



## **Iron contamination in groundwater of Rostov region**

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Peculiarities of iron distribution in groundwater of Rostov region didn't receive appropriate attention up to now. Due to mine closer there is a problem of iron contamination in Rostov region nowadays. Mine water is coming up and become a source of pollution for rivers. Moreover in oil and gas regions iron contamination can cause falling out in collectors.

In the second half of the XX century an interesting data was collected due to oil and gas exploration of the region. Statistical exploration of this database give an opportunity to find out the iron genesis in different nature spheres. We explore iron distribution in groundwater in two regions, such as Rostov gas region and Northern Don oil and gas region. The depth of taking samples varies from 260 m to 547 m. Average depth is 399 m. Iron quantity varies from 0,27 to 86,6 mg/dm<sup>3</sup> (Fe<sup>2+</sup>), and from 0 to 11,17 mg/dm<sup>3</sup> (Fe<sup>3+</sup>), average quantity is 5,91 mg/dm<sup>3</sup>. The correlation between iron quantity and mineralization, other ions and depth wasn't found.