EXPLORATION AND PRODUCTION

Main E&P projects and regions of LUKOIL Group

Strategy

* Creating the potential for long-term Company growth by reserve replacement in traditional production regions and faster development in new production regions both in Russia and abroad
* Improving efficiency of geological exploration work through careful selection of projects and application of the latest technologies. Constant search for new projects
* Steady increase in hydrocarbon production in the medium term
* Improving production indicators and lowering lifting costs by application of the latest technologies, and by optimization of the well stock and field development systems
* Applying financial criteria for assessment of projects and business results and for optimization of the asset portfolio

MAIN INDICATORS FOR 2008:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil reserves, mln barrels</td>
<td>14,458</td>
</tr>
<tr>
<td>Gas reserves, bcf</td>
<td>29,253</td>
</tr>
<tr>
<td>Hydrocarbon reserves, mln boe</td>
<td>19,334</td>
</tr>
<tr>
<td>Oil production, mln barrels</td>
<td>703</td>
</tr>
<tr>
<td>Marketable gas production, mcm</td>
<td>17,020</td>
</tr>
<tr>
<td>Marketable hydrocarbon production, th. boe per day</td>
<td>2,194</td>
</tr>
<tr>
<td>Reserve replacement ratio, th. boe per day</td>
<td>(27)</td>
</tr>
<tr>
<td>E&amp;P net profit, $ mln</td>
<td>4,234</td>
</tr>
<tr>
<td>E&amp;P capex, $ mln</td>
<td>7,889</td>
</tr>
<tr>
<td>Employees in the segment, th. people</td>
<td>54.5</td>
</tr>
</tbody>
</table>

Exploration and production of oil & gas is LUKOIL’s main business and delivers the largest share of Company value (about 50% of consolidated net profit of LUKOIL Group). LUKOIL has a high-quality E&P asset portfolio, which is highly diversified in terms of geography, reserve type, and levels of depletion.

Geography

LUKOIL is implementing oil & gas exploration and production projects in 11 countries. Most activity is concentrated in four federal districts of the Russian Federation: the North-West (Nenets Autonomous District, Komi Republic and Kaliningrad Region), the Volga (Perm Region and the Republic of Tatarstan), the Urals (Yamal-Nenets and Khanty-Mansiysk Autonomous Districts) and the South (Volgograd and Astrakhan Regions, and the Republic of Kalmykia). 91 percent of the Company’s proved reserves and 92 percent of production are in Russia.
The Company is also taking part in 28 projects in 10 countries outside Russia. These include geological exploration projects in Kazakhstan, Uzbekistan, Azerbaijan, Ghana, Colombia, Venezuela, Saudi Arabia, Cote d’Ivoire; production of oil & gas in Kazakhstan, Egypt, Uzbekistan and Azerbaijan and preparations for production launch in Iraq. International projects account for 9.1% of the Company’s proved reserves and 8.1% of its marketable hydrocarbon production.

Description of the resource base

Over 50% of the Company’s proved reserves are located in traditional hydrocarbon production regions (Western Siberia, Urals, Volga) with well-developed infrastructure. Most reserves in these regions are already being developed and presence of established infrastructure means that remaining reserves can be put into production without high levels of capex. Although reserves in these regions have been in production for many years, the share of probable and possible reserves exceeds 40% of the total and discovery of new reserves is likely, offering major potential for reserve replacement in the future.

A significant part of the Company’s proved reserves is located in new regions (Timan-Pechora, Northern Caspian, Bolshekhetskaya Depression, and international projects), which require large investments. Most reserves in the new regions are probable and possible, offering potential for growth of proved reserves in the process of further exploration and development of these fields. The probability of further major discoveries in these regions is high.

Company reserves consist mainly of oil (about 75% of proved reserves), but rapid development of gas business will increase the share of gas reserves. This will be achieved by discovery of new reserves and upgrading of reserves to the proved category thanks to development of existing fields.

Most of company reserves are conventional, but LUKOIL also has high-viscosity and bituminous oil as well as hydrocarbons with high sulfur content. The Company is successfully developing these reserves using the latest technologies. For example, steam injection wells are used for extraction of high-viscosity oil at the Usinskoye field in the Komi Republic and a special processing complex has been built at the Karachaganak field to enable production of high-sulfur gas and condensate.

Geological exploration

The main strategic task for the Company is to increase its growth potential by quantitative and qualitative improvement of its resource base. Geological exploration is one of the main instruments for achieving this. LUKOIL has consistently increased volumes of geological exploration work in recent periods and is constantly working to improve efficiency of this work. The Company has spent $2.5 bln on geological exploration in the last five years, and growth of proved reserves due to exploration and development has been 3,193 mln boe.

The Company has focused its geological exploration work in the Timan-Pechora oil & gas province, Western Siberia and the offshore Caspian. LUKOIL is also rapidly developing its international exploration work: stakes in a number of promising geological exploration projects in various countries have been obtained in recent years.

The Company is increasing efficiency of geological exploration and ensuring rapid growth of reserves by use of the latest geophysical methods and adherence to the best international operating standards at all stages of work. This approach makes it possible to obtain additional information about the structure and specific features of potential oil-bearing formations, to reduce risk in search and exploration drilling, and to reduce the number of dry wells and wells with low production rates.

The Company is consistently increasing volumes of 2D and 3D seismic work in order to reveal and detail structures and to prepare for drilling of search and exploration wells at promising sites. The quality of seismic exploration and the speed of data processing and interpretation have increased in recent years thanks mainly to application of new IT solutions.

One of the key results of the Company’s geological exploration work has been the discovery of a major new oil & gas sub-province in the Russian sector of the Caspian Sea.

New acquisitions and optimization of the asset portfolio

The Company is also expanding its reserves through acquisition and consolidation of assets, and has spent $5.3 bln on new E&P acquisitions in the last five years. Consolidation of main assets is nearly complete and a number of large new companies have been acquired in Russia and abroad. Lately the biggest acquisitions were Nelson Resources Limited, bought at the end of 2005 for $1,951 mln (in 2007 LUKOIL sold 50% share in the company for $980 mln), assets of Marathon Oil Corporation (Khanty-Mansiysk Autonomous District) bought for $847 mln as well as SNG Holdings Ltd. bought in 2008 for $779 mln. Purchase of new assets is not merely a way of increasing oil & gas reserves and production, but also a way of strengthening competitive positions in key regions and obtaining significant synergy effects. LUKOIL places much emphasis on quality of its assets. As part of the Group restructuring program, which began in 2002 and aims to increase efficiency in all business segments, LUKOIL has disposed of non-core and inefficient assets, reducing the number of legal entities in the Group from 700 to slightly over 300 between 2001 and 2008.

Oil & gas production

High rates of hydrocarbon production growth are a strategic goal for LUKOIL Group, achievement of which will raise shareholder value of the Company and secure competitive advantages that increase income to shareholders. Marketable hydrocarbon production has grown on average by about 5% in the last five years. LUKOIL strives to maximize efficiency and profitability of its operations in the oil & gas production segment by improvement of production indicators, careful choice of new projects and scrupulous control of production costs.
LUKOIL makes extensive use of the latest technologies in order to increase efficiency. The Company is setting up a multi-level system for monitoring of field development using high-tech geological models. In 2003 LUKOIL created a completely new and fully up-to-date Center for Geological and Hydrodynamic Modelling. The Center creates models using spatial visualization, which provides detailed data on structure of Company fields, making it easier to choose the best geological and technical approaches for their development and to maximize development efficiency. LUKOIL Overseas Holding, operator of the Company’s foreign projects, has a similar center. LUKOIL is currently setting up modelling centers at its subsidiaries in Russia (primarily in Western Siberia) and abroad.

High-quality techniques for barring of productive formations, original approaches to study of drill logs, and application of technologies to increase flow rates ensure high oil & gas production levels from reservoirs with complex collector features. The Company uses a variety of enhanced oil recovery methods (EOR), increasing recoverable reserves and production, and allowing commercial production of high-viscosity oil, development of reserves in collectors with low permeability, and extraction of reserves at late stages of field development. Each year the Company carries out more than 5,000 EOR operations on producing formations, using physical, chemical, hydrodynamic and heat techniques to increase extraction rates. Additional oil production thanks to these operations in 2004–2008 was over 114 mln tons.

LUKOIL also uses other technologies to increase efficiency: systems for maintaining reservoir pressure, systems for use of associated petroleum gas, systems for oil collection, preparation and transportation, energy- and resource-saving technologies and IT solutions. LUKOIL is placing special emphasis on development of its gas business, which will help the Company to reduce dependence on the highly volatile crude oil market. LUKOIL is rapidly increasing output of natural gas, transforming itself from an oil company into an oil & gas company. In 2001 LUKOIL acquired the company Yamalneftegazdobycha, which owns licenses for development of gas fields in the Balshekhtskaya Depression (currently the main area for expansion of LUKOIL gas production). LUKOIL is also taking part in the Kandym – Khauzak – Shady gas project in Uzbekistan (production began in 2007) and carrying out geological exploration work at the promising Block A gas field in Saudi Arabia. Development of fields in the Northern Caspian will also significantly increase gas production. LUKOIL plans to increase the share of gas in overall hydrocarbon production to 33% in the medium term. The main objective of this strategy is to raise Company value by commercialization of gas reserves.

Greater use of associated petroleum gas is an important part of the Company’s gas business strategy. This will reduce levels of gas flaring and thus reduce negative environmental impacts. More associated petroleum gas can be used for generation of electricity to power oil production operations, offering cost savings. The Company is implementing a program, approved in 2003, which aims to increase the rate of associated petroleum gas use by LUKOIL enterprises to 95%.

Main operating regions and largest fields

Western Siberia

The first oil field in Western Siberia was discovered in 1960 and industrial production of oil began there in 1964. Western Siberia is now the main oil production region in Russia. Most fields in the region are super-large and located adjacent to one another. These features, and presence of established transport infrastructure, significantly reduce development costs.

LUKOIL has been active in Western Siberia since the Company’s foundation in 1991 when three production companies in Western Siberia were united in the state oil company LangeolasUrAYKogalynneft. Western Siberia is the Company’s main oil production region (59.0% of LUKOIL Group production) and its main reserve base (63.9% of LUKOIL proved oil reserves).

LUKOIL carries out more than 40% of its exploration drilling in Western Siberia. Large volumes of geological exploration work in the region are intended to replace reserves in development. Although a large amount of exploration has already been carried out in Western Siberia, current geological exploration in the region is marked by high efficiency and good results. The Company’s proved reserves of oil in Western Siberia decreased by 7.4% in the last 5 years mainly due to sharp fall of oil prices (by 2.7 times) as of the appraisal date.

Fields in Western Siberia have been in production for a long time and are therefore characterized by high levels of exhaustion. Thus EOR methods are widely used in the region: hydrofracturing, drilling of sidetracks and horizontal wells, etc. Multilevel systems for field development monitoring with use of high-tech geological models enable LUKOIL to ensure constant optimization of field development.

The Company has 12 of its 19 biggest Russian fields (fields with annual production of 1 mln tons and more) in Western Siberia. The Tevlinsko-Russkinskoye and Vat-Yeganskoye fields are among the biggest in Russia. Each of them has more than 1 bln barrels of proved oil reserves.

Tevlinsko-Russkinskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>34.0</td>
<td>1.04</td>
<td>7.34</td>
</tr>
</tbody>
</table>

The Tevlinsko-Russkinskoye field is located in Surgut Area, Khanty-Mansiysk Autonomous District (part of Tyumen Region), 88 km north of the city of Surgut in Western Siberia.

The field was discovered in 1971. Field development began in 1986. LUKOIL’s license to develop the field runs until 2013.

Proved reserves at the end of 2008 were 1,023 mln barrels of oil. Tevlinsko-Russkinskoye is LUKOIL’s largest field in Russia by production levels. In 2008 the field produced 8,608 mln tons of oil and cumulative production reached 142.7 mln tons.
Largest fields of LUKOIL Group in Western Siberia

**Vat-Yeganskoye Field**

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>34.0</td>
<td>0.83</td>
<td>7.32</td>
</tr>
</tbody>
</table>

The Vat-Yeganskoye field is located in Surgut Area, Khanty-Mansiysk Autonomous District (part of Tyumen Region), 30 km from the town of Kogalym and 140 km north-east of the city of Surgut in Western Siberia.

The field was discovered in 1971. Development began in 1983. LUKOIL’s license for development of the field runs until 2050.

Vat-Yeganskoye is LUKOIL’s biggest field in Russia by proved reserves, which totalled 1,292 mln barrels of oil at the end of 2008. Production at Vat-Yeganskoye in 2008 was 7.626 mln tons of oil and cumulative production exceeded 168 mln tons.

**Povkhovskoye Field**

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>36.5</td>
<td>0.60</td>
<td>7.44</td>
</tr>
</tbody>
</table>

The Povkhovskoye field is located in Surgut Area, Khanty-Mansiysk Autonomous District (part of Tyumen Region), 170 km north-east of the city of Surgut in Western Siberia.

The field was discovered in 1972 and development began in 1978. LUKOIL’s license for development of Povkhovskoye runs until 2013.

Proved reserves at the end of 2008 were 760 mln barrels of oil. Production in 2008 was 5.898 mln tons of oil, and cumulative production totalled 184.0 mln tons.

**South-Yagunskoye Field**

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.5</td>
<td>0.78</td>
<td>7.44</td>
</tr>
</tbody>
</table>

The South-Yagunskoye field is located in the north-eastern part of Surgut Area, Khanty-Mansiysk Autonomous District (part of Tyumen Region), 165 km north-east of the city of Surgut in Western Siberia.

The field was discovered in 1978. Development began in 1982. LUKOIL’s license for development of the field runs until 2038.

Proved oil reserves at the end of 2008 were 571 mln barrels. Production in 2008 was 2.810 mln tons of oil and cumulative production amounted to 127.1 mln tons.
### Pokachevskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.0</td>
<td>0.72</td>
<td>7.38</td>
</tr>
</tbody>
</table>

The Pokachevskoye field is located in the western part of Nizhnevartovsk Area, Khanty-Mansiysk Autonomous District (part of Tyumen Region), 100 km north-east of the city of Surgut in Western Siberia.

The field was discovered in 1970 and its development began in 1977. LUKOIL’s license to develop the field runs until 2040. Proved reserves at the end of 2008 were 321 mln barrels of oil. Production in 2008 totalled 3.125 mln tons of oil, and cumulative production reached 146.4 mln tons.

### Kogalymskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.5</td>
<td>0.64</td>
<td>7.53</td>
</tr>
</tbody>
</table>

The Kogalymskoye field is located in Surgut Area, Khanty-Mansiysk Autonomous District (part of Tyumen Region) in Western Siberia.

The field was discovered in 1972 and development began in 1985. LUKOIL’s license to develop the field runs until 2013. Proved reserves at the end of 2008 were 273 mln barrels of oil. The field produced 2.856 mln tons of oil in 2008 and cumulative production was 31.6 mln tons.

### Uryevskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>34.0</td>
<td>0.86</td>
<td>7.34</td>
</tr>
</tbody>
</table>

The Uryevskoye field is located in Nizhnevartovsk Area, Khanty-Mansiysk Autonomous District (part of Tyumen Region), 75 km north-west of the city of Surgut in Western Siberia.

The field was discovered in 1971 and development began in 1978. LUKOIL’s license to develop the field runs until 2013. Proved reserves at the end of 2008 were 310 mln barrels of oil. Production in 2008 was 2.394 mln tons of oil and cumulative production was 83.2 mln tons.

### Nong-Yeganskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.0</td>
<td>0.72</td>
<td>7.40</td>
</tr>
</tbody>
</table>

The Nong-Yeganskoye field is located in the western part of Nizhnevartovsk Area, Khanty-Mansiysk Autonomous District (part of Tyumen Region), 100 km north-east of Surgut in Western Siberia.

The field was discovered in 1974 and development began in 1978. LUKOIL’s license to develop the field runs until 2013. Proved reserves at the end of 2008 were 192 mln barrels of oil. Production in 2008 was 1.026 mln tons of oil and cumulative production was 32.6 mln tons.

### Kluchevoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.0</td>
<td>0.58</td>
<td>7.35</td>
</tr>
</tbody>
</table>

The Kluchevoye field is located in Nizhnevartovsk Area, Khanty-Mansiysk Autonomous District (part of Tyumen Region), 126 km north-west of the city of Nizhnevartovsk in Western Siberia.

The field was discovered in 1983 and development began in 1988. LUKOIL’s license to develop the field runs until 2013. Proved reserves at the end of 2008 were 101 mln barrels of oil. Production in 2008 was 884,000 tons of oil and cumulative production was 22.1 mln tons.

### Druzhnoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.0</td>
<td>0.89</td>
<td>7.30</td>
</tr>
</tbody>
</table>

The Druzhnoye field is located in Surgut Area, Khanty-Mansiysk Autonomous District (part of Tyumen Region), 127 km north-east of the city of Surgut in Western Siberia.

The field was discovered in 1981 and development began in 1985. LUKOIL’s license to develop the field runs until 2038. Proved reserves at the end of 2008 were 140 mln barrels of oil. Production in 2008 was 1.477 mln tons of oil and cumulative production reached 47.6 mln tons.

### Nivagalskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>34.0</td>
<td>0.92</td>
<td>7.41</td>
</tr>
</tbody>
</table>

The Nivagalskoye field is located in Nizhnevartovsk Area, Khanty-Mansiysk Autonomous District (part of Tyumen Region), 114 km north-west of the city of Nizhnevartovsk in Western Siberia.

The field was discovered in 1981 and development began in 1985. LUKOIL’s license to develop the field runs until 2013. Proved reserves at the end of 2008 were 345 mln barrels of oil. Production in 2008 was 1.477 mln tons of oil and cumulative production was 20.5 mln tons.

### Middle-Khulymskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>41.0</td>
<td>0.17</td>
<td>7.67</td>
</tr>
</tbody>
</table>

The Middle-Khulymskoye field is located in Nadym Area, Yamal-Nenets Autonomous District (part of Tyumen Region) in Western Siberia.
The field was discovered in 1989 and development began in 2001. LUKOIL’s license to develop the field runs until 2024. Proved reserves at the end of 2008 were 32 mln barrels of oil. Production in 2008 was 840,000 tons of oil and cumulative production was 5.2 mln tons.

**North-Pokachevskoye Field**

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.16–37.35</td>
<td>0.78</td>
<td>7.54–7.51</td>
</tr>
</tbody>
</table>

The North-Pokachevskoye field is located in Nizhnevartovsk Area, Khanty-Mansiysk Autonomous District (part of Tyumen Region), 110 km north-west of the city of Nizhnevartovsk in Western Siberia.

Geologically the field consists of two parts – North-Pokachevsky and Yukkunsky license areas. The North-Pokachevsky license area was discovered in 1980 and the development began in 1995. LUKOIL’s license to develop the area runs until 2013. The Yukkunsky license area was discovered in 2001 and the development began in 2004. LUKOIL’s license to develop the area runs until 2023.

Proved reserves at the end of 2008 were 73 mln barrels of oil. Production in 2008 was 1.036 mln tons of oil and cumulative production was 4.6 mln tons.

**Kamenny license area** (eastern part of the Kamennaya area of the Krasnoleninskoye field)

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>40.8</td>
<td>0.33</td>
<td>7.553</td>
</tr>
</tbody>
</table>

The Kamenny license area (eastern part of the Kamennaya area of the Krasnoleninskoye field) is located in Octyabrsk Area of Khanty-Mansiysk Autonomous District (part of Tyumen Region).

The field was discovered in 1962 and development began in 1981. LUKOIL’s license to develop the field runs until 2013.

Proved reserves at the end of 2008 were 192 mln barrels of oil. Production in 2008 was 1.079 mln tons of oil and cumulative production was 5.0 mln tons.

**Kechimovskoye field**

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.0</td>
<td>0.72–1.14</td>
<td>7.429</td>
</tr>
</tbody>
</table>

The Kechimovskoye field is located in Surgut Area of Khanty-Mansiysk Autonomous District (part of Tyumen Region) in Western Siberia.

The field was discovered in 1985 and development began in 1995. LUKOIL’s license to develop the field runs until 2013. Proved reserves at the end of 2008 were 176 mln barrels of oil. Production in 2008 was 988,000 tons of oil and cumulative production was 5.7 mln tons.

**Timan-Pechora**

The Timan-Pechora oil & gas province is one of the most promising oil production regions both for the Company and for Russia as a whole. LUKOIL became active in the region in 1999 with the acquisition of a controlling stake in KomiTEK. In 2001 LUKOIL bought controlling stakes in Arkhangelskgeoldobycha, Kharyaganefit, Bitran, Baitek-Silur, and AmKomi. Timan-Pechora now represents 20.1% of Group oil reserves and 17.5% of oil production. Oil production by LUKOIL Group in the region has increased by 1.4 times in the last 5 years, to 16.7 mln tons in 2008, thanks to acquisition of new assets and organic growth.

The southern part of Timan-Pechora (the Komi Republic) has developed infrastructure and well-explored reserves, most of which are already in production. By contrast, the northern part (Nenets Autonomous District) has high reserve potential, but needs major exploration and development investments due to its under-developed infrastructure.

In order to speed up development of reserves in Timan-Pechora, a joint venture, limited liability company Naryanmarneftegaz, has been set up in the region by LUKOIL and the US company ConocoPhillips as part of the strategic partnership between the two companies. The joint venture has taken control of 9 fields with proved, probable and possible reserves totalling 1.2 bln barrels and 5 of the fields have been commissioned by the end of 2008. In the middle of 2008 another huge field, Yuzhnaya Khylychuya, was commissioned.
A new oil terminal was built near the village of Varandey on the Barents Sea in 2000 in order to address the growth of production and lack of developed infrastructure in the region. The terminal can handle oil from Timan-Pechora all the year round and supply it to export markets, notably the US market. The annual capacity of the terminal was increased to 12 mln tons of oil and it was put into operation in the middle of 2008. The terminal will export oil including that produced by Naryanmarneftegaz. Enlargement of the terminal was carried out jointly with ConocoPhillips.

Usinskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.5</td>
<td>1.09</td>
<td>6.90</td>
</tr>
</tbody>
</table>

The Usinskoye field is located in Usinsk Area, part of the Komi Republic.

The field was discovered in 1963 and development began in 1973. LUKOIL’s license to develop the field runs until 2062.

The field’s permacarbon deposit is characterized by abnormally high-viscosity oil, which requires heat treatment for extraction.

Proved reserves at the end of 2008 were 518 mln barrels of oil. Production in 2008 was 2.109 mln tons of oil and cumulative production amounted to 157 mln tons.

Vozeiskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.0</td>
<td>0.66</td>
<td>7.54</td>
</tr>
</tbody>
</table>

The Vozeiskoye field is located in Usinsk Area, part of the Komi Republic.

The field was discovered in 1975 and development began in the same year. LUKOIL’s license to develop the field runs until 2042.

Proved reserves at the end of 2008 were 120 mln barrels of oil. Production in 2008 was 1.278 mln tons and cumulative production was 100.3 mln tons.

Kharyaginskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.5</td>
<td>0.32</td>
<td>7.54</td>
</tr>
</tbody>
</table>

The Kharyaginskoye field is located in the Nenets Autonomous District, part of Arkhangelsk Region.

The field was discovered in 1970 and development began in 1987. LUKOIL’s license to develop the field runs until 2014.

Proved reserves at the end of 2008 were 120 mln barrels of oil. Production in 2008 was 2.901 mln tons of oil and cumulative production was over 39 mln tons.

South-Shapkinskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.0</td>
<td>0.60</td>
<td>7.34</td>
</tr>
</tbody>
</table>

The South-Shapkinskoye field is located in the Nenets Autonomous District, part of Arkhangelsk Region, 75 km south-east of the town of Naryan-Mar.

The field was discovered in 1970 and development began in 2002. LUKOIL’s license to develop the field runs until 2016.

Proved reserves at the end of 2008 were 82 mln barrels of oil. Production in 2008 was 903,000 tons of oil and cumulative production amounted to 6.9 mln tons.
EXPLORATION AND PRODUCTION

Tedinskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.0</td>
<td>2.26</td>
<td>6.92</td>
</tr>
</tbody>
</table>

The Tedinskoye field is located in the central part of the Bolshezemelskaya Tundra in Nenets Autonomous District (Timan-Pechora).

The field was discovered in 1989 and development began in 2001. LUKOIL’s license to develop the field runs until 2061.

Proved reserves at the end of 2008 were 46 mln barrels of oil. Production in 2008 was 1.042 mln tons of oil and cumulative production amounted to 5.2 mln tons.

Pashshorskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>36.2</td>
<td>0.26</td>
<td>7.449</td>
</tr>
</tbody>
</table>

The Pashshorskoye field is located in the Nenets Autonomous District on the border with the Komi Republic.

The field was discovered in 1975 and development began in 2004. LUKOIL’s license to develop the field runs until 2013.

Proved reserves at the end of 2008 were 39 mln barrels of oil. Production in 2008 was 964,000 tons of oil and cumulative production amounted to 1.7 mln tons.

Yuzhno-Khylchuyuskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.5</td>
<td>0.71</td>
<td>7.426</td>
</tr>
</tbody>
</table>

The Yuzhno-Khylchuyuskoe field is located in the northern part of Nenets Autonomous District (Timan-Pechora).

The field was discovered in 1981 and development began in 2008. LUKOIL’s license to develop the field runs until 2042.

Proved reserves at the end of 2008 were 505 mln barrels of oil. Production in 2008 was 1.527 mln tons of oil and cumulative production amounted to 1.6 mln tons.

Volga

Oil production started in the Volga region in the 1930s and the region remained the Russian leader by explored reserves and production levels until the end of the 1970s. Thanks to its long history of reserve development, the Volga region has a large amount of infrastructure in place and development of new fields does not require major expenditure.

The Volga is a traditional oil & gas production region for LUKOIL. The Company has been producing there since a number of upstream companies in the region were transferred to LUKOIL by Russian government decree in 1995.

The Volga region accounts for 1.5% of Company’s proved hydrocarbon reserves, 3.4% of its oil output and 3.3% of gas output. High levels of reserve exhaustion require extensive use of EOR technologies to improve recovery rates.

Volga oil is generally high in sulfur, paraffins and resins, making it harder to refine and reducing quality of refined outputs. However, the Company’s largest field in the region, the Pamyatno-Sasovskoye, is an exception, producing very high-quality oil.

In 2005 LUKOIL acquired Primorieneftegaz, the owner of licenses for geological study of the Poimenny territory, located between the Volga and Akhtuba rivers. A major gas condensate field, the Tsentralno-Astrakhanskoye field, was discovered on this territory in 2004, with estimated probable and possible reserves of 1.2 bln barrels of condensate and 10.0 tcf of gas.

This acquisition significantly increased the Company’s reserve base in the region and raised potential for production growth. Field development efficiency is enhanced by its location close to main transport routes, proximity to end-users, and by the fact that the South of Russia has a shortage of gas. In order to further improve development efficiency, LUKOIL is considering construction of a gas-chemical complex in the region, that will offer high levels of value-added.

Pamyatno-Sasovskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>39.5</td>
<td>0.27</td>
<td>7.60</td>
</tr>
</tbody>
</table>

Pamyatno-Sasovskoye field in the Volga region
The Pamyatno-Sasovskoye field is located in Zhirnovsky Area of Volgograd Region, 130 km to the north of the city of Volgograd. The field was discovered in 1990 and development began in the same year. LUKOIL’s license for development of the field runs until 2030.

Pamyatno-Sasovskoye is the biggest oil field in Volgograd Region, and it has unique and favourable geophysical characteristics. Proved reserves at the end of 2008 were 144 mln barrels of oil. More than 90% of production is free flowing. Oil production in 2008 was 2.585 mln tons (the Group’s share – 2.390 mln tons) and cumulative production was 35.0 mln tons.

Urals

The Urals region, like the Volga, is an established oil & gas production area for the Company. LUKOIL began production in the Urals when a number of upstream companies in the region were transferred to the Company by Russian government decree in 1995.

Urals fields have relatively small reserves and are located at considerable distances from one another. However, presence of well-established transport infrastructure and refineries in the region greatly increases production efficiency. Use of EOR helps to increase recovery rates and production volumes. The Urals region accounts for 14.4% of Company proved oil reserves, 12.2% of oil production and 5.1% of gas production.

Unvinskoye Field

Unvinskoye field in the Urals region

The Unvinskoye field is located in Usolsky Area of Perm Region, 125 km north of the city of Perm. The field was discovered in 1980, and development began in 1981. LUKOIL’s license for development of the field runs until 2028. Proved reserves at the end of 2008 were 169 mln barrels of oil. Production in 2008 was 1.385 mln tons and cumulative production amounted to 26.7 mln tons.

Kaliningrad region

Kravtsovskoye Field

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>40.0</td>
<td>0.19</td>
<td>7.62</td>
</tr>
</tbody>
</table>

The Kravtsovskoye field, discovered in 1983, is located on the Russian shelf of the Baltic Sea, 23 km offshore, at a depth of 25–35 meters. Industrial development of the field began in 2004. This is the first offshore field developed independently by a Russian oil company. LUKOIL’s license to develop the field runs until 2039. Proved reserves at the field at the end of 2008 were 33 mln barrels of oil. Production at the field in 2008 was 842,000 tons of oil and cumulative production was 3.2 mln tons.

The Baltic Sea has a highly sensitive ecology. LUKOIL therefore carries out drilling and production of oil at the Kravtsovskoye field from an ice-resistant stationary platform, using a zero-discharge principle. The Company also maintains constant satellite monitoring of the Baltic Sea. These unprecedented ecological security measures completely exclude any possible negative environmental impact. Oil from the field is brought ashore via an underwater pipeline and exported from a terminal at the port of Svetly.

Nakhodkinskoye Field and other fields of the Bolshekhetskaya Depression

LUKOIL is developing fields in the Bolshekhetskaya Depression (Yamal-Nenets Autonomous District) as part of its gas program. The region’s fields will be the basis for growth of gas production in coming years. The Company has been active in the region since its acquisition in 2001 of Yamalneftegazdobycha. As of December 31, 2008, proved reserves of gas at the Company’s fields in the Bolshekhetskaya Depression totalled 13.1 tcf, or 44.9% of LUKOIL’s total proved gas reserves.
In April 2005 the Nakhodkinskoye field (proved gas reserves of 3.7 tcf at the end of 2008) was brought into production. Gas output from the field in 2008 totalled 8.4 bcm. Gas from the field is delivered along a 117-km pipeline to the Yamburgskaya gas compression station, where it is fed into the Gazprom transport system. Under an agreement between LUKOIL and Gazprom, all of the gas produced at Nakhodkinskoye was initially sold to Gazprom. Gas has also been sold to other customers from May 2006 at higher prices.

Northern Caspian

LUKOIL came to the Northern Caspian in 1995 when companies with exploration licenses in the region were transferred to LUKOIL ownership. At that time the offshore Caspian was little explored, but probability of significant reserve finds was viewed as high.

The Caspian Sea is highly ecologically sensitive. LUKOIL therefore carried out all necessary ecological studies before starting work there, and took care to install all necessary environmental protection measures, including compensatory and socio-ecological aspects. The Company also designed technology and technical solutions to ensure that geological exploration and drilling could be carried out on a zero-discharge basis.

Geological exploration work carried out by LUKOIL from 1995 to 2007 led to discovery of 6 large fields: Khvalynskoye (discovered in 2000); Yu. Korchagin (2000); 170th kilometer (2001); Rakushechnoye (2001); Sarmatskoye (2002); and V. Filanovsky (2005).

The Caspian Oil Company, in which LUKOIL owns 49.89% (another 49.89% is owned by Rosneft and remaining shares belong to Gazprom), discovered Zapadno-Rakushechoe field in 2008. Also in 2008 TsentrCaspenftegaz, in which LUKOIL owns a 50% stake (50% is owned by Gazprom), discovered Tsentralnoye field.

Proved, probable and possible reserves at these 8 fields are estimated at 5.3 bln boe (the Group’s share). Use of the latest technologies have ensured levels of efficiency, which are high and unprecedented in Russia. Efficiency of exploration drilling has been over 15,000 tons of reference fuel per meter (many times higher than the Company average), and the success rate of prospecting drilling has been 100%, i.e. each field was discovered by the first prospecting well. The cost of adding one ton of reference fuel to reserves has been significantly lower than comparable indicators for international major oil companies.

Fields in the Bolshekhetskaya Depression
LUKOIL Group’s chief development success in the Northern Caspian has been discovery of the V. Filanovsky oil & gas condensate field. This is the biggest field in the region and, unlike earlier discoveries, it is predominantly an oil field. Preliminary calculations suggest that maximum annual output from the field will amount to 210,000 barrels per day, enabling LUKOIL to significantly increase profitability of its high-cost operations in the Caspian Sea.

LUKOIL is now carrying out further exploration and pre-production work at Northern Caspian fields. Drilling of production wells should begin in 2009 at the Yu. Korchagin field, after which other fields will be brought into production. In its work at fields in the Northern Caspian LUKOIL follows guidelines of the Teheran Convention for Protection of the Marine Environment of the Caspian Sea (2003).
## INTERNATIONAL PROJECTS

### Acquisition of, or entry to international E&P projects

<table>
<thead>
<tr>
<th>Year</th>
<th>Project Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>Kumkol (Kazakhstan)</td>
</tr>
<tr>
<td>1996</td>
<td>Shaikh Deniz (Azerbaijan)</td>
</tr>
<tr>
<td>1997</td>
<td>West Qurnah-2 (Iraq)</td>
</tr>
<tr>
<td>1998</td>
<td>D-222 (Yalama) (Azerbaijan)</td>
</tr>
<tr>
<td>2001</td>
<td>WEEM (Egypt)</td>
</tr>
<tr>
<td>2002</td>
<td>Condor (Columbia)</td>
</tr>
<tr>
<td>2003</td>
<td>West Geisum (Egypt)</td>
</tr>
<tr>
<td>2004</td>
<td>Tyub-Karagan and Atashsky (Kazakhstan)</td>
</tr>
<tr>
<td>2005</td>
<td>Arman, Karakuduk, North Buzachi, Kazakh Oil-Aktobe (Kazakhstan)</td>
</tr>
<tr>
<td>2006</td>
<td>Junin-3 (Venezuela)</td>
</tr>
<tr>
<td>2007</td>
<td>CI-205 (Cote d’Ivoire)</td>
</tr>
<tr>
<td>2008</td>
<td>CI-401 (Cote d’Ivoire)</td>
</tr>
</tbody>
</table>

### Sale of, or withdrawal from international E&P projects

### International projects of LUKOIL Group

- **Azerbaijan**
  - Shaikh Deniz: 10%
  - D-222: 65%
- **Egypt**
  - Meleha: 24%
  - WEEM: 100%
- **Kazakhstan**
  - Karachaganak: 15%
  - Tengiz: 2.7%
  - Kumkol: 50%
  - Karakuduk: 25%
  - West Qurnah-2: 25%
  - North Buzachi: 50%
  - Karakuduk: 50%
  - Arman: 25%
  - Tyub-Karagan: 50%
  - Atashsky: 50%
  - South Zhambai: 12.5%
  - South Zaburunye: 12.5%
- **Uzbekistan**
  - Kandym – Khauzak – Shady: 90%
  - Azi: 20%
  - SNG Holdings Ltd: 100%
- **Venezuela**
  - Condor: 70%
- **Colombia**
  - Condor: 70%
- **Ghana**
  - Cape Three Points: 58.66%
- **Iraq**
  - West Kimah-2: 68.5%
- **Saudi Arabia**
  - Block A: 80%

**Share of LUKOIL Group**
- Exploration: 15%
- Gas Oil: 90%
- Production and preparation for production: 100%
Karachaganak

- Acquisition of project stake: November 1997
- Agreement type: PSA; production (oil, condensate, gas)
- Duration of agreement: 40 years (to 2038)
- LUKOIL share in PSA: 15%
- Current share of LUKOIL Group in production: 13.48%
- Other project participants: BG Group (32.5%, operator); ENI Group (32.5%, operator); Chevron (20%)

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.5–45.4</td>
<td>0.89</td>
<td>7.86</td>
</tr>
</tbody>
</table>

Karachaganak, one of the largest oil and gas condensate fields in the world, is located in western Kazakhstan and was discovered in 1979. The field occupies 280 km². As of December 31, 2008 the Consortium’s share in field proved reserves was 1,639 mln barrels of oil and 12.329 tcf of gas. Field development entered an intensive phase in 1995 thanks to signing of a PSA and creation of a joint operating consortium, the Karachaganak Petroleum Operating. Final version of the PSA was signed in November 1997.

Exports from Karachaganak via the CPC (Caspian Pipeline Consortium) system began in 2004. A new efficient oil export route was developed, carrying oil from Karachaganak to Samara, from where it can be delivered through the Transneft pipeline system either to Black Sea and Baltic Sea ports or directly to Central Europe via the Druzhba pipeline in 2006. Work was carried out in 2007 for the third stage of the project, which will involve substantial capacity increases. There were 4 multi-bore wells commissioned, and drilling of another 3 such wells was completed in 2008.

The share of LUKOIL Group in field reserves as of December 31, 2008, is 246 mln barrels of oil as of December 31, 2008. There were 311 oil production wells at the field as of December 31, 2008.

Total production at the field in 2008 was 3.3 mln tons of oil (LUKOIL’s share was 1.6 mln tons) and 83 mcm of marketable gas (LUKOIL’s share was 42 mcm).

Oil is delivered to export via the CPC and is also supplied to the Shymkent refinery for subsequent sale of petroleum products in Kazakhstan and other CIS countries. Associated petroleum gas is used for energy generating.

Kumkol

- Acquisition of project stake: 1995
- Signing of shareholder agreement: 1999
- Agreement type: contract; exploration & production (oil, gas)
- Duration of agreement: 25 years (to 2021)
- LUKOIL stake (also share in production): 50%
- Other project participants: CNPC (50%)

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>44.3–33.4</td>
<td>0.02</td>
<td>7.60</td>
</tr>
</tbody>
</table>

The Kumkol field is located in the southern part of the Turgai Depression (southern Kazakhstan). The field was discovered in 1984 and intensive development began in 1996. LUKOIL Group and CNPC are jointly developing the northern part of the field (the license area covers almost 160 km²), while the southern part is being developed by CNPC alone. Proved reserves in the license area, as of December 31, 2008, were 136.8 mln barrels of oil. A total of 53 production wells were commissioned and 10 side-tracks were drilled in 2008. A scheme for utilization of associated gas was selected and agreed with the supervisory authorities in Kazakhstan in 2007. In 2008 its implementation was continued. Elaboration of a more detailed development plan was begun as well.

The share of LUKOIL Group in proved field reserves is 68 mln barrels of oil as of December 31, 2008.

There were 311 oil production wells at the field as of December 31, 2008.

Total production at the field in 2008 was 3.3 mln tons of oil (LUKOIL’s share was 1.6 mln tons) and 83 mcm of marketable gas (LUKOIL’s share was 42 mcm).

Oil is delivered to export via the CPC and is also supplied to the Shymkent refinery for subsequent sale of petroleum products in Kazakhstan and other CIS countries. Associated petroleum gas is used for energy generating.

Tengiz

- Acquisition of project stake: 1997
- Duration of agreement: to 2032
- Agreement type: contract; production (oil, gas)
- LUKOIL stake (also share in production): 2.7% through LUKArco (5%)
- Other project participants: Chevron (50%), ExxonMobil (25%), KazMunaiGaz (20%)

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>48.8</td>
<td>0.95</td>
<td>7.97</td>
</tr>
</tbody>
</table>

The Tengiz field is located in Atyrau Region in the Republic of Kazakhstan, 150 km from the city of Atyrau. The field was discovered in 1979 and occupies an area of 600 km². The contract area also includes the Korolevskoye field and a number of other smaller fields. Field development was started in 1991. Proved reserves (as of December 31, 2008) were 4,436 mln barrels of oil and 5,642 bcf of gas.
LUKOIL’s share in proved reserves at the field (as of December 31, 2008) was 120 mln barrels of oil and gas condensate and 152 bcf of gas.

There were 95 oil production wells at the field at the end of December 2008.

Production at the field in 2008 was 17.3 mln tons of oil (of which the LUKOIL share was 466,000 tons) and 7.0 bcm of marketable gas (of which the LUKOIL share was 190 mcm).

Oil from Tengiz is supplied to export via the CPC. Gas is used to produce sulfur and is also exported by pipeline.

**Karakuduk**
- Duration of agreement: 30 years (to 2025)
- Type of agreement: contract; exploration & production (oil, gas)
- LUKOIL stake: 50%
- Other project participants: Mittal Investments (50%)

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>43.6–31.9</td>
<td>0.03–0.49</td>
<td>7.65</td>
</tr>
</tbody>
</table>

The Karakuduk field is located in the coastal zone of the Caspian Sea, on the north-eastern part of the Buzachi peninsula. Proved reserves as of December 31, 2008 were 65.8 mln barrels of oil.

The Company’s share in proved reserves at the field as of December 31, 2008 was 33 mln barrels of oil. Production in 2008 was 1.27 mln tons of oil, of which LUKOIL share was 636,000. There were 136 oil production wells at the end of December 2008.

Work was begun on design and construction of a complex gas processing unit as part of the project for utilization of associated gas in 2007. A railway loading rack and terminal were commissioned, which will enable transportation of oil produced in the project to the port of Aktau without detriment to its quality.

A gas utilization program was implemented and a gas treatment unit was commissioned during 2008, work continued to drill over and develop the field.

**North Buzachi**
- Signing of agreement: October 2005
- Duration of agreement: 25 years (to 2021)
- Type of agreement: contract; production (oil)
- LUKOIL stake (also share in production): 25%
- Other project participants: CNPC (50%), Mittal Investments (25%)

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.4–19.0</td>
<td>2.00</td>
<td>6.84</td>
</tr>
</tbody>
</table>

The field is located in the coastal zone of the Caspian Sea, on the northern part of the Buzachi peninsula. Proved reserves as of December 31, 2008 were 141 mln barrels of oil.

The Company’s share in proved reserves at North Buzachi, as of December 31, 2008, was 35 mln barrels of oil.

There were 440 oil production wells at the end of December 2008. A total of 153 new wells were commissioned in 2008 with daily average output of 13.2 tons. Pilot test work was started to inject polymer gels into rock formations. The oil treatment and pumping facility is being expanded to allow daily handling of up to 40,000 barrels.

Production at the field in 2008 was 1.71 mln tons of oil, of which the LUKOIL stake was 428,000 tons.

**Arman**
- Signing of agreement: October 2005
- Duration of agreement: 30 years (to 2024)
- Type of agreement: JV; exploration and production (oil)
- LUKOIL stake (also share in production): 25%
- Other project participants: Shell (50%), Mittal Investments (25%)

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.1–23.5</td>
<td>0.53–2.40</td>
<td>7.31</td>
</tr>
</tbody>
</table>

The Arman field is located in the north-western part of the Buzachi peninsula, on the Caspian Sea coast, to the west of the Kalamkas oil and gas field. Proved reserves at Arman as of December 31, 2008 were 2.5 mln barrels of oil.

The share of the Company in proved reserves at Arman as of December 31, 2008, was 0.6 mln barrels of oil. There were 16 oil production wells at the field as of December 31, 2008.

Production at the field in 2008 was 104,000 tons of oil and the share of LUKOIL Group was 26,000 tons.

**Kazakhoil-Aktobe**
- Signing of agreement: October 2005
- Duration of agreement: 25 years (to 2023)
- Type of agreement: PSA; production (oil)
- LUKOIL stake (also share in production): 25%
- Other project participants: KazMunaiGaz (50%), Mittal Investments (25%)

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>39.6–28.2</td>
<td>0.55–1.90</td>
<td>7.52</td>
</tr>
</tbody>
</table>

Two fields, Alibekmola and Kozhasai, are being developed in this project. The Alibekmola field is located in the western part of Kazakhstan, 250–270 km south of the city of Aktobe. The Kozhasai field is located 60 km south-west of the Alibekmola field. The Consortium’s share in fields proved reserves as of December 31, 2008 was 130.5 mln barrels of oil.

The Company’s share in proved reserves at the fields (as of December 31, 2008) was 32 mln barrels of oil.

There were 83 oil production wells at the field as of December 31, 2008. Work continued on a associated gas utilization project (the term of the project was extended up to the mid-2011) and on further development of the fields.
Production at the fields in 2008 was 759,000 tons of oil, of which the LUKOIL Group share was 190,000 tons.

**Tyub-Karagan**

- Signing of agreement: January 2004
- Duration of the agreement: 40 years (to 2044)
- Type of agreement: PSA; exploration & production (oil, gas)
- Stake of LUKOIL Group: 50%
- Other project participants: KazMunaiGaz (50%)

The Tyub-Karagan territory covers 1,350 km² in Kazakhstan’s sector of the Caspian Shelf, located 40 km north-west of Bautino seaport. Depth of the sea at Tyub-Karagan is 5–15 meters. The agreement provides for a 5-year exploration period with the right to extend the period on 2 occasions by 2 years.

Seismic exploration and interpretation of data were completed in 2004. The first exploration well was drilled to a depth of 2,500 meters in 2005. The well log did not indicate oil-containing collectors. However, detailed data on geological structure of the territory were obtained. Electrical exploration was carried out and analysis of data obtained from a prospecting well was continued in 2006. Preparations began for drilling of a second exploration well. In 2007 geoelectric work and specification of parameters of promising structures were carried out. In 2008 a supplement to the PSA was signed for exploration work in 2009–2010.

**Atashsky**

- Signing of agreement: January 2004
- Duration of agreement: 3 years (to 2007), in 2006 was extended till the end of 2008
- Type of agreement: contract; exploration (oil)
- Stake of LUKOIL Group: 50%
- Other project participants: KazMunaiGaz (50%)

The Atashsky territory occupies 9,700 km² in Kazakhstan’s sector of the Caspian Sea Shelf. Atashsky is located 80–85 km from the port of Bautino at depth of 1–40 meters. Other promising structures may be discovered in the eastern part of the territory after further exploration work.

Seismic exploration at the field was completed in 2004. The data were processed and interpreted in 2005, and the Atash structure was prepared for drilling. Seismic work was continued and data were processed in 2006. Parameters of the Atash structure were specified and a decision on location of the first exploration well was taken in 2007. Preparations were begun for drilling of the well. The well which was drilled in 2008 failed to find commercial hydrocarbon reserves.

**South Zhambai and South Zaburunye**

- Project entry: April 2007
- Duration of agreement: to 2009 (could be extended by 2 years)
- Type of agreement: PSA, exploration (oil)
- Stake of LUKOIL Group: 12.5%
- Other project participants: KazMunaiGaz (50%), Repsol (25%), and Mittal Investments (12.5%).

The blocks are located in the Kazakh sector of the Caspian Sea and occupy 2,090 km². The depth of the sea is 0–3 meters. Detailed 2D seismic work was carried out and 3 promising structures (Edil, Kosarna and Karabulak) were located before LUKOIL entered the project. In 2007 processing and reinterpretation of geological and geophysical data were carried out in preparation for exploration drilling, which should begin in 2009. In 2008 the North Edil structure was identified as the prime target for deep drilling and location of the first exploration well with planned depth of 1,850 meters was approved.

**WEEM (West Esh El Mallaha)**

- Acquisition of stake in project: September 2001
- Duration of agreement: 25 years (to 2017)
- Type of agreement: concession; production (oil)
- Stake of LUKOIL Group: 100%
- Share of LUKOIL Group in production: varies depending on expenditure and oil prices
- Other project participants: EGPC

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.0</td>
<td>2.10</td>
<td>7.02</td>
</tr>
</tbody>
</table>

The WEEM block is located in the eastern part of the Eastern Desert, 8 km west of the city of Hurghada. The block covers 55 km² and includes 4 fields (Rabeh, Rabeh East, Tanan, and Tawoos).

Total proved reserves as of December 31, 2008 were 6.7 mln barrels of oil. The first field at the WEEM block was discovered in 1997, and production began in 1998. Study of the geological structures of the block is still continuing. The field agreement allows extension of the development period for 5 years, up to 2023.

A 100-km export pipeline to the Ras el-Bikhar and Gebel Az-Zeit coastal terminals was completed in 2004, enabling deliveries to the international market.
There were 31 oil production wells at the WEEM block as of December 31, 2008. A system of reservoir pressure maintenance was made ready for launch in 2007. In 2008 2 appraisal wells were drilled. Both wells drilled into formations containing oil, increasing project reserves.

Production in 2008 was 471,000 tons of oil, and the share of LUKOIL Group was 144,000 tons.

**Meleiha**
- Acquision of stake in project: 1995
- Duration of agreement: to 2024
- Type of agreement: concession; production (oil)
- Stake of LUKOIL Group: 24%
- Share of LUKOIL Group in production: varies depending on expenditure and oil prices
- Other project participants: EGPC (56%), IFC (20%)

<table>
<thead>
<tr>
<th>Density, API</th>
<th>Sulfur content, %</th>
<th>Barrels per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.8</td>
<td>n/a</td>
<td>7.61</td>
</tr>
</tbody>
</table>

The Meleiha block is located in the Northern Province of Egypt's Western Desert, and consists of four main fields (Aman, North-East Meleiha, West Meleiha, and South-East Meleiha). The fields were discovered in the 1970s and development began in 1978. The block covers an area of 700 km². Proved reserves as of December 31, 2008 were 16.3 mln barrels of oil.

The Company’s share in proved reserves at Meleiha was 4 mln barrels of oil as of December 31, 2008.

There were 163 oil production wells at the field at the end of December 2008. 21 new production wells were put into operation in 2008.

Production in 2008 was 889,000 tons, and the share of LUKOIL Group was 47,000 tons.

Oil is delivered to export via a 167-km pipeline to the Al-Khamra oil terminal.

**AZERBAIJAN**

**Shakh Deniz**
- Acquisition of stake in project: 1996
- Duration of the agreement: 40 years (to 2036)
- Type of agreement: PSA; exploration & production (gas, gas condensate)
- Stake of LUKOIL Group: 10%
- Other project participants: Statoil (25.5%, operator); BP (25.5%, operator); Total (10%); NICO (10%); Azerbaijan State Oil Company (10%); TRAO (9%)

The Shakh Deniz gas condensate field is located 100 km south of the city of Baku on the Caspian Sea Shelf at depths up to 700 meters. The contract territory covers 860 km². Commercial reserves were discovered in March 2001. Commercial production was begun in the end of 2006. Consortium share in proved reserves as of December 31, 2008 was 177 mln barrels of gas condensate and 5,315 bcf of gas.

The share of the Company in proved reserves at the end of December 2008 was 18 mln barrels of gas condensate and 532 bcf of gas.

There were 4 gas production wells at the field at the end of December 2008.

Production in 2008 was 1.895 mln tons of gas condensate (share of the Group – 147,000 tons) and 7.1 bcm of marketable gas (the share of LUKOIL Group was 551 mcm).

**D-222 (Yalama)**
- Signing of the agreement: 1997 and 2003
- Duration of the agreement: to 2035
- Type of agreement: PSA; exploration & production (oil, gas)
- Stake of LUKOIL Group: 65% (operator)
- Other project participants: Azerbaijan State Oil Company (20%), GDF Suez (15%)

Block D-222 is a part of the Yalama structure, which straddles the Azerbaijani and Russian sectors of the Caspian Sea. The block is located 30 km from the coast at depths between 80 and 700 meters. A set of agreements signed in 2003 lays down additional conditions for exploration and development of D-222, including increase of LUKOIL’s project stake to 80% and expansion of the contract area to 3,000 km². In 2006 the contract area was reduced in size, to 1,300 km², and the geological exploration period was extended to November 1, 2009. In 2007 the license for geological exploration work at the Russian part of the structure was extended until the end of 2011. The new license agreement reduces the license area by three times. In 2008 LUKOIL completed the sale of a 15% stake in the project to GDF Suez (France).

Seismic studies of the block were completed in 2004. Drilling of a prospecting well began in that year and was completed in 2005. Commercial reserves were not found. Analysis and assessment of data was continued. Analysis of geological and geophysical materials for the Yalama-Samur structure was completed in 2007. A location was decided for the second prospecting well and preparatory work was carried out. The well was drilled in 2008 and closed down for geological reasons.)
Kandym – Khauzak – Shady

- Signing agreement: 2004
- Duration of the agreement: 35 years (to 2040)
- Type of agreement: PSA; exploration & production (gas)
- Share of LUKOIL Group in profit: 90% (operator)
- Other project participants: Uzbekneftegaz (10%)

The agreement is for development of the Khauzak and Shady sections of the Dengizkulskoye field and the Kandym group of fields (Kandym, Kuvachi-Alat, Akkm, Parsankul, Khodzhi, and West Khodzhi), as well as exploration work at the Kungrad block. The contract territory at Khauzak, Shady and Kandym group is 431 km² and the contract territory of the Kungrad block is 3,700 km². Share of the Consortium in proved reserves at the field as of December 31, 2008 was 9.9 mln barrels of gas condensate and 3,075 bcf of gas.

The Company’s share in proved reserves at the end of December 2008 was 9.7 mln barrels of gas condensate and 3,019 bcf of gas. LUKOIL began seismic exploration at the territories and completed an ecological audit in 2005. At the Kungrad block two wells (Shege-1 and Shege-2) were acquired, demothballed, and tested. Shege-1 was found to be productive: it gave commercial flows of gas at a daily rate of 12.3 mcf. In 2008 1,142 km of 2D seismic were carried out at the Kungrad block.

Production drilling and construction of an initial gas treatment facility advanced rapidly at the Khauzak area, and there was also rapid progress with construction of gas collection points, etc. in 2006.

Production of gas and condensate began in 2007 at the Khauzak area. 10 slant wells were put into operation during the year, a gas treatment unit was commissioned, gas processing capacities at the Mubarek Gas-processing Plant were prepared for use and measures were taken to enable transportation of the gas through the Central Asia – Center trunk pipeline network. A total of 12 production wells were commissioned at Khauzak–Shady area in 2008. There were 23 gas production wells at the field at the end of December 2008.

Group share in production in 2008 was 12,000 tons of gas condensate and 2,340 bcm of marketable gas.

Peak annual gas production under the project is expected to be about 12 bcm. The Kandym group development project includes construction of a gas chemical complex with annual capacity of 8 bcm (the first part of the complex should be commissioned in 2010). Drilling of 240 operating wells and construction of more than 1,500 km of pipelines are also planned.

### South-West Gissar and Ustyurt region

- Signing of agreement: January 2007
- Acquisition of stake in project: 2008
- Duration of agreement: 36 years
- Type of agreement: PSA, exploration & production (oil and gas)
- Stake of LUKOIL Group: 100%
- Other project participants: Uzbekneftegaz

The PSA provides for 5-year geological exploration period, including prospecting and appraisal work at the Karaumbetovsky and Shumanaisky investment blocks in Central Ustyurt and additional exploration at the South-West Gissar contract territory.

The Company’s share in proved reserves at the end of December 2008 was 17.2 mln barrels of oil and 1,395 bcf of gas. Peak annual production under the project is expected to be about 4 bcm of gas and more than 300,000 tons of oil and gas condensate. Gas from the South-West Gissar fields will be processed at the Shurtan gas-chemical complex, from where dry gas will be delivered for export via the Gazprom trunk pipeline network. Crude oil produced will be delivered via a terminal at Shurtan to the Bukhara and Fergana oil refineries.

The Group’s share in oil production in 2008 was 6,300 tons. There were 8 production wells as of December 31, 2008.

### Aral

- Signing agreement: 2006
- Duration of agreement: 35 years
- Type of agreement: PSA, exploration & production (oil and gas)
- Stake of LUKOIL Group: 20%
- Other project participants: Uzbekneftegaz (20%), Petronas (20%), CNPC (20%), KNOC (20%)

The PSA provides for geological exploration and development of hydrocarbon fields in the Uzbek sector of the Aral Sea.

Studies of the contract territory have been limited to date and the outlook for new discoveries is good. The three-year geological exploration program includes 2D seismic work (2,300 km) and drilling of two exploration wells.

An environmental audit at the contract territory was completed in 2007 and 329 km of 2D seismic exploration work was carried out. 2,006 km of 2D seismic exploration work was carried out in 2008. Preliminary results of data interpretation suggest several promising structures for oil & gas finds: the Western Aral, Umid and Northern Umid.
Block A

- Signing of agreement: March 2004
- Duration of agreement: 40 years
- Type of agreement: agreement, exploration & production (gas and condensate)
- Stake of LUKOIL Group: 80% (operator)
- Other project participants: Saudi Aramco (20%)

*Block A is located in the northern part of the Rub Al-Khali Desert, alongside the Ghawar field, which is the largest in the world. The block covers 30,000 km², and the time allowed for geological exploration is 5 years. 2D and 3D seismic surveys will be carried out in that period and at least 9 exploratory wells will be drilled.

In 2004 a tender for seismic exploration work was carried out, work began on interpretation of available geological and geophysical data and new 2D and 3D seismic studies were commenced. Interpretation of data from 2D and 3D-Sparse studies began in 2005. Drilling of the first exploration well at the Tukhman structure with depth of 4,800 meters was successfully completed in 2006 and a hydrocarbon accumulation was discovered. Well testing was carried out at the Muleiha structure and drilling of wells began at the Mushab, Kharif and Fadil structures in 2007. 2D and 3D seismic work was continued. In 2008 a hydrocarbon deposit (gas and condensate) was discovered at the central part of the block. Another 4 wells were drilled up, but were closed down without testing due to absence of promising oil & gas deposits.

IRAQ

**West Qurnah-2**

- Signing of agreement: 1997
- Duration of agreement: 23 years (to 2020)
- Type of agreement: PSA, production (oil, gas)
- Stake of LUKOIL Group: 68.5%
- Other project participants: SOMO (25%), Zarubezhneft (3.25%), Mashinoimport (3.25%)

*The West Qurnah field is part of the huge Rumaylah field and is located in southern Iraq, north-west of the city of Basra. Proved reserves at the Rumaylah field are estimated at 6 bln barrels. The project is currently suspended pending agreement with the new Iraqi government. There are plans to give a 17.5% stake in the project to ConocoPhillips, which will improve chances of work commencing in the near future.*

**Condor**

- Signing of agreement: June 2002
- Duration of agreement: 28 years (to 2030)
- Type of agreement: association; exploration & production (oil, gas)
- Stake of LUKOIL Group: 70%
- Other project participants: ECOPETROL (30%)

*The Condor block is located in the Llanos oil & gas basin and covers an area of more than 3,000 km². Conditions of the agreement give a maximum 6 years for exploration and 22 years for development (30 years for gas sectors).

Drilling of a prospecting and assessment well was completed in 2006. Medina field of high-quality oil was discovered as a result. Test operations were carried out as part of the Condor project in Colombia at the field and 1,400 tons of oil were produced in 2007. Preparations were made for commercial production at the field. As of the end of 2008 proved, probable and possible reserves were estimated at 18 mln barrels of oil. Location of a well at the Lengupa structure was decided and preparatory work was carried out for construction of the well. Results of seismic
exploration at the Las Palomas and Faraiones structures were reinterpreted and reprocessed. Drilling of Lengupa-1 well was completed in 2008. Signs of hydrocarbon presence (luminescence) were detected during its construction and there were inflows of water with signs of oil. However, commercial inflows of oil were not obtained and the well was closed down.

**VENEZUELA**

**Junin-3**

- Signing of agreement: October 2005
- Duration of agreement: 5 years (to 2010)
- Type of agreement: reserve assessment agreement, analysis of possible business approaches for development
- Stake of LUKOIL Group: each party is responsible for its own costs
- Other project participants: PDVSA

The Junin-3 block is located in Anzoategui state (the Orinoco oil basin) and covers an area of 640 km².

7 stratigraphic wells were drilled as part of the second stage of appraisal of high-viscosity oil reserves. 2D seismic work was also carried out in 2007. A total of 10 stratigraphic wells will be drilled at the block. This should enable better definition of the geological model of Junin-3, based on seismic and drilling data, and will allow comparison of these data with those obtained at neighbouring blocks. A two-year agreement was signed in 2008 for joint study and analysis of possible business approaches for development of the license block.

**COTE D’IVOIRE and GHANA**

**CI-205**

- Signing of agreement: July 2001
- Acquisition of a stake: July 2006
- Duration of agreement: 35 years (to 2036)
- Type of agreement: PSA, exploration & production (oil)
- Stake of LUKOIL Group: 63% (operator)
- Other project participants: PETROCI Holding (10%), Oranto Petroleum (27%)

Block CI-205 is located on the deep water shelf of the Gulf of Guinea, 100 km from the shoreline of Cote d’Ivoire. The block covers 2,600 km² and is part of the Tano oil & gas basin. The Baobab field – the largest Cote d’Ivoire field – is located 15 km from the block.

4,900 km of 2D and 2,400 km² of 3D seismic exploration have already been carried out at the block. An exploration well will be drilled as part of the second exploration phase, which is now being implemented. Reinterpretation and reprocessing of 3D seismic materials were carried out in 2007 leading to confirmation of potential oil & gas-bearing qualities of structure A. In 2008 a certificate was prepared for the Western structure of the block and location of the first prospecting well was approved (drilling is to be carried out in the beginning of 2010). An extension of the second exploration period up to mid-2010 was obtained.

**CI-101, CI-401 and Cape Three Points Deep Water**

- Signing of agreement: September 2005 (blocks CI-101 and CI-401); August 2002 (block Cape Three Points Deep Water)
- Acquisition of stake in project: April 2007
- Duration of agreement: 5.5 years (blocks CI-101 and CI-401); 7 years (block Cape Three Points Deep Water)
- Type of agreement: PSA, exploration (oil)
- Stake of LUKOIL Group: 56.66%
- Other project participants: Vanco Energy (28.34%), PETROCI Holding (blocks CI-101 and CI-401; 15%), Ghana National Petroleum Company (block Cape Three Points Deep Water, 15%)

Blocks CI-101 and CI-401 are located on the continental shelf of the Republic of Cote d’Ivoire, and the Cape Three Points Deep Water block is located on the continental shelf of the Republic of Ghana. All three blocks are in the deep-water zone of the Gulf of Guinea, 50–100 km from the coast, and are geologically part of the Tano Basin. They occupy about 15,000 km² and depth of the sea is 200–3,000 meters.

Total 1,100 km² of 3D seismic work was carried out at blocks CI-101 and CI-401 in 2007. The collected seismic data were processed in 2008. Extension of the Cape Three Points Deep Water project exploration period was obtained up to 2012 with possibility of 2 further extensions of 1 year each. Location of the first prospecting well has been approved and drilling is to begin in the second quarter of 2009.
Refining & marketing is LUKOIL’s second major business segment. By developing this segment the Company lowers its exposure to high price volatility on the crude oil market and enhances its competitive position in main business regions by production and sale of high-quality petroleum products with large share of value-added. So by developing its refining and marketing business LUKOIL supports multi-billion dollar investment in field exploration and development, helping to guarantee steady growth of income to shareholders. Development of refining & marketing is an integral part of the Company’s strategy for a long-term balance between the exploration & production and refining & marketing segments. (At present LUKOIL refineries can process about 70% of the Company’s crude production). LUKOIL currently produces a wide range of high-quality petroleum and gas products and petrochemicals, selling them via wholesale and retail in over 30 countries.

**MAIN INDICATORS FOR 2008:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Figures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refineries</td>
<td>8</td>
</tr>
<tr>
<td>Refinery throughputs, mln tons</td>
<td>56.28*</td>
</tr>
<tr>
<td>Capacity utilization, %</td>
<td>95</td>
</tr>
<tr>
<td>Gas-processing plants</td>
<td>4</td>
</tr>
<tr>
<td>Gas processing, mcm</td>
<td>3,249</td>
</tr>
<tr>
<td>Petrochemical plants</td>
<td>4**</td>
</tr>
<tr>
<td>Petrochemical production, mln tons</td>
<td>1.46</td>
</tr>
<tr>
<td>Filling stations</td>
<td>6,748</td>
</tr>
<tr>
<td>Oil exports, mln tons</td>
<td>39.30</td>
</tr>
<tr>
<td>Petroleum product exports, mln tons</td>
<td>25.8</td>
</tr>
<tr>
<td>Oil sales, mln tons</td>
<td>39.54</td>
</tr>
<tr>
<td>Wholesale petroleum product sales, mln tons</td>
<td>80.98</td>
</tr>
<tr>
<td>Retail petroleum product sales, mln tons</td>
<td>14.16</td>
</tr>
<tr>
<td>R&amp;M net profit, $ mln</td>
<td>5,013</td>
</tr>
<tr>
<td>R&amp;M capex, $ mln</td>
<td>2,271</td>
</tr>
<tr>
<td>Employees in the segment, th. people</td>
<td>82.7</td>
</tr>
</tbody>
</table>

* Including the ISAB refinery complex.
** Including Burgas Refinery.