

Detterman, Mark, Env. Health

From: Bonnie Watson [bwatson@arnoldlp.com]
Sent: Monday, April 20, 2015 3:13 PM
To: Detterman, Mark, Env. Health
Cc: Erin_corder@cox.net; wmerkle@kmlaw100.com; cmccaulou@waterboards.ca.gov; Rmakdisi@stellar-environmental.com
Subject: 6655 Hollis St. / 1471 67th St., Alameda Co. LOP Case #RO0000063
Attachments: 2015 04 20 letter to County w exhs.pdf

Dear Mr. Dettermann:

Attached please find a letter from James Arnold regarding the above-referenced matter. The original will follow by mail.

Sincerely,

Bonnie Watson

Bonnie R. Watson

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**BY EMAIL,
ORIGINAL BY USPS**

April 20, 2015

Mark A. Detterman, P.G., E.G.
Sr. Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Re: 6655 Hollis Street & 1471 67th Street, ALAMEDA COUNTY LOP (**LEAD**)
- CASE #: RO0000063, SAN FRANCISCO BAY RWQCB (REGION 2) - CASE
#: 01-2283; Geotracker: T0600102099.

Request for participation in cleanup process, Water Code §13307.1(b)

Dear Mr. Detterman:

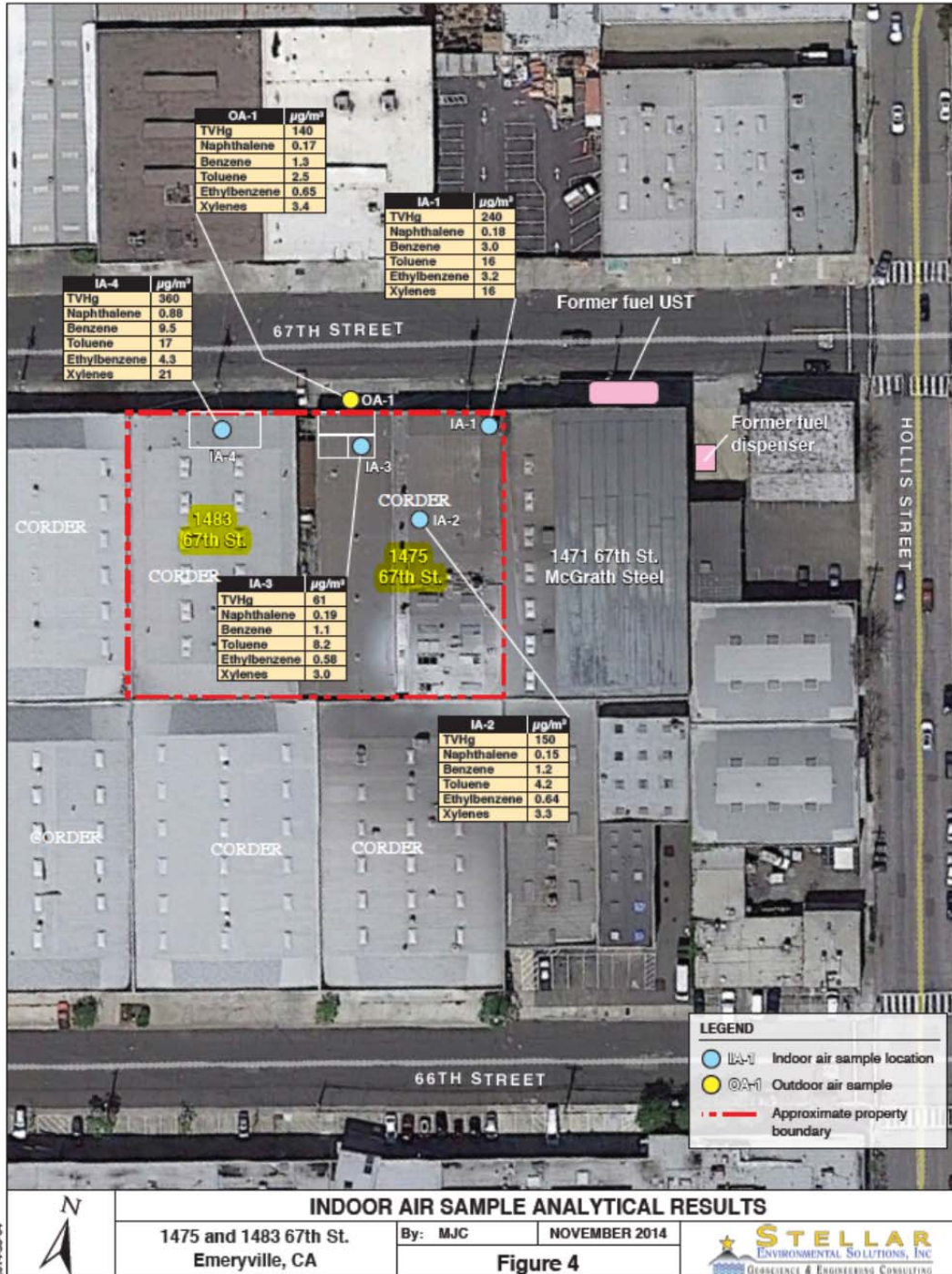
I represent Corder Family Emeryville Properties, L.P. They own properties at 1475 and 1483 67th Street, Emeryville, CA (the Corder Property). These properties are west and southwest of the property of the former McGrath Steel Company at 6655 Hollis Street and 1471 67th Street, Emeryville. The former McGrath Steel Company properties are owned by MCG Investments, LLC (“MCG Group”).

Pursuant to Section 13307.1 of the Water Code, my client requests participation in the cleanup process being undertaken by the MCG Group on the properties at 6655 Hollis Street and 1471 67th Street, Emeryville, CA. We urge you to require MCG Investments LLC to sample and test the quality of the air, soil, and groundwater of my client’s properties and then clean them up – in addition to the former McGrath Steel Company properties.

When my client learned of the report that pollution from the former USTs at the McGrath Property was believed to be flowing west and southwest, my client had air quality testing done on its properties. A copy of the report of that sampling and testing by Stellar Environmental Solutions, Inc. is attached for your review as Exhibit A.

Stellar Environmental found vapor migration and intrusion, indicating likely groundwater and soil contamination from the McGrath Property, under and in the Corder Property, specifically 1475 and 1483 67th Street. (Additional properties on 67th and 66th Streets owned by the limited partnership are adjacent to these two properties.)

This is Figure 4 from the Stellar Environmental report.



The problem results from the “former fuel UST” -- two (2) leaking underground storage tanks (USTs) that were removed from the McGrath Property at 1471 67th Street some time ago (“McGrath USTs”). From County and Regional Board records, it appears that the MCG Group is having ongoing issues with your office as to addressing the cleanup of the contamination migrating from the McGrath Property.

(History of the Investigation of the USTs’ Releases)

Our review of the government records shows the history of the investigation of the McGrath USTs’ releases. As you know, the County’s requirements are in two “directive letters”: November 8, 2013 (Exhibit B), and September 15, 2014 (Exhibit C).

The MCG Group, through AllWest Environmental, Inc. (AllWest), had reported to the County in August 2013:

“AllWest concludes that TPH-g, TPH-ms, TPH-d, BTEX, MTBE, 2-methylnaphthalene, naphthalene and benzo(a) anthracene were identified in shallow and deep soil samples and in groundwater samples at concentrations exceeding corresponding and applicable SFRWQCB commercial/industrial non-drinking water ESL values. Benzene and naphthalene were detected in groundwater samples exceeding corresponding commercial/industrial non-drinking water ESL values. Therefore, a potential soil vapor intrusion impact to indoor air quality may occur within the former McGrath Steel warehouse at 1471 67th Street and the MetalCo building at 1475 67th Street, located adjacent to the areas of COC concentrations.” (Emphasis supplied.)

See pp. 25-26, Table 5, and Figures 3, 4, 5, 6 and 7, “Additional Site Characterization and Monitoring Well Installation Report, etc.,” Aug. 30, 2013, by AllWest Environmental, Inc.

(As shown on the preceding page, my client, Corder Family Emeryville Properties, L.P., owns the building at 1475 67th Street, Emeryville. MetalCo is one of my client’s tenants.)

Following this report, your office issued its first directive letter to the MCG Group in November 2013 (Exhibit B). The MCG Group was required to perform eight (8) tasks, called “Technical Comments.” (Comments Nos. 1, 2, and 4 are mentioned here, but are discussed further in this letter.) As you will recall:

Technical Comment No. 1 directed the MCG Group to remove the “light non-aqueous phase liquid product” (“LNAPL”) in order to abate the spread of migration of the releases from the McGrath USTs. The County directed the MCG Group to analyze the LNAPL migration and extent of the plume in a Site Conceptual Model (“SCM”) and a Data Gap Investigation Work Plan (“DGIWP”). It also asked that if the LNAPL needed to be abated, that the MCG Group prepare an Interim Remedial Action Plan (“IRAP”).

Technical Comment No. 2 specifically directed what the “focused” SCM should address.

Technical Comment No. 4a said the extent of the LNAPL plume to the southwest had not been defined.

Technical Comment No. 4b said that the monitoring wells that AllWest had installed...

“...suggest that the direction of the groundwater flow is to the southwest beneath buildings immediately adjacent to the former UST excavation. Thus the dissolved-phase plume does not appear to be defined to the southwest, and the length of the dissolved-phase plume to the southwest has not been defined.”

(As shown on the figure on page 2, my client’s MetalCo building at 1475 67th Street and the Architectural Metal Works building at 1483 67th Street are along the south side of 67th Street, and southwest of the McGrath Property.)

The County required the MCG Group to file the DGIWP and the Focused SCM by January 10, 2014. We believe that as of today, 15 months later, the MCG Group has not yet prepared and filed the DGIWP and the SCM.

Instead, the MCG Group prepared and filed a 4th Quarter 2013 groundwater monitoring report. This report, by AllWest, reported that there was a potential soil vapor intrusion impact to indoor air quality at the MetalCo building at 1475 67th Street, “located adjacent to the areas of COC concentration.” The report also admitted that “[t]he cross-gradient extent of the adsorbed and dissolved phase hydrocarbon plume has not been fully defined, particularly south of 67th Street...”¹ As noted, my client’s buildings are on the south side of 67th Street.

The MCG Group, through AllWest, then prepared and filed an indoor air quality monitoring workplan. Despite AllWest’s conclusion about potential soil vapor intrusion at the MetalCo building at 1475 67th Street, its work plan, without explanation, omitted testing the air quality of my client’s building. It appears now that such testing would have helped define the character and extent of the plume migrating from the McGrath Property. It also would have likely shown the impacts of the McGrath USTs’ plume on the 1475 6th Street building and other buildings to the west and southwest.

In a June 4, 2014 directive letter, your office approved the indoor air quality monitoring workplan, and **for the second time** required a Data Gap Work Plan Addendum, this time by July 11, 2014 (which the MCG Group had been directed 8 months earlier, in November 2013, to do to determine the extent of the plume under the Corder Property).

¹ “Fourth Quarter 2013 Groundwater Monitoring Report, etc.” Jan. 8, 2014, AllWest Environmental, Inc.

Once again, AllWest failed to prepare and file a Data Gap Work Plan Addendum. Instead, it prepared a groundwater monitoring report, this time on July 21, 2014 for the 2nd quarter of 2014. AllWest again stated that there was a “potential soil vapor intrusion impact to indoor air quality within...the MetalCo building at 1475 67th Street, located adjacent to the areas of elevated COC concentrations.”

The 1475 67th Street building is the Corder Property.

At the same time as the 4th quarter groundwater monitoring report, AllWest submitted its indoor air quality monitoring report. In this report, AllWest reported sampling air quality only in the buildings on the McGrath Property – and not in the adjacent building at 1475 67th Street.

My client has informed me that they have no knowledge of AllWest ever requesting entry onto the MetalCo tenant premises at 1475 67th Street. They have never been approached with a request to perform any such testing by AllWest, on behalf of the MCG Group, on the Corder Property, nor have they been made aware of any such testing having been performed by AllWest, nor any such test results. (We have asked the MCG Group for those test results, if they exist.)

The County reviewed AllWest’s indoor air quality monitoring report in a directive letter of September 15, 2014. For the **third time**, the County directed the MCG Group to “...prepare a Data Gap Investigation Work Plan to address the technical comments discussed in our November 8, 2013 directive letter (attached).”

We have mentioned a couple of the technical comments above, but it is important to focus on what appears to need to be done by the MCG Group, as explained in the November 2013 directive letter and reiterated in the September 2014 letter.

Technical Comment No. 2. (*Site Conceptual Model*) You explained in your November 2013 directive letter that the SCM is “a fundamental element of a comprehensive site investigation” and necessary for consideration as to any closure of the site pursuant to the Low Threat Closure Policy.

“The SCM establishes the source and attributes of the unauthorized release . . . describes local geology, hydrogeology and other physical site characteristics that affect contaminant environmental transport and fate, and identifies all confirmed and potential contaminant receptors (including water supply wells, surface water bodies, structures and their inhabitants).” (Exhibit B, p. 2)

According to the County, AllWest’s reports continued to demonstrate insufficient data collection and analysis “to assess the nature, extent, and mobility of the release” *Id.* A fuller understanding of the plume geometry and migration essential to a SCM requires data to be collected for the downgradient properties. These “downgradient properties” include the properties owned by my client.

Technical Comment No. 4. (*Low Threat Closure Policy Media Specific Criteria for Groundwater*). You expressed a justified concern about the lengths of the two plumes flowing from the McGrath Property. One plume consists of Light Non-Aqueous Phase Liquid Product (“LNAPL”), as explained above. The second plume is a Groundwater Dissolved-Phase Plume of hydrocarbons.

The LNAPL plume. It is generally known that such plumes are not soluble in water, and therefore “float” on the surface of groundwater. When the groundwater goes up and down, it can “smear” petroleum product into a band of soils, and result in a continuous release of soil vapors. In this situation, the soil vapors have apparently migrated and have and continue to intrude into the Corder Property, including 1475 and 1483 67th Street.

In the November 2013 letter you expressed concern that the LNAPL plume “may extend further west than well MW-3.” (Well MW-3 is in the street in front of the former CMC Rebar building on 67th Street, which is adjacent to 1475 67th Street.)

The County’s November 2013 Technical Comment No. 4 in subpart (a) addressed the potential for the LNAPL plume to extend southwesterly in and under the Corder properties. As the County stated:

“Based on . . . a southwesterly gradient direction depicted in the recent soil and groundwater investigation report,² the LNAPL plume may extend beneath the adjacent site building. At present the extent of the LNAPL plume does not appear to be defined.”

My client agrees that MCG Group, as soon as possible, needs to characterize and remediate the free-floating product that has been recorded in two of the monitoring wells. And, AllWest may be doing this. But, the Site Characterization Model must be developed, too.

The Groundwater Dissolved-Phase Plume. In subpart (b) of **Technical Comment No. 4** the County noted that while the length of this second plume may be defined to the west,

“the recently installed wells suggest that the direction of groundwater flow is to the southwest beneath buildings immediately adjacent to the former UST excavation.” (Emphasis supplied.)

Again, the County is specifically referring to our client’s property, particularly 1475 and 1483 67th Street.

Technical Comment No. 6. In this technical comment, you notified the MCG

² *Additional Site Characterization and Monitoring Well Installation Report*, Aug. 30, 2013, AllWest Environmental, Inc.

Group that the benzene concentrations at soil bore no. B21 exceed allowable concentrations for low-threat closure levels for Direct Contact and Outdoor Air criteria.

Your letter stated that “[b]ecause of the potential southwesterly groundwater flow direction, additional elevated soil contamination may be present in the immediately adjacent building(s).” Again, this are referring to my client’s buildings. The letter required MCG Group to collect additional data to “laterally define the extent of soil contamination . . . in areas immediately downgradient of the former UST location and soil bore B21.”

The MCG Group has given my client no notice that the County had this concern about my client’s buildings.

(The Stellar Environmental Solutions, Inc. Report)

Stellar Environmental reviewed the AllWest indoor air quality report on AllWest’s testing on June 25 and 26, 2014 at the McGrath Property. As a result, Stellar Environmental recommended that our client conduct its own air sampling of its properties, 1475 and 1483 67th Street, which are “immediately adjacent to” the McGrath Property.

Stellar Environmental notes that AllWest did report benzene concentrations in four of the five indoor air samples in the 1471 67th Street property that exceed the San Francisco Bay Regional Water Quality Control Board’s indoor air commercial ESLs for benzene.

Stellar Environmental also noted that the benzene concentrations were lowest in the sample location (IAQ3) collected by AllWest closest to the McGrath USTs source area. And, the benzene concentrations were highest further west down 67th Street approximately 60 feet away at IAQ1. It was AllWest’s opinion in its report that benzene (and carbon tetrachloride and several other detected VOCs) were “atmospheric contaminants” and did not originate from the McGrath USTs source area.

Stellar Environmental disagrees. It explains that the AllWest data, and the Stellar Environmental data, both show higher indoor air benzene concentrations west of the original source. But, “atmospheric contamination” is not the source. The source is more logically the former McGrath USTs, due to the higher concentration flux of a plume that from the former USTs that has migrated west and southwest, and now lies beneath the Corder Properties.

Stellar Environmental reported that the downgradient indoor air samples it took from both the 1475 and 1483 67th Street buildings show benzene concentrations up to 7 times (at 9.5 $\mu\text{g}/\text{m}^3$) the 1.3 $\mu\text{g}/\text{m}^3$ ambient air sample value.

And other constituents of petroleum fuels, including toluene, ethylbenzene, total xylenes, naphthalene and TPHg were also found to be above the ambient levels in one or

both of downgradient buildings of my client.

Stellar Environmental performed its air sampling on November 14, 2014. As stated in its report, two “corrected” indoor air samples showed benzene concentrations at levels significantly higher than the Regional Board’s ESL value for indoor air. (“Corrected” here means the ambient sample value is subtracted from the indoor sample values.) These two samples came from

- the northeast corner of the 1475 67th Street building (nearest the McGrath USTs)(1A-1, shown on Figure 4 above), and
- the office in the 1483 67th Street building adjacent to 67th Street (1A-4 shown on Figure 4 above).

These are locations southwest of the site of the McGrath USTs.

All four of the indoor air samples showed levels higher than the ESL of 0.42 $\mu\text{g}/\text{m}^3$ (if not “corrected” for ambient air).

These higher indoor air values downgradient of the McGrath Property suggest a potentially higher concentration plume may lie beneath the Corder Property. The most expedient and accurate way to determine whether such a plume exists is to do air sampling tests, and borings with grab water sampling. These will better delineate the plume beneath these two downgradient Corder Property buildings.

We believe it is essential that the responsible party, the MCG Group, better define the impact of the releases from the McGrath USTs by sampling sub-slab soil gas and groundwater under the 1475 67th Street and 1483 67th Street properties of my client. The Site Characterization Model should not be prepared until the groundwater plume and soil vapor flux beneath my client’s properties is defined by sampling and testing.

In fact, a second indoor air sampling event should be completed as soon as possible for the 1475 and 1483 67th Street properties. As the Stellar Report explains:

“Using the DTSC risk calculation sheet for benzene (modified to account for ambient air), the total risk is calculated to be 1.2E-5 (DTSC does not have risk factor for TPH-gasoline or naphthalene). Therefore, based on the DTSC guidance, the recommendation is that indoor air sampling event frequency should be semi-annually (every six months) until the next sampling event establishes a 10E-8 or less in which case the monitoring can be reduced to every two years.”

(Exhibit A, at p. 5.)

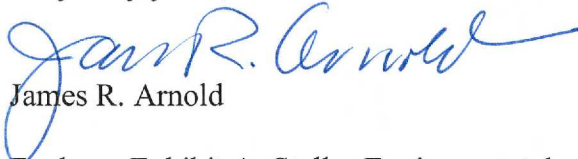
A two month period should be sufficient to secure the necessary permits, collect the data and present a report of findings on the subsurface contamination at the Corder Property.

Mark A. Detterman, P.G., E.G.
April 20, 2015
Page 9 of 9

We have approached the MCG Group with this new information. We also ask that your office accommodate our client's participation in the cleanup process from now on. We also ask that you consider all input and recommendations that my client provides with respect to their properties. California Water Code §13307.1(b).³ As the Local Oversight Program, your office implements the directives of the Regional and State Water Board (for example the Low Threat Closure Policy, Res. 2012-0062).

Thank you in advance for your consideration of this matter. Please let us know when our consultant might contact you to discuss the next steps. We would like to have your decision within the thirty (30) days of the date of this letter.

Very truly yours,



James R. Arnold

Encl. – Exhibit A: Stellar Environmental report, November 26, 2014
Exhibit B: Directive letter of November 8, 2013
Exhibit C: Directive letter of September 15, 2014

Cc (w/encl.)(by email only):

- Client
- Walter F. Merkle
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- Ms. Cheri McCaulou
Toxics Cleanup
SF RWQCB
1515 Clay St., #1400
Oakland, CA 94612
- Richard Makdisi, PG
Principal Geochemist
Stellar Environmental Solutions, Inc.
2198 Sixth Street, Suite 201
Berkeley, CA 94710

³ "...(b) The state board and regional boards shall take all reasonable steps necessary to accommodate responsible landowner participation in the cleanup or site closure process and shall consider all input and recommendations from any responsible landowner wishing to participate."

Exhibit A

11/26/14 Stellar Environmental report

November 26, 2014

Ms. Erin M. Corder-Schaefer
Corder Family Emeryville Properties, LP
2156 Corte Dorado Espuela
Alpine, CA 91901

Subject: Indoor Air Survey Letter of Findings—1475 and 1483 67th Street, Emeryville, California.

Dear Ms. Corder-Schaefer:

This letter report summarizes the findings associated with the indoor air survey for your above mentioned properties.

INTRODUCTION AND BACKGROUND

On June 25 and 26, 2014, AllWest Environmental conducted an indoor air survey of the former McGrath Steel office and warehouse complex located at 6655/ Hollis Street/1471 67th Street in Emeryville, California as part of an overall environmental assessment of that site as it relates to former underground fuel storage tanks (USTs) under the 67th Street sidewalk that were removed in 1996. Leakage from that UST system resulted in fuel hydrocarbon contamination of soil and groundwater beneath 67th Street and possibly the buildings on the south side of 67th Street. The AllWest indoor air survey is described in the July 21, 2014 AllWest document, “*Indoor air Quality Monitoring Report, Former McGrath Steel, 6655 Hollis and 1471 67th Street, Emeryville, California (Alameda County Fuel Leak Case #RO0000063)*”. However, it should be noted that the AllWest report completed a 24-hour indoor air test that is typically used for evaluating indoor air impacts to residential building versus the 8-hour indoor air test called for in regulatory guidance to evaluate commercial spaces. The locations of the five indoor air samples were all located within the McGrath Steel property. Regulatory oversight of this case is being provided by Mr. Mark Detterman of Alameda County Environmental Health Services (ACEHS).

Benzene concentrations in four of the five indoor air samples exceeded the Regional Water Quality Control Board-San Francisco Bay Region (Water Board) indoor air commercial

Environmental Screening Levels (ESLs) for benzene of $0.42 \mu\text{g}/\text{m}^3$. Benzene did not exceed its applicable ESL in the sample collected along the north wall of the warehouse building, adjacent to the former UST source area locations, or in the outdoor ambient air sample. According to the AllWest report, because of uniform concentrations in indoor and outdoor air samples, and although benzene concentrations was lowest in the sample location closest to the original UST source area, it was AllWest's opinion that benzene, carbon tetrachloride and several other detected VOCs were atmospheric contaminants and did not originate from the UST source area.

Based on a review of the AllWest indoor air quality report and of subsurface investigations conducted at the McGrath site to date by Weiss Associates (1998-2005) and AllWest (2013-2014), Stellar Environmental recommended indoor air sampling of the buildings adjacent to the 1471 67th Street McGrath warehouse as the logical next step to address the issue of whether the known hydrocarbon plume from the former McGrath Steel site is impacting the indoor air in adjacent buildings at 1475 and 1483 67th Street.

The 1475 67th Street building adjoins the McGrath warehouse to the east, and is a 15,000 square foot industrial building constructed in the 1940's. The building is occupied by Metalco, a metal anodizing business. 1483 67th Street adjoins the Metalco building and is a 13,000 square foot industrial structure occupied by Architectural Metal Works, which is a metal working shop for the building industry. Figure 1 presents the general site location. Figure 2 is a site map of the property and surrounding sites.

The specific goals of this Stellar Environmental study were to:

- Follow the California Department of Toxic Substance Control (DTSC) guidance for conducting indoor air sampling in commercial buildings;
- Collect four indoor air samples and one outdoor ambient air sample during normal office working hours (8:00 am to 4:00 pm);
- Analyze the indoor air quality samples for established contaminants in the subsurface using EPA Method TO-15 for Total Petroleum Hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, total xylenes and naphthalene for which there are existing indoor air regulatory ESLs and
- Compare the sampling results to 2013 RWQCB indoor air guidance ESLs for commercial property.

INDOOR AIR SAMPLING

Air Sampling Location Rationale

Based on the soil and groundwater sampling results from the previous Weiss Associates and AllWest subsurface work at the McGrath site and extending to the west down 67th Street, four indoor air sampling locations were chosen; three locations (IA-1, IA-2 and IA-3) were located inside the 1475 67th Street building occupied by Metalco, with one location (IA-4) located in the 1483 67th Street building occupied by Architectural Metal Works. These four locations were chosen based on depictions of benzene concentrations in groundwater and on the calculated groundwater gradient that indicates a southwest flow direction (AllWest, 2013) towards the 1475/1483 67th Street buildings. One “control” or ambient air sample (OA-1) was placed outside the 1475 67th Street building in a secure location on an overhang over the front door. Figure 3 depicts the sample locations.

Indoor Air Sampling Protocol

Mr. Steve Bittman, of Stellar Environmental completed the sampling setup at 8:00 am on November 14, 2014 and retrieved the sampling apparatus at 4:00 pm the same day, after checking the sampling canisters during the day to make sure they were operating properly. Photodocumentation of the sampling event is attached.

The indoor air sampling program generally followed the DTSC guidance entitled: the *Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* (DTSC, August, 2011). The protocol used, included:

- Samples were collected for analysis using Environmental Protection Agency (EPA) method TO-15 [used for integrated (greater than a few minutes) sampling events], which includes the contaminants of concern: benzene, toluene, ethylbenzene, and total xylenes. In addition, TPHg and Naphthalene were included as analytes. These gasoline related compounds with a higher relative vapor pressure than diesel fuel, the other McGrath site contaminant, and are more likely to find their way into indoor air space from beneath the surface.
- The indoor and outdoor air samples were collected over an 8-hour period using 6-liter Summa® canister with a calibrated flow controller set at 11.5 milliliters per minute with the sample intake positioned approximately 3-5 feet above the building floor; and
- The samples were collected during the average period when the building would typically be occupied from 8:00 am until 4:00 pm.

The five air samples were maintained at ambient temperature, out of direct sunlight and transported by courier to McCampbell Analytical Laboratory of Pittsburg, California, a laboratory certified by the State of California Environmental Laboratory Accreditation Program (ELAP) for the analytical method utilized in this investigation.

REGULATORY CONSIDERATIONS

In December 2004, the Office of Environmental Health Hazard Assessment (OEHHA) on behalf of the California Environmental Protection Agency (CAL EPA) established their own risk equivalent to the Water Boards Environmental Screening Levels (ESLs), which are called California Human Health Screening Levels (CHHSLs). The Water Board also established their equivalents of the CHHSL, the Environmental Screening Levels (ESL's) were most recently updated in December 2013. The concentrations from this survey are compared to the Water Board 2013 Environmental Screening Levels (ESL) guidance as that has superseded the DTSC California Human Health Screening Levels (CHHSLs), which are no longer being updated. The CHHSL and ESLs have very similar values. In addition, the California Occupational Safety and Health Administration (CAL OSHA) has also established Permissible Exposure Limits (PELs) that reflect the maximum permitted 8-hour average concentration limit of an airborne contaminant associated with a given industry. The PELs are to be applied to occupational exposure (such as exposure to dry cleaner chemicals for workers at dry cleaners or petroleum exposure for workers at a petroleum service station) and are not applicable in this case. The CAL OSHA standards, while more conservative, are similar to the federal OSHA standards. Both the Cal OSHA standards and federal standards are law versus guidance and are significantly less conservative than the Cal EPA Water Board ESL's or DTSC used CHHSL values.

Water Board ESLs and Cal EPA CHHSLs

The Water Board ESL's were revised in December 2013 and now include an ESL for indoor air for gasoline grade petroleum hydrocarbons (TPG-gasoline) and their benzene, toluene, ethylbenzene and xylenes (BTEX) components.

It is important to note that neither CHHSLs nor ESLs, were conceived as a cleanup criteria nor should they be used to determine when impacts should be reported to a regulatory agency. Rather, the ESLs are Tier 1 conservative screening criteria used to evaluate sites for potential human health or environmental exposure concerns where releases of hazardous materials to soils or groundwater have occurred.

INDOOR AIR SAMPLING ANALYTICAL RESULTS AND DISCUSSION

The indoor air samples IA-1 through IA-4 all contained concentrations of benzene above the “commercial property” ESL of $0.42 \mu\text{g}/\text{m}^3$, ranging from $1.1 \mu\text{g}/\text{m}^3$ to $9.5 \mu\text{g}/\text{m}^3$. This compares with the lower $0.54\text{-}0.79 \mu\text{g}/\text{m}^3$ benzene range reported by the AllWest study. The outdoor control sample OA-1 contained $1.3 \mu\text{g}/\text{m}^3$ benzene. Three out of four of the indoor air samples exceeded the $100 \mu\text{g}/\text{m}^3$ commercial ESL for TPH as gasoline with concentrations ranging from $61 \mu\text{g}/\text{m}^3$ to $360 \mu\text{g}/\text{m}^3$. The outdoor sample contained $140 \mu\text{g}/\text{m}^3$ TPHg. One sample exceeded the naphthalene ESL of $0.36 \mu\text{g}/\text{m}^3$ at a concentration of $0.88 \mu\text{g}/\text{m}^3$, with the outdoor control sample containing $0.17 \mu\text{g}/\text{m}^3$ naphthalene. Detections of toluene, ethylbenzene and xylenes did not exceed their respective ESLs in any of the samples.

The indoor air sample with the highest concentrations of the constituents analyzed for was sample IA-4 located in the front office of 1483 67th Street. Sample IA-3 located in the office area of 1475 67th Street contained the lowest concentrations.

It is accepted practice to subtract the outdoor control sample concentrations from the indoor concentrations, resulting in a “corrected” value. Subtracting the outdoor benzene result from the four indoor sample benzene concentrations, in effect “cancels out” the results for IA-2 and IA-3, leaving samples IA-1 and IA-4 with corrected concentrations of $1.7 \mu\text{g}/\text{m}^3$ and $8.2 \mu\text{g}/\text{m}^3$ which still exceeds the benzene commercial ESL of $0.42 \mu\text{g}/\text{m}^3$. When this correction is applied to TPHg, the result is that one sample, (IA-4) exceeds the $100 \mu\text{g}/\text{m}^3$ commercial ESL for TPHg with a value of $220 \mu\text{g}/\text{m}^3$. IA-4 also contained a corrected concentration of naphthalene at $0.71 \mu\text{g}/\text{m}^3$ which exceeds the $0.36 \mu\text{g}/\text{m}^3$ ESL.

Using the DTSC risk calculation sheet for benzene (modified to account for ambient air), the total risk is calculated to be $1.2\text{E-}5$ (DTSC does not have risk factor for TPH-gasoline or naphthalene). Therefore, based on the DTSC guidance, the recommendation is that indoor air sampling event frequency should be semi-annually (every six months) until the next sampling event establishes a $10\text{E-}8$ or less in which case the monitoring can be reduced to every two years.

Table 1 shows the concentrations of indoor air contaminants detected during the 8-hour sampling event of November 14, 2014. Table 1 also shows the ESLs indoor air standards for the detected contaminants. The DTSC vapor intrusion risk calculation model, laboratory analytical results and chain-of-custody record are attached.

CONCLUSIONS AND RECOMMENDATIONS

Based on the indoor air results, there is some risk of exposure from benzene, naphthalene and TPH-gasoline vapor intrusion to occupants of the office areas in both buildings, based on their respective concentrations being above the regulatory ESLs. Benzene is the risk driver. In general, once ESLs are exceeded, the need for a type of additional investigative and corrective actions are generally driven by the potential risk associated with the contamination, with input by the regulatory agency providing oversight, which in this case is the ACEHS.

Indoor air risk can be mitigated by the increasing air exchange rates so that the air inside the sales offices areas of the buildings is flushed more frequently. The effectiveness of this can be gauged by air monitoring under the recommended increased air exchange conditions. Longer term risk can be reduced by remediation of the hydrocarbon groundwater plume that is the source of the benzene and TPHg vapor intrusion.

Based on the findings of this and the previous investigations, Stellar Environmental recommends conducting another indoor air sampling event, as recommended by DTSC guidance, within 6 months, by May 2015. Also recommended is the installation of six investigation bores to collect grab groundwater data in the 1475 and 1483 67th Street spaces to delineate the plume better. This letter of findings also recommended to be submitted to ACEHS.

We trust this review assists you in evaluating the salient environmental issues associated with the subject site. Please call the undersigned directly at (510) 644-3123 if you have any questions regarding this report of findings.

Sincerely,



Steve Bittman,
Project Manager



Richard S. Makdisi, R.G., R.E.A.
Principal Geochemist & President



Table 1
Indoor Air Sample Analytical Results –November 14, 2014
Eight Hour Test
1475 and 1483 67th Street, Emeryville, California

Analyte	Indoor Air Sample- NE Corner 1475 67 th Street Building	Indoor Air Sample- Central 1475 67 th Street Building	Indoor Air Sample- Office in NW Corner 1475 67 th Street Building	Indoor Air Sample- Office in 1483 67 th Street Building	Outdoor Air (Ambient) Sample- in Front of 1475 67 th Street Building	Commercial ESL
	IA-1	IA-2	IA-3	IA-4	OA-1	
Benzene	3.0	1.2	1.1	9.5	1.3	0.42
Toluene	16	4.2	8.2	17	2.5	1,300
Ethyl Benzene	3.2	0.64	0.58	4.3	0.65	4.9
Total Xylenes	16	3.3	3.0	21	3.4	440
Total TPHg	240	150	61	360	140	100
Naphthalene	0.18	0.15	0.19	0.88	0.17	0.36

Notes:

All values in $\mu\text{g}/\text{m}^3$

Bold type designatd exceeding guidance value

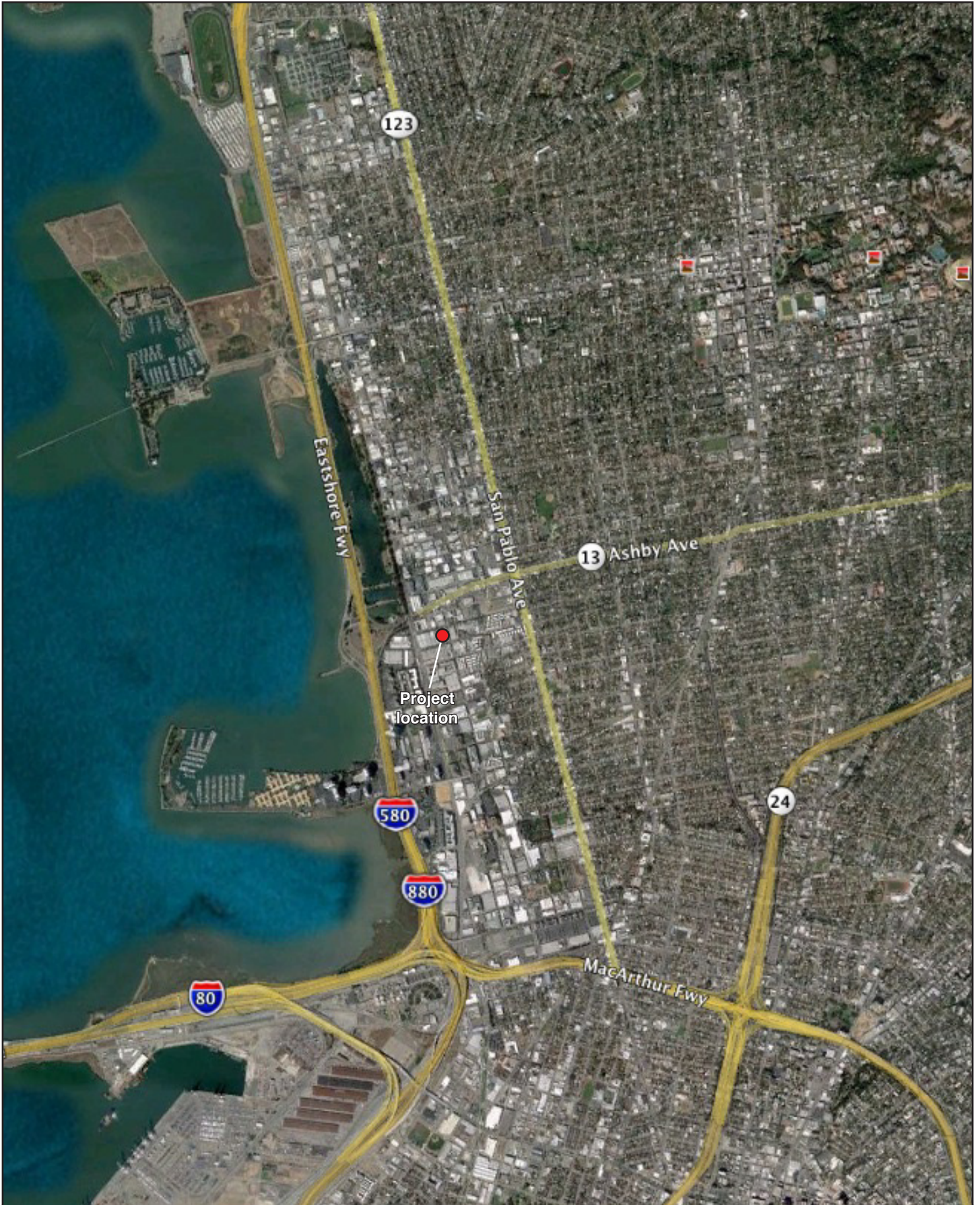
Cal/OSHA PEL = California Occupational Safety and Health Administration Permissible Exposure Limits.

ESL = Water Board Environmental Screening Level for commercial properties (December 2013).

NA= There is no number available for this contaminant.

All concentrations are reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Samples denoted with < are below the laboratory detection limit. All limits are the lowest possible detection limit possible by the laboratory. Samples were collected in the breathing zone between 3.5 and 5 feet above the top of the floor.

FIGURES



SITE LOCATION MAP

1475 and 1483 67th St.
Emeryville, CA

By: MJC

NOVEMBER 2014

Figure 1





2014-56-03



SITE PLAN AND SURROUNDING SITES

1475 and 1483 67th St.
Emeryville, CA

By: MJC

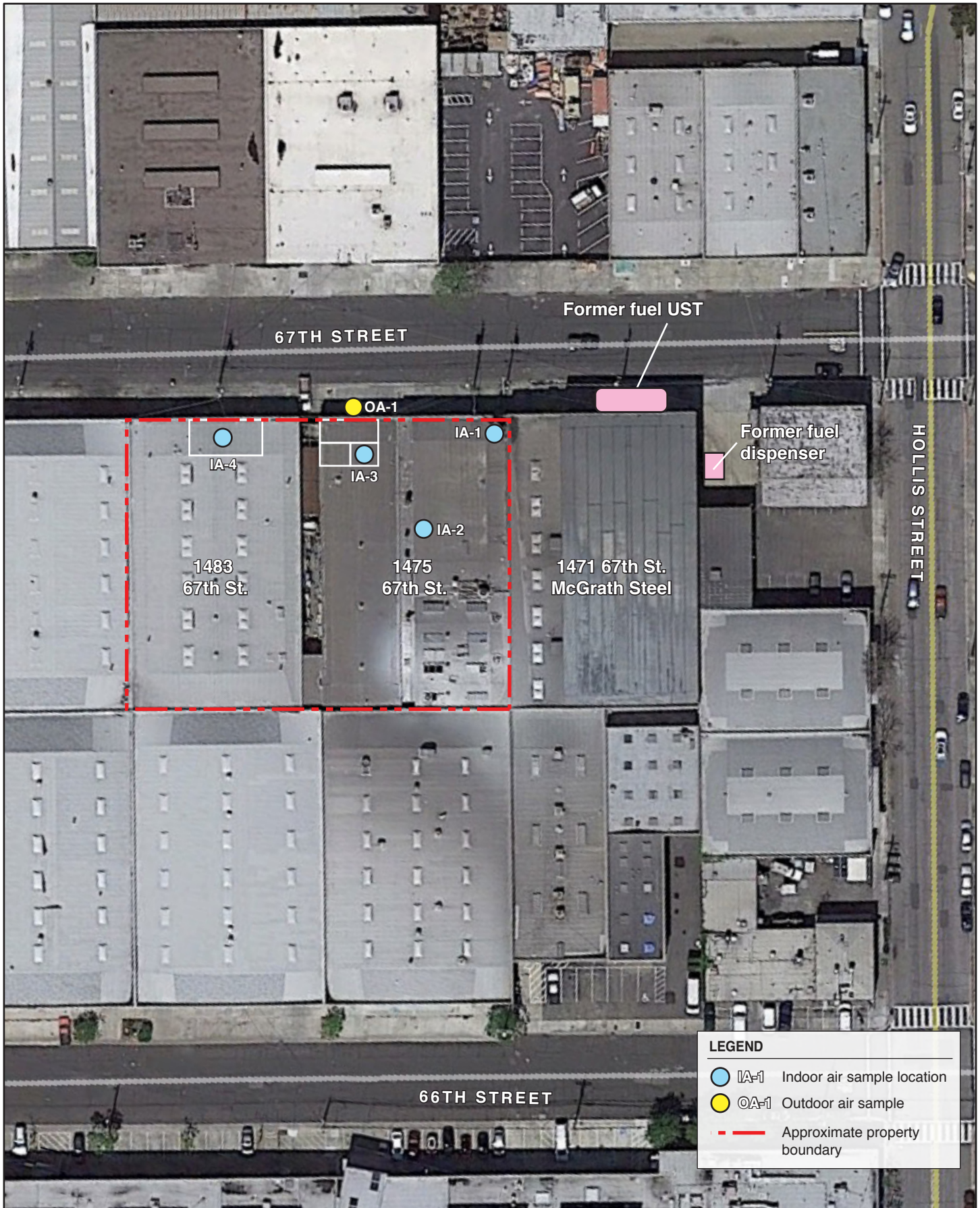
NOVEMBER 2014

Figure 2

LEGEND

- - - - - Approximate property boundary





SITE PLAN AND INDOOR AIR SAMPLE LOCATIONS

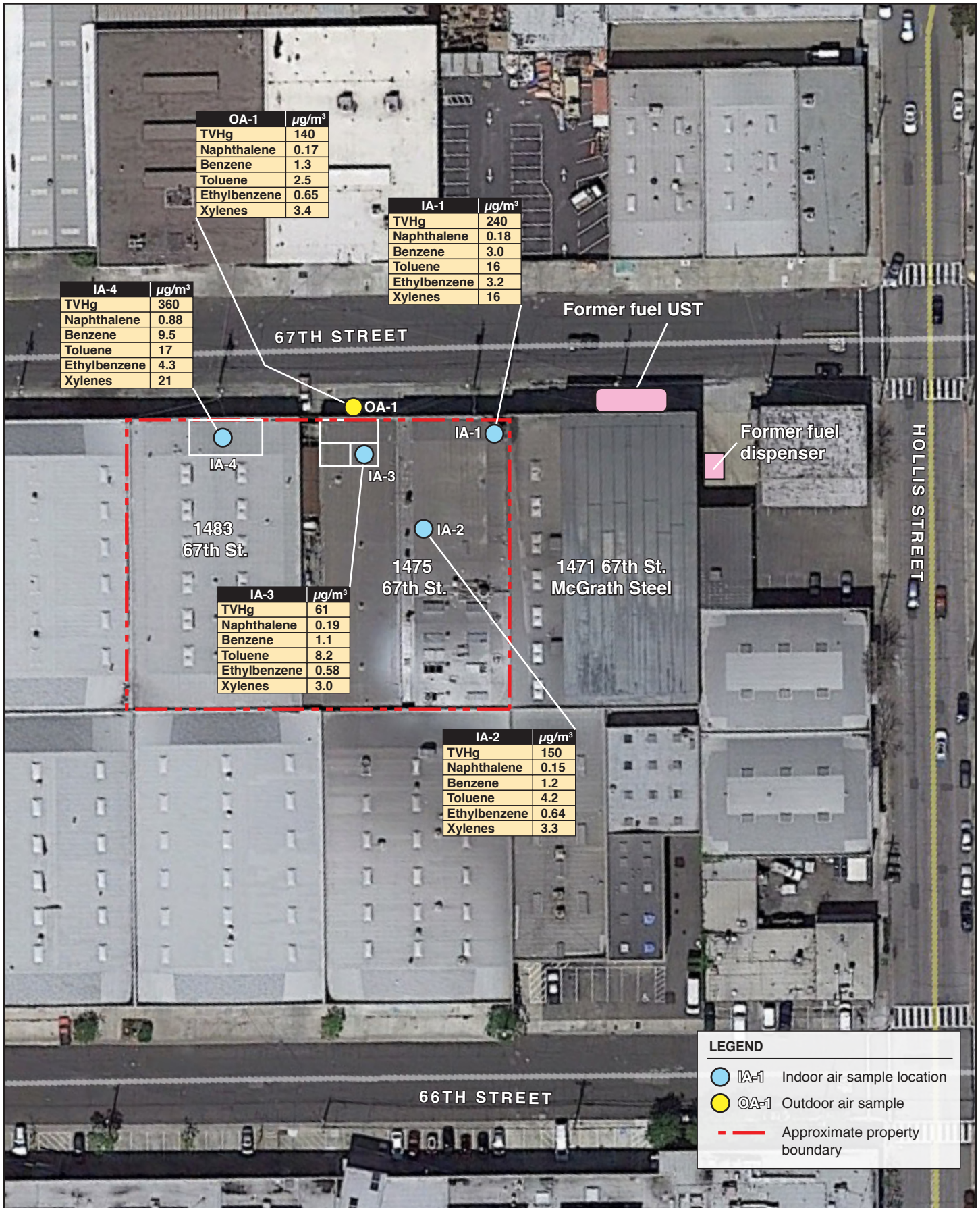
1475 and 1483 67th St.
Emeryville, CA

By: MJC

NOVEMBER 2014

Figure 3





2014-56-04



INDOOR AIR SAMPLE ANALYTICAL RESULTS

1475 and 1483 67th St.
Emeryville, CA

By: MJC

NOVEMBER 2014

Figure 4



PHOTODOCUMENTATION



Subject: Indoor air sampling location (IA-1) in NE corner 1475 67th Street

Site: 1475/1483 67th Street, Emeryville, California

Date Taken: November 14, 2014

Project No.: SES 2014-56

Photographer: S. Bittman

Photo No.: 01



Subject: Indoor ambient air sampling location (IA-2) near 1475 67th Street building center

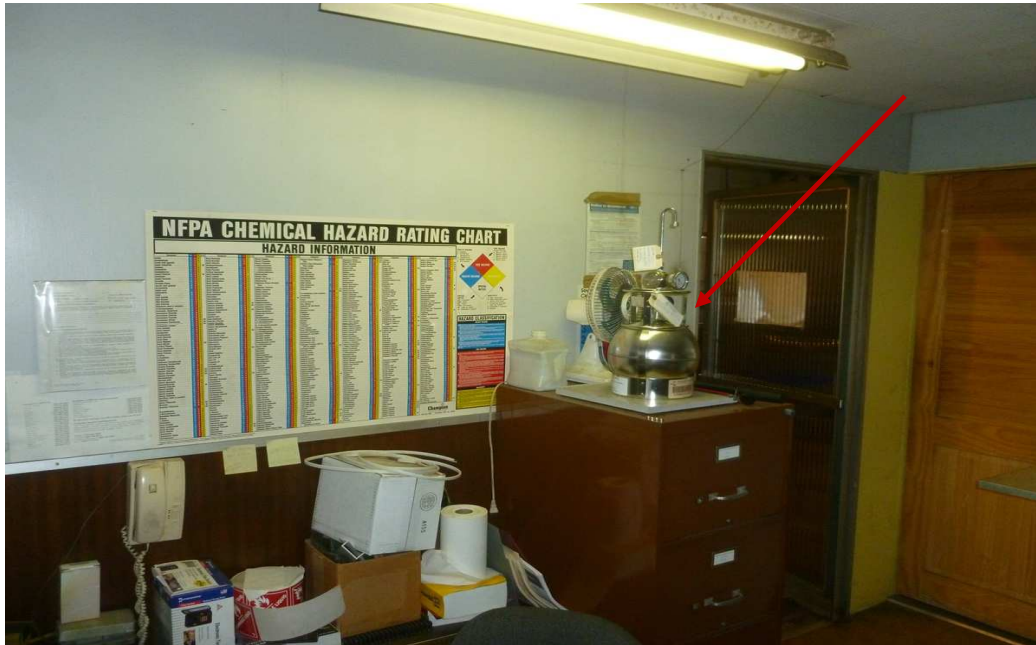
Site: 1475/1483 67th Street, Emeryville, California

Date Taken: November 14, 2014

Project No.: SES 2014-56

Photographer: S. Bittman

Photo No.: 02



Subject: Indoor air sampling location (IA-3) in sales office near 67th Street.

Site: 1475/1483 67th Street, Emeryville, California

Date Taken: November 14, 2014

Project No.: SES 2014-56

Photographer: S. Bittman

Photo No.: 03



Subject: Indoor air sampling location (IA-4) in 1483 67th Street sales office by 67th Street.

Site: 1475/1483 67th Street,, Emeryville, California

Date Taken: November 14, 2014

Project No.: SES 2014-56

Photographer: S. Bittman

Photo No.: 04



Subject: Outdoor air sampling location (OA-1) above front door at 1475 67th Street

Site: 1475/1483 67th Street, Emeryville, California

Date Taken: November 14, 2014

Project No.: SES 2014-56

Photographer: S. Bittman

Photo No.: 05

STELLAR ENVIRONMENTAL SOLUTIONS, INC.

**LABORATORY ANALYTICAL RESULTS, CHAIN
OF CUSTODY, AND DTSC RISK MODEL**

Work Sheet: Risk Equation for Indoor Air Inhalation Exposure

Excess Cancer Risk

The equation below is used to calculate the theoretical excess cancer risk from inhalation exposure to volatile chemicals (*Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air; DTSC, Dec 15, 2004*)

6400 Christie Avenue, Emeryville, California														
$\text{Risk, 6400 Christie} = \frac{(\text{Exposure Conc.}) (\text{Duration of Exposure (70 yr. avg. life time)}) [\text{Unit Risk (per DTSC)}]}{(365 \text{ d/yr})}$					$= \frac{(\text{Conc.}) (\text{EFa}) (\text{UoF})}{(\text{Atc}) (365 \text{ d/yr})}$					as written in "Interim Final Guidance..."				
Where		ATc		Averaging time for carcinogens = 70 yr										
		EFa		Exposure frequency = (hour/day) * (day/year) * (Exposure duration in years)										
		UoF		Unit risk factor = increase in risk per ug/m3 chemical inhaled for 24 hr/day 365 day/yr										
DATA INPUT: Enter measured air concentrations in the Conc. cells (ug/m3).														
Chemical			Exposure				Unit Risk Factors		Risk					
CAS No.	Chem	Conc. in air (ug/m3)	Work hour/day (Avg.)	Work day/year (Avg.)	Years at site (Avg.)	Unit Risk (DTSC Table)	ATc (year)							
71432	Benzene	8.2	8	250	15	2.9E-05	70	1.2E-05						
TOTAL RISK*								1.2E-05						
<p>* The total risk is equal to sum of the individual risks of the individual chemicals.</p> <p>Based on 8-hour indoor air sample collected November 14, 2014 by Stellar Environmental</p>														

Resulting Actions

The TOTAL RISK* will be used to evaluate future actions.

Total Risk *	Immediate Action	Future Action
10E-05 or above	Inform Tenant	Mitigate Soil Vapor with SVE
below 10E-05 to 10E-06	Sampling, 2 times per yr	Track results
below 10E-06 to 10E-07	Sampling in 1 year	Track results
below 10E-07 to 10E-8	Sampling in 1 year	if 2 consecutive results are in this range, sampling frequency to be every 2 years
below 10E-08	no action required	no future sampling

* The Risk calculated using this spread sheet is a conservative value since the average employee is unlikely to work for 15 years with the indoor air being at the level it currently is.

Exhibit B

11/8/13 directive letter

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director



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

November 8, 2013

Mr. Walter Merkle
MCG Investments LLC
123 Estudillo Avenue
San Leandro, CA 94577

Shirley J Davini & Dorothy D McGuire
123 Estudillo Avenue
San Leandro, CA 94577

Mr. Jon Braden
McGrath Steel Company
Address Unknown

Mr. David Davini
Loretta A McGrath Family Trust
Address Unknown

Subject: Request for Feasibility Study / Corrective Action Plan; Fuel Leak Case No. RO0000063;
(Global ID # T0600102099); McGrath Steel Company, 6655 Hollis Street, Emeryville, CA
94608

Dear Messrs. Merkle and Braden, and Mses. Davini and McGuire:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site including the *Additional Site Characterization and Monitoring Well Installation Report*, dated August 30, 2013 (received October 21, 2013), and the *Second Quarter 2013 Groundwater Monitoring*, dated July 11, 2013. Both reports were prepared and submitted on your behalf by AllWest Environmental, Inc. (AllWest). Thank you for submitting the reports. The site characterization report recommended the installation of a passive skimming device in well MW-3 to recover Light Non-Aqueous Phased Liquid Product (LNALP) that is currently present at thickness of 0.41 feet, and indicated that an indoor vapor intrusion risk might be present for the buildings immediately adjacent to the former underground storage tank (UST) location.

ACEH has evaluated the data and recommendations presented in the above-mentioned reports, in conjunction with the case files, and the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). Based on ACEH staff review, we have determined that the site fails to meet the LTCP General Criteria d (LNAPL Removal), e (Site Conceptual Model), f (Secondary Source Removal) and the Media-Specific Criteria for Groundwater, the Media-Specific Criteria for Vapor Intrusion to Indoor Air, and the Media-Specific Criteria for Direct Contact (see Geotracker for a copy of the LTCP checklist).

Therefore, at this juncture ACEH requests that you prepare a Data Gap Investigation Work Plan that is supported by a focused Site Conceptual Model (SCM) to address the Technical Comments provided below.

ACEH would like to invite you to meeting in order to discuss the site and to resolve any questions that may arise due to these changes. ACEH requests notification of suitable dates and times for the meeting.

TECHNICAL COMMENTS

- 1. LTCP General Criteria d; Removal of LNAPL to the Maximum Extent Practicable** – The LTCP requires LNAPL to be removed to the extent practicable at release sites where investigations indicate the presence of free product by removing in a manner that minimizes the spread of the unauthorized release into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges, or disposes of recovery byproducts in compliance with applicable laws. Additionally, the LTCP requires that abatement of free product migration be used as a minimum objective for the design of any free product removal system.

Exhibit B

ACEH's review of the case files indicates that recoverable LNAPL remains at the site in well MW-3, and based on groundwater analytical concentrations may extend to at least soil bore B-20. Grab groundwater concentrations collected in January 2013 indicate that concentrations up to 160,000 micrograms per liter ($\mu\text{g/l}$) Total Petroleum Hydrocarbons [TPH] as gasoline, 95,000 $\mu\text{g/l}$ TPH as diesel, 21,000 $\mu\text{g/l}$ benzene, and 140,000 $\mu\text{g/l}$ MTBE were detected at soil bores B20 and B21. These concentrations are significantly over concentrations that the *Technical Justification for Vapor Intrusion Media-Specific Criteria* generated in support of the LTCP, suggests is "indirect" evidence of LNAPL.

The proposed installation of a passive skimmer at well MW-3 appears appropriate; however, may not be a sufficient effort based on the data cited. Based on the location of potential preferential pathways in previous reports, in particular the sewer, this utility line may affect the distribution of the LNAPL at times. A storm drain line has not been depicted on these figures; however, if present may also be a preferential pathway. Please present your analysis of LNAPL migration and plume extent in a focused SCM and Data Gap Investigation Work Plan described in Technical Comment 7.

If based on your analysis further abatement of LNAPL is necessary, please present a proposed strategy in an Interim Remedial Action Plan (IRAP) as described in Technical Comment 8.

2. **LTCP General Criteria e (Site Conceptual Model)** – According to the LTCP, the SCM is a fundamental element of a comprehensive site investigation. The SCM establishes the source and attributes of the unauthorized release, describes all affected media (including soil, groundwater, and soil vapor as appropriate), describes local geology, hydrogeology and other physical site characteristics that affect contaminant environmental transport and fate, and identifies all confirmed and potential contaminant receptors (including water supply wells, surface water bodies, structures and their inhabitants). The SCM is relied upon by practitioners as a guide for investigative design and data collection. All relevant site characteristics identified by the SCM shall be assessed and supported by data so that the nature, extent and mobility of the release have been established to determine conformance with applicable criteria in this policy.

Our review of the case files indicates that insufficient data collection and analysis has been undertaken to assess the nature, extent, and mobility of the release and to support compliance with General Criteria d as discussed in Item 1 above, General Criteria f, and Media Specific Criteria for Vapor Intrusion to Indoor Air, Groundwater, and Direct Contact and Outdoor Air Exposure as described in Technical Comments 3, 4, 5, and 6 below, respectively.

3. **General Criteria f – Secondary Source Has Been Removed to the Extent Practicable** – The bore log for soil bore B-22 appears to have documented the removal of the secondary soil source beneath the former USTs to the extent practicable. As documented by the bore log for soil bore B-24, it is not clear that the secondary source beneath the former dispenser has been removed to the extent practicable. Additionally, the presence of LNAPL can be considered a significant residual source; however, under the LTCP it is not considered a secondary source. Please present a response to the adequacy of secondary source removal in a focused SCM as described in Technical Comment 7 and a proposed scope of work to address the identified data gap under the LTCP.
4. **LTCP Media Specific Criteria for Groundwater** – To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites listed in the policy.

Our review of the case files indicates that the site data collection and analysis do not support the requisite characteristics of one of the five scenarios under the criteria. Our review of the case files indicates that insufficient data and analysis has been presented to support the requisite characteristics of plume stability or plume classification as follows:

- a. **Length of LNAPL Plume** – As noted above the extent of the LNAPL plume may extend further west than well MW-3. Based on grab groundwater analytical concentrations at soil bore B-21, and a southwesterly gradient direction depicted in the recent soil and groundwater investigation report, the LNAPL plume may extend beneath the adjacent site building. At present the extent of the LNAPL plume does not appear to be defined.

- b. **Length of Groundwater Dissolved-Phase Plume** – The length of the dissolved-phased plume may be adequately defined to the west; however, the recently installed wells suggest that the direction of groundwater flow is to the southwest beneath buildings immediately adjacent to the former UST excavation. Thus the dissolved-phase plume does not appear to be defined to the southwest, and the length of the dissolved-phase plume to the southwest has not been defined.
- c. **Water Well Survey** – A survey has not been conducted to determine the location of any water supply wells in the vicinity of the subject site. As a consequence, ACEH requests that a ¼-mile radius well survey be conducted using both Department of Water Resources (DWR) and Alameda County Public Works Agency (ACPWA) water well resources. All water supply wells should be located on a vicinity map. Please note that construction well details are considered to be confidential and therefore should not be uploaded to public websites.
- d. **Benzene Concentrations** – Benzene concentrations up to 21,000 µg/l have been detected in grab groundwater samples (B-20), and up to 9,800 µg/l in groundwater collected from well MW-3, beneath the LNAPL. Thus benzene concentrations exceed all LTCP groundwater media-specific criteria.
- e. **Current Groundwater Classification** – Again as previously addressed, please be aware that all groundwater in the East Bay Plain Groundwater Basin that underlies Emeryville is classified as 'MUN' (potentially suitable for municipal or domestic water supply). According to the RWQCB *Water Quality Control Plan (Basin Plan)*, dated January 18, 2007, for the San Francisco Bay Basin, "the term 'groundwater' includes all subsurface waters, whether or not these waters meet the classic definition of an aquifer or occur within identified groundwater basins.' The Basin Plan also states that 'all groundwaters are considered suitable, or potentially suitable, for municipal or domestic water supply (MUN)." Therefore, the groundwater beneath the subject site is considered beneficial for these uses unless shown to be non-beneficial using criteria presented in the Basin Plan (Please note that the proposed "Zone B Berkeley / Albany Groundwater Management Zone" contained in the June 1999 *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report*, that was referenced in your work plan addendum, was not adopted in the 2007 Basin Plan). Please adjust future evaluations to reflect these classifications; however, please also be aware that case closure does not require cleanup to MUN cleanup goals, rather that those goals can be met within an identified reasonable timeframe. This is also stated to be consistent and reflected in the LTCP.

Alternatively, should alternative interpretations be possible from this data, please provide justification of why the site satisfies the Groundwater Media-Specific Criteria in a SCM that assures that the identified deficiencies have been addressed.

- 5. **LTCP Media Specific Criteria for Vapor Intrusion to Indoor Air** – The LTCP describes conditions, including bioattenuation zones, which if met will assure that exposure to petroleum vapors in indoor air will not pose unacceptable health risks to human occupants of existing or future site buildings, and adjacent parcels. Appendices 1 through 4 of the LTCP criteria illustrate four potential exposure scenarios and describe characteristics and criteria associated with each scenario.

Our review of the case files indicates that the site data and analysis fail to support the requisite characteristics of one of the four scenarios. Specifically, it appears that petroleum contamination is present at concentrations greater than 100 mg/kg TPH at multiple locations in the 0 to 5 and the 5 to 10 foot depth intervals beneath the site and site vicinity and groundwater benzene concentrations are greater than 1,000 µg/l benzene. Additionally, because no soil vapor samples have been collected, no soil vapor oxygen data is available.

Therefore, please present a strategy in the Data Gap Investigation Work Plan as described in Technical Comment 7 below to collect additional data to satisfy the bioattenuation zone characteristics of Scenarios 1, 2 or 3, or to collect soil gas data to satisfy Scenario 4, to ensure that exposure to petroleum vapors in indoor air does not pose unacceptable health risks to human occupants of existing or future site buildings, and adjacent parcels. Should vapor wells be proposed for installation ACEH requests that soil be collected and analyzed in the 0 to 5 foot interval, at lithologic changes, and at areas of obvious

impact. ACEH additionally requests that soil samples collected from these borings be submitted for all requisite analysis, including naphthalene analysis.

Alternatively, please provide justification of why the site satisfies the Media-Specific Criteria for Vapor Intrusion to Indoor Air in the SCM described in Technical Comment 7 that assures that exposure to petroleum vapors in indoor air will not pose unacceptable health risks to occupants of adjacent buildings.

Please note, that if direct measurement of soil gas is proposed, ensure that your strategy is consistent with the field sampling protocols described in the Department of Toxic Substances Control's Final Vapor Intrusion Guidance (October 2011). Consistent with the guidance, ACEH requires installation of permanent vapor wells to assess temporal and seasonal variations in soil gas concentrations.

- 6. LTCP Media Specific Criteria for Direct Contact and Outdoor Air Criteria** – The LTCP describes conditions where direct contact with contaminated soil or inhalation of contaminants volatilized to outdoor air poses a low threat to human health. According to the policy, release sites where human exposure may occur satisfy the media-specific criteria for direct contact and outdoor air exposure and shall be considered low-threat if the maximum concentrations of petroleum constituents in soil are less than or equal to those listed in Table 1 for the specified depth bgs. Alternatively, the policy allows for a site specific risk assessment that demonstrates that maximum concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health, or controlling exposure through the use of mitigation measures, or institutional or engineering controls.

Our review of the case files indicates that benzene concentrations up to 12 mg/kg is present at a depth of 10 feet in soil bore B21, and that this concentration exceeds allowable concentrations listed in Table 1 of the LTCP. Because of the potential southwesterly groundwater flow direction, additional elevated soil contamination may be present beneath the immediately adjacent building(s).

Therefore, please present a strategy in the Data Gap Investigation Work Plan as described in Technical Comment 7 below to collect additional data to laterally define the extent of soil contamination that does not satisfy the direct contact and outdoor air exposure criteria in areas immediately downgradient of the former UST location and soil bore B21. ACEH requests that soil be collected and analyzed in the 0 to 5 and the 5 to 10 foot intervals, at the groundwater interface, lithologic changes, and at areas of obvious impact. ACEH additionally requests that groundwater samples be collected from these borings and requisite analysis, including naphthalene and polycyclic aromatic hydrocarbons (PAH) analysis, be conducted.

Alternatively, please provide justification of why the site satisfies the Media-Specific Criteria for Direct Contact and Outdoor Air Exposure in an focused SCM and Data Gap Investigation Work Plan described in Item 7 below that assures that exposure to petroleum constituents in soil will have no significant risk of adversely affecting human health.

- 7. Focused Site Conceptual Model and Data Gap Investigation Work Plan** – Please prepare a Data Gap Investigation Work Plan to address the technical comments listed above. Please support the scope of work in the Data Gap Investigation Work Plan with a focused SCM and Data Quality Objectives (DQOs) that relate the data collection to each LTCP criteria. For example please clarify which scenario within each Media-Specific Criteria a sampling strategy is intended to apply to.

In order to expedite review, ACEH requests the focused SCM be presented in a tabular format that highlights the major SCM elements and associated data gaps, which need to be addressed to progress the site to case closure under the LTCP. Please see Attachment A "Site Conceptual Model Requisite Elements". Please sequence activities in the proposed revised data gap investigation scope of work to enable efficient data collection in the fewest mobilizations possible.

- 8. Interim Remedial Action Plan** - ACEH requests that interim remedial actions, in addition to the installation of a passive skimmer into well MW-3, be identified and implemented to abate LNAPL migration. Please present the proposed strategy in an IRAP by the date identified below.

9. **Quarterly Groundwater Monitoring** – Please institute quarterly groundwater monitoring of all site vicinity wells for a minimum period of one year for all chemicals of concern at the site. This will allow groundwater contaminant trends to be established quickly at the site.

TECHNICAL REPORT REQUEST

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

- **January 10, 2014** – Data Gap Investigation Plan and Focused Site Conceptual Model
File to be named: RO63_WP_SCM_R_yyyy-mm-dd
- **January 17, 2014** – Interim Remedial Action Plan
File to be named: RO63_IRAP_R_yyyy-mm-dd
- **January 24, 2014** – Quarterly Groundwater Monitoring Report
File to be named: RO63_GWM_R_yyyy-mm-dd
- **60 Days After Work Plan Approval** – Soil and Groundwater Investigation Report
File to be named: RO63_SWI_R_yyyy-mm-dd
- **April 25, 2014** – Quarterly Groundwater Monitoring Report
File to be named: RO63_GWM_R_yyyy-mm-dd

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

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

If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,



Digitally signed by Mark Detterman
DN: cn=Mark Detterman, o, ou,
email=mark.detterman@acgov.org, c=US
Date: 2013.11.08 09:49:40 -08'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations and Electronic Report Upload (ftp) Instructions

Attachment A - Site Conceptual Model Requisite Elements

cc: Leonard Niles, AllWest Environmental, Inc, 530 Howard Street, Suite 300, San Francisco, CA 94105; (sent via electronic mail to: leonard@allwest1.com)

Dilan Roe, ACEH, (sent via electronic mail to: dilan.roe@acgov.org)
Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)
Electronic File, GeoTracker

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

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

ELECTRONIC SUBMITTAL OF REPORTS

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

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

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

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

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single Portable Document Format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
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- Reports must be named and saved using the following naming convention:

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

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
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 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
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 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT A

Site Conceptual Model Requisite Elements

ATTACHMENT A

Site Conceptual Model

The site conceptual model (SCM) is an essential decision-making and communication tool for all interested parties during the site characterization, remediation planning and implementation, and closure process. A SCM is a set of working hypotheses pertaining to all aspects of the contaminant release, including site geology, hydrogeology, release history, residual and dissolved contamination, attenuation mechanisms, pathways to nearby receptors, and likely magnitude of potential impacts to receptors.

The SCM is initially used to characterize the site and identify data gaps. As the investigation proceeds and the data gaps are filled, the working hypotheses are modified, and the overall SCM is refined and strengthened until it is said to be "validated". At this point, the focus of the SCM shifts from site characterization towards remedial technology evaluation and selection, and later remedy optimization, and forms the foundation for developing the most cost-effective corrective action plan to protect existing and potential receptors.

For ease of review, Alameda County Environmental Health (ACEH) requests utilization of tabular formats to (1) highlight the major SCM elements and their associated data gaps which need to be addressed to progress the site to case closure (see Table 1 of attached example), and (2) highlight the identified data gaps and proposed investigation activities (see Table 2 of the attached example). ACEH requests that the tables presenting the SCM elements, data gaps, and proposed investigation activities be updated as appropriate at each stage of the project and submitted with work plans, feasibility studies, corrective action plans, and requests for closures to support proposed work, conclusions, and/or recommendations.

The SCM should incorporate, but is not limited to, the topics listed below. Please support the SCM with the use of large-scaled maps and graphics, tables, and conceptual diagrams to illustrate key points. Please include an extended site map(s) utilizing an aerial photographic base map with sufficient resolution to show the facility, delineation of streets and property boundaries within the adjacent neighborhood, downgradient irrigation wells, and proposed locations of transects, monitoring wells, and soil vapor probes.

- a. Regional and local (on-site and off-site) geology and hydrogeology. Include a discussion of the surface geology (e.g., soil types, soil parameters, outcrops, faulting), subsurface geology (e.g., stratigraphy, continuity, and connectivity), and hydrogeology (e.g., water-bearing zones, hydrologic parameters, impermeable strata). Please include a structural contour map (top of unit) and isopach map for the aquitard that is presumed to separate your release from the deeper aquifer(s), cross sections, soil boring and monitoring well logs and locations, and copies of regional geologic maps.
- b. Analysis of the hydraulic flow system in the vicinity of the site. Include rose diagrams for depicting groundwater gradients. The rose diagram shall be plotted on groundwater elevation contour maps and updated in all future reports submitted for your site. Please address changes due to seasonal precipitation and groundwater pumping, and evaluate the potential interconnection between shallow and deep aquifers. Please include an analysis of vertical hydraulic gradients, and effects of pumping rates on hydraulic head from nearby water supply wells, if appropriate. Include hydraulic head in the different water bearing zones and hydrographs of all monitoring wells.
- c. Release history, including potential source(s) of releases, potential contaminants of concern (COC) associated with each potential release, confirmed source locations, confirmed release locations, and existing delineation of release areas. Address primary leak source(s) (e.g., a tank, sump, pipeline, etc.) and secondary sources (e.g., high-

ATTACHMENT A

Site Conceptual Model (continued)

concentration contaminants in low-permeability lithologic soil units that sustain groundwater or vapor plumes). Include local and regional plan view maps that illustrate the location of sources (former facilities, piping, tanks, etc.).

- d. Plume (soil gas and groundwater) development and dynamics including aging of source(s), phase distribution (NAPL, dissolved, vapor, residual), diving plumes, attenuation mechanisms, migration routes, preferential pathways (geologic and anthropogenic), magnitude of chemicals of concern and spatial and temporal changes in concentrations, and contaminant fate and transport. Please include three-dimensional plume maps for groundwater and two-dimensional soil vapor plume plan view maps to provide an accurate depiction of the contaminant distribution of each COC.
- e. Summary tables of chemical concentrations in different media (i.e., soil, groundwater, and soil vapor). Please include applicable environmental screening levels on all tables. Include graphs of contaminant concentrations versus time.
- f. Current and historic facility structures (e.g., buildings, drain systems, sewer systems, underground utilities, etc.) and physical features including topographical features (e.g., hills, gradients, surface vegetation, or pavement) and surface water features (e.g. routes of drainage ditches, links to water bodies). Please include current and historic site maps.
- g. Current and historic site operations/processes (e.g., parts cleaning, chemical storage areas, manufacturing, etc.).
- h. Other contaminant release sites in the vicinity of the site. Hydrogeologic and contaminant data from those sites may prove helpful in testing certain hypotheses for the SCM. Include a summary of work and technical findings from nearby release sites, including the two adjacent closed LUFT sites, (i.e., Montgomery Ward site and the Quest Laboratory site).
- i. Land uses and exposure scenarios on the facility and adjacent properties. Include beneficial resources (e.g., groundwater classification, wetlands, natural resources, etc.), resource use locations (e.g., water supply wells, surface water intakes), subpopulation types and locations (e.g., schools, hospitals, day care centers, etc.), exposure scenarios (e.g. residential, industrial, recreational, farming), and exposure pathways, and potential threat to sensitive receptors. Include an analysis of the contaminant volatilization from the subsurface to indoor/outdoor air exposure route (i.e., vapor pathway). Please include copies of Sanborn maps and aerial photographs, as appropriate.
- j. Identification and listing of specific data gaps that require further investigation during subsequent phases of work. Proposed activities to investigate and fill data gaps identified.

TABLE 1
INITIAL SITE CONCEPTUAL MODEL

CSM Element	CSM Sub-Element	Description	Data Gap	How to Address
Geology and Hydrogeology	Regional	<p>The site is in the northwest portion of the Livermore Valley, which consists of a structural trough within the Diablo Range and contains the Livermore Valley Groundwater Basin (referred to as "the Basin") (DWR, 2006). Several faults traverse the Basin, which act as barriers to groundwater flow, as evidenced by large differences in water levels between the upgradient and downgradient sides of these faults (DWR, 2006). The Basin is divided into 12 groundwater basins, which are defined by faults and non-water-bearing geologic units (DWR, 1974).</p> <p>The hydrogeology of the Basin consists of a thick sequence of fresh-water-bearing continental deposits from alluvial fans, outwash plains, and lacustrine environments to up to approximately 5,000 feet bgs (DWR, 2006). Three defined fresh-water-bearing geologic units exist within the Basin: Holocene Valley Fill (up to approximately 400 feet bgs in the central portion of the Basin), the Plio-Pleistocene Livermore Formation (generally between approximately 400 and 4,000 feet bgs in the central portion of the Basin), and the Pliocene Tassajara Formation (generally between approximately 250 and 5,000 or more feet bgs) (DWR, 1974). The Valley Fill units in the western portion of the Basin are capped by up to 40 feet of clay (DWR, 2006).</p>	None	NA
	Site	<p>Geology: Borings advanced at the site indicate that subsurface materials consist primarily of finer-grained deposits (clay, sandy clay, silt and sandy silt) with interbedded sand lenses to 20 feet below ground surface (bgs), the approximate depth to which these borings were advanced. The documented lithology for one on-site boring that was logged to approximately 45 feet bgs indicates that beyond approximately 20 feet bgs, fine-grained soils are present to approximately 45 feet bgs. A cone penetrometer technology test indicated the presence of sandier lenses from approximately 45 to 58 feet bgs and even coarser materials (interbedded with finer-grained materials) from approximately 58 feet to 75 feet bgs, the total depth drilled. The lithology documented at the site is similar to that reported at other nearby sites, specifically the Montgomery Ward site (7575 Dublin Boulevard), the Quest laboratory site (6511 Golden Gate Drive), the Shell-branded Service Station site (11989 Dublin Boulevard), and the Chevron site (7007 San Ramon Road).</p> <p>Hydrogeology: Shallow groundwater has been encountered at depths of approximately 9 to 15 feet bgs. The hydraulic gradient and groundwater flow direction have not been specifically evaluated at the site.</p>	<p>As noted, most borings at the site have been advanced to approximately 20 feet bgs, and one boring has been advanced and logged to 45 feet bgs; CPT data was collected to 75 feet bgs at one location. Lithologic data will be obtained from additional borings that will be advanced on site to further the understanding of the subsurface, especially with respect to deeper lithology.</p> <p>The on-site shallow groundwater horizontal gradient has not been confirmed. Additionally, it is not known if there may be a vertical component to the hydraulic gradient.</p>	<p>Two direct push borings and four multi-port wells will be advanced to depth (up to approximately 75 feet bgs) and soil lithology will be logged. See Items 4 and 5 on Table 2.</p> <p>Shallow and deeper groundwater monitoring wells will be installed to provide information on lateral and vertical gradients. See Items 2 and 5 on Table 2.</p>
Surface Water Bodies		The closest surface water bodies are culverted creeks. Martin Canyon Creek flows from a gully west of the site, enters a culvert north of the site, and then bends to the south, passing approximately 1,000 feet east of the site before flowing into the Alamo Canal. Dublin Creek flows from a gully west of the site, enters a culvert approximately 750 feet south of the site, and then joins Martin Canyon Creek approximately 750 feet southeast of the site.	None	NA
Nearby Wells		The State Water Resources Control Board's GeoTracker GAMA website includes information regarding the approximate locations of water supply wells in California. In the vicinity of the site, the closest water supply wells presented on this website are depicted approximately 2 miles southeast of the site; the locations shown are approximate (within 1 mile of actual location for California Department of Public Health supply wells and 0.5 mile for other supply wells). No water-producing wells were identified within 1/4 mile of the site in the well survey conducted for the Quest Laboratory site (6511 Golden Gate Drive; documented in 2009); information documented in a 2005 report for the Chevron site at 7007 San Ramon Road indicates that a water-producing well may exist within 1/2 mile of the site.	A formal well survey is needed to identify water-producing, monitoring, cathodic protection, and dewatering wells.	Obtain data regarding nearby, permitted wells from the California Department of Water Resources and Zone 7 Water Agency (Item 11 on Table 2).

**TABLE 2
DATA GAPS AND PROPOSED INVESTIGATION**

Item	Data Gap	Proposed Investigation	Rationale	Analysis
5	Evaluate the possible presence of impacts to deeper groundwater. Evaluate deeper groundwater concentration trends over time. Obtain data regarding the vertical groundwater gradient. Obtain more lithological data below 20 feet bgs.	Install four continuous multichannel tubing (CMT) groundwater monitoring wells (aka multi-port wells) to approximately 65 feet bgs in the northern parking lot with ports at three depths (monitoring well locations may be adjusted pending results of shallow grab groundwater samples; we will discuss any potential changes with ACEH before proceeding). Groundwater monitoring frequency to be determined. Soil samples will be collected only if there are field indications of impacts. Soil lithology will be logged. However, information regarding the moisture content of soil may not be reliable using sonic drilling technology (two borings will be logged using direct push technology; see Item 4, above).	One well is proposed at the western (upgradient) property boundary to confirm that there are no deeper groundwater impacts from upgradient. Two wells are proposed near the center of the northern parking lot to evaluate potential impacts in an area where deeper impacts, if any, would most likely be found. One well is proposed at the eastern (downgradient) property boundary to confirm that there are no impacts extending off-site. Port depths will be chosen based on the locations of saturated soils (as logged in direct push borings; see Item 4, above), but are expected at approximately 15, 45, and 60 feet bgs.	Groundwater: VOCs by EPA Method 8260, dissolved oxygen, oxidation/reduction potential, temperature, pH, and specific conductance.
6	Evaluate possible off-site migration of impacted soil vapor in the downgradient direction (east). Evaluate concentration trends over time.	Install 4 temporary nested soil vapor probes at approximately 4 and 8 feet bgs along the eastern property boundary. Based on the results of the sampling, two sets of nested probes will be converted to vapor monitoring wells to allow for evaluation of VOC concentration trends over time.	Available data indicate that PCE and TCE are present in soil vapor in the eastern portion of the northern parking lot. Samples are proposed on approximately 50-foot intervals along the eastern property boundary to provide a transect of concentrations through the vapor plume. The depths of 4 and 8 feet bgs are chosen to provide data closest to the source (i.e., groundwater) while avoiding saturated soil, and also provide shallower data to help evaluate potential attenuation within the soil column. Two sets of nested vapor probes will be converted into vapor monitoring wells (by installing well boxes at ground surface); the locations of the permanent wells will be chosen based on the results of samples from the temporary probes.	Soil vapor: VOCs by EPA Method TO-15.
7	Evaluate potential for off-site migration of impacted groundwater in the downgradient direction (east).	Advance two borings to approximately 20 feet bgs in the parking lot of the property east of the Crown site for collection of grab groundwater samples.	Two borings are proposed off-site, on the property east of the Crown site, just east of the building in the expected area of highest potential VOC concentrations.	Groundwater: VOCs by EPA Method 8260, dissolved oxygen, oxidation/reduction potential, temperature, pH, and specific conductance.
8	Evaluate VOC concentrations just north of the highest concentration area.	Advance two borings to approximately 20 feet bgs north of Building A for collection of soil and grab groundwater samples. Soil samples will be collected at two depths in the vadose zone. Soil samples will be collected based on field indications of impacts (PID readings, odor, staining) or, in the absence of field indications of impacts, at 5 and 10 feet bgs.	The highest concentrations of PCE in groundwater were detected at boring NM-B-32, just north of Building A. The nearest available data to the north are approximately 75 feet away. One of the borings will be advanced approximately 20 feet north of NM-B-32 to provide data close to the highest concentration area. A second boring will be advanced approximately halfway between the first boring and former boring NM-B-33 to provide additional spatial data for contouring purposes. These borings will be part of a transect in the highest concentration area.	Groundwater: VOCs by EPA Method 8260, dissolved oxygen, oxidation/reduction potential, temperature, pH, and specific conductance. Soil: VOCs by EPA Method 8260 (soil samples to be collected using field preservation in accordance with EPA Method 5035).
9	Evaluate VOC concentrations in soil vapor in the south parcel of the site.	Install four temporary soil vapor probes at approximately 5 feet bgs around boring SV-25; where PCE was detected in soil vapor at a low concentration.	PCE was detected in soil vapor sample SV-25 in the southern parcel, although was not detected in groundwater in that area. Three probes will be installed approximately 30 feet from of boring SV-25 to attempt to delineate the extent of impacts. A fourth probe is proposed west of the original sample, close to the property boundary and the location of mapped utility lines, which may be a potential conduit, to evaluate potential impacts from the west.	Soil vapor: VOCs by EPA Method TO-15.
10	Obtain additional information regarding subsurface structures and utilities to further evaluate migration pathways and sources.	Ground penetrating radar (GPR) and other utility locating methodologies will be used, as appropriate, to further evaluate the presence of unknown utilities and structures at the site.	Utilities have been identified at the site that include an on-site sewer lateral and drain line, and shallow water, electric, and gas lines. Given the current understanding of the distribution of PCE in groundwater at the site, it is possible that other subsurface utilities, and specifically sewer laterals, exist that may act as a source or migration pathway for distribution of VOCs in the subsurface.	NA

Exhibit C

9/15/14 directive letter



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

September 15, 2014

Mr. Walter Merkle
MCG Investments LLC
123 Estudillo Avenue
San Leandro, CA 94577

Shirley J Davini & Dorothy D McGuire
123 Estudillo Avenue
San Leandro, CA 94577

Mr. Jon Braden
McGrath Steel Company
Address Unknown

Mr. David Davini
Loretta A McGrath Family Trust
Address Unknown

Subject: Request for Feasibility Study / Corrective Action Plan; Fuel Leak Case No. RO0000063; (Global ID # T0600102099); McGrath Steel Company, 6655 Hollis Street, Emeryville, CA 94608

Dear Messrs. Merkle and Braden, and Mses. Davini and McGuire:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site including the *Indoor Air Quality Monitoring Report*, dated July 18, 2014, and the *Second Quarter 2014 Groundwater Monitoring*, dated July 21, 2014. Both reports were prepared and submitted on your behalf by AllWest Environmental, Inc. (AllWest). Thank you for submitting the reports.

The *Indoor Air Quality Monitoring Report* found that concentrations of benzene, naphthalene, and carbon tetrachloride exceeded commercial indoor air Environmental Screening Levels (ESLs), which are generally considered safe, that were promulgated by the San Francisco Bay Regional Water Quality Control Board (RWQCB). The report also noted that the indoor air sample collected in closest proximity to the former UST location did not yield concentrations of benzene and naphthalene above indoor air ESLs, and concluded that other site vicinity sources may have contributed to the results. Additionally, carbon tetrachloride is not a contaminant of concern at the site (is not known to have been sourced from the site).

Based on the review of the case file and the referenced report ACEH requests that you address the following technical comments and send us the documents requested below.

TECHNICAL COMMENTS

1. Focused Site Conceptual Model and Data Gap Investigation Work Plan and Meeting Dates –

Please prepare a Data Gap Investigation Work Plan to address the technical comments discussed in our November 8, 2013 directive letter (attached). Please support the scope of work in the Data Gap Investigation Work Plan with a focused SCM and Data Quality Objectives (DQOs) that relate the data collection to each LTCP criteria. For example please clarify which scenario within each Media-Specific Criteria a sampling strategy is intended to apply to.

Prior to submitting the work plan and SCM, ACEH would like to invite you to meeting in order to discuss the site and to resolve any questions that may arise. This is expected to expedite review of the final work plan and SCM submittal. ACEH requests notification of suitable dates and times for the meeting by the date identified below.

- 2. Semi-Annual Groundwater Monitoring –** Please convert groundwater monitoring of all site vicinity wells to a semi-annual basis, and continue analytical analysis for all chemicals of concern at the site. Please sample groundwater in the months of August and February of each year until otherwise arranged. Please include a table reporting the total volume of free-phase and groundwater removed during each

servicing of the free-phase passive skimmer (past and future) in these groundwater monitoring reports. Please submit semi-annual reports by the dates identified below.

TECHNICAL REPORT REQUEST

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

- **October 3, 2014** – Notification of Meeting Dates
File to be named: RO63_CORRES_L_yyyy-mm-dd
- **December 5, 2014** – Data Gap Investigation Plan and Focused Site Conceptual Model
File to be named: RO63_WP_SCM_R_yyyy-mm-dd
- **April 24, 2015** – Semi-Annual Groundwater Monitoring Report
File to be named: RO63_GWM_R_yyyy-mm-dd
- **60 Days After Work Plan Approval** – Soil and Groundwater Investigation Report
File to be named: RO63_SWI_R_yyyy-mm-dd
- **October 23, 2015** – Semi-Annual Groundwater Monitoring Report
File to be named: RO63_GWM_R_yyyy-mm-dd

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

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

If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,



Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou,
email, c=US
Date: 2014.09.15 16:43:01 -07'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations and
Electronic Report Upload (ftp) Instructions

cc: Leonard Niles, AllWest Environmental, Inc, 530 Howard Street, Suite 300, San Francisco, CA 94105; (sent via electronic mail to: leonard@allwest1.com)

Dilan Roe, ACEH, (sent via electronic mail to: dilan.roe@acgov.org)
Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)
Electronic File, GeoTracker

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	REVISION DATE: May 15, 2014
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
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 - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses,** and the **Case Numbers (RO# available in Geotracker) you will be posting for.**
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