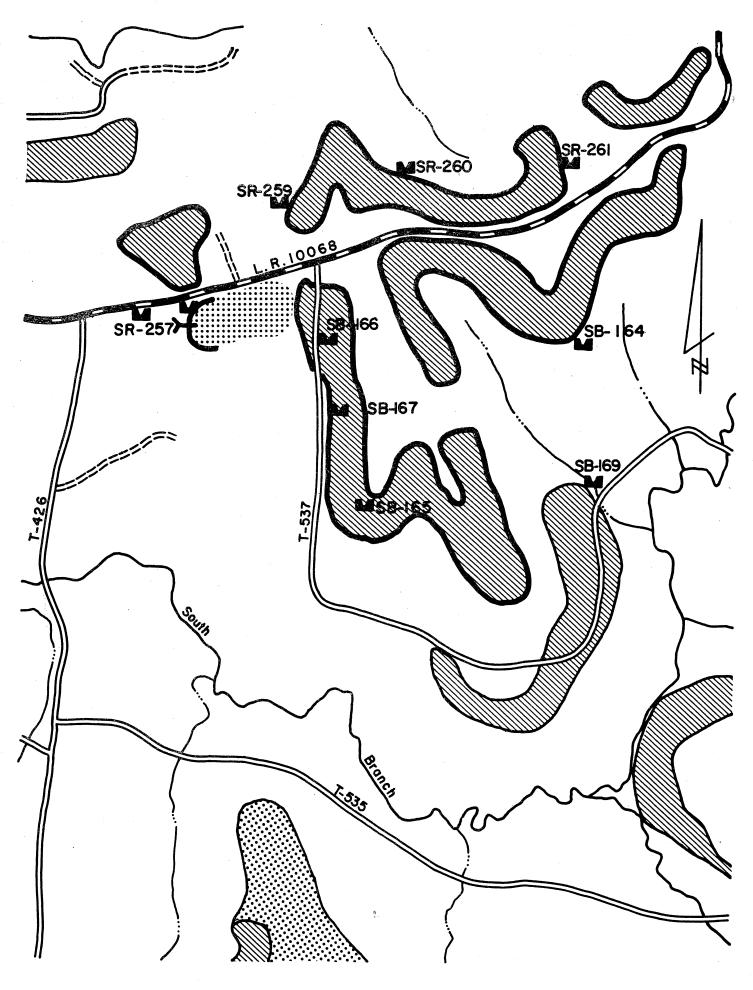
Location Bovard Township Cherry County Butler

Priority Rating 3

This area consists of a small deep mine and several strip mines in the Middle Kittanning seam of coal. The water discharges flow through Weirs SR 164 thru SR 167, SR 169, and SR 257 thru SR 261 into Slippery Rock Creek. These discharges produced an average acid loading of 24 pounds per day with a maximum of 60 pounds per day. The proposed abatement work consists of surface sealing work at the portals of the deep mine and backfilling of an estimated 180 acres of strip mine areas.

Deep Mine Surface Seals	\$ 1,000
Strip Mine Reclamation	180,000
Design, Supervision and Inspection	<u>14,000</u>
Estimated Reclamation Costs	\$195,000



PROJECT MAP NO. 26
DEEP & STRIP MINES NEAR BOVARD

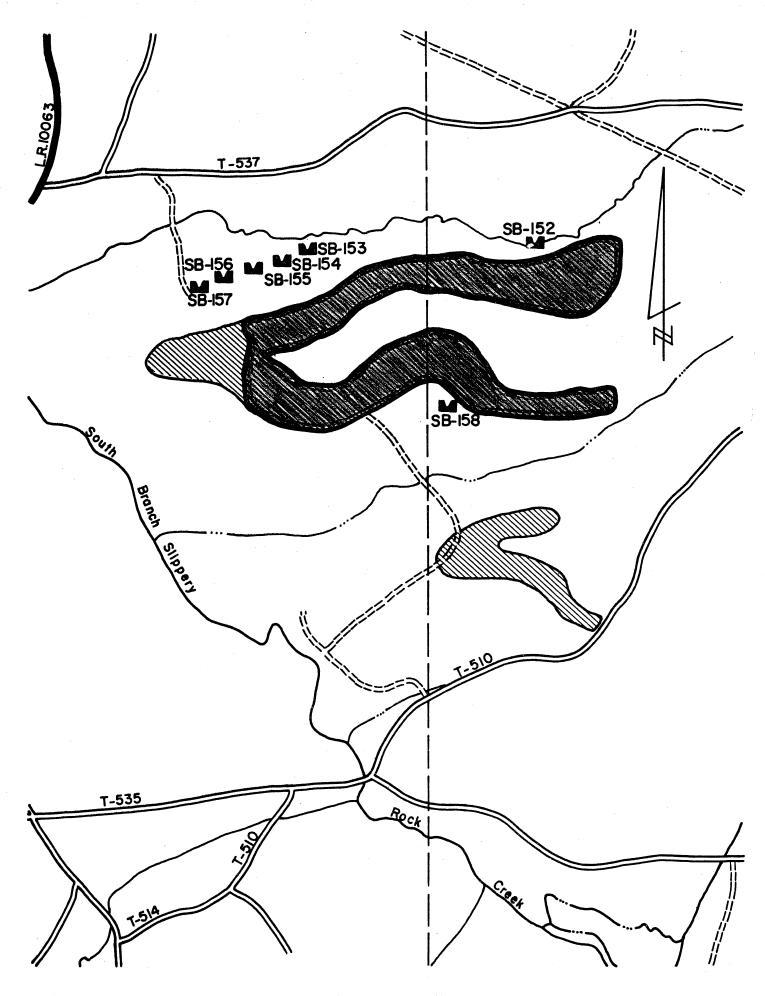
Location Moniteau Township Cherry County Butler
Washington

Priority Rating 3

This area consists of a large strip mine in the Middle Kittanning seam of coal. The strip mine is located in State Game Lands #95. The water discharges flow through Weirs SB 152 thru SB 158 into the South Branch of Slippery Rock Creek. These drainage sources produced an average acid loading of 4 pounds per day with a maximum of 17 pounds per day. The proposed abatement project consists of strip mine restoration work in 63 acres of the total 80 acres in the applicable area. Plans and specifications for the construction work have been prepared as "Quick Start" Project SL-110-1A.

The following are the estimated costs for the recommended abatement measures in the project area:

Strip Mine Reclamation \$90,000
Design, Supervision and Inspection 10,000
Estimated Reclamation Costs \$100,000



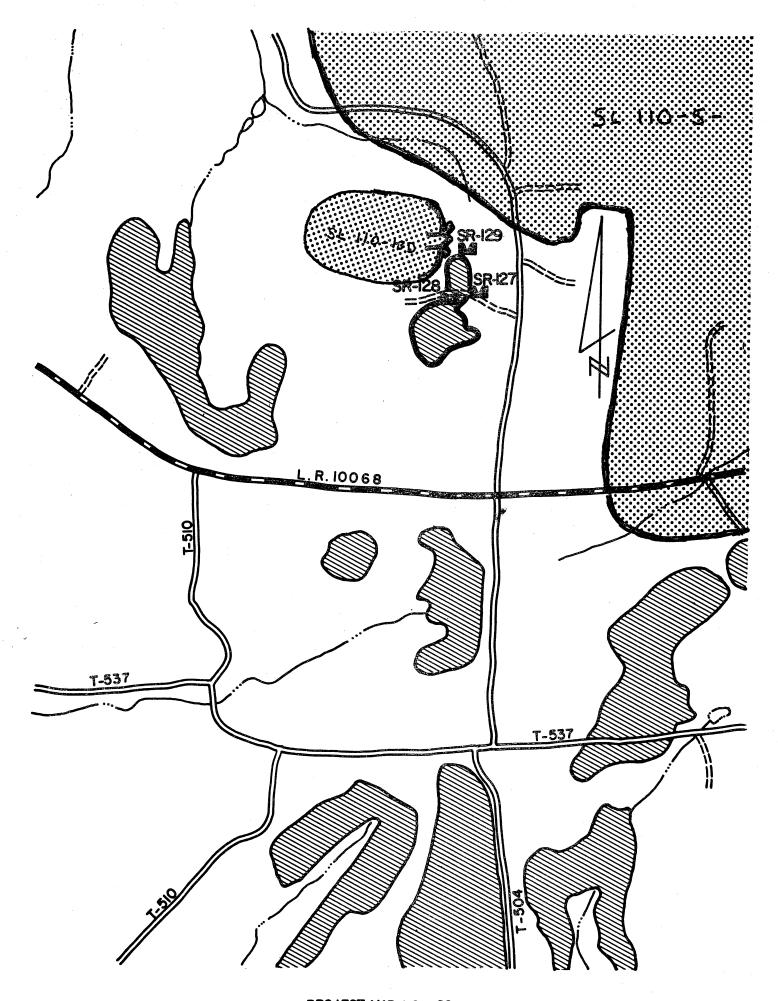
PROJECT MAP NO. 27
MONITEAU STRIP MINE AREA

Location Whiskerville Township Washington County Butler

Priority Rating 3

This area consists of a small deep mine and a small strip mine that has been partially backfilled in the Middle Kittanning seam of coal. The discharges flow through Weirs SR 127, SR 128 and SR 129 past a trout pond in State Game Lands #95 into Slippery Rock Creek. These discharges have an average acid loading of 17 pounds per day and a maximum acid loading of 46 pounds per day. The proposed abatement work consists of hydraulic seals for two deep mine drifts and strip mine restoration for an estimated 10 acres. The deep mine hydraulic seals are included as a part of the "Quick Start" Project SL-110-1BD presently under contract.

\$40,000
10,000
<u>4,000</u>
\$54,000



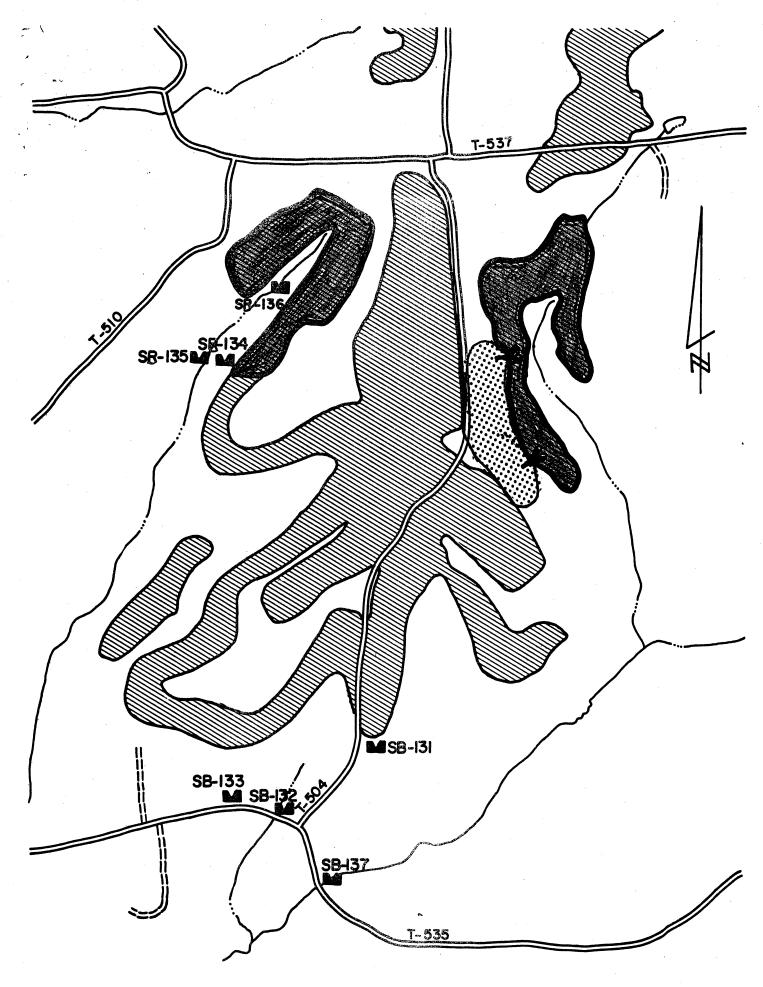
PROJECT MAP NO. 28 WHISKERVILLE AREA

Location Whiskerville Township Washington County Butler

Priority Rating 1

This area consists of a small deep mine and two strip mines in the Middle Kittanning seam of coal. The discharge flows through Weirs SB 131 thru SB 137 into the South Branch of Slippery Rock Creek and Slippery Rock Creek. These discharges have an average acid loading of 460 pounds per day and a maximum acid loading of 860 pounds per day. The proposed abatement work consists of hydraulic seals for two mine entries and strip mine restoration for an estimated 70 acres of affected area.

Deep Mine Hydraulic Seals	\$ 30,000
Strip Mine Reclamation	70,000
Design, Supervision. and Inspection	<u>10,000</u>
Estimated Reclamation Costs	\$110,000



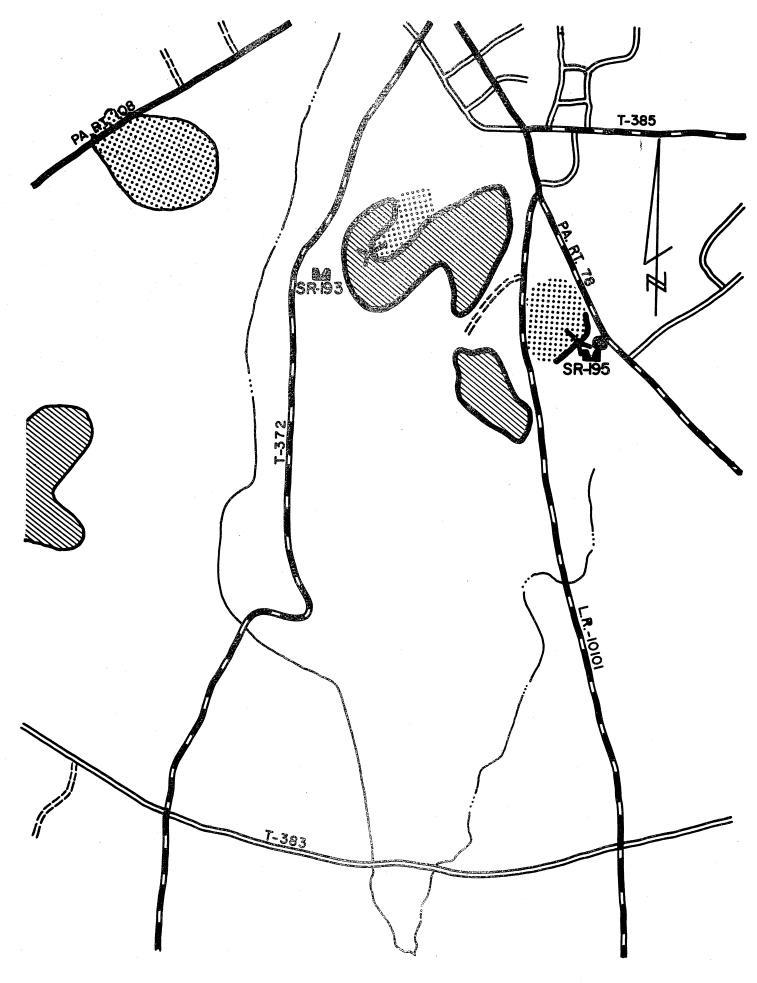
PROJECT MAP NO. 29
STRIP & DEEPMINES SEAR WHISKERVILLE

Location Slippery Rock Township Slippery Rock County Butler

Priority Rating 3

This area consists of two small deep mines and strip mines in the Middle Kittanning seam of coal. The discharges flow through Weirs SR 193 and SR 195 into Slippery Rock Creek. During 1969 these discharges had an average acid loading of 42 pounds per day and a maximum acid loading of 80 pounds per day. The proposed abatement work consists of hydraulic seals for 4 deep mine entries, strip mine restoration for an estimated 40 acres of affected area, and 1,000 cubic yards of refuse pile reclamation.

Deep Mine Hydraulic Seals	\$ 80,000
Strip Mine Reclamation	60,000
Refuse Pile Reclamation	2,000
Design, Supervision and Inspection	12,000
Estimated Reclamation Costs	\$154,000



PROJECT MAP NO. 30
STRIP & DEEP MINES NEAR SLIPPERY ROCK

Location Hallston Township Clay County Butler

Slippery Rock Cherry

Priority Rating 2

This area consists of the large Hallston Mine, several small deep mines and two strip mines in the Middle Kittanning seam of coal.

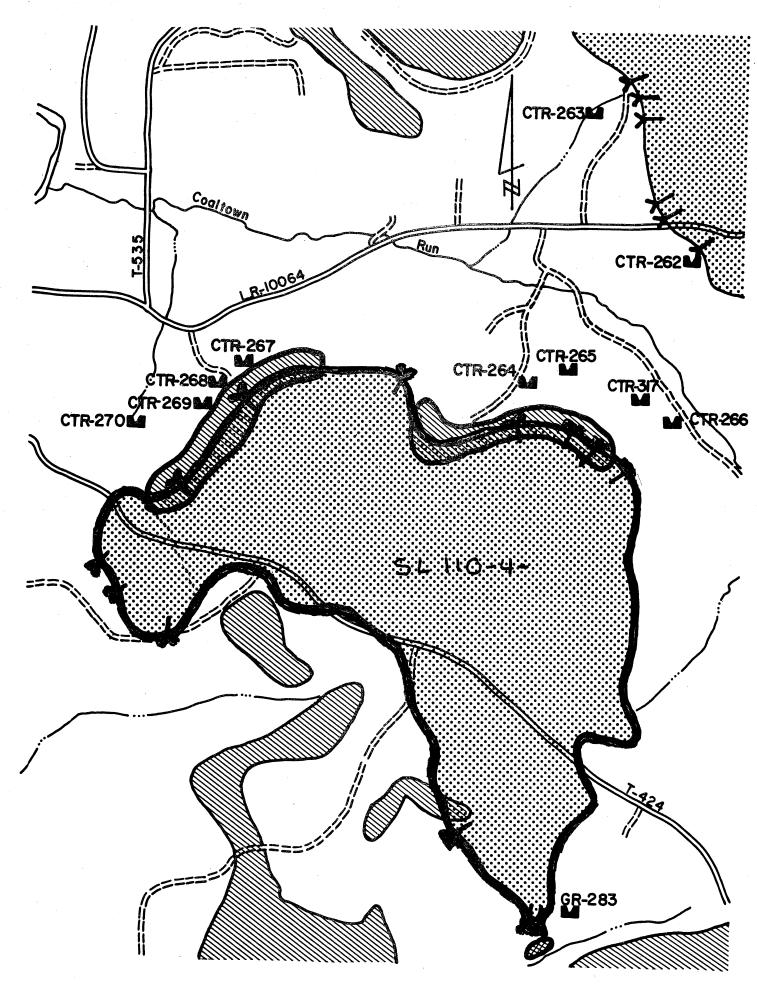
The discharges flow from Weirs CTR 262 thru CTR 270, CTR 317 and GR 283 into Coaltown Run and Glade Run. In 1969 these discharges had an average acid load of 170 pounds per day and a maximum acid load of 400 pounds per day. The proposed abatement work consists of an estimated 15 deep mine hydraulic seals, 60 acres of strip mine restoration and 5,000 cubic yards of refuse pile reclamation.

The following are the estimated costs for the recommended abatement measures in the project area:

Deep Mine Hydraulic Seals	\$300,000
Strip Mine Reclamation	100,000
Refuse Pile Reclamation	10,000
Design, Supervision and Inspection	40,000

\$450,000

Estimated Reclamation Costs



PROJECT MAP NO. 31 HALLSTON MINE AREA