CR-138



FORMERLY WILLOW RUN LABORATORIES, THE UNIVERSITY OF MICHIGAN

P. O. BOX 618 • ANN ARBOR • MICHIGAN • 48107

PHONE (313) 483-0500

102000-21-L 14 June 1974

"Made available under NASA sponsorship in the interest of early and wide dissemination of Earth Resources Survey Program information and without liability for any use made thereof,"

> Mapping Exposed Silicate Rock Types and Exposed Ferric and Ferrous Compounds from a Space Platform

Quarterly Report for Period 8 December 1973 - 8 March 1974

EREP Investigation 444M NASA Contract NAS9-13317

Prepared by

Robert K. Vincent - Principal Investigator

NASA Technical Monitor

Mr. Timothy White/TF6 National Aeronautics and Space Administration Johnson Space Center Principal Investigator Management Office Houston, Texas 77058

(E74-10596)MAPPING EXPOSED SILICATEN74-27782ROCK TYPES AND EXPOSED FERRIC AND
FERBOUS COMPOUNDS FROM A SPACE PLATFORM
Quarterly (Environmental Research Inst. of
Michigan)UnclasMichigan)2 p HC \$4.00CSCL 08GG3/13

FORMERLY WILLOW RUN LABORATORIES, THE UNIVERSITY OF MICHIGAN



102000-21-L Page 2

Mapping Exposed Silicate Rock Types and Exposed Ferric and Ferrous Compounds from a Space Platform

Quarterly Report for Period 8 December 1973 - 8 March 1974

This is the fourth quarterly report for this contract, which is entitled "Mapping Exposed Silicate Rock Types and Exposed Ferric and Ferrous Compounds from a Space Platform". The financial reports have been submitted monthly under separate cover.

During this quarter data were successfully collected by SL-4 Skylab astronauts in the vicinity of the Pisgah Crater, California test site. No screening film from SL-4 have been received as yet. The SRAGAL computer program for converting laboratory data into a form useful for feature selection and interpretation of ratioed Skylab data has been debugged and ratio codes have been calculated for 211 rock, mineral, and soil laboratory reflectance spectra. A paper is being written for the Remote Sensing Symposium in April (at Ann Arbor, Michigan). Next quarter this paper, including Skylab S-192 ratio codes, will be reported. Linear discriminant analysis is being used to select the best 12 of 66 possible non-reciprocal ratios from S-192, as well as to rank the S-192 channels on the basis of the above 211 laboratory spectra.

No field trips have been made during this contract, and none are anticipated until scanner data are processed.

Respectfully submitted,

Robert K. Vincent Principal Investigator

F. Thomas for

Richard R. Legault Director Infrared and Optics Division

Approved by:

RKV:RRL:njm