

Dugan Associates

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SEP 2 4 2001

September 17, 2001

Mr. Don Hwang Alameda County Health Care Services Agency Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-9335

Subject:Reply to ACHCA 03/11/01 Letter to Linda Champion [Case RO0000133]Site:Former City of Paris Cleaners, 3516 Adeline Street, Oakland, California.

Mr. Hwang:

As requested in your 03/11/01 letter, Dugan Associates presents this written reply to questions you raised related to groundwater data for the above-referenced site. Specifically, you requested information to explain why there is such a difference in the groundwater concentrations of TPH-SS collected from boring EB-1 on 03/19/98 compared to those from monitoring wells MW-1 and MW-2 from 11/18/92 to 11/14/97. The following three factors may have contributed to the variance in concentrations between the wells and boring water samples:

- It is my understanding that monitoring wells MW-1, MW-2, and MW-3 were all drilled immediately adjacent to the former UST pit. Boring EB-1 was advanced approximately 15 feet from the former pit. Laboratory testing results from samples collected from the wells appear to show the expected major decline of TPH-SS concentrations in groundwater after the removal of TPH-SS impacted soil from the pit.
- 2) Bio-augmentation and attenuation appears to have occurred at an accelerated pace within the former pit and existing test wells. The UST pit was not reported to have been significantly compacted, and may have been backfilled with pea gravel. This allows for significant groundwater recharge and oxygen recharge to by rainwater to groundwater in the immediate area of the pit. Water within the test wells have also been agitated with air by bailers during the multiple sampling dates.
- 3) The grab groundwater sample from boring EB-1 had a very high sediment load within the sample containers. The sample from boring EB-1 was essentially a sludge sample. Levels over an order of magnitude higher are common in high sediment load water samples. The samples collected from the test wells had minimal levels of sediment. These samples were collected from wells with developed sand packs.

If you have any questions, or require additional information, I can be reached at (408) 287-2175.

Sincerely, Dugan Associates William R. Dugan, R.G.

Registered Geologist #6253



Attachment: Copy of the 03/11/01 AACHCA Letter to Linda Champion

Groundwater Sampling Specialists [Lic. R.G. #6253]



## ALAMEDA COUNTY HEALTH CARE SERVICES



DAVID J. KEARS, Agency Director

AGENCY

May 11, 2001

ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda. CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

Linda Champion 9441 Laguna Lake Way Elk Grove, CA 95758

Dear Ms. Champion:

Subject: City of Paris Cleaners, 3516 Adeline St., Oakland, CA 94608 RO0000133

A review of the concentrations of Total Petroleum Hydrocarbons-Stoddard Solvent (TPH-SS) found in the groundwater at the aforementioned site showed that the grab groundwater sample, W- EB1-18, collected from boring EB-1 on March 19, 1998 had a concentration of TPH-SS of 270,000 ug/l. Groundwater from monitoring wells MW-1 and MW-2 which were within 15 feet of boring EB-1 had a maximum concentration of TPH-SS of 42,000 ug/l during their sampling period which was from November 18, 1992 to November 14, 1997 and concentrations of TPH-SS of 10,000 ug/l and 130 ug/l, respectively, for the last monitoring event on November 14, 1997. Please explain why there is such a difference in the groundwater concentrations of TPH-SS collected from boring EB-1 on March 19, 1998 compared to those from monitoring wells MW-1 and MW-2 from November 18, 1992 to November 14, 1997.

If you have any questions, I can be reached at (510) 567-6746.

Sincerely,

Don Hwang Hazardous Materials Specialist

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C: Chuck Headlee, RWQCB

Bill Dugan, Dugan Associates, 1180 Delmas Ave., San Jose, CA 95125

File



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