LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA
LOS ALAMOS, NEW MEXICO 87545
Telephone Ext.

OFFICE MEMORANDUM

TO : File

DATE: May 6, 1980

FROM : Margaret Anne Rogers, LS-6 MAR

SUBJECT : ACTIVITIES FOR APRIL 1980

SYMBOL : LS6-80-139

MAIL STOP: 495

1398 Report

Five percent of my time was spent talking to various people on various subjects, 27% was spent on the geologic map, 39% was spent on the trace element study, 2% was spent on the "index of refraction" study, 4% was spent in getting thin sections prepared for the Tshirege and for the "glasses" from the "index of refraction" study, and 5% was spent on discussion, reading, or writing for program A415. The equivalent of 28% of my time was put in above regular working hours. April 7th I conducted a geology fieldtrip for the University of Colorado; April 18th I gave a presentation to the H-Division Waste Management Research Committee; and April 25th and April 28th I heard talks on "Problems of Recent Volcanism in Southernmost South America" and "Effects of Oil Shale and Coal Reclamation on Soil Microbial Action."

The trace element data was put through discriminant analysis three times and cluster analysis twice this month by Dick Beckman, S-1. U, Fe, Th, and Cs will correctly classify 82.7% of known units in the Tshirege. For all of the trace elements (Zn, U, W, Th, Cs, Rb, Co, Ta, Fe, Ba, Sb, As, and Mo) the percentage of correctly classified is 78.6. Using U, Fe, Th, and Cs the percentage correctly classified for individual units is:

Unit A - 100%
Unit B - 91.3%
Unit C - 100%
Unit D - 94.7%
Unit E - 41.2%
Unit F - 73.3%

The University of Colorado graduate classes in volcanology, igneous petrology, and mineral deposits with professors Bill Atkinson, economic geology; Ed Larsen, volcanology; and Charles Stern, igneous petrology visited April 7th. After a few unexpected words on radioactive waste management activities I conducted a fieldtrip that covered exposures of the entire section of the Bandelier Tuff on the Pajarito Plateau.

The "glass" samples sent back to us by CMB-6 and tuff samples for the Tshirege were taken to Dave Mann, G-6 to be thin-sectioned. CMB-6 had said that the "glasses" contained crystals at a temperature of 1750°C; therefore I took them to be sectioned in preparation for microprobe analysis. The other thin sections are to round out our collection for descriptive work which will be in the geology report in support of the map.

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I worked on Maps 9, 14, 15, 21, and 22 for the geologic map.

MAR:tj

Distribution: Eugene M. Wewerka
James Steger
Virginia Christie
Barry Burton
Merl Wheeler
Willy Abeele
Ed Lopez
Eliza Trujillo