Ceres Associates

5040 Commercial Circle, Suite F
Concord, CA 94520
(925) 825-4466 / fax (925) 825-4441

March 6, 2000

Mr. Donald Hwang
Alameda County Health Care Services
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Tulloch Construction, 3428 Ettie Street, Oakland, CA

Dear Mr. Hwang:

Enclosed please find one copy of a Single Event Groundwater Sampling Report prepared for Tulloch Construction located at 3428 Ettie Street, Oakland, California (Stid 3699). If you have any questions or comments regarding the report, or enclosed recommendation for case closure, please contact me at (925) 825-4466.

Sincerely,

Craig W. Hiatt

Enc.

Ceres Associates

5040 Commercial Circle, Suite F
Concord, CA 94520
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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

APPENDIX A – LABORATORY DATA SHEETS

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Ceres Associates 5040 Commercial Circle, Ste F Concord, CA 94520	Client Project ID: #CA693-1	Date Sampled: 02/16/00
		Date Received: 02/16/00
	Client Contact: Craig Hiatt	Date Extracted: 02/16/00
	Client P.O:	Date Analyzed: 02/16/00

02/23/00

Dear Craig:

Enclosed are:

1). the results of 1 samples from your **#CA693-1** project,

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Ceres Associates 5040 Commercial Circle, Ste F Concord, CA 94520	Client Project ID: #CA693-1	Date Sampled: 02/16/00
		Date Received: 02/16/00
	Client Contact: Craig Hiatt	Date Extracted: 02/18/00
	Client P.O:	Date Analyzed: 02/18/00

Methyl tert-Butyl Ether *

EPA method 8260 modified

Lab ID	Client ID	Matrix	MTBE*	% Recovery Surrogate
31250	MW-1	W	ND	111
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	1.0 ug/L	
		S	5.0 ug/kg	

* water samples are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
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QC REPORT

VOCs (EPA 8240/8260)

Date: 02/18/00-02/19/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 22600				Instrument: GC-4			
Surrogate	0.000	100.0	100.0	100.00	100	100	0.0
Tolune	0.000	96.0	100.0	100.00	96	100	4.1
Benzene	0.000	103.0	90.0	100.00	103	90	13.5
Chlorobenzene	0.000	97.0	102.0	100.00	97	102	5.0
Trichloroethane	0.000	90.0	103.0	100.00	90	103	13.5
1,1-Dichloroethene	0.000	109.0	118.0	100.00	109	118	7.9
Surrogate	0.000	91.0	104.0	100.00	91	104	13.3
tert-Amyl Methyl Ether	0.000	93.0	90.0	100.00	93	90	3.3
Methyl tert-Butyl Ether	0.000	104.0	94.0	100.00	104	94	10.1
Ethyl tert-Butyl Ether	0.000	101.0	89.0	100.00	101	89	12.6
Di-isopropyl Ether	0.000	95.0	84.0	100.00	95	84	12.3

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

Ceres Associates

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CHAIN OF CUSTODY

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Page 1 of 1

Project CA693-1

Send Results to: Craig Hiatt

Sampler's Signature

Laboratory MAI

Attention

5-DAY TAT.

(+) SAMPLE	Sample Collection Date/Time	MATRIX	8015 gasoline	8015/8020 gasoline/BTEX/MTBE	8015 Diesel	8010 HVOCS	BTEX - MTBE ONLY	PRESERVATIVE	COMMENTS
MW-1	2/16/00 1108	W					X	X	PRES. w/ HCl

31250

Relinquished by _____ of Ceres Associates - Date / Time 2/16/00 1:09

Received by Maria Venegas of MAI - Date / Time 2/16/00 1:09

Relinquished by _____ of _____ - Date / Time ____/____

Received by _____ of _____ - Date / Time ____/____

COPIES - *White* delivered to Ceres Associates with final Laboratory Report, *Yellow* - remains with laboratory, *Pink* - remains with Ceres Associates at sample pickup