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Willem Langenberg¹, Andrew Beaton¹, Mike Berhane² (1) Alberta Geological Survey/EUB, Edmonton, AB (2) Alberta Energy and Utilities Board, Edmonton, AB

Regional evaluation of the CBM Potential of the Foothills/Mountains of Alberta, Canada

Coal is present in the Alberta Foothills/Mountains in 5 coal zones, i.e. the Kootenay, Gething, Gates, Brazeau and Coalspur coal zones. For CBM evaluation purposes, they can be divided into shallow (200 to 2500 m depth) and deep (over 2500 m depth) coal zones. The gas content of all shallow coal areas indicates a volume of 1.5×10^{12} m³ (about 53 Tcf) CBM in-place, which number is considered the best Foothills/Mountains CBM resource estimate at the present time.

The gas content of all deep coal areas adds up to 2.5×10^{12} m³ (about 90 Tcf) CBM in-place. The deep coal zones could be considered an ultimate resource. Consequently, the total ultimate CBM resource could be 4×10^{12} m³ (about 143 Tcf).

The best potential for coal bed methane in the Coalspur Coal Zone is in the Edson area (Entrance Syncline and Triangle Zone). The shallow Gates coal in the central and northern Foothills is prospective for CBM production, but needs to be better tested. The Kootenay coal in southern Alberta is also prospective and is being tested at present.

The size of coal areas, continuity of coal zones and cumulative coal thickness might have been over-estimated in this assessment, as a result of inadequate compilation mapping. For this reason updating of existing 1:250,000 scale geological maps is in progress and additional cross sections displaying coal zones are being constructed.