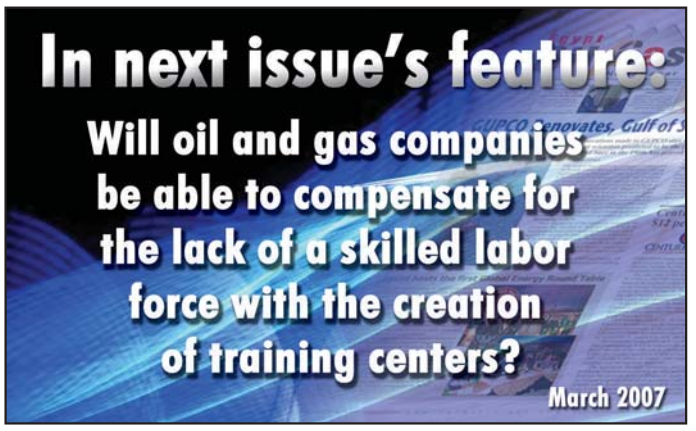
Egypt Oil & Gas Newspaper



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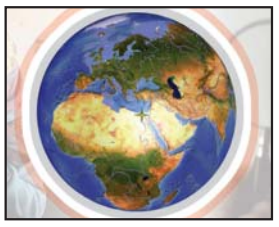

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First German pump factory in the Middle East to be built in Egypt

WITH the participation of Egyptian petroleum companies, the first factory of Ruhrpumpen – Egypt will be established in the governorate of Suez with a total investment of 20 million Euros.

According to the terms of agreement, Egyptian General Petroleum Corporation, Enppi, Petrojet and El-Nasr Company will have a share of 33%, while the German Ruhrpumpen will acquire the remaining shares.

The factory, being the first of its kind in the Middle East, will produce various types of pumps needed in the oil and gas industry. It will also manufacture and maintain all kinds of pumps used in Egypt which count for more than 6,000 pumps, as well as "availing the required spare parts," reported *Oil Egypt*.

The factory's production capacity is estimated to reach 400 pumps annually after the completion of its three phases. The first phase is to be completed by next May, which will produce its first pump for GASCO by the end of August.

Meanwhile, Enppi and Petrojet are responsible for the design and construction of the factory.

New discoveries to boost Egypt's oil and gas reserves

EGYPTIAN Minister of Petroleum Eng. Sameh Fahmy announced the discovery of seven oil and gas sites expected to secure an additional 140 million barrels of crude oil and condensates besides 1.5 trillion cubic feet of natural gas, according to a statement by the ministry.

The new discoveries that were achieved over the first six months of the fiscal year 2006-2007 were found in the Gulf of Suez, the Eastern and Western deserts and the Mediterranean areas.

The Western Desert has witnessed the most important discoveries, particularly Karam 1 and Karam 2 discovered by the Greek oil Company, Vegas, in addition to two other discoveries by Shell (west Stra 1 and west Stra 3). Also, Khalda Petroleum Company attained two other discoveries in Qasr 34, expected to add 150 billion cubic feet of gas, and Sierra 5. Khalda also discovered Gad 1 in Matrouh area.

According to the report received by the Minister of Petroleum, "Egypt has signed a number of agreements with international petroleum companies with advanced technologies and expertise, which reflects the feasibility of investment in the oil sector."

The Red Alarm

Scarcity of resources is not the only factor threatening the energy industry, the lack of security is yet another threatening factor

By Yomna Bassiouni

IN tackling the issue of security, there are three types of security vulnerability in the region; violent attacks and explosions, absence of safety regulations, as well as corruption.

Unfortunately, the MENA region is known to be an unstable region, where violence, rebels and terrorism negatively affect economic development and hence, the different sectors including oil and gas. For instance, Saudi Arabia, owning the largest reserves, has been repeatedly threatened by possible brutal attacks led by Al-Qa'eda targeting its oil and gas infrastructures. The Saudi security forces thwarted a suicide car bomb attack on a major oil production facility in the eastern town of Abqaiq, near Dammam. The targeted oil facility handles about two-thirds of the country's oil production. This attack is considered the first direct assault on Saudi oil production, said BBC security correspondent Frank Gardner.

Last September, Yemeni authorities prevented two suicide attacks on two of its oil and gas installations; the Canadian Nexen coastal oil pumping facility at Ash Shahir and the Safer oil pumping facility in Marib governorate. Four would-be bombers and a guard were killed when security forces blew up four trucks rigged with explosives, before they reached the intended targets. Although no group claimed its responsibility for this attack, yet the incident draws the same trademarks of Al-Qa'eda's previous attacks on oil facilities in the Arabian Peninsula. However, the use of car bombings represent a "new tactic in terrorist operations in Yemen," reported the Global Security News and Reports department at the Overseas Security Advisory Council.

In Sudan, the increasing tensions in Darfur had their impact in disturbing the oil sector as well. National Redemption Front (NRF) fighters seized the Abu Jabra oilfield, located in Southern Kordofan, making a "rare eastward extension of their campaign" toward central Sudan. Such disturbances have led to the decline of Sudan's rate of oil production.

Continued on page 13

The road to success: Paved with good production

Egypt is characterized by its high potential for developing and ameliorating its energy sector through the diverse oil and gas projects implemented across the country. During 2006 and throughout 2007, the Ministry of Petroleum will apply strategies to increase its production rate, maximize its discovery and exploration progressions and attract more foreign investments

OVER the past five years, the Egyptian petroleum sector witnessed the signing of 99 agreements with international firms. Foreign investments are increasing in the Egyptian market, which opens the door for the issuance of more joint ventures in the local oil and gas sector. In the last quarter of 2006, Egyptian-Bahraini cooperation was initiated for the first time in the gas sector, through which a gas processing plant will be established to extract derivatives from the Gulf of Suez in order to produce and export bromine and butagas. According to the terms of agreement, the Egyptian Natural Gas Holding Company and the Bahraini Dana Company hold an interest rate of 40% each, while the Arab Petroleum Investments Corp. (APICORP) has the remaining 20%.

In the framework of the Egyptian-Chinese agreement to construct oil rigs in Egypt, Minister of Petroleum, Sameh Fahmy and China's Ambassador to Egypt Wu Sike activated this agreement as a group of three Egyptian companies and China's HH Corporation are to begin the construction of three rigs in 2007 for local and international use.

Asked about the services and profit provided by the MoP to Egyptian citizens, Fahmy referred to the latest social studies to prove that in Egypt, citizens buy fuel and gas for their daily use, whether to run their vehicles or for their appliances at home, at very reasonable prices. Moreover, the MoP directs part of its revenues towards its employees working in the petroleum sector; around 180,000 personnel are hired in the different domains of the oil and gas sector and this number is expected to increase to 200,000 in 2007.

Continued on page 13

Egypt Oil & Gas Newspaper
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A toast to HSE

When I was younger, I would always write up a list of New Year resolutions that I would want to achieve throughout the year. The list would nearly always include being a healthier person, eating less junk food and losing weight. However, this year I thought why can't 2007 be the year of health, safety and environment (HSE)? Isn't my individual HSE just a micro reflection of the greater milieu at large? Global warming, pollution in all forms, toxic waste and contamination are all the catastrophic acts of humans. Why can't we all dedicate a lending hand to Mother Nature in 2007?

In this issue we have contributed to the HSE cause by highlighting some of the noble works of reputable companies in Egypt towards the environment and the people. Amongst these companies we have included, Halliburton, BG, BP, Shell and Apache, who have all aspired to fulfill their obligations to their community. *Egypt Oil and Gas* is also organizing an all-inclusive HSE seminar designed to illicit the experiences of multinational and national oil companies with a history in HSE management to be used as a benchmark for adoption in the Egyptian oil and gas industry. These are only the beginning steps on the road towards environmental, economic and social sustainability.

We are proud to publish the interview conducted with Centurion Petroleum Corporation's President and General Manager, Dr Hany Elsharkawi, who spoke to us about the lucrative acquisition of his company by Dana Gas PJSC. Centurion has become an important upstream arm for Dana Gas in natural gas exploration and production. This is a strong strategic platform from which to grow throughout the Middle East and North Africa regions.

Our corporate overview this month features one of the largest services company, Halliburton. Their history in the services field is unprecedented, starting from one man to currently employing 45,000 people of 90 nationalities in 70 countries.

With the unfortunate timing of former Iraqi President Saddam Hussein's execution last month, we have included a political analysis of the president's death and its impact on international and regional oil prices. Tackling the evident lack of security in the region, we have highlighted the vulnerability of oil and gas facilities to constant threats of different kinds. The dire need for security measures is an important issue to us all in the region. It should not be ignored nor easily dismissed.

Finally, we would like to remind you that your comments and suggestions are always welcome at info@egyptoil-gas.com. On behalf of the entire newspaper team we hope you enjoy our effort and hope to see you next month.

Reem Mohy

Editor-in-Chief


Under the patronage of H.E. Eng. Sameh Fahmy,
Minister of Petroleum, Arab Republic of Egypt
A comprehensive sequel to our Brownfield Development and Production Optimization Workshop-March 2006
International Brownfield Development and Production Optimization
Conference & Exhibition
September 9-11, 2007
Conference objectives:
· The identification and quantification of remaining hydrocarbons.
· Reaching production optimization via work-over.
· Understanding and breaking the economic barriers of brownfields.
· Demonstrating improved reservoir management techniques.
· Analyzing existing data and future data collection.
· Planning the greenfield-to-brownfield production transition.
· Ensuring governmental regulations allow profitable operations of mature fields.
An endeavor to transform brownfields to new opportunities
Abstracts Deadlines
1st of May 2007 – Abstract Submission
1st of June – Authors Notification
1st of July – Paper Submission
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Egypt

India's Prize Petroleum eyes Devon's Egypt assets-source

The Indian exploration company Prize Petroleum Co., a unit of state-run Hindustan Petroleum Corp., is in talks to buy Egyptian assets of US-based Devon Energy Corp. (DVN), reported the *DNA* newspaper.

"We have been approached by the managers of the sale," the paper quoted Prize Petroleum's chief economic officer, M.N. Prasad, as saying.

Devon announced last November that it plans to terminate its operations in Egypt, claiming that it needs to focus on new regions that can better provide "meaningful growth."

Devon's four oil blocks in Egypt produce a total of 7,000-7,500 barrels a day, of which Devon's share counts for 4,800 barrels. The remaining share is held by the Egyptian General Petroleum Corporation.

Prize is intending to bid for the four blocks. The Indian company is planning "an initial public offering by October and will increase to $50 million through a private placement before the issue."

(Noozz, Upstream Online & Market Watch)

Egyptian Shura Council approves 9 oil and gas exploration agreements

The Shura Council's Industrial and Energy Committee approved nine agreements to explore oil and gas in the areas of the Gulf of Suez and the western and eastern deserts.

According to the terms of agreement, the exploration companies shall spend $222.65 million in investments on oil and gas exploration, said Shamel Hamdy, first under-secretary of the Ministry of Petroleum. He added that this month will witness the first oil and gas exploration in Upper Egypt after required studies have been made.

(Noozz)

AMOC share price set at 95 LE

The Egyptian Ministry of Investment (MOI) has drawn back its original strategy to sell Alexandria Mineral Oils Company (AMOC)'s stake as it decided to set the price of a 50% stake in AMOC at LE95 per share for the 43 million shares offered, reported the *Daily Star*.

In October 2005, AMOC was offered for privatization for the first time as its 20% stake offering on the Cairo and Alexandria Stock Exchange (Case) drew 27 times the number of shares offered.

Last May, the National Bank of Egypt was officially authorized by the MOI to sell a 50% stake in AMOC, based on the plan to reduce the involvement of the public banking sector in non-financial sectors. Around 13 companies initially showed interest, however "just five conducted due-diligence exercises, including Citadel Capital and Waleed Bin Talaal's Aziziya."

According to AMOC's released financial results for Q1 2007, net income increased from LE180.5 million to LE232.3 million, scoring a raise of 28.7% compared with the same period the previous year. In June, the company's year-end results showed an increase of 52% in 2005/2006 revenues, while the net income jumped in 2006 to LE796 million from LE518 million in 2005.

(Daily Star)

Apache announces Egyptian oil and gas discoveries

Apache Corporation announced the discovery of natural gas and condensate in its Alexandrite 1X well, from a recompletion in the Alam El-Bueib 6 (AEB 6) formation on Apache's Matruh Concession in the Western Desert of Egypt.

In a statement by Apache, the well tested 19.8 million cubic feet of gas and 4,045 barrels of condensate per day, representing the first commercial production from the AEB 6 formation on the concession.

Apache is planning additional drilling for Jurassic and AEB targets in the Alexandrite 1X area during this year.

Since the beginning of 2007, Apache revealed a series of new wells that were successfully tested or in the process of being tested, creating new reserves in Egypt; Qasr 34, Qasr 36, Qasr 40, Hathor Deep 1X and Kenz 35.

Apache's Qasr 34 was tested at 18.4 million cubic feet (MMcf) of gas and 725 barrels of condensate per day. The well, drilled to a total depth of 14,000 feet, adds 2,200 acres to the Qasr field, which extends it by 2.5 km to the northwest.

The Qasr 36 well, a new Alam El-Bueib (AEB) discovery, flowed around 2,945 barrels of oil and 2.1 MMcf of gas per day in tests.

The Qasr 40 recorded 60 feet of net oil pay in the AEB 3E sands, in addition to secondary pay intervals in the AEB 3A and 3C.

The Hathor Deep 1X on the Khalda Offset Concession discovered gas in the AEB 6 formation and oil in the AEB 3D. The well tested 12 MMcf of gas and 1,237 bpd respectively from the two separate formations.

The Kenz 35 well, drilled 1 km northwest of the nearest producing well in the Kenz field located on the Khalda

Ridge, recorded 140 feet of AEB net pay as well as 18 feet of net pay in the Upper Bahariya. The well will be completed in the AEB 3E formation as a gas and condensate producer.

(Oil Egypt & Apache)

Dana Gas completes acquisition of Centurion Energy International

From left: Hamid Dhiya Jafar, Executive Chairman of Dana Gas and Said Arrata, Centurion Energy Chairman and Chief Executive Officer

Dana Gas PSJC, the first regional private-sector gas company in the Middle East, announced that its agreement to acquire Centurion Energy International Inc has been approved and completed as planned. The $950 million deal provides Abu-Dhabi-listed Dana Gas with a strong strategic platform from which to grow its upstream activities in natural gas exploration and production throughout the Middle East region.

Centurion announced at a special meeting of its security-holders held on January 8, 2007, the approval of the corporate transaction, 43,867,337 votes representing 94% of the securities voted were in favor of the Plan of Agreement with Dana Gas. The Plan also received formal approval from the Court of Queen's Bench of Alberta in Canada. Dana Gas announced on November 12, 2006 that it had entered into an agreement to acquire Centurion Energy, with plans to expand its scope of operations into the GCC region and into the wider Middle East and North Africa (MENA) region.

Centurion Energy, which will become a wholly-owned subsidiary and the upstream division of Dana Gas, is currently engaged in exploration and production operations from 10 development leases and four exploration licenses in Egypt, Tunisia and offshore West Africa. With offices in Calgary, London, and Cairo, Centurion ended 2006 with estimated gas reserves of almost 100 million boe, production of over 31,000 boe/day, expected revenues of approximately $165 million and expected operating cash flows of approximately $85 million.

Dana Gas has announced plans to expand across the Middle East and North Africa (MENA) region into all elements of the natural gas value-chain, including upstream exploration and production, through the midstream transmission and distribution of gas including LNG trading, and downstream into gas-related industries and petrochemicals.

(Courtesy of Dana Gas)

Fahmy: Ministry of Petroleum seeks expansions in natural gas use

Egypt's Minister of Petroleum Sameh Fahmy said that the ministry's strategy aims to expand the use of natural gas in various domains, giving priority to the needs of the domestic market and exporting the surplus.

The local consumption of natural gas increased to 25 million tons in 2005-2006, which represents a 48.6% of the overall local consumption of petroleum products, he said.

The minister shed light on the success achieved by the petroleum sector in inaugurating new markets to export liquefied gas in cooperation with international firms.

(Noozz)

Statoil gets a second award of exploration in Egypt

Following an international bidding round, Norway's Statoil ASA has been offered an operating 80% stake in a deepwater block off Egypt, Block 10, in the Mediterranean Sea.

The new award of Egyptian exploration acreage came just three weeks after the Norwegian group was allocated the operatorship and an 80% of Block 9 in the same waters.

The remaining 20% working interest in Block 10 has been given to Sonatrach International Petroleum Exploration & Production (Sipex), a wholly-owned subsidiary of Algerian state oil and gas company Sonatrach.

"We're very satisfied with this. It gives us an even better foothold in a promising oil and gas region, and is in line with our North African strategy," said Geir Richardson, exploration manager for Egypt and Libya of Statoil.

Blocks 9 and 10 cover areas of 8,368 and 9,802 square kilometers respectively and their water depths are between 1,000 and 3,000 meters.

(Upstream Online & Oil Egypt)

Egypt, Russia sign joint oil and gas production agreements

Gazprom, Russia's state-controlled gas monopoly announced that it reached an agreement with two Egyptian companies on joint prospecting, exploration and production of oil and natural gas in Egypt.

Rashid Petroleum Company and Egyptian Natural Gas Holding Company (EGAS) held talks in Moscow, during which they agreed to form working groups on prospecting, exploration, transportation and sales of Egyptian oil and gas, including liquefied natural gas. The talks between the two sides tackled sales of Russian oil-and-gas equipment to Egypt, reported the *RIA Novosti*. *(MosNews & Middle East News)*

Emirate's Al Thani Company to explore oil and gas in Siwa

From left: Abdullah Said Abdullah and HE Eng. Sameh Fahmy

Egyptian Minister of Petroleum, Sameh Fahmy and Abdullah Said Abdullah Al-Thani, chairman of Al-Thani Corporation signed two agreements for oil and gas exploration in South Siwa.

The Emirates group has been given the right to conduct its explorations in the Western Desert at the Egyptian-Lybian borders and East Magawich at the Eastern Desert, in an area of 28,467 kilometers square, with total investments of $21.5 million.

According to the terms of agreement, the company will drill seven wells with signature bonuses of $2.3 million for Ganoub El-Wadi Petroleum Holding Company. *(Mop & Ahram)*

Fahmy and El-Allaw discuss the third phase of the Arab Gas Pipeline

From left: Syrian Minister of Petroleum and Mineral Resources, Soufian El-Allaw and HE Eng. Sameh Fahmy

Sameh Fahmy, Egypt's minister of petroleum discussed with the Syrian Minister of Petroleum and Mineral Resources Soufian El-Allaw the undergoing progress in the Arab Gas Pipeline, during a meeting held in Cairo.

The two ministers focused on the achievements made in the third phase of the pipeline, which extends from Jordanian-Syrian borders to Hems in the center of Syria with a length of 324 km inside Syria.

El-Allaw announced that Syria is expected to execute the third phase of the Arab Gas Pipeline and the arrival of Egyptian Gas to the Syrian Teshreen Power Station during the fourth quarter of this year. The Syrian Minister declared that there is significant cooperation between the two countries in training and rehabilitating Syrian technical cadres in Egyptian centers and training companies. *(MoP)*

EIB offers 50 million Euro loan to Egypt's gas pipe-line project

The Egyptian Minister of Petroleum Sameh Fahmy announced that the European Investment Bank (EIB) will finance the south-bound gas pipeline with a 50-million-Euro loan, reported *MENA* news agency.

The EIB and the Egyptian Natural Gas Holding Company signed an agreement to finance a 115km-long gas pipeline, located between Minya and Assuit.

Egypt is planning to extend the gas pipeline to the southern governorates of Sohag, Qena and Aswan.

EIB vice-president Philippe de Fontaine Vive pointed out that "petroleum plays an important role in the Egyptian economy since the oil and gas sector was one of Egypt's major foreign currency earners." *(Xinhua)*

BP Egypt to invest $5 billion in local energy industry

British Petroleum (BP) revealed its plan to increase its investments in Egypt to $20 billion, as it announced its intention to invest around $5 billion in the local oil and gas industry over the coming five years making the company the largest foreign investor in Egypt, reported the *Daily Star*.

Hesham Mekawi, BP Egypt president declared this announcement during a meeting of the energy committee at the Egyptian Young Businessmen Association in Cairo.

"After 43 years of operation in the Egyptian energy industry, BP is now responsible for more than 40% of the country's total oil production," Mekawi said.

The $5 billion will be directed towards gas exploration and development of recent discoveries in the Eastern Delta region in order to increase the company's market share, asserted Mekkawy.

BP Egypt produces around 100,000 bpd, which goes to 30% of domestic consumption. The Gulf of Suez and Western Desert are the areas of concentration for the company's oil fields. *(Daily Star)*

International

WorleyParsons granted $220 million EPCM in Nigeria

The Sydney-based Company WorleyParsons has been awarded a five-year contract worth about $220 million to provide Engineering, Procurement and Construction Management (EPCM) services to Exxon Mobil's portofolio of its offshore projects in Nigeria.

"This is an important achievement that will allow WorleyParsons to further invest in the development of local Nigerian resources, it reinforces our commitment to Nigeria and to the provision of our Asset Integrity and Business Improvement Services core offering to clients," said WorleyParsons Chief Executive John Grill.

WorleyParsons said that its 49%-owned Nigerian operating entity, DeltaAfrik, will be responsible for the implementation of this project, including upgrades and expansion of Mobil Producing Nigeria offshore facilities and pipelines "as a means of ensuring the continuing operations of its offshore production facilities and supporting infrastructure in Nigeria." *(Rig Zone & Upstream Online)*

Syria to initiate new zones for oil and gas explorations

In an attempt to boost its energy output, Syria plans to initiate new areas for exploration of oil and gas resources in a bid, reported the state newspaper *Tishrin*.

Syrian Minister of Petroleum and Mineral Resources Soufian El-Allaw said at a workshop for energy companies operating in Syria, that all international firms will be invited to gain access into the new zones.

The new decision reflects Syrian efforts to halt the decline in its production, which has decreased by nearly 200,000 barrels a day; from 600,000 barrels a day in 1996 to the current level of 400,000. *(Middle East News)*

Oil discovered close to Syrian-Turkish borders

Oil has been discovered in 12 wells in Turkey's Camurlu and Sinirtepe areas close to the southeastern border with Syria, announced Turkish national petroleum company officials.

"We have obtained between 600-1,000 barrels of oil per day from the find," said Bayram Kara, director of the Turkish Petroleum Corporation (TPAO) Batman region.

Kara added that a seismic search is to be conducted in the areas of Ergani and Diyarbakir in order to discover new oil fields. TPAO's daily oil production exceeds the average of 60,000 barrels.

Despite sharing oil-reach areas at the borders with Iran and Iraq, Turkey remains dependant on foreign suppliers and imports to meet 90% of its needs, as it has few oil and gas resources.

Kara declared that mine clearing would be a key factor to increase oil production at borders as land-mines hinder the progress of oil explorations. Turkish authorities have planted land-mines along its 600 km-long frontier with Syria to curb border crossings by Kurdish separatists. *(ADN Kronos International)*

Iran, Malaysia sign gas development agreement

Iran and Malaysia signed a $16-billion memorandum of understanding (MoU) to develop two gas fields at Golshan and Ferdows located in the southeast of Iran as well as establishment of LNG production units, reported *IRNA News Agency*.

"Development of the upstream section of the two gas fields will be implemented by Malaysia's SKS Ventures based on a buyback contract… Another long-term 25-year contract is expected to be inked on the downstream section of the fields," said Gholam-Hossein Nozari, managing director of National Iranian Oil Company (NIOC) to reporters during the signing ceremony.

Nozari added that once developed, Golshan gas field is expected to produce more than 70 million cubic meters of gas daily. Meanwhile, the estimated daily gas production from Ferdows gas field counts for 25 million cubic meters.

The Golshan gas field contains more than 1.425 trillion cubic meters of gas in place. While, the Ferdos gas field, located 85 km from the Iranian coast, has predictable gas reserves of 285 billion cubic meters. *(AFP, IRNA & Middle East Times)*

Iraq oil reserves to be available to foreign firms

Iraq plans to set a new law to give foreign companies the right to exploit Iraqi oil reserves, reported *The Independent*.

According to the British newspaper, the law would give oil companies like BP, Shell and Exxon Mobil 30-year contracts to have access to Iraqi crude oil. Agreements with foreign companies will be in the format of production-sharing agreements (PSAs), under which the state keeps legal ownership of its oil, but gives a share of the profits to companies that invest in infrastructure and in operating the wells, pipelines and refineries.

The implementation of such a law would be the first large-scale operation of foreign interests in Iraqi territories since the nationalization of the oil industry in 1972, *The Independent* said. Also, the introduction of PSAs would also be a first in the Middle East.

In terms of oil reserves, Iraq is ranked the third largest country in the world, behind Saudi Arabia and Iran, which both tightly control their industries through state-owned companies. Iraqi oil reserves are estimated at 115 billion barrels.

Since the US-led invasion of Iraq in March 2003, Iraqi production has decreased from 3.5 million barrels per day to two million at the present time. *(Al-Ahram, Kuwait Times & Turkish Press)*

General Electric to buy oil-services firm for $1.9 billion

General Electric Co. (GE) said it agreed to buy Vetco Gray oil services company for $1.9 billion from private equity funds Candover Partners Ltd., 3i Group PLC & JP Morgan Partners LLC, according to *Reuters*.

In a statement, GE declared that the transaction is expected to be finalized in early 2007, after governmental and regulatory approval.

"This acquisition enables GE to seize faster growth in a rapidly expanding global business," said Claudi Santiago, chief executive of GE Oil & Gas. "Vetco Gray expands the portfolio of products, services and solutions available to one of the world's most dynamic industries."

The list of services provided by Vetco Gray includes drilling, completion and production equipment for on- and offshore oil and gas fields. The company, which generated over $1.6 billion of sales in 2006, has 5,000 employees in more than 30 countries with key centers in Houston, Britain, Norway and Singapore.
(Reuters, AP & MSNBC)

Zambia to invite tenders for oil and gas exploration

Zambia announced its plan to open blocks for drilling with the intention to invite international energy companies to conduct exploration projects in the country's discovered oil and gas fields, said Zambian energy minister.

Mines Minister Kalombo Mwansa said the areas where the oil and gas reserves were discovered last year had been demarcated so that private firms could bid for specific blocks.

"The demarcated blocks are being published in the government gazette to invite bids from interested companies," he said in a statement.

Mwansa added that the selection of successful bids will be conducted in the early part of this year.

"Further exploration of basins with hydrocarbon potential is planned by the Geological Survey Department to take place in 2007. The areas that will show positive results will then be demarcated into additional blocks," added Mwansa.

In September 2006, Zambian President Levy Mwanawasa announced that oil had been discovered in north-west Zambia and samples sent to laboratories in Germany had confirmed the existence of oil and gas reserves near the border with Angola.
(Upstream Online & AFP)

RWE Dea

RWE Dea awarded new exploration concession in Egypt

RWE Dea has been awarded a new onshore concession named Tanta with a 100% working interest located partly in the prolific Nile Delta Area.

The block was offered in the Egyptian Gas Holding Company (EGAS) 2006 international Bid Round. The award is subject to necessary procedures and approval of the Egyptian authorities.

The Tanta Concession is located partly in the western central part of the Nile Delta and extends to the outskirts of the Western Desert. The block covers approximately 3300 km square. The exploration block is considered to have potential for both oil and gas discoveries. To the North, the Tanta block is adjacent to the RWE Dea Disouq concession where the exploration well Tayifah-1X drilled by RWE Dea already tested successfully oil from the Qantara formation.

The Tanta concession will as such represent a continuation of RWE Dea's strategy to pursue Nile Delta plays at onshore coast.

During the initial exploration period, RWE Dea is committed to drill at least two wells in addition to acquiring 3D seismic with minimum expenditures of $18.9 million in the first three years.

Exploration well Sidi Rahman-1X in Egypt successfully tested

Exploration well Sidi Rahman-1X drilled by RWE Dea (50%) and INA (50%, operator) in the East Yidma concession tested successfully oil.

Located on the East Yidma concession, Sidi Rahman-1X is the first well tested successfully within the concession and discovered oil in two zones; the Cretaceous Kharita and Bahariya Sands.

The Sidi Rahman-1X result confirmed the western desert trend in East Yidma and is encouraging for further exploration activities. It is expected that the discovery can be developed in the near future through nearby existing infrastructure if commercially can be proven.

The first test flowed, in the lower Kharita Sand, at 3200 barrels of oil and 0.97 mmscfd of gas with a 1045 psia flowing pressure on a half inch choke. The second test in the Bahariya Sand produced another 1314 barrels of oil on a half inch choke with a 119 psia flowing pressure.

The Sidi Rahman-1X was drilled to a total depth of 14382 ft to explore not only the Cretaceous carbonates and sandstones but also to target the deeper Jurassic sandstones. Sufficient hydrocarbon potential was identified in at least three Cretaceous intervals.

A Season of Acquisitions and New Technology Expansion of Products and Services Available in Egypt via Drexel

Thirty years of operating has not meant stagnation in Drexel's product and service lines. Every year, innovative technologies and new brand names are added to the already extensive array of oil and gas provisions offered by Drexel in every area.

For nearly 29 years, Drexel has been providing **Reedhycalog**'s variety of PDC and Rock Bits. **With Grant Prideco's acquisition of Anderguage**, the latest technology introduced in 2007 is Anderguage's drilling systems for inclination control and 2D Rotary steering. Anderguage offers an incredibly wide variety of drilling solutions including mechanical adjustable stabilizers which have been successfully used to control inclination in rotary and steerable motor applications. Other Anderguage products with proven reliability include the hydraulic Anderguage, the Inclinometer and their 3D Drilling Downhole adjustable rotary tool.

In the area of Wellhead Servicing, Drexel's longtime principal, **Cameron** has also made an important acquisition and has now incorporated NuFlo Measurement Systems as **Cameron's Measurement Systems Division**. NuFlo Measurement Systems was established in 2003 as a result of the acquisition and merger of three well-known and well-respected companies: Barton Instrument Systems, Halliburton Measurement Systems and PMC Global Industries. For decades Cameron has provided high quality dependable flow equipment products and services to companies at any stage of the oil and gas industry from expansion to processing and now we offer even more. Cameron's current major subsea projects in Egypt include West Delta Deep Marine Phase IV comprising three wells which are underway and Rosetta with five wells expected to start during Q2 of 2007. Over the coming two years, Cameron's plans also include development of BP's Taurt and Raven Fields with at least 15 wells in the primary phases.

On a different note, the worldwide supplier of Multi Megawatt Power, **Aggreko** has strengthened its global position as **the leading supplier of temporary power in the world**. Last December, Aggreko acquired General Electric's Energy Rental Business worldwide. Aggreko has also simultaneously more than doubled their investment in new equipment to meet the ever-growing world and local demands. Aggreko now offers a wider range of equipment and improved availability. In collaboration with Drexel Oilfield Equipment – Egypt - Aggreko serves the Egyptian market through their new Depot Facility in Dubai ensuring a seamless flow of services to our existing and new customers.

New Technology

To meet the demand due to the increase in offshore activity in Egypt in recent years, Drexel is launching **ASEP's newest product lines** which incorporate an extensive menu of specialized well service equipment and wireline. The hottest innovations for ASEP are various models of skid-mounted wireline units, truck-mounted wireline units, truck-mounted wireline/crane units, skid-mounted telescopic wireline mast units, skid-mounted foldable wireline mast units, pneumatic compressor units and pressure control equipment.

Yet another advanced specialization in the area of decommissioning is provided by **Norse Cutting & Abandonment (NCA)**. With their unique mobile cutting technologies and extensive experience, NCA can guide you in choosing the best method for your needs. The newest technology is a range of multi-string cutters and ROV carried cutting tools – setting a new standard for subsea cutting.

Gaining Seed in the Oil and Gas market is **Fantoft's Dynamic Process Simulation** for field development, LNG plants and pipelines. By using a truly integrate software platform for engineering, Fantoft provides invaluable tools for operations and plant engineers.

Corporate Responsibility: A Step towards Socio-economic Sustainability

In Egypt several corporations have taken steps towards fulfilling their corporate social responsibility. *Egypt Oil and Gas* examines these initiatives to reveal an oil and gas industry that provides for health, safety and education.

By Diana Elassy

IN a world where globalization has become the answer to every problem and population growth the problem to every answer, a mediating force between those who profit and those who suffer had to develop. In a capitalist driven world economy, corporations no longer have the leisurely pleasure to provide social services, but the tenacious obligation to do so.

The World Business Council for Sustainable Development defines corporate social responsibility as "the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families, as well of the local community and society at large."

Several international corporations have taken steps to assure their Corporate Social Responsibility (CSR) is met. In Egypt, an awareness of CSR has evolved not just from corporations, but entities that monitor the economy. For instance, the American Chamber of Commerce has created a CSR committee where companies can gather to discuss their initiatives and cooperate on information regarding new issues in their programs. The last meeting held for the committee was on September 12, 2006. The guest speaker at the meeting was Barbara Ibrahim, director of the John D. Gerhart Center for Philanthropy and Social Engagement at the American University in Cairo.

The Egyptian Center for Economic Studies, a non-profit, non-government think-tank whose mission is to promote economic development in Egypt has also dedicated a prospective study on CSR in Egypt, its extent and those bodies who attempt to enhance it.

We at *Egypt Oil & Gas Newspaper* wholly support CSR and believe that some of these initiatives merit mention. Thus, what follows is essentially a highlight of some of the largest corporations in the oil and gas sector and the initiatives that they have undertaken in Egypt.

BP: Road Safety

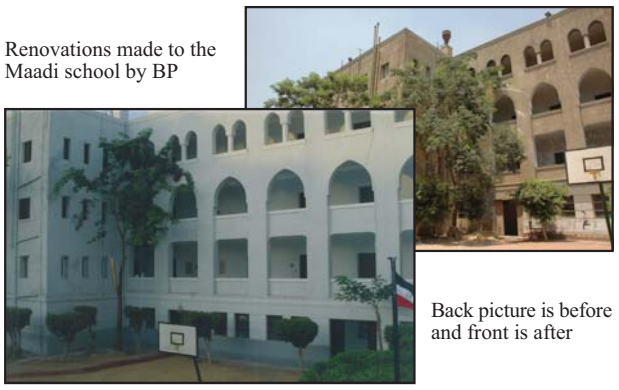
BP is one of the world's super major oil companies. Across BP's global operations, driving safety has been the biggest single cause of fatalities over the last five years. Each year, globally, it is estimated that over one million people are killed in crashes and over 15 million injured. BP decided to dramatically reduce driving related fatalities and injuries in their activities. The company is committed to health, safety and environmental performance. They maintain a policy of "no accidents, no harm to people and no damage to the environment."

At the beginning of 2001, the Egyptian government introduced a new law making the fitting and wearing of seat belts compulsory. To support the new law, and as part of a wider initiative on road safety, BP Egypt launched a seat belt campaign in partnership with their compressed natural gas subsidiary JV NGVC (Natural Gas Vehicles Company). The simple principle was to install, free of charge, a set of four seat belts to any vehicle that converts to use compressed natural gas at NGVC's conversion centers. BP donated the belts (imported from the UK) and NGVC provided the labor to fit them.

In 2004, they sponsored a children's book aiming at raising the children's awareness of Road Safety issues. The book was entitled "Stop and Learn from the Wise Elephant." It won the "Suzanne Mubarak Competition for Children's Literature." The book highlighted several key road safety messages, including, abiding by the speed limit, driving in the wrong direction, wearing seat belts, children sitting in the back seats, and respect for people on the road.

In 2005, the company continued in its efforts towards road safety awareness by sponsoring the annual conference for Road Safety & Traffic Management in Cairo. The conference's objective was to improve road safety awareness in Egypt through education, training and setting examples of best practice.

In 2006, the British Council and BP teamed up and launched a campaign aiming at raising awareness about the risks of road accidents and the rules of safe road behavior in Egypt through workshops and sessions that brought together 150 experimental schools' pupils aged between nine and 11 years.



Renovations made to the Maadi school by BP

Back picture is before and front is after

Children, Education and Health

On 31 March 2006, Orphan's Day took place at Al-Azhar Park. More than 7,000 orphans attended a fun-filled day of games, live music and celebrity appearances. BP Egypt organized a fundraising campaign amongst its employees. This initiative was to raise funds to buy new clothes for the children in this special occasion. The company managed to dress-up 106 orphans thanks for donations raised by their employees. BP Egypt staff are volunteering some of their time and effort to participate in the Injaz project. The project is implemented by Save the Children Federation Inc., an international nonprofit, nonsectarian, private voluntary organization (PVO) providing development and humanitarian assistance around the world, with a focus on health, education and economic opportunities for children and women.

In an effort to help enhance the quality of public education in Egypt, BP Egypt also donates money for the renovation of public schools in Egypt. Recently the company has granted $75,000 to Maadi Secondary School to renovate its utilities. The school was repainted and equipped with new lavatories, new playground, new desks and a new electricity system. The refurbishments were all complete in less than 3 months.

Regarding the renovations, Hesham Mekawi, BP Egypt President, stated: "We are very pleased to play a role in ensuring that young generations receive high quality education, delivered in modern, attractive and comfortable school premises."

In terms of health, BP has led several initiatives in order to benefit its community. For instance, BP Egypt came up with the initiative to utilize the amount traditionally allocated to New Year's gifts, which are usually given away at the end of the calendar year, to offer a donation to the Cancer Hospital. In addition to this year's donation, which was almost LE240,000, an amount of LE1,000 was collected by BP Egypt's safety team for the AFNCI and matched by BP Egypt.

BP Egypt is a longstanding sponsor to the annual event Run for Cure. The objective of the run is to raise funds to support breast cancer research and services. In addition to the financial sponsorship, many BP Egypt employees helped in the fundraising activities and participated in a community walk to increase the awareness towards this disease.

BG: Education and Health Care

In 2006, the British Gas (BG) company signed a memorandum of cooperation with the British University in Egypt (BUE) to establish the "BG gas and petroleum lab" for the first gas and petroleum engineering faculty in Egypt. The lab will be located at BUE. BG Egypt will finance the purchase, delivery and installation of the state-of-the-art equipment for the lab over a period of three years (2006-2009).

On the day of the memorandum signing, BG Egypt's President Ian Hewitt stated: "I am pleased to be here today to enter into this partnership with the British University in Egypt. As one of the largest British investors in Egypt, BG Egypt has a strong commitment to supporting the community where we work. We are pleased to respond to Egypt's need for the quality enhancement of higher education in Egypt by supporting the British University."

BP Cambridge Scholarships for Egypt

One of the major programs BP Egypt offers is the BP Cambridge Scholarships that enable Egyptian graduates of outstanding academic merit to pursue courses of study or research at the renowned University of Cambridge. To date, the company has sponsored 35 scholarships, out of which 22 are PhDs and 13 MPhils, and plans to sponsor another 30 in the coming 3 years.

As preference is given to petroleum related or economics and development related studies, the objective of this initiative is to help equip graduates to work with the government by joining ministries, governmental organizations, associations, or companies. By offering Egyptian students the means to world-class education, they will be expected to return to Egypt after their course of study to share their experience and contribute in leading the way to the country's economic growth.

Recepients of the Cambridge Scholarship

Hesham Mekawi, BP Egypt President, commented: "Education is the key to the prosperity of all communities. The main aim of BP's social investment program is to provide the path to distinctive education, particularly for qualified, financially disadvantaged students who might not otherwise get the opportunity."

BP Egypt Public Schools Scholarship Fund (PSSF) – AUC

Initiated in 2002 by the American University in Cairo (AUC), the Public Schools Scholarship Fund (PSSF) is to support outstanding graduates of Arabic language public schools in Egypt. In an effort to further its responsibility towards Egypt and to create greater educational opportunities for promising young students, BP Egypt sponsors the education of public school students for 5 undergraduate academic years. The recipients are selected from a pool of one hundred top achievers in the country in Thanaweya 'Amma (Egyptian high school diploma) from public schools, nominated by the Ministry of Education. The scholarship covers the students' university tuition fees and provides them with opportunities to advance personally and professionally. Currently, BP Egypt is sponsoring 3 students in the fields of Engineering, Computer Science and Business Administration.

EI Award in London: BG Egypt & Egyptian LNG Win Energy Institute Award

The Energy Institute is the leading professional body for the energy industries, representing almost 12,000 professionals internationally. Each year the EI Awards celebrate innovation and the achievement of excellence that is demonstrated on a daily basis by people working across the energy industry.

BG Egypt and its joint venture Egyptian LNG (ELNG) have just won the first prize in the Community Initiative category of the prestigious EI in London. The award was for their work within the local community. The winning initiative is entitled "Working with the Community." Abdul Aziz An-Nashar and Mohamed El-Gallouly collected the award on behalf of BG Egypt and ELNG at the ceremony which took place in London.

Abdul Aziz An-Nashar receiving the EI Award.

The extensive five-year Community Development Plan which includes support for the training and development of Idku's youth and disadvantaged population by employing them within the ELNG business was chosen as the winner amongst an elite international selection.

Consultations with the community revealed that employment is a key concern and in addressing this BG Egypt and ELNG sought to maximize recruitment from the Idku community. They were faced with many challenges due to the lack of educational qualifications and professional and technical skills within the community. However, with the right training and education, recruits have been able to make a valuable contribution to the ELNG business.

Idku residents are now working across a number of functions in ELNG including Emergency Response planning, Marine Services, Security, Maintenance and Housekeeping. At the end of 2005, Idku residents accounted for some 34% of the total workforce at ELNG.

In October of this year, under the auspices of the previously mentioned Injaz project, BG adopted the "El-Horeyya" preparatory school for girls in a disadvantaged area in the Maadi district. The school consists of six classrooms in which 240 young adolescent girls are taught. Six BG staff members have volunteered 10 hours over a period of ten weeks. The staff were trained by Save the Children on participatory learning approach which fosters creative thinking, critical problem solving and interpersonal communication skills.

During the 10 weeks, young students are mentored by company staff in various subjects. By the end of the program in December students should have critically investigated career paths, developed special skills including resume writing, presentations, community service and leadership.

BG Egypt also has plans to improve the physical environment of the school. Such improvement would be comprised of renovating the general school building including classrooms, activity rooms, and utility facilities.

This year, BG in collaboration with Nahdet El-Mahrousa has supported a National Awards Sponsorship project. The "Young Innovators Award" gives 15 National Awards for the academic year 2006/2007 (renewable annually upon review) to eligible students. Five of the awards are dedicated solely to Women Young Innovators Awards. The awards will target students at the chemical, metallurgy, and mechanical departments at three national universities: Cairo University, 'Ain Shams University, and Alexandria University serving an average pool of 75 students.

In terms of better health care in Egypt, BG has donated the amount of LE48,000 to the Idku central hospital, a government hospital serving the population of the district of Idku (206,770). The hospital lacks essential financial resources, human expertise, and equipments. The donated amount will cover maintenance fees for 6 months starting from January to July 2006. The money will also go towards the purchase of sterilization appliances, elevator spare parts, batteries for the ICU, and an incinerator. Also in Idku, which happens to be the area of BG Egypt's principle operations, the company along with its joint venture Egyptian LNG (ELNG) has supported a national Road Safety Campaign for the third year. The campaign's goal is to enhance safety awareness in the community, and educate and train children and mothers in Road Safety to eliminate traffic accidents and fatalities. The company has also initiated an environmental awareness campaign for Idku school children.

Poverty and Children

For the third consecutive year, BG Egypt has chosen CARE Egypt to organize its Annual BG Egypt Energy Challenge 2006, along the coast of Hurghada, located in the Red Sea where 30 teams have participated collectively, and pledged the total of $150,000 to help fight poverty in Egypt.

Teams formed from oil and gas companies consisted of 4-6 members, all male, all female, or mixed. The teams hiked an average of eight hours the first day. Each team raised $4,000 or more to participate in this year's BG Energy challenge.

For children, BG and ELNG have supported the challenged children centre in Idku, which caters to 88 children. In the interest of increasing the capacity of the NGO and improving the quality of education for the children, BG supported the participatory needs assessment and capacity building program. The company has commissioned the reputable Cairo-based NGOs "Life Lovers" and "The Right to Live Association" to network with the Idku NGO, carry out mentoring capacity building programs for teachers, management capacity building for the NGO board, and assessment and tailored educational programs for the children.


BG employee at Horeyya School for the Injaz project

Shell: Education and Awareness

In 2004 Shell Egypt launched their Intilaaqah program in an effort to support youth development and encourage young people to set up their own business and work for themselves. To date, the program conducted 25 awareness sessions, 11 workshops and 15 five-day training programs. At the moment, 37 new businesses started and there are eight more in the works.

In the same year, the company with the cooperation of the Arab Roads Association (an NGO concerned with promoting road safety awareness) and the Roads and Bridges Authority (Ministry of Transport) began providing support for the drivers' training centre affiliated with the authority. Shell has provided two training vehicles for the center to help upgrade the training of drivers receiving training at the center.

The focus for the company has been on Health, Safety and Environment (HSE) programs that began with a series of lectures to enhance the awareness of students and teachers. In 2005, Shell Egypt started a number of key road safety initiatives aimed at promoting safe motoring behaviors on the widest scale possible. In 2006, Shell Egypt started promoting the concept of road safety in schools, believing that educating students on safety principles early in their life would make them better drivers and road users in the future. Shell also organized defensive driving training for school bus drivers.

Shell has concentrated on education under the supervision of the Ministry of Education by adopting local government schools, renovating their facilities and supporting student activities. Shell's adopted schools include Al-Makrizi, Almaza School, Red Crescent and Mustafa Kamel complex of schools as well as Tal'aat Harb and Taha Hussein Preparatory Schools. The scheme presently benefits more than 6,300 students.

Shell Egypt has also signed a protocol of co-operation with the Faculty of Science – Cairo University, to upgrade the faculty laboratories and encourage more intensive research efforts. It has recently provided the faculty with video-conferencing facilities to encourage more interaction with regional and international academic quarters. The company is also committed to offering training to top faculty students at the premises of Shell Egypt as well as organizing tailored seminars to familiarize students and teachers with different aspects of the oil and gas industry.

Shell seeks to enhance the faculty's involvement in its activities by offering seats for faculty staff and students in conferences and events sponsored by Shell.

Shell also contributes to the Chevening Scholarship Program, which enables young Egyptians with outstanding academic merit to pursue post-graduate studies in the UK and has played an important role in supporting the petroleum class and it's Diploma – established by the Ministry of Education in Matrouh. The company has provided the school with audio-visual equipment, computers, videos, reports, books, magazines and dictionaries. Shell also organized a 6-week English language course for the students in the summers of 2004 and 2005.

During 2004/2005 visiting lectures were made to widen the curriculum and provide contact with oil industry representatives. Shell intends to take a long-term interest in the school to ensure that courses remain up-to-date and that graduating students have access to oil industry employment.

Since the support of the company the top 10 students within the Technical Education of Matruh Governorate were from the Matrouh Petroleum Class. Five out of those 10 students were among the top 10 within Damanhour Technical Education Sector, which includes four governorates (Alexandria, Beheira, Kafr El-Sheikh and Matrouh). Three out of those 10 students were among the highest 10 at the overall country level.

On March 9-12 2006 the company co-organized a preparatory workshop planned ahead of the second Annual Conference for Engineering Students (ACES). The conference, which attracted intensive participation from engineering students in Egypt, basically sought to enhance student interaction with modern technology and its influence in their practical life. This year's conference focused on the knowledge sharing among students as a mainstay of the learning process. This was encapsulated in the motto "From Students to Students," which was the underlying theme of the whole event.

Sustainable Development through Sustainable Energy

Shell Egypt identified the opportunity to supply several of the governorate of Matrouh's more remote health centers with electricity to provide power for lighting and refrigerators in which to store medicines and vaccines. These medicines include items such as insulin for diabetic patients, vaccines for young babies and anti-venom for patients who suffer from snake and scorpion bites. Shell has provided Matrouh Health Directorate with 10 solar systems to be installed in 10 rural health units situated in villages deprived of energy supply. These panels are situated on the roof of the building and 12 special solar batteries are used to store the captured power. The total cost of the provided 10 solar panel systems was $87,091. The easy-to-install Shell solar power systems are photovoltaic, which have no mechanical parts and so are virtually maintenance-free.


A meeting for the Intilaaqah project

Shell Egypt, in partnership with Matrouh governorate and an Egyptian NGO, the Association for the Protection of the Environment (APE) have agreed to provide Marsa Matrouh City, which produces 584 tons of plastic waste per year, with a plastic waste recycling plant that was built close to the organic compost factory where Matrouh's waste is sorted. The plant target is to recycle 0.4 tons of plastic waste per day, equivalent to 183 tons per year. Shell Egypt funded the original feasibility study and provided the finance for the machinery and equipment. Shell also provided working capital for the project to ensure that it did not run short of funds in its first year, and insured the plant, its machinery and staff for the first year. The plant helps reduce the environmental impact of plastic waste and provides jobs for local people. Revenue to the City Council can be used for further development of waste management issues. Moreover, the plastic bag products of the plant are sold to hospitals in Matrouh city.

Intilaaqah towards a brighter future

A presentation given for the Intilaaqah project

As part of Shell's social responsibility towards host communities, Shell Egypt is delivering a program to help young people start their own small business.

The program is called Intilaaqah, which is an adoption of LiveWire (Shell's international youth enterprise program) aiming at encouraging youth to set up their own businesses.

The program was first launched in the UK in 1982 and now operates in 19 countries and five more are in the pipeline.

Intilaaqah-Egypt helps young Egyptians to acquire the skills required to start and manage small enterprises in a viable and sustainable way. Towards that end, the program offers free workshops to stimulate and test "bright ideas", provide advice on business planning, and give information on different types of businesses.

The objectives of Intilaaqah-Egypt are:

1) Raise entrepreneurship awareness and encourage youths to start up their own business

2) Build the business capacity of unemployed youths to become self-employed.

Intilaaqah-Egypt provides Egyptian youths with the following services:

1) Enquiry service: by providing information on how to start a business.

2) Communication materials: by providing them with brochures, flyers, CDs, web site…etc.

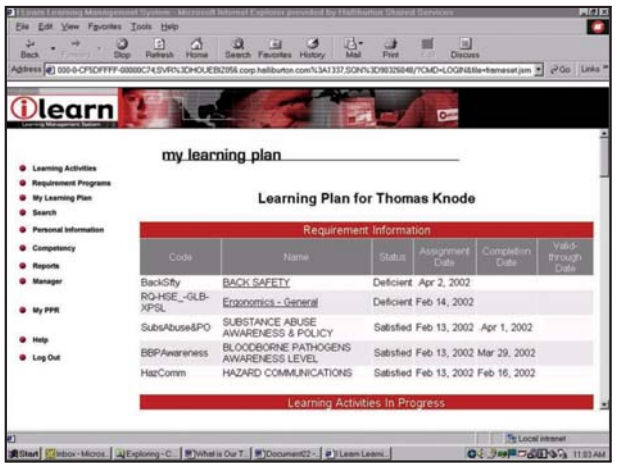
3) Awareness workshops: to stimulate exchange of ideas and encourage small business starters.

4) Training: for acquiring different business skills and planning.

5) Awards: to recognize and celebrate the success and effort of young people in their business. On 15 January 2007 Intilaaqah-Egypt held an award ceremony to honor four of its alumni. Awards were offered for the best business idea, best business plan, best running business, and best promising business. Moreover, a fifth award was presented to a successful candidate who was not an Intilaaqah graduate. The awards will be offered annually to encourage Egyptian youth to acquire entrepreneurial spirit.

Halliburton: Taking the Challenge and Securing Employee Safety

In 2001 Halliburton Egypt launched its web-educational program entitled I Learn. In essence, I Learn is a learning system that contains learning catalogues, information, on Health, Safety, and Environment (HSE) requirements and online web-based training. The tutoring of the program has two modes: 1) instructor led activities and 2) on-line training. This program was initiated in order to better inform the employees of the company.



A snap shot of the I Learn program

In 2003, the company launched its "Beyond the Red Zone" program, where the 'red zone' is defined as the immediate work area. Halliburton attempted to 'own' the red zone by managing all the risks that occur at the work site in order to secure the safety of its personnel. However, it appeared that many of the health and safety issues faced by Halliburton employees existed outside of the concept of the 'red zone'. Hence, a program was developed in order to expand the idea of safety to beyond the work place. This includes areas where most danger lies, such as traveling to and from work, at the home place, and the community at large.

Halliburton has found that once people are 'beyond the red zone' they are no longer bound by the safety rules and supervision of the workplace, but many fatalities occur away from work, such as falls, poisoning, drowning and choking incidents. These incidents can be easily prevented if awareness is spread about the issue. "Beyond the Red Zone" was created to spread such awareness in order to secure their employees not just at work but also, and, more importantly, away from work.

Continuing in its focus on health, Halliburton donated $20,000 to the Children's Cancer Hospital in Egypt in 2005.

In February 2006 the company participated in the Road Safety and Traffic Management Conference and Exhibition in Egypt. The exhibition was designed to allow access to the latest safety developments for the industry to the public but also to educate and inform all visitors on what road safety is about and how it can help to save lives. For this reason the exhibition was open to the general public with particular attention being paid to organize visits from schools, the police, etc.

Halliburton contributed a booth to the exhibition. Large posters were supplied from the USA about Halliburton services and safety rules. The booth was divided into two sections each with a plasma screen. The first screen displayed the World Health Organization Concerns with a speech by Kofi Annan about road safety with two vehicle accident clips. The second screen presented a part of the defensive driving Crash Course video produced by COASTAL training institute in the USA. The company distributed booklets in English and Arabic about seat belts and how to keep children protected cars. The area manager of the company, Hesham Ismail, delivered a presentation on defensive driving at the conference.

Halliburton's team at the BG Challenge

The conference was in step with Halliburton's already established convention about road safety. The company has for quite a while concentrated its efforts on training its drivers to navigate the wild streets of Egypt safely. The objective of their Defensive Driving Program is to improve the driving skills of all Halliburton employees in light and heavy vehicles. Essentially, to drive a company vehicle all Halliburton drivers, whether employees or a third party, must go through a mandatory Defensive Driving Training program that is administered by internal trainers provided by the company Exploration Logistics. The drivers are then given a competence test every two years to earn a driving permit. In short, at Halliburton the simple equation is: no permit = no driving.

Most recently in November of 2006, Halliburton Egypt sponsored a team in the above-mentioned BG Challenge. By trekking their way through Egypt's South Sinai, five Halliburton employees raised $4,000 for CARE's humanitarian efforts. The money raised by the BG Challenge was given to CARE Egypt, which utilized the money on three of its programs: 1) ALIVE, which sponsors water, sanitation and environmental education, as well as micro-finance projects, aimed at improving the quality of life for thousands of Egyptians. 2) SAFE, which teaches water- and soil-management practices in Upper Egypt to help 6,000 small-scale farmers enjoy a secure livelihood. And 3) EMPOWERS, which involves locals in public decision-making, ensuring vulnerable populations' long-term access to water.

Apache: Springboarding for Girl's Education

Apache's one-room school at the village of Abu Sir outside of Giza

In 2003 Egypt commenced its National Girls' Education Initiative. The program focuses on providing education to underprivileged girls living in remote areas. Springboard – Educating the Future, a U.S.-based nonprofit organization, has teamed up with the Sawiris Foundation for Social Development to support Egypt's National Council for Childhood and Motherhood by raising funds to construct one-room school buildings in areas with high rates of out-of-school girls.

Springboard was launched in Egypt by the Apache Corporation. The initiative constructed 200 one-room schools for girls in Egypt at the end of 2006. The first of these schools was built with the financial and administrative aide of the Apache Corporation. The school was built in Abu Sir, a small village 16 kilometers south of the Giza Pyramids. The project was completed in 2004. Recently, six other schools have been completed in the Fayoum governance and preparation is currently taking place in order to build 25 additional schools. Each school costs $15,000 to build and accommodates 35 girls taught by two teachers administrating modern educational techniques.

The schools were built and funded by Apache officers, directors and friends. The president of Springboard and executive vice president and general manager of Apache's Egypt region, Rodney J. Eichler, stated that if the goal of 200 schools is met, the program will expand the initiative to 1,000 schools.

In other CSR projects, Apache sponsored two teams to the above-mentioned BG Challenge and donated $9,000 to the event.

The lucrative acquisition of a first-rate asset Centurion: A success story

A rising upstream player in Africa that has recently strengthened its position in Egypt and other regions in Africa is Centurion Petroleum Cooperation. On January 9, 2007, Dana Gas PJSC acquired the company's shares. Dr. Hany Elsharkawi, President and General Manager of Centurion Petroleum Corporation in Egypt, agreed to talk with Egypt Oil and Gas Newspaper about the company's ambitions and strategies. Dr. Elsharkawi holds a B.Sc (1967) from Alexandria University as well as an M.Sc (1971) and Ph. D. (1975) from the University of Manitoba. He has several technical publications and has instructed several technical courses at universities and oil and gas industry organizations

Dr. Hany Elsharkawi

By Reem Nafie

Q Can you tell us the details of Dana Gas's acquisition of Centurion International Corporation?

Dana Gas is the first public Joint Stock private sector gas company in the Middle East. It's listed in Abu Dhabi Stock Market. Dana Gas has existing assets, pipelines and a gas sweetening plant located in Sharjah-UAE, to transport and process gas for sale to the local power stations and industry. Thus, Centurion becomes an important upstream arm for Dana Gas in natural gas exploration and production. This is a strong strategic platform from which to grow throughout the Middle East and North Africa regions (MENA) They have faith in our team, so I think it's going to be business as usual as far as we're concerned. All our operations will stay the same and we will be growing. Each outstanding common share was sold for $12, making the total value of the transaction $950 million. In a meeting held on January 8, 2007 the acquisition was completed after 94% of the securities voted in favor of the Plan of Agreement with Dana Gas.

Q Will this acquisition accelerate Centurion's expansion?

Yes we have accelerated our expansion. We are looking at areas outside Egypt and we will continue to do so. I'm sure the presence of Dana Gas in this region will help us in the expansion itself; especially that it has plans to expand its scope of operations into the GCC region and the wider MENA region.

Q Can you tell us about the recent agreement signed to utilize the exploitation of oil shales using Canadian expertise?

An agreement was singed between the Egyptian Mineral Resources Authority (EMRA) and a number of Canadian companies led by Centurion to conduct a feasibility study to determine the volume of oil shale reserves and the best way to commercially exploit it. This report shall be submitted to EMRA including the findings on the geological and chemical nature of the oil shale and the best methods to extract oil from oil shales. Oil shale is a kind of rich, solid organic mud rocks, from which oil products can be extracted by heating and distillation processes. This project will help in diversifying energy resources to save part of the oil and natural gas reserves.

Q Where does Centurion's investment currently stand in Egypt?

Our investment has been growing steadily in the past few years in Egypt. In 2005, we spent around $130 million and we ended 2006 with estimated gas reserves of almost 100 million boe, production of over 31,000 boe/day, expected revenues of approximately $165 million and expected operating cash flows of approximately $85 million.

Q Centurion Egypt has recently strengthened its position in Egypt's upstream sector by upgrading El-Wastani project (by installing a mechanical refrigerating unit). Can you comment on this please and the importance of gas developments for Centurion in Egypt?

We have just completed the first stage of the upgrade and we completed the final and second stage in November of 2006. These upgrades will allow us to produce gas, condensate and LPG, becoming one of the few plants having the capability to produce all products including LPG in Egypt.

Q What were your major achievements in 2006?

For the past four to five years, we have been doubling production and doubling reserves. I don't think that many oil companies in the world have done what we have done in the past few years. The company started in Egypt in the year 2000, with zero production. We started production in 2002 at a rate of 12 million a day out of two wells in El-Wastani field, less than four years later we are at a rate of 170 million a day out of three gas fields, which is quite a jump. The other achievement we are very proud of is the expansion of our land position, we started with a very small project and now we have several projects, including three producing fields that we are operating and three other fields that we are not operating. We also have three large exploration concessions, one of them is in the Upper Egypt area, between Luxor and Aswan, it is one of the frontier areas that we are very proud to be involved in. In addition to exploration blocks in the Nile Delta that we believe have very high potential.

Q The company is engaged in oil and gas exploration in Egypt, Tunisia and offshore West Africa, are there any ambitions to expand into other African regions?

As a priority, our core focus is to expand in Egypt. Of course we are looking at adjacent areas; we have already established ourselves in Nigeria, and are looking for potential expansion opportunities in North Africa and the Middle East.

Q As the reserves increase everyday, where does Centurion stand amongst its competitors in the oil and gas industry?

From the success point of view, I think we are one of the most successful companies in the field in Egypt. Right now we are ranked number four in gas production and number seven in terms of oil equivalent production.

Q Does Centurion have any plans for LNG exports?

When we have enough reserves, we definitely will have plans for LNG exports. At this time we don't have enough reserves, but we are optimistic and there are areas of high potential that will hopefully provide us with enough reserves to pursue an LNG program. It is one of our future objectives.

Q What is your current employee headcount?

We started this company in 2000, with seven people and now we are very close to 300 people, including our field operations and joint ventures.

Q How do you see the future of the Egyptian oil and gas industry?

It is evident by looking at the amount of investment in the gas industry in Egypt that it growing, including fertilizer gas projects that are currently being finalized. The domestic market is growing and there is no doubt about it, the more industrialization you have in the country, the more gas you will require. By proximity to markets in Europe, Egypt is in a good position to supply gas through LNG. So I think the future of gas in Egypt is very bright and more gas producers and explorers are coming to invest in Egypt because they can see the potential here. There are many reserves yet to be found in Egypt, by virtue of being almost virgin in some areas, like offshore Mediterranean, which is a huge basin that has been explored very lightly so far.

Q Egypt is known to be a tough place for E&P companies; however, Centurion has been able to expand despite the hardships. What is the biggest issue Centurion overcame in its dealings here in Egypt?

Of course just getting used to the business cycle and learning who to talk to and who to deal with in Egypt is a huge challenge for any company that comes here for the first time. We went through the learning curve and we understand the business fully in Egypt today. In the past few years we had an issue with getting material and equipment because of the worldwide boom in the oil industry, but we have been successful in securing enough material and equipment not to delay our exploration and production programs.

Q Where does Centurion acquire its necessary equipment?

From all over the world. By law here in Egypt, acquisition of all the material and equipment has to go through a tender process, so we issue tenders all over the world. We have drilling rigs from China, Canada and the US and when we buy materials, it is from any where from Turkey to Brazil.

Q Was Centurion affected by the lack of rigs in the market today?

We were lucky not to be. We had the vision, so we had contracts with three drilling rigs and one work over rig that we secured about two and a half years ago. Two rigs from the Egyptian Chinese Drilling Company (ECDC) and one from a Canadian company and another from a US company.

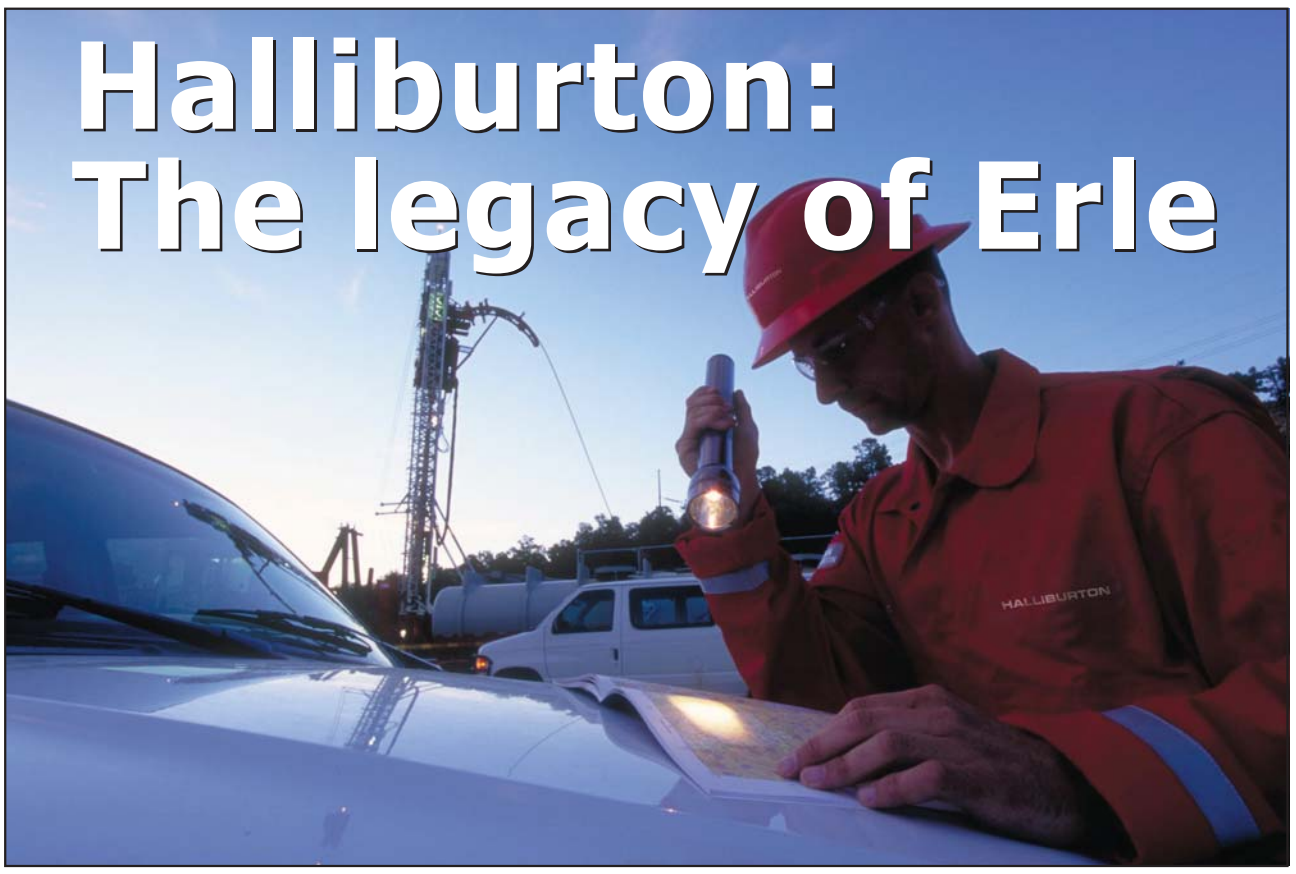
Q Does Centurion participate in any social activities?

Yes, we have sponsored several social activities. Centurion is a major sponsor of the Breast Cancer Foundation, but we usually do not advertise the good causes we participate in.

Q Finally, what would you like to see improved in the Egyptian oil and gas industry?

There are many things that can be done to enhance the productivity of companies in Egypt, to make life easier and to make the business environment friendlier than what it is today. The routine and red tape in Egypt is a phenomenon that all industries are suffering from, we need to expedite and have less control on activities of both foreign and Egyptian contractors. I think the government is going in that direction anyway, by easing controls and privatizing companies and services.

Halliburton: The legacy of Erle



HALLIBURTON is more than just a global oilfield services company that provides advanced solutions to the oil and gas industry. Its fascinating history reveals a continuous focus on innovation and expansion that began with the company's indomitable founder, Erle P. Halliburton.

Erle, a farm boy from Tennessee, had his first contact with the oil field in 1916 when he took a job driving a truck for the Perkins Oil Well Cementing Company, owned by Almond A. Perkins. At the time, the cementing of oil wells was still in its infancy.

Erle began to seek improvements in the way things were done, but Perkins always overruled his ideas and eventually fired him. Upon departing, Erle is said to have boasted: "Someday, I will come back and buy you out!" (He did in 1940.)

Without money or a job, Erle and his wife Vida left California in 1919 and went to Wichita Falls, Texas, near the booming Burkburnett Field. After scouting for work among the drilling crews, he made his first deal: He borrowed a wagon and mule team from a neighbor, in return for letting the man share his outdoor privy. Then he borrowed a pump, built a mixing box of two-by-twelve, boards and announced he was in the oilwell cementing business with a "new and improved method."

At first, most operators and drillers were so busy making money that they largely ignored new technology of any kind. To raise capital, Erle turned to four friends who put in $250 each for a half interest in the business. Thus, in 1919, the New Method Oil Well Cementing Company was born.

Seeking to capitalize on several booming Oklahoma oil fields, Erle moved the company across the Red River to Wilson, Oklahoma. His first big opportunity soon followed. In 1920, Erle successfully performed a job for Skelly Oil Company and was able to buy his first cementing wagon and hire several full-time employees – including the neighbor from whom he had borrowed the mules.

Ever the visionary, Erle made continual improvements in the quality of his services through his own inventions. By the end of 1920, he owned and operated three cementing wagons, held a patent on his revolutionary Jet Mixer and had gained experience working on some 500 wells.

To provide a supply base and a machine shop, Erle moved once again – this time to Duncan, Oklahoma – in 1921. By mid-1922, the company had cemented more than 400 wells in the field. By 1923, Erle was operating 20 cementing trucks, and the company was branching out rapidly as new mid-continent fields were discovered. Erle's business was booming.

On July 1, 1924, the 5-year-old company took a major step and incorporated as the Halliburton Oil Well Cementing Company (HOWCO), with nearly 60 employees. By selling minority stock interests to seven oil producers, Erle raised $130,000 – a large sum in those days – and immediately began to purchase new equipment, make other capital improvements, and seek new methods and services.

HOWCO established, in January 1930, its first research laboratories, where the company tested cement mixes. In 1932, the laboratory helped manufacture HOWCO's new floating equipment: guide shoes and float collars. By then, HOWCO had four branches that covered oil activities in seven states.

The company began to offer other services in addition to cementing. In 1932, HOWCO bought a drillstem testing company that Erle had begun as a separate organization. Two years later, the company began offering acidizing services, developed in the Duncan laboratories, to break down the resistance of limestone formations and to increase the production of oil and gas.

HOWCO took the initial steps toward becoming a worldwide company in 1926: It sold five cementing units to an English company in Burma, and Erle sent his brothers, Paul and George, and two steam-powered trucks to Turner Valley in Alberta, Canada. They operated in Canada as Halliburton Oil Well Cementing Co. Ltd. until the company became a subsidiary of HOWCO in 1948.

In 1938, HOWCO performed its first offshore cementing job using a barge-mounted cementing unit at a rig in the Creole Field in the Gulf of Mexico. This was the beginning of what was to become the world's most extensive offshore service.

HOWCO's first full-fledged foreign operation, however, began in Venezuela in 1940, and many of its future executives did tours of service there before returning to the U.S. By 1946, the company had expanded into Colombia, Ecuador and Peru. HOWCO entered the Middle East that same year, performing services for the Arabian-American Oil Company, the forerunner of ARAMCO.

Several significant events impacted HOWCO in the late 1940s. First, in 1947, Erle was forced by ill health to step down as president of the company. He was succeeded by his brother John, who served as president until 1950.

Then, HOWCO stock was initially listed on the New York Stock Exchange on Sept. 9, 1948. The listing considerably broadened the company's shareholder base and greatly increased its ability to raise capital for expansion.

And, in early 1949, Stanolind Oil and Gas Company, a unit of Standard Oil Company (Indiana), known today as the Amoco Corporation, granted HOWCO an exclusive license for the Hydrafrac process, which stimulated the production of oil and gas from older wells by hydraulically fracturing the formations. Eventually, the license expired and Hydrafrac became available to the entire service industry, but it made a significant contribution to HOWCO's growth over the years.

As HOWCO entered the 1950s, the company grew almost nonstop. Its facilities in Duncan were expanding rapidly: a 52,500-square-foot machine shop was completed in 1955, and a three-story addition was built to the Technical Center, which housed research and engineering activities. The remarkable HT-400™'aa pump, which became a mainstay in field operations for years, was introduced in 1957.

The company continued to make inroads internationally, as well. In 1951, HOWCO made its first appearance in Europe as Halliburton Italiana SpA., a wholly owned subsidiary in Italy. In the next seven years, HOWCO launched Halliburton Company Germany GmbH, set up operations in Argentina and established a subsidiary in England.

In 1957, HOWCO purchased Welex Inc., a Houston company that provided electric well logging and jet perforating services. Then, in 1959, the company bought Otis Engineering Corporation, a Dallas firm offering specialized equipment and services for the completion, production and control of oil and gas wells.

For all of his accomplishments, Erle Halliburton was inducted into the Oklahoma Hall of Fame in 1953, just two years after his wife's death. Four years later, on Oct. 13, 1957, Erle died in California after an extended illness. At the time of Erle's death, HOWCO had revenues of $194 million and more than 10,000 employees.

In 1960, shareholders approved a new name – Halliburton Company – which was believed to more appropriately reflect the diversified services and products offered to the company's customers. In August 1961, Halliburton moved its corporate headquarters from Duncan, Oklahoma, to Dallas, Texas.

In December 1962, Halliburton purchased Brown & Root Inc., a company started – also in 1919 – by brothers Herman and George Brown. It also purchased Southwestern Pipe Inc., Joe D. Hughes Inc. and Highlands Insurance Company. The price for these acquisitions was $33.2 million in cash and 103,349 shares of treasury stock, a total of $38,538,000.

In 1967, Halliburton established Halliburton Services as an operating division, incorporating most of the activities previously linked with HOWCO. Halliburton Services developed new cements, additives and tools to help customers drill and complete "difficult" wells – those drilled in deep water, on the Alaskan North Slope and in geothermal wells.

In 1969, when Halliburton Services and Brown & Root both reached their 50th birthdays, Halliburton Company celebrated by becoming a billion-dollar corporation for the first time.

The 1970s brought incredible changes – and restored the faster growth patterns that Halliburton Company had known in its earlier years. Revenues, which had been just over a billion at the start of the decade, were to multiply sevenfold – to just over $7 billion by 1979.

After OPEC used its economic power to lift oil prices out of the doldrums in which they had drifted for years, it seems that everybody wanted to be in the energy business. Old fields, once uneconomic to produce, were being worked over and re-explored. Halliburton was in the forefront of developing new methods – such as secondary and tertiary recovery – to get more oil and gas out of the reservoir.

In 1975, the U.S. petroleum industry drilled more than 40,000 wells for the first time in a decade; in 1980, it would drill more than 71,500 wells, and, in the following year, the industry drilled 91,600 wells. These were good times, indeed, for Halliburton and other service companies.

The downturn in oil prices that began in the early to mid-1980s wreaked havoc on all segments of the U.S. petroleum industry. The Halliburton Company workforce went from a peak of nearly 115,000 in late 1981 to less than 47,000 in 1986.

Despite all the gut-wrenching decisions forced upon the company's management and its workforce, the 1980s produced magnificent accomplishments. Many of the company's customers, after slashing their own technical

PinPoint™ Stimulation Operation

staffs, began to lean heavily on Halliburton-developed technologies.

Halliburton Services had just opened a state-of-the-art Research Center in Duncan in 1980 and was busy developing a host of new services and technical improvements for its customers. A decade later, the company opened a center in the Netherlands to provide specialized services for customers in Europe and the North Sea. And, in 1984, Halliburton Company opened the doors of its Information Services Center in Arlington, Texas, forging voice and data links between all of the company's units, wherever they were located around the globe.

Also in 1984, Halliburton provided all of the well completion equipment for the first multiwell platform offshore China. Two years later, Halliburton became the first American company to perform an oilfield service job on the China mainland.

The final decade of the 20th century brought more changes and growth to Halliburton. The company opened a branch office in Moscow in 1991. Two years later, Halliburton combined its 10 semiautonomous energy services units into one unified, global organization, Halliburton Energy Services. This served to meet the changing needs of worldwide customers in an industry where adaptability, efficiency, technology and economy make the difference.

In 1998, Halliburton merged with Dresser Industries, a major provider of integrated services and project management for the oil and gas industry. With this merger, Halliburton also gained the expertise of M.W. Kellogg, a petroleum refining and petrochemical processing company that Dresser acquired in 1988.

Since the merger, Halliburton has integrated Dresser's well-known and respected brands such as Sperry-Sun Drilling Services, Baroid Drilling Fluids and Security DBS, and divested the Dresser Equipment Group.

In March 2002, Halliburton separated its business groups into two wholly owned operating subsidiaries: the Energy Services Group (ESG), and KBR, the engineering and construction group.

The Energy Services Group offers one of the world's broadest arrays of products, services and integrated solutions for oil and gas exploration, development and production. It includes Halliburton Energy Services; Landmark, which provides software solutions and consulting services; and the joint venture companies Enventure and WellDynamics.

Halliburton saw record-setting earnings in 2005 and 2006, and added 12,000 new employees last year. Halliburton also announced its plans to separate from KBR; the first steps of the process took place in November 2006 when KBR launched its initial public offering. Also in 2006, Halliburton opened a new technology center, including a world-class laboratory, in Pune, India. In addition, Halliburton plans to open a new technology center in Singapore and four new manufacturing centers in Singapore, Malaysia, Mexico and Brazil. Halliburton's extensive and astonishing history of growth, from Erle's small company in Texas to a global organization, has brought Halliburton into 2007 with confidence. It will continue to make improvements within the industry through research, technological advancements and inventive solutions.

Today, Halliburton's Energy Services Group employs approximately 45,000 people of 90 nationalities in 70 countries. These employees are monitoring remote jobs from Real Time Operations Centers; constructing plants for liquefied natural gas; hovering over microscopes, studying the molecular design of cement additives; and providing many other services to customers around the globe.

Erle P. Halliburton started the company, but these employees are moving it forward in a new century. They are the future of Halliburton.

Bulk Plant Cementing

The Red Alarm

Continued from page 1

Evaluating Egypt's energy security, and focusing on the last three months, the petroleum sector witnessed several cases of corruption and robbery, reported in Egyptian newspapers. On November 22, a group of 10 people were arrested for stealing huge amounts of crude oil and selling it at cheap prices to owners of petroleum warehouses. This gang inserted a sub-pipeline, 2 meters beneath the ground, to the main pipeline located in the area between Al-Khanka and Alexandria, through which they succeeded to get hold of a huge amount of petroleum products for nearly two months.

During the same month, two cases of corruption were revealed. An Egyptian company specialized in the import and export business attempted to illegally export around 1882 tons of Butamine to Tanzania, with an estimated cost of 11 million Egyptian Pounds without the authorization of the Egyptian General Petroleum Corporation. According to Al-Ahram newspaper, the company manager forged the official documents to export this petroleum derivative, which is produced at low-prices for domestic consumption only.

The second case was filed against six employees working for The Suez Oil Processing Co. for forging the request letters of loans and employees' vacations and not abiding by work policies. Although this case took place in the internal organization of a state-run petroleum company, it illustrates a form of corruption in the workforce segment.

According to the *2002 Global Corruption Report*, the three non-Middle East OPEC members having the highest corruption rates in the world, in a list of 102 countries are Venezuela ranked 81, Indonesia 96 and Nigeria 101. Most Arab countries were not surveyed, however the report says, "Corruption, sustained by skewed standards of living and a lack of transparent governance across the Middle East and North Africa, is a major hindrance to the region's economic development."

Nigeria, Africa's biggest producer is considered a fertile land where many, if not all, forms of security vulnerabilities exist. First, Nigerian oil fields are increasingly under attack by tribal groups and others. In 2003, Royal Dutch/Shell, Nigeria's largest oil producer closed their operations in the western Niger Delta region of Nigeria due to increasingly violent clashes between the Ijaw ethnic militants and Nigerian security forces. The Ijaw group threatened to destroy evacuated oilfields if the government failed to meet its demands for greater political representation on socio-economic issues.

Nigeria becomes a synonym not only to brutality, but also to the kidnap of personnel working in the petroleum sector. Around 11 people working in different oilfields were kidnapped during the last two months of 2006. Seven workers were captured by Niger Delta militants who raided a Saipem floating production, storage and offloading vessel operating on the Okono-Okpoho field. Three foreign nationals were taken hostage after Nigerian gunmen attacked Agip's Brass oil export terminal in the Niger Delta. The last hostage was killed during a botched rescue attempt after being taken hostage off the coast of Nigeria. Since February 2006, militant groups have attacked oil pipelines and taken oil workers hostage in violence attacks that have cut about 25% of the country's usual crude oil production of about 2.5 million barrels a day.

Inevitably, there is a common belief that political instability in the region is the main cause behind the attacks which are mainly targeted towards foreign oil companies. Based on the US Department of State's report entitled "Patterns of Global Terrorism", the data about attacks against extractives in general and oil companies in particular have revealed that there were approximately 97 attacks by "international terrorists", "domestic terrorists" and other aggressors against extractives in the period from 1996 to 2004. Eighty out of these attacks were against oil companies and their service companies, most of which were American or British.

Being labeled a conflict zone, this raises the question: what are the motives behind these attacks in such a vital sector? Mark Lindsay, director of Janusian Security Risk Management plc – a subsidiary of The Risk Advisory Group, a member of American Society for Industrial Security (ASIS) answered this question by saying that oil companies are targeted for political-economic reasons. They are socio-economic targets for attack by criminals who wish to extract funds from oil exploration that is conducted in the territories of their communities.

Insurgents see oil companies as sources of revenue to the governments that they oppose and therefore attack oil companies to reduce this revenue – as income is used by governments to fund the combat of insurgents, said Lindsay. For instance, when Al-Qa'eda led its attacks on Saudi oil fields, it announced that it is cleansing the Arabian Peninsula of infidels dealing with Americans and British governments.

Whatever the motives behind this security vulnerability, its effects are threatening the energy industry and devastating the wealth it accumulates. More attacks will push oil prices even higher, threatening global economic disruption. The urgent need to strengthen security systems for the protection of pipelines, oil terminals and tankers adds extra costs, which are reflected in the price of gasoline.

It can also cause the migration of thousands of skilled expatriates working in the oil industry, which decreases the daily production level. Besides, more foreign investments are lost as governments seem powerless in solving this problem and fail to maintain a secure environment for foreign ventures to operate in the region.

The road to success: Paved with good production

Continued from page 1

Concerning his expectations for 2007, Fahmy listed a number of new projects to be implemented this year. Currently, there are plans to increase the production of crude oil from some of the recently discovered fields. Also, petroleum clay will be used as a new source of oil in Egypt. According to studies conducted by Centurion Petroleum Corporation, this clay will raise oil reserves to nearly 6 billion barrels.

The Egyptian market will witness the first Ukrainian venture in the oil and gas sector with investments amounting to $30 million. The Egyptian General Petroleum Corporation and the Ukrainian state-run company Naftogaz signed an agreement to explore oil and gas in the area of Alam El-Shawish, East of the Western Desert.

Moreover, the Egyptian minister pointed out that he held joint talks with his Cyprian counterpar t. The two ministers discussed means to exchange expertise and information concerning drilling and exploration in the Mediterranean Sea. They also shared their views to initiate future cooperation between the two countries in the commercial and economic sectors. Fahmy encouraged contractors and petroleum engineering corporations to operate in Egypt, contribute to the establishment of factories for the storage of crude oil and petroleum products and promote these products in the Cyprian market.

Focusing on the private sector, there are approximately 300 private organizations operating in Egypt's petroleum field. The MoP affirmed its support to private-owned companies and called for founding an association for petroleum and mineral resources in order to strengthen their contribution in the development of oil and gas sectors. Fahmy shed light on the importance of coordination and cooperation between the private and public sectors. He proposed the establishment of a joint venture incorporating firms from both sectors, each with an interest rate of 50%.

Recently, the petrochemicals industry has been considered a dynamic business that has invaded the local market. Based on the national petrochemicals plan set by the ministry, the first phase included the implementation of eight projects: methanol project in association with the Canadian Methanex Corporation, Ammonia and Urea projects with Canadian Agrium, propylene and poly propylene projects with Eastern Petrochemical Company, Alkyl fuel in association with the Egyptian Ministry of Finance and Cairo National Investment Bank, acrylic fiber project with Indian Perella. The total investments of these projects count for $4.5 billion.

Being classified as one of the top 10 countries in terms of natural gas reserves, the MoP has developed a new strategy to gain more advantages from this vital energy resource. Currently, there is a strategy to expand the natural gas grid for local use as well as for exports. However, the first priority will be given to domestic consumption; gas will be delivered to six million households, 10 electricity stations and 1,000 factories over the next five years.

As for gas pipelines, they will be extended to reach seven governorates and 126 cities with a total length of 1,177 km, 735km of which will be utilized for the South Valley area. This expansion will be applied through four phases; the first phase has been already put into operation, starting from Beni Suef to Minya with a total length of 145km, due to be completed by the end of 2007, the second goes from Minya to Assiut with a length of 115 km, the third is 240 km long from Assiut to Qena and the last phase, 235 km long from Qena to Aswan to be completed in 2011.

Planning, facing challenges and formulating a complete vision to develop this important sector are the key factors to accomplish even more achievements in 2007. However, elements such as the rise and drop of prices – which affect demand – are never expected in advance and they are always endangering the stability of the petroleum sector. So, the question is: will the 2007 plans and strategies, set by the MoP, be able to achieve the targeted goals and maintain the success accomplished last year?

Of oil and turmoil

Defying all expectations, the execution of former Iraqi President Saddam Hussein in the final days of 2006 failed to influence international oil markets

By Mohamed El-Sayed

IT has been an established fact since the emergence of the black gold — when there is political turmoil, there will be lack of supply, and then prices skyrocket. But, in fact, this was not exactly what happened following the execution of former Iraqi President Saddam Hussein, who was hanged at the dawn of Saturday 30 December after a U.S.-backed Iraqi court found him guilty of crimes against humanity and sentenced him to death for his role in killing 148 Shi'ite villagers after a failed attempt on his life in 1982.

A day before the hanging of the former Iraqi leader in Baghdad, on 29 December 2006, crude oil rose on speculation that the execution might cause an upsurge of violence in Iraq, and thus threatening oil supplies. Crude oil for February delivery rose 52 cents, or 0.9 per cent, to close to $61.05 a barrel on the New York Mercantile Exchange. Oil experts and analysts were bracing themselves for a chaos in Iraq that would result in a significant reduction in supply.

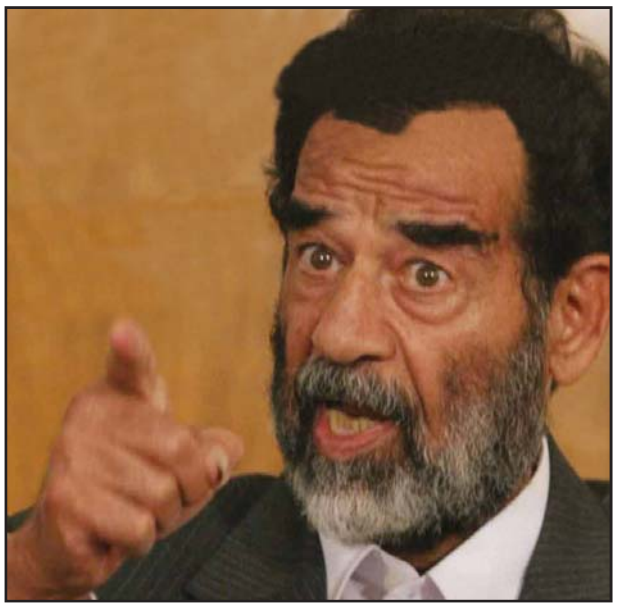
Analysts' fears were understandable given the fact that Iraq has the world's third largest proved oil reserves, according to BP PLC, and any tumult there could raise the prices to unprecedented hights. Although a series of bombs were detonated in the streets of Baghdad and Kufa the day that followed the hanging, oil prices unexpectedly fell below $61 a barrel three days following the execution. US light crude traded 20 cents lower at 60.85 a barrel in Globex electronic trading, reversing the eve of Saddam's execution's late rise. Also, London Brent Crude prices fell ten cents to hit $61.76.

Many argued that the curve of prices didn't take an upward turn because the execution was not followed by widespread violence as was expected since the announcement of the verdict a few months ago. Only a series of daily routine bombings that killed about 72 people ensued the hanging, but it didn't turn into a bloodbath. In addition, analysts said, mild weather persisted in the United States, the world's number one energy consumer, thus helping the prices to take a downward turn.

Temperatures in the U.S were hovering around 16 degrees Fahrenheit above the norm at that time. And this warmer-than-average temperatures continued for many days following the hanging of the former Iraqi leader. "This mild weather that we've been experiencing now for some two months [in Europe and the U.S] has meant that at the moment demand is slack," maintained Rob Lachlan of Man Financial. "I would suppose it is the most dominant factor in the market over the last seven days [before the execution of Hussein]," he added.

Other experts concurred. "The primary driver is the abject lack of cold weather to date this season," said John Kilduff, senior vice president of energy risk management at Fimat USA. "It's taking a lot of the anxiety out of the market in terms of sufficiency of demand," he added. Another factor that explains the decline in oil prices, according to Kilduff, is that "in the aftermath of the execution of former Iraqi dictator Saddam Hussein, the country, which is mired in instability and violence, did not see a spike in carnage or an increase in damaged oil infrastructure."

But was it just the mild weather conditions and the muted reactions to the execution of Saddam that kept oil prices hovering around $60 dollars? Absolutely not. The news that Russia and Belarus have agreed on a last-minute deal on gas prices just a few days before the execution helped ease the worries of European energy consumers. Russia, in fact, provides Europe with about a quarter of its gas needs, and a great amount of Russian gas is exported to Europe via Belarus. Therefore, if this row persisted, gas supplies to Europe would have been disrupted, thus converting consumers to depend on oil imports.



Nevertheless, analysts argue that Iraqi oil is not the only or even the most important force at work. This could be right, given that OPEC has increased its membership for the first time in 30 years by admitting Angola. This decision took effect at the beginning of 2007. While some analysts believe that oil prices will decrease this year to trade between $60 and $55 a barrel, especially if there are no new political crises, others argue that they will rise above $62 especially after OPEC announcing it would cut production starting February 1. The 11-member group agreed to cut output by an extra 500,000 barrels a day, following a production cut in November. "We don't think this [fall in prices] will last very long," said Tina Vital, an oil analyst for Standard & Poor's Equity Research. Prices hit highs of over $78 a barrel in mid-July last year at the summit of the Israel-Hezbollah war. Other factors pushing up prices last year included fears of trade sanctions against Iran during the nuclear crisis, and unrest in Nigeria. Demand for oil has also been boosted by China's rapidly-growing economy and thirst for energy.

With the never-ending political havoc, oil prices will remain vulnerable.

Egypt and its looming energy crisis

In his latest research paper "On Efficient Utilization of Egypt's Energy Resources: Oil and Natural Gas," Dr. Tarek Selim warned that Egypt will become a net importer of oil by next year and that it is time to plan for the future of energy or else we will witness an energy crisis. Dr. Selim shed light on the current status of oil and natural gas and shares his findings and recommendations with *Egypt Oil & Gas Newspaper*

By Yomna Bassiouni

Q You were once quoted as saying, "Current energy sources are not enough… If we stay with the status quo, there will be an energy crisis," what did you mean?

When I said that, I meant energy sustainability, as an economist, we look to sustainable development where there is a maximization of welfare, which is basically consumption related for this generation without compromising other generations to have this welfare. By welfare, I mean economic growth, so the government has basically announced that the targeted economic growth is 6%, we need for this an equivalent of 3% of energy growth per year for the next 30 years in order to cope with the targeted GDP growth rate.

The current proven reserves are 3.7 billion barrels (bbl) of oil and around 66 trillion cubic feet (tcf) of natural gas. These quantities are not enough to generate this 3% growth rate or to generate energy sustainability on the long run. According to my analysis, in terms of oil, Egypt will be a net importer of oil by next year. The reason for this lies in two main factors; the over consumption due to population growth and limited resources and production from oil wells becomes more and more costly, as the wells are becoming more mature causing what we call in economics x-inefficiency, meaning that the production cost is rising with time due to either production technology cost or the maturation of oil wells themselves. At the same time, the amount of oil reserves has been depleting, as shown in **figure 1.** The annual production of oil is decreasing by an average of 3.5% a year. I believe that this decrease will continue as the population growth rate rises, while oil reserves are limited.

Another issue is the investment gap in the oil sector; current oil investments do not reflect the efficient level of investment required for oil production. We need for the next 20 years, a 5% increase in investment every year in order to come up with an efficient investment schedule for oil. But, with the current scenario, it is difficult to reach this.

Q Why do you think it is difficult?

It is mainly because of the institutional arrangement in Egypt and lack of financial resources in the economy. However, it can be attainable through joint ventures, foreign investments, expansions in investments and entrepreneurship businesses. Although the image might look a little dull, but for oil especially, I think there is potential if we expand our investments by 5% a year for the next 20 years, which will lead to a 3% growth in total energy. That is the required sustainable level of energy for the future.

Q Sameh Fahmy proposed to reverse the 1997 decision that prohibits the multi-pricing of LNG and gasoline, do you think this move will open the door for more investments?

Pricing in general has been a major problem in Egypt's energy sector. When we talk about pricing, we have to talk about subsidies. The amount of subsidies allocated for the oil and gas sector are very excessive, which makes the prices artificially low. Subsidies lead to under production, as we cannot achieve economies of scale with subsidized prices. There is no economic incentive for you to expand your investment and achieve economies of scale because it is not market based. The prices are fixed, and the government is acting as, what we call in economics, a monopsonist; the only buyer. Monopsony is another symbol of inefficiency because the government being the only buyer of oil means that it is fixing the prices for oil companies to sell their products to the public.

Q What about the situation of natural gas?

For natural gas, the situation is much brighter. First of all, the proven reserves of natural gas count for 66 tcf and the amount of its probable reserves is double that figure. In contrast to oil, the natural gas proven reserves are enough for the coming 20-25 years. However, it is still subject to depletion by the year 2025-2030, as we still have an investment gap. The current investments in the natural gas sector are not sufficient for long term energy sustainability. According to my analysis, we need approximately $120 billion of additional investments to be achieved in the next 20 years; which is a huge amount. But, in the best case scenario, we need to achieve this increase during the coming 10 years; $12 billion a year, given that Egypt's attraction of foreign investments does not exceed $6-7 billion per year. It is a challenge to achieve this rate, yet we can still work on it until we reach the shortage of natural gas by the year 2025. This means that investment expansions can be conducted to generate an average of $4-5 billion, sufficient for attaining the targeted rate.


Dr. Tarek Selim

Q Do you think this target can be achieved?

I think it is possible for several reasons. The government can encourage switching from oil to natural gas usage. However, there could be more incentive for the transportation sector to have more cars run by natural gas. Another approach to follow is to capture investment opportunities on our probable reserves. Besides, all subsidies should be removed by the year 2010. This can be done by a 25% reduction every year.

Q Do you agree then with researchers calling for the elimination of subsidies?

Yes, I agree but in specific conditions as I mentioned. All subsidies can be lifted in case of scarce resources such as oil, excluding natural gas. We can achieve energy sustainability with the presence of subsidies only for natural gas, but this sustainability will never be achieved if subsidies are allocated for all energy types.

Q Do you think that lifting energy subsidies will be opposed by consumers (public)?

When fuel prices were raised last summer, people complained for a while and then they got used to this increase. I agree that we have to be very careful in applying such a decision because it will create social and economic losses. Lifting energy subsidies will result in creating two major losses. First, there will be an increase of required expenditures from households; I estimated the amount of expenditure needed to break-even these subsidies and it is almost 100LE per month for every household incorporating four persons. This represents an additional economic burden on the government. To tackle this negative consequence of removing subsidies, we need to enforce a minimum wage law. In order to set this law, we have to formalize the informal sector that represents 40-50% of the economy and find out the incentives for this objective. Egypt signed the UN Millennium Development Goals, which sets a minimum wage standard for work contracts, equivalent to 342LE per month in the case of the Egyptian status. The second loss lies in inflation. Lifting energy subsidies will create from 5-7% additional inflation repression on the economy because energy is involved in almost everything in our daily life.

Q Raising the issue of exports, in *Al-Wafd Newspaper,* Dr. Tarek Heggy criticized the government for exporting natural gas at low prices and wasting large amounts of natural gas that could have been used in the local market. Can you comment on this?

I do not want to blame or criticize the government, but in general, I am not a proponent of exporting our gas at fixed prices, I agree with Dr. Heggy. Prices go up and down, which mean that there is a probability of losing economic profit as prices are fixed. At the same time, the recent exports' agreements setting fixed prices diminish the risk level of the price game. It is a safe-guard system. But personally, I believe we should utilize a market-based pricing system rather than the safeguard one.

Q If you are in a decision making position, will you go for a market-based or safeguard pricing system?

From an economic point of view, I will suggest a market-based pricing system because the prices may go up substantially and hence, we lose a lot of opportunity cost in case of fixed prices. Fortunately, the probability of energy prices declining are very low, with the presence of major powers like China in the international market, existence of a lot of reserves in Russia, mainly natural gas… The energy market is expected to boom in the next 20 years.

Q What are your suggestions concerning the use of alternative energy?

The use of alternative energies implies the use of mainly solar and nuclear energies as oil equivalents. Based on the conclusions of my analysis, the alternative energy use must increase to 5% by 2010, 10% by 2015 and 25% by 2025. It is worth mentioning that currently the increase is less than 1%. Also, we can substitute domestic oil consumption by minimum reduction targets of 7,000 bpd in 2010 and 10,000 bpd in 2025 through solar/alternative energy use. Besides, I believe we should start our nuclear project in order to be able to substitute oil by 80,000bpd in 2015 and 225,000 bpd in 2025 and have an economic alternative to oil imports. Finally, the Kyoto Protocol Standards involving the trade of carbon emissions between countries has achieved a potential gain of $130 per ton of reduced carbon emissions. Egypt also has the potential to attain such a profit through carbon emission trade and improve its environment through the use of alternative energy.

Dr. Tarek Selim is an assistant professor of economics at the American University in Cairo (AUC). His educational achievements include a Ph.D. from George Washington University, 2002, MBA from Johns Hopkins University, 2001, M.Sc. Iowa State University of Science and Technology, 1997, M.Sc. the American University in Cairo, 1995 and B.Sc., the American University in Cairo, 1992. He has worked in several places such as USAID (Economic Research Consortium), Ames Research Laboratory (USA), Institute for Physical Research and Technology (USA), Center for Economic Development (USA) and Proctor and Gamble-Egypt. Dr. Selim's fields of research are diverse and include research in industrial economics and market organization, environmental economics, development economics and project evaluation.

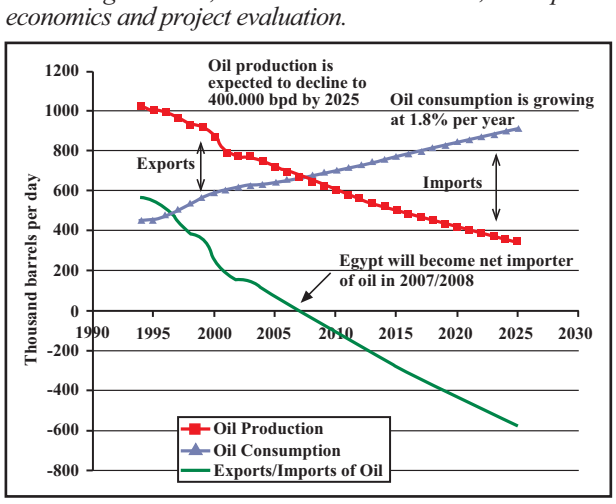


Fig (1): Egypt's oil Future: Sustainability Analysis and Forecast
Source: Author calculations based on model results

Beam Pumping System for Deep & High Volume Wells

By Mohamed M. Ghareeb, Lufkin Industries, Egypt, Shedid A. Shedid and Mazher Ibrahim, Suez Canal University, Egypt.

Abstract

WORLDWIDE there are over 949,550 producing oil wells, about 93% of these wells are operated using different artificial lift methods and roughly over 72% are producing using beam pumping system.

In the past, the ability of beam pumping systems to produce high volumes from deep wells was limited due to two main reasons: (1) the high rod and fluid loads, and (2) the lack of deep understanding of the behavior of complex sucker rod system and the involved nature of the reservoir with its contained fluids and inflow performance.

Nowadays, the existence of the following elements led to producing high volumes of production from deep wells: (1) development of relatively long stroke enhanced geometry pumping units with good quality, high tensile strength sucker rods and more accurate predictive software, (2) accurate on-site monitoring and control tools, and (3) pumping using large plungers with high pumping speeds. This study was undertaken using advanced predictive software (SROD), high strength rods, optimum pumping mode, and unit geometry to design beam pumping system for deep and high volume oil wells.

1. Introduction and Review

Beam pumping system is the first and may be the last artificial lift system. A century ago the most universal mechanism for artificially lifting fluid was the standard Shadoof. The earliest documented walking beam and sucker rod pumping system is described in Egyptian historical writing dated 476 AD[2], as shown in **Figure 1**.

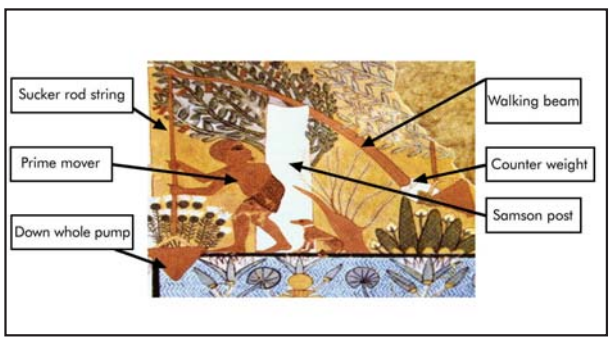


Fig 1. Typical Egyptian beam system running with beam balance pumping unit type

One century ago, the system mechanism was upgraded for artificially lifting fluid in an oil well to a standard rigfront. It was a wooden walking beam driving a string of hickory sucker rods, often called "well poles" as many as ten strokes/minute and 15-in stroke length with the maximum tensile stress of the rods about 12,800 psi. The bottom hole pump was cast iron or brass with the barrel approximately 1.5-in in diameter and well depth ranged from 500 to 1,000 ft. The torque capacity of the band wheel and flat-belt speed reducer ran only a few thousand inch-pounds, and the unit's structural capacity was from 1,000 to 1,500 lb[3].

2. Modern Beam Pumping System

The comparison of the modern sucker rod system with its counterpart of 100 years ago reflects some starting figures. The structure capacity of the modern surface units has increased nearly fifty-fold; the torque capacity perhaps a thousand fold; the area of the bottom-hole pump over 20 times; the stroke length nearly twenty-fold; and maximum rod tensile stress nearly 12 times. With the increased stroke length, rating torque and structure capacity, relatively high volume can be produced from quite deep wells.

3. Surface Pumping Units

3.1. Conventional Pumping Unit

The conventional pumping unit is a modern version of the crank counterbalanced unit first built in 1926. It is a rear mounted Class I lever system. The equalizer bearing is directly in line with the gear reducer slow speed shaft. This machine is bi-directional, meaning it can be rotated both clockwise and counterclockwise with approximately the same performance characteristics in either direction as shown in **Figure 2.**

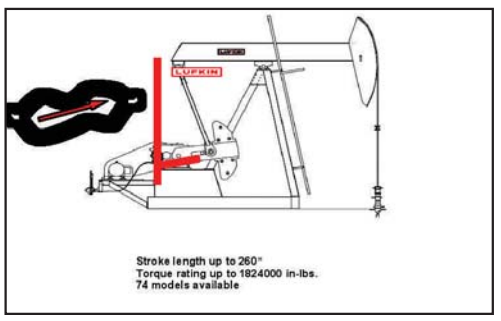


Fig 2. Conventional pumping unit

3.2. Mark II Pumping Unit

Mark II pumping, as shown in **Figure 3**, has shown features that differentiate it from other pumping units, as follows;

1. The gear reducer is located at the rear of the equalizer bearing such that the crank turns 195 degrees of crank rotation for the up stroke and 165 degrees to complete the down stroke.
2. The walking beam pivots from the rear end and the pitman pushes up on the walking beam to lift the load (class III lever). , and
3. The crank is offset, which causes the counterbalance torque to better align with the well torque.

Acting together, these features create a more uniform torque that usually creates less peak torque than a conventional unit for a given set of well conditions. It normally requires less motor horsepower and uses less energy than a conventional unit doing the same work.

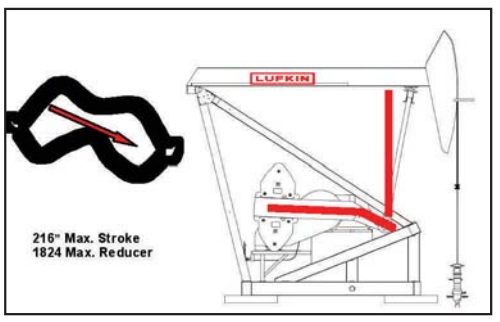


Fig 3. Mark II pumping unit

3.3. Reverse Mark (RM) Pumping Unit

This unit uses some features of the Mark II type applied to the conventional geometry. It has a phase angle in the cranks that creates an up stroke of 190 degrees of crank rotation and has phased counterbalance, as shown in **Figure 4.** It is important to note the offset of the gear reducer relative to the equalizer and the crank pin angular offset similar to the Mark II. This geometry usually produces less peak torque than a conventional unit for a given set of well conditions and normally requires less motor power and uses less energy to do a required job.

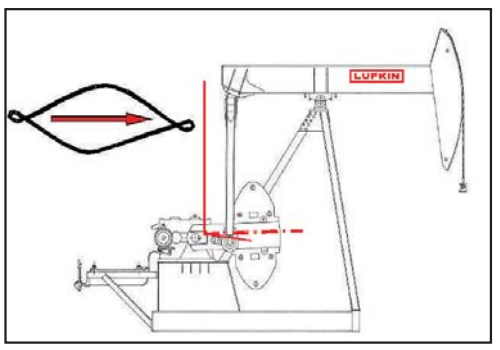


Fig 4. Reveres Mark Unit

Case Histories

Celgg (1988) presented the production capabilities of the rod pumping system for various lift depths from 1000 to 10,000 ft, **Figure 5.** He made the design based on the largest beam pumping unit manufactured at that time which was conventional type of size C-912D-365-168.

As also shown in **Figure 5**, Takacs (2003) modified Clegg work (1988) by adding data given by Byrd (1968) plotted on the same figure representing Mark II types of pumping units and may be regarded as the ultimate production capacity of present-day sucker-rod pumping installations.

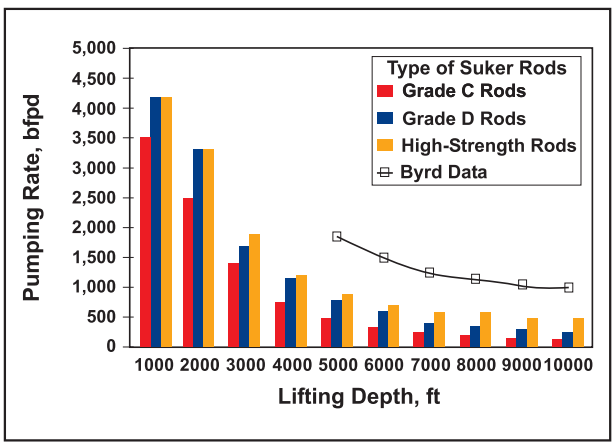


Fig 5. The approximate maximum rates for conventional pumping units (after G. Takacs[1])

Well 41X24D of the Reno field in Wyoming's Powder River basin became the world's deepest rod pumped oil well on Sept. 21, 1982. Before this installation, the maximum depth experience was limited to about 11,500 ft [3505 m]. Its rod pump, installed at 14,500 ft [4420 m], has operated successfully since 1983, as reported by Gott (1983).

Another history case was presented in an Oklahoma operator reported lifting 1,147 B/D from 8,025 ft., pumping 8.75- 216" SPM with a 24" plunger, and an API-96 rod string. Peak polished rod load (PPRL) measured 37,052l bs; the minimum polished rod load 7,080 lbs.; while the in-balance peak torque measured 874,000in.lbs. on an API 1,280,000in.lbs. gear reducer (Gott, 1983).

4. System Design Considerations

This study was made using SROD software to determine the system capabilities to produce maximum practical fluid from different depths. **Table 1** presented the criteria used in the design.

Table 1: Criteria used in the design.

Depth	From 1000 to 15,000 ft
Rod grad	C, D and N97
Pumping intake pressure	200 psi
Well head pressure	150 psi
Oil API	40
Gas/oil ratio	0-3000 scf/stb
Water cut	0 – 100 %
Subsurface pump size	1.25-5.75 inch
Pumping units	Lufkin conventional, Mark-II and reverse mark
Pumping speed	5-20 SPM
Stroke length	100-260 Inch
Sucker rod	All API grads plus N97 with 0.9 service factor

A number of general assumptions were applied in making these calculations.

1. In all cases the tubing was considered anchored, thus no tubing stretch.
2. Casing can accommodate the required tubing size.

5. Result and Discussion

The results of production versus pump seating depth for conventional, Mark II, and reverse Mark are shown in **Figures 6, 7,** and **8** respectively, for three water cuts of 0.0, 50 % and 100 %.

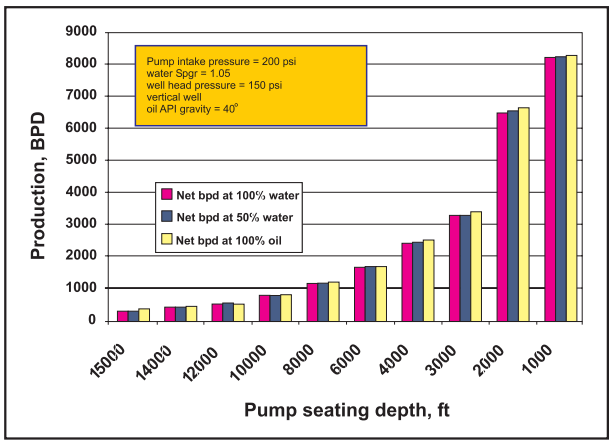


Fig 6. Production versus Depth for conventional Pumping Unit

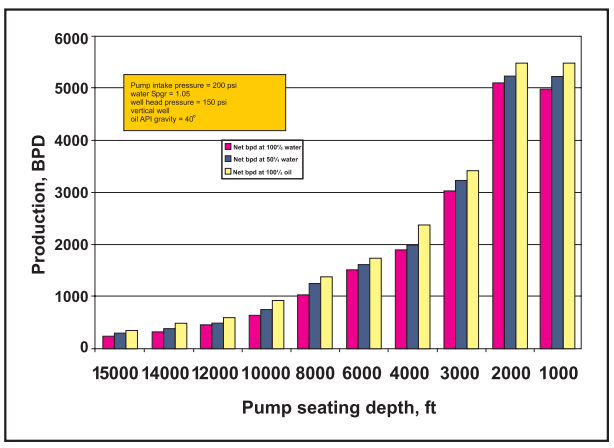


Fig 7. The pumping capacity for Mark II pumping unit

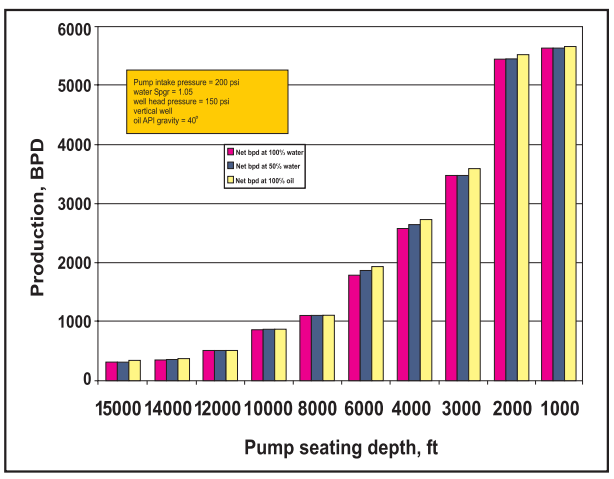


Fig 8. The pumping capacity for RM pumping unit

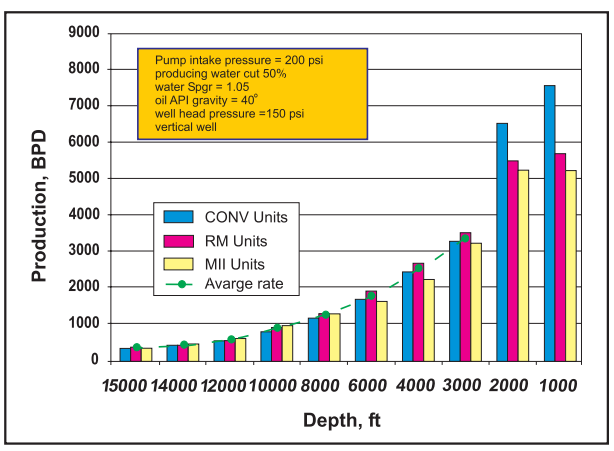


Fig 9. Comparison the capacities of the three different geometries

Figure 9 compares the capacity of the three different geometries and indicates that at shallow well depths of 1,000 and 2,000 ft, the conventional unit produces higher production than or at least comparable to the other two types. This recommendation is also valid up to 4,000 ft well depth. However, at deep well depths greater than 8,000 ft, the production from the three types is very comparable. The attained axial load versus well depth is depicted in **Figure 10**.

As shown by these four figures, **Figure 6 to Figure 9**, and as might be expected, in general, in high production rate, shallow wells, the conventional pumping geometry works good and it can handle up to more than 8200 BFPD with the subsurface pump seated at 1000 ft depth. This value of production is not the end limit of the equipment, unit, rod and pump all can handle more volume. For example in order to produce 8,200 BFPD the calculated required torque was 1,190,000 in-Ib and the PPRL was 20,346 Ib. Then still there is room for more torque and structure load in comparison with the current present units which can handle up to 1,820,000 in-Ib and 47,000 peak load.

The rod fall is considered one of the major problems, **Figure 10** shows the limit of the pumping speed reached to design the previously-mentioned well. The existence of any more friction in the pumping speed will result in a negative polished rod load. Therefore for shallow well high volume, larger rod size is used for the purpose of increasing the minimum polished rod load. Consequently positive down stroke load and rod can fall free. It has been recognized that increasing the pumping speed is restricted by the downward velocity of the horse-head during the down-stroke. As the pumping speed increases the Carrier bar begins to move faster on the down-stroke than the polished rod, which falls due to total rod weight acting on it. At the beginning of the upstroke, the carrier bar is moving upwards at the same time the rod is still moving downward, resulting in carrier bar hitting on the polished rod clamp. The high impact forces can create large torques which can easily overload the pumping unit structure and damage the gear reducer tooth. The pumping speed at which this phenomenon starts to occur is called the critical pumping speed. Surface stroke length has a direct impact on critical pumping speed; the longer the stroke, the lower the maximum pumping speeds that can be allowed.

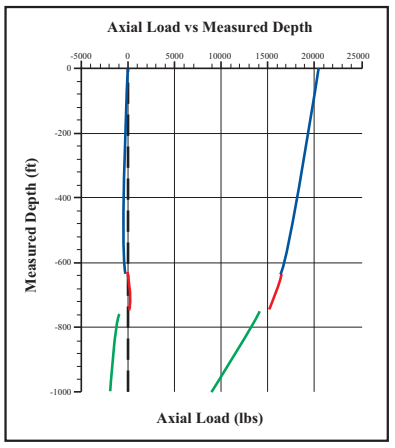


Fig 10. Shows the axial load versus depth

The design shows that fluid lifting capacity of a rod pumping system is limited by several factors. The main limiting factors are: (1) the pumping speed, (2) the strength of the rod material, (3) the structural capacity of the pumping unit, and (4) rod buckling.

The system design accounts for all effects using various pumping parameters having impact on pumping rate and included in the design of the rod string as well.

These parameters are checked against the limiting factors: (1) PPRL, (2) Peak net torque, (3) Pumping speed is compared to its critical value by checking the calculated minimum polished rod load, and (4) Rod buckling, Sinker bar is considered for rod string shown tendency of buckling.

5.1. Effect of Surface Unit Geometry

The design output match with all published literatures (Allen, 1969; Gibbs, 1977; Murtha et al., 1987; Derek et al. , 1988; Pope, 1993) and field practices (Nolen, 1969; Wan, 1986, Murtha et al, 1987), where all agreed that the enhance geometry pumping systems proved to be the economical type of pumping units lifting fluid from medium to deep wells. Where geometry features of that type create a more uniform torque and thus usually create less peak torque for a given set of well conditions than a conventional unit. It normally requires less motor horsepower and uses less energy than a conventional unit doing the same work.

Figures 11, 12 and 13 present a comparison of required torque, PPRL, and required motor power of the three different pumping unit's geometries, respectively. The comparison was based on attaining fixed target production at three different depths, of 200, 700 and 1,500 BFPD at 5,000, 10,000 and 15,000 ft depth, respectively.

As shown in **Figure 11,** the MII pumping unit is the superior unit as the least required torque to lift the same quantity from the different depths while the conventional one showed poor performance. This is because, the front mounted Class III lever system geometry of that unit insure optimum torque carrying capacity. The reverse mark geometry lies in the middle between the Mark and the conventional type. With respect to the load as shown in **Figure 12,** it is shown that up to about 8,000 ft the reverse Mark geometry require the lowest load to lift the same quantities of fluids. More than 8,000 ft and up to about 13,000 ft MII will require less but not far than the RM geometry and still the conventional far than the two geometries. All those reflect in the required motor power as shown by **Figure 13**.

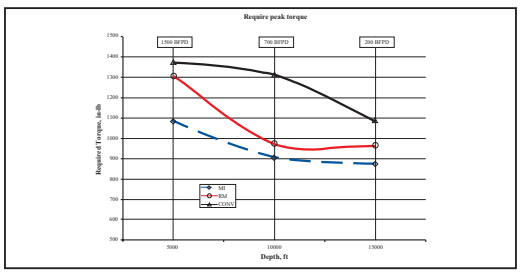


Fig 11 – Required peak torque

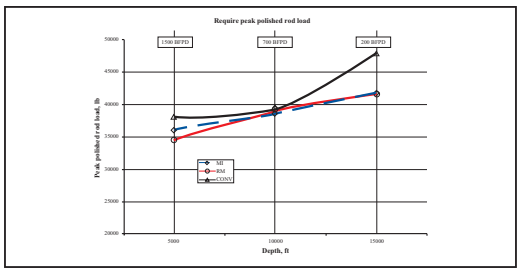


Fig 12. Required peak polished rod load

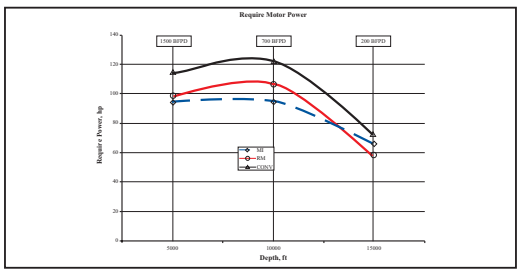


Fig 13. Required motor power.

Conclusions

1. The depth from which beam pumping system effectively lift fluid can significantly be increased by using high strength rods, optimum pumping running parameters and enhanced unit geometry.
2. The problems of lifting high rates from shallow wells are quite different than that of lifting from deep wells. Therefore, the use of modern equipment and operating practices allow fairly large volumes to be pumped,
3. The conventional pumping unit is recommended for shallow well depths up to 2,000 ft because it provides the highest quantity under the same operating conditions of Mark II and Reserve Mark pumping units.
4. The Reverse Mark pumping unit has provided the superior lifted quantity than other types of Mark II and conventional ones because it required the least torque to lift the same quantity from different well depths up to 8,000 ft. for greater depths , Mark II units is recommended. However well conditions can play some other rules between choosing Mark II and Reverse mark units at those depths.
5. Historical cases have proven successful application of producing high volumes from deep wells using different bean pumping systems.

References

1. Takacs, G.: Sucker-Rod Pumping Manual. PennWell Books, Tulsa Oklahoma, 2003.
2. Clegg, J. D. "High-Rate Artificial Lift" Journal of Petroleum Technology (March): 1988, pp. 277-82
3. Lufkin Industries Inc.,
4. Byrd, J. P. High volume Pumping Sucker Rods, SPE 2104, The SPE Eighth Secondary Recovery Symposium, Wichita Falls, TX, USA, May 6-7, 1968,.
5. Byrd, J. P. "Pumping Deep Wells with a Beam and sucker Rod System." SPE 6436. Amarillo, Texas: Deep Drilling and Production Symposium of the Society of Petroleum Engineers, April 17-19, 1977.
6. Gott, C. I. "Successful Rod Pumping at 14,500 ft" SPE 12198. San Francisco, California: 58th Annual Technical Conference and Exhibition of the Society of petroleum Engineers, October 5-8, 1983.
7. Lufkin Automation,
8. Allen, D. D. "High Volume Pumping in the Rangely Weber Sand Unit" paper SPE 586 presented at Annual Fall Meeting of AIME, held in Denver, Colo., Sept. 28-Ott. 1, 1969.
9. Nolen,K. B., Deep High Volume Rod Pumping, SPE 2633, the Fall Meeting of the Society of Petroleum Engineers of AIME, 28 September-1 October, Denver, Colorado, 1969.
10. Pop, C. D. Optimizing High-Volume Sucker Rod Lift, SPE 25421, SPE Production Operations Symposium, 21-23 March, Oklahoma City, Oklahoma, 1993.

Egypt's Oil and Gas: Some Crucial Issues

By Sarah Broberg

Robert Mabro's Egypt's Oil and Gas: Some Crucial Issues attempts to analyze one of Egypt's main agents of economic development: Energy. Mabro's paper was published by the Egyptian Center for Economic Studies (ECES) as part of its distinguished lecture series

IN his paper, Robert Mabro focuses on Egypt's oil and gas industry and the fundamental issues which revolve around the sector. He tackles a variety of pressing topics including subsidies, the role of the sector in the international market, and the position of gas exports in the future of Egypt.

ECES's publication series was created in an effort to bring to Egypt international scholars and practitioners renowned in their respective fields and for their important contributions to economic thought and policy formulation. ECES is a non-profit, non-government think tank founded in 1996 by leading members of Egypt's private sector in order to promote economic development in Egypt through solid, objective research designed to assist policy makers in developing appropriate reform options.

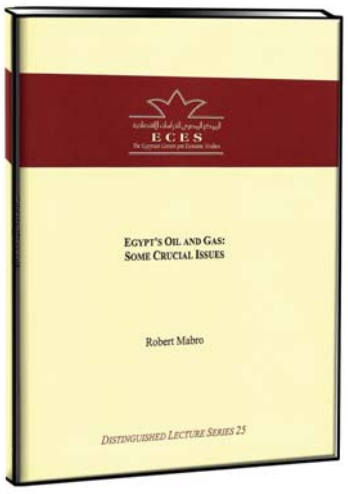
The work begins with an introduction to the oil and gas industry in Egypt. Mabro provides a brief history of the industry starting from the nineteenth century and the initiation of the first oil finding in the industry, chronologically moving to the more recent production of natural gas in 1975, up to the modern form of corporate and government regulation of the sector, which are essentially embodied in the production-sharing agreements (PSAs) under which foreign companies operate within the country. A description of the industry is given using figures of proven reserves and daily production regarding both oil and natural gas. Domestic consumption is then pitted against exports in an attempt to present the need to resort to natural gas for national consumption while exporting the more costly oil in order to better profit from the newly focused on gas reserves, which is much cheaper in the international market.

Mabro then turns to discussing subsidies on oil and gas in domestic consumption; describing subsidies as a fiscal burden on Egypt. One of Mabro's main concerns is what he terms "distributional distortions." These distortions are found in the fact that all subsidies to individuals or households benefit all consumers whether poor or rich. He suggests that the remedy to the distortions can be found in a graduated tariff system. However, such a system does exist in Egypt; the system has nonetheless proven inept in its function of equitable distribution.

He points out that subsidized fuels are not only provided to households and individuals but to the transport sector, power stations, commercial and financial establishments and industry. The last of these beneficiaries presents the greatest dilemma for the fiscal budget of the nation. These subsidies are concentrated in such industries as cement, petrochemicals, textiles, metals, and fertilizers. However, one of the main problems surrounding the issue of industry fuel subsidies is the fact that whatever money saved due to the subsidies are not always fully passed on to the consumer. This makes the whole basis of subsidizing fuel to these industries futile.

Mabro argues that another hurdle found in the sector is domestic monopolies. The Egyptian General Petroleum Corporation (EGPC) monopolizes both oil and gas, directly and indirectly through their subsidiaries. This monopoly determines the allocation of gas production between domestic and export markets by making investment decisions based on cash costs that determine cash flow as opposed to opportunity costs of fuel. Thus, while at the time being, natural gas is focused on in terms of export while oil is domestically subsidized, the optimum utilization of both oil and gas is found in the current situation's reverse, where gas should be used domestically and oil exported.

Turning to Egypt's role in the international oil and gas market, Mabro dissects each market separately. Positing Egypt as a price taker in the former and a larger player in the latter that is as much as it needs. The discussion of the two markets leads Mabro to the complicated issue of gas exports. Once again, domestic consumption is pitted against exports. According to the author, whether exporting gas is a viable option with domestic needs kept in mind is based on the reliability and credibility of reserves estimates.



If government estimates are accurate and Egypt has ample reserves to sustain domestic demand growth and export expansion, then there would be no problem, but sufficient studies have not been conducted nor have the size of gas reserves really been provided.

Once information is freely and openly provided, Mabro suggests that natural gas contracts with foreign companies, which sell gas at a lower price than that of the international market, be reassessed and reconsidered. Egypt should benefit from its exports and not suffer a diminished return. This point leads Mabro to his conclusion that the government should put forth a more scrupulous intellectual exertion in an endeavor to reach a solution to Egypt's energy dilemma of misallocation; a merging of economic benefit and societal development.

In essence, Mabro makes a case for the need to undertake drastic policy measures regarding energy subsidies. Whether this means a gradual cut of subsidies or a sudden slash is not as important as the realization that these subsidies do need to be eliminated, their presence is no longer helpful to the society at large but only assists the rich and barely reaches the poor. Mabro also stresses that there should be a restructuring of Egypt's export strategies. Gas should be utilized domestically, where the national distribution grid should be expanded to include the whole of Egypt and oil should be the focus of exports seeing how its international market price is much higher than that of gas. Egypt's role in the international oil and gas market has undoubtedly become much larger than it once was, but it still lacks in the ability to generate true revenue. Turning a national profit will mean having to renegotiate gas export contracts and to ultimately close the gap between sale and purchase prices.

The lecture emphasizes one more solution to the energy problems of Egypt; a solution that will eventually be the final solution to not just Egypt's looming energy crisis, but the world over. Mabro stresses the need to seriously begin taking steps toward energy conservation and the search for renewable energy sources. Despite recognizing the need to reduce Egypt's (and the world's) reliance on oil and gas, Mabro suggests that the search for alternative energy should be pursued while keeping in mind its impact on economic development.

Professor Robert Mabro began his career at the School of Oriental and African Studies and is currently a fellow at St. Antony's College in Oxford. He founded the Oxford Energy Policy Club, the Oxford Institute for Energy Studies, and the Oxford Energy Seminar. He received the first OPEC award for contribution to oil studies in 2004 and the award of Commander of the Most Excellent Order of the British Empire (CBE) by Her Majesty the Queen of England in the New Year's Honors List in December 1995. His works include thirteen books and monographs, the most recent of which is entitled *Oil Markets and Prices: The Brent and the Formation of World Oil Prices.*
Mabro gave his lecture at ECES on May 11, 2006.

As tough as it gets

Last month was packed with surprises among other things, as the competition for the league title continues

By Mohamed El-Sayed

THE past four weeks of the National Football League were rich with surprises, transfers and coach changes. Unlike most of the weeks of the first half of the 58-year-old championship, the beginning of the second half wasn't business as usual. As the competition gained more momentum, spectators renewed their interest in watching the games.

Al-Ahli's 2-1 victory over Zamalek didn't surprise anybody, as Al-Ahli's curve was at its peak, while Zamalek's performance was taking a turn for the worse. But in fact the biggest surprise that raised many eyebrows was the humiliating 3-0 defeat the Red Devils suffered on the hands of the coastal city team Ismaili in Cairo in their encounter postponed from the first half. Having finished third in the prestigious Clubs World Cup in Japan in December, it was totally unexpected that the African champions would fall an easy prey to the junior players of second-placed Ismaili.

The defeat, in fact, came to cap a series of poor performances by Al-Ahli since their return from the world championship. Al-Ahli's defeat revived Ismaili's hopes of competing for their fourth national league title, as the point difference was reduced to only six points. The unprecedented defeat prompted Al-Ahli officials to reinforce their line-up during the January transfer period in an attempt to maintain their leading position. They managed to sign Assiut Petrol's striker Abdel-Hamid Hassan, and Tunisian import Anas Bojelban of Sfaxien.

However, the oil company team Enppi, which is in 12th position with only 20 points, stunned football fans when it defeated Ismaili 1-0 in Cairo. Ismaili's defeat restored the point difference between Al-Ahli and Ismaili to nine, making it more difficult for the latter to catch up with the title holders.

The surprising victory Enppi achieved over Ismaili could be accredited to new coach and former Egyptian national team captain Hani Ramzi, who took responsibility for the team after the club's board decided to do without the services of German coach Reiner Tsobel, who was appointed as a consultant. Ramzi, who returned to Egypt after a long successful professional career in the German Bundesliga, has always complained that Tsobel turned a deaf ear to his advice when he was a general coach.

"I, Mohamed Youssef, Khaled Metwalli and other members of the technical team used to sit together and take decisions to correct some wrongs in the team so that it could be back on track, but Tsobel always ignored our advice," Ramzi said. Ramzi added that Tsobel "was so nervous and always put players under pressure, which was negatively reflected on their performance during matches. He also failed to deal with the players, a matter that made them lament the days of former coach Taha Besari."

Ramzi didn't solely blame Tsobel, arguing that the change in tactics and the joining of new players in the team who needed time to blend in, negatively affected the results of the team. "Also, there are some players who do not have the spirit of winning, and all they care about is collecting money," he added.

Ramzi, who received coaching courses in Germany, promised that he would be strict in dealing with such players. He also hoped that "the team will restore its good performance, occupy an advanced position, or at least garner 35 points to remain in the premiership league."

Top: Al-Ahli and Zamalek in their derby ended with a 2-1 win for the Red Devils; left:Al-Ahli and Ismaili in their match that ended with a 3-0 win for the Darawish

In an attempt to rescue the team from being relegated to the second division league, the club's board managed to sign international goalkeeper and former Al-Ahli player Nader El-Sayed. Having been fed up with Al-Ahli coach, Manuel Jose, who kept him on the bench for a very long time, El-Sayed decided to find new pastures in Enppi.

Of all the oil teams, only Petrojet kept its outstanding performance, in spite of the two consecutive losses it suffered on the hands of Zamalek and Ismaili in the eighteenth and nineteenth weeks. The club is still in an advanced position, the eighth place with 27 points.

Assiut Petrol's only achievement during the past month was drawing with powerhouse Zamalek. Otherwise, the team is still lagging behind in the 15th position with just 13 points out of 19 games. Many regarded the selling of its striker, Hassan, to Al-Ahli a wrong decision that could cost the team a lot in the coming period. Unless the team performs a miracle, it is highly unlikely that the club will remain among the premier teams.

Team rankings

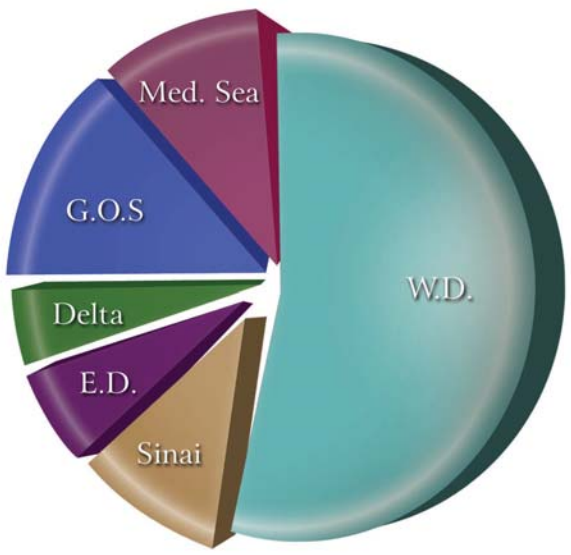
R	Club	P	W	D	L	GS	GA	P
1	Al-Ahli	19	16	2	1	45	10	50
2	Ismaili	19	12	5	2	37	13	41
3	Zamalek	19	12	3	4	33	15	39
4	Mahalla	19	9	4	6	24	15	31
5	Sawahel	19	7	7	5	23	22	28
6	Arab Contractors	19	7	7	5	12	15	28
7	Geish	19	7	6	6	22	22	27
8	**Petrojet**	**19**	**7**	**6**	**6**	**27**	**28**	**27**
9	Ittihad	19	5	7	7	20	28	22
10	Tersana	19	4	9	6	19	20	21
11	Masri	19	5	6	8	12	22	21
12	**ENPPI**	**19**	**4**	**8**	**7**	**16**	**19**	**20**
13	Suez Cement	19	5	4	10	13	24	19
14	Olympic	19	3	5	11	15	29	14
14	**Assiut Petrol**	**19**	**3**	**4**	**12**	**12**	**30**	**13**
16	Tanta	19	2	5	12	10	28	11

Goals	Player	Club
14	Emad Moteab	Al-Ahli
13	Flavio Amado	Al-Ahli
11	Ahmed Hassan	Mahalla
10	Mohamed Fadl	Ismaili
8	Amr Zaki	Zamalek
8	Alaa Ibrahim	Petrojet

340 goals have been scored in 152 matches (2.24 goals per match)

Table 1 Egypt Rig Count per Area January 2007

Area	RIG COUNT	Total	Percentage of Total Area
Gulf of Suez		13	14%
Offshore	13		
Land	0		
Mediterranean Sea		9	10%
Offshore	9		
Land	0		
Western Desert		51	55%
Offshore	0		
Land	51		
Sinai		9	10%
Offshore	0		
Land	9		
Eastern Desert		6	6%
Offshore	0		
Land	6		
Delta		5	5%
Offshore	0		
Land	5		
Total		**93**	**100%**



Source : Egypt Oil& Gas

Table 2 Rig Count-Africa

Africa	RIG COUNT Nov 2006	Prior Month	Change	YTD AVERAGE Through Nov 2006	Prior Year	% Change from Prior Year
ALGERIA	72	71	(1)	69	61	13%
Offshore	0	0	0	0	0	0%
Land	72	71	(1)	69	61	13%
ANGOLA	23	23	0	21	17	24%
Offshore	23	23	0	21	17	24%
BENIN	0	0	0	0	0	0%
Offshore	0	0	0	0	0	0%
Land	0	0	0	0	0	0%
CAMERON	1	1	0	2	2	0%
Offshore	1	1	0	2	2	0%
Land	0	0	0	0	0	0%
CHAD	4	4	0	4	3	33%
Offshore	0	0	0	0	0	0%
Land	4	4	0	4	3	33%
CONGO	12	11	1	10	9	11%
Offshore	4	3	1	5	4	25%
Land	8	7	1	5	4	25%
EGYPT	57	57	0	54	41	32%
Offshore	14	15	(1)	13	12	8%
Land	43	42	1	41	29	41%
EQUATORIAL GUINEA	6	5	1	4	3	33 %
Offshore	6	5	1	4	3	33 %
Land	0	0	0	0	0	0%
GABON	10	9	1	9	6	50%
Offshore	3	3	0	3	3	0%
Land	7	6	1	6	4	50%
GHANA	0	0	0	0	0	0%
Offshore	0	0	0	0	0	0%
Land	0	0	0	0	0	0%
GHINEA BISSAU	0	0	0	0	0	0%
Offshore	0	0	0	0	0	0%
Land	0	0	0	0	0	0%
IVORY COAST	1	1	0	1	3	(67)%
Offshore	1	1	0	1	3	(67)%
Land	0	0	0	0	0	0%
KENYA	0	0	0	0	0	0%
Offshore	0	0	0	0	0	0%
Land	0	0	0	0	0	0%
LIBYA	42	39	3	34	29	17%
Offshore	2	2	0	2	4	(50)%
Land	40	37	3	33	26	27%
MADAGASCAR	0	0	0	0	0	0%
Offshore	0	0	0	0	0	0%
Land	0	0	0	0	0	0%
MAURITANIA	0	0	0	0	2	(100)%
Offshore	0	0	0	0	2	(100)%
Land	0	0	0	0	0	0%
MOROCCO	0	0	0	1	0	100%
Offshore	0	0	0	0	0	0%
Land	0	0	0	1	0	100%
MOZAMBIQUE	0	0	0	0	0	0%
Offshore	0	0	0	0	0	0%
Land	0	0	0	0	0	0%
NIGER	0	0	0	0	0	0%
Offshore	0	0	0	0	0	0%
Land	0	0	0	0	0	0%
NIGERIA	28	27	1	22	24	(8)%
Offshore	22	21	1	17	17	0%
Land	6	6	0	5	7	(29)%
SENEGAL	0	0	0	1	0	100%
Offshore	0	0	0	0	0	0%
Land	0	0	0	0	0	0%
SOUTH AFRICA	1	1	0	1	0	100%
Offshore	1	1	0	1	0	100%
SUDAN	27	24	3	24	20	20%
Land	27	24	3	24	20	20%
TANZANIA	2	2	0	0	0	0%
Offshore	0	1	(1)	0	0	0%
Land	2	1	1	0	0	0%
TOGO	0	0	0	0	0	0%
Offshore	0	0	0	0	0	0%
TUNISIA	9	8	1	5	3	67%
Offshore	3	2	1	2	1	100%
Land	6	6	0	3	2	50%
UGANDA	0	0	0	0	0	0%
Offshore	0	0	0	0	0	0%
Land	0	0	0	0	0	0%
Total Africa	295	283	12	268	0	26200%

Source : Schlumberger

Table 3 World Rig Count

Region	RIG COUNT Nov 2006	Prior Month	Change	YTD AVERAGE Through Nov 2006	Prior Year	% Change from Prior Year
Africa	295	283	12	262	223	17%
Offshore	80	79	1	70	67	4%
Land	215	204	11	192	156	23%
Asia Pacific	262	270	(8)	266	252	6%
Offshore	99	103	(4)	103	101	2%
Land	163	167	(4)	163	151	8%
CIS	384	374	10	328	224	46%
Offshore	14	16	(2)	13	10	30%
Land	370	358	12	315	215	47%
Canada	386	353	33	414	399	4%
Offshore	5	6	(1)	5	6	(17)%
Land	381	347	34	408	393	4%
Europe	190	195	(5)	178	164	9%
Offshore	89	98	(9)	97	92	5%
Land	101	97	4	81	73	11%
Latin America	400	400	0	396	382	4%
Offshore	84	85	(1)	84	83	1%
Land	316	315	1	312	298	5%
Middle East	327	329	(2)	305	266	15%
Offshore	51	51	0	49	49	0%
Land	276	278	(2)	256	217	18%
US	2012	1984	28	1896	1656	14%
Offshore	108	111	(3)	116	115	1%
Land	1904	1873	31	1781	1541	16%
Global Count	**4256**	**4188**	**68**	**4044**	**3565**	**13%**

Source : Schlumberger

Table 4
World Crude Oil Production (Including Lease Condensate) (Thousand Barrels per Day)

	Egypt	Gabon	India	Malaysia	Mexico	Oman	Russia	Former U.S.S.R.	Syria		United States	Other[1]	World
2006 January	654	238	669	760	3,372	771	9,030	---	***418***	E	5,047	***6,017***	***73,598***
February	657	238	679	760	3,311	765	9,040	---	***415***	E	5,048	***6,085***	***73,504***
March	651	237	686	700	3,350	754	9,150	---	***412***	E	5,016	***6,066***	***73,289***
April	663	237	685	680	3,370	744	9,170	---	***408***	E	5,067	***6,114***	***73,333***
May	655	237	689	700	3,329	734	9,160	---	***407***	E	5,100	***6,283***	***73,088***
June	607	237	704	695	3,287	739	9,260	---	***416***	E	5,219	***6,224***	***73,065***
July	620	237	691	690	3,232	726	9,260	---	***412***	E	5,171	***6,236***	***73,976***
August	630	237	650	685	3,252	727	9,330	---	***400***	E	5,155	***6,301***	***73,725***
September	640	241	701	685	3,258	720	9,280	---	***400***	E	***5,188***	***6,299***	***73,600***
October	660	240	706	626	3,173	730	9,280	---	400	PE	5,195	6,332	73,496
2006-10-Month	644	241	686	698	3,293	741	9,197	---	409	PE	5,121	6,196	73,468

[1] Other is a calculated total derived from the difference between "World" and the sum of production in "Total OPEC" (Table 6) and all other countries listed (Tables 4 and 6).
-- = Not applicable. E=Estimated. PE=Preliminary estimate. RE=Revised estimate.

Source : EIA

Table 5
World Crude Oil Production (Including Lease Condensate) (Thousand Barrels per Day)

	Norway	United Kingdom	North[1] Sea	Angola	Argentina	Australia	Brazil	Canada	China	Colombia	Ecuador
2006 January	2,657	1,707	4,737	1,428	686	335	1,688	***2,595***	3,670	521	559
February	2,620	1,639	4,635	1,418	665	400	1,692	***2,504***	3,662	533	551
March	2,610	1,597	4,594	1,428	695	380	1,696	***2,411***	3,710	535	528
April	2,407	1,590	4,371	14,28	692	370	1,737	***2,531***	3,680	536	546
May	2,535	1,500	4,416	1,328	705	380	1,748	***2,341***	3,712	539	547
June	2,365	1,392	4,111	1,239	717	370	1,630	***2,336***	3,700	538	536
July	2,571	1,453	4,383	1,468	709	***490***	1,725	***2,512***	3,716	536	***542***
August	2,430	1,198	***3,989***	1,468	697	470	1,703	***2,525***	3,670	534	542
September	2,338	1,350	***3,960***	1,446	***717***	500	1,733	**2,601**	3,659	527	533
October	2,380	1,455	4,207	1,384	715	495	1,762	2,621	3,658	526	518
2006-10-Month	2,491	1,487	4,339	1,409	700	419	1,712	2,498	3,684	533	540

[1] North Sea includes the United Kingdom Offshore, Norway, Denmark, Netherlands Offshore, and Germany Offshore.

Source : EIA

Table 6
World Crude Oil Production (Including Lease Condensate) (Thousand Barrels per Day)

	Algeria	Indonesia	Iran	Iraq	Kuwait[1]	Libya	Nigeria	Qatar	Saudi Arabia[1]	United Arab Emirates	Venezuela	Total OPEC
2006 January	1,825	1,045	4,100	1,603	2,600	1,650	2,560	835	9,400	2,602	2,540	30,760
February	1,825	1,050	4,050	1,803	2,550	1,650	2,410	835	9,500	2,602	2,540	30,815
March	1,825	1,043	4,000	1,903	2,525	1,680	2,370	835	9,350	2,602	2,540	30,673
April	1,825	1,035	4,000	1,903	2,525	1,690	2,370	835	9,350	2,602	2,540	30,675
May	1,785	1,038	3,950	1,903	2,525	1,700	2,370	835	9,200	2,602	2,540	30,448
June	1,795	1,027	4,030	2,153	2,550	1,700	2,465	835	9,100	2,602	2,540	30,797
July	1,805	1,020	4,035	2,203	2,550	1,700	2,380	855	9,300	2,702	2,440	30,990
August	1,805	1,015	4,035	2,203	2,550	1,700	2,430	855	9,300	2,702	2,490	31,115
September	1,835	1,005	4,035	2,153	2,550	1,700	2,430	885	9,000	2,702	2,490	30,785
October	1,835	985	4,060	2,103	2,550	1,700	2,530	885	8,800	2,702	2,490	30,640
2006-10-Month	1,816	1,026	4,029	1,994	2,548	1,687	2,432	852	9,228	2,642	2,515	30,770

[1] In August 2006, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 570,000 barrels per day. Data for Saudi Arabia include approximately 150,000 barrels per day from the Abu Safah field produced on behalf of Bahrain.
Note: OPEC=Organization of Petroleum Exporting Countries.

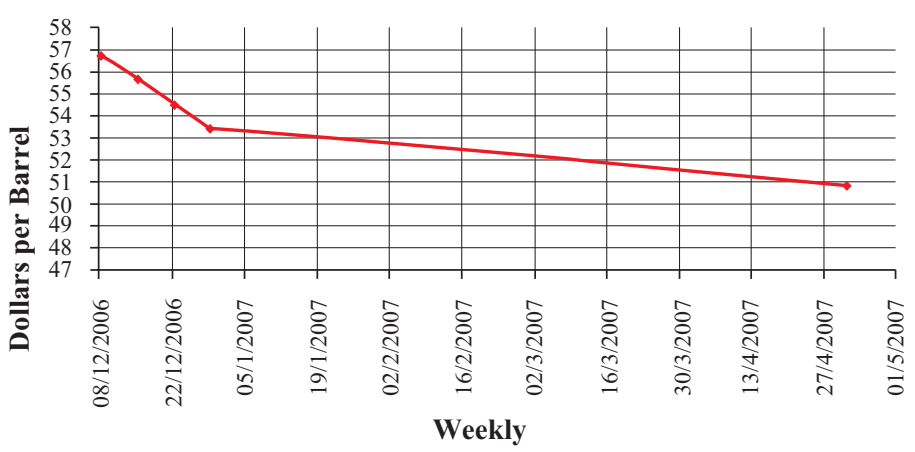
Source : EIA

Table 7
World Oil Supply[1] (Thousand Barrels per Day)

		United States[2]	Persian Gulf	OAPEC	OPEC	World
2006 January	E	8,225	23,554	***24,434***	33,905	***84,418***
February	E	8,232	23,759	***24,693***	33,975	***84,444***
March	E	8,096	23,634	***24,639***	33,833	***83,943***
April	E	8,239	23,658	***24,679***	33,859	***84,247***
May	E	8,348	23,458	***24,489***	33,632	***84,163***
June	E	8,463	23,713	***24,655***	34,001	***84,093***
July	E	8,456	24,098	***25,072***	34,224	***85,491***
August	E	8,486	24,128	***25,100***	34,349	***85,244***
September	E	***8,499***	23,778	***24,795***	33,994	***84,791***
October	PE	8,455	23,553	24,565	33,849	84,787
2006-10-Month	PE	8,351	23,734	24,712	33,962	84,565

1 "Oil Supply" is defined as the production of crude oil (including lease condensate), natural gas plant liquids, and other liquids, and refinery processing gain (loss).
2 U.S. geographic coverage is the 50 States and the District of Columbia. Beginning in 1993, includes fuel ethanol blended into finished motor gasoline and oxygenate production from merchant MTBE plants.
E=Estimated. RE=Revised estimate. PE=Preliminary estimate.
Revised data are in bold italic font.

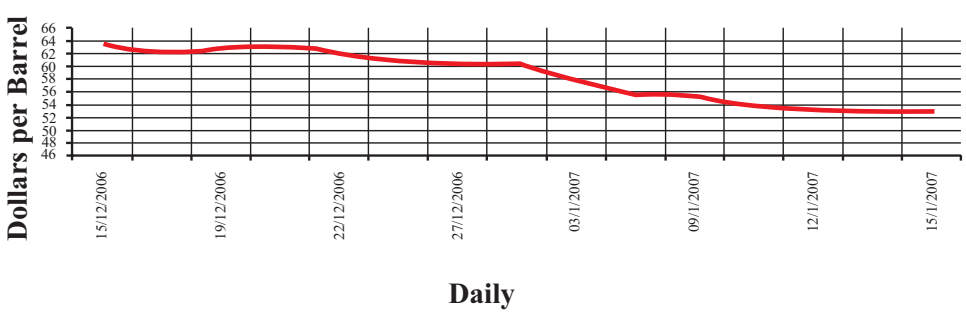
Fig 1
Egyptian Suez Blend



The Egyptian Suez Blend has dropped over the past five weeks going from $56.79 per barrel to $50.91. This is a more drastic drop from last month's more stable figures which ranged from $53.36 in the middle of November to $55.16 at the beginning of December.

Source : Egypt Oil& Gas

Fig 2
IPE Brent Price



The last 30 days have proven less than encouraging for IPE Brent. The price has slumped a little more than $10 reaching $53.12 per barrel in mid-January from $63.49 in mid-December.

Source : Egypt Oil& Gas

Table 8 International Stock Prices Mid-December-Mid-January

International Stock	High	Low
Schlumberger (SLB) NYSE (US Dollars)	68.92	57.03
Halliburton (HAL) NYSE (US Dollars)	33.53	28.36
Exxon Mobil (XOM) NYSE (US Dollars)	78.06	70.99
Atwood Oceanics (ATW) NYSE (US Dollars)	51.50	45.07
Weatherford (WFT) NYSE (US Dollars)	46.47	37.67
Shell (RDS.A)NYSE (US Dollars)	71.51	66.53
Apache (APA) NYSE (US Dollars)	69.55	63.52
Baker Hughes (BHI) NYSE (US Dollars)	78.25	67.77
BJ (BJS) NYSE (US Dollars)	33.87	26.05
Lufkin (LUFK) NYSE (US Dollars)	60.10	57.08
Transocean (RIG) NYSE (US Dollars)	83.46	73.50
Transglobe (TGA) NYSE (US Dollars)	5.43	4.60
GlobalSantafe (GSF) NYSE (US Dollars)	63.89	52.83
BP (BP.) LSE Pence Sterling	582.50	532
BG (BG.) LSE Pence Sterling	706	634
Centurion (Cux) TSX canadian Dollars	12.07	11.85
Caltex (CTX) ASX Australian Dollars	23.68	21.21
RWE DWA (RWE AG ST) Deutsche-Borse Euros	89.70	80.69
Lukoil (LKOH) RTS (US Dollars)	91.6	77.4

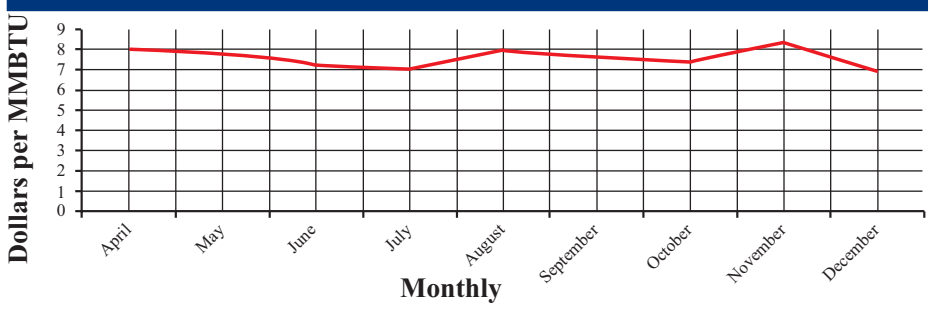
Average Currency Exchange Rate against the Egyptian Pound (December / January)

US Dollar	Euro	Sterling	Yen
5.7062	7.5187	11.1826	4.8329

Stock Market Prices (December / January)

Company	High	Low
Alexandria Mineral Oils (AMOC.CA)	80.90	77.01
Sidi Kerir Petrochemicals (SKPC.CA)	122.78	103.45

Fig 3 Natural Gas Price



In December, natural gas went down close to $2 from the previous month, from $8.33 in mid-December to $6.93 per mmbtu. This however does not significantly conflict with the past few months which have stably remained in the $7 range.

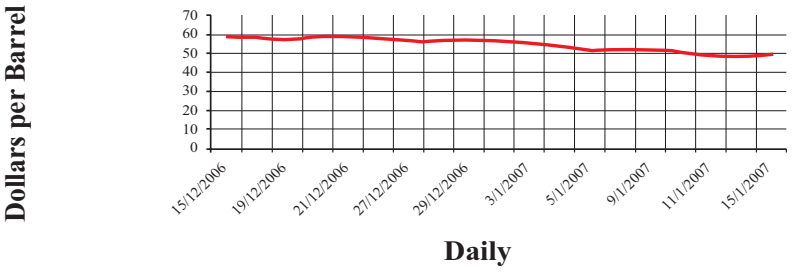
Source : Egypt Oil& Gas

Table 9 OECD Petroleum (Oil) Demand, (Thousand Barrels per Day)

	France	Germany	Italy	United Kingdom	OECD Europe[1]	Canada	Japan	South Korea	United States[2]	Other OECD[3]	OECD[4]	World
2006 January	1,077	2,470	1,727	***1,816***	***15,243***	2,081	6,014	2,380	20,110	3,476	***49,304***	NA
February	2,132	2,585	1,972	***1,848***	***15,983***	2,222	6,154	2,269	20,316	3,472	***50,415***	NA
March	2,095	2,619	1,905	***2,020***	***16,102***	2,228	5,723	2,184	20,695	3,615	***50,547***	NA
April	1,891	2,456	1,572	***1,732***	***14,488***	2,055	5,123	1,989	20,182	***3,414***	***47,251***	NA
May	1,819	2,625	1,646	***1,843***	***15,063***	2,131	4,455	2,033	20,463	3,402	***47,547***	NA
June	1,948	2,581	1,667	***1,848***	***15,548***	***2,240***	4,778	2,060	20,875	3,507	***49,009***	NA
July	1,958	2,560	1,689	***1,743***	***15,236***	***2,247***	5,002	1,891	20,582	3,367	***48,324***	NA
August	1,875	2,692	1,556	***1,756***	***15,227***	***2,410***	4,850	2,086	21,322	***3,502***	***49,397***	NA
September	2,005	2,881	1,727	1,790	15,762	2,350	4,562	2,093	20,472	3,359	48,598	
2006-9-Month	1,976	2,607	1,716	1,822	15,401	2,218	5,178	2,108	20,561	3,457	48,923	NA

1 "OECD Europe" consists of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg,the Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.
2 U.S. geographic coverage is the 50 States and the District of Columbia.
3 "Other OECD" consists of Australia, Mexico, New Zealand, and the U.S. Territories.
4 The Organization for Economic Cooperation and Development (OECD) consists of "OECD Europe," Canada, Japan, South Korea, the United States, and "Other OECD."
Revised data are in ***bold italic fo***nt. NA=Not available.

Fig 4 OPEC Basket Price



The OPEC Basket price has dropped close to $10 per barrel, dropping from $58.39 in mid-December to $49.23 in mid-January. This is a change from last period's prices which remained relevantly stable reaching a high of $59.7 and a low of $54.98.

Source : Egypt Oil& Gas

Table 10 World Natural Gas Liquids Production (Thousand Barrels per Day)

	Algeria	Canada	Mexico	Saudi Arabia	Russia	Former U.S.S.R.		United States[1]	Persian Gulf	OAPEC[2]	OPEC[3]	World
2006 January	295	***685***	438	1,460	410	---	E	1,684	2,281	***2,647***	2,948	***7,852***
February	295	***727***	436	1,460	410	---	E	1,677	2,286	***2,655***	2,963	***7,960***
March	295	***705***	432	1,460	410	---	E	1,688	2,286	***2,655***	2,963	***7,873***
April	295	***688***	441	1,480	415	---	E	1,729	2,310	***2,677***	2,987	***7,961***
May	295	***697***	441	1,480	415	---	E	1,753	2,310	***2,676***	2,987	***7,816***
June	315	***644***	436	1,480	410	---	E	1,753	2,310	***2,696***	3,007	***7,746***
July	315	***659***	449	1,490	420	---	PE	1,755	2,320	***2,724***	3,037	***7,041***
August	315	***691***	445	1,490	420	---	PE	1,726	2,320	***2,724***	3,037	***7,975***
September	320	***706***	427	1,490	390	---	PE	***1,781***	2,320	***2,729***	3,042	***7,811***
October	320	673	405	1,490	390		PE	1,773	2,320	2,729	2,042	7,998
2006-10-Month	306	687	435	1,478	409	---	PE	1,732	2,306	2,691	3,002	7,904

1 U.S. geographic coverage is the 50 states and the District of Columbia. Excludes fuel ethanol blended into finished motor gasoline.

2 OAPEC=Organization of Arab Petroleum Exporting Countries. 3 OPEC=Organization of Petroleum Exporting Countries. -- = Not applicable. E=Estimated. PE=Preliminary Estimate.

Source : EIA

Fahmy grants educational scholarships to 20 students

THE Egyptian Minister of Petroleum Sameh Fahmy and Ekhlas Abdel-Rahman, General Manager of Petronas Co. in Egypt witnessed the distribution of Petronas University's educational scholarships for Technology in Malaysia, granted to the top 20 Egyptian students in secondary schools (Thanaweya 'Amma).

In his speech, Fahmy shed the light on the importance of developing and updating the various study fields of engineering and computer sciences needed in the petroleum industry. He added that in order to generate future human resources characterized by high qualifications and expertise, we should pay more attention to the educational programs taught to Egyptian students in universities.

The minister pointed out that this is the third group of Egyptian students to be granted scholarships at the University of Petronas to earn a bachelors degree in different engineering specializations as well as computer studies, whereas the Ministry of Petroleum granted 10 scholarships and Petronas Co. granted the other 10.

Abdel-Rahman said that one of the company's goals is to contribute to the development of human resources in countries where their company operates. Petronas had initiated its oil and gas exploration projects in Egypt in 2001.

Reservoir Modeling... the areas of strength and weakness

IN its first seminar of the year 2007, the Society of Petroleum Engineers (SPE) discussed the topic of geostatistical reservoir modeling. Ashley Francis, Managing Director of Earthworks, a geosciences service and consultancy company, tackled in his presentation entitled "Managing Uncertainty in the Reservoir Model" the recent advances in this modeling and its areas of weakness, through the discussion of the impact on volumes of scale-up from well logs to model cells and seismic, volumetric bias introduced by inappropriate application of cutoffs, poro-perm transform strategies resulting in permeability smoothing and gross rock volume uncertainty ignored by use of fixed deterministic horizons and fault positions.

Ashley Francis

Francis shed the light on the challenges confronting the generation of static reservoir models conditioned, via forward modeling, to the pre-stack seismic response in addition to the current conditioning to well and seismic horizon data.

Francis is a geophysicist and geostatistician with over than 20 years world-wide oil industry experience in exploration, development and production. He lectures in geostatistics to MSc Petroleum Geoscience students at Imperial College in London. Besides, he has been conducting industry training courses in geophysics, geostatistics and prospect evaluation since 1996.

Shell announces winners of Intilaaqah-Egypt awards

SHELL Egypt announced the five winners of the first Intilaaqah-Egypt Awards 2006 in a ceremony held to recognize the winners.

Intilaaqah Egypt is a youth enterprise programme championed and supported fully by Shell Egypt with the objective of promoting the spirit of free enterprise among young people and encourage them to consider self-employment as a viable career option.

"We are very pleased to be able to make this contribution to our host country. The Shell-sponsored Intilaaqah program has been offering training on business skills for youths for the last three years. It demonstrates Shell's commitment to building national capacities as part of its corporate social responsibility towards Egypt," said Mr. Zainul Rahim, Chairman of Shell Companies in Egypt.

Some 118 applicants participated in the competition, which had five main entries: Best Business, Best Business Idea, Best Business Plan, Best Promising business and Best Business from Non-Intilaaqah Graduates.

The winners are:

Best Business: Mohamed Ahmed & Khaled Diab (Manufacturing office furniture).
Best Business Idea: Samar Abdel Hakim (Manufacturing leather bags and purses).
Best Business Plan: Youssra Ahmed Hassan (Embroidery and hand-made products)
Best Promising business: Ramy Adel Abdel Monem (Packaging and distribution of chemicals).
Best Business (Non-Intilaaqah Graduates): Mohamed Ali Mahmoud (Manufacturing rabbit breeding batteries).

Intilaaqah Egypt is a Shell sponsored initiative based on the Shell LiveWIRE program. It is a non-profit program consisting of three main modules; offering high-quality training, advice, and support to young nationals who wish to start their own businesses.

The Program aims to support youth development and encourage young people to set up their own business and work for themselves. Intilaaqah-Egypt is developed to share successful business practices, which should develop small business owners so that their business can survive and grow. The Program specifically develops competence standards for young entrepreneurs.

Ministry of Petroleum promotions and transfers

BASED on the Ministry of Petroleum's strategy to increase its production capacities through the development of its human resources, the Minister of Petroleum Sameh Fahmy approved several promotions and transfers. The list of transfers and promotions included;

- Eng. Mohamed Adel Abdel-Hamid, president of Egypt Gas Company to be promoted to Vice President (VP) of Egyptian Natural Gas Holding Company (EGAS)
- Eng. Mostafa Kamal, president of United Gas Derivatives Company to be promoted to VP of Egyptian Natural Gas Holding Company (EGAS) for projects and planning
- Eng. Mahmoud Latif, president of General Petroleum Corp. (GPC) to be promoted to President of Badr El-Din Petroleum Company
- Eng. Ismail Mahgoub, president of Khalda Petroleum Company to be promoted to President of Agiba Petroleum Company
- Eng. Mostafa Ismail, president of SIANCO to be promoted to President of Egypt Gas Company
- Eng. Ibrahim Ahmed, vice president of Egyptian Natural Gas Holding Company (EGAS) for planning and projects to be promoted to President of United Gas Derivatives Company
- Eng. Reda Mostafa, president of Agiba Petroleum Company to be promoted to President of General Petroleum Corp. (GPC)
- Eng. Medhat Kamel, president of Qaroun Petroleum Company to be promoted to President of Magawish Petroleum Company
- Eng. Hassan Abdel-Moneim, president of Magawish Petroleum Company to be promoted to President of Qaroun Petroleum Company
- Eng. Sayed Salem, president of North Bahariyya Petroleum Company to be promoted to President of Khalda Petroleum Company
- Eng. Ali Mira, general manager of operations, Qantara Company to be promoted to President of North Bahariyya Petroleum Company
- Eng. Mohamed El-Bermawy, general manager of operations, Fanar Petroleum Company to be promoted to President of Al-Fanar Petroleum
- Eng. Emad Hamdy, assistant president of Al-Waha Company to be promoted to President of Al-Waha Company
- Eng. Medhat Badawi, general manager of operations, Al-Amal Company to be promoted to President of Al-Alamein Petroleum Company
- Eng. Mohamed Keroush, assistant president of SIANCO to be promoted to President of SIANCO
- Eng. Ahmed Mohieddin to be promoted to President of Safi Egypt Company
- Eng. Mansour Selim, general manager of shipment, Misr Petroleum to be promoted to President of Petroline (under construction)
- Eng. Mohamed Morsi Farahat, general manager of shipment, Co-op Petroleum Company to be promoted to VP of Petroline

The ministry has delegated new assistants and vice presidents;

- Eng. Mohamed Sami Salama to be promoted to VP of Egyptian Petrochemicals Holding Company (Echem)
- Eng. Mohamed Abdel-Moneim Gomaa to be promoted to VP of MIDOM Company
- Eng. Rakeya Mohamed Eissa to be promoted to assistant president of Nile Petroleum Industrial Company (NPICO)
- Eng. Mohamed El-Bassiouni to be promoted to assistant president of Agiba Petroleum Company
- Eng. Mohamed Abdel-Hafez to be promoted to assistant to president of Petrojet
- Eng. Mohamed Abdel-Rahman to be promoted to assistant president of Egypt Gas
- Eng. Fathi Attia to be promoted to assistant president of GASCO
- Eng. Tharwat Abu Shady to be promoted to assistant president of GUPCO
- Eng. Reda Mohamed Tag to be promoted to assistant president of GUPCO
- Eng. Ahmed Aboud to be promoted to assistant president of GUPCO
- Eng. Samir Mahmoud Abdel-Rahman to be promoted to assistant president of Cairo Petroleum Refining Company for engineering affairs
- Eng. Mohamed Saad Tantawy to be promoted to assistant president of Petrodara
- Eng. Mohamed Abdel-Kawi to be promoted to assistant president of Petrodara

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