DESCRIPTION OF ORE AND NORUDA MINERALS OF THE SOUTHWESTERN HISSAR REGION

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Abstract: *This article provides a general description of underground mineral resources, ore and non-ore deposits in the southwestern Hissar region, and their economic significance.*

Key words: *minerals, mineral resources, non-ferrous metals.*

Introduction. One of the important tasks is to study the importance of mineral resources in finding natural resources necessary for production, determining their economic evaluation and effective use, transforming nature in a way that is suitable for the purpose and harmless to nature itself and society, comprehensively studying the impact of human economic activity on nature, the main forms, directions and intensity of landscape changes due to this impact, and developing scientific forecasts of the possible consequences of such changes.

The main part. There are no coal deposits of industrial importance in the Kashkadarya region. The region's coal needs can be partially met by the Yakkabog coal mine between the villages of Vori and Zarmas in the Chakmonkuydi Mountains.

In the southeast of Dehqanabad district, deposits of oil shale have been identified in Dehqanabad, Khojarna, Kyzylcha, Dardara, Kann and other deposits. However, their industrial significance is not yet clear. However, it is important to continue research to identify deposits of oil shale raw materials and their reserves, given that nerozine, a cotton growth stimulant, can be obtained from the shales.

In the Kashkadarya region, manganese reserves belonging to the category of non-ferrous metal ores were discovered in the Davtash and Kyzylbayrak deposits on the southwestern slopes of the Koratepa Mountains (Chirokchi district). After exploration work was carried out and the metal reserves were identified, technological testing of the ore was carried out, and it was determined that manganese is deposited in psilomellans and pyrolusites, as well as in limestones and sandstones. However, these small deposits of manganese ores are not of

industrial importance. The reserves of the Davtash deposit are 0.8 million tons, the content of manganese in the ore is 16.8%. The deposit can be mined in an open-pit manner. The ores of the Kyzylkon deposit can be used as microfertilizers in the metallurgical industry and in agriculture. Because manganese ore contains cobalt, molybdenum, copper, zinc and other chemical elements. The use of manganese ores in these deposits in ferrous metallurgy under current conditions is not economically feasible, but may be of great importance for geological exploration. It is noteworthy that traces of black ore were found in a bismuth ore deposit, which is rare in nature, on the southern slopes of the Koratepa Mountains.

Several deposits with signs of iron ore (Tutak Ota, etc.) have been discovered in the Hissar mountain ranges. The ore reserves discovered in them are not very large, so they are temporarily closed.

It is known that Uzbekistan has very large deposits of potassium and Osh salt. According to estimates, potassium salts will last for more than 100 years, and the reserves of Osh (rock) salt in the deposits of our country amount to 90 billion tons. In the mountainous part of the Kashkadarya region - in the Dehqanabad, Kamashi and Guzar districts - large reserves of table salt and potassium salt have been discovered.

Salt and potassium. Hissar province includes the Dehqanabad salt basin (southwestern branches of the Hissar ridge). The Dehqanabad salt basin includes the Boybachchakon, Hamkon and other salt structures. Very large deposits of Boybichchakon and Tepaquton table salt have been identified here. The thickness of the salt layers within the entire basin is 200 - 600 m.

The Boybachchakon table salt deposit is located in the Kamashi district, 12 km southeast of the village of Langar and 52 km southeast of the city of Kamashi. The salt layers are located at depths of 600 - 1000 m below the surface. The thickness of the productive layer is 240 m, the content of NaC1 is 94.56%. The balance reserves of category S1 salts are 234.6 million tons, and category S2 - 485.1 million tons. The prospective reserves of table salt are very large.

Salt has also been identified in the Tepaqutan potash salt deposit. The reserves of table salt here amount to 6.1 million tons.

The share of the Kashkadarya region is about 70% of the estimated reserves of potash salts in Uzbekistan and almost 100% of the reserves on the balance sheet. ("Экономический потенциальный гор и предгорий ..., 1982").

The Akbash Tepaquton, Kaypantov and Pachkamar salt fields have been identified in the southwestern branches of the Hissar Range. The largest of them is the Tepaquton deposit, located 30 km northeast of the town of Dehqanabad. The estimated reserves of potassium salts in this deposit are 500 million tons, including 400 million tons of A+B+C categories. The depth of the layers ranges from 117 m to 936 m, the average thickness of the layer is 5.1 m, and it is observed on an area of 81 km2.

It was planned to organize the production of potash fertilizers with the participation of foreign investors on the basis of the Tepaquton potash salt deposit.

By the Resolution of the President of the Republic of Uzbekistan No. PP-632 dated May 1, 2007, it was determined that the construction of the Dehqanabad Potash Fertilizer Plant would be carried out on the basis of an investment project.

The Cabinet of Ministers, having adopted Resolution No. 150 on July 24, 2007, appointed the customer, designer and general contractor organizations for financing, designing and constructing external infrastructure facilities of the plant.

The main components of the plant are the processing complex and the mining complex, based on the decision of the government tender commission, it was decided to conclude a contract for the processing complex with the company "SITIK" (China), and for the mining complex with the company "ZUMK Engineering" (Russia). Potash raw materials are mined in a closed way from the Tepaquton deposit in Dehqanabad district. The proven reserves of the deposit are 215.3 million tons, and the first section to be commissioned has reserves of 44.547 million tons of potash raw materials (KCl). The designed capacity is designed to extract 700 thousand tons of raw materials per year. The processing complex will produce 200 thousand tons of potash fertilizer per year from this amount of raw

materials. 110 thousand tons of the product will be used for the country's needs, and 90 thousand tons will be exported.

Complex processing of salts allows to obtain brominated iron, magnesite, gypsum and other materials on the go.

Osh salt is also found in the Tepaqutan potash salt deposit. The reserves of osh salt here are 6.1 million tons.

Kashkadarya region accounts for about 70% of the estimated reserves of potash salts in Uzbekistan and almost 100% of the reserves on the balance sheet. ("Ekonomicheskiy potentsial gor i predgoriy ..., 1982").

The salt fields of Akbash, Tepaquton, Kaypangtov and Pachkamar have been identified in the southwestern branches of the Hissar ridge. The largest of them is the Tepaquton deposit, located 30 km northeast of the town of Dehqanabad. The estimated reserves of potassium salts in this deposit are 500 million tons, including 400 million tons of A+B+C categories. The depth of the layers ranges from 117 m to 936 m, the average thickness of the layer is 5.1 m, and it is observed in an area of 81 km2.

On the basis of the Tepaquton potassium salt deposit, the production of potassium fertilizer was established with the participation of foreign investors. Complex processing of salts allows for the production of brominated iron, magnesite, gypsum and other materials on the go.

Within the southwestern branches of the Hissar ridge, in the Dehqanabad district, geologists of the TashSU (now the National University of Uzbekistan) have identified the presence of phosphorite deposits with estimated reserves of 213 million tons. Phosphorite deposits can be exploited in an open-pit manner. The content of R2O5 in the ore of this deposit is 6%. Continuing geological exploration in this area may allow finding richer ore deposits.

As a result of geological exploration, the Lolabulok pegmatite deposit was discovered on the slopes of the Koratepa Mountains, 30 km northeast of the city of Chiraqchi, with estimated reserves of pegmatite of 7 million tons.

On the slopes of the Koratepa Mountains are located the Dovtash and Kyzylbayrak manganese deposits. The reserves of the Dovtash deposit are 0.8 million tons, and the content of manganese in the deposits is 16.8%. Manganese deposits in the deposit can be mined in an open-pit manner. The Kyzylbayrak manganese deposit is a continuation of the Dovtash deposit in the east, and the deposits of this deposit can be used as microfertilizers in the metallurgical industry and agriculture.

Like other regions of Uzbekistan, the Kashkadarya region is very rich in various building materials. Among the mineral resources extracted in the region, non-precious minerals such as marble, dolomite, limestone, expanded clay, which are used for decoration, sculpture, and construction, rank second only to fuel and energy resources.

There are 20 marble mines in our country, of which Bodomzor, Iskana, Sevaz, Tomchata, Makrid, Khazornava, Birkunlik and others are located in the Kashkadarya region. Various types of marble are mined from these mines. The total reserves of marble in these mines exceed 4 million km3. Raw materials from the marble mines in the region are used to produce marble blocks and crushed stone at the Kitab and Makrid stone processing plants. The technological equipment of these plants was replaced with new equipment imported from foreign countries during the years of independence, and the production and product range were increased. Currently, there are opportunities for wider use of the wonderful properties of decorative facing stones mined in our region.

Conclusion. In conclusion, it can be said that Uzbekistan today independently and freely disposes of the natural resources on its territory, considering its national interests, the happiness and future of its people and descendants. This opportunity is the highest blessing and the greatest right granted by independence. In addition, these same resources are the material and economic basis of our independence and serve to build a democratic state and civil society based on the rule of law in our country.

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