



**Catalina Espino
Devine**
Project Manager
Marketing Business Unit

**Chevron Environmental
Management Company**
6101 Bollinger Canyon Road
San Ramon, CA 94583
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Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RECEIVED

By Alameda County Environmental Health at 3:56 pm, Jan 16, 2013

Re: Former Texaco Service Station No.359766
2700 23rd Avenue
Oakland, CA

I have reviewed the attached report dated January 11, 2013.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This 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 blue ink, appearing to read "Catalina Espino Devine".

Catalina Espino Devine
Project Manager

Attachment: Report



**CONESTOGA-ROVERS
& ASSOCIATES**

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
<http://www.craworld.com>

January 11, 2013

Reference No. 062086

Ms. Karel Detterman, PG
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: Work Plan for Subsurface Investigation
Former Texaco Service Station 359766
2700 23rd Avenue
Oakland, California
ACEH Case No. RO 0003098

Dear Ms. Detterman:

Conestoga-Rovers & Associates (CRA) is submitting this *Work Plan for Subsurface Investigation* for the site reference above, on behalf of Chevron Environmental Management Company (EMC) as requested by Alameda County Environmental Health (ACEH) in a letter dated September 27, 2012 (Attachment A). The scope of work outlined in this work plan, is to delineate the downgradient extent of dissolved petroleum hydrocarbons, conduct a utility survey, a preferential pathway study, and well survey. CRA will include a site conceptual model with this work plan's report. The site background and CRA's proposed scope of work are presented below.

SITE BACKGROUND

Site Description

The site is a former Texaco service station located on the northeast corner of 23rd Avenue and East 27th Street in a mixed commercial and residential area of Oakland, California (Figure 1). According to a previously completed Phase I investigation, the site operated as a gasoline service station from 1928 to 1964. The former dispenser island was located at the southwestern corner onsite and the former station's "kiosk" was located at the northeastern corner. The former underground storage tanks (USTs) location is unknown. In 1964 a demolition permit

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January 11, 2013

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was issued for the service station. In 1968 the current building was constructed, which is now operated as a liquor store.^{1,2}

Previous Environmental Work

To date four soil borings have been advanced, and four temporary soil vapor probes and four groundwater monitoring wells have been installed. In 2010, two onsite test pits were excavated.^{2,3} A summary of previous environmental investigation and remediation are presented as Attachment B.

Site Geology

Based on the previous investigations, sediments underlying the site consist primarily of fill material near the surface to approximately 2.5 feet below grade and clay to approximately 22 fbg, which is the maximum depth explored.²

Site Hydrogeology

The site is relatively flat lying at an approximate elevation of 165 feet above mean sea level with a gradual slope toward the south and is located in the Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin.⁴ Groundwater in the East Bay Plain basin is designated as a potential drinking water source; however, groundwater in the basin is not currently used as a municipal drinking water supply, due to readily available imported surface water.⁵ Groundwater has been measured at a depths ranging from approximately 5 to 7 fbg during groundwater monitoring with a flow direction to the southwest with a gradient of 0.125.²

-
- 1 Schutze & Associates, Inc., Historical Research Project: 2700 23rd Avenue Property Ownership and Contamination Responsibility Update, July 21, 2011.
 - 2 Schutze & Associates, Inc., Summary of Previous Investigations, Installation and Sampling of Four Monitoring Wells, and Excavation of Test Pits, Soil Testing and Limited Soil Removal, March 16, 2011.
 - 3 Schutze & Associates, Inc., Phase II Subsurface Investigation, August 24, 2010.
 - 4 Department of Water Resources, California's Groundwater Bulletin 118 – Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin, February 27, 2004.
 - 5 California Regional Water Quality Control Board San Francisco Bay Region, East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, CA, June 1999.



January 11, 2013

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PROPOSED SCOPE OF WORK

The investigation objectives are to delineate the downgradient extent of dissolved petroleum hydrocarbons, conduct a utility survey, a preferential pathway study, and well survey. To meet these objectives, CRA proposes the following scope of work. Install two offsite groundwater monitoring wells downgradient of monitoring well MW-4, which contains the highest concentrations of petroleum hydrocarbons (Figure 2). As requested by ACEH, a utility survey, a preferential pathway study, and well survey will be completed. Following the site assessment activities, a conceptual site model will be submitted that will identify any missing data gaps. CRA proposes to conduct the following activities to complete the proposed scope of work.

Property Access

Access agreements will be obtained from the property owners prior to entering the properties where CRA proposes to complete the scope of work detailed.

Site Health and Safety Plan

CRA will prepare a site specific health and safety plan to protect site workers. The plan will be reviewed, signed and followed by site workers and visitors. The plan will be kept onsite during field activities.

Permits

CRA will obtain drilling permits from Alameda County Public Works (ACPW) and schedule the required inspections prior to beginning field work.

Underground Utility Location and Utility Clearance

CRA will contact Underground Service Alert to identify locations of underground utilities at least 48 hours prior to any drilling activities. A licensed geophysicist will also be contracted to survey the entire site and in the vicinity of the proposed wells to confirm utility locations and identify any previously unidentified utilities. Per Chevron and CRA safety procedures, each monitoring well location will be cleared of utilities using hand augers to 8 fbg.



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Well Installation

After clearing to 8 fbg, the wells will be advanced using 8-inch diameter hollow-stem augers to approximately 25 fbg. The wells will be constructed using 2-inch diameter Schedule 40 PVC casing with a 0.020-inch slotted screen from approximately 15 to 25 fbg. The filter pack will consist of #3 Monterey sand from the boring's base to approximately 1-foot above the screen interval. The well annulus will have a 1-foot hydrated bentonite seal above the sand pack, with the remainder backfilled with Portland Type I/II cement to approximately 1-foot below grade and finished with a traffic rated well vault flush with the ground surface.

Well construction and location may be altered based upon field observations. Well locations and top of casing elevation will be surveyed by a licensed surveyor as required. Survey data will be uploaded to the State's Geotracker database. CRA's *Standard Field Procedures for Soil Boring and Monitoring Well Installation* is presented in Attachment C.

Well Development, Well Survey, and Groundwater Sampling

The wells will be properly developed at least 48 hours after installation and sampled at least 72 hours after the wells is developed.

Soil Sampling

CRA will collect soil samples at a minimum of 5-foot intervals, at the soil/groundwater interface, at obvious changes in soil types, and where indications of hydrocarbons are observed to the total depth explored. Soil samples collected above 8 fbg will be collected by driving steel tubes into disturbed sediments removed by the hand auger bucket. Soil samples below 8 fbg will be collected by either driving a modified California split-spoon sampler lined with three 6-inch brass sleeves or an acetate lined direct push sampler. Soils will be logged using the ASTM D2488-06 Unified Soil Classification System. Soil samples will be screened with a photo ionization detector (PID) and all PID measurements will be recorded on the boring logs. All samples will be sealed, labeled, logged on a chain-of-custody, placed on ice, and transported to a Chevron and California State-approved laboratory for analysis.



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Chemical Analyses

Soil and groundwater samples will be analyzed for:

- Total petroleum hydrocarbons as motor oil (TPHmo) and Total petroleum hydrocarbons as diesel (TPHd) by Environmental Protection Agency (EPA) Method 8015B modified with silica gel cleanup
- Total petroleum hydrocarbons as gasoline (TPHg) by 8015B modified
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX), 1,2-dibromoethane (EDB) and 1,2-dichloroethane (EDC) by EPA Method 8260B
- 16 priority pollutant polycyclic aromatic hydrocarbon (PAHs) by EPA Method 8270 SIM: naphthalene, acenaphthene, acenaphthylene, anthracene, phenanthrene, fluorene, chrysene, fluoranthene, pyrene, benzo(b)fluoranthene, benzo(a) pyrene, benzo(k)fluoranthene, benzo(a)anthracene, indeno (1,2,3-c,d)pyrene, dibenz(a,h)anthracene, benzo(g,h,i)perylene
- Metals: cadmium, chromium, nickel, lead, and zinc by EPA 6010/6020

Waste Disposal

Investigation derived wastes will be temporarily stored onsite in properly labeled, Department of Transportation approved 55-gallon drums pending soil profiling results. A

Chevron-approved waste transporter will transport and dispose of wastes at an appropriate Chevron and State-approved disposal facilities.

Utility Survey and Preferential Pathway Study

CRA proposes to map the subsurface utility structures by noting exposed features (e.g. manhole covers) and underground service alert markings, reviewing engineering drawings from the utility purveyors, and completing a private utility mark out. CRA will attempt to determine the top and bottom depths of utility trenches. CRA will also contact individual utility companies and local agencies to acquire plans of subsurface utilities in the vicinity. All utilities will be shown on a scaled site plan, and if available the diameter, depth, and flow direction of the utilities will also be represented on site plans and cross-sections.



**CONESTOGA-ROVERS
& ASSOCIATES**

January 11, 2013

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Well Survey

CRA will request the *Well Driller Completion Reports* from the California Department of Water Resources (DWR) and ACPW to locate wells within a ¼ mile radius of the site. CRA will identify and discuss all surface water bodies within ¼ mile radius of the site. CRA will identify and discuss any sites with sensitive land usage (i.e. schools, daycare, hospitals, and etc.) within 500 ft of the site. In addition, CRA will contact local agencies to determine if any municipal wells are located in the vicinity of the site. All wells identified will be tabulated and represented on a scaled map.

Reporting

Upon completion of field activities and review of the analytical results, CRA will prepare a conceptual site model report that, at a minimum, will contain:

- Descriptions of drilling and sampling methods
- Boring logs
- Tabulated soil and groundwater analytical results
- A figure illustrating the boring locations
- Conceptual site model
- Preferential pathway study
- Geologic cross-sections
- Soil and groundwater concentration maps
- Analytical reports and chain-of-custody forms
- Soil disposal methods
- Conclusions and recommendations

Schedule

CRA will proceed with the proposed scope of work upon receipt of written approval from ACEH, as well as a written agreement with the current property owners allowing access to their properties. CRA will submit our investigation report approximately 6 to 8 weeks after completion of field activities and receipt of analytical data.



**CONESTOGA-ROVERS
& ASSOCIATES**

January 11, 2013

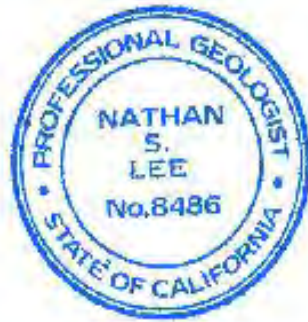
Reference No. 062086

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If you have any questions or comments regarding this work plan, please contact Nathan Lee at (510) 420-3333 or email at nlee@croworld.com.

Regards,

CONESTOGA-ROVERS & ASSOCIATES



Nathan Lee PG, 8486

APM/mws/1

Encl.

Figure 1 Vicinity Map

Figure 2 Site Plan with Proposed Soil Boring Locations

Attachment A Regulatory Correspondence

Attachment B Summary of Environmental Investigation and Remediation

Attachment C Standard Field Procedures for Soil Boring and Monitoring Well Installation

cc: Ms. Catalina Espino Devine, Chevron (*electronic copy*)

FIGURES

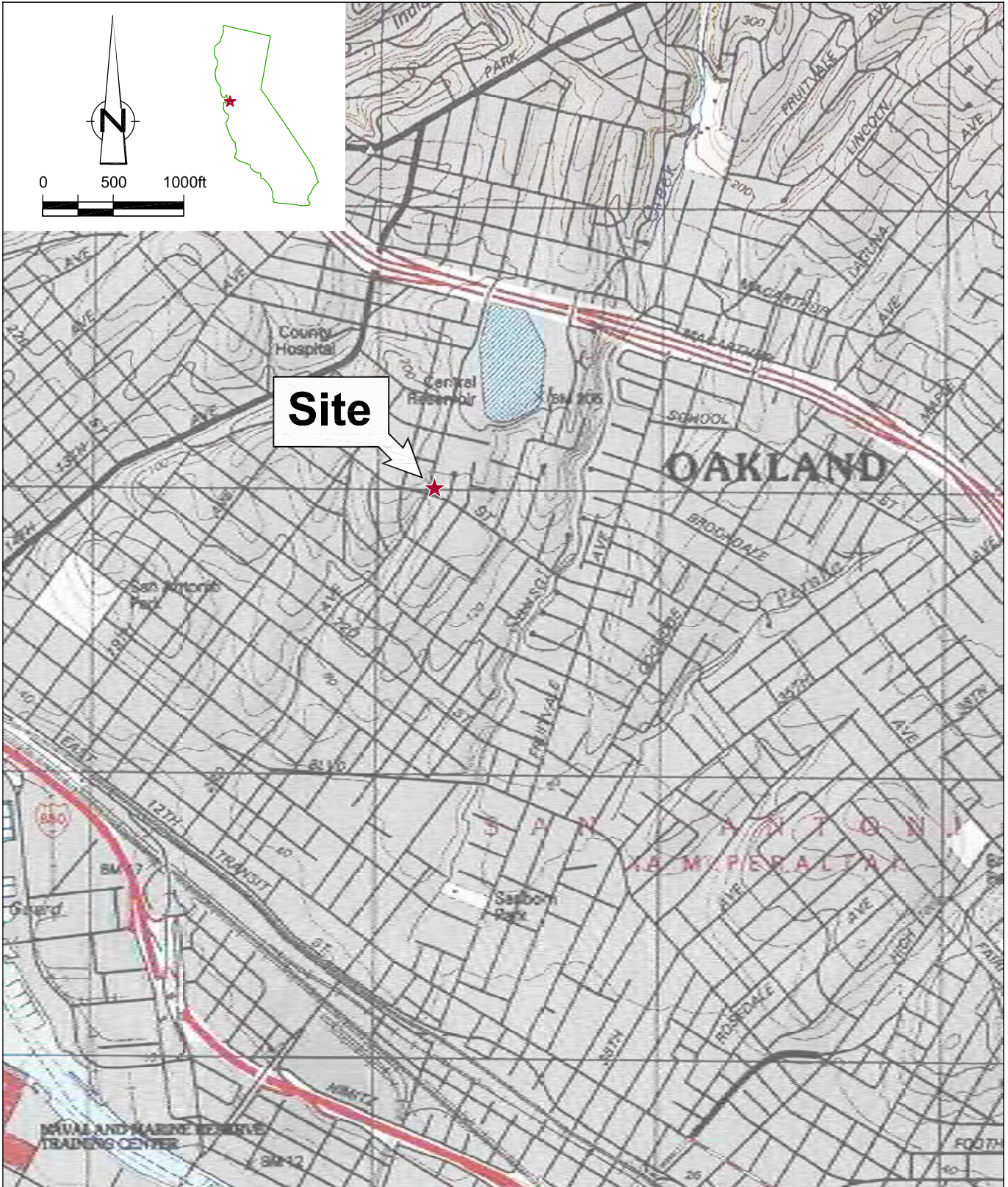
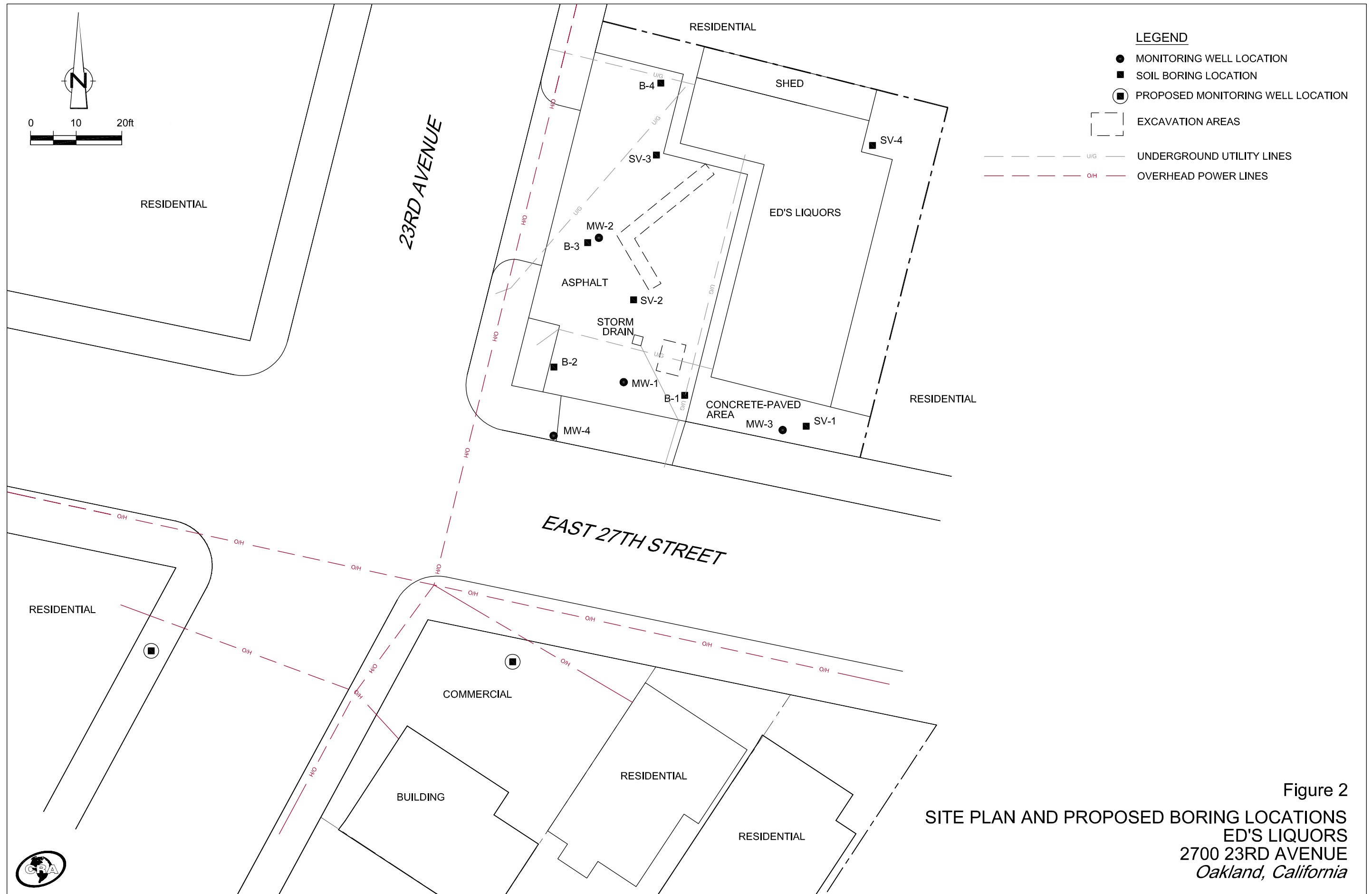


Figure 1
 VICINITY MAP
 ED'S LIQUORS
 2700 23RD AVENUE
 Oakland, California





ATTACHMENT A
REGULATORY CORRESPONDENCE

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
ALEX BRISCOE, Director



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

September 27, 2012

Mr. Loyal and Ms. Mary Moore
30689 Prestwick Avenue
Hayward, CA 94544-7331
(Sent via e-mail to: loyalmary75@yahoo.com)

Mr. Pedro and Ms. Maria Pulido
22762 Moura Court
Hayward, CA 94541-3279

Ms. Catalina Espino Devine
Chevron Environmental Management Co.
6101 Bollinger Canyon Road
San Ramon, CA 94583-5177
(Sent via e-mail to
espino@chevron.com)

Mr. Lee Edward and Ms. Mattie L. Edward
Address Unknown

Subject: Technical Report Request for Fuel Leak Case No. RO0003098 and GeoTracker Global
IDT10000004218, Ed's Liquor Store, 2700 23rd Avenue, Oakland, CA 94606-3530

Dear Meses. Pulido, Moore, Edward, and Ms. Devine:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the May 7, 2010 *Local Regulatory Agency File Review* prepared by Basics Environmental, the August 24, 2010 *Phase II Subsurface Investigation Report* by Schutze Associates, the October 7, 2010 *Geophysical Survey Report* by Schutze Associates, and the March 16, 2011 *Summary of Previous Investigation, Installation and Sampling of Four Monitoring Wells, and Excavation of Test Pits, Soil Testing and Limited Soil Removal*, prepared by Schutze & Associates. The Oakland Fire Department (OFD) referred the discovery of a release from the former underground storage tanks (USTs) on April 25, 2012 to ACEH. The sale of the property in 2010 initiated a site background investigation including a Phase I and Phase II investigation. The Phase I file review documented the existence of a gasoline service station from approximately 1928 to 1964, and indicated that one or more gasoline underground storage tanks (USTs) were removed after 1968. In 2010, limited site excavation uncovered the remnants of former pump islands and product/vent lines. Eight soil borings were drilled at the site and four groundwater monitoring wells were installed. Concentrations of up to 420 milligrams per kilogram (mg/kg) Total Petroleum Hydrocarbons as gasoline (TPHG), 710 mg/kg TPH as diesel, and 1,500 mg/kg TPH as motor oil were documented in the soil samples. Concentrations of up to 61,000 micrograms per liter ($\mu\text{g/l}$) TPHG, 36,000 $\mu\text{g/l}$ TPH as diesel and 60,000 $\mu\text{g/l}$ TPH as motor oil were documented in the grab groundwater samples and concentrations of up to 26,000 $\mu\text{g/l}$ TPHG, 2,800 $\mu\text{g/l}$ TPH as diesel, and 2,800 $\mu\text{g/l}$ benzene were documented in groundwater monitoring well samples.

A number of questions were generated as a result of the review of these documents. This letter is a request for a Site Conceptual Model (SCM) and Data Gap Work Plan intended to collect additional data to identify and address

data gaps. We request that you address the following technical comments and prepare a SCM Data Gap Work Plan detailing work to be performed, and send us the technical reports requested below.

TECHNICAL COMMENTS

1. **Geotracker Compliance:** As described in the attached Responsible Party(ies) Legal Requirements/Obligations, all technical reports must be submitted to both the ACEH ftp site and the State Water Resource Control Board (SWRCB) GeoTracker website. Therefore, please claim your site on GeoTracker and upload the Work Plan and all future reports to the GeoTracker website. Pursuant to CCR Sections 2729 and 2729.1, all analytical data, including monitoring well samples, submitted in a report to a regulatory agency as part of the Leaking Underground Fuel Tank (LUFT) program, must be transmitted electronically to the SWRCB Geotracker website via the internet. Additionally, all permanent monitoring points utilized to collect groundwater samples (i.e. monitoring wells) and submitted in a report to a regulatory agency, must be surveyed (top of casing) to mean sea level and latitude and longitude accurate to within 1-meter accuracy, using NAD 83, and transmitted electronically to the SWRCB Geotracker website. Beginning July 1, 2005, electronic submittal of a complete copy of all reports (LUFT or SLIC) is required in GeoTracker (in PDF format). **Compliance is required by the State.** Please see Attachment 1 for limited additional details, and the state GeoTracker website for full details. ACEH requests notification of, and a list of, the documents uploaded to Geotracker. Please upload all submittals to GeoTracker as well as to ACEH's ftp website by the date specified below.

2. **Request for a Site Conceptual Model (SCM) and Data Gap Work Plan** - ACEH requests completion of a SCM in combination with a data gap work plan in order to fill any apparent data gaps. A SCM synthesizes all the analytical data and evaluates all potential exposure pathways and potential receptors that may exist at the site, including identifying or developing any appropriate site cleanup objectives and goals. At a minimum, the SCM should include the following:
 - Local and regional plan view maps that illustrate the location of sources (former facilities, piping, tanks, etc.) extent of contamination, direction and rate of groundwater flow, potential preferential pathways, and locations of receptors;
 - Geologic cross section maps that illustrate subsurface features, man-made conduits, and lateral and vertical extent of contamination;
 - Plots of chemical concentrations versus time;
 - Plots of chemical concentrations versus distance from the source;
 - Complete summary tables of chemical concentrations in different media (i.e. soil, groundwater, and soil vapor); and
 - Copies of well logs, boring logs, and well survey maps;
 - Discussion of likely contaminant fate and transport, and
 - Identification of any remaining data gaps (i.e. downgradient delineation of hydraulic oil in soil and groundwater [hydraulic lift soil sample #1-2 contained 1,400 mg/kg at a location a number of feet below groundwater], contaminant migration along preferential pathways such the sanitary sewer / storm drain system, or other).

Data gaps noted by ACEH include the following; however, are not limited to the following observations:

- a. **Lateral and Downgradient Extent** – The Phase II Investigation identified the probable location of the fuel/vent lines but the location of the former USTs is still not known. Additionally, the most down gradient monitoring well, MW-4, appears to contain the highest concentrations of TPHG and benzene, suggesting that there may be off-site contaminant migration. Please submit a data gap work plan to address these concerns with an initial Site Conceptual Model (SCM) by the date specified below.
- b. **Request for Preferential Pathway Study** – As a part of the Data Gap Work Plan, ACEH requests that a Preferential Pathway Survey be conducted.

The purpose of the preferential pathway study is to locate potential migration pathways and conduits and determine the probability of a NAPL and/or a groundwater plume encountering preferential pathways and conduits that could spread contamination. For this site, this must include on-site utility laterals such as sewer, water supply, electrical, or other that may be located directly beneath the warehouse building north of the former UST location. We request that you perform a preferential pathway study that details the potential migration pathways and potential conduits (wells, utilities, utility laterals, pipelines, and etc.) for vertical and lateral migration that may be present in the vicinity of the site.

Please discuss results of the preferential pathway study (including the detailed well survey and utility survey requested below) and report your results in the report requested below. The results of your study shall contain all information required by California Code of Regulations, Title 23, Division 3, Chapter 16, §2654(b).

- c. **Utility Survey** - An evaluation of all utility lines, utility laterals, and trenches (including sewers, storm drains, pipelines, trench backfill, etc.) within and near the site and plume area(s) is required as part of your study. Please reduce and synthesize available information and maps, and generate appropriate (vicinity and / or site specific) maps and cross-sections illustrating the location and depth of all utility lines and trenches within and near the site and plume areas(s) as part of your study.
 - d. **Well Survey** - The preferential pathway study shall include a well survey of all wells (monitoring and production wells: active, inactive, standby, decommissioned (sealed with concrete), abandoned (improperly decommissioned or lost); and dewatering, drainage, and cathodic protection wells) within a ¼ mile radius of the subject site. Please use DWR as well as Alameda County Public Works Agency resources as the databases are sufficiently different to warrant a review of both. As part of your well survey, please perform a background study of the historical land uses of the site and properties in the vicinity of the site. Use the results of your background study to determine the existence of unrecorded/unknown (abandoned) wells, which can act as contaminant migration pathways at or from your site. Please submit a data gap work plan to address these two concerns with an initial SCM by the date specified below.
3. **Request for information** - The ACEH case file for the subject site contains only the electronic files listed on our web site at <http://www.acgov.org/aceh/lop/ust.htm>. You are requested to submit copies of all other reports, data, correspondence, etc. related to environmental investigations for this property (including Phase I reports) not currently contained in our case file.

UNDERGROUND STORAGE TANK CLEANUP FUND

Mses. Pulido, Moore, Edward, and Ms. Devine
September 27, 2012
RO3098, Page 4

Please be aware that site investigation/site cleanup costs may be reimbursable from the California Underground Storage Tank Cleanup Fund (USTCF). The application and additional information is available at the State Water Resources Control Board's website at http://www.waterboards.ca.gov/water_issues/programs/ustcf. Please be aware that reimbursement monies are contingent upon maintaining compliance with directives from ACEH. Additional information about the USTCF can be found below in the attachments to this letter.

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:

- **October 19, 2012** – Claim site in Geotracker and Geotracker Submittal Notification
File to be named: RO3098_CORRES_L_yyyy-mm-dd
- **November 30, 2012** – SCM and Data Gap Work Plan
File to be named: RO3098_SCM_WP_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>. If your email address does not appear on the cover page of this notification, ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

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,



Digitally signed by Karel Detterman
DN: cn=Karel Detterman, o, ou,
email=karel.detterman@acgov.org, c=US
Date: 2012.09.28 10:22:05 -07'00'

Karel Detterman, PG
Hazardous Materials Specialist

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

cc: Leroy Griffin, Oakland Fire Department (Sent via E-mail to: lgriffin@oaklandnet.com)

Jan Schutze, Schutze & Associates (Sent via E-mail to: js@schutze-inc.com)

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](http://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.

ATTACHMENT B

SUMMARY OF ENVIRONMENTAL INVESTIGATION AND REMEDIATION

SUMMARY OF ENVIRONMENTAL INVESTIGATION & REMEDIATION
FORMER TEXACOSERVICE STATION 359766

July 2010 Subsurface Investigation

Schutze & Associates, Inc. advanced four soil borings and installed four temporary soil gas vapor probes. Additional information is available in Schutze's *Phase II Subsurface Investigation Report* dated August 24, 2010.

October 2010 Subsurface Investigation

In October of 2010 Schutze & Associates, Inc. installed groundwater monitoring wells MW-1 through MW-4. A geophysical survey revealed a metallic utility line in the central area of the parking lot and miscellaneous debris at the southeast corner of the parking lot. In November of 2010 these areas were excavated and the utility line and debris were removed. Additional information is available in Schutze's *Report: Summary of Previous Investigations, Installation and Sampling of Four Monitoring Wells, and Excavation of Test Pits, Soil Testing and Limited Soil Removal* dated March 16, 2011.

ATTACHMENT C

STANDARD FIELD PROCEDURES FOR SOIL BORING AND MONITORING WELL
INSTALLATION

STANDARD FIELD PROCEDURES FOR SOIL BORING AND MONITORING WELL INSTALLATION

This document presents standard field methods for drilling and sampling soil borings and installing, developing and sampling groundwater monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORINGS

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the ASTM D2488-06 Unified Soil Classification System by a trained geologist working under the supervision of a California Professional Geologist (PG).

Soil Boring and Sampling

Prior to drilling, the first 8 feet of the boring are cleared using an air or water knife and vacuum extraction or hand auger. This minimizes the potential for impacting utilities. Soil borings are typically drilled using hollow-stem augers or direct-push technologies such as the Geoprobe®. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4° C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable volatile vapor analyzer measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. Volatile vapor analyzer measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch® type sampler or are collected from the open borehole using bailers. The groundwater samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Well Construction and Surveying

Groundwater monitoring wells are installed to monitor groundwater quality and determine the groundwater elevation, flow direction and gradient. Well depths and screen lengths are based on groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 feet below and 5 feet above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three feet thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two feet above the well screen. A two feet thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I, II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

Well Development

Wells are generally developed using a combination of groundwater surging and extraction. Surging agitates the groundwater and dislodges fine sediments from the sand pack. After about ten minutes of surging, groundwater is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of groundwater are extracted and the sediment volume in the groundwater is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

Groundwater Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of groundwater are purged prior to sampling. Purging continues until groundwater pH, conductivity, and temperature have stabilized. Groundwater samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite and covered by plastic sheeting. At least three individual soil samples are collected from the stockpiles and composited at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples in addition to any analytes required by the receiving disposal facility. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Groundwater removed during development and sampling is typically stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Upon receipt of analytic results, the water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.