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GEOLOGICAL REVIEW OF RIGHT BANK MAGNETIC ANOMALIES AREA OF THE UKRAINIAN SHIELD

The Right Bank magnetic anomalies area is located in the northern part of the Ingulets-Kryvyi Rih seam zone that divides the Inguletsky and Middle Predniprovisky megablocks. The first megablock consists of metavolcanic-sedimentary and granitoid rocks complexes of the paleoproterozoic age and the geological background of the second one consists of plagiogranites and plagiomigmatites of the paleoarchean Dnepropetrovsk complex with green stone structures of the mesoarchean age nested in them. The Ingulets-Kryvyi Rih seam zone is characterized by a complex geological structure derived from the presence of a paleo-mesoarchean and Proterozoic paleo formations.

The Right Bank magnetic anomalies are traditionally considered part of the Ingul-Ingulets stratigraphic area of paleoproterozoic formations. The main argument in favor of this is the presence of stratic sections of siliceous-iron formations, which were correlated with iron-siliceous-shale formation structure of Kryvyi Rih [3, 4]. However, as shown by the survey of the area geology published in monographs by Ya.N.Belevtsev, M.P.Symonenko, M.P.Shcherbakov and others [1], as well as exploration of iron ore deposits (Orikhivsky, Popelnastrivsky, Karasnofedorivsky etc.) the following issues remain open: stratic dismemberment of iron ore host sections, chronostratic affiliation of granitoid complexes, history of geological development etc.

Under the current correlation of the Precambrian chronostratic scheme of the Ukrainian Shield, the genetic-stratification rock complex of the area referred to the Ingul-Ingulets series is divided by (bottom up) the Zelenorichenska, Artemivska, Radionivska, Spasivska and Checheliyevska suites and granitoid formation released as a single Inguletsky complex. However, I.S. Paranko assumed that the metavolcanogenic-sedimentary complexes of the Zelenorichenska

suite are similar to the metadatsyt-andesite-toleyitova formation of the tonalite-green stone complex of the Middle Dnieper. Proof of Archean age serves as the results of radiological studies of amphibolite of suite, which were received by L.S.Halytskiy and others. According to these studies the formations age is 3,020-3,050 billion years [2].

The earlier research revealed that the Artemivska suite iron ore with corner inconsistency lies at different horizons of the Zelenorichenska suite. It indicates that these complexes are formed under different tectonic conditions, so they cannot be attributed to a single series. Also, there was conducted a comparative analysis of mineralogical and petrographic features of ferruginous quartzites of the Artemivska suite of the Right Bank area and the Saksaganska suite of Kryvyi Rih structure. There are different iron-silicon formations that cannot be seen as a result of the same age simultaneous sedimentation.

This region granitoids are attributed to the Ingulets complex, which is also not relevant. Granitoids are a kind of domes, edged with narrow syncline similar structures that are composed of volcanic-sedimentary rocks of the Zelenorichenska, Artemivska and Radionivska suites. The leading role in the complex belongs to amphibolites, amphibole-biotite plagiogranites, granodiorites and tonalites, which are close in their petrochemical features to plutonic formations of plagiogranites green stone structural complexes of Dnieper [2].

Therefore, there were made the following assumptions. The meta-volcanic-sedimentary association of the Zelenorichenska formation belongs to the formations of meta-dacite-andesite-toleyit formational type, determine the absolute age of amphibolite of formation, and set their close relationship with Plagiogranite-tonalite association of the Ingulets complex. All this testifies to the probable allocation within the Right-Bank district green stone structures. This significantly changes the view of the region's geological history, as well as views of the formational affiliation of iron-siliceous strata of the Artemivska formation and metallogenic specialization of the region in general.

We can clarify these issues by means of a comprehensive study of iron ore deposits of this area and the use of geological-formational research methods. As practice shows that studying of Precambrian

formations of the Ukrainian Shield these methods give positive results in stratification the metamorphic complex and reconstruction of historical and tectonic events.

References

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USEFUL MINERALS OF YUGOK HANNIVSKE DEPOSIT

The Hannivske Deposit of ferruginous quartzites is situated within the boundaries of the Northern field of the Kryvyi Rih ore area of poor magnetite ores (magnetite quartzites) located in the southern part of the East Hannivska strip. As constituents of the Saksaganska suite of this region, there are six ferruginous (the first, the second, the fifth, the sixth, the seventh, the eighth, the ninth) and seven schistose (the first, the third, the fifth, the sixth, the seventh, the eighth, the ninth, the tenth) horizons. The fifth and sixth ferruginous horizons make up the productive strata of the deposit. The thickness of the productive strata varies from 300-350 to 30-50m from the south to the north of the region. The deposit is developed by YuGOK Hannivsky Open Pit.

The major raw material of the deposit under study is iron ore. The