SPECIAL REPORT:
CASPIAN REGION

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Aker Solutions, through its Drilling Technologies division, supplied, installed and commissioned a drilling derrick & equipment package to AIOC (operated by BP).

Two sides of the same sea:

The Caspian region presents lucrative but different visions for oil and gas investment

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The Caspian Sea, the largest inland body of water on earth, separates what are undoubtedly the two oil giants of the region, Azerbaijan and Kazakhstan. The Caspian region has become a central focal point for untapped oil and natural gas resources and contains an estimated 10% of the earth's potential oil reserves. The major projects that have contributed to this enviable position have been Tengiz and Karachaganak in Kazakhstan and Azerbaijan's Azeri, Chirag, and Guneshli fields.

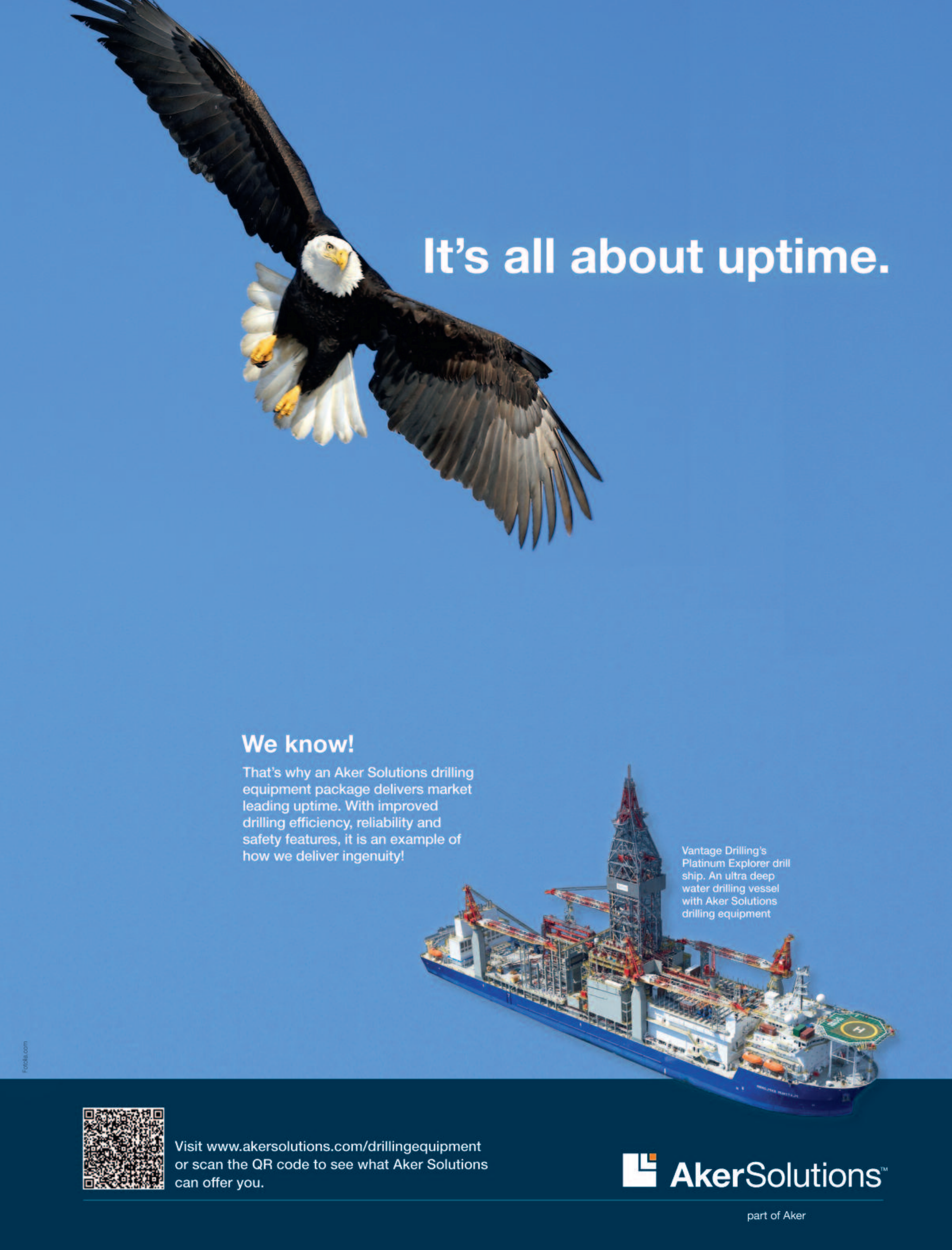
Natural gas reserves in the Caspian region are proven at more than 236 Tcf, and the region's total oil reserves are reported to constitute more than 60 Bbbl of oil, with some estimates as high as 200 Bbbl. With the aid of substantial foreign investment, the region produced 4.5 MMb/d in 2010, compared to just 870,000 b/d in 1995. While no doubt a remarkable achievement, the bulk of potential remains largely untapped.

Further development faces significant challenges. The two oil giants, with vastly different economies, legal structures, and political environments, are addressing very similar issues surrounding the production and transportation of oil and gas in the region but in very different ways. This report by **E&P** *and* **Global Business Reports** *explores the directions each country is taking. The success of these respective paths has implications for Azerbaijan and Kazakhstan and will no doubt hold important lessons for neighboring countries Uzbekistan and Turkmenistan.*

AZERBAIJAN: LAND OF FIRE

"Near the Georgian border there is a spring from which gushes a stream of oil, in such abundance that a hundred ships may load there at once," so says the account of Marco Polo in reference to Baku oil.

From the time of Zoroastrian and Hindu pilgrims, who traveled from India to worship at Ateshgah of Baku where a vent from a subterranean gas field once fed a continuously burning flame; throughout the Second World War, when almost 80% of the Soviets' oil was produced in Azerbaijan; to the December 1994 ratification of Heydar Aliyev's first production-sharing agreement (PSA), the "Contract of the Century," which would propel the country toward being the world's fastest-growing economy in 2006; the history of Azerbaijan is interwoven with the development of its oil and gas industry.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There are 57 oil deposits in Azerbaijan. Eighteen of them are in the Azeri sector of the Caspian Sea, and the rest are on land. According to the State Oil Company of Azerbaijan (SOCAR), the Caspian basin has deposits of 30 billion tons of oil and 18 Tcm to 20 Tcm of gas. "Oil has always been part of the life of the people in Azerbaijan," said Adil Mammadov, president of Azpromo, Azerbaijan's national body for the promotion of foreign investment.

Azerbaijan is arguably the most experienced oil and gas producing nation in the world. The first industrial production of oil in Azerbaijan took place in 1846, a decade before the Americans sank their first oil well in Pennsylvania. The world's first oil pipeline was laid from Baku to Supsa on the coast of the Black Sea, and the world's first oil tanker was built in Azerbaijan. In 2012, the country must draw on its exceptional heritage as it prepares to undertake some of the most ambitious hydrocarbon plays in the world.

The contract of the century and the rise of the PSAs

Despite Azerbaijan's heritage as an oil and gas producing nation, after regaining independence from the Soviet Union the country was desperately in need of foreign investment and technology to reinvigorate its hydrocarbons sector and bolster its nascent economy.

The Azeri, Chirag, and deepwater Guneshli Contract No. 1, a 2004 agreement signed between then President Heydar Aliyev and the Azerbaijan International Operating Company (AIOC), is commonly referred to in Azerbaijan as the Contract of the Century. Azerbaijan's first PSA laid out special provisions for the shareholders who would develop the field and was to change the economy, political standing, and standard of living in Azerbaijan for decades to come. The Azeri-Chirag-Guneshli (ACG) deal was not only a massive financial coup for the government – ACG has estimated oil reserves in excess of 5.4 Bbbl, and conservative predictions when the field came onstream in 2006 had it that the contract would bring in up to US $170 billion in revenues for the country before 2025 – but also set the framework for future extraction of oil and gas in the country. Since 2004, more than 20 PSAs have been signed in Azerbaijan.

George Taggart, regional manager, Caspian, Drilling Technologies at Aker Solutions

Parties to Azerbaijan's PSA agreements are the government of Azerbaijan represented by SOCAR and contractors represented by various foreign oil and gas companies. The tax system consists of two alternative regimes: the statutory regime governed by the Tax Code, and the tax regime established by existing PSAs. Contractors under PSAs pay a prenegotiated profit tax but enjoy various favorable conditions such as exemption from VAT and customs duties on imports.

More broadly, the legal regime for foreign investors is as favorable as the one created for local investors, and Azerbaijani law protects foreign investors' interests from future adverse changes in the legislation for the next 10 years, although this does not apply to changes in legislation concerning defense, national security and public order, environmental protection, credit and finance, and public morale and health.

The success of Azerbaijan's PSAs, and their continued stability, has been key to attracting foreign investment into the country. Salans, the largest international law firm operating in Azerbaijan, played a major role in fostering agreements for the ACG field in Azerbaijan as well as the Karachaganak and Kashagan fields in Kazakhstan. "The other Caspian states with major oil production succumbed to a great extent to impulses of resource nationalism, particularly in Kazakhstan," said James Hogan, managing partner at the Baku office of Salans.

The Kazakhstan approach entailed periodic demands to renegotiate contract terms, which held up projects, and in some cases such changes rendered the original contract somewhat meaningless. Azerbaijan was different. "There has not been a single case of a PSA having to be renegotiated," said Hogan. "It is a system that has worked well for both the contracting oil companies and the state, and both parties concentrate on getting the job done."

The scope of Azerbaijan's PSAs goes beyond the basics of extraction to include provisions for various sector-related subcontractors. Customs regulations in Azerbaijan, for example, are regarded as problematic, subject to complex bureaucracy and vulnerable to corruption; however, logistics companies who deal directly with the oil and gas sector have a somewhat easier experience thanks to the PSAs.

"The energy sector for the most part falls under the PSA and as such clients benefit from preferential tax benefits to encourage trade in Azerbaijan," said John Quinn, operations director at ACE Forwarding Caspian, whose company has a 15-year history of offering freight forwarding and dangerous goods management services to international oil and gas companies operating in Azerbaijan. "If you look at the region – Russia, Kazakhstan, Azerbaijan, Turkmenistan, Georgia – a lot of the legislation follows suit, and all have similar requirements ... (but) there are differences in the PSA agreements; we find that the PSA in Azerbaijan will currently allow you to bring in goods with greater flexibility than in Kazakhstan."

One egg, one basket

The Azeri, Chirag, and deepwater Guneshli Contract No. 1 was not only central to Azerbaijan's oil and gas evolution, it also served to cement the place of BP as the country's most prominent international oil company (IOC).

BP, which established an office in Baku in 1992, has a dominant stake in the majority of the country's large projects. In addition to being the operator of the ACG field, BP has heavily invested in the giant gas field Shah Deniz and will lead the field into its second phase of development. Other projects in which BP has a significant interest include the Baku–Tbilisi–Ceyhan (BTC) pipeline, which transports crude oil from offshore fields in the Caspian Sea to the Turkish coast of the Mediterranean for further shipping into Europe; the South Caucasus Pipeline, designed to transport gas from Shah Deniz through Georgia and on to the Georgia-Turkey border; and the Western Route Export Pipeline, which transports oil to Supsa on the coast of the Black Sea and the Sangachal Terminal that feeds it.

BP's longstanding pre-eminence has had implications across the strata of the Azerbaijani oil and gas value chain. Service companies face fierce competition for a contract with a single operator that can be regarded as something of a golden ticket; the success of some of the largest engineering, procurement, and construction management in the region can at least partly be attributed to the long-term relationships that they have cultivated with BP.

"The reason we came here so early is having worked extensively with BP in the North Sea. We followed them here when they needed our asset support services," Peter Ward, AMEC's general manager in Azerbaijan, said. AMEC, the main provider of rig support and engineering services for BP, has been in Azerbaijan for 14 years.

In a shift that can be considered reflective of the importance BP now places on the Caspian region, BP's relationships in Azerbaijan are, in some cases, providing the parameters for activities elsewhere in the world. Aker Solutions Drilling Lifecycle Services, a division of Aker Solutions, has four rigs operating in the ACG fields and has maintained a long-term operational service agreement (OSA) with BP. "BP is considering using the Caspian contract template model in other areas of the world. Aker Solutions is a Norwegian company, and the fact that the Caspian region is leading the relationship is hugely significant for us," George Taggart, regional manager of Drilling Lifecycle Services at Aker Solutions, said.

Shah Deniz Phase 2

The Caspian region was BP's largest operation globally at the time of writing and particularly in the wake of BP losing out to ExxonMobil in the Arctic. The company's handling of Shah Deniz as it enters its stage two development will be keenly watched by investors looking for assurance that BP can still deliver on world-class projects.

Shah Deniz was discovered by BP and SOCAR in May 1999 and contains more than 1 Tcm of gas. In 2006, just seven years after the initial discovery, Shah Deniz came into its first phase of production, which is expected to maximize at 8.6 Bcm of gas per year and about 50,000 b/d of condensate.

The planned Phase 2 expansion, or full-field development, is the largest gas development project operated by BP in the world and could take production at the field up to 16 Bcm per annum and 100,000 bbl of condensate. "Shah Deniz Phase 2 is significant for both Azerbaijan and the wider world. It will mean that we can deliver gas not only for local consumption, Georgia, and Turkey, but also to Europe," said Rauf Aliyerov, managing director at SOCAR Shah Deniz LLP.

Phase 2 will involve the construction of two new bridge-linked production platforms, 26 subsea wells to be drilled with two semisubmersible rigs, and 500 km (311 miles) of subsea pipeline. The technical difficulty of Shah Deniz wells, augmented by uncertainty over transit routes, means that at present it is difficult to get much certainty on production timelines. "Our best guess is that Phase 2 will be producing in 2017, but it depends largely on how the commercial issues are finalized," Aliyerov said.

Commercial issues aside, Azerbaijan's operators and service companies alike are gearing up for what promises to be an extremely technically challenging project. "The South Caspian Sea and Azerbaijan have a very complex tectonic history, and there are a lot of variant pressures both shallow and deep," said Rob Algie, Schlumberger's Azerbaijan general manager. "When drilling, these create a lot of complexity, so there is a huge role for technology."

One of the biggest challenges for Azerbaijan will be well integrity. The region is tectonically very active, which creates numerous over-pressure and under-pressure zones. Reservoir pressures change very rapidly, and this narrows operational margins. "Narrow drilling margins such as the difference between pore pressure and fracture pressure require advanced technology and processes to control and good execution to deploy successfully," Algie explained.

SOCAR

The most striking consistency throughout Azerbaijan's variant landscapes, its giant oil and gas fields, its oily rocks, its numerous transit pipelines, and its refineries is the ubiquity of SOCAR. Government-owned SOCAR is now one of the largest oil and gas companies in the world and an integral player in all of Azerbaijan's PSAs.

SOCAR was established in 1992 with the merger of Azerbaijan's two state oil companies, Azerneft and Azneftkimiya, in part to ensure that Azerbaijan reaped the benefit from its abundant hydrocarbon resources. While post-Soviet Azerbaijan was left not only economically but also technologically depleted, SOCAR's collaboration with foreign players and active engagement in major project development has precipitated a step change in the country: SOCAR has transitioned from simply being a necessary partner for foreign E&Ps wishing to undertake projects in Azerbaijan to a global force to be reckoned with in its own right.

As a multinational, SOCAR currently holds representative offices in Bucharest, Frankfurt, Geneva, London, Istanbul, Vienna, Astana, and Tehran and has made substantial investments overseas.

In a move that embodies the distance SOCAR has traveled, both in terms of technical capability and financial clout, November 2010 saw the company announcing the discovery of 200 Bcm and 30 to 40 million tons of gas condensate at the Umid field. For the first time since the Contract of the Century, SOCAR conducted exploration activity independently and was able to unlock the second largest gas field in Azerbaijan. SOCAR leadership estimates that with further drilling, the overall reserves at Umid are likely to reach 300 Bcm, while those at the Babek field, which lies under Umid, are estimated to reach 600 Bcm.

Total's discovery at Absheron X2

SOCAR's discovery at Umid is not the only indication that the current "one egg, one basket" situation, with BP as the sole foreign operator, is set to change. Back in 1997, ChevronTexaco and SOCAR signed a PSA for the Absheron field, 100 km (62 miles) to the southeast of Baku. In 2001, gas condensate beds were found at a depth of 6,500 m (21,326 ft), but back in the early 2000s low gas prices, compounded by the deepwater and complex tectonic structure that make Caspian oil wells especially challenging, lead Chevron to the conclusion that Absheron's gas reserves were commercially unprofitable. The company quit the project in December 2005.

Total, which had been a partner with Chevron during Absheron 1, maintained that the Absheron block had commercial potential and on Feb. 27, 2009, signed an agreement with SOCAR to re-explore the area. The agreement set the framework for the drilling of three exploration wells over the following three years. In September 2011, Total announced a major gas discovery at its exploration well Absheron X2, drilled by the *Heydar Aliyev* rig (now *Maersk Explorer*) operated by Maersk

Drilling. The Absheron field is expected to contain 350 Bcm of natural gas and 45 million tons of gas condensate, subsequently boosting Azerbaijan's gas reserves from 2.2 Tcm to 2.5 Tcm.

The market conditions for gas have changed significantly since 2005. European demand has soared, and the success of Shah Deniz and the South Caucasus Pipeline (SCP) means there is already good access to markets, with another pipeline purportedly on the way.

The discovery at Absheron X2 is not only significant for PSA partners Total, SOCAR, and 20% stakeholder GDF Suez, but additionally the likelihood of Total becoming a second major operator in Azerbaijan will have repercussions across the entire value chain of the country's oil and gas industry.

Yet Total is not the only IOC with potential to become an operator in Azerbaijan. Austrian company OMV has been present in Azerbaijan for a few years on the back of the company's interest in the Nabucco project. However, in May 2011 the company signed a memorandum of understanding on enhanced cooperation with SOCAR. At the time of writing, OMV was in talks with SOCAR concerning possible various upstream positions. "We are very positive about the South Caspian, and we are considering several options," Dorin Baru, exploration and production, general manager at OMV Gas & Power GmbH Azerbaijan, said.

One of the critical success factors in the development of both Shah Deniz and Absheron will be Azerbaijan's ability to manage the ramp-up of rig capacity. "With only two rigs in the Caspian Sea today capable of drilling wells as complex as Shah Deniz, this will require incremental rig capacity investment," said Rob Algie, Schlumberger's Azerbaijan general manager.

Nationalization, economic diversification, and the broader implications for Azerbaijan

Hydrocarbon investment might have propelled Azerbaijan's economy through the first decade of this century, but for the country to develop sustainably, the revenue the oil and gas industry has generated must in turn invigorate other sectors of the economy.

The State Oil Fund of the Republic of Azerbaijan was established Dec. 29, 1999, to manage foreign currency and assets generated from oil and gas exploration and development. In recent years, the Azerbaijan government has placed increased emphasis on diversifying the country's economy through the reinvestment of these funds. The approach has started to pay dividends, according to Movlan Pashayev, country managing partner at PricewaterhouseCoopers Azerbaijan (PwC). PwC's market study predicts that the oil and gas industry will remain the country's main revenue provider for the next 10 to 20 years, but its long-term future will be driven by local investments. "The emphasis is shifting to the government and private investments, whereas the vast majority of investment in the past came from foreign investors. This is probably one of the most striking differences and changes in the last few years," Pashayev said.

However, the hydrocarbon sectors' contribution toward the wider economy transcends the basic provision of wealth for reinvestment. In addition to profit sharing, Azerbaijan's PSAs oblige foreign contractors to undertake a process of workforce nationalization. This is facilitated through Azerbaijan's heritage as an oil-producing nation. "In Soviet times, Azerbaijan was the nerve center for the oil industry in the region, and consequently there are some outstanding universities with very strong training for petrotechnical expertise," Algie said.

While the country's heritage sets a precedent for the development of local expertise, the technical complexity of contemporary projects necessitates investment in state-of-the-art training systems. The technology-driven Aker Solutions group, for example, is planning to build a new facility in Azerbaijan including training classrooms and a simulator facility. "In our niche we have been reasonably successful, and this has allowed us to invest more into our infrastructure in Azerbaijan," said George Taggart, regional manager at Aker Solutions' Drilling Lifecycle Services. "We currently have four platforms with state-of-the-art drilling control systems; the simulator facility will enable to us to have a virtual asset on each of these four rigs, enabling us to test upgrades and train operators."

Workforce nationalization filters through all levels of the industry, from IOCs through to contractors such as AMEC and Aker Solutions and to smaller subcontractors and service companies. Formed in 2008, Absheron Engineering provides electrical and mechanical solutions for many of the drilling companies operating in Azerbaijan. Absheron Engineering is fully registered in Azerbaijan, and 95% of its workforce consists of Azerbaijani nationals.

Morgan Phillips, general manager of Absheron Engineering & Construction LLC

As well as guaranteeing eligibility for project tenders, employing local staff has enabled Absheron Engineering to leverage a cost advantage over its competitors. “You receive the same service from us as you would from an international company but for quite a big reduction in costs,” Absheron Engineering general manager Morgan Phillips said.

Through investment in training and the enforcement of industry best practice, foreign contractors and sub-contractors have been able to induce a step change in Azerbaijan’s safety culture. This has in turn contributed to the promotion of a more responsible attitude to safety on the client side. Absheron Engineering withdrew its staff from a project last year when the company was unhappy with onsite safety provisions. “There is no compromise whatsoever on safety,” Phillips said. “My engineers know they are fully empowered to stop the job if they are not happy with a safety aspect.”

Demonstrating successful engagement with a local workforce is key for companies looking for regional expansion. Buoyed by its strong reputation in the local market, Absheron Engineering has recently won contracts in Kazakhstan and Turkmenistan. “We are an Azeri company with a good reputation, which carries a lot of weight, especially in the Caspian and Central Asia region,” Phillips said.

KAZAKHSTAN: LAND OF THE FREE

The ancient traditional nomadic life on the steppe poses a stark contrast to the emerging market economy of this vast and mineral-rich land. According to scientists, the Caspian region contains the third largest reserve of oil and natural gas in the world, behind the Gulf region and Siberia. But drilling for oil in the region is by no means a recent phenomenon, with a presence of oil production clearly visible across the landscape since the latter part of the nineteenth century. However, it is only now, through a mix of foreign investment and government control, that the Kazakh people are truly benefiting from their natural resources.

Uncovering the wealth

While Kazakhstan also can claim a history of hydrocarbon production going back more than a century, its oil and gas industry, unlike Azerbaijan's, has only recently initiated a trajectory of rapid growth and technical modernization. In 1993, the newly independent Kazakh government invited international oil companies into Kazakhstan for the first time, but oil prices were low and the country lacked a developed oil and gas sector. In the same year, Kazakhstan signed its first agreement with a foreign oil company, establishing the joint venture between Chevron and KazMunaiGas (KMG) for the development of the Tengiz oil field.

It was this agreement that paved the way for international oil companies to play a major role in Kazakhstan's energy sector. Western firms had been eager to exploit the former Soviet empire's massive oil reserves, but the closed market of the Soviet Union did not allow this as an option. It is now a reality. Kazakhstan has the Caspian region's largest recoverable crude oil reserves. In 2005, Kazakhstan produced approximately 1.29 MMb/d of oil, and its production accounted for almost two-thirds of that of the entire Caspian region.

However, as Johan Vanderplaetse, vice president of Emerson Process Management, points out, it is not just foreign companies who are benefiting from the opportunities presented by an open market. "There are few places in the world, particularly considering the uncertainty in the Middle East, where there are so many upstream opportunities. This is why the big companies such as ExxonMobil, BP, Total, Chevron, and Shell are operating here in the CIS and in the Caspian region. But besides these international players, the domestic companies have stepped up their investments in upstream and downstream as well: KMG in the case of Kazakhstan, Lukoil and Rosneft in the case of Russia, and SOCAR in the case of Azerbaijan, to just name a few of them. Ten years ago, these companies were considered by many to be local players, but now they have expanded significantly to become global players."

Johan Vanderplaetse, vice president of Emerson Process Management in CIS and Turkey

Lukoil, for example, entered Kazakhstan's market only two years after Chevron's agreement was signed and expects the republic will continue to play a central role for the company. According to Andrey Kirillov, director of Lukoil Overseas in Astana, investors are attracted to Kazakhstan's political stability, sustained economic growth, and geographical location. "The country has set a goal of attracting investment as a key factor in its economic development and is thus constantly improving its legislative and regulatory framework," Kirillov said. "Potential investors have seen an undeniable advantage in the development of special economic zones whose members are exempt from all taxes. So the investment climate prevalent in Kazakhstan today allows investors to operate stably and develop."

By encouraging foreign investment, Kazakhstan already has seen an impressive growth in the sector and now expects the majority of future growth to come from the four "elephant" fields: Tengiz, Karachaganak, Kurmangazy, and Kashagan. The large-scale investment into these fields has led the Kazakh government to increase projected production levels to approximately 3.5 MMb/d by 2015.

While a majority of developed oil and gas economies are struggling to keep up production levels, it is the basic estimate of resources that allows the government to be so optimistic. "There are very few countries in the world with significant untapped oil and gas potential; Kazakhstan happens to be one of these countries," said Norman Storm, Kazakhstan managing director of Condor Petroleum, a junior E&P company that began operations in the country in 2007. "Almost 45 billion barrels of oil have been discovered in the pre-Caspian basin to date, but many experts predict that this is only around one-third of the total potential of the basin. I believe that most of the easier discoveries have been made, but at the same time, there will still be significant additional resources discovered in the coming years through the application of new technology and ideas."

Yet despite such high resource estimates, little of the investment has gone into new exploration efforts and, with large-scale projects being plagued by heavy delays in recent years, the lack of a more diversified strategy has been considered by many to be a mistake. "The priority for the industry should be new leads and new acreage since the major blocks and fields are known," Aslanbek Jangirov, interpretation manager at PGS, said. "Most of the current leads are not necessarily attractive to foreign investors because they are old, with low-quality geological and geophysical data."

PGS has had a presence in Kazakhstan since 2002. Dmitri Khitrov, who heads the Seismic Data Processing Division, is optimistic that exploration prospects will crop up due to a mix of better technologies and the overall global economic situation. “The political stability we are seeing here, conjugated with the slowdown of the oil industry in Egypt and Libya due to the civil unrest in these countries, is providing the right environment for major oil and gas companies to invest in Kazakhstan. In addition, seismic processing is constantly advancing and allowing us and our clients to review their reservoir potential through improved imaging after reprocessing. We are definitely upbeat, and we believe that exploration and seismic data processing will only improve over the course of the coming years.”

Government action to stem the decline of exploration efforts will likewise be crucial, saidGennady Bannikov, chairman of the board for Geostan, a newly established company specializing in seismic data services. “If I had to compare the situation from the Soviet era to now, previously there was a more systematic and centralized approach in the exploration of new hydrocarbon deposits. Now the Kazakhstan government is trying to resolve this situation by creating a new government company called KazGeology, which is just at the beginning of its work.”

These proactive actions by the government have not been isolated to spurring the country’s exploration efforts alone. In 2002, President Nursultan Nazarbaev created the country’s national oil and gas company, KMG, which has since been an effective government vehicle for state influence and has actively sought to secure stakes in the country’s major oil and gas projects and infrastructure.

KMG’s intervention has not always been greeted kindly, as many consider the Kazakh government to be a primary reason for the multiyear delays in expanding major projects in the country, such as Kashagan. However, Curtis Masters, partner at law firm Baker and McKenzie, sees the government’s desire to secure a greater stake in Kazakhstan’s most profitable industry as being reflective of any emerging world economy.

“Many emerging market economies want to have greater ownership of their natural resources, so there is constant pressure on oil companies to accept greater state ownership of natural resource assets. This can create some tension between the oil companies and the state. So far it has always been resolved amicably, but it is something that requires careful attention and will continue to be an issue going forward.”

As the concept of a resurgent state has dawned on multinationals operating in the country, the attitude going forward has become one of acceptance and a desire to overcome hurdles in order to move on major expansion programs. One recent example of this policy should take effect this year when KMG is expected to take a 10% ownership in Karachaganak, an enormous gas field in Kazakhstan’s northeast containing an estimated 9 Bbbl of condensate and 48 Tcf of gas. Mark Rollins, president of BG Kazakhstan, which operates the field, described KMG’s entry into the consortium.

“We have been in discussion for quite some time with the Republic of Kazakhstan; the primary objective of the discussions was to resolve some past issues relating to interpretation of the production sharing agreement.

Mark Rollins, senior vice president, Central Asia, BG Group; president, BG Kazakhstan

This has been very successful, and part of the resolution is for KMG to become a partner in the consortium. We are very much looking forward to having KMG as a partner. This will allow us to benefit from different insights into the consortium, and now that many of the past issues have been resolved, we can move forward with the next phase of development. KMG has an enormous amount of expertise and close relationships to the various government stakeholders, which will be enormously helpful to the consortium going forward."

Backbone of the nation

Pipelines have long been the backbone of the Kazakhstan oil and gas industry. Though oil production was well established throughout the Soviet period, Kazakhstan's gas production remained less significant; the bulk of the gas was a by-product of oil production and was usually flared. The gas sector did not begin to evolve in Kazakhstan until the 1970s, although at this time it was basically a conduit, when the USSR initiated the construction of several major Central Asian gas trunk pipelines. These were centrally planned and executed as a system of transportation for Turkmen and Uzbek gas through the territory of Kazakhstan to Russia, the Caucasus, and Europe. As a result, the pipelines were not designed with actual production in mind, do not cover the entire territory of the country, and are not united.

"Oil and gas infrastructure is still a challenge within the country. If you do not have a gas pipeline in the near vicinity, or even in the extended vicinity of your fields, then utilization of the associated gas during commercial production, or even test production, is an issue," said David Barker, the country manager for Condor Petroleum.

This underdevelopment has put enormous constraints on the country's emerging gas industry, and Kazakhstan is still completely dependent on Russia for access to major gas markets to the north and west.

"The energy sector in the Caspian region has a bright future, providing oil prices remain robust and local companies continue to be internationally competitive. We think the demand for carbon-based fuels will remain high in the medium term, but there is clearly increasing competition from other supplier countries around the region. Kazakhstan and other Caspian countries understand that they must deliver a reliable and dependable supply, so transparency at the fiscal, operational, and regulatory levels is important," said Christopher Renwick, general director of Lloyd's Register Kazakhstan LLP.

In the meantime, major developments also have been taking place in the country's oil pipeline infrastructure. The Caspian Pipeline Consortium (CPC), which operates and runs Kazakhstan's major oil and gas pipeline running from the Caspian to the Black Sea, is investing in a $5.7 billion enlargement project to double the existing pipeline capacity of roughly 28.2 million metric tonnes annually (mta) in anticipation of additional oil flow from Caspian oil fields.

"Since the moment that the project was sanctioned in December of 2010, we have been actively working on its realization," said Nikolai Platonov, general director of the CPC. "In this period of time, we have signed agreements with the contractors who will be undertaking the work of upgrading the existing CPC infrastructure, which includes reconstruction of existing and construction of 10 additional pump stations, upgrading the Marine Terminal facilities including the Tank Farm, as well as the replacement of the 88 km pipeline section in Kazakhstan with a larger diameter pipe. We already have begun working on the first phase of the project. The expansion project is very complex, so the development plan was thus split into the three different phases, whereby each phase will achieve a consecutive expansion of the pipeline's capacity. After the first phase is completed, the consortium is expecting to increase oil flow to 35 mta."

Weathering the storm

Despite investments in infrastructure for the industry, with the issues surrounding the recent global financial crisis one has to ask what the current investment climate looks like for Kazakhstan.

When oil and gas prices fell in 2008, this had a heavy effect on the country's economy. "Kazakhstan was hit hard by the global economic crisis, and Kazakh banks had to accommodate liquidity to repay foreign obligations," Murat Koshenov, chief risk officer and compliance controller for Halyk Bank, one of the leading Kazakh domestic banks, explained. "Oil and gas prices collapsed, forcing the central bank to devalue our currency by 25%, and a lack of liquidity in the banking sector led to a financing cut for the construction sector, leading to significant price reductions in the real estate market."

Added Marc Brenneiser, president of STS Logistics, a leading logistics company in Russia and Kazakhstan, "Investment in developing markets are always a risk, but there is still much talk in the air about the region being in a crisis, and that is misleading. It's true that industries were hit quite hard in 2008-2009, but the potential is here and the demand in the long term is only going to increase. The risks are low compared to the benefits and the profits one can achieve by investing in these territories. We are planning to double our business in the next three years, and this is a conservative approach because of the market and the potential."

Indeed, the economic situation in Kazakhstan today is quite different than the difficult years following the economic crisis. "We still see new investors in the oil and gas sector; however, probably 80% of them are now coming from the service sector rather than exploration, like drilling companies, companies providing human resources, or safety services. Many companies are coming to render services for oil and gas to subsoil users," observed Almat Daumov, partner at Grata, a leading independent law firm in the country.

The key areas that have attracted service companies have been diverse and varied, but certain industry segments such as environmental services have seen more growth than others. When Ecoenergogas, a Kazakh engineering company, was hit particularly hard in 2008, rapid diversification into ecological work helped turn the company's fortunes around. "The crisis forced us to group together, and we seriously undertook environmental work," said Bolat Yegeshbaev, the company's general director. "We opened a whole new division dedicated to the protection of the environment and thus attracted several ecologists. These efforts have resulted in us winning several projects already."

In a conversation with Westdala, the first private company established in western Kazakhstan to take on waste management, Managing Director Dias Khabiyev said that competition has grown tremendously in the past few years. "Westdala was the first private company in the Atyrau region of Kazakhstan to get involved in the business of providing comprehensive services in the field of waste management. Due to the lack of effective competition, for a long time the company could to some extent dictate terms to its customers and prices for its services. Today the situation is quite different, thanks to the fact that the market for waste management solutions has constantly been evolving and expanding. What is helping the market is the rule of law and the fact that agencies and local authorities are paying ever more attention to environmental issues," Khabiyev said.

In the wake of the global financial crisis, a large number of domestic companies say the rule of law and positive government policies have allowed them to regain their previous positions. However, according to Linsi Crain, deputy general manager of policy, government, and public affairs at Tengizchevroil, government policies have not completely addressed the investment issue, and not all companies are seeing foreign investment materialize quickly enough since the 2008 decline in the market.

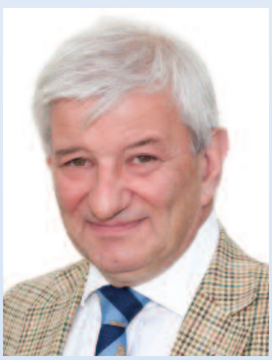
"I do not see many new investors coming in, so the question should be posed: is it an attractive investment climate for new investors? Kazakhstan seems to be focused on localized issues; they should look internationally because there are so many examples around the world of great legislation and policies that could be introduced to improve the climate for new investors," Crain said.

Nurlan Abdrasulov, deputy general director for marketing at KazRosGas, agrees that reaching out and developing relations abroad is key to economic success. "One must admit that business is a risk, and companies should be encouraged to take on this risk and invest in Kazakhstan," he said. "We have a young country with a lot of ambition. For development to happen, we need constant and open dialogue with foreign countries to exchange best business practices."

Reaching out?

Despite Kazakhstan's proactive efforts to be seen as a friendly investment destination, the question posed by most foreign companies operating here has been whether government regulations have indeed promoted a culture of dialog and whether they have allowed them to assimilate smoothly into the country. A major concern has been Kazakh laws on local content. The law itself has been around for some time, but beginning Jan. 1, 2012, ratios for the permitted number of foreign workers relative to local workers were further tightened, and this has caused concern from certain companies.

Dougal Monk, senior manager of Business Development, Kazakhstan, at KBR



John Kirby, project director at KBR, Kashagan PMSC

"We recognize the transition that the government has made over the last 20 years and are very keen to support it," said Dougal Monk, senior manager of business development for oil and gas at KBR, a global engineering company that has been involved in the Kashagan project since 2003. "In Kazakhstan, labor laws have changed rapidly within the last 18 months, directed towards establishing, expanding, and stabilizing local content in technology and experience. We feel that this is the right thing for the country and are one of the international companies that take the legislation most seriously."

John Kirby, project director of the Kashagan PMSC project, explained some of the training that KBR has undertaken. "We have spent a lot of time recruiting nationals, and at present around 180 out of our 250 people are Kazakh. National middle managers within the company undergo extensive training in communication and other soft aspects of management that are important to their development. Our local staff is trained to international standards by in-house company trainers who we bring to Atyrau from our regional headquarters in the UK."

"Kazakhstan has a very particular culture," added Mark Peck, general director of YKK, a major training solutions provider in Kazakhstan. "YKK first arrived not long after Kazakhstan achieved independence, and the Kazakh regulatory framework was very much in its infancy, but we have managed to grow our company with the industry here; as it has developed, so have we. The key to operating here is having a robust, committed, and well-trained national workforce. Some of the regulatory information is not as visible as you would like from time to time, but once you get used to the system, compliance is achievable."

As companies have complied with the laws, there have been different perspectives on the exact way to implement them. Crain said that retaining a certain amount of expatriate staff will ultimately benefit the Kazakh workforce. "From our experience around the world, we see that there is a need to keep 10% of the workforce expatriate. This allows for the movement of Kazakhs to go to other parts of the world to gain experience and learn new skills. Expatriates are then able to fill in for those jobs as required and also mentor and improve the skills of the Kazakh staff they are working with," she said.

Though many companies are in support of the local content laws and can see the benefit to Kazakhstan's workforce, others are struggling to source suitably qualified workers as a result of the recently implemented quotas. "The government has not adjusted the education system to meet its regulatory requirements," Cyril Bainbridge, branch director for Intertek, explained. "It is a positive investment climate, but you have to appreciate the challenges. Encouraging investment into the country is one of the country's top foreign agenda policies. However, despite having tremendous resources and being a great country, if the skills and education was there, it would be a much more attractive market."

Telling signs that the government recognizes the challenges spurred by the implementation of local content laws have been the large-scale investment into technical education and the lack of implementation of these laws at major projects. "There will be a delay in the application of all local content laws at the major fields including Kashagan, Tengiz, and Karachaganak until Jan. 1, 2015," said Daulet Argandykov, head of the employment department at Kazakhstan's Ministry of Labor and Social Protection. "This decision was taken in October 2011 and was due to the enormous value of these projects for the Kazakh economy. At the moment we are negotiating with companies on the subject of training local workers to replace foreign workers by 2015."

Dominic Lewenz, director of oil and gas research for Visor Capital, one of the leading investment banks in the country, argues that at the end of the day, there will be a need to have a degree of stability in legislation. "Government legislation and intervention can significantly affect investors both positively and negatively. The progress on projects can be greatly influenced by the government's attitude towards a project, which impacts those who have invested in the projects. This is especially true in a sector like oil and gas, where investors place a high premium on the stability of the legislative system due to the long investment horizons," he said.

Daulet Argandykov, head of Employment Department, Ministry of Labor and Social Protection, Kazakhstan

Despite concerns that such laws may affect levels of standards by forcing companies to source products and services from locals, the reality remains that local contractors still have to comply with very tough standards to cooperate with foreign ventures. Yuriy Belyayev, general director of Zeinet, a company specializing in automation and technological processes in Kazakhstan, said that it was the company's own efforts and not local content laws that have allowed them to work with foreigners. "In order to work with foreign companies, one must meet strict requirements in order to receive certificates and accreditation by the specialists," Belyayev said. "Receiving such accreditations previously was very difficult, but we are getting closer to the level where we can comfortably work with foreign companies. Many multinationals initially had a particular distrust of local contractors, which is why major projects in the country usually ended up being executed by foreign firms.

Emerson office opening in Almaty with Johan Vandeplaetse and Andrey Tian, General Director at Emerson LLP, Kazakhstan

The Kazakh government is using both policy and investment to ensure that the Kazakh people benefit from this mineral wealth; however, the future of the industry ultimately will be determined by the relationship between foreign companies and domestic politics. This balance is understood well by Yerzhan Bilyalov, executive director of Kazakhstan Petroleum Association. "The oil and gas industry in Kazakhstan is making one of the most significant contributions to the prosperity of our country," Bilyalov said. "What we have achieved should be used effectively to ensure the continuous improvement of industry as a whole, a better economy, and a higher quality of life for the Kazakh people. We should use this opportunity now and not leave it to the future."

Region on the rise

Azerbaijan and Kazakhstan stand out among the Caspian countries. They are the two largest economies, the only two countries where GDP-per-capita exceeds $10,000, and the most integrated into the global marketplace. In their exploitation of the region's vast hydrocarbon resources, the countries enjoy a dominance that cannot be explained through access and reserves alone.

As Uzbekistan and Turkmenistan seek to build their own oil and gas industries, they will no doubt be looking toward these giants for guidance. Despite differences in the particulars of legislation, the primary lessons to be learned from the development of an oil industry in Azerbaijan and Kazakhstan are very similar.

Since independence, both Azerbaijan and Kazakhstan have gone through several stages of development, from an initial reliance on foreign expertise to a newly emerging operational independence. Both countries are enforcing policies that aim to ensure wealth generated from oil and gas benefits their nation, all while taking into account the fine line between nationalization policies and anti-investment behavior.

While there are many positive aspects to the current state of the hydrocarbon sector in Azerbaijan and Kazakhstan, there are nonetheless obstacles to overcome before these countries take the integral role in the global oil industry that the size of their reserves indicate they should.

Ensuring the generation of more wealth and its benefit to the countries' peoples will depend on their ability to overcome corruption. While faring better than Uzbekistan and Turkmenistan, the two countries continue to perform poorly on Transparency International's Corruption Perception Index rankings. Improvement, however, is evident. "The Ministry of Taxation is taking the situation seriously and is one of the most forward-thinking ministries in Azerbaijan. They are now moving towards making their services totally electronic and have taken those steps to become more transparent and user-friendly for the tax payers," said Ziya Ibrahimov, partner at Baker Tilly in Azerbaijan.

In addition to these challenges, questions remain over Kazakhstan's ability to facilitate greenfield exploration, and in Azerbaijan the issue of how best to transport gas from Shah Deniz to international markets. The one certainty, however, is that the rise in the economic and geopolitical importance of the Caspian region is set to continue. E&P