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March 6, 2007

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Environmental Health Services (ACEHS)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: **Workplan for Additional Subsurface Investigation**
Former Signal Oil Service Station (Chevron Site #20-6145)
800 Center Street
Oakland, California
Cambria Project No. 31K-2002

Dear Mr. Chan:

Cambria Environmental Technology, Inc. (Cambria) has prepared this workplan for the site referenced above on behalf of Chevron Environmental Management Company (Chevron) to, at the request of ACEHS in a February 2007 letter, confirm or redefine the vertical contaminant profile observed during the CPT investigation of October 2004. Our objective is to gather vertical delineation data in an attempt to refine or disprove the results of grab groundwater sample analyses that yielded inconclusive and illogical data. The site background and our proposed investigation scope of work are described below.

SITE DESCRIPTION

Site Description: The site is a former Signal Oil gasoline service station located on the northeastern corner of the intersection of 8th Street and Center Street in Oakland, California. Local topography is relatively flat and the site is about 15 feet above mean sea level (Figure 1). The site is currently undeveloped. Both commercial and residential properties are located in the vicinity of the site. The site was first developed as a service station in 1932. Four 1,000-gallon fuel underground storage tanks (USTs) and one used oil UST were installed when the site was built. These USTs were removed in 1973 when the station was closed. The nearest surface water body is Oakland Inner Harbor, located approximately 1 mile south of the site.

Cambria Environmental Technology, Inc.

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SITE BACKGROUND

1989 Subsurface Investigation: In August 1989, Subsurface Consultants Inc. advanced soil borings B1 through B5 to depths ranging from 4.5 and 26 feet below grade (fbg) in the vicinity of the former USTs, dispenser island, and sumps along the eastern property boundary. Temporary wells were installed in borings B1 and B3. The highest concentrations of total petroleum hydrocarbons as diesel (TPHd), total petroleum hydrocarbons as gasoline (TPHg), and benzene in soil were 14,000 parts per million (ppm), 31,000 ppm, and 500 ppm, respectively. A soil sample collected from 3.5 fbg in boring B-5, near the former hydraulic hoist, contained 16,000 ppm oil and grease. No TPHd was detected in grab groundwater samples collected from borings B1 and B3. The groundwater sample from boring B3 contained benzene at a concentration of 340 parts per billion (ppb).

1995 Subsurface Investigation: In October 1995, Groundwater Technology Inc. advanced borings SB-1 through SB-3 to 12 fbg and installed groundwater monitoring wells MW-1 through MW-4 to 15 fbg. The highest detected concentrations of TPHg and benzene in soil were 14,000 ppm and 120 ppm, respectively.

1996 Subsurface Investigation: In March 1996, Pacific Environmental Group (PEG) advanced soil borings P-1 through P-9. The highest detected TPHg and benzene impacts in grab groundwater samples were found in boring P-2, located in Center Street at concentrations of 800,000 ppb and 13,000 ppb, respectively. The highest detected TPHg and benzene impacts in soil were found in boring P-3 at concentrations of 13,000 mg/kg and 41 mg/kg, respectively. In December 1996, PEG advanced offsite borings MW-5 through MW-8. All borings were converted into groundwater monitoring wells, except boring MW-8, because no evidence of petroleum hydrocarbons was observe in that boring. TPHG and benzene were not detected in any soil sample analyzed as part of this investigation.

1997 Soil Vapor Sampling: PEG advanced soil vapor points SV-1 through SV-5 to depths up to 12 fbg. The highest concentrations of TPHg and benzene in soil were 8,000 ppm and 52 ppm, respectively. The highest concentrations of TPHg and benzene in soil vapors were 50,000 ppb and 65 ppb, respectively. Hydrocarbon vapor concentrations in soil were highest in the interval between 6 and 10 fbg.

1999/2001 Site Demolition: Gettler-Ryan conducted the removal of the dispenser island, sumps, the hydraulic hoist, building foundations, garbage enclosure, yard lights and asphalt. A 1,000-

gallon UST, a 550-gallon used oil UST, and a buried 55-gallon drum (apparently a makeshift used oil UST) were encountered. This work was initiated in September 1999 and was postponed until April 2001, while Chevron and the property owner negotiated UST ownership. The 1,000-gallon UST, 550-gallon used oil UST, 55-gallon drum, and the hydraulic hoist were removed and compliance samples were collected and analyzed. The highest TPHg and benzene impacts in soil were found in soil from the former gasoline UST cavity at concentrations of 630 ppm and 10 ppm, respectively.

2002 Monitoring Well Installation: Gettler-Ryan installed groundwater monitoring well MW-8 offsite. No soil samples contained TPHd, TPHg, benzene, or methyl tertiary butyl ether (MTBE).

2002 Subsurface Investigation: Gettler-Ryan advanced soil borings GP-1 through GP-23 to approximately 12 fbg. Soil samples were collected at 5 and 10 fbg in each boring. The results were used to profile soil from the anticipated over-excavation event for landfill acceptance. Boring GP-9, at 10 fbg, contained the highest detected concentrations of TPHg and benzene in soil at 19,000 ppm and 83 ppm, respectively. The highest detected concentration of MTBE in soil was 170 ppm collected from boring GP-14 at 10 fbg.

2002 Over-excavation: Gettler-Ryan over-excavated soil in the areas of the former USTs, dispenser island, hydraulic lift, and sumps to a total depth of approximately 12 fbg, with a maximum depth of 14 fbg in one location, during November 2002. Approximately 1,584 tons of hydrocarbon-impacted soil were removed from the site and transported to Allied Waste Landfill in Manteca, California. Thirty-four confirmation soil samples were collected during the over-excavation. Well MW-1 was destroyed by over-excavation during this event. Prior to backfilling, approximately 900 pounds of oxygen releasing compound was placed in the bottom of the over-excavations, and Class II aggregate base was used for backfill.

2003 Soil Borings and Well installation: Gettler-Ryan advanced soil borings GP-24 through GP-30 to approximately 16 fbg, with soil samples collected at 5, 10, and 15 fbg. Monitoring well MW-1A was installed near former monitoring well MW-1. The highest detected concentration of TPHd was 1,600 ppm collected from both boring GP-27 at 15 fbg and GP-30 at 10 fbg. Boring GP-30, at 10 fbg, contained the highest detected concentrations of TPHg, benzene, and MTBE in soil at 16,000 ppm, 92 ppm and 150 ppm, respectively.

2004 Geoprobe and CPT Investigation: In October and November 2004, five CPT borings and nine Geoprobe borings were advanced to further define both lateral and vertical extents of

hydrocarbon impacts beneath the site. All borings were conducted onsite except CPT-5 which was located offsite in Center Street. Both soil and grab groundwater samples were collected and analyzed. Vertical definition of hydrocarbons in soil was achieved between 15 and 20 fbg, with minor exceptions of single digit results of TPHg between 25 and 50 fbg. Analytic results of grab groundwater samples showed an unusual vertical profile of hydrocarbons in groundwater. It is surmised that these concentration may result from cross contamination during the boring process.

PROPOSED SCOPE OF WORK

A review of previously acquired data has depicted an unusual vertical profile of hydrocarbon concentrations in groundwater. ACEHS has requested further definition by depth discrete groundwater sampling to resolve the unusual vertical profile developed by the previous CPT investigation. To meet this objective, Cambria proposes to advance soil borings and install nested wells with screened intervals of 35 to 40 fbg and 55 to 60 fbg to achieve repeatable depth discrete samples. There will be one additional well screened from 70 – 75 fbg in the southwestern portion of the site. A previous CPT investigation found impact down to 72 fbg. Properly completed and developed wells will insure samples from the specific depths without chance of cross contamination from impacted upper zones. These wells will be sampled for at least four quarters, and if results are below water quality standards for Alameda County, the wells will be destroyed. The proposed well locations are illustrated on Figure 2.

Soil Boring/Well Completion: Soil borings will be advanced with hollow stem augers. Borings will be advanced to specific depths and wells completed. An additional boring will be advanced approximately 5 feet laterally from the first well and a second well will be completed at another appropriate depth. Wells will be completed using 2-inch diameter with a 0.020-inch slot screened interval. Wells will be constructed per Alameda County guidelines under permit from Alameda County Department of Public Works.

Sampling Protocol: Hydrocarbon impacts to soil have been effectively delineated by previous investigations. However, soil will be sampled at approximately 5 foot intervals and select samples analyzed to verify previous findings. Samples will be collected in clean brass liners placed in a split spoon sampler driven into undisturbed sediments ahead of the augers. Groundwater samples will be collected from completed and developed wells. Soil samples will be properly sealed, placed on ice, and transported under a chain of custody to a Chevron-approved, State-certified

laboratory for analysis. Cambria's standard field procedures for groundwater well installation are presented as Attachment A.

After completion of the newly installed wells, Chevron contractor Gettler-Ryan will be contacted to schedule the development of the wells. This will likely coincide with quarterly groundwater monitoring and sampling of existing wells at the site. Results of groundwater sample analyses of new wells will be reported in the next quarterly monitoring and sampling report generated by Gettler-Ryan.

Chemical Analysis: Selected soil samples will be analyzed for TPHd and TPHg by modified EPA Method 8015, benzene, toluene, ethylbenzene, xylenes, and MTBE by EPA Method 8260B. TPHd samples will be prepared using a silica gel cleanup prior to analyses.

Site Health and Safety Plan: Prior to conducting field work Cambria will prepare a comprehensive site safety plan to protect site workers, including driving directions to the nearest emergency room. The plan will be kept on site during field activities. It will be reviewed and signed daily by all site workers and visitors.

Utility Location: In order to identify major utilities in the site vicinity, Cambria will notify Underground Service Alert (USA) of our drilling activities so that the USA subscribers can mark any of their utilities which may lie within the proposed work area. Chevron safety protocol requires that each boring be cleared to 8 fbg with an air or water knife as an additional safety measure to avoid drilling into underground utilities.

Soil Disposal: Soil cuttings produced during field activities will be temporarily stored on site. Soil cuttings will be sampled for characterization. Following review of analytic results, the soil will be transported to an appropriate facility for disposal.

Reporting: Upon completion of field activities and review of the analytic results, we will prepare an investigation report that, at a minimum, will contain:

- Descriptions of the drilling and sampling methods;
- Boring logs;
- Tabulated soil analytic results;
- Analytic reports and chain-of-custody forms;

- Disposal methods for soil and any produced water;
- An evaluation of the extent of hydrocarbons in the subsurface and;
- Conclusions and recommendations.

SCHEDULE

Cambria will proceed with the proposed scope of work upon receiving written approval from the ACEHS. After approval, Cambria will take approximately four to six weeks to obtain the necessary drilling permits and to schedule the subcontractors at their earliest availability. We will submit our investigation report approximately four to six weeks after completion of field activities.

CLOSING

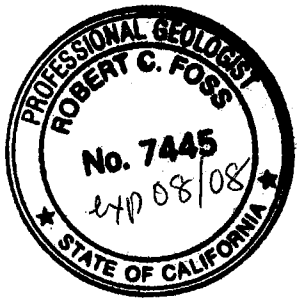
We appreciate the opportunity to work with you on this project. Please contact Charlotte Evans at (510) 420-3350 or Robert Foss at (510) 420-3348 if you have any questions or comments regarding this work.

Sincerely,

Cambria Environmental Technology, Inc.

Charlotte Evans
Project Geologist

Robert Foss, P.G. #7445
Associate Geologist



Figures: 1 – Vicinity Map
2 – Proposed Well Locations

Attachments: A – Standard Field Procedures for Monitoring Well Installation

cc: Mr. Satya Sinha, Chevron Environmental Management Company, P.O. Box 6012, San Ramon, CA 94583
Mr. Hollis Rogers, c/o Mr. Victor Brown, 580 Grand Avenue, Oakland, CA 94610
Mr. Sunil Ramdass, SWRCB Cleanup Fund, 1001 1st Street, Sacramento, CA 95814

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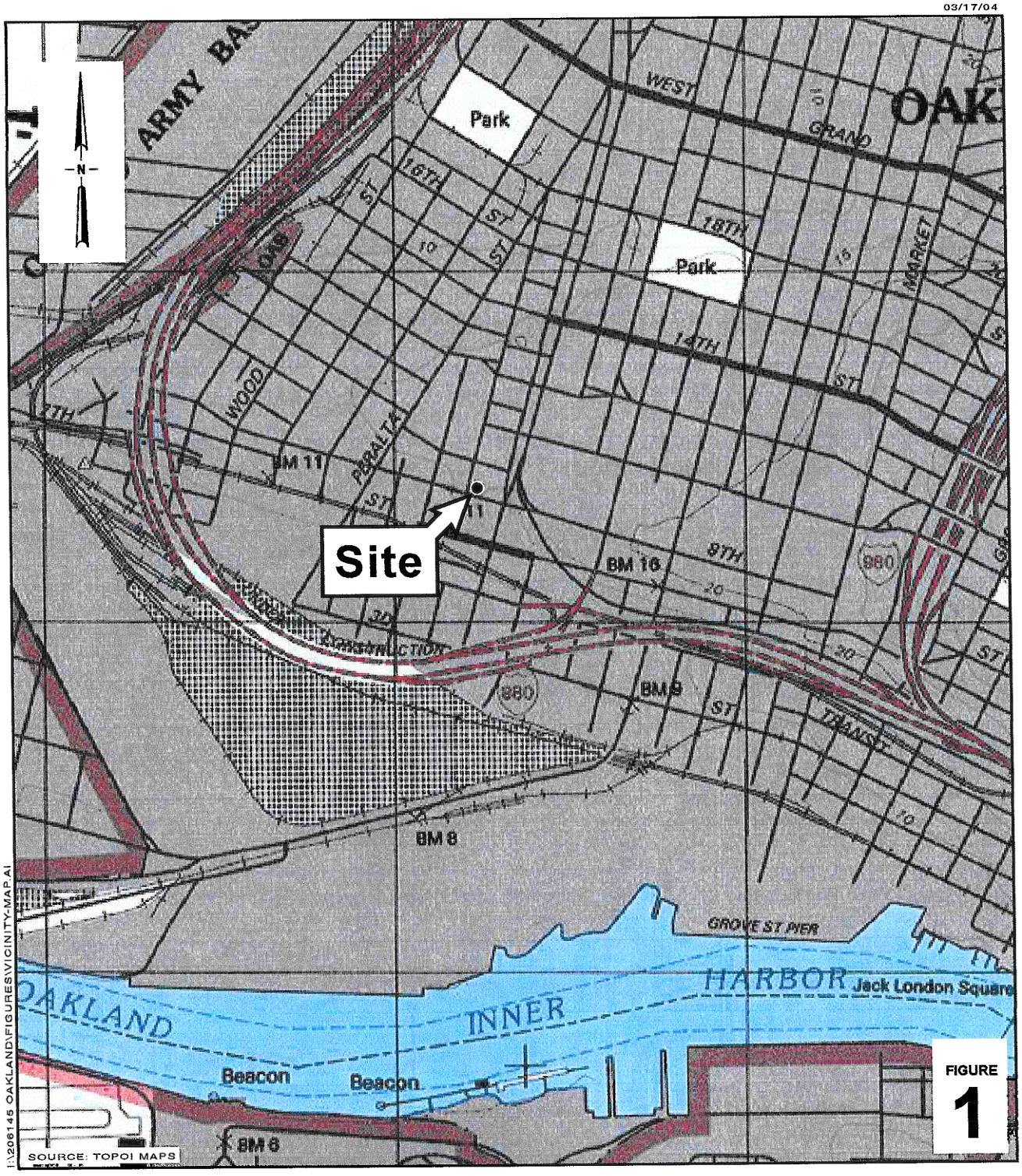

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FIGURE 1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Chevron Service Station # 206145

800 Center Street

Oakland, California

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Vicinity Map

03/02/07

Site Plan with Proposed Nested Wells

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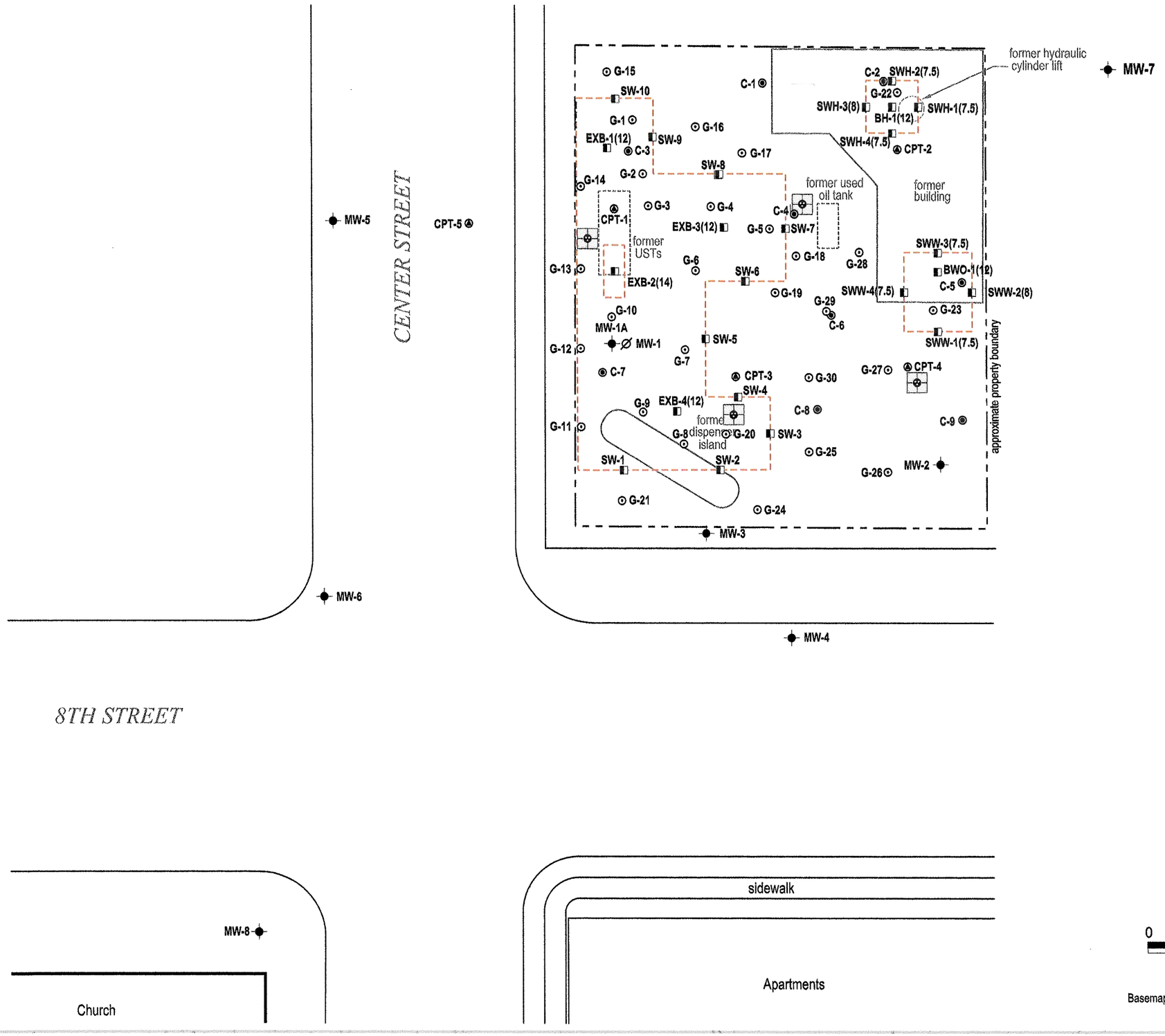
EXPLANATION

- Proposed nested well location
- CPT-1 — CPT boring location
- C-1 — Soil boring location
- MW-1A — Monitoring well location
- MW-1 — Destroyed monitoring well location
- G-28 — Gettler-Ryan geoprobe boring location
- SW-7 — Gettler-Ryan soil sample location
- Area of over excavation



FIGURE

2

Chevron Service Station 206145

800 Center Street

Oakland, California

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ATTACHMENT A

STANDARD FIELD PROCEDURES FOR MONITORING WELL INSTALLATION

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STANDARD FIELD PROCEDURES FOR SOIL BORING AND MONITORING WELL INSTALLATION

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

SOIL BORINGS

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).

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or direct-push technologies such as the Geoprobe®. Soil samples are collected at least every five ft 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 volatile vapor analyzer measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. Volatile vapor analyzer measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch® type sampler or are collected from the open borehole using bailers. The groundwater samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

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.

MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Well Construction and Surveying

Groundwater monitoring wells are installed to monitor groundwater quality and determine the groundwater elevation, flow direction and gradient. Well depths and screen lengths are based on groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 feet below and 5 feet above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three feet thick.

Well casing and screen are 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 feet thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I, II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

Well Development

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.

Groundwater Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of groundwater are purged prior to sampling. Purging continues until groundwater pH, conductivity, and temperature have stabilized. Groundwater samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite and covered by plastic sheeting. At least three individual soil samples are collected from the stockpiles and composited at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples in addition to any analytes required by the receiving disposal facility. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Groundwater removed during development and sampling is typically stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Upon receipt of analytic results, the water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.