

A Synopsis on the CBM Prospect of the Jamalgonj Coal Field in Bangladesh

Paul, Siddhartho S.¹ (1) Geology, University of Dhaka, Dhaka, Bangladesh.

The supersonic present world is facing an intense energy demand which is increasing day by day. That is why, the energy sector specialists have to put attention to various unconventional resources. Over the last few decades, coal bed methane (CBM) has become a potential resource for many countries. For a country like Bangladesh where the available resource is very insufficient to cope up with the need of energy, CBM can be the flash of hope. The coal fields in Bangladesh fulfill all the pre-requisites for economically viable CBM extraction among which Jamalgonj coal field has the most feasible criteria.

Coal bed methane (CBM) is a form of natural gas, composed mostly of methane, which is found in coal beds worldwide. It is referred to as unconventional because it is originated and stored in the same rock, i.e. coal.

CBM prospect of Jamalgonj Coal Field:

Though there is lack of information on the Jamalgonj coal field for various constraints, groundwork studies (Halloway and Bailey 1995) on the prospect of CBM development in the Jamalgonj have given the green signal. The positive criteria of the Jamalgonj coal field in favor of CBM development are detailed below-

Coal rank and Methane gas content:

Jamalgonj coal is high volatile to medium volatile bituminous coal. Fried Krupp Rohstaff (1996) reported evolution of gas in several drill holes when drilling cut into the coal and coal will give off large amount of gas.

Depth of coal seam:

The depth of Jamalgonj coal seams range from 641 - 1126 meter. This range is within the most favorable depth level accepted for CBM development, which is generally considered as between 300 - 1000 meter.

Thickness of coal seam:

One of the most favorable facets of the Jamalgonj field is the very great thickness of some of the coal seams and the most promising one is the Seam-III which has been encountered of 46 meter thick in EDH-11.

Permeability of coal seam:

The good permeable nature of the coal is indicated by mud losses during drilling of EDH -14.

Impermeable seal:

The sandstones overlying the coal seams are effectively impermeable seal due to high compaction and cementation, especially because of the kaolinitic cement.

In fine, the affirmative factors for economically viable CBM extraction appear very promising. Jamalgonj CBM deposit is a pivotal issue in our country's energy sector. It can be a great ease to our country in facing the present energy scarcity.