

# EXPLORE TOMORROW KNOC



Apr.-Jun. 2014  
**Vol.018**

## Oil Discovered at Area 1, UAE



KNOC and its consortium with GS Energy and Abu Dhabi National Oil Company (ADNOC) hit an oil bed on its first appraisal well (Haliba-3) of the Area 1 Block out of its three exploration blocks in the United Arab Emirates. Having completed test drilling from December 2013 to April 2014, Haliba-3 successfully pumped 10,000 bpd of crude oil in a drill stem test in May 2014.

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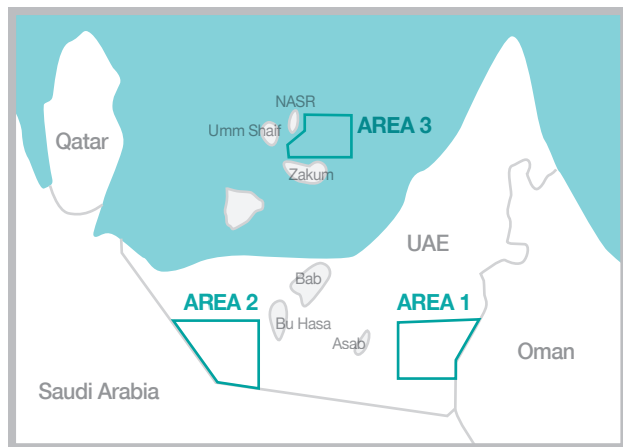
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## Oil Discovered at Area 1, UAE



This event marks the first successful commercial discovery of crude oil production since KNOC won an oil concession in the UAE in 2012. The consortium has plans for a reserve evaluation and development master plan by the end of the year and is embarking on the full-scale development of the field after declaring its commercial discovery in the beginning of 2015, with the aim of first commercial production by 2017.

The three blocks in UAE consist of two onshore blocks, Area 1 and 2, and one offshore block, Area 3, where ADNOC claims 60 percent interest and KNOC and GS Energy hold a 40 percent interest through the Korean Consortium.

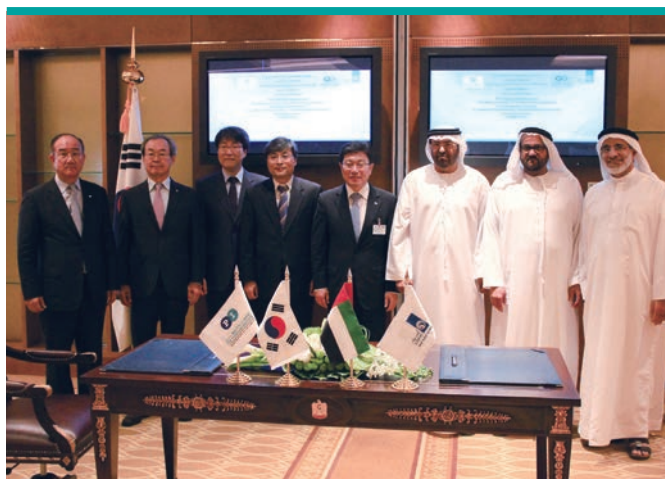
The Korean Consortium signed the main contract with ADNOC on the oil field development project in March 2012. The oil concession duration is 30 years, from March 2012 until March 2042.

## Korea-UAE Join Hands to Foster Future Leaders in the Oil and Gas Industry

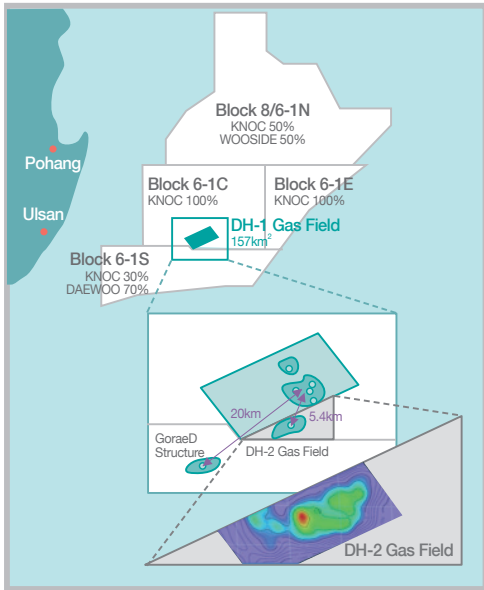
**KNOC and ADNOC signed a memorandum of understanding (MOU) in Abu Dhabi on May 20, 2014 to jointly develop experts in the oil and gas industries.**

In the presence of Korean President Park Geun-hye during her state visit to the UAE, Korean Minister of Trade, Industry and Energy Yoon Sang-jik and KNOC President & CEO Suh Moon-kyu (CEO Suh) signed a separate agreement on the development of human resources with Korea's Seoul National University and the Petroleum Institute of Abu Dhabi.

The agreements were a follow-up to an MOU on energy cooperation signed by Sheikh Mohammed bin Zayed Al Nahyan, the crown prince of Abu Dhabi, on February 28, during his visit to Seoul. Under the agreement, the two signatory universities will offer courses and exchange programs for students from both countries. The two schools will also operate internship programs and help find jobs for Korean students who have graduated from the UAE institute.



# KNOC Sells Gas Produced from its Donghae-2 Gas Field to KOGAS



On June 30, 2014, KNOC signed an agreement at its head office building with KOGAS to sell all the natural gas produced from its Donghae-2 gas field. Under the agreement KNOC is developing the gas field with the aim of providing a total of 20.9 billion cubic meters (worth USD 370 million) starting from July 2016.

KNOC discovered the gas bed under the Donghae-2 gas field during continental shelf exploration in 2005, ensuring 22.3Bcf of gas and 185,000 barrels of condensate. In the future, the company plans to make use of the gas production facilities on Donghae-1 gas field to develop the Donghae-2 gas field, which will reduce the development project period to two years.

## Donghae-2 Gas Field Overview

**Location :** 5.4 kilometers southwest from the Donghae-1 gas field offshore platform (offshore and under the 142 meter deep Donghae Ulleung basin 63 kilometers east of Ulsan)

**Ownership :** KNOC 100%

**Reserves :** 22.3Bcf of gas and 185,000 barrels of condensate

## MOU on the Development of the Southern Part of Block 6-1

KNOC concluded a letter of intent with Daewoo International Corporation on sharing the production facilities of Donghae-1 gas field at the head office building of KNOC on April 16, 2014. The decision came in a bid to ensure the efficient and economical development of the southern part of Block 6-1(6-1S), which is located on a continental shelf under the east sea of the Korean peninsula.

The two companies expect more economical and efficient development on the gas field through the agreement. They also expect synergies between KNOC's production operational knowledge and Daewoo International's oil & gas development

technologies to further reinforce national competencies in the oil & gas development industries.

As soon as the appraisal well drilling calculates the exact reserves by the end of the year, they will commence the reserve evaluation and development of the Gorae-D gas field, where a gas bed was hit upon, which will be followed by additional exploration for the discovery of a larger gas field.

At the moment, Daewoo International claims a 70 percent stake in the Block 6-1S, with KNOC holding the remaining 30 percent interest.



## Korea-Japan Strategic Cooperation Meeting for Oil Stockpiling



A strategic cooperation meeting for oil stockpiling between Korea and Japan was held at the KNOC head office building on May 29, 2014. KNOC's Petroleum Stockpile Dept. head, Park Sung-ho, and his counterpart from Japan Oil, Gas and Metals National Corp. (JOGMEC) Nozomi Sagara, met in the sixth working-level meeting since the Bilateral Strategic Alliance Agreement (SAA) was signed in 2007.

The main topics were the current status of bilateral oil stockpiling and targets as well as pending issues. The participants also shared information on the safety management system at the stockpiling facilities. Furthermore, both parties agreed upon expanding collaboration beyond joint oil stockpiling into development and information sharing.

## Northeast Asian Oil Hub Symposium

On June 17, 2014, KNOC held the Northeast Asian Oil Hub symposium on the topic of "Reinforcing Oil Security by Developing the Northeast Asian Oil Hub" at the Westin Chosun Hotel in Seoul.

KNOC Oil Hub Project Director Hwang Sang-cheol and President of Ulsan Port Authority (UPA) Park Chong-rok were invited as speakers, briefing people on the current progress of the national project of establishing a Northeast Asian Oil Hub in Ulsan and Yeosu. International lecturers from around the world who also attended the symposium included experts from organizations related to energy, finance, ports, and logistics. This included the Netherlands' Port of Rotterdam Authority, the Washington-based Energy Policy Research Foundation, London's Argus, the International Commodity Exchange in Europe, and Japan's Institute of Energy Economics.

The participating speakers and lecturers had in-depth discussions and brainstorming sessions on ways for mutual cooperation to establish an international hub for oil trading within the area. They took into consideration various conditions for establishing an oil hub, such as oil storage tanks and port infrastructure as well as regulatory and red tape issues and financial infrastructure.





## Yeosu Oil Storage Facility Use Contract Reviewed



Officials from the Ministry of Trade, Industry, and Energy (MOTIE) visited KNOC's Yeosu Office on April 16, 2014 to check the terms and conditions of the contract between KNOC and GS Caltex on the use of KNOC's oil stockpile facilities.

Director General for Energy Industries Chae Hee-bong and the manager of the oil industry department, Kang Kyung-sung, checked the restoration from the January oil leakage at the pier of GS Caltex in Yeosu and the operational status of the oil stockpile facilities there.

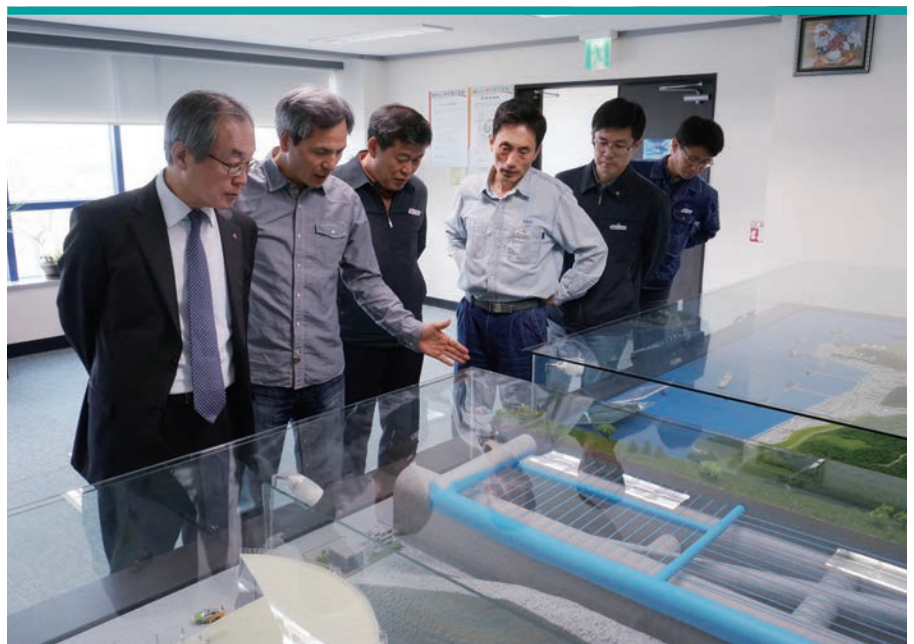


## Air-tight Safety Control on Oil Stockpile Facilities

KNOC CEO Suh paid a visit to the Pyeongtaek Office on May 2, 2014 to check on the safety control of the oil stockpile facilities. During his visit, CEO Suh reiterated air-tight control of safety risks through practical and systematic drills in ordinary times.

Deputy Minister of MOTIE Han Jin-hyun also paid an unexpected visit to the Pyeongtaek Office on May 6, emphasizing the internalization of safety check routines and appropriate initial responses in the event of accidents.

Prior to these two visits, KNOC's Executive Vice President for Petroleum Stockpile Group, Shin Kang-hyun, visited the Yongin Office without advance notice, checking the safety control of the storage facilities and emphasized preventive measures in times of peace.





### 2014 Korea Creative Economy CEO Grand Prize Winner

KNOC CEO Suh received the Grand Prize in the global management category at the 2014 Korea Creative Economy CEO Grand Prize Winner Awards, which was held in the Sapphire Ballroom Hall at Lotte Hotel in Seoul on June 26, 2014. At the 2014 awards, 16 CEOs from different businesses and industries were awarded for their contribution to promoting creative management practices. The Grand Prize in the global management category went to CEO Suh in recognition of the success of KNOC's E&P projects with the Iraqi Hawler block and the Eagle Ford Shale gas E&P project.

### Meeting with Kurdistan Prime Minister of Iraq

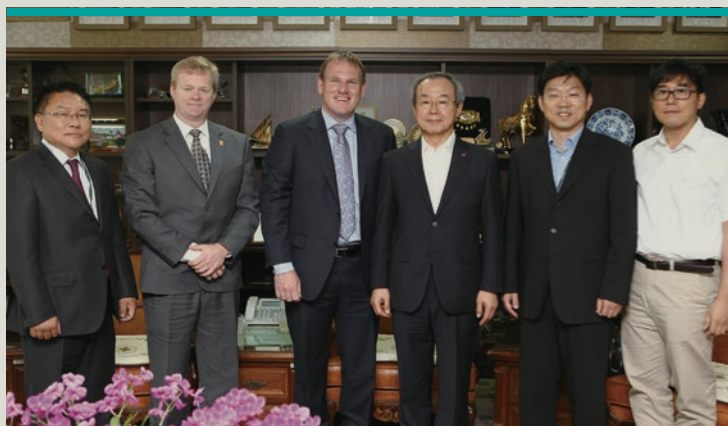
KNOC CEO Suh met Prime Minister Barzani at the premier's official residence in Iraq on April 2, 2014. At the meeting, the KNOC CEO talked about the commercial discovery at the Hawler Block in Iraq to the Kurdistan premier and discussed SOC-related subjects, such as acquiring additional stakes in the exploration blocks.

During the following days of his visit to Iraq, Suh visited the Hawler Block and attended the commercial discovery announcement ceremony at the Hawler Block along with executives from the operator Oryx and politicians from the Kurdish autonomous regional government.



### Meeting with the Minister of the Energy Department of Nova Scotia, Canada

KNOC CEO Suh received the Minister of the Energy Department from Nova Scotia, Canada, Andrew Younger, and others at the KNOC head office building on May 29. The two parties discussed international bidding for new offshore blocks and exploration projects.







## Participation in the NOC Forum

The 8<sup>th</sup> National Oil Company Forum (NOC Forum) was hosted by Ecopetrol, the Colombian national oil company, at the Hotel Santa Clara Cartagena on April 5 and 6, 2014.

Director & Senior Executive Vice president Kim Jung-hyeon represented KNOC building networks with NOC representatives from around the world and exchanged information on the energy industry during the forum, which featured three programs: Transformations in the Energy Landscape, Relationship with Communities, Environment and Government & The Future of the NOC in the Emerging Environment.



## 2014 Petroleum Industry Seminar

The KNOC Oil Research & Information Center (Vice President: Jung Hoe-hwan) hosted the 2014 Petroleum Industry Seminar, which invited 200 industrial insiders from the private sector and NGOs, including fee-based subscribers to Petronet, the World Petroleum Council's Korea Commission and the Energy & Mineral Resources Development Association of Korea (EMRD) on May 22, 2014.

Experts were invited to give presentations and lectures on international oil market trends and current issues regarding the North Korean oil industry and inter-Korean cooperation as well as the shale gas boom in North America.

Encouraged by the success of this latest seminar, KNOC plans to further develop the seminar as a venue for information exchange among oil industrial insiders.

## KNOC-Pertamina Joint Workshop on Oil Development

Presided over by Chief of Institute for Exploration & Production Technology Choi Byeong-goo, KNOC held a joint workshop with Pertamina, Indonesia's national oil company, at its head office building on April 28, 2014 for technology and personnel exchanges and sharing information on new business opportunities.

Consisting of Pertamina's Director for Business Development Department and technology assessment advisor, Pertamina's delegation to the workshop met with staff from KNOC's Strategic & Planning Dept., Strategic Resources Dept. and Business Development Dept. to discuss joint research and new business opportunities, while also participating in a workshop for bilateral growth strategies and technology.

The workshop was a follow-up on the MOU between the two parties for petroleum development cooperation and personnel exchange signed in October 2013. The main topics were sharing opportunities for projects of common interests, a technology session for further examination of Kalimantan, Papua and other prospective areas in Indonesia, as well as technology and personnel exchanges for the reinforcement of bilateral competencies in exploration, development and production of oil fields.





### KNOC-Oryx Oil Development Technology Workshop

In commemoration of its 35<sup>th</sup> anniversary and the commercial discovery at the Hawler Block in Iraqi Kurdistan, KNOC co-hosted an oil development technology workshop with Oryx, a Swiss energy company, at the EMRD office building on May 30, 2014.

Following the declaration of the commercial discovery at the Hawler Block in April, KNOC held a workshop to share its successful exploration technology that has been applied to the block and their plan for production that is now in the early stages. Technology exchanges among oil experts for the efficient operation of the Kurdish blocks were also held. In addition, the company released its Kurdish exploration and development plans.

### 2014 Petroleum Engineer's Workshop

KNOC held the 2014 Petroleum Engineer's Workshop at its head office from May 21<sup>st</sup> to 23<sup>rd</sup>, 2014.

Celebrating its 35<sup>th</sup> anniversary, KNOC hosted the workshop to share its best practices of the technological application of its E&P projects and foster personnel and technological exchange between KNOC and its subsidiaries for higher efficiency in the operation of its production blocks. Participants shared their operational knowledge of overseas operations and discussed various topics related to unconventional projects, such as the booming shale gas and gas hydrate projects.

Employees at GTRC, Savia Peru and HOC attended the workshop at the KNOC head office building to exchange technologies with KNOC and its subsidiaries, giving presentations and discussing success stories of production optimization and unconventional resource development technologies.







## Doosung's 30<sup>th</sup> Anniversary

KNOC held the 30<sup>th</sup> anniversary ceremony for Doosung, Korea's only semi-submersible rig, at the South Port of Busan on June 26, 2014. In his congratulatory speech, KNOC Chief of Institute for Exploration & Production Technology Choi Byeong-goo paid homage to the 30 years of service of KNOC's rig technicians and their outstanding accomplishments in the offshore rigging industry. He also asked employees to do their utmost in spearheading national resource development projects with their safe rigging performance at the world's leading rig.

Built in 1984, Doosung has drilled 24 blocks in Korea over the past 30 years. In July 1998, it successfully drilled Korea's first gas field, Donghae-1, making the country the world's 95<sup>th</sup> ranked oil producer. Internationally, it has drilled 117 wells in total. Doosung has earned the nickname "Lucky Rig" as it has hit oil/gas beds in a number of wells it has drilled. In 2013, it ranked third place in the rig safety and performance evaluation by Shell. Leveraging on this stellar rigging performance, it has also signed a contract for a three-year project with Russia's state-owned gas company Gazprom. In the future, Doosung will continue to outperform its competitors at home and abroad.



## Korea Green Energy Festival 2014

KNOC participated in the Korea Green Energy Festival 2014, which was held in Ulsan, Yeosu and Gangneung to promote the oil industry's pavilion for three weeks from June 11, 2014. The event provided local children in three cities with opportunities to learn about energy and to experience the process of power generation.

Organized by MOTIE, the festival celebrated its 10<sup>th</sup> anniversary to promote younger people's understanding of energy industry and policies. Exhibitions were held in Ulsan from June 11 to 14, Yeosu from June 18 to 21, and Gangneung from June 26 to 29. KNOC introduced the oil industry, oil E&P and stockpiling projects as well as the general business areas of the company at the oil industry pavilion. A total of 10 energy-related companies, including KOGAS and KEPCO, participated in the festival to promote the energy industry to the public.



## Social Responsibility

### Youth Scholarships

Presided over by KNOC Executive Vice President for Administration Group Lee Jae-woong, KNOC held the 7<sup>th</sup> ceremony at its headquarters on April 18, 2014, awarding scholarship certificates as part of its commitment to broadening the technological personnel base for oil development and fostering future engineers.

The headquarters and nine branch offices nationwide selected one student showing high potential in engineering and science from 77 high schools in 10 cities where they are located to deliver an annual commitment of USD 1 thousand to each student until they graduate from high school.



Youth Scholarships

### Donation to the Community

On April 14, The KNOC Executive Vice President for Petroleum Stockpile Group, Shin Kang-hyeon, visited the Education Office of Ulsan Innovation City to donate USD 24 thousand for the development of sister schools in the city. In the run-up to its relocation of the head office building to Ulsan, KNOC made the donation as a gesture of community engagement and a commitment to developing local human resources. Since an agreement was signed in April 2012 with the Ulsan Education Office on academic donation, the company has delivered a total of USD 87 thousand of its commitment for the development of local schools over the past three years, contributing to the educational infrastructure of the city.

On May 7, 2014, The KNOC Executive Vice President for Petroleum Stockpile Group, Shin visited the Jung-gu District Office in Ulsan City to deliver its USD 20 thousand donation for the lower income people and welfare facilities in the district. The donation was relayed to 50 low-income households, seven welfare facilities for the disabled and eight of those for children in Jung-gu district.



Donation to the Community

### Extending Help to Underhanded Farming Villages

On May 24, 33 employees from the Seosan Office (General Manager: Lee Jong-jin) went to 12 farmhouses in the company's sister village in Seosan, where they helped sowing seeds along with other volunteers from related organizations. The Seosan Office extends assistance to underhanded farming villages every year as part of its community engagement programs.



Extending Help to Underhanded Farming Villages

### Gardening Downtown Roads

On May 31, 2014, 24 employees from KNOC's Yongin Office (General Manager: Ahn Young-mo) volunteered to garden flowerbeds on the riverside of Kyungan stream along with 50 volunteers from sister villages and the Kyungan stream Revitalization Move. Volunteers planted 2,000 cosmos plants on the one-kilometer bike road on both sides of the river before picking up litter around the Kyungan stream. The KNOC Yongin Office has been dedicated to cleaning up the environment and improving water quality of the Kyungan stream under an agreement it signed with the Kyungan stream Revitalization Move in March 2008.



Gardening Downtown Roads



## Donation of Classrooms to Vietnamese Elementary Schools

KNOC's Vietnam Office (General Manager & Managing Director: Kang Bok-il) built eight classrooms for Dai Hoa Loc Elementary School and donated the buildings at a ceremony held in the school in Ben Tre Province, its sister school in Vietnam, on April 15, 2014. Spanning a nine-month construction period, the project helped KNOC carry out its social contribution activities outside the country.

## Mutual Growth Meeting with SME Suppliers

On June 24, 2014, KNOC invited 20 representatives from its outstanding suppliers to discuss ways to promote mutual understanding and mutually beneficial relationships. At the meeting, grievances and suggestions were made for eradicating unfair transactions or practices as well as ways for mutually beneficial growth, while also sharing KNOC's vision and strategies.

KNOC CEO Suh reiterated the significance of its mutual growth initiative with SME (small and medium business) suppliers for the sustainable growth of KNOC and pledged KNOC's proactive role and efforts to establish win-win relationships in the energy and source development industry. He also asked all participants to eradicate unfair transactions and practices, while supporting SME suppliers' sales network expansion.

Earlier in the morning on the same date, all KNOC employees attended a lecture by the secretary general of the Mutual Growth Commission, Kim Jong-kuk, on the subject of "Human Relationships among People and Win-Win Partnerships among Businesses."

Donation of Classrooms to Vietnamese Elementary Schools



Mutual Growth Meeting with SME Suppliers

## HSE 2014 1<sup>st</sup> Half Fire Drill

KNOC held a fire and disaster evacuation drill as part of its 2014 1<sup>st</sup> half fire drill plans at its head office building on April 29, 2014. The entire workforce participated in the one-hour drill, learning evacuation plans in the event of a disaster, their respective roles as self-protection firefighters and the case-by-case actual practices.

On June 2, 2014, KNOC's Vice President of Emergency Planning Dept., Shin Jae-sik, gave a 20-minute lecture on the subject of Fire Prevention and Countermeasures, instructing people on how to quickly respond in the event of a fire, and reiterated the importance of safety control in ordinary times.

On June 12, 2014, KNOC's Seosan Office ran a joint fire drill in preparation for disasters

along with local related organizations, including the Seosan fire station, Hyundai Oil Bank and Samsung Total. The joint drill was to establish a close cooperation network between the public and private sectors for minimizing damages in the event of any accidents within the area through such countermeasures as lifesaving, firefighting and facility restoration.

On June 20, 2014, KNOC conducted a fire evacuation drill for the 394<sup>th</sup> Civil Defense Training Day. Upon the alarming sounding from the National Emergency Management Agency, all KNOC employees evacuated the office building and learned how to use fire extinguishers, how to deal with storm and flood damages, and how to do CPR (Cardio Pulmonary Resuscitation).







Our thoughts and prayers are with all the Sewol ferry victims' families.



# Turning Possibility into Reality

KNOC products natural gas & oil in the 'Donghae-1'  
the first commercial gas field in Korea.

We have nine oil stockpile facilities across Korea  
with combined capacity of 146 million barrels of oil.

Keenly aware of our responsibility for  
national future energy needs,  
we take full advantage of even  
the slightest energy possibility to  
bring out its full potential.



## "Creating Value Beyond Energy"

'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.

