

CO₂ Sequestration for Enhanced Coal Bed Methane Recovery: A New Approach

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Abstract : The global warming due to the increased atmospheric carbon dioxide (CO₂) concentration is the most prominent issue of environment that the world is facing today. To solve this problem at global level, sequestration of CO₂ in deep and unmineable coal seams has come out as one of the attractive alternatives to reduce concentration in atmosphere. This sequestration technology is not only going to help in storage of CO₂ beneath the sub-surface but is also playing a major role in enhancing the coal bed methane recovery (ECBM) by displacing the adsorbed methane. This paper provides the answers for the need of CO₂ injection in coal seams and how recovery is enhanced. We have discussed the recent development in enhancing the coal bed methane recovery and the economic scenario of the same. The effect of injection on the coal reservoir has also been discussed. Coal is a good absorber of CO₂. That is why the sequestration of CO₂ is emerged out to be a great approach, not only for storage purpose but also for enhancing coal bed methane recovery.

Keywords : global warming, carbon dioxide (CO₂), CO₂ sequestration, enhance coal bed methane (ECBM)

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