By Alameda County Environmental Health at 4:24 pm, Jan 30, 2014

PERJURY STATEMENT

Subject: 1395 MacArthur Boulevard, San Leandro, California Site Assessment and Soil-Vapor Extraction Work Plan

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this document and all attachments, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Avdenbrook inc Agent 1-28-14

Mr. William Mathews Brooks 4725 Thornton Avenue Fremont, CA, 94536

Site Assessment and Soil Vapor Extraction Pilot Test Work Plan SWISS VALLEY CLEANERS

24 January 2014 AGE Project No. 12-2461

PREPARED FOR:

Mr. William Mathews Brooks ARDENBROOK, INC.

PREPARED BY:



Advanced GeoEnvironmental, Inc.

Stockton • Santa Rosa • Monterey • Brea • Spokane • Reno • Dallas (800) 511-9300 www.advgeoenv.com

20 January 2014 AGE-NC Project No. 12-2461



Advanced GeoEnvironmental, Inc.

Stockton • Santa Rosa • Monterey • Anaheim • Spokane • Reno • Dallas (800) 511-9300 www.advgeoenv.com

PREPARED BY:

00

Daniel J. Villanueva Project Geologist

PROJECT MANAGER:

Robert E. Marty

Senior Project Geologist/President

REVIEWED BY: William R. Little Senior Project Geologist

California Professional Geologist No. 7473

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Appendix A - Alameda County Directive Letter - 07 January 2014

1.0. INTRODUCTION

At the request of Mr. Matt Brooks, *Advanced* GeoEnvironmental, Inc. (AGE) has prepared this *Site Assessment and Soil-Vapor Extraction Pilot Test Work Plan* for the site located at 1395 MacArthur Boulevard, San Leandro, California. The work plan details the procedures for the advancement of four soil borings for collection of soil and soil-vapor samples, four soil borings for the collection of shallow soil samples, four soil borings for the installation of soil-vapor extraction (SVE) wells and performance of an 8-hour soil-vapor extraction pilot test. The work plan has been prepared as required by the Alameda County Health Care Services Agency (ACHCSA), by letter dating 07 January 2014 (Appendix A).

The site location is illustrated in Figure 1. A detailed site plan showing the location of the proposed soil borings and SVE wells is illustrated in Figure 2. Historic soil and soil-vapor sample data are summarized in Tables 1 and 2.

2.0. SCOPE OF WORK

Based on previously collected analytical data (Tables 1 and 2 and Figures 3 and 4) collected during investigations performed in 1998, 2005, 2008 and 2013, additional site assessment is proposed to further identify the source area and assess the lateral extent of chlorinated hydrocarbon impact at the site. Additionally, based on known impact at the site, four SVE wells will be installed and an 8-hour SVE pilot test will be performed at the site to evaluate the feasibility of SVE technology to remediate the residual chlorinated impact at the site. The pilot test will aid in the determination of additional remediation wells and the final design of the SVE system. The proposed scope will include the following tasks:

- Permitting and pre-field work activities;
- Advancement of four additional shallow soil borings;
- Advancement of four borings for the collection of soil-vapor and shallow to intermediate soil samples;
- SVE well and SVE observation well installations;
- SVE pilot testing; and
- Report preparation.

Each of these tasks is described in greater detail below.

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2.1. PERMITTING AND PRE-FIELD WORK ACTIVITIES

Applicable site assessment boring permits will be obtained from the Alameda County Public Works Agency - Water Resources Division (ACPWAWRD) and a site-specific Health and Safety Plan will be prepared. Prior to mobilization, each soil probe location will be clearly marked and a utility clearance obtained through Underground Service Alert. The ACPWA will be contacted a minimum of five days prior to conducting investigation activities to arrange for inspection.

2.2. SHALLOW AND INTERMEDIATE SOIL BORINGS AND SAMPLING

To further develop an understanding of the source area, AGE proposes to advance a total of four shallow soil borings in areas with previous reported elevated chlorinated hydrocarbon impact. Additionally, to further define the lateral extent of the soil impact at the site, AGE proposes to advance a total of four borings for collection of shallow to intermediate soil samples. All proposed shallow borings will be advanced to five feet below surface grade (bsg) and all intermediate borings to 15 feet bsg using either a direct push power probe or limited access direct push drilling machine (based on accessability). Additional procedures for boring advancement and sampling are described in Section 4.1.

2.3. SOIL-VAPOR SAMPLING

To further evaluate the lateral extent of the soil-vapor plume at the site, AGE proposes to collect soil-vapor samples from the above referenced shallow to intermediate soil borings. Soil-vapor samples will be collected at depths of five feet bsg using a limited access direct push drilling rig. Sampling and vapor point installation is described in greater detail in Section 4.2.

2.4. LABORATORY ANALYSIS

Soil and soil-vapor samples will be analyzed by a California Department of Public Health (CDPH)-certified mobile laboratory for full scan volatile organic compounds (VOCs) by EPA method 8260. Laboratory reports for soil-vapor analyses, testing methods, laboratory quality assurance/quality control (QA/QC) reports, and sample chain-of-custody documentation will be presented in a report of findings. Also, conclusions and applicable recommendations will be included within the report. Reports will be in a format acceptable by local agency and will be reviewed and signed by a California Professional Geologist.

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2.5. WELL DRILLING AND SOIL SAMPLE COLLECTION

AGE proposes to advance a total of four (4) pilot borings for the installation of SVE and SVE observation wells in the suspected core area of the plume near the front of the site building. All wells will be single-completed to a depth of approximately 12.5 feet bsg (screened between 2.5 and 12.5 feet). The SVE and SVE observation well locations are depicted in Figure 2.

All wells will be advanced to approximately 15 feet bsg utilizing a track mounted limited access drilling rig equipped with 6.5-inch diameter hollow-stem augers. Total depth of the borings may vary according to site conditions encountered during drilling. The proposed well locations are depicted in Figure 2. Well installation procedures are described in Section 4.1; well completion details are described in Sections 4.2. and 4.3.

Soil samples will be collected at five-foot intervals beginning at 5 feet bsg to the total depth of the pilot borings. Soil samples will be collected from proposed well locations for lithologic evaluation only during the well installations.

2.6. REPORT PREPARATION

Results of the boring advancements, soil and soil-vapor sample collections, well installations and SVE pilot test will be presented in a report of findings; based on the results of the SVE pilot test, a determination will be made whether or not SVE is a feasible option at the site. The report of findings will be in a format acceptable to the ACHCSA and will be reviewed and signed by a California Professional Geologist.

3.0 SOIL-VAPOR EXTRACTION PILOT TEST

An initial 8-hour SVE pilot test will be conducted at the site following installation of SVE wells. The SVE pilot test will be performed to provide induced vapor extraction data from the proposed SVE well screens for evaluation of SVE as a remedial alternative for this site and/or for the proper design of an SVE remediation system. The SVE pilot test specifications are presented in Section 4.5.

4.0. FIELD PROCEDURES

All field procedures will be overseen by an AGE representative working under the supervision of a California Professional Geologist. Procedures for advancing soil probe

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borings, collection and analysis of soil and soil-vapor, well installation, SVE pilot test, equipment decontamination and sample handling are presented below.

4.1. SOIL BORING ADVANCEMENT AND SOIL SAMPLING

Proposed soil borings will be advanced using either a limited access direct push drilling rig or a truck mounted AMS Powerprobe direct-push probing unit equipped with 1.25-inch probing rods. The direct push probes advance rods using a hydraulic hammer to drive soil and groundwater sampling tools to specified depths.

Soil samples will be collected from shallow borings (Figure 2) continuously from just below the concrete slab (approximately six-inches) to five feet bsg; soil samples will also be collected from intermediate borings (Figure 2) continuously from concrete slab (approximately six-inches) to fifteen feet bsg. Soil samples will be collected at all locations using a 1.45-inch Geoprobe soil sampling assembly loaded with a two-foot acetate liner. Upon sample retrieval, a selected portion of the liner will be cut and covered with Teflon sheets, capped and sealed with tape.

Appropriately sealed and labeled samples will be placed in a chilled container under ice until being analyzed by the mobile lab. All samples will be analyzed for VOCs in accordance with EPA method 8260B. Each withdrawn sample will be labeled with boring designation, depth, time, date and sampler's initials. Soils encountered in the borings will be visually classified by AGE personnel in accordance with the Unified Soil Classification System (USCS). Additionally, soil samples will be field-screened for presence of volatile organic compounds using an organic vapor meter (OVM), equipped with photo-ionization detector (PID) pre-calibrated to isobutylene.

4.2. SOIL-VAPOR BORING ADVANCEMENT AND VAPOR SAMPLE COLLECTION

AGE proposes to advance four (4) soil-vapor probe borings to evaluate the lateral extent of chlorinated hydrocarbon impact at the site. Soil-vapor samples will be obtained at depths of approximately five feet bsg in each boring. Samples will be collected using a Geoprobe soil-vapor assembly. An expendable vapor point will be placed into a point holder at the bottom of an assembly of 1.25-inch diameter hollow drive rods. The assembly will then be advanced to the specified depth and retracted approximately six to twelve inches in order to disengage the expendable point and expose a column of strata from which soil-vapor can be extracted. A single use, ¼-inch diameter disposable teflon tubing is then attached to a tubing adapter equipped with an O-ring to ensure a vacuum-tight seal. The adapter 20 January 2014 AGE Project No. 12-2461 Page 5 of 7

assembly is then lowered through the center of the Geoprobe hollow drive rods to the specified depth and secured by threading into the expendable vapor point holder. A stabilization time of 30 minutes will follow boring placement.

Above ground, the surface around the soil-vapor sampler will be sealed with a bentonite sealant to prevent ambient air intrusion. All filed points will then be sampled by the mobile laboratory technician and analyzed for VOCs by EPA method 8260.

After sample collection, soil-vapor from the teflon tubing will be monitored for the presence of volatile organics using an OVM photo-ionization detector (PID) pre-calibrated to isobutylene.

Additionally, AGE proposes to utilize 90% isopropyl alcohol (rubbing alcohol) as a leak detection tracer compound to ensure that a reliable soil-vapor sample is collected from each soil boring with no ambient air breakthrough down the probe rods. The mobile laboratory technician will apply an appropriate amount of rubbing alcohol (approximately 8 ounces) to adequately wet a cotton balls; the wetted balls will be placed near base of the probe rod where it contacts the surface and the bentonite seal and will be sealed with a plastic shroud. Thereafter, a soil-vapor sample will be collected. Isopropyl alcohol analysis will verify the validity of each sample.

4.3. EQUIPMENT DECONTAMINATION

Prior to use, all sampling tools used for sample collection will be thoroughly rinsed with clean water after being washed with a solution of Alconox. All probing rods will be cleaned prior to advancement at each probe boring location.

4.4. BORING ABANDONMENT

All soil borings will be permanently sealed to prevent vertical migration of potential contaminants. Soil borings shall be abandoned by backfilling with cement grout from the total depth to surface grade. The top three to six inches of the boring abandonments will be completed flush to surface grade with concrete. The ACPWAWRD will be notified for grout inspection at least five days prior to conducting grouting procedures.

4.5. SOIL-VAPOR EXTRACTION AND OBSERVATION WELL COMPLETION

Each SVE and observation well will be completed as a single-casing soil-vapor extraction or observation well utilizing 2-inch diameter schedule 40 polyvinylchloride (PVC) 0.020-inch

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slotted well screen and blank well casing. Based on geologic conditions, a 10-foot length of well screen from 2.5 to 12.5 feet bsg is anticipated for installation of each SVE well; a diagram for the proposed construction of the wells is depicted in Figure 5.

After installing each well casing, a filter pack material consisting of #3 sand will be added from the base of the boring and subsequently over the screened interval to a depth of 2.5 feet bsg.

A nominal one half-foot bentonite seal (bentonite chips) will be placed above the filter pack to minimize the potential for grout penetration into the screened section of the well. The bentonite seal will be formed by pouring bentonite chips into the annulus and allowing them to settle on the filter pack. The bentonite chips will be hydrated using approximately five gallons of tap water and allowed to hydrate for a minimum of one-half hour prior to grouting.

The remaining annular space will be filled to the ground surface with a cement grout. The grout mixture will consist of Type I/II Portland neat cement and not more than 6 gallons of water per 94-pound sack of cement. The grout will be placed by pumping through tremmie pipe.

4.6. SOIL-VAPOR EXTRACTION PILOT TEST

Following SVE well installation, an 8-hour SVE pilot test will be performed at the site. The 8-hour SVE pilot test will be conducted from the proposed SVE well (screened 2.5 to 12.5 feet). The 8-hour pilot test will be conducted at the site utilizing a minimum 2½-horsepower, regenerative vacuum blower; the vacuum blower will be rated at a minimum 100 standard cubic feet per minute (scfm). The inlet of the vacuum blower will be directly routed to the well head connected by 2-inch diameter PVC piping. The outlet of the vacuum blower will be directly routed through four, 200-pound, vapor-phase activated carbon adsorption canisters located away from the vacuum blower.

Air-tight, 2-inch diameter PVC well caps fitted with attached Magnehelic (Dwyer) vacuum gauges will be attached to observation wells and the induced vacuum will be measured (i.e. inches of water) at these monitoring points; the induced vacuum will be monitored in 30-minute intervals during the pilot test and recorded in inches of water.

Additionally, the vapor stream from extraction wells will be monitored for the presence of organic vapor using an OVM equipped with a PID. The vacuum applied at the SVE well should cause chlorinated hydrocarbons in the vadose zone to volatilize and flow into the operated vapor well and through the regenerative vacuum blower. From the vacuum blower, the extracted soil-vapor will be processed and adsorbed through the carbon

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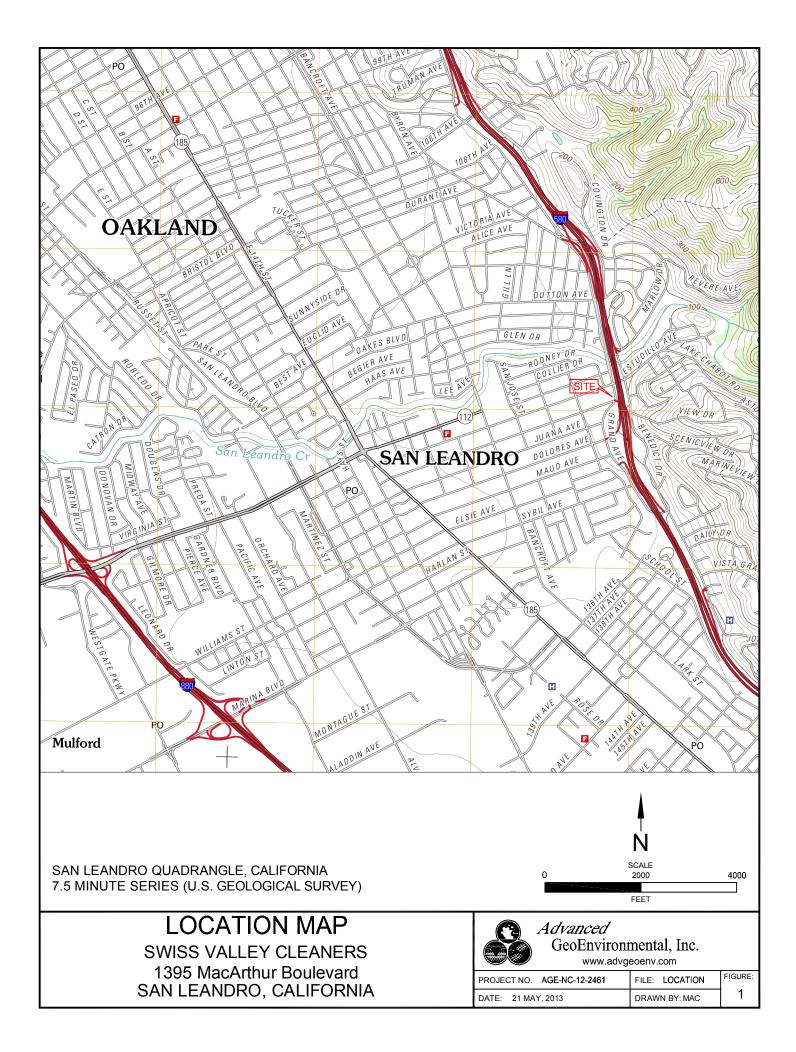
canisters as part of the treatment process. VOC concentrations in the SVE effluent stream will be measured at hourly intervals utilizing an OVM.

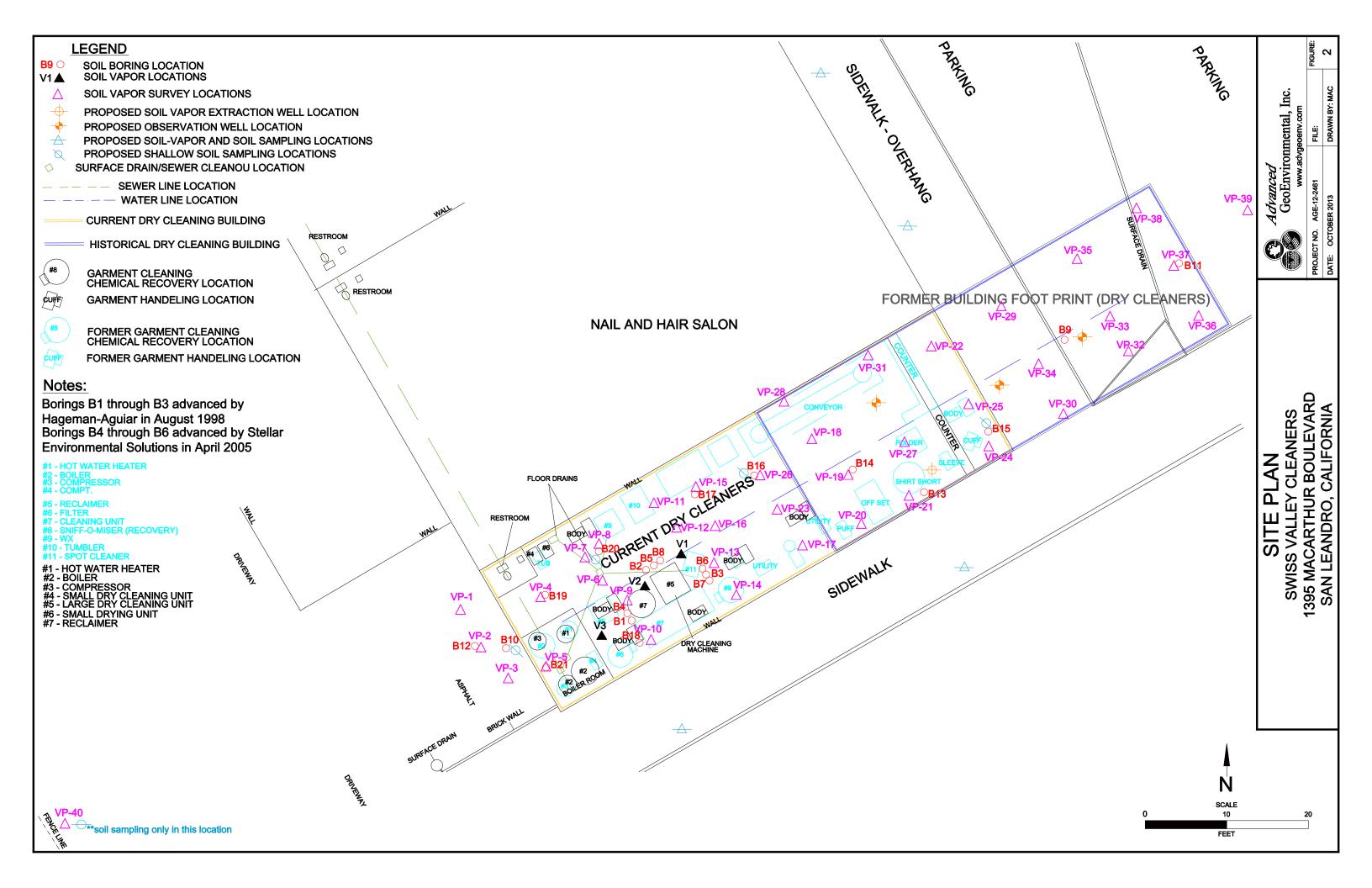
During the 8-hour SVE pilot test, the vapor flow rate extracted at the proposed well will be monitored at the inlet of the vacuum blower using a flow totalizer Blue-White F-452n (Rotometer) and Dwyer DS-200 flow sensor (inches of water); the flow rate will be converted to standard cubic feet per minute (scfm) using a manufacture (Dwyer) supplied conversion chart. Flow rates will be measured in 30 minute intervals and documented in scfm and inches of water of differential pressure.

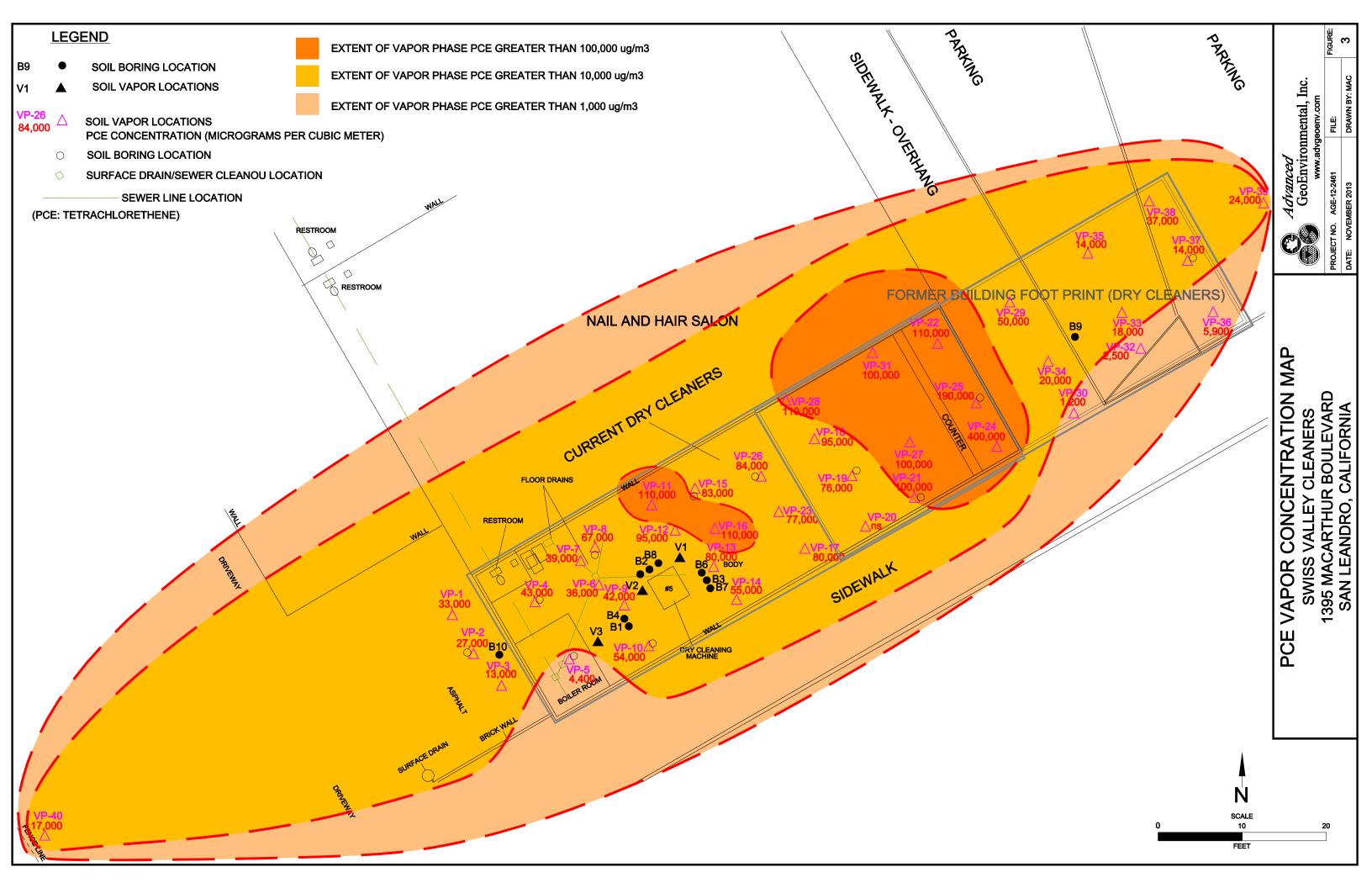
Influent vapor samples (air flow samples) will be collected at the start-up and at two-hour intervals thereafter from the inlet of the extraction well to measure concentrations of extracted hydrocarbon vapor. The samples will be collected in Tedlar bags using a hand air-vacuum pump. Following sample collection, the samples will be placed in a covered container and transported under chain of custody to a CDPH-certified analytical laboratory for analysis. Each sample will be analyzed within 72 hours for VOCs by EPA method 8260B.

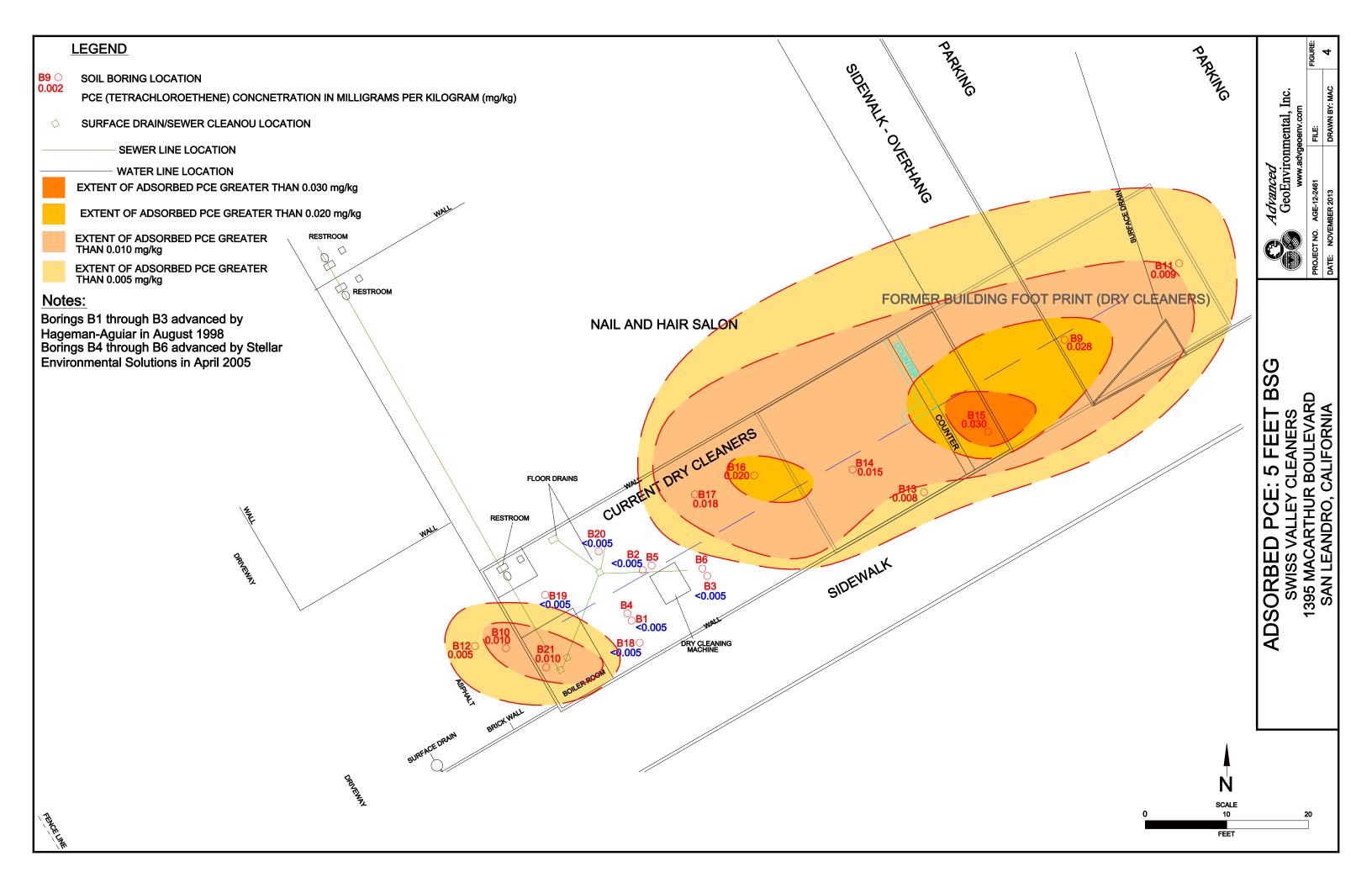
If applicable, soil-vapor field parameters and analytical results will facilitate the design of an SVE system and vapor flow data will be used to determine a general radius of influence for spacing of additional SVE wells, if warranted, and the selection of an appropriate SVE system.

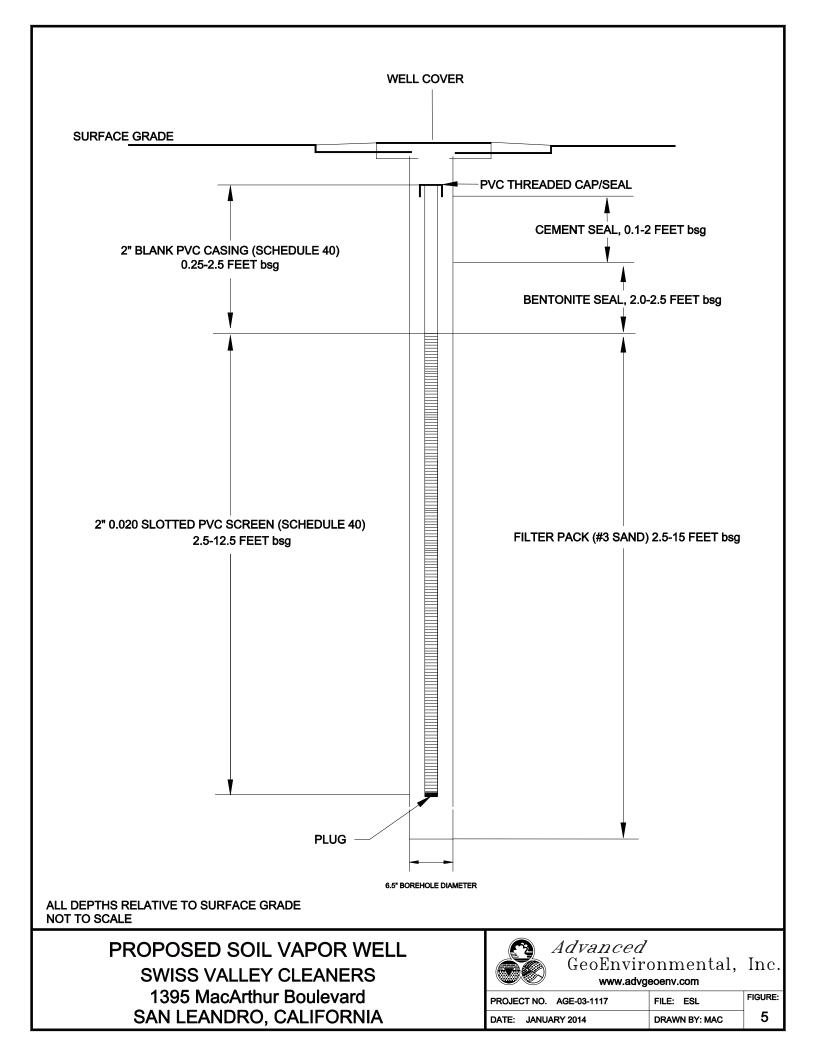
FIGURES











TABLES

TABLE 1

ANALYTICAL RESULTS OF SOIL VAPOR SAMPLES Swiss Valley Cleaners 1395 MacArthur Boulevard, San Leandro, California (micrograms per cubic meter)

			EPA Method 8260B					r	
Sample ID	Date	Depth (feet bsg)	PCE	TCE	1,1-DCE	Trans 1,2-DCE	Cis 1,2-DCE	VC	Chloroform
V-1	05-08-2013	5	29,000	<2	<2	<2	<2	<2	<1
V-2	05-08-2013	5	23,000	<2	<2	<2	<2	<2	<1
V-3	05-08-2013	5	15,000	<2	<2	<2	<2	<2	<1
VP-1 (1 puge volume)	10-15-2013	5	33,000	<100	<100	<100	<100	<100	<100
VP-1 (3 purge volumes)	10-15-2013	5	33,000	<100	<100	<100	<100	<100	<100
VP-1 (10 purge volumes)	10-15-2013	5	33,000	<100	<100	<100	<100	<100	<100
VP-2	10-15-2013	5	27,000	<100	<100	<100	<100	<100	<100
VP-3	10-15-2013	3	13,000	<100	<100	<100	<100	<100	<100
VP-4	10-15-2013	5	43,000	<100	<100	<100	<100	<100	<100
VP-5	10-15-2013	5	4,400	<100	<100	<100	<100	<100	240
VP-6	10-15-2013	5	36,000	<100	<100	<100	<100	<100	<100
VP-7	10-15-2013	5	39,000	<100	<100	<100	<100	<100	<100
VP-7 (dup)	10-15-2013	5	37,000	<100	<100	<100	<100	<100	<100
VP-8	10-15-2013	5	67,000*	<100	<100	<100	<100	<100	<100
VP-9	10-16-2013	5	42,000	<100	<100	<100	<100	<100	<100
VP-10	10-16-2013	5	54,000*	<100	<100	<100	<100	<100	<100
VP-11	10-16-2013	5	110,000	<100	<100	<100	<100	<100	<100
VP-12	10-16-2013	5	95,000	<100	<100	<100	<100	<100	<100

TABLE 1

ANALYTICAL RESULTS OF SOIL VAPOR SAMPLES Swiss Valley Cleaners 1395 MacArthur Boulevard, San Leandro, California (micrograms per cubic meter)

			EPA Method 8260B						
Sample ID	Date	Depth (feet bsg)	PCE	TCE	1,1-DCE	Trans 1,2-DCE	Cis 1,2-DCE	VC	Chloroform
VP-13	10-16-2013	5	80,000	<100	<100	<100	<100	<100	<100
VP-14	10-16-2013	5	55,000	<100	<100	<100	<100	<100	<100
VP-14 (dup)	10-16-2013	5	57,000	<100	<100	<100	<100	<100	<100
VP-15	10-16-2013	5	83,000	<100	<100	<100	<100	<100	<100
VP-16	10-16-2013	5	110,000	<100	<100	<100	<100	<100	<100
VP-17	10-16-2013	5	80,000	<100	<100	<100	<100	<100	<100
VP-18	10-16-2013	5	95,000	<100	<100	<100	<100	<100	<100
VP-19	10-16-2013	5	76,000	<100	<100	<100	<100	<100	<100
VP-20				not c	ompleted				
VP-21	10-17-2013	5	100,000	<100	<100	<100	<100	<100	<100
VP-22	10-17-2013	5	110,000	<100	<100	<100	<100	<100	<100
VP-23	10-17-2013	5	77,000	<100	<100	<100	<100	<100	<100
VP-24	10-17-2013	3	400,000	<100	<100	<100	<100	<100	<100
VP-25	10-17-2013	5	190,000	<100	<100	<100	<100	<100	<100
VP-26	10-17-2013	5	84,000	<100	<100	<100	<100	<100	<100
VP-27	10-17-2013	5	100,000	<100	<100	<100	<100	<100	<100
VP-28	10-17-2013	5	110,000	<100	<100	<100	<100	<100	<100
VP-29	10-17-2013	5	50,000	<100	<100	<100	<100	<100	<100

TABLE 1

ANALYTICAL RESULTS OF SOIL VAPOR SAMPLES Swiss Valley Cleaners 1395 MacArthur Boulevard, San Leandro, California (micrograms per cubic meter)

			EPA Method 8260B						
Sample ID	Date	Depth (feet bsg)	PCE	TCE	1,1-DCE	Trans 1,2-DCE	Cis 1,2-DCE	NC	Chloroform
VP-30	10-17-2013	5	1,200	<100	<100	<100	<100	<100	<100
VP-31	10-18-2013	5	100,000	<100	<100	<100	<100	<100	<100
VP-32	10-18-2013	5	2,500	<100	<100	<100	<100	<100	<100
VP-32 (dup)	10-18-2013	5	2,100	<100	<100	<100	<100	<100	<100
VP-33	10-18-2013	5	18,000	<100	<100	<100	<100	<100	<100
VP-34	10-18-2013	5	20,000	<100	<100	<100	<100	<100	<100
VP-35	10-18-2013	5	14,000	<100	<100	<100	<100	<100	<100
VP-36	10-18-2013	5	5,900	<100	<100	<100	<100	<100	<100
VP-37	10-18-2013	5	14,000	<100	<100	<100	<100	<100	<100
VP-38	10-18-2013	5	37,000	<100	<100	<100	<100	<100	<100
VP-39	10-18-2013	5	24,000	<100	<100	<100	<100	<100	<100
VP-40	10-18-2013	5	17,000	220	<100	<100	<100	<100	<100
CHHSLs (Residential)			180	528	-	31,900	15,900	13.3	-
SFBRWCB E (Co	2,100	3,000	100,000	260,000	-	16	230		
	SL Shallow So esidential)	oil Gas	210	300	880,000	31,000	-	160	2,300

Notes:

SFBRWCB ESL: San Francisco Bay Regional Water Quality Control Board Environmental

Screening Level for shallow soil gas

<: Indicates constituents were not detected at a concentration greater than the reporting limit shown.

CHHSLs: California Human Health Screening Levels

- PCE: Tetrachloroethene
- TCE: Trichloroethene

1,1-DCE: 1,1-Dichloroethene

Trans 1,2-DCE: Trans 1,2-Dichloroethene

Cis 1,2-DCE: Cis 1,2-Dichloroethene

VC: Vinyl Chloride

bsg: below surface grade

* : notation for detection above the liner range of calibration

notation for detection above the liner range of calibration

TABLE 2ANALYTICAL RESULTS OF SOIL SAMPLESSwiss Valley Cleaners1395 MacArthur Boulevard, San Leandro, California
(mg/kg)

			EPA SW 846/8260B					
Sample ID	Depth (feet bsg)	Date	Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,1- Dichloroethene (1,1-DCE)	Trans 1,2- Dichloroethene (Trans 1,2-DCE)	Cis 1,2- Dichloroethene (Cis 1,2-DCE)	Vinyl Chloride (VC)
B-1@3'	3	08-19-1998	<0.005	<0.005	<0.005	-	-	<0.005
B-1@5'	5	08-19-1998	<0.005	<0.005	<0.005	-	-	<0.005
B-2@3'	3	08-19-1998	<0.005	<0.005	<0.005	-	-	<0.005
B-2@5'	5	08-19-1998	<0.005	<0.005	<0.005	-	-	<0.005
B-3@3'	3	08-19-1998	<0.005	<0.005	<0.005	-	-	<0.005
B-3@5'	5	08-19-1998	<0.005	<0.005	<0.005	-	-	<0.005
B-4	1.75	04-06-2005	0.0057	<0.0049	<0.0049	<0.0049	<0.0049	<0.0098
B-5	1.83	04-06-2005	0.0074	<0.0047	<0.0047	<0.0047	<0.0047	<0.0094
B-6	1.67	04-06-2005	0.022	<0.0046	<0.0046	<0.0046	<0.0046	<0.0093
B-7	2	07-08-2008	<0.005	<0.0047	<0.0047	<0.0047	<0.0047	<0.0094
B-8	2	07-08-2008	0.060	<0.0047	<0.0047	<0.0047	<0.0047	<0.0094
B9-5	5	05-07-2013	0.028	<0.005	<0.005	<0.005	<0.005	<0.005
B9-10	10	05-07-2013	0.012	<0.005	<0.005	<0.005	<0.005	<0.005
B9-15	15	05-07-2013	0.022	<0.005	<0.005	<0.005	<0.005	<0.005
B10-5	5	05-07-2013	0.010	<0.005	<0.005	<0.005	<0.005	<0.005
B10-10	10	05-07-2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B10-15	15	05-07-2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B11-5	5	10-22-2013	0.009	<0.005	<0.005	<0.005	<0.005	<0.005
B11-10	10	10-22-2013	0.011	<0.005	<0.005	<0.005	<0.005	<0.005
B11-15	15	10-22-2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B12-5	5	10-22-2013	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B12-10	10	10-22-2013	0.011	<0.005	<0.005	<0.005	<0.005	<0.005
B12-15	15	10-22-2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B13-5	5	10-22-2013	0.008	<0.005	<0.005	<0.005	<0.005	<0.005
B13-10	10	10-22-2013	0.006	<0.005	<0.005	<0.005	<0.005	<0.005

Advanced GeoEnvironmental, Inc.

TABLE 2ANALYTICAL RESULTS OF SOIL SAMPLESSwiss Valley Cleaners1395 MacArthur Boulevard, San Leandro, California
(mg/kg)

			EPA SW 846/8260B					
Sample ID	Depth (feet bsg)	Date	Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,1- Dichloroethene (1,1-DCE)	Trans 1,2- Dichloroethene (Trans 1,2-DCE)	Cis 1,2- Dichloroethene (Cis 1,2-DCE)	Vinyl Chloride (VC)
B13-15	15	10-22-2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B14-5	5	10-22-2013	0.015	<0.005	<0.005	<0.005	<0.005	<0.005
B14-10	10	10-22-2013	0.008	<0.005	<0.005	<0.005	<0.005	<0.005
B14-15	15	10-22-2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B15-5	5	10-22-2013	0.030	<0.005	<0.005	<0.005	<0.005	<0.005
B15-10	10	10-22-2013	0.018	<0.005	<0.005	<0.005	<0.005	<0.005
B15-15	15	10-22-2013	<0.005	<0.005	<0.005	<0.005	<0.005	< 0.005
B16-5	5	10-23-2013	0.020	<0.005	<0.005	<0.005	<0.005	<0.005
B16-10	10	10-23-2013	0.010	<0.005	<0.005	<0.005	<0.005	<0.005
B16-15	15	10-23-2013	0.006	<0.005	<0.005	<0.005	<0.005	<0.005
B17-5	5	10-23-2013	0.018	<0.005	<0.005	<0.005	<0.005	< 0.005
B17-10	10	10-23-2013	0.010	<0.005	<0.005	<0.005	<0.005	<0.005
B17-15	15	10-23-2013	0.011	<0.005	<0.005	<0.005	<0.005	<0.005
B18-5	5	10-23-2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B18-10	10	10-23-2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B19-5	5	10-23-2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

TABLE 2ANALYTICAL RESULTS OF SOIL SAMPLESSwiss Valley Cleaners1395 MacArthur Boulevard, San Leandro, California(mg/kg)

			EPA SW 846/8260B							
Sample ID	Depth (feet bsg)	Date	Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,1- Dichloroethene (1,1-DCE)	Trans 1,2- Dichloroethene (Trans 1,2-DCE)	Cis 1,2- Dichloroethene (Cis 1,2-DCE)	Vinyl Chloride (VC)		
B19-10	10	10-23-2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
B20-5	5	10-23-2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
B20-10	10	10-23-2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
B21-5	5	10-24-2013	0.010	<0.005	<0.005	<0.005	<0.005	< 0.005		
B21-10	10	10-24-2013	0.009	<0.005	<0.005	<0.005	<0.005	<0.005		

Notes:

mg/kg: milligrams per kilogram

bsg: below surface grade

<: Indicates constituents were not detected at a concentration greater than the reporting limit shown.

APPENDIX A

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY



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

January 7, 2014

Mr. William Mathews Brooks 4725 Thornton Avenue Fremont, CA 94536 (Sent via electronic mail to <u>REWMB@aol.com</u>)

Subject: Request for Interim Remediation Work Plan Addendum; Site Cleanup Program (SCP) Case No. RO0003120 and GeoTracker Global ID T10000005063, Swiss Valley Cleaners, 1395 MacArthur Blvd, Oakland, CA 94577

Dear Mr. Brooks:

Alameda County environmental health (ACEH) has reviewed the December 10, 2013 report entitled *Site Assessment Report*, that documents the installation of 40 approximately five foot deep soil bores for the collection of shallow soil vapor at the site, and 11 soil bores to a depth of approximately 15 feet below surface grade (bgs), to collect soil samples, to characterize soil at the site for potential chlorinated volatile organic compound (VOC) contamination, in particular tetrachlorethene (PCE) contamination. Only one vapor sample detected a concentration below the commercial PCE Environmental Screening Level (ESL) for soil gas (and the evaluation of potential vapor intrusion) set by the San Francisco Regional Water Quality Control Board (RWQCB). The commercial ESL for soil gas is 2,100 µg/m³. Concentrations of PCE beneath the site ranged between 1,200 and 400,000 µg/m³. ACEH notes that some of the highest concentrations of PCE are along the northern edge of the commercial unit, within feet of the adjacent commercial unit. This data indicates the lateral extent is undefined and the potential for vapor intrusion at adjacent units is a potential concern. The report also documented the collection of soil samples at 5, 10, and 15 feet below grade surface to characterize soil VOC concentrations. All concentrations of PCE were below the commercial PCE ESL for soil. Thank you for submitting the report.

The referenced report recommended a phased approach to additional future actions at the site. The first proposed step is the submittal of a work plan addendum to the previously submitted July 8, 2013 *Vapor Mitigation and Remedial Well Installation Work Plan* for the subject site. The intent of the work plan addendum is to document locations of proposed additional vapor extraction wells and to provide revised well construction details. The second step would be startup of the soil vapor extraction (SVE) system upon receipt of regulatory approval. The third proposed step is generation of a work plan for subslab vapor sampling, collection of indoor air quality samples, and additional assessment of the lateral extent of the vapor and soil (adsorbed-phase) plumes at the site.

ACEH concurs that interim remedial actions are required at the site. However, ACEH notes that the vapor concentrations detected warrant concurrent determination of the potential for an imminent vapor intrusion health risk to be present at the subject unit and at adjacent units at the site. Therefore, based on ACEH staff review of the case file, we request that you address the following technical comments and send us the reports described below.

TECHNICAL COMMENTS

 Request for Interim Remediation Work Plan Addendum with Site Investigation Work Plan – In order to expedite actions at the site and determine the potential for imminent health risk to occupants of this and adjacent commercial units, ACEH requests the collection of indoor air quality vapor samples at the subject site (subject commercial unit), and for adjacent commercial units, generation of a work plan providing additional details of the SVE system, the construction of subslab vapor points, proposed pilot tests to determine the radius of influence of SVE wells, revised well construction details, and potentially the locations of additional wells, as discussed above.

To minimize review time and expedite actions at the site, ACEH requests that the work plan also include the tasks associated with additional site investigation, including but not limited to, additional sampling locations to delineate the lateral extent of the vapor-phase and soil plumes. The collection of additional shallow soil samples beneath the site at critical locations, such as elevated PCE vapor sample results would likely assist in understanding the source and distribution of contamination beneath the site and in well design.

Please include Standard Operating Protocols (SOPs) for all proposed actions, such as subslab vapor point installation.

2. Draft Public Fact Sheet Notice - Based on a review of site data, public participation activities are required at this site. The purpose of public participation is to facilitate communication and coordination with stakeholders potentially affected by, or concerned with, soil and groundwater contamination and potential vapor intrusion risks associated with chlorinated solvents in soil, groundwater, and soil vapor at the site at concentrations that exceed applicable regulatory screening levels used to judge the necessity of conducting corrective actions at the site.

As part of the public participation process, you must notify potentially affected stakeholders who live or own property in the surrounding area of the site conditions through a mailing of a fact sheet. Please establish an initial mailing list of property owners and tenants who are located within 200 feet of the parcel boundaries for the property. The mailing list should also include other stakeholders who have interest in tenant improvements, have political jurisdiction within or adjacent to the potential vapor intrusion area, represent community leadership or advocacy, or need to be aware of planned activities.

Please submit a draft distribution list and draft informational fact sheet about the site and planned investigation and characterization activities (MS Word format) for agency review by the date specified below. Please see the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) Vapor Intrusion Public Participation Advisory, dated March 2012 for examples.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with Attachment 1 and the specified file naming convention below, according to the following schedule:

- January 31, 2014 Draft Public Fact Sheet (in MS Word format) with List of Fact Sheet Recipients (Please initially email to ACEH case worker only); file to be named: RO3120_PP_yyyy-mm-dd
- February 21, 2014 (January 10, 2014) Site Investigation Work Plan File to be named: RO3120_WP_R_yyyy-mm-dd

Online case files are available for review at the following website: <u>http://www.acgov.org/aceh/index.htm</u>. If your email address does not appear on the cover page of this notification, ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

Should you have any questions, please contact me at (510) 567--6876 or send me an electronic mail message at <u>mark.detterman@acgov.org</u>.

Sincerely,

Digitally signed by Mark E. Detterman DN: cn=Mark E. Detterman, o, ou, email, c=US Date: 2014.01.07 15:04:33 -08'00'

Mark E. Detterman, P.G., C.E.G. Senior Hazardous Materials Specialist Mr. William Mathews Brooks RO0003120 January 7, 2014, Page 3

- Enclosures: Attachment 1 Responsible Party (ies) Legal Requirements / Obligations Electronic Report Upload (ftp) Instructions
- cc: Daniel Villanueva, Advanced GeoEnvironmental, Inc, 837 Shaw Road, Stockton, CA 95215 (sent via electronic mail to <u>DVillanueva@advgeoenv.com</u>)

William Little, Advanced GeoEnvironmental, Inc, 837 Shaw Road, Stockton, CA 95215 (sent via electronic mail to <u>WLittle@advgeoenv.com</u>)

Dilan Roe (sent via electronic mail to <u>dilan.roe@acgov.org</u>) Mark Detterman, ACEH, (sent via electronic mail to <u>mark.detterman@acgov.org</u>) Geotracker, Electronic File

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements: (http://www.waterboards.ca.gov/water issues/programs/ust/electronic submittal/).

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, 7835, 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, late 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.

Alamada County Environmental Cleanup	REVISION DATE: July 25, 2012
Alameda County Environmental Cleanup Oversight Programs	ISSUE DATE: July 5, 2005
(LOP and SCP)	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) 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.

REQUIREMENTS

- Please do not submit reports as attachments to electronic mail.
- Entire report including cover letter must be submitted to the ftp site as a single Portable Document Format (PDF) with no password protection.
- It is preferable that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements must be included and have either original or electronic signature.
- <u>Do not</u> password protect the document. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. Documents with password protection <u>will not</u> be accepted.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include "ftp PASSWORD REQUEST" and in the body of your request, include the Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to http://alcoftp1.acgov.org
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to <u>deh.loptoxic@acgov.org</u> notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.