Kingdom of the Netherlands

Kuwait; Oil & Gas sector report

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1. Introduction

Kuwait, with a total territory of 17.818 km², is not even half the size of The Netherlands. This small Gulf state harbours about 101.5 billion barrels of oil, which accounts for some 10% of the world's proven oil reserves. Since there are prospects of deeper oil deposits plus offshore oil & gas fields which are not yet developed, Kuwait is one of a few mature oil-producing countries with the potential to significantly increase production.

In 1938 the Kuwait Oil Co. (KOC) did the first oil discovery in Burgan, which is now the world's second largest oilfield. In 1975 the Kuwaiti government decided to nationalise the industry leading to both BP and Chevron being forced to give up their concession. In more recent history, Kuwait's oilfields have made the headlines especially during the 1990 invasion by Iraq and the subsequent 1991 Gulf war which liberated the country. The retreating Iraqi forces set fire to more than 700 oil wells, leading to an estimated loss of between 1% and 2% of Kuwait's oil reserves and massive environmental damage. Cleaning up this damage is still carried out and will continue for some time in the future.

While the production of oil nowadays hovers around 2,6 million barrels per day, Kuwait is aiming for a growth in production to 4 million barrels per day by 2030. The growth needs to be achieved by upgrading existing facilities as well as developing new facilities; a development which is scheduled to cost around $US 80 billion. Most of the investments will be in upstream activities with a scheduled expenditure of over $US 55 billion. Downstream projects are scheduled to cost around $US 25 billion. Finally, there are also plans to increase the production in Kuwait's northern fields from 600.000 barrels per day to 900.000 barrels per day.

Gas is growing to become a more important asset for Kuwait. Most of the gas production in Kuwait is used for domestic purposes, especially for power generation. The primary aim is to replace the use of fuel oil for the power stations by using gas, which is more environmentally friendly and cheaper. As an added bonus, by increasing the usage of gas Kuwait hopes to free up as much as 100.000 barrels for export, bringing in still more revenue.

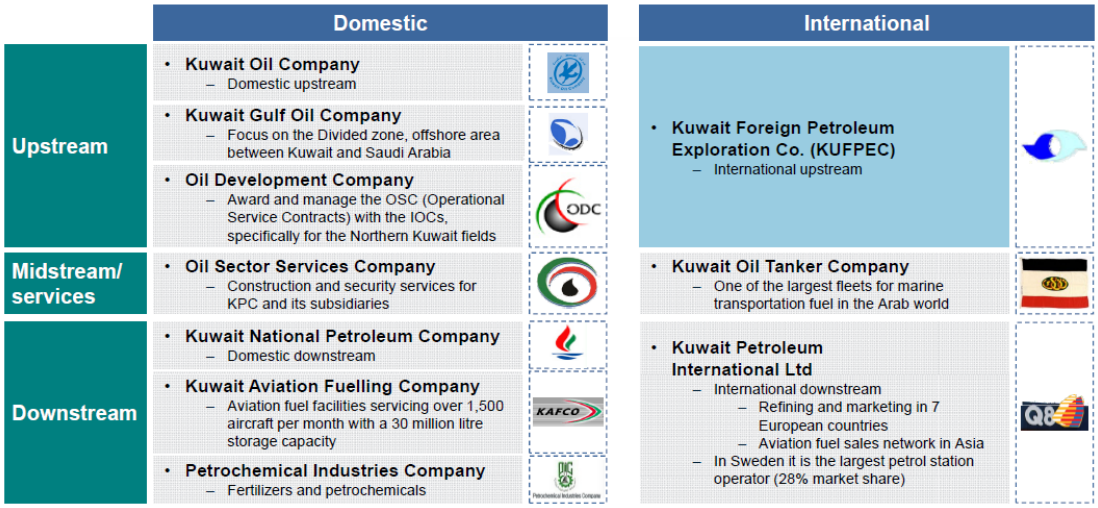
At the moment, the production of gas is not keeping up with the demand for gas. Especially during the summer months, when the demand for power (which is generated using gas) is immense, there is a shortage in gas production. For this reason, Kuwait has for a couple of years now been relying on the delivery of LNG bought on the spot market. In the mean time Kuwait is searching for a more durable solution. The biggest chance is to develop the gas field in Jurassic layers in the north of Kuwait and the Dorra and Khafji gas fields in the divided zone.

2. The oil & gas industry in Kuwait

As said in the introduction, the Kuwaiti government has nationalised its energy sector back in 1975 and subsequently set up a range of organisations taking care of every aspect. On top of the chain is the Supreme Petroleum Council, which governs the Kuwaiti oil industry. The council is charged with the approval of government policy and expenditure related to the hydrocarbons sector, as well as the regulation of contracts and auditing of the various state-owned energy companies. Below the SPC is the Kuwait Petroleum Corporation or KPC, a wholly state-owned public body. The KPC is responsible for all hydrocarbon-related operations in Kuwait and abroad. KPC falls under the direct responsibility of the Minister of Energy. KPC buys crude oil extracts through the Ministry of Energy at a selling price that is related to world market prices. KPC then sells and distributes the oil, or refines it and markets the petroleum products.

The Kuwait Oil Company (KOC) is KPC's upstream arm. The Kuwait National Petroleum Corporation (KNPC) is responsible for the downstream activities of KPC. The Kuwait Gulf Oil Company (KGOC) oversees the bulk of Kuwait's interests in the divided zone where it shares the oil revenues with Saudi AGOC. Kuwait Petroleum International (KPI or Q8) is the international downstream branch of KPC and is amongst others responsible for all business activities in the Netherlands. Most Kuwaiti crude oil is sold on term contracts, with the price of Kuwaiti crude oil tied to Saudi Arabian Medium for western customers and a monthly average of Dubai and Oman crudes for Asian buyers.

Figure 2.1: Structure of Kuwaiti Oil & Gas Industry



The "K" companies, particularly KOC and KNPC subcontract a huge volume of both maintenance/operational and project work. The public tendering systems, although they are somewhat slow, are transparent and the companies have a record of prompt payment.

Dependency on oil

It may come as no surprise that a major part of Kuwait's economy is built on the Oil & Gas-sector. While the oil & gas revenues make up for about 60% of the GDP, the government's revenue is actually for 90% dependant on oil & gas due to the lack of taxes. Extraction costs of oil from the main fields amounts to as little as $3,00, and with the continuously high oil prices of the last decade the profit margin has been tremendous. The stream of oil revenues has therefore grown considerably and the Kuwaiti government, being the only stakeholder, has profited greatly.

3. Oil & gas relations between Kuwait & The Netherlands

For the Netherlands, Kuwait is one of the most important partners in the oil business and its main exporter located in the Middle East. A clear example of this is given in table 3.1, which shows the countries exporting crude oil to the Netherlands in 2009.

Table 3.1: Direct import of crude oil to the Netherlands

Rank	*2009*	*Percentage of total in 2009*
1.	Russia	**27,99%**
2.	United Kingdom	**11,74%**
3.	Norway	**10,40%**
4.	**Kuwait**	**7,06%**
5.	Saudi-Arabia	**6,32%**
6.	Algeria	**5,56%**
7.	Iran	**4,80%**
8.	Iraq	**4,66%**
9.	Nigeria	**4,63%**
10.	Belgium	**4,37%**

Source: CBS Statistics Netherlands, 2011

Kuwait Petroleum International (KPI), the international branch of KPC, with its affiliate Kuwait petroleum europoort b.v. has a refinery in the Port of Rotterdam (80.000 bpd) and a number of manned and unmanned petrol stations (Q8 resp. Tango) across the country. The refinery located at Europoort consists of several units for refining crude oil, a gasoline production facility and a lube oil plant. It produces a large range of oil products for a wide variety of markets spread across Europe and beyond. These products are transported via a distribution centre and tank terminal, both of which are also located at the refinery.

Besides the refinery, KPI also has a research facility in Rotterdam. Its job is to develop product formulations for lubricating oils, prime products, aerosol propellant and bitumen which are marketed under the Q8 brand. The research facility also provides quality control for the Europoort refinery. In January 2011 it was announced KPI will set up its European headquarters in the Netherlands.

Given the importance of the Oil & Gas industry in Kuwait it should come as no surprise that many Dutch companies have obtained lasting partnerships and made outstanding business cooperation with the 'K' companies and other local companies in the oil & gas industry. A great example of Dutch presence in Kuwait is Shell, which has been present in Kuwait for over 60 years.

Gas

When it comes to the development of new gas fields Royal Dutch Shell signed an Enhanced technical Service Agreement with KOC to assist them in the development of the North Kuwait Jurassic gas project. In 2010 Shell also supplied LNG to Kuwait to cover the peak demand in the summer.

4. Existing infrastructure

4.1.1, Oil: Upstream

The underlying map gives a view of where the Kuwaiti oil fields can be found. As can be seen nearly all oil fields are located onshore.

Figure 4.1: Map of oil fields in Kuwait

Source: KOC, 2011

The biggest oil field in Kuwait is the estimated 70-billion barrel Greater Burgan area, which comprises of the Burgan, Magwa and Ahmadi fields. This field was the first to be discovered back in 1938. Greater Burgan is considered the world's second largest oil field, surpassed only by Saudi Arabia's Ghawar field.

Kuwait's Raudhatain, Sabriya and Minagish fields have large proven reserves, with 6 billion, 3.8 billion, and 2 billion barrels of oil, respectively. All are mature, producing since the 1950's. They generally contain medium to light crude oil with gravity in the range of 30 to 36 API. Another field, Ratqa, has been the subject of controversy and was a casus belli in the Iraqi invasion in 1990. Thought to be an independent reservoir, Ratqa is actually a southern extension of Iraq's super-giant Rumaila field. Abdali, following the UN's redefining of the border, lies entirely within Kuwait is now believed to contain much higher reserves than previously thought.

4.1.2, Oil: Downstream

Kuwait's three domestic refineries have a combined capacity of roughly 936,000 bpd, which gives Kuwait the second-largest refining capacity among the OPEC countries after Saudi Arabia. The country's largest refinery is Mina al-Ahmadi, with capacity of 466,000 bpd, followed by Mina Abdullah (270,000 bpd) and Shuaiba (180,000 bpd).

Kuwait Petroleum International manages KPC's refining and marketing operations internationally, with approximately 4,000 petrol stations across Western Europe (Netherlands, Belgium, Luxembourg, Spain, Sweden and Italy). KPI owns a 80,000 bpd refinery in Rotterdam, Netherlands and has a 50/50 joint venture with AGIP in the 240,000 bpd capacity refinery in Milazzo, Italy. KPI is currently establishing itself in growing downstream markets in Asia such as China. Kuwait is interested in acquiring downstream assets in large emerging markets such as China. In China's Guangdong Province, KPC has negotiated a partnership with China's Sinopec and Dow Chemical Company. The plant will feature a 300,000 bpd capacity refinery and 1 million tons per year ethylene steam cracker.

4.2.1, Gas: Upstream

With a total confirmed reserve of 63 trillion cubic feet of gas and a yearly output of 449 billion cubic feet (2008), Kuwait is not one of the biggest gas producers in the region. Most of its gas reserves consists of so-called 'associated gas', which means its found and produced in conjunction with oil. But then, in 2006, a non-associated gas field was found in Jurassic structures in the north of Kuwait. This field, beneath already known oil reserves, instantly doubled the total reserve since it contained some 35 tcf. There are some offshore gas reserves as well in the divided zone, Dorra gas field and Khafji field.

Kuwait began its first commercial production of non-associated natural gas in 2009, after the discovery in 2006 of gas reserves in the Rahiya, Mutriba, Um Niga and other fields. Initial gas flows were 175 million cf/d and 50,000 b/d of condensate but KOC is planning to raise production to 1 billion cf/d of gas by 2016. Kuwait's first Liquefied Natural Gas (LNG) import terminal, the Mina al-Ahmadi, began operations in September 2009. Shell has so far been a major partner in matters related to LNG. During summers, when the domestic demand for gas is larger than its own production, Kuwait has relied on the additional offshore LNG terminal capacity which has enabled ship-to-ship transfers of LNG. Most of its gas imports come from countries such as Russia and Qatar. There is talk about the possible construction of a gas pipe from Qatar to Kuwait, this has so far not been materialised. Main reasons for this are the high expenses involved and the reluctance of Qatar to commit itself to such a project.

4.2.2, Gas: Downstream

Kuwait uses its gas reserves mostly to fulfil its own energy needs. Using gas for its own power production, desalination plants and petrochemical industry could free up for export as much as 100.000 barrels of oil per day. Kuwait hopes to accomplish this through increased drilling for natural gas, and tying together gathering centres to create the infrastructure necessary to reduce associated gas flaring.

Most non-associated gas from Kuwait used to be of such low quality that not much attention had been paid to gas use before 2007. It was also the reason that KPC decided to base its petrochemical complex operations on oil. But since 2007, things have changed. The discovery of significant gas reserves in Jurassic layers in the north of Kuwait has been a stimulus to use more gas instead of oil. Although most of the gas imported is used for power generation, some of it is used as input for the petrochemical industry controlled by Equate.

5. Interesting projects & opportunities

5.1.1, Oil: Upstream

As said in the introduction, Kuwait plans to increase its crude oil production from 2,6 million barrels per day in 2011 to around 4 million barrels per day by 2030. To achieve this, massive investment has been planned already. Furthermore, the Kuwaiti oil industry will be forced to search for new technologies since the age of 'easy oil' is ending and even maintaining the current production is challenging. Much of the existing infrastructure is ageing and corrosion from Kuwait's sour crude and increased water cut is a concern. Problems have been exacerbated by the push to maximise production. Pipelines, gathering centres and separators are operating at maximum capacity. To maintain and increase capacity, both up and downstream, will require a huge investment; ofUS$80+ billion.

Increasing production

Of the new technologies abovementioned KOC has so far chosen four strategies and are conducting pilot projects to test their success. The chosen approaches are the following ones:

- 3D Seismic advances
- Horizontal drilling / Multiple Laterals
- Enhanced Oil Recovery (EOR)
- 'Smart' fields

Heavy crude oil extraction

KOC is planning to drill 50 exploration wells by 2013 in the northern Sabriyah field to explore the reservoir's heavy oil reserves. These explorations are a part of the larger strategy to increase production. It remains unclear whether the exploration phase will be followed by production. This mainly depends on the oil price and assigned OPEC quota; production of heavy crude is expensive and therefore only feasible when the oil price is high. Should the decision be made to develop the field KOC estimates it would take 5 to 8 years to commence production.

Effluent water treatment

One of the biggest opportunities in upstream oil is reducing the water cut and finding new solutions to deal with this effluent water. Most of the water is currently dumped in waste pits at gathering centres, but this has led to contamination of the soil. The environmental concern has been growing the last couple of years leading to the development of plans to clean the old waste pits; filtering all the water in there and soil remediation afterwards.

One of the biggest problems in dealing with the effluent water is that it is characterized by an extremely high salinity, which is even higher than seawater. This makes it virtually impossible to use the water for any purpose. It has been considered to build pipelines to release the water in deep-sea, but a better solution would be to reinject it in the ground.

Reducing sulphur levels

Another opportunity arises from the need to filter as much sulphur out of the oil as early as possible. The high sulphur levels quickly cause corrosion to pipelines, equipment and machinery. Therefore, separators are installed at gathering stations in the oil fields. New technologies to deal with the high sulphur levels are welcomed.

5.1.2, Oil: Downstream

As for downstream development project, the $18 billion Clean Fuels Project is among the largest downstream investments in Kuwait. The project covers modernisation and upgrade of the two refineries through three main EPC packages. One package covers the process units at Mina Abdullah. The other involves process and revamp work, as well as offsite facilities and utilities, at Mina Abdullah and Kuwait's third refinery at Shuaiba, in advance of its planned decommissioning. The final package covers all facilities and services at Mina al-Ahmadi. The overall equipment count for the Clean Fuels project will be enormous. It will require more than 4.000 individual pieces, including 117 columns, more than 1200 heat exchangers, 90 compressors, 96 storage tanks, 36 steam turbines and 61 electrical substations.

With the completion of the project, the combined capacity of the two refineries will increase to around 1.000,000 bpd from 936,000 bpd. The Clean Fuels project is aiming not only to increase production, but also to have oil products of higher quality. One of the main problems with Kuwaiti oil has always been the relatively high levels of sulphur in the oil. Nowadays, a sharpened EU regulation on the levels of sulphur in fuels is forcing Kuwait to upgrade its facilities. It needs to produce fuel products with much less sulphur if the country wants to continue exporting to the European market.

The Clean fuels project should have been implemented long ago had it not been for its link to the fourth refinery plan. This link has made it a much more political issue. Tenders were initially expected to be issued in April 2011, but recent developments have led to the postponement until at least autumn 2011.

Fourth refinery

For a long time already there has been talk of building a fourth refinery. Initial plans were to build a 615.000 bpd refinery at Al-Zour in the south of Kuwait; the new refinery would raise the daily output of Kuwait to around 1,6 million bpd. Contracts were given out at $15 billion but were cancelled again in 2009 after parliamentarians questioned the way they had been awarded. As of now there is a lot of uncertainty surrounding this project, but many believe it will be postponed until after the Clean Fuels Project is finished. Reason for this is that both projects will require a lot of manpower (100.000) and it is seriously doubted whether Kuwait would be able to handle these two major projects at the same time.

Emission control

Since a couple of years, environmental awareness has risen. The cleaning of the waste pits at gathering centres mentioned above is one example of this. Another option KPC wants to explore is emission control at refineries. It is therefore interested in new advanced technologies to reduce emissions.

5.2.1, Gas: Upstream

The discovery of non associated gas in the Jurassic field will create a new industry centred on its production and processing. KPC has developed a very ambitious gas strategy, since it recognises gas as a key asset for the coming years. It expects the need for gas to grow almost 300% in the coming 20 years, compared to 25% growth in oil demand. This will require a massive expansion on upstream, midstream and downstream facilities. Since KPC so far has little experience with gas and they recognise the gas value chain behaves totally different from the oil chain, both the K companies and their local contractors will be seeking suppliers and/or potential partners with expertise in this field.

5.2.2, Gas: Downstream

The Petrochemical Industries Company (also part of KPC) has plans to build a new olefins cracker plant. This mixed feed cracker will need both ethane, LPG and Naphtha. PIC is now conducting a feasibility study; the project is expected to start in 2013.

Another project that is currently receiving a lot of attention involves the building of a hybrid solar and gas power plant in Abdalyiah, Kuwait. The power plant is expected to deliver 228 MW of power when ready, 65 MW of which comes from solar power and 163 MW from gas-fired installations. The project's most likely contractor seems to be Japanese Toyota since they have already done studies on the project and negotiated with the MEW and PTB. However, they still have to compete with other firms for the tenders. The solar/gas facility will be 100% owned by the developer, the project is said to be worth roughly $720 million.

5.3: Proposed projects in the divided zone

The southern region of Kuwait forms a special territory. It used to be disputed between Kuwait and Saudi Arabia, but in 1970 a treaty was signed stipulating that the natural resources of the area would be equally shared between the two countries. The operations in the territory are run by a separate organisation called KGOC.

Heavy crude oil extraction in the divided zone

Kuwait Gulf Oil Company (KGOC) which is responsible for the upstream activities in the divided zone is developing plans to make more use of its fields by finding ways to deal with the heavy oil and extra heavy oil found there. At the moment, they can only extract a fraction (10%) of the oil in the reserve because of its low API and high viscosity. The only way to extract the heavy oil is by using appropriate EOR methods. These EOR methods are high tech and capital intensive, but hold the promise of tapping into the large volumes of oil still there.

Development of Khafji and Dorra field

While the Jurassic gas fields are still being explored the best short term opportunities for gas field development are in the Khafji and Dorra fields in the divided zone. There are plans to invest $4-5 billion to develop the Dorra gas field, which is hoped to reach 1,5 billion cubic feet per day production rates. However, this field lies on the continental shelf between Kuwait, Saudi Arabia and Iran and therefore requires the resolution of border demarcation issues. Saudi Arabia and Kuwait agreed their maritime border in 2000, but there remains a dispute between Kuwait and Iran. The Dorra field is believed to contain some 11 Tcf of gas, but this is subject to debate still.

Another offshore gas field which is being prepared for production is Khafji field, shared with Saudi Arabia. There is a $300 million LNG project planned for this field, which will include pipelines, booster stations and separation facilities. One of the biggest and most concrete opportunities at the moment at this field is a planned gas pipeline; KGOC has finished a feasibility study and engineering design in the last months of 2010. They are now waiting for bids of EPC contractors. The pipelines are needed to connect the Khafji field with Kuwait City. The transported gas will be used for power generation.

5.4: Iraqi invasion cleanup project

When the Iraqi forces were driven out of Kuwait in February 1991 they set fire to as much as 700 oil wells. It took until November 1991 to extinguish all the fires, but in the meantime about 2400 'oil lakes' were created. These oil lakes mainly contain a mixture of oil, sands and highly concentrated salts as a result of using seawater to extinguish the oil-well fires after the war. Due to improved relations with Iraq since recently, an UN led project is about to get underway. The project, which aim is to clean all the leftover contamination, is expected to cost around $3,5 billion and will have a decades spanning timeframe. The first part of cleaning is about to get underway, KOC is expected to issue the tenders around half of June 2011. The budget for these tenders is about $200 million. Larger projects are expected to be tendered by KOC in August 2011.

6. How to get involved?

Successful business development in the Gulf States is not based on knowledge alone, but also requires a tailored company approach, as well as suitable local relationships, like partners & agents. Understanding of and respect for both the general and the business culture cannot be stressed enough. There is no legal requirement to have a local agent in order to supply goods and services to the "K" companies. However, any tender valued at over KD5 million (€ 13m) has to go through the Central Tenders Committee (CTC), who are precluded from accepting bids other than via local agents. For non-CTC contracts both KOC and KNPC have indicated willingness, indeed a preference for dealing direct with the principal, rather than through an agent. It is necessary to be a registered supplier/contractor, which can be done, online for both KOC and KNPC via their respective web-sites.

For larger contracts and where after sales or holding stock are considerations Dutch companies wishing to do business in the Oil Sector in Kuwait are advised to consider appointing a local agent or joint venture partner. A local agent or partner can deal with the complicated and often inconsistent local tax regime. The agent can also facilitate the required registration on approved supplier lists of appropriate 'K' companies. Choosing the right agent/partner and formulating an equitable agency agreement is therefore a critical element in doing business in Kuwait. Furthermore, seeking advice first on legal and financial/taxation matters is also highly recommended.

The Economic Affairs section at the Netherlands Embassy can help identify an appropriate local representative. Many well-established companies with experience in Kuwait's oil, gas and petrochemicals sectors are keen to represent Dutch companies.

More information

More information on getting started in the Kuwaiti market can be found on the web pages of the EVD Internationaal (This information is in Dutch only);
http://www.evd.nl/home/landen/landenpagina/land.asp?land=koe

Other useful links include:

Ministry of Energy; www.moo.gov.kw

Kuwait Chamber of Commerce & Industry; www.kcci.org.kw

Overview of tenders in Kuwait; www.kuwaittenders.com

7. Events of interest

- **Trade mission to Kuwait & Abu Dhabi .** On the 8th and 9th of May 2011 a trade delegation from the Netherlands will visit Kuwait. This event is organised by Dutch Energy Solutions and the Embassy of the Netherlands in Kuwait. More information can be found on www.dutch-energysolutions.nl

- **Middle East Oil Show "MEOS"** held bi-annually in Bahrain. In 2011 it will be held from the 25th of September 2011 till the 28th of September. Well-attended event attracting strong regional representation. Significant Kuwaiti as well as Saudi participation exhibitors and visitors as well as many companies exhibiting independently. If considering exhibiting at a regional event with a strong Kuwaiti presence MEOS would probably be the best option. More information on this event can be found online at www.meos2011.com

- **Kuwait Oil & Gas summit and exhibition** is a local conference and exhibition. It is a small sized event that is primarily aimed at the domestic market, therefore the participation of foreign companies is limited. The annual event has been organised by the UK firm CWC for some years now. In 2011 it took place from the 4th of April till the 6th of April, dates for 2012 have not been fixed yet. More information can be found on www.cwckuwait.com

Database – References

I. Overview companies in oil & gas industry in Kuwait

KPC

KPC was first established in 1980 in order to bring together all state-owned elements of the Kuwait oil sector under one corporate umbrella. The shares of KOC, KNPC, PIC and KOTC were transferred to the new Corporation. KPC successfully took all the oil companies under its umbrella and formed one integrated oil industry in Kuwait.

The Corporation is managed by the Board of Directors, which in turn reports to the Supreme Petroleum Council. The activities of KPC are focussed on petroleum exploration, production, petrochemicals, refining, marketing, and transportation. More information can be found on: www.kpc.com.kw.

KPC Group of Companies

Kuwait Oil Company (KOC)

Established in 1935, KOC is in charge of exploration, drilling and production of crude oil and natural gas. Kuwait Oil Company is also involved in the storage of crude oil and delivery to tankers for export. More information can be found on: www.kockw.com

Kuwait National Petroleum Company (KNPC)

Established in 1960, KNPC is in charge of refining of crude oil and gas, liquefaction of gas, marketing of oil and gas products and operation of gas stations in the domestic market.
KNPC manages the three modern refineries at Shuaiba, Mina Al-Ahmadi and Mina Abdulla, and locally markets the refined petroleum and gas products. KNPC also manages and supplies the local petrol station network. More information can be found on: www.knpc.com.kw

Petrochemical Industries Company (PIC)

Established in 1963, PIC is leader in the production of petrochemical products including polypropylene, paraxylene, benzene, ethylene, polyethylene, ethylene glycol, fertilizers including ammonia, urea and other by-products. PIC is the first company to produce fertilizers in Kuwait using natural gas. More information can be found on: www.pic.com.kw

Kuwait Oil Tanker Company (KOTC)

Established in 1957 KOTC owns and operates fleet of vessels to trade in oil and gas including crude oil, refining petroleum products, liquefied petroleum gases and cargo, filling and distribution of liquefied petroleum gas cylinders, provides marine support services including maintenance, supply of spare parts, bunkers and lubricants, provision and execution of necessary certificates, crew transfer and medical arrangements. KOTC has one of the Arab world's largest fleet for marine transport of fuel. More information can be found on: www.kotc.com.kw

Kuwait Foreign Petroleum Exploration Company (KUFPEC)

Established in 1981 KUFPEC is engaged in exploration, development and production of crude oil and natural gas outside Kuwait, active in Africa, Middle East, Asia, and Australia. More information can be found on: www.kufpec.com.

Kuwait Petroleum International (KPI)

Kuwait Petroleum International was established 1983, the international arm of Kuwait Petroleum Corporation (KPC),under its distinctive "Q8 sails" logo, refines and markets fuel, lubricants and other petroleum derivatives to a diverse customer base. KPI directs refining and marketing throughout Europe and operates a wholesale, retail and aviation fuel sales network in Asia. More information can be found on: www.q8.com.

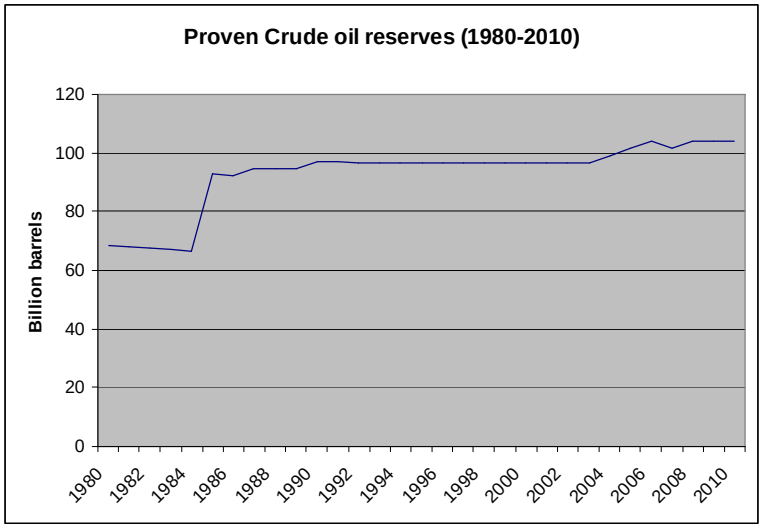
Kuwait Gulf Oil Company (KGOC)

Founded in 2002, KGOC controls and manages jointly the Kuwait share of natural resources of the offshore Divided Area between Kuwait and Saudi Arabia. KGOC plays a key role in the administration of the Joint Operations in the Divided Zone adjacent to the border between Kuwait and Saudi Arabia. KGOC represents the State of Kuwait and the corporate parent KPC in all planning and decisions for Oil and Gas operations in the Divided Zone. KGOC works closely with AGOC, who represents Saudi Arabia. More information can be found on: www.kgoc.com.

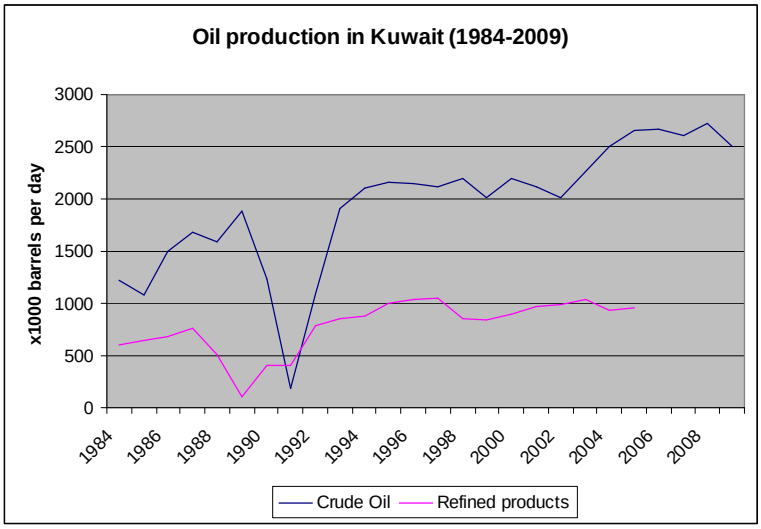
Other organisations;

- Khafji Joint Operation (KJO), www.kjo.com.sa
- Oil Services Company (OSC)
- Oil Development Company (ODC), www.odckw.com
- EQUATE Petrochemical Company (EQUATE), www.equate.com
- Kuwait Aromatics Company (KARO)
- Kuwait Styrene Company (TKSC)
- The Kuwait Olefins Company (TKOC)

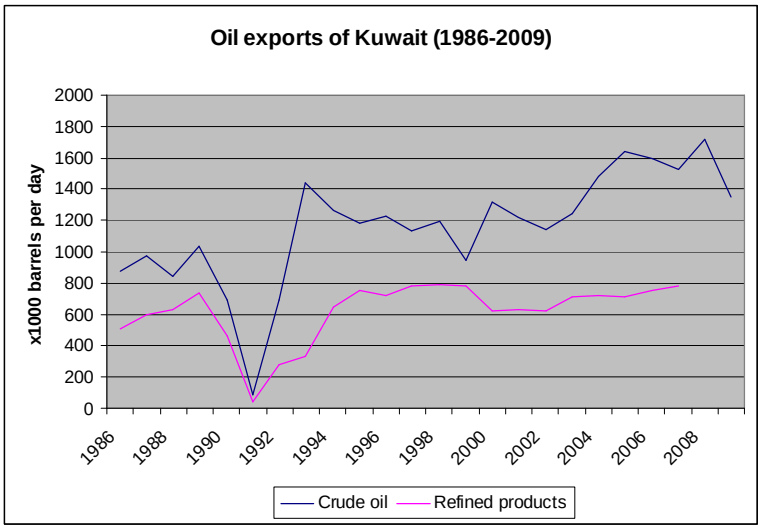
II. Statistics



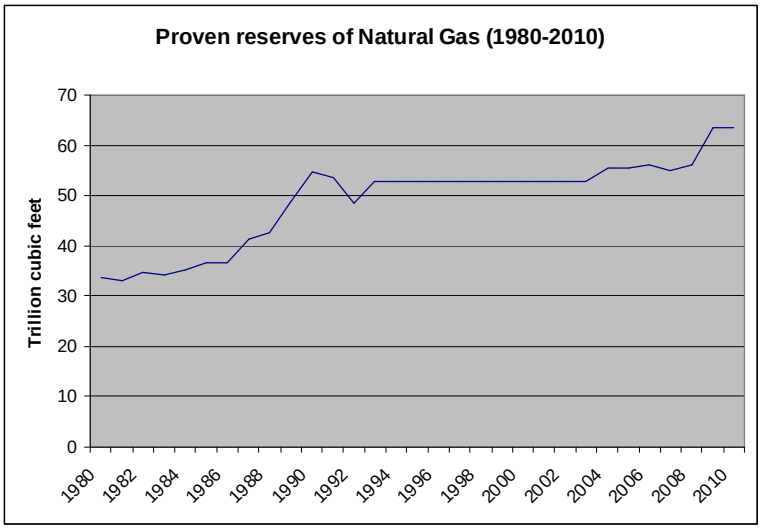
In the figure the proven oil reserves in Kuwait can be found. As can be seen, there have not been significant new reserves found since 1985.



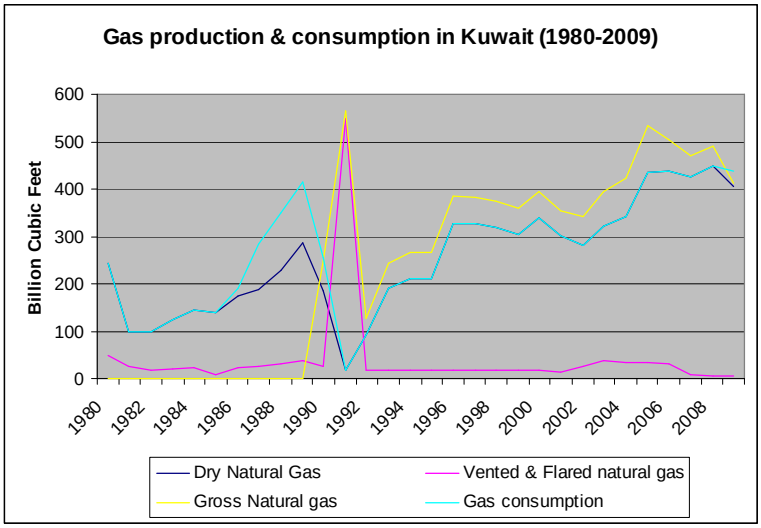
Oil production has seen a sharp decrease during the invasion and its aftermath. The general trend however is still clearly visible, production is growing on a steady pace. Only during economic recessions the production decreases. This explains why there is a drop in production in 2009 en 2010.



The same trend shown by the production figure is visible in the figure of oil exports.



As can be seen, the proven reserves of Natural Gas have been steady since 1990 until the recent discovery of the Jurassic field. The size of this field is not yet fully understood.



The (dry) gas production rate is seen following the consumption closely. In the last few years there has been a gap between production and consumption, this is also visible in the figure. Vented & Flared gas has dropped since 2007, but unconfirmed reports say that the venting & flaring continues but now unofficially.

Source: International Energy Statistics (EIA), 2011

Relations between Kuwait & The Netherlands

Table II.a: Comparison goods vs. Services 2009

	Goods	*Services*
Imported from Kuwait	95,85%	4,15%
Exported to Kuwait	73,51%	26,49%

Source: CBS Statistics Netherlands, 2011

Table II.b: Import of goods from Kuwait to the Netherlands

1999		*2004*		*2009*	
Fossil Fuels	**99,844%**	Fossil Fuels	**99,015%**	Fossil Fuels	**97,191%**
Electronic Equipment	**0,056%**	Avionics and aerospace	**0,586%**	Mechanical machinery	**2,206%**
Mechanical machinery	**0,031%**	Mechanical machinery	**0,140%**	Plastics and articles thereof	**0,239%**
Toys, games and sports requisites	**0,020%**	Other products of animal origin	**0,077%**	Organic chemicals	**0,160%**
Rubber (Parts of)	**0,017%**	Iron and steel	**0,061%**	Electronic Equipment	**0,089%**

Source: CBS Statistics Netherlands, 2011

Table II.c: Export of goods to Kuwait from the Netherlands

1999		*2004*		*2009*	
Mechanical machinery	**15,316%**	Mechanical machinery	**30,357%**	Mechanical machinery	**33,383%**
Edible products of animal origin	**14,497%**	Edible products of animal origin	**8,375%**	Electronic Equipment	**12,568%**
Electronic Equipment	**8,444%**	Electronic Equipment	**7,785%**	Edible products of animal origin	**8,838%**
Pharmaceutical products	**5,679%**	Optical instruments	**7,339%**	Optical instruments	**5,741%**
Optical instruments	**4,863%**	Motorized vehicles	**6,626%**	Miscellaneous chemical products	**3,839%**

Source: CBS Statistics Netherlands, 2011

Table II.d: Direct import of crude oil to the Netherlands

Rank	*1999*	*Percentage of total in 1999*	*2004*	*Percentage of Total in 2004*	*2009*	*Percentage of total in 2009*
1.	Saudi-Arabia	**18,49%**	Russia	**25,33%**	Russia	**27,99%**
2.	Norway	**16,56%**	Saudi-Arabia	**23,39%**	United Kingdom	**11,74%**
3.	United Kingdom	**14,60%**	Norway	**13,88%**	Norway	**10,40%**
4.	Iraq	**13,44%**	United Kingdom	**11,24%**	Kuwait	**7,06%**
5.	Kuwait	**10,79%**	Kuwait	**8,55%**	Saudi-Arabia	**6,32%**
6.	Algeria	**7,10%**	Belgium	**5,00%**	Algeria	**5,56%**
7.	Iran	**6,69%**	Algeria	**4,40%**	Iran	**4,80%**
8.	Russia	**5,46%**	Iran	**2,42%**	Iraq	**4,66%**
9.	Denmark	**3,84%**	Iraq	**2,15%**	Nigeria	**4,63%**
10.	Venezuela	**1,71%**	Kazachstan	**1,45%**	Belgium	**4,37%**

Source: CBS Statistics Netherlands, 2011