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MINERAL RESOURCES OF KASHKADARYA REGION AND THEIR EFFICIENT USE

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Abstract

The article considers the issue of mineral resources of the Kashkadarya region and their economical use and rational use as geological raw materials. In particular, the distribution of minerals in the region and the state of their development, their general properties and characteristics are discussed in detail.

Keywords: exploration, mineral, natural gas, gas condensate, oil, table salt, potassium, building materials, manganese, coal, coral, collector.

QASHQADARYO VILOYATI MINERAL RESURSLARI VA ULARDAN TEJAMKORLIK BILAN FOYDALANISH

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Annotatsiya

Maqolada Qashqadaryo viloyati mineral resurslari va ulardan tejamkorlik bilan foydalanish va ulardan geologik xom ashyo sifatida oqilona foydalanish masalasi ko‘rib chiqilgan. Xususan viloyatdagi foydali qazilmalarni tarqalishi va ularni o‘zlashtirilish holati, ularning umumiy xossa va xususyatlari atroflicha muhokama qilingan.

Kalit so‘zlar: qidiruv, foydali qazilma, tabiiy gaz, gaz kondensati, neft, osh tuzi, kaliy, qurilish materiallari, marganets, toshko‘mir, marjon, kollektor.

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МИНЕРАЛЬНЫЕ РЕСУРСЫ КАШКАДАРЬИНСКОЙ ОБЛАСТИ И ИХ ЭФФЕКТИВНОЕ ИСПОЛЬЗОВАНИЕ

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Аннотация
В статье рассматривается вопрос о минеральных ресурсах Кашкадарьинской области и их экономном использовании и рациональном использовании в качестве геологического сырья. В частности, подробно рассматриваются распределение полезных ископаемых в регионе и состояние их освоения, их общие свойства и характеристики.

Ключевые слова: разведка, полезное ископаемое, природный газ, газовый конденсат, нефть, поваренная соль, калий, строительные материалы, марганец, уголь, коралл, коллектор.

Introduction and relevance of the problem. Many years of geological exploration work indicate the presence of various mineral raw materials of industrial importance in the Kashkadarya region. The main minerals in the region are natural gas, gas condensate, oil, potassium and potassium salts, and construction materials. Also, small reserves of manganese and coal have been identified. In addition, as a result of geological exploration work, it has been revealed that polymetallic, oil shale, and phosphorite mineralization are present.

Discussion of the results. Natural gas, gas condensate and oil. The territory of Uzbekistan, according to its geological and tectonic characteristics, is divided into 5 oil and gas regions (Ustyurt, Bukhara-Khiva, South-West Hisar, Surkhandarya and Fergana). The territory of Kashkadarya region is located within two of these regions - Bukhara-Khiva and South-West Hisar oil and gas regions, which are deposits belonging to the Shortan and Mubarak groups. Natural gas, gas condensate and oil

are mainly extracted from corallite limestone deposits - collectors - between the early marine deposits of the Jurassic period, at depths of 1.5 - 3.5 thousand meters.

The Pachkamar, Gumbulak, Adamtash, Kyzylbayrak, Tandirchi and other large reserves of gas and gas condensate, which have been fueling the region since the 1950s, are located in the foothills of the Hissar mountain range, adjacent to the Karshi desert of the Guzar district. Beshkent and the Kamashi gas fields are located west of the city of Beshkent. In the southwest of the Karshi desert, there are gas, gas condensate and oil and gas fields such as Kultog, Alan, Pomuk, Zevardi. In the areas adjacent to the territories of the Republic of Turkmenistan and the Bukhara region, there are oil and gas fields such as Dengizkul, Kokdumalak.

In the north-west of the Kashkadarya region, adjacent to the Bukhara region, the long-established gas fields of Setalantepa, Jargok, North Mubarak, South Mubarak have been joined by the recently launched and commissioned Karim, Khojahairon, Shortepa, Karakum, Kyzyl Rabat, Karabayir and other fields. These fields are part of the southern basin, which is called the Bukhara-Khiva oil and gas province in the geological literature. The Karakhitay field north-west of Kungirtog meets the gas needs of the city of Karshi, and the Uvada and Sarycha fields in the Chirokchi district meet the gas needs of the Shakhrisabz district. In addition, raw materials are being obtained from the Ortabulak, Toshli, Sharqi Karael, Nour, Boyburak oil fields of industrial importance in the region, and some of them are being prepared for use.

More than 100 gas, gas condensate and oil fields have been identified in the Kashkadarya region, which are included in the state balance.

The Mubarak Gas Processing Plant, which occupies a significant place in our country on the basis of the region's gas fields, produces 251.5 thousand tons of sulfur, which is of great importance in our national economy, and processes more than 35 billion m^3 of natural gas.

The commissioning of the Kokdumaloq field, one of the largest industrial enterprises in the Kashkadarya region with the participation of foreign companies, has allowed us to achieve oil independence by building a complex gas preparation facility, an oil preparation facility, a pumping station for pumping water into oil layers, and sending oil and gas condensate extracted from the field to the Fergana and Bukhara oil refineries, ensuring our country's need for oil products.

Currently, the Kashkadarya region produces 88% of the country's natural gas, 99% of gas condensate and 90% of oil. The richness of natural gas sources here in ethane made it possible to build the Shortan gas-chemical complex for the production of chemicals, polymers and plastics. This huge industrial complex, which is unique not only in our country but also in the CIS, produces 125 million tons of polyethylene, 137 thousand tons of liquefied gas, 130 thousand tons of light condensate, 4.2 billion m^3 of gas products and 4 thousand tons of sulfur per year. It also allows for a sharp increase in the production of products used in the cotton industry, plastics, film, cable production, and packaging in our country. There are no coal deposits of industrial importance in the territory of the Kashkadarya region. The region's need for coal can be partially met by a coal mine located between the villages of Vori and Zarmas in the Yakkabag Mountains.

In the southeast of Dehkanabad district, oil shales have been identified in the Dehkanabad, Khojaarna, Kyzylcha, Dardara, Kan and other deposits. However, their industrial significance has not yet been determined.

The territory of Kashkadarya region has large reserves of potassium and table salt. According to approximate estimates, the share of Kashkadarya region is about 70 percent of the estimated reserves of potassium salts in Uzbekistan and almost 100 percent of the balance reserves (Ekonomicheskiy potential, 1982). In the southwestern branches of the Hissar ridge, the Okbash-Tepaquton, Kaypantov and Pachkamar salt fields have been identified. The largest of them is the Tepaquton deposit, located 30 km northeast of the Dehkanabad mound. The estimated reserves of potassium salts in this deposit are 500 million tons.

The Dehqonabad Potassium Fertilizers enterprise is operating on the basis of the Tepaquton potassium salt deposit in collaboration with foreign investors. The complex processing of salts allows for the production of brominated iron, magnesite, gypsum and other materials on a rolling basis.

Hissar province also includes the Dehqonabad salt basin. This basin includes Boybichakon, Hamkon and other salt structures. Large deposits of Boybichakon and Tepaquton table salt have been discovered here. The thickness of the layers within the entire basin is 200-600 meters.

At the Boybichakon table salt deposit (12 km southeast of the village of Langar in the Kamashi district), the balance reserves of category C_1 salts are 234.6 million tons, and category C_2 - 4385.1 million tons. The prospective reserves of table salt are very large.

Osh salt has also been found in the Tepaquton potash salt deposit. The reserves of osh salt here are 6.1 million tons.

Among the southwestern branches of the Hissar ridge, in the Dehqanabad district, the presence of phosphate deposits with a predicted reserve of 213 million tons has been discovered. This deposit can be exploited in an open-pit manner. The content of $P_2 O_5$ in the deposit is 6%.

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 Chiroqchi), where the predicted reserves of pegmatite are 7 million tons.

The territory of the Kashkadarya region is very rich in building materials. The minerals mined from the region, such as marble, dolomite, limestone, expanded clay, which are used for decoration, sculpture, and construction, are second only to fuel and energy resources. Various types of polished marble are mined in the Bodomzor, Iskana, Sevaz, Tomchiota, Khazornova, Birkunlik and other mines in the region. The total reserves of marble in these mines exceed 4 million km3. Raw materials from the marble mines of the region are used in the production of marble blocks and crushed stone at the Kitab and Makrid stone processing plants. The technological equipment of these plants was replaced with modern equipment imported from abroad during the years of independence.

The reserves of dolomitic limestone are also quite large, and have been studied in particular detail in the Dehqanabad and Pachkamar deposits. The reserves of wall dolomites in the Dehqanabad deposit are 6.4 million m^3, and in the Pachkamar deposit - 4.7 million m^3. Currently, the raw materials of these deposits are also used as wall stones and refractory raw materials. In addition, they are also sent to the Samarkand and Tashkent porcelain factories.

The limestone deposits of Qaynar II in the southern branches of the Zarafshan ridge and Langar in the southwestern branches of the Hisar ridge have been discovered.

The thickness of the carbonate layer in the Qaynar deposit is 640 - 1150 meters, and the total reserve is 8862.0 thousand tons.

In the limestone deposit near the village of Langar, estimated reserves of 15 million tons have been discovered with a depth of up to 30 meters.

Limestones that can be used as raw materials for cement were found in the Koratepa deposit, located 12 km north of the city of Kitab (reserves of categories $C_1 + C_2$ are 326 million tons, C_1 - 215 million tons).

Large reserves of gypsum, the raw material for ganch - alabaster, are accumulated in such deposits as Pachkamar, Langar, Oloviddin, Kalkama, Maymanak, Kosontog. Among them, the largest gypsum deposit is formed by the Pachkamar deposit. If the thickness of the first-grade gypsum layer here is 6 m, its reserves are 1,692 thousand tons.

The Kashkadarya region has very large reserves of sand and gravel necessary for construction and the production of baked bricks. Currently, the Tankhoz gravel sorting plant produces products on the basis of the largest Tankhoz sand and gravel deposit, which is used for the needs of the region and other regions of our country. The sand and gravel reserves of the Tankhoz deposit are 29.2 million m^3.

The Chiyal granular sand deposit in the Chiraqchi district (with reserves of 38.97 million m^3) can provide a large amount of raw materials for concrete and construction.

Conclusions

In order to establish the effective use of various mineral resources of the Kashkadarya region, which has large reserves, and to satisfy our country's needs for mineral resources as much as possible, during the years of independence, a huge amount of creative work was launched: existing enterprises were radically reconstructed, re-equipped with modern equipment imported from abroad, and at the same time new industrial enterprises were built, projects for the construction of mining enterprises based on modern technology with the participation of foreign partners and the production of products were developed and partially amalgamated (for example, the Shurtan gas-chemical complex).

The mineral resources of the Kashkadarya region can be divided into 3 groups according to their economic significance. The first group is gas production. The extracted gas is important not only for production enterprises in our country, but also for supplying neighboring countries with gas.

The second group includes oil, and in the future, table salt. Potassium salt, and the production of mineral resources necessary for the petrochemical industry. The third group is made up of building materials (marble, raw materials for brick making, gravel, sand, marl, gypsum, etc.). Based on these mineral resources, a large construction industry has emerged in the region since the 1960s in connection with the development of the Karshi desert.

The problem of effective use of the region's mineral resources is today a problem related to environmental protection.

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