

CCOP-DANIDA
Institutional Capacity Building Project ICB-CCOP1
1st Qingdao Meeting on
Yinggehai – Song Hong Basin Case Study
28-29 August, 2006, Qingdao, China

Report on proceedings and discussions at the Meeting

Date and Venue:

The meeting was held on 28-29 August, 2006, at Xindong Hotel, in Qingdao, China.
Address: 22 Fuzhounan Road, Qingdao, China
Tel: 86-0532-85777888.

Local Organizer: Qingdao Institute of Marine Geology

Participants:

Ten (10) geoscientists from two (2) CCOP Member Countries: China and Vietnam attended the meeting.

The represented agencies/institutes were:

- ❖ Qingdao Institute of Marine Geology (CGS, Qingdao), China
- ❖ Guangzhou Marine Geological Survey (CGS, Guangzhou), China
- ❖ China National Offshore Oil Corporation (CNOOC), China
- ❖ Vietnam Petroleum Institute (VPI), Vietnam
- ❖ CCOP TS

The total participants of the meeting are twelve (12), detailed name list of participants is attached as Annex 1.

Program:

The detailed program of the meeting is provided as Annex 2.

Background and Purpose of the Meeting:

This meeting is organized as suggested in the ICB-CCOP1 Project Bangkok meeting. All the maps of basin scale study of the Yinggehai-Song Hong case study will be merged, correlated and finished during this meeting. They will establish the final cooperation work plan focusing

especially on the petroleum system analysis and play assessment of the joint case study.

The following tasks were set up for the meeting:

1. Present maps together
2. Merge and correlate the maps
3. Discuss the outline of the report
4. Setup the final work plan

Record of the Proceedings and Discussions at the Meeting:

Mr. Lu Jing, Director of Geological Survey Department, Qingdao Institute of Marine Geology gave his welcome speech on behalf of the local organizer, Qingdao Marine Geology Survey. Mr. Lu Jing delivered his sincere welcome to the participants coming from outside Qingdao. In his speech, he reviewed the cooperation history between CCOP and Qingdao Institute of Marine Geology. During the last two decades, under the CCOP umbrella, their institute has been involved in lots of activities in collaboration with Canada, USA and the Netherlands etc. He said the institute would like to continually support the CCOP activities as it has been, especially the ICB-CCOP1 Project. He believed that the ICB-CCOP1 Project was not only to share the geoscientific knowledge but also to develop the friendship between the case study partners. Finally, he expressed his best wish for the success of the meeting and participants a pleasant stay in Qingdao (Annex3 Mr. Lu Jing's speech).

In the following, Mr. Liu Liqun, Project Coordinator, the ICB-CCOP1 Project, gave his brief opening address. He extended a warm welcome to all participants and expressed the deep appreciation to the local organizer's support for holding this meeting in Qingdao. Then, he briefed the task of the meeting.

After the opening ceremony, the meeting continued with a presentation of Dr. Nguyen The Hung, the research team member from Vietnam Petroleum Institute. Dr. Hung presented the 21 maps that have been finished since Bangkok meeting on 10 August 2006. He also raised some main issues of the case study, as followed:

1. Study on the distribution of oil and gas in the east and west slopes of Yinggehai- Song Hong Basin. The central depression of Yinggehai- Song Hong Basin develops huge thick Cenozoic sediments, the slopes are the most favorable potential targets; it is also necessary for us to learn from the oil and gas exploration experiences of pre-Cenozoic basement.
2. Study on the oil and gas distribution, oil and gas pools-forming models and exploitation technology under the conditions of high temperature and high pressure. The central depression of the Yinggehai-Song Hong Basin is a high temperature and high-pressure mud diapir zone, the interpretation of internal reflection and corresponding hydrocarbon potential evaluation method are yet to be studied.
3. Study on the reservoir evaluation. The reservoirs where drilling wells met are mainly muddy

siltstones, showing big exploration risk from reservoirs that are related with diagenesis under high temperature and high-pressure. Therefore, reservoir distribution and sedimentary facies need to be carefully researched.

4. Study on the CO₂ distribution. The CO₂ content is high in the Yinggehai-Song Hong Basin. At present, we do not know how to detect the CO₂ distribution by geophysical methods and how to explore and make use of CO₂.

Subsequently, all the research team members from China and Vietnam discussed on the map merging. Both parties finished all the requested structure maps in time and depth domain, then they correlated the maps as well as the interpretation of selected three cross-sections, stratigraphic column, gravity map and sea floor map together.

During the afternoon session of the meeting, the participants continued the discussion together continually. The report outline and work plan of the Yinggehai-Song Hong case study were carried out through the discussion (Annex 4). The work tasks for the final outputs were allocated (Annex 5).


Qingdao meeting was successful due to the common efforts from the Chinese and Vietnamese partner agencies. Their hard work and effort are highly appreciated. The local organizer, Qingdao Institute of Marine Geology, is deservedly praised for their generous contribution to host this meeting and shoulder the expenditure of local transportation, welcome and farewell dinner, meeting package and excursion.

The success of the ICB-CCOP1 Project Qingdao meeting showed that the valuable cooperation spirit established between Chinese and Vietnamese partners through the former ICB activities. The joint case study not only provides a platform for sharing scientific knowledge and experience but also offers a channel for developing friendships and promoting partnerships. So the ICB-CCOP1 Project will facilitate the regional cooperation in hydrocarbon resources regime through the implementation.





Annex 1

**CCOP-DANIDA Institutional Capacity Building Project ICB-CCOP1
Yinggehai-Song Hong Basin Case Study Qingdao Meeting
28-29 August 2006, Qingdao, China**


DISTINGUISHED GUESTS

NAME	POSITION / ADDRESS
1) MR. LU JING 	Director Geological Survey Department Qingdao Institute of Marine Geology 62 Fuzhou Rd. Qingdao, Shandong, 266071, China Tel: 86-0532-85776406, Fax: 86-0532-85720553

NAMELIST OF PARTICIPANTS

NAME	POSITION / ADDRESS
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2) DR. WANG LIAOLIANG(OWN COST) 	Deputy Director Guangzhou Marine Geological Survey, CGS No.188, Guanghai Rd., Huangpu district, Guangzhou, China Tel: +86-20-82251626, Fax: +86-20-87765102 E-mail: liaoliangwang@163.com
3) MR. ZHANG YONG(OWN COST) 	Engineer Qingdao Institute of Marine Geology 62 Fuzhou Rd. Qingdao, Shandong, 266071, China Tel: 86-13396393260, Fax: 86-0532-85720553 E-mail: Robot_Zhang@263.net
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NAME	POSITION / ADDRESS
5) MR. HUANG YIWEN (OWN COST) 	Senior Geologist Technical Department CNOOC Ltd.(Zhanjiang) Zhanjiang, Guangdong, P.R. China Tel: 86-759-3901793, Fax: 86-759-3910300 E-mail: huangyw@cnooc.com.cn
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VIETNAM	
9) DR. NGUYAN TRONG TIN 	Vice Director of VPI E-mail: tinnt@vpihn.pv.com.vn Vietnam Petroleum Institute Trungkinh, Yenhoa, Caugiay, Hanoi, Vietnam, Tel: 84-4-7843061 Fax: 84-4-7844156
10) DR. NGUYEN THE HUNG 	Expert on Seismic and Geophysical Data Interpretation E-mail: hungnt@vpihn.pv.com.vn Vietnam Petroleum Institute Trungkinh, Yenhoa, Caugiay, Hanoi, Vietnam, Tel: 84-4-7843061 Fax: 84-4-7844156

NAME	POSITION / ADDRESS
CCOP TECHNICAL SECRETARIAT	
<p>1) MR. LIU LIQUN</p> 	<p>ICB-CCOP1 Project Coordinator E-mail: liu@ccop.or.th CCOP Technical Secretariat 24th Floor, Room 244-245, Thai CC Tower 889, Sathorn Tai Road, Sathorn, Bangkok, 10120 THAILAND Tel: (66-2) 672 3080 to 81, Fax: (66-2) 672 3082 Website: www.ccop.or.th</p>

Annex 2

CCOP-DANIDA Institutional Capacity Building Project ICB-CCOP1

Yinggehai-Song Hong Basin Case Study Meeting

28-29 August 2006, Qingdao, China

Program

Day 1: 27 August

Traveling to China

Arrival of Participants / Check-in Hotel

Day 2: 28 August

08:30 Registration in Xindong Hotel

CCOP TS

09:00 Welcome speech, address and remark by

Mr. Lu Jing, Director of Geological Survey Department,
Qingdao Institute of Marine Geology

Mr. Liu Liquan, Project Coordinator ICB-CCOP1 Project, CCOP TS

09:30 Group Photo

09:45 Coffee/Tea break

10:00 Discussion, Correlating and amending on the Gravity Map, Structure Map,
and Isopach Map **(All these maps should be well prepared before the meeting)**

12:00 Lunch Break

14:00 Discussion, Correlating and Building the Common Stratigraphic Column and
Establishing Standard Geological Cross-section Based on the Two Selected
Joint Seismic Cross-section AA' and CC' **(These two cross-section should be
brought to the meeting with accomplished interpretation in agreed scale)**

Discussion on Compiling the Previous Basin Scale Study Report, Setup the
Time Schedule for Report Submitted.

15:00 Coffee/Tea break

15:15 Setup Detailed Work Plan for Basin Modeling and Allocated the Works in
Detail with Accomplish Deadline

17:00 Minutes and Summary of the Meeting

18:30 End of afternoon session

18:30 Welcome Dinner **(Sponsored by Qingdao Institute of Marine Geology)**

Day 3: 29 August

Fieldtrip in Qingdao **(Sponsored by Qingdao Institute of Marine Geology)**

18:00 Farewell Dinner **(Sponsored by Qingdao Institute of Marine Geology)**

Day 4: 30 August

Check out of hotel, flight back to home

Annex 3

**WELCOME SPEECH BY DIRECTOR OF GEOLOGICAL SURVEY
DEPARTMENT
QINGDAO INSTITUTE OF MARINE GEOLOGY
*MR. LU JING***

**At the Opening Ceremony of the CCOP-DANIDA Institutional Capacity
Building Project ICB-CCOP1
Yinggehai-Song Hong Basin Case Study Meeting
28 August 2006
The Xindong Hotel, Qingdao, China.**

Good morning, Colleagues and friends:

On behalf of Qingdao Institute of Marine Geology, first of all, I would like to express our warm welcome to our guests from Vietnam, China and CCOP. Today we are gathering here for Yinggehai-Song Hong Basin Case Study of Institutional Capacity Building Project which is supported by CCOP and DANIDA. We are very glad that we have a research team working for this case study. Our institute has very good connection with CCOP and has been involved in several projects funded by CCOP, such as the OGRM, WGRA projects, etc. Prof. He Qixiang, former Director of our institute worked for CCOP as a regional expert for 8 years. Under the CCOP umbrella, we cooperated with Canada, America, the Netherlands in many fields and benefit from these activities.

This is the first time for us to work with our Vietnam friends directly as partner. We are very happy to make new friends. I know the research teams from both sides are working very hard on this project; you have meetings, workshops in China, in Vietnam, in Thailand, you also organized field trips in both countries. I appreciate all your effort. I believe you will get the fruitful research results.

Being the local host organizer, our institute will fully support this activity. We would like to take this opportunity not only to learn more about geology, but also to make friends. I can see you have already become good friends after more than one-year cooperation. I hope we can keep the friendship and strengthen it. I hope we have more cooperative projects in the future to work together, of course funded by CCOP.

Finally, I wish you a pleasant meeting with very good result, and wish our guests enjoy the stay in Qingdao.

Annex 4

OUTLINE OF THE YINGGEHAI-SONG HONG BASIN JOINT CASE STUDY

1. Basin Overview
 - 1.1 Basin Type
 - 1.2 Exploration History
 - 1.3 Production Status

2. Regional Geology
 - 2.1 Stratigraphy and Sedimentary Sequence
 - 2.2 Structure
 - 2.3 Tectonic evolution

(For 1 and 2 will be finished by the end of October, 2006)

3. Petroleum System Analysis
 - 3.1 Source Rocks
 - 3.1.1 Generation
 - 3.1.2 Maturation
 - 3.1.3 Migration
 - 3.2 Reservoir
 - 3.3 Seals
 - 3.4 Traps
 - 3.5 Timing
 - 3.6 Basin Modeling
 - 3.6.1 Modeling Method
 - 3.6.2 Parameter Preparation
 - 3.6.3 Modeling Results

4. Play Fairway
 - 4.1 Play Types
 - 4.2 Play Assessment
 - 4.3 Hydrocarbon Potential

5. Conclusion
 - E&P Strategy

(The report will be finished by the end of May, 2007)

Annex 5

**Minutes of the CCOP-DANIDA
Institutional Capacity Building Project ICB-CCOP1
Yinggehai-Song Hong Basin Case Study Meeting
28-29 August 2006**

Task Allocation of Yinggehai-Song Hong Basin Joint Study

1. SEISMIC BASE MAP

Dr. Cai Feng: delete the other base map from Vietnamese side and national borderline, and add the selected line name from Chinese side.

2. SEA FLOOR MAP

Dr. Cai Feng will finish and send back to Dr. Hung for recheck

3. SH2 – TIME (Top Pliocene)

Dr. Cai Feng will finish and send back to Dr. Hung for recheck

4. SH2 – DEPTH (Top Pliocene)

Dr. Cai Feng will finish and send back to Dr. Hung for recheck

5. SH3 – TIME (Top Miocene)

Dr. Cai Feng will finish and send back to Dr. Hung for recheck

6. SH3 – DEPTH (Top Miocene)

Dr. Cai Feng will finish and send back to Dr. Hung for recheck

7. SH4 – TIME (Top Mid-Miocene)

Dr. Cai Feng will finish and send back to Dr. Hung for recheck

8. SH4 – DEPTH (Top Mid- Miocene)

Dr. Cai Feng will finish and send back to Dr. Hung for recheck

9. SB MAP (Basement Map)

Finished

10. SH4-SH3 ISOPACH

Dr. Cai Feng will finish and send back to Dr. Hung for recheck

11. SH3-SH2 ISOPACH

Dr. Cai Feng will finish and send back to Dr. Hung for recheck

12. STRATIGRAPHY COLUMN

Dr. Wang Liaoliang will finish the final editing and send to Dr. Hung for final

rechecking.

13. TIME-DEPTH CURVE

Finished

14. SEISMIC LINE AA', LINE BB', CC'

Dr Cai Feng will scan Chinese side seismic cross-section in JPG file and made CD.

Dr Hung will scan Vietnamese side seismic cross-section in JPG file and made CD.

The CDs from both of China and Vietnam will be exchanged during ICB-CCOP1 Beijing Training on 11, September.

15. TWO SELECTED GEOLOGICAL CROSS SECTION AA' AND CC'

Dr. Hung will finish and send back to Dr. Cai Feng for recheck

All above mentioned tasks should be finished before 10 September, 2006.



**INSTITUTIONAL CAPACITY BUILDING IN CCOP COUNTRIES,
PHASE 1 (ICB-CCOPI)**



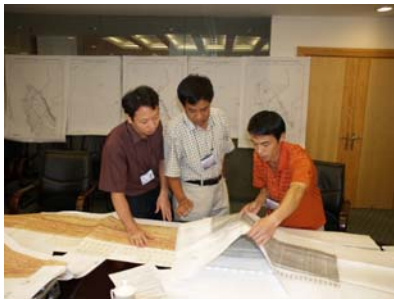
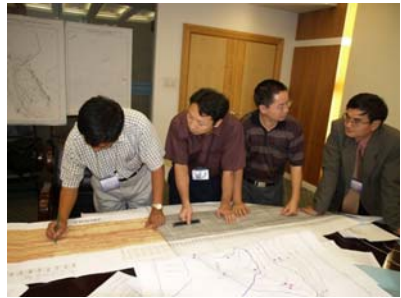
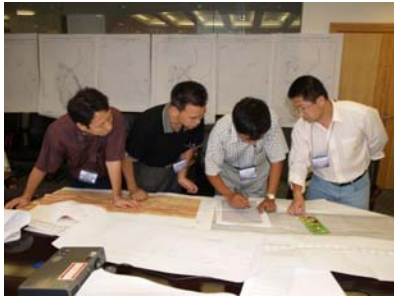
Group photo of all the ICB-CCOPI Qingdao Meeting participants



The opening ceremony of the meeting was held at Xin Dong Hotel on 28th August, 2006.



Discussion and merging the maps



Welcome dinner sponsored by local host

