

## „Wawel” Mine

### HISTORY

Mining plant operating in the city of Ruda Śląska (districts Ruda, Orzegów, Godula, Nowy Bytom and Chebzie). The first mention of coal mining in the “Wawel” mine comes from 1650-1670. Over the years, many mines were established in this area, which were then combined into larger plants. Until 1921, there were four separate mines in the area of the former “Wawel” Mine: “Brandenburg”, “Hrabia Franciszek”, “Wolfgang” and “Paulus”. In 1936, an excavation was made through the “Katarzyna” fault joining the “Wawel” Mine with the “Walenty” Mine into one organism called “Walenty-Wawel”. On January 1, 1971, the “Paweł” Mine was connected to the “Walenty-Wawel” Mine and thus the “Wawel” Mine was established. On July 1, 1995, the “Wawel” Mine was connected to the “Pokój” Mine. Based on the decision of the Minister of Trade and Industry in 1995, “Wawel” was put into liquidation by merging with the “Pokój” mine.

### GEOLOGY

In the geological structure Quaternary and Carboniferous deposits are involved. The mining area is located on a tectonic element called the Ruda Basin. In this region, the deposit includes the axis of the Ruda Basin and part of the east and west wings. The axis of the Ruda Basin has the direction NNE-SSW and is submerged towards SSW at an angle of  $4^{\circ} \div 10^{\circ}$ . The extent of the layers in the western part of the mining area has the direction NE-SW with a dip on the SE, and in the eastern part of the mining area NW-SE with a dip on the SW. The angle of inclination of the layers is in the range of  $3^{\circ} \div 10^{\circ}$  and only sporadically in the area of the “Saara” fault exceeds  $10^{\circ}$ . The faults occurring in the deposit have a different direction and a very large span of throw size, from several to 120 meters. Many faults are scissor-like, showing a change in the throw amplitude along the fault run. Changes in the size of faults throws along with the depth were also observed. The main faults are:

- “Katarzyna” fault - crossing a deposit in the southern and eastern part of the area with a very variable direction of run and the size of the throw. The course of this fault in the southern part of the mining area has the SN direction and the throw amplitude is  $2 \div 30$  m on E, while in the area of Air Shaft III in the middle part of the mining area it changes direction by  $90^{\circ}$  and takes the WE course throwing the southern wing by  $45 \div 50$  m, and further east in the area of liquidated shaft “Paweł” changing course again to the SSW-NNE direction, with a throw size of  $10 \div 35$  m on the SSE.
- “Saara” - the largest fault that occurs in the southern part of this area with the run similar to the latitudinal direction. This fault lowers the southern wing by about  $100 \div 120$  m at an angle of  $50 \div 60^{\circ}$ . In the northern part of the mining area there are two faults with SW-NE direction and  $5 \div 15$  m discharges towards SE.

## MINING

In the "Wawel" mining area seams 405, 406, 407, 410, 411, 413, 414, 415, 416, (Rudzkie layers) 501, 502, 504, 506, 507, 509, 510 (Siodłowe layers) 610, 613, 620 (Porębskie layers) were exploited in depth zone from 0 to about 800 m. The thickness of exploited layers ranged from 1 m (502, 620) to 7.5 m (510).

## 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 most of the area except the southern part, the Kokotek pond area and the eastern part of the Godula district in seams 411, 413, 414, 416, 418, (Rudzkie layers) 501 and 502 (Siodłowe layers) carried out in the years 1803-1954.