# Creating Value Beyond Energy NEWS LETTER KNOC

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January, 2014

### Third Oil Discovery in the Hawler Block in Iraq



KNOC succeeded in discovering a third crude oil reserve in the Hawler block, located north of the Kurd region in Iraq. The daily production from this field reaches about 4,800 barrels.

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Continued Splendid Achievements in Overseas Oil Development



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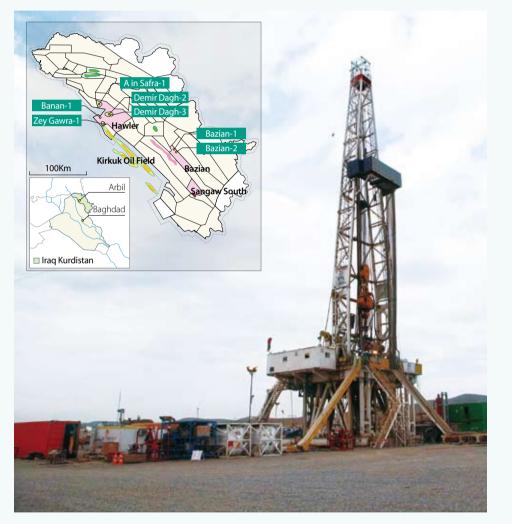


### **Continued Splendid Achievements in Overseas Oil Development**

It started drilling at Zey Gawra in April 2013 and reached a total depth of 4,398m that August. After that, an accumulated daily production volume of 4,800 barrels in light crude oil (API 35°), such as gasoline and kerosene, was found through a Drill Stem Test in October.

Prior to this, KNOC had first succeeded in discovering large scale crude oil reserves through the 1st exploration well of Demir Dagh-2 in the Hawler Block in March 2013, and the second discovery of crude oil was made at the 2nd exploration well of Ain Al Safra-1 in October. These achievements have heightened the company's expectation of accelerating the E&P business in Iraq.

We are planning to conduct an evaluation of the process and achievement of oil discoveries at the Dimir Dagh field and complete the construction of production facilities by the first half of 2014 in order to produce about 10 thousand barrels of crude oil a day in the early stages.



- Results of evaluation on oil reserves of the Demir Dagh field by the NSAI in Dallas, Texas
- A total of 550 million barrels of contingent resources including 250 million barrels of middle crude oil and 300 million barrels of light crude oil
- Succeeded in producing about 675 to 850 barrels of crude oil a day at Ain Al Safra field

#### **KNOC's Subsidiary Discovery of Crude** Oil and Gas in the North Sea



field of the North Sea.

### Import of Crude Oil Produced by **KNOC** to Korea



KNOC successfully supplied crude oil to domestic refiners produced by its own subsidiary("Dana Petroleum") abroad for the first time.

A total of 2 million barrels of crude oil were sold to GS Caltex, which included 300 thousand barrels of the crude, known

January, 2014

Dana Petroleum, one of KNOC's subsidiary companies, recently succeeded in discovering crude oil and gas in the Liberator

This field had been exclusively awarded to Dana Petroleum this year by the U.K. government. Dana Petroleum started drilling in October and completed such by reaching a total depth of 1,767m in November. Its self-evaluation result showed an estimate of approximately 10 to 15 million barrels of crude oil reserves.

Prior to this, Dana petroleum had discovered gas reservoirs in the Tolmount field in August and the Pharos field in November in the North Sea.

Dana petroleum owns 50% and 35% interest in the Tolmount and Pharos field, respectively. Dana petroleum is an independent oil development company that KNOC acquired in 2010.

This subsidiary is currently producing about 33 thousand barrels of crude oil per day, 66% of its total production volume, in the North Sea. In addition, a total of 20 E&P projects with direct operation rights and 35 ones with equity are managed by Dana petroleum.

as Forties, produced by KNOC's subsidiary. The Forties is a leading crude oil type in the North Sea region and holds similar characteristics to the high quality oil produced from the Middle East.

Proved to be economically feasible, it is expected to replace crude oil imported

from the Middle East. The significance of the first direct import of crude oil produced by KNOC's overseas blocks lies in that the company has not only confirmed the effectiveness of overseas resource development, but also established an alternative and potentially stable line of crude in case of an unexpected oil crisis or perils regarding the supply and demand of oil in the Middle East. It also laid the foundation for diversifying the supply line of crude oil, which previously the Middle East had been heavily relied upon.

Considering the condition of the international oil market and economic feasibility of imported oil, KNOC plans to actively promote more the direct imports of crude oil produced from abroad. In addition, if the company secures development and operation rights on large blocks in the Middle East, the direct import of crude oil through trading will be further accelerated.

### International Oil Events and Exhibitions



### **2013 ADIPEC**



KNOC participated in the 2013 ADIPEC\*, the largest oil and gas exhibition conference held in the Middle East, from November 10th through 13th.

ADIPEC was prepared to introduce all matters related to resource development from exploration to drilling and production, and celebrated its 16th anniversary this year. A total of more than 1,200 companies from 50 countries joined the conference and over 60 thousand people visited.

KNOC operated a Public Relations booth to promote its businesses including overseas E&P projects to visitors. Meanwhile, CEO Suh also attended the conference and met with the Iraqi Minister of Oil and ADNOC\* officials

\* ADIPEC : Abu Dhabi International Petroleum Exhibition and Conference \* ADNOC : Abu Dhabi National Oil Company

### **Meetings Held during the ADIPEC**

1. Meeting with the Director of ADNOC (November 10)

• Main agenda

- Discuss current status of exploration projects in UAE and wish successful drilling operations

2. Meeting with the CEO of SONATRACH (Algerian NOC) (November 10)

- Main agenda
- Amity meeting for successful contract renewal of international joint stockpile project in 2014
- \* Both companies have been Geoje under-ground storage base since 2005 to stockpile 4.6 million barrels of oil
- Hope to expand cooperative relationships for E&P projects and other businesses between two companies

3. Meeting with the CEO of Mubadala (November 10)

- Main agenda
- Deliberate on 3 projects proposed by Mubadala
- Create partnerships with Anadarko of the US for shale oil and gas business by utilizing strategic alliance between KNOC and Anadarko





Meeting with the Director of ADNOC



Meeting with the Iragi Minister of Oil

On November 28, KNOC and ADNOC held a 'Friendly Soccer Match' at the Suwon World Cup Stadium. On this day, KNOC's soccer club 'Black Dolphins' and ADNOC's soccer club 'Corniche' played 1 hour match in a friendly atmosphere and were tied at 2. ADNOC's soccer club has stayed in Korea for about a week from November 22. Also they visited KNOC's Ulsan office and took part in Korean culture in Gyeongju and Seoul during the period.

\* The 2nd 'Friendly Soccer Match' will be held February 2014 in Abu Dhabi.



Opening session of President Geun-hye Park



Greeting of CEO Suh



Meeting with the Canadian Minister of Natural Resources

### Success during the 2013 **WEC Daegu**

KNOC participated in the World Energy Congress (WEC), known as the "Energy Olympics". From the 13th through the 17th of October, more than 7,500 leaders in oil and gas related business fields, cabinet members of various countries and executives of various companies from over 120 countries gathered at the 22nd WEC held at EXCO in Daegu, Korea in order to discuss energy related issues.

For this event, 4 declarations were selected, including 'reinforcing energy security through establishing safe and trustable energy policies' and 'achieving energy equilibrium through developing network between advanced and developing nations', which presented the vision and policy directions to engage emerging global energy issues in international society. Additionally, most participants at the event agreed that it is necessary to find logical methods that use traditional and nontraditional energy sources to securely develop an energy supplying system.

CEO Suh also attended this event and had a busy schedule of meetings with energy related organizations and participations in forums. KNOC operated a booth to introduce its E&P and other businesses at home and abroad during the period.

## Major Meetings at the 2013 WEC Daegu





Meeting with the Turkish Deputy Minister for Energy & Natural Resources

1. Meeting with 4 Officials including Vice Minister of Turkey's Ministry of Energy and Natural Resource (October 14)

- Support for the 2017 WEC Turkey.
- Hope to create cooperation between KNOC and TPAO in jointly interested business in Irag
- Plan to review proposals when Turkey NOC proposes detailed business plans for long-term cooperation

\*TPAO: Türkiye Petrolleri Anonim Ortaklığı (the national oil and gas company of Turkey)

2. Meeting with 3 Officials including the Secretary of Energy of UAE (October 14)

- Announce future plans to participate in bidding of Abu Dhabi production blocks
- -Welcome the participation of KNOC and other Korean companies and plan to provide various support for KNOC's participation

3. Meeting with 3 Officials including the CEO of Woodside (October 14)

- Experienced Woodside's deep sea drilling

technology through a deep sea drilling project in 2012 and hope to successfully conduct a 3D seismic survey in 2014 through mutual assistance between two companies

- Canada

5. Meeting with the British Ambassador to the Republic of Korea (October 15) - Review the performance and strategy of Dana Petroleum's E&P business and deliberate future investments



Meeting with the UAE Minister of Energy

- Plan to cooperate in overseas joint projects

- 4. Meeting with 8 Officials including the Minister of Natural Resources of Canada and Vice President of Encana (October 15)
- Review business status of Harvest in Canada, a subsidiary of KNOC
- Hope to cooperate in businesses based on both nations' partnerships
- -Vitalize investments in E&P projects in

- Review joint businesses with Encana for non-traditional resource development such as shale gas in Alberta



Meeting with the CEO of JAPEX

6. Meeting with 3 Officials including the CEO of JAPEX (October 15)

- Discuss methods to cooperate in gas hydrates business
- Cooperate in overseas E&P business such as entering Europe and Irag where both companies are interested
- Determine to continue mutual cooperation by holding forums and technology workshops

7. Meeting with 3 Officials including the CEO of TransCanada (October 15)

- Review current status of the pipeline project in Alberta, Canada
- Discuss methods to cooperate between Harvest and TransCanada.



Meeting with the British Ambassador to Korea

#### MOU Signed for Cooperation on Oil **Development with Pertamina**



KNOC signed an MOU for cooperation on oil development with the Indonesian national oil company Pertamina on November 11 when CEO Suh visited Indonesia as a part of President Geun-hye Park's economic delegation.

This MOU was designed to take the previous MOU signed on May 2012 for the cooperation of the oil development business to a higher level. It was a turning point from comprehensive cooperation to a more detailed business cooperation. The main issues of this MOU included a joint feasibility analysis on a basin within the Indonesian area and an implementation of joint research and investigation through workshops.

### Accelerate North Asia Oil Hub Project



KNOC together with Vopak, the world's biggest tank terminal service company, and S-OIL held the JVA-P (Joint Venture Agreement-Principles) signing ceremony

for establishing a joint venture to manage Northeast Asia oil hub project on October 16 at EXCO, Daegu. The JVA-P includes governance of the joint venture and the

#### Meeting with the Uzbekistan Ambassador to Korea



On November 21, CEO Suh met with newly appointed Uzbekistan ambassador Alisher Anvarovich Kurmanov at the headquarters and discussed the status of KNOC's businesses in Uzbekistan. He introduced business plans to explore the West Ferfhana and Chinabad fields where the company was preparing the acquisition of additional 2D seismic wave data and the selection of drilling sites. He also showed a sincere hope to expand mutual cooperation and investments in new businesses by facilitating both countries' strategic partnership.

roles of participating companies. Additionally, they agreed to put joint efforts into basic planning and marketing for the success of this project.

On November 12, a policy forum to invigorate oil trading for Northeast Asia oil hub project was conducted by KNOC at the National Assembly. Major topics of the forum included constructing distribution infrastructure, improving systems, and building foundations for financial supports for Northeast Asia oil hub project.

On November 27, the ground breaking ceremony for Northeast Asia oil hub project was held at the Ulsan New Port complex, in which President Geun-hye Park participated and showed high interest in this project.

#### **Establishment of the Management Reform Committee**

In accordance with the determination of strongest management reform since the founding, KNOC established the Management Reform Committee on December 16. This committee will lead the rationalization of management system and the improvement of its financial structure. CEO Suh chairs the committee and has expressed strong urgency for management reform. This committee is composed of 4 subcommittees to take charge of debt management, asset rationalization, management innovation, and technological independence. With this as momentum, KNOC will not only focus on preparing foundations for organic growth by promoting management innovation and selecting 45 core technologies, but also put continuous effort to improve its business system.



#### 2013 Energy & Mineral Resource **Development Symposium**



The Energy & Mineral Resource Development Association of Korea (EMRD) held the 2013 Energy & Mineral Resource Development Symposium at the Seoul JW Marriott hotel on December 4. The theme of the symposium was "New Growth in Overseas Resource Development and Innovation and Creation through Cooperation and Co-prosperity." Newly appointed IAEE\* president, president

for a new leap." Economics

of Mckenzie and more than 400 related personnel in the resource development industry and academia participated in the symposium. It has been held every year since 2008 and has become the place for foreign and domestic resource development experts and personnel to exchange the latest information. In his opening speech, CEO Suh, who is also the president of the EMRD, said "Major Asian countries are accelerating overseas resource development today. With the pride of being in the frontline of overseas resource development, we have to prepare

\* IAEE: International Association for Energy

#### 6th Korea-Africa Industry **Cooperation Forum**



CEO Suh participated in the '6th Korea-Africa Industry Cooperation Forum' for supporting Korean companies to enter African plant and infrastructure markets which was held at Jamsil Lotte Hotel on October 17.

The forum was attended by over 300 officials including Vice Minister of Ministry of Trade, Industry & Energy the Minister of Oil Energy and Water Resource of Gabon, 13 African countries' ministers and public institution representatives, and domestic companies.

#### **Technical Trainees from Oil-Producing Companies Visit Yeosu Office**



On November 12, all 13 technical trainees from 7 oil producing countries including Oman and Yemen visited KNOC's Yeosu office. They are engineers with oil-producing countries' energy related government organizations or national oil companies. They took a tour of Yeosu stockpile base and benchmarked Korea's leading stockpile base maintenance technology.

#### **Actively Fulfilling Shared Growth**

KNOC attended a fundraising agreement ceremony for supporting public-private joint investments in technology development held at the Seoul Palace Hotel on November 20. This agreement ceremony was mutually arranged by the government and large companies to raise R&D support funds of KRW 166 billion (about USD 16.6 million) for the purpose of improving SMEs' global competitiveness and promoting technical cooperation between large companies and SMEs. Through this agreement, KNOC will start a project to develop equipment for measuring sludge shapes from stockpile base together with the government and SMEs.

#### **Voluntary Medical Service**

On October 30, KNOC and Hallym University Medical Center carried out joint-medical services for 70 people living near the Yongin office, who are in particular neglected those such as senior citizens who live alone. The medical service team preformed basic medical consulting and examinations such as bloodsugar tests, blood pressure tests, body-fat analysis, bone density scans, and ECGs. Also, the company signed the 2nd voluntary medical service agreement with Sam Medical Center in Anyang on November 6. According to the agreement, both organizations plan to perform medical examinations and consulting services for people in need living near KNOC's headquarters and other offices.





#### **Education and Scholarship Support**

KNOC offered a scholarship of KRW 20 million to Ulsan Technical High School on October 30. Since establishing a sisterhood relationship with Ulsan technical high school in November 2006, the company has supported a total of KRW 160 million in scholarships to maintain close ties with local communities in Ulsan before the relocation of KNOC's headquarters in 2014. Furthermore, on October 17, our Kazakhstan office and the local Korean association donated US \$1,000 to an orphanage in Talgar district. The donation will be used to purchase coats, hats, sporting goods and other items for the children living in the orphanage.

#### Awards

#### • Prime Minister's Citation in the SMB Product Procurement and Promotion Contest 2013



On October 31, KNOC received the Prime Minister's Citation in the 'SMB Product Procurement and Promotion Contest 2013' organized by Small and Medium Business Association (SMBA). The 13th contest was held to award public companies and men of merit who showed excellent performance in fostering the market for SMB products. KNOC was awarded for increasing its SMB products procurement rate (from 60.9% in 2011 to 72.5% in 2012) through developing various SMB support systems such as additional points for SMB and benefit sharing in services.

#### • Minister's Citation for Energy Saving

KNOC was awarded the Minister's Citation in the 'Energy Saving Promotion Contest' hosted by the Ministry of Trade, Industry and Energy on November 29. It was the result of KNOC's intensive energy saving efforts this summer by practicing flexible working hours and allowing a relaxation of the dress code.

#### Promoting Love and Happiness with Neighbors

#### • Kimchi-making Events

Our Yongin office donated 53 sacks of rice and 50 boxes of kimchi to the local community center during an event for making kimchi and purchasing local products on November 15. There was also another kimchi-making event in Yongsomak Village, Gangwon-do, where the company has a sisterhood relationship. In Anyang, over 40 employees including our vice president participated in an event to make 800 heads of kimchi to be delivered to underprivileged people in the local area such as senior citizens who live alone and households of children without parents. All of these events allowed us to share in the meaning of our vision to become a company that creates value beyond energy.

#### Briquette Sharing Events

As the part of 'Sunshine Business' to support people in need, 26 volunteering teams from headquarters donated a total of 20,400 briquettes to 51 energy poor households (400 briquettes each) and low-income families in Anyang. Our Donghae office also delivered briquettes to local 27 households in need. Also, they supplied heating fuels and helped to replace briquette boilers for energy poor classes on November 16.

On November 23, 17 employees of the Guri office and 13 local volunteers got together and delivered briquettes to 10 households and also gave donations for kerosene and briquettes to energy poor classes.

#### • Hosted a Festival to unite together with Multicultural Families



On November 26, KNOC hosted a festival at the head office for uniting with multicultural families from Vietnam, Uzbekistan, and Indonesia that were living in Anyang. This was the 6th festival since 2008, in which more than 200 members of multicultural families and major figures including our Vice President and Mayor of Anyang participated. All participants enjoyed each country's traditional cultural performances, Korean fusion traditional music and other cultural contents. Prior to the main event, counseling services on local culture and legal matters were provided to help them gain information to stably settle in Korea.

#### • House Repair Volunteering Team Received a Commendation

KNOC's house repair volunteering team received a commendation from Anyang City in recognition of contributing to the development of local communities on December 2. This team has been proactive in repairing houses of people in need and gathering donations for them.

#### • Selected as the 'Excellent Fire Safety Facility in 2013'

Our Ulsan Gas Production Office was nominated as the 'Excellent Fire Safety Facility in 2013' by the National Emergency Management Agency (NEMA) and won the NEMA Administrator's Award on December 3. This competition is hosted to advance safety management and promote self-safety management by the NEMA. Our Ulsan Gas Production Office received an high score on the evaluation and led to the award.



## CREATING OIL FROM NOTHING

KNOC has been creating boundless possibilities from scratch through 34 years of unwavering effort and can-do spirit. The energy that we generate today is the energy of hope.

RNOC



Contributing to the happiness of the people through oil stockpiling projects! We secure around 132 million barrels of

reserve oil in nine stockpile bases nationwide.

RNOC



Ulsan

A 200 2013 20 20

Korea is an

• World's 95th oil producer • Successfully developed the Donghae-1 gas field in Ulsan in 2004 • Produces 9,055 barrels of oil a day

oil-producing country.

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#### **Creating Value beyond Energy**

Donghae-1 Gas Field

'Creating value beyond energy' is KNOC's new vision that embodies its commitment to reaching closer to the people by achieving growth for the bright future of Korea and the happiness of its people.