Komi Republic

GENERAL INFORMATION

On the Platform, the Timan-Pechora oil and gas basin in the Komi Republic is represented by Advastor Services Ltd, which is a user of Visovsky and Ermolovsky license blocks located in the Sosnogorsky District, 50–70 km from the town of Ukhta.

**Ermolovsky license block**, license СЫК 12702 НП. During the Soviet period, four exploration wells were drilled in the block. We found five oil reservoirs at a depth of 900–2200 m. Based on the results of 3D seismic surveys, 8 million tons of recoverable resources (category C3) were registered with the State Register of Reserves. According to an international audit performed by DeGoliere subject to 3D survey data and drilling data, the reserves of category P3 are estimated at 11.7 million tons. In 2017–2020, it is necessary to drill two exploration wells. There is no risk that an oil field will not be discovered. The license will expire in December 2021.

**Visovsky license block**, license СЫК 01080 НР. In 2001, an exploration well was drilled in the block where we had discovered several oil reservoirs. After the 3D seismic survey in the southern part of the block, 11 million tons of recoverable resources (category C3) were registered with the State Register of Reserves. According to an international audit performed by DeGoliere, the reserves of category P3 are estimated at 8.8 million tons. 3D seismic survey was also conducted in the northern part of the block. The collected data are being processed and interpreted. Reef structures are observed here. Recoverable reserves may reach at least 10 million tons of oil.

In 2018–2022, it is necessary to drill two exploration wells in the southern and northern parts of the block. The license will expire in December 2024.
Factors of Investment Attractiveness:

Significant increase of the resource base

- In the next three years, it is planned to transfer at least 20 million tons from resources to reserves. At least 10 million tons of reserves are expected to be registered after the interpretation of the northern 3D cube of the Visovsky block. The total reserves will reach at least 30 million tons.

Start of production and production level

- The oil production is predicted to reach 1–1.5 million tons of oil per year after 4–5 years.

Transport accessibility and infrastructure

- A railway, power transmission line, oil pipeline of Transneft, local permanent and seasonal roads run through the license blocks. The projected Bovanenkovo-Ukhta gas pipeline will run through the blocks.
- There is a Lukoil oil refinery in Ukhta. There is an oil-loading rack within the Ermolovsky block.

Local team

- A team of highly skilled specialists with great business achievements and deep knowledge of the Russian oil and gas industry.
- A proved record of complex transactions and attracting resources for business development.

Promising region:

- The economy of the Komi Republic is based on extraction of minerals, including oil, gas and coal.
- The Timan-Pechora Oil and Gas Province includes about 100 oil and gas fields.
- The presence of the major oil and gas companies in Russia, such as Rosneft, Gazprom, Lukoil and, as a consequence, a well-developed infrastructure.
- Excess shipment (oil pipeline and railway) and refining (a local refinery) capacities.
FIELD

Location
Both license blocks, Visovsky and Ermolovsky, are located in the Sosnogorsky District, in the center of the Komi Republic, 50–70 km from Ukhta. The area of the fields is covered with coniferous forests, waterlogged in some parts, gently rolling. It is confined to the Ayuva River basin. The climate is continental and cold, with an average annual temperature of -1.6°C. The Moscow–Vorkuta railway, federal highway, power transmission line, and oil trunk pipeline “Usa-Ukhta-Yaroslavl” run through the center of the field. The oil trunk pipeline of Transneft passes directly through the Visovsky block. There is an oil receiving point at the Sedvozh railway station near the Ermolovsky block. The depths of appraisal and production wells do not exceed 1700 m on the Visovsky block and 2250 m on the Ermolovsky block.

Geology

Visovsky License Block
In 2008, the recoverable oil resources of category C3 were estimated at 11.1 million tons and registered with the State Register of Reserves of the Russian Federation in the Komi Republic based on the new 3D seismic survey data (200 km² of survey lines acquired in 2006–2007 were interpreted). Another 285 km² of 3D survey were acquired in the northern part of the block. The interpretation of this data is expected to increase the indicated resources of category C3 by about 15 million tons. Based on tests of an old well (well No. 1), high-capacity and high-rate carbonate reservoirs were identified in Upper Devonian and Lower Permian deposits. These reservoirs are associated with organic structures (reefs). In the area covered by interpreted 3D survey data (200 sq. km²), two local reefs have been prepared for drilling. In total, there are three new targets prepared for appraisal drilling and three new identified targets in this area. In the area covered by 3D survey, well No. 1 is the best drilling site, since this well will penetrate five reef structures. The same well is expected to penetrate the most promising targets (10.1 million tons of recoverable resources). The reef structures will provide accumulations with 1–3 million tons of oil reserves.

Ermolovsky License Block.
The area of the block is 188.6 km², 130 km² of which have been covered by 3D survey. The target horizons in the Sedvozhskaya structure are Lower Permian–Carboniferous organic structures, carbonate beds F0–F5, and Dzhersian sandstones. The indicated recoverable oil resources of category C3 contained in the Sedvozhskaya structure are estimated at 6.8 million tons (not counting a trap in the Salyukinian deposits). The target horizons in the Vostochno-Sedvozhskaya structure are the Dzhersian sandstones, bed F0, Lower and Middle Carboniferous reservoirs. Other promising horizons of this block should also be studied, but only as secondary targets. The indicated recoverable resources of category C3 contained in the Vostochno-Sedvozhskaya structure are estimated at 0.55 million tons. Only resources of the Dzhersian sandstones are registered with the State Register of Reserves. In total, 7.35 million tons of the block’s resources were registered.
The probability of successful drilling in the Ermolovsky block are more than 80%, since, according to log well data, oil-water contacts of four accumulations can be seen in an old well drilled in the 1980s.

Results of Exploration
Both licenses were renewed by the Federal Agency for Mineral Resources (Rosnedra) in 2015. An exploration well was drilled on the Visovsky block in 2001 and reactivated in 2007 (oil was discovered). 3D seismic survey (200 km²) was performed in 2006–2007. 3D seismic survey (285 km²) was performed in 2007–2008. An exploration well drilled in the Ermolovsky block in 2007 produced oil. 3D seismic survey (134 km²) was performed in 2006–2007. The depths of appraisal and production wells do not exceed 1700 m on the Visovsky block and 2250 m on the Ermolovsky block. 3D seismic survey (134 km²) was performed in 2006–2007. Geological, geophysical and drilling databases are kept by the Institute of Oil and Gas Problems of the Russian Academy of Sciences and in Ukhta. The databases are publicly available.

Physicochemical Parameters
In terms of physical parameters, the oil from the nearest Kabyntyvisovskoye field has a density of 0.9 g/cm³ and low sulfur content.

Recoverable Reserves
In the next three years, it is planned to transfer at least 20 million tons from resources to reserves. At least 10 million tons of reserves are expected to be registered after the interpretation of the northern 3D cube of the Visovsky block. The total reserves will reach at least 30 million tons. According to the results of geological exploration, at least 30 million tons of oil are expected to be registered as recoverable reserves of categories C1 and C2. The maximum production is expected to reach up to 1–1.5 million tons of oil per year.

Infrastructure
A railway, power transmission line, oil pipeline “Usa–Ukhta–Yaroslavl” of Transneft, federal highway, as well as local permanent and seasonal roads run through the license blocks. The projected Bovanenkovo–Ukhta gas pipeline will run through the blocks. There is a Lukoil oil refinery in Ukhta. There is an oil-loading rack within the Ermolovsky block.
Field Development Plan (Drilling Forecast)

The project is positioned as an exploratory one. After the implementation of the exploration program (approximately within three years) and the registration of reserves, the project will ensure a significant increase in capitalization and bring profit to the shareholders through the sale of reserves at market prices. The market value of commercial reserves in the Komi Republic varies from $3 to $17 per ton, and in some cases reach $25 dollars per ton (based on auctions for the right to use subsurface resources for the last 10–15 years and some secondary market transactions for the previous years).

In case of successful drilling, the market value of reserves in the Visovsky and Ermolovsky license blocks is expected to be from $70 million to $500 million (depending on the amount of reserves that will be registered with the State Reserves Committee (GKZ), and how these reserves will be estimated by an international auditor).

In the event that the shareholders decide to develop the field, it will be possible to reach the oil production at the level of 1–1.5 million tons of oil per year in 4–5 years. The number of required production wells will be calculated in development projects. The production rate is predicted to be 50 tons per day in ordinary wells and 100 tons per day in reef wells. Oil transport infrastructure and refining facilities are available in the region.

Preliminary estimates of cash flows from the development of projected accumulations are positive for both license blocks. In case of successful drilling of the first wells (one for each license bloc) and the commencement of production drilling in 2019, the maximum payback period of the project will be five years. The internal rate of return is very high — 122% for the Visovsky block and 65% for the Ermolovsky block.