ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

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

October 8, 2013

Walter Sprague
Pacific Convenience & Fuel
7180 Knoll Center Parkway, Suite 100
Pleasanton, CA 94566
(Sent via E-mail to WSprague@pcandf.com*)*

Rick Horn
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, California 94583
(Sent via E-mail to: Rhorn@Chevron.com*)*

Ed Ralston
Phillips 66 Company
76 Broadway, Sacramento, CA 95818
(Sent via E-mail to: Ed.C.Ralston@p66.com)

Subject: Fuel Leak Case No. RO0000219 and GeoTracker Global ID T0600101476, UNOCAL #5043, 449 Hegenberger Road, Oakland, CA 94621

Dear Mr. Sprague:

Thank you for coming to meet with us on September 13, 2013 at our office to discuss site UNOCAL 5043, 449 Hegenberger Rd, Oakland, Alameda County Environmental Health (ACEH) case file # RO0000219. It was a pleasure to put a face to the name ACEH has been working with. Items for discussion included the recent submittals by ANTEA Group (ANTEA) regarding the work plans for the In-Situ Chemical Oxidation (ISCO) Pilot Test, dated May 15, 2012 and for the abandonment of well MW-12A, dated February 11, 2013, and the April 23, 2013 Remedial Action Plan outlining soil excavation, and the ACEH Directive Letter dated June 21, 2013.

At this juncture ACEH requests that you address the technical comments and perform the requested work identified below.

Technical Comments

1. **Groundwater Assessment-** As discussed at our meeting please assess groundwater conditions at the site including the following items:

   - The monitoring well network in relation to the groundwater flow direction, using groundwater flow direction for the justification of down gradient well(s) placement to delineate the leading edge of the contaminant plume.
   - The immediate risk to sensitive receptors from shallow groundwater migrating off-site.
   - The monitoring well network with regard to proposed ISCO injection points to capture the effects of the ISCO injection.
   - Why the isoconcentration contours appear to be perpendicular the direction of groundwater flow.

   Please include your assessment in the Feasibility Study / Corrective Action Plan (FS/CAP) described in Item 2 below.

2. **Feasibility Study / Corrective Action Plan**- Please prepare a FS/CAP evaluating at least two viable alternatives for remedying or mitigating the actual or potential adverse affects of the unauthorized release(s) besides the 'no action' and 'monitored natural attenuation' remedial alternatives. Please evaluate each alternative for cost-effectiveness and its timeframe to reach cleanup levels and cleanup goals, and present your recommendations for the preferred alternative. ACEH understands the two remedial methods being evaluated are soil excavation and ISCO injection. Please include the following items in the FS/CAP:

   - Cross sections showing utilities and preferential pathways;
   - A site map using a photographic base showing site and nearby features. Include on the figure a rose diagram, well and boring locations, and the estimated benzene isoconcentration contour map showing the estimated plume boundary. As discussed in the meeting, please use the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP) Technical Justification Groundwater Paper to support the estimated plume length. Identify nearby potential receptors on the site map.

3. **Public Participation Notification-** Please prepare a draft Public Participation Notification Fact Sheet for the FS/CAP to include the following items:

   - Language for the two remedial methods (soil excavation and ISCO injection);
   - A section addressing the effect the remedial actions will have on the public during implementation.

   ACEH will review the draft Fact Sheet and provide a final Fact Sheet and list of recipients for you to distribute to. ACEH has included an example Fact Sheet for your use as Attachment A. Following distribution of the Fact Sheet, please provide your personal certification by email or letter, that the Fact Sheet was distributed by U.S. Mail to the list of recipients.

4. **Remedial Design-** Subsequent to the completion of the public comment period on the FS/CAP please prepare a Remedial Design Implementation Plan document identifying the steps for implementation details. The discussion of the selected remedial method should include, but not be limited to, the following items:

   - Post-remediation monitoring and verification plans with proposed strategy for collecting groundwater, soil and soil vapor monitoring and confirmation samples, as appropriate. This may require the installation of replacement onsite groundwater monitoring wells;
   - A detailed cost estimate for the proposed work;
   - Implementation schedule with milestone dates;
   - A strategy for collecting soil data within the upper 10 feet of soil at the site during ISCO injection or excavation, if appropriate, to help fulfill the requirements for the LTCP Media Specific Criteria for Direct Contact and Outdoor Air.

   If excavation is selected, the discussion of the excavation remediation alternative should include, but not be limited to, the following items:

   - Possible segregation of clean surficial materials from deeper impacted soil, stockpile placement and stockpile profiling;

- Use of shoring support for excavation sidewalls;
- Excavation dewatering.

If ISCO is selected, the discussion of the ISCO remediation alternative should include, but not be limited to, the following items:

- Well spacing and depths;
- injection intervals and pressures;
- injection radius of influence;
- The adequacy of the monitoring well network to evaluate the effectiveness of the ISCO treatment.

Please note, implementation of the CAP is contingent on public notification and the submittal and ACEH acceptance of the CAP Implementation Plan.

5. **Groundwater Monitoring**- ANTEA has proposed the decommissioning of monitoring well MW-12A. ACEH concurs that groundwater in the deeper water zone monitored by well MW-12A has not been impacted by the petroleum hydrocarbons identified in the shallow groundwater zone. However, ACEH requests to keep the well until the FS/CAP has been accepted. Well MW-12A can be removed from the quarterly well sampling program until the final disposition of the well is determined.

6. **Gant Chart- Path to Closure Project Schedule** – The SWRCB passed Resolution No. 2012-0062 on November 6, 2012 which requires development of a "Path to Closure Plan" by December 31, 2013 that addresses the impediments to closure for the site. The Path to Closure must have milestone dates tied to calendar quarters which will achieve site cleanup and case closure in a timely and efficient manner and minimizes the cost of corrective action. Therefore, by the date listed below please prepare a Path to Closure Schedule (further detailed in Attachment B) for your site that incorporates the items identified by ACEH in the Technical Comments above as impediments to closure. ACEH will review the schedule to ensure that all key elements are included.

Schedule

Please upload technical reports to the ACEH ftp site (Attention: Keith Nowell), and to the State Water Resources Control Board's Geotracker website, in accordance Attachment 1 and the following specified file naming convention and schedule:

- **November 8, 2013- Draft Feasibility Study / Corrective Action Plan Report** (file name: RO0000219_FEAS_CAP_R_yyyy-mm-dd)
- **November 8, 2013- Quarterly Groundwater Monitoring Report** (file name: RO0000219_ GWM_R_yyyy-mm-dd)
- **November 8, 2013- Path to Closure Project Schedule** (file name: RO0000219_ PROJ_SCH_R_yyyy-mm-dd)
- **December 6, 2013- Draft Fact Sheet** (file name: RO0000219_ CAP_L_yyyy-mm-dd)
- **January 31, 2014- Quarterly Groundwater Monitoring Report** (file name: RO0000219_ GWM_R_yyyy-mm-dd)

- **TBD- Fact Sheet (Certified)** (file name: RO0000219_ CAP_PPRL_L_yyyy-mm-dd)
- **TBD - Remedial Design Implementation Plan** (file name: RO0000219_ RDIP_R_yyyy-mm-dd)

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.

If you have any questions or concerns regarding this correspondence or your case, please call me at (510) 567-6764 or send me an electronic mail message at *keith.nowell@acgov.org*.

Sincerely,

Digitally signed by Keith Nowell
DN: cn=Keith Nowell, o, ou, email=keith.nowell@acgov.org, c=US
Date: 2013.10.08 11:06:05 -07'00'

Keith Nowell, P.G., C.HG.
Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

Attachment A – Example Fact Sheet

Attachment B – Path to Closure Project Schedule Requisite Elements

cc: Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (*Sent via E-mail to: lgriffin@oaklandnet.com*)
Dennis Dettloff, Antea Group, 11050 White Rock Road, Suite 110, Rancho Cordova, CA 95670 *(Sent via E-mail to: dennis.dettloff@anteagroup.com)*

Dilan Roe (*Sent via E-mail to: dilan.roe@acgov.org*)
Keith Nowell, ACEH (*Sent via E-mail to: keith.nowell@acgov.org*)
GeoTracker
File

ATTACHMENT 1

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

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 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.

ATTACHMENT A

Public Fact Sheet

ALAMEDA COUNTY
HEALTH CARE SERVICES AGENCY
ALEX BRISCOE, Agency Director

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

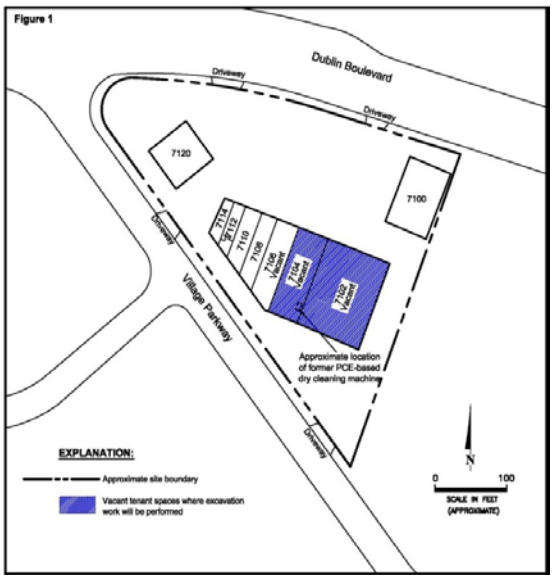
September 27, 2013

FACT SHEET ON ENVIRONMENTAL STATUS

Former Park Avenue Cleaners
7100 – 7120 Dublin Boulevard, Dublin, CA
Site Cleanup Program No. RO0003113
Geotracker Global ID T10000001616

Summary - This fact sheet has been prepared to inform community members and other interested stakeholders of the status of environmental work at the former Park Avenue Cleaners facility (the Site), located at 7104 Dublin Boulevard in Dublin, California (Figure 1). The Site is currently enrolled in a voluntary cleanup program under local oversight by Alameda County Environmental Health (ACEH).

This fact sheet contains information concerning site background, results of recent investigation activities, planned interim cleanup activities, and information contacts.



Site Background - The Site is part of a commercial retail shopping center that is developed with three one-story multi-tenant commercial buildings, associated parking and landscaped areas known as “Dublin Crossroads” (7100-7120 Dublin Boulevard).

Park Avenue Cleaners operated a laundry and dry cleaning facility at 7102B Dublin Boulevard from 1990 to 2004. In 2004, Park Avenue Cleaners relocated to the adjacent retail space at 7104 Dublin Boulevard. In late July 2013, Park Avenue Cleaners vacated the Site; all associated dry cleaning equipment was removed.

Environmental Impacts - Environmental investigation commenced at the Site in 2012 to evaluate the potential for subsurface impacts associated with the former dry cleaning operation. Additional investigation was performed in July and August 2013 to evaluate the extent of subsurface impacts across the property. The investigations identified that volatile organic compounds (VOCs) were detected in the subsurface at concentrations greater than applicable regulatory agency screening levels. The VOCs found beneath the Site are tetrachloroethene (PCE) and its associated breakdown components trichloroethene (TCE) and cis-1,2- dichloroethene (DCE).

Maximum concentrations of PCE in soil, groundwater, soil vapor and sub-slab soil vapor were detected in the vicinity of the former dry cleaning machine at the 7104 tenant space exceeding commercial use screening levels. Soil, groundwater and soil vapor impacts were not detected in other locations beneath the Site at levels that would pose a threat to human health or the environment. Elevated soils containing PCE were only found within portions of the 7102 and 7104 tenant spaces in the vicinity of the former dry cleaning machine and to a depth below 10 feet indicating that the subsurface impacts appear to be localized and limited in both lateral and vertical extent.

VOCs are able to move in the environment, from soil to groundwater, from groundwater to soil, and from groundwater or soil to air. The shallow groundwater in this area is not used for drinking water or other household/industrial purposes.
Of particular interest is the potential for movement of VOCs into the interior of buildings

ALAMEDA COUNTY
HEALTH CARE SERVICES AGENCY
ALEX BRISCOE, Agency Director

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

where people could be exposed to elevated levels of contaminated indoor air. This process is called vapor intrusion into indoor air. The concentrations of PCE detected in the soil gas and sub-slab vapor samples beneath the former dry cleaning machine indicate a potential vapor intrusion health risk concern in this vicinity. Concentrations of PCE in the sub-slab soil vapor samples collected at distance away from the former dry cleaning machine were below commercial use screening levels. The presence of these chemicals at concentrations exceeding regulatory screening levels does not indicate that adverse impacts to human health or the environment are necessarily occurring, but rather indicates that a potential for adverse risk may exist.

Interim Removal Activities – The current vacant tenant spaces provide an excellent opportunity to remove presumed source soils beneath the Site that are of limited extent. Removal of these soils by excavation inside the building will likely reduce the potential for vapor intrusion in the vicinity of the former dry cleaning machine and remove the residual source of PCE beneath the Site in vadose soil.

Approximately 300 cubic yards of soil containing VOCs is planned to be removed from a small excavation measuring 20 feet by 40 feet by up to 10 feet deep in the vicinity of the former dry cleaning machine overlapping a small portion of the vacant 7102 and 7104 tenant spaces.

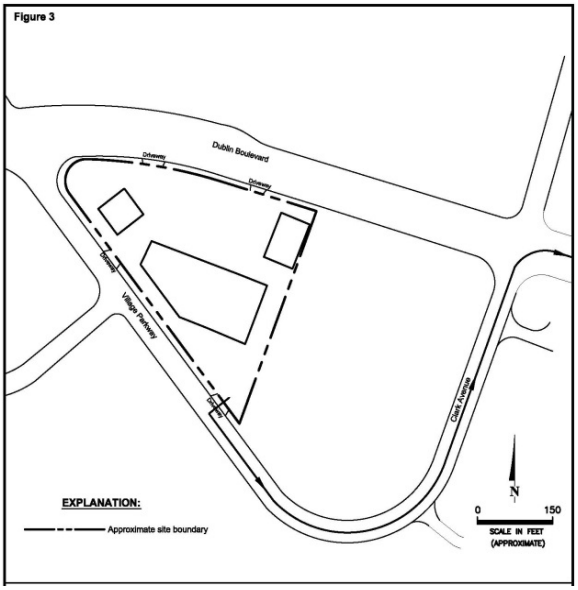
Confirmation soil samples will be collected from the floor and sidewalls of the excavation to demonstrate that established remedial action objectives have been achieved. In addition, soil vapor conditions within the sub-slab material to the east and north of the planned excavation will be monitored before, during and after excavation to evaluate vapor conditions for both existing and future occupants beneath the Site.

Offsite Disposal and Trucking Routes - Excavated soils will be placed into roll-off bins for transport via covered trucks by appropriately licensed waste haulers to designated disposal facility. Approximately 30 roll-off bin/trucks are likely needed to transport the VOC containing soils.

During soil transport activities, trucks will pick up the roll-off bins that will be staged onsite (in the eastern and southern portions of the parking lot). Trucks will enter and leave the Site from the south along Village Parkway. A flag person will be located at the Site to assist the truck drivers to safely drive onto the Site. Transportation will be coordinated in such a manner that on-site trucks will be in communication with the Site trucking coordinator.

In addition, vehicles will be required to maintain slow speeds (i.e., less than 5 mph) for safety and for dust control purposes.

Trucks will depart the Site from the south and turn left onto Village Parkway and make the first right onto Dublin Boulevard. Trucks will then turn right onto Dougherty Road and merge onto Interstate 580 East towards Stockton, California. Trucks will then proceed until arrival of the disposal facility.



Prior to exiting the Site, the vehicle will be swept (as needed) to remove extra soil from areas not covered or protected. This cleanup or decontamination area will be set up as close to the loading area as possible so as to minimize the potential for spreading impacted soil. As the trucks leave the Site, the flag person will assist the truck drivers so that they can safely merge with traffic on Village Parkway.

Timeline - Excavation activities are anticipated to begin in late September or early October 2013 and take approximately three weeks to complete.

ALAMEDA COUNTY
HEALTH CARE SERVICES AGENCY
ALEX BRISCOE, Agency Director

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

How to Get More Information - The proposed interim removal actions are presented in the *Revised Interim Removal Action Plan* (IRAP), dated September 20, 2013, prepared by Iris Environmental on behalf of Shelter Bay Retail Group. The IRAP as well as the entire case file can be viewed over the internet on the ACEH website at http://www.acgov.org/aceh/lop/ust.htm or at the State of California Water Resources Control Board Geotracker website at http://geotracker.swrcb.ca.gov.

For additional information, please contact:

Dilan Roe
Site Cleanup Program Manager
Alameda County Environmental Health
1131 Harbor Bay Parkway Suite 250
Alameda, CA 94502
Phone: 510-567-6767
Email: dilan.roe@acgov.org

Craig Pelletier
Environmental Consultant
Iris Environmental

Phone: 510-834-4747
Email:craig@irisenv.com

ATTACHMENT B

Path to Closure Project Schedule Requisite Elements

ATTACHMENT B

Path to Closure Project Schedule Requisite Elements

The State Water Resources Control Board passed Resolution No. 2012-0062 on November 6, 2012 which requires development of a "Path to Closure Plan" by December 31, 2013 that addresses the impediments to closure for the site. The Path to Closure must have milestone dates tied to calendar quarters which will achieve site cleanup and case closure in a timely and efficient manner and minimizes the cost of corrective action. ACEH will review the schedule to ensure that all key elements are included.

Please submit an electronic copy that includes, but is not be limited to, the following key environmental elements and milestones as appropriate:

- Preferential Pathway Study
- Soil, Groundwater, and Soil Vapor Investigations
- Initial, Updated, and Final/Validated SCMs
- Interim Remedial Actions
- Feasibility Study/Corrective Action Plan
- Pilot Tests
- Remedial Actions
- Soil Vapor and Groundwater Monitoring Well Installation and Monitoring
- Public Participation Program (Fact Sheet Preparation/Distribution/Public Comment Period, Community Meetings, etc.)
- Case Closure Tasks (Request for closure documents, ACEH Case Closure Summary Preparation and Review, Site Management Plan, Institutional Controls, Public Participation, Landowner Notification, Well Decommissioning, Waste Removal, and Reporting.)

Please include time for regulatory and RP in house review, permitting, off-site access agreements, and utility connections, etc.

Please use a critical path methodology/tool to construct a schedule with sufficient detail to support a realistic and achievable Path to Closure Schedule. The schedule is to include at a minimum:

- Defined work breakdown structure including summary tasks required to accomplish the project objectives and required deliverables
- Summary task decomposition into smaller more manageable components that can be scheduled, monitored, and controlled
- Sequencing of activities to identify and document relationships among the project activities using logical relationships
- Identification of critical paths, linkages, predecessor and successor activities, leads and lags, and key milestones
- Identification of entity responsible for executing work
- Estimated activity durations (60-day ACEH review times are based on calendar days)