

ERCB Geologic Framework and Mapping for Ultimate Gas Potential in Alberta

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Summary

The Energy Resources Conservation Board (ERCB) is an independent, quasi-judicial agency of the Government of Alberta. Part of the ERCB's legislated mandate is to conduct resource appraisal of the provinces energy resources, including natural gas. In 2005 the ERCB and the National Energy Board (NEB) collaborated on a joint study to estimate Alberta's ultimate gas potential. To estimate the ultimate gas potential, the province was divided into 42 stratigraphic intervals, each containing one or more hydrocarbon bearing formations and equivalents, and each represented as a Geographic Information Systems (GIS) layer. This resulted in the release of Report 2005-A, *Alberta's Ultimate Potential for Conventional Natural Gas*.

Since 2005, new geologic interpretations and large numbers of infill wells (largely due to increased drilling) have necessitated a review of the 42 stratigraphic intervals. Over the past two years a large scale, integrated effort has been done to verify the existing correlations and to update and revise the stratigraphic interval edges where necessary. This review has resulted in the geologic assessment of over 15 000 wells with more than 85 000 revisions to the ERCB database, using geophysical well log correlation supplemented with core.

As a result of these efforts, the depositional/erosional edges for each stratigraphic interval have been updated and will continue to be refined as part of an ongoing review process. This work has generated a series of 42 GIS maps illustrating the various provincial stratigraphic intervals and will be available for viewing as part of the CSPG convention poster display. A release of the GIS shapefiles illustrating the areal extent of each stratigraphic interval, along with a sample cross section and accompanying text, are intended for future public release. These stratigraphic edges provide the geologic framework on which to base a future update of the Ultimate Potential Report for Alberta. Making geologic data available to all stakeholders – communities, industry, government and interested groups, results in informed decisions that affect the responsible development of Alberta's resources.

References

<http://www.ercb.ca/docs/documents/reports/r2005-a.pdf>