MEMORANDUM

DATE: 6 July 1983

TO: PA Eddy, LS Prater

FROM: JE Schmaltz

RE: Activity Report, 20 June - 30 June, 1983

1. Extracted tritium data from the CIRMUS data base

Wrote [235,1]GETRAW.FLX which consisted of a few minor modifications of [351,100]KRGRTV.FLX, written by DW Damschen. Used this program to create a file containing just the tritium data so I would not have to use the entire CIRMUS data base each time I needed tritium data.

2. Attempted to generate contour maps using existing programs

First, I used [351,100]KRGRTV.FLX to produce a file which contained one tritium concentration for each well which was sampled in 1981. This concentration was an average of all measurements made that year. This file served as input to [351,100]KRIGTRAN.FTN, written by JL Devary, which eliminates duplicate concentrations at a single location (caused by data from different depths in the same well) and reformats the data for input into the kriging routines. I had to copy this program into my account and recomplie it with larger array dimensions in order to process the 1981 tritium data.

At this point, the data file was transferred to the ZVAX and input to [GEOST.SOFT]KRIEST.FTN. I hoped that this program would produce a regular grid of interpolated values which would be used to draw a contour map of the tritium plume in 1981. However, the kriging routine 'blew up' because of large discrepancies in the data. For example, two wells less that 100 feet apart had concentrations 3 orders of magnitude apart, 1450 and 8.5 pCi/ml.

Therefore, I decided that it would be necessary to carefully go over the tritium concentration data and select a more consistant subset of data for input into the kriging routine.