



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
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April 5, 2013

Ms. Mary K. Wright (*Sent via e-mail to: ksaveourkids@aol.com*)
Heirs of Mary L. Wright Estate
1829 9th Avenue
Oakland, CA 94606-3019

Subject: Request for Work Plan Addendum; for Fuel Leak Case No. RO0003077 and GeoTracker
Global ID T10000003190, F&M Auto Service/Gas Station, 1839 Foothill Boulevard,
Oakland, CA 94606

Dear Ms. Wright:

Alameda County Environmental Health Department (ACEH) staff has reviewed the case file, including the *Site Conceptual Model and Data Gap Work Plan* (Work Plan) dated November 19, 2012 (submitted to ACEH on January 3, 2013) and the *Fourth Quarter 2012 Groundwater Monitoring and Sampling Report* dated January 16, 2013 submitted on your behalf by Sierra West Consultants, Inc (Sierra West). Thank you for submitting the reports to ACEH, claiming the site and uploading the reports to Geotracker.

ACEH has evaluated the data and recommendations presented in the above-mentioned reports in conjunction with the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP) criteria. Based on ACEH's staff review of the Work Plan we request that you submit a Work Plan Addendum addressing the technical comments provided below, perform the field investigation work, and submit an updated Site Conceptual Model (SCM) and Soil, Groundwater and Soil Vapor Investigation Report in accordance with the schedule presented in the Technical Report Request Section of this letter.

TECHNICAL COMMENTS

1) Monitoring Well Installation - The Work Plan proposes the installation of three off-site monitoring wells to a proposed depth of 22 feet along 19th Avenue located to the south and southeast of the site to assess potential groundwater impacts downgradient of the source. ACEH is in general agreement with the installation and the proposed depths of monitoring wells along 19th Avenue, however, we request the following modifications to the approach:

- a. Monitoring Well Locations** - The groundwater gradient direction appears to fluctuate from due south to the south west. Based on groundwater observations during on-site well installation, Sierra West concludes that the aquifer beneath the site is under semi-confined/confined conditions. Based on our review of the boring logs and cross-sections presented in the SCM, ACEH concurs that the existing on-site monitoring wells appear to be screened in confined water-bearing zones at approximately 20 feet below ground surface (bgs). However, based on the site lithology presented in the Work Plan ACEH is concerned that the dry winter conditions at the time of well installation may have decreased the

possibility of encountering shallow groundwater in the perched zones or buried stream channels, therefore overlooking the true first water-bearing zone.

In order to increase the likelihood that the downgradient dissolved-phase contaminant plume is quickly delineated and to optimize off-site monitoring well locations and screen intervals, ACEH requests the installation of the following soil bore transects prior to the installation of off-site wells:

- i. A transect along the northwest side of 19th Avenue with bore spacing of 15-30 feet;
- ii. A transect starting at the intersection of 19th Avenue and Gleason Way and continuing approximately 100 feet to the northwest along Gleason Way;
- iii. A transect along the southeast side of 19th Avenue with a bore spacing of 15-30 feet to confirm whether or not the eight-foot deep sanitary sewer pipeline located along 19th Avenue approximately 10 feet downgradient of UST #1 has acted as a potential conduit for off-site contaminant migration during perched water or high water table conditions.

ACEH requests the submittal of a revised Figure 14 in the Work Plan Addendum described in Technical Comment 6 below to document the transects and bore placement.

- b. Monitoring Well Screen Intervals** – The Work Plan indicates that the screened intervals of the proposed monitoring wells will be five to eight feet in addition to two feet of sand pack, making a total of seven to ten feet of permeable interval, and will be situated such that a portion of the screen extends above static groundwater. ACEH recommends the use of monitoring wells designed such that the screen interval plus the sand pack length will total 5 feet or less. This request is based on technical literature that has determined that shorter screen intervals are more likely to provide representative groundwater samples.

Please submit a revised strategy in the Work Plan Addendum with proposed locations and screen intervals based on the results of the boring transects. The proposed strategy should minimize the screen length at each well location to the extent possible, with well screens minimally longer than the water-bearing zone, including any capillary fringe zone. If a well intersects multiple water bearing units, then well clusters or multilevel wells (similar to Continuous Multi-Phase Tubing [CMT]) should be proposed. If groundwater is not encountered above the previously identified confined/semiconfined conditions in shallow permeable units, then please present your strategy for evaluating groundwater conditions during the wet season, including, but not limited to installation of temporary wells, etc.

- c. Transect and Monitoring Well Soil Sample Selection Protocols** – The Work Plan proposes to collect approximately two to three soil samples in each groundwater monitoring well at predetermined depth intervals of five feet. This proposed protocol should also be used for collection of soil samples in each of the transects. ACEH requests that additional soil samples be collected, and submitted for analysis, at signs of contamination (odor, discoloration, photoionization detector (PID) responses, etc.), at significant changes in lithology, and first indications of groundwater.

- d. Transect and Monitoring Well Soil and Groundwater Analyses:** Sierra West proposes to analyze at least two samples per boring for total petroleum hydrocarbons (TPH) as

diesel (TPH-d) by Environmental Protection Agency (EPA) Method 8015M; TPH as gasoline (TPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary-butyl ether (MTBE), diisopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and tertiary butyl alcohol (TBA) by EPA Method 8260B; and total lead by EPA Method 6010B. In addition to the analytes proposed in the Work Plan, ACEH requests that all selected soil and groundwater samples be analyzed by EPA Method 8260B/C for naphthalene, ethylene dibromide (EDB), ethylene dichloride (EDC), TPH-d by EPA 8015B with silica gel cleanup; polycyclic aromatic hydrocarbons (PAHs) by EPA 8270 SIM; and organic lead by GC-ECD.

- 2) LTCP Direct Contact and Outdoor Air Media-Specific Criteria Sampling Requirements** – The LTCP provides maximum concentrations of petroleum constituents in shallow soil that enable a site qualify as a low threat to human health with respect to direct contact with contaminated soil or inhalation of contaminants volatilized to outdoor air. Due to the shallow depths of the tank pits and releases to shallow soils at the site, ACEH requests sample collection within the 0-5 feet bgs and 5-10 feet bgs intervals in source areas. In accordance with the LTCP, samples should be analyzed for benzene, ethyl benzene, naphthalene, and PAHs.

Please submit a sampling strategy in the Work Plan Addendum with proposed locations, depths, and number of soil samples required to fulfill the LTCP criteria. To document the locations of your additional proposed soil sample locations, ACEH requests the submittal of a revised Figure 16 in the Work Plan Addendum.

- 3) Soil Vapor Sampling** – The Work Plan proposes ten temporary soil vapor well borings to assess constituent concentrations in shallow soil and in soil vapor, and evaluate inhalation risks to soil vapor. Proposed soil locations were selected using a grid geometry overlying the property and former site structures. The proposed sampling strategy in the Work Plan is not supported by Data Quality Objectives (DQOs) that relate to the collection of data required to satisfy the LTCP criteria, which, if met, will assure that exposure to petroleum vapors in indoor air will not pose unacceptable health risks to occupants in existing and/or future buildings.

Please clarify which scenario (i.e., 1 through 4) of the LTCP Vapor Intrusion to Indoor Air Media-Specific Criteria the sampling strategy applies to. If the sampling strategy includes data collection to support site development, a description of that development should be included in the Work Plan Addendum to support your sampling strategy so that ACEH can verify the appropriateness of the proposed sample locations. If your strategy is intended to assess vapor intrusion in adjacent buildings, then your sample locations should be placed appropriately according to the LTCP criteria (i.e., next to building foundations).

Please provide a revised soil vapor sampling strategy that is consistent with the LTCP criteria and include any supporting documentation for future development, if planned. Please note ACEH requires permanent vapor well installation to assess temporal and seasonal variations in soil gas concentrations. Please present the revised soil vapor sampling strategy in the Work Plan Addendum. Please 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).

- 4) Environmental Screening Limits (ESLs)** – Tables 3, 4, 5, and 6 of the Work Plan reference the ESLs from Table B from the San Francisco Regional Water Quality Control Board Water Quality Control Plan (Basin Plan), dated January 18, 2007. Please note that all groundwater in the City

of Oakland which is located in the East Bay Plain Groundwater Basin is classified as 'MUN' (potentially suitable for municipal or domestic water supply). According to the Basin Plan 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 occurs 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 must be considered beneficial for these uses unless shown to be non-beneficial using criteria presented in the Basin Plan. Additionally, since the ESLs were updated in March 2013, please revise Tables 3, 4, 5, and 6 to reflect the updated ESLs listed for potentially suitable for municipal or domestic water supply and or the appropriate LTCP criteria for groundwater as applicable.

- 5) Modifications to Quarterly Groundwater Monitoring Program** – ACEH concurs with the three requested changes to the quarterly groundwater monitoring program for the existing on-site wells with the following exceptions:
- a. Due to the elevated TPH-g, TPH-d, BTEX, fuel oxygenates, and lead concentrations in MW-1 and MW-2, please continue analysis of groundwater samples for all oxygenates and lead in MW-1 and MW-2; however, if the detection levels can be lowered to the updated ESLs in the future, the oxygenates and lead analyses may qualify for discontinuation.
 - b. Please discontinue the waste oil analyses for MW-3 samples;
 - c. Based on the completion of four quarters of groundwater monitoring and sampling, ACEH requests initiation of semi-annual groundwater sampling (2nd and 4th quarters) with the March 2013 event designated as the 2nd quarter event;
 - d. According to the Sampling Information Sheet in Attachment A, sheen was observed in MW-1 during the Fourth Quarter 2012 event. ACEH requests including in the report text of future semi-annual reports a discussion of the observation of sheen/free-product in context to the semi-confined/confined conditions described in the SCM. Please include a free product/sheen thickness column to Table 1, Groundwater Elevation and Analytical Results.
 - e. Please include with the semi-annual groundwater monitoring and sampling reports rose diagrams and groundwater hydrographs versus contaminant concentrations for all monitoring wells.
- 6) Work Plan Addendum** – Please address the technical comments described in items 1 through 5 above. Please utilize ACEH's Data Gap Identification Tool (DGIT) in developing a strategy that focuses data collection efforts on the LTCP criteria and an efficient path to site closure. ACEH will provide the DGIT as a PDF form via e-mail. Please sequence activities to enable data collection in the fewest mobilizations possible (i.e., use of Cone Penetrometer Testing (CPT) for bore transects). ACEH will expedite review of the CPT logs or other data form to facilitate monitoring well installation in the same mobilization. Please provide 72-hour advance written notification to this office (e-mail preferred to: karel.detterman@acgov.org) prior to the start of field activities.

Please also include a quarterly monitoring plan for the newly installed wells with a proposed analytical suite based on previous site characterization data.

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TECHNICAL REPORT REQUEST

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

- **May 3, 2013** – Work Plan Addendum
File to be named: WP_ADDEN_R_yyyy-mm-dd_RO3077
- **September 6, 2013** – Updated SCM and Soil, Soil Gas, and Groundwater Investigation Report
File to be named: SCM_SWI_R_yyyy-mm-dd_RO3077

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.

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please send me an e-mail message at karel.detterman@acgov.org or call me at (510) 567-6708.

Sincerely,



Karel Detterman, PG
Hazardous Materials Specialist

Enclosures: Responsible Party(ies) Legal Requirements/Obligations
ACEH Electronic Report Upload (ftp) Instructions

cc: Leroy Griffin (Sent via e-mail to lgriffin@oaklandnet.com)

Marisa Rodarte, Orphan Site Cleanup Fund, State Water Resources Control Board, Division of Financial Assistance Special Program Units (Sent via e-mail to mrodarte@waterboards.ca.gov)

Jeff Bensch, Sierra West Consultants, Inc. (Sent via e-mail to: jbensch@sierra-west.net)

Donna Drogos, ACEH (Sent via E-mail to: donna.drogos@acgov.org)
Karel Detterman, ACEH (Sent via E-mail to: karel.detterman@acgov.org)
GeoTracker, Electronic Case File

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.**
- **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 .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 <://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 .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.