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9:57 am, Jul 29, 2009

Alameda County
Environmental Health

ConocoPhillips

76 Broadway
Sacramento, California 95818

July 20, 2009

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

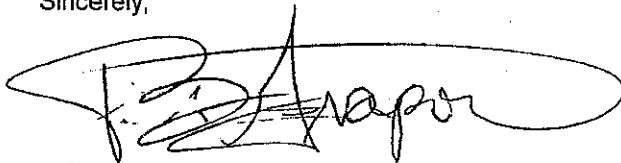
Re: **Quarterly Summary Report—Second Quarter 2009**
76 Service Station # 5043 RO # 0219
449 Hegenberger Road
Oakland, CA

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,

A handwritten signature in black ink, appearing to read "T. Grayson", enclosed within a large, loopy oval scribble.

Terry L. Grayson
Site Manager
Risk Management & Remediation

July 20, 2009

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

Re: Quarterly Summary Report - Second Quarter 2009
76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California
Fuel leak Case No. RO0000219



Dear Ms. Jakub,

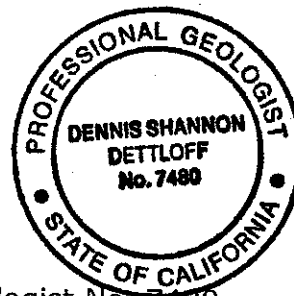
On behalf of ConocoPhillips Company (COP), Delta Consultants (Delta) is submitting this *Quarterly Summary Report - Second Quarter 2009* and forwarding a copy of TRC Solution's, Inc. (TRC's) *Quarterly Monitoring Report, April through June 2009*, dated June 26, 2009 for the above-referenced site.

Please contact Dennis Dettloff at (916) 503-1261 should you have any questions.

Sincerely,
DELTA CONSULTANTS

A handwritten signature in black ink that reads "Dennis S. Dettloff".

Dennis S. Dettloff, P.G.
Senior Project Manager
California Registered Professional Geologist No. 7480



Enclosure

cc: Mr. Terry Grayson - ConocoPhillips (electronic copy only)

QUARTERLY SUMMARY REPORT
Second Quarter 2009

76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California

County: Alameda

SITE DESCRIPTION

The subject site is an operating 76 station located on the southwestern corner of Hegenberger Road and Edgewater Drive in Oakland, California. Station facilities include three underground storage tanks (USTs), two dispenser islands, a station building and a carwash. A total of six groundwater monitoring wells are located at or near the site.

SITE BACKGROUND AND DESCRIPTION

October 1991 - Four soil samples were collected from the product pipe trenches at depths of approximately 3 feet below ground surface (bgs) during a dispenser island modification. The product pipe trenches were subsequently excavated to the groundwater depth at 4 to 4.5 bgs.

February 1992 - Three monitoring wells, MW-1 through MW-3, were installed at the site to depths ranging from 13.5 to 15 feet bgs.

August 1992 - Three additional monitoring wells, MW-4 through MW-6, were installed at the site to a depth of 13.5 feet bgs.

September 1994 - One 280-gallon waste oil UST was removed from the site. The tank was made of steel, and no apparent holes or cracks were observed in the tank. One soil sample was collected from beneath the former tank at a depth of approximately 9 feet bgs. No petroleum hydrocarbons were reported.

January 1995 - Two additional monitoring wells, MW-7 and MW-8, were installed at the site to a depth of 13 feet bgs. In addition, two existing monitoring wells were destroyed in order to accommodate the construction of a car wash at the subject site. Monitoring wells MW-4 and MW-5 were fully drilled out and backfilled with neat cement.

March 1995 - Two 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST were removed from the site. Groundwater was encountered in the tank cavity at a depth of approximately 8.5 feet bgs. Soil samples contained low levels of total petroleum hydrocarbons as diesel (TPHd) and benzene, and moderate levels of total petroleum hydrocarbons as gasoline (TPHg). Approximately 125,000 gallons of groundwater were pumped from the site for remediation and properly disposed off-site. Four dispenser islands and associated product piping were also removed. Based on the results of the confirmation samples, the product dispenser islands were over excavated to approximately 6 feet bgs.

March-April 1995 - During demolition activities of the former station building, soil samples were collected from two excavations, which were subsequently over

excavated. Confirmation samples contained low levels of petroleum hydrocarbons. An additional area on the south side of the former station building was excavated based on photoionization detector (PID) readings. Two monitoring wells, MW-1 and MW-2, were destroyed in order to allow for over excavation activities to extend to an area adjacent to the dispenser islands in the southeastern quadrant of the site. The excavated areas were subsequently backfilled with clean-engineered fill.

April 1997 - Two additional monitoring wells, MW-9 and MW-10, were installed in the vicinity of the site to depths of 13 to 15 feet bgs. In addition, monitoring well MW-3, which was damaged during the UST cavity over excavation in 1995, was fully drilled out and reconstructed in the same borehole.

October 2003 - Site environmental consulting responsibilities were transferred to TRC.

April 8-9, 2005 - TRC conducted a 24-hour dual phase extraction (DPE) event at the site using monitoring well MW-6. The 24-hour DPE event was moderately successful at removing vapor-phase petroleum hydrocarbons from the subsurface; therefore, TRC recommended DPE no longer be considered a viable remedial alternative for the site.

October 2007 - Site environmental consulting responsibilities were transferred to Delta Consultants.

SENSITIVE RECEPTORS

April 24, 2006 TRC completed a sensitive receptor survey for the site. According to the Department of Water Resources (DWR) records, three water supply wells are located within a one-half mile of the site. In addition, two surface water bodies were observed within a one-half mile radius of the site. San Leandro Creek is located approximately 1,400 feet southwest of the site and flows into San Leandro Bay. Elmhurst Creek is located approximately 2,220 feet north of the site and also flows into San Leandro Bay.

GROUNDWATER MONITORING AND SAMPLING

The groundwater monitoring well network, consisting of three on-site and three off-site monitoring wells, has been monitored and sampled on a quarterly basis since February 1992. Groundwater samples collected from the sites monitoring wells are analyzed for TPHd, silica gel treated, by Environmental Protection Agency (EPA) Method 8015M, total purgeable petroleum hydrocarbons (TPPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl-tertiary butyl ether (MTBE), and ethanol by EPA Method 8260. TRC has been contracted to perform quarterly groundwater monitoring and sampling at the site. A copy of TRC's Quarterly Monitoring Report, April through June 2009, dated June 26, 2009, has been forwarded with this report.

SECOND QUARTER 2009 GROUNDWATER MONITORING AND SAMPLING RESULTS

Groundwater monitoring and sampling was performed by TRC on May 28, 2009. The groundwater elevation decreased an average of 0.46 feet from the March 2009 event. Depth to groundwater in site monitoring wells ranged from 2.20 feet (MW-9) to 4.71

feet (MW-7) below top of casing (TOC) during the current event. The groundwater flow direction and gradient were interpreted to be to the southeast at 0.008 foot per foot (ft/ft) during the current event. Historical groundwater flow directions are shown on a rose diagram presented as Attachment A.

Contaminants of Concern:

TPPH: TPPH was above the laboratory's indicated reporting limits in the groundwater samples collected and submitted for analysis from monitoring wells MW-3 (190 micrograms per liter ($\mu\text{g/L}$)) and MW-6 (53,000 $\mu\text{g/L}$) during the current event.

TPHd: TPHd was above the laboratory's indicated reporting limits in the groundwater samples collected and submitted for analysis from monitoring wells MW-3 (120 $\mu\text{g/L}$), MW-6 (78,000 $\mu\text{g/L}$), and MW-8 (91 $\mu\text{g/L}$) during the current event.

Benzene: Benzene was above the laboratory's indicated reporting limits in the groundwater samples collected and submitted for analysis from monitoring wells MW-6 (1,700 $\mu\text{g/L}$) and MW-10 (0.91 $\mu\text{g/L}$) during the current event.

MTBE: MTBE was above the laboratory's indicated reporting limit in the groundwater sample collected and submitted for analysis from monitoring well MW-3 (60 $\mu\text{g/L}$) during the current event.

Additionally, ethyl-benzene was above the laboratory's indicated reporting limit in the groundwater sample collected and submitted for analysis from monitoring well MW-6 (1,700 $\mu\text{g/L}$); total xylenes were above the laboratory's indicated reporting limit in the groundwater sample collected and submitted for analysis from monitoring well MW-6 (5,400 $\mu\text{g/L}$); toluene was above the laboratory's indicated reporting limit in the groundwater sample collected and submitted for analysis from monitoring well MW-6 (200 $\mu\text{g/L}$) during the current event. Ethanol was below the laboratory's indicated reporting limits in the groundwater samples collected and submitted for analysis from each of the monitoring wells sampled during the current event.

REMEDIATION STATUS

Remediation is not currently being conducted at the site. Delta has requested that this site continue to be monitored and sampled on a quarterly basis. In addition, Delta has requested that TRC collect additional groundwater samples from each of the monitoring wells to be analyzed for sulfate, nitrate, and iron. These additional samples are being collected to evaluate if magnesium sulfate (MgSO_4) is a feasible remedial option in reducing the petroleum hydrocarbon impact to the groundwater beneath the site.

On April 22, 2009, Delta purged and sampled monitoring wells MW-6 and MW-9. The groundwater samples collected from these two monitoring wells were analyzed for sulfate, nitrate, and iron. The analytical results indicate that nitrate is depleted in the groundwater in the vicinity of each of these two monitoring wells. In addition, iron is depleted in the groundwater in the vicinity of monitoring well MW-6. However, sulfate was reported in each of the groundwater samples collected from monitoring wells MW-6 and MW-9 at concentrations of 1.9 milligrams per liter (mg/L) and 18 mg/L,

respectively. This indicates that all of the nitrate and iron in the groundwater in the vicinity of monitoring well MW-6, the most impacted monitoring well at the site, have been consumed, and most of the sulfate as well. This data along with the higher concentrations of sulfate in the groundwater in the vicinity of up-gradient monitoring well MW-9 appears to indicate that $MgSO_4$ may be a feasible remedial option at this site.

CHARACTERIZATION STATUS

On June 4, 2009 Delta submitted a work plan and a site conceptual model to the Alameda County Health Care Services Agency (ACHCSA) for their review. In the work plan Delta recommended additional assessment of the soil and the groundwater in the vicinity of former monitoring wells MW-1 and MW-2. In addition, vertical assessment of the soil and groundwater was also recommended.

RECENT CORRESPONDENCE

On April 3, 2009 COP received a letter from the ACHCSA requesting that a work plan and site conceptual model be prepared for this site. The letter also rejected the work plan submitted by Delta on January 6, 2009 proposing hydrogen peroxide injection at the site.

THIS QUARTER ACTIVITIES (Second Quarter 2009)

- ON April 22, 2009, Delta collected groundwater samples from monitoring wells MW-6 and MW-9 and had them analyzed for sulfate, nitrate, and iron.
- TRC performed monitoring and sampling activities at the site on May 28, 2009.
- ON June 4, 2009, Delta submitted a work plan and a site conceptual model to the ACHCSA for their consideration.
- TRC prepared the *Quarterly Monitoring Report, April through June 2009*, dated June 26, 2009 15, 2009.

NEXT QUARTER ACTIVITIES (Third Quarter 2009)

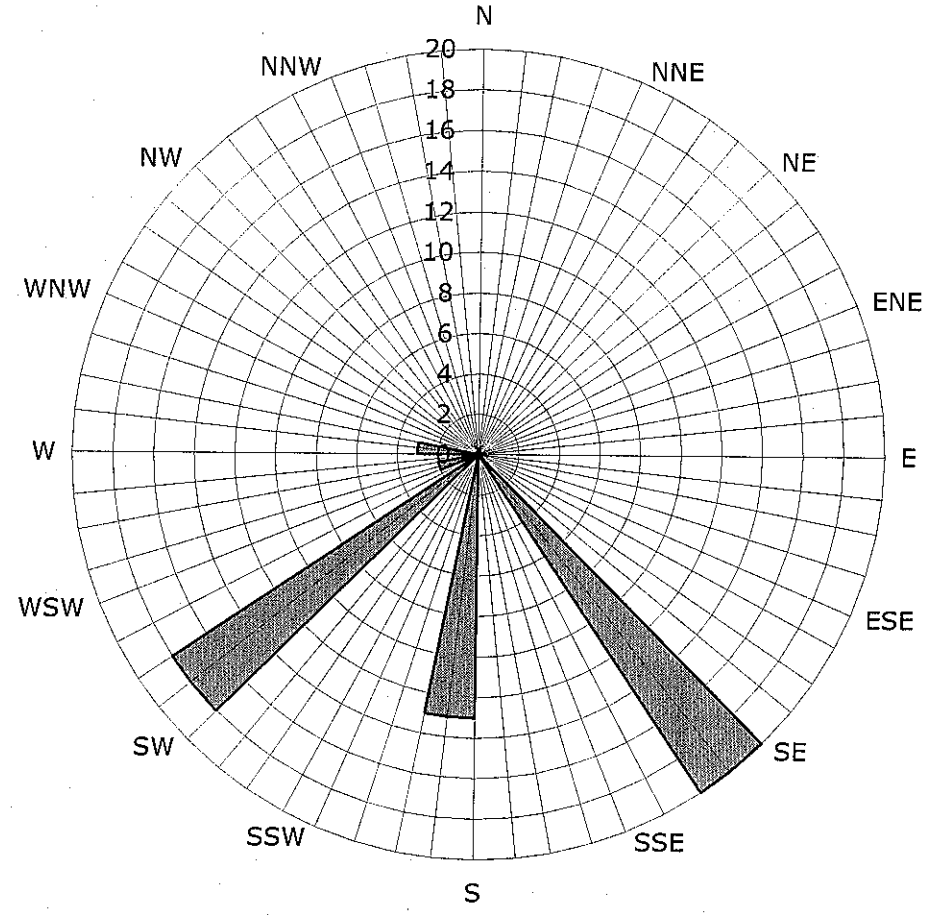
- TRC will perform the third quarter 2009 groundwater monitoring and sampling activities and will prepare a quarterly monitoring report.

CONSULTANT: Delta Consultants

ATTACHMENT A

Historical Groundwater Flow Directions

Figure 11
Historic Groundwater Flow Directions
Site No. 5191/5043
 449 Hegenberger Road
 Oakland, California



Legend
 Concentric circles represent
 quarterly monitoring events
 Second Quarter 1992
 through
 Second Quarter 2009
 56 data points shown

■ Groundwater Flow Direction