

ALAMEDA COUNTY  
**HEALTH CARE SERVICES**  
AGENCY

REBECCA GEBHART, Interim Director



DEPARTMENT OF ENVIRONMENTAL HEALTH  
LOCAL OVERSIGHT PROGRAM (LOP)  
For Hazardous Materials Releases  
1131 HARBOR BAY PARKWAY, SUITE 250  
ALAMEDA, CA 94502  
(510) 567-6700  
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March 17, 2017

Ms. Carryl MacLeod  
Chevron Environmental  
Management Company  
6001 Bollinger Canyon Road  
San Ramon, CA 94583  
(Sent via electronic mail to:  
[CMacleod@chevron.com](mailto:CMacleod@chevron.com))

Mr. Onsori Ardavan  
37 Victoria Drive  
Atherton, CA 94027-4122  
(Sent via electronic mail to:  
[dmbasmatirice@yahoo.com](mailto:dmbasmatirice@yahoo.com))

Frances & Louis Carnazzo  
Carnazzo Land Co, Inc, et al.  
P.O. Box 6031  
Atascadero, CA 93423-6031

Ahmad & Shahla Mostofi  
37 Victoria Drive  
Atherton, CA 94027-4122

Subject: Request for Closure response and Request for Stakeholder Meeting; Fuel Leak Case No. RO0000185 (Global ID #T0600102298), Chevron #9-7127, I 580 and Grant Line Road, Tracy, CA

Dear Ladies and Gentlemen:

Alameda County Department of Environmental Health (ACDEH) staff has reviewed the case file for the referenced site including the *Corrective Action Plan Addendum*, dated January 20, 2017. The report was prepared and submitted on your behalf by Stantec Consulting Services, Inc (Stantec). Thank you for submitting the Corrective Action Plan (CAP) Addendum.

Pilot tests completed for the CAP Addendum found that Dual Phase Extraction (DPE) was not a viable method of corrective action due to the significant recharge capability of the water-bearing zone and the lack of infrastructure for disposal of the extracted groundwater at the site. The CAP Addendum also found that Air Sparging / Soil vapor Extraction (AS/SVE) is a viable corrective action method and the pilot test extracted substantial vapor phase hydrocarbons. Over the course of the pilot test Total Petroleum Hydrocarbons as gasoline (TPHg) was extracted at an average 720 pounds per day (lbs/day) and benzene was extracted at an average of 10.18 lbs/day. Instrument readings indicated the Lower Explosive Level (LEL) was 100% in piezometer PZ-1. It was also determined that the pilot test wells had an approximately 50-foot Radius-of-Influence (ROI; at 1% applied vacuum), but that influences up to 79 feet were documented in multiple wells.

The CAP Addendum evaluated AS/SVE over a 24 month period, and limited Light Non Aqueous Phased Liquid (LNAPL) removal with monitoring of Natural Source Zone Depletion (NSZD) over a 25 year period and found the NSZD option to be the least expensive option.

The CAP Addendum also evaluated the site against the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP), and found that it met all General and Media Specific Criteria, and recommended closure under the Policy.

ACDEH has evaluated the data and recommendations presented in the above-mentioned reports, 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 fails to meet the LTCP General Criteria d (Free Product Removed to the Extent Practicable) and the Media-Specific Criteria for Groundwater. Consistent with SWRCB vacant land determinations, ACDEH is in agreement that the site meets the Media-Specific Criteria for Vapor Intrusion to Indoor Air due to the lack of a building and thus a defined indoor air space.

At this juncture ACDEH requests a stakeholder meeting to address the site, Technical Comments provided below, and the status of the site redevelopment, which appears to be stalled.

## **TECHNICAL COMMENTS**

- 1) **LTCP General Criteria d (Free Product)** – The LTCP requires free product 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.

ACDEH's review of the case files indicates that insufficient data and analysis has been presented to assess free product migration at the site. Consistent with the SWRCB's *Technical Justification for Groundwater Media-Specific Criteria* (April 24, 2012), ACDEH categorizes LNAPL at the site to be at a minimum mobile, and likely migrating, based on site field data. Mobility of the LNAPL is supported by the referenced CAP Addendum and re-infiltration into well MW-1 after the pilot test (1.78 feet LNAPL pre-test, to 0.02 feet post-test, to 1.13 feet at 26 days after the pilot test), and piezometer PZ-1 (1.73 feet pre-test, 2.77 feet post-test, and 1.74 feet at 26 days).

Support for the migration of LNAPL at the site also is present as demonstrated by data from multiple wells, including well MW-3. As documented by groundwater monitoring data, LNAPL was not present in the well for approximately 18 years, between December 1992 and November 2008. The migration of LNAPL to the well was first documented with the presence of 0.72 feet LNAPL in May 2009, and LNAPL was present until approximately December 2014. Since December 2014, LNAPL has greatly diminished, and appears to have migrated away from well MW-3. Regardless, the migration of LNAPL appears to be likely based on field data, and the release spread into previously uncontaminated zones such as MW-3.

Similar observations relative to LNAPL migration appear to be present at wells MW-10 and MW-11. Well MW-11 most recently contained 1.59 feet of LNAPL in October 2016, but which in May 2015 contained only 0.05 feet of LNAPL, and previous to that up to 1.26 feet of LNAPL. The initial migration of LNAPL to well MW-11 is also documented by field data, as the well was free of measurable LNAPL for approximately 1.5 years. Migration of LNAPL to well MW-10 is also documented by approximately one year without LNAPL prior to its initial appearance. Thus there appears to be substantial documentation of the migration of LNAPL at the site.

ACDEH also notes that the recent groundwater contour map for October 2016 indicates a low groundwater divide between well MW-3 and well MW-13. The low appears to extend back through well MW-15 to MW-1, both of which have either significant dissolved concentration in groundwater or liquid LNAPL. With groundwater flow directed towards the north to northeast, it appears that LNAPL migration can bypass well MW-13, and may thus approach or extend offsite past the property line. ACDEH recognizes the contour map is a snapshot in time; however, the data appear to illuminate why well MW-13 has remained free of LNAPL with relatively low hydrocarbon concentrations. Similarly, at wells MW-10 and MW-11 the extent that LNAPL may encroach on, or extend past, the property lines and offsite has not been demonstrated.

Please present a strategy in a Data Gap Work Plan (described in Technical Comment 4 below) to address the items discussed above.

2. **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. **Length of Groundwater Plume** – in the view of ACDEH the groundwater plume appears to be less than 250 feet in length; however, with the undefined extent of LNAPL, and thus of the

dissolved-phase plume, to the northeast of the release, likely indicates that it should be classified to be less than 1,000 feet in length.

- b. Removal of LNAPL to Extent Practicable** – In ACDEHs view, LNAPL removal has not been implemented. LNAPL has not been removed from the site except during very limited hand bailing, ORC sock and absorbent sock installation, and pilot testing, and the LNAPL is at least mobile, and likely migrating based on site data. Significant rain, similar to the current year's rain year, is likely to provide additional driving head for LNAPL migration, including to offsite areas. ACDEH recognizes that the property is remote and lacks public infrastructure, including power, water, and sewerage; however, the application of green technologies, including solar power may provide options.
- c. Extent of LNAPL** – In ACDEHs view, the extent of LNAPL relative to multiple property boundaries has not been established, and may extend offsite.
- d. Nearest Water Supply Well** – Four ranch water supply wells are stated to be within 2,000 feet of the site, three of which are approximately 1,000 feet upgradient of the site to the west-southwest, while the fourth is a domestic water supply well to the south at the immediately adjacent site at an undetermined distance. Third party sources have reported the well is "proximal" to the subject site. ACDEH thus cannot determine if this well is within 1,000 feet of the site, or if site contamination, including LNAPL, has the potential to contaminate this domestic supply well.
- e. Property Owner Willing To Accept Land Use Restriction** – ACDEH has not been informed that the current property owner is willing to accept a land use restriction. ACDEH recognizes that the proposed, but apparently stalled redevelopment, is for a service station and convenience store, and that a land use restriction might be needed should the redevelopment proceed. However, because of the need for a water supply well to be installed on the site for the proposed redevelopment, and the need for large scale septic discharge for the redevelopment's waste water system, the property owner may at this time be unwilling to accept a land use restriction if substantial LNAPL remains beneath the property at closure. The presence of a large scale septic discharge to the land surface may also provide sufficient additional driving head for LNAPL migration.

Please present a strategy in a Data Gap Work Plan (described in Technical Comment 4 below) to address the items discussed above.

- 3. Request For Stakeholder Meeting** – As previously planned for an extended period of time, upon the submittal of the CAP Addendum a stakeholder meeting has been required by ACDEH to discuss site complications and the redevelopment status. By the date identified below, please notify ACDEH of three available dates and times in which to meet in this office. These will be reviewed for our ability to meet; alternative dates may be proposed.
- 4. Data Gap Investigation Work Plan and Focused Site Conceptual Model** – Pending discussions at the stakeholder meeting, at a minimum it appears appropriate to request the submittal of a Data Gap Investigation Work Plan to address the technical comments discussed above, modifications as discussed in the meeting, as well as others that may develop at the meeting.

At that time of its submittal, please support the scope of work in the Data Gap Investigation Work Plan with a focused Site Conceptual Model (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.

### **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 Attachment 1 and the specified file naming convention below, according to the following schedule:

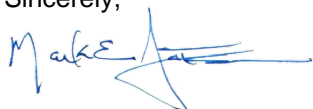
- **April 7, 2017 – Identification of Stakeholder Meeting Dates**
- **May 12, 2016 – First Quarter 2017 Semi-Annual Groundwater Monitoring and Sampling**  
File to be named: RO185\_GWM\_R\_YYYY-mm-dd
- **60 Days After Stakeholder Meeting – Data Gap Work Plan**  
File to be named: RO185\_WP\_R\_YYYY-mm-dd
- **December 15, 2017 – Second Quarter 2017 Semi-Annual Groundwater Monitoring and Sampling**  
File to be named: RO185\_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.

If your email address is not listed on the first page of this letter, ACDEH is requesting your email address to help expedite communications and to help lower overall costs. Please provide that information in the next submittal.

Should you have any questions, please contact me at (510) 567--6876 or send me an electronic mail message at [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org).

Sincerely,



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: Travis Flora, Stantec Consulting Services, Inc, 15575 Los Gatos Blvd, Bldg C, Los Gatos, CA 95032 (Sent via electronic mail to: [Travis.Flora@Stantec.com](mailto:Travis.Flora@Stantec.com))

Vera Fischer, Central Valley Regional Water Quality Control Board, 11020 Sun Center Drive #200, Rancho Cordova, CA 95670-6114, (sent via electronic mail to: [vera.fischer@waterboards.ca.gov](mailto:vera.fischer@waterboards.ca.gov))

Dilan Roe, ACDEH, (Sent via electronic mail to: [dilan.roe@acgov.org](mailto:dilan.roe@acgov.org))

Paresh Khatri, ACDEH; (Sent via electronic mail to: [paresh.khatri@acgov.org](mailto:paresh.khatri@acgov.org))

Mark Detterman, ACDEH, (Sent via electronic mail to: [mark.detterman@acgov.org](mailto: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

Alameda County Department of Environmental Health's (ACDEH) Environmental Cleanup Oversight Programs, Local Oversight Program (LOP) and Site Cleanup Program (SCP) 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 File Transfer Protocol (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 SCP 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 ([http://www.waterboards.ca.gov/water\\_issues/programs/ust/electronic\\_submittal/](http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)) for more information on these requirements.

#### ACKNOWLEDGEMENT STATEMENT

All work plans, technical reports, or technical documents submitted to ACDEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the SWRCB's GeoTracker website." 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 6731, 6735, and 7835) 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 licensed 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 case meet this requirement. Additional information is available on the Board of Professional Engineers, Land Surveyors, and Geologists website at: <http://www.bpelsg.ca.gov/laws/index.shtml>.

#### 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.

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)</b>	<b>REVISION DATE:</b> December 1, 2016
	<b>ISSUE DATE:</b> July 5, 2005
	<b>PREVIOUS REVISIONS:</b> October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010; May 15, 2014, November 29, 2016
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> Electronic Report Upload (ftp) Instructions


The Alameda County Environmental Cleanup Oversight Programs (LOP 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 [deh.loptoxic@acgov.org](mailto: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) Open File Explorer using the Windows  key + E keyboard shortcut.
    - i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
  - b) On the address bar, type in ftp://alcoftp1.acgov.org.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive)
  - d) Click Log On.
  - e) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - f) 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](mailto: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.