



November 16, 2017

Mr. Chuck Carmel
Operation Project Manager
Atlantic Richfield Company
4 Centerpointe Drive, Suite 200
La Palma, CA 90623 (Sent by e-mail to: charles.carmel@bp.com)

Subject: Conditional Work Plan Approval for Fuel Leak Case RO78 and GeoTracker Global ID
T0600100106 - ARCO #0374 - 6407 Telegraph Avenue, Oakland, CA

Dear Mr. Carmel:

Alameda County Department of Environmental Health (ACDEH) staff has reviewed the case file including the *First Quarter 2017 Groundwater Monitoring Report* dated April 28, 2017, the *Shallow Soil Assessment and Monitoring Well Installation Work Plan (Work Plan)* dated August 23, 2017, and the *Third Quarter 2017 Groundwater Monitoring Report* dated October 30, 2017, prepared by Arcadis on behalf of the Atlantic Richfield Company. Thank you for submitting the documents.

This case is an active gasoline service station; however, ACDEH remains concerned about the vapor intrusion risk to residents of the next door apartment complex located downgradient and within 20 feet of monitoring well MW-4. ACDEH also remains concerned with other commercial and residential properties overlying the dissolved phase benzene plume. The bioattenuation zone in the site vicinity is less than 5 feet and concentrations of benzene consistently exceed 1,000 micrograms per liter in MW-4. The plume remains undefined downgradient (southwest) of wells MW-4, MW-8, and MW-9. Additionally, a review of the groundwater gradient Rose diagrams and isoconcentration maps indicate the groundwater gradient direction is consistently to the southwest, but the total petroleum hydrocarbons as gasoline (TPHg), benzene, and MTBE isoconcentration plume directions indicate a mound, which conflict with the groundwater gradient direction. Historic data of dissolved concentrations of TPHg and benzene in groundwater in well MW-4 indicate the presence of residual source remaining in the first generation underground storage tank (UST) location resulting in persistent and unstable benzene and TPHg concentrations in MW-4 that have the potential to be a risk to human health and the environment.

ACDEH has evaluated the data and recommendations presented in the Report 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 ACDEH staff review, we have determined that the site does not meet the LTCP Media-Specific Criteria for Groundwater, and the Media-Specific Criteria for Direct Contact. Based on ACDEH staff review of the case file and the referenced report ACDEH requests that you address the following technical comments and send us the document requested below.

TECHNICAL COMMENTS

While ACDEH generally concurs with the scope of work presented in the *Work Plan*, the proposed scope of work is approved for implementation provided that all of the modifications specifically requested in the following technical comments are addressed and incorporated during the field implementation. Please include Standard Operating Procedures (SOPs) in Appendices as described in the technical comments. Submittal of a revised work plan or a work plan addendum is not required unless an alternate scope of work outside that described in the work plan or the technical comment is proposed. We request that you address the following technical comments, perform the proposed work, and send us the report described

below. 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.

1. **Soil Vapor Sample Collection from Soil Gas Probes:** ACDEH requests collection of soil vapor samples from Soil Gas (SG) probes SG-1A, SG-2A/2B and SG-3A/B. SG-1A was installed in November 2013 and last sampled in February 2015. SG-2A/2B and SG-3A/3B were installed in December 2014 but only SG-2A was sampled in February 2015. Please perform soil gas sample collection consistent with the Department of Toxic Substances Control's (DTSC's) *Advisory – Active Soil Gas Investigations* (July 2015). At least a week prior to soil gas collection, please coordinate with service station personnel to shut off landscaping irrigation to facilitate soil gas sample collection from all soil vapor probes.
 - a. ACDEH notes that soil vapor sample collection was described in the November 20, 2012 *Soil Vapor Investigation Work Plan* prepared and submitted by Broadbent. Due to DTSC's release of a revised *Advisory – Active Soil Gas Investigations* in July 2015 and change in consultant, please include the Standard Operating Procedure (SOP) for Soil Gas Sampling in an Appendix to the report requested below.
 - b. ACDEH notes that previous soil gas samples were analyzed for naphthalene using EPA Method TO-15. ACDEH requests confirmation analysis by EPA Method TO-17 of naphthalene for all collected soil gas samples due to the challenges using EPA Method TO-15, as described in Appendix E of DTSC's *Advisory Active Soil Gas Investigations* (July 2015).
 - c. As previously performed and to maintain consistency with DTSC's *Advisory Active Soil Gas Investigations* (July 2015), please analyze each soil vapor samples for oxygen, methane, carbon dioxide, and the tracer gas and include the results as percentages in the summary table of soil gas analytical results. Please provide a summary table of all historic soil vapor analytical results.
 - d. Please document the tracer gas concentration in the required shroud to determine the presence of a leak of atmospheric gases into the vapor sample.
2. **Proposed Reinstallation of Monitoring Well MW-4:** Groundwater Monitoring well MW-4 is proposed to be destroyed and reinstalled because of the fluctuating and elevated benzene concentrations that exceed the LTCP criteria of 1,000 micrograms per liter (ug/L) and the apparent lack of correlation of concentration with groundwater elevation. ACDEH interprets the fluctuating and elevated benzene concentrations to be a result of the presence of secondary source remaining in the first generation underground storage tank (UST) location; consequently, ACDEH at this time does not approve the destruction and re-installation of MW-4.
3. **Proposed Groundwater Monitoring Wells:** ACDEH agrees with the proposed installation of two off-site and down gradient wells, MW-10 and MW-11.
4. **Completion of Underground Utility Survey in Alcatraz Avenue:** The shallowest depth to groundwater in 2017 was 1.34 feet below ground surface (bgs) in March 2017 and the groundwater gradient direction has been consistently the southwest. To date, an underground utility survey has been completed on the south side of Alcatraz Avenue and on Irwin Court. To understand whether or not utility corridors located in Alcatraz Avenue are providing a preferential pathway for the elevated Total Petroleum Hydrocarbons as gasoline (TPHg) and benzene in groundwater, please conduct an underground utility survey under the entire width of Alcatraz Avenue as shown on the

attached NORCAL Geophysical Consultants, Inc. figure. Please include the depths of the utilities in Alcatraz Avenue.

- 5. Soil Boring Locations and Analyses:** ACDEH agrees with the locations of four proposed soil borings SB-1, SB-2, SB-3, and SB-4, and soil sample collection within the 0 to 5 and 5 to 10-foot intervals. Additionally, ACDEH requests placement of a soil boring in the location of proposed MW-4R for the collection of soil samples from the intervals of 0 – 5 feet and 5 – 10 feet bgs, resulting in the addition of five on-site soil borings

As proposed in the Work Plan and to satisfy the LTCP, please analyze all soil samples collected from the intervals of 0 – 5 feet and 5 – 10 feet bgs from the five borings for benzene, ethylbenzene, and naphthalene. In addition, please include analysis for TPHg, toluene, and xylenes by EPA Method 8260B. ACDEH notes that TPH as diesel (TPHd) has never been included as a soil or groundwater analyte, we therefore request TPHd analysis for this soil investigation event to confirm its absence.

- 6. Electronic Submittal of Information (ESI) Compliance** - Site data and documents are maintained in two separate electronic databases – ACDEH's ftp site and the SWRCB's GeoTracker database. Both databases act as repositories for regulatory directives and reports; however, only GeoTracker has the functionality to store electronic compliance data including analytical laboratory data for soil, vapor and water samples, monitoring well depth-to-water measurements, and surveyed location and elevation data for permanent sampling locations. Although the SWRCB is responsible for the overall operation and maintenance of the GeoTracker System, ACDEH, as lead regulatory agency, is responsible to ensure the GeoTracker database is complete and accurate for sites regulated under ACDEH's Environmental Cleanup Oversight Programs (SWRCB March 2011 document entitled *Electronic Reporting Roles and Responsibilities*).

A review of the case file and the State's GeoTracker database indicates that the site is not in compliance with California Code of Regulations, Title 23, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1, stating that beginning September 1, 2001, all analytical data, including monitoring well samples, submitted in a report to a regulatory agency as part of the UST or LUST program, must be transmitted electronically to the SWRCB GeoTracker system via the internet. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs, including the Site Cleanup Program (SCP) cases. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites was required in GeoTracker. At present missing data and documents include soil gas analytical laboratory results and chain of custody missing from Broadbent's March 31, 2015 *Soil Investigation and Vapor Intrusion Assessment Report*. Please re-upload a revised report which includes the missing analytical results and chain of custody.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACDEH 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:

- **January 19, 2018** – Soil, Soil Vapor, and Groundwater Investigation and Updated SCM Report
File to be named: RO78_SWI_R_YYYY-MM-DD

This report is 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

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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 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: Attachment 1 - Responsible Party(ies) Legal Requirements/Obligations
ACDEH Electronic Report Upload (ftp) Instructions
Attachment A - NORCAL Geophysical Consultants, Inc., Auxiliary Underground Utility
Survey Areas Vicinity Map

cc: James Jacobsen, Arcadis, 101 Creekside Ridge Court, Ste. 200 Roseville, CA 95678 (Sent via E-mail to: James.Jacobsen@arcadis.com)
Dilan Roe, ACDEH (Sent via E-mail to: dilan.roe@acgov.org)
Karel Detterman, ACDEH (Sent via E-mail to: karel.detterman@acgov.org)
Paresh Khatri, ACDEH (Sent via E-mail to: pariah.khatri@acgov.org)
GeoTracker, Electronic Case File

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/) 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.

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

DRAFT

Broadbent and Associates
BP-Arco Station 374
6407 Telegraph Avenue, Oakland, California

Auxiliary Underground Utility
Survey Areas Vicinity Map



need
underground
utility
location

