

REPORT  
OF  
MINE DRAINAGE PROJECT  
SL-160  
FOR THE  
COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES

ENGLISH RUN WATERSHED  
LYCOMING COUNTY  
PENNSYLVANIA

ENGLISH ENGINEERING CORPORATION  
659 EAST THIRD STREET  
WILLIAMSPORT  
PENNSYLVANIA  
1971

# English Engineering Corporation

659 East Third Street

Williamsport, Pennsylvania 17701

Telephone: (Area Code 717) 222-5072

Curtis A. English, P. E.  
President and Chief Engineer

Curtis R. English  
Secretary-Treasurer

Malcolm R. English  
Project Engineer

Planning  
Engineering  
Surveying  
Mapping

April 4, 1972

Hon. C. H. McConnell, Deputy Secretary  
Engineering and Construction  
Department of Environmental Resources  
Commonwealth of Pennsylvania  
Harrisburg, Pennsylvania

Re: Mine Drainage Pollution  
Abatement Project, SL 160  
( English Run )

Dear Mr. McConnell:

Submitted herewith is the report on the above noted project.

If there is any additional information you consider pertinent, please do not hesitate to contact us.

Respectfully submitted,  
ENGLISH ENGINEERING CORP.



Curtis A. English, P. E.  
President and Chief Engineer



## TABLE OF CONTENTS

	<u>Page</u>
Introduction	
Recommendations and Conclusions	3
Project Location	6
Topographic Description	9
Property Ownership	14
Geological Examination	17
Stream Quality Survey	26
Hydrological Study	41
Prospect Drilling	60
Quick-start Project	64
Acknowledgement	66

### List of Figures

Map Number 1 - Pennsylvania Location Map	7
Map Number 2 - County Location Map	8
Map Number 3 - Project Area Topographic Map	10
Map Number 4 - Property Ownership Map	15
Map Number 5 - Project Area Geologic Map	18
Figure No. 1 - Geologic Cross-section (Little Pine Coal Basin)	23
Figure No. 2 - Columnar Section (English Center Watershed)	24
Figure No. 3 - Drilling Log (Sample Copy)	25
Map Number 6 - Stream Sampling Stations Map*	27
Figure No. 4 - English Run pH Histogram	30
Figure No. 5 - Otter Run pH Histogram	35
Map Number 7 - Soil Horizons Map	42
Graph No. 1 - Recorded Precipitation Readings	44
Graph No. 2 - Seasonal Stream Discharges	47

	<u>Page</u>
Figure No. 6 - Stream Cross -sections)	52
Map Number 8 - Water Impoundment Map	59
Map Number 9 - Prospect Drill Map	61

#### List of Tables

Table No. 1 - Summary of Water Sampling Records	28
Table No. 2 - Monthly Precipitation Readings	43
Table No. 3 - Sediment Loads for Maximum and Minimum Stream Flows	49
Table No. 4 - Data for Selected Impoundment Sites	57

#### Appendices

##### Appendix A

Map - Area No. 1 - English Run Mine Drainage Study	67
Map - Area No. 2 - English Run Mine Drainage Study	68
Map - Area No. 2A - English Run Mine Drainage Study	69
Map - Area No. 3 - Otter Run Mine Drainage Study	70
Map - Area No. 3 - Mine Seal (Otter Run Drainage Study)	71
Map - Area No. 4 - Otter Run Mine Drainage Study	72
Map - Area No. 5 - Otter Run Mine Drainage Study	73
Table 1 - A - English Run Water Samples	74
Table 1 - B - Otter Run Water Samples	81
Table 1 - C - Mine Weir Samples	87

##### Appendix B

Map - Index - Index to All Mine Seal Areas	88
Map - Area No. 1 S - English Run Proposed Mine Seals	89
Map - Area No. 2 S - English Run Proposed Mine Seals	90
Map - Area No. 2AS - English Run Proposed Mine Seals	91
Map - Area No. 3 S - Otter Run Proposed Mine Seals	92

	<u>Page</u>
Map - Area No. 4 S - Otter Run Proposed Mine Seals	93
Map - Area No. 5 S - Otter Run Proposed Mine Seals	94
 <u>Appendix C</u>	
Prospect Drilling Logs on Warrants 1631, 1632, and 4359	95

\* Map Number 6 also serves as Index Map for Appendix A