

Presentation at CCOP-EPPM in 2011

Petroleum Database System of Korea

by

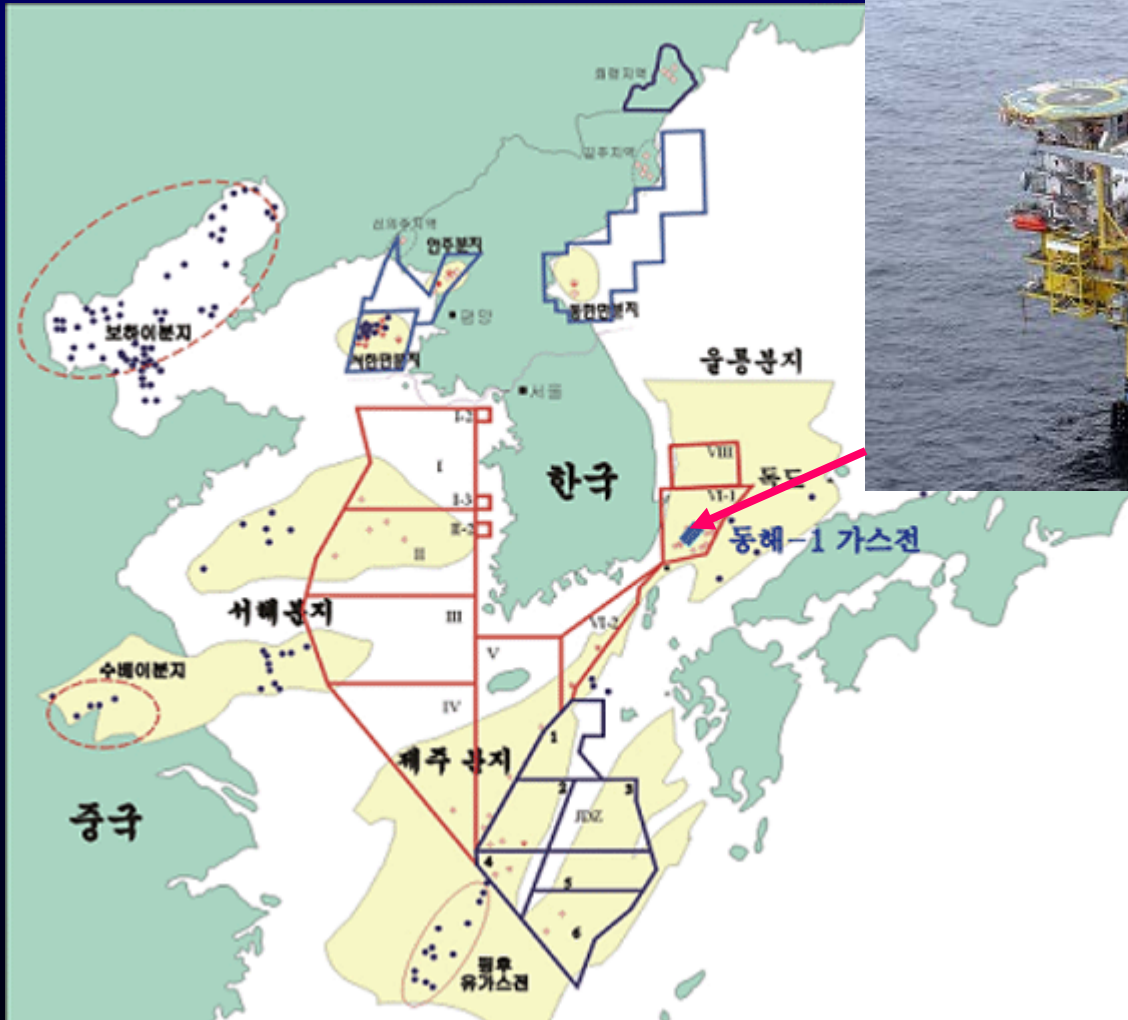
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from

Korea Institute of Geoscience and
Mineral Resources (KIGAM)



OFFSHORE BLOCKS



**GAS PRODUCTION
SINCE 2004
OFFSHORE SE KOREA**

50 mcf a day,
expecting
production
period: 15 years

Current Status of Petroleum Activity in Offshore Korea

- Additional exploration around the production area in Block VI-1.
- Exploration also goes to deep sea area, Block VIII.
- Development of Gas hydrate in Ulleung Basin.

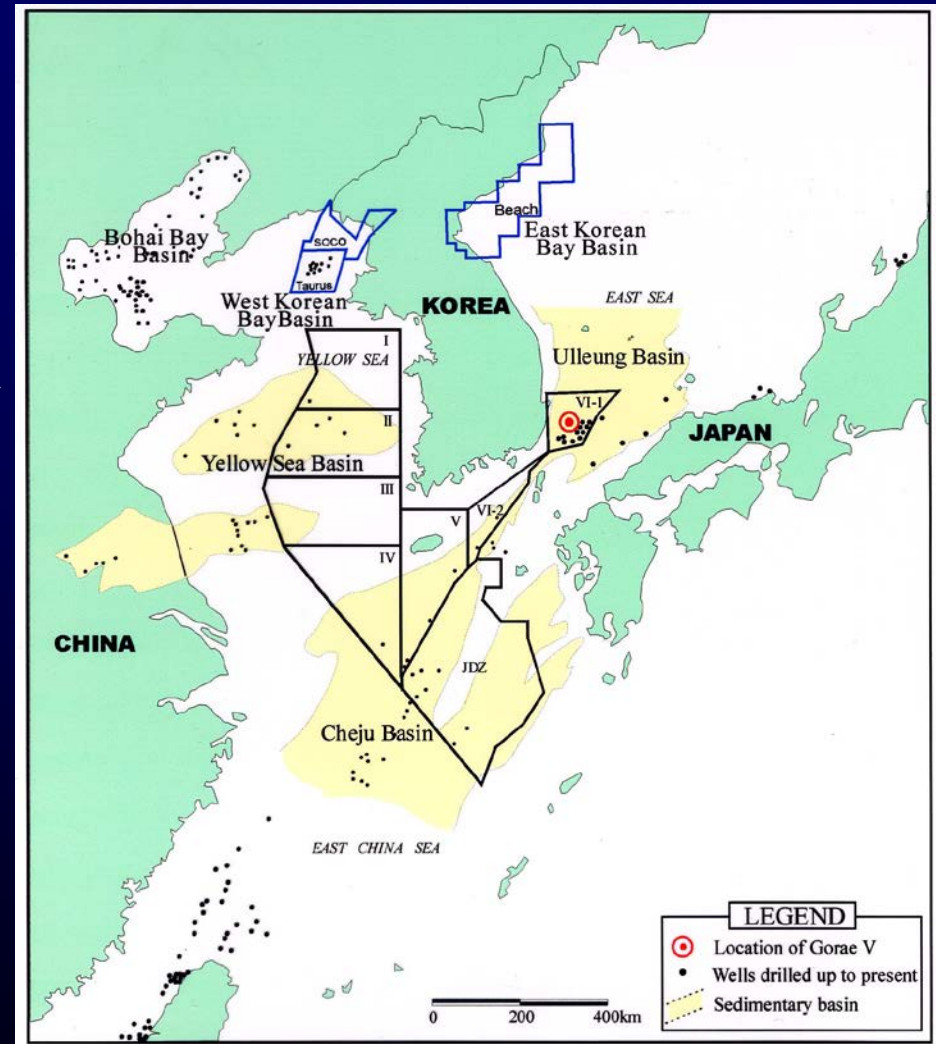


Current Status (by December 2009)

| Block Location | Block Name | Block Area (km ²) | Seismic (L-km) | Number of Wells |
|-----------------|---------------|-------------------------------|----------------|-----------------|
| Western blocks | Block 1 | 36,460 | 8,520 | 1 |
| | Block 2 | 39,433 | 35,468 | 4 |
| | Block 2-2 | 422 | - | 1 |
| | Block 3 | 41,427 | 8,193 | - |
| | Total | 117,742 | 8,193 | 6 |
| Southern blocks | Block 4 | 42,449 | 12,781 | 1 |
| | Block 5 | 42,390 | 11,995 | 4 |
| | Block 6-2 | 11,688 | 12,786 | 3 |
| | Total | 96,527 | 37,562 | 7 |
| Eastern blocks | Block 6-1 | 12,918 | 135,296 | 23 |
| | Block 8 | 8,481 | 5,107 | - |
| | Total | 21,399 | 135,296 | - |
| JZD region | All JDZ zones | 82,558 | 54,840 | 7 |
| Others | East and west | - | 2,585 | - |
| TOTAL | | 318,225 | 282,464 | 44 |

Background of Construction of the Database System

- Offshore petroleum survey since 1970s
- 44 wells drilled, but most of them dry wells
- Commercial production of gas in 2004 from small scaled reservoir, -50 mcf a day, expecting production period: 15 years
- Exploration over 30 years, but no Petroleum DB
- Scattered Petroleum Data in different organization (KNOC, KIGAM, KORDI)
- Government asked KIGAM in 2006 to make a database system



Location Map

NATIONAL PETROLEUM DATABASE Completion of Prototype in 2009

The screenshot displays the PetroDB web/GIS interface. The browser address bar shows "http://www.petrodb.net - PetroDB - Microsoft Internet Explorer". The page title is "Petr DB 국내석유자원정보 GIS". The interface includes a search bar with "경도" and "위도" input fields, a toolbar with navigation tools like "전체", "이동", "확대", "축소", "이전", "이후", "정보", "범위정보", "지우개", "거리", "면적", and "인쇄", and a scale bar showing "속적 1: 10023080.418". The main map area shows the Korean peninsula with various oil and gas fields labeled, including HAEMA-1, KACHI-1, UG-1X, INGA-1, Gurae I-2, Dolgurae I, Gurae I, Gurae V, Dum1-1, Dragon-1, KV-1, and NIKKAN 8-1X. The left sidebar contains a "Layers" panel with a tree view of data layers such as "광권구역", "지질정보", "시추정보", and "탄성파자료".

◆ Web/GIS
Based
System

Web-based GIS of PetoDB

INFORMATION ATTRIBUTE-SUBJECT

http://www.petrodb.net - # - Microsoft Internet Explorer


Petr DB 검색
국내석유자원정보 GIS

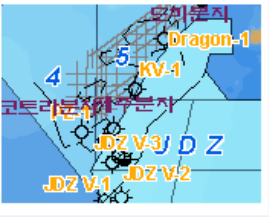
통합검색 **주제검색** 상세검색

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| <table border="1"> <tr><td>광구명</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>JDZ</td></tr> </table> | 광구명 | 4 | 5 | JDZ | <table border="1"> <tr><td>시추공명</td></tr> <tr><td>SORA-1</td></tr> <tr><td>DOMI-1</td></tr> <tr><td>JDZ V-1</td></tr> <tr><td>JDZ V-2</td></tr> <tr><td>JDZ V-3</td></tr> </table> | 시추공명 | SORA-1 | DOMI-1 | JDZ V-1 | JDZ V-2 | JDZ V-3 | <table border="1"> <tr><td>제주분지</td></tr> <tr><td>분지명</td></tr> <tr><td>제주분지</td></tr> </table> | 제주분지 | 분지명 | 제주분지 | <table border="1"> <tr><td>답시명</td></tr> <tr><td>05AQ</td></tr> <tr><td>06AQ</td></tr> <tr><td>07AQ2</td></tr> <tr><td>08AQ</td></tr> </table> | 답시명 | 05AQ | 06AQ | 07AQ2 | 08AQ |
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| DOMI-1 | | | | | | | | | | | | | | | | | | | | | |
| JDZ V-1 | | | | | | | | | | | | | | | | | | | | | |
| JDZ V-2 | | | | | | | | | | | | | | | | | | | | | |
| JDZ V-3 | | | | | | | | | | | | | | | | | | | | | |
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| 08AQ | | | | | | | | | | | | | | | | | | | | | |

분지

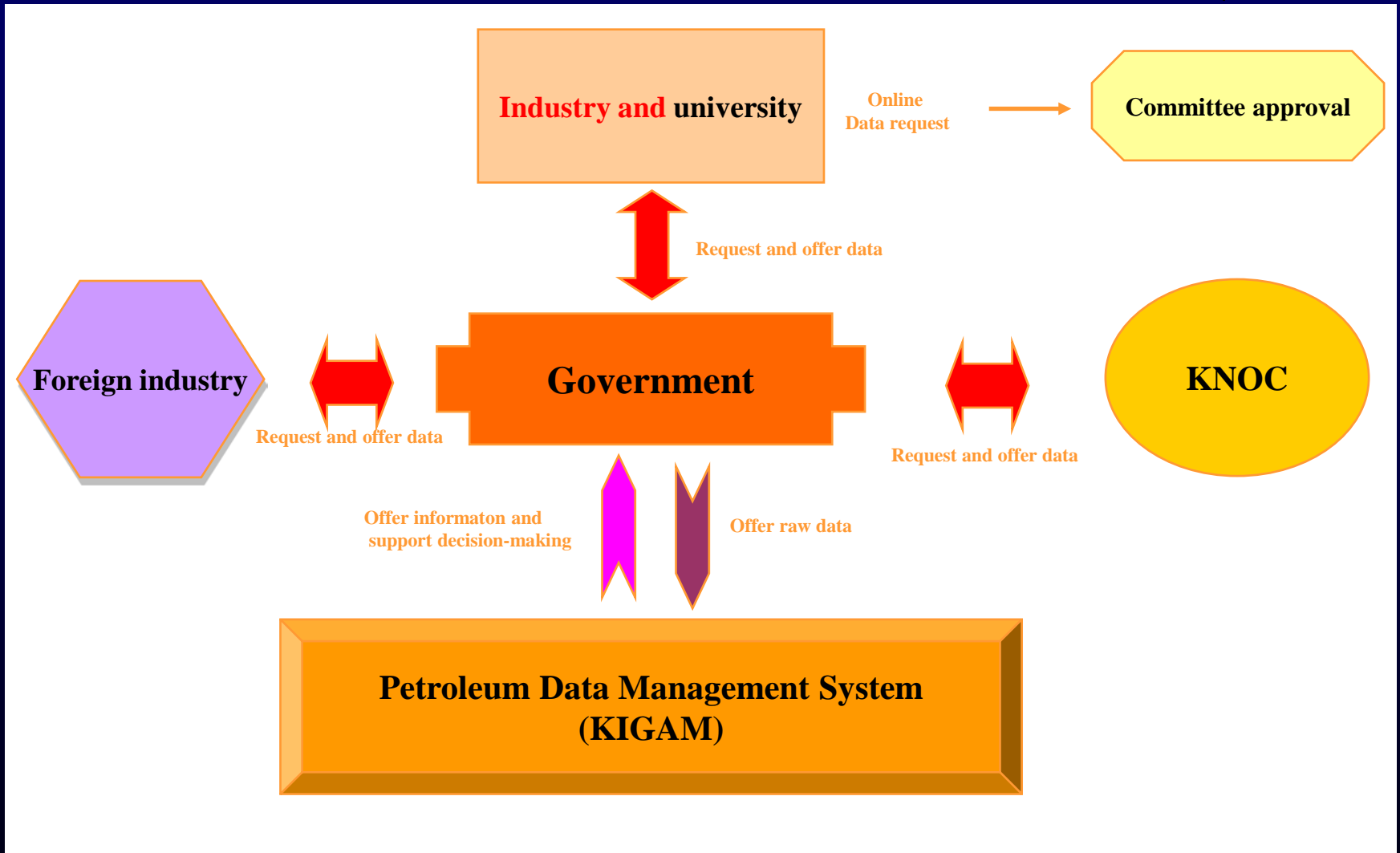
| | | | |
|-----------------|---|-----------------|-----------------------------|
| 분지명 | 제주분지 | 분지유형 | |
| 지리적위치 | 동지나해 대륙붕 분지의 북동부에 위치한 소분지 (Northeastern subbasin(East China Sea Shelf Basin)) | 면적 | |
| 분지구조 | 지구 혹은 반지구 (Graben or half-graben) | 광역지구조 | 후열도 구조운동 (Backarc tectonic) |
| 퇴적층두께 | | 퇴적층시기_최대 | late |
| 퇴적층연령_최대 | Cretaceous | 퇴적층시기_최소 | |
| 퇴적층연령_최소 | Paleogene | 기반암 암상 | |

 GIS지도



완료 인터넷

MANAGEMENT OF DATABASE SYSTEM





WORKS IN PROGRESS

- Begin to collect seismic and well data from KNOC as well as KIGAM, and input the data to the database system
- Make a system restricting users
- But, no metadata system for data distribution and information exchange.

Should learn from the CCOP metadata, So, I am here today.

◆ *THANK YOU*

◆ *FOR ATTENTION !!*

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