Jodlowski, A., Piąstka, W. Assessing the Condition of Deep Wells for Dabrowa Waterworks: A Case Study. *Ochrona Srodowiska* 2008, Vol. 30, No. 3, pp. 45–51.

Abstract: The objects under study are eight Lower Cretaceous deep wells operated by the Dabrowa Waterworks, which is part of the water supply system for the city of Lodz. The deep wells chosen were subjected to assessment of their technical condition, since their operation raised serious technological problems (*e.g.* due to silting-up, decline in yield, deterioration of water quality). Observations about the causes and frequency of failure, as well as the length of time when the wells were not in service, were also scrutinized. Of the objects chosen, the oldest Lower Cretaceous deep wells were found to be in the worst condition. This finding was not only substantiated by the analysis of changes in their operating parameters or in the quality of the water being taken in, but was also confirmed by the video inspection of the well's interior, which enabled the condition of the pipes and that of the filters to be examined. It was demonstrated that discontinuities in the operation of the wells occured predominantly when the order was given to reduce water production in the Dabrowa Waterworks. Discontinuities caused by the failure of particular installations or distribution pipes, as well as the discontinuities resulting from power stoppage, are of minor importance but still require close examinations based on the reliability theory.

Keywords: Water intake, groundwater, deep well, technical condition, frequency of well failure.