MEMORANDUM OF UNDERSTANDING

This memorandum of understanding (MOU) is entered into on this 9th day of September, 1997 by and between the Ministry of Petroleum & Natural Gas and the Ministry of Coal, having their offices at Shastri Bhawan, Dr. Rajendra Prasad Marg, New Delhi-110 001, for arrangement and procedures for coal Bed Methane exploration and exploitation activities in India.

Whereas the Coal Bed Methane (CBM) is a natural gas and therefore the Ministry of Petroleum & Natural Gas is required to administer CBM projects under the existing oil fields Act & Rules (Regulation and Development Act, 1948 and Petroleum and Natural Gas Rules, 1959). However, since CBM is an associate of Coal, it is required to be extracted in a manner so that the interests of coal and lighite industry are not affected adversely as regard to their present or prospective mining. The memorandum of understanding (MOU) provides a framework for the parties to act in a co-operative manner to facilitate consistent with the statutory duties, the exploitation, so far that is economically viable, of Coal Bed Methane in India. The Ministry of Petroleum & Natural Gas and the Ministry of Coal hereby agree:

- that the procedures need to be so organised that the prospective investor should deal with one organisation and not with several organisations under different Ministries which would lead to confusion and serious difficulties in coordination etc;
- ii. to the preparation of fiscal and other terms for a "Model Contract for Production of Coal-Bed Methane (CBM)" by the Ministry of Petroleum & Natural Gas and submission of a draft copy to the Ministry of Coal for its comments before finalising the same.
 - to the preparation of dockets of demarcated Blocks of coal resources in various sedimentary basins in India indicating assessment of CBM resource potential, if possible of each Block. Ministry of Petroleum & Natural Gas will prepare the docket after collection of relevant, geological, geophysical and drilling information of coal resources from Coal India Ltd., Geological Survey of India & ONGC/OIL etc., where applicable. The data will be made available to the companies subject to reasonable payments.
- v. to the joint recommendations for a balanced exploration and exploitation of CBM and Coal/lignite, as listed below:
- (A) Coal resources within the country shall be classified into the following 4 categories for the purpose of CBM exploration and development:

Cat.1- Areas of Coal deposits within Mining Lease

a) In the case of Coal/lignite deposits upto 300mts depth MOP&NG will approach Ministry of Coal for their approval before inviting applications



for CBM exploration/exploitation licence. The operator who may be granted such licence will have to further sign an access agreement with the Ministry of Coal and Ministry of Petroleum & Natural Gas before they will be allowed to take up the exploration and exploitation activities.

In areas where Coal Mining Lease exists but coal deposits are present at a depth greater than 300 mts. the matter will also be referred to MOC for obtaining a suitable access agreement but MOP&NG will have far greater flexibility in deciding most issues.

Cat.2- Areas with exposed Coal or Coal deposits within 300 mts. but without Coal/lignite Mining Lease.

In any area where coal is exposed but not under any mining activity at present, MOP&NG will take prior approval of Ministry of Coal before inviting any application for grant of CBM E&P licence. Normally in such areas the access will be provided by MOC with certain conditions, in order to protect future mining prospects. After the grant of licence, the operator will be required to enter into a general agreement with Ministry of Coal to broadly protect future mining prospects and a detailed agreement with the Ministry of Petroleum & Natural Gas before undertaking any exploration and exploitation activities.

Cat. 3 - All other areas of Coal./lignite deposits below 300 mts.

All other areas of coal/lignite resources which occur in deposits for which lease are not held by CIL or which occur at depths more than 300 mts. sub-surface, MOP&NG may grant CBM exploration and exploitation licence with the concurrence of Ministry of Coal. The area will be developed by means of wells only and precautions may be taken to avoid any detrimental effect on future coal mining activity. The coal companies will have the oright of CBM exploitation in their working mines including pre and post mining operations.

(B) To facilitate inter-ministerial consultation, where necessary, in respect of the above categories, there shall be a Joint Committee (JC) comprising of representatives of MOP&NG and MOC. The JC may consider issues relating to standard conditions for exploration and exploitation of Coal Bed Methane in the following areas:

(i) Requisite permission from MOC and matter relating to transfer of mining lease (drilling rights/ surface rights) for working in such areas;

(ii) Maps and details of the areas including the safe zone from the boundaries of the on-going/proposed mining workings, i.e. areas where access to coal for the purpose of Coal Bed Methane exploitation is most and least likely to be restricted.

(iii) Sharing of all data, material and information of the project including the sharing of well information and maintain strict confidentiality of such data, Material and information.



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(iv) Matters relating to the effects of CBM exploitation on future mining of coal:

.(v) Commencement, cessation, abandonment and plugging of wells;

- (vi) Compliance with relevant legislations and obligations under the petroleum and Coal Acts;
- (vii) Joint Inspection by Coal and petroleum authorities;

(viii) Right and obligations of the respective authorities;

- (ix) Matter relating to signature bonus and sharing of bonus/profit that may be agreed to with the CBM developments, and
- (x) Any other relevant matters.

Apart from the mechanism of JC, consultation and coordination may also be carried out through routine/established channels.

- (C) Some of the major issues which need to be deliberated upon in regard to CBM development are:
 - a. As coal/lignite is a mineral listed in the first schedule of the MMRD Act, 1957, prior approval of the central Govt. is required before mining leases for coal/lignite extraction are granted by the States. Regarding the validity of leases in different horizons, the Ministry of Mines are of the opinion that as per the prevalent practice, all mining rights for all minerals in a vertical horizon belong to the party having the lease. However, before nationalisation of Coal mines, there were instances of different private parties undertaking mining operations in different horizons within the same vertical horizon. Further MMRD Act, 1957 allows transfer of lease with conditions as may be stipulated. This apart, the process of sub-leasing may also be explored in some cases.
 - Once the mining rights are granted in a given area, the rights are for all the coal horizons. Therefore, these areas would be released to MOP&NG for granting mining lease to any prospective party for CBM exploitation under the P&NG Rules. However, there may be practical as well as administrative difficulties in case of both the activities, i.e. coal mining in upper horizon and CBM development in the lower horizons has to proceed simultaneously. In-case, both the Ministries feel that such a situation is possible, particularly when MOP&NG may suggest exploitation of CBM gas through inclined boreholes, the question of mining right in the same block belonging to different agencies in separate horizons may arise. During CBM operations and mining activities in the same area, there could be occasions when one operator has to interact with another, sometimes with disastrous consequences, such as inrush of water. To address this complex area and to give all operators as much flexibility as possible, an Interaction Agreement, as prevalent in Britain could be adopted in consonance with Indian Law.

- c. Coal companies and or the relevant coal Authority should have a claim on signature bonus and/or production bonus, as applicable, in CBM development only in case of exposed coal ittining areas as mentioned in ----category 1(a)—herein above. These terms can be mutually agreed between MOP&NG and MOC.
- d. There should be a provision to include coal gasification project after exploitation of CBM gas (i.e. after the total duration of the CBM project as per terms of the contract) when high density wells, other facilities etc. will be available. However, this will be done in consultation with Coal Ministry.

In WITNESS WHEREOF this MOU has been entered into the day and year first above written.

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Signed for and on behalf of

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(S. NARAYAN)
Secretary

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