

Foothills Exploration Potential

Andrew C. Newson P.Geol
Moose Oils Ltd., Calgary, Alberta
newsona@mooseoils.com

The Foothills of the Canadian Rocky Mountains studied by the Canadian Gas Potential Committee (CGPC) is an elongate area of 46,000 square miles that runs north to south, subparallel to the front ranges. It is dominated by folding and faulting of the Mesozoic and Paleozoic rocks of the Western Canadian Sedimentary Basin (WCSB).

Of the eight play groups studied in this basin, the Foothills has the most exploration potential. It is a moderately mature group with half of its reserve still to be discovered. All three of the largest undiscovered fields in the WCSB will be found in the Foothills and each will be greater than 1 Tcf. The average size of the 1210 remaining fields to be found will be 22 Bcf. In total there is 27 Tcf left to be discovered in the Foothills.

A new approach to classifying the plays in the Foothills resulted in more valid assessment of the reserve potential of this structural province. It uses three components to classify fields into first, second and third generation plays and triangle zone plays. Using this approach throughout the Foothills, it is possible to break it up into eight zones. Each of these zones was evaluated in detail by the CGPC. The results have provided some major insights into the locations and sizes of as yet undiscovered fields in the Foothills.

All reserve figures are Initial Gas In Place (IGIP)