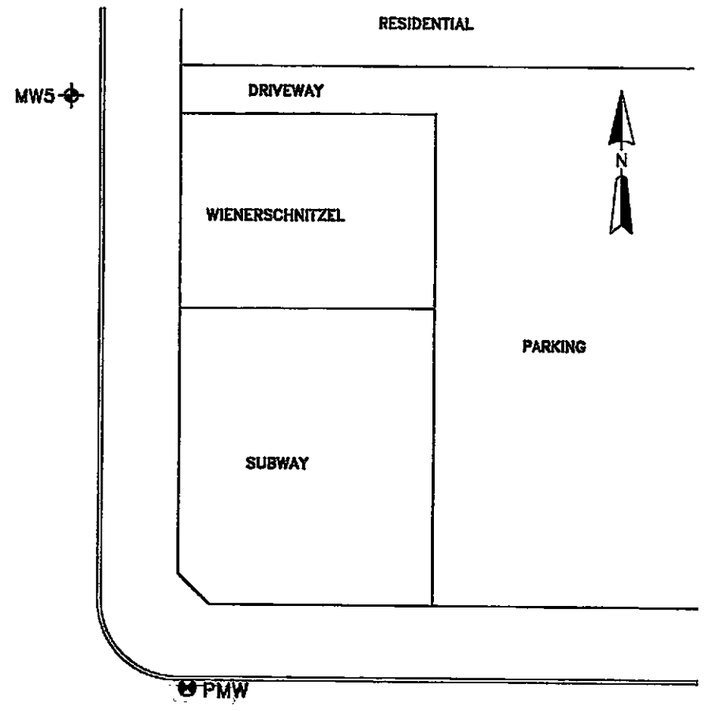
PROJECT NO: 75.75118.2807		
DESIGNED BY: DE	SCALE:N/A	REVIEWED BY: DE
DRAWN BY: EC	DATE: 03/05	FILE: 0843 SITE VIC

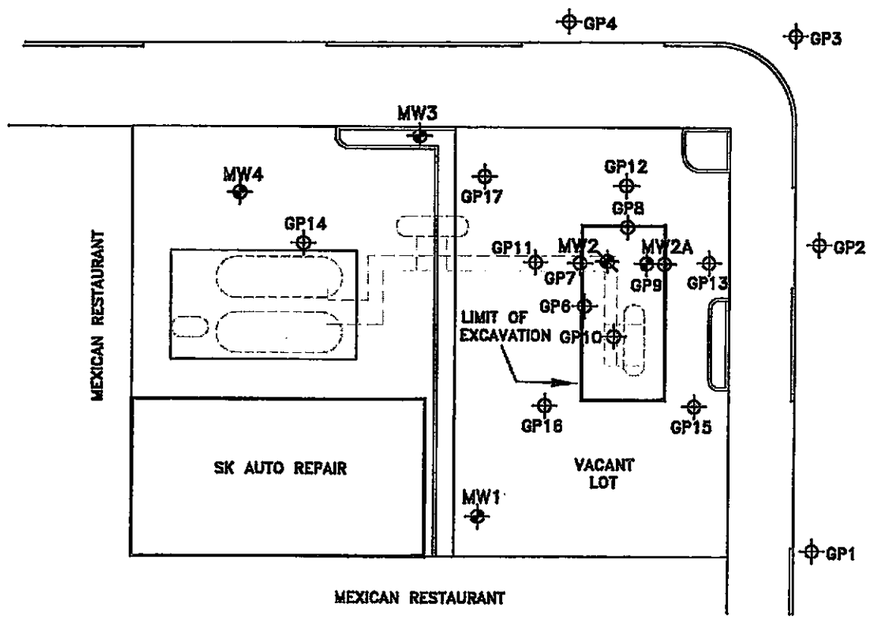
FIGURE 1

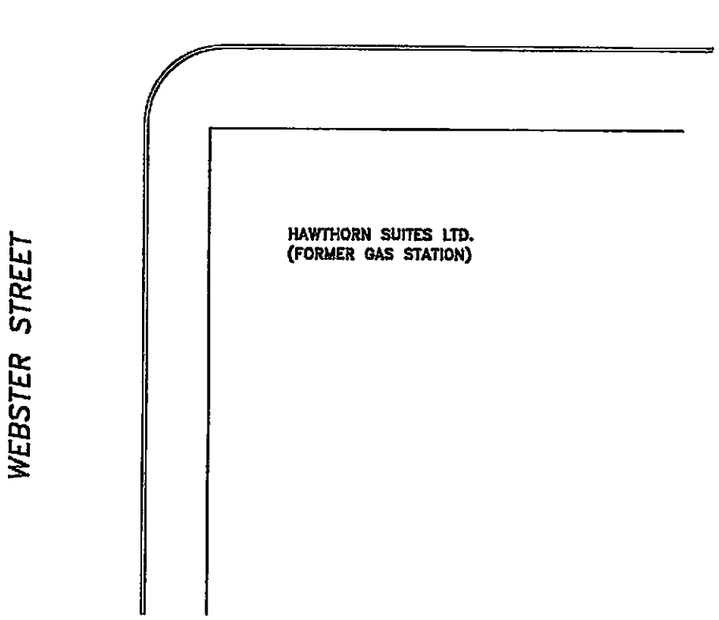
SITE VICINITY MAP

76 STATION 82349 (0843)
1629 WEBSTER STREET
ALAMEDA, CALIFORNIA









LEGEND

- MW1 — GROUNDWATER MONITOR WELL
- MW2 — DESTROYED WELL
- GP1 — SOIL BORING
- PMW — PROPOSED GROUNDWATER MONITOR WELL
- FORMER DISPENSER ISLAND
- FORMER USED OIL UST
- FORMER GASOLINE UNDERGROUND STORAGE TANK (UST)
- FORMER PRODUCT LINES
- WORKPLAN PREVIOUSLY SUBMITTED FOR THIS WELL

Approximate Scale

30 0 30 feet

Subject to Surveyors verification

BASE MAP REFERENCE:
MODIFIED FROM SITE PLAN SUPPLIED BY MILLER BROOKS, ENVIRONMENTAL, INC.

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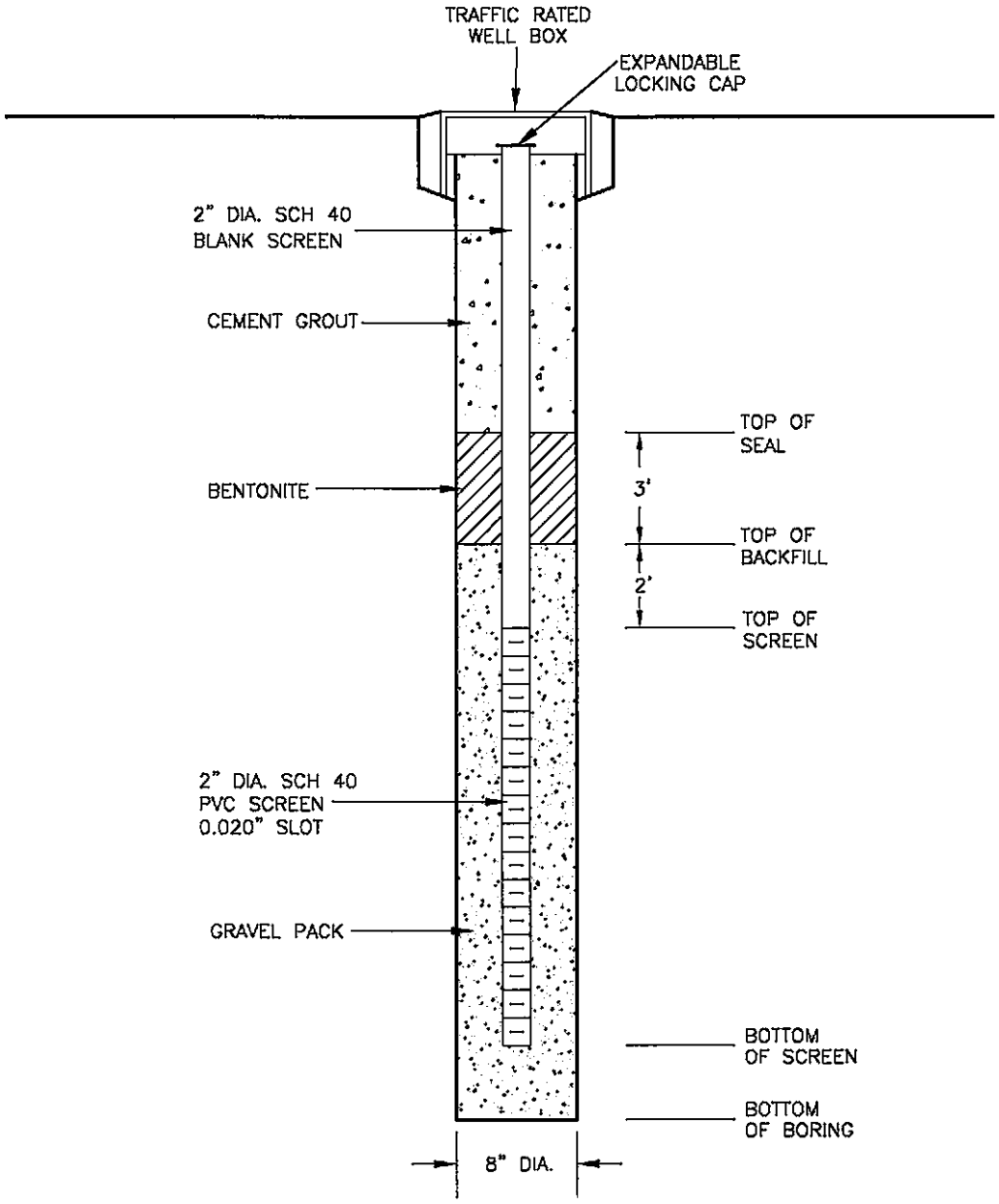
SCALE	DRAWING DATE	ACAD FILE
AS SHOWN	04/22/05	0843-prop well

PROPOSED MONITOR WELL LOCATION MAP

CLIENT	PM
CONOCOPHILLIPS	DAE
LOCATION: 76 STATION 0843, 1629 WEBSTER STREET, ALAMEDA, CALIFORNIA	PE: DA

DESIGNED	DRAWN BY:	PROJECT NO.	FIGURE
	EC	75.75118.2807	2



NOTES:

1. NOT DRAWN TO SCALE
2. DEPTH MESUREMENTS AND INTERVALS ARE APPROXIMATE. ACTUAL WELL DESIGN WILL BE BASED ON EXPLORATORY BORING AND SITE CONDITIONS

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TYPICAL MONITOR WELL DIAGRAM

FIGURE 3