Ceres Associates

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RO128

January 13, 2000

Mr. William Wendland
Tulloch Construction
3428 Ettie Street
Oakland, California 94608

RE: Single Event Groundwater Sampling
Tulloch Construction
3428 Ettie Street
Oakland, California

Dear Mr. Wendland:

Ceres Associates is pleased to present this Report which summarizes single-event groundwater sampling performed at Tulloch Construction located at 3428 Ettie Street, Oakland, Alameda County, California (Property). This work was performed in response to requests of the Alameda County Health Care Services -- Environmental Health Services (EHS), as described in their letter of September 15, 1999.

BACKGROUND

Based on information provided by Tulloch Construction, two 500-gallon gasoline underground storage tanks (USTs) were removed from the Property in approximately 1992. Following UST removal operations, soil samples collected from the vicinity of the former USTs contained concentrations of total petroleum hydrocarbons as gasoline (TPH-g) up to 1,300 parts per million (ppm).

According to a Groundwater Quality Reconnaissance Report (Groundwater Report) prepared for the Property by Lowney & Associates (Lowney), dated July 8, 1992, one exploratory boring was advanced to a depth of approximately 35 feet beneath ground surface (bgs) in a down-gradient location from the former USTs on June 5, 1992. Lowney reported that the exploratory boring was converted to a "permanent" ground water monitoring well (MW-1) in accordance with Alameda County Flood Control and Water Conservation District (ACFCWCD) guidelines. Lowney reported that groundwater was detected at a depth of approximately 17 feet bgs. According to the Lowney Groundwater Report, one groundwater sample was collected for TPH-g and benzene, toluene, ethylbenzene and xylene (BTEX) analyses. Lowney reported that chemicals of concern were not detected with the exception of 0.6 parts per billion (ppb) of toluene. Lowney reported that free product or petroleum odors were not detected during well installation or sampling. Lowney recommended quarterly sampling of MW-1.

According to a First Quarter 1993 Sampling Report (First Quarter Report) prepared for the Property by Lowney, dated May 6, 1993, one groundwater sample was collected from MW-1 for TPH-g and BTEX analysis using United States Environmental Protection Agency (US EPA) Methods 8015 and 8020. Lowney reported that chemicals of concern were not detected above laboratory detection limits in the groundwater sample submitted for analysis. Lowney also reported that groundwater samples collected from MW-1 in sampling events conducted from June 11, 1992 through March 24, 1993 were non-detect for chemicals of concern with the exception of toluene and xylenes which were detected in low concentrations in 1992. Lowney concluded that further monitoring was not warranted and case closure should be granted.

In a letter dated September 15, 1999, EHS directed Tulloch construction to sample soil and/or groundwater for methyl tertiary butyl-ether (MTBE).

Scope of Work

Ceres Associates performed the following scope of work during February 2000:

- Measured static groundwater level at MW-1;
- Purged three well volumes of water from MW-1 and record temperature, pH and electrical conductivity;
- Collected one groundwater sample from MW-1 for MTBE analysis using US EPA Method 8260;
- Transported one groundwater sample to McCampbell Analytical under chain-of-custody protocol, and
- Prepared a report of findings.

Water Level Measurement and Product Thickness Determinations

Ceres Associates performed the single monitoring event for on February 16, 2000. Prior to sampling the wells, depth to water measurements were collected using an electronic sounding probe to an accuracy of 0.01 feet. The measurements were taken from the top of each surveyed well casing (at an arbitrary north mark on the well casing), and recorded in the field on sample event data sheets. The sounding probe was cleaned with a non-phosphate detergent prior to sounding each well to prevent cross contamination between sample points. Groundwater was detected at an initial depth of 12.25 feet bgs and dropped to 12.32 feet bgs prior to sample collection.

Free product was not observed in MW-1.

Groundwater Sampling Procedures

Prior to groundwater sampling, initial water levels were measured, and floating liquid hydrocarbon measurements (if present) recorded for MW-1. The well was sounded for depth to ascertain if silting has occurred and to verify the actual depth below ground surface. This measurement was used to

calculate the purge volume for the well. MW-1 was purged using a dedicated 1.5-inch diameter polyethylene bailer. A minimum of three casing volumes were removed from MW-1 prior to collection of the groundwater samples. Water temperature, conductivity, and pH readings were recorded during the well purging process to assess that groundwater from the surrounding formation had entered the wells prior to sample collection. One groundwater sample was collected from MW-1 using a disposable bailer.

Groundwater samples were placed in 40 milliliter (ml) glass vials equipped with Teflon® lined septa, preserved with hydrochloric acid (HCl), and stored in a chest cooled with ice. The groundwater samples were then delivered under chain of custody protocol to McCampbell Analytical Laboratories, Inc., a California state-certified laboratory for the analysis requested.

All groundwater samples were collected in accordance with California Regional Water Quality Control Board (RWQCB) procedures described in the *Leaking Underground Fuel Tank (LUFT) Field Manual, the Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites,* and local regulatory guidelines.

Groundwater Sample Analysis

One groundwater sample was collected from MW-1 was analyzed for MTBE using US EPA Method 8260. McCampbell Analytical reported that MTBE was not detected above laboratory detection limits (1.0 microgram per liter [μg/L] or parts per billion [ppb]) in the groundwater sample submitted for analysis.

Conclusions and Recommendations

Based on the previous groundwater monitoring data, and February 2000 MTBE analysis, Ceres Associates recommends that the Property be considered for case closure and MW-1 be abandoned in accordance with applicable regulations.

Sincerely,
Ceres Associates

Craig W. Hiatt
Project Environmental Specialist

Kenneth L. Durand R.G. 5630
Project Manager

Appendix A - Analytical Laboratory Data Sheets