Contract NAS 5-21762

Bi-Monthly Progress Report

Reporting Period

5 August thru 5 October 1972

Prepared By: Bendix Aerospace Systems Division

Prepared For: NASA/Goddard Space Flight Center

Bi-Monthly Progress Report
Period 5 August - 5 October 1972

a. TITLE: Ecological Effects of Strip Mining in Ohio, GSFC UN 616, SR 309, Dr. Wayne Pettyjohn.

b. Objectives:

1. To map the acreage stripped or otherwise disturbed by coal mining operations in southern and eastern Ohio.

2. To detect, identify, and map the secondary effects of coal mining operation (strip) on the environment. These include erosion, vegetative stress, and stress, and sedimentation in rivers and lakes. The effects of water drainage and mine acid seepage are also of interest.

3. To study the after-effects of mining operations and compare recovery time and effectiveness with which mined areas are restored to usefulness.

4. To investigate the feasibility of transfer of knowledge gained by this study of Ohio to other strip mining regions of the U.S.

c. There are no problems impeding the progress of the investigation.

d. Accomplishments:

(1) The public information has been collected of the stratigraphy and rock type of the test area. It has not been verified and evaluated through field trips.

(2) The data has been collected for the short narrative history of the mining operations.

(3) Considerable hydrologic data has been accumulated and compiled for the test sites.

(4) Activities planned for the next reporting period are:

1. Verify and evaluate the stratigraphic and rock type information of the test area.

2. Develop a short narrative history of the mining operations.

3. Collect and put on maps published water quality information of the test site and surrounding environments.

4. Screen the initial data received (none as yet) for determination of additional data requests. Perform additional data analysis to obtain both extent of mining operations and minimum size of operation detectable.

e. Activities to date have been directed towards being prepared for receipt of ERTS I data. Therefore, results significant for practical applications and cost-benefit analysis have not been obtained as yet.

f. No release of information or requests for permission to release of information have been made during the reporting period.

g. A copy of a letter to Dr. Wayne Pettyjohn has been received indicating the change of Principle Investigator from Dr. Wayne Pettyjohn to Phillip E. Chase of Bendix. Original letter (to Dr. Wayne Pettyjohn dated May 19, 1972) was signed by Charles W. Matthews. If the above change is official, then notification of it to Goddard Space Flight Center would be helpful. Dr. Pettyjohn is receiving information and requests as the PI. Progress is not impeded at this time but delays in analysis will result because Bendix will perform the data processing of the imagery in the computer compatible tapes (CCT).

h. There has not been any changes in the standard order form.

i. Attachment of ERTS Image Descriptor Forms is not applicable as yet.

j. A retrospective Data Request Forms is attached.

k. Work to date conforms to schedule. (Item C in paragraph 3. 1 of spec 5-250-P-1C).

NDPF USE ONLY

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ID _____
DTM _____
TM _____
TM APP. _____

ERTS DATA REQUEST FORM
560-213 (7/72)

1. DATE 10/12/72

2. USER ID 309

4. SHIP TO: Wayne Pettyjohn
ADDRESS Dept. of Geology ☐ NEW
125 S. Oval Drive
Columbus, Ohio 43210

5. TELEPHONE NO. 614-422-4944 ☐ NEW

6. CATALOGUES DESIRED
STANDARD ☐ U.S. ☐ NON-U.S.
DCS ☐
MICROFILM ☐ U.S. ☐ NON-U.S.

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1030-15414	Same	M		P		4	U
1048-15412	Same	M		T		2	U
1048-15412	Same	M		P		4	U
1048-15414	Same	M		T		2	U
1048-15414	Same	M		P		4	U

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