



Carryl MacLeod
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Marketing Business Unit

**Chevron Environmental
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March 15, 2013

Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RECEIVED

By Alameda County Environmental Health at 9:46 am, Mar 25, 2013

Re: Former Texaco Service Station 317233
2259 First Street
Livermore, California
ACEHS Case RO2908

I accept the Sulfate Land Application Report.

I agree with the conclusions and recommendations presented in this document. The information included is accurate to the best of my knowledge, and appears to meet local agency and Regional Board guidelines. This Fourth Quarter 2012 Groundwater Monitoring and Sampling Report was prepared by Conestoga Rovers & Associates, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in cursive script that reads "Carryl MacLeod".

Carryl MacLeod
Project Manager

Attachment: Sulfate Land Application Report



**CONESTOGA-ROVERS
& ASSOCIATES**

10969 Trade Center Drive
Rancho Cordova, California 95670
Telephone: (916) 889-8900 Fax: (916) 889-8999
<http://www.craworld.com>

March 15, 2013

Reference No. 312264

Mr. Jerry Wickham
Alameda County Environmental Health Services (ACEHS)
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Sulfate Land Application Report
Former Texaco Service Station 307233
2259 First Street
Livermore, California
ACEHS Case RO0002908

Dear Mr. Wickham:

Conestoga-Rovers & Associates (CRA) is submitting this *Sulfate Land Application Report* for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company (Chevron). The sulfate land application was performed in accordance with CRA's October 27, 2011 *Work Plan for Feasibility Testing and Additional Assessment* and subsequent approval by ACEH in correspondence dated December 14, 2011 (Attachment A).

SULFATE PREPARATION AND APPLICATION

On September 20 and October 31, 2012, CRA prepared the site for the sulfate application. City of Livermore encroachment permits were issued for both application events and a city inspector was on site. Immediately prior to each application, the application areas (Figure 2) were watered for approximately 30 minutes to dampen before spreading the sulfate. Approximately 420 pounds (840 pounds total for both events) of calcium sulfate dihydrate (agricultural gypsum) were applied during each event to all four sections of the application area using the rotary spreader, softly raking the sulfate over the grass as needed in order to apply evenly. To keep the dust from the sulfate application to a minimum, water was immediately applied after spreading with an oscillating sprinkler at a rate of 2.4 gallons per minute for approximately 1 hour 45 minutes while ensuring that there was no runoff during the watering of each section.

DATA COLLECTION FOR EFFECTIVENESS EVALUATION

Groundwater samples will be collected on a quarterly basis from shallow wells MW-7, MW-8, MW-9 and from three recently installed shallow wells MW-10, MW-11, and MW-12 (CRA's *Well*

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**CONESTOGA-ROVERS
& ASSOCIATES**

March 15, 2013

Reference No. 312264

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Installation Report, dated May 8, 2012) for one year to evaluate the effectiveness of the sulfate canister and land application on groundwater. The groundwater samples will be submitted to Eurofins Lancaster Laboratories and analyzed for:

- TPHd by EPA Method 8015 modified with 10g silica gel cleanup
- TPHg by EPA Method 8015 modified
- BTEX by EPA Method 8260B
- Sulfate by EPA Method 300.0
- Dissolved sulfide by EPA Method 9034 (or similar method)
- Total alkalinity (as CaCO₃) by method SM 2320B
- Calcium by EPA Method 6010 (qualitative indicator of gypsum migration)
- Ferrous iron by method SM3500-FeD
- Dissolved methane by RSK 175

Data collection from wells MW-7 through MW-12 for evaluation of the effectiveness of sulfate canister and land application on groundwater conditions will be performed quarterly between the first and fourth quarters 2013. Analytical results from planned sampling events will be included in subsequent quarterly reports.



**CONESTOGA-ROVERS
& ASSOCIATES**

March 15, 2013

Reference No. 312264

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Please contact Brian Silva at (916) 889-8908 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Brian Silva

Greg Barclay, PG 6260



BJS/lm/23

Encl.

Figure 1 Vicinity Map
Figure 2 Gypsum Application Site Plan

Attachment A Regulatory Correspondence

cc: Ms. Carryl MacLeod, Chevron (*electronic copy*)
 Mr. Eric Uranaga, City of Livermore Community Development

FIGURES

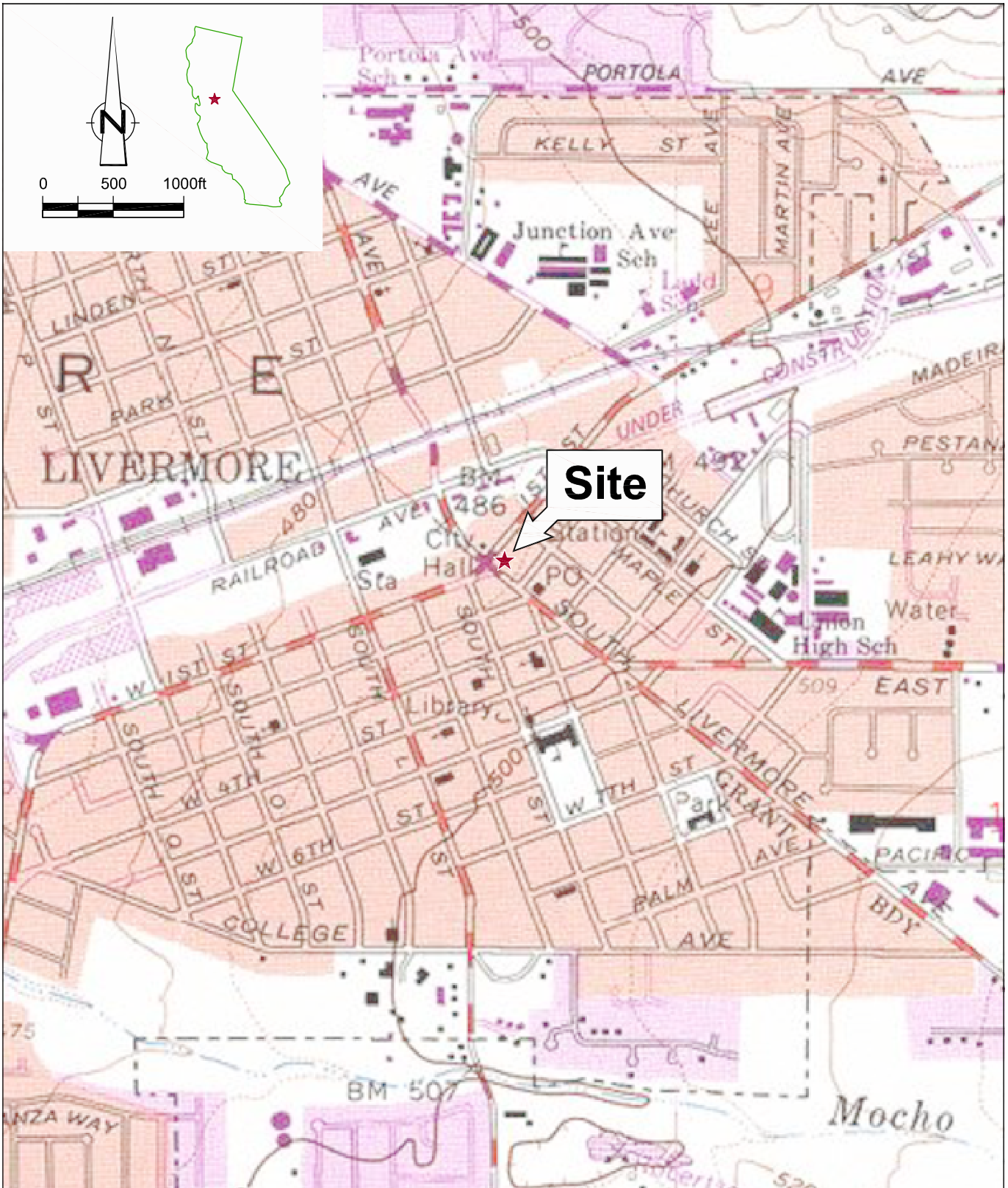


Figure 1
 VICINITY MAP
 FORMER TEXACO STATION (CHEVRON SITE 307233)
 2259 FIRST STREET
 Livermore, California



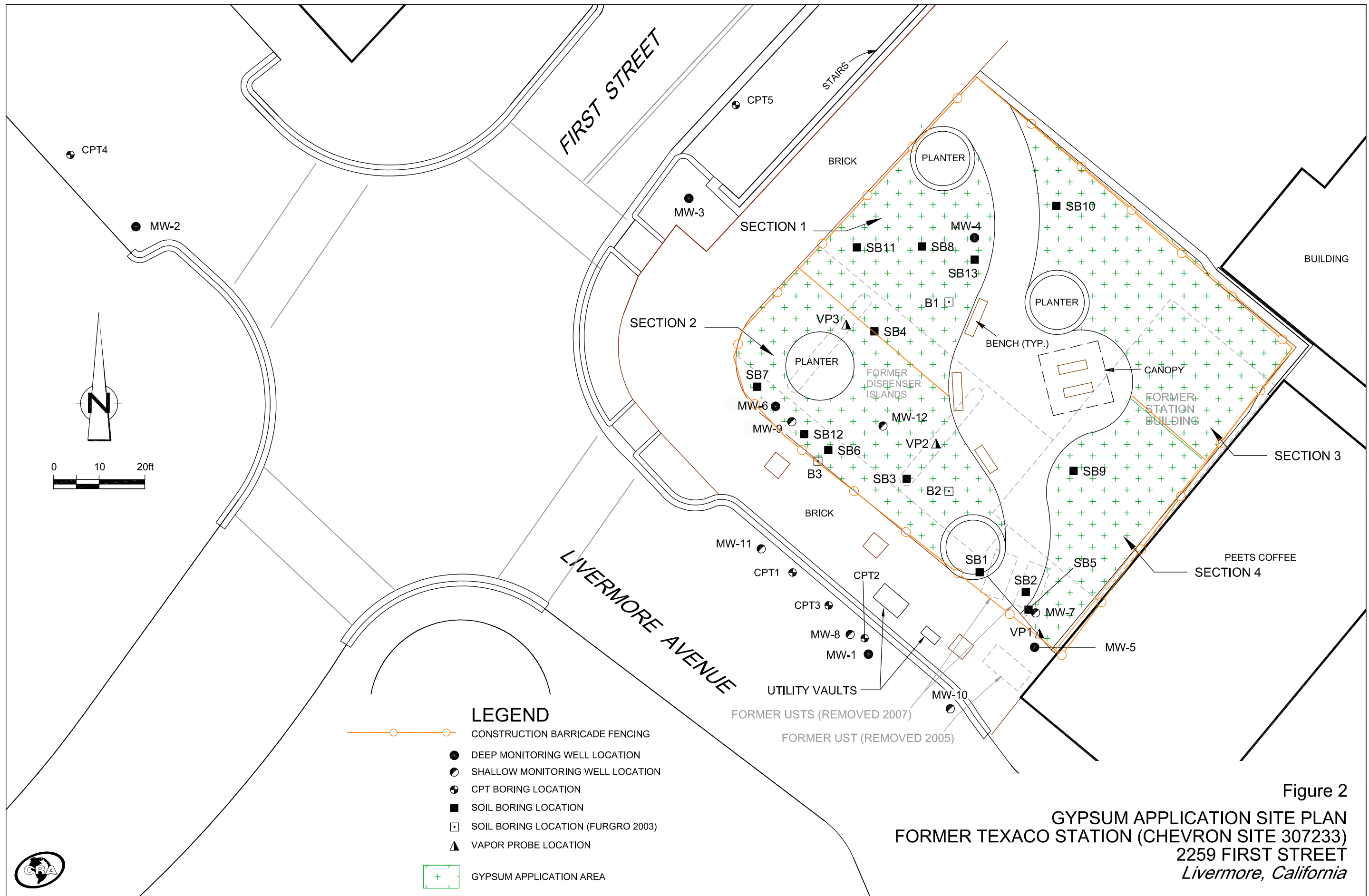


Figure 2
 GYPSUM APPLICATION SITE PLAN
 FORMER TEXACO STATION (CHEVRON SITE 307233)
 2259 FIRST STREET
 Livermore, California



ATTACHMENT A
REGULATORY CORRESPONDENCE



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

December 14, 2011

Mr. Eric Frohnapple (*Sent via E-mail to: ericf@chevron.com*)
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583

Mr. Eric Uranga (*Sent via E-mail to: ejuranga@ci.livermore.ca.us*)
City of Livermore Economic Development
1052 S. Livermore Ave.
Livermore, CA 94550

Subject: Conditional Work Plan Approval for Fuel Leak Case No. RO0002908 and GeoTracker Global ID T0600196622, Miller Square Park, 2259 First Street, Livermore, CA 94550

Dear Mr. Frohnapple and Mr. Uranga:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above referenced site including the most recently submitted document entitled, "*Work Plan for Feasibility Testing and Additional Assessment, Former Texaco Station, 30-7233, 2259 First Street, Livermore, California,*" dated October 28, 2011 (Work Plan). The Work Plan, which was prepared on behalf of Chevron by Conestoga-Rovers & Associates (CRA), presents plans to install additional monitoring wells and conduct a phased remedial approach using surfactant-enhanced recovery and application of calcium sulfate dehydrate.

The proposed scope of work is conditionally approved and may be implemented provided that the technical comments below are incorporated during implementation of the proposed work and the conditions discussed in technical comment 3 are met prior to land application of gypsum. Submittal of a revised Work Plan or Work Plan Addendum is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed. We request that you address the following technical comments, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

1. **Area for Land Application of Gypsum.** The Work Plan currently proposes installation of a sulfate canister in MW-7 and land application of gypsum in the area of well MW-7, which is a 2-inch diameter monitoring well. We request that you expand the area of land application of gypsum beyond well MW-7 to include at a minimum, the landscaped area beneath the 100 milligram per kilogram concentrations contour shown on the attached Figure 5 – TPHg Concentrations in Shallow Soil – 20-40 FBG. The area shown on Figure 5 includes boring SB-3, where the highest concentrations of total petroleum hydrocarbons and benzene have been detected historically in soil.
2. **Additional Monitoring Wells.** In order to evaluate the effectiveness of the land application of gypsum, we request that you install one additional monitoring well near boring SB-3 and one additional monitoring well in the parking area southwest (downgradient) from boring SB-3. The two additional soil borings may be advanced and the wells constructed using the procedures described on

pages 6 through 7 and Appendix D of the Work Plan. The two additional monitoring wells are to be sampled following installation and are to be sampled quarterly along with wells MW-7, MW-8, and the new well approximately 25 feet southwest of well MW-7. Please present results from well installation and the initial groundwater sampling event in the Feasibility Test Report requested below.

3. **Potential Effects of Land Application of Gypsum.** Prior to the land application of gypsum within the park, we request evaluations of the potential effects of land application of gypsum within the landscaped areas of the park as follows:
 - An evaluation of potential health or nuisance impacts to users of the park caused by gypsum application at the proposed rate. The evaluation is to be performed by a certified industrial hygienist or other qualified professional in risk assessment.
 - An evaluation of the potential impact of gypsum application at the proposed rate on the vegetation in the park. This evaluation is to be performed by a Master Gardener, arborist, or other qualified professional.
 - Please submit these written evaluations prior to surface application of the gypsum.

4. **Screening Levels for Lead in Soil.** Elevated concentrations of lead have been detected in shallow soil samples collected at the site. In CRA reports dated December 22, 2006, March 5, 2009, and June 3, 2010, the lead concentrations in soil were compared to a screening level of 750 milligrams per kilogram (San Francisco Bay Regional Water Quality Control Board Environmental Screening Level for commercial land use). The Office of Environmental Health Hazard Assessment (OEHHA) of the California Environmental Protection Agency proposed revised screening levels for lead in a May 18, 2009 document entitled, "*Revised California Human Health Screening Level for Lead.*" The OEHAA screening level for lead is 80 mg/kg under a residential land use scenario and 260 mg/kg under a commercial land use scenario. Several shallow soil samples collected at the site significantly exceed the OEHHA screening level. We request that you review the lead data and provide recommendations regarding assessment of potential human health risks in shallow soil and further characterization of shallow soils. Please present these recommendations in the Feasibility Test Report requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **Prior to surface application of gypsum** – Evaluations described in technical comment 3
- **April 30, 2012** – Semi-Annual Groundwater Monitoring Report – First Quarter 2012
- **May 11, 2012** – Feasibility Test Report
- **October 29, 2012** – Semi-Annual Groundwater Monitoring Report – Third Quarter 2012

Responsible Parties
RO0002908
December 14, 2011
Page 3

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachments: Figure 5 – TPHg Concentrations in Shallow Soil 20-40 FBG
Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Colleen Winey, QIC 80201, Zone 7 Water Agency, 100 North Canyons Parkway
Livermore, CA 94551 (*Sent via E-mail to: cwiney@zone7water.com*)

Danielle Stefani, Livermore-Pleasanton Fire Department, 3560 Nevada Street
Pleasanton, CA 94566 (*Sent via E-mail to: DStefani@lpfire.org*)

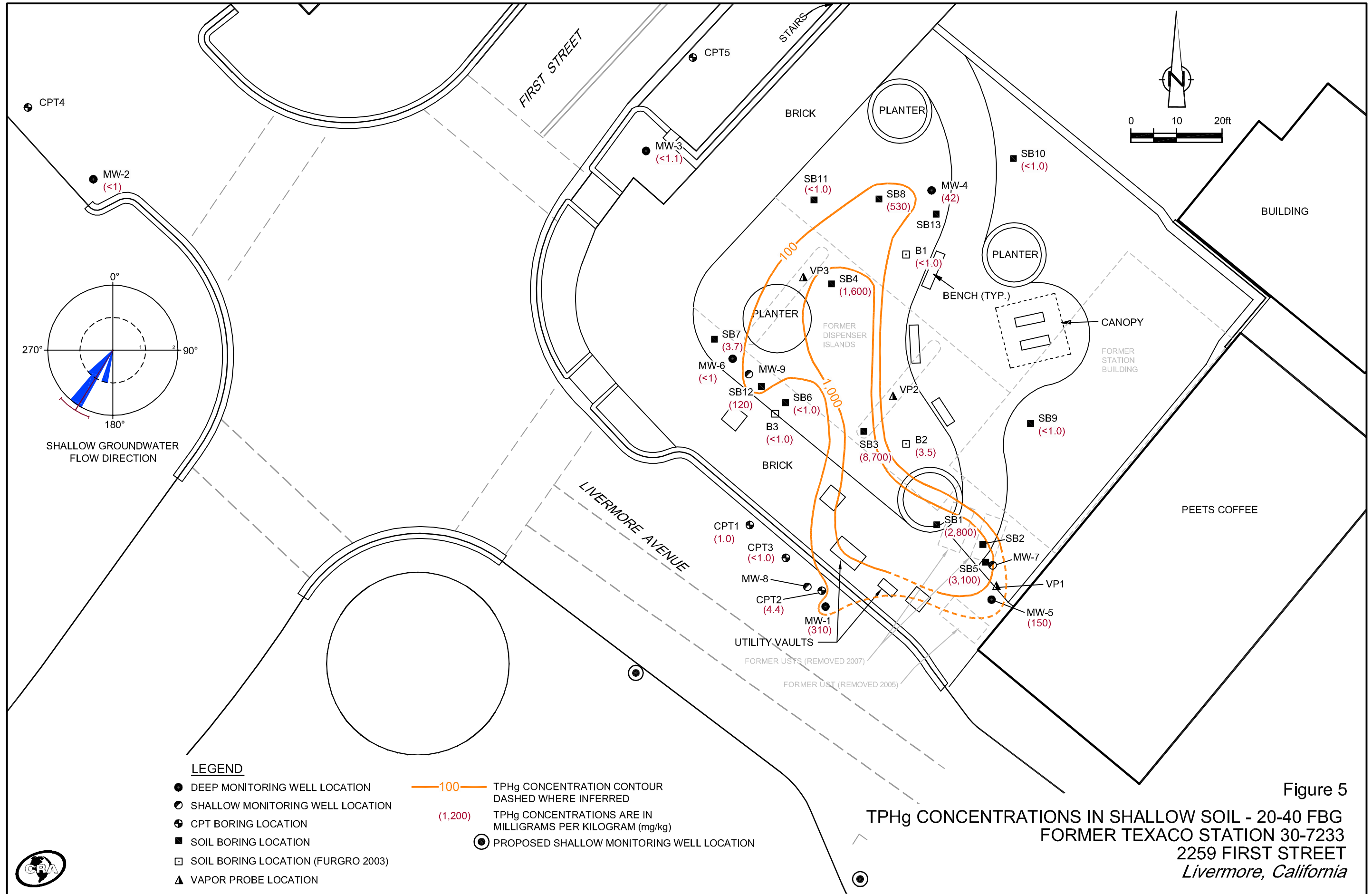
John Rigter, Livermore-Pleasanton Fire Department, 3560 Nevada Street
Pleasanton, CA 94566(*Sent via E-mail to: jrigter@lpfire.org*)

Brandon Wilken, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A
Emeryville, CA 94608 (*Sent via E-mail to: BWilken@croworld.com*)

Kiersten Hoey, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A
Emeryville, CA 94608 (*Sent via E-mail to: Khoey@croworld.com*)

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)

GeoTracker, eFile



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: July 20, 2010
	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 (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.