APPENDIX I

DRAINAGE OUTLETS EXPLANATION SHEET

Listed on this sheet are all the known drainage outlets in the Study Area and related information.

GENERAL INFORMATION MAP

This General Area Map indicates topographic features such. as roads, buildings, boundary lines and surface contours shown in 20 foot intervals. The drainage outlets are color-coded, mine entries and diamond drill hole locations are also located. The weir locations, structural axis, Watershed boundary line and sixteen Sampling Stations are numbered and located to indicate the sample was collected from a borehole or taken at the Creek.

MINE MAPS - LOWER FREEPORT "D" SEAM

These maps are reproductions of the Clearfield Bituminous Coal Company maps. The mined-out coal seam with the structural contours are the main features of these maps. Also plotted out are the drainage outlets and sampling stations along with the approximate elevation of the impounded water.

MINE MAPS - LOWER KITTANNING "B" SEAM

These maps are also reproductions of the Clearfield Bituminous Coal Company maps. The mined-out coal seam and structural elevations are the main features of these maps. The drainage outlets and approximate elevation of the impounded water are also shown.

PLAN OF MINE OUTLINE

This map features the outline of the Clymer No.1 "D" Seam with both the surface and coal contours shown. Mine entries and drainage

outlets are plotted along with watershed boundaries. The locations and numbers of diamond drill holes and also the stream quality are presented on this map.

DIAMOND DRILL HOLE DATA

This sheet graphically shows information compiled from Core Boring Records of the Clearfield Bituminous Coal Company.

SKETCH AT MP1

This Sketch indicates the level of impounded water in the Clymer No.1 Mine when the borehole was not discharging.

EXPLANATION OF DRAINAGE OUTLETS

B1 - Six-inch diameter pipe borehole from Barr Slope Mine, discharge to Hastie Run at elevation ,1195. The pipe is clogged with debris to the surface.

B2 - Two-foot square concrete box into heading of Barr Slope Mine. Discharge to Hastie Run at elevation 1187. Outlet did not discharge during study, but samples recovered by lowering bottle into heading.

B3 - Eight-inch diameter pipe borehole into heading connecting Barr Slope and Clymer Mines. Outlet elevation 1141 to Hastie Run, discharged seven months during the one-year sampling period.

B4 - Opening into Barr Mine that has been covered by spoil of strip mine, could not locate in field.

B5 - Opening into Barr Mine that has caved, located adjacent to Rayne Run at elevation 1196. Samples taken but discharge too small to measure accurately.

B6 - Twelve-inch diameter pipe driven horizontally into a small country bank mine that connects with Barr Slope Mine. Outlet at elevation 1122, discharge into Crooked Creek. This. drainage outlet was discharging continuously during the study.

C1-1 - Twelve-inch diameter pipe borehole driven into the Clymer No.2 Mine. Located adjacent to Clymer No.1 Tipple, discharge into Sample Run at elevation 1278. The pipe was found clogged with debris to the surface.

C1 - Drainage shaft and manway into Clymer No.1 Mine, discharge outlet at elevation 1158 into ditch to Crooked Creek. The manway is covered with a concrete slab, the drainage shaft is filled with debris.

C2 - Eight-inch diameter pipe borehole from Clymer No.1 Mine, outlet at elevation 1165. The outlet is clogged with debris.

C3 - Concrete covered manway and air inlet shaft into Clymer No.1 Mine. No discharges found during study.

C4 - Six-inch diameter pipe borehole from Clymer No.1 Mine, discharge at elevation 1168 into small stream then to Crooked Creek. C4 is clogged with debris at this borehole.

C5 - Twelve-inch diameter pipe borehole, outlet at elevation 1141. Pipe clogged with debris at this outlet which discharged into Crooked Creek. No discharges during study.

C6 - Ten-inch diameter pipe borehole, discharge at elevation 1137. This borehole discharged ten months during the study.

C7 - "Tanoma Borehole" flows constantly. This twelve-inch diameter pipe discharges at elevation 1133 directly into Crooked Creek.

The following outlets were not given identification numbers by C.B.C., therefore, McDonald/Phillips prefixed the outlets MP1, MP2, etc., as they were located.

MP1 - Two 27-inch diameter pipes used to pump Clymer No.1 Mine water into Crooked Creek. The outlet is elevation 1140 and they were flowing five months during the study. During the study period, the level of water was recorded when they were not discharging. See Sketch of MP1 in Appendix I.

MP2 - Six-inch diameter power borehole in the vicinity of MP1. Top of pipe is elevation 1155, the pipe is unclogged but no discharges occurred.

MP3 - Twelve-inch diameter pipe borehole from Clymer No.1 Mine. Outlet elevation 1169 to small stream that feeds Crooked Creek, no discharges occurred.

MP4 - Air shaft and manway into Barr Slope Mine. Clogged with debris to outlet elevation 1220.

MP5 - Drift opening for small mining operation that broke into Barr Slope Mine. Caved entry at elevation 1215, discharges not great enough to measure.

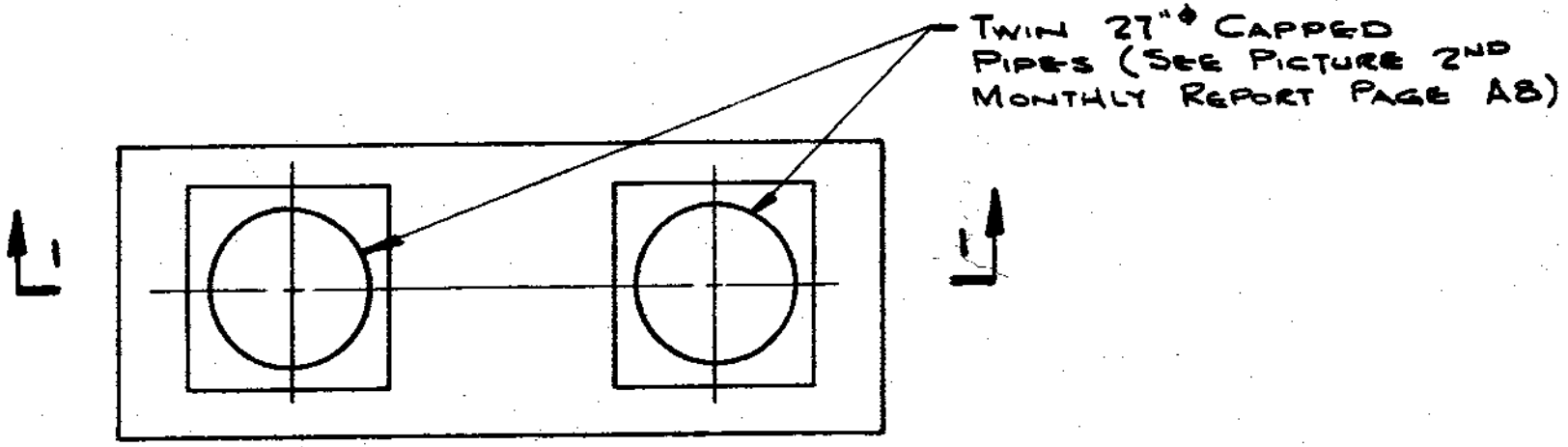
MP6 - Ten-inch diameter pipe borehole connecting Clymer No.1 and Clymer No.2 Mines. Surface elevation 1357, "B" Seam elevation 1006 and outlet elevation 1168 at "D" Seam. Also, there exists a 4-inch diameter power borehole that is clogged with wires and debris at the surface.

MP7 - Churn drill hole, 4-inch inside diameter concrete pipe from Clymer No.1 Mine. Clogged with dirt to surface elevation 1201. No discharges during the study.

MP8 - Concrete covered air shaft and manway from Clymer No.1 Mine, top concrete slab e1eva_ion 1232. No discharges during the study.

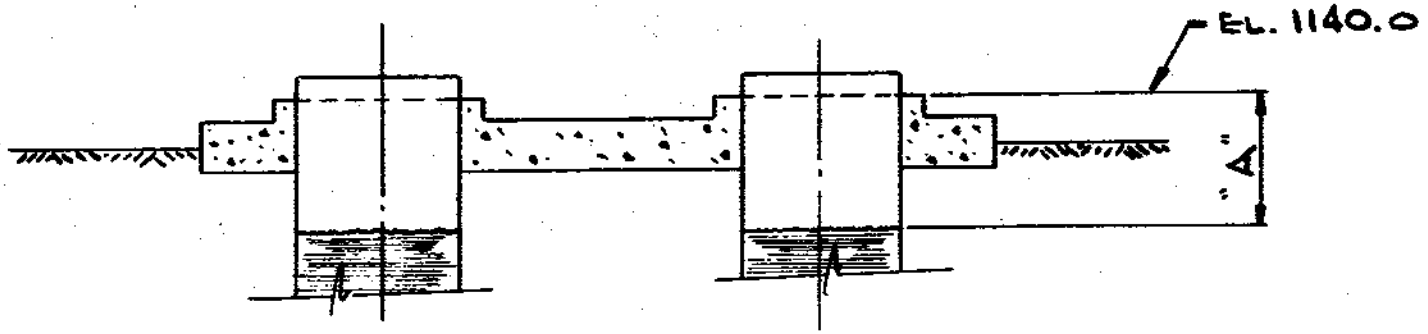
MP9 - Air exhaust shaft from Clymer No.1 Mine. Concrete covered at elevation 1171. No discharges during the study.

MP10 - Six-inch diameter pipe driven into Clymer No.1 Mine adjacent to Crooked Creek. Outlet elevation 1162. No discharges during the study.



PLAN

DRAINAGE OUTLET MP1

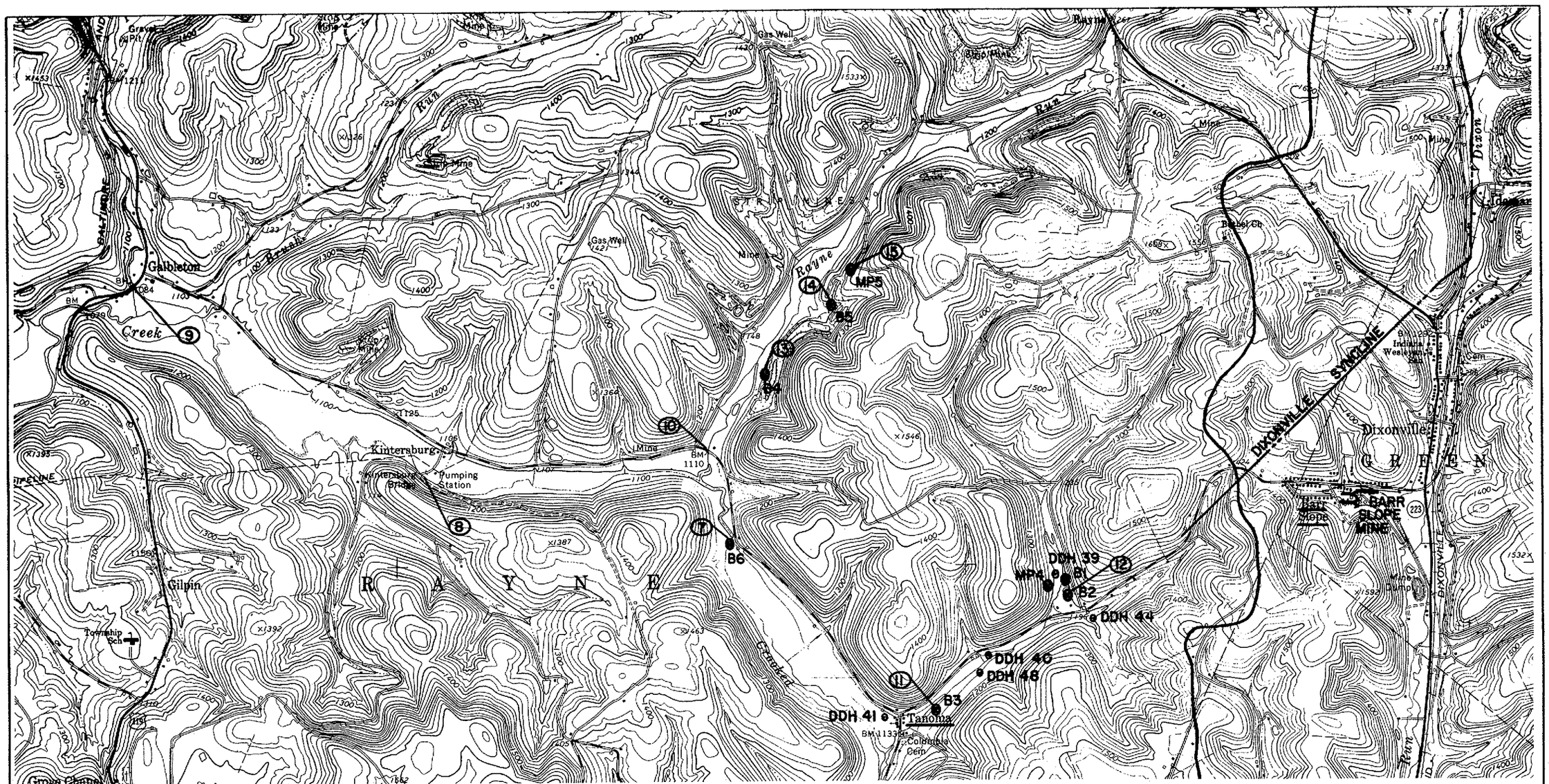


SECTION 1-1

DATE	6-11-71	7-28-71	8-6-71	8-12-71	8-19-71	9-3-71	9-8-71	9-14-71	9-22-71	10-4-71	10-20-71
DIMENSION "A"	8"	36"	38"	41"	42"	48"	49"	50"	52"	53"	61"

DATE	10-26-71	11-3-71	11-18-71	12-8-71	1-18-72	1-24-72	2-17-72	3-17-72	4-19-72	5-18-72	6-16-72
DIMENSION "A"	63"	66"	69"	64"	FLOWING	FLOWING	4"	FLOWING	FLOWING	FLOWING	16"

DATE	7-20-72	8-22-72	9-25-72	10-26-72							
DIMENSION "A"	FLOWING	22"	16"	9"							



N

SCALE IN MILES

0 ½ 1

1
2

MAP INDEX

LEGEND

- DRAINAGE OUTLET
- SAMPLING STATION
- DIAMOND DRILL HOLE
- MINE ENTRY
- WEIR
- STRUCTURAL AXIS

TANOMA COMPLEX (UPPER CROOKED CREEK)

MINE DRAINAGE POLLUTION ABATEMENT PROJECT

PROJECT SL 107-6

INDIANA COUNTY, PENNSYLVANIA

GENERAL INFORMATION MAP