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special edition

KAZENERGY

I N T E R N A T I O N A L

Kazakhstan
Oil and Gas
Industry

Astana city
to celebrate
its jubilee

The Kazakh Yurta

19TH WORLD
PETROLEUM
CONGRESS

SPAIN MADRID 2008



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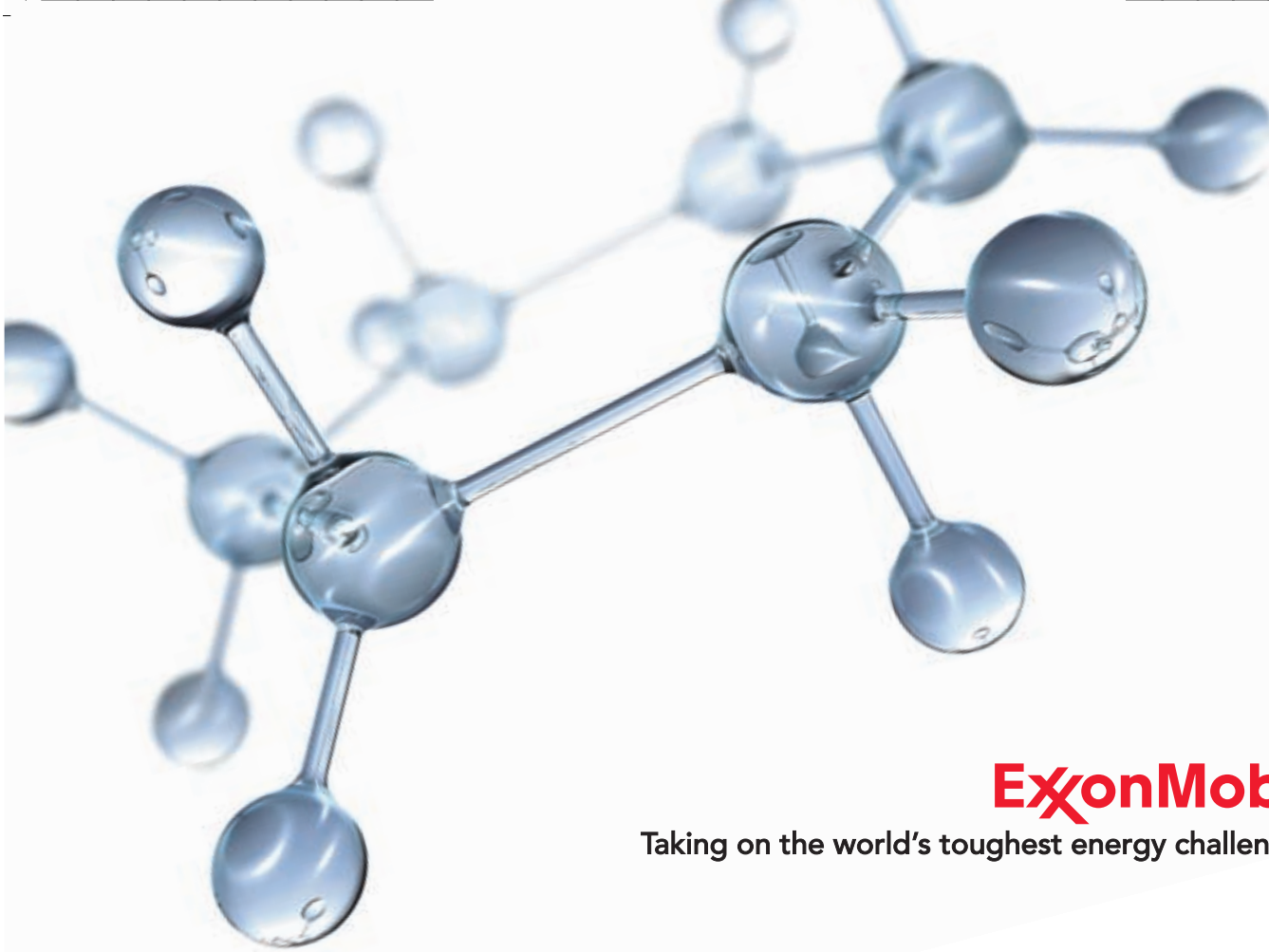
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Sauat Mynbayev

Minister of Energy and Mineral
Resources of the Republic of
Kazakhstan





Dear ladies and gentlemen!

Let me extend my greetings to attendees and participants of the 19th World Petroleum Congress.

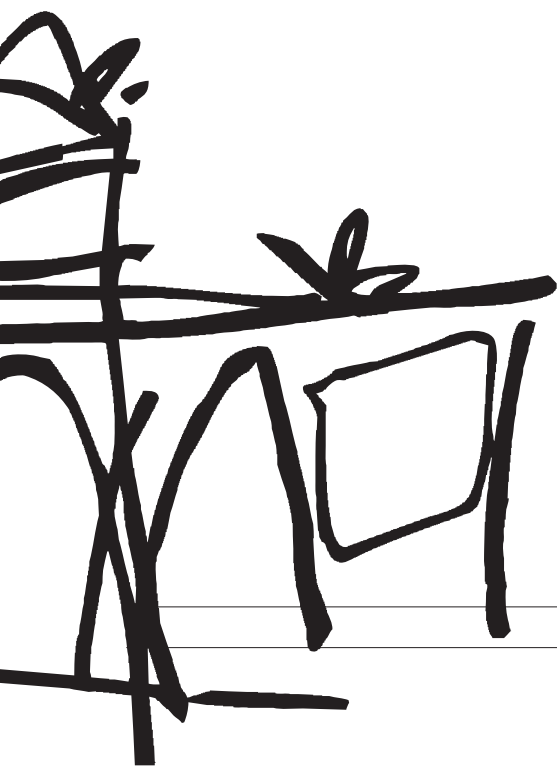
I view the World Petroleum Congress as a unique, global-scale forum. The Congress has strongly proved to be in demand, has won high international recognition as an influential institution, and has become an integral part of the global energy community.

Personal contributions by known businessmen, economists, politicians and experts add significant value to our debates and which is still more important help us derive benefits from practical solutions and recommendations.

Using this opportunity, I would like to note that the WPC membership of Kazakhstan, one of the largest global oil players, and its participation in the Congress' sessions through the Association KazEnergy will have most favorable influence on further development of global energy cooperation and understanding.

I believe that proposals and initiatives generated by the Congress will provide a real basis for the promotion of a wide international energy dialogue and will help enhance constructive cooperation in implementing strategic goals aimed to ensure global energy safety.

I wish you success, may your efforts bear fruits!







Antonio Brufau
Chairman & CEO Repsol YPF



SPAIN MADRID 2008



A world in transition: delivering energy for sustainable growth

Our business environment is evolving in two fundamental and complementary aspects. First, that the Oil & Gas companies are assuming their responsibilities in building an equilibrated and sustainable society, and accept that this endeavour requires participation from other social sectors to be effective.

In this context, extractive industries exploiting natural resources in countries whose economies depend on them are more conscious of their role in adopting measures against poverty, corruption and conflicts, all global issues that should be our first concern.

In Repsol YPF, in parallel to our worldwide activity in the Oil & Gas sector, we continuously search for improvements in our Social and Financial responsibility commitments with the community. We joined the Extractive Industries Transparency Initiative (EITI), accepting and promoting the twelve main principles in order to assure that benefits generated by exploiting natural resources translate into sustainable development. In particular, we fully supported the Kazakhstan participation on this initiative by signing in 2005 a Memorandum of Understanding (MOU) with the Minister of Energy and Mineral Resources.

In this same context, the 19th World Petroleum Congress to be held in Madrid from 29 June until 3 July will not only give us the opportunity to discuss important technical matters, but also to advance in all initiatives that help our industry and society to work together for a better world.

As Chairman and CEO of Repsol YPF, and member of the National Organization Committee and Host Company of this prestigious Congress, I would like to welcome all members of the Kazakhstan Delegation attending this global event. At the same time, I would like to congratulate your Country's National Committee for their decision to join the World Petroleum Council as permanent members, and convey my full support on this venture.

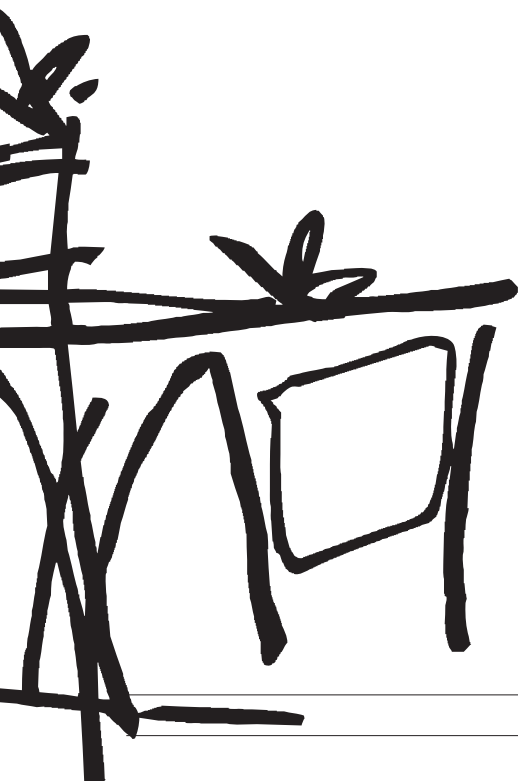
Good will and efforts are in place. Let us work together to obtain the common objective of transparent business in a responsible social and financial environment supplying the World's energy needs in a reliable, continuous, clean, and efficient way.

Welcome to Madrid.

Sincerely,



Antonio Brufau





Asian Energy Strategy of the President Nursultan Nazarbayev

LAST YEAR, THE PRESIDENT OF KAZAKHSTAN NURSULTAN NAZARBAYEV AT THE SUMMIT OF HEADS OF MEMBERS OF THE SHANGHAI COOPERATION ORGANIZATION HELD IN BISHKEK MADE A KEY STRATEGIC PROPOSAL, PRESENTING THE IDEA OF THE ASIAN ENERGY STRATEGY, WHICH WAS ABLE TO TAKE CROSS-BORDER ENERGY RELATIONS AND ENERGY SAFETY PROCESS TO A QUALITATIVELY NEW DEVELOPMENT STAGE. IT WAS NOT SURPRISING THAT THE PROPOSAL OF THE PRESIDENT OF KAZAKHSTAN FOUND A BROAD SUPPORT AND UNDERSTANDING.

No doubt the Asian continent is entering a new energy era. The situation in the Asian energy sector is characterized by growing risks and challenges requiring immediate joint solutions which would be consistent with sovereign interests and rights of all the countries involved.

The global need for energy resources continues to grow steadily. The global demand for energy will increase by at least 60% by 2030.

The Asian countries will suffer most from this problem in view of their economic growth rates and rapidly growing energy output of national economies which implies significant increase of energy consumption rates, especially for oil and natural gas. At the same time, the global energy sector is subject to high volatility, prices of energy resources cannot be predicted and their further growth can affect interests of all Asian countries. Despite the fact that Asia hosts largest energy producing countries, the energy supply/demand gap can be expected to grow in the foreseeable future, especially due to inevitable depletion of energy resources in the course of time.

Unfortunately, Asia still lacks any system for international coordination of efforts and decisions relating to the energy sector and energy safety, first of all between consumers and suppliers of energy resources. This increases significantly the likelihood that unpredictable situations and misunderstanding will occur at the international level.

All these factors require that Asian nations develop a response in a concerted manner. Isolated national energy strategies are no longer capable of solving the entire variety of problems and challenges which become more realistic with time.

The new energy era requires new and more efficient forms of cooperation, among which the Asian energy strategy proposed by the President Nursultan Nazarbayev may play a key, systematic role. In fact, basic provisions of the Asian energy strategy later supplemented by the concept of Asian energy dialogue, drafts of which were designed by the analytical group

of the association KazEnergy in close cooperation with the Ministry of Energy and Mineral Resources of the Republic of Kazakhstan, is a unique and the only meaningful tool towards ensuring the continental energy safety and cooperation.

We are at the historic stage where our countries are able to establish an effective and flexible structure of energy relations which will allow us to significantly reduce any possible problems, and to strengthen international cooperation even despite any objective differences arising from levels of economic development, reserves of energy resource and aspects of energy safety. Acting in accord, based on shared strategy principles, Asian countries will be able to more effectively protect their interests in the energy sector and to prevent any possible negative scenarios and trends.

However, in view of the extent to which energy problems and challenges impact the support of economic growth, provision of national security and further improvement of people's well-being, Asian countries should start effectively cooperating under the Asian energy strategy as soon as possible. The creation of an effective system of Asian energy dialogue cannot be accomplished in the short term; this is a long-term and multi-aspect process.

The Asian energy system is not aimed to form an alliance against any third powers. On the contrary, the establishment of effective energy cooperation under the Asian energy strategy will serve as a model for other regions and countries and may provide a basis for developing new ways of interaction in the global energy market.

The success of the Strategy is based on the fact that Asian countries have enough tools and potential to achieve a high level of energy cooperation. A reliable and mutually beneficial partnership in various energy sectors will help ensure political and economic security and stability both in Asia and globally.

Kazakhstan oil and gas industry

Maulen Namazbekov

Enormous carbohydrate resources have helped Kazakhstan to develop effective energy policy which has formed basis for accelerated national economic growth. During the last few years Kazakhstani Oil and Gas industry has been transformed from centralized state-owned organization into fragmented free market enterprise which has abruptly increased its pull of investments and let Kazakhstan to become a leader in terms of its estimated quantity of carbohydrate deposits not only among post-Soviet states but also among major oil producing nations. On Kazakhstani national territory are present virtually all the major companies in the world carbohydrate business. Kazakhstan holds the largest proven oil reserves in Caspian region. According to statistical data carbohydrate reserves confirmed by British Petroleum on land and continental shelf are estimated within 5.5 bln tones or 39.8 bln barrels. However, estimated oil reserves located only within Kazakhstani part of Caspian Sea amount to more than 17 bln tones or 124.3 bln. barrels.

Oil and gas rich regions of the Republic which contain 172 oil and 42 gas resources among which over 80 are being already developed occupy around 62 % of Kazakhstani territory. Major oil reserve in Kazakhstan (over 90 %) are concentrated in 15 major resources: Tengiz, Kashagan, Karachaganak, Uzen, Zhetybai, Zhanazhol, Kalamkas, Kenkiyak, Karazhanbas, Kumkol, Northern Uzachi, Alibek Molla, Central and Eastern prorva, Kenbai, Korolevskoye; out of all these resources half of combined oil reserves is contained just within Kashagan and Tengiz resources.

Such concentration of geological resources lessens their cost of production, however, geological peculiarities of the resources such as geological formations of oil basins, higher content of chemically aggressive crude oil admixtures. Require extra careful project planning concerning resource development and considerable initial investments.

The resources are located on the territory of 6 out of 14 Kazakhstani oblasts. These are Aktyubinsk, Atyrau, Western Kazakhstan, Karaganda, Kyzyl Orda and Mangistau oblasts. About 70 % of total carbohydrate reserves are located West Kazakhstan oblast.

Atyrau oblast contains the most explored oil reserves: on its territory were discovered over 75 resources suitable for industrial production containing 930 mln. tones of total oil reserves. The largest oil reserve in the oblast is Tengiz (initial estimates of extractable deposits were 781.1 mln. tones). The other resources in the oblast contain in total around 150 mln. tones. More than half of these reserves are found in Korolevskoye (55.1 mln. tones) and can buy (30.9 mln. tones) resources.

On the territory of Mangistau oblast were discovered over 70 resources with extractable oil deposits of 725 mln. tones and gas condensate of 5.6 mln. tones. Less than half resources are producing, the majority of them are at the final stages of exploration. The vast majority of remaining reserves are classed as difficult for extraction. Such as large resources: Uzen, Zhetybai, Kalamkas and Karazhanbas.

Over 15 carbohydrate resources are located on the territory of Western Kazakhstan oblast. Their undisputedly leader is Karachaganak oil and gas resource with extractable deposits of liquid carbohydrate crude around 320 mln. tones and methane over 450 bln. cubic meters. In September 2005 discovery of a new carbohydrate resource in Fedorovskiy next to Karachaganak was announced: oil and gas condensate reserves are estimated 200 mln. tones.

Another promising region in terms of oil and gas potential is Aktyubinsk oblast. Around 25 resources were discovered here. The most significant geological discovery in this region is Zhanazhol group of resources with extractable deposits of oil and gas condensate around 170 mln. tones. In 2005 company CNPC-Aktobemunaigas announced discovery of a new resource Umit located in central block of Caspian cavity Eastern part.

The major oil producing industry of Kyzyl Orda and Karaganda oblasts is Kumkol group of resources – fifth in its significant oil and gas resource group in Kazakhstan. In summer 2005 company Petro Kazakhstan which was working in this region had announced discovery of commercial oil reserves within its concession territory Koizhan which borders the Northern part of Kyzyl Kiya resource.

Further build-up of oil and gas industry resource potential in Kazakhstan will be enabled through large scale exploration of Caspian and Aral water areas.

In 2000 discovery of Kashagan resource in the northern part of Caspian region with extractable reserves set at minimum estimate of 9 billion barrels has already been hailed as the most significant event in world practice for the last 30 years. Oil and gas exploration of unresearched deep water areas of Caspian cavity and Aral as well as positive data obtained via regional seismic works done in the Northern, Central and Southern regions of Kazakhstan looks very promising.

For Kazakhstan more and more valuable export is becoming natural gas explored and estimated reserves of which – including new-found resources on Caspian shelf – amount nearly to 3.3 trillion cubic meters, whilst potential reserves reach a figure of 6-8 trillion cubic meters. It is worth noting that peculiar feature of the explored gas reserves in the Republic is that virtually in all the resources and particularly in newly producing largest resources gas production is conducted along with

production of crude oil and condensate. Therefore, active development of these resources and abrupt growth of oil production volume for the last years require utilization of ever increasing volume of concurrently produced gas.

For the last years an average growth of natural gas production stood at 6-8% per annum, meanwhile, however, for 2007 increased volume of gas production was 9.7% reaching total figure of 29.6 billion cubic meters that more than three times has exceeded level of gas production for 1991. Major production of natural gas is conducted in Aktyubinsk, Atyrau, Western Kazakhstan, Kyzylorda and Mangistau oblast of Kazakhstan.

Taking into account oil and gas reserves as well as ever increasing volume of production for the foreseeable future Kazakhstan will remain one of the world leading producers.

In 2010 forecasted volume of oil production in Kazakhstan will be 80 million tons p.a., by 2015 – 120-130 million tons. It is also expected that production of unstripped gas by 2010 will increase to 40 billion cubic meters and by 2015 – up till 70 billion cubic meters. Accordingly there will be an increase in production of liquefied gas and by 2015 it will reach level of 2 million tons.

Experts forecast that within the nearest future Kazakhstan may enter the ranks of “top ten” oil producing nations being on a par with Kuwait.

Growth of Kazakhstani oil production volume is closely tied to two factors:

Firstly, considerable increase in foreign investments: in particular, direct foreign investments into oil producing industry.

Secondly, favorable carbohydrate market conditions in the world exercise considerable influence on situation of oil industry in Kazakhstani economy.

It is worth noting that one of the most important aspects of economic reform process in Kazakhstan was creation of favorable investment climate for national and foreign investors which is one of the most attractive business climates not only in CIS countries but also across countries of Central and Eastern Europe as well as Baltic states.

Yet oil production growth in Kazakhstan is happening somewhat slower than was initially anticipated due to technical difficulties encountered during Kashagan and Tengiz resource development.

Project delays during development of Kashagan resource due to technical issues and overexpenditure have led to a situation where upon beginning of oil production accumulated sum total of compensatory payments to Kazakhstani government would amount to 4.5 billion USD. The production stage of development has been transferred from 2007-08 as was initially planned to 2012-13 while estimate of expenditures has been reviewed from \$57 billion USD to \$136 billion USD. Raising of production rate of Tengiz resource by company

**OIL EXPORT FROM
KAZAKHSTAN
WHICH DOES NOT
HAVE ACCESS TO
SEA PORTS WAS
TRADITIONALLY
DEPENDENT UPON
TRANSIT VIA RUSSIA;
HOWEVER,
DEGREE OF DEPENDENCY
WAS CONSIDERABLY
LOWERED OVER THE
LAST YEARS.**

TengizShevrOil should happen during the second half of 2008 even though it was planned initially for the beginning of 2007.

As a consequence in 2008 it is planned to produce 67.8 million tons of oil in Kazakhstan which somewhat smaller than was planned initially, namely, 69 million tons. However, these delays should significantly affect long term development targets of Kazakhstani oil and gas producing industry and will be compensated by increased production during 2012-15.

At the same volume of internal oil consumption in Kazakhstan is relatively not high – about 226 thousand barrels per day or 17 % of total volume of national production – and stable. Kazakhstan exports major part of produced oil mainly via pipelines. Kazakhstan has three major oil refinery plants: in Pavlodar which supplies oil products to the Northern regions of the country, Atyrau in the Western region and Shymkent in the Southern region. Their combined estimated output is 21 million tons per annum.

As a result Kazakhstan will export almost all production increase and this is precisely why key significance is attached to investments made to develop routes of export: mainly pipelines which are very effective and reliable means of hydrocarbons transportation.

Oil export from Kazakhstan which does not have access to sea ports was traditionally dependent upon transit via Russia; however, degree of dependency was considerably lowered over the last years. Since the President Nursultan Nazarbayev has declared on several occasions that energy related partnerships of Kazakhstan are based on pragmatic economics.

Kazakhstani pipeline system is comprised of three autonomous areas interconnected with system of Russian company OAO NK Transneft. Major part of exported oil is piped along Atyrau-Samara route. Kazakhstan exports significant amount of oil by rail transport which is more costly.

Over the last decade there were built two new large pipelines to export oil.

Firstly, Caspian pipeline consortium (KTK): pipeline 1580 km long connecting Tengiz resource nearby Caspian Sea shore with Russian Black Sea port Novorossiysk.

Along KTK built in 2001 during last year there was transported around 260 thousand barrels per day or 32.6 million tons of oil mainly produced by TengizShevrOil and AO Exploration Production KazMunayGas. Volume of transit turned out to be somewhat higher than its initially planned capacity: around 28 million tons per annum – anticipated increase of production.

Secondly, through pipeline connecting Kazakhstan with China 200 thousand barrels are transported each day or 10 million tons. The pipeline connects Central Kazakhstan and eastern section of pipeline system of AO KazTransOil with Chinese rapidly growing energy market. Pipeline construction was completed in 2006 and it is not yet used to its full capacity because it is not connected to Kazakhstani Caspian resources.

These new pipeline projects as well as high prices of oil have weakened dependency on oil transit and made cost effective even expensive rail

transportation. There were also oil supply to Iran in accordance with swap agreements.

Nevertheless, within few years after start of development of Karashagan resource and increased production from Tengiz Kazakhstani pipelines transmission capacity will be obviously insufficient to transport increasing volume of production in the country. For example, already in January 2008 the largest oil producing company in Kazakhstan – TengizShevrOil – announced 90 thousand barrels per day increase in production reaching total figure of 400 thousand barrels per day. Upon launch of second queue facilities planned for the second half of 2008 TengizShevrOil is set to increase production up till 540 thousand barrels per day.

On the whole, given national oil production is above 90 million tons per annum - including 21 million tons per annum produced in Kazakhstani part of Caspian Sea - since 2009 it will be necessary to build a new pipeline to export oil. Upon reaching oil production growth of 140 million tons per annum including 61 tons per annum from Kazakhstani part of Caspian Sea by 2012 it will be necessary to build another pipeline.

So it seems the major projects in terms of developing oil transit will be the following:

Firstly, Kazakhstan – China pipeline throughput capacity double increase up to 20 million tons and its connection to major part of national pipeline system.

Secondly, KTK pipeline throughput capacity double increase up to 1.3 million barrels per day or 67 million tons per year of around two billion USD value. Common agreement with Russia concerning this has already been reached.

Thirdly, Yeskene-Kuryk pipeline and oil terminal in Kuryk port construction worth around 1.6 billion USD as a part of Kazakhstani Caspian pipeline system. This pipeline is a part of largest scale scheme of transportation allowing to supply Kazakhstani oil mainly from Kashagan resource from Caspian Sea basin through Caucasian region to Mediterranean markets via Baku-Tbilisi-Dzheikhan.

It is important to note that in May 2008 Kazakhstan has ratified a treaty with Azerbaijan about support of oil transit from Kazakhstan through Caspian Sea and territory of Azerbaijan to international markets via pipeline system Baku-Tbilisi-Dzheikhan which considerably strengthens common prospects and significance of Yeskene-Kuryk pipeline.

Direction to Iran is also of interest to the Republic. According to preliminary research Kazakhstan-Turkmenistan-Iran route is economically one of the most attractive options to export Kazakhstani oil to the Persian Gulf markets. According to the project oil pipeline route starts in Western Kazakhstan goes through Western Turkmenistan and follows further along Iran territory up to its Northern region.

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Oil&gas Kazakhstan on the way of economic diversification

The role of Kazakhstan for maintaining global energy security constantly grows. It extremely important, taking into consideration the fact that the energy component becomes more and more substantial argument in the global geopolitical balance.

Along with the search for an effective response to traditional and new challenges to international stability, the significance of a security of the global energy balance has immensely grown in new century. Energy resources have key significance for improving of living standards and widening of opportunities of all states. That is why securing of effective, sustainable and ecologically safe energy supplies under prices that reflect fundamental principles of the market economy considers to be one of the most important challenges for the world community.

As risks accumulate on supplying an ever-growing world energy demand, the international system is straining to meet the demands of new players in the global oil & gas game, old issues such as energy security and resource nationalism, and new issues like climate change and energy equity.

The oil&gas industry has always been about risk taking and risk management. The challenge of the 21st century is to pursue a pathway that allows nations to cooperate in meeting their legitimate interests to produce and obtain clean, affordable and secure energy and in establishing rules of the market that allow industry to compete effectively to satisfy those needs. The main danger is a return to 19th century «beggar thy neighbor» type policies that threaten the benefits of globalization and the search for global solutions for global problems.

It is necessary to achieve stability and security in that sphere in the frame of comprehensive and coordinated international approach to avoid tensions.

Kazakhstan has a position in this 21st century game as it unfolds. The energy security as a key factor of the international stability is one of main politico-economic priorities for Kazakhstan. The country is an important element of global energy infrastructure, that is why considerable part of the foreign policy of Kazakhstan concentrated on solution of problems of stable and safe export directions of domestic hydrocarbon resources.

Kazakhstan is important to world energy markets because it has significant oil and natural gas reserves.

With sufficient export options, Kazakhstan could become one of the world's largest oil producers and exporters in the next decade, possessing approximately 36 bln barrels (5.2 bln t) proved oil reserves and 3.4 trillion cubic meters of natural gas, though possible oil reserves could reach 70-75 bln barrels. Thus, Kazakhstan takes 2nd place among CIS oil-extracting countries, just after Russia, and 12th – in a world scale.

Kazakhstan's leadership is laying the foundation for its integration into the global economy and global energy sector.

Kazakhstan adheres to follow the position of diversification of ways of transportation of hydrocarbons to world market and highly effective use of pipeline systems. It is important to note that Kazakhstan exported more than 57 mln t from 65 mln t of extracted crude oil in 2006, primarily for European and Chinese energy markets. Moreover it is officially alleged that Kazakhstan will be able to produce about 130-135 mln t of crude oil in 2015, and its export potential will grow to 120 mln t annually.

From the very outset the Government of independent Kazakhstan has sought to lay the foundations of a market economy, civil society and democracy – simultaneously through pursuing economic growth and rising living standards whilst maintaining stability. The basis of Kazakh-

stan energy strategy is formed on the principle of an economic expedience and minimization of the technogenic impact on environment.

But Kazakhstan's strategic aspiration is to become a modern, diversified economy with a high value added and high-tech component, well integrated in to the global economy. The energy sector is viewed as a good basis to achieve this goal.

At independence in 1991, Kazakhstan had a promising resource base, from its sizable hydrocarbon reserves to its well-educated workforce. More importantly, though, it had the wisdom to move quickly away from the failed policies of the past. Kazakhstan's leadership embarked on a new - transformational-course. In a little over ten years, Kazakhstan implemented a series of broad-based reforms that brought the country from planned to market economy.

Kazakhstan undertook a process of demonopolization, privatization, debt restructuring, price liberalization, customs reform, and tax restructuring. Kazakhstan established a securities and exchange commission, liberalized trade, enacted laws on investment, established a new government procurement process, and reformed the banking system. The recovery of international oil prices in 1999-2000, combined with a well-timed national currency (tenge) devaluation and a bumper grain harvest, pulled the Kazakhstan economy out of recession in 2000.

The Government has embarked upon an industrial policy designed to diversify the Kazakhstan economy away from over dependence on the oil sector by developing innovative heavy and light industry. Surely, full dependence on natural resources and world prices makes a national economy vulnerable.

Kazakhstan has enjoyed impressive economic growth over the past seven years, buoyed by increased oil exports, as well as by bold economic reforms, prudent fiscal policies and economic initiatives that were instituted in 1999.

Those measures boosted a constant and stable growth of the national economy and the well-being of people. For instance Kazakhstan can boast a high level of GDP growth, which reached 11879.8 bln tenge (US\$98.5 bln, +8,7% to 2006) in the end of 2007. Gold and currency reserves peaked US\$40 bln, up from meager US\$3.5 bln in the middle of 2001.

At the beginning of 2003 the Government of Kazakhstan has adopted The Innovative Industrial Development Strategy for the years 2003-2015. The Strategy came at the time when basic economic reforms have been completed successfully replacing the old system of economic relations with market economy. In the first decade of its independence Kazakhstan was successful in fostering market-based institutions, the country's energy industry saw a rapid growth and the banking sector has taken the leading positions within the CIS countries.

However, being aware of the economy's heavy reliance on the energy and minerals sectors the Kazakhstan Government adopted an ambitious three-stage New Industrial Development Strategy to ensure sustainable development of the domestic economy through its genuine diversification,

creation of new competitive industries, modernisation and expansion of the existing infrastructure with the ultimate goal of moving from an extraction-based industry to a service and technology based economy.

On top of the successfully operating National Oil Fund and Development Bank of Kazakhstan, first ever institution of the sort in the FSU, established back in 2000 and 2001 respectively new development institutions have been established in 2003 within the Strategy, all deriving millions of dollars from oil revenues. These new institutions are the Sustainable development Fund «Kazyna», Export Credit Corporation, Centre for Engineering and Transfer of Technologies, Centre for Market Research and Analysis and others.

Now country's investment potential is based on minerals and raw materials. Because their exploitation creates considerable part of the national gross product, the quality and extent of deposits utilization and the reproduction of raw material reserves play decisive role in the present and future of Kazakhstan.

KAZAKHSTAN HAS A POSITION IN THIS 21ST CENTURY GAME AS IT UNFOLDS. THE ENERGY SECURITY AS A KEY FACTOR OF THE INTERNATIONAL STABILITY IS ONE OF MAIN POLITICAL-ECONOMIC PRIORITIES FOR KAZAKHSTAN.

For example, it is supposed that exploitation of the oil and gas field Kashagan which is one of largest fields in the world will make Kazakhstan one of the major producers of hydrocarbons not only on the regional, but also on the international level.

Oil&gas sector of Kazakhstan has attracted almost all leading energy companies of the world, Total, Shell, Eni, ExxonMobil, BG, Lukoil, CNPC among them. According to certain estimates, Kazakhstan is going to attract in the nearest ten years US\$30 billion for development of its big oil fields, the country's economy will grow by 3.5 times. Moreover, net oil revenues for the state budget have already peaked US\$24 bln since 1995 until the end of 2006.

At the same time, Kazakhstan Government's top priority is to encourage foreign direct investments into industry, agriculture, innovation, processing sectors in order to decrease the dependence of the domestic economy on energy and extracting sectors, and to ensure continued growth of Kazakhstan's economy.

Aiming at attracting foreign direct investments Kazakhstan carries out the policy of ensuring stable macroeconomic environment and realizes

other measures which contribute to the improvement of investment climate in the country. The Government, the National Bank and development institutions pursue the coordinated policy directed to ensuring sustainable economic growth with low inflation rate and budget deficit not higher than it is envisaged.

Thus, Kazakhstan was constantly working on improvement of the investment climate.

The EU and the USA have recognized Kazakhstan, first in CIS, as a country with market economy in 2001 and 2002 respectively.

In October 2002 international rating agency Moody's upgraded Kazakhstan by two notches to Baa3, thus Kazakhstan has become the first country in the CIS to reach investment grade status. Standard & Poor's in 2004 upgraded Sovereigns rating to BBB/Stable/A-3. In October 2004 the Fitch upgraded Kazakhstan's local currency rating to BBB/Stable. In January 2005 the Organization for Economic Cooperation and Development (OECD) has upgraded Kazakhstan's country export risks rating, moving it from the 5th to the 4th group of risks.

Moreover, thanks to the sufficient level of stability of the domestic economy, financial crisis, exacerbated during autumn months of the last year, exerted an insignificant impact on the development tempo and investment attractiveness of Kazakhstan.

Experts say that Kazakhstan's economy has accumulated more than 80% of all foreign direct investments for Central Asian region, and the World Bank listed Kazakhstan among Top 20 of the most attractive countries of the world for investors. Thus, the annual value of the foreign direct investments, accumulated in 2006, grew up to US\$14.8 bln (+17,5% to 2005), so the total influx of FDI in the period from 1995 to 2006 reached US\$51.2 bln.

It is important that Kazakhstan, thanks to its economic progress, has become an investments' donor since 2003. The total value of Kazakhstan investments abroad exceeded US\$10 bln and continues to grow constantly. Most of them were assigned to Russia and other CIS countries, though Kazakhstan companies actively invest in Europe, Turkey and Israel. For instance, recently Kazakhstan State oil company KazMunayGas has bought 75% stake in Romanian oil company Rompetrol Group NV, which possesses several refineries and 630 filling stations in 7 European countries, for US\$2.7 bln.

In a close future Kazakhstan business is ready to invest approximately US\$2.5 bln in the economy of Kyrgyzstan, that is more than four times higher of the annual state budget of that Central Asian country, the equal investment will be invested in Russia, and about US\$1 bln – in Georgia.

Without doubt, such positive changes will contribute a lot to the further diversification of Kazakhstan economy, based on the investment openness, and to the process of finding of a real and sustainable balance within the way of economic development.

Energy geopolitics

Artyom Ustimenko



OIL AFFAIRS ALWAYS IMPLIED GEOPOLITICS, BEING A MIXTURE OF POLITICAL INVOLVEMENT AND STRIVING OF ACTORS FOR DEFENSE OF THEIR ENERGY INTERESTS. FRANKLY SPEAKING, IT IS THE MAIN FEATURE THAT SHOULD BE CONSIDERED AS A CONCEPTUAL BASIS OF EXISTING FORMS OF ENERGY RELATIONS BETWEEN COUNTRIES. MOREOVER RECENTLY GEOPOLITICAL ESSENCE OF OIL RELATIONS BECAME MUCH MORE EVIDENT.

Unfortunately, oil is concentrated only in certain regions in the global scale while substantial part of countries doesn't possess sufficient oil reserves that could have very harsh long-term consequences for their stability even as political entities. Access for oil for a majority of leading actor such as China, the USA, and the European Union is quite restricted and limited in reality, being based on external sources of it.

In fact that situation entails a complex of quite unstable consequences that are able to grow in importance in time to come. It also means that a political component in energy relations will dominate, complicating the whole range of issues. Modern structure of energy relations under conditions of strengthening of a global competition and an intensification of interdependence between countries and regions seems to be less stable and, that is why, more susceptible to growing energy-geopolitical threats of global and regional scale.

Oil is a heart of the economic development for any society still, and never matter backward or advanced one. Any serious consideration of energy or foreign policy must recognize that now, and for the foreseeable future, oil represents the life's blood of the international economic order. But recent trends show that global energy market becomes more and more unstable and volatile. The reason of it stems from a progressive depletion of oil reserves in some regions, like Mexican and Indonesian ones, and a constantly rapid growth of oil consumption throughout the world.

It should be recognized that the humanity doesn't invent any real substitution for oil yet. And it will not invent it in a close future, for sure. Biofuel and other so-called «breakthroughs» are not a genuine way out from the energy impasse.

A prolonged trend of increasing prices and supply volatility would severely restrain economic recovery in the United States, Europe and Japan. Oil shortages would be particularly



Kazakhstan

disruptive to stability in Asia, the area of fastest economic and oil demand growth. But oil reserves' depletion and consumption's growth are not the only problems, unwise geopolitical actions and strategies are much more important.

While such tendencies require mutual and coordinated response, some countries try to use a behavioral matrix that concentrated on their exclusive self-interest in an attempt to increase their «share» in the global energy sector. Energy component becomes more and more substantial driver in the global geopolitical balance. Nowadays we witness that unbiased tendencies for revision of global and regional rules of energy relations unfold. Intense competition for unimpeded access to the world's natural resources is continuing and is likely to increase greatly. Though, quite the contrary, it is necessary to achieve stability and security in that sphere in the frame of comprehensive and coordinated international approach to avoid tensions.

Oil and energy issues launched the situation when they are often positioned as a decisive factor for formulation of a real politics, global actors' conduct in the form of petropolitics. Some of those actors try to establish control over key oil-producing regions while others are ready to use the favorable situation to thrust their political priorities and principles of energy nationalism on others, to use the oil produced as an instrument for heavy pressure. Deepening tensions between importing and exporting countries can be seen and they contribute the strongest negative impact on the global energy relations environment.

Those tensions are stipulated by geopolitics, first of all, when zero-sum game is the only pertinent result for some states, although it poses risks and policy dilemmas that seem likely to intensify. The greatest risk is that this struggle will someday

breach the boundaries of economic and diplomatic competition and enter the military realm.

Essentially, we have moved from a world in which energy was sufficient to meet the needs of the world's major consuming nations to a world in which energy supplies are insufficient to satisfy global requirements, and that this in turn is going to affect the balance of world power. Thus, the current situation can impose a profound revolution in international energy and real politics affairs, representing a significant and permanent shift in that balance of world power.

Kazakhstan approach to energy geopolitics

Kazakhstan, without doubt, is situated not only in the epicenter of oil geopolitics but also in the region that is highly sensitive to any considerable geopolitical shift under the Great Game conundrum. Given the size of the Kazakhstan oil sector, the republic has a unique and critical role in that power game.

But Kazakhstan, from the very outset of the statehood, regarded geopolitics not in the terms of rivalry but as a suitable instrument for evolving cooperation and mutual interdependence. The reason is that only understandable, diversified and open oil policy can create favorable conditions for resolving the complex of problems and impasses which become apparent now. Kazakhstan will never take part in unjustified actions that can inflict damage on interests of other players of global oil market. And it has already evaded the direct impact of a great deal of unfolding geopolitical tensions around oil.

Kazakhstan leadership understands that only cooperative approach, free from any biased omission and innuendos, is able to promote strategic interests of both exporting and importing



**Kazakhstan
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the world.**

countries. While otherwise, very grim perspectives loom ahead.

That is why the energy security as a key factor of the international stability is one of main politico-economic priorities for Kazakhstan. The country has already become an important element of global energy infrastructure, and considerable part of the foreign policy of Kazakhstan is highly concentrated on solution of problems of stable and safe export directions of domestic hydrocarbon resources. It is important that Kazakhstan initiated some practical steps to improve a continental energy rapport, for instance, including proposal of Asian Energy Strategy and Asian Energy Dialogue, elaborated with a close involvement of KazEnergy Association, under the SCO structure.

Kazakhstan is in the midst of an oil boom that has made it one of the fastest-growing economies in the world. And its energy policy bases only on strict economic pragmatism and mutual approach. Kazakhstan builds a constructive energy interaction with the EU, the USA, Russia, China that clearly is guided by the principle of non-discrimination, and regards the latter as a main feature of any energy cooperation between states in spite of their potentially intersecting geopolitical objectives.

It is important to note that Kazakhstan strives to consolidate a balanced regional system of energy cooperation. As before, the republic intends to maintain relations with foreign investors in line with the earlier set effective and plain formula of mutually beneficial cooperation. The underlying element of this formula is to provide an opportunity to unrestrictedly participate in development of promising oil and gas fields, in return for respect of key national interests and aims of development of Kazakhstan.

Kazakhstan is blessed with an abundance of natural resources and the giant discoveries at Tengiz, Karachaganak and Kashagan have placed the country among top leaders in terms of worldwide oil reserves. Yet, Kazakhstan is still a country that remains relatively under-explored. So, at a time when new hydrocarbon resources are scarce and exploration is becoming more difficult and costly, the country is ideally placed for further exploration and growth. Peaceful and constructive cooperation is the only factor that is able to provide a sufficient impulse for it.

A major priority of the national energy policy that has a clear geopolitical tinge is to ensure stable and diversified supplies of hydrocarbons to international markets.

The current transit potential is exploited with due consideration of the multi-vector approach and with a view to maintaining the balance of interests of the major consumers of energy resources. Without it inadequate pipelines and port facilities can severely constrict the ability of Kazakhstan to increase production and exports, taking into consideration the fact that domestic production of oil will grow to 130 million tons to 2015.

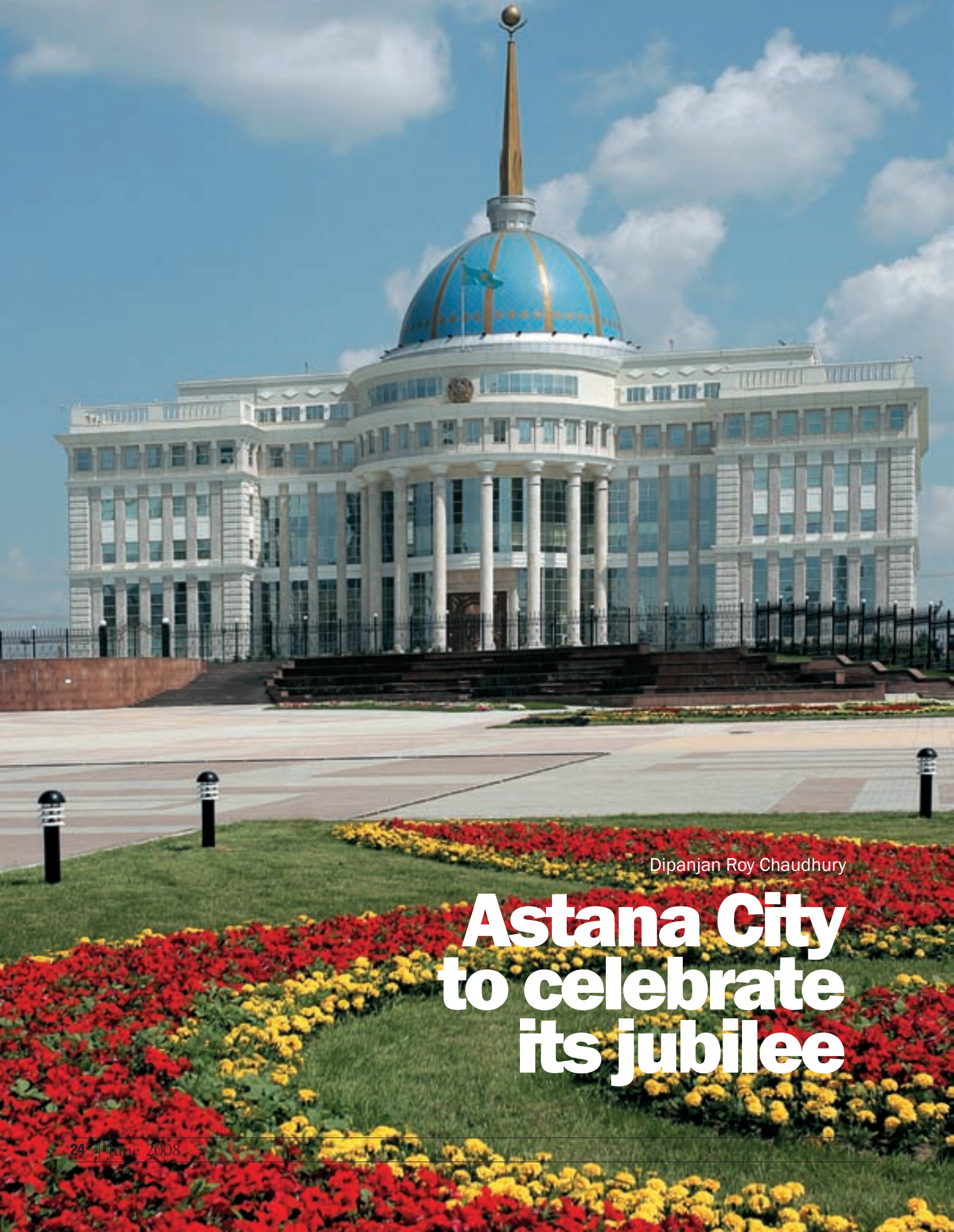
Until recently, all of the pipelines used to transport oil and natural gas from Kazakhstan went through Russia, which is itself an oil and gas producing state.

But now Kazakhstan can boast about quick tempo of pipeline diversification. Apart from the already existing export routes such as Atyrau – Samara and the CPC, there are new routes that are being shaped. Plans are afoot to join the Baku – Tbilisi – Ceyhan pipe; special importance is being attached to the Kazakhstan – China route, first phase of which is already in act. The country is not losing sight of possible transportation of energy resources to the South of Asia.

Thus, in a close perspective Kazakhstan will be able to provide its oil with a direct access to different markets, mitigating risks to energy stability and allowing neighboring countries to effectively secure their energy balances.



Working to keep you on the move



Dipanjan Roy Chaudhury

Astana City to celebrate its jubilee



From Astana with Love!

NOWADAYS KAZAKHSTAN IS WELL-KNOWN IN THE WORLD BY ITS HUGE OIL&GAS RESOURCES. BUT KAZAKHSTAN HAS ONE MORE FLAMBOYANT MIRACLE. IT IS A NEW CAPITAL OF THE COUNTRY, ASTANA CITY, WHICH UNDOUBTEDLY BECAME ONE OF THE LARGEST PROJECTS OF A CONTINENTAL SCALE. MOREOVER, ASTANA WILL SOON HOLD A LAVISH CELEBRATION TO MARK ITS 10TH ANNIVERSARY AS THE NATIONAL CAPITAL.

As is known, in the mid-1990-ies, Kazakhstan President Nursultan Nazarbayev took a wise decision – then unexpected for many, and yet fateful – to remove the capital from Almaty in the South to the very heart of that country, to a then-provincial city Akmola. And within a short period of time Astana, as Akmola was renamed afterwards, turned into an epicenter of economic, political and cultural life of Kazakhstani nation.

Astana has already contributed its «golden page» into the history of the young sovereign nation of Kazakhstan. Other countries have built futuristic capitals in its remote «outposts», Brasília most famously, and other cities have experienced feverish, transformational construction, like Dubai. But none have sprung up quite like Astana, from the ambition to create not only a national capital but also a national identity. Astana became a unifying idea for Kazakhstan people that helped to burst Kazakhstan forward in its economic development.

The Kazakhstan government believes the geographical location of the new capital, coinciding with the Pacific Ocean – Europe communications crossroads, will enable it to become a major transit hub. According to analysts' evaluations, significant investment will be attracted to that promising region. Kazakhstan is determined not to lose this opportunity. And this opportunity becomes reality.

Astana is already a magnet for investors, both domestic and foreign. Some \$13 billion has already been invested in Astana, though observers suggest that figure is a low estimate, primarily due to a flamboyant growth of private investments that are difficult to evaluate properly. A total of \$5 billion has been invested in the government quarter alone since the establish-

ment of a Special Economic Zone in 2002 offering tax incentives to investors.

Regardless of the cost, there's no disputing that Astana has experienced an intensive construction boom on a grand scale, and there is still several years to go: many major projects are due to be finished by 2012-13. Some 15 million square meters of construction is planned for the coming years. Interesting, that Astana's population has more than doubled since the move, to over 600,000, and it is estimated to top 1 million by 2020.

The capital of Kazakhstan has become the nod of international activity already. Remember just one of the most unique international events – the regular Congress of World and Traditional Religions, initially proposed by Nursultan Nazarbayev. Astana was awarded a special prize of UNESCO as City of Peace In July 1999. It also was highly evaluated by Moody's Investors Service in 2003.

It should be noted that world's most famous architects have been attracted to take part in the city conceptual design elaboration. That fact laid a cornerstone in a unique architecture to be built in Astana.

The original city plan was drafted by the prominent Japanese architect Kisho Kurokawa and has since been revised to a grander form. Manfredi Nicoletti of Italy has designed a concert hall. Lord Foster, the British architect, has now a new project that echoes his flamboyant Palace of Peace & Accord built in Astana earlier: a giant conical structure, bent as though blown by the harsh winds that are notorious there. It is known as the Khan's Pavilion. When completed, it will be a year-round trade-and-entertainment centre containing stores and theaters, a water park and seven acres of terraced gardens modeled on nothing less than the Hanging Gardens of Babylon.



Norman Foster has also designed the complex Abu Dhabi Plaza to include an 88-storey tower, hotels and a winter garden the size of a soccer pitch. But a visit card of the city considers to be a magnificent Bayterek monument.

The main idea of all those efforts is to create one of the best cities in the world, both for living and business.

But Astana is not only an architectural breakthrough. To ensure high competitiveness and leading position of Astana it has to be attractive for its inhabitants, investors, business people and guests. That is the main focus of its development now.

For this purpose Astana is to strive for strategic directions of its development, namely to ensure sustainable economic development, maintain favorable environment and sustainable infrastructure, establishment of socially sustainable urban community and improvement of municipal management system.

The aim to ensure of sustainable economic development implies enhancement of Astana reputation not only as an administrative centre of Kazakhstan but the city with the diversified economy, high participation of competitive private sector. Competitive economy, increase of working efficiency, extension of outlets, production of new goods and services will become the basis for improvement of quality of life that ensures high employment rate. That option creates favorable conditions for investments, especially from abroad.

Noteworthy that in a close future Astana is to become the centre for technological progress and exemplary civilized Kazakhstan community; capital city of the information community, i.e. national innovation centre. Under corresponding conditions it is possible to initiate new high tech and science intensive clusters on alternative energy and energy saving, biotechnology and medicine, information, telecommunication and electronic technologies. Major arrangements for competitiveness enhancement and creation of equal competition status are on the way now.

The world tendency of economic development today lies in transition from industrial and post-industrial type of development based on intellectual resources to knowledge-based and high technologies. Thus Astana City searches its competitive advantages primarily in economic diversification, utilization of intellectual resources. Innovation economic development implies both modernization of existing city and suburban enterprises and establishment of new high-tech, science intensive sectors with high value added.

Progressive high-tech production and innovative policy requires to accumulate manpower resources, prioritize education and science and build innovation system. That is why a suburban satellite science town of Astana will be found soon, with the large techno-park with the technical university, research centers and numerous small innovation enterprises, pulled into several clusters of information and telecommunication technologies, high tech and science intensive productions.

Astana authorities will amalgamate contiguous enterprises – with other related institutions – universities, research centers, techno-parks. In support of cluster development the municipality aims at making profit by companies' cost reduction resulted from cooperation and improvement of quality of life. Public and private research institutes, design bureaus, higher educational institutions and science and technology enterprises, state institutes of development financing private sector initiatives in non-primary sectors serve as basis for high-tech, IT, education and biotechnological cluster development in Astana. The focus will be made on building the science-intensive cluster to make Astana a Kazakhstan national center for sustainable production, technology, education and science intensive activities.

Thus in a close perspective Astana will totally transforms to a real breakthrough, innovative city in the heart of Eurasia, that creates a new level for future city-building and opens giant possibilities for foreign investors.

From Astana with Love!





From Astana with Love!



From Astana with Love!







1295.09	-0.54
767.89	0.01
700.33	1.34
4443.87	7.63
2916.60	-4.89
1112.11	-0.73
1787.63	8.49
1791.97	4.83
1295.09	-0.54
767.89	0.01

Transparency as a necessity of our time

TRANSPARENCY INITIATIVE IS ONE OF THE MOST IMPORTANT DEVELOPMENT ISSUES FOR KAZAKHSTANI OIL AND GAS PRODUCTION INDUSTRY AND, MOREOVER, FOR THE WHOLE NATIONAL ECONOMY.

Transparency of business relations, corporate activity, and other aspects of business is an exceptionally vital attribute for creation of an advanced climate of innovation, competitive and stable market economy and effective cooperation between private and public sector. Taking into account importance of the Initiative for the country KAZENERGY Association also is making a contribution to public dissemination and – what is more important – practical realization of the Initiative.

Effective transparency of business relations in Oil and Gas industry in particular is a result of long step-by-step process when in business environment and civic society “a culture of open dealings” is slowly being formed. Transparency implementation assumes not merely transparency of business relations but also transparency of business interaction with public authorities.

There is no need to bring excessive acceleration and pressure into a natural process of establishing such a culture. Referring to historical data Kazakhstan having quite recently acquired sovereignty has completely transformed its economic system having made a monumental move forward from command to market economy. Kazakhstan has become a nation with sufficiently open business and political relations – an achievement which in other countries has taken decades of hard work.

Transparency Initiative being implemented across the Republic is an evolutionary and voluntary means of consolidating code of transparency in Kazakhstan. Oil and Gas industry in this process acts as a vehicle which assures progress of the Initiative.

At the same time striving to transparency does not imply extremity. The theory behind economic transparency does not by any means suggest revealing “all” the information available concerning financial and other data about activities of a particular company. In a developed country objectively judged commercial secrets serve as foundation for business success. As a consequence it is very important to distinguish these two interrelated requirements: transparency and existing limitations on disclosing certain confidential information. EITI complies with this.

Taking into account experience of the developed countries we can identify fairly clear in which direction we should move and

how to develop further. Ideally, we must achieve such condition when a qualitatively new level of market transparency in Kazakhstan would be achieved not on account of routine implementation of state programs and memoranda but thanks to commonly recognized by all companies necessity to be open and transparent.

To achieve this we need to attract maximum number of market participants which in their activities would have been guided by uniform principles and methods of establishing transparency. However, EITI for private sector shall remain voluntary and participation encouragement shall be procured using financial stimuli. It is relevant to mention that the Initiative which provisions should not go against national interest of Kazakhstan is being implemented not only by the national companies but also by their international counterparts, by investors present in the Republic as well as by those representing transparency standards of European countries and USA. This is a key indicator which shows that responsibility for implementing the Initiative nationally is vested not only in Kazakhstan. In practice successful Initiative implementation depends to the large extent upon contribution of public authorities, national companies and foreign market participants. A dialog which is being conducted to this effect has proved successful thanks to among others efforts made by our Association.

Kazakhstan thanks to successful economic policy has moved a long way forward by comparison with other Initiative participants in making transparent its business relations on the whole. During the last years our nation according to most transparency indicators has fully complied with international standards which is evidenced by high level of trust of foreign investors.

In the nearest future in part thanks to EITI Kazakhstan will become an acknowledged example of business transparency not only in Central Asian region but in the whole world. To achieve this it is vital to coordinate and maintain cooperation between government and industry efforts targeted at supporting EITI and creating culture of transparency in Kazakhstani society.



Timur Kulibayev
Chairman of KazEnergy Association





Dear ladies
and gentlemen!

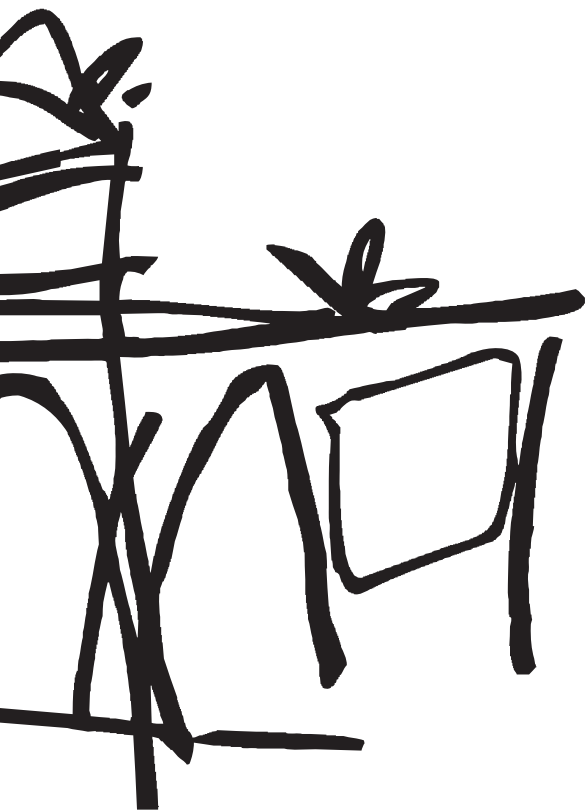
Let me extend my warmest greetings to you in connection with the remarkable event in the international energy industry, the 19th World Petroleum Congress.

Since its inception, the World Petroleum Congress organized through the efforts of the World Petroleum Council has undoubtedly become the largest event of a global scale to address a wide range of oil-specific issues. This is evidenced by the list of brilliant participants attending each congress and the significance of results achieved through their debates.

No doubt, this event will be of importance to global energy relations, and will help to further develop constructive interaction and collaborative work between its participants.

This year, Kazakhstan, through the Association KazEnergy, is also taking part in the World Petroleum Congress. In view of Kazakhstan's potential as one of the world's leading oil and energy players, its participation in such an outstanding event as this congress should be viewed as a breakthrough which will both further the interests of Kazakhstan and help achieve a greater extent of global energy safety.

I am sure that close cooperation will allow us to fully capitalize on the significant potential of partnership between Kazakhstan and other members of the World Petroleum Council. Finally, I would like to wish success and constructive discussions to all the participants and attendees of the congress!



KAZENERGY ASSOCIATION – A GATEWAY TO A NEW
LEVEL OF EFFICIENCY IN THE OIL-AND-GAS AND
ELECTRIC POWER INDUSTRY OF KAZAKHSTAN





Oil-and-gas and electric power industry is the main strategic resource of the economic development of Kazakhstan. It plays a key role in the implementation of the Kazakhstan national development programs through 2030 as well as the nation's plans to join the world's 50 most competitive countries.

KazEnergy Association was established on 2 November 2005 as an independent voluntary non-commercial union of oil-and-gas and electric power organizations and companies successfully operating in Kazakhstan. The Association includes more than thirty five members and partners.

The Association's activity is challenged to create favorable conditions for the dynamic and sustainable development of the energy sector of the Republic of Kazakhstan, and serves as an integrated "information harbor" for subsoil users, energy, transport specialists, consumers of products and services of oil-and-gas and electric power industry.

The projects and programs implemented by the Association contribute to the development of the dialogue between companies and organizations of oil-and-gas and electric power industry, state bodies and the community; create positive image of the Association and each of its members, promote economic, social, scientific and technical activity of the people of Kazakhstan.

Main Areas of the Association's Activity

- Representation of interests of the members of Association in executive and legislative bodies of state power and administration;
- development and implementation of target programs aimed at supporting entrepreneurship in oil-and-gas and electric power industry;
- organization of informational and analytical, scientific and research, innovational and technical work;
- work with mass media, educational and publishing activity;
- implementation of educational programs and participation in personnel training projects for oil-and-gas and electric power industry;
- development of international cooperation projects and assistance in attracting investments in oil-and-gas and electric power industry.

KazEnergy in numbers

- Enterprises of KazEnergy Association members account for over 37,5% of the combined industrial output of the Kazakhstan economy.
- Enterprises of the Association members account for 42.6% of export revenues of the country.

- Enterprises of the Association members account for 67% of the total export of crude oil and gas condensate from Kazakhstan.
- In 2007 enterprises of the Association members paid KZT 795 billion in the form of taxes and other mandatory payments, which constitutes 25% of the government budget expenses.
- Enterprises of the Association members employ about 80 thousand people, which is 11% of all salaried employees of the industry of the Republic.
- Enterprises of the Association members account for 12% tax proceeds of local budgets.
- Trade partners and consumers of exported crude oil and gas condensate of the Association members' enterprises are countries of Europe, Asia, America and CIS. Enterprises of the Association members export crude oil and gas condensate from Kazakhstan by pipeline, sea and railway transport.

Organizational Structure of the Association

The General Members' Meeting is the highest regulatory body of the Association.

The Association Members' Meeting sets priority directions of the Association's activities, formulates principles of asset building and management, approves membership in the Association, ratifies annual work plans and financial statements of the Association, and elects the Chairman of the Association.

The Chairman of the Association represents the interests of the Association and its members in state bodies, unions of legal entities, foreign and international organizations. He forms the Association Board and the Executive Committee of the Association.

The Board of the Association is the advisory and consultative body of the Association headed by the Chairman of the Association. The Board provides recommendations regarding current and planned activities of the Association, offers proposals on issues brought up by the Chairman, and considers applications of candidates in view of their compliance with the Association's aims and objectives.

The Executive Committee reports to the General Members' Meeting and carries out current activities of the Association, performs decisions of the Board, initiates and implements the projects and programs within the scope of the Coordinating Committees.

The Executive Committee's activities are managed by the **General Director**, who bears responsibility to facilitate the implementation of decisions of the Members' Meeting and the Chairman, and to provide annual reports to the Association Members' Meeting on the performed activities.

Coordinating committee on local content in investment projects

Regular participants: the Ministry of Energy and Mineral Resources of the RK, the Ministry of Industry and Trade of the RK, the Kazakhstan Contract Agency, Majilis deputies of the RK Parliament, the Kazakhstan Union of Industrialists and Entrepreneurs, large companies – subsoil users, foreign service companies and Kazakhstan producers.

Main areas of activity:

- Proposal for the RK Government on development of the State program to increase local content in subsoil use projects.
- Problem list program on increasing local content in oil-gas projects and recommendations regarding amendments to the RK law within the framework of Interagency commission on oil-gas and energy industry development.
- Proposals for the RK Government on development and approval of the optimum procedure of issuing certificates of origin of goods produced in the Republic of Kazakhstan for subsoil use operation on the territory of the country.
- Analysis of oil-gas sector demands for goods, works and services for the mid-term period (3-5 years).

Coordinating committee on energy industry development

Regular participants: the Ministry of Environmental Protection of the RK, the Ministry of Energy and Mineral Resources of the RK, UNDP Biodiversity conservation Fund of Kazakhstan, the Kazakhstan Association of nature users for sustainable development (KAPUR), UNDP in Kazakhstan, the Union of power engineers, ULE "Union of engineering companies of the Republic of Kazakhstan", JSC "KMG – Energo", major subsoil users – members of the Association

Main areas of activity:

- Proposal for the RK Government on creation of an ad-hoc enterprise to perform exploration works with participation of the Association members and the Committee for Geology.
- Monitoring and participating in the activities of an Interagency Commission on Energy Industry Development (initiated by the Association).
- Organizing broad discussions of vital aspects of activity of enterprises – members of the Association, including:
 - issues of environmental safety and influence of enterprises on environment.
 - improvement of mechanisms and methods of environmental control and management.-legal aspects of activity of the sector's enterprises.
 - power supply issue, condition of electric power facilities.
 - perspectives of petrochemistry, oil refining and utilization of oil gas, etc.

Coordinating committee on taxation and legislative processes

Regular participants: the Ministry of Economy and Budget Planning of the RK, the Tax and Customs Committees of the Ministry of Finance of the RK, the Taxpayers Association of the RK, the Association "Kazakh Union of Custom Declarants", members of the Association, representatives of the Foreign Investors Council, international auditing companies and others.

Main areas of activity:

- Participating in the Expert council on entrepreneurship under the Ministry of Finance (more than 20 draft laws and 50 resolutions of the Government were considered in 2007).
- Working out proposals and comments to the Majilis working group of the RK Parliament on a number of draft laws, including Transfer Pricing Law, Environmental, Labour and Tax codes, etc.
- Participation in analytical and working groups for working out draft laws, including Transport Code, laws "On the State control of application of transfer pricing", "On the State purchases", on making changes and amendments to some legislative acts of the RK on simplification of custom and tax procedures, to the RK laws "On concessions", "On education", "On administrative procedures" and "On competition and limitation of monopolistic activity", etc.

Coordinating committee on professional education and training

Regular participants: the Ministry of Education and Science of the RK, Center for Educational Programs of the RK MES, PE "The United Human Resources Development Centre", specialized institutions of higher education and technical schools of the RK, members and partners of the Association, international educational organizations, etc.

Main areas of activity:

- Implementation of KazEnergy Educational Program, including awarding of premiums, scholarships and grants to students of special schools and institutions of higher education; teachers' professional development; modernization of material and technical basis of educational institutions, creation of human resources database, etc.
- Comprehensive analysis of personnel training system for energy industry and working out recommendations for improvement of legal framework of secondary, higher and postgraduate education in compliance with the international standards.
- Participation in working group for development of the project of the State program for development of technical and vocational education, and in the committees on personnel certification in regional personnel training centers.
- Planning and development of procedures for state-private and other types of social partnership in training and retraining of personnel for oil-gas and energy sector.

Coordinating committee on extractive industries transparency initiative

Regular participants: the Ministry of Energy and Mineral Resources, Majilis deputies of the Parliament, the World bank branch in Kazakhstan, Kazyna Sustainable Development Fund, production companies, representatives of non-governmental organizations, auditing companies, "Energy Focus" Expert Bureau, etc.

Main areas of activity:

- Signing of the Memorandum of understanding on implementation of EITI in Kazakhstan.
- A comprehensive study of experience in implementation of EITI in Kazakhstan and other countries.-Selective polling of companies – members of the Association and analysis of data obtained on commercial confidentiality terms.



- Participation in the working groups: 1) on implementation and coordination of EITI commitments of the RK Government, and 2) on analysis and study of the necessity of making changes and amendments to the current legislation of the Republic on implementation of the Transparency Initiative.
- Participation in the EITI promotion activities in Kazakhstan.

Coordinating committee on information and reputation management

Regular participants: members and partners of the Association, local and foreign mass media, ministries and government agencies, representative offices and missions of international governmental and non-governmental organizations, wide public.

Main areas of activity:

- KazEnergy Magazine.
- Website www.kazenergy.com
- Participation in authoritative regional and international organizations.
- Organizing social polls among members and partners of the Association and analysis of data on social and environmental performance.
- Organizing seminars and roundtables to elicit and popularize the best practices of implementation of social-infrastructure, educational, environmental, resource-saving and other projects, technologies and methods.
- Regular meetings with mass media aimed at covering specific aspects of energy industry development, information network expansion, clarification of aims and objectives of the Association and proliferation of successful practices of the Association members.
- A separate media-section within the framework of KazEnergy Eurasian Energy Forum.

Terms and Conditions for Membership in KazEnergy Association

Membership and partnership is open for any legal entity, regional and branch union, association, public organization, fund, enterprise, other non-commercial and commercial organization, whose activities do not contradict to the aims and objects of the Association.

The admission to membership in the Association is approved by the resolution of the Association Members' Meeting upon acceptance of an official application addressed to the Chairman of the Association, and further approval by the Association Board and other administrative procedures.

Benefits of Membership in KazEnergy

The main goal of KazEnergy Association is to create favorable conditions for efficient work activity of all Association members, to facilitate a dialogue among all stakeholders culminating in the development of positive cooperation between the state and the business community, as well as the improvement of reputation of member-companies and industry sector in general. Actions of KazEnergy Association create positive synergy, when coherent collective effort produces quantitatively and qualitatively higher effects than those produced by the efforts of the same entities alone.

- Joining KazEnergy, the organizations will get great opportunities for active participation in decision-making related to protection of their interests and creation of favorable conditions of their activity, including:

- Joint discussions, including discussions at the level of the Government and Parliament of the Republic of Kazakhstan, and implementation of initiatives and recommendations of the Association with respect to improvement of legislation regulating the activity of oil-and-gas and electric power enterprises;
- Development and implementation of measures to strengthen the scientific, technical and production potential of oil-and-gas and electric power enterprises of Kazakhstan;
- Involvement in the state initiatives and measures aimed at the improvement of investment climate in Kazakhstan, increasing the efficiency of the sector;
- Practical contribution to resolving social and environmental problems and participation in other important initiatives countrywide;
- Securing assistance on legal, economic, organizational, managerial, and other issues in the form of consultations, scientific expertise, analytical and informational support;
- Promotion in mass media of economically and socially useful activities of the Association members, including coverage in a monthly information and analytical KazEnergy magazine and on the Association website www.kazenergy.com ;
- Exchanging information and participating in conferences, seminars, forums, and other events organized under the aegis of KazEnergy Association.

Members and Partners of the Association:

- Access Energo LLP
- Agip Karachaganak B.V.
- ANACO LLP
- ARNAOIL LLP
- Atyrau Oil Refinery LLP
- BG International Limited (Kazakhstan)
- Branch of Statoil North Caspian AS in RK
- Chevron Munaigas Inc.
- CNOOC Caspian (Kazakhstan) Limited
- ConocoPhillips (Phillips Petroleum Kazakhstan)
- ExxonMobil
- Exploration Production «KazMunayGas» JSC
- Group of the companies AES Silk Road Inc.
- Intergas Central Asia JSC
- Karachaganak Petroleum Operating B.V.
- Kazakh Institute of Oil & Gas JSC
- Kazakhstancaspishelf JSC
- KazakhTurkMunai LLP
- KazMunayGas-Service LLP
- «KazMunayTeniz» Marine Oil Company JSC
- KazRosGas LLP
- KazTransGas JSC
- KazTransOil JSC
- KEGOC JSC
- KMGCLLP
- KMG-Energo JSC
- KOREM JSC (partner)
- Lukoil Overseas Service Ltd.
- Merkury JSC
- NC KazMunayGas JSC
- PetroKazakhstan Kumkol Resources JSC
- Public Fund «Munayshy»
- Repsol Exploracion Kazakhstan S.A.
- Samruk-Energo JSC
- Shell Kazakhstan Development B.V.
- Tengizchevroil LLP
- TOTAL E&P Kazakhstan
- Trade House «KazMunayGas» JSC
- ULE «The Union of Engineering companies of the Republic of Kazakhstan» (partner)
- ULE Zhanar-Zhagarmai Association (partner)

III KazEnergy Eurasian Energy Forum





One of the most anticipated events – the III KazEnergy Eurasian Energy Forum – is to be held in September 2008 in the capital of Kazakhstan, Astana city.

It may be said without exaggeration that the Eurasian Energy Forum has become a new landmark in development of fuel and energy complex of the country. For the first time, an attempt was made to establish a constructive dialogue, to identify the problems of growth, and to outline the perspectives of further development.

September 2006, when the I KazEnergy Forum was held, became the starting point for ideological restructuring of enterprises of Kazakhstani fuel and energy complex, which later became the basis for development of new philosophic approaches to development, mutually satisfactory to society, authorities and business. The representatives of authority, scientists, heads of the largest enterprises of oil-gas and energy sector, and foreign experts were granted by an opportunity to discuss and give an answer to the question regarding the development trends of new projects and the ways to progress of Kazakhstani oil and gas complex.

It is KazEnergy that has become a dialogue platform which allows to have an equal conversation without avoiding the most problematic issues. “First economy – then politics!” – these words of the President of the country Nursultan Nazarbayev could have become a slogan of the Eurasian Energy Forum.

Having showed the initiative to carry out the forum, KazEnergy Association has chosen for itself a complicated mission to consolidate all experts in oil-gas and energy industry, and become a force determining the further development vector.

It should not be reminded that it is oil and gas sector that plays the role of “locomotive” of economy of Kazakhstan. On this basis, the forum serves the aim set by the head of the state, particularly, to Kazakhstan’s entering the level of the most competitive countries of the world.

HONORARY GUESTS OF II KAZENERGY FORUM



Karim Massimov,
Prime Minister
Republic of Kazakhstan



Marat Tazhin,
Minister of Foreign Affairs
Republic of Kazakhstan



Vladimir Shkolnik,
Deputy Head of
Presidential Administration



Adrian Van der Meer,
Head of EU Mission in
Central Asia



Ted Etchison,
Deputy Managing Director,
Eurasia Business Unit,
Chevron International E&P



**KAZENERGY FORUMS
EVOKE CONSIDERABLE
AND UNBIASED INTER-
EST FROM FOREIGN
BUSINESS CIRCLES IS A
DIRECT CONSEQUENCE
OF THE GROWN AUTHOR-
ITY OF KAZAKHSTAN AS A
LEADING OIL&GAS ACTOR
IN THE GLOBAL SCALE,
ALONG WITH A REAL IN-
CREASE OF AN INVEST-
MENT ATTRACTIVENESS
OF THE REPUBLIC, WHICH
BECAME BRIGHTLY APPAR-
ENT IN RECENT YEARS.**

But such a challenge should be preceded by an analysis of starting conditions. Indeed, one of the critical elements of each KazEnergy Forum is practical implementation of the outcome of debates and discussions to ensure the sustained development of Kazakhstan's oil and gas complex. This goal is being served by the calling of the Forum.

In fact, first and second KazEnergy Forums that were held in 2006 and in 2007 respectively, became the most noticeable congress events in Kazakhstan, devoted to specialized discussions on oil, gas and energy. Moreover, experts converge at the thought that the KazEnergy Forum has already moved out from national format, and gains features of the largest regional event. Confirmation of this is a thematic scope of Forum sessions, that includes discussions not only about national oil&gas and energy complex development, social responsibility and ecological issues, but also the most acute and urgent global problems that are somehow related to energy, oil and gas.

Traditionally, by collecting famous Kazakhstani and foreign politicians, experts and businessmen, among which are heads of ministries and institutions, top management of the world's largest oil and gas companies and national development institutions, forums provide the establishment of an effective dialogue platform, which allows participants not only to develop business relations, but to bring together positions between Kazakh energy market participants, government bodies and non-governmental public associations. Indeed, Kazakhstan's breakthrough to new world markets can be achieved only through joint activity of the state and business community.

For this reason, government bodies such as the Ministry of Energy and Mineral Resources of Kazakhstan, the Ministry of Foreign Affairs of Kazakhstan, and the Administration of the President of Kazakhstan, as well as leading oil and energy companies provide direct support to Forums.

Forum has allowed to create an additional practical impulse for development of Kazakhstan oil&gas and energy sector. It could be proven by Memorandums, approved in the end of each Forum, that include a wide complex of practical recommendations and way-outs for problem nodes.

For instance, I Energy Forum gave the possibility to establish Interagency Committee on development of oil&gas and energy complex that became a regular organ to support progress in Kazakhstan energy with representation of state ministries and agencies, domestic and foreign business. Great attention has been drawn to practical steps towards improving of ecology situation, strengthening of business social responsibility, Kazakhstan joining to WTO and many other important issues.



It can be said with certainty that the Forum has proven to be an advanced investment ground that fosters an investment openness of Kazakhstan in a real way. Just thanks to that fact a foreign representation in KazEnergy Forums is exceptionally high, moreover interest and commitments are spread both among foreign business and expert society.

The fact that KazEnergy Forums evoke considerable and unbiased interest from foreign business circles is a direct consequence of the grown authority of Kazakhstan as a leading oil&gas actor in the global scale, along with a real increase of an investment attractiveness of the republic, which became brightly apparent in recent years. In his last forum welcoming speech the Prime-minister of the Republic of Kazakhstan Karim Massimov has reasonably noted that the Republic of Kazakhstan, being a full member of the international community and global economy, was one of the centers of sustainable and stable development, especially in energy sphere. That is an impartial ground that is recognized both by state leadership and domestic and foreign investors.

Summing up, the Third Eurasian energy forum, without doubts, will be one more step in the process of establishment and consolidation of fruitful business contacts which give opportunity to successfully develop oil&gas and energy sector of Kazakhstan further.



REPSOL, S.A.



“We are a company oriented towards the customer and value creation, with a firm belief in technological innovation and committed to the environment and the community”.

Repsol is an international, integrated oil and gas company, operating in more than 30 countries and leader in Spain and Argentina. In terms of assets, it is one of the ten largest worldwide private oil companies' and leading private energy company in Latin America. Repsol is leader in refining and marketing in Spain and Argentina, and the third largest leading worldwide private company engaging in liquefied natural gas (LNG) distribution activities through its alliance with Gas Natural.

From Exploration and Production, to Marketing, Repsol is present in all business phases. Its oil and gas production totals more than one million barrels per day and its reserves are mainly located in North Africa and Latin America. Repsol has a refining capacity of more than 1.2 million barrels per day and sells its products through a large network of more than 6,800 service stations. In the Chemical business, the company is leading producer in Spain and Portugal.

Repsol Exploration, Production and LNG have activities in Spain, Argentina, Kazakhstan, Algeria, Angola, Bolivia, Brazil, Canada, Colombia, Ecuador, Guinea Equatorial, Guyana, Kenya, Liberia, Libya, Mexico, Mauritania, Morocco, Nigeria, Peru, Russia, Saudi Arabia, Sierra Leone, Suriname, Trinidad & Tobago, United States, and Venezuela.



OUR PRINCIPLES

OUR VISION:

“To be an international integrated oil and gas Company, perceived with admiration, and focused on customer service and value creation”

OUR COMMITMENTS:

1. to our shareholders
2. to our customers
3. to our partners and suppliers
4. to our employees
5. to our community

OUR VALUES:

- Ethical:**
1. Integrity
 2. Transparency
 3. Responsibility
 4. Safety

- Professional:**
1. Leadership
 2. Results-orientated
 3. Innovation
 4. Customer orientated



Contact us at: www.repsolypf.com

**REPSOL
YPF**



Commitment: our greatest source of energy

For this reason, in Repsol YPF we are carrying out a responsible and transparent project, which is committed to the community and sustainable development.

Our goal is to progress and continue innovating to bring you closer to tomorrow's energy.

Let's invent the future



**19TH WORLD
PETROLEUM
CONGRESS**

SPAIN MADRID 2008

**Repsol YPF, Host Sponsor
of the 19th World Petroleum Congress**



REPSOL EXPLORACION KAZAKHSTAN S.A.



“We consider Kazakhstan a priority country in our strategy for consolidation and growth in Central Asia”.

Repsol is involved in the Republic of Kazakhstan since 1998, when the Almaty office was opened for completing negotiations and managing the Baiganinsk Block located in the Aktubinsk province. In 1998, this block was awarded to the consortium that comprises Repsol (60% operator) and Enterprise Oil (actual Shell) (40%). After completing all requested acquisition and seismic processing in 2000, the drilling of two wells (Oymaut-1 & Koyantakyr-1) in 2002, and a final Geological & Geophysical evaluation in 2003, due to negative exploration results this Block was relinquished in 2004. As a contribution to the regional evaluation of the country potential, a complete geological study report of the Baiganinsk area was delivered to the National Geological Committee.

During its activity in Baiganinsk, and under the terms of the Subsurface Use Contract, Repsol contributed significantly to the development of the Aktobe social infrastructure and successfully fulfilled a training program for the Kazakhstan community.

During 2003 and 2004, Repsol Exploration in Kazakhstan together with KazMuaniGaz E&P, completed a joint geological and petrophysical study that included a reservoir model, in the Emba field area of the Pre-Caspian basin, under a cooperation agreement (MOU) designed to help the National Company to identify areas of improvement for production enhancement developments.

In 2004, Repsol Exploración Kazakhstan S.A. commenced a technical evaluation of the Zhambay project in the North Caspian waters. During 2005, commercial negotiations were completed, and in 2006, the contractual documents were signed for a 25% participation in the project. In 2007, The Ministry of Energy and Mineral Resources and the Anti-trust Authorities approved this transaction.



The Zhambay operation is a joint venture that comprises KazMunayGas (50%), Repsol (25%) and Lukoil (25%). Due to the extreme shallow water and severe winter conditions, this project represents a major technological challenge forcing innovative drilling technologies that comply with Repsol's strategic lines for environmental protection and conservation.

In 2008, Repsol completed the reinterpretation and reprocessing of the overall seismic and geological data available for the 2,187 km² of the Zhambay block, where two of the three main structures have been studied in depth, delivering Repsol a full report with drilling location recommendations to the involved party's.

The first exploration well is planned to be drilled in 2009, consequently the operations group within the joint venture company, Zhambai LLP, are fully concentrated in preparing feasibility studies for technical, logistic, drilling, safety and environmental aspects of the exploration, as well as the appraisal and eventual development of this project.

Meanwhile, Repsol Exploración Kazakhstan S.A. is in pursuit of consolidating other exploration opportunities in the Caspian offshore areas and related investments in Kazakhstan to create long-term business relations in the region, using our international knowledge and experience gained in Kazakhstan.



Miguel Corvalan L.
General Manager
Repsol Exploración Kazakhstan S.A.

«GREATER DEMAND FOR ENERGY, SUSTAINABILITY AND THE EXPECTATIONS OF SOCIETY WILL BE THE CORE OF THE 19TH WPC CONFERENCE IN MADRID, JUNE 29TH TO JULY 3RD.»



19TH WORLD PETROLEUM CONGRESS

SPAIN MADRID 2008

Repsol Host Sponsor

CHANGE YOUR MINDSET

ENERGY SAVING IS NOT ONLY THE RESPONSIBILITY OF GOVERNMENTS AND THE PRIVATE SECTOR, IT REQUIRES COOPERATION FROM EVERYONE.



In last KazEnergy Board of Directors meeting, the compromise between Electricity demand and investment to increase delivering capacity was discussed, but an important subject was raised: how can the community help in energy saving.

Each and every one of us can help to fight against energy waist, both in our home and in our places of work. We only need to make small changes to our daily routines. This will allow us to continue to enjoy the quality of life that we have always had and to help minimize greenhouse gas emissions at the same time.

By following these 12 simple tips compiled by Repsol to make our employees and community aware of the problem, you can help to reduce emissions and save a lot of energy, natural resources and money.

In the end, the small gestures are the ones that make the difference.



TURN OFF THE LIGHTS AND USE LOW ENERGY LIGHT BULBS

Turn off the lights in rooms when you are not there. It does not cost anything to do and can save a lot of energy. However, if you have fluorescent lights, it is best not to turn them off every time you leave the room unless you do not intend to turn them back on in around five hours, because the energy used every time that they are turned on is very high.

On the other hand, did you know that although low energy light bulbs seem to be more expensive, they actually work out to be cheaper in the long term? If you keep them on for more than 3.5 hours a day, you could cover the cost of the investment in just one year.

They last ten times longer than traditional light bulbs. You could also reduce your annual electricity bill by 60 euros for each low energy light bulb that you install. This means that you could reduce carbon dioxide emissions by 400 Kg a year.



UNPLUG CHARGERS AND DON'T LEAVE ELECTRICAL APPLIANCES ON STANDBY.

Once you have charged your mobile or cell phone, always unplug the charger. Did you know that even when it is not connected to the telephone, it continues to use electricity? If you leave your charger plugged in permanently, around 95% of the energy that it consumes is wasted.

Are you aware that if you watch television for a couple of hours and then put the TV on stand-by for the entire day, 40% of the energy used relates to the time when you were not watching? The same thing happens with all electrical appliances. Saving energy is as simple as pressing the off button.

Turn off your computer monitor if you are going to spend a lot of time away from your desk, and don't forget to turn the computer off at the end of the day.



USE ELECTRICAL APPLIANCES CORRECTLY

If you clean and correctly maintain your electrical appliances you can considerably extend their useful life and save energy.(1) Do not leave your fridge door open any longer than necessary and, if you are going to defrost any food, put it in the refrigerator or remove it from the freezer the night before. Similarly, do not

put food that is still hot directly into the refrigerator. Allow it to cool first and you will save approximately 6 Kg of CO₂ a year. (4)

Only use the dishwasher or washing machine with a full load. By doing so you can prevent approximately 45 Kg of CO₂ emissions per year. Also, if you dry clothes naturally instead of using a tumble dryer, you could reduce your CO₂ emissions by 280 Kg a year. (4)

If you need to change an electrical appliance or you are looking for a new one, remember to take its energy efficiency into account. Think of your requirements: do not choose appliances that are bigger or more powerful than you need. If you do, not only will you be wasting energy but you will also be wasting your money. (3)

In addition, high efficiency electrical appliances will help you to make significant savings on your electricity bill during the life of the appliance (3). Find out which are the most efficient appliances in your country.



TURN DOWN THE HEATING AND AIR CONDITIONING

Heating represents approximately half of the energy that we use in our homes. It is therefore important to know how we can reduce the level of consumption. Using a thermostat is the most practical way. A correct temperature in the home for winter ranges between 21 and 23°C during the day and between 15 and 17°C at night.

For every degree that you lower the heating temperature you could reduce your energy bill by between 5 and 10% as well as preventing up to 300 Kg of CO₂ emissions a year (1). You could also programme the thermostat to lower the temperature when you go to bed or when you are not at home, which will reduce your energy bill by between 7 and 15% (1). And remember, the same thing applies to your place of work.

Do not unnecessarily use the air conditioning. Remember that good ventilation can make you feel that the temperature has fallen by up to 3° C. If you decide to use the air conditioning, use the thermostat to set the normal temperature limits for summer (24-25°C). For every degree that you lower the temperature, the electricity consumption increases (and therefore the CO₂ emissions) by up to 10%.

You would be surprised by the amount of money you could save with a good insulation system. In addition, you will be helping to reduce greenhouse gas emissions. (1)



INSULATE YOUR HOME BETTER

If your home is not insulated, the heat from the heating system escapes through the roof, floors and walls. By insulating them correctly, you could save up to 50% of the energy used in your home. If you use high technology products you could even save up to 90%. You can also prevent more than 630 Kg of CO₂ emissions per house, approximately. (4)

The windows of a home are another area from which heat and energy can escape. By simply replacing the glass in the windows with double glazing you could prevent up to 350 Kg of CO₂ emissions per year. Remember that although you initially need to make an investment, your efforts will be rewarded as you could save up to 70% of the energy that you currently use. (4)

The same thing occurs in relation to insulating homes in summer: with good insulation you will need less energy to climatise the temperature in your home.



SAVING WATER SAVES ENERGY

Saving water also saves energy, because for the water to reach our house it needs to be pumped by electric pumps that also consume energy. (3)

If you have a shower, you use approximately four times less water and energy than when you have a bath. Keep the temperature between 30 °C and 35 °C, and you will find that its more than sufficient. (3) Also, if you install a low flow shower you can save up to 66% of energy and 230 Kg of CO₂ per person per year. (4)

Turn off the tap when you clean your teeth, as well as saving water, you will prevent approximately 3 Kg of CO₂ emissions per year. Also ensure that you correctly turn off a taps and that they do not drip. By doing this you can prevent around 20 Kg of CO₂ emissions. (4)

Remember that every little gesture counts to reduce emissions and save energy.



CORRECTLY MANAGE YOUR CONSUMPTION OF FORESTRY RESOURCES

Before you print any document or e-mail, think whether you really need to print it or whether it is sufficient to view it in electronic format. On many occasions, using the different screen views available on word processing programmes will be sufficient. You could prevent the emission of some 7 kg of CO₂ a month. (4)

In addition, if you need a new printer or photocopier, ask for one that prints on both sides (duplex system). By correctly setting up the printer you could print up to four pages on one sheet. By doing so, you'll save the energy used to produce the paper that you no longer need to use.

On the other hand, if you need to buy another piece of furniture or a wooden product, make sure that it comes from a sustainable source. You should know that unsustainable forestry practices, such as excessive felling or burning, contribute to deforestation which can cause almost 20% of the planet's CO₂ emissions (1), and contribute to the decrease in CO₂ absorption capacity.



BY RECYCLING YOU CAN HELP TO REDUCE CO₂ EMISSIONS

The majority of the products that we buy generate greenhouse gas emissions during their production or distribution process.

So, be a responsible consumer and minimise or re-use things as much as possible. (1)

In addition, if you recycle, you will also be saving energy. (3)

For example, recycling an aluminium can can save up to 90% of the energy need to make a new one. In other words, around 9 Kg of CO₂ emissions for every Kg. of aluminium. (1)

The same things happens with many other materials. Such as, approximately:

- For every Kg of plastic that is recycled you can reduce CO₂ emissions by 1.5 Kg;
- for every Kg of glass you will reduce CO₂ by 300 g;
- for every Kg of paper, 900g of CO₂. (1)



PURCHASE AND CONSUME INTELLIGENTLY

Consume products with less packaging: A 1.5 litre bottle, for example, requires a third of the energy for its manufacture and generates three times less waste than three half litre containers. It is therefore advisable to select products with less packaging. (1)

Avoid buying fruit and vegetables that are sold on trays and covered in plastic for example. (1)

Re-use your shopping bags. Using a re-usable bag instead of accepting a disposable bag in every shop is a way of saving energy and minimising the waste that we generate. (1)

Where possible, choose products that accept spare parts. (1)



AVOID SHORT CAR JOURNEYS

Are you sure that there is no alternative method of transport other than the car?

10% of car journeys in the city are less than 500m long, and 50% are less than 3 Km. Do you know how much time and money you could save if your were to walk, go on a bike or use public transport? Do you know how much you could reduce your CO₂ emissions?

When the engine is still cold, fuel consumption and CO₂ emissions are much higher (3). For every litre of fuel that is burnt, approximately 2.5 Kg of CO₂ is released. (1)

If you have no other alternative method of transport, why not share a car with various colleagues? (1)

The next time that you need to use your car, think twice, your health and the environment will both thank you for it.



MONITOR FUEL CONSUMPTION ON LONG JOURNEYS

Ensure that your tyres are always at the correct pressure. A tyre pressure that is 0.5 bars below the correct level will increase fuel consumption by approximately 2.5% to overcome the resistance. This will also increase CO₂ emissions by 2.5%. (1)

Do not carry an empty roof rack. Its weight and the wind resistance can increase fuel consumption and CO₂ emissions by up to 10%. Remove it when you are not using it. (1)

Use the air conditioning with moderation. When it is switched on, fuel consumption and CO₂ emissions can increase by around 5%. (1)

Watch your speed. Did you know that if you drive at more than 120 km/h you can increase your fuel consumption by 30% in comparison with a speed of 80 km/h?

On the other hand, you could use alternative methods of transport... or travel accompanied: If you travel alone in a car, you will produce three times the amount of CO₂ emissions per

Km. than if you had travelled by train (1). For example, if you travelled an average of 1,000 Km a year on a train instead of travelling alone in a car, you could prevent 130 Kg of CO₂ emissions a year. (4)

Travelling by plane generally produces more emissions than travelling by car, provided that more than two people are in the car. However, this can change depending on the car and on the passenger capacity of the plane. (1)



DRIVE INTELLIGENTLY

The way that you drive can have a big impact on the environment. First of all, plan your trip. If you allow enough time, you will not need to hurry and you will therefore reduce your energy consumption and emissions. For example, driving at 120 km/h instead of at 80 km/h represents an approximate increase of 30% fuel consumption.

When you start your vehicle, do not press the accelerator. Change gear as soon as you can. Did you know that fourth, fifth and sixth gears use less fuel? The higher the gear, the lower the fuel consumption. Try to keep at a constant speed and avoid breaking or accelerating brusquely. Turn off the engine when you stop.

By following these useful tips you could reduce your annual CO₂ emissions by up to 330 Kg (4). As well as helping the planet you'll be helping other drivers as you will be driving in a safer manner.

Similarly, if you are going to change your car and have been thinking about buying a conventional car, look at the fuel consumption and emission levels. (1)

- phytodesign of interior
- interior gardens, florariums
- floristic compositions and bouquets

REFERENCES

- (1) **You Control Climate Change**
Awareness campaign promoted by the European Commission.
http://ec.europa.eu/environment/climat/campaign/index_en.htm
- (2) **Cero CO₂: Initiative to promote care for the Climate**
Initiative promoted by Fundacion Ecologia y Desarrollo (Ecology and Development Foundation).
www.ceroco2.org/
- (3) **Practical guide to energy: Efficient and responsible consumption**
Institute para la Diversification y Ahorro de la Energia (IDAE - Institute for Energy Diversification and Savings)
www.idae.es/central.asp?m=p015060025&t=1
- (4) **Carbon calculator**
Practical Awareness campaign promoted by the European Commission.
www.mycarbonfootprint.eu/carboncalculator1_en.asp



Climate change

CLIMATE CHANGE IS RELATED TO TOP CHALLENGES FACED BY TODAY'S SOCIETY: ECONOMIC GROWTH AND ECOSYSTEMS PROTECTION.



REPSOL, S.A. outlook and goals

Climate change is one of the most important challenges faced by today's society. Risks associated with this phenomenon have an impact on global socio-economic systems and represent significant new barriers for the oil industry in the light of new regulatory frameworks, growing social expectations and ever-increasing pressure on companies operating within the energy sector.

In 2007 climate change remained one of the main concerns expressed by international public opinion. Proof of this can be seen in the interest surrounding the Fourth Assessment Report published by the Intergovernmental Panel on Climate Change (IPCC).

Within the current global energy context, characterised by a growing energy demand and, subsequently, for fossil fuels, commitment from the private sector and collaboration from governments and other international institutions are key factors when establishing the basis of an economy that needs to shift to a low-carbon model.

Repsol is well aware of the significance of this challenge and the company is convinced that those companies which can resolve the issues raised by climate change in the most efficient manner will be rewarded with success. This is of particular importance in the energy sector, where long-term business sustainability will largely depend on the ease with which companies respond to the new dilemmas faced by a society undergoing constant change.

These reflections, along with the search for solutions to reduce the carbon intensity of all the company's activities, have been a crucial aspect of Repsol's strategic planning for several years. The various scenarios raised by climate change, with their associated risks and opportunities, form part of the company's decision-making processes.

Repsol's lines of action are prepared in accordance with the strategic approach defined in the Carbon Plan, which includes all variables within the scope of the company's actions: activity on the emissions market, energy efficiency programmes, direct reduction programmes and the development of Clean Development Mechanism projects (CDM).

These activities are also supported by technological innovation programmes and the company's active, committed participation in the debate with public bodies and sector organisations in the search for joint solutions.

Climate change, part of our company's strategy

Repsol YPF has consolidated the strategy launched in 2002 with the publication of the company's Position on Climate Change, which has yielded excellent results. We took our first steps down this path at a time when there was great uncertainty surrounding the introduction of the Kyoto Protocol, and today, five years later, these doubts remain, making a well-defined strategy aimed at minimizing risks more crucial than ever. This strategy includes a range of tools based on actions to reduce direct emissions, technological developments and the use of market instruments, all geared towards meeting the company's objectives. Repsol YPF's priorities are marked by the milestones achieved by the Carbon Plan, renewed by the company yearly. The 2005 Corporate Responsibility Report established the target of reducing CO₂eq emissions by 1,000,000 tonnes by 2012, and the Plan's various measures are all aimed towards meeting this goal, which we will review in 2008. Furthermore, in 2007 we certified the greenhouse gas inventory of a significant part of our company under ISO 14064 standard. This certification gives credibility to the accuracy of our data, and allows us to continue making progress in the way we report our carbon footprint with maximum transparency. In 2007 Repsol YPF once again featured in the three most selective sustainability indexes: the Climate Leadership Index, the Dow Jones Sustainability Index (DJSI) and the FTSE4Good Index. With regard to the Climate Leadership Index, Repsol YPF has been declared 'Best in Class' for its strategy and policy of transparency regarding climate change. The company was also awarded the maximum score for its climate change management by the Dow Jones Sustainability Index, helping classify Repsol YPF as a "Gold Class" company in the oil and gas sector in the '2008 Sustainability Yearbook', prepared by PricewaterhouseCoopers and Sustainable Asset Management (SAM), the company which performs evaluations for the DJSI. In addition to this, in July 2007 the United Nations CDM Executive Board approved CDM AM0055, 'Baseline and Monitoring Methodology for the recovery and utilization of waste gas in refinery facilities'. The approval of our methodology represents an excellent opportunity for the rest of the companies within the sector, as it will be made available by the UN for all those companies interested in projects to recover flare gases at refineries located in countries not included in Appendix B of the Kyoto Protocol.

The company considers that measures such as those mentioned above show Repsol YPF's support of the Protocol's principles, encouraging the transfer of technology focused on reducing greenhouse gas emissions.

Cristina Sanz Mendiola
Executive Director of Resources, Repsol YPF

The role of the business community, key to combating climate change

Over the last year we have reached a tipping point in the debate over climate change with the IPCC and Al Gore receiving the Nobel Prize. The speed with which the debate evolves has caught many by surprise, but provides a good indicator of the attention the business community should be paying to this critical issue.

In many jurisdictions, businesses currently operate in a carbon constraint world, where the demands for mitigation and, increasingly, adaptation, are getting more stringent every day.

The Bali Action Plan, reached with some difficulty last December at the UN Summit, points out, among other things, the importance that society puts on addressing this issue as well as the challenge to reach an agreement.

But more importantly, it notes that the debate should be enriched with the participation of the business community. This clearly signals that governments expect businesses to take a large share of the burden, and provide solutions, which represents a dramatic shift from earlier days when companies were seen as part of the problem.

It also shows the large uncertainties that we continue to face addressing an environmental issue which has deep trade and competitive implications.

Addressing climate change is for many a regulatory requirement in a number of jurisdictions, number which is rapidly growing. While the EU has had EU ETS for few years, Australia is starting one, and US is expected to rapidly follow.

Finally, climate change cannot be seen in isolation, but in the context of energy safety. Addressing climate change effectively is not only an obligation, but makes good business sense and will be a competitive advantage for those who start early and learn how to extract maximum efficiencies. Even in the absence of a global agreement, companies will be expected to address climate change in an effective manner – lack of global framework will not be an excuse for lack of action at the business level.

Andrei Marcu
Director, Energy and Climate – WBCSD
(World Business Council for Sustainable Development)



Climate change at the highest levels of decision-making

Strategic decisions on climate change are taken at the highest levels of the company.

Senior management is responsible for defining and approving policies, setting strategies and identifying annual objectives with regard to climate change. Additionally, since 2005 the Audit and Control Committee of the Board of Directors has guided the company's environmental policies, directives and objectives, including those related to climate change.

It is important to note that greenhouse gas reductions objectives are part of the annual objectives of the majority of Repsol employees who have target-based variable remuneration schemes.

Repsol also considers the most relevant climate change issues when making decisions on new projects and commercial activities, including but not limited to asset acquisition or exchange, mergers, alliances or joint ventures. These issues are included in the new environmental and safety due diligence regulation, approved in 2007 and applicable to the company's worldwide operations.

As part of its framework for operational risk management, the company also has models to measure risks associated with climate change.

Carbon Plan

The Carbon Plan is the tool used by Repsol to deploy its strategy for a global and integrated management of its carbon portfolio in all its operations. This strategy is based on efficient and coordinated use of all available mechanisms for reducing emissions of greenhouse gases (GHG), contributing to the search for solutions to the problem.

The company's main lines of action are as follows:

- Acting in the European and international emissions markets.
- Catalogue of Emissions Reduction Opportunities (CERO)
- Development of internal Clean Development Mechanism (CDM) projects

Market activity

Emissions trading is one of the central principles on which Repsol's carbon management strategy is based. The company actively participates in the European market, under the European Union Emissions Trading Directive 2003/87/EC, and in the international market. As the markets have matured over the year, the company has increasingly diversified the commodities it sells, and has started to carry out transactions with secondary ERCs (Emission Reduction Credit) in 2007.

This market activity includes investment in International Carbon Funds, which carry out CDM projects in developing countries, in projects related to energy efficiency, renewable energies, waste management, changes in fuels and other initiatives, all in line with the company's policy to promote global action against climate change. With this investment, Repsol participated in various projects in 2007, including a wind energy generation project in the state of Oaxaca (Mexico) and another to capture landfill methane in northern Egypt. Both projects offer benefits in terms of technological transfer and sustainable development, creating employment and reducing environmental impacts in their respective communities.

Catalogue of Emissions Reduction Opportunities (CERO): energy efficiency programmes and direct reduction projects

Repsol has a Catalogue of Emissions Reduction Opportunities (CERO) where all the company's businesses actively contribute to identify internal GHG reduction opportunities.

The CERO includes two main types of reduction activities at the company's facilities:

- energy efficiency programmes at industrial facilities.
- specific programmes for direct emissions reduction.

In 2005, Repsol made a public commitment to reducing its GHG emissions by 1 million tonnes of CO₂ equivalent between 2005 and 2012, compared to the business as usual scenario.

During 2007, the company reduced its CO₂ emissions by 274,092 tonnes compared to the business as usual scenario, exceeding its annual reduction target of 150,000 tonnes of CO₂ equivalent. This decrease has been possible thanks to specific consumption and reductions projects implemented in the company's refining activities, as well as other projects such as improvements to the power factor in 2007 in Block 16 exploration and production activities in Ecuador.

It is important to note that 187,568 tonnes, 68% of total reductions quantified during the year, have been verified in line with standard ISO 14064.

Another action carried out by the company to identify reduction opportunities are energy efficiency audits at its facilities. Particularly noteworthy in this area is the audit carried out in 2007 in the La Coruña refinery's Downstream division, as well as those performed in the first few months of 2008 in the Upstream division in Trinidad and Tobago and Las Heras and Mendoza in Argentina.

ISO 14064: moving forward in carbon footprint transparency

As part of Repsol's Carbon Plan, the company has decided to undertake the verification of its corporate greenhouse gases inventory and GHG reduction focused initiatives under the ISO 14064 standard. As a first step towards achieving this ambitious objective, in 2007 Repsol verified the CO₂ inventory for the Refining and Chemicals divisions in Spain and Portugal (52% of the company's total inventory), as well as the activities directed at reducing consumption and specific measures in refining activity in Spain.

Standard ISO 14064 details the specifications and tools required on a global company and project level to validate and verify GHG emissions, specifying the requirements to design and develop GHG inventories and the way in which emissions should be quantified, monitored and reported.

Repsol considers that by adopting this standard:

- Consistency, transparency and credibility towards stakeholders will be guaranteed in the GHG quantification, monitoring and reporting processes.
- The identification and management of GHG-related risks and opportunities will be improved.
- Methodologies for the design, development and implementation of GHG emission-reducing opportunities and programmes will become more standardised.
- The development of baselines for those facilities likely to undertake CDM projects will be guaranteed and given added credibility.

The GHG Report, which includes detailed information on verification of the inventory and all reduction activities, has been prepared by Repsol in line with standard ISO 14064-1, and is available on the company's website.

Clean Development Mechanism (CDM) projects

Repsol considers that Clean Development Mechanisms (CDMs), within the framework of the Kyoto protocol's flexible mechanisms, are an efficient way to transfer technology and to encourage the search for and implementation of reduction projects to meet targets.



As part of the Catalogue of Emissions Reduction Opportunities (CORE), the company is committed to identifying and developing CDM projects and has established a clearly structured sequential analysis process to do so. This process is split into four stages and all reduction opportunities detected are treated as potential reduction projects, and the possibility of treating them as CDMs is assessed.

Of note in 2007 was the United Nations CDM Executive Board's approval of the first methodology submitted by Repsol, based on a project to recover flare gas at the La Plata Industrial Complex in Argentina.

Working towards joint solutions

One of the key lines in Repsol's strategic approach to climate change is participation in the debate with public authorities and sector-based organisations on the search for solutions. Of particular note is the company's active participation in working groups created by IPIECA, ARPEL and IETA. Furthermore, in 2007 the company also participated in the Fundación Entorno-BCSD España's Climate Change and Energy working group, along with

19 other Spanish companies. This group aims to act as a multi-sector platform for analysing solutions and alternatives for energy sustainability, and to encourage joint debate on how to tackle a sustainable transition to a low-carbon economy.

During the year, the "eCO2nomía. Liderazgo empresarial hacia una economía baja en carbono" ("eCO2nomy. Business leadership towards a low-carbon economy") document was published, allowing the working group's member companies to raise social awareness on the importance of energy sustainability and mitigation of climate change as part of business strategy.

'Caring for Climate': Repsol forms part of the Global Compact's business leadership platform

A joint declaration and a new initiative ('Caring for Climate: the Business Leadership Platform') were published to coincide with the United Nations Global Compact Leaders Summit held in Geneva in 2007. Repsol signed the declaration, giving full support to the new initiative.

'Caring for Climate' is a voluntary and complementary platform for those Global Compact participants who show their leadership in combating climate change, creating a benchmark in the search for practical solutions within the business world and contributing to shape and develop efficient global public policies.

This is a unique initiative representing a clear commitment to action and transparency from the business world, and a call to governments for collaboration with the private sector. Business leaders, including Repsol, have committed to the collaboration in joint initiatives between the public and private sectors.

R&D activities and innovative solutions

In addition to the reduction programmes described above, Repsol is also committed to developing new technologies that involve fewer GHG emissions (see the chapter on "New energy challenges").

Particularly noteworthy is the CO₂ capture and storage research in which the company is actively involved.

New National Allocation Plan 2008 – 2012

In January 2005 the European Emissions Trading Market was implemented, governed by the European Emissions Trading Directive 2003/87/EC. This market is only applicable to CO₂ and specifically to those emissions generated by certain industrial sectors, including oil refineries and electrical energy generation installations with more than 20 MW of power.

Each member state must prepare a National Allocation Plan (NAP) to determine the free emission rights allocated to the industrial facilities included within the Directive. The first National Allocation Plan covered the period from 2005 to 2007. In 2007 and during the first few months of 2008, the European Commission approved the second round of National Allocation Plans for 2008-2012 and, subsequently, the Spanish and Portuguese NAPs were approved by Royal Decree 1030/2007 and Order 2836/2008, respectively.

In 2007 the European Commission also approved Decision 589/2007, which replaces former Decision 156/2004, defining the monitoring and reporting methodology for greenhouse gas emissions. In the third quarter of the year Repsol YPF evaluated and implemented all necessary modifications relating the new regulation, submitting them to the relevant authorities for approval.

2008-2012 Allocation for Repsol (tonnes)

	Allocation 2008-2012	Average annual allocation
Refining - Spain	52,847,936	10,0569,587
Chemicals - Spain	5,993,300	1,198,660
Total Allocation Spain	58,841,236	11,768,247
Chemicals - Portugal	5,159,970	1,031,994
Total Allocation Europe	64,001,206	12,800,241

Throughout 2007, Repsol has continued to create internal and external knowledge networks for CO2 capture and storage (CCS), through the formation of a CCS Interest Group including the company's different businesses, the Technology Division and the Climate Change Unit. The company has also participated in consortiums such as Carbon Capture Project (CCP2) , IEA GHG, CO2NET, working groups organized by CONCAWE and OGP and the Spanish CO2 Technology platform.

Work also began on a study into CO2 capture and storage costs for several Repsol's industrial units, and the company continued its involvement in the CASTOR, CCP2 and TOPCOMBI projects, which tackle the development of technologies and methodologies for the different stages of a CCS project.

Information on Greenhouse Gas Emissions

Following the GHG reporting guidelines of IPIECA, API and OGP, Repsol reports direct CO2 and CH4 emissions and indirect CO2 emissions.

The company's direct greenhouse gas emissions inventory is based on two approaches:

- i) Inventory based on operational control criteria, following the general reporting criteria contained in this Corporate Responsibility Report (see the 'About this report' section) – in other words, including those subsidiaries in which Repsol YPF has a majority shareholding and/or operational responsibility. Emissions from facilities located within the European Emissions Market have followed the terms of Directive 87/2003 and the approved inventory methodologies.
- ii) Inventory based on equity control criteria, whereby emissions from company activity are recorded in line with the amount of shares Repsol holds in each of the companies.

Direct emissions

Emissions from facilities with operational control

(Millions of tonnes) (operational control criterion)	2003	2004	2005	2006	2007
CO ₂	21.337	21.633	23.116	23.776	24.296
CH ₄	0.124	0.104	0.146	0.152	0.148
CO ₂ equivalent	23.947	23.829	26.190	26.964	27.403

As changes are made to the structure of the company's assets, prior years' emissions must be adjusted to establish common bases for comparison over time that subsequently allow trends in emissions to be determined. Base-line change criteria are included in the "Oil industry guidelines for reporting greenhouse gases" (API/IPIECA/OGP).

For the first time in 2007, the company's GHG inventories included CO2 flare emissions at the Tarragona, "General Química" and "Química Santander" chemical plants. CH4 emissions, generated by vented gas from tanks due to

In 2007 CO2 equivalent emissions increased by 1.6%, the lowest rise in the last three years.

CO2 emissions have risen by 2.2%, with growth concentrated in Upstream activity, mainly in Mendoza, Argentina (0.209 million tonnes) due to increased venting in certain oilfields, as well as in the Block 16 area (0.07 million tonnes) as a result of increased production and a change in the type of fuel used. Emissions have also risen in Downstream activity, albeit to a lesser extent, specifically in the La Plata refinery in Argentina (0.129 million tonnes) and the chemical industrial complex in Sines, Portugal (0.114 million tonnes) due to the increase in production.

Nevertheless, the intensity of CO2 equivalent emissions from the company's refining activity has fallen by 2% on 2006 figures, due to the activities carried out on reducing consumption which resulted in a 0.261 million-tonne reduction.

Emissions from facilities based on equity control criterion

In this case, Repsol reports greenhouse gas emissions from its activities in accordance with the proportion of shares it holds in each installation. Based on the aforementioned criteria, in 2007 these activities produced a total of 29.07 million tonnes of CO2eq.

Indirect emissions

As well as direct emissions, Repsol also reports indirect emissions on an annual basis, resulting from the company's own activity but produced by sources owned or controlled by third parties. There are two main kinds of indirect emissions within this category:

- Emissions associated with energy purchases (electricity or steam) from external sources. In 2007, these emissions totalled 1.83 million tonnes of CO2 eq.
- Emissions from the production and transport of imported hydrogen for the company's oil refineries and chemical plants. In 2007, 0.75 million tonnes of CO2 eq were recorded.

Energy consumption

The attached table shows historical trends in fuel consumption, purchased electricity and the company's total energy consumption.

	2003	2004	2005	2006	2007
Fuels (Millions Ton.)	6.07	6.44	6.46	7.04	7.23
Electricity (10 ⁶ MWh)	3.69	3.70	3.84	3.70	3.88
Total Energy Consumption (10 ⁶ GJ)	283.73	294.25	294.54	324.49	344.53

Energy consumption in 2007 has risen by 6% compared to 2006, mainly because of increased fuel consumption in Downstream (Spain and Portugal) and Upstream (Argentina and Ecuador) activities, as discussed in the section on "direct greenhouse gas emissions".



the loss of flash pressure, in the Las Heras E&P field in Argentina, were also included, as well as the CO2 and CH4 emissions from pipelines operated in Argentina, which had previously not been included. Bearing this in mind, emissions for years prior to 2007 have been adjusted (up to the base year of 2003).

Climate change:

climatechange.repsolypf.com

The Intergovernmental Panel on Climate Change (IPCC):

www.ipcc.ch

World Energy Outlook: www.worldenergyoutlook.org

European Climate Exchange (ECX):

www.europeanclimateexchange.com

2008-2012 National Allocation Plan: eurlex.europa.eu

United Nations Framework Convention on Climate Change:

unfccc.int/2860.php

The International Emissions Trading Association (IETA):

www.ieta.org

Emission Trading Scheme (EU ETS):

ec.europa.eu/environment/climat/emission.htm

ISO 14064 and other ISO standards: www.iso.org

United Nations Global Compact Caring for Climate:

www.unglobalcompact.org/Issues/Environment/Climate_Change

JSC KazMunaiGas Exploration Production (KMG EP) was created through the merger of JSC Uzenmunaigas and JSC Embamunaigas in March 2004

Unity Development

KMG EP is the 2nd largest oil producing company in Kazakhstan taking into account its stakes in JV Kazgermunai LLP and CCEL (Karazhanbasmunai)

KMG EP is developing 46 fields in Western Kazakhstan, the largest being the Uzen field - in production since 1965

Power

At the end of 2007, proved plus probable oil reserves were estimated to be 240 million tonnes (1,8 billion barrels)

Potential

Experience

KMG EP can boast about over 100 years of experience of oil production in Kazakhstan

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Energy,

moving forward

www.kmgep.kz

Squeezing more energy from rock

With world energy demand rising, improved geologic and engineering techniques help boost production in mature oil and gas fields.

Story by Thomas L. Torget

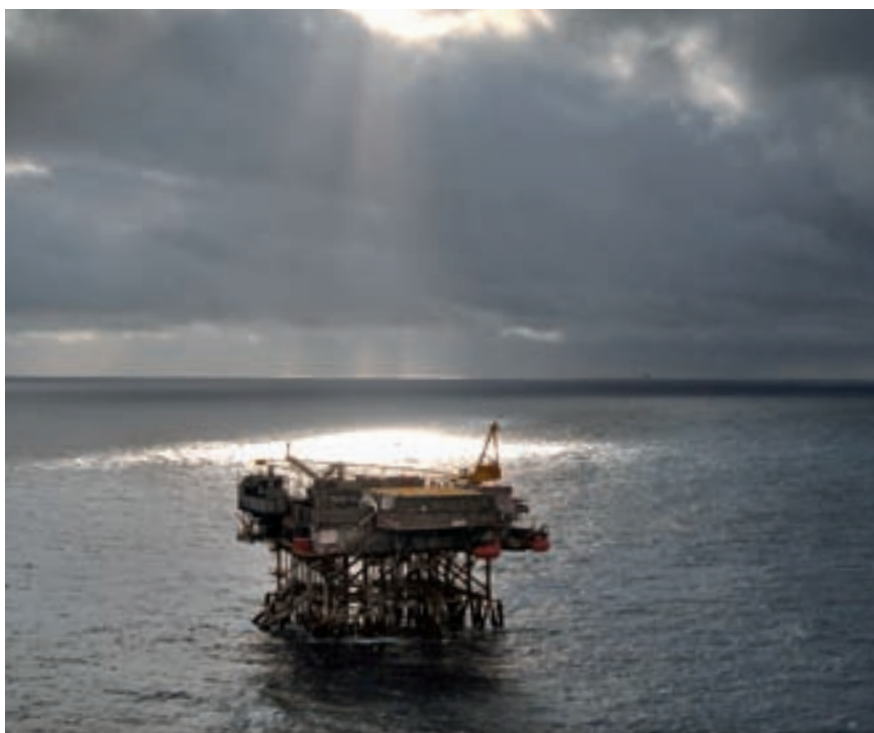
► In an address to the 20th World Energy Congress in Rome in November 2007, ExxonMobil Chairman Rex Tillerson stressed the importance of innovation and creativity in meeting global energy challenges. One of the many ways the company is applying those attributes to increase oil and gas supplies in the United States and elsewhere is by using advanced geoscience and engineering techniques to find more hydrocarbons in existing fields and bring that untapped energy to market.

That can be a daunting task because most oil and gas reservoirs achieve peak daily output within a few years of first production. As fields mature, production declines.

Depending upon a reservoir's geology and other factors, secondary or improved recovery techniques such as injecting water or natural gas into a reservoir may be used to retard or even reverse the decline. Water and gas injection can raise underground pressures and push oil through rock toward a producing well bore, increasing oil or gas recovery by up to three times what could be captured by the producing wells alone.

Sometimes hydrocarbon resources lie untapped near the producing fields because it's not known they exist or because the technology isn't available to produce them economically. But ExxonMobil geoscientists and engineers are finding new ways to bolster production in mature fields that have long been in decline.

"We've developed techniques that can rejuvenate a field after primary and secondary recovery efforts have done all they can to maintain output," says Jonathan Acton, manager of global geoscience coordination for ExxonMobil Production Company. "It's exciting to see a field's output rise significantly after it's been in production several years and is well past its prime."



At the Halibut Field discovered in 1970 offshore southeast Australia, Esso geoscientists and engineers have recovered previously untapped oil reserves and boosted peak production in 2007 to more than four times the 2006 level.

Photo by John Krutop

Success in Gulf of Mexico

One such field is West Delta 30 (WD 30), formed by a large salt dome offshore Louisiana. Exxon discovered the field in the 1940s, and production began in 1955.

"West Delta's production peaked in the 1970s at about 40,000 barrels of oil per day, along with associated natural gas," explains Production's Pete Hutt, offshore geoscience supervisor. "By the 1980s, the field was mature, and production declined steadily during the next 20 years. By 2000, production had fallen to about 10,000 barrels a day."

But that would soon change. In 2001, ExxonMobil commissioned a new high-resolution 3-D seismic survey of West Delta 30. This new information was processed using state-of-the-art technology developed under the

direction of ExxonMobil's Upstream Research Company. When company geoscientists compared the updated information to older seismic data of the field, they identified several areas containing additional hydrocarbon-bearing rock.

"Some of these were above our existing producing zones, and some comprised reservoirs that we never knew existed," says Hutt. "That's because the older seismic technology wasn't nearly as sophisticated as what we have today. With 3-D seismic, we can understand the detailed geology much better than before. And that translates to opportunities to drill new wells to bolster production in mature fields."

Guided by such new geologic information, ExxonMobil geoscientists and engineers developed plans for

six new production wells in WD 30, targeting gas sands below the previously produced oil reservoirs. Drilling took place between 2002 and 2006 and caused a dramatic increase in daily production, which rose to nearly 25,000 oil-equivalent barrels from the previous level of 10,000 barrels. The introduction of this new gas production at a mature oil field also required significant improvements to the associated facilities.

“The WD 30 ‘E’ platform was installed in 1952, and we more than doubled its gas dehydration capacity and added new separation, pipelines and metering stations,” says Scott Allman, projects technical advisor for ExxonMobil Production. “There were challenges integrating these new components into the older infrastructure, but our facilities-engineering and structural-integrity experts helped us design and complete a successful project.”

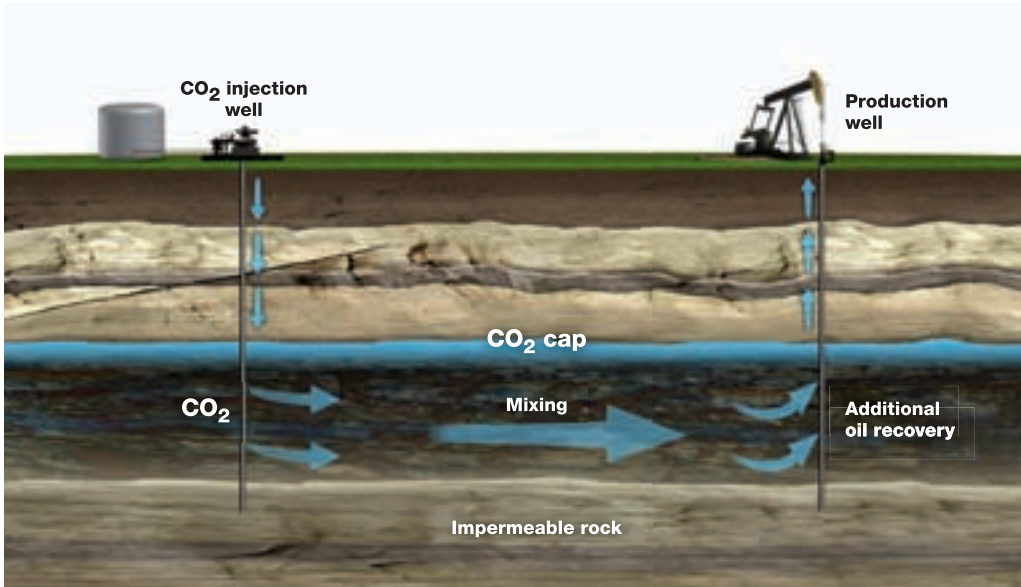
“It was a team effort,” adds Hutt, “involving expertise from geology to engineering to drilling to operations. That cooperation enabled us to give new life to a field that was in serious production decline.”

Impressive results in Nigeria

The Enang Field offshore Nigeria is an ExxonMobil affiliate-operated joint venture with the Nigerian National Petroleum Corporation. The field was discovered by Mobil in 1968, and oil production began in 1974. Output peaked in 1978 at 40,000 barrels a day. By year-end 2006, production had declined to 20,000 barrels a day.

“Geologically, Enang is a complex field,” says Roger Head, geoscience project manager for Mobil Producing Nigeria. “We reprocessed our 3-D seismic data to better understand the geology. We believed there were drilling opportunities in the field that we had not yet identified, so the technical team began a detailed integrated study of the field.”

Andrew Ejayeriese, geoscience supervisor in charge of the Enang Field, and his colleagues worked with scientists at ExxonMobil Upstream Research Company. Using a rigorous process called Reservoir Connectivity Analysis (RCA), company geologists and engineers were able to understand how and why the Enang Field behaves as it does. A multifunctional team in Nigeria and Houston worked together to identify



One method of recovering more oil from mature fields is to inject CO₂ into the formation. The highly pressurized gas forces the untapped oil through openings in the rock to waiting extraction wells.

Illustration by Patrick Gabriel

opportunities for new drilling and for optimization of existing wells.

“Based on the RCA study, we drilled five new wells beginning in early 2007, increasing production to 34,000 barrels per day, which is 14,000 barrels greater than what the field had been producing. We’re quite pleased with these results and plan to drill more wells,” says Ejayeriese.

New life offshore Australia

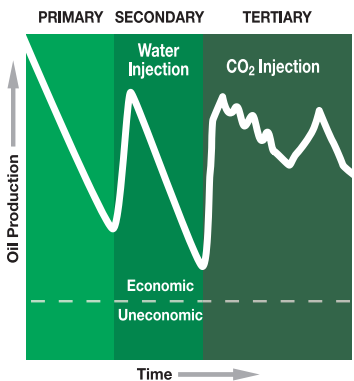
The Gippsland Basin, in the Bass Strait offshore southeast Australia, is a long-established oil and gas production area. In 1967, Esso Australia discovered the Halibut Field in Bass Strait. Production began in 1970, and daily output peaked the following year at about 200,000 barrels. This field has world-class reservoir sand with a recovery factor of 83 percent. However, after delivering more than 850 million barrels of oil, by late 2006 production had declined to 4,500 barrels per day.

Using new tools such as improved seismic data recording, processing and analysis, as well as technology that has enhanced drilling reach and accuracy, Esso Australia geoscientists and engineers developed plans to recover previously untapped reserves.

“In 2007, we’ve drilled six new production wells at Halibut,” says Adem Djakic, Esso Australia’s production project manager for Gippsland geoscience. “With these wells, we’ve significantly increased production. Soon after drilling was completed, output reached 20,000 barrels

a day, more than a fourfold increase from the prior level. Since then, as we anticipated from our analysis, production has settled at a new base of nearly 8,700 barrels per day.

Stages of production



All oil and gas wells will reach a point when they become uneconomic to operate, but water and CO₂ injection can extend a well’s producing life.

“It’s an approach that has allowed us to identify new targets within reach of many of our existing Bass Strait platforms and also to go back over older areas to identify and extract more oil and gas. As a result, we have extended the life of Australia’s largest and oldest offshore oil fields to beyond 2020. All in all, that’s a lot of value added.”

Today, ExxonMobil’s efforts to extend the life of mature production fields in the United States, Africa, Australia and at other worldwide locations is more important than ever as energy demand continues to grow.



Social Responsibility of Business: National Company KazMunayGas

CORPORATE SOCIAL RESPONSIBILITY WAS, IS AND WILL REMAIN ONE OF
THE KEY ELEMENTS IN KAZMUNAYGAS ACTIVITY.



While safeguarding state interests in the republic's oil and gas sector, we continue to pay as much attention to the development of other important sectors, both production and social.

Our hydrocarbon exploration, production and conveyance efforts have had a synergetic impact on the emergence of new operations in Kazakhstan such as coastal infrastructure and modern petrochemical facilities.

KazMunayGas is a leader of the domestic business community in implementing best practices of corporate governance.

As to our activities in social areas, the company is committed to the following principles:

First, annual investments by KazMunayGas in the social sector exceed \$100 million, and over \$160 million is to be supplied this year.

Since 2002, the national company alone, i.e. excluding any of its subsidiaries and associates, has contributed over Tenge 3 billion for charity and sponsorship.

Second, KazMunayGas is actively involved in the implementation of social programs run by the government and businesses, and contributes to international and significant domestic events.

Third, acting as a party to or the government's authorized agent for major oil and gas projects, the company assists in raising significant funds to finance the construction of social infrastructure, develop the country's staff potential, support youth, etc.

Here are some examples of how our social responsibility scheme works:

1. The company provides charity and sponsorship aid to veterans of war and work, disabled people, low-income groups of citizens, including pensioners, as well as distinguished oil and gas workers through the social fund Munaishy and other dedicated foundations, organizations and associations.

A wide range of steps is taken to support World War II veterans, including provision of funding to purchase medicines, subscribe to newspapers and magazines, pay telephone bills, and buy home appliances for custodial institutions.

2. It has become a tradition of KazMunayGas to support socially vulnerable groups on an individual basis. Every year, the company makes sponsorship contributions to the orphanages Ak Bota in Atyrau and Svetoch in Astana, to the Association of Disabled Women 'Shyrak', Almaty, and the Social Association 'Kazakhstan Organization of Veterans'.

The spirit of corporate social responsibility has found support from our employees which being actively engaged in civil activities regularly gather donations for the Red Cross and Crescent Societies. Moreover, employees agreed that occasional donations are made to meet any special needs or help any specific persons. So, everybody in the company donated their one day's salary to the Social Charity Fund 'Protection for Children with AIDS' in response to the difficult situation in South Kazakhstan Region. The company's subsidiaries joined the head office's initiative, and the total amount provided exceeded Tenge 37 million.

The company also gathers voluntary donations of money (clothes, footwear, toys) to the Social Association 'Akmolinsky Union of Large Families'.

We appreciate the fact that our employees serve as a mediator by getting their close friends and acquaintances involved in such activities and by lifting social responsibility consciousness to a qualitatively higher level.

3. The company has a firm confidence that we are able to help anyone who stands in need of support and adaptation. There is a series of ongoing projects aimed to create new jobs for specific groups of people. As part of such projects, sponsorship funds were granted to Akmola Regional Branch of the Kazakhstan Union of Veterans of Afghan and Local Wars and to the Training and Production Enterprise of the Kazakh Association of the Deaf in Astana.

4. KazMunayGas contributes to projects and programs of social cooperation between regions. Over the past five years, Tenge 60 billion was spent to construct over 40 social projects of various nature.

The most outstanding projects include the construction of a gas supply system in the Village of Dossor, Atyrau Region, a sports center and a 3000-seat stadium in Zhanaozen, Mangistau Region, a children garden, a hospital and a sports center in Astana, a swimming pool and a sports center

in Atyrau, a sanitary waste disposal unit in Aktau, a sports center in Taraz, a health improvement center and a training center in the Village of Zeren, and many others.

5. As many KMG companies are located in areas with unfavorable climatic and ecological environment, the company is making major social efforts to continuously improve conditions in which its employees live and work.

Particularly, the company built or repaired homes to help the victims of the disaster in Makat District of Atyrau Region, where 538 households suffered, including 88 families of persons employed by Exploration Production KazMunayGas and Intergaz Central Asia. The amount spent was Tenge 1.5 billion.

6. Much importance to social projects is also given through joint ventures engaged in oil and gas production and under production sharing agreements for a number of large projects where KazMunayGas acts in the capacity of an authorized body.

As part of the North-Caspian PSA, sponsorship aid of \$570 thousand is provided yearly to low-income groups. The primary recipients of such aid include disabled children centers, the Council of Veterans of War and Work, orphanages and hospitals, a tuberculosis preventorium for children, rural first aid centers, maternity hospitals, an association for the blind, an association for deaf children, and gifted children from low-income families. Every year, summer camps are organized for 150 children from low-income families in Cesenatico, Italy. \$300 thousand is spent each year to pay tuition fees for students from low-income families who have excellent academic record.

Under the Kashagan Project, funds are provided to train medium-level specialists. Special consideration is given to persons belonging to socially vulnerable groups and large families from all regions of Kazakhstan.

Karachaganak Petroleum Operating (KPO) provides yearly financing to enable veterans and rural high school students to visit best Pre-Ural sanatoriums. Funding is also allocated to support rural and urban youth of West Kazakhstan Region, including the project for the construction and maintenance of a youth center of registration of unemployed young people aged 18 to 30 to help them find jobs in local companies.

7. As to the promotion of sports and healthy lifestyles, KazMunayGas gives support to federations of amateur boxing, gymnastics and bicycling, and takes active part in the conduct of international tournaments. Such events are viewed as additional stimuli for propaganda of healthy life style and development of amateur and professional sport.

To help improve health of people, as part of the 2008-2010 Ethical and Physical Health Contribution Program, the company proposed that sports grounds are built for wider groups, including children and teenagers, to engage in sport activities. The sports grounds will have special playing surface to enable winter and summer sports. At least 50 same-type sports facilities will be constructed throughout Kazakhstan by 2011, irrespective of where the company's operations are situated.

8. Trainings and skill improvement courses for the company's employees and the oil and gas sector on the whole are also among the company's social priorities. Each year, KazMunayGas selects through the 100 Top Scholars Program a hundred of best students from technical and non-technical departments of the country's leading universities. Program winners not only become entitled to scholarships, but can have their internship in KazMunayGas group companies as well. Scholars with good academic and internship performance may eventually become part of the company's team. Therefore, the company's social responsibility has grown into a multilevel structure and is positioned for further development. In 2007, we adopted the Code of Corporate Social Responsibility. This year, we developed the Sponsorship and Charity Policy and the Ethical and Physical Health Contribution Program.

Basically, all these is intended to help the national company to retain leadership in major CSR-driven projects and to demonstrate the approach the government is taking to the issue.

BG GROUP VISION

“WE ARE A RAPIDLY GROWING COMPANY, WITH EXPERTISE THROUGHOUT THE GAS CHAIN. WE ARE A LEADING NATURAL GAS COMPANY IN THE GLOBAL ENERGY MARKET – OPERATING RESPONSIBLY AND DELIVERING OUTSTANDING VALUE TO OUR SHAREHOLDERS”.

BG KAZAKHSTAN: Doing Business Responsibly

BG

Group's contribution to Kazakhstan has developed steadily since it first established a presence in the country some 16 years ago. Since then, it has continued to play a leading role in the development of the oil and gas industry. With a commitment to a long-term future in the country, the scope of its social involvement activities is continuing to expand. And as the government's Sustainable Development (SD) agenda continues to evolve, BG's view is that operating responsibly is the major contribution a company can make to this programme.

With an investment to date of around \$2.1 billion, BG is the largest UK investor in Kazakhstan, and was one of the first western companies to take an interest in the country's vast resource potential.

A world leader in natural gas, BG Group's focus is on connecting competitively-priced resources to specific high-value markets. The portfolio is a broad one - covering Exploration and Production, Liquefied Natural Gas (LNG), Transmission and Distribution, and Power Generation. Among the 27 countries in which BG operates, Kazakhstan is one of the core areas of focus – evidenced through the Group's joint operatorship of the giant Karachaganak field, its shareholding in the CPC oil export pipeline and its continuing interest in exploring new upstream and downstream business opportunities.

“Doing business responsibly” is how BG Group defines Corporate Responsibility (CR), and this is articulated in its Statement of Business Principles. CR is central to the Group's decision-making – insofar as it places as much emphasis on

“how responsibly” it works as it does on “exactly what” it does. This approach impacts not only on the way BG contributes to the Sustainable Development of the country where it operates, but also on the way it treats its employees, how it makes its investment decisions and how it manages its responsibilities to the environment.

Leaving a lasting legacy of which one is proud means not being driven by the immediate imperatives of a particular project. If an activity provides genuinely sustainable value for its local stakeholders, it will also mean a better business generally, as well as a more supportive shareholder base. BG Group's SD contribution lies in its support for the country's social, environmental and economic development priorities – and by building businesses which integrate these with its own objectives.

Environment

One of the main BG Business Principles contains the pledge to “go beyond compliance with local environmental regulation to meet internationally accepted best practice”. At the Karachaganak field, through the operating company Karachaganak Petroleum Operating B.V. (KPO), extensive remediation and replanting has been undertaken, and new technologies – such as flare-less well testing – are dramatically reducing emission levels.

On the national level, one way in which BG Kazakhstan has responded to the severe environmental problems inherited from the Soviet era is by sponsoring the BG Chair of Environmental Technology at the Almaty Institute of Power Engineering and Telecommunication. Working in conjunction with western universities, the Chair runs research and environmental development programmes to address issues such as water management and the definition and remission of industrial pollution. Since 1996, more than 150 engineers and scientists have graduated in a special Masters degree, which now equips them with the expertise and skills to manage such programmes in Kazakhstan. In 2008, in partnership with Conservation International, BG Kazakhstan also launched a project to train field conservationists in photographic skills, to help them better document, and raise awareness in, species of wildlife which may be under threat.



Social

Recognising the range of social and developmental challenges in the countries where it works, BG has created a social performance function in order to ensure alignment with host community and government goals. The social programmes it organises worldwide also aim to ensure that “neighbouring communities benefit from our presence on an enduring basis”. In Kazakhstan, this is reflected in programmes that focus on environmental protection, education and training – at an investment of \$3.1 million to date.

With so many worthwhile causes to support, BG Kazakhstan has taken a proactive approach to its philanthropic and charity activity. A major event in its calendar is the annual BG Energy Challenge – a challenging, cross-country, team-building event designed to bring together people from the energy sector to not only compete but to pledge funds for charity. Since it was established in Kazakhstan in 2006, the Energy Challenge has raised over \$150,000 for the National Paralympic Committee of Kazakhstan – a key event for athletes preparing for the 2008 Beijing Olympics. BG also enjoys partnerships with the National Triathlon Federation of Kazakhstan, for which it provides sports equipment and training courses, and the Boarding School for Disabled Children in Astana, where it has built an outdoors facility to help develop the children’s physical and social interaction skills.

Economic - education and training

Kazakhstan’s openness to Foreign Direct Investment has meant the growth in demand for new skills to be provided from within the country. In response to this, BG Kazakhstan supports a number of post-graduate programmes at the Kazakh British Technical University (KBTU) in Almaty. Administered in cooperation with Shell, the British Council and four British universities, BG funds have supported the establishment of the BG/Shell Graduate School, which has to date produced 22 Masters graduates in Human Resources Management and Petroleum Engineering. BG has also provided KBTU with a new lecture hall, electronic library and video conference equipment, and plans to extend distance learning capability through the provision of e-library software.

At the more junior level, the BG Education and Career Guidance programme helps young people make the right decision when selecting their future profession. Delivered through the National Research Education Information Centre and the Almaty Internet Education Centre, the programme is unique in primary vocational training. Some 300,000 schoolchildren can access the programme through 600 children development centres, and gain skills designed to equip them how to compete in the modern world of business.

In Uralsk – the region where the Karachaganak field is located – more than 150 young adults from the “Zhas Dauren” orphanage have benefited from a nine-month programme to equip them with IT and web-design skills, and facility in the English and Kazakh languages. In addition, a series of mini-MBA training courses are being conducted for small and medium sized entrepreneurs in the WKO oblast. Through its obligations under the Karachaganak Final Production Sharing Agreement, KPO (BG 32.5%) provides \$10 million annually for regional infrastructure projects, which range from the construction of schools, hospital wings and sports facilities to new roads and gas distribution lines.

Looking ahead with SD

Sustainable Development is gaining greater prominence in Kazakhstan, and is now one of the government’s key policy priorities. BG Group has made clear its desire to help with the growth of this programme, and is responding in a number of ways.

To help facilitate cross-ministry alignment on the understanding of SD, in April 2008, BG Group launched its sponsorship of the Regional Environment Centre (REC) Initiative. In a year-long course, spread over four modules, 40 senior government officials gain exposure to international SD thinking, and work together to increase their understanding of SD issues. With its partners in Karachaganak, BG is also developing a Sustainable Development approach to current and future field activities, where a major opportunity to demonstrate the philosophy of operating responsibly is the proposed multi-billion dollar Phase III development. This would see the creation of 10-15,000 local jobs during construction and several hundred permanent positions on completion. A commitment to Sustainable Development is at the heart of this initiative, which places an emphasis on local content, employment creation, and skills development and training.

By virtue of its long association with Kazakhstan, as well as the economic importance of the Karachaganak field, BG Group is well positioned to help contribute to the government’s growth agenda. As well as existing operations and potential exploration opportunities, it is using its market expertise to work on a range of measures that might improve energy efficiency in the country and help towards self-sufficiency in oil and gas.

Kazakhstan will continue to grow as a leading provider of competitive energy to the increasingly important Central Asian markets, and Sustainable Development will play a key role in delivering this growth. Through the steps that it is taking – locally, regionally and nationally – BG Group is playing its part in helping to achieve this. The company’s interests are closely aligned with those of the Republic – and, by working in constructive partnership, it looks forward to joining in its future success.



Offshore Projects of Kazakhstan

THE MAIN ACTIVITIES OF JOINT STOCK OFFSHORE OIL COMPANY “KAZMUNAYTENIZ”, WHICH WAS ESTABLISHED ON MARCH 14, 2003, ARE TO OBTAIN SUBSOIL USE RIGHTS, CREATE VERTICALLY INTEGRATED COMMERCIAL STRUCTURES ON EXPLORATION, PRODUCTION, TRANSPORTATION AS WELL AS THE DEVELOPMENT OF HYDROCARBON RESOURCES IN THE CASPIAN AND ARAL SEAS AND ADJACENT ONSHORE AREAS - AND MANAGE THE BUSINESSES.



azMunayTeniz has 7 subsidiaries which, with Operator's functions are carrying out offshore operations in the Kazakhstani Sector of the Cas-

pian Sea.

The company has been Managing Director of KMG Kashagan B.V. since February 2006 with the transferred share 8.33% of JSC NC KazMunayGas in Production Sharing Agreement.

Within five years the company has developed and implemented several projects in cooperation with the well-known oil and gas companies in the world such as Shell EP Offshore Ventures Limited, Rosneft-Kazakhstan, Lukoil Overseas Shelf B.V. and Oman Pearls Company Limited. To date, five wells have been drilled on the areas of Tub-Karagan, Kurmagazy, Pearls and "A". About 14 000 line kilometers have been surveyed. In the mid-term, six exploration wells will be drilled. However, one of the most substantial outcomes is oil discovery in Khazar area (Pearls project) which is located in the northern part of the Caspian Sea. Since the company started its activity, capital investments totaling KZT 44 bln have been earned. This year two exploration wells will be drilled on highly prospective structures. This is evidence that KazMunayTeniz is steadily conducting offshore exploration operations and increasing its presence in the shelf of the Caspian Sea.

These outcomes are due to State Program on Development of the Kazakhstani Sector of the Caspian Sea (adopted in 2003) and on Strategic Policy of the company. KazMunayTeniz, being a 100% subsidiary of JSC NC KazMunayGas, was the first domestic offshore oil company to not only be a subsoil use contractor but also the major domestic parent representative company to construct jack-up rigs. Facilities designed to interpret geological and geophysical data and to model fields have been substantially strengthened and up-to-date software products (Paradigm, Rocstar, Questor) have been applied.

This success was achieved thanks to highly qualified company employees. Over 48% of employees have at least 10 years experience in the oil industry, (43% in international projects) and 44% have good command of English. KMT is guided by 2006 — 2010 Staff Development Program for Offshore Oil Operations (approved by JSC NC KazMunayGas in November 2006). In accordance with this program, specialists get higher education and young specialists undergo on-the-job-training in foreign companies. 29 specialists are currently taking on-the-job-training and before



2015 it is planned to increase this number up to 200. In general, for training purposes over USD 10 mln has been spent since the implementation of 5 projects began.

In addition, all offshore projects with KMT participation foresee the implementation of social programs to solve actual problems in the regions where they operate. It was only within the last 2 years that International English Language School was opened in Aktau, a kindergarten for 120 places was built in Kuryk village and oil and gas classes of Aktau State University were equipped for training and scientific purposes. USD 5.4 mln has been spent for these purposes.

We should also note that the company is creating its own risk management system. This point is critical to establish to what extent we can guarantee that offshore operations will not impact sensitive ecological balance in the Caspian Sea. In this regard we are applying a standard process. Each project is subject to EIA, impact of oil operations is assessed and public ecological expert review with further constant monitoring is applied.

Such attention to environmental issues in the course of oil operations on the shelf and the role of KazMunayTeniz implementing social projects jointly with foreign and domestic partners prove that Kazakhstan offshore projects are represented by the domestic and mature company that is able to set and reach its goals.

KazMunayTeniz is carrying out its activities in accordance with the requirements of international management standards for quality, environment, health and safety. In this regard, the company has developed and implemented an integrated management system for quality, environment, health and safety in accordance with ISO 9001, ISO 14001 and OHSAS 18001.

Since October 2007 General Director of KazMunayTeniz has been Marabayev Yermek Nasibkaliyevich, a professional oil man, who graduated from Oil and Gas Institute named after Gubkin in Moscow (1977-1982) and completed a master's program at Kingston University in London 2002-2004.

15 Years of Investing in Kazakhstan Improving quality of life





IN 1994 REPUBLIC OF KAZAKHSTAN'S CABINET OF MINISTERS MADE A RULING ON STATE PRIZE AWARDING SEVERAL KAZAKHSTANI AND RUSSIAN GEOLOGISTS FOR DISCOVERING THE UNIQUE TENGIZ OILFIELD IN 1979 IN THE WEST PART OF KAZAKHSTAN. "TENGIZ" FROM KAZAKH MEANS "SEA", I.E. "SEA OF OIL". TENGIZ IS THE WORLD'S DEEPEST PRODUCING SUPERGIANT OIL FIELD, FAMOUS FOR ITS UNIQUE FEATURES, HIGH HYDROGEN SULFIDE CONTENT AND RESERVOIR PRESSURE.



The history of Tengizchevroil LLP began on 6 April, 1993 with the signing of Formation Agreement between Republic of Kazakhstan and Chevron Corporation; it was a difficult time for a young independent Kazakhstan, and it was extremely important to involve a major Western investor for the development of the unique and challenging Tengiz field. Tengizchevroil, which was established with the support of the first President of Kazakhstan Nursultan Abishevich Nazarbayev has become an engine of the country's new economic development.

Total recoverable oil at Tengiz and Korolev fields through April 2033 is from 750 to 1.1 billion metric tons (6 to 9 billion barrels). Estimated oil in place in Tengiz field is 3 billion metric tons (26 billion barrels) with 190 million metric tons (1.5 billion barrels) in Korolev field. The reservoir is 19 kilometers (12 miles) by 21 kilometers (13 miles). TCO's current production capacity is approximately 51,000 metric tons of oil per day or 400,000 barrels of oil per day (bopd) and 13 million cubic meters or 450 million standard cubic feet (mscf) of gas per day.

On June 5, 2008 the President of the Republic of Kazakhstan Nursultan Nazarbayev has inaugurated Tengiz expansion project in front of a country audience, partner special guests and more than 500 employees. The addition of full facilities is projected to further increase daily crude production at Tengiz to 540,000 barrels. Included in the expansion are the Sour Gas Injection (SGI) project and the Second Generation Plant (SGP). SGI reinjects produced sour gas into the reservoir at very high pressures to boost production. SGP separates natural gas for injection while stabilizing and sweetening crude oil, and processing sour gas into gas products and elemental sulfur. As pointed RoK President Nursultan Nazarbayev: "Chevron was the first foreign company to work in

Kazakhstan. The Agreement signed in 1993 was the biggest one not only in the republic but in ex-Soviet countries. Chevron demonstrated itself as reliable partner. Since 1993 Chevron has invested more than 20 billion USD in the development of the oilfield, and more than \$20 bln has been contributed by TCO to the economy of Kazakhstan. Another great result of TCO work of the last 15 years - many of our compatriots have obtained specialist qualifications. According to Chevron very four employees out of five are Kazakhstani people. RoK President Nursultan Nazarbayev also said: "Expansion project is the largest innovation project in the country, and Tengizchevroil is the corporate leader in the oil and gas sector"

TCO is targeting commissioning of a pioneering expansion for mid-2008 and daily production capacity will grow to about 70,000 metric tons of oil or 540,000 barrels and 22 million cubic meters or 765 mscf of gas.

Since its inception, Tengizchevroil has been successfully implementing its policy of being a good corporate citizen. In practical terms that policy means hundreds of completed projects and programs aimed at improvement of the natural environment and the local employment situation, charity, better public health and education facilities for the Atyrau City and Region, where Tengiz oilfield is located.

Tengizchevroil has invested about \$380 million on projects in the areas of healthcare, education, and support for the needy and infrastructure development in the region. Specific projects include extending electrical and natural gas systems in Atyrau to un-served areas and improving the drinking water system. Fully outfitted medical institutions have been built in the region.

Building the capacity of Kazakhstan's small and medium-sized businesses is also a key priority of Tengizchevroil. TCO works hard to find and enable opportunities for local businesses. A suc-



successful result of this effort is the fact that forty percent of the steel for Tengizchevroil's expansion project was fabricated in-country. Tengizchevroil's expansion was possible through the contribution of more than 200 Kazakhstani companies providing more than \$2 billion in goods and services.

Along with the investment in its operational performance and community, Tengizchevroil also invests in its employees. Tengizchevroil has training programs for employees designed to develop their skills so that they can compete with the best in the world. Very recently there has been developed a training program for new hires called Horizons. This training will focus on improving technical, project management and managerial skills for overall professional growth. As part of production expansion, there have been trained more than 5,000 Kazakhstani people in craft skills at a training center that had been established.

We are also continuously creating programs to make TCO an even better place to work. We have recently enhanced our benefits package to include a savings program where an employee can put as much as 10 percent of their salary for a company match at a good interest rate. This program compliments our long-running and popular employee housing loan program.

Tengizchevroil is very proud of its overall contributions to the Republic of Kazakhstan economy, with total direct payments to Kazakhstan entities of \$5.0 billion in 2007 alone and totaling \$21.7 billion since inception.

Growing Product Sales for the Benefit of Kazakhstan

TCO set important records for production and sales in 2007. In 2008, TCO expects to significantly exceed the 13.9 million metric ton record thanks to the start-up of our expansion later this year. TCO also sold a record 2 million tons of sulfur which is 126 percent of its 2007 production. Our experienced sulfur sales team continues to expand Kazakhstan's global market presence and we now sell sulfur in four different forms to 61 customers in 24 countries. Increased sales led to a five percent reduction in sulfur reserves.

We have plans to continue sales performance through additional investments and projects like increasing annual sales capacity to 3 million tons. Tengizchevroil has budgeted more than \$600 million for sulfur-related capital projects for 2008-2011. TCO operates and manages sulfur storage in an environmentally safe manner that is consistent with Kazakhstan's regulations and global practices.

Continued Environmental Improvements

Tengizchevroil is initiating projects that will continue to improve environmental performance. There have optimized processes to reduce flaring, achieving an 80 percent reduction since 2000 and putting TCO on track to eliminate routine flaring of associated gas by the end of 2009. TCO is also enhancing other areas of its operations to reduce emissions. TCO has spent more than \$1.7 billion over nine years on environmental improvement projects. That investment has reaped results as we achieved a 58 percent reduction in air emissions over that time period.

A Dedication to Safety Excellence

TCO's employees' and contractors' dedication to a safety and operational excellence has enabled Tengizchevroil to achieve very strong performance for its shareholders, the Atyrau region and the Republic of Kazakhstan over the last 15 years.

TCO's commitment to ensuring the health and safety of our employees and the community resulted in the safest year ever in 2007. TCO's focus on incident-free operations, implementation of an Operational Excellence Management System and adoption of best practices and standards has enabled our achievement of world-class safety performance. Injury rates have improved 66 percent over the last three years and Tengizchevroil's goal is to achieve an injury-free workplace.

As Tengizchevroil will move through the year, it will work to out-perform all of 2007 records to become an even stronger company for its employees, shareholders, the Atyrau region and for Kazakhstan.



Chevron

in Kazakhstan



Approaching another important milestone in the company's history - 15 years of its successful operations in Kazakhstan, Chevron is proud to be an industry leader and is excited to celebrate this significant anniversary with the people of Kazakhstan. Chevron ranks as the leading private oil producer in Kazakhstan and currently holds stakes in the country's two largest producing oil fields: Tengiz and Karachaganak. Chevron is also the largest private shareholder in the Caspian Pipeline Consortium.

Our vision

One of the foundations for Chevron's long-term success is Chevron Way. It is based on the vision to be the global energy company most admired for its people, partnership and performance.

Our vision means we:

- provide energy products vital to sustainable economic progress and human development throughout the world;
- are people and an organization with superior capabilities and commitment;
- are the partner of choice;
- deliver world-class performance;
- earn the admiration of all our stakeholders – investors, customers, host governments, local communities and our employees – not only for the goals we achieve but how we achieve them.

Chevron is the first and the largest foreign investor in Kazakhstan

With the formation of the Tengizchevroil (TCO) partnership in 1993, the company became the first major Western oil firm to enter the region. The Tengiz and Korolev fields within the TCO partnership are estimated to contain between six billion to nine billion barrels of recoverable oil. Chevron has a 50 percent share in TCO. In 2007, TCO's production averaged 333,000 barrels of oil and gas liquids per day, and 460 million cubic feet of natural gas per day (or 14.8 million metric tons of oil and LPG, and 4.97 billion cubic meters of natural gas per year). TCO is currently implementing an expansion, which includes the Sour Gas Injection and Second Generation Plant projects (SGI/SGP). Tengizchevroil has started up new facilities as part of the first phase of the expansion. It brings Tengizchevroil's current capacity to a total of approximately 400,000 barrels per day. The addition of full facilities is projected to further increase daily crude production capacity at Tengiz to 540,000 barrels. Start-up of full facilities is expected during the second half of 2008.

Karachaganak (operated by Karachaganak Petroleum Operating [KPO]) is one of the world's largest oil & gas fields. Chevron has a 20 percent share in the Karachaganak field – estimated to initially contain up to 1600 million tons of oil-in-place and 1620 billion cubic meters of natural gas-in-place. During 2007, KPO produced 167,000 barrels stabilized oil, 58,000 barrels unstabilized liquids, 67 million cubic feet of sweet gas, and 738 million cubic feet of sour gas per day net of reinjection (7.7 million tons of stabilized oil, 3.0 million tons of unstabilized liquids, 0.6 billion cubic meters of sweet gas, and 7.6 billion cubic meters of sour gas per year). The stabilized oil was sold via the CPC and Atyrau-Samara pipelines. The unstabilized liquids were sold as unstable condensate into local and Russian markets. KPO is constructing a fourth stabilization train, which is expected to add 56,000 barrels per day (2.6 million tons per year) of stable oil processing capacity, starting in late 2009. In late 2001, Chevron and its partners opened the \$2.6 billion, 1,505-kilometer (935-mile) Caspian Pipeline Consortium (CPC) pipeline from the Tengiz Field in Western Kazakhstan to the Black Sea port of Novorossiysk in Russia. Today, the CPC pipeline transports almost 40% of Kazakhstan's crude to world export markets. According to industry experts, CPC's pipeline system is one of the safest and technologically advanced in the world and has resulted in outstanding health, environmental and safety performance.

CPC has 11 transportation agreements in place and transported an average of 700,000 barrels of crude oil per day in 2007, including 545,000 barrels per day from the Kazakhstan and 155,000 barrels per day from Russia (or

32.8 million tons of oil per year). A planned expansion of the CPC pipeline is under discussion by the pipeline shareholders. This expansion is anticipated to increase capacity to 1.4 million barrels per day (or 67 million tons of oil per year).

A separate 24-inch, 644 kilometer (400-mile) pipeline that links Karachaganak field to the CPC system at Atyrau began operations in 2003.

In April 2003 Chevron opened \$24 million polyethylene pipe plant in Atyrau, Kazakhstan – the first such enterprise in the region. The plant with the state-of-the-art equipment and innovative technologies can produce 15,000 tons per year of high-density polyethylene pipe. Pipes are used for transportation of potable water, natural gas and have 50 years of guaranteed service life. An accredited test laboratory is functioning at the plant. Production of fittings – offsets and T-connectors – is well-run at the plant. The plant represents implementation of the Program of local economic development and import substitution initiatives, as well as transfer of technologies, business and technical training.

Chevron's polyethylene pipe plant quality management system was successfully certified for conformance to requirements of the International Standard ISO9001:2000 in the following certification systems: State Certification System of RoK (KK.648092.07.03.00111); Certification System "Russian Register" (#04.087.026); International Certification Organization IQNet (№ 04.087.026); International Certification Organization SAI Global (#4.087.026). In 2007 products of the plant were awarded by the international award "European Quality". The prestigious award was provided by European Business Assembly (EBA, Oxford, United Kingdom).

Chevron- and Texaco-branded lubricants are sold in selected markets throughout Eurasia region.

Chevron's over \$12.5 billion investment in the country, leading edge technologies and highly experienced people, combined with Kazakhstan's stable political environment, economic reforms and educated workforce, made a sturdy foundation for an outstanding partnership.

Operational Excellence: People, Safety, Environment

Protecting people and the environment is one of Chevron's core values, and worldwide, we consistently conduct our business adhering to this commitment. This commitment is fully shared by our joint venture and affiliate companies. Since its formation in 1993 Tengizchevroil JV has been and remains committed to protecting people and the environment. The joint venture is successfully and safely developing the Tengiz and Korolev fields strictly in compliance with Republic of Kazakhstan laws and regulations. All TCO activities support its strategic intent of being a leader in safety and environmental performance.

In the past 9 years TCO has spent approximately \$1.7 billion dollars in environmental related activity, and will continue to proactively work to protect the environment. In that time, we have achieved an 80 percent reduction in flared volumes and a 58 percent reduction in air emissions generated per ton of oil produced.

TCO's efforts to continue the reduction of overall emissions are progressing and include the implementation of the several improvement projects, including the replacement of crude oil storage tanks and enhancing gas utilization. Upon successful completion of these key projects, TCO expects to achieve additional reduction in annual emissions.

Total sulfur sales in 2007 reached 2 million metric tons. This was the largest amount of sulfur sold in TCO's history. In 2007, there was a net reduction in the total volume of sulfur stored on the pads of over 457,000 tons. TCO sells sulfur in four different forms to 61 customers in 24 countries. Our experienced all-Kazakh sulfur sales team continues to expand Tengizchevroil's market presence. TCO is implementing the Sulfur Expansion Project which will increase the ability to de-block the sulfur and will increase overall sales capacity to 3 million tons.

Over the past several years, KPO has invested over \$117 million in various environmental projects. Every effort is taken to protect biodiversity at the field and, in so doing, create and enhance habitats that promote the area's natural flora and fauna.

SUSTAINABLE DEVELOPMENT

Water and air quality is continually monitored, and risk assessments are carried out for both current and future developments and plans are developed to initiate mitigation measures.

Waste management is an integral part of project development. To reduce waste efficiently, KPO has built a Waste Management Complex, which accepts, treats and disposes of all the industrial waste produced in the field. All the equipment installed at the facilities meets international environmental standards. For example, the generators at the power station at the Karachaganak Processing Complex are equipped with a state-of-the-art dry combustion system, which makes it one of the most environmentally-friendly power stations in the world.

Another critical element is safety which is closely monitored and measured at all Chevron operations. In 2007, TCO's employees and contractors achieved a world-class baseline Days-Away-From-Work-Rate of 0.023 per 200,000 hours worked.

From the very first days of operation the staff of Atyrau Polyethylene Pipe Plant works without days away from work injuries. The plant employees keep on demonstrating excellent results thanks to continuous safety training and weekly safety audits. In October 2007 the indicator comprised 500 thousand man-hours or more than 4 years of incident-free work.

Training and Development

As a company, Chevron is committed to building national workforces in our host countries. For example, Chevron's Polyethylene Pipe Plant is entirely managed and staffed by Kazakhstani citizens. We have created about 130 local jobs including 65 employees.

In TCO 80 percent of staff and contractors are citizens of Kazakhstan compared to 50 percent in 1993. A steadily growing number of Kazakh citizens are assuming management positions. Kazakhs today make up 69

percent of managerial, supervisory and specialist positions. Kazakhstani citizens are now an integral and growing part of the management structure. TCO regularly sends high potential employees on developmental assignments outside of Kazakhstan (such as the US, UK, Angola, Thailand, etc). Currently, around 20 Kazakh employees are working outside of Kazakhstan on assignments with Chevron.

Chevron and its affiliate companies pay special attention to working closely with contractors and suppliers, and training and development of contract personnel is important. For example, over 5000 Kazakhstani nationals have been trained at the Atyrau SGI/SGP Craft Training Center (now CTR) for safe and efficient work at construction sites.

Making Local Economies Stronger

Chevron believes our suppliers and contractors should reflect the customers, communities and markets we serve. Purchasing goods and services from locally owned firms contributes to economic and human capacity development. Many of our operating units offer training, forums and other services to support and build local businesses.

In Kazakhstan, Chevron is particularly proud of its efforts to increase the utilization of local goods and services. For example, our joint venture Tengizchevroil's emphasizes the purchase of Kazakh goods and services and has spent \$2.3 billion in the last two years on goods and services from Kazakhstan's service providers. The magnitude of this achievement becomes clear when you consider that purchases of Kazakh goods and services in 1993 were only \$25 million.

According to the recent analysis, a total of \$1.9 billion has been expended with Kazakhstani suppliers and vendors since the start of the expansion in 2002. Expenditures of approximately \$2.0 billion are currently estimated at project completion. To date, over 3,200 purchase orders have been committed with



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more than 300 Kazakhstani vendors and more than 100 contracts have been awarded to locally owned companies

TCO regularly holds Supplier Forums bringing Kazakh Government representatives, Kazakh suppliers, western suppliers, and TCO management together to discuss current issues, TCO requirements, and ways to increase local spending with Kazakh companies.

KPO has made every effort to maximise, where possible, the role of Kazakhstani companies in the project. In fact, KPO achieved 57 percent in 2006. To date, the total sum of contracts awarded to Kazakhstani vendors has exceeded \$1.7 billion.

Community Partners

Chevron's community engagement activities focus on building capacity to promote local economic development and stable, long-term relationships. Chevron invests in community engagement initiatives and focuses on building human and institutional capacity in ways that help stimulate economic growth and enable communities to prosper.

Our community engagement initiatives targeted three areas: basic human needs, education and career training, and support for local small and medium-size businesses, which includes access to credit. These initiatives were executed in partnership with local and national governments, communities, nongovernmental organizations and multilateral institutions.

In 1993 TCO's started a five-year, \$50 million Atyrau Bonus Fund which sponsored social infrastructure projects such as health clinics, a local bakery, a boiler plant and new homes for flood victims. In 1999, TCO launched the new program "Egilik" (Kazakh for "benefit") to carry on the community outreach programs. By the end of 2007, the "Egilik" program provided more than \$71 million to meet community health, education and social infrastructure needs, such as hospitals, university buildings, schools, gasification and power lines, upgrade of water supply systems, resurface of roads and the beautification of buildings within the Atyrau and Zhylyoi district (where Tengiz field is located).

In 2007 year TCO supported medical institutions of Atyrau region with expensive medicines saving the lives of pre-mature newborns and equipment to chemically purify water to keep hemodialysis machines safely functioning.

KPO annually invests \$10 million in the development of social infrastructure in Western Kazakhstan. For the period of 1998 to 2006 KPO constructed nine health institutions, eight educational institutions, six sports and culture facilities. In addition, gasification program covered eighteen villages, major improvements in heating and water supply systems were made in Uralsk and Aksai. KPO community engagement program is aimed to support different community development projects such as "Foster care", "Baiterek" and "Red Apple" programs to find homes to orphans, empower disabled children and educate youth.

One of most successful projects in the area of small business development is business center and incubator in Burlinskii district. Main objective of the project is business education of entrepreneurs and farmers, provision of access to loans and low-rent facilities. Marketing, legal and business planning consultations were made available for its clients.

Chevron's community engagement program is a tangible expression of The Chevron Way. As part of the efforts to promote economic development, Chevron established a business incubation facility in Atyrau. The Atyrau business incubator provides a favorable environment for small businesses and start-ups. This joint project, supported by the United Nations Development Program, Chevron, the CitiGroup Corp., TCO and local government, facilitates business links between small service and manufacturing enterprises and large companies.

The Small and Medium Enterprise program (SME), created by Chevron with the European Bank for Reconstruction and Development and the United Nations Development Program stimulated economic growth in Atyrau through the development of small and medium-size enterprises. Another program, Atyrau Microcredit Center, gives entrepreneurs loans from \$50 to \$1200 without collateral to get businesses started. Since Chevron's Small and Medium Enterprise program began, the center has distributed \$8.3 million and created 1,500 jobs.



For the third year in a row, Chevron has been successfully implementing a program that helps the children from orphanages and boarding schools choose their future professions. Over two hundred fifty children -- in addition to regular curriculum studies during the school year -- were offered the opportunity to learn the basics of different professions. Based on market surveys, eleven professions offered to the participants are in great demand today. Having started in Almaty the project expanded to Atyrau last year with the joint funding from TCO and will outreach Astana this year as well. The importance of this program is noted with additional corporate funding from Global Transition Fund

In 2006 Chevron, the Eurasia Foundation, and the Ministry of Culture and Information started implementing a multi-year business development program for artisans aimed at increasing their competitiveness both in domestic and international markets and ultimately increasing their standard of living and preserving national cultural heritage. The objective of the program is development of the artisans' communities in Kazakhstan through improved quality of their crafts, expanding their access to new markets, and creation of the network of artisans in Kazakhstan. This year more than one hundred artisans from Southern and Western Kazakhstan underwent training in improvement of their professional skills- felt making, carpet weaving, natural dyes making and design. International standards in crafts making and design seminars were carried out in cooperation with UNESCO and the British Council.

As part of Chevron's long-term and comprehensive environmental education program entitled "We Share the Planet Earth", a nation-wide contest of environmental artworks is being conducted for a fifth year in a row. The goal of this program is not only to provide cultural and environmental education to children and youth, but to foster a proactive position towards preserving Kazakhstan's nature. Also, an ecological business projects contest gathered talented schoolchildren from all over Kazakhstan this year. The contest once again demonstrated importance of children learning sustainable development through learning its economics, acquiring project management and planning skills. Best projects were awarded grants to implement their projects.

Chevron is proud of its achievements and successes that we have achieved mostly thanks to respect and trust developed with Kazakhstan employees, local communities and state bodies. Based on this strong foundation, we will continue building a prosperous future for Kazakhstan and Chevron.

PetroKazakhstan: Striving for Harmony through Responsibility

PETROKAZAKHSTAN IS A VERTICALLY INTEGRATED ENERGY GROUP OWNED BY THE CHINA NATIONAL PETROLEUM CORPORATION (CNPC) AND KAZMUNAYGAS NATIONAL COMPANY, AND INVOLVED IN ACQUISITION, EXPLORATION, DEVELOPMENT AND PRODUCTION OF OIL AND GAS AS WELL AS OIL REFINING AND SALES OF CRUDE OIL AND REFINED PRODUCTS.



Mr. Bo Qiliang

President and Chief Executive Officer of PetroKazakhstan Inc.

President of PetroKazakhstan Kumkol Resources and PetroKazakhstan Oil Products
President of PetroKazakhstan Overseas Services Inc.

Mr. Bo Qiliang holds a BSc Degree in Production Engineering from the East China Institute of Petroleum, a PhD in Oil and Gas Field Development from the China University of Petroleum. He also holds an MBA from Massachusetts Institute of Technology, USA.

Mr. Bo Qiliang has over 20 years of experience in the oil and gas industry. Mr. Bo Qiliang has held the following positions with CNPC: Senior Vice-President of PetroChina International Ltd., President of the PetroChina International Ltd. Companies in Indonesia, Vice-President of the CNPC Research Institute of Petroleum Exploration and Development, Senior Vice-President of CNPC International Ltd, and President of CNPC Exploration and Development Ltd.

PetroKazakhstan's major business units are JSC PetroKazakhstan Kumkol Resources (PKKR) and LLP PetroKazakhstan Oil Products (PKOP). The upstream business unit, PetroKazakhstan Kumkol Resources, is located in the southern part of Central Kazakhstan in the Kyzylorda Oblast. PetroKazakhstan Oil Products is a business unit located in Shymkent, South Kazakhstan Oblast, and deals with refining of crude oil produced by PetroKazakhstan Kumkol Resources as well as tollers' crude oil.

PetroKazakhstan also owns a 50% share in two joint ventures operating in the South Turgai Basin: Kazgermunai and Turgai Petroleum. KazMunayGas National Company is PetroKazakhstan's partner in JV JSC Kazgermunai and Lukoil Overseas Kumkol B.V. is a partner in JSC Turgai Petroleum.

PetroKazakhstan's goal is to become a recognized leader in the oil and gas industry of Kazakhstan and an exemplary corporate citizen, represent a value for its shareholders and the Republic of Kazakhstan, ensure health and occupational safety for its employees and safety of the environment, constantly improve the efficiency of the company management and management of its operations, encourage leadership skills, develop qualified employees, and fully achieve its growth potential by using advantages of its shareholders in terms of technology, management, culture and team work. The corporate social responsibility is a top priority for PetroKazakhstan's business. Protecting the environment, ensuring safety and health of employees are integral parts of the company's social responsibility.

On the whole in 2007 the total crude oil production of PetroKazakhstan Inc. (i.e. including PKKR, 50% share in JV Kazgermunai and JV Turgai Petroleum) was 6.783 million tons (52.542 million barrels) or averaged 18.583 ton/day (or 143,950 barrels).

Geological exploration is the future of the company that generates its growth. The overall exploration and production business of PetroKazakhstan is carried out in the South Turgai Basin in the

south of Central Kazakhstan. In 2007 the company continued its active work in geological exploration: 21 exploration wells were drilled, seismic surveys, detailed processing and interpretation of field seismic data were completed.

PetroKazakhstan is an oil and gas company that combines the whole production chain into one process: from crude oil production and processing to top-quality refined products and a well-developed marketing and transportation system.

In 2007 PetroKazakhstan commenced implementation of a long-term development plan for its Shymkent refinery on modernization of the existing refinery facilities and construction of new processing units. It is planned to increase the light product yield and improve their quality (to meet Euro-3 and Euro-4 standards) and to produce new products such as polypropylene, benzene and elementary sulfur for the purpose of petrochemicals development.

In 2007 the Shymkent refinery processed 4.06 million tons of crude oil (31.23 million barrels) compared with 4.04 million tons of crude oil (31.27 million barrels) in 2006. The maximum high-octane gasoline yield was achieved totaling more than 50% of the whole gasoline pool. And the ratio of the light oil products to the crude oil volume processed was about 62%. Re-equipment of crude oil tanks was continued. For example, a 20,000-ton crude oil tank #304/4 was cleaned of oil sludge, fully repaired and upgraded. The obsolete equipment was replaced on two transformer substations which is very critical for the smooth equipment operation.

The revamping will be a key to opening the Shymkent refinery's potential that will allow to play a leading role in Kazakhstan and Central Asia.

The success of the company's business depends in many respects on the economic stability and well-being of the local communities in the regions where the company operates and where its employees and their families live. Therefore, the company's major focus is not only on production increase, but also on improving people's life and developing the social infrastructure in the regions where the company operates.

KazTransGas: towards a sustainable development

KazTransGas, a member of the national holding company KazMunayGas, is said to be one of the youngest and promising companies in the international gas market. Over the past eight years, it has made progress in gas conveyance sector, brought some order to the gas sector of Kazakhstan, undertaken projects to repair and renovate main gas lines. Presently, KazTransGas is a critical and integral part of Kazakhstan's economy with firm presence in the domestic market.

The KazTransGas group of companies has major goals to achieve; the primary goals is to ensure reliable gas supplies to domestic and foreign consumers, to extend the existing gas conveyance system, and to establish the company's presence in new markets. The government has set clear-cut long-term objectives for the company to accomplish. We have all we need to successfully perform the goals: highly skilled and ambitious staff, serious investment potential, strong and steadily increasing stock of capital assets. This means that Kazakhstan's gas conveyance arteries will continue to provide for an effective functioning of the country's growing economy.

Yesenali Usenov,
General Director, KazTransGas

KazTransGas was established in accordance with the Ordinance of the Government of the Republic of Kazakhstan N 173 of 5 February 2000. On 9 June 2004, under the Joint Stock Companies Act of the Republic of Kazakhstan, the company's name was changed for Joint-stock Company KazTransGas.

The company holds a certificate of incorporation N 13898-1901-JSC of 9 June 2004 issued by the

Astana Department of Justice. The company is 100% owned by National Company KazMunayGas (sole shareholder).

KazTransGas is a member of the vertically integrated government-owned holding company JSC National Company KazMunayGas, which is one of the largest oil and gas companies in Kazakhstan. KazTransGas controls the country's 11,000-km main network of conveyance gas lines with the annual capacity up to 190 billion cubic meters, and owns 26 compressor plants accommodating 308 gas compressor units, and 3 underground gas storage facilities.

KazTransGas comprises companies which produce, transport and sell gas and its derivatives, generate and distribute electricity and heat, and servicing companies, all of which constitute a group of companies.

Presently, KTG owns a main gas conveyance system, regional distribution gas lines in six regions, shares in domestic energy companies. The company is also engaged in foreign projects whereby developing its gas conveyance system and extending its market presence.

The KazTransGas group includes:

- Amangeldy Gaz LLP – produces and processes gas from Amangeldinsky gas condensate field;
- Intergaz Central Asia JSC – operates a main gas conveyance line;
- KyrKazGaz LLC (a joint venture with Kyrgyz-Gas JSC) – operates and maintains the main gas line Bukhara gas bearing region-Tashkent-Bishkek-Almaty located in Kyrgyz Republic;
- KazTransGas Aimak JSC – retail seller of natural gas to companies, organizations and households in regions of the republic, supplies

gas to households and industrial companies through distribution networks;

- KazTransGaz Almaty JSC – management of gas and gas distribution companies in Almaty and Almaty Region;
- KazTransGaz-Tbilisi LLC – supplies gas to Tbilisi;
- KazTransGaz LNG LLP – refines and processes natural gas from Zhanazhol field for customers in Aktope;
- Almaty Power Consolidated JSC – produces, conveys, distributes and sells electricity and heat;
- Asian Gas-line LLP – transportation of natural gas from Turkmenistan to China through Kazakhstan.

Understanding the significance of our services to communities and for the country's economic and social well-being, KazTransGas is fully committed to its corporate and civil duty.

While performing its obligations to the sole shareholder, NC KazMunayGas, employees, business partners and communities, the company strictly adheres to the existing laws and regulations.

KING Sustainability and development

JSC

"Kazakh Institute of Oil and Gas" (KING) was created in 2002 by the Governmental Resolution

of Republic of Kazakhstan for consolidation of domestic design and scientific-research resources in sphere of oil and gas into effective engineering structure; creating conditions for formation in Republic of Oil & Gas scientific - technological school of the world level, which will ensure the tasks performance in effective development of domestic Oil & Gas industry.

For past five years KING became the leading industry design-research centre combining the leading domestic scientific-research institutes and design-and-exploration companies. In conditions of the cardinal changes which have covered all life spheres of Kazakhstan, KING could not only keep, but also increase experience accumulated for more than a century history of oil industry in Kazakhstan.

The priority directions of KING activities are:

- **Strategic researches and development of the various programs and industry concepts**, for example, developed by KING the general and complex plan of the coast-line infrastructure development in the Kazakh sector of the Caspian sea;
- **Engineering service covering all technological processes from field improvement, preparation, transportation and subsequent oil and gas processing**, beginning from the exploratory designs (Technical-and-Economic Assessment, Justification of Investment), engineering explorations to development of the production and operational procedures;
- **Research works on geology and reservoir engineering of oil and gas fields**, as well as separate applied researches on current problems facing the industry, for example, KING over four years is actively engaged in study of the associated sulphur complex utilization problem in Tengiz and Kashagan fields.

One of the current objectives KING considers the introduction in the activity of steady progression principles and social responsibility.

The steady progression is indissolubly connected to business development and assistance to domestic economy growth. Developing the high-tech projects and services in Oil & Gas sector of engineering services, the institute promotes development of Kazakh innovation economy and its diversification in conditions of the global competition.

The social responsibility of KING reflects the interaction of institute and society both in internal and external spheres.

The internal direction of the social responsibility of institute is connected to increasing of living standards and development of its employees' creative potential, regulation of the institute activity influence on an environment. The Integrated Management System (IMS), including the Quality Management System, Ecological Management System and Health and Safety System is introduced into the institute, which has passed certified audit according to the requirements of the standards ISO 9001, ISO 14001 and specification OHSAS 18001.

The external direction is connected with qualitative projects implementation directed on the development of education, culture, sports, public health services, support of vulnerable class, development of small and medium business.

One of the largest projects implemented by KING is the formation of the scientific business infrastructure support - designing and construction of "Naukograd" technopolis. In the technopolis's structure three basic directions of activity will develop, mutually supplementing each other: education, engineering and innovation activity. The creation of "Naukograd" technopolis will promote the industrial-innovation development of Republic of Kazakhstan in Oil & Gas industry.

"Naukograd" project assumes the creation of specialized complex of the world level meeting the

modern functional and qualitative requirements by means of integration of education, science and engineering of Oil & Gas industry in "Naukograd" technopolis with maximum utility of synergetic effect for:

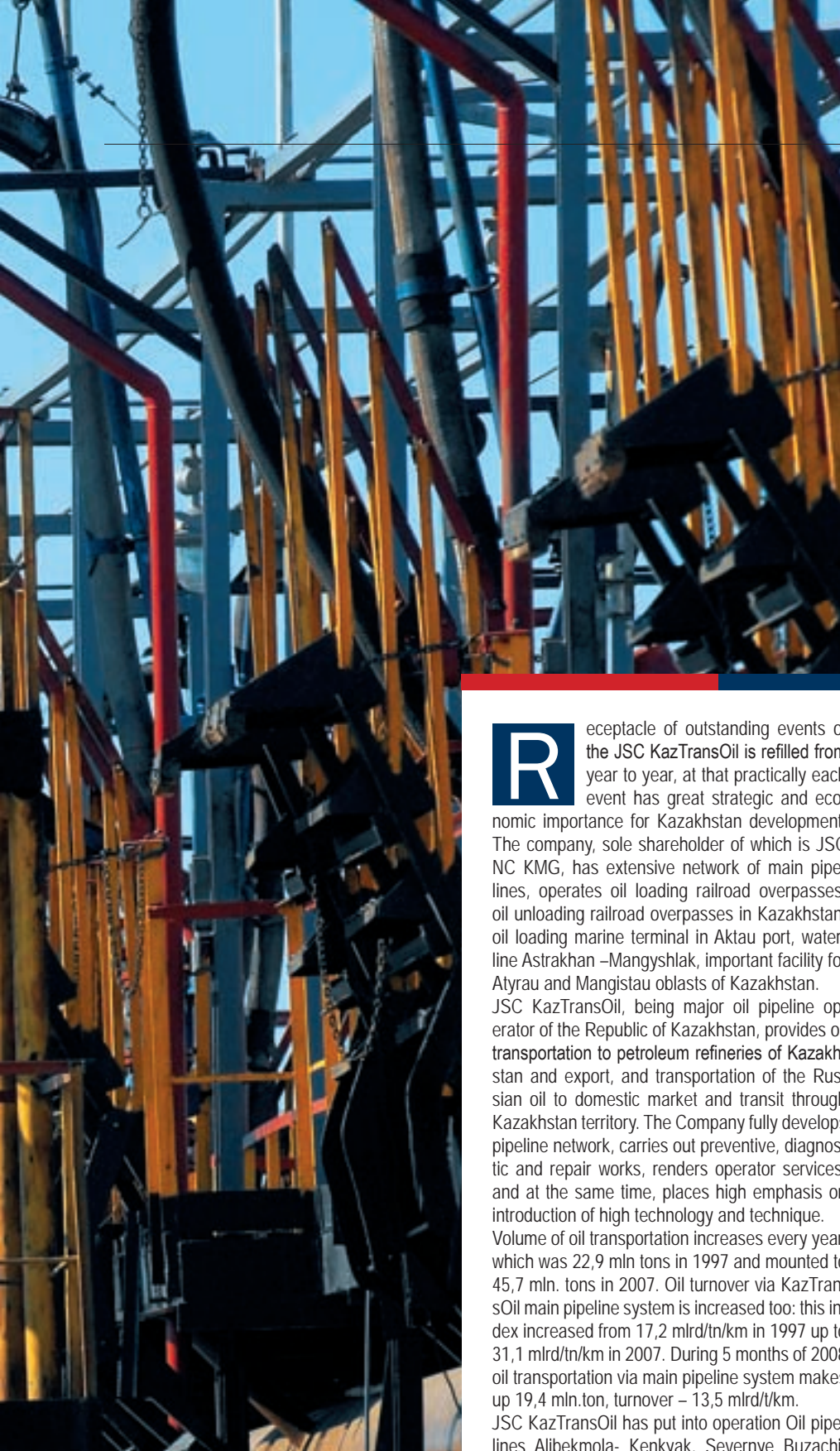
- **staff training and retraining** for the group of companies of NC "KazMunayGas" JSC and Oil & Gas industry of Republic of Kazakhstan within CSCS state development program;
- **scientific-research and innovation development** of the group of companies of NC "KazMunayGas" JSC and Oil & Gas industry of Republic of Kazakhstan;
- **assistance to industrial-innovation development** of Republic of Kazakhstan in Oil & Gas industry;
- **creation of a strong basis in Oil & Gas industry** for entrance of Republic of Kazakhstan in 50 most competitive states of the world;
- **social welfare and increase of living standards** of human resources of the country according to the annual message of the Chief of State to the population of Republic of Kazakhstan.

The implementation of this project will ensure qualitative growth of the local qualified personnel; will speed up development and introduction of new applied scientific and technical development, which will allow qualitatively increasing the Kazakh share in added value of the large projects.



KazTransOil: strategy of success

Major oil pipeline operator of Kazakhstan, JSC KazTransOil, strengthens its positions in Kazakhstan oil transportation market with confidence. During 11 years of its activity JSC KazTransOil has reached high economic effectiveness, commercial attractiveness, financial justifiability, reliability and environmental safety. The Company transports about 60 percent of all Kazakhstan oil, provides with drinking water Western Kazakhstan via the longest in the world water line Astrakhan - Mangyshlak and establishes new routes, which will allow the domestic oil from unique Caspian fields to obtain direct entry to the world markets.



Receptacle of outstanding events of the JSC KazTransOil is refilled from year to year, at that practically each event has great strategic and economic importance for Kazakhstan development. The company, sole shareholder of which is JSC NC KMG, has extensive network of main pipelines, operates oil loading railroad overpasses, oil unloading railroad overpasses in Kazakhstan, oil loading marine terminal in Aktau port, waterline Astrakhan –Mangyshlak, important facility for Atyrau and Mangistau oblasts of Kazakhstan. JSC KazTransOil, being major oil pipeline operator of the Republic of Kazakhstan, provides oil transportation to petroleum refineries of Kazakhstan and export, and transportation of the Russian oil to domestic market and transit through Kazakhstan territory. The Company fully develops pipeline network, carries out preventive, diagnostic and repair works, renders operator services, and at the same time, places high emphasis on introduction of high technology and technique. Volume of oil transportation increases every year, which was 22,9 mln tons in 1997 and mounted to 45,7 mln. tons in 2007. Oil turnover via KazTransOil main pipeline system is increased too: this index increased from 17,2 mlrd/tn/km in 1997 up to 31,1 mlrd/tn/km in 2007. During 5 months of 2008 oil transportation via main pipeline system makes up 19,4 mln.ton, turnover – 13,5 mlrd/t/km. JSC KazTransOil has put into operation Oil pipelines Alibekmola- Kenkyak, Severnye Buzachi-Karazhanbas, Oil loading trestle at HOPS Atasu, Oil loading railroad overpass Shagyr. Unique projects, among which SAP/R3, SCADA, GIS, FOCL have been implemented, the Integrated Quality and Environment, Health and Safety Management System has been performed and successfully operates in accordance with international standards ISO 9001:2000, ISO 14001:2004, OH-SAS 18001:2007. The Company strengthens its international positions with confidence. In 2001 JSC KazTransOil", first among Kazakhstan companies, entered the

international capital markets, issuing and placing Euro-bonds to the sum of USD 150 mln, with maturity date of five years. Debut Euro-bonds were successfully paid off in 2006.

In February 2008 JSC KazTransOil settled a bargain for purchase of 100% shares of the company "Batumi Industrial Holdings Limited". As a result of this purchase the Joint Stock Company KazTransOil has assumed control of legal entity, which has in its possession 100% of the Batumi Oil Terminal shares and an exclusive right to manage Batumi port, having favorable strategic and geopolitical location.

Three years ago the first queue of the Kazakhstan – Chinese pipeline Atasu – Alashankou was built; operator of this pipeline is Kazakhstan – Chinese Pipeline LLP, Joint Venture of the JSC KazTransOil and Chinese National Corporation for Oil and Gas Exploration and Production (CNODC). Atasu –Alashankou is the first export pipeline of the world level, built by independent Kazakhstan. Its operation provides for significant increase of tax proceeds to State and local budgets, strengthens export and transit potential of Kazakhstan and makes provision for local people employment. Head of State Nursultan Nazarbayev has emphasized importance of the Atasu –Alashankou pipeline for Kazakhstan, defining it as a paramount of investment cooperation between Kazakhstan and China. Oil transportation from Kazakhstan to China via Atasu –Alashankou pipeline began in the later half of July 2006. According to results of 2007 volume of oil transported via Atasu –Alashankou main pipeline was 4,8 mln.ton. During 5 months of 2008 oil transportation via this pipeline made up 2,3 mln.ton, and it is higher than for the same period of the last year for 0,4 ton of oil.

In December 20, 2006 JSC NC KazMunayGas and Chinese National Corporation signed an Agreement on engineering philosophy of the second queue of the Kazakhstan – China pipeline. In 2007 JSC KazTransOil and Kazakhstan –China Pipeline LLP began its implementation. This project shall provide access to Chinese market for the



WESTERN KAZAKHSTAN INCREASES, THE SECOND STAGE WOULD BE IMPLEMENTED, WITHIN THE FRAME OF WHICH PIPELINE KENKYAK – ATYRAU

Western Kazakhstan consignors and allow further development of oil transportation infrastructure of Kazakhstan by means of integration of isolated eastern and western pipeline systems of Kazakhstan.

The project of Kazakhstan – China pipeline's second queue construction is to be implemented in two turns. Within the frame of the first stage construction at the site Kenkyak – Kumkol is scheduled.

Solemn Presentation of the Kazakhstan – China pipeline construction's second stage took place in Kenkyak settlement, Aktobe oblast in December 11, 2007. It is scheduled to complete construction of the Kenkyak – Kumkol pipeline by the end of 2009.

In the future, as oil production in the Western Kazakhstan increases, the second stage would be implemented, within the frame of which pipeline Kenkyak – Atyrau is to be reversed and carrying capacity of pipeline from Kenkyak to Alashankou would be augmented for deliver to China 20 mln. ton of crude oil per annum.

To date considerable proportion of the Kazakhstan oil is exported through Russia, mainly via section Atyrau - Samara of Uzen - Atyrau - Samara pipeline and further through Russian pipeline systems and CIS territory with the possibility of deliveries to the Black and Baltic Sea terminals and also to European markets. The volume of oil transportation through this oil pipeline is stably growing every year. According to results of 2007 volume of oil transportation in this direction have reached 15,97 mln.t. During 5 months of the current year 6,9 mln. ton of oil was pumped over via Atyrau – Samara pipeline. In comparison with the same period of the last year volume of oil transportation increased for 0,2 mln.ton.

Considering remoteness of Kazakhstan from key oil markets, issues of transportation have primary

importance. As it was recently emphasized by analysts of Standard and Poor's agency in their analytical treatment of Kazakhstan potential to increase hydrocarbon production and its transportation, to fulfill its plan, Kazakhstan shall invest considerable funds to development of new fields and pipeline infrastructure. Against the situation in the world petroleum industry, "considerable investment to export route development" would have fundamental importance (mainly, to pipelines, being the most effective and reliable mean of oil transportation)". Taking into account these factors, JSC KazTransOil proceeds to develop new route projects to transport oil from promising Caspian fields. Exactly so is profitable for Kazakhstan in every respect, construction of the oil pipeline Ekene-Kuryk, which will become the integral part of the Kazakhstan Caspian Transport System (KCTS). This system is designed for pumping out Kazakhstan oil, predominantly from Kashagan and Tengiz fields, via Baku - Tbilisi - Ceyhan (BTD) system and the Trans-Caucasian transport corridor till the Black sea ports.

Connecting with steel pipes eleven oblasts of republic, JSC KazTransOil ensures thousands of people with reliable earnings, invests in social protection of its workers, high standard of production. The fact of no small importance: the stably working Company completely and in proper time pays taxes to the state budget. For the Company social responsibility means not only charity, but high responsibility in the current production activity, where the first of all are interests of population. Therefore Pipeline Company places high emphasis on support of social - significant regional projects. During past years significant funds have been distributed for provision of cultural and welfare facilities of the Western Kazakhstan region, for implementation of comprehensive environmental program, improvement and to planting of trees and gardens in Aktobe city, rehabilitation of social objects in Zhana –Ozen town and many others.

In the context of the message of Head of the State, where support of village was declared the priority of state policy for three years the, company KazTransOil has developed its own Aid Program to hamlet, central objective of which became the organization of the measures, directed toward education and job placement in the petroleum field of rural young people. Due to the Company support 92 students from socially unprotected strata of rural localities have completed their education and were placed on a job in the structural subdivisions of the Company.

Recently JSC KazTransOil has made a long path through coming-to-be and today it is one of the leading domestic companies by right. Being harmoniously developed, company is ready to further collaboration both with petroleum companies and operators of pipeline systems of other states, for guaranteeing the reliable and economically effective transport of Kazakhstan oil to the world markets.





Trade house 'KazMunayGas'

“Trade house ‘KazMunayGas’ JSC is the largest participant in the Kazakhstan oil products market that exports and imports oil and gas products and also fulfils wholesale and retail working directly with customers throughout the country. Oil and gas industry in Kazakhstan is one of the major sectors that ensures social and economic development of the country. Government authorities and large private companies work much on upgrading the domestic oil and gas sector. Recently this sector has experienced significant growth that will soon help Kazakhstan to become one of the world’s 50 most competitive countries. The history of the “Trade house” began on the 29th March, 2002, when the new enterprise was founded, succeeding the company “KazakhOil Products”.

Purchase of 75 % of Rompetrol share in 2007

In August, 2007 the company purchased 75% of Rompetrol Group NV (TRG) shares. As a consequence of this agreement “Trade house” doubled its estimated capacity. “Trade house” gained access to two refineries in Romania and essentially enhanced its retail network in the European market via purchase of 630 petrol stations in 7 countries (from Georgia to France). The purchase was approved by the European commission and relevant authorities. Rompetrol will be governed by two stakeholders - “National company ‘KazMunayGas’” JSC and Rompetrol Holding, herewith the Kazakhstan party will have the right to appoint the basic Board of Directors of TRG, that will reflect the new frame of ownership. The management will remain the same, no major changes in company administration are planned. As for the future of the network and entrance to the European market of the retail brand “KazMunayGas”, it is outside the near-term plans of the company.

Modernization of Atyrau refinery

In 2008 “Trade house ‘KazMunayGas’” jointly with Axens (France) is planning to start construction of benzol production complex at Atyrau refinery, which will essentially improve the quality of petrol and solve ecological problems. Axens will

act as a licensor for design of catalytic reforming plant. The participation of this competent organization confirms high requirements to the new production operation. This project is in the framework of the governmental program on the development of petrochemistry in West Kazakhstan and it will help to cut the percentage of harmful benzol in fuel from 5% to 1%. High-octane petrol will meet Euro-3 and Euro-4 standards. The solution of ecological problems, connected with petrol will help to create premises for petrochemistry development, hence benzol is the most valuable petrochemical. The capital outlays in the framework of the Atyrau refinery reconstruction project amount to 55, 6 bln tenge (384 mln USD).

Expanding of the domestic petrol stations network

One of the strategic directions of the company activities is expanding of the national petrol stations network, as part of the development strategy of the company. So far the petrol stations network includes about 150 petrol stations. The forthcoming increase of petrol stations quantity up to 300 will allow “Trade house ‘KazMunayGas’” to influence the price policy in the domestic market. At the moment the retail network of “Trade house” became one of the recognized leaders in the Kazakhstani market. That can be accounted for the initially high standards set forth by the company. For the purpose of improvement of service quality automated control system is being implemented at “KazMunayGas” petrol stations. These innovations will help to increase considerably labour capacity, to cut down loss of the product when transferring it from fuel trucks, to take down the influence of human factor. The walkthrough system of quality control, developed by “Trade house ‘KazMunayGas’”, will allow to monitor the processing chain entirely from petrol producing and selling and provide customers with high quality products, which is checked by the basic indicators. With the purpose of management improvement the company introduces international standards of management (ISO: 9000, ISO: 14000, ISO: 18000), SAP software, balanced indicator system.

SAY NO TO NO

Isn't it high time someone got negative about negativity?

Yes it is.

Look around. The world is full of things that, according to nay-sayers, should never have happened.

"Impossible."

"Impractical."

"No."

And yet "yes."

Yes, continents have been found.

Yes, men have played golf on the moon.

Yes, straw is being turned into biofuel to power cars.

Yes, yes, yes.

What does it take to turn no into yes?


Curiosity. An open mind. A willingness to take risks.

And, when the problem seems most insoluble, when the challenge is hardest, when everyone else is shaking their heads, to say: let's go.

Real energy solutions for the real world.

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Opening

of the 2008
Golf season
in Astana!





In May 2008 Royal Dutch Shell Plc was delighted to host the opening tournament of the Astana golf season, "The Shell Open Tournament"! Following the request from the President of Kazakhstan Nursultan Nazarbayev in 2001 this is the seventh year in succession that Shell has hosted and supported this commended annual event. Mr. Nurtai Abykayev, Ambassador of the Republic of Kazakhstan to Russia and Chairman of the National Golf Federation of Kazakhstan, along with Mr. Campbell Keir, Shell's Kazakhstan Country Chairman, warmly greeted the guests and participants at the official opening ceremony. Before teeing-off start the competition, Mr. Abykayev expressed his gratitude to Royal Dutch Shell Plc for its contribution and support in developing the sport of golf in Kazakhstan.

While the 2008 event provided an opportunity for Shell to look back on its proud history in Kazakhstan, and over 100 years in the Caspian Region. It also marked a new chapter in Shell's business activities in Kazakhstan as this was the first time the event had been hosted from the Shell side by Mr Campbell Keir, Shell's Kazakhstan Country Chairman and Managing Director of Shell Kazakhstan Development B.V. Mr Keir commented:

"I am delighted to be able to co-host this event with Mr. Nurtai Abykayev and am pleased to be joining Shell in Kazakhstan at what is the start of an immensely important time for the future of the country and our business operations here."

Helped by extraordinarily good weather and warm hospitality from the Astana golf club staff both the players and guests were able to enjoy the surrounds of the Astana golf club and a festive day of sport and socializing.

In addition to congratulating the winning players, Mr. Keir was also pleased to be able to congratulate Astana on the upcoming 10th anniversary.

The KazEnergy Magazine conveys its regards to the winners and introduces the names of the prize holders of the 2008 Shell Golf Tournament:

Mr. Baurzhan Mukhamedzhanov (Minister of Internal Affairs of Kazakhstan) was awarded with the prize "Best Gross Men"; Mr. Umrizak Shukeev (Vice Prime Minister of Kazakhstan) took the 1st Place in the group "A", 1st Place in the group "B" was given to Mr. Serik Zhaksybekov (JSC "Tsesna" Corporation)

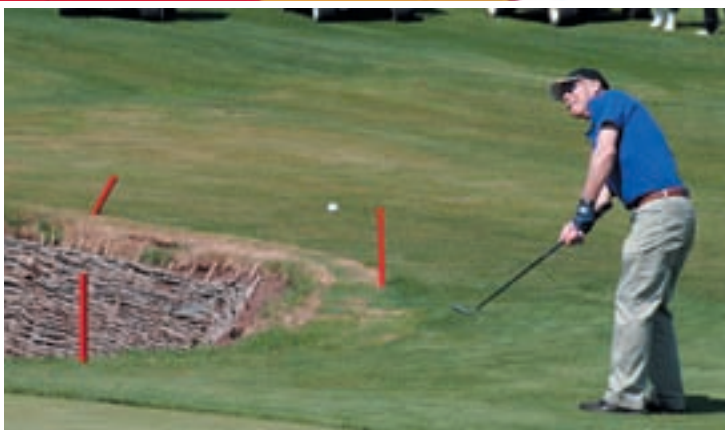
Mr. Timur Kulibayev took the Runner Up in the group "A", the Runner Up in the group "B" was given to Kairat Mamy (Chairman of Supreme Court);

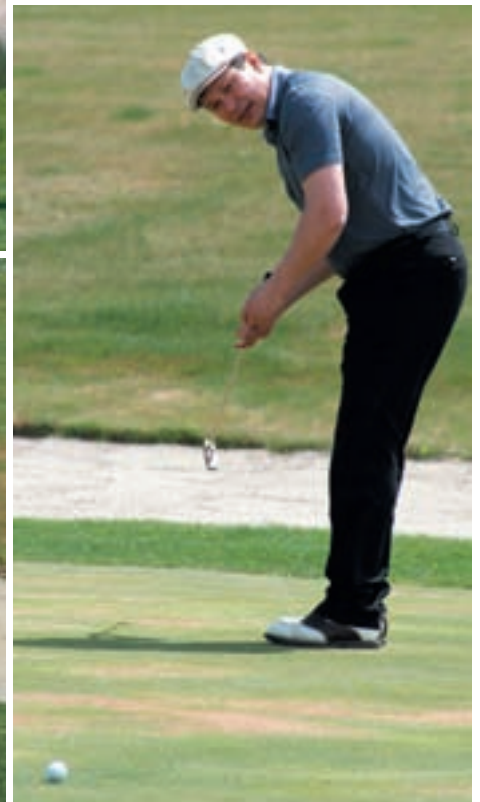
The winner of the 3rd Place in the group "A" became Mr. Ilya Korechnikov, the youngest participant of the tournament, the guest from Kustanai Golf Club, the 3rd Place in the group "B" was given to Mr. Joel Benjamin (Partner Denton Wilde Sapte) Ladies team was also awarded with the following prizes: 1st Place and the prize for the "Longest Drive" was given to Mrs. Jung Mi Kim (NTS Kazakhstan)

Mrs. Marjorie Phindile Gila (Spouse of Ambassador of South African Republic) took the Runner Up.

Mr. Kental Islamov (Chairman of Astana-Finance) was honored with the prize for the "Longest Drive", Mr. Nartai Dutbayev was awarded with the prize for "Nearest to the Pin".







Pearl of Bodrum

Interview with General manager of
Kempinski Barbaros Bay Bodrum
Mr. Axel Ludwig



For the benefit of our readers, could you briefly tell us about Kempinski Hotel Barbaros Bay Bodrum?

The quaint town of Bodrum was once known as Halicarnassos, this popular Aegean port and yachting center was built on a headland formed by the meeting of two bays. It is famous for its Crusader castle, its Amphi-theatre and the dazzling white houses lining its shores. It also boasts the ruins of the tomb of King Mausolus, the original Mausoleum, which is one of the Seven Wonders of the ancient world.

Beside its rich history and abundant natural beauty, Bodrum is also called the “St. Tropez” of Turkey because of its refined tastes and colorful stylish nightlife.

The Kempinski Hotel Barbaros Bay Bodrum is the unrivaled choice for anyone who prefers luxurious and elegant comfort for their limited times of leisure.

It is the first international Luxury Top hotel on the west coast of Turkey and is open all year around. With its private bay, blue flagged sand beach, magnificent architecture and the world renowned Six Senses Spa it is an attractive destination for local and international travelers who prefer to have a leisure experience with high quality service in a luxurious environment.

The Hotel offers the ultimate in culinary quality and excitement for its guests. Modern Turkish Cuisine at Olives Restaurant, Aegean wild fish and seafood from our Bay at Barbarossa, Modern and Fancy Asian cuisine at Saigon Club and trendy Italian Cuisine at La Luce di Samdan.

The very exclusive Six Senses Spa has an area of 5500 sqm and is world renowned for its Far Eastern and Asian philosophy and approach to wellness. Guests can indulge in tailor-made holistic treatments as well as specially designed Detox programs perfect for those looking to revive and unwind. The SPA has been chosen as the Best SPA in Europe for 2008.

Kempinski Hotel Barbaros Bay is not only perfect for holiday travelers but is also an ideal destination for weddings and business meetings. The Hotel has a wide variety of elegant and exclusive venues for mid and small events, meetings, conferences and incentives.

How long has the Hotel been operating in Bodrum?

The pre-opening of the hotel was in June 2005 and the grand opening was on the 19th of May 2006.

What is your understanding of a luxury five-star hotel? In your mind, is Kempinski Hotel Barbaros Bay Bodrum a real incarnation of «extra» five-star hotel?

A unique and beautiful hotel in a special location only makes up 50% of luxury. The other 50% consists of ‘soft’ factors and is the difference our staff makes every single day.

The main difference between a 5 Star and a luxury 5 Star Hotel is offering guests the wide range of services that they need to feel comfortable at any time with the highest quality level which they cannot experience elsewhere. It is the attention to detail which makes the difference and which exceeds the guests’



expectations. Highly individual services and a high level of service flexibility combined with an honest smile and custom-tailored programs are the basis for a luxury hotel. Our team has a passion for hospitality and is always ready to go the extra mile to make the guests' dreams come true.

Furthermore we select the best people we can find in the market for the development of our products and services. An international team of experts is in charge of creating authentic experiences. For example we have a fantastic Asian team cooking at the SAIGON CLUB, Italian chefs at La Luce and Turkish chefs for the Turkish Restaurant. The SPA also has an international team to offer the highest quality of Asian treatments.

Another important factor is the guest mixture. As a luxury hotel, we are careful to have the right guest mix in our hotel. We only serve our carefully chosen target customer.

How does Kempinski view development of the hotel business in Turkey? Which are, according to you, strong and weak points of the Turkey tourism and the domestic management in tourism?

Turkey is a beautiful country and the people have a natural sense of hospitality. This is a unique characteristic most countries don't possess. You can enjoy the hospitality in almost every part of the country in which you travel. Thanks to this merit, aside from major cities, the hotel business has developed as small family run hotels, mostly converted from houses. International chains have in the past concentrated in big cities such as Istanbul, Izmir, Antalya, where international tourism flourished.

However since Turkey has not succeeded until the turn of the century to surpass Spain, Italy or even her western neighbor Greece, as a trademark

in tourism and as a sought-after destination, the hotels even in Istanbul were underrated, thus leaving the hotel business lacking the expertise in high quality service and qualified workforce.

However for the last couple of years this has been changing dramatically for the better. As Turkey attracted more direct foreign investment, it made the right move to build its brand reputation as a country abroad and as tourists, wealthy as well as middle class, poured in, the hotel business boomed just as in other industries like construction, textiles and logistics. International luxury chains, such as Kempinski, Four Seasons, Ritz Carlton, etc. have stepped up their interest as well as their investments in Turkey, and this interest has not been limited to only the big cities. Kempinski's Bodrum property and investment is a solid proof to that.

Kempinski has been the first international chain to bring luxury tourism standards to the west coast of Turkey and other renowned chains followed. This has contributed and is still contributing to the elevation of Bodrum's brand equity. Now you can find world celebrities pouring in to this small holiday resort and pampering themselves with world-class customized services that they are used to receiving in any luxury tourism destination. The value-added services bring more profitability and this enables hotel businesses to convert more resources to property and service development as well as building a qualified workforce.

Also with the changing travel trends, Turkey's hotel industry has developed unique solutions for thematic and cultural tourism ranging from heli-skiing in Kackar Mountains to

A portrait of a man with dark hair, smiling, wearing a dark suit jacket over a light blue shirt. He is standing in front of a background of large green tropical leaves. The text is overlaid on the right side of the image.

«Turkey's hotel industry has developed unique solutions for thematic and cultural tourism ranging from heli-skiing in Kackar Mountains to exploring history while hiking on the Lycian Way».

exploring history while hiking on the Lycian Way. Now you can find almost anywhere you go in the country boutique hotels with excellent service quality, topping the "best hotels of the world" lists.

While Turkey is transforming its hotel business from mass tourism to personalized solutions, Antalya is the only destination that has to adapt more painfully than other local destinations. Its great location with sun, sea and sand and has paved the way for concrete structures with excess accommodation units to rise side by side and fight price wars to attract guests. I personally believe that if positioned and managed properly, a lot of unheard exotic destinations will rise and make it to the world tourism scene as the replacements for traditional luxury destinations such as St. Tropez, Greek Islands and Cote D'azur.

During the off season, accessibility to Bodrum is very weak, direct international flights are needed. In my opinion, Bodrum is an all year destination which will develop itself slowly thanks to the fast growing Spa and Gold industry. The tourism industry has to promote this potential and support the destination by improving infrastructure and flight connections.

Turkey have made a tremendous progress in tourism sector. In your opinion, what elements of Turkey experience can be used by Kazakhstan for development of its tourism opportunities?

Turkey has many secluded beaches, many different historical sites, untouched mountains for ski purposes, vast space and resources to sustain tourism in many different perspectives.

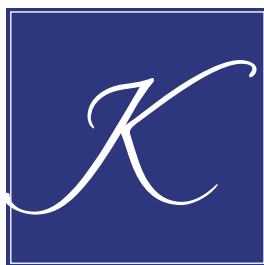
Like Turkey, Kazakhstan can also rely on its natural beauty and its people's honest hospitality. This is a solid foundation for building boutique operations throughout the country, just as Turkey is building. Kazakh investors can build the world's best small hotels in most sought after Kazakh destinations and offer experiences unmatched by any other world destinations.

While industrial and financial districts are the fastest growing in terms of attracting foreign investment and first class world-trotters, developing thematic and culturally unique offerings will be the best way to create a sustainable tourism destination.

Kazakhstan is a better candidate than Turkey to build its tourism brand as an eco-centric and eco-friendly luxury destination, a trend vastly taking over the traditional understanding in mass tourism. Countries like Gulf States, Morocco, Kenya and even China are capitalizing on the increasing opportunities in this field.

Recently the flow of tourists from Kazakhstan to Turkey have grown immensely, as well as the concurrence between hotels, without doubts. What features and luxury options your hotel possesses to boost the presence of Kazakhstan tourists?

Beside the beautiful environment and amazing facilities of the hotel we also offer high quality and personalized service. We train our team on the special needs of our guests from all over the world. We have a strong connection to Kazakhstan and employ multi-lingual employees who are able to offer easy communication and building strong relationships with our international guests. With this strategy we were able to increase the market share of the CIS customers. Bodrum, on the other hand, is hailed as the new St. Tropez. This means that you can enjoy the beautiful nature and get the most out of entertainment.



Kempinski Hotel Barbaros Bay Bodrum has been reputed as the best retreat offering the highest customized service as a base for individuals who want to make the most out of all that Bodrum has to offer.

Our guests can choose from a vast range of our customized offerings from our Six Senses Spa where they can pamper and rejuvenate themselves, Saigon Club where they can enjoy Asian modern and fancy cuisine or Ristorante La luce which

offers delicious Italian cuisine.

Also Kempinski Hotel Barbaros Bay is a favorite wedding and honeymoon destination for couples looking for an unforgettable romantic celebration. Our beautiful white sand beach is the perfect setting for the wedding or honeymoon of anyone's dreams. We would be delighted to fulfill our Kazakh guests' dreams as well.

What methods do you use to understand the multi-national consumers?

Like any other company, Kempinski has marketing reports that analyze and identify target clientele. A healthy nationality demography is an important aspect of Kempinski's management approach.

Traffic derived from international sources to our hotel website is another aspect to measure the interest of multi-national consumers to our hotel.

International awards also act as means to measure our international guests' appreciation. The most recent example of this is Six Senses Spa has been named the Winner of Conde Nast Traveler Readers Spa Award 2008 for Best Hotel Spa in Europe.

There are three more hotels in Turkey under Kempinski brand – Çırağan Palace Kempinski Istanbul, Kempinski Hotel The Dome Belek-Antalya and Kempinski Residences Astoria Istanbul. Do you think whether possibilities exist to expand the presence of Kempinski brand further in Turkey?

As mentioned we already have three prestigious properties – the Çırağan Palace Kempinski in Istanbul, Kempinski Hotel Barbaros Bay in Bodrum and Kempinski Hotel the Dome in Belek.

Currently, we do not have any plans for further projects in Turkey but we are always open for interesting project which match our portfolio.

Kempinski Hotel Bodrum is a real example of luxury. But for sustainable progress of the business, every company should have development plans for perspective. What is your vision of the «future» Kempinski Hotel Bodrum?

Our main objective is to continue to be the market leader as the best Leisure Hotel on Turkey's west coast for local and international travelers.

We will continue to promote the hotel as the Spa & unique Meeting and Incentive destination of Turkey, the hotel to be the best and most exclusive resort of the Aegean for couples and families. With exciting SPA and culinary programs we will continuously increase the attractiveness of our hotel.

We are always developing our products and services to the maximum in order to increase guest satisfaction. This includes the permanent development and training of our Team. With the planned developments and projects we will remain the benchmark for unique luxury Hotels in our market.



SENSE OF BUSINESS

Your business is your business.
 What we serve is privacy, comfort, luxury and perfection.
 What Bodrum serves is warm weather, a gorgeous history and a beautiful nature.

Come and meet in one of our fully-equipped meeting facilities
 and then rejuvenate with Six Senses Spa or the Aegean Sea.

"Sense of Leisure" is our business.



**Kempinski Hotel
 Barbaros Bay**

BODRUM • TURKEY

- 🍏 Name of the project: "Apple Town" – Almaly kala
- 🍏 Location: Saina str. - Askarove str. cor., Almaty city
- 🍏 Building company: "Galamat art" (Republic of Kazakhstan)
- 🍏 Investor: "KSID" (Republic of Korea)
- 🍏 General Contractor: "Woolim Construction" (Republic of Korea)
- 🍏 Design works: "D&A" (Republic of Korea), "AZD" (Republic of Kazakhstan)
- 🍏 Project concepts: Town in town – Mixed Use development.
There is comfort environment for living, work and rest.
Advanced IT technologies are used in the project development.
All the apartments and premises are put into operation with the full interior finish.
- 🍏 "Gold medal" of the Republic's competition of the best pieces
of architecture for 2003-2006 years in "Architecture" nomination
of the Union of Architects of Kazakhstan



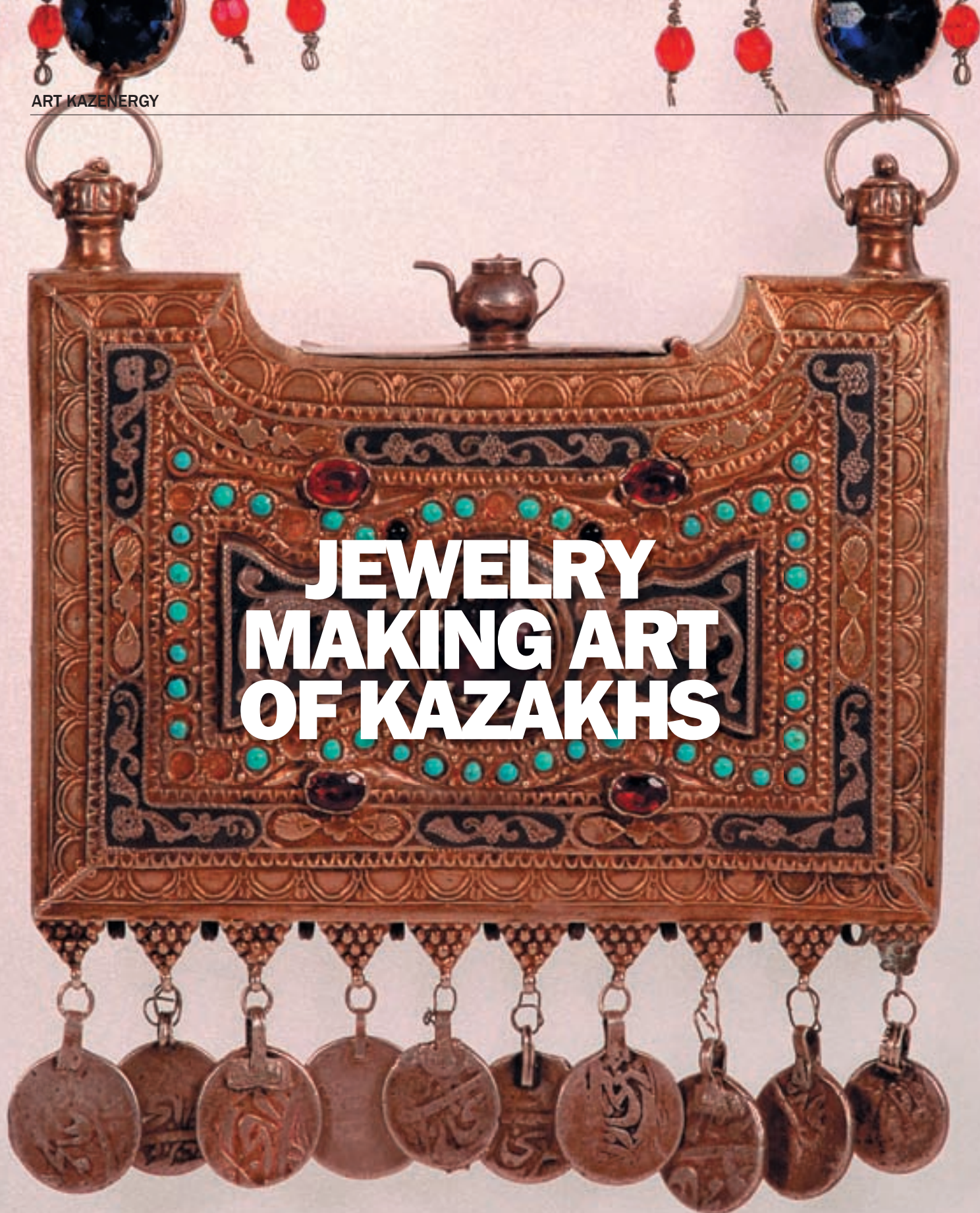
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JEWELRY MAKING ART OF KAZAKHS

‘HIGH ART IS CUT OF TIME FOREVER FROZEN’ – SAID THE WISE MEN. AND WE ARE CONVINCED OF IT WHEN WE CONSIDER AMONG MUSEUM EXHIBITS REALLY INVALUABLE CREATIONS OF GREAT MASTERS OF JEWELRY MAKING ART. THIS ART STILL LIVES TODAY. EVIDENCE OF THAT ARE ORNAMENTS OF MODERN ZERGERS, INVOLUNTARILY DRAWING OUR LOOKS TO SHOW-WINDOWS OF SOUVENIR DEPARTMENTS IN SHOPPING CENTRES.



All exhibits of jewelry are closely connected with history of Kazakh people and reflect development of national culture which roots stretch far back into depth of past millennia. Unlike other art crafts of Kazakhs such as objects carved of bone and wood or made of leather and clay, jewelry objects manufactured from bronze, silver or gold have appeared capable to resist destructive passage of time and have lasted up to now. Therefore, in this art-form ideals of our people, its tastes, and its level of artistic and material values have been most fully and brightly reflected. Studying samples of works by zergers of the past we can track a line of development of ethnic jewelry making art since the most ancient times up to now.

Ethnographers especially underline professional level of jewelry making craft in comparison with other kinds of Kazakh applied art which had character of local crafts. This is explained by the fact that masters of jewelry making craft had certain toolkit and had to undergo long training. As it is known the Kazakh jewelers - zergers ("zer-zar" in translation from Persian language means "gold") - passed their skill from one generation to another. They were carefully selecting their apprentices from among volunteers eager to master the secrets of this art which was constantly enriched by the best traditions of amateur and folk art. A descendant of well-known family of masters of jewelry making craft, representative of the fourth generation of zergers of West Kazakhstani (Aral) school – Kudaibergen Kulambetov nowadays lives in Kyzylorda oblast. In his arsenal - house utensils, wooden and leather ware, mu-

sical instruments, horse riding equipment and many other things. The most part of Kudaibergen's creations consists of female ornaments. In this respect the master often quotes one Turkmen colleague: 'As long as in this world remains a woman jewelry making craft will never die out'. Thus, Kudaibergen himself remarks: 'it is not enough to master technique of jewelry making craft, it is necessary to feel in your soul and heart each necessary detail which will subsequently give originality and refinement to entire product'. Probably in this way within small forms that "monumentalism" and "sculptural expressiveness" - remarks used by researchers studying Kazakh ethnic ornaments - are created.

One of the major features of jewelry ornaments of Kazakhs is that practically all of the ornaments are created and worn not so much for decoration, but rather for their magic, i.e. mostly protective function. There is a special meaning in a form, decorative design and materials used. Archeological research confirms that on Kazakhstani territory deposits of copper, tin and even gold had been mined since the most ancient times. However, despite this favorite material of Kazakh zergers is silver. The reason lies not merely in natural beauty of this metal. In imagination of Kazakhs this metal possessed cleansing, protective and magic properties. According to some sources shine of silver and its color were associated in Protokazakhs' mind with moonlight similar to many other nations in the world. In their understanding "the pale planet" and silver have been closely connected to each other; they considered metal as a particle of night star and associated it with various magic properties.



Silver is present during ancient Kazakh custom of bathing of the newborn. According to folklore child is not considered fully a person until after first 40 days from its birth. It is the first and most dangerous period in human life when any misfortune may overtake an infant be it illness or curse of an evil eye. After this dangerous period was over special ceremony of child bathing was organized during which silver rings and coins (for destruction of harmful microorganisms) were thrown into water with the words 'balayn kuni kumistei zharyk bolsyn!' ('Let the days of this child will be light as silver!').

The most significant part for Kazakh jewelry creations is attached not to value of materials used, form complexity or variety of techniques used but first and foremost to an ornamental decor. This

feature distinguishes Kazakh jewelry making art from European. According to experts most fully this feature can be observed in ornaments of so-called "geometrical style" prevailing in Western and partially in Southern Kazakhstan. Grandeur and solemnity are peculiar to these massive and at the same time austere ornaments. Basis of decor construction of similar ornaments are geometrical figures (such as oval, circle, triangle, rhombus, points, mugs, S-shaped signs) of large sizes, for example, necklace of rectangular composition reaches almost to belt and massive rings could cover entire hand. Nevertheless, such large forms are not perceived bulky thanks to organic decor. Flatness of objects is organized and counterbalanced by large inserts of framed jewels – which stand out against general background – serving

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bearding, filigree framing, notching, darkening.

Practically everywhere in furnishing final product notching was applied. On a previously cleared by file surface of an object a small grid of grooves was cut and then thin plates of silver were laid over and hammered into base. Kudaibergen recalls his father who in detail described to him the filigree works demanding incredible effort and special talent. 'The works were carried out only when requested by wealthy customers' told zerg'er. The masters knew and kept secrets of transparent, plated and relief filigree. From molten silver was a wire shaped which then was stretched through the apertures of different diameter punched in a piece of metal. The wire was curved into required form. During transparent (openwork) filigree certain parts of patterns were fused by soldering, during plated and relief filigree work patterns were soldered onto metal base. 'All this my father taught me during sleepless nights' continues his story Kudaibergen 'because during Soviet time especially during repressions everyone who tried to maintain and develop national culture in any way be it through literature, art or anything that was ethnically distinct or expressed traditions rooted in folklore, was subjected to persecutions'.

as peculiar sculptural accents. Contour of entire ornament design is framed by filigree: the ornamental tapes strengthening form expressiveness. All these elements create image of preciousness for entire manufactured piece. Ornamentation of decorations done by inserting jewels into centre, twisted filigree along the edges and triangles of beads in between lead researchers to use bright analogies with Huns epoch jewelry. A number of essential parallels in technology and decorative decisions are traced also in ornaments of Turkmens, Kara-Kalpaks and peoples of Dagestan.

Aforementioned decorative-technological principles are still observed in jewelry making art of Western Kazakhstan today. Many new techniques are combined in a final product; however, overall local peculiarity of style remains unchanged. Such stability and viability of style testifies to powerful creative potential of local tradition of which bright representative is Kudaibergen Kulmambetov.

Speaking about ornamentation of Kazakh jewelry it is necessary to mention widespread elements stylizing flora and fauna motives: "koshkar muyiz" (ram's horn), "kurt-kulak" (crosshair of ram's horns), "zhapyrak-gul" (trefoil).

An extraordinary large number of techniques was known and used by Kazakh masters of the past. To mention but a few: punching, engraving, stamping,



**Lladró Re-Cyclos Magical
by Bodo Sperlein**

Chandelier Niágara: Ø2m / Ø1,10m / Ø0,60 m

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The objects decorated by precious and ornamental jewels are considered by ethnographers as ethnically traditional. Jewels also carry deep semantic meaning. People called jewels by word "tas" (jewel) or "kyoz" (eye). Such metaphor was not casual: all jewels were understood to be an all-seeing guarding eye imbued with miraculous power. There was a belief that the pearls cure cataract, coral preserves against evil eye and curse, amber treats thyroid gland, mother-of-pearl protects from a wicked tongue and at same time invites good fortune, turquoise brings happiness. Cornelian was the most popular jewel thought to bring joy and prosperity. Kazakhs as well as at other nomadic peoples had a lot of legends involving this jewel. Steppers believed that cornelian can protect from an evil eye, female barrenness, besides «the solar jewel» could return to elder people force of youth and unchanging good mood.

Attitude to jewels in jewelry objects is another distinction between West European and Kazakh traditions. For West European tradition function of jewelry was concentrated mainly on demonstration of riches, power and splendor of their owners. As a result the jewels in ornaments play exclusively decorative role reflected in certain criteria of its value: its rarity in nature, hardness, color purity, character and complexity of its cut.

For a Kazakh jeweler the jewels are first of all a source of great force protecting from illnesses, harm and disasters. Therefore, master jeweler makes careful use of his material. He does not aspire to reach by means of complex cut additional effects. In his case it is important to keep original, natural shine and color of a jewel. The tasks set before the Kazakh jeweler in course of stone dressing prior to inserting it in a jewelry object were limited only to removing rough edges, flat polishing and insert adjustment in compliance with configuration caste. This level of dressing was seen to the master as definitive and quite accomplished in decorative terms. In ornaments furnishing Kazakh jewelers applied such precious and semiprecious jewels as topaz, pearl, diamond, ruby, crystal, cornelian, turquoise, mother-of-pearl and coral. The jewels were cut the same place where jewelry objects were manufactured.

Female jewelry were in demand among all social strata of society not only because of their aesthetic nature, but also because of a number of ritually-functional attributes rooted in customs, ceremonies and religious outlook (as was mentioned above). Through an ornament it was possible to guess woman's wealth and from where she came. Rich women could order zergers to create a set of ornaments



executed in uniform style. Girls from wealthy families had a full set of the silver ornaments total weight of which exceeded 3 kilograms.

Character and quantity of jewelry corresponded to woman's age. Thus, girls carried simple – in terms of form – earrings and bracelets. As a girl was growing her jewelry was changing becoming gradually more intricate. After her marriage process was reversed.

Another feature of Kazakh jewelry is that practically all of them are related to certain kinds of dress and also have age limitations.

In a life of any Kazakh woman jewelry played an essential role. Jewelry embodied eternal human attraction to aesthetic ideals, hope in attaining happiness and belief in miracle forces of the nature capable of protecting from illnesses, troubles and harm. For this reason from her birth to her death Kazakh woman always wore jewelry corresponding her age and social status. The first jewelry in a form of various amulets was put on a newborn girl. Certainly, at this stage jewelry did not have aesthetic function. However, in due course, for example, a claw of a bird or steppe animal framed in silver frequently containing beads and inserts of cornelian which could be tied to a leg or hand of a child or sewn in her hat ("takiya") and then this amulet was becoming one of the first jewelry of future woman.

Upon reaching 10-12 years of age the girls put on full maiden set of jeweled ornaments. Majority of these ornaments subsequently would be used in her wedding dress. Set of the maiden ornaments was one of the fullest and most elegant sets compared to jewelry sets worn by women of other ages. Its splendor and quantitative structure was second only to jewelry set of a bride. From the child ornaments the Kazakh girls carried various amulets. Of particular interest are ornaments worn on a chest: amulet containers called "tumarsha" (of triangular form), "boitumar" (in a form of a hollow tube with pedants). They were intended both for aesthetics, and for protection. Amulet holders were hollow to be filled by sea and river shells, feathers of an eagle owl, some sheep or camel wool believed to have favorable magic properties, later - passages from the Koran were put inside.

Hair ornaments were the most widespread. Among them ringing pendants "sholpy", "shashbau" were decorating and simultaneously emphasizing length and volume of hair which embodies maiden beauty. The pendants were suspended from the ends of plaits and made of metal coins or openwork medallions



The jewelry set of the bride differed from maiden set of ornaments by even larger number of decorative objects. Main detail of wedding dress ensemble was headdress "saukele".



with cornelian inserts. Ringing of hung ornaments was supposed to protect hair because Kazakhs believed that part of soul lives in hair. Kazakhs as well as other peoples of the East believed that the bells by their movement and ringing can frighten off evil spirits. Weight of hair ornaments reached several kilograms which naturally pulled girls hair back developing beautiful bearing and gait. Silver coins during movement created a melody which was peculiar to each girl's gait. Upon this melody girls character and disposition was judged.

The earrings ("syrga") were considered the most ancient amulet. This is why they were worn from early childhood. There are many types and variants of earrings. Skill and intricacy distinguish filigree earrings: light peculiar openwork complements very well graceful pendants in form of bells with wire fringe. Widespread are ornamental flat earrings of various forms. Moon-earrings "ay syrga" – sometimes with a star cut on inside – are very popular. The earrings "kozdi syrga", "tasty syrga" based on insert jewels captivate by their sonority of color.

For solemn occasions temple earrings "shekelik" were put on. They were fastened to the headdress loops or to hair at the temples. Frequently temple earrings consist of several parts sometimes including pendants on long chains. Flat temple earrings of triangular, petal, pike or other shapes are laconic and decorated using different techniques. Temple earrings either sprinkled with beads, openworked or sphere shaped with complex pendants all look very effective. Plasticity and composite coordination of major part of temple earrings with waving ringing pendants by their light openwork chains were creating some kind of picturesque frame of a face.

Also, the girl's hands were decorated no less richly. Often they were almost completely covered by numerous rings and bracelets.

Bracelets "bizelik" were usually worn on one or two hands as a pair. Bracelets were either solid or composite: made of 2-3 parts connected either via swinging joint "topsaly bizelik" or joined in folds "kakpak bizelik". In most cases bracelets were decorated by jewels. Frequently used was space organisation via harmonious pattern ornamentation. Other techniques were applied also. One peculiar bracelet – part of a set – is represented by "bes bilezik". It comes in combination with five rings beautifully framing a hand. This ornament in Europe has received an original name «hand rose». This particular name received an ornament made by her designer Alphonse Mucha in the second decade of 20th cen-

tury for Sarah Bernhardt who played role of Cleopatra. Never seen in France before that time the bracelet has been made in form of snake twisting around forearm with its forked tongue linked to the chains connected to three or four rings. This ornament, according to the artist, had been inspired by images of ancient India. However, in Kazakhstan bes bilezik existed already for hundreds of years being considered as exclusively maiden ornament.

In the East even today people believe into magic power and cleansing force of all types of rings. Rings were usually worn three or four at a time. They were daily ornaments which each woman was supposed to have because otherwise food prepared by her would be unclean. To this day Kazakhs have a saying for such occasion: "Tamak adal bolu ushin kolda zhuzik bolu-y kerek" ("For food to be pure there should be ring on hand"). Various well wishes were expressed in form and decor of ornaments. Notions of prosperity are reflected in a ring type called "kus tumsyk" (the bird's beak). Such rings were usually gifted to young men leaving for war so that they would return back to "parents nest" alive and unharmed. Birds' imagery was widespread in decorations of all applied art objects. From long ago bird was a symbol of freedom and happiness personifying force of good.

Complex chest ornaments "onirzhiyek" and "alka" also were privilege of the young. Onirzhiyek was an obligatory ornament of married women especially during child nursing. This ornament protected female breasts from an evil eye. Some kind of apogee of Kazakh woman jewelry attire was bridal set of ornaments. The jewelry attire of a bride represented an artistic absolute preserved by the people from time immemorial. After all, the bride was decorated during wedding aspiring to reach perfection in her beauty so that her appearance would evoke the finest thoughts and dreams in those around her. It is precisely the jewelry ornaments which were given role of disclosing and creating this beauty and magnificence.

The jewelry set of the bride differed from maiden set of ornaments by even larger number of decorative objects. Main detail of wedding dress ensemble was head-dress "saukele". It was supplemented by long velvet tapes with the threads of either corals or pearls fixed on them. To the ends of these tapes small bells were attached so that with each girl's step or movement silver ringing was heard. To saukele special pendants "seukelenin



syrghasy" – resembling earrings but much larger in size – were attached.

Besides one chest ornament, for example, tumarshi bride's chest could be simultaneously decorated also by alka or onirzhiyek and sometimes on bride's camisole a number of plaques or coins were sewed. All these ornaments together with various pendants and fasteners – as if it were silver flickering armor – covered bridal suit from headdress to shoes. Kazakhs recall that very frequently under multi-kilogram weight of ornaments bride found it difficult to move. However, during analysis of wedding ensemble of bridal jewelry ornaments as well as entire Kazakh jewelry making art it is necessary to remember at all times complex semantic, magic and religious meaning of the ornaments relied upon in this case not only to underline beauty of a young girl but also to protect her during one of the most important and responsible moments of her life.

In this respect female ornaments during the first year of marriage – from date of wedding till birth of the child – are noteworthy. These ornaments express through form and decor to the fullest extent possible the notions of fertility and large posterity. In addition to these ornaments the same function is served by worn on chest amulet containers like "boitumar" which consist of tubular and triangular parts (male and female symbols), fasteners and decorative plaques with images of birds and fish.

Sacral force was believed to exist in some trees, their fruits and seeds and grain of plants. According to folklore some such trees including dog-rose, hawthorn, pomegranate, dzhida and mulberry helped to have more children. The same meaning had dried grains of barley which long since were considered as cult cereal closely linked to notion of fertility in Central Asia.

With age Kazakh women's jewelry was changing to simpler ornaments. Richly decorated ornaments sholpy and shashbau were replaced in the beginning by threads of corals and then by color tapes and a scarf "kimeshek" with specially cut out aperture for face. This act symbolized transition of woman from one age category into another: from youth to maturity. Hand ornaments were simplified too: massive bracelets which often came in pairs were replaced by more modest counterparts. An example of this is "zhumyr bilezikter" – the bracelets resembling rounded off piece of a thick silver wire. The ends of these bracelets which were not closed were sometimes shaped by master jeweler into an outline of snake heads ("zhylan bas") believed to guard against forces of evil.

Another kind of hand ornaments for women of advanced age were massive rings with apertures for two fingers called "kudagi zhuzik" (rings of matchmakers). The ring which was put on two fingers at once symbolized connected lives of a young couple. Sometimes, such rings were gifted by bride's mother to her daughter's mother-in-law in gratitude for patronage and kind treatment of her son's wife. Custom of carrying such rings has been particularly popular in the Western Kazakhstan.

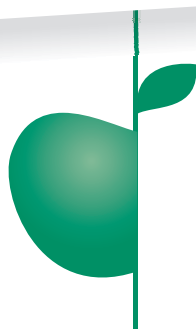
"The masterpieces bearing living breath of boundless steppes." In such way researchers have poetically described Kazakh ethnic ornaments. And what is more important is that jewelry making art is alive and continues to develop. Those wishing to master this art travel, for example, to distant Aralsk city with only one purpose: to see for themselves how zherger Kudaibergen Kulmambetov works, to be inspired by the art, to discover for themselves its secret meaning and to continue this great tradition.

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The Kazakh





ONE OF THE GREATEST INVENTIONS,
PRESENTED TO THE WORLD
NOMADS, THE MARCHING HOUSE - A
YURTA IS. PERHAPS, AND NOT TO
RECOLLECT STRAIGHT OFF, WHAT
ELSE ANCIENT THING - AFTER ALL
TO A YURTA MORE THAN TWO
AND A HALF THOUSAND YEARS!
- USES TODAY SUCH DEMAND
AND SO IT IS NATURALLY
ENTERED IN PRESENT
INTERIORS. UNLESS A
STIRRUP AND A SADDLE
INVENTED BESIDES BY
NOMADS.



The first mobile dwellings were on wheels, and there were they already during a bronze epoch. It were prototypes of the future yurta - tents and the tents rigidly strengthened on two-and four-wheel carts.

Yurtas on wheels are mentioned by Venetian Barbaro traveling in Desht-and-Kipchaksky steppe in XV century. «At these people in the use uncountable vehicles on two wheels, above ours, also are covered they by felt, other cloth if belong to eminent people».

Impresses the yurta image in «to the Book Marco Polo», published by Henry Julom.

«What humangous tents I have seen, put on wheels! Them as if have erected in air space. I have beheld extensive houses with the windows covered with felt curtains - very beautiful and skilful. All rate is filled by these excellent houses so the reason is amazed and the head from beauty, skill and graces» is turned. So describes yurtas in the beginning of XVI century Fazdallah ibn Ruzbihan.

Dwellings on vehicles were not unique or even essential for the nomads. Convenient for plains, they did not suit districts mountainous, crossed; therefore the dwelling which could be disassembled and transported on pack animals was required.

The earliest images of such dwellings are recorded in a list on a wall of crypt Anthesteria in Crimea (I century B.C.) and among petroglyphs of Boyar pisanitza in Southern Siberia. And here orally the yurta is mentioned in II century B.C. in a poem of Chinese princess Si-Gun: «relatives in the distant party

Have given out me; have given to another's kingdom for uysun tsar. He lives in the round hut fitted by felts, eats meat, drinks milk.

As I will recollect Father-land, - heart aches. A wild goose to turn back to me to return home».

Yurta collecting similar on world creation. In the beginning there

was a Door - the Gate from one world in another. Akbosaga - a threshold - border between the world external and the world human. Having risen in full growth, the Person has recollected the God and has uplifted a dome of the house and has made its window in the Sky.

In the Kazakh folklore there is such riddle:

*One carpet is fleecy
And other is bald,
In addition there is felt.
Hop! - I have exclaimed
And have risen into heavens,
Have twisted, moved about
The earth terrestrial have trampled down!*

The fluffy carpet is, of course, green grass, a bald carpet - the sky. Here is an answer: so put a yurta! This cosmogonic riddle - the certificate of ancient representation of nomads: the world - the big yurta, where a dome - the sky, шанырақ - the sun, a floor underfoot - the earth, and kerege - parts of the world.

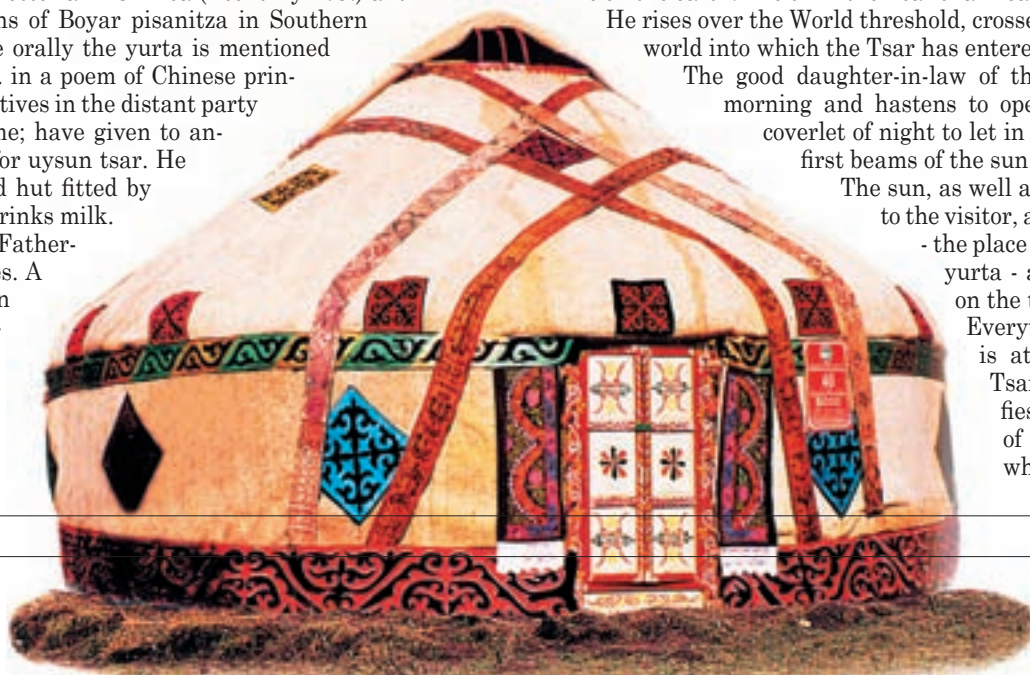
Morning begins with sunrise. That is why the yurta door looks at the east. She always waits for a life dawn. The sun for the nomad - the main visitor in this world, without it is not present a life on the earth. The sun - the Tsar of all real on the earth.

He rises over the World threshold, crosses it, - and the world into which the Tsar has entered, revives.

The good daughter-in-law of the first meets morning and hastens to open tundik - a coverlet of night to let in the house the first beams of the sun.

The sun, as well as is necessary to the visitor, ascends on tor' - the place of honour in a yurta - and sits down on the throne.

Everything, that is at the left the Tsar, personifies a constancy of the world to which the God





of the nature has a kind feeling. This female side is life affirming. Here a person is the master of his/her riches.

Everything, that is on the right of the Tsar, personifies the Way-road, eternal change of day and night, a world of vanity. It is the side - man's, unpredictable, full of alarms and tests. Here the person feels the visitor in this world. The soldier, the hunter, the defender of the house and herd, it is always ready to leave in a campaign.

West side of the Universal yurta - a sunset - the most forbidden and mysterious. It is similar to an all-consuming black hole in which all is overthrown live and consequently it is curtained by the most magnificent carpets here again there are chests with all acquired good of the nomad. These gifts of a life - symbols of the terrestrial blessing - people - only actors cover a life terrestrial from the world of shades, like the magnificent background decorating a scene, on which.

The yurta skeleton consists of four basic elements: it Shanyrak - a circular dome cover; u-yk - the dome poles supporting Shanyrak; kerege - a sliding trellised basis; yesik - a wooden door with shutters.

Yurta skeleton is made of a steppe willow - purple or rose willow that it is light and strong. A dome - Shanyrak - is made from a birch. Kerege of yurtas is made of separate section-wings.

A usual yurta is six wings (alty kannyat kiiz uy). But yurtas from 14-16 wings are known. Khan Zhangir has presented to tsar Nikolay II 18-rope yurta, that is three times there is more than usual.

Shanyrak consists of a rim and rasporno-fixing laths - kuldireyish (usually on

three in each plane, located under a right angle to each other). In the past the yurta skeleton was decorated by silver patten plates or inlaid with inserts from a bone.

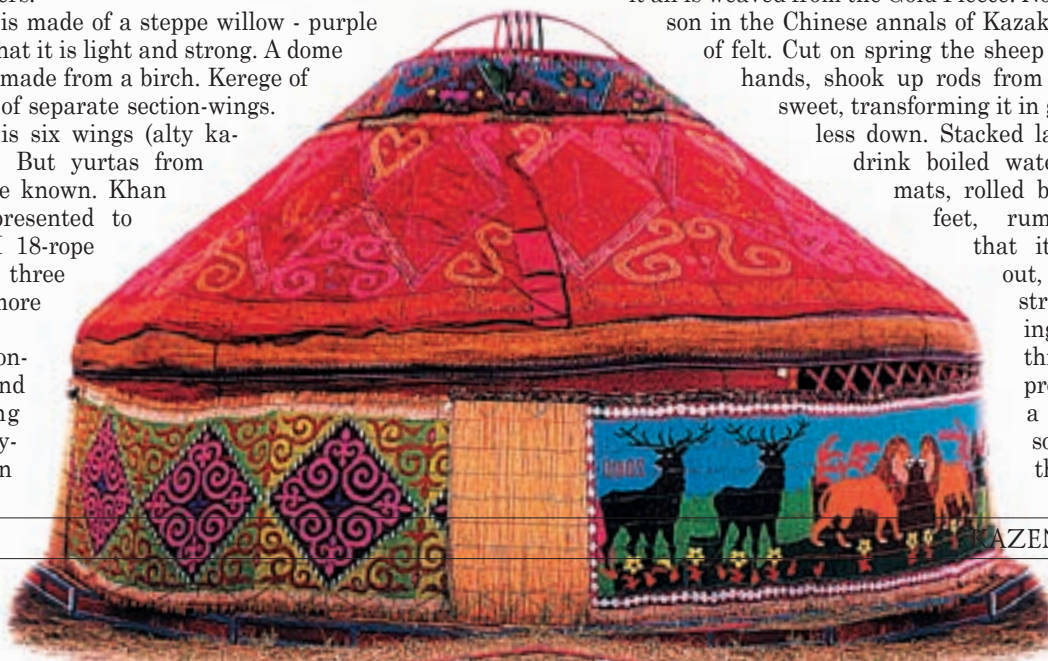
The yurta door - sykylau-yk (skripuchka) - consists of three parts: a jamb, wooden shutters and a felt cape (kiiz yesik) with the filed patten mat. The jamb includes: lateral

racks - bosaga, a threshold - tabyldyryk and the top crossbeam of a jamb - mandaisha.

Yurta assemblage begins with door installation. A door - a face of a yurta. That is why it decorate a figured carving and coloured by paints. The door invites the visitor in the family world, a door - a mirror of well-being of the house.

Shanyrak - the Sun wheel - the life symbol has outgrown in a symbol of continuation of a sort. It passed from father to son. Shanyrak darkened in due course from a centre smoke, but than more darkly, than ancient it was, especially was esteemed by all members of household. «Kara shanyrak» Kazakhs the fatherlike house, a family nest name. It is inherited by the most younger in a sort.

Kazakhs name a yurta kii uy - the felt house. And it is valid, it all is weaved from the Gold Fleece. Not without reason in the Chinese annals of Kazakhs call people of felt. Cut on spring the sheep wool fingered hands, shook up rods from the meadow-sweet, transforming it in gentle weightless down. Stacked layers, gave to drink boiled water, turned in mats, rolled by the ground feet, rumpled elbows that it has turned out, eventually, strong felt. Having passed all this wearisome process under a rhythmical song rollers, the steppe car-





pet became the most invaluable product in use of the nomad. It covered a yurt, protected members of household from the sun, a wind and a moisture, warmed and decorated a floor, transformed walls into gallery of carpet painting. Thus, dressed in оболу a wool the yurt showed one more image of the Gold Fleece, one more grateful hymn to a sheep - to an ancient symbol of divine good fortune. Not without reason the selected khan in steppe lifted on white felt. Ritual symbolised its birth in the new status. Goddesses of human destiny - parks - twist a thread of a human life. The birth of the felt house - yurtas - begins with hard work of the Kazakh weavers. Spinners, weavers, braiders, they transform in the magic image a wool into hanks of threads, cords, strong woven tapes - bau, tangysh by which are fastened side doors and kerege, and also kerege among themselves.

It was in a special way weaved on the machine tool baskur is a wide patten woven tape pulls together outside a lattice together with fastenings and уыками, being, thus, structurally important element in architecture of a yurt.

Surprising fairy tale the birth of mats from Achnatherum seems - it is possible to tell, from anything. Arrow-shaped stalks of Achnatherum, the steppe reed, wrapped up by colour woollen threads and connected with each other, turn to the bright, joyful crossword puzzles which sections are filled by mysterious letters of the forgotten alphabet.

In a heat felt from yurt sides are removed and leave shym shii - Achnatherum mats through which the fresh breeze easily nestles close. Tuyrylys, rectangular pieces of felt, cover kerege and the bottom part of a dome. Two felts of the trapezoid form - uzik



- cover a dome. The square piece of felt mat tundik is thrown over sunroof window of a yurt. A yurt surround with a lasso beldeu and a narrow wattle strip beldeu bau.

Now it is possible to be engaged in internal furniture of a yurt.

From within the design of the steppe house becomes stronger narrow tapes - zhel bau. In case of a strong wind they turn to anchor ropes to which ad-

here heavy cargo.

The floor of the nomadic house is warmed by tekemets - felt carpets with slightly dim colourful patterns. For all life the Kazakh who has born in a yurt will remember its prickly tenderness, so similar to the multi-coloured childhood with its first short steps and cones. Tekemets changed a yurt as though the Lord has decorated the earth by motley grass, granting heat and aroma of the protogenic nature.

Quilted carpets - syrmaks as if competing with tekemets, covered a floor and yurt walls. The accurate ornamental pattern of two-three colours is quilted by a woollen thread and lasts, as if a never-ending way. The most known kind syrmaka and is called: betpes - inexhaustible. It symbolised itself an idea of infinity of the world.

Alasha - one more kind of the Kazakh carpet sewed from woven strips. In transfer means motley, striped. It is weaved on the special machine tool - to a forage. Alasha - the carpet poem written in the rhymed colour lines, a poem-message from the remote past in the infinite future.

Nature pictures, a landscape of native places are coded by the Kazakh needlewomen in nap and pileless woven carpets - kilems. The central field of such carpets and is called: кол -



lake, a border round lake - korgan, korshau, that is a fencing, coast. And the strips dividing a carpet, the rivers - a sou. The ornament transfers outlines of mountains, trees, animals and birds.

But the brightest ornament of a yurta is tuskiiz - a wall carpet. The richest tuskiiz are finished by precious fabrics and inserts, decorated by a rich embroidery, on edge the carpet was sheathed by a twisted cord. Special refinement, riches was given to tuskiiz by an embroidery platform, a smooth surface, gold sewing. The P-shaped frame - the characteristic element of tuskiiz - underlined a place of honour in a yurta, giving to it original similarity with a back of a throne. Wall carpets strictly regulated internal space of a yurta, dividing it on seven zones which borders are observed since the most ancient times up to now.

The sacral centre - *the centre, dastarkhan*. A symbol of a family happiness.

Place of honour for visitors - *tor'*. A glory and riches embodiment.

Place for visitors - a symbol new and coming.

Bedchamber. A symbol of a family nest.

«Office» of the husband. Here symbols of hunting, extraction, good luck are stored.

Corner of the mistress - symbols of keepers of the blessing.

Threshold - *bosaga*.

Sacral border of the house and an external world.

On a female half in its uppermost corner there is a

wooden bed of owners - *agashtosek*; or *tosagash* - a bed decorated with bone and silver plates. Bed of owners - blankets and pillows - are taken away by a curtain. Whatever respected was the visitor, to it never will suggest to spend the night in master's bed. Any subject - neither blankets, nor pillows master's - should not adjoin to a stranger Kazakhs, otherwise, considered, the happiness will leave owners.

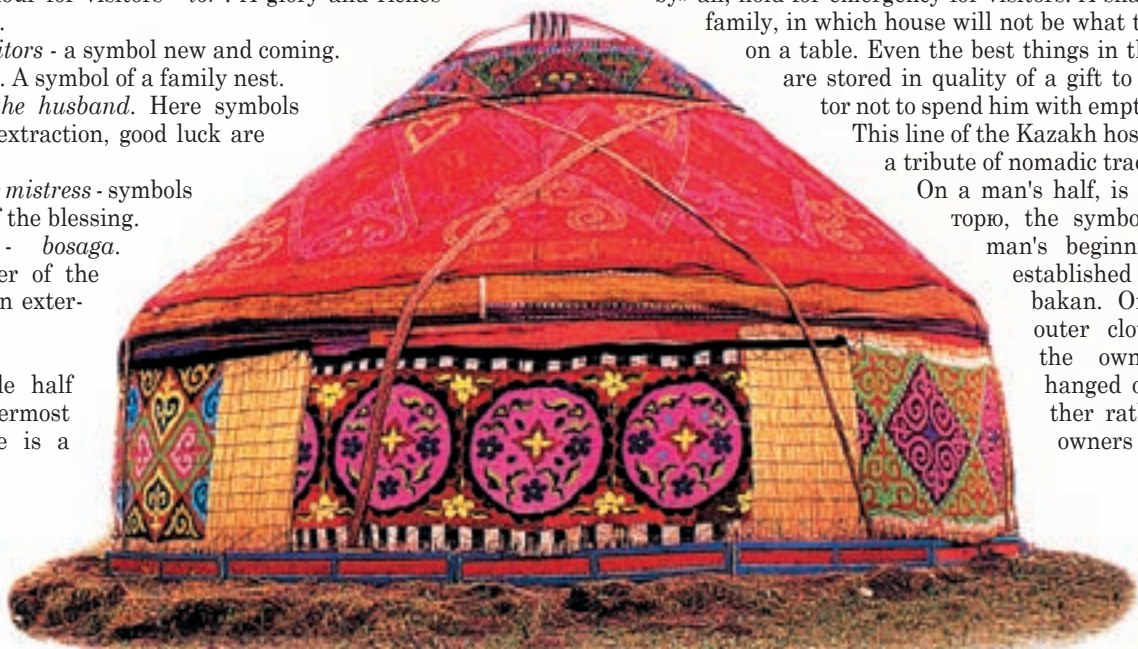
Here the cradle for the newborn is installed. Prematurely born child was nursed in *tymak* - a winter headdress, suspending it over a bed.

More close to an entrance - a work zone. The case with ware - *asadal* or *kebezhe* where stored also dried meat, *kurt* - the dried added some salt sheep cheese, tea. Here settles down. On *kerege* hang valises - *korzhyn*, *dorba*, *ayak kap* - for storage and ware transportation. Under them a huge wineskin for *koumiss* - *soba*.

It is necessary to notice, Kazakhs the best in the house «put by» all, hold for emergency for visitors. A shame for a family, in which house will not be what to expose on a table. Even the best things in the house are stored in quality of a gift to the visitor not to spend him with empty hands.

This line of the Kazakh hospitality - a tribute of nomadic tradition.

On a man's half, is closer to *topyu*, the symbol of the man's beginning was established *adal-bakan*. On it the outer clothing of the owner was hanged out. Further rather poor owners could



have a bed of the married son who yet has not separated from parents. Or the maiden bed of the daughter. It also is cleaned by a silk curtain - shymyldyk.

As a whole this half guest.

Sons, having grown up, will lift the yurtas, younger will take a place of the father. The daughter - too the visitor, it here lives till a time, and will marry - will leave in other house. It and named: «konak» or «on zhakta otyrgan kyz» («the girl that sits in the right half of house»).

Here transferred a body of the dead owner, henceforth it too «visitor» who goes to a long journey - in the world other.

The hunting trophies - the wolf skins, musical instruments, and the weapon were hanged out.

More close to a threshold there was an equipment of a horse, the lifelong companion of the nomad - a saddle, a harness. Horse bridles were hanged out along a wall on sharp tips kerege.

In the yurta centre on a tripod - tagan - stood Kazan. Kazan never leave opened or empty.

This most sacred place. Here the house centre is located. In Kazakh language otbasy - that literarily means: «fire head», that is a place where fire originates. There, where fire is lit,

there begins a life, there is a family. Here prepared food, here were brought a victim to sacred Fire - to the owner of the centre. Food - the Good symbol. Let though an oil spoon at the bottom, but it will be obligatory in казане, it is important, that it was not empty.

«Yes let the food in this house never end!» - Kazakhs wished to each other, finishing any meal.

Far ancestors of Kazakhs, Turks, idolized the Sky - Tengri which all-seeing eye accompanied the nomad wandering with the herd on a palm of steppe. They rejoiced to the first beams of the Sun, the newborn Moon, the first sprouts of the green grass, the first spring milk, the first lamb and, certainly, to the first child therefore as all is the Life phenomena so, Pleasures. After all to live means to rejoice!

In each spring Kazakhs move to southern slopes of mountains - are closer to the sun, to the first grass that all pets could be supported and poured by a fat more likely. They will be stronger, the will be born darlings to heart of the nomad of lambs, kids, foals and fluffy верблюжат with the big damp eyes more. Kazakhs on green Alpine meadows, and all the summer long spend in the autumn when already all grass in district обьедена cattle, rise from summer pastures and move after heat on the south - in semi-deserts where there are no strong snow blizzards, and spend there all severe winter.

So upwards - to mountains, downwards - in valleys, also nomads, like birds of passage wander all life. That is why Kazakhs consider as the distant ancestors of wild geese and

swans. Birds fly on autumn on the south, and kom moves trace. And the greatest road covered with stars, - the Milky Way - Kazakhs call Kus Zholy - the Bird's road.

Of what dreams Wandering on steppe open-air? In its long way the sun mercilessly scorches, pulls out a wind, it lashes rain, freezes a frost and sprinkles snow. The destiny of the wanderer is hard, and its desires are simple: to get warm at a fire, to eat - have a drink something hot, to have a rest under a dry shelter, far from wild animals to forget all fears and the alarms overcoming it in a way. All it gives it Fire - the Center. Cleanliness, the Blessing, Protection - here that means Fire. And there, where have lodged Harm and Illnesses, the Kazakh necessarily

light fire. Of fire are afraid not only wild animals, but also evil ghosts, he considered.

In the people the ancient pray turned to Fire has remained: Ot-Apa, May-Ana, жарылка! - which is possible to translate: Mother-Fire, Mother Umaj, accept and bless! - thus the bride poured out in fire a ladle of the kindled fat, as though bringing it in a victim to Spirit of a home. It is an obligatory part of a wedding ceremony. Fire acts here in a role of the owner of the house which could accept, and could and not accept another's person



in the family.

Putting young a wedding yurta - otau uy - from white felt, decorated with colourful tapes and cords, the mistress of the centre takes burning coals from the centre and, having brought them in the new house - a yurta of a newly-married couple, возжигает fire under them казаном, thereby as though speaking: you - a part of the big house where fire of a family clan burns. Otau ui - from a word «ot alu» - to take fire that has been connected with branch young from the big yurta, thus they inherited small Kazan.

Yes Fire in your centre will not go out, yes there will be peace in your house!

The yurta has no windows, i.e. eyes and consequently she listens to steppe.

Having heard, that the horseman has dismounted at some distance, owners, sitting in a yurta, know, that there has arrived the peace visitor. If hoofs continue to sound and the horseman reaches to a threshold or it the black messenger, or this visitor wishes to offend owners.

The horseman should dismount from a horse and approach to a yurta on the right side.

The enemy runs into a yurta, the black messenger runs all over a yurta around and comes a foot on a house threshold before to inform the owner of the house a terrible message.

Threshold cross the right foot, low having inclined a head, expressing to that respect for owners. To arrive on the contrary - means to offend honour and advantage of this house, the owner, all its sort. And that it has not occurred by absent-





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mindfulness and negligence, a threshold intentionally do high, and a door lintel - low.

Kazakhs believed, that the soul of the person travels from the top world in bottom - being born, and, on the contrary, from bottom in top - leaving a body. So the nomad travels to lives, going down in the autumn in valleys and rising in the spring in mountains. So leaves fall down in the autumn and lift branches with foliage by the spring, to the sky. And in a yurta you wander from below upwards - from a door to a place of honour depending on your social importance. Tor' and bosaga - the sky and the earth, top and a yurta bottom. The more honored visitor, the above it sits. Zhogary shygyny - pass above, the owner invites, meeting you at a house threshold. Isn't that so, sounds not only how the invitation, but also how a kind wish to reach tops, glory in the way?

And this ode is written a yurta in VIII century of our era by the Chinese poet Bo-Tszjui whom, certainly, it is difficult to convict of any self-interest for the nomadic culture was alien to the people which have protected from attacks of steppers behind the Great Chinese wall. And nevertheless this verse has remained in memory of the settled people as an example of sincere admiration of a masterpiece of nomadic culture:

*Wool have been collected from thousands of sheep,
Two hundred rings were forged for me,
Round skeleton from coastal willows
It is strong, fresh, convenient and beautiful.
In northern transparent blue sky
A warrior put a yurta on a grass,
And now, as a blue haze,
Together with him it has come to the south.
The whirlwind cannot sway a yurta,
From rain its breast hardens.
There are no closed spaces or corners in it
But inside it is cosy and warm.
Having left the steppes and mountains,
Yurta has wandered to my court yard.
Its shade is fine under the moon,
And in the winter it is always with me.
Felt against hoarfrost is a wall,
Snow veil is not frightening.
There satiny furs lay,
Covering strings melodious number.
There a singer sits down aside,
There a dancer dances by fire.
To me it is more lovely to enter yurta, than a house,
Then drunk - I sleep on dry felt.
The fireplace crimson lights
Are cheerfully interweaving in the shades.*

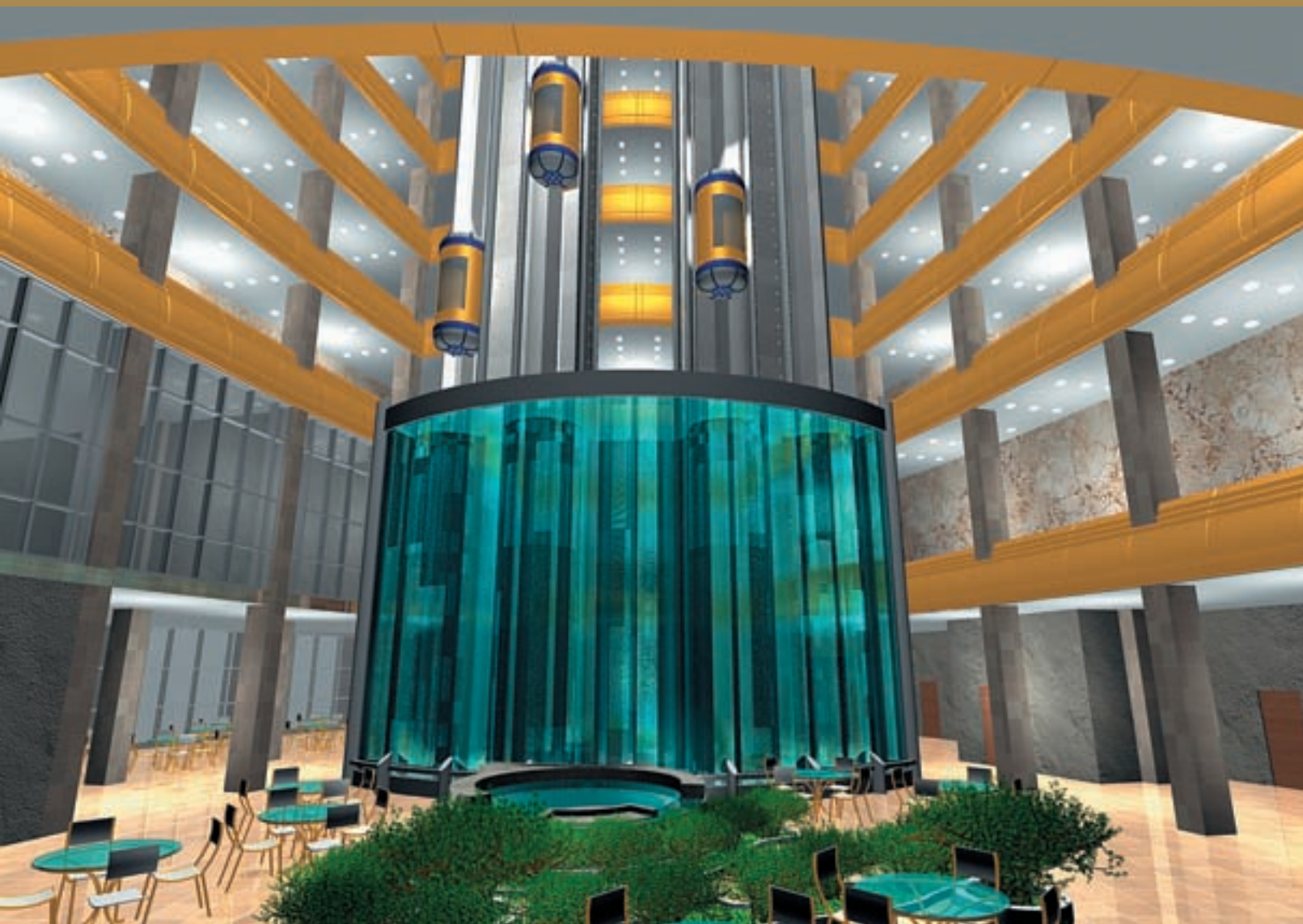
*Pieces of coal conceal heat in themselves,
As if they are orchids in the morning.
Slowly over a twilight empty
The night sacred smoke lasts.
Ink frozen, and here thaws
Verse as the falls in the spring, flow.
Even to bed curtains from orchids
Not to carry away from these yurtas of people.
That who in tents from a reed,
The soft winter and that is bitter.
The yurta will be envied by the monk
And the schoolboy confused in debts.
I will receive visitors in a yurta,
The yurta will be saved up by me for children.
The prince has covered the palaces with a carving -
That they before a yurta blue!
I to upper-class princely sorts
Yurta for palaces them I will not give.*

The crossed threshold of a yurta and departed from it on 40 steps - already the traveller given and the protection of the Sky. Henceforth its cradle - a saddle, he is an adherent of Road, eternally young Odysseus. It becomes the Centaur - will merge soul and a body with a horse and will idolize him, as most true companion. It will combine belongings in bales and will break a yurta - nomadic dwelling, will load it on a camel and, like a snail everywhere dragging the house on a back, again there is in road therefore as road are the new pastures, growing fat cattle, beauty of steppes, conversation under the clear moon at live fire and eternal cares of the deity - a Sheep which embodiment and to this day remain - Kazakh dastarkhan, figured tekemets and, certainly, a yurta - the marching house of a nomad since the most ancient times - both in heat, and in an icy cold same invariable as the sky over a head and the earth under hoofs of horses.



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