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BROWN AND CALDWELL

November 30, 2006

Mr. Jerry Wickham
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

1011.131771-001

Subject: Work Plan for Soil and Groundwater Investigation
ACEH Fuel Leak Case No. RO0002858, Hanson Aggregates
3000 Busch Road, Pleasanton, California

Dear Mr. Wickham:

On behalf of Hanson Aggregates West (Hanson), Brown and Caldwell is submitting this work plan to conduct a limited soil and groundwater investigation at the Hanson Aggregates West Radum facility located at 3000 Bush Road, Pleasanton, California (Site), Figure 1. This work plan has been prepared to address concerns expressed by Alameda County Environmental Health Department (ACEH) in their letter dated September 21, 2006. Those concerns are related to the previous detection of low level hydrocarbons in soil during removal of two underground storage tanks (UST) located as shown on Figure 2 (Fuel Leak Case No. RO0002858). ACEH requested that a Work Plan be prepared to determine if the hydrocarbons detected in soil had also affected site groundwater quality.

BACKGROUND

As documented in the Baseline Environmental Consulting (Baseline) *Report on Tank Removal Activities*, dated July 2003, two USTs (one 12,000-gallon diesel and one 10,000-gallon gasoline) were removed from the Site under permit from the Livermore/Pleasanton Fire Department. A Site layout with the general location of these tanks is provided in Figure 2. During the removal activities, eight in-situ soil characterization samples, one composite stockpile sample and one discrete stockpile sample were collected and analyzed for:

- Total petroleum hydrocarbons as diesel (TPHd) and as gasoline (TPHg) following United States Environmental Protection Agency (EPA) Method 8015M;

- Volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl-tertiary butyl ether (MtBE) following EPA Method 8260B; and

- Total lead following EPA Method 6010B.

The locations of the samples collected are provided in Figure 2 and a summary of the analytical results are provided in Table 1. TPHg, VOCs and lead were not detected in the soil samples collected at concentrations exceeding their respective laboratory reporting limit. Two samples collected during the removal activities detected total petroleum hydrocarbons as diesel (TPHd). Sample Dd-1, collected from the soil below the former diesel fuel dispenser, contained 210 milligrams per kilogram (mg/kg) TPHd and sample EX-1, collected from a stockpile generated from the pea gravel located below the former high-capacity diesel dispenser contained 10 mg/kg of TPHd. The Baseline report noted that minor fuel releases occurred during the UST pipeline removal activities in the areas these two soil samples represent, thus contributing to the detected TPHd concentrations. Following the UST removal activities, the stockpiled soil was apparently placed back into the excavated area.

Groundwater was not encountered in the excavation, which extended in depth to 17 feet below ground surface (bgs), and therefore, no groundwater samples were collected. The Baseline report states that Mr. Wyman Hong at Zone 7 Water Agency indicated that depth to groundwater and the nearest known monitoring well, located approximately one-half mile west of the Site, was 95 feet bgs.

SCOPE OF WORK

In order to determine if Site groundwater located beneath this UST area has been affected by petroleum hydrocarbons, Brown and Caldwell proposes to advance borings immediately outside the northeast, northwest, southeast and southwest corners of the former excavation extent conducted for the UST removals (Figure 3). The borings will be advanced using a cone penetration testing (CPT) drill rig. At each corner location, one CPT boring will initially be advanced for lithologic logging and identification of water table elevation. A second boring will then be advanced for soil and groundwater sample collection (a total of 8 borings at four locations). The borings will be grouted with neat cement using retraction grouting methods after collection of soil and grab groundwater samples.

We anticipate that the borings will be driven to a maximum of 100 feet bgs in order to reach the first water bearing unit. Soil and grab-groundwater samples will be collected from the most appropriate lithologic units identified with the CPT boring.

Pre-field Activities

Prepare a Health and Safety Plan. As required by the Occupational Safety and Health Administration 29 CFR 1910.120, Hazardous Waste operations and Emergency Responses, Brown and Caldwell will prepare a Site specific Health and Safety Plan (HSP) for the proposed field work before field activities begin. This HSP will contain information, precautions, and procedures for the scope of work described in this document.

Obtain Permits. Before CPT drilling activities begin, a soil boring drilling permit will be obtained if necessary from the Zone 7 Water Agency

Underground Utility Locating. Prior to drilling, the proposed soil borings will be marked in the field by Brown and Caldwell and inspected by a private underground utility marking company. The private utility marking company will attempt to locate underground utilities in the vicinity of the marked drilling locations using a magnetometer, a live electrical detector, and/or other appropriate geophysical tools in order to pick the safest locations possible to prevent accidental damage to underground utilities on site. Underground Services Alert (USA), a public utility marking service will also be notified so that it can request that companies registered with them will also mark public utilities that may have easements across the site. In addition to these preventative measures, Brown and Caldwell will require the drilling subcontractor to hand excavate (using a hand auger) the first 5 feet of each drilling location to further clear each sampling location.

Soil Sampling Methodology

Soil samples will be collected from the adjacent borings at approximately 17 feet bgs (the previous bottom of the excavation) and 37 feet bgs. The samples will be collected using the CPT rig by driving a clean stainless steel piston sampler into the soil to the desired sampling interval. The piston sampler will be fitted with clean brass tubes. After retrieval, the brass tubes will be sealed with Teflon sheeting and plastic end caps. The tubes will then be labeled, placed into re-sealable plastic bags, stored in a cooler containing ice and delivered under chain-of-custody documentation to a California Department of Health Services certified analytical laboratory.

Groundwater Sampling Methodology

After collection of soil samples, grab-groundwater samples will be collected by driving clean hollow sampling rods into the same borehole used to collect the soil samples. The hollow rods will be fitted with a hydropunch type sampler that will be driven into the soil in a closed, sealed position, to the bottom of the desired sampling interval.

The rods will then be retracted approximately 3 to 5 feet, to open the hydropunch sampler and allow formation water to enter the hollow steel rods. Grab groundwater samples will be collected from the rods by lowering a clean stainless steel bailer into the water, and decanting the water into laboratory-supplied sampled containers. Each sample will be labeled, placed into resealable plastic bags, stored in a cooler containing ice and delivered under chain-of-custody documentation to a California Department of Health Services certified analytical laboratory.

Laboratory Analysis

The soil and groundwater samples collected will be analyzed for:

- TPHd using EPA Method 8015M; including silica gel cleanup to remove naturally-occurring hydrocarbons;
- TPHg using EPA Method 8015.
- BTEX and MTBE using EPA Method 8260

REPORT PREPARATION

Following completion of the field work and receipt of analytical data, Brown and Caldwell will prepare a summary report that documents the field investigation activities, presents the analytical results, and provides appropriate recommendations for additional investigation or remedial work if necessary. The report will also include copies of the analytical data and CPT lithology logs.

SCHEDULE

Hanson will subcontract to perform this work plan within approximately 2 weeks of ACEH approval. The work will require approximately 2 weeks to obtain the boring permits from Zone 7 Water Agency and schedule a CPT drill rig, with an additional two to three weeks to perform the field sampling and receive the analytical results. Therefore, a report summarizing the findings of this investigation can be submitted within approximately two months of receiving ACEH authorization to proceed with this work plan.

Thank you for reviewing this work plan. Please feel free to call me at (925) 210-2278 or Mr. Jason Grant at (925) 210-2383, should you have any questions or would like to discuss further.

Very truly yours,

BROWN AND CALDWELL

Andrew M. Lojo, P.G., #6034
Manager, Environmental Services
Walnut Creek Group

Jason Grant, P.E.
Project Manager

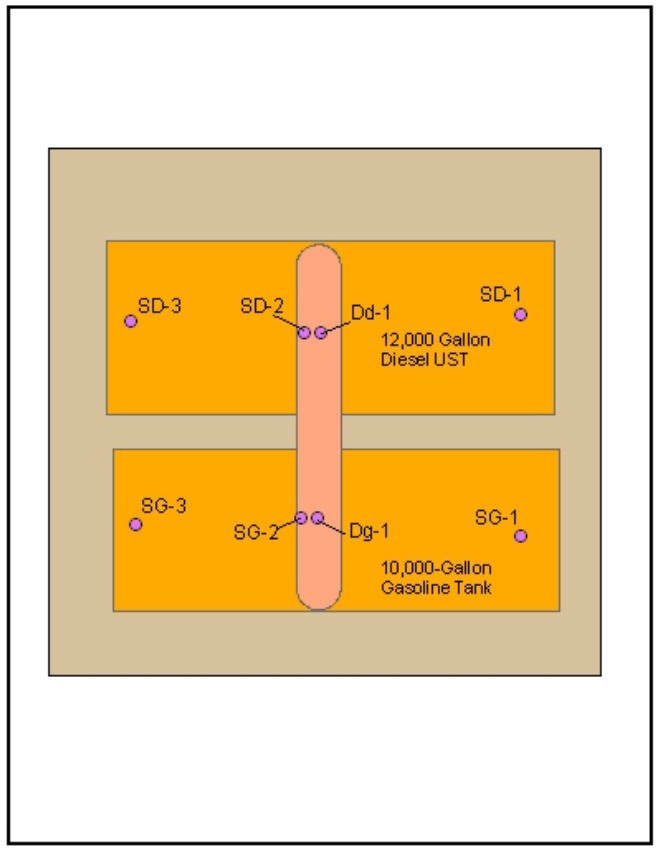
JG:bfw

Enclosures

cc: Mr. L. Cover, Hanson Aggregates West
Mr. M. Howell, Hanson Aggregates West
Ms. B. Goodrich, Brown and Caldwell

FIGURES

BROWN AND CALDWELL	DATE 11/16/2006	SITE Hanson Radum Plant 3000 Busch Road, Pleasanton, California	Figure 1
	PROJECT 131771	TITLE Site Layout	



Legend

- Location of Former In-Situ Soil Characterization Sample
- Former Fuel Dispenser Island
- Extent of Excavation
- Former UST Location
- Former Concrete Pad

N

0 5 10 20 Feet

BROWN AND CALDWELL

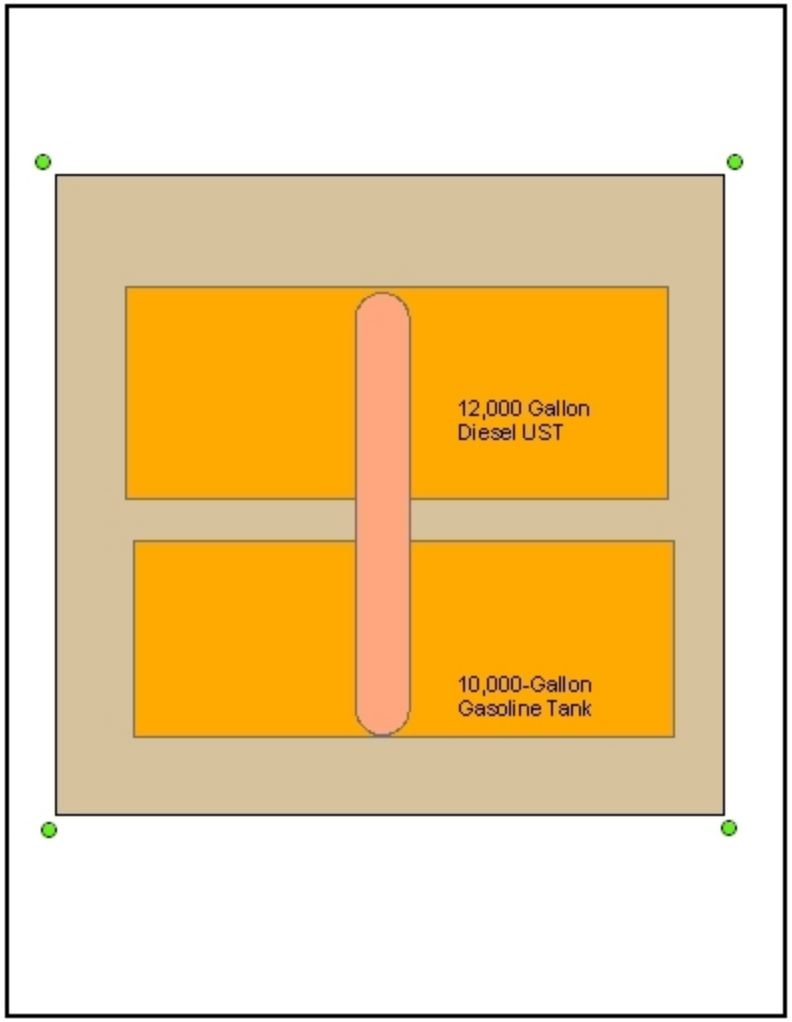
DATE 11/16/2006

PROJECT 131771

SITE Hanson Radum Plant, Pleasanton, California

TITLE Former Underground Storate Tank and Soil Sample Locations

Figure 2



Legend

- Proposed CPT Location
- Former Fuel Dispenser Island
- Extent of Excavation
- Former UST Location
- Former Concrete Pad

N

0 5 10 20 Feet

BROWN AND CALDWELL

DATE 11/16/2006

PROJECT 131771

SITE Hanson Radum Plant, Pleasanton, California

TITLE Proposed CPT Locations

Figure 3

TABLE

Table 1. Summary of Analytical Results for Soil Samples Collected During UST Removals
Hanson Aggregates, 3000 Busch Road, Pleasanton, California

Sample ID	Sample Type	TPHd (mg/kg)	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MtBE (mg/kg)	Other VOCs (mg/kg)	Total Lead (mg/kg)
SG-1	Iin-situ soil characterization samples collected from below the 10,000-gallon gasoline UST at a depth of 16.5-17.0 feet bgs	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	ND	<5.0
SG-2		<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	ND	<5.0
SG-3		<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	ND	<5.0
SD-1	In-situ soil characterization samples collected from below the 12,000-gallon diesel UST at a depth of 16.5-17.0 feet bgs	<1.0	<1.0	----	----	----	----	----	----	<5.0
SD-2		<1.0	<1.0	----	----	----	----	----	----	<5.0
SD-3		<1.0	<1.0	----	----	----	----	----	----	<5.0
SP-1	4-point composite sample collected from three stockpiles generated during UST removal	<1.0	<1.0	----	----	----	----	----	----	----
Dg-1	In-situ characterization sample collected from below the gasoline dispenser at a depth of 1.0-1.5 feet bgs	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	ND	----
Dd-1	In-situ characterization sample collected from below the diesel dispenser at a depth of 1.0-1.5 feet bgs	210 [a]	<1.0	----	----	----	----	----	----	----
EX-1	Discrete sample collected from small stockpile generated from material removed from below the diesel dispenser	10 [a]	<1.0	----	----	----	----	----	----	----

Notes

mg/kg = milligrams per kilogram

TPHd = total petroleum hydrocarbons as diesel; analyzed following EPA Method 8015M

TPHg = total petroleum hydrocarbons as gasoline analyzed following EPA Method 8015M

Benzene, Toluene, Ethylbenzene and Xylenes analyzed following EPA Method 8260B

MtBE = methyl-tertiary butyl ether; analalyzed following EPA Method 8260B

Other VOCs = other volatile organic compounds analyzed following EPA Method 8260B (refer to analytical laboratory report for the complete list)

Total Lead analyzed following EPA Method 6010B

UST = underground storage tank

bgs = below ground surface

<n = not detected at a concentrations equal to or greater than the laboratory reporting limit of n mg/kg

ND = not detected at concentrations equal to or greater than the respective laboratory reporting limits for each constituent included in the analytical group

---- = not analyzed

a: analytical laboratory indicated hydrocarbon reported does not mathc the pattern of the diesel standard

All results obtained from the Baseline Environmental Consulting *Report on Tank Removal Activities* , July 2003