



DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 1606TH AIR BASE WING (MAC)  
KIRTLAND AIR FORCE BASE, NEW MEXICO 87117-5000

ENTERED

31 OCT 1990

Dr Bruce Swanton  
Geologist  
Hazardous and Radioactive Waste Bureau  
HED-EID  
1190 St Francis Drive  
Santa Fe NM 87503



Dear Dr Swanton

As referenced in our letter of 26 Oct 90, attached are copies of the preliminary analytical results from the recent round of confirmation sampling conducted by Kirtland. This confirmation sampling was performed in an effort to confirm the presence of elevated levels of dissolved chromium detected in 10 of the monitor wells, and two organic solvents detected in the west arroyo well located southwest of Landfill 1.

The preliminary data indicate that the chromium is naturally occurring. Documentation to support this contention is expected in the final US Geological Survey report. As a result of these findings, assessment is not anticipated at the golf course pond and we are currently seeking funding for the installation of an additional well at the golf course to determine the existence of a groundwater mound below the pond.

Although all data enclosed must be considered preliminary until a final QA/QC review is performed by the Occupational and Environmental Health Laboratory (OEHL) at Brooks AFB, the results concerning the solvents detected at the west arroyo well are consistent with the analytical results from the first round of sampling. Based on the assumption that these results are accurate, we are currently working on modifying our SWMU workplan to relocate the monitor wells planned for Landfill 1 to sites which will allow us to determine the source of any contamination.

If you should have any questions, please contact Mr John Gould at 846-2773.

Sincerely

*George K Pratt*

EDWARD A. BEHLING, Colonel, USAF  
Director  
Environmental Management Division

1 Atch  
USGS letter to Dennis  
Lundquist



*Filed in document holder in library: "KAFB 1990 SWMU DATA"*



# United States Department of the Interior

## GEOLOGICAL SURVEY



Water Resources Division  
4501 Indian School Road, suite 200  
Albuquerque, NM 87110

October 30, 1990

Mr. Dennis Lundquist  
HSD/YAQ  
Brooks Air Force Base, TX 78235-5501

Dear Dennis

Enclosed are copies of nine chemical analyses data reports from Rocky Mountain Analytical Laboratory (RMAL) for the Kirtland AFB Phase II, Stage 2A IRP Project. The report numbers are: 11121, 11152, 11172, 11192, 11204, 11235, 11249, 11386, and 11407. These reports contain analytical results of the groundwater samples collected during August and September 1990 by the USGS from the twelve monitoring wells (1@ landfill one, 1@ landfill two, 4@ sewage lagoons, 4@ golf course pond, and 2@ Tijeras Arroyo). Two copies of each report have been delivered to Kirtland AFB. The data are being transmitted via myself, instead of the Stage 2A project chief, Mr Bill Dam, because the data are the results of confirmation sampling done for contaminants found in the Stage 2 samples collected in April and May 1990.

The following items are noted from a check of the field and laboratory Quality Control data:

- 1) Holding times were missed for samples KAFB050210-2 and KAFB050211-2 for method SW8240. HSD will not be charged for these two analyses.
- 2) Sample KAFB050212-2 shows an analysis date of 08-09-90 for method SW8240. The date should be 09-09-90.
- 3) Recovery for Phenol (93%) was above the limit (89%) in the duplicate control sample for QC lot 06SEP90-A for method SW8270. This QC lot is assigned to reports 11172 and 11204.
- 4) Bis(2-Ethylhexyl)phthalate was detected at a concentration of 250 ug/L in the method blank for SW8270 in the same QC lot (06SEP90-A).
- 5) Recovery of Bromodichloromethane (182%) was above the limit (120%) in the duplicate control sample for QC lot 23SEP90-F for method SW8240. This QC lot is assigned to report 11386.

Much of this sampling effort was geared to confirming the presence or absence of total and dissolved chromium detected in the first round of sampling in the ground water. In the first round of sampling total chromium was found in all but one groundwater sample at concentrations of 0.008 to 0.24 mg/Kg. Total chromium was also found in all but one groundwater sample

in the second round of sampling. The nondetect well was different in each sampling round. Concentrations range from 0.014 to 0.23 mg/L in the second round of sampling.

In the first round of sampling dissolved chromium was detected in all but two of the groundwater samples. However, the two nondetect samples had elevated detection limits. Concentrations range from 0.0066 to 0.051 mg/L. In the second round of sampling only three of ground water samples contained dissolved chromium; at concentrations ranging from 0.0074 to 0.037 mg/L.

Laboratory report 11249 contains the analytical results of groundwater samples collected at various stages during purging of one well, and analyzed for total and dissolved chromium. Laboratory report 11407 contains the analytical results of field QC samples (leach tests from drilling and sampling materials) analyzed for total and dissolved chromium. The results of these analyses will be fully discussed in the technical report.

In the first round of sampling concentrations of 0.99 ug/L (0.79 second column) 1,2-Dichloroethane and 1.2 ug/L (1.1 second column) Trichloroethene were detected in the groundwater sample from well KAFB0902. In the second round of sampling these compounds have been detected in this well at concentrations of 0.59 ug/L (0.62 second column) and 0.96 ug/L (0.86 second column) respectively.

In the first round of sampling a concentration of 7.6 ug/L Idomethane was detected in the groundwater sample from well KAFB0501. This well should have been sampled for Volatile Organic Compounds in the second round of sampling, but mistakenly was not. The well will be sampled for these compounds in the next sampling round, scheduled to begin in November.

If you have any questions concerning these reports give me a call at (505) 262-5340.

Sincerely

A handwritten signature in black ink, appearing to read 'Ralph Wilcox', with a stylized flourish at the end.

Ralph Wilcox

cc Col Edward Behling  
Jim Williams  
Bill Dam