Solano Group
P.O. Box 9026
Berkeley, CA 94709

April 15, 2014

Mr. Mark Detterman
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**Re: Albany 1-Hour Cleaners**
1187 Solano Avenue
Albany, California
ACEH Case No. 2857

Dear Mr. Detterman:

The Solano Group has retained Pangea Environmental Services, Inc. (Pangea) for environmental consulting services for the project referenced above. On my behalf, Pangea is submitting the attached *Operation & Maintenance Plan*.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report is true and correct to the best of my knowledge.

Sincerely,

J. Anthony Kershaw
General Partner
Solano Group

April 15, 2014

***VIA ALAMEDA COUNTY FTP SITE***

Mr. Mark Detterman
Alameda County Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Re: **Operation & Maintenance Plan**
Former Albany 1-Hour Cleaners
1187 Solano Avenue
Albany, CA 94706
ACEH SLIC Case RO0002857

Dear Mr. Detterman:

On behalf of the Solano Group, Pangea Environmental Services, Inc. (Pangea) has prepared this *Operation & Maintenance Plan* (O&M Plan) for the subject site. This O&M Plan has been prepared to maintain and monitor engineered controls associated with corrective action of volatile organic compounds (VOCs) at the site due to prior dry cleaner operations. The O&M Plan also includes a schedule for monitoring of soil gas and indoor air designed to continue until sufficiently meeting cleanup levels required by agency.

This O&M Plan accompanies a Site Management Plan (SMP) that specifies proper handling procedures for impacted soil and/or groundwater if encountered during future excavation or construction in the area impacted with residual VOCs. While the O&M Plan is generally no longer applicable after agency case closure, the SMP is designed to safeguard human health from exposure during future redevelopment or construction after case closure. If you have any questions or comments, please call me at (510) 435-8664.

Sincerely,
**Pangea Environmental Services, Inc.**


Bob Clark-Riddell, P.E.
Principal Engineer

Attachment: *Operation & Maintenance Plan*

cc: Mr. J. Anthony Kershaw, Solano Group, P.O. Box 9026, Berkeley, California 94709
Dr. Romtin Nassiri, Solano Smile Dental (1183 Solano Avenue Tenant)
Jon Guhl, Boss Burger, LLC (1187 Solano Avenue Tenant)
Anne J. Wolfe, USPS Facilities R&A Team West (1191 Solano Avenue Tenant)
SWRCB (Geotracker)

## 1.0 INTRODUCTION

Pangea Environmental Services, Inc. (Pangea) has prepared this *Operation & Maintenance Plan* (O&M Plan) for the subject site. This O&M Plan is required by Alameda County Environmental Health (ACEH), who provides regulatory oversight for this site via SLIC Case #RO0002857, to help safeguard human health and safety with respect to potential residual volatile organic compounds (VOCs) in the site subsurface. This O&M Plan is designed to monitor and evaluate the efficacy of engineered controls associated with corrective action at the site. This O&M Plan specifically pertains to maintaining the integrity of the building slab and subslab passive ventilation system that mitigates potential intrusion of subsurface VOCs into the site buildings. The O&M Plan also includes a schedule for monitoring of soil gas and indoor air designed to continue until sufficiently meeting cleanup levels required by agency.

This O&M Plan accompanies a Site Management Plan (SMP) that specifies proper handling procedures for impacted soil and/or groundwater if encountered during future excavation or construction in the area impacted with residual volatile organic compounds.

## 2.0 BACKGROUND

Due to a historical release from the former dry-cleaning operations at Albany 1-Hour Cleaners (Albany Cleaners), the soil and groundwater in the vicinity of the former Albany Cleaners had been impacted by VOCs, particularly tetrachloroethene (PCE) and its breakdown product 1,1,1-trichloroethene (TCE). Between 1986 and 2004, Albany Cleaners operated cleaning equipment that used chlorinated VOCs in the building unit at 1187 Solano Avenue, Albany, California. Hydrocarbon-based VOCs were used by the dry cleaners from 2004 to 2011, but no significant subsurface impact from hydrocarbon use has been identified at this site. The location of the former Albany's Cleaners is shown on Figures 1 and 2.

### Objective of O&M Plan

This O&M Plan has been prepared to monitor and evaluate the efficacy of engineered controls associated with corrective action at the site. This O&M Plan specifically pertains to maintaining the integrity of the building slab and subslab passive ventilation system that mitigates potential intrusion of subsurface VOCs into the site buildings. The plan includes procedures for inspection and maintenance of the building slab and avoiding penetrations of the slab or compromising of the passive subslab ventilation system during planned or future site improvements. The O&M Plan also includes a schedule for monitoring of soil gas and indoor air designed to continue until sufficiently meeting risk-based cleanup levels.

The location of the residual VOC impact in subslab gas that requires monitoring and potential migitation is shown as the "Monitoring Area" on Figure 2. This Monitoring Area encompasses the passive subslab ventilation system that mitigates potential vapor intrusion, and includes a few locations where subslab gas concentrations merits evaluation with respect to conservative environmental screening levels (ESLs). Due to the subslab gas impact, this plan includes monitoring of indoor air to confirm that indoor air concentrations remain below applicable conservative screening levels.

### Site Use

The subject site currently consists of a vacant, one-story commercial unit at 1187 Solano Avenue (Figure 2). The subject site represents one unit of an entire commercial block of single-story units/buildings along Solano Avenue, for which the responsible party (Solano Group) owns the north side of the block. Parcel

number 66.2801-22-1 includes 1175 Solano (pizza restaurant), 1181 Solano (medical offices), 1183 Solano (dentist office), and 1185 Solano (vacant and immediately adjacent subject site). Parcel number 66.2801-20 includes 1191 Solano (U.S. Post Office). The commercial parking lot for the site (parcel numbers 66.2801-18 and 66.2801-18) is immediately north of the site, and residential properties are north and northwest of the subject site parking lot.

### Tenant Improvement Plans

Current redevelopment activity at 1187 Solano Avenue involves limited subsurface tenant improvements for a cafe/restaurant. The planned improvements include installation of the following: a shallow drain line for the sanitary sewer, a 3-ft deep grease trap, and a concrete slab. (Slab installation at much of 1187 Solano has been delayed pending completion of tenant subsurface improvements.) No subsurface work is currently planned at 1185 Solano, where existing subgrade improvements include plumbing and electrical conduits located beneath and within the passive subslab ventilation system. Plans showing the proposed restaurant layout at 1187 Solano Avenue are included in Appendix A. More detailed drawings of planned redevelopment will be provided separately to ACEH upon completion.

## 3.0 SUMMARY OF INVESTIGATION AND CLEANUP ACTIVITY

Environmental investigation commenced at the site in 2004 to evaluate potential cleaning solvent impact to the site subsurface. To date, environmental assessment activities have included soil sampling from nearly 60 borings; groundwater sampling within 7 monitoring wells and several borings; soil gas sampling from over 20 probes, and subslab and indoor air sampling in the tenant spaces of 1183, 1185, 1187, and 1191 Solano Avenue. Prior to cleamup, VOCs (primarily PCE) had been detected in soil, groundwater and soil vapor at the site at concentrations greater than applicable regulatory agency screening levels. Figures showing sampling locations, sampling results, and a cross-section illustration are described below and included in Appendix A.

The Solano Group worked with ACEH to implement corrective action at the site in conjunction with cleanup activities and site use/tenant improvements. The corrective actions identified feasible alternatives to remediate soil, soil gas, and groundwater impacts and to mitigate potential vapor intrusion risks to future site occupants.

Due to elevated VOC impact and the potential for vapor intrusion into the building, source removal was performed as an interim remedial action measure under most of the former dry cleaning unit at 1187 Solano, under most of the adjacent unit at 1185 Solano, and also underneath a portion the adjacent unit at 1191 Solano. All identified soil that exceeded residential screening levels was removed and disposed of at an offsite permitted facility. This removal involved the excavation and disposal of approximately 501 tons of soil.

To help mitigate vapor intrusion from any residual subsurface VOC impact, the excavation cavity was primarily backfilled with cement slurry. Also, a passive ventilation system was installed under the cement slurry slab area to keep soil vapor containing VOCs from moving into indoor air by blocking vapors from entering buildings and allowing vapors under the building to passively vent to the atmosphere at the rooftop. This primary passive ventilation system was installed beneath 1185 and 1187 Solano Avenue as shown on Figure 2. Additional passive ventilation is provided by subslab slotted piping installed beneath portions of 1183 and 1191 Solano Avenue. A cross-sectional illustration of the passive ventilation system and backfill is shown on Figure 3 and in Appendix A.

## 4.0 CURRENT SITE CONDITIONS

VOCs, primarily tetrachloroethene (PCE) and trichloroethene (TCE), had been historically detected in soil, soil gas, and subslab gas primarily beneath the northern portion of the subject site and beneath the northern portion of the adjacent commercial unit at 1185 Solano Avenue (Figure 2). The highest concentrations of PCE were found immediately surrounding the old dry cleaning equipment. Current conditions in soil, soil gas/subslab gas, groundwater and indoor air are summarized below.

**Soil:** During extensive soil removal, all identified soil that exceeded residential screening levels was removed and disposed of at an offsite permitted facility. These screening levels include consideration of human direct contact to soil. Despite this extensive remediation, VOCs remain in site soil beyond the limits of excavation. Soil excavation was conducted to a maximum depth of approximately 11 ft below grade surface, with first groundwater encountered approximately 9 ft below grade surface (bgs). The excavation area included most of the former dry cleaning unit at 1187 Solano, most of the adjacent unit at 1185 Solano, and the western portion the adjacent unit at 1191 Solano. Analytical results for PCE concentrations in residual soil beyond the excavation limits are shown in Appendix A. VOC concentrations in residual soil are also summarized on Table 1.

**Soil Gas:** Soil gas refers to the air that is present in the open spaces between soil particles between the ground surface and the water table. It includes air (primarily oxygen and nitrogen, like aboveground air), water vapor, and occasionally pollutants. With groundwater present about 9 ft bgs, soil gas is present within the upper 9 ft of the site subsurface. All soil gas sampling locations, which were collected approximately 5 ft bgs, were excavated during cleanup action except for location SG-1 located in the parking lot just north of the 1187 Solano. VOC concentrations in soil gas at SG-1 prior to excavation were well below applicable environmental screening levels. VOC concentrations in residual soil gas and screening levels for soil gas are summarized on Table 2.

**Subslab Gas:** Subslab gas refers to the air (soil gas) that is present in the open spaces between soil particles and backfill material *immediately* beneath a building slab. As a soil gas, subslab gas includes air, water vapor, and occasionally pollutants. Excavation activities removed source soil material that was contributing to VOC concentrations in subslab gas. VOC concentrations in residual subslab gas are summarized on Table 2, Figure 4 (December 2013 data), and Figure 5 (March 2014 data). Recent subslab gas data indicates that all subslab gas concentrations are below applicable commercial and residential environmental screening levels, except for two isolated locations described herein. Concentrations in probe SG-1187S (1187 Solano) slightly exceeded commerical screening levels, but this location is mitigated by the passive ventilation system and expected to attenuate with time. Concentrations in SSPO-4 (1191 Solano) also slightly exceeded commerical screening levels, and this location is partially mitigated by the passive ventilation system and expected to attenuate with time.

**Indoor Air:** All historic PCE concentrations from indoor air testing are well below screening levels, indicating that subsurface impact from former dry cleaning operations do not currently pose a significant vapor intrusion risk. VOC concentrations in indoor air are summarized on Table 3. Figure 6 summarizes results from the most recent indoor air testing, which were conducted with the HVAC system turned off and 24-hr sample collection per ACEH direction. The maximum PCE concentration in indoor air from this event was 0.51 ug/$m^3$, which is significantly below the *commercial* ESL (2.1 ug/$m^3$) and only slightly exceeds the *residential* ESL (0.41 ug/$m^3$).

**Groundwater:** VOCs have impacted shallow groundwater (at a depth of ten ft bgs) in the vicinity of the site but not deeper groundwater (found and sampled at 30 ft bgs). Data indicates that the shallow groundwater impacts extend west from the subject site to 1181 Solano Avenue and toward Stannage Avenue. The extent of offsite shallow groundwater contamination was recently delineated by additional grab sampling and the installation of three additional groundwater monitoring wells. A total of seven monitoring wells are used to regularly evaluate shallow groundwater quality. Groundwater quality and monitoring efforts are described in the Site Management Plan and other site reports.

**Summary:** For the purposes of this O&M Plan, the primary media of concern are subslab gas and indoor air. As described above, subslab gas concentrations are below applicable commercial and residential environmental screening levels, except for two isolated locations during select monitoring events. However, PCE concentrations from indoor air testing well below screening levels indicates that subsurface impact from former dry cleaning operations does not currently pose a significant vapor intrusion risk.

## 5.0 APPROVED ENGINEERING CONTROLS

In conjunction with source soil removal, engineering controls were implemented to help mitigate vapor intrusion from any residual subsurface VOC impact. The engineering controls included (1) backfilling with a cement slurry, (2) installation of a subslab passive ventilation system beneath 1185 and 1187 Solano Avenue units, and (3) installation of slotted piping beneath portions of 1183 and 1191 for additional ventilation of subsurface gas. The passive ventilation system is summarized on Figure 2. A cross-section of the passive ventilation system and cement slurry backfill is shown on Figure 3.

### Cement Slurry Backfill

The excavation cavity was initially backfilled with controlled density fill (CDF), or cement slurry. The cement slurry was used in 1187 Solano and the eastern portion of 1191 Solano from 4 ft depth to the final excavation depth (maximum of 11 ft). The extent of the cement slurry within 1185 and 1187 Solano is shown on Figure 2. The cement slurry also extended approximately 6 or 7 feet under 1191 Solano within the excavation area extending beneath that unit, as shown on Figure 3 in Appendix A. For added strength, a 3-sack cement slurry was used to exceed the minimum required 2-sack slurry. The cement subcontractor used vibration equipment and the slurry extends about 1 ft above the footing bottom for added pressure along the eastern portion of the backfilling. For 1185 Solano, portions of the excavation cavity under the bathrooms and hallway was backfilled with cement slurry from the excavation depth up to the existing slab to support the building. This cement slurry helps prevent VOCs the upward migration of VOCs in soil gas from the limited residual VOC impact in soil and groundwater. Any VOCs that migrate around the cement slurry are further mitigated by the subslab passive ventilation system.

### Subslab Passive Ventilation System at 1185 and 1187 Solano

A subslab passive ventilation system was constructed within the excavation area where shown on Figure 2. The passive ventilation system beneath 1185 and 1187 Solano consists of a gravel layer, slotted piping, and riser piping was installed under the cement slurry slab area to keep soil vapor containing VOCs from moving into indoor air by blocking vapors from entering buildings and allowing vapors under the building to passively vent to the atmosphere at the rooftop. The passive ventilation piping is routed through two 4-inch diameter solid ABS piping risers into a sealed roof turbine fan for ventilation to the atmosphere, as shown on Figure 2.

As shown on the cross section on Figure 3, gravel and slotted piping was installed from approximately 10 to 24 inches below the top of slab elevation. The gravel/piping layer was covered by 10 mil plastic sheeting. The plastic sheeting and gravel extended over the entire excavation area, except for the small cement slurry slots under the hallway, bathroom, and 1191 Solano. Cement slurry (about 6 inches in thickness) was installed over the plastic sheeting. An additional cross sectcion of the excavation extent and backfill materials is included as Figure 20 in Appendix A.

In addition, slotted PVC ventilation piping was installed within the gravel layer at 1185 and 1187 Solano. This additional piping from each location is manifolded together within the ceiling and could be used for additional passive ventilation or contingent active ventilation. Access to the manifolded piping is provided by panels in the hallway of 1185 Solano. Another panel provides access to the four subslab gas probes installed within the gravel layer beneath 1185 and 1187 Solano.

To help minimize future disruption to the passive ventilation system and plastic sheeting, sanitary sewer piping was installed where shown on Figure 24 in Appendix A. Permeable material was placed around the shallow sanitary piping in 1187 Solano to facilitate future connections to the piping. After completion of the final plumbing for the future tenants, a 4-inch thick concrete slab will be installed over the excavation area.

### Passive Ventilation System at 1183 and 1191 Solano

Additional passive ventilation is provided by subslab slotted piping installed beneath portions of 1183 and 1191 Solano Avenue, where shown on Figure 2. Each ventilation pipe is two-inch diameter slotted PVC. At 1191 Solano, one vent pipe was installed by cutting open the slab, excavating a trench (about 18 inches deep and 18 inches wide), installing bentonite plug and then sand beneath the slab. (A second solid 2-inch diameter PVC pipe was stubbed at the end of the vent area for potential future use, if needed).

At 1183 Solano, three vent pipes were installed by coring a hole through the footing and hand augering a 3-1/4 inch diameter boring. Following insertion of the slotted PVC piping, sand was blown into the annual and a bentonite plug was installed. This piping from each location is manifolded together within the ceiling and could be used for future passive or active ventilation. Access to the manifolded piping is provided by panels in the hallway of 1185 Solano. Each of these vent pipes are located near utility conduits where backfill material that could enhance ventilation of subslab gas beneath the units.

## 6.0 OPERATION & MAINTENANCE PROGRAM

The O&M Program includes ongoing inspection and repair of the building slab and subslab passive ventilation system to ensure that the integrity of the cap is maintained. The maintenance program requires submittal of routine reports to ACEH regarding the condition of the slab/ventilation system. The program includes sampling of subslab gas and indoor air to evaluate site conditions and the efficacy of the engineering controls.

### Inspections

An annual site inspection will consist of visual observation of all areas currently covered with by the building slab within the Monitoring Area. The inspection form in Appendix B will be used to document the conditions at the site. The slab will be inspected for cracks, breaks, erosion, or other conditions that may warrant repair or replacement to prohibit subsurface soil or the ventilation system from becoming exposed. The inspection form will include a site plan for the inspector to mark areas where the slab is cracked or broken.

The annual inspection will also include a review of the previous annual inspection report to evaluate whether site conditions have changed between inspections. Any signiscant changes will be noted and described in the annual inspection report. Recommendations for additional maintenance or repair will be noted on the inspection form.The inspection form will be signed and dated by the inspector and included in the annual inspection report submitted to the ACEH.

### Slab Penetration and Subsurface Construction

This section pertains to units at 1185 and 1187 Solano Avenue. If excavation activites are to occur within the subslab passive ventilation system in 1185 and 1187 Solano Avenue (shown on Figure 2), notify ACEH and obtain any applicable permits from the City of Albany. Contact information for the ACEH is included at the end of this O&M Plan.

Any disruption to the building slab or subslab passive ventilation system shall be repaired or reconstructed to maintain integrity of the building slab and ventilation system. The construction of the subslab passive ventilation system is described above. Notification to ACEH will allow site and repair inspection by the agency.

For all subsurface work performed in the Monitored Area, follow procedures described in the Site Management Plan. The SMP specifies proper handling procedures for impacted soil and/or groundwater if encountered during future excavation or construction in the monitoring area.

### Sampling Program

The O&M Program includes sampling of subslab gas and indoor air to evaluate site conditions and the efficacy of the engineering controls. The sampling program is summarized on Table 4. The sampling program includes two additional sampling events for subslab gas and indoor air. Future sampling is proposed annually, if required by ACEH. All gas sampling will be performed in general accordance with guidance from CalEPA/DTSC.

## 7.0 REPORTING

A sampling report will be provided following each sampling event. The sampling report may be combined with other reports for site activity, such as a groundwater monitoring report or assessment report. If annual sampling is required, an annual report will be provided to ACEH. The annual sampling report may also be combined with the annual inspection report, if required. If special repairs are made to the slab or passive.

## 8.0 SCHEDULE

Initial quarterly monitoring of subslab gas and indoor air is scheduled for June and September 2014. Reports will be submitted soon after sampling. If ACEH required ongoing monitoring of the engineering controls, annual monitoring is proposed for 1Q each with report submittal soon thereafter. Monitoring of engineered controls is planned until meeting cleanup levels acceptable to the agency.

## 9.0 CONTACT INFORMATION FOR THIS O&M PLAN

Solano Group
c/o J. Anthony Kershaw
P.O. Box 9026
Berkeley, California 94709
510.524-8122
tkershaw@kershawinvestments.com

Pangea Environmental Services, Inc.
Bob Clark-Riddell, P.E.
1710 Franklin Street, Suite 200
Oakland, CA 94612
510.836.3700
briddell@pangeaenv.com

ACEH Case Worker
Mark Detterman
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502
510-567-6876
Mark.detterman@acgov.org

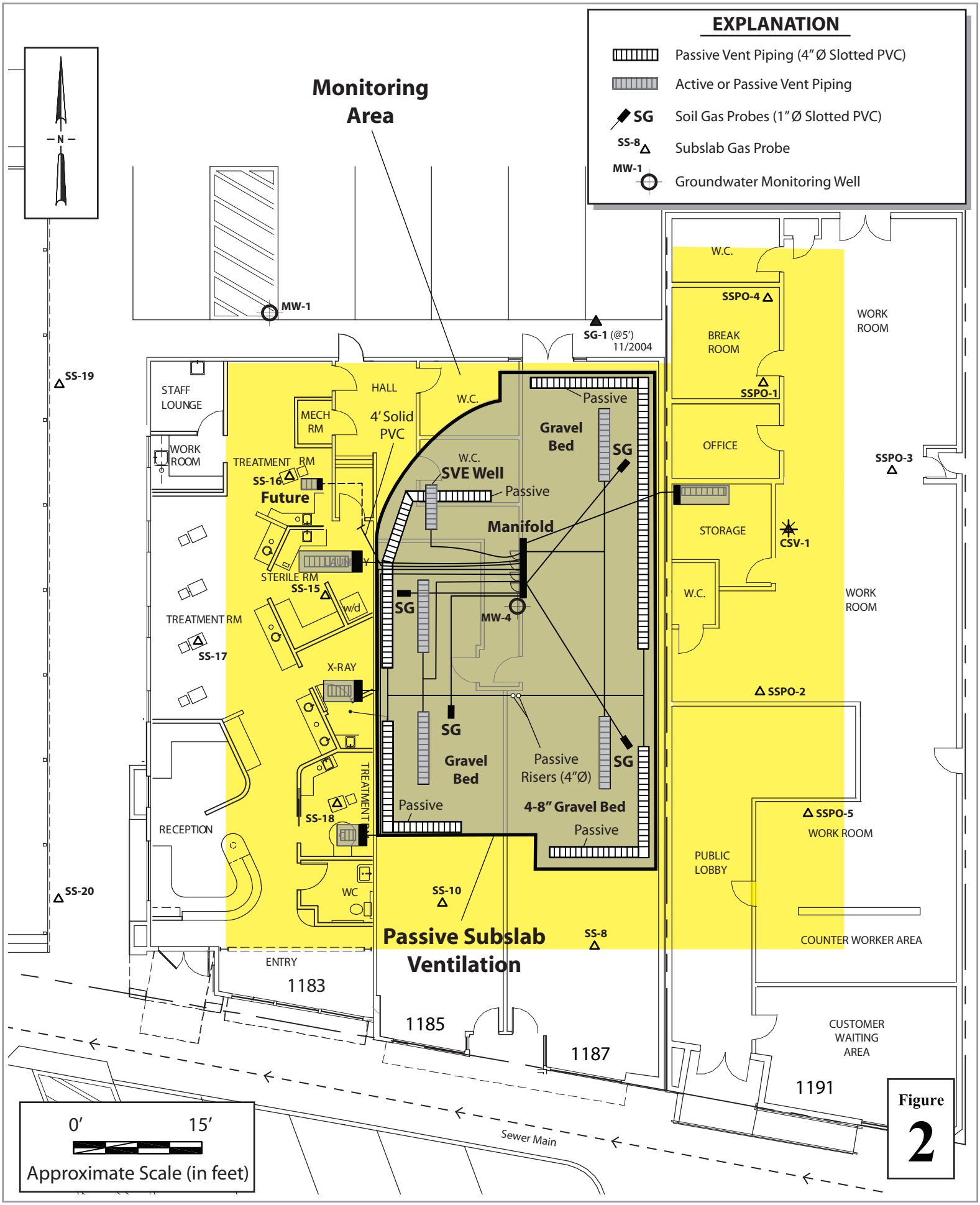
## ATTACHMENTS


Figure 1

**Solano Group**
1187 Solano Avenue
Albany, California

PANGEA

**Vicinity Map**




**Solano Group**
1187 Solano Avenue
Albany, California

PANGEA

**Monitoring Area & Subslab Passive Ventilation System**

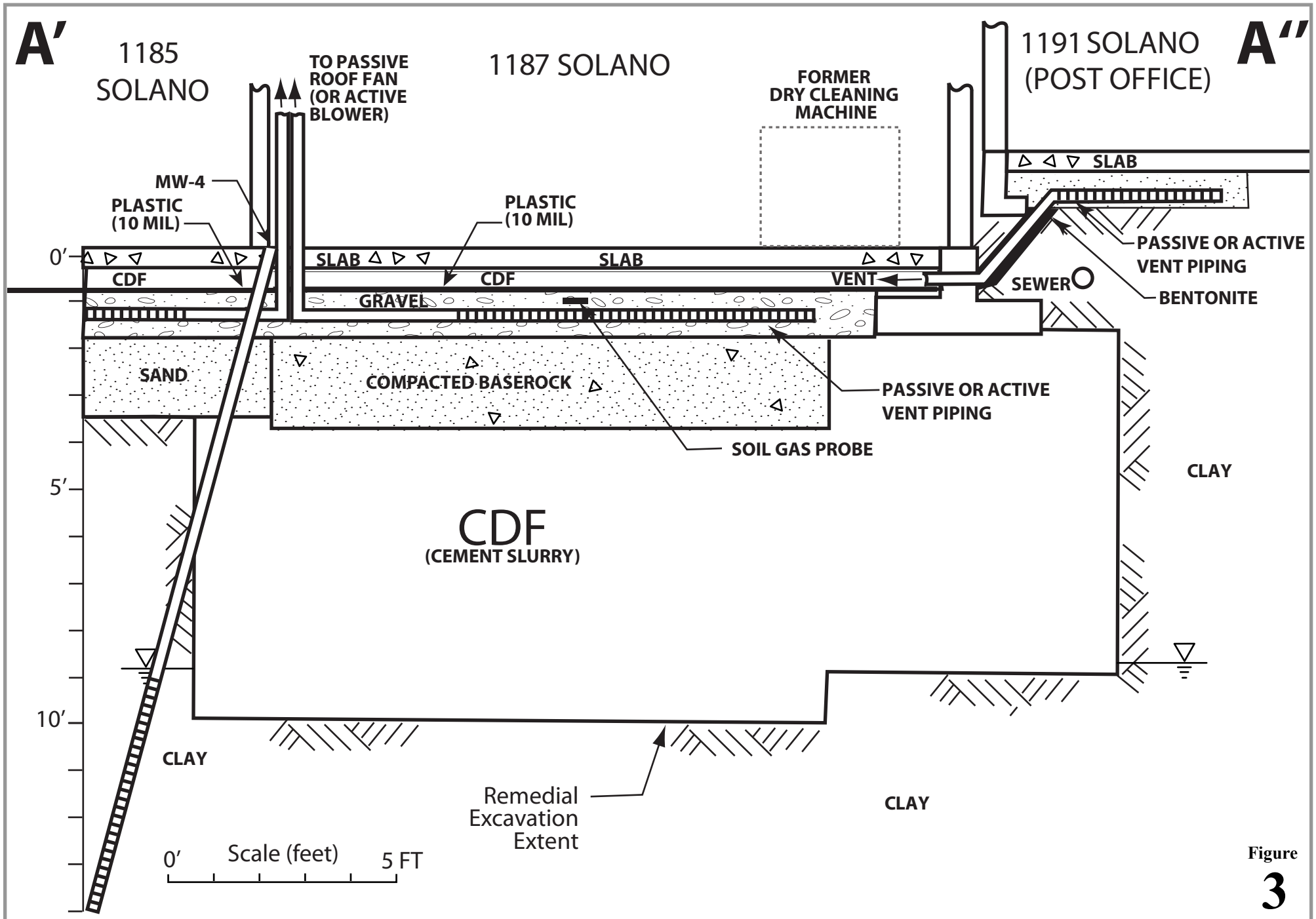



Figure
**3**

**Solano Group**
1187 Solano Avenue
Albany, California

PANGEA

**Detailed Geologic Cross Section A'- A''**

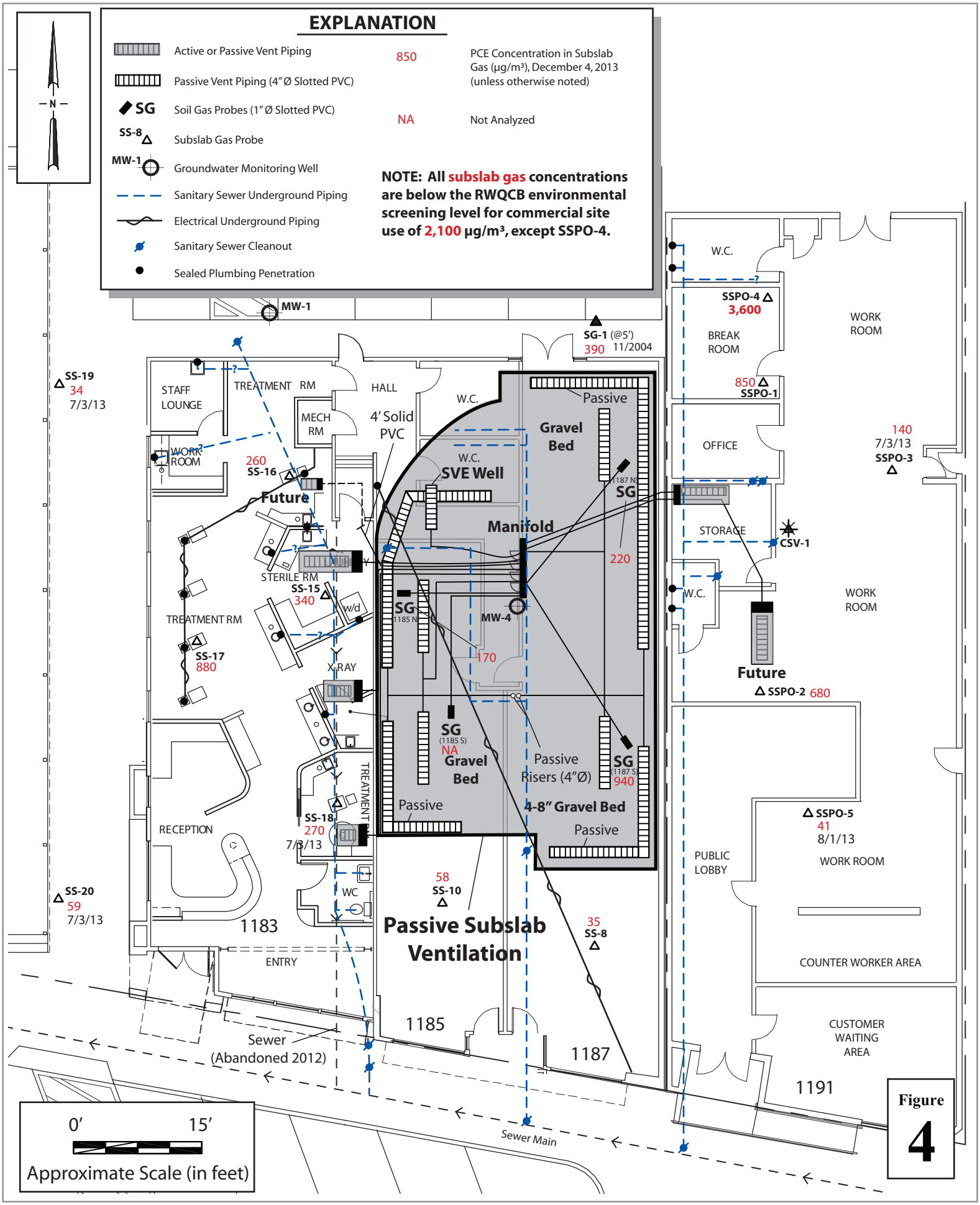



Figure 4

**Solano Group**
1187 Solano Avenue
Albany, California

PANGEA

**Subslab Gas Data**
**December 4, 2013**

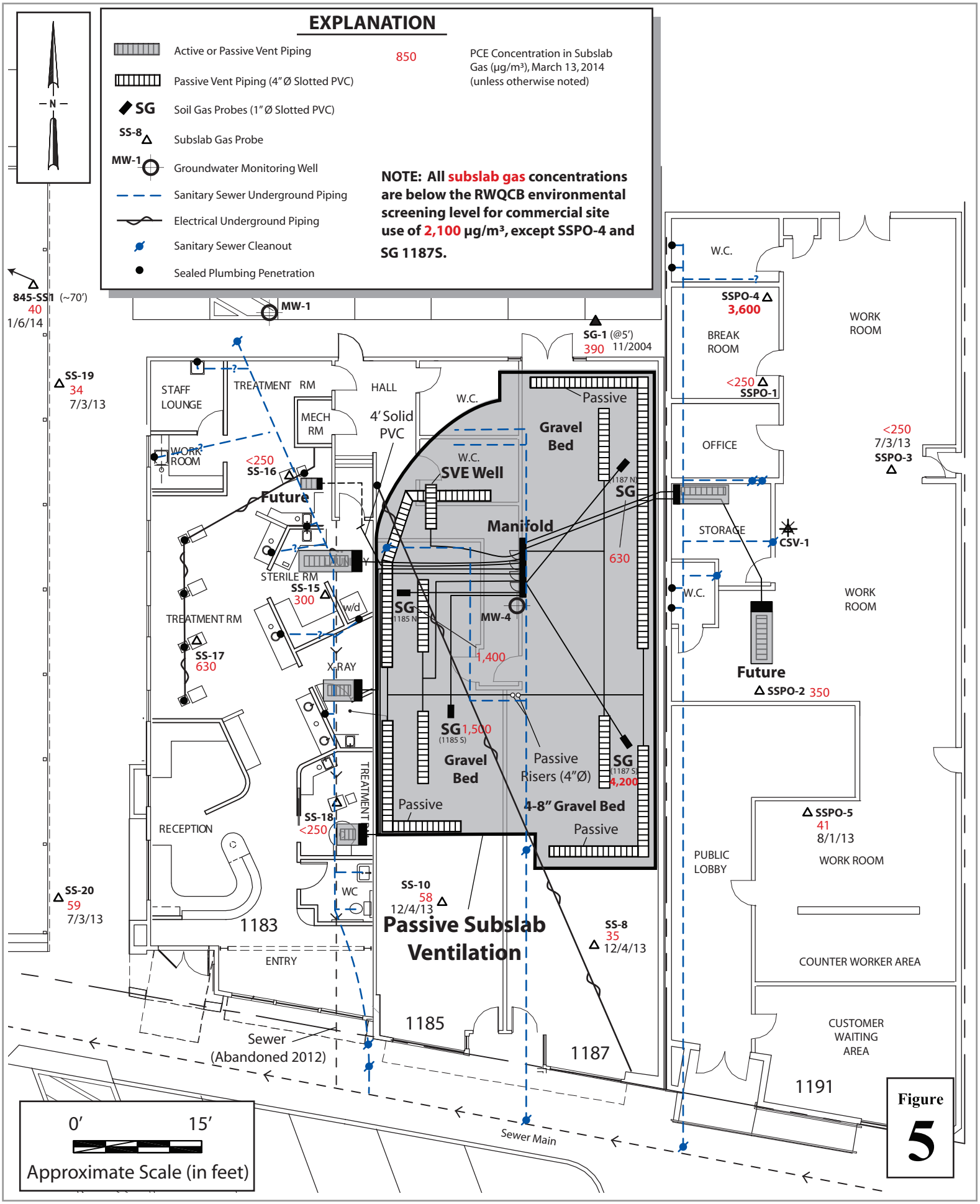
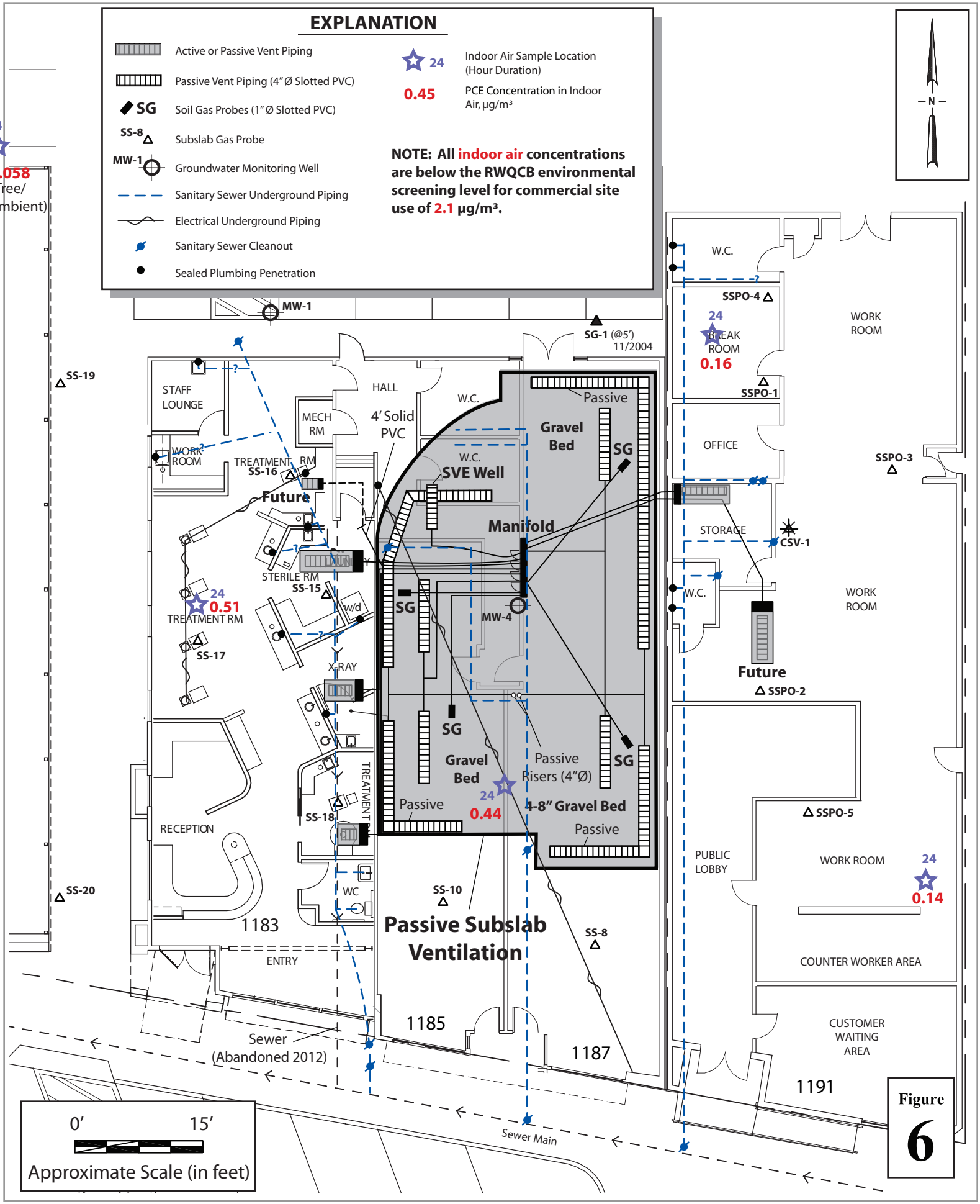



Figure 5

**Solano Group**
1187 Solano Avenue
Albany, California

PANGEA

**Subslab Gas Data**
**March 13, 2014**




**Solano Group**
1187 Solano Avenue
Albany, California

PANGEA

**Indoor Air Sampling Data**
**March 6, 2014**

# Pangea

**Table 1. Soil Analytical Data After Excavation -** 1187 Solano Ave, Albany, California

| | | | PCE | TCE | cis-1,2-DCE | BTEX | Other VOCs | Comments |
|---|---|---|---|---|---|---|---|---|
| *Residential* ESL shallow soil **dw** (<3 m bgs) Final ESL: | | | **0.55** | **0.46** | 0.19 | | Varies | |
| *Commercial* ESL shallow soil **dw** (<3 m bgs) Final ESL: | | | 0.7 | 0.46 | 0.19 | | Varies | |
| Boring/ Sample ID | Date Sampled | Sample Depth (ft bgs) | ← | | mg/Kg | | → | |
| **2004 and 2005 Borings** | | | | | | | | |
| GP-1-15' | 11/2/2004 | 15.0 | 0.0084 | ND | ND | --- | ND | |
| GP-2-5' | 11/2/2004 | 5.0 | 0.190 | 0.0022 | ND | --- | ND | |
| GP-2-10' | 11/2/2004 | 10.0 | 0.026 | ND | ND | --- | ND | |
| GP-2-15' | 11/2/2004 | 15.0 | ND | ND | ND | --- | ND | |
| GP-2-20' | 11/2/2004 | 20.0 | ND | ND | ND | --- | ND | |
| GP-3-15' | 11/2/2004 | 15.0 | ND | ND | ND | --- | ND | |
| GP-3-20' | 11/2/2004 | 20.0 | ND | ND | ND | --- | ND | |
| GPA-1-10' | 4/20/2005 | 10.0 | 0.0071 | ND | ND | --- | ND | |
| GPA-1-20' | 4/20/2005 | 20.0 | ND | ND | ND | --- | ND | |
| GPA-1-30' | 4/20/2005 | 30.0 | ND | ND | ND | --- | ND | |
| GPA-2-10' | 4/20/2005 | 10.0 | 0.0066 | ND | ND | --- | ND | |
| GPA-2-20' | 4/20/2005 | 20.0 | ND | ND | ND | --- | ND | |
| GPA-2-30' | 4/20/2005 | 30.0 | ND | ND | ND | --- | ND | |
| GPA-3-10' | 4/20/2005 | 10.0 | ND | ND | ND | --- | ND | |
| GPA-3-20' | 4/20/2005 | 20.0 | ND | ND | ND | --- | ND | |
| GPA-3-30' | 4/20/2005 | 30.0 | ND | ND | ND | --- | ND | |
| GPA-4-10' | 4/20/2005 | 10.0 | 0.310 | ND | ND | --- | ND | |
| GPA-4-20' | 4/20/2005 | 20.0 | ND | ND | ND | --- | ND | |
| GPA-4-30' | 4/20/2005 | 30.0 | ND | ND | ND | --- | ND | |
| GPA-5-10' | 4/20/2005 | 10.0 | 0.012 | ND | ND | --- | ND | |
| GPA-5-20' | 4/20/2005 | 20.0 | ND | ND | ND | --- | ND | |
| GPA-5-30' | 4/20/2005 | 30.0 | ND | ND | ND | --- | ND | |
| **January 2013 Borings** | | | | | | | | |
| B-1-3.5 | 1/10/2013 | 3.5-4.0 | 0.011 | <0.005 | <0.005 | --- | ND | |
| B-1-5.5 | 1/10/2013 | 5.0-5.5 | 0.034 | 0.0051 | <0.005 | --- | ND | |
| B-6-12* | 1/18/2013 | 11.5-12.0 | 0.0062 | <0.005 | <0.005 | --- | ND | |
| B-7-12 | 1/18/2013 | 11.5-12.0 | 0.0061 | <0.005 | <0.005 | --- | ND | |
| B-9-3 | 1/10/2013 | 2.5-3.0 | 0.086 | <0.005 | <0.005 | --- | ND | 1185 Solano |
| B-11-8 | 1/18/2013 | 7.5-8.0$^{+}$ | <0.005 | <0.005 | <0.005 | --- | ND | 1191 Solano |
| B-11-12 | 1/18/2013 | 11.5-12.0$^{+}$ | <0.005 | <0.005 | <0.005 | --- | ND | 1191 Solano |
| B-12-4 | 1/18/2013 | 3.5-4.0$^{+}$ | <0.005 | <0.005 | <0.005 | --- | ND | 1191 Solano |
| B-12-8 | 1/18/2013 | 7.5-8.0$^{+}$ | 0.011 | <0.005 | <0.005 | --- | ND | 1191 Solano |
| B-12-12 | 1/18/2013 | 11.5-12.0$^{+}$ | <0.005 | <0.005 | <0.005 | --- | ND | 1191 Solano |
| B-13-8 | 1/18/2013 | 7.5-8.0$^{+}$ | <0.005 | <0.005 | <0.005 | --- | ND | 1191 Solano |
| B-13-12 | 1/18/2013 | 11.5-12.0$^{+}$ | <0.005 | <0.005 | <0.005 | --- | ND | 1191 Solano |
| B-14-8 | 1/18/2013 | 7.5-8.0$^{+}$ | <0.005 | <0.005 | <0.005 | --- | ND | 1191 Solano |
| B-15-8 | 1/18/2013 | 7.5-8.0$^{+}$ | <0.005 | <0.005 | <0.005 | --- | ND | 1191 Solano |
| **February 2013 Borings (Angled Under Wall onto 1191 Solano property)** | | | | | | | | |
| A-4-9* | 2/8/2013 | 5.5 | 0.011 | 0.005 | <0.005 | --- | ND | |
| **February and March 2013 Excavation Boundary** | | | | | | | | |
| EX-SE-5 | 2/15/2013 | 5.0 | 0.012 | <0.005 | <0.005 | --- | ND | |
| EX-SE2-6 | 2/18/2013 | 6.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| EX-E-7 | 2/18/2013 | 7.0 | 0.055 | <0.005 | <0.005 | --- | ND | |
| EX-N-8 | 2/22/2013 | 8.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| EX-F1-11 | 3/5/2013 | 11.0 | 0.083 | <0.005 | <0.005 | --- | ND | |
| EX-F2-7 | 3/5/2013 | 7.0 | 0.025 | <0.005 | <0.005 | --- | ND | |
| SW-1-4 | 3/5/2013 | 4.0 | 0.021 | <0.005 | <0.005 | --- | ND | |
| EX-F3-8 | 3/12/2013 | 8.0 | 0.36 | <0.005 | <0.005 | --- | ND | |
| EX-F4-6 | 3/6/2013 | 6.0 | 0.20 | <0.005 | <0.005 | --- | ND | |
| EX-F5-9 | 3/7/2013 | 9.0 | 0.0077 | <0.005 | <0.005 | --- | ND | |
| EX-F6-12 | 3/7/2013 | 12.0 | 0.0066 | <0.005 | <0.005 | --- | ND | |
| EX-F7-4 | 3/8/2013 | 4.0 | 0.15 | <0.005 | <0.005 | --- | ND | |
| SW-2-4 | 3/11/2013 | 4.0 | 0.16 | <0.005 | <0.005 | --- | ND | |
| SW-3-4 | 3/11/2013 | 4.0 | 0.10 | <0.005 | <0.005 | --- | ND | |
| EX-F8-11 | 3/13/2013 | 11.0 | 0.059 | <0.005 | <0.005 | --- | ND | |
| EX-F9-11 | 3/14/2013 | 11.0 | 0.026 | <0.005 | <0.005 | --- | ND | |
| SW-4-5 | 3/14/2013 | 5.0 | 0.016 | <0.005 | <0.005 | --- | ND | |
| SW-5-2 | 3/14/2013 | 2.0 | 0.12 | <0.005 | <0.005 | --- | ND | |
| SW-6-2 | 3/14/2013 | 2.0 | 0.12 | <0.005 | <0.005 | --- | ND | |
| SW-7-5 | 3/14/2013 | 5.0 | 0.047 | <0.005 | <0.005 | --- | ND | |
| SW-8-1 | 3/16/2013 | 1.0 | 0.12 | <0.005 | <0.005 | --- | ND | |
| SW-9-1 | 3/16/2013 | 1.0 | 0.096 | <0.005 | <0.005 | --- | ND | |
| Sewer-1-1 | 3/16/2013 | 1.0 | 0.34 | <0.005 | <0.005 | --- | ND | |
| Sewer-2-1 | 3/16/2013 | 1.0 | 0.34 | <0.005 | <0.005 | --- | ND | |

**Table 1. Soil Analytical Data After Excavation -** 1187 Solano Ave, Albany, California

| | | | PCE | TCE | cis-1,2-DCE | BTEX | Other VOCs | Comments |
|---|---|---|---|---|---|---|---|---|
| *Residential* ESL shallow soil **dw** (<3 m bgs) Final ESL: | | | **0.55** | **0.46** | 0.19 | | Varies | |
| *Commercial* ESL shallow soil **dw** (<3 m bgs) Final ESL: | | | 0.7 | 0.46 | 0.19 | | Varies | |
| Boring/ Sample ID | Date Sampled | Sample Depth (ft bgs) | ← | | mg/Kg | | → | |
| **March and April Borings 2013** | | | | | | | | |
| B-19-5 | 3/20/2013 | 4.5-5.0 | 0.013 | <0.005 | <0.005 | --- | ND | |
| B-20-5 | 3/20/2013 | 4.5-5.0 | 0.0085 | <0.005 | <0.005 | --- | ND | |
| B-21-5 | 4/25/2013 | 4.5-5.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| B-22-5 | 4/25/2013 | 4.5-5.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| B-23-4.5 | 4/25/2013 | 4.0-4.5 | <0.005 | <0.005 | <0.005 | --- | ND | |
| B-23-8.5 | 4/25/2013 | 8.0-8.5 | <0.005 | <0.005 | <0.005 | --- | ND | |
| B-25-2.5 | 4/25/2013 | 2.0-2.5 | 0.0071 | <0.005 | <0.005 | --- | ND | |
| B-25-5 | 4/25/2013 | 4.5-5.0 | 0.0066 | <0.005 | <0.005 | --- | ND | |
| B-26-2.5 | 4/25/2013 | 2.0-2.5 | 0.018 | <0.005 | <0.005 | --- | ND | |
| B-26-5 | 4/25/2013 | 4.5-5.0 | 0.0050 | <0.005 | <0.005 | --- | ND | |
| B-27-3 | 4/25/2013 | 2.5-3.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| B-27-5 | 4/25/2013 | 4.5-5.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| B-28-2.5 | 4/25/2013 | 2.0-2.5 | <0.005 | <0.005 | <0.005 | --- | ND | |
| B-28-5 | 4/25/2013 | 4.5-5.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| B-29-2.5 | 4/25/2013 | 2.0-2.5 | <0.005 | <0.005 | <0.005 | --- | ND | |
| B-29-5 | 4/25/2013 | 4.5-5.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| B-30-5 | 4/25/2013 | 4.5-5.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| **May 2013 Boring (Angled Under Bathroom at 1185 Solano)** | | | | | | | | |
| A-8-5 | 5/24/2013 | 2.0 | 0.0093 | <0.005 | <0.005 | --- | ND | |
| **July 2013 Vertical Boring (1185 Solano)** | | | | | | | | |
| B-31-5 | 7/2/2013 | 4.5-5.0 | <0.005 | <0.005 | <0.005 | <0.005 | ND | |
| B-32-5 | 7/2/2013 | 4.5-5.0 | <0.005 | <0.005 | <0.005 | <0.005 | ND | |
| B-34-5 | 7/2/2013 | 4.5-5.0 | <0.005 | <0.005 | <0.005 | <0.005 | ND | |
| **July 2013 Boring (Angled Under Wall onto 1185 Solano)** | | | | | | | | |
| A-9-12 | 7/2/2013 | 4.5 | <0.005 | <0.005 | <0.005 | <0.005 | ND | |
| A-11-8 | 7/3/2013 | 5.5 | <0.005 | <0.005 | <0.005 | --- | ND | |
| A-12-8 | 7/3/2013 | 4.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| A-13-8 | 7/3/2013 | 4.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| **August and September 2013 Excavation Boundary** | | | | | | | | |
| F-1-2 | 8/7/2013 | 2.0 | 0.0075 | <0.005 | <0.005 | --- | ND | |
| F-2-2.5 | 8/7/2013 | 2.5 | 0.014 | <0.005 | <0.005 | --- | ND | |
| SW-N1-2 | 8/15/2013 | 2.0 | 0.016 | <0.005 | <0.005 | --- | ND | |
| SW-N2-1 | 8/15/2013 | 1.0 | 0.017 | <0.005 | <0.005 | --- | ND | |
| SW-W-1 | 8/15/2013 | 1.0 | 0.015 | <0.005 | <0.005 | --- | ND | |
| F-3-3 | 8/15/2013 | 3.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| F-4-3 | 8/15/2013 | 3.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| F-5-2.5 | 8/19/2013 | 2.5 | <0.005 | <0.005 | <0.005 | --- | ND | |
| SW-W2-1 | 8/21/2013 | 1.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| F-5-3 | 8/21/2013 | 3.0 | 0.015 | <0.005 | <0.005 | --- | ND | |
| F-6-3 | 8/21/2013 | 3.0 | 0.036 | <0.005 | <0.005 | --- | ND | |
| F-7-2.5 | 8/29/2013 | 2.5 | <0.005 | <0.005 | <0.005 | --- | ND | |
| F-8-4 | 8/29/2013 | 4.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| SW-SW-2.5 | 8/29/2013 | 2.5 | <0.005 | <0.005 | <0.005 | --- | ND | |
| SW-W-2.5 | 8/29/2013 | 2.5 | <0.005 | <0.005 | <0.005 | --- | ND | |
| SW-NW-2.5 | 8/29/2013 | 2.5 | <0.005 | <0.005 | <0.005 | --- | ND | |
| F-9-3 | 9/5/2013 | 3.0 | <0.005 | <0.005 | <0.005 | <0.005 | ND | |
| F-10-3 | 9/5/2013 | 3.0 | 0.023 | <0.005 | <0.005 | <0.005 | ND | |
| F-11-2 | 9/5/2013 | 2.0 | <0.005 | <0.005 | <0.005 | <0.005 | ND | |
| F-12-2.5 | 9/5/2013 | 2.5 | <0.005 | <0.005 | <0.005 | <0.005 | ND | |
| F-13-2.5 | 9/5/2013 | 2.5 | <0.005 | <0.005 | <0.005 | <0.005 | ND | |
| F-14-2.5 | 9/5/2013 | 2.5 | <0.005 | <0.005 | <0.005 | <0.005 | ND | |
| F-15-2.5 | 9/5/2013 | 2.5 | <0.005 | <0.005 | <0.005 | <0.005 | ND | |
| SW-S1-3 | 9/5/2013 | 3.0 | <0.005 | <0.005 | <0.005 | <0.005 | ND | |
| SW-S2-3 | 9/5/2013 | 3.0 | <0.005 | <0.005 | <0.005 | <0.005 | ND | |
| SW-E-4 | 9/5/2013 | 4.0 | 0.31 | <0.020 | <0.020 | <0.005 | ND | |

**Table 1. Soil Analytical Data After Excavation -** 1187 Solano Ave, Albany, California

| | | | PCE | TCE | cis-1,2-DCE | BTEX | Other VOCs | Comments |
|---|---|---|---|---|---|---|---|---|
| *Residential* ESL shallow soil **dw** (<3 m bgs) Final ESL: | | | **0.55** | **0.46** | 0.19 | | Varies | |
| *Commercial* ESL shallow soil **dw** (<3 m bgs) Final ESL: | | | 0.7 | 0.46 | 0.19 | | Varies | |
| Boring/ Sample ID | Date Sampled | Sample Depth (ft bgs) | ← | | mg/Kg | | → | |
| **August and September 2013 Borings** | | | | | | | | |
| HA-1-3 | 8/29/2013 | 3.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| HA-1-5 | 8/29/2013 | 5.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| HA-2-3 | 8/29/2013 | 3.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| HA-2-5 | 8/29/2013 | 5.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| HA-3-NW-3 | 8/29/2013 | 3.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| SS-1183-1 | 8/29/2013 | 1.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| HA-2D-1ss | 8/30/2013 | 1.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| 1183 North-2 | 9/2/2013 | 2.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| 1183 Cental N-4 | 9/2/2013 | 4.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| 1183 Cental N-6 | 9/2/2013 | 6.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| **January 2014 Borings** | | | | | | | | |
| B-36-5 | 1/16/2014 | 5.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| B-39-6 | 1/17/2014 | 6.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| **March 2014 Borings** | | | | | | | | |
| B-45-7 | 3/11/2014 | 7.0 | <0.020 | <0.020 | <0.020 | <0.020 | a | |
| MW-5-5 | 3/11/2014 | 5.0 | <0.005 | <0.005 | <0.005 | --- | ND | |
| MW-6-5 | 3/11/2014 | 5.0 | <0.005 | <0.005 | <0.005 | --- | ND | |

**Explanation:**

mg/Kg = milligrams per Kilogram

ft bgs = Depth below ground surface (bgs) in feet.

< n = Chemical not present at a concentration in excess of detection limit shown.

* = Sample location overexcavated.

* = Slab elevation is about 2.5 ft higher in Post Office building than adjacent units at 1185 and 1187 Solano.

-- = Not analyzed or not available.

ESL = Environmental Screening Level for Shallow/Deep Soil with Residential and Commercial/Industrial Land Use, Groundwater is/is not a current or potential source of drinking water. (Table A/Table B/Table C/Table D/Table K-1/Table K-2).

ESL established by the SFBRWQCB, Interim Final - November 2007 and amended in May 2013.

**non-dw** = groundwater is not a current or potential source of drinking water.

**dw** = groundwater is a current or potential source of drinking water.

Other VOCs = Volatile Organic Compounds besides PCE, TCE and cis-1,2-DCA by EPA Method 8260 (Report list Method 8010).

BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260.

TCE = Trichloroethane by EPA Method 8010.

PCE = Tetrachloroethene by EPA Method 8010.

cis-1,2-DCE = cis-1,2 - Dichloroethene

**Bold** concentrations exceed **residential** ESL where groundwater *is* a current or potential source of drinking water.

ND = Not Detected above laboratory reporting limits.

**Notes:**

a: 0.17 n-butyl benzene, 0.072 sec-butyl benzene, 0.023 tert-butyl benzene, 0.089 isopropyl benzene, 0.062 4-isopropyl toluene, 0.23 n-propyl benzene

**Table 2. Soil Gas and Subslab Gas Analytical Data -** 1187 Solano Avenue, Albany, California

| Boring/ Sample ID | Date Sampled | Sample Depth (ft bgs) | Tetrachloroethene (PCE) | Trichloroethene (TCE) | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Benzene | TEX | Other VOCs | Helium | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ug/m$^3$ | | | | | | | % | |
| Residential ESL for soil gas/subslab gas: | | | 210 | 300 | --- | 31,000 | 42 | Varies | Varies | NA | |
| **Commercial ESL for soil gas/subslab gas:** | | | **2,100** | **3,000** | --- | **260,000** | **420** | Varies | Varies | NA | |
| **SOIL GAS** (About 5 feet deep into site soil) | | | | | | | | | | | |
| *1187 Solano Avenue (Parking Lot Outside Unit)* | | | | | | | | | | | |
| SG-1 | 11/02/04 | 5.0 | 390 | ND | ND | ND | <100 | (R) | misc | --- | Outside Unit |
| **SUBSLAB GAS** (Immediately Under Concrete Slab) | | | | | | | | | | | |
| *1183 Solano Avenue* | | | | | | | | | | | |
| SS-15 | 07/02/13 | 0.5 | 340 | <250 | <250 | <250 | <500 | <500 | <250 | --- | |
| | 12/04/13 | 0.5 | 340 | 870 | <2.0 | <2.0 | 8.4 | (a) | (a) | --- | |
| | 03/13/14 | 0.5 | 300 | <250 | <250 | <250 | --- | --- | ND | --- | |
| SS-16 | 07/02/13 | 0.5 | <250 | <250 | <250 | <250 | <500 | <500 | <250 | --- | |
| | 08/01/13 | 0.5 | 1,400 | <11 | <8.1 | <8.1 | <6.5 | <27* | (Q) | --- | |
| | 10/11/13 | 0.5 | <250 | <250 | <250 | <250 | <250 | <250 | ND | --- | |
| | 12/04/13 | 0.5 | 260 | 660 | <2.0 | <2.0 | 7.8 | (b) | (b) | --- | 130 ethanol |
| | 03/13/14 | 0.5 | <250 | <250 | <250 | <250 | --- | --- | ND | --- | |
| SS-17 | 07/03/13 | 0.5 | 670 | <11 | <8.1 | <8.1 | <6.5 | <27* | (L) | --- | |
| | 10/11/13 | 0.5 | 1,200 | <250 | <250 | <250 | <250 | <250 | ND | --- | |
| | 12/04/13 | 0.5 | 880 | 690 | <2.0 | <2.0 | 6.4 | ( c ) | ( c ) | --- | |
| | 03/13/14 | 0.5 | 630 | <250 | <250 | <250 | --- | --- | ND | --- | |
| SS-18 | 07/03/13 | 0.5 | 270 | <11 | <8.1 | <8.1 | <6.5 | <27* | (M) | --- | |
| | 03/13/14 | 0.5 | <250 | <250 | <250 | <250 | --- | --- | ND | --- | |
| *1185 Solano Avenue* | | | | | | | | | | | |
| SS-10 | 04/25/13 | 0.5 | <250 | <250 | <250 | <250 | --- | --- | <250 | --- | 7 days after vent test end |
| | 07/03/13 | 0.5 | 110 | <11 | <8.1 | <8.1 | <6.5 | <27* | (J) | --- | |
| | 12/04/13 | 0.5 | 58 | 1100 | <2.0 | <2.0 | 7.8 | (Z) | (Z) | --- | Probe south of excavation extent |
| SG-1185N | 10/10/13 | 1.5 | 940 | <250 | <250 | <250 | <500 | <500 | ND | --- | Within Passive Subslab Vent Area |
| | 12/04/13 | 1.5 | 170 | 530 | 2.4 | <2.0 | 9.8 | (V) | (V) | --- | Within Passive Subslab Vent Area |
| | 03/13/14 | 1.5 | 1,400 | <250 | <250 | <250 | --- | --- | ND | --- | Within Passive Subslab Vent Area |
| SG-1185S | 03/13/14 | 1.5 | 1,500 | <250 | <250 | <250 | --- | --- | ND | --- | Within Passive Subslab Vent Area |
| *1187 Solano Avenue* | | | | | | | | | | | |
| SS-8 | 07/03/13 | 0.5 | 56 | <11 | <8.1 | <8.1 | <6.5 | <27* | (K) | 0.21 | 7 days after vent test end |
| | 12/04/13 | 0.5 | 35 | 620 | <2.0 | <2.0 | 14 | (Y) | (Y) | -- | Probe south of excavation extent |
| SG-1187N | 10/10/13 | 1.5 | 290 | <250 | <250 | <250 | <500 | <500 | ND | --- | Within Passive Subslab Vent Area |
| | 12/04/13 | 1.5 | 220 | 310 | 2.4 | <2.0 | 4.8 | (X) | (X) | --- | Within Passive Subslab Vent Area |
| | 03/13/14 | 1.5 | 630 | <250 | <250 | <250 | --- | --- | ND | --- | Within Passive Subslab Vent Area |
| SG-1187S | 12/04/13 | 1.5 | 940 | 530 | <2.0 | <2.0 | 5.5 | (W) | (W) | | Within Passive Subslab Vent Area |
| | 03/13/14 | 1.5 | **4,200** | <250 | <250 | <250 | --- | --- | ND | | Within Passive Subslab Vent Area |
| *1191 Solano Avenue* | | | | | | | | | | | |
| SS-PO-1 | 01/17/13 | 0.5 | 1,100 | 110 | 18 | 90 | <6.5 | <27* | (E) | --- | Before excavation and venting |
| | 04/25/13 | 0.5 | 860 | <250 | <250 | <250 | --- | --- | <250 | --- | 7 days after vent test end |
| | 07/02/13 | 0.5 | 730 | <250 | <250 | <250 | <500 | <500 | <250 | --- | |
| | 12/04/13 | 0.5 | 850 | 620 | <2.0 | <2.0 | 11 | (d) | (d) | --- | |
| | 03/13/14 | 0.5 | <250 | <250 | <250 | <250 | --- | --- | ND | --- | |
| SS-PO-2 | 01/17/13 | 0.5 | 760 | 35 | <8.1 | 28 | <6.5 | <27* | (F) | --- | Before excavation and venting |
| | 04/25/13 | 0.5 | <250 | <250 | <250 | <250 | --- | --- | <250 | --- | 7 days after vent test end |
| | 07/03/13 | 0.5 | 450 | <11 | <8.1 | <8.1 | <6.5 | <27* | (N) | --- | |
| | 12/04/13 | 0.5 | 680 | 760 | <2.0 | <2.0 | 11 | (e) | (e) | --- | |
| | 03/13/14 | 0.5 | 350 | <250 | <250 | <250 | --- | --- | ND | --- | |
| SS-PO-3 | 07/03/13 | 0.5 | 140 | <11 | <8.1 | <8.1 | <6.5 | <27* | (O) | --- | |
| | 03/13/14 | 0.5 | <250 | <250 | <250 | <250 | --- | --- | ND | --- | |

**Table 2. Soil Gas and Subslab Gas Analytical Data -** 1187 Solano Avenue, Albany, California

| Boring/ Sample ID | Date Sampled | Sample Depth (ft bgs) | Tetrachloroethene (PCE) | Trichloroethene (TCE) | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Benzene | TEX | Other VOCs | Helium | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ← ug/m$^3$ → | | | | | | | % | |
| Residential ESL for soil gas/subslab gas: | | | 210 | 300 | --- | 31,000 | 42 | Varies | Varies | NA | |
| **Commercial ESL for soil gas/subslab gas:** | | | **2,100** | **3,000** | --- | **260,000** | **420** | Varies | Varies | NA | |
| SS-PO-4 | 07/03/13 | 0.5 | 1,800 | <11 | <8.1 | <8.1 | <6.5 | <27* | (P) | --- | Air 0.40 ug/m3 PCE <2.1 ug/m3 ESL |
| | 12/04/13 | 0.5 | **3,600** | 500 | <2.0 | <2.0 | 7.2 | (f) | (f) | --- | Air 0.39 ug/m3 PCE <2.1 ug/m3 ESL |
| | 02/12/14 | 0.5 | **3,500** | <250 | <250 | <250 | --- | --- | ND | --- | |
| | 03/13/14 | 0.5 | **3,600** | <250 | <250 | <250 | --- | --- | ND | --- | Air 0.16 ug/m3 PCE <2.1 ug/m3 ESL |
| SS-PO-5 | 08/01/13 | 0.5 | 41 | <11 | <8.1 | <8.1 | <6.5 | <27* | ND | --- | |
| CSV-1 | 01/17/13 | 0.2 | <14 | <11 | <8.1 | <8.1 | <6.5 | 19 (G) | (G) | --- | Crawl Space |
| *Courtyard West of 1191 Solano Avenue* | | | | | | | | | | | |
| SS-19 | 07/03/13 | 0.5 | 34 | <11 | <8.1 | <8.1 | <6.5 | 15 (I) | (I) | --- | Courtyard |
| SS-20 | 07/03/13 | 0.5 | 59 | <11 | <8.1 | <8.1 | <6.5 | <27* | (H) | --- | Courtyard |
| *845 Stannage Avenue* | | | | | | | | | | | |
| 845-SS1 | 01/16/14 | 0.5 | 40 | <2.8 | <2.0 | <2.0 | <1.6 | 3.1 (g) | (g) | --- | Near apt w/crawlspace, nw of site |

**Abbreviations:**

Tetrachloroethene, Trichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, and Helium analyzed by Method TO-15 or EPA Method 8260 (sometimes 8010 report list).

Benzene by Method TO-15 or EPA Method 8260.

TEX = Toluene, ethylbenzene, and xylenes by Method TO-15 or EPA Method 8260.

Other VOCs = Volatile Organic Compounds except for Tetrachloroethene, Trichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene and Helium analyzed by Method TO-15 or EPA Method 8260 (sometimes only 8010 list).

ug/m$^3$ = Micrograms per cubic meter of air.

ft bgs = Depth interval below ground surface (bgs) in feet.

NA= not applicable

ND = not detected above laboratory reporting limits.

< n = Chemical not present at a concentration in excess of detection limit shown.

ESL = Environmental Screening Level for Shallow Soil Gas for Evaluation of Potential Vapor Intrusion (Table E-2). Established by the SFBRWQCB, Interim Final - November 2007 (Revised May 2013).

Tetrachloroethene also referred to as Perchloroethene, PCE or Perc.

**Bold** concentrations exceed **commercial** CHHSL.

*TEX detection limits for TO-15 = toluene 8.8 ug/m$^3$, ethylbenzene 8.8 ug/m$^3$, and xylenes 27 ug/m$^3$. Highest detection limit shown above.

Note E: 8.1 ug/m$^3$ tetrahydrofuran and 9.1 ug/m$^3$ vinyl chloride

Note F: 210 ug/m$^3$ ethanol and 14 ug/m$^3$ tetrahydrofuran

Note J: 390 ug/m$^3$ acetone, 13 ug/m$^3$ styrene, and 38 ug/m$^3$ tetrahydrofuran

Note K: 320 ug/m$^3$ acetone and 61 ug/m$^3$ tetrahydrofuran

Note M: 200 ug/m$^3$ acetone, 9.0 ug/m$^3$ carbon disulfide, and 22 ug/m$^3$ tetrahydrofuran

Note Q: 350 µg/m$^3$ ethly acetate and 26,000 µg/m$^3$ ethanol

Note R: 650 µg/m$^3$ toluene, 170 µg/m$^3$ ethylbenzene, and 980 µg/m$^3$ xylenes

Note V: 46 ethylbenzene, 3.7 toluene, 230 xylenes, 220 acetone, 300 2-butanone, 2,200 tetrahydrofuran (glue?), 12 chloroform, 210 ethanol (see report for additional)

Note W: 57 ethylbenzene, 5.5 toluene, 300 xylenes, 190 acetone, 310 2-butanone, 2,200 tetrahydrofuran (glue?), 18 chloroform, 470 ethanol (see report for additional)

Note X: 62 ethylbenzene, 3.7 toluene, 350 xylenes, 160 acetone, 160 2-butanone, 2,200 tetrahydrofuran (glue?),7.1 chloroform (see report for additional)

Note Y: 4.0 toluene, 11 xylenes, 120 acetone, 160 2-butanone, 36 tetrahydrofuran (glue?) (see report for additional)

Note Z: 3.5 ethylbenzene, 6.6 toluene, 17 xylenes, 77 acetone (see report for additional)

Note a: 13 ethylbenzene, 6.0 toluene, 93 xylenes, 62 acetone, 3.5 carbon disulfide, 52 tetrahydrofuran (glue?) (see report for additional)

Note b: 6.5 ethylbenzene, 4.3 toluene, 48 xylenes, 8.7 carbon disulfide, 24 tetrahydrofuran (glue?), 130 ethanol (see report for additional)

Note c: 8.2 ethylbenzene, 4.2 toluene, 60 xylenes, 2.6 carbon disulfide, 18 tetrahydrofuran (glue?) (see report for additional)

Note d: 4.7 ethylbenzene, 4.1 toluene, 33 xylenes(see report for additional)

Note e: 5.3 ethylbenzene, 4.8 toluene, 37 xylenes, 94 acetone, 11 carbon disulfide, 9.2 tetrahydrofuran (glue?) (see report for additional)

Note f: 3.5 ethylbenzene, 3.7 toluene, 23 xylenes, 260 acetone, 2.5 carbon disulfide, 6.0 tetrahydrofuran (glue?) (see report for additional)

Pangea

**Table 3. Indoor Air -** 1183 - 1191 Solano Avenue, Albany, California

| Boring/ Sample ID | Date Sampled | Tetrachloroethene (PCE) | Trichloroethene (TCE) | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Carbon Tetrachloride | Acetone | Bromomethane | Chloroform | 1,4-dichlorobenzene | Benzene | Ethylbenzene | Toluene | Xylenes | 1,2-dibromoethane (EDB) | 1,2-dichloroethane (1,2-DCA) | Naphthalene | Other VOCs | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ug/m$^3$ | | | | | | | | | | | | | | | | | |
| Residential ESL for Indoor Air: | | 0.41 | 0.41 | --- | 63 | 0.058 | 32,000 | 5.2 | 0.46 | 0.22 | 0.084 | 0.97 | 310 | 100 | 0.032 | 0.12 | 0.072 | Varies | |
| Commercial ESL for Indoor Air: | | **2.1** | **3.0** | --- | 260 | **0.29** | 140,000 | 22 | 2.3 | 1.1 | **0.42** | 4.9 | 1,300 | 440 | 0.17 | **0.58** | **0.36** | Varies | |
| Residential CHHSL for Indoor Air: | | 0.412 | 1.22 | 36.5 | 73 | 0.0579 | --- | --- | --- | --- | 0.084 | --- | 313 | 730 | --- | 0.116 | 0.072 | Varies | |
| 10X Residential CHHSL for Indoor Air: | | 4.12 | 12.2 | 365 | 730 | 0.579 | --- | --- | --- | --- | 0.84 | --- | 3,130 | 7,300 | --- | 1.16 | 0.72 | Varies | |
| Commercial CHHSL for Indoor Air: | | 0.693 | 2.04 | 51.1 | 102 | 0.0973 | --- | --- | --- | --- | 0.141 | --- | 438 | 1,020 | --- | 0.195 | 0.12 | Varies | |
| *1183 Solano Avenue* | | | | | | | | | | | | | | | | | | | |
| Air 1183 8hr | 10/03/13 | 0.44 | 0.027 | <0.40 | <0.40 | **0.54**$^{(1,2)}$ | 45 | 0.89 | 0.28 | 0.078 | 0.39 | 1.9 | 1.3 | 11 | 0.023 | **1.1** | **0.61**$^{(2)}$ | Varies | 8 hr sample. Fan on. |
| Air 1183 24hr | 10/03/13 | 1.1 | 0.048 | <0.40 | <0.40 | **0.53**$^{(1,2)}$ | 46 | 0.72 | 0.19 | 0.06 | 0.29 | 2.3 | 1.9 | 14 | 0.02 | **1.7** | **0.51**$^{(2)}$ | Varies | 24 hr sample. Fan on 8 hrs. |
| Air 1183 8hr | 12/18/13 | 1.2 | 0.070 | <0.40 | <0.40 | **0.45**$^{(1,2)}$ | 86 | <0.39 | 0.21 | 0.14 | **1.2**$^{(2)}$ | 1.8 | 4.5 | 9.1 | <0.0078 | **0.65** | **0.44**$^{(2)}$ | Varies | 8 hr sample. Heat on. |
| Air 1183 8hr | 03/06/14 | 0.51 | 0.094 | <0.40 | <0.40 | **0.41**$^{(1,2)}$ | 59 | <0.39 | 0.32 | 0.086 | **0.56**$^{(2)}$ | 1.5 | 4.6 | 7.6 | <0.0078 | **1.7** | **0.52**$^{(2)}$ | Varies | 24 hr sample. |
| *1185 Solano Avenue* | | | | | | | | | | | | | | | | | | | |
| Air 1185 8hr | 12/18/13 | 0.50 | 0.034 | <0.40 | <0.40 | **0.47**$^{(1,2)}$ | 44 | <0.39 | 0.15 | 0.087 | **1.1**$^{(2)}$ | 0.81 | 2.6 | 4.0 | <0.0078 | 0.12 | 0.28 | Varies | 8 hr sample |
| Air 1185/87 24hr* | 03/06/14 | 0.44 | 0.025 | <0.4 | <0.40 | **0.44**$^{(1,2)}$ | 24 | <0.39 | 0.30 | 0.10 | **0.52**$^{(2)}$ | <0.44 | 1.5 | 2.2 | <0.0078 | 0.13 | 0.20 | Varies | 24 hr sample from wall opening. |
| *1187 Solano Avenue* | | | | | | | | | | | | | | | | | | | |
| Air 1187 8hr | 09/27/13 | 0.85 | 0.041 | <0.40 | <0.40 | **0.57**$^{(1,2)}$ | 100 | 0.82 | 0.20 | 0.056 | **0.52**$^{(2)}$ | 2.2 | 1.6 | 12 | 0.0086 | 0.084 | 0.25$^{(2)}$ | Varies | 8 hr sample |
| Air 1187 8hr | 12/18/13 | 0.45 | 0.030 | <0.40 | <0.40 | **0.44**$^{(1,2)}$ | 43 | <0.39 | 0.18 | 0.078 | **1.0**$^{(2)}$ | 0.64 | 2.4 | 3.1 | <0.0078 | 0.094 | **0.46**$^{(2)}$ | Varies | 8 hr sample |
| Air 1185/87 24hr* | 03/06/14 | 0.44 | 0.025 | <0.4 | <0.40 | **0.44**$^{(1,2)}$ | 24 | <0.39 | 0.30 | 0.10 | **0.52**$^{(2)}$ | <0.44 | 1.5 | 2.2 | <0.0078 | 0.13 | 0.20 | Varies | 24 hr sample from wall opening. |
| . | | | | | | | | | | | | | | | | | | | |
| *1191 Solano Avenue* | | | | | | | | | | | | | | | | | | | |
| Air 1191 Break 8hr | 10/03/13 | 0.40 | 0.023 | <0.40 | <0.40 | **0.66**$^{(1,2)}$ | 30 | 0.82 | 0.30 | 0.14 | 0.37 | 0.92 | 4.1 | 4.7 | 0.015 | 0.093 | **0.39**$^{(2)}$ | Varies | 8 hr sample. Break room. |
| USPS-ALB-Air1 | 12/18/13 | 0.39 | <0.18 | <0.13 | <0.67 | <1.0 | 20 | <3.3 | <0.82 | <1.0 | **1.3**$^{(2)}$ | 1.1 | 8.2 | 4.8 | <1.3 | <0.68 | NA | Varies | 8 hr sample. Break room. |
| Air 1191 Break 24hr | 03/06/14 | 0.16 | 0.013 | 0.058 | <0.40 | **0.60**$^{(1,2)}$ | 30 | <0.39 | 0.61 | 0.15 | **0.52**$^{(2)}$ | <0.44 | 6.1 | 1.6 | <0.0078 | 0.058 | 0.22 | Varies | 24 hr sample. Break room. |
| Air 1191 8hr | 10/03/13 | 0.36 | 0.020 | <0.40 | <0.40 | **0.68**$^{(1,2)}$ | 36 | 0.74 | 0.41 | 0.15 | 0.39 | 1.1 | 7.7 | 5.7 | 0.014 | 0.12 | **0.38**$^{(2)}$ | Varies | 8 hr sample. Work room (on safe). |
| Air 1191 24hr | 10/03/13 | 0.37 | 0.021 | <0.40 | <0.40 | **0.73**$^{(1,2)}$ | 37 | 0.81 | 0.41 | 0.16 | 0.39 | 1.8 | 6.3 | 9.4 | 0.013 | 0.15 | **0.46**$^{(2)}$ | Varies | 24 hour sample. Work room. |
| USPS-ALB-Air2 | 12/18/13 | 0.26 | <0.17 | <0.12 | <0.62 | <0.99 | 24 | <3.0 | <0.77 | <0.94 | **1.9**$^{(2)}$ | 1.2 | 8.9 | 5.1 | <1.2 | <0.64 | NA | Varies | 8 hr sample. Work room (on safe). |
| Air 1191 24hr | 03/06/14 | 0.14 | 0.015 | <0.40 | <0.40 | **0.58**$^{(1,2)}$ | 24 | <0.39 | 0.56 | 0.17 | **0.55**$^{(2)}$ | 0.48 | 7.6 | 1.7 | <0.0078 | 0.063 | 0.29 | Varies | 24 hour sample. Work room (on safe). |
| *Background* | | | | | | | | | | | | | | | | | | | |
| Air Background 8hr | 10/03/13 | 0.053 | <0.0055 | <0.40 | <0.40 | **0.53**$^{(1,2)}$ | 15 | 0.69 | 0.24 | 0.029 | 0.25 | <0.44 | 0.47 | <1.3 | 0.0093 | 0.038 | 0.16 | Varies | Upwind 8 hr sample. On breezy roof. |
| USPS-ALB-Air3 | 12/18/13 | <0.22 | <0.89 | <0.13 | <0.66 | <1.0 | 8.9 | <3.2 | <0.81 | <1.0 | **1.5**$^{(2)}$ | 0.86 | 3.8 | 3.2 | <1.3 | <0.67 | NA | Varies | Upwind 8 hr sample. Courtyard roof. |
| Air Ambien 24hr | 03/06/14 | 0.058 | <0.0055 | <0.40 | <0.40 | **0.48**$^{(1,2)}$ | 20 | <0.39 | 0.20 | 0.11 | **0.50**$^{(2)}$ | <0.44 | 1.2 | <1.3 | <0.0078 | 0.060 | 0.098 | Varies | Upwind 24 hr sample. In breezy tree. |

**Abbreviations:**

1= Carbon tetrachloride presumably associated with refrigerant as compound is involved with refrigerant manufacturing and other refrigerants detected in sample (dichlorodifluoromethant and trichlorofluoromethane).

2= Compound not detected in site subsurface; result could be representative of background conditions due to similar concentration detected in ambient air and other indoor air samples.

PCE = Tetrachloroethene, also referred to as Perchloroethene or 'Perc'.

TCE = 1,1,1-trichloroethene.

VOCs analyzed by Method TO-15

Other VOCs = Volatile Organic Compounds other than listed above as quantified by Method TO-15.

ug/m$^3$ = Micrograms per cubic meter of air.

NA= not analyzed or not applicable

< n = Chemical not present at a concentration in excess of detection limit shown.

CHHSL = California Human Health Screening Levels for Indoor Air Updated 9/23/2010. http://oehha.ca.gov/risk/chhsltable.html. Commercial CHHSL assumes 24 hr exposure, versus 8 hr exposure for commercial ESL.

ESL = Environmental Screening Level for Indoor Air (Table E-3). Established by the SFBRWQCB, Interim Final - November 2007 (Revised Feb 2013).

* = Air sampled collected at large wall opening between units at 1185 and 1187 Solano.

**Bold** concentrations exceed commercial ESL.

**Table 4 - Monitoring Program for O&M Plan** – 1187 Solano Avenue, Albany, California

| Media | **Prior Number of Monitoring Events** | **2Q 2014**[1] (Warm/dry season) | **3Q 2014**[1] (Warm/dry season) | Total Quarters Planned for Sampling | Future Sampling (if Required) |
|---|---|---|---|---|---|
| **Subslab Gas** | 5 Events | 9 Key Probes[2] | 9 Key Probes[2] | 7 Quarters (Subslab Gas) | Annually (1Q/cold season) |
| **Indoor Air** | 3 Events | All Units[3] (24 Hr, HVAC off) | All Units[3] (24 Hr, HVAC off) | 5 Quarters (Indoor Air) | Annually (1Q/cold season) |
| **Groundwater** | 4 Events | All 7 Wells[4] | All 7 Wells[4] | 5 Quarters (Groundwater) | Quarterly 2014. Semi-annual or annually thereafter as required. |

*Notes:*

1 = Assumes request case closure after 2Q 2014 monitoring event. Assumes last monitoring event (3Q 2014) is performed during public notification of intent to closure and case closure consideration by agency.

2 = Subslab probes scheduled for sampling includes the following probes: all four probes within the passive ventilation gravel layer in 1185 and 1187 (SG-1185N, SG-1185S, SG-1187N , SG-1187S); two probes in 1183 Solano (SS-16 and SS-17); and three probes in 1191 Solano (SSPO-1, SSPO-2 and SSPO-4).

3 = One indoor air samples will be collected from each unit at 1183, 1185, 1187 and 1191 Solano Avenue, and from one outdoor ambient location in the upwind direction. If the common wall between 1185 and 1187 Solano remain open during the 2Q2014 event, then one sample may be collected at the wall opening to control cost.

4 = Sampling of 4 initial wells and 3 new wells performed in March 2014.

# APPENDIX A

Other Figures

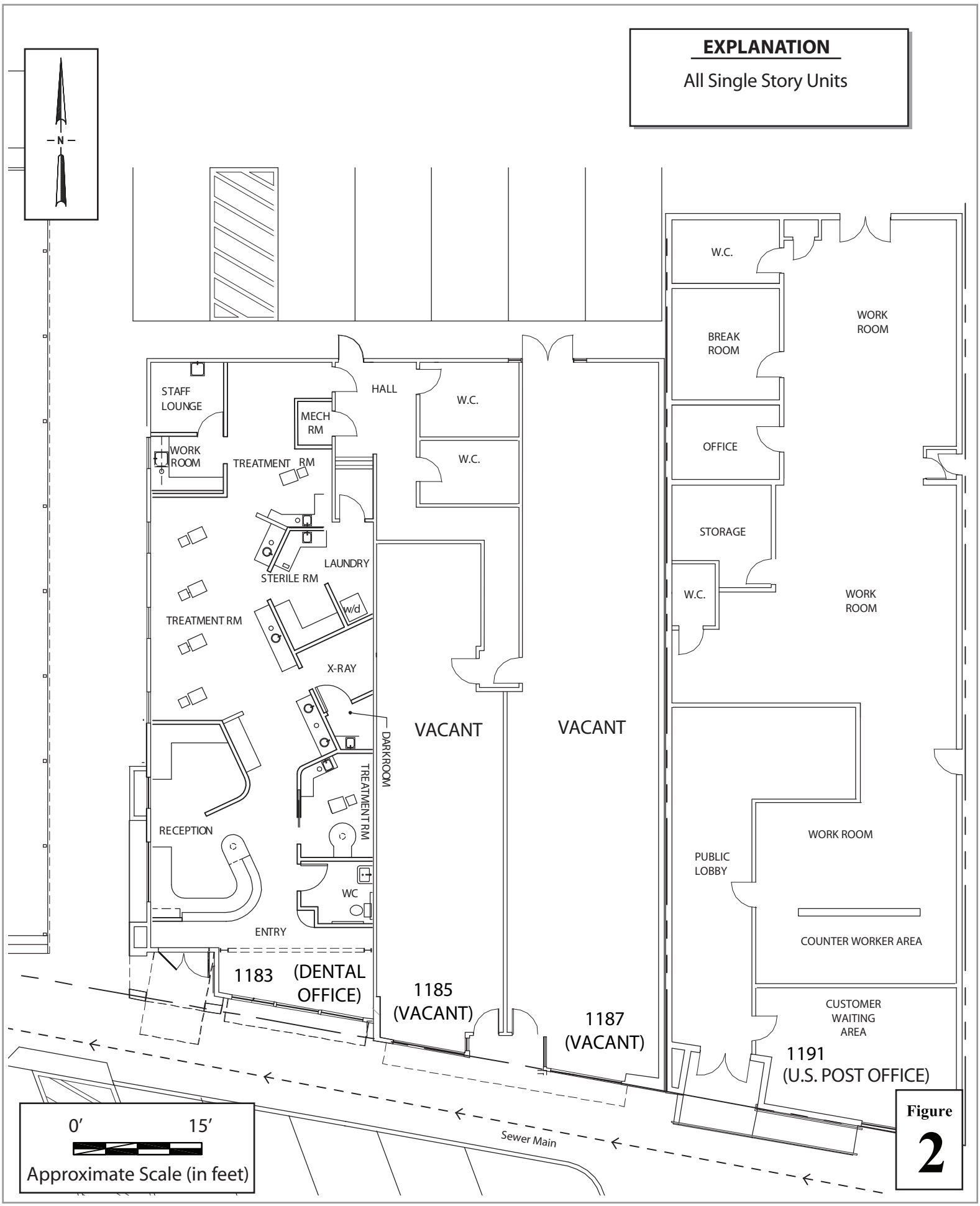
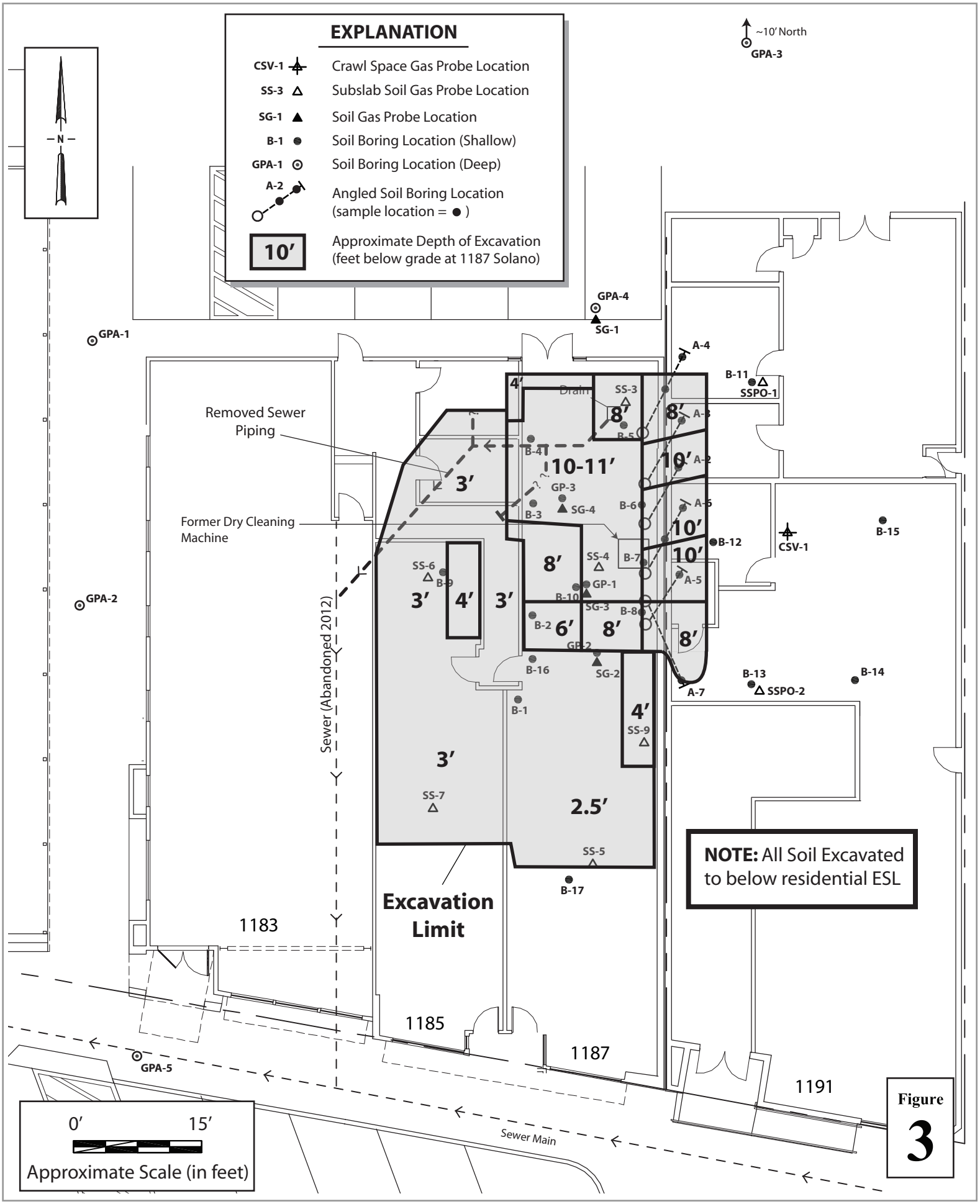



**Figure 2**

**Site Map**

**Solano Group**
1187 Solano Avenue
Albany, California

PANGEA




**Solano Group**
1187 Solano Avenue
Albany, California

PANGEA

**Final Interim Excavation Extent and Depth**

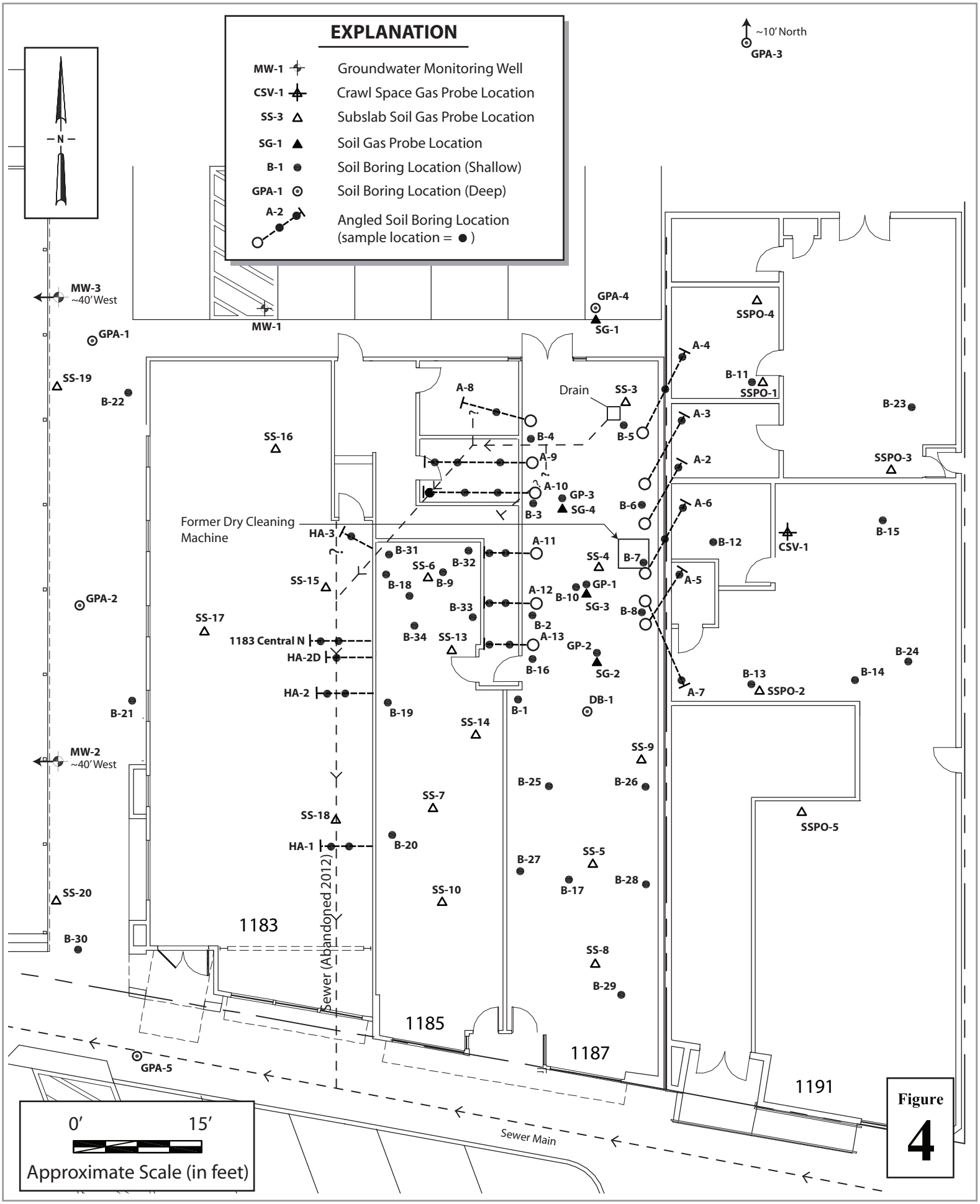
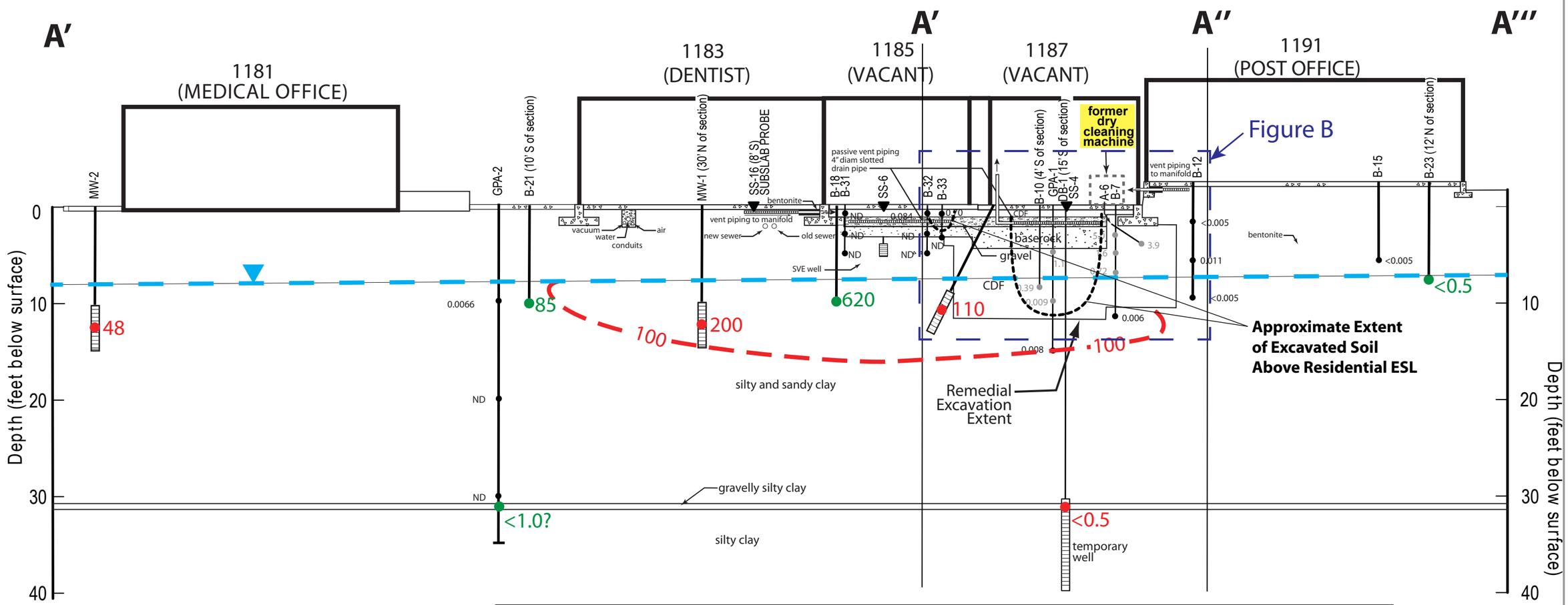



Figure 4

**Solano Group**
1187 Solano Avenue
Albany, California

PANGEA

**Sampling Location Map**




## EXPLANATION

- ●110 — PCE concentration in groundwater (ug/L) - well sample
- 100 — PCE concentration contour
- ●85 — PCE concentration in groundwater (ug/L) - grab sample from soil boring (not used for contouring)
- <0.5 <0.5 — No PCE detected in groundwater above reporting limit

Notes:

Commercial groundwater ESL for vapor intrusion concerns is 640 ug/L for PCE

Vent piping is located schematically on section.

- ●0.084 — PCE concentration in soil (mg/kg)
- 0.005 — No PCE detected in soil above reporting limit`
- ND — No PCE detected in soil - reporting limit unknown

Monitoring Well: MW-2, 48

Soil Boring: B-32, 0.084, ND, ND

**Figure 20**

**Solano Group**
1187 Solano Avenue
Albany, California

PANGEA

**Geologic Cross Section A-A'''**

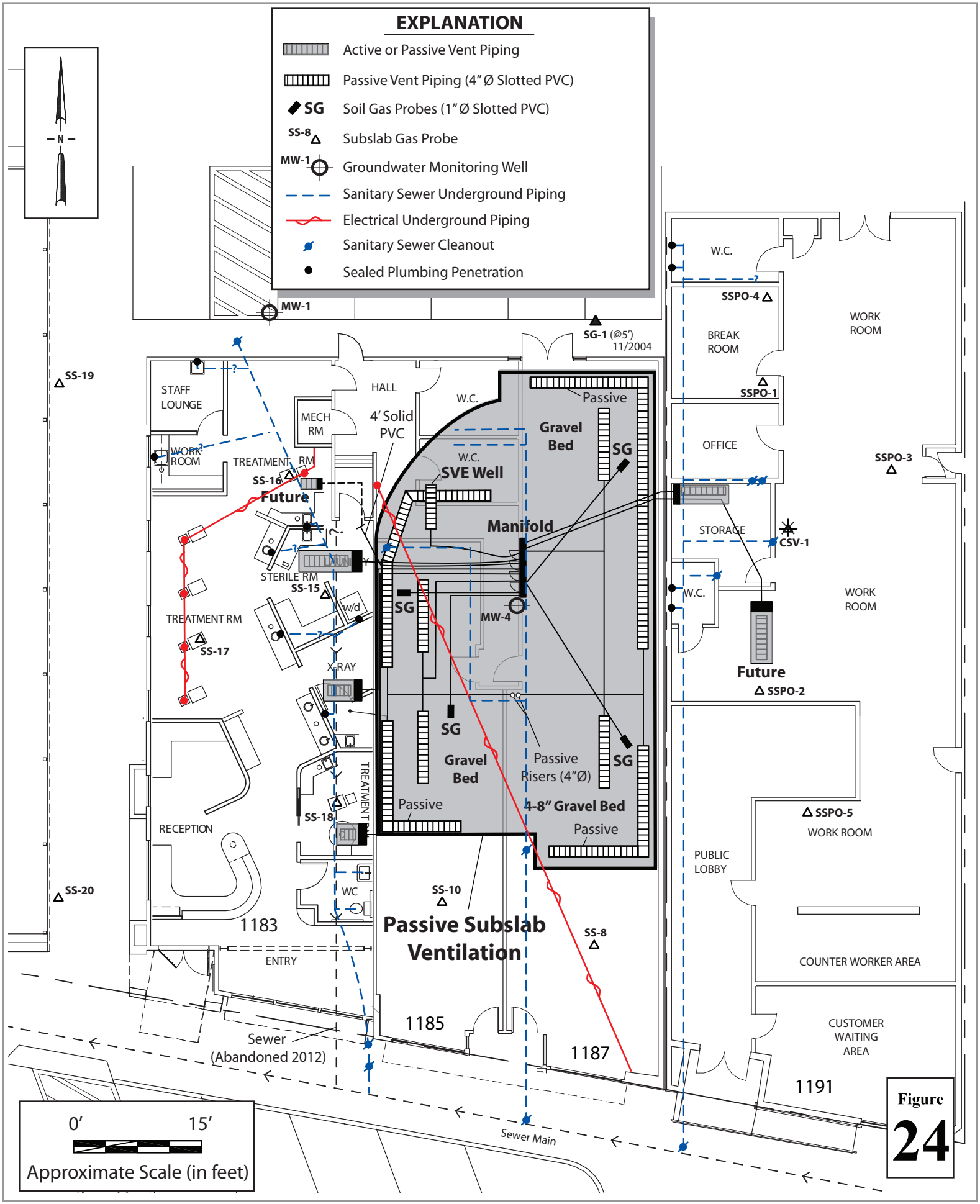



Figure 24

**Solano Group**
1187 Solano Avenue
Albany, California

PANGEA

**Post Excavation Site Map with Underground Utilities**

# APPENDIX B

Inspection Form

# ANNUAL PAVEMENT INSPECTION REPORT FORM

Betts Towing
4825 San Leandro Street
Oakland, California

**********

**Inspector:** _____ **Firm:** _____
(Print Name)

**********

**North Side of Building**

Condition of Sidewalk: _____

Condition of Pavement: _____

Are cracks, breaks, or holes present? _____

*Comments:*

**East Side of Building**

Condition of Pavement: _____

Are cracks, breaks, or holes present? _____

*Comments:*

**South Side of Building**

Condition of Pavement: _____

Are cracks, breaks, or holes present? _____

*Comments:*

**West Side of Building**

Condition of Pavement: _____

Are cracks, breaks, or holes present? _____

*Comments:*

**Recommendations for pavement maintenance or Repair:**

**********

*By signing this Inspection Report form, the inspector named above certifies that the Annual Pavement Inspection was completed as described and that all information included on this form is accurate and complete.*

**Inspector's Signature:** _____ **Date:** _____