Chevron Environmental Management Company
6001 Bollinger Canyon Rd, K2236
P.O. Box 6012
San Ramon, CA 94583-2324
Tel 925-842-9559
Fax 925-842-8370

Dana Thurman
Project Manager

ChevronTexaco

June 5, 2006
(date)

Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Chevron Service Station # 9-0917

Address: **5280 Hopyard Road, Pleasanton, California**

I have reviewed the attached report titled ***Response to Comments*** and dated **June 5, 2006**.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Cambria Environmental Technology, Inc., upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

Dana Thurman
Project Manager

Enclosure: Report

CAMBRIA

June 5, 2006

Mr. Jerry Wickham
Alameda County Health Care Services Agency (ACHCSA)
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: **Response to Comments**
Chevron Service Station 9-0917
5280 Hopyard Road, Pleasanton, California
Fuel Leak Case No. RO0000439

Dear Mr. Wickham:

On behalf of Chevron Environmental Management Company (Chevron), Cambria Environmental Technology, Inc. (Cambria) has prepared this letter report in response to the ACHCSA letter dated May 24, 2006 (Attachment A). The ACHCSA letter requested the following:

1. Whether the proposed remedial action will be expanded to treat the source area and if it is feasible to treat the source area given the current site configuration; and
2. A discussion of how the radius of influence will be determined around well MW-5, or whether an additional monitoring or extraction well will be needed to conduct the pilot test.

1) Will the proposed remedial action be expanded to treat the source area, and is it feasible to treat the source area with the proposed technology given the current site configuration?

Cambria will expand the proposed remedial action as warranted by the results of the pilot test to treat the source area as described below. As shown on Figure 1 and discussed below, the majority of residual hydrocarbon impact appears to be limited in extent near the north-northeast corner and northeast side of the existing station building, and implementation of the proposed surfactant remedial alternative should be feasible for a majority of this area.

2) Discuss how the radius of influence will be determined around well MW-5, or whether an additional monitoring or extraction well will be needed to conduct the pilot test.

In order to better evaluate the radius of remedial influence, and target more known residual impact in soil, Cambria will install a surfactant injection/extraction well for the pilot test at the location shown on Figure 1, near boring GP-1. This location places the remedial well within the area identified as having the majority of residual impact in soil at the site—in the area of the former easternmost product lines. Although the highest residual hydrocarbon concentration in

Cambria Environmental Technology, Inc.
2000 Opportunity Drive
Suite 110
Roseville, CA 95678
Tel (916) 677-3407
Fax (916) 677-3687

soil was detected at product line trench sample point #26 (1,800 ppm total petroleum hydrocarbons as gasoline, or TPHg) at 3 feet below grade (fbg), the extent of impact is minimal as shown by the results at sample point #27 (ND TPHg), which is located 7 feet below #26, and recently by adjacent boring GP-4, where soil was non-detect at 5 and 10 fbg for all constituents of concern. Soil analytical data from samples collected in the former UST excavation indicate that significant residual hydrocarbon mass is not present in these areas of the site. In addition to targeting residual hydrocarbon mass in soil, this location is advantageous to remove a significant quantity of dissolved mass from the remaining hydrocarbon plume. With the proposed injection/extraction well, existing well MW-5 will be used as a monitoring point to evaluate the effectiveness and radius of influence for the surfactant pilot test. Groundwater samples will also be collected from the proposed injection/extraction well, and all groundwater data collected during the surfactant pilot test will be used to estimate mass removal and evaluate effectiveness.

Cambria proposes the following scope of work to install one injection/extraction well at the location shown on Figure 1.

Permits: Cambria will obtain a well installation permit from the Zone 7 Water Agency. A minimum of 48 hours notice will be given to responsible agencies prior to field work commencement.

Site Health and Safety Plan: Cambria will prepare a site safety plan to protect site workers. The plan will be kept on-site at all times and signed by all site workers and visitors each day.

Underground Utility Location: Cambria will visit the site and mark the location of the proposed well boring. We will then contact Underground Service Alert (USA) a minimum of 48 hours prior to drilling to mark and identify locations of utilities on and adjacent to the property.

Utility Clearance: Per safety requirements, the well boring will be cleared to eight fbg using an air-knife assisted vacuum truck and/or hand augers to detect any unknown utilities prior to drilling.

Soil Boring: After clearing to 8 fbg, the well boring will be advanced to approximately 20 fbg with 10-inch hollow-stem augers and completed as an injection/extraction well. Soil will be logged and sampled at approximately 5 foot intervals.

Well Construction: The well will be screened from approximately 3 to 20 fbg. Screen intervals may be modified based on field observations. The well will be constructed using 0.020-inch machine-slotted 4-inch diameter Schedule 40 PVC casing with Monterey Sand #2/12 sand pack.

CAMBRIA

The well annulus will have a 1-foot bentonite seal above the screen and sand pack and be filled with concrete to one foot below grade. A well box equipped with a traffic rated lid will be installed to grade. Well construction may be altered based upon field observation. Standard field procedures are presented as Attachment B.

Soil Sample Selection: Soil samples will be selected for chemical analyses based on field screening for hydrocarbon vapors using a photo-ionization detector, visual observation of soil characteristics such as discoloration, sample depth relative to the capillary fringe, and soil-texture considerations.

Chemical Analysis: Selected soil samples will be analyzed for the following constituents:

- TPHg by EPA Method 8015M
- Benzene, toluene, ethylbenzene, xylenes, methyl tert-butyl ether, tert-butyl alcohol, tert-amyl methyl ether, ethyl tert-butyl ether, and di-isopropyl ether by EPA Method 8260B

Soil Disposal: Soil cuttings will be temporarily stored on-site in 55-gallon steel drums, sampled for disposal purposes, removed by Integrated Waste Management, and transported to a Chevron approved disposal facility.

SCHEDULE

Cambria will proceed with this work after receiving written approval from the ACHCSA.

CAMBRIA

CLOSING

If you have any questions or require additional information, please do not hesitate to contact me at (916) 677-3407 (ext. 112).

Sincerely,
Cambria Environmental Technology, Inc.

David W. Herzog, P.G.
Senior Project Geologist

Figure: 1 – Site Plan with Dissolved and Residual Hydrocarbon Impact

Attachment: A – ACHCSA May 24, 2006 Letter
B – Cambria Standard Field Methods and Procedures

cc: Mr. Dana Thurman, Chevron Environmental Management Company, 6001 Bollinger Canyon Road, K2236, P.O. Box 6012, San Ramon, CA 94583

Lamorinda Development and Investment, 89 Davis Road, Suite 160, Orinda, CA 94563

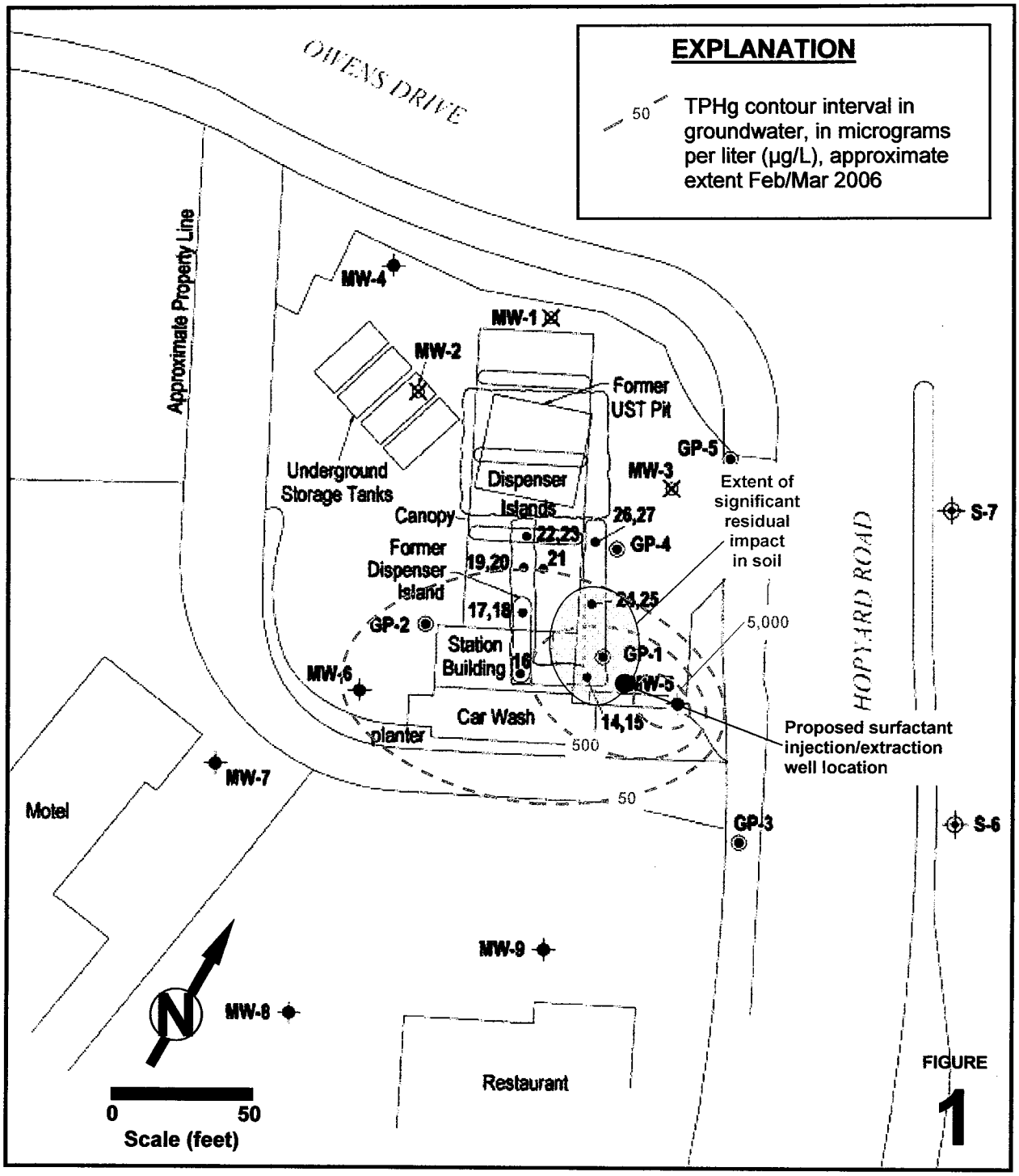
C&H Development Company, 43 Panoramic Way, Walnut Creek, CA 94595

Mr. Bill Hurtido, Accor North America, 4001 International Parkway, Carrollton, TX 75007

Cambria File Copy

R:\9-0917 Pleasanton\Reports and Investigations\CPT soil borings 2005\Response to Comments.doc

CAMBRIA



Chevron Service Station 9-0917
5280 Hopyard Road
Pleasanton, California

Site Plan with Dissolved and Residual Hydrocarbon Impact

ATTACHMENT A

ACHCSA May 24, 2006 Letter

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

May 24, 2006

Mr. Dana Thurman
Chevron Environmental Management Company
6001 Bollinger Canyon Road
P.O. Box 6012
San Ramon, CA 94583-2324

Lamorinda Development and Investment
89 Davis Road, Suite 160
Orinda, CA 94563

C & H Development Company
43 Panoramic Way
Walnut Creek, CA 94595

Subject: Fuel Leak Case No. RO0000439, Chevron #9-0917, 5280 Hopyard Road, Pleasanton, CA

Dear Mr. Thurman:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site and the documents entitled, "Workplan for Remedial Pilot Test," dated May 11, 2006 and "Subsurface Investigation Report," dated March 29, 2006. Both documents were prepared on ChevronTexaco's behalf by Cambria Environmental Technology, Inc. The "Workplan for Remedial Pilot Test," dated May 11, 2006 proposes a surfactant extraction pilot test using well MW-5. A solution containing surfactant would be injected into shallow groundwater at well MW-5 in order to mobilize sorbed hydrocarbons in the smear zone. The surfactant and de-sorbed hydrocarbons would be recovered by enhanced vacuum fluid recovery using a mobile vacuum truck. Hydrocarbon concentrations in well MW-5 would be monitored monthly for approximately three months after the surfactant treatment in order to measure rebound of concentrations.

We request that you address the following technical comments, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

1. **Scope of Pilot Test.** Surfactant is to be applied at a rate that will reach a radius of approximately 10 feet from the well prior to vacuum-enhanced recovery. Well MW-5 is located approximately 25 to more than 100 feet from the sampling locations where elevated concentrations of petroleum hydrocarbons were detected in soil during the 1991 UST, dispenser, and piping replacement. Therefore, the pilot test will only treat soil and groundwater within a limited radius of well MW-5 and will not treat soil and groundwater within most of the source area. Although we do not object to the use of surfactant enhanced extraction in a pilot test, please describe in the requested Response to Comments whether the pilot test would be expanded to treat the remainder of the source area and the feasibility of treating the source area given the current configuration of the service station.

2. **Monitoring Performance of Pilot Test.** Performance during the pilot test will be estimated using groundwater concentrations in samples collected monthly from injection/extraction well MW-5. Therefore, the distance away from the well over which the treatment is effective will not be known. Please describe in the Response to Comments requested below, how monthly concentrations in well MW-5 can be used to estimate the distance from the well that the surfactant treatment is effective or propose an additional monitoring or extraction well to conduct the pilot test.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **July 24, 2006** – Response to Comments
- **August 15, 2006** – Quarterly Monitoring Report for the Second Quarter 2006

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "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." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791.

Sincerely,

Jerry Wickham
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Matt Katen, QIC 80201
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

Danielle Stefani
Livermore-Pleasanton Fire Department
3560 Nevada Street
Pleasanton, CA 94566

Bill Hurtido
Accor North America
4001 International Parkway
Carrollton, TX 75007

√David Herzog
Cambria Environmental Technology, Inc.
4111 Citrus Avenue, Suite 12
Rocklin, CA 95677

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

ATTACHMENT B

Cambria Standard Field Methods and Procedures

STANDARD FIELD PROCEDURES FOR REMEDIATION WELL INSTALLATION

This document presents standard field methods for drilling and sampling soil borings and installing remediation wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORING AND SAMPLING

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the Unified Soil Classification System by a trained geologist working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG).

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or push technologies such as the Geoprobe. Prior to drilling, the first 8 ft of the boring are cleared using an air or water knife and vacuum extraction. This minimizes the potential for impacting utilities.

Soil samples are collected at least every five feet to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

REMEDIATION WELL INSTALLATION

Well Construction

Remediation wells are commonly installed for dual phase extraction (DPE), soil vapor extraction (SVE), groundwater extraction (GWE), oxygenation, air sparging (AS), and vapor monitoring (VM). Well depths and screen lengths will vary depending upon several factors including the intended use of the well, groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines.

Well casing and screen are typically one to four inch diameter flush-threaded Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two feet above the well screen. A two foot thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I,II cement. Well-heads are typically connected with remediation piping set in traffic-rated vaults finished flush with the ground surface. Typical well screen intervals for each type of well are described below.

DPE Wells: DPE wells are screened in the vadose zone targeting horizons with the highest hydrocarbon concentrations and a few feet into the saturated zone, targeting SPH on or submerged by the water table. A vacuum is applied to the well casing and/or a 'stinger' (a one-inch diameter tube) placed in the well about 1 to 2 feet below the static fluid level. Vacuums can be adjusted to fine tune the performance of the well/system and to optimize the removal of SPH without excessive production of ground water.

SVE Wells: SVE wells are screened in the vadose zone targeting horizons with the highest hydrocarbon concentrations. SVE wells are also occasionally screened as concurrent soil vapor and groundwater extraction wells with screen interval above and below the water table.

GWE Wells: Groundwater extraction wells are typically screened ten to fifteen feet below the first water-bearing zone encountered. The well screen may or may not be screened above the water table depending upon whether the water bearing zone is unconfined or confined.

Oxygenation Wells: Oxygenation wells are installed above or below the water table to supply oxygen and enhance naturally occurring hydrocarbon biodegradation. Oxygenation wells installed in the vadose zone typically have well screens that are two to ten feet long and target horizons with the highest hydrocarbon concentrations. Oxygenation wells installed below the water table typically have a two foot screen interval set ten to fifteen ft below the water table.

AS Wells: Air sparging wells are installed below the water table and typically have a two foot screen interval set ten to fifteen feet below the water table.

VM Wells: Vapor monitoring wells are installed in the vadose zone to check for hydrocarbon vapor migration during air injection. The wells are typically constructed with short screens to target horizons through which hydrocarbon vapor migration could occur. These wells can also be constructed in borings drilled using push technologies such as the Geoprobe by using non-collapsible Teflon tubing set in small sand packed regions overlain by grout.

Well Development

Groundwater extraction wells are generally developed using a combination of groundwater surging and extraction. Surging agitates the groundwater and dislodges fine sediments from the sand pack. After about ten minutes of surging, groundwater is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of groundwater are extracted and the sediment volume in the groundwater is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.