
**The Albert Oil Shale Project – Altius’ venture
into unconventional petroleum exploration**

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Altius’ New Brunswick Oil Shale Project comprises 9,702 hectares of land in southeastern New Brunswick. The project is located within the Moncton Subbasin of the Late Devonian – Carboniferous Maritimes Basin. The kerogen-rich oil shale intervals which are the focus of Altius’ exploration program occur within the Albert Formation and are considered to be among some of the most significant unconventional hydrocarbon resources of their kind in Canada. During 2008-2009 Altius completed a 23-hole core drilling program totaling 7,835 m in three target areas, the majority of which was completed in the central target at Albert Mines. In addition to the drill program a three-dimensional geological model of the Albert Mines area was constructed and bench-scale oil shale characterization and processing tests were performed on core samples from Albert Mines, including batch retort testing to produce shale oil and shale gas.

Drill results compare favourably with documented oil shale occurrences worldwide in terms of shale oil yield and thick-

ness. At Albert Mines, the oil shale is interpreted to occur as three stratigraphic horizons (Upper, Middle and Lower oil shale) each separated by approximately thirty-five metres of low-grade oil shale or barren siltstone. The stratiform beds have been regionally deformed into a southwest-plunging, tight antiform offset by several generations and orientations of steeply dipping faults. The average thicknesses and oil yields for each horizon are 20 m @ 52 to 62 litres per tonne (l/t) for the Upper oil shale, 60 m @ 77 to 107 l/t for the Middle oil shale and 210 m @ 39 to 53 l/t for the Lower oil shale horizon. Results of preliminary oil shale characterization tests and shale oil chemical and physical analyses indicate favourable characteristics. Also, preliminary processing tests show that there is apparent potential for production of high quality, light, sweet synthetic crude should appropriate technologies be developed and successfully applied.