**Weiss Associates** *Environmental and Geologic Services*

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# TRANSMITTAL

**TO:** Scott Seery **DATE:** [redacted]

**COMPANY:** Alameda County Health Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502 **PROJECT #:** 4-1129

**FROM:** Tim Utterback, (510) 450-6193 **PHONE:** (510) 567-6783
**FAX:** (510) 337-9335

**ENCLOSED PLEASE FIND:** Vapor Purge Technique, Former Chevron Service Station #9-5607, 5269 Crow Canyon Road, Castro Valley CA

| VIA: | FAX: | AS: | FOR: |
|---|---|---|---|
| ☑ Fax | # of pages: 2 (including this cover) | ☐ Per our phone call | ☑ Your information |
| ☐ 1st Class Mail | ☐ Hard Copy to follow | ☐ You requested | ☐ Return to you |
| ☐ Overnight Delivery | | ☐ Is required | ☐ Your action |
| ☐ UPS (Surface) | | ☐ We believe you may be interested | ☐ Your review & comments |
| ☐ Courier | | | |

**COMMENTS:**

Attached is a figure explaining the purge technique that was used on 7/30/98 to collect vapor samples at the above referenced site. I previously stated, in the February 5, 1999, Soil Vapor Sample Collection Update, that we rejected the 7/30/98 data because the purge volume was unknown. I thought purge volume could not be estimated because the vacuum/volume system flow rate was not recorded.

At the request of my supervisor and Richard Weiss, I re-investigated the possibility of estimating the purge volume. I discussed the use of the purge equipment with the manufacturer (Geoprobe Systems). Based on my discussion with Geoprobe, I concluded that the maximum possible purge volume was 7.72 liters as described in the attached figure. We found this purge volume acceptable. Please call me at 510 450-6193 if you have any questions. Geoprobe Systems can be contacted at 1-800-436-7762 if you have questions about technical aspects of the Vacuum/Volume System A1-1001.

*Please call (510) 450-6000 if there are any problems with transmission.*



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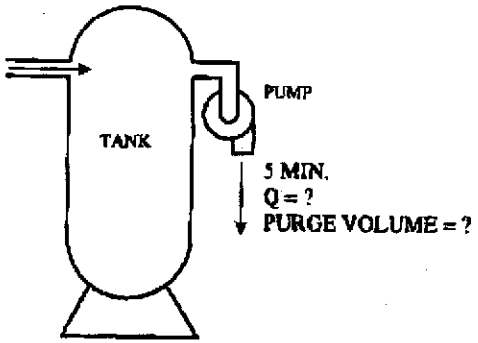
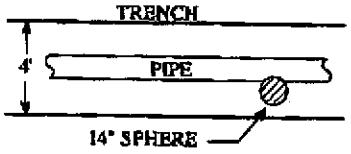
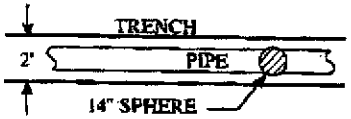



TRU thought Vac/Vol system was pumping continuously for 5 minutes with unknown flow rate.



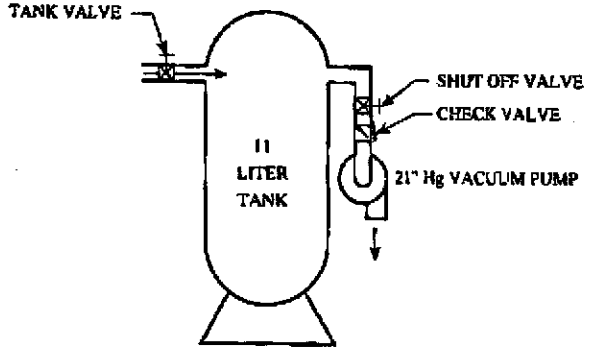

PLAN VIEW
SCALE: 1" = 8'

FIGURE 1




SECTION VIEW
SCALE: 1" = 8'

FIGURE 2




Based on our discussion with the manufacturer, Geoprobe Systems, the purge technique was consistent with their standard procedures for use of the Vacuum/Volume system. The Vac/Vol system evacuates 11 liter tank until 21" Hg gage pressure is achieved. The vacuum pump is shut off and the pump shut off valve is closed. The vapor sampling lines are then purged by opening the tank valve and drawing purge air in under the tank vacuum. The WA geologists allowed the tank to draw purge air in for 5 minutes. The maximum purge volume that can be removed by this system under 21" Hg is 7.72 liters. 7.72 liters will influence a subsurface spherical volume of approximately 14" diameter, which would be within the area of the trench backfill (see Figure 1 & 2). The sand backfill is approximately 100 times more permeable than the surrounding soil. Thus, we are confident that only trench vapors were sampled.

Figure 1. Description of Soil Vapor Purge Technique, Chevron SS# 9-5607, 5269 Crow Canyon Rd. Castro Valley, California