

„Porąbka Klimontów” Mine.

### History

The mining area of the “Porąbka-Klimontów” mine included mining areas of “Zagórze I” and “Klimontów” with a total area of 17.40 km<sup>2</sup>. It was located entirely within the administrative boundaries of the city of Sosnowiec. The “Porąbka-Klimontów” mine ceased mining on December 31, 1998, and its liquidation was completed on September 31, 2000. The mining works were carried out from the end of the 18th century to 1998 in seams 349, 404/1, 404/2, 404/3, 409 and 510. Exploitation in seams of groups 300 and 400 due to variable deposits, was carried out fragmentarily, sometimes with single walls or these seams were only identified by corridor headings. The main base of resources of the mine was a 510 seam with a thickness of 13 ÷ 19 m.

### Geology

In the geological structure Quaternary, Triassic and Carboniferous deposits are involved. The “Porąbka-Klimontów” hard coal deposit is located within a structural element called the “Bytom-Kazimierz” Basin. The basin main axis runs towards NWW-SEE. In the central part of the basin, cut by the “Będziński” fault, the layers are almost flat (the angle of dip does not exceed 5°). The northern wing of the basin rises initially gently, but near the northern border of the mining area of the former mine, the layer dip exceed 30°, while in the southern wing it gradually increases to about 40°. Carboniferous layers were significantly dislocated during the Variscan orogenesis, some of the faults may have been rejuvenated in Alpine orogenesis. The retention of Triassic deposits and the location of the Carboniferous ceiling indicates that the faults formed or rejuvenated after Triassic sedimentation are: “Będziński”, “Przekątny” and “Poprzeczny”.

Two major dislocation directions dominate: NWW-SEE and NNE-SSW. Fault drops are from several dozen to over 100 m. The faults were the reason why the coal deposit in the mining area was divided into lots A, B, C, D, E and F forming natural tectonic blocks. The depth of coal deposits in individual lots depends on the location relative to tectonic dislocations.

### Mining

In the mining area of „Porąbka Klimontów” 349, 404/1, 404/2, 404/3, 409, 418 and 510 seams were exploited in the depth zone from 0 to approx. 550 m. Operation in seams of the 300 and 400 groups due to variable deposits was carried out fragmentarily, sometimes with single walls or the seams were identified only by galleries. The main base of resources of the mine was a 510 seam with a thickness of 13 ÷ 19 m.

### Sinkhole threat

Exists on the surface in the areas where the coal was extracted in the depth ranging from 0 to 100 m. Such exploitation was carried out in seams: 349, 404/1, 404/2, 404/3, 409 and 418. The greatest threat exists in the areas of shallow exploitation of 349 and 409 decks due to the thickness of the extracted layer (up to 2.5 and 3.3 m, respectively).