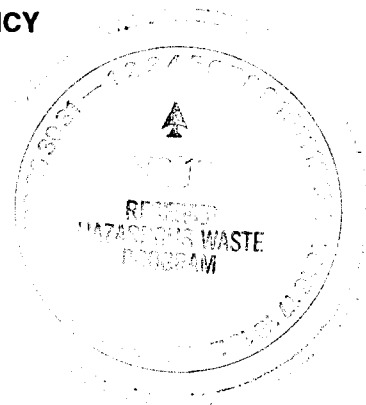




**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733



**FEB 26 1997**

Mr. Benito Garcia, Chief  
New Mexico Environment Department  
Hazardous and Radioactive Materials Bureau  
2044A Galisteo St.  
Santa Fe, NM 87505


**Re: Review of Holloman Air Force Base Air Sparging and Soil  
Vapor Extraction Pilot Test Report for Officers Club Site  
(SS-57), EPA I.D. No. NM5672124422**

Dear Mr. Garcia:

The Environmental Protection Agency (EPA) has completed its review of Holloman Air Force Base (HAFB) Air Sparging and Soil Vapor Extraction Pilot Test Report for Officers Club Site (SS-57), submitted, October 8, 1996. The EPA has found the Report to be deficient and enclosed is a List of Deficiencies (LOD) which EPA recommends that HAFB be allowed to respond.

If you have any questions or need additional information, please contact Mr. Allen T. Chang of my staff at (214) 665-7541.

Sincerely yours,

  
David Neleigh, Chief  
New Mexico and Federal  
Facilities Section

Enclosure

**LIST OF DEFICIENCY**  
**Holloman Air Force Base**  
**Officers Club Site (SS-57)**

**Site Specific Comments:**

1. The summary of groundwater analytical results in Table 3-3 and the logging information indicated that the area of contaminated TPH is in the neighborhood of MW-03 and SMP-03. But the investigations did not define the affected area. (Best Professional Judgement (BPJ))
2. Page 3-5: Section 3.4 indicated that the source of TPH was reportedly from a past diesel fuel release. What other investigations have been done to identify the true source of the contamination? It was not specified whether the diesel fuel leak was from an underground source (pipeline, underground storage tank) or an above ground release. What is the estimated quantity of diesel fuel released, when and how the releases happened? Has the leak been fixed? Could other sources impact H<sub>2</sub>S generation? (BPJ)
3. No significant TPH concentrations is detected at ground surface, therefore, the releases could come from underground sources. Investigation results indicated that the concentration of TPH is high at two different depths (13 to 15 ft and 19 to 20 ft) this makes the reviewer to believe that the releases may come from multiple sources. HAFB must delineate whether the releases are from multiple underground sources (i.e. underground pipelines or underground storage tanks). (BPJ)
4. Page 4-8, Section 4.2.4: Helium injection test: Only one monitoring point detected helium breakthrough. This may indicate that air channeling exists, and might reduce the needed air for the aerobic bacteria to adequately remediate this site. What is HAFB's solution to resolve this problem? Besides, the monitoring well MW-02 is located approximately 50 feet from air injection well SP-01 and may not receive sufficient oxygen to promote aerobic biodegradation. (BPJ)
5. Page 6-1: No mention is made that SVE trench VET-01 would begin vacuum extraction prior to air injection in well SP-01. This is standard practice in AS/SVE applications to prevent plume migration. (BPJ)
6. Page 2-2. Sampling and Analysis - This reports identifies the parameters to be monitored and the methods for measuring these parameters. However, insufficient information is provided regarding QA/QC during sample collection, transfer to sample bottles, preservation, and storage until transport to laboratory. Example: Tedlar bags properly purged with soil vapor and stored in a cool area, etc. (BPJ)