



THE "HORSE" OF SHAH DENIZ, OR HAPPY NEW GAS, AZERBAIJAN!

The first records of oil extraction on the Apsheron Peninsula may be found with Persian and Arab authors Yakub Khamavi (13th cent.), Khabdalgafy Hazvini (16th cent.), and Qatib-Cheliabi (16th cent.). The area of Baku on the shore of the Caspian Sea has long been famous throughout the Orient for its burning gas flares. The oil and gas industry of the former USSR was born right there, and the first pipelines were constructed in that area. In the Soviet era, Azerbaijan geologists predicted significant reserves of gas in the Caspian region, in addition to the oil deposits. Therefore, the discovery of world-significance deposits of gas at the Shah Deniz field last summer was not much of a sensation for geologists, but became quite a surprise for the international consortium engaged in exploration of the oilfields. Confirmation of large gas deposits in Azerbaijan, expected in the next few months, after the drilling of the second well, does not blend with the US strategy in the Caspian Sea region, and will require its adjustment, in accordance with the new situation. Emergence of a new large exporter of cheap gas will impact the Turkish energy market, and later on may lead to gas price reduction throughout Europe, including Ukraine. Along with other factors, this may put off the starting date of the beginning of construction of the Baku-Ceyhan oil pipeline and the Transcaspien gas pipeline, agreed to at the Istanbul OSCE summit. The Azeri gas opens new prospects for co-operation within the framework of GUUAM.

"Geidar" is the Turkic for "Horseman leading the horde", or The Issue for the Security Council

Right after the results of the first well drilled at the Shah Deniz (Shah's Sea) oilfield became clear, the President of Azerbaijan Geidar Aliyev made a sensational statement at a Security Council meeting, stating that 700 billion cubic meters (Bcm) of gas and 400 Bcm of gas condensate were found. Some time later Azerbaijan began a large-scale political campaign, exploiting the idea of potentially huge reserves of gas in its sector of the Caspian Sea, and possible supplies of gas to Turkey and Europe. Today, it is premature to give exact figures: all questions will be answered after the results of exploratory drilling of the second and third oil wells are known; nevertheless, it is already clear that Baku will be able to export natural gas in the near future. One can predict the increase in Azerbaijan's influence in the region. On the other hand, expectations of the western oil companies for oil sufficient to feed the Baku-Ceyhan pipeline did not come true. Analysts assume the discovery of gas at the Shah Deniz field, as a negative factor for the development of Azeri oilfields, as this may scare away the investors.

How it happened, or The Cold News

The oil and gas bearing structure Shah Deniz on the Caspian shelf some 70 km from Baku was first discovered by Azeri geologists in 1954. As far back as '60s, Azeri geologists predicted many trillions cubic meters of natural gas on the Caspian shelf.

The international consortium began drilling the first exploratory well at Shah Deniz on the 7th of July, 1998. Due to a forced replacement of the rig, the work was completed only on the 19th of May, 1999. Further testing of the well showed high inflow of hydrocarbons at maximum equipment load. Out of the three available pay horizons, only the lowest one was tested, due to the equipment pressure limitations. The expected reserves were estimated as follows: natural gas - up to 700 Bcm, gas condensate - up to 250 million tons (probably, this forecast was behind Geidar Aliyev's statement at the Azerbaijan Security Council meeting). According to the Soviet classification, this deposit is unique. With account of the unexplored levels, gas reserves may reach 1 trillion cubic meters, worth approximately \$60 billion. Rich condensate content points at the existence of an oil margin, thus giving reason to hope for discovery of oil at further exploration of the structure.

It should be stressed that the agreement with the international consortium on this structure provided for joint recovery of oil, not gas, by its members. Azerbaijan was to obtain associated oil gas, extracted by the oil consortium during the recovery of oil, free. For the agreement participants to be able to extract (and sell) the Shah Deniz gas, its text should be seriously amended, i.e., a new (gas) consortium should be established.

Today's Realities

In 1999, it was planned to extract a little more than 6 Bcm of gas in Azerbaijan; 5 Bcm to be recovered by the State Oil Company Azerbaijan (SOCAR), and almost 0.9 Bcm - by the Azerbaijan International Oil Company (AIOC), which, according to the contract, was to be transferred to SOCAR free of charge. AIOC extracted only 0.33 Bcm in 1998. The provision of free transfer of gas in further oil contracts between Azerbaijan and foreign companies will grant Azerbaijan extra export potential. Today, Azerbaijan's gas infrastructure is underdeveloped, and even the domestic consumption would require construction of numerous pipelines and re-equipment of underground gas reservoirs.

Even in two or three years, Azerbaijan will not be able to compete with Russia or Turkmenistan on the gas market, but confirmation of universally important reserves, their further exploration and export will considerably change the schemes of gas supplies to many countries of the region. In case Azerbaijan won't participate in the Transcaspien gas pipeline (Turkmenistan - the Caspian Sea - Azerbaijan - Georgia - Turkey - Europe) due to differences with Turkmenistan, it may begin the development of its own project. In presence of a number of mutually exclusive routes for gas supply to Turkey (the Russian "Blue Stream", the Transcaspien gas pipeline, the Iranian route), the first supplier will be the winner. In this connection, time is limited for Azerbaijan, as its gas reserves have not been confirmed yet, while the other pipeline projects have been developed more thoroughly.

Step on the Gas, Hit the Prices

Preliminary estimates by the "Wood Mackenzie Consulting Group" show that the Shah Deniz gas will be rather cheap, and its underwater recovery and transportation to Turkey via Georgia will fully pay off. Calculations performed by that company show that it will be 37-46% cheaper than the Russian gas supplied through the "Blue Stream" pipeline. Price adjustment, within this range, depends on the choice of the gas pipeline version (whether the existing Azerbaijan segment is used, or a new high capacity pipeline is built).

The Azeri gas will be 4-18% cheaper than the Turkmen gas, supposed to be supplied through the Transcaspien gas pipeline (TGP). If the Turkmen gas goes via Iran, the Shah Deniz gas will be 18-30% cheaper. The cheapest gas comparable to the Azeri gas is that of the Southern Pars gas field in Iran, but even in this case Baku is in a better position.

Turkey has signed a number of gas supply agreements at different levels with all the mentioned countries (Russia, Turkmenistan, Azerbaijan, Iran), as well as with Algeria and Nigeria (for the supply of liquid gas), and cannot cancel those contracts.

Gas for three?

Azerbaijan's signing of TCP framework agreements at the Istanbul summit of OSCE does not close its own way to the Turkish market. Azeri gas is much closer than Russian (from West Siberia) or Turkmen gas. In case Turkmenistan is not satisfied with its TCP gas quota, Azerbaijan may begin the development and implementation of its own project for gas transportation to Turkey. Pipe laying from Baku to Erzurum (Turkey) seems to be a childish occupation, if compared to the transmarine projects of Moscow and Ashgabat. Low-level deliveries of Azeri gas to Turkey may be performed via the existing Azerbaijani gas pipeline. This segment of the pipe was restored and is now used for gas transportation to the town of Kazakh on the Georgian border. To extend the line, Turkey will have to lay another 225 km of pipeline over the Georgian territory, which will cost \$250-400 million. Transportation of large volumes of gas (16-20 Bcm) will require construction of a new pipeline; its length up to the Turkish border will be 693 km, the cost - \$650-750 million. For comparison: the TCP will be 2000 km long and will cost \$2.5-3 billion, the "Blue Stream" - 1213 km and \$2-2.5 billion respectively.

Parallel laying of pipelines will make it possible to considerably reduce costs on geological survey of the route, infrastructure and safeguarding expenditures. In this connection, a hypothetical option for parallel construction of three pipelines emerges: the Baku-Ceyhan oil pipeline and the two gas pipelines - the Transcaspien pipeline and the pipeline Azerbaijan-Georgia-Turkey-Europe. Of course, this is the "optimistic" option, impacted by many factors, the investors' interest in the first place, as well as the fulfillment of the other international agreements on gas supply to Turkey. Further delay in the beginning of construction of the first two pipelines does not rule out the option where the Caspian Sea - Turkey energy bridge may be started with the Azeri gas project.

Politics and pipelines are indivisible

The break-up of the Soviet Union, where oil and gas reserves of the Caspian Sea were considered insignificant, led the West to these rich deposits of hydrocarbons. Today, neither Russia nor the European Union has a strategy for the development and operation of energy resources of the Caspian region. The only comprehensive strategy has been developed and is implemented by the USA. In this respect, the signing of the Declaration on the Transcaspien gas pipeline, designed to supply Turkmen gas to Turkey and Europe, was one of the most important events of the Istanbul summit. The pipeline will pump up to 30 Bcm of gas, making it the main competitor to Russia's "Blue Stream" Black Sea project. So far, the TCP project noticeably lags behind its rival, whose preparatory work is almost over. Experts see implementation of both marine pipeline projects at a time inexpedient. It should be noted that during the Istanbul summit the Presidents of Turkey, Azerbaijan and Georgia also signed an MOU regarding the supply of Azeri gas to Turkey. The document suggests that before the admission of Turkmen gas to the TCP, the pipeline may be filled with Azeri gas. The President of Turkmenistan did not sign this document. Success of Russia in provoked the escalation of new tensions between Azerbaijan and Turkmenistan may become a serious obstacle for implementation of the TCP project.

Baku officials say they would like to co-operate with Turkmenistan, and intend to use the capacities of the TCP to export Azeri gas. However, the latest events and the statements by some officials of both parties do not confirm this. Ashgabat offered Baku a TCP quota of 3 Bcm of gas annually, but Azerbaijan was not satisfied with this volume, so it seeks consent of Turkmenistan and the consortium (consisting of the American "PSG" and the British-Dutch "Shell") to raise its quota. Serious contradictions between the two Turk states raise doubts about further co-operation in the oil and gas sector. The long dispute over the ownership of the Caspian Sea oilfields has long been disturbing the good understanding between Baku and Ashgabat.

Turkmenistan's loss of its role of the only major exporter of the Caspian gas after the discovery of Shah Deniz, with account of serious differences between Ashgabat and Baku about their gas quotas in the TCP, hampers the agreement on the "formula" for gas supplies to Turkey. This is another headache for US politicians, too.

Therefore, confirmation of large gas deposits, in place of oil, after the second well was drilled at Shah Deniz structure, interferes with the US strategy in the Caspian region and



There is, consequently, information of large gas deposits, in place of oil, after the second well was drilled at Shah Deniz structure, interferes with the US strategy in the Caspian region and leads to postponement of the beginning of pipeline construction agreed and recorded at the Istanbul OSCE summit. In this respect, the US faces the following problem: first, the presence of oil in the structure will deliver another blow to the main export pipeline Baku-Ceyhan, as its explored reserves are insufficient. Second, the information about the Caspian region (Azerbaijan to be the exporter of oil, Turkmenistan - the exporter of gas) will be adjusted. Third, the price for the Azeri gas will be much lower than the price for the Russian ("Blue Stream") and Turkmen (TCP) gas. Consequently, supply of cheap gas to the European market may cause reduction in natural gas prices, which will be beneficial for all the customers, including Ukraine, but will hit hard other exporters of gas. Fourth, the shift from oil to gas for Baku will raise the risk for implementation of both the Baku-Ceyhan oil pipeline and the TCP project, due to a new aggravation of already tense relations between Azerbaijan and Turkmenistan, caused by reasonable claims of Azerbaijan to a larger quota for pumping its gas via the TCP.

The present projects for the construction of the Baku-Ceyhan pipeline and the TCP mainly support geopolitical interests of the US and its ally, Turkey, ignoring some other countries (Iran, Armenia, and others).

Prospects

According to the estimates produced by the Norwegian "Statoil" company, indicated reserves of natural gas in Azerbaijan exceed 3 trillion cu. meters, probable reserves - over 1 trillion cu. meters. Thorough exploration of the discovered oil and gas bearing structures and discovery of new deposits may double Azeri gas reserves. Recovery of gas at the Shah Deniz deposit may commence in 2003-2004, and may reach 30 Bcm a year before 2010. The most profitable and reliable market for the Azeri gas is the booming Turkish market. There are estimates that in 2010 Turkey's demand for gas will reach 60-70 Bcm. Lower price, if compared to the Russian and Turkmen gas (due to a shorter transportation route), absence of underwater segments, availability of the promising Turkish market make the Azerbaijan gas project economically attractive. Later on, somewhere after 2010, Azeri gas will be exportable to European countries, such as Bulgaria, Romania and Greece.

Today, the problem of the Azeri gas does not concern Ukraine directly. It affects more seriously the USA, Turkmenistan, Russia, Turkey, Iran and some other countries. Nevertheless, in the mid-term, the emergence of cheap gas on the European market may have a positive impact on gas prices in Turkey and in the whole Europe, including Ukraine. New prospects will open for co-operation within GUUAM. Taking into account the possibility of Azerbaijan turning into a major exporter of natural gas, Baku will need gas equipment, pipes, and specialists. Ukraine, with its huge experience in the gas sector, can and should take part in the construction of gas and oil transportation infrastructure in Azerbaijan, in order to secure orders for the Ukrainian enterprises and to create new jobs. In the nearest future, gas supplies to Georgia will be possible; later on Azeri gas may go to Moldova and Ukraine. In this way, GUUAM member countries would be able to complement their political interaction within the alliance with a serious economic component

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