ALBERT E. PETERS ASSOCIATES

Engineers - Designers - Consultants 301 NORTH MAIN AVENUE SCRANTON, PENNSYLVANIA 18504 PHONE AREA 717 - 346-8446



November 30, 1971

Secretary Maurice K. Goddard Department of Environmental Resources Room 517 South Office Building P.O. Box 1467 Harrisburg, Pennsylvania 17120

Upper Lackawanna River

Watershed - Acid Mine Drainage Abatement Project

SL-139 Part I

Dear Dr. Goddard:

Submitted herewith is our Engineering Report for the above referenced project.

We appreciate the excellent cooperation and assistance given us by your very qualified staff.

Thank you for the opportunity to be part of the Department's challenging program for Acid Mine Water Pollution Abatement.

Respectfully submitted,

ALBERT E. PETERS ASSOCIATES

Schneider, P.E.

JF

MECHANICAL ELECTRICAL STRUCTURAL

REGISTERED: PENNSYLVANIA NEW YORK NEW JERSEY

LACKAWANNA RIVER MINE DRAINAGE POLLUTION ABATEMENT PROJECT

PART 1

SL - 139

FOR

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES

AUGUST 1971

BY

ALBERT E. PETERS ASSOCIATES

ENGINEERS — DESIGNERS — CONSULTANTS

SCRANTON, PA.

Table of Contents and Illustrations

| Summary | 1 |
|--|--------------|
| Recommendations | 4 |
| Introduction | 5 |
| Purpose | 5 |
| Location | 5 |
| Topography | 5 |
| Location Map | |
| Geology | 6 |
| Drainage Area Map | 6 |
| Hydrology Surface | 7 |
| Hydrology Ground Method of Engineering Investigation | 8 |
| Sketch of Weir | |
| Survey Results | 11 |
| Outfalls | 13 |
| Relationship of Pools | 23 |
| Lackawanna River Quality | 24 |
| Abatement Plan | 24 |
| Quick Start Project No. 1 | 29 |
| Priority of Abatement Projects and Costs | 32 |
| Extent and Severity of Pollution | 35 |
| Sewage Treatment Plant and Interceptor Mains | |
| Reference Maps | 36 |
| Laboratory Test Results | Appendix "A" |
| Field Test Results | Appendix "B" |
| Sections | Appendix "C" |
| | |

Inside Back Cover

| Project Map | Exhibit"A" |
|-------------------------------|-------------|
| Strip Mine and Spoil Bank Map | Exhibit "B" |