

## LETTER OF INTENT

Between the

**CHINA GEOLOGICAL SURVEY OF THE MINISTRY OF  
LAND AND RESOURCES, PEOPLE'S REPUBLIC OF CHINA**

and the

**EARTH SCIENCES SECTOR,  
DEPARTMENT OF NATURAL RESOURCES CANADA**

for

**COOPERATION IN THE FIELD OF EARTH SCIENCES**

### Intention of the Participants

The China Geological Survey of the Ministry of Land and Resources, People's Republic of China (hereinafter referred to as "CGS") and the Earth Sciences Sector, Department of Natural Resources Canada (hereinafter referred to as "ESS"), desiring to improve cooperation in the field of earth sciences, hereby agree to:

- 1- Assess previous agreements signed between the CGS and the Geological Survey of Canada, ESS, dated February 13, 2001 and subsequent Letter of Intent and project annex signed on March 15, 2002 and October 12, 2002, respectively;
- 2- Identify specific projects of mutual interest to support sustainable development in areas such as environmental geology, natural hazards, groundwater assessment, gas hydrates and/or resource evaluation.
- 3- A progress report on the development of these specific project proposals and the assessment of past agreements will be jointly developed by both parties and be provided to the signatories by June 30, 2005.
- 4- Once this is accomplished, both parties will develop the framework necessary to guide our future collaboration.

### Validity

This Letter of Intent will remain in effect until November 1<sup>st</sup>, 2005 unless terminated by either Participant.

### Signature

This Letter of Intent is signed at Beijing on the 18th day of November 2004 in English and Chinese. Both texts are equally authentic.

For:  
China Geological Survey  
Ministry of Land and Resources  
People's Republic of China

For:  
Earth Sciences Sector  
Department of Natural Resources  
Canada

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Meng Xianlai  
Director General

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Dr. Irwin Irzkovitch  
Assistant Deputy Minister

MEMORANDUM OF UNDERSTANDING

BETWEEN

THE CHINA GEOLOGICAL SURVEY  
OF THE  
MINISTRY OF LAND AND RESOURCES  
OF THE  
PEOPLE'S REPUBLIC OF CHINA  
(hereinafter called "CGS")

AND

THE GEOLOGICAL SURVEY OF CANADA  
OF THE MINISTRY OF  
NATURAL RESOURCES CANADA  
(hereinafter called the "GSC")

FOR

COOPERATION IN THE GEOSCIENCES

# MEMORANDUM OF UNDERSTANDING

BETWEEN

THE CHINA GEOLOGICAL SURVEY OF THE  
MINISTRY OF LAND AND RESOURCES  
OF THE PEOPLE'S REPUBLIC OF CHINA  
(hereinafter called "CGS")

AND

THE GEOLOGICAL SURVEY OF CANADA  
OF THE MINISTRY OF  
NATURAL RESOURCES CANADA  
(hereinafter called the "GSC")

FOR

## COOPERATION IN THE GEOSCIENCES

The China Geological Survey and the Geological Survey of Canada (hereinafter referred to as the Participants) desiring to cooperate in joint investigations and exchanges in the fields of geosciences have agreed as follows:

### **Article 1: Objectives**

The Participants will benefit by cooperation and the exchange of information, scientific and technical personnel and through joint studies and research of subjects of mutual interest. The Participants agree to conduct activities in the fields of geoscience on the basis of equality, reciprocity and mutual benefit.

### **Article 2: Forms of Cooperation**

Cooperative activities under this Memorandum of Understanding (MOU) are subject to the availability of the resources and personnel of the Participants. Exchanges and cooperation may be conducted in the following forms:

1. Exchanges of scientific and technical information;
2. Exchange of study visits and scientists;
3. Collaboration on individual research activities; training of scientists through participation in collaborative projects of mutual benefit;
4. Joint organization of symposia, conferences workshops and lectures; and
5. Other forms of cooperation as may be mutually agreed between the Participants.

### **Article 3: Areas of Cooperation**

Subjects initially identified as having potential for cooperation include, but are not limited to, the following activities:

#### **1. Basic Scientific Research**

- 1.1 The nature and origin of mineral deposits;
- 1.2 Stratigraphic correlation and standards;
- 1.3 The generation migration and accumulation of petroleum;
- 1.4 Geotectonics and deep structure of the continents;

## **2. Mineral Resources**

- 2.1 Assessment of regional mineral resources and database;
- 2.2 Mineral and energy resources assessment methods;
- 2.3 Mineral resources management and environment protection.

## **3. Mineral Exploration Method and Technology**

- 3.1 Systematic geological, geophysical and geochemical mapping;
- 3.2 Marine geology and marine geophysics.

## **4. Geological Hazards**

- 4.1 Investigations and evaluation of geological hazards;
- 4.2 Monitoring and prevention of geological hazards.
- 4.3 Evaluation of environmental effects.

## **5. Geographic Information Systems (GIS)**

- 5.1 Application of the GIS in Geoscience;
- 5.2 Resources data standard and database.

## **6. Other areas of cooperation of mutual interest to the Participants.**

Specific cooperative projects conducted under this MOU will commence after the agreement and signature by both Participants of implementing arrangements (work plans) that are to be included as a project annex (see Project Annexes) to this MOU.

### **Article 4: Review of Activities**

The Participants will have meetings as required, with the prior agreement of both participants, to discuss progress under this MOU. The date and location of these meetings that will be held alternately in China and Canada, will be jointly decided through consultation between the Participants. All information relating to the conduct of such meetings will be exchanged in advance.

### **Article 5: Governing Law**

The joint scientific cooperative activities will be conducted in accordance with the applicable laws, statutes and regulations of the People's Republic of China and Canada.

### **Article 6: Sources of Funding**

In accordance with the principle of equality and reciprocity, each party will cover its own costs in carrying out cooperative projects, unless specific financing becomes available for selected projects of mutual interests. The terms of the funding will be established by the Participants in the signed implementing arrangements before the commencement of each activity.

### **Article 7: Confidentiality of Information**

The scientific and technical results of cooperative projects conducted under this Memorandum of Understanding will be shared and published or held confidential in accordance with any specific terms agreed upon by both Participants in the implementing arrangements for an individual project.

### **Article 8 Economic Cooperation**

On the basis of scientific cooperation, the development of potential economic and scientific projects will be encouraged.

### Article 9 Project Annexes / Other Participants

Under the terms of this Memorandum of Understanding, technical, financial and all other details, including questions of intellectual property, for all projects shall be included in a written and signed implementing arrangement between the Participants and work will proceed in accordance with these signed work plans or project annexes. Signed work plans or project annexes will be appended to the Memorandum of Understanding and considered a permanent part of the record. Any activities beyond this MOU will be described in the annex and be part of the MOU. If one Participant requests cooperation beyond the capacity of the other Participant, by mutual agreement the Participants may try to involve other organizations in the activities pursuant to this Memorandum of Understanding.

### Article 10 Period of Validity and Termination

This Memorandum of Understanding shall come into force upon signature by both Participants and shall remain in force for three (3) years and can be extended by mutual agreement. This MOU can be terminated by either Participant upon ninety (90) days written notice to the other Participant. After the termination of the Memorandum of Understanding, all the cooperative projects underway will continue to completion according to the original, signed implementing arrangement.

The undersigned have signed this Memorandum of Understanding in two copies in the English, French and Chinese languages, all versions being equally authentic.

Done at Beijing this 20 day of February, 2001.

For:  
China Geological Survey  
Ministry of Land and Resources,  
People's Republic of China

For:  
Geological Survey of Canada,  
Department of Natural Resources,  
Canada

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Mrs. Shou Jiahua  
Vice-Minister  
Ministry of Land and Resources,  
People's Republic of China

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Dr. Peter Harrison  
Deputy Minister  
Department of Natural Resources,  
Canada