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1:39 pm, Jul 16, 2009

Alameda County Environmental Health



76 Broadway Sacramento, California 95818

July 9, 2009

Barbara Jakub Alameda County Health Agency 1131 Harbor Bay parkway, Suite250 Alameda, California 94502-577

Re:

Work Plan for Additional Assessment 76 Service Station # 0018 RO # 0243 6201 Claremont Ave. Oakland, CA

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 me at (916) 558-7666.

Sincerely,

Terry L. Grayson Site Manager

Risk Management & Remediation

July 6, 2009

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

Subject:

Work Plan for Additional Assessment 76 Service Station No. 0018

6201 Claremont Avenue Oakland, California

Dear Ms. Jakub:



Delta Consultants (Delta) has prepared this Additional Site Assessment Work Plan in order to assess the extent of petroleum hydrocarbons in the vicinity of the former underground fuel storage tanks (USTs), as well as the down gradient extent of methyl tert-butyl ether (MTBE) at ConocoPhillips 76 Service Station Number 0018, located at 6201 Claremont Avenue in Oakland, CA (the Site). This additional assessment was initially recommended in Delta's Site Conceptual Model, dated September 12, 2008. Delta has not received a response from the Alameda County Environmental Health (ACEH) regarding recommendations provided in the Site Conceptual Model. Although Delta and ConocoPhillips have not yet received final approval of the September 2008 SCM, Delta is now submitting details of the scope initially recommended in the SCM, and requests ACDEH approval to proceed. A site location map is included as Figure 1. There are currently three monitoring wells at the Site, shown of Figure 2.

#### SITE DESCRIPTION

The Site is an active 76 Service Station, located at the north corner of the intersection of College Avenue and Claremont Avenue in Oakland, California. The site vicinity consists of a mixed commercial, residential, and retail establishments. The service station facilities consist of a station building, two product dispenser islands under a single canopy, two 12,000-gallon gasoline underground storage tanks (UST), and two hydraulic hoists within a vehicle service area in the station building. A general arrangement map from 1962 indicates that three fuel underground storage tanks were formerly located in the southern region of the site. Details regarding their installation and removal are not available. The approximate



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locations of these and other pertinent site features are shown on the Site Map (Figure 2).

#### PROPOSED ADDITIONAL SOIL BORINGS

The following was stated in the recommendations section of Delta's September 2008 Site Conceptual Model:

There are two data gaps 1) the investigation of the former UST location in the southern portion of the site, and 2) the downgradient extent of dissolved MTBE. Delta recommends the drilling of two soil borings within the foot-print of the former UST location and the collection of soil samples from depths of 5, 10, and 15 feet bgs. The soil samples will be analyzed for TPH-G [total petroleum hydrocarbons as gasoline], TPH-D [total petroleum hydrocarbons as diesel], and BTEX compounds [benzene toluene, ethylbenzene and total xylenes]. MTBE [methyl tertiary butyl ether] would not have been associated with pre-1962 fuels.

Delta recommends collection of a groundwater sample southwest of the site (Figure 4). Direct-push drill equipment will be used to collect a groundwater sample at a depth of 15 to 20 feet bg. The sample will be analyzed for TPH-G, BTEX compounds, MTBE, and TBA [tertiary butyl ether].

To expedite case closure, Delta proposes to fill the aforementioned data gaps by further investigating the extent of petroleum hydrocarbons and constituents in soil and groundwater in the area of the former fuel USTs and the downgradient extent of MTBE. Delta proposes the advancement of two additional onsite soil borings within the footprint of the former fuel USTs (B-1 and B-2) and one additional soil boring (B-3) southwest (down gradient) of the site on College Avenue (**Figure 2**). Delta conducted a site visit and an onsite geophysical survey in the area of the former USTs. This confirmed that the proposed onsite boring locations shown on **Figure 2** are the most feasible locations within the footprint of the former USTs due to the close proximity of existing overhead and underground utilities.

Boring B-3 will be located southwest as shown on **Figure 2**; however, due to the likelihood of underground utilities existing in the vicinity of proposed boring B-3, an alternative proposed location, "B-3 (alternative location)", is shown on **Figure 2**. This alternative location is approximately 130 feet southwest of the site in the westbound lane of 62<sup>nd</sup> Street.

To minimize the possibility of encountering subsurface utilities with drilling equipment, each boring location will first be cleared to a depth of at least five fbg using air-knife technology. The soil borings will be advanced into first encountered groundwater, anticipated to be approximately 15 to 20 feet bgs. to approximately 20 fbg, using direct push technology.

During soil boring advancement, soil samples will be collected continuously in transparent acetate liners, four feet in length. A temporary well screen will be placed into each boring and grab-groundwater samples will be collected using disposable plastic bailers. Groundwater samples will then be decanted into the

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appropriate sampling containers provided by a certified analytical laboratory for the proposed analyses.

Soils encountered in each of the three borings will be logged continuously and field-screened at intervals of approximately three feet for the presence of VOCs using a photoionization detector (PID). PID readings and a lithologic description of each soil sample will be recorded by a Delta geologist on a boring log form.

From borings B-1 and B-2, only those soil samples collected from deeper than 10 feet bgs will be submitted for laboratory analysis (where soil is anticipated to be native). From each onsite boring, a minimum of two soil samples will be collected for laboratory analysis; the deepest unsaturated soil sample, the soil sample from each boring that exhibits the highest PID value, as well as samples that exhibit visual staining or discoloration, will be selected for analysis.

In soil boring B-3, a minimum of one soil sample will be collected from the depth exhibiting the highest PID reading greater than 10 ppm. If all PID measurements in SB-3 are below 10 ppm, only the deepest unsaturated soil sample will be collected.

One grab groundwater sample from each boring will be collected from a depth of approximately 15 to 20 feet bgs (first encountered groundwater).

Delta will request that the soil and groundwater samples collected for laboratory analysis from the two onsite soil borings be analyzed for TPH-G, BTEX compounds and MTBE by EPA method 8260B, and TPH-D by EPA method 8015M with silica gel cleanup. Delta recommends silica gel clean up to preferentially remove naturally occurring organic matter that may falsely appear as diesel in the analysis.

Soil and groundwater samples from the offsite soil boring will be analyzed for TPH-G, BTEX compounds, MTBE, and TBA by EPA method 8260B.

Down-hole tools will be cleaned prior to and between each boring to prevent cross-contamination. Waste materials will be stored onsite in drums or bins pending proper disposal by a licensed ConocoPhillips approved waste hauling firm. All field point data, soil and water sample analytical data will be uploaded to the GeoTracker system per current standards.

Soil and groundwater samples selected for laboratory analysis will be individually labeled, registered on a chain-of-custody form, and immediately placed on ice pending transport to a certified analytical laboratory. Strict chain-of-custody protocols will be followed during the transport of the samples.

#### **SCHEDULE**

Delta will obtain all necessary access agreements and permits following submittal of this work plan and will commence field activities within 30 days of receipt of work plan approval by the Alameda County Health Care Services Agency (ACHCSA). If a response is not received from the ACEH following **60 days** of agency receipt of this work plan, Delta will proceed with obtaining encroachment and drilling permits and will conduct field activities as proposed.

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#### REPORTING

Upon completion of the fieldwork, Delta will prepare a report describing field activities, methods, and analytical results. Delta will include recommendations for additional assessment work at the Site, as appropriate.

It is further estimated that the final report will be ready for submittal approximately 45 days after receipt of the sample analytical results.

#### 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.

If you have any questions regarding this work plan or need and additional information about this Site, please do not hesitate to contact the undersigned (408) 826-1863.

SIONAL GE

LIA HOLDEN No. 8584

Sincerely,

**DELTA CONSULTANTS** 

Nadine Periat Staff Geologist

Lia Holden, PG #8584 Geologist - Project Manager Work Plan for Additional Assessment ConocoPhillips Site No. 0018 Oakland, CA July 6, 2009 Page 5 of 6

# Figures:

Figure 1 – Site Location Map Figure 2 – Site Plan

cc: Mr. Eric Hetrick - ConocoPhillips

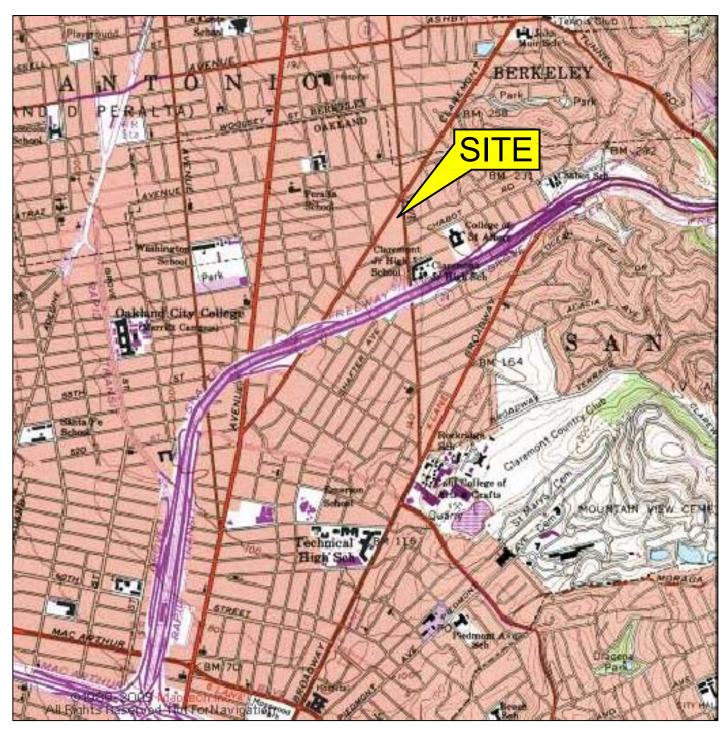
Work Plan for Additional Assessment ConocoPhillips Site No. 0018 Oakland, CA July 6, 2009 Page 6 of 6

#### **REFERENCES**

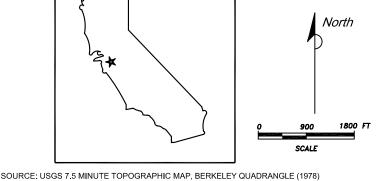
Union Oil Company of California, General Arrangement, Service Station No. 18, Claremont and College Avenues, Oakland, California, Revised January 15, 1962.

Delta Consultants, Site Conceptual Model, 76 Service Station #0018, 6201 Claremont Avenue, Oakpland, California, September 12, 2008

## **FIGURES**







### FIGURE 1 SITE LOCATION MAP

**76 STATION 0018** 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA

PROJECT NO.	DRAWN BY
C105406	JH 04/04/08
FILE NO.	PREPARED BY
5406-SiteLocator	JW
REVISION NO.	REVIEWED BY
	JW



