



January 2, 2015  
Project 731641601

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Mr. Mark Detterman, PG, CEG  
Senior Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
Environmental Health Department  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

Subject: Work Plan Addendum  
2302-2332 Valdez Street  
Oakland, California  
Alameda County SCP Case No. RO0003149  
Langan Project: 731641601

Dear Mr. Detterman:

As a legally authorized representative of WP West Acquisitions, LLC, and on behalf of WP West Acquisitions, LLC, I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document titled *Work Plan Addendum, 2302-2332 Valdez Street, Oakland, CA, Alameda County SCP Case No. RO0003149*, are true and correct to the best of my knowledge.

Sincerely yours,

Brian Pianca  
WP West Acquisitions, LLC

30 December 2014

Mr. Mark E. Detterman, PG, CEG  
Senior Hazardous Materials Specialist  
Alameda County Health Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502

**Subject:       Work Plan Addendum**  
**2302–2332 Valdez Street**  
**Oakland, California**  
**ACEH Case Number RO0003149**  
**Project No.: 731641601**

Dear Mr. Detterman:

On behalf of WP Acquisitions, LLC, Langan Treadwell Rollo (Langan) has prepared this *Work Plan Addendum* (work plan addendum) for the property located at 2302-2332 Valdez Street (Site) in Oakland, California (Figure 1). The Site is T-shaped and bound by commercial and residential properties to the north, Waverly Street to the east, 23<sup>rd</sup> Street and a parking garage facility to the south, and Valdez Street to the west. The Site has an area of approximately 46,350 square feet (1.06 acres) which is currently occupied by a one-story warehouse type building and an at-grade parking lot.

This addendum was prepared in response to comments received from Alameda County Department of Environmental Health (ACEH) in a letter dated 10 December 2014 to Langan's *Work Plan for Installation of Soil Gas Probe*, dated 4 September 2014. ACEH requested this work plan addendum to support closure of the Site as a low risk petroleum case under the State Water Resources Control Board's (SWRCB) Low Threat Underground Storage Tank Case Closure Policy (LTCP). ACEH staff determined that after reviewing the Site for proposed residential uses, the Site fails to meet the LTCP General Criteria (Site Conceptual Model), the Media-Specific Criteria for Groundwater, and the Media Specific Criteria for Vapor Intrusion to Indoor Air. This addendum describes additional soil, soil vapor and groundwater sampling to be performed in the vicinity of former monitoring wells MW-1, MW-5, former soil borings B-3 (former drain location) and B-6 (former fuel dispenser). Additionally, this work plan addendum proposes to perform a well survey within a down gradient distance of 1,000 feet for supply wells as potential sensitive receptors and to prepare the requested Site Conceptual Model (SCM).

The proposed work in this addendum will be performed concurrently with tasks outlined in our previously submitted *Work Plan for Installation of Soil Gas Probe*. This work plan addendum presents our proposed soil, groundwater, and soil gas probe installation, monitoring, and analytical activities for the Site. The installation of the soil gas probe, monitoring, and analytical activities are designed to investigate the presence of residual petroleum hydrocarbons and

volatile organic compounds (VOCs) in soil, groundwater, and soil gas that may be present beneath the Site as a result of the former underground storage tanks (USTs).

## **BACKGROUND**

The Site was previously utilized by the Oakland Tribune as a maintenance facility from 1943 to about 1986. The Site contained three service bays with hydraulic lifts for vehicle repair, located on the eastern side of the building; a gasoline dispensing pump was formerly located near the center of the building; and a floor sump, presumably used to drain fluids from cleaning the floors, located in the northeastern corner of the building. The sump was reportedly removed and sealed in 1988. In addition, two underground storage tanks (USTs) (one 8,000-gallon gasoline tank and one 750-gallon waste oil tank) were previously located beneath the Valdez Street sidewalk, directly outside of the western side of the building. The two USTs were removed in February 1988. During removal, approximately 60 cubic yards of soil were excavated and aerated on site.

Between August 1988 and August 1990, nine groundwater monitoring wells (MW-1 through MW-9) were installed on the Site and adjacent right-of-ways. The analytical results of the groundwater samples collected by others indicated groundwater was impacted at the Site. Between 1990 and 1996, numerous notices from Alameda County Department of Environmental Health (ACEH) were sent to the owner stating that additional sampling was required. Starting in January 1996, the nine groundwater monitoring wells were reportedly purged and sampled annually over the next three years. In a letter dated 31 July 1998, administrative case closure was granted by ACEH with additional evaluation contingent upon the following condition:

“If a change in land use is proposed or excavation of soils is planned at this site, then an evaluation of risk from exposure to contaminated soil and groundwater must be made.”

### **Phase I ESA**

Langan completed a Phase I Environmental Site Assessment (ESA) at the project Site. The results are summarized below and presented in our *Phase I Environmental Site Assessment, 2302-2332 Valdez Street and 2321-2335 Waverly Street, Oakland, California*, dated 30 September 2014.

Langan’s Phase I ESA revealed no evidence of recognized environmental conditions (REC) in connection with the Site and evidence of one Controlled Recognized Environmental Condition. A controlled REC (CREC) is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a no further action [NFA] letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, activity and use limitation (AULs), institutional controls, or engineering controls). The following CREC was identified:

CREC 1 – Fuel Leak Site Case Closure at Oakland Tribune Building, 2302 Valdez Street, Oakland, CA

Two USTs were removed from the 2302 Valdez Street property in February 1988. Petroleum hydrocarbon contamination was detected in the soil and groundwater and over excavation within the former USTs pits was performed and a total of nine groundwater monitoring wells were installed and sampled. Based on the analytical results, it appeared that the contamination was limited in area and that the groundwater contamination would continue to naturally attenuate over time.

Based on the contaminated soil remediation and groundwater monitoring activities, administrative case closure for the fuel leak was granted by the ACDEHS in a letter dated 31 July 1998 for the former Oakland Tribune Building located at 2302 Valdez Street in Oakland, California.

## **Phase II Environmental Site Characterization**

Langan completed a Phase II Environmental Site Characterization (ESC) at the Site. The results are summarized below and presented in our *Environmental Site Characterization, 2302-2332 Valdez Street and 2321-2335 Waverly Street, Oakland, California*, dated 22 October 2014.

### **SOIL**

The Site is underlain by approximately two to five feet of fill, which is comprised of silt, sand, and clay mixtures which is in turn underlain by interlayered medium dense to very dense silty and clayey sand and medium stiff to hard silt and clay with varying amounts of sand and gravel. Gravel was encountered intermittently in the soil borings. In the northeastern portion of the Site, stiff to very stiff sandy silt to silty clay was encountered from depths of 13 and 18 feet to the maximum depth explored of 35 feet below ground surface (bgs).

Fill material containing soluble lead concentrations exceeding the State of California hazardous waste criteria are located near boring EB-3, at a depth of 1.5 bgs, boring EB-4, at a depth of 1.5 feet bgs and 3.0 feet bgs, and boring EB-5, at depths of 1.5 feet bgs, 3.0 feet bgs, and 5.0 feet bgs (Figure 2). Considering that the Site's projected excavation will be approximately ten feet bgs, this shallow material will be excavated and disposed and therefore is not representative of the material to be left on Site. The fill material near the sampling locations and depths that exceeded the State of California hazardous waste criteria will be disposed as Class I hazardous waste. Remaining subsurface soils underlying the fill will likely be disposed of as unrestricted waste, pending sampling results.

### **SOIL GAS**

Two sub-slab and three soil gas samples were collected in September of 2014 at the Site by Langan field personnel. Several VOCs were detected at concentrations at or above laboratory method reporting limits. The results of the sampling were compared to the San Francisco Bay Regional Water Quality Control Board's (RWQCB) lowest residential ambient air and indoor air

Environmental Screening Levels (ESLs) (with a calculated attenuation factor<sup>1</sup>) and the RWQCB's lowest residential soil gas ESLs for potential vapor intrusion (Table E, RWQCB, 2013). Of the detected compounds, benzene was the only compound detected above its respective calculated ESL ( $1.68 \mu\text{g}/\text{m}^3$ ) in the sub-slab sample, at a concentration of  $1.9 \mu\text{g}/\text{m}^3$  at location SSG-2. No other soil vapor or sub-slab vapor detections were reported at concentrations exceeding their residential ESLs during the investigation.

We understand that the Site will be redeveloped with ventilated parking under all residential units. Soil in the area of SSG-2 will be excavated to at least ten feet bgs. Based on the proposed soil excavation, the singular soil vapor exceedance, and the design plan for the Site, it is Langan's opinion that a vapor mitigation system (VMS) is not required for the proposed development project at the Site.

## **GROUNDWATER**

Groundwater analytical results indicated low concentrations of TPHg and TPHd were detected in two on-Site groundwater monitoring wells (MW-2 and MW-4) at concentrations of  $190 \mu\text{g}/\text{L}$  and  $78 \mu\text{g}/\text{L}$ , respectively. The detection of TPHg in groundwater exceeded the RWQCB ESL of  $100 \mu\text{g}/\text{L}$  and the TPHd did not exceed the RWQCB ESL of  $100 \mu\text{g}/\text{L}$ . After additional groundwater purging and sampling, the concentrations of TPHg and TPHd were not detected at or above the method reporting limits in the same monitoring wells.

Analytical results of the groundwater samples collected from the off-Site monitoring well MW-9 indicated TPHg was detected at a concentration of  $620 \mu\text{g}/\text{L}$  and TPHd was detected at a concentration of  $460 \mu\text{g}/\text{L}$ . Volatile organic compounds (VOCs) detected in the groundwater sample collected from MW-9 include benzene and naphthalene (concentrations of  $2.3 \mu\text{g}/\text{L}$  and  $6.2 \mu\text{g}/\text{L}$ ), just exceeding the RWQCB ESLs of  $1.0 \mu\text{g}/\text{L}$  and  $6.1 \mu\text{g}/\text{L}$ , respectively. After a second sampling event conducted by Langan field personnel on 24 September 2014, the detected concentrations of TPHg and TPHd at MW-09 were reduced to  $520 \mu\text{g}/\text{L}$  and  $220 \mu\text{g}/\text{L}$ , respectively, and VOCs were not detected exceeding applicable ESLs.

Because the wells were idle for a number of years prior to Langan's recent redevelopment, purging and sampling activities at the Site, it is Langan's opinion that the most recent sampling results following purging are most representative of the current groundwater conditions at the Site. Comparison of our recent soil and groundwater analytical results to historical data indicate the previously approved remedial activities (consisting of excavation of the two former USTs) removed the primary source of petroleum hydrocarbons to groundwater. Low levels of dissolved petroleum hydrocarbons remain in groundwater, as indicated by concentrations of TPH-d and TPH-g that were detected in the off-Site vicinity of MW-09.

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<sup>1</sup> There are no published ESLs for sub-slab vapor. The sub-slab ESLs were obtained by using residential indoor air ESLs with a DTSC default slab-attenuation factor of 0.05.

## **PROPOSED INSTALLATIONS AND SAMPLING**

Prior to drilling and collection of samples, Langan will acquire drilling permits with the City of Oakland and arrange for grout inspection by a City inspector. Additionally, Langan will contact Underground Services Alert (USA) and obtain a USA ticket and each drilling and sampling location will be cleared for utilities by a professional utility locator. We will also arrange a C57 certified driller and certified environmental laboratory as subcontractors for the proposed Site investigation.

### **Temporary Groundwater Well Installation**

To address the request by ACEH, we propose to install three temporary groundwater sampling wells, as shown on Figure 2, to an anticipated maximum depth of 20 feet below the ground surface (bgs). The temporary wells will be collocated with the soil gas sample locations and advanced using a direct push drill rig. The wells will be 1-inch diameter schedule 40 PVC with a 0.010-inch slotted pre-packed well screen between 10 to 15 or 15 to 20 feet bgs, based upon groundwater levels during the site investigation.

Drilling and sampling equipment will be steam-cleaned between each sampling location. Soil cuttings and decontamination rinsate will be contained in labeled drums on Site, and sampled for off-Site disposal.

### **Groundwater Sampling**

Groundwater samples will be collected manually from the temporary sampling wells using a bailer or peristaltic pump into laboratory supplied glassware. Groundwater samples will be stored in an ice-chilled cooler until delivery to the analytical laboratory under chain of custody procedures. Analytical results from groundwater sampling will be evaluated relative Environmental Screening Levels (ESLs) for potential vapor intrusion into buildings and for groundwater quality. Groundwater samples will be submitted for the analyses as listed below:

- Total petroleum hydrocarbons (TPH) as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo) by Modified EPA Method 8015B; and
- Volatile organic compounds (VOCs) by EPA Method 8260B.

Soil and groundwater generated from activities will be containerized in 55-gallon drums for transport & disposal to an appropriately classed, licensed facility.

### **Soil Sampling**

Soil will be collected from each temporary sampling well location to the maximum depth of drilling. Samples will be collected into four foot long acetate liners using a direct push drill rig. Soils will be screened using a photo-ionization detector or organic vapor monitor. Soil samples will be collected at approximately 1.5, 3, 5, 7.5, 10, 15 and 20 feet bgs. Soil samples will be collected by cutting a 6-inch increment from the acetate liner at the desired depth. The sample

tubes will be sealed with Teflon and plastic end caps, labeled, and placed on ice in a cooler for delivery to a certified analytical laboratory under chain of custody procedures. The soil samples will be submitted for some or all of the analyses as listed below:

- Total petroleum hydrocarbons (TPH) as gasoline (TPH-g), diesel (TPH-d), and motor oil (TPH-mo) by Modified EPA Method 8015B;
- Volatile organic compounds (VOCs) by EPA Method 8260B;
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270C;
- Polychlorinated biphenyls (PCBs) and Organochlorine Pesticides (OCPs) by EPA Method 8081A/8082;
- California administrative manual (CAM) 17 metals by EPA Method 6020; and
- Leaking underground fuel tank (LUFT) five metals by EPA Method 6020.

### **Soil Gas Probes Installation**

To address the request by ACEH, we propose to install a total of four soil gas probes (three temporary installations in addition to the previously proposed permanent soil gas probe) in general accordance with the California Department of Toxic Substances Control's (DTSC) documents titled "*Advisory – Active Soil Gas Investigation*" dated April 2012 and "*Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*" dated October 2011. We propose to install the soil gas probes to depths of five and ten feet bgs as shown on Figure 2. The soil gas probes will be collocated for each depth sampled.

To construct the soil gas probes, direct push sample rods will be advanced to the proposed soil gas probe depth, and Nylaflow® tubing with a 1/8-inch inside diameter will be connected to a nylon soil vapor screen with a 1.5-inch length and 3/8-inch diameter. Monterey, kiln-dried sand with 30% porosity will be used to install a one foot filter pack at the bottom of the soil gas probe borehole. The 1.5-inch screen will be placed at the midpoint of the sand filter pack. A 3-inch layer of dry bentonite will be placed above the filter pack followed by one foot of hydrated bentonite. Bentonite grout will be used to seal the remainder of the annular space around the soil gas probe to the ground surface. The bentonite grout serves to create a seal around the sample collection tubing to prevent ambient air intrusion into the soil gas sample. A valve will be installed at the surface end of the sample-collection tubing at the surface.

### **Soil Gas Sampling**

The bentonite grout surrounding the upper portion of the soil gas probe will be allowed to cure for at least a two hour period prior to purging and sampling. The sampling manifolds will be constructed of 1/8-inch stainless steel or Teflon tubing, a valve for connecting a luer-lock syringe for purging, a 200 mL/min flow regulator, and two vacuum pressure gauges. One pressure gauge will be installed between the flow regulator and the well head to monitor the

vacuum maintained during the shut-in test (as below) and to measure the vacuum applied to the vapor well, and the other will be placed after the flow regulator to measure the vacuum pressure within the sample canister. Samples will be collected into 1 liter (L) Summa canisters with an initial vacuum of 30 inches-Hg.

A shut-in test will be performed after the construction of each sampling manifold. The shut-in test will consist of closing the valves at the vapor well head and on the Summa canister, then using a syringe to create a 14 to 20-inches-Hg vacuum within the sampling system. If the vacuum is maintained with less than 10% deviation for five minutes, then the manifold will be determined to be sufficiently sealed. Following the shut-in test, the valve to the vapor well will be placed under a helium shroud and opened.

The helium shroud allows an atmosphere of known helium content to be maintained above the vapor well, which allows for the detection of leaks of ambient air into the vapor well and sample. The helium content within the shroud will be maintained at approximately 20% and monitored with a portable helium and hydrogen detector during purging and sampling. The shroud will consist of a clear plastic box with ports for connecting a helium compressed gas cylinder and the helium detector.

A single purge volume will be calculated by adding the pore space volume associated with the filter pack and the volume of all of the tubing within the well and in the sampling manifold. In accordance with DTSC sampling guidelines, approximately three times the single purge volume will be purged from the system, using a 60 mL luer-lock syringe. The last 50 mL of gas that is purged will be analyzed with the portable helium detector to ensure that there were no ambient air leaks into the sampling train. The vapor samples will then be collected into Summa canisters until a residual vacuum of approximately 5-inches-Hg is left. The canisters will remain under the residual vacuum during transport from the sampling location to the analytical laboratory to indicate if any leaks of ambient air into the canister occurred. Sampling of soil gas will follow the steps outlined below:

### **Sampling Train Assembly**

1. The initial vacuum of the SUMMA canister (or equivalent) will be recorded prior to sampling. Initial canister vacuums that are less than 30 inches of mercury (Hg), as certified by the laboratory, are a potential indication of leakage, which could affect the accuracy of analytical results. If the initial vacuum reading is less than 28 inches Hg, the canister will not be used. In addition, the canister will be inspected for damage and a canister that has visible damage will not be used.
2. Following the initial inspection, a dedicated flow controller and vacuum gauge will be attached to each SUMMA canister and sealed with a compression fitting cap (e.g., Swagelock or equivalent).
3. The sample port and sampling manifold will be connected using ¼-inch outside diameter (OD) teflon tubing and stainless steel compression fitting nut and ferrules. The sampling manifold consists of compression fittings with three valves and one pressure gauge to attach the probe tubing to the SUMMA canister.



4. A syringe will also be connected to the sampling manifold using ¼-inch OD Teflon tubing and stainless steel compression fitting nut and ferrules.
5. The assembled SUMMA canister, flow controller, and pressure gauge shall be connected to the sampling manifold using stainless steel compression fitting nut and ferrules.

### **Shut-in Test**

Prior to soil gas purging and sample collection, a shut-in test will be performed to check for leaks in the aboveground sampling train assembly:

1. The valve that connects the soil gas probe to the sampling manifold will be closed and the valve that connects to the SUMMA canister will be closed.
2. The syringe will then be pulled to empty air from the manifold.
3. A leak-free system will be evident by observing no loss of vacuum within the sampling manifold system. Noted leaks will be repaired prior to sample collection by checking and tightening the compression fittings on the manifold. The manifold will then be re-checked to make sure it passes the physical leak check before proceeding

### **Leak Check**

Helium will be used as a leak-check tracer gas around the nyla-flow tubing during sampling as a quality control/quality assurance measure to confirm the sample integrity. The leak check will be conducted using the following steps:

1. The helium shroud is placed over the soil gas probe at ground surface, along with the entire sampling train (sampling manifold, pump, and sampling canister).
2. A minimum helium atmosphere of 10 percent will be induced within the shroud. The atmosphere within the shroud will be monitored using the Dielectric MGD 2002 instrument (or equivalent), inserted through a small aperture in the shroud. Following the three-volume purge, a small aliquot of soil gas will be collected into the syringe for helium screening.
3. If helium is detected in the aliquot of purged soil gas at a concentration less than 5 percent of the atmosphere induced under the shroud during the purge (e.g., if the helium concentration under the shroud is 10 percent, the purged soil gas should contain less than 0.5 percent helium), the sample flow train integrity will be considered adequate and within an acceptable range (DTSC, 2012).
4. The leak check test is performed during purging and sample collection at each soil gas sampling location.

## Sample Collection Methodology

After waiting at least two-hours following the probe installation, samples will be collected after withdrawing three purge volumes, according to DTSC guidelines. Soil gas samples will be collected in 1-liter Summa canisters, following protocols:

1. Before collecting the sample, the sampling system valves will be set as follows: 1) the syringe valve is confirmed to be closed, 2) the soil gas probe valve is open, and 3) the SUMMA canister valve is open.
2. Helium will be reintroduced into the shroud and be allowed to stabilize until at least a 20 percent helium concentration has been reached.
3. Upon reaching a stable helium concentration, the SUMMA canister inlet valve will be slowly opened (counter-clockwise) one full turn to begin sample collection at approximately 200 mL/min. During the sample collection, the helium concentration will be monitored using a Dielectric MGD 2002 helium detector and the approximate average concentration will be recorded on the sample field data sheet.
4. The start time and initial vacuum reading from the vacuum gauge will be recorded on the sample label, COC records, and on the field log, along with the SUMMA canister and flow controller identifications.
5. The valve will remain open until the final vacuum reading on the vacuum gauge on the SUMMA canister is between 2 to 4 inches Hg. It is important to leave 2 to 4 inches of vacuum remaining in the SUMMA canister so the receiving analytical laboratory can verify that the sample was not compromised during shipment.
6. The valve on the SUMMA canister will be closed clockwise until it is finger-tight.
7. The helium flow will be stopped and the valve closed at the soil gas probe tubing.
8. The stop time and final vacuum reading will be recorded on the sample label, COC record, and on the field log. The sampling information on the COC records will be completed and checked against the sample labels and field log.
9. The SUMMA canister will be removed from the sampling manifold and placed in the laboratory-supplied cardboard boxes.

Soil gas sampling equipment will be decontaminated between sampling locations. Soil gas samples will be submitted under chain of custody protocol to a State of California-certified analytical laboratory.

## Soil Gas Analysis

Samples will be delivered to the analytical laboratory under chain-of-custody protocol and will be analyzed for VOCs by EPA Method TO-15. Samples will also be analyzed for helium to

quantify any intrusion of ambient air into the vapor well during sampling and to confirm sample integrity for quality assurance/quality control (QA/QC) purposes. The soil vapor samples will be analyzed for VOCs by EPA Method TO-15 by a California certified analytical laboratory such as Curtis & Tompkins, Ltd, (Curtis & Tompkins) of Berkeley, California.

### **Confirmation Soil Gas Sample Collection for Naphthalene Using EPA Method TO-17**

As requested by ACEH, the samples collected will be submitted for analysis of naphthalene using EPA Method TO-17. EPA Method TO-17 is the preferred method for analysis of naphthalene concentrations in soil vapor.

### **Quality Assurance and Quality Control (QA/QC)**

One duplicate soil gas sample will be collected and analyzed, and an ambient air sample will be collected for each day of soil gas sampling.

### **Temporary Soil Gas Well Decommissioning**

After soil gas sampling is completed, the temporary soil gas wells will be destroyed to remove the filter pack, and will be subsequently grouted from the borehole bottom to ground surface using neat cement. Soil and drilling waste will be stored at the site in sealed and labeled 55-gallon drums or bins pending analytical profiling and offsite disposal. The permanent soil gas well (adjacent to MW-4) will be removed during excavation activities supporting construction of the planned development.

### **DATA EVALUATION**

Groundwater analytical results will be compared to the most recent 2013 RWQCB ESLs. Should supply wells be identified as part of the down gradient supply well assessment groundwater analytical results will be screened against ESLs found in Table F1-A (groundwater is a current or potential source of drinking water). If no supply wells are identified, groundwater analytical results will be screened against ESLs from Table F1-B (groundwater is not a current or potential source of drinking water). Additionally, VOC results found in groundwater will be screened against ESL Table E-1 (groundwater screening levels for evaluation of potential vapor intrusion) for residential land use.

Soil analytical results will be screened against Tables A and B of the 2013 ESLs for residential land use, dependent on depth of the sample. Additionally, soil analytical results will be screened against regulatory hazardous waste criteria for disposal (California Total Threshold Limit Concentration, Soluble Threshold Leaching Concentration and the Toxic Characteristic Leaching Procedure).

Soil gas VOC concentrations will be compared to the RWQCB's lowest residential ambient air and indoor air ESLs (with a calculated attenuation factor) and the RWQCB's lowest residential soil gas ESLs for potential vapor intrusion (Tables E-2 and E-3), RWQCB, 2013).

## REPORTING

Upon completion of sampling activities, a technical memorandum detailing the results of the investigation will be submitted to ACEH. The memorandum will include the analytical results, conclusions and recommendations from the investigation. The memorandum will consist of at least the following elements:

- Description of sampling activities;
- Tabulated analytical results;
- A scaled figure showing sampling locations;
- A copy of the analytical laboratory report; and,
- A Conceptual Site Model (CSM).

The CSM will be submitted in tabular format and will incorporate the results of this and previous investigations, including measured groundwater gradient, Site geology and hydrogeology, contamination sources, and other elements as outlined in Attachment A from ACEH's 10 December 2014 letter.

## SCHEDULE

The field work is estimated to take two to three days to complete and may require work on consecutive weekends, and soil gas sampling will be performed at least two hours after the installation. The technical memorandum will be submitted to the ACEH within four weeks of completion of the field work and will include the CSM.

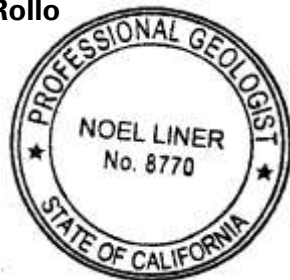
If you have any questions, please contact us at (415) 955-5200.

Sincerely yours,

**Langan Treadwell Rollo**



Noel Liner  
Project Geologist



731641601.03 PJC

cc: Mr. Brian Pianca – WP Acquisitions, LLCs

### Enclosures:

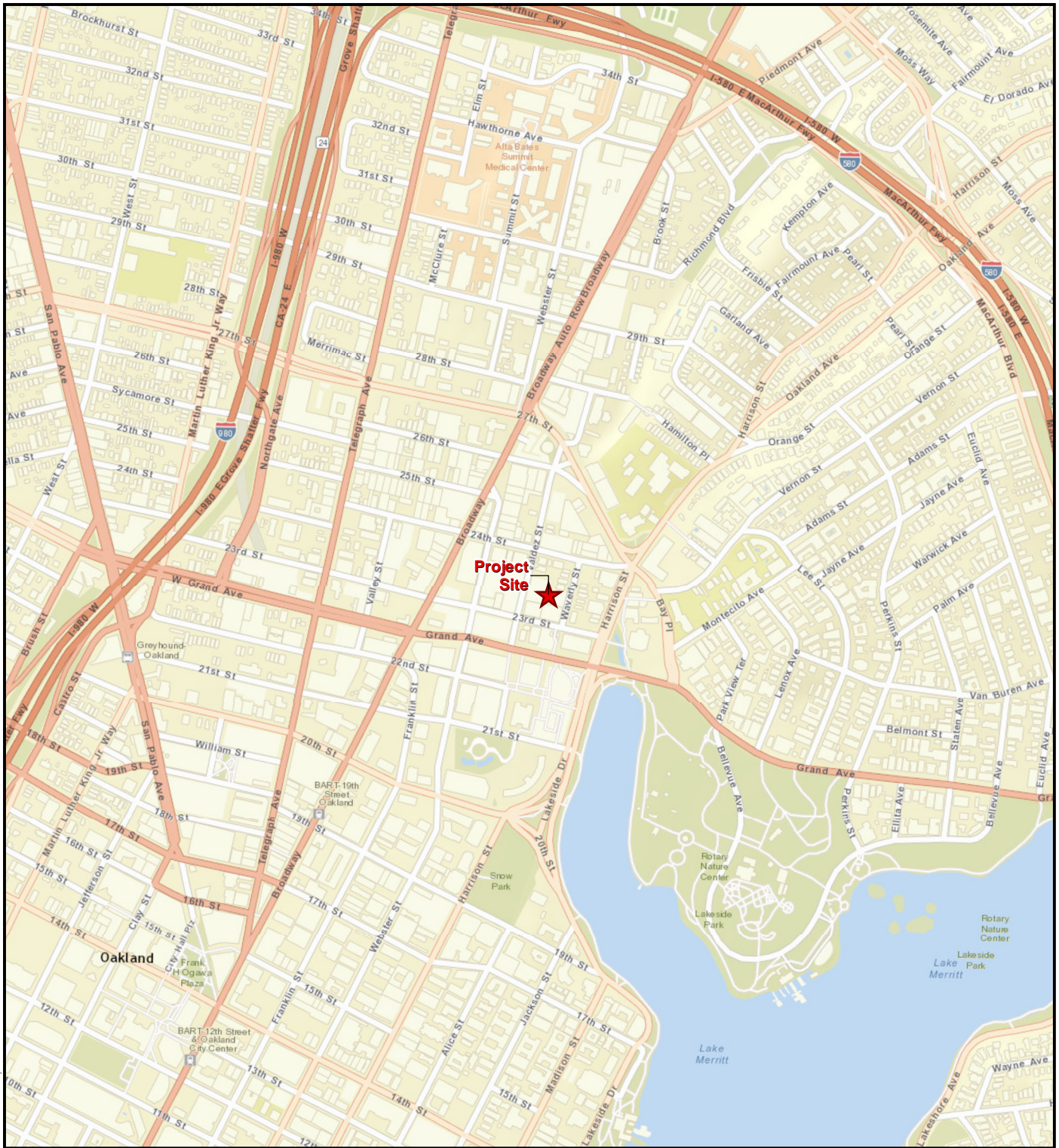
Figure 1 – Site Location Map

Figure 2 – Site Plan



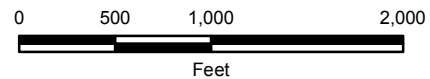
Peter J. Cusack  
Senior Associate

## **FIGURES**



**Notes:**

1. World street basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online. Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN.
2. Map displayed in California State Plane Coordinate System , Zone III, North American Datum of 1983 (NAD83), US Survey Feet.



**2302-2332 VALDEZ STREET  
2321-2335 WAVERLY STREET**  
Oakland, California

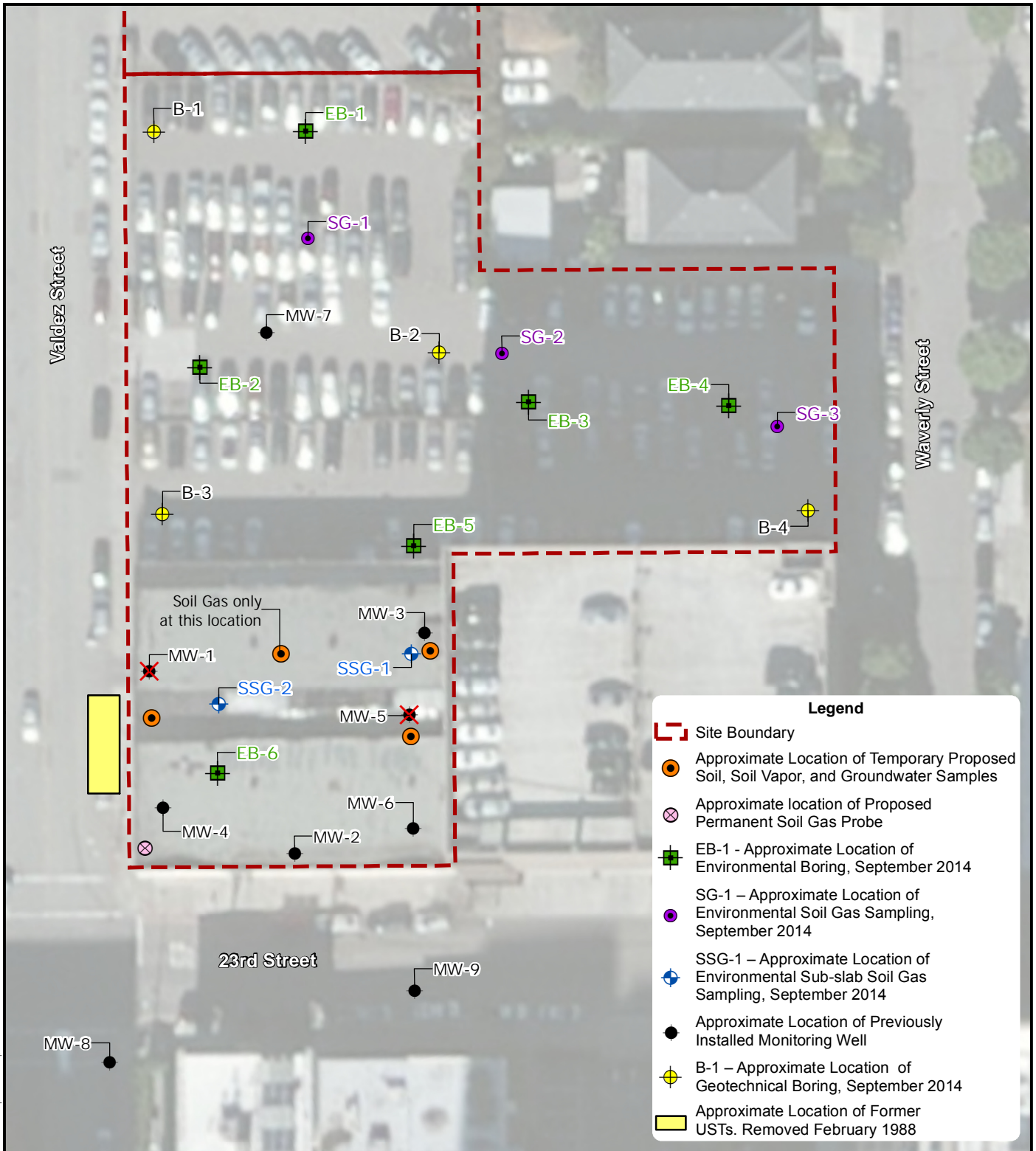
**SITE LOCATION MAP**

**LANGAN TREADWELL ROLLO**

Date 9/29/2014

Project 731641601

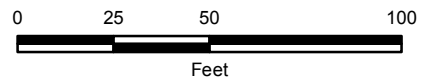
Figure 1



L:\langan.com\data\SF\731641601\ArcGIS\ArcMap\_Documents\ProposedSampleLocations.mxd User: cstatham

**Notes:**

1. World aerial imagery basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online. Source of aerial imagery is Microsoft from 10/26/2010. Credits: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community
2. Map displayed in California State Plane Coordinate System, Zone III, North American Datum of 1983 (NAD83), US Survey Feet.



**2302-2332 VALDEZ STREET**  
Oakland, California

**SITE PLAN WITH  
PROPOSED SAMPLING LOCATIONS**

**LANGAN TREADWELL ROLLO**

Date 12/29/2014

Project 731641601

Figure 2