## ALAMEDA COUNTY HEALTH CARE SERVICES

AGENCY

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DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program

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October 4, 1993 STID 437

Mr. Rich Hiett California Regional Water Quality Control Board San Francisco Bay Region 2101 Webster Street, Suite 500 Oakland, California 94612

SUBJECT: RECOMMENDATION FOR CASE CLOSURE

Firestone Tire & Rubber Company Service Center # 3658

3785 Broadway, Oakland, CA 94611

Dear Mr. Hiett:

The Alameda County Department of Environmental Health, Hazardous Materials Division has completed review of the underground storage tank leak investigation and remediation case file for the referenced site. This file includes reports documenting the removal of one 280 gallon waste oil tank, overexcavation of contaminated soil and further soil/groundwater investigation to determine the extent of contamination associated with the unauthorized release from the former tank.

The former waste oil tank was removed on March 28, 1990 by Ryan Murphy Inc. Soil samples collected from the bottom of the tank (at approximately 7 feet depth) exhibited elevated levels of the following contaminants: TPH gasoline (64 ppm); TPH diesel (2000 ppm); Oil & Grease (7600 ppm); benzene (0.69 ppm); toluene (4 ppm); xylene (9.8ppm); ethyl benzene (1.5 ppm); 1,1,1 - trichloroethane TCA (6 ppm); tetrachloroethylene TCE (2.2 ppm) and lead (1300 ppm).

On November 19, 1990 , four soil borings were advanced to approximately 21.5 feet depth. The site is underlain by soils comprised of fill, alluvium-colluvium and weathered bedrock. The fill and alluvium-colluvium soils vary from 10 to 15 feet in thickness and comprised mainly of silts, clavey silts, clavey sand and sand. Groundwater was not encountered in any of the borings during drilling. Borings 1, 2 and 3 were left open (but covered) overnight and observed to be dry the next day. Boring B1 (approximately 2 feet west of the tank excavation) soil samples collected at the following depths: 6-6.5 ft, 11-11.5 ft, 16-16.5 ft, and 20-20.5 ft showed non detectable levels of TPH gasoline, BTEX and volatile halocarbons. TPH diesel was detected at 6-6.5 ft BGS (6 ppm) while total oil and grease was detected at 11-11.5 ft (56 ppm). All the other soil samples were non detect for TPH diesel and total oil and grease.

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Between April 15 - 29, 1991, overexcavation of contaminated soil was conducted which included the stockpiled soil used to backfill the excavation pit. The western wall was excavated laterally up to B1 location and verification soil sample collected at 10 ft BGS (S-1) showed non detect level for TPH gasoline, TPH diesel and TOG. The north wall was overexcavated between 3-4 ft laterally and verification soil sample collected at 15 ft BGS ( No.2) exhibited non detect for TPH gasoline, TPH diesel and BTEX but detected 73 ppm TOG. The eastern wall was overexcavated between 9-10 ft laterally and verification soil samples collected at 10 ft BGS (S-3) showed non detect for TPH gasoline, TPH diesel and TOG. Limited overexcavation was performed on the southern wall due to the close proximity to the building. Verification soil samples was collected at 7 ft BGS (No.5) showing non detect levels for TPH gasoline, TPH diesel, BTEX , TOG and at 15 ft BGS (No.1) showing non detect levels for TPH gasoline, TPH diesel and BTEX but slightly elevated levels of TOG (83 ppm).

One monitoring well ( 40 feet deep ) was installed on January 16, 1991 within 10 ft in the assumed downgradient location of the former tank excavation. Based on information from the monitoring wells at three nearby sites ( Unocal on Broadway & 40th Street; Kaiser Foundation Bldg. south of the site on the west side of Broadway; and Shell Service Station on Piedmont & MacArthur), the assumed hydraulic downgradient direction is towards the south. Soil samples collected from the borings during monitoring well construction showed the following: ( MW 1-1 at 6 ft had non detect for TPH gasoline, kerosene, BTEX, TOG, organic lead, volatile halocarbons but exhibited 6 ppm TPH diesel); ( MW1-2 between 11-11.5 ft had non detect for TPH gasoline, TPH diesel, kerosene, BTEX, organic lead, volatile halocarbons but exhibited 58 ppm TOG); ( MW1-3 approximately between at 15-17 ft had non detect levels for all the target compounds ); and ( MW1-4 at approximately between 20-22 ft had non detect levels for all target compounds). Groundwater was first encountered between 36 to 37 feet and stabilized at 19 feet.

The monitoring well (MW-1) was sampled on 11/6/91, 2/21/92, 6/9/92 and 9/12/92. The groundwater sample was analyzed for the following compounds: TOG, TPH gasoline, TPH diesel, TPH kerosene, BTEX, volatile halocarbons, organic lead, cadmium, chromium, nickel and zinc. All the water samples showed non detect level for all the target compounds except TPH diesel (82 ppb) and chloroform (2.2 ppb) which were detected during the monitoring event on 2/21/92. The groundwater elevation readings (depth to water) were as follows: 18.55 ft (11/6/91); 17.36 ft (2/21/92); 18.18 ft (9/9/92); 19.02 (9/12/92).

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Based on the information provided to this department regarding the site investigation and cleanup associated with the 280 gallon waste oil tank, it appears that significant source removal through the closure of the tank and overexcavation of contaminated soil has occurred. The potential beneficial uses of groundwater in the area proximal to the site do not appear to be threatened to a significant extent from the release that occurred at the site associated with the former tank. Further monitoring, investigation and remedial actions are not necessary at this time. Therefore, this office recommends that RWQCB formally close this case with a signoff letter.

Attached are copies of the following: "Final Report - Ground Water Monitoring" prepared by Ryan Murphy, Inc.; four soil boring logs(B-1, B-2 B-3 B-4); monitoring well construction diagram for MW-1; and the case closure summary as discussed during our telephone conversation on September 17, 1993 for your review.

If you have any questions or require further information, please give me a call at (510) 271-4530.

Sincerely,

Susan L. Hugo

Senior Hazardous Materials Specialist

attachments

cc: Rafat A. Shahid, Asst. Agency Director, Environmental Health Edgar B. Howell, Chief, Hazardous Materials Division - files Mr. Vern Willrich - Firestone, 7857 Florence Avenue # 200

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