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By Alameda County Environmental Health 11:43 am, Apr 26, 2017

**Mr. Jeremy Harris  
1919 Crew LLC  
Pier 54 Suite 202  
San Francisco, CA 94158**

Ms. Dilan Roe  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Re: 1919 Market Street – Acknowledgement Statement**

Oakland, California 94805  
ACEH Case# RO0003205  
APNs 5-410-13-1, 5-410-14, 5-410-25

Dear Ms. Roe:

1919 Crew LLC has retained the environmental consultant referenced on the attached report for the project referenced above. The attached report is being submitted on behalf of 1919 Crew LLC.

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the State Water Resources Control Board's GeoTracker website.

Sincerely,

Jeremy Harris





April 14, 2017

Mr. Jeremy Harris  
1919 Crew LLC  
Pier 54 Suite 202  
San Francisco, CA 94607

Re: **Workplan Addendum for Site Assessment**  
1919 Market Street  
Oakland, California 94805  
ACEH Case# RO0003205  
APNs 5-410-13-1, 5-410-14, 5-410-25

Dear Mr. Harris:

On behalf of 1919 Crew LLC, PANGEA Environmental Services, Inc. (PANGEA) has prepared this *Workplan Addendum for Site Assessment* (Addendum) for the property located at 1919 Market Street in Oakland California (Site). This is an Addendum to the *Workplan for Site Assessment and Remediation Pilot Study* (Workplan) conditionally approved in March 3, 2017 letter from the Alameda County Department of Environmental Health (ACDEH). Described below are the addendum purpose, groundwater flow direction for nearby LUST cases, proposed additional soil gas sampling, and proposed soil/groundwater sampling.

## **ADDENDUM PURPOSE**

This Addendum was prepared to address concerns expressed by a community letter dated March 29, 2017. ACDEH requested this Addendum during a planning meeting on April 10, 2017 and in an email dated April 11, 2017. To address community concerns pertaining to potential vapor intrusion risk, ACDEH requested the assessment work scope also include soil gas sampling near six residences along Myrtle Street and soil/groundwater sampling from six locations around the perimeter of the Site.

## **NEARBY LUST CASES AND ESTIMATED GROUNDWATER FLOW DIRECTION**

As required by ACDEH, Figure 1 shows the location three nearby leaking underground storage tank (LUST) environmental cases and the estimated groundwater flow direction for these sites located at 889, 905 and 949 West Grand Avenue. For these LUST cases, groundwater apparently flows primarily toward the *west*. Based on this information, the subject Site is located approximately 200 feet south and *crossgradient* from these three LUST cases. Figure 1 also shows the estimated west-northwest groundwater flow direction from the closed LUST case for the former USTs at the southwestern corner of the subject Site.

**PANGEA Environmental Services, Inc.**

1710 Franklin Street, Suite 200, Oakland, CA 94612 Telephone 510.836.3700 [www.pangeaenv.com](http://www.pangeaenv.com)

## PROPOSED ADDITIONAL SOIL GAS SAMPLING

To further assess the potential vapor intrusion risk to adjacent residents on Myrtle Street, PANGEA will install and sample six soil gas wells (SG-10 through SG-15) in front of the residential properties located at 2003, 1927, 1931, 1932, 1917 and 1913 Myrtle Street. These proposed soil gas wells will supplement other soil gas wells recently in conjunction with agency conditional approval of the Workplan, which included soil gas wells at 2006 Myrtle Street, and adjacent to 1909 Market Street, 2021 Market Street, 1906 Myrtle Street. The recent and proposed soil gas well locations are shown on Figure 2.

As requested, Table A presents the soil gas well installation and sampling schedule for this offsite and perimeter soil gas assessment. Note that PANGEA installed six new perimeter/offsite soil gas wells on April 7, 2017 and sampled selected wells on April 14, 2017 (today), although entrained water in some wells prevented soil gas sample collection. Well resampling will be attempted in the near future after a period of dry weather.

**Table A – Soil Gas Well Installation and Sampling Schedule**

Soil Gas Well (install status)	Well Location/Address	Install Date	Sample Date	Results Date
SG-1 (prior)	1919 Market (near <b>2006 Myrtle</b> )	9/1/2016	TBD	TBD
SG-2 (prior)	1919 Market (northwest corner)	9/1/2016	TBD	TBD
SG-4 (recent)	1919 Market (near <b>1909 Market</b> )	4/7/2017	4/14/2017*	TBD
SG-5 (recent)	1919 Market (near <b>1909 Market</b> )	4/7/2017	4/14/2017*	TBD
SG-6 (recent)	1919 Market (near <b>1906 Myrtle</b> )	4/7/2017	4/14/2017*	TBD
SG-7 (recent)	<b>2006 Myrtle</b>	4/7/2017	4/14/2017	4/24/2017
SG-8 (recent)	<b>2006 Myrtle</b>	4/7/2017	4/14/2017	4/24/2017
SG-9 (recent)	1919 Market (near <b>2021 Market</b> )	4/7/2017	4/14/2017*	TBD
SG-10 (proposed)	Near <b>2003 Myrtle</b>	May 2017	May 2017	TBD
SG-11 (proposed)	Near <b>1937 Myrtle</b>	May 2017	May 2017	TBD
SG-12 (proposed)	Near <b>1931 Myrtle</b>	May 2017	May 2017	TBD
SG-13 (proposed)	Near <b>1923 Myrtle</b>	May 2017	May 2017	TBD
SG-14 (proposed)	Near <b>1917 Myrtle</b>	May 2017	May 2017	TBD
SG-15 (proposed)	Near <b>1913 Myrtle</b>	May 2017	May 2017	TBD

\* Water in sample. Resampling required after dry period.

All soil gas wells will be installed and sampled according to the State *Advisory – Active Soil Gas Investigations* (CalEPA/DTSC, 2015). Consistent with the guidance, soil gas samples will not be collected within 5 days after significant precipitation (e.g., more than a half inch of rain in a 24-hour period) or if ponded water is present near the sampling locations. If a tight formation limits well purging, soil gas wells will either be purged between 24 and 48 hours prior to sampling to allow collection of representative samples in this tight soil, or no purge sampling protocol will be followed as outlined in Appendix D of the guidance.

Prior to installation of proposed soil gas wells (SG-10 through SG-15), PANGEA will research the estimated foundation depth for nearby residences. Pangea provided a survey form to ACDEH and Peggy Moore, the property owners' community liaison.

Proposed soil gas wells (SG-10 through SG-15) will be constructed to a depth of approximately 5 feet (ft) below the estimated bottom of the foundation for each nearby residence. For probes installed to a depth of 5.5 ft below grade surface (bgs), the wells will be constructed by setting a vapor implant attached to ¼-inch Teflon™ tubing at 5 ft bgs with six-inches of sand pack above and below it. A ½ foot of dry bentonite crumbles will be poured on top of the sand and the remaining annular space will be backfilled with hydrated bentonite. The Teflon™ tubing will be set in a 6-inch diameter well box that will be completed flush with the surrounding concrete surface.

Soil gas samples will be collected by connecting a 1-liter Summa™ canister to the tubing through a flow rate regulator calibrated to a rate of approximately 100-200 milliliters per minute (mL/min). To further evaluate potential leakage within the sampling system, a leak-check enclosure/shroud will be placed over the sample train and isopropyl alcohol will be introduced into the shroud. A PID will be used to monitor the concentration of isopropyl alcohol within the shroud during sample collection.

All soil gas samples will be analyzed for VOCs by EPA Method TO-15. A shroud sample will also be collected and analyzed for isopropyl alcohol by EPA Method TO-15. At least half of the soil gas samples will be analyzed for fixed gases (oxygen, carbon dioxide, and methane) by ASTM Method D-1946. If any VOC concentrations are detected within 50% of the respective soil gas ESL or if TPH is detected in shallow soil above 50 mg/kg in planned soil borings, the remaining soil gas samples will be analyzed for fixed gases.

## **PROPOSED SOIL AND GROUNDWATER SAMPLING**

To further evaluate subsurface conditions, PANGEA will collect soil and groundwater samples from six (6) borings located near the perimeter of the Site. The proposed sampling locations are shown on Figure 2.

To facilitate soil sampling, soil borings will be drilled using direct-push drilling techniques. The direct-push sampling rig will be equipped with a hydraulic hammer and steel drive rods to advance the borings to the total depth of approximately 25 feet below grade surface (ft bgs). With hydraulic-push drilling, continuous soil collection is conducted using acetate liners. Soil samples will be obtained by cutting 6-inch acetate subsections, trimming the excess soil from the ends, and capping the ends with Teflon® tape and plastic caps. Soil samples to be analyzed for VOCs will be collected following EPA Method 5035 sampling procedures (e.g., TerraCore™).

The soil samples will be classified according to the Unified Soil Classification System (USCS) and screened for field indications of volatile organic compounds (VOC) using visual and olfactory observations and a photo-ionization detector (PID). Soil samples will be collected for laboratory analysis at 5 and 10 ft bgs, and from any obvious areas of contamination. A groundwater sample will also be collected for laboratory analysis from each boring that encounters groundwater. The grab groundwater samples will be collected using either a bailer inserted through temporary PVC casing or a discrete-depth sampler. The samples will be placed into a cooler filled with ice and delivered under chain-of-custody procedures to a State-certified laboratory. Completed borings will be tremie-grouted from the bottom of the hole to the surface. Soil and groundwater samples will be analyzed for Total petroleum hydrocarbons (TPH) as gas/diesel/motor oil by EPA Method 8015M and VOCs by EPA Method 8260B.

All Site investigation activities will be performed under the supervision of a California Registered Civil Professional Engineer (P.E.) or a California Registered Professional Geologist (P.G.), and in general accordance with Pangea's Standard Operating Procedures.

Investigation derived waste (IDW) generated during field activities will be temporarily stored onsite in 55-gallon drums. Following review of analytical results, the IDW will be transported to an appropriate facility for disposal or recycling in conjunction with other soil export from the Site.

## CLOSING

PANGEA will schedule the remaining work scope immediately following ACDEH approval of this Workplan Addendum. From the ACDEH April 10, 2017 meeting, PANGEA plans to update ACDEH with tabulated data for a meeting tentatively scheduled for May 2017. Per ACDEH email dated April 11, 2017, PANGEA will present site assessment data within a Soil Gas Investigation Report – Perimeter and Offsite Areas. 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



cc: Ms. Kit Soo, ACDEH (via ACDEH FTP and Geotracker)

## ATTACHMENTS

- Figure 1 – Vicinity Map and Nearby Environmental Cases
- Figure 2 – Proposed Sampling Locations





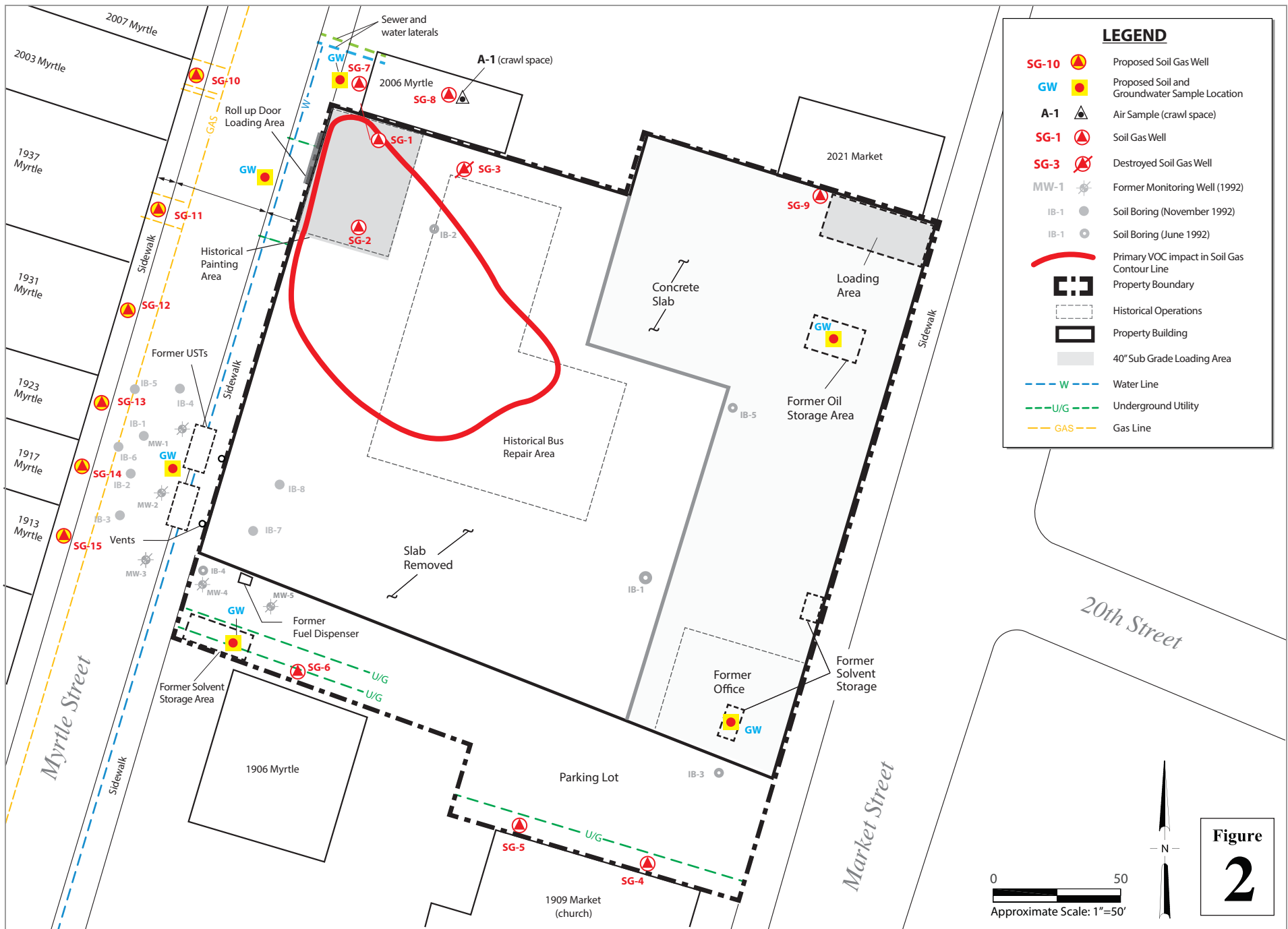
1919 Market Street  
Oakland, California



**PANGEA**

Vicinity Map and  
Nearby Environmental Cases





1919 Market Street  
Oakland, California



Proposed Sampling Locations

Figure  
**2**