



76 Broadway
Sacramento, California 95818

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Alameda County
Environmental Health

December 13, 2010

Mr. Mark Detterman
Hazardous Materials Specialist, PG, CEG
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-577

**Re: Report Submittal
Quarterly Summary Report
76 Service Station #3737
1400 Powell Street
Emeryville, Alameda County, CA
Case# RO 067**

Dear Mr. Detterman:

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:

Ted Moise (Contractor)
ConocoPhillips
Risk Management & Remediation
76 Broadway
Sacramento, CA 95818
Phone: (510) 245-5162
Fax: (918) 662-4480

Sincerely,

Eric G. Hetrick
Site Manager
Risk Management & Remediation

December 10, 2010

Mr. Mark Detterman
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Re: Quarterly Summary Report – Fourth Quarter 2010
76 Service Station No. 3737
1400 Powell St
Emeryville, California
RO# 0067



Dear Mr. Detterman,

On behalf of ConocoPhillips Company (ConocoPhillips), Delta Consultants (Delta) is submitting this quarterly summary report for the following site:

Service Station

ConocoPhillips Station #3737

Location

1400 Powell Street
Emeryville, California

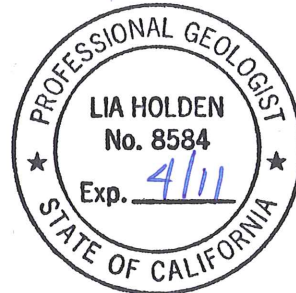
Sincerely,
Delta Consultants

A handwritten signature in blue ink that reads "Nadine Periat". The signature is written in a cursive style and includes a circled "FOR" in the middle.

Nadine Periat
Senior Staff Geologist

A handwritten signature in blue ink that reads "Lia Holden". The signature is written in a cursive style.

Lia Holden, PG #8584
Geologist - Project Manager



Figures:

- Figure 1 – Site Location Map
- Figure 2 – Site Plan

cc: Mr. Eric Hetrick – ConocoPhillips (electronic copy only)

**QUARTERLY SUMMARY REPORT
Fourth Quarter 2010**

**ConocoPhillips Station #3737
1400 Powell Street
Emeryville, Alameda County, CA**

SITE DESCRIPTION

The site is located at 1400 Powell Street, Emeryville, California and is currently an active service station. A site vicinity map is provided as **Figure 1**. The approximate locations of current and historic site features are shown on **Figure 2**. Properties in the immediate site vicinity are predominantly residential and commercial. Local topography is generally flat with an average site elevation of approximately 15 feet above mean sea level (MSL). Site soils consist of interbedded silts, lean clays, and gravely and sandy clays. Groundwater beneath the site is encountered at approximately six to ten below grade (fbg). The site overlies a former Unocal bulk fuel plant, as does one adjacent open case (RO#2621, Emeryville Industrial Court); the responsible party for this neighboring case is Wareham Development.

SITE BACKGROUND AND ACTIVITY

Between 1917 and 1964 Union Oil Company of California operated a Distribution Plant that was bounded by Powell Street to the south, 59th Street to the north, Peladeau Street to the west, and Hollis Street to the east. This distribution facility contained numerous above ground and underground storage tanks (ASTs and USTs), a garage along Hollis Street and an auto repair shop along Peladeau Street (Treadwell & Rollo, 2007). The entire gasoline service station was constructed on what was Union Oil Company of California Distribution Plant property. On the portion of the former Distribution Plant that the Subject site currently occupies, there were a total of eight ASTs containing oil and gasoline on the west side, and an oil warehouse, oil pump, and asphalt staging area on the east side.

The eight former ASTs located on the western portion of the Site had a combined storage capacity of 624,000 gallons, and were installed within the former berm. The lateral extent of this former bermed area includes the location of the three existing USTs as well as a majority of the existing underground piping and dispensers currently at the site. According to Treadwell & Rollo's Site Management Completion report for 5885 Hollis Street, Emeryville, dated January 5, 2007, elevated levels of hydrocarbons were observed in soils of the Emeryville Industrial Court, now Emerystation East, the property located north of the subject site, soil samples collected from soil borings TR-25 and TR-28, located approximately 5 feet north of the Site's northern property line, contained maximum concentrations of 2,100 milligrams per kilogram (*mg/kg*) of total petroleum hydrocarbons as gasoline (TPH-G) and 280 *mg/kg* of total petroleum hydrocarbons as motor oil (TPH-MO), respectively, at 6 fbg. A grab groundwater sample collected from TR-25 contained 150,000 micrograms per liter (*ug/L*) TPH-G and 2,500 *ug/L* benzene.

The entire Emerystation East property was excavated to a total depth of approximately 12 to 15 fbg to prepare the foundation of the building that currently occupies the site. Confirmation soil samples collected in the area to the north of the Subject site on the Emerystation East property indicated that TPH-G and TPH-MO were detected at maximum concentrations of 10 *mg/kg* and 6.0 *mg/kg*, respectively. During the excavation of the foundation for the Emerystation East building, three dewatering wells were installed and sampled on a weekly basis. Dewatering well DW-14, located in the southwestern corner of the property, had high levels of TPH-G, total petroleum hydrocarbons as diesel (TPH-D), and benzene, toluene, ethyl benzene, and total xylenes (BTEX) throughout the course of the excavation work. The maximum concentrations of

TPH-G and TPH-D detected in extracted groundwater were 1,800 ug/L and 370 ug/L, respectively (Treadwell & Rollo, 2007).

August 11, 1993: GeoStrategies oversaw the removal of an Oil-Water separator.

September 10, 1997: A soil gas survey was conducted by Pacific Environmental Group Inc.

May 7, 1999: Under the supervision of TRC, Norman and Norman completed the removal of product piping associated with the former fuel dispenser islands. Immediately following the piping removal soil samples D-1, D-2, PL-1, PL-2, PL-3, and PL-4 were collected at selected points along the former product line trench and at the former dispenser islands, at depths ranging from 1.5 to 4.0 fbg. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G), total petroleum hydrocarbons as diesel (TPH-D), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Methods 8015/8020.

May 11, 1999: Norman and Norman under the supervision of TRC and Robert Weston with Alameda County Environmental Health Services, over excavated soil from below the former northwest dispenser and product piping. Approximately six cubic yards of soil was removed. Soil sample PL-2 was collected from below the excavation, at a depth of 4 fbg. In addition, a groundwater sample (TCW-1) was collected and analyzed for TPH-G, TPH-D, BTEX, and MTBE by EPA Methods 8015/8020.

May 24, 1999: One single-walled 550-gallon steel waste oil UST, located west of the station building was removed under the direction of Susan Hugo with ACHCS and supervision of TRC. Soil samples WO-4 through WO-7 and WO-1 were collected from the bottom and sidewalls of the excavation at depths of 7.5 and 10 fbg and analyzed for TPH-G, TPH-D, total petroleum hydrocarbons as motor oil (TPH-MO), BTEX, and MTBE.

November 6, 2007: Site transferred to Delta Consultants.

July 2009: Delta oversaw the advancement of CPT borings CPT-1 through CPT-7 to depths of approximately 60 fbg. Details of this investigation are presented in Delta's *Report of CPT Delineation of Fuel Hydrocarbon Affected Soil and Groundwater*, dated August 18, 2009.

SENSITIVE RECEPTORS

In January 2010, Delta conducted a sensitive receptor survey, identifying sensitive receptors within a one-half mile radius of the site. The survey entailed contacting the Department of Water Resources (DWR) to obtain a well search report. Delta used this report to identify all wells within a one-half mile radius of the site, including domestic, municipal, and irrigation wells. No domestic, municipal, or agricultural wells were located within a one-half mile radius of the site.

Additional sensitive receptors located within a one-half mile radius of the site include four schools and two child day care centers. The nearest body of surface water located is the San Francisco Bay, which is approximately one-half mile to the west of the site. Complete details of this survey are presented in Delta's *Sensitive Receptor Survey*, dated January 18, 2010.

GROUNDWATER MONITORING AND SAMPLING

As wells are not installed at the site, there is no monitoring and sampling program.

REMEDIATION STATUS

Remediation is not currently conducted at this site.

RECENT CORRESPONDENCE

In correspondence dated November 18, 2009, Alameda County Environmental Health (ACEH) requested an additional Soil and Groundwater Investigation Work Plan, due to be submitted by January 30, 2010. The directive requested that groundwater samples collected in the vicinity of the nearby dry cleaners and former bulk fuel plant be analyzed for full scan VOCs by EPA method 8260B, and for motor oil by EPA method 8015. Additionally, the ACEH requested that ConocoPhillips and Wareham Development (responsible party for adjacent case RO#2621) share case data as both sites overlie a former Unocal bulk fuel plant and share a common source area.

On December 11, 2009, Delta and ConocoPhillips met with Wareham Development, and their consultant Treadwell & Rollo, to share current data and to discuss the paths forward for the investigations of each site.

In email correspondence dated January 11, 2010, the ACEH extended the deadline for the required Work Plan by 90 days, with a revised due date of April 30, 2010. The extension was not requested by ConocoPhillips, but was directed by ACEH to allow time for an investigation at a neighboring site (RO# 2621) to be completed. As both sites overlie a former Unocal bulk fuel plant, sharing a common source area, data from the adjacent investigation may aid in the formulation of a more comprehensive scope of work for the ConocoPhillips (Case #R0067) work plan.

In email correspondence dated April 2, 2010, the ACEH extended the deadline for the required Work Plan by 30 days, with a revised due date of May 31, 2010. The extension was not requested by ConocoPhillips, but was directed by the ACEH to allow time for an investigation report to be produced for a neighboring site (RO # 2621), due to unexpected delays in the commencement of field activities related to the neighboring investigation.

Following receipt of the RO #2621 investigation report, Delta submitted the *Work Plan for Soil and Groundwater Investigation*, dated May 19th, 2010. The work plan proposed the installation of three well clusters and one single well to monitor groundwater in three potential groundwater bearing zones.

In a letter dated December 2nd, 2010, the ACEH generally concurred with Delta's scope of work proposed in the May 2010 work plan, but requested that deep C and D zone wells not be installed during the investigation, and that well screen intervals be limited to five feet. The ACEH also requested that well cluster MW-3 not be installed at this time, and that one cluster in the vicinity of MW-4 would suffice in addition to MW-1 and MW-2 well clusters. The ACEH requested that all fuel oxygenates and lead scavengers be analyzed by EPA method 8260B, and that coordinated groundwater monitoring be conducted with Wareham Development. A report summarizing results of the investigation was requested on or before January 31st, 2011.

During a telephone conversation between Delta and the ACEH on December 6th, 2010, Delta expressed that a 7-foot screen interval would be necessary in A-zone wells based on previously collected CPT data. The ACEH concurred with Delta's proposed screen intervals. An email

confirmation of this conversation was sent to the ACEH from Delta on December 6th, 2010, and was confirmed by the ACEH in an email dated December 9th, 2010.

CONCLUSIONS AND RECOMMENDATIONS

Delta conducted a site assessment using cone penetrometer test (CPT) equipment. The *Report of CPT Delineation of Fuel Hydrocarbon Affected Soil and Groundwater*, dated August 18, 2009, concluded that contaminants of concern are present at low to moderate concentrations in the northeastern portion of the site, and at lesser concentrations in the southwestern portion of the site. From this investigation, Delta reported that the extent of dissolved phase petroleum hydrocarbon plume was not fully defined, and the groundwater flow direction needed to be established.

The ACEH approved Delta's work plan for additional assessment, and Delta has scheduled field activities to begin in January of 2011. Results of the investigation will be submitted under separate cover.

THIS QUARTER ACTIVITIES (Fourth Quarter 2010)

- Groundwater monitoring and sampling was not conducted, as no wells are currently installed.

NEXT QUARTER ACTIVITIES (First Quarter 2011)

- Delta to perform activities outlined in the May 2010 work plan, and modified in the ACEH's December 2010 letter.

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:

The Sanborn Library LLC, Site Plan, 1951.

GeoStrategies, Inc., *Oil/Water Separator Abandonment*, Unocal Service Station No. 3737, 1400 Powell Street, Emeryville, California, August 11, 1993.

Pacific Environmental Group, Inc., *Soil Gas Survey Results*, Unocal Service Station 3737, 1400 Powell Street, Emeryville, California, October 29, 1997.

TRC Alton Geoscience, *Underground Storage Tank Closure Report*, Former Tosco 76 Service Station 3737, 1400 Powell Street, Emeryville, California, August 2, 1999.

Treadwell & Rollo, 2007, Site Management Completion Report, 5885 Hollis Street, Emeryville, California, January 5, 2007.

Delta Consultants, *Report of CPT Delineation of Fuel Hydrocarbon Affected Soil and Groundwater*, 76 Service Station No. 3737, 1400 Powell Street, Emeryville, California, August 18, 2009.







Delta Consultants, Sensitive Receptor Survey, 76 Service Station No. 3737, 1400 Powell Street, Emeryville, California, January 18, 2010.

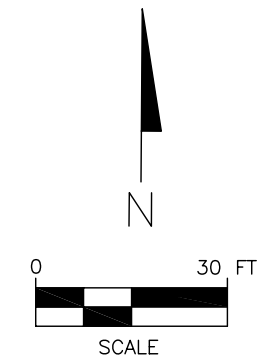
Alameda County Environmental Health, Correspondence Letter: Modified Work Plan Approval; Fuel Leak Case No. RO0000067 and Geotracker ID T0601745736, Tosco 76# 3737/ Chevron, 1400 Powell Street, Emeryville, CA, 94608, December 2, 2010.

Figures



LEGEND:


-  TANK CAVITY WELL
-  APPROXIMATE LOCATION OF DEWATERING WELL (OFFSITE)
-  APPROXIMATE BORING LOCATION BY TREADWELL AND ROLLO (OFFSITE), 2000-2005
-  HISTORICAL BORING LOCATION (ONSITE)
-  CPT BORING LOCATION, 2009
-  APPROXIMATE LOCATION OF SITE FEATURES ON 1951 SANBORN MAP



SITE PLAN ADAPTED FROM A MAP CREATED BY TRC FROM UNION OIL CO. SITE PLAN (1979).

FIGURE 2
SITE PLAN

FORMER 76 STATION #3737
1400 POWELL STREET
EMERYVILLE, CALIFORNIA

PROJECT NO. C103737	PREPARED BY NP	DRAWN BY JH	
DATE 12/08/09	REVIEWED BY LH	FILE NAME 76-3737	