



76 Broadway  
Sacramento, California 95818

**RECEIVED**

10:13 am, Jul 27, 2010

Alameda County  
Environmental Health

July 21, 2010

Ms. Barbara Jakub  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway  
Alameda, California 94502-6577

**Re: Quarterly Status Report – Second Quarter 2010  
76 Service Station No. 1028  
5300 Broadway  
Oakland, California  
Alameda County LOP Case #: RO0002967  
Delta Project No. I40251028**

Dear Ms. Jakub:

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please call Ms. Lia Holden at (408) 826-1863.

Sincerely,

Eric G. Hetrick  
Site Manager  
Risk Management & Remediation

July 21, 2010

Ms. Barbara J. Jakub  
Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**Re: Quarterly Status Report – Second Quarter 2010**  
76 Service Station No. 1028  
5300 Broadway  
Oakland, California  
Alameda County LOP Case #: RO0002967  
Delta Project No. I40251028

Dear Ms. Jakub,

Delta Consultants (Delta) is submitting the subject report for the above referenced site.

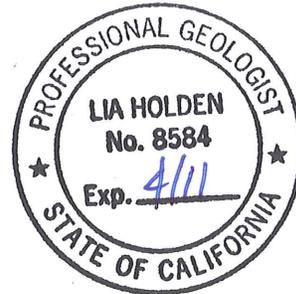
Please contact the undersigned at (408) 826-1863 if you have questions.

Sincerely,  
**Delta Consultants**



*Nadine Periat*  
FOR  
Nadine Periat  
Senior Staff Geologist

*Lia Holden*  
Lia Holden, P.G # 8584  
Geologist – Project Manager



**Attachments:**

Figure 1      Site Vicinity Map  
Figure 2      Site Map

**QUARTERLY STATUS REPORT**  
**Second Quarter 2010**  
76 Service Station No. 1028  
Oakland, California

**SITE DESCRIPTION**

The subject site is an inactive service station located on the northeast corner of the intersection of Broadway and Broadway Terrace in Oakland, California (**Figure 1**). Aboveground facilities consist of two dispenser islands and repair shop. Three gasoline underground storage tanks (USTs) share a common pit located in the southwest corner of the property. One waste oil tank is located in front of the station building (**Figure 2**). The site is bordered to the north and east by residential buildings. Commercial properties are located to the west of the site across Broadway and to the south across Broadway Terrace.

**SITE BACKGROUND AND ACTIVITY**

1989 – Soil samples were collected by Kaprealian Engineering, Inc. (KEI) following the removal of two fuel USTs, their associated piping, and a waste-oil UST. Ground water was encountered in the tank pit at a depth of approximately 7 to 8 feet. Analytical results from the soil samples showed total petroleum hydrocarbons as gasoline (TPH-G) ranged from non-detectable above laboratory reporting limits to 22 parts per million (ppm) in the fuel UST excavation, and from non-detectable to 5.7 ppm in the waste-oil UST excavation. All total petroleum hydrocarbons as diesel (TPH-D) concentrations were less than 10 ppm and all total oil and grease (TOG) concentrations in the waste-oil UST excavation were less than 50 ppm (KEI January 1990).

1990 – Three two-inch diameter monitoring wells (MW-1 through MW-3) were installed at the site. TPH-G was not detected above the laboratory reporting limit in soil samples from well borings. Benzene was reported in the soil samples at concentrations ranging from non-detectable to 0.0066 ppm. TPH-G, benzene, toluene, ethylbenzene, and total xylenes (BTEX) were not detected above the laboratory reporting limits in groundwater samples collected from MW-1 and MW-2. TPH-G and benzene were reported in the groundwater sample from MW-3 at concentrations of 590 ppb and 2.5 ppb, respectively. TPH-D was reported in monitoring well MW-1 at a concentration of 5.4 ppb (KEI May 1990).

1998 – Environmental Resolutions, Inc. (ERI), oversaw the removal of product lines and dispensers. Product lines consisted of double-walled fiberglass piping and showed no visible evidence of damage or straining. The piping was removed only in the dispenser area. Residual petroleum hydrocarbons were not reported above the laboratory reporting limits in soil samples collected adjacent to former dispensers D-1 and D-2 with the exception of methyl tertiary-butyl ether (MTBE) which was reported at a concentration of 0.46 milligrams per kilogram (mg/kg). Lead was reported in the sample collected adjacent to dispenser D-1 at 6.4 mg/kg (ERI 1998).

2007 – ATC observed the advancement of three soil borings (ATC-2, ATC-4, and ATC-5) in the vicinity of the existing fuel USTs and dispensers. TPH-G was reported at concentrations of 1.4 mg/kg and 5.2 mg/kg in soil samples collected at approximately five feet below ground surface (bgs) in borings ATC-2 and ATC-5, respectively. TPH-D was reported in boring ATC-2 at a depth of five feet bgs at a concentration of 23 mg/kg. TPH-G was reported at concentrations of 73 micrograms per liter ( $\mu\text{g/L}$ ), 69  $\mu\text{g/L}$ , and 5,300  $\mu\text{g/L}$  in groundwater samples collected from ATC-2 (including duplicate B-2) and ATC-5, respectively. TPH-D was reported at concentrations of 15,000  $\mu\text{g/L}$ , 25,000  $\mu\text{g/L}$ , and 18,000  $\mu\text{g/L}$  in groundwater samples collected from ATC-2 (including duplicate B-2) and ATC-5, respectively (ATC 2007).

## **SENSITIVE RECEPTORS**

In 2008, Delta performed a water well survey to locate all water supply wells within a half-mile of the site. The survey included a request to the Department of Water Resources (DWR) to provide well log records. No water supply wells were identified in the search.

A preferential pathway study was performed to determine whether trench backfill for utilities beneath the site or in the site vicinity could provide potential conduits for contaminant migration. Delta concluded that due to shallow groundwater and location of identified utilities, a nearby sewer line/trench and water line/trench could provide a direct conduit for groundwater migration from the site to neighboring sites (Delta 2008).

## **REMEDIATION STATUS**

Active soil and/or groundwater remediation is not currently being conducted at the site.

## **CHARACTERIZATION STATUS**

Currently, TPH-G and TPH-D in soil and groundwater have not been fully assessed.

## **RECENT CORRESPONDENCE**

April 2009: Delta submitted the Soil and Water Investigation Work Plan dated April 3, 2009. The work plan addendum addressed concerns that the ACEH stated in a letter dated March 6, 2009. In the work plan, Delta proposed the advancement of seven shallow borings and a minimum of three deep soil borings in order to assess the lateral and vertical extent of contamination at the site.

In a letter dated October 2, 2009, Delta informed the ACEH that sixty days had passed since the submittal of Delta's work plan for review and comments. In accordance with Title 23, Division 3, Chapter 16, Article 11, Section 2722 (e) of the California Code of Regulations, Delta informed the ACEH of intentions to proceed with the work described in the above referenced work plan and addendum.

In an email dated October 29, 2009, the ACEH responded to Delta's 60-day notification letter. The ACEH stated that they had not reviewed Delta's April 2009 work plan, and required more time to review it. The ACEH stated that any work performed at the site would be done so without concurrence from the ACEH, and that if comments to the work plan were made after work was performed, additional field work may be necessary. The ACEH also stated that UST Cleanup Fund typically reimburses costs for work approved by a regulatory agency.

On July 6, 2010, Delta submitted a Work Plan for Preliminary Site Assessment to the ACEH. The work plan was submitted to supersede the work plan previously submitted by Delta on October 29, 2008. The July 6<sup>th</sup> work plan proposed three groundwater monitoring wells to characterize groundwater conditions and flow, and the advancement of three cone penetrometer test (CPT) borings for vertical delineation.

## **CONCLUSIONS AND RECOMMENDATIONS**

Characterization of the site's sorbed and dissolved phase hydrocarbon plume is incomplete. Delta recommends proceeding with the proposed field activities as outlined in the July 6<sup>th</sup> Work Plan for Preliminary Site Assessment.

**THIS QUARTER ACTIVITIES (Second Quarter 2010)**

- Delta prepared and submitted the Quarterly Status Report - First Quarter 2010
- No monitoring and sampling was conducted this quarter.

**NEXT QUARTER ACTIVITIES (Third Quarter 2010)**

- Delta prepared and submitted the Quarterly Status Report - Second Quarter 2010 (provided herein)
- Delta prepared and submitted the Work Plan for Preliminary Site Assessment dated July 6<sup>th</sup>, 2010.

**REMARKS**

The descriptions, conclusions, and recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. For any reports cited that were not generated by Delta, the data from those reports is used "as is" and is assumed to be accurate. Delta does not guarantee the accuracy of this data for the referenced work performed nor the inferences or conclusions stated in these reports. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were conducted. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.

**CONSULTANT:      Delta Consultants**

## References Cited

- Kaprealian Engineering, Inc., Soil Sampling Report, Unocal Service Station #1028, 5300 Broadway, Oakland, California, January 29, 1990.
- Kaprealian Engineering, Inc., Preliminary Groundwater Investigation, Unocal Service Station #1028, 5300 Broadway, Oakland, California, May 14, 1990.
- Environmental Resolutions, Inc., Environmental Work Related to EPA Retrofit, Tosco (Union) 76 Service Station 1028, 5300 Broadway Avenue, Oakland, California, June 16, 1998.
- ATC Associates Inc., Due Diligence Site Assessment Report, ConocoPhillips Site No. 251028, 5300 Broadway Avenue, Oakland, California, November 1, 2007.
- Delta Consultants, Additional Site Assessment Work Plan First Phase, Fuel Leak Case No. R000002967, GeoTracker Global ID T0619732490, Unocal #1028 / ConocoPhillips # 251028, 5300 Broadway, Oakland, CA 94618, October 29, 2008
- Alameda County Heath Care Services Agency, Fuel Leak Case No. R000002967 and Geotracker Global ID T0619732490, Unocal #1028 / ConocoPhillips # 251028, 5300 Broadway, Oakland, CA 94618, March 6, 2009.
- Delta Consultants, Soil and Water Investigation Work Plan Addendum, Fuel Leak Case No. R000002967, GeoTracker Global ID T0619732490, Unocal #1028 / ConocoPhillips # 251028, 5300 Broadway, Oakland, CA 94618, April 3, 2009.
- Delta Consultants, Soil and Water Investigation Work Plan Addendum dated April 3, 2009 (60 day Notification), Fuel Leak Case No. R000002967, GeoTracker Global ID T0619732490, Unocal #1028 / ConocoPhillips # 251028, 5300 Broadway, Oakland, CA 94618, October 2, 2009.
- Alameda County Environmental Health, Email Correspondence: R000002967, 5300 Broadway, Oakland, October 29, 2009.
- Delta Consultants, Work Plan for Preliminary Site Assessment, 76 Service Station No. 1028, 5300 Broadway Oakland, California Alameda County LOP Case #: R00002967 Delta Project No. I40251028, July 6<sup>th</sup>, 2010.

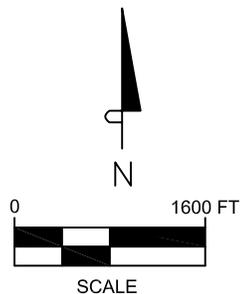
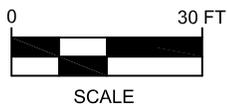
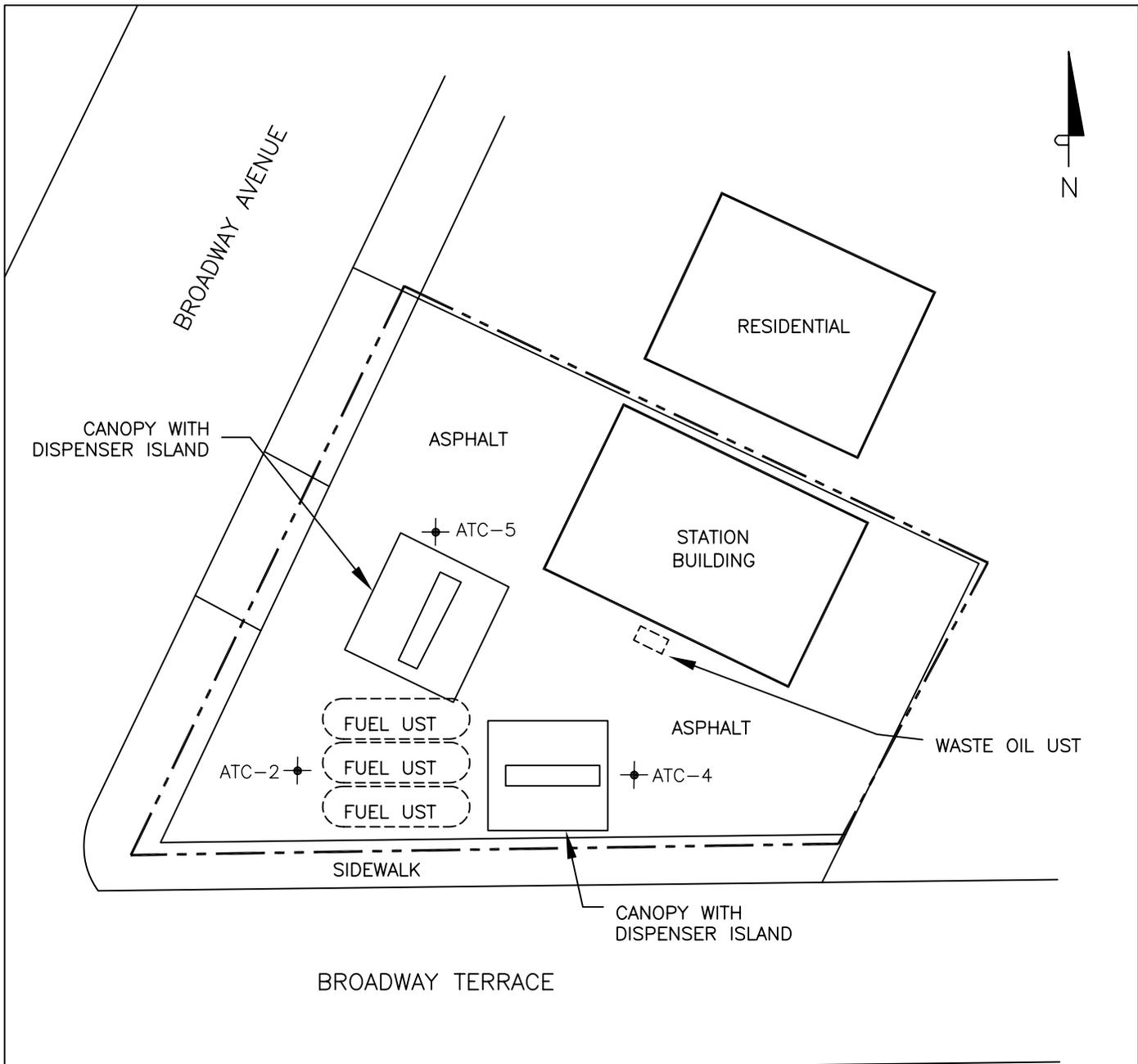


FIGURE 1  
SITE LOCATION MAP

76 STATION NO. 1028  
5300 BROADWAY AVENUE  
OAKLAND, CALIFORNIA

PROJECT NO. 140251028	PREPARED BY NP	DRAWN BY JH
DATE 04/19/10	REVIEWED BY LH	FILE NAME 1028-Topo





**LEGEND:**

- --- --- APPROXIMATE PROPERTY BOUNDARY
- ⊕ SOIL BORING (ATC 2007)

SITE MAP ADAPTED FROM A SITE MAP BY ATC ASSOCIATES, 2007.

**FIGURE 2  
SITE MAP**

76 STATION NO. 1028  
5300 BROADWAY AVENUE  
OAKLAND, CALIFORNIA

PROJECT NO. 140251028	PREPARED BY NP	DRAWN BY JH
DATE 04/19/10	REVIEWED BY LH	FILE NAME 1028-Site

