ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
REBECCA GEBHART, Acting Director

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May 12, 2016

Dr. Brian Sheaff
William G. Sheaff & Patricia Warren Restated Living Trust U/D/T 2/14/89
1945 Parkside Drive
Concord, CA 94519
(sent via e-mail: drsheaff@pacbell.net)

Subject: Request for Data Gap Work Plan; Fuel Leak Case No. RO0000377 and Geotracker Global ID T0600102112, Sheaffs Service Garage, 5930 College Avenue, Oakland, CA 94618

Dear Dr. Brian Sheaff:

Alameda County Department of Environmental Health (ACDEH) staff has reviewed the case file including the *Data Gap Investigation Report*, dated March 15, 2016. The report was prepared and submitted on your behalf by Golden Gate Environmental, Inc (GGEI). Thank you for submitting the report. The data collected has helped resolve questions regarding the site with respect to the State Water Board's Low Threat Closure Policy (LTCP).

ACDEH has evaluated the data and recommendations presented in the above referenced report, in conjunction with the case files, to determine if the site is eligible for closure as a low risk site under the LTCP. Based on ACDEH staff review, we have determined that the site now additionally meets most General Criteria, including the LTCP General Criteria b, (petroleum only release), e (Site Conceptual Model), f (Secondary Source Removal), as well as the Media-Specific Criteria for Vapor Intrusion to Indoor Air and the Media-Specific Criteria for Direct Contact. In ACDEHs review, the site does not meet the LTCP General Criteria d (Free Product), or the Media-Specific Criteria for Groundwater (see Geotracker for a copy of the LTCP review, and below for further details).

Please be aware that while ACDEH has found that the release consisted of petroleum only, one of the remaining concerns at the site includes the presence of tetrachloroethene (PCE) in soil vapor, and PCE and its degradation products including Trichloroethene (TCE), cis-1,2-Dichloroethene (cis-1,2-DCE), and sporadically vinyl chloride (VC) in groundwater beneath the site. This contaminant does not appear to be associated with the petroleum release and may require the opening of a separate non-UST funded case to manage the investigation and potential cleanup of this contamination. ACDEH understands that an offsite source for the PCE may be present upgradient of the site; however, ACDEH notes that an onsite source may also be present, and additional work is necessary to confirm these potential conditions (see below for more details).

At this juncture ACDEH 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. Prior to submitting the work plan, ACDEH would like to invite you to a meeting to discuss the site and strategize about the most efficient path towards closure. ACDEH requests notification of suitable dates and times for the meeting by the date listed below.

TECHNICAL COMMENTS

1. **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 insufficient data collection and analysis has been presented to support the requisite characteristics of plume stability or plume classification as follows:

a. Groundwater Plume Length – Based on the rose diagram (Figure 4) in the referenced report, groundwater flow direction at the site appears to be bi-directional, either to the west to northwest and to the south to southeast, and appears to include a somewhat prominent gap between these two flow directions. It has been presumed that these flow directions are influenced at times by groundwater flow associated with utilities in College Avenue, presumably including the 90-inch Harwood Creek storm water cutoff conduit located beneath the street.

Based on the lack of success in collecting groundwater on the west side of College Avenue after two attempts, it appears that groundwater flow, including the groundwater plume, to the west may be limited by the 90-inch storm water conduit. Alternatively, grab groundwater analytical data collected from soil bore CB-1 in June 1999 at the Dryers Grand Ice Cream site (RO0000153 or T0600100466; 5929 College Avenue, Oakland, CA 94618), is cited as providing an estimate on the length of the groundwater plume from the subject site. This grab groundwater sample detected 550 micrograms per liter [µg/l] Total Petroleum Hydrocarbons as diesel [TPHd], <0.5 µg/l benzene, toluene, ethylbenzene, and total xylenes, and <5.0 methyl tert butyl either (MTBE). Bore CB-1 is considered upgradient of the Dryers Grand Ice Cream release, but is cited to be downgradient of the subject site.

Conversely, the length of the groundwater plume to the southeast has not been defined; however, sensitive receptors, including basement or other dewatering facilities that can intercept groundwater and potentially discharge it to surface conveyance (curb and storm drain conduits) have been sought, as they have to the west to northwest. A subsurface parking garage was located approximately 460 to 570 feet south of the site; however, the Harwood Creek Underground Culvert is located approximately 250 feet south of the site and may also provide a level of protection to this underground structure.

Evident staining and hydrocarbon odors observed in soil bore SB31 in November 2015 documents that the hydrocarbon release traveled to the south to southeast of the former UST locations, as does the grab groundwater sample collected at soil bore B3 in May 1998. The grab groundwater was first encountered at a depth of approximately 6.5 feet below grade surface (bgs), and contained 1,000,000 µg/l TPHg, 7,000 µg/l Total Extractable Petroleum Hydrocarbons (TEPH), 17,000 µg/l benzene, 20,000 µg/l ethylbenzene, 18,000 µg/l MTBE, among other fuel contaminants. The LTCP *Technical Justification for Vapor Intrusion Media-Specific Criteria* (March 2012) states that these concentrations are indicative of Light Non-Aqueous Phase Liquids (LNAPL).

While ACDEH expects these concentrations to have undergone a reduction in the intervening years, as can be seen by proxy in well MW-1 which underwent an order of magnitude reduction between June 1998 and November 2015 (160,000 µg/l to 14,000 µg/l TPHg and 28,000 µg/l to 3,900 µg/l benzene), concentrations in grab groundwater sample B3 were an order of magnitude above the highest concentrations seen in MW-1 and represent a location downgradient from the former USTs rather than upgradient as at MW-1. Thus it appears appropriate to determine the magnitude of the reduction in order to determine if LNAPL extends offsite beneath the adjacent apartment building (not acceptable within the LTCP criteria), and to determine if corrective action is necessary to preclude this.

Please present a strategy in the Data Gap Work Plan requested below in Technical Comment 4 to address this item. Alternatively, please provide justification of why the site satisfies the Media-Specific Criteria for Groundwater in the focused SCM described in Technical Comment 4 below.

2. Tetrachloroethene and Daughter Compound Contamination – The referenced site investigation documented PCE contamination in soil vapor and in groundwater at the site, and concluded that an offsite location may be the source of the contamination. ACDEH is similarly aware of the reported former (?) presence of a waste oil UST at the former Chevron Service Station (Chevron #20-9339 / College Square, 5940 College Avenue, RO0000464, T06019752694). ACDEH is in general agreement that the highest PCE contamination detected in soil vapor during the current site work is

proximal to the northern property line. ACDEH observes that two lines of evidence suggest the PCE contamination may be either proximal to the subject site, or potentially associated with the subject site. This includes the detection of only PCE in soil vapor at the site, and not daughter breakdown products, suggesting a very nearby source area in soil; either on- or offsite. Secondly, the detection of PCE, and related daughter breakdown products in groundwater and grab groundwater at generally decreasing concentrations towards the south and west.

Therefore, please present a strategy in the Data Gap Work Plan requested below in Technical Comment 4 to collect sufficient data to isolate the source area and to define the extent of PCE, and related contamination onsite. This is expected to include both vapor and groundwater analytical data.

3. **Groundwater Monitoring –** Please continue to conduct semi-annual groundwater monitoring events at the site and submit reports in accordance with the schedule below. Please continue to include analysis for naphthalene and TPHd; however, PAHs and TPHmo can be removed from the analytical suite in future groundwater monitoring events. In order to help resolve the source area of the PCE contamination, please collect samples for the analysis for PCE and its daughter products from all wells. If chlorinated solvent analytical data has previously been collected from site wells other than PW-1, please tabulate and include the data in future reports. Please collect groundwater samples from wells MW-1 and MW-2 and conduct analysis for TPHd with and without Silica Gel Cleanup (SGC) in an attempt to determine the extent of natural biodegradation of the extractable-ranged hydrocarbons. This is consistent with the San Francisco Bay Regional Water Quality Control Board (RWQCB) recommendations for SGC. The need for continued analysis of these contaminants should be evaluated further thereafter.

   ACDEH additionally requests the generation of a groundwater hydrograph plotting depth to water and groundwater concentrations versus time to help illustrate concentration stability of groundwater. It appears that significant concentration changes are present during periods of time with higher groundwater levels.

4. **Data Gap Investigation Work Plan and Focused Site Conceptual Model –** Please prepare 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, ACDEH 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 sequence activities in the proposed revised data gap investigation scope of work to enable efficient data collection in the fewest mobilizations possible.

TECHNICAL REPORT REQUEST

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

- **July 29, 2016** – Data Gap Work Plan
  (File to be named: RO377_WP_R_yyyy-mm-dd)

- **July 29, 2016** – First 2016 Semi-Annual Groundwater Monitoring Event (can be combined with above report); (File to be named: RO377_GWM_R_yyyy-mm-dd)

- **60 Days After Work Plan Approval** – Site Investigation
  (File to be named: RO377_SWI_R_yyyy-mm-dd)

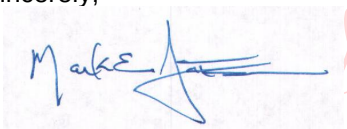
- **January 27, 2017** – Second 2016 Semi-Annual Groundwater Monitoring Event;
  (File to be named: RO377_GWM_R_yyyy-mm-dd)

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.

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,



Mark Detterman, P.G., C.E.G.
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 - Responsible Party(ies) Legal Requirements/Obligations &
ACDEH Electronic Report Upload (ftp) Instructions

cc: John Accacian, 5930 College Avenue, Oakland, CA 94618 (sent via electronic mail: jjracingaol@yahoo.com)

Brent Wheeler, Golden Gate Environmental, Inc, 1455 Yosemite Avenue, San Francisco, CA 94124 (sent via electronic mail: b.wheeler@ggtr.com)

Mark Youngkin, Golden Gate Environmental, Inc, 1455 Yosemite Avenue, San Francisco, CA 94124 (sent via electronic mail to: geomark@sbcglobal.net)

Dilan Roe, ACDEH, (sent via electronic mail to dilan.roe@acgov.org)
Mark Detterman, ACDEH, (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**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

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

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to 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.