Oil production

Oil production in Kazakhstan dates back to 1912. In the Soviet period peak production of 26.6 million tons per year was reached at the end of 80s. After the breakup of the USSR in the first half of 90s production dropped to 20.3 million tons in 1994. However, starting in 1995, the oil industry has demonstrated annual production growth. Thus, for the period of 2001-2011 annual oil production in Kazakhstan grew from 39.9 MMtpa to 80.3 MMtpa, or an average by nearly 10% per annum. At the same time, since 2005 the rate of growth has sufficiently decreased.

Production of oil and condensate declined by 1.3% in 2012 compared to 2011. Major producers such as Tengizchevroil and KazMunaiGas cut back production.

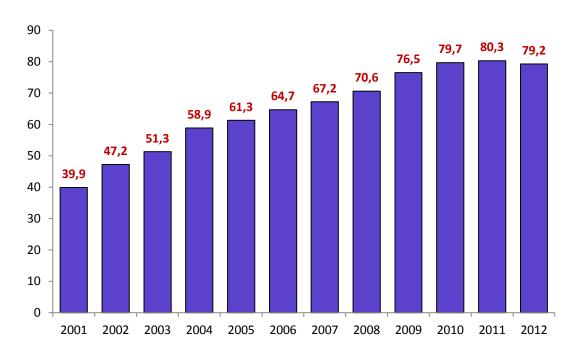
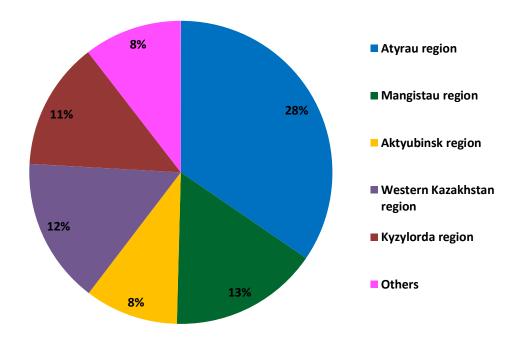


Figure 1.2 Oil production in Kazakhstan in 2001-2012, MMtpa

Source: Ministry of Oil and Gas of Kazakhstan

So far, oil is produced exclusively from onshore fields and virtually confined to five regions: Atyrau, Mangistau, Western Kazakhstan, Kyzylorda and Aktyubinsk.

Figure 1.3 Oil production in Kazakhstan by regions 2012, %



Source: RPI research

Industry structure

About 80 companies are engaged in oil production in Kazakhstan. However, the bulk of oil production is provided by 11 operators, producing over 1 million ton per year (approximately 21 mbopd) of crude each: they account for over 90% of total oil production in the country. In this category a group of leaders, which are far ahead of other market players, can be distinguished: Tengizchevroil (TCO) – 24.8 MMt (181 MMbbl) in 2011, or 31% of the country's total output, Karachaganak Petroleum Operating (KPO) – 12.05 MMt (88 MMbbl) or about 15%, and National Company KazMunaiGas (NC KMG) – 7.79 million tons (56.8 MMbbl), about 10%.

TengizChevroil Karachaganak Petroleum Operating KazMunaiGas **CNPC-Aktobemunaigas** Mangistaumunaigas Kazgermunai **2012** PetroKazakhstan Kumkol 2011 Resources 2010 Turgai-Petroleum Karazhanbasmunai **Buzachi** Operating Karakudukmunai

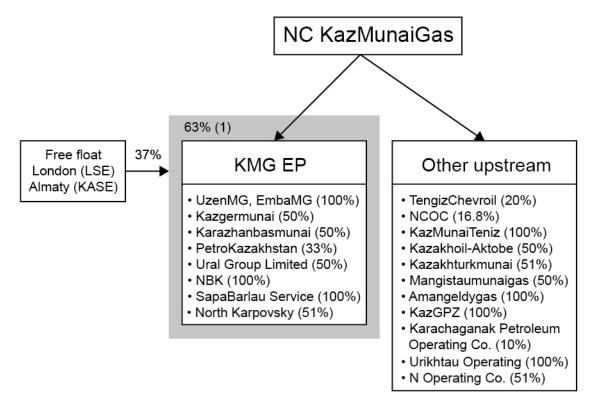
Figure 1.4 Kazakhstan's major oil producers in 2010-2012, MMt

Source: Ministry of Oil and Gas of Kazakhstan

Kazakhoil-Aktobe

The ranking changes significantly if key oil producers' shares in various companies and projects are taken into consideration. In this ranking system, National Company KMG is on third place with 15.3% share of the market. Since 2006, the national company has been pursuing an aggressive market expansion, reestablishing control over upstream, as well as downstream assets that had been previously sold by the government. Amendments to Subsoil Use Law introduced in 2005 gave NC KMG the priority right to acquire to-be-divested shares in the joint ventures and consortiums in which the national company has an equity stake. Besides, the amendments reserve for NC KMG a mandatory equity stake of not less than 50% in all new offshore projects.

Figure 1.5 NC KMG upstream assets, as of beginning of 2013



Source: RPI research, NC KMG

During 2006 and 2007, NC KMG acquired stakes - ranging from 33% to 50% - in three large producers: PetroKazakhstan, Kazgermunai, and Karazhanbasmunai. Following these acquisitions, in January 2008, NC KMG's share in Kashagan - the largest offshore field development project - doubled to 16.7 from 8.3. At the end of 2009, NC KMG completed the acquisition of 50% interest in Mangistaumunaigas, the fifth largest oil producer in the country.

In December 2011, Kazakhstan's authorities finally secured the consent of Karachaganak Petroleum Operating B.V.'s shareholders to sell a 10 percent share in the Karachaganak field development project to KazMunaiGas for \$3 billion.

The consolidation of assets within the national oil company is one of the measures by which Kazakhstan government is aiming to increase control over the redistribution of energy resources and over the current oil and gas projects. Another goal is to limit expansion of foreign oil companies, first of all Chinese ones, the acquisition activity of which in recent years has become the increasing concern to the Kazakhstan authorities. CNPC, including its subsidiaries and other Chinese companies are the other most important player in Kazakhstan's oil industry. Their assets account for 19.4% of total oil production in the country in 2012.

Table 1.4 Cumulative oil production by key players and their shares of total country production (%), as of the end of each year

	2011, MMt	Share in total production,	2012, MMt	Share in total production,
KazMunaiGas	12.30	15.32%	19.48	24.59%
CNPC+(1)	15.92	19.83%	15.39	19.43%
Chevron	17.74	22.09%	14.27	18.01%
Exxon	6.46	8.04%	6.05	7.64%
Lukoil	6.12	7.62%	5.45	6.88%
BP	3.92	4.88%	3.52	4.45%
Eni	3.92	4.88%	3.52	4.45%
Mittal	1.78	2.22%	1.88	2.37%

(1) CNPC subsidiaries, CITIC Group, ZhenHua Oil

Source: RPI research, LUKOIL

BP Group Eni Karachaganak Petroleum Operating Co. ExxonMobil 25% 13.5% 18% 10% Chevron Tengizchevroil Mangistaumunaigas 5% LUKARCO CITIC Group Karazhanbasmunai BP 50% 100% LUKOIL Overseas KazMunaiGas E&P NC KazMunaiGas LUKOIL Kazgermunai 50% 50% 50% 50% 51% Kazakhoil-Aktobe Caspian Investments Resources Mittal CNPC -Investments 100% Aktobemunaigas Petro Kazakhstan Kumkol Resource 50% 50% 33% 50% Karakudukmunai Arman Kazakhturkmunai Turgai-Petroleum 50% 85.4% PetroKazakhstan Inc. Oil producing 67% companies CNPC Buzachi Operating Ltd. 25% or intermediary 100% CNPC Ai-Dan-Munai ZhenHua Oil Kuatamlomunai owners 100% Sazankurak Precaspian Petroleum Co. Adai Petroleum Co. 100% Sagiz Petroleum Co. 22.5% Urals Oil and Gas 100% Kolzhan

Figure 1.6. Major producing petroleum assets shareholders' structure

Source: RPI research

100%

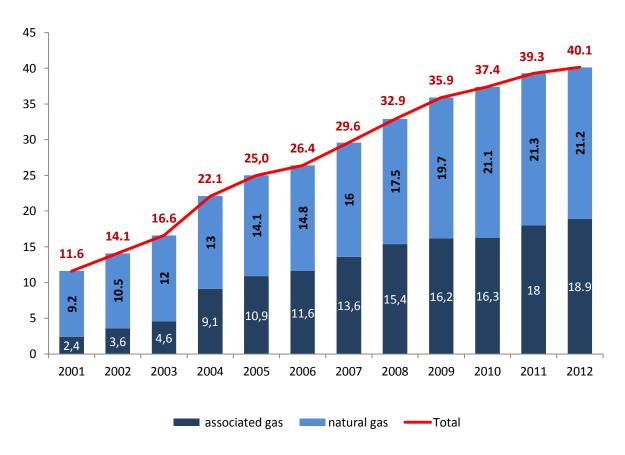
Potential Oil

Gas production

Commercial gas production in Kazakhstan has been conducted since the mid-1980s, when development of the Tengiz and Karachaganak fields was begun. Production of gas, which had positive dynamics in the Soviet era, started to rapidly decline after the disintegration of the USSR, and only starting in 1999 did a sustained rise in gas production occur.

From 2001 to 2012 gas production (natural and associated) in the country rose from 11.6 bcm to 40.1 bcm per year (by 345%). The share of natural gas in the total output was 53%, the rest was accounted for associated gas - 18.9 bcm, or 47.1%.

Figure 1.13 Kazakhstan's gas production, bcm



Source: Ministry of Oil and Gas of Kazakhstan, RPI research

In 2012 there were 60 gas-producing companies in Kazakhstan, with about 77 % of the total annual gas production coming from two leading producers, Karachaganak Petroleum Operating Co. and Tengizchevroil (40.7% and 31.6%, respectively). CNPC-Aktobemunaigas ranked third, lagging far behind the leaders.

Table 1.11 Gas production by key players in Kazakhstan in 2011-2012, bcm

Company	2011	2012	2012 to 2011, %
Karachaganak Petroleum Operating	16.87	16.32	-3%
Tengizchevroil	13.52	12.70	-6%
CNPC-Aktobemunaigas	3.38	3.68	9%
KazMunaiGas	1.17	1.09	-6%
Mangistaumunaigas	0.51	0.54	6%
Tolkynneftegas (KazMunaiGas)	0.79	0.46	-42%
PetroKazakhstan Kumkol Resources	0.49	0.46	-6%

Source: Ministry of Oil and Gas of Kazakhstan, RPI research

Gas processing capacity

The gap between the volume of sour gas and marketable (processed) gas is due to a shortage of processing capacity. The available gas-processing capacities in Kazakhstan are quite insufficient for processing all the produced gas.

Kazakhstan is a major LPG producer. In 2012 LPG production was 2,200 thousand tons. Production grew by 52% versus 2008. About 75% of the total LPG volume is produced by gas processing facilities, with the remainder coming from the oil refineries.

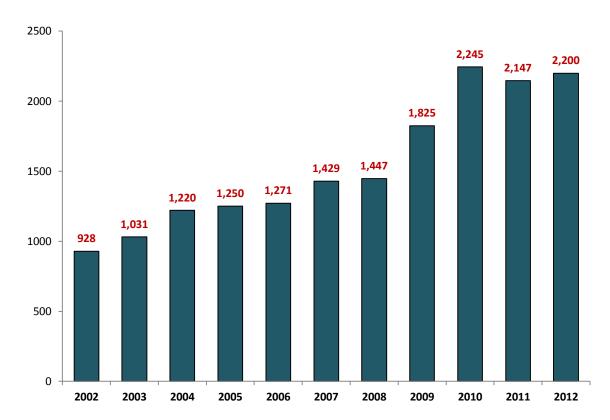


Figure 1.14. LPG production, thousand tons

Source: Ministry of Oil and Gas of Kazakhstan

As of the end of 2012, Kazakhstan's total gas processing capacity amounted to 18.9 bcm of gas per year, and is represented by five major gas processing facilities:

- Tengizchevroil
- Uzenmunaigas
- Zhanazhol (three facilities)

Table 1.12 Kazakhstan's gas processing capacity

Gas processing plant (GPP)	Operator	Current sour gas processing capacity, bcmpa
Kazakh GPF	NC KazMunaiGas	2.9
Tengiz GPF	Tengizchevroil JV	12.0
Zhanazhol GPFs	CNPC- Aktobemunaigas	4.0
Total		18.9

Source: Ministry of Oil and Gas of Kazakhstan

In addition, part of extracted gas is processed at gas treatment units, built by oil and gas producers at the fields (Tolkyn, Akshabulak, Kumkol etc.). Besides, around 8 bcmpa of gas from Karachaganak is processed at the Orenburg GPP (Russia).

The bulk of the liquefied gas produced in Kazakhstan is exported. In 2011export of the liquefied gas was 1,467 MMt. In 2012 export increased for 4,6% to 1,534 MMt.

1.1. Aral Petroleum Capital LLP

Ownership

Aral Petroleum Capital (APC) is a joint venture on a 50/50 basis set up in June 2004 between Canada's Caspian Energy Inc., a private company, registered in Toronto, and Azden Management Limited (Azden), a Kazakh company established under the laws of Belize to hold its interest in Aral, which is wholly-owned by Adil Mukhamedzhanov, Vice-President, Finance of Aral and a deputy director of Oral Petroleum.

Effective June 25, 2004, Caspian Energy, acquired a 50% interest in Aral and a temporary 100% beneficial interest in exchange for 16,545,454 common shares of Caspian Energy, valued at \$9,430,909 and payment of US\$9.0 million in cash. Caspian Energy Inc. holds its 50% interest in Aral through its wholly owned subsidiary, Caspian Energy Ltd. (CEL).

Contact information

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Chairman and CEO: William Ramsay

COO: Charles J.Summers

Aral Petroleum

132 Dostyk Ave., pavilion 2 050100 Almaty, Kazakhstan General Co-Director:

The 100% beneficial interest in EZ#213 held by Caspian terminated in early 2006, however, Caspian maintains a 50% economic interest in EZ#213 through its interest in Aral. Under the terms of the Shareholders Agreement, both shareholders share control of Aral and have equal rights to appoint members of its board of directors.

The Shareholders Agreement also provides that Caspian will use all reasonable commercial efforts to raise US \$84,000,000 (the "Funding Commitment") to be loaned to Aral to fund the first stage of its exploration program. Such loan will be repaid by Aral out of 50% of all revenues from the production of oil from the North Block after completion of the First Stage Exploration Plan, and 100% of the proceeds of sale of any assets or rights in the Exploration Contract or a Production Contract, and will rank paripassu with all other unsecured debt of Aral.

On February 23, 2010, Caspian Energy announced that it had entered into an agreement to sell a 10% interest in Aral Petroleum to AsiaStar Petroleum Limited. Pursuant to the agreement, CEL sold a 10% interest in Aral to the Purchaser, and Azden sold all of its 50% interest in Aral to AsiaStar Petroleum, resulting in the latter holding a 60% interest in Aral and CEL holding a 40% interest in Aral.

On November, 2010, Caspian Energy Inc. sold a 10-per-cent interest in Aral Petroleum Capital LLP to Asia Sixth Energy Resources Limited (ASE). ASE has also acquired the 50 per cent of Aral previously owned by Azden Management Limited.

Aral Petroleum

LLP

Caspian (40%)

Figure 2.4.1 Aral Petroleum sharefolders' structure

Source: RPI research, company data

North Block

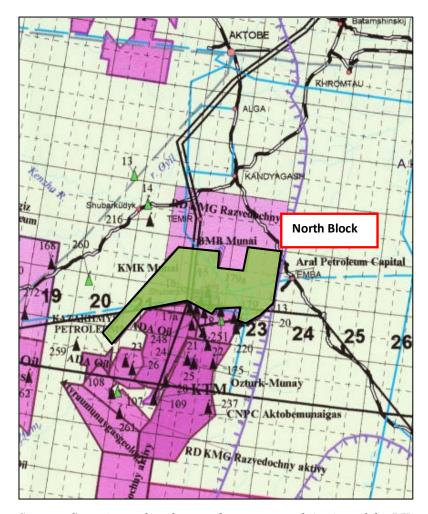
Aral Petroleum Capital holds Exploration Contract for the North (Severny) block. The 3,458-square kilometer North Block area is in the vicinity of the Pre-Caspian basin in the Aktubinsk Region in western Kazakhstan. Exploration within the North block was conducted during the period of 1982 to 1994 and was successful in discovering several large oil and gas fields in the area: Alibekmola, South Alibek, Zhanazhol and Kenkiyak.

Asia Sixth Energy (60%)

The Exploration Contract held by Aral permits exploration for hydrocarbons on a number of areas within the North block. These are the Zhagabulak area with East Zhagabulak field (discovered in 1982), Baktygaryn, Itisay, Kozdesay, West Kozdesay and some other areas.

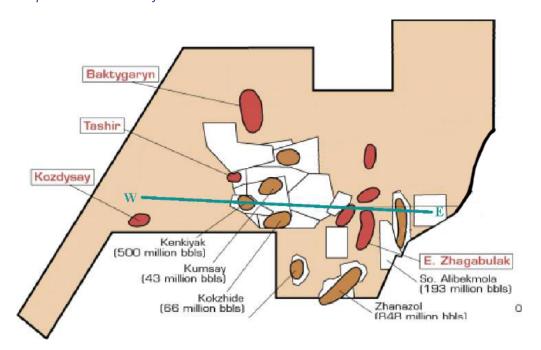
The North block area is serviced by developed infrastructure, including electrical power lines, a good network of all weather roads and an experienced oil industry work force. The area is crossed by the regional oil transportation system and is connected by a new pipeline from Kenkiyak to Atyrau and on to Western European and Russian export markets.

Map 2.4.1 North (Severny) Block



Source: Committee of geology and resource exploitation of the RK

Map.2.4.2 North block fields location



Source: company data

Reserves

Based upon an evaluation by McDaniel & Associates Consultants Ltd., as of December 31, 2008, Aral Petroleum proved and probable oil reserves in the Eastern Zhagabulak field amounted to about 7.5 million barrels, including 2.1 million barrels of proved reserves.

Assets

In August 2010, Aral Petroleum Capital signed a 25-year contract for development of the Zhagabulak East Field with the Oil and Gas Ministry of Kazakhstan.

The Contract for the North (Severny) block was signed December 29, 2002. The exploration phase is three years with option for 2 extensions for two years each time. The initial three-year term of the exploration period was extended for a two-year period (expiring in December 2007) and a further extension of two years to December 31, 2009. A request for an extension of three years (through year 2012) of the exploration period for the North block contract was approved in the IQ2009 with additional work program commitments.

In January 2013 Caspian Energy Inc. the Exploration license which governs the majority of the acreage, commonly referred to as the North Block, has been extended for a further two years up until December 2014.

Operations

- Implement a Drilling Campaign throughout the North Block, 6 new wells to be drilled.
- Move 3 further wells in East Zhagabulak Field into production (wells 306, 308 and 315).
- Develop West Zhagabulak field (wells 307, 309 and 316).
- Exploration of Baktygaryn and Kozdysay.

• Completion of construction and commissioning of the gas pipeline to transfer gas to the Alibekmola Gas Processing Plant is expected to occur in Q4 12/Q1 13.

In the year 2010, the operator did no drilling in the contract area. In 2011, Great Wall Drilling Company drilled two exploration wells: at the East Zhagabulak field (4.78 thousand m) and at the Zhagabulak field (4.46 thousand m). In 2012 Great Wall Drilling Company extended the exploration of East Zhagabulak and Zhagabulak and drilled 9,523 and 486 m, respectively.

Table 2.4.1. Exploration drilling Aral Petroleum Capital LLP

	2011	2012
East Zhagabulak	4,780	9,523
Zhagabulak	4,460	486
Total	9,240	10,009

Source: Ministry of Oil and Gas of Kazakhstan

North block

The extension of the Exploration license for North block allows time for the Company to evaluate new discovery at West Zhagabulak field and to commence exploration activity in other parts of the North block outside of the Zhagabulak area.

Aral Petroleum drilled well 316 in mid-2012 in the West Zhagabulak field, with the aim of extending its production licence over a larger area. Well 316 has been cased to a depth of 4,950 metres. The minimum Work Program associated with this extension - will be drilling a new well in 2013 and a second well in 2014. The Company has the necessary documentation approved by RK MOG that permits drilling activity in 2013-2014. This refers specifically to drilling a pre-salt well in the area of Baktygaryn (Baktygaryn No.11) as well as a post-salt well in the area of Itassay (Itassay No.26). Approval has also been granted to shoot additional 3D seismic over both the Aransay and Itassay areas. Tenders for drilling Baktygaryn, Itassay No.26 and the associated 3D seismic activity have been held.

East Zhagabulak

The Zhagabulak area, located in the southeastern corner of the North block, was the initial focus of the company's exploration thrust. The initial 3D seismic program covering 406 sq. km has been completed, processed and interpreted by the end of 2005. The acquisition of the 367 km new regional 2D seismic survey covering the west and north areas of the North block and tying into the Zhagabulak and Baktygaryn 3D seismic surveys that was completed in March 2007 has also been processed and interpreted. In addition to seismic acquisition and interpretation work Aral reactivated one of the older exploration wells in the East Zhagabulak field (EZ#213) and re-perforated and tested the well. The well was put on pilot production in November 2006.

In parallel the drilling program was launched in mid 2005. In December 2008, the operator completed Technology Scheme which outlines the detailed plan of development of the field and submitted it to the Government. In November 2009, Caspian Energy Inc. announced that Aral Petroleum Capital had received a signed Protocol of Direct Negotiations that sets out the agreed basis for the Production Contract for East Zhagabulak oil field.

In 2012 Caspian Energy Inc. and partners drilled a fourth well in the East Zhagabulak field. Well 306 was spud in January with a target depth of some 4,700 metres. The well is about 1 km due south of well 308,

which was completed late in 2011 to a depth of 4,780 metres. Well 308 lies midway between the two producing wells and was tested in February 2012. Electronic logging operations have reported multiple intervals of pay in carboniferous KT-I and KT-II sections. The KT-I section, logged over the interval 3,518 to 3,850 metres, identified 31.1 meters of net pay. A pay section, totalling 30 metres exhibited oil saturation of between 50% and 89%. The KT-II section, logged over the interval 4,505 to 4,780 metres, identified 87.3 metres of net pay. 77 metres of net pay exhibit oil saturation of between 65% and 82%.

East Zhagabulak field resumes production on May 3, 2012. Peak production is estimated to reach 6,170 bopd.

Baktygaryn

The Baktygaryn area is located in the northwestern corner of the North block. The acquisition program of 235 sq. km of 3D seismic data was completed during November 2005 and the processing and interpretation competed during 2006. Acquisition and interpretation of 3D seismic allowed the company to identify presalt targets in this area.

The first post-salt well identified from the Baktygaryn 3D survey, Baktygaryn #703, was spud on March 2008, reached total depth of 2,521 meters. The well was designed to test sandstone reservoirs in both the Triassic and Upper Permian in traps created by one of the several Permian Kungurian salt ridges running through the North block. No reservoirs in the Upper Permian were encountered and the well was plugged and abandoned.

The second well was spud on July, 2008, at Aransay #711 location, approximately 20km east of Baktygaryn #703. No shows were encountered while drilling and electric logging has confirmed the absence of hydrocarbons. The well was rig released, plugged and abandoned, on July, 2008. Aral has decided to release the drilling rig following plugging operations to further evaluate the portfolio of existing prospects identified in the block.

Itassay, Kozdesay and West Kozdesay

The Itassay, Kozdesay and West Kozdesay areas are located in the southwestern portion of the North block and collectively, are viewed as one prospect. According to official estimates, these areas contain 567 million barrels oil in place and 170 million barrels recoverable. These Kazakh estimates were based upon the results of Soviet era 2D seismic data and stratigraphic test wells. According to Caspian Energy, the company neither accepts nor denies these estimates, but seeks to validate this data through its exploration program. A review of this data has resulted in the identification of several prospects and leads ranging from 600 to 1,800 meters in trapping positions against Permian salt ridges and undersalt overhangs.

The interpreted data from all new seismic data acquired and from the earlier reprocessed Soviet era 2D seismic was combined to create a geological model and identify additional leads and prospects across the North block territory. As a result of this work, some of the earlier leads and prospects in the postsalt sediments identified on vintage maps and seismic in three areas in the southwestern portion of the North block, known as Itassay, Kozdesay and West Kozdesay have been confirmed and in addition several new leads and drillable prospects have been identified in trapping positions against Permian salt ridges and undersalt overhangs.

Other areas within the North block

In March 2005, Aral was awarded the exploration rights over an additional 1,110 sq. km area adjacent to the north and west portions of the North block. This new territory contains additional seismic and well data and efforts to identify that data for incorporation into the electronic database have begun. Evaluation of the North block extension, the preliminary identification of potential drilling areas and plans on how to explore are in process. Digitization and calibration of the existing Soviet age well log data across the entire North block territory for those wells penetrating into the formations below the Permian salt

complex have been completed and petrophysical analysis of these wells commenced during December 2005.

A full North block prospect evaluation project utilizing all recent and vintage seismic and well log data was completed. Numerous older prospects within the block were confirmed and several new prospects were identified.

Production

Reactivation of the old, Soviet-period well, EZ#213 in 2006 allowed the operator to start pilot production phase at the E. Zhagabulak field. As of the beginning of 2012, there are only two producing wells at E. Zhagabulak field: reactivated EZ#213 and new EZ#301.

Since 2007 oil production at the field has been declining. The 2012 production totaled 11.4 thousand tons of oil, which is 2.5% below the level of 2011. Associated gas output totaled 5.57 Mcm.

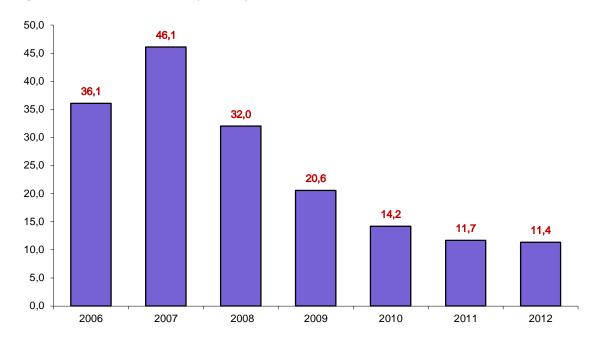
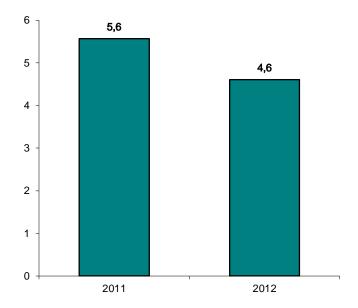


Figure 2.4.1 Aral Petroleum Capital oil production, Mt

Source: Ministry of Oil and Gas of Kazakhstan

Figure 2.4.2. Aral Petroleum Capital associated gas production, Mcm



Source: Ministry of Oil and Gas of Kazakhstan

Transportation

In 2012 oil and condensate export fell by 10.8% to 10.7 thousand tons.

Table 2.4.2. Aral Petroleum Capital's exports routs, 2011-2012

2011	2012		
Atyrau-Samara pipeline			
12.0	10.7		

Source: Ministry of Oil and Gas of Kazakhstan