

The Central Mackenzie Corridor: Recent Frontier Discoveries in a Northern Producing Basin

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The Central Mackenzie Corridor (CMC) lies within the Northwest Territory (NT), north of Fort Simpson (latitude 62 deg N) and south of the Mackenzie Delta (latitude 68 deg N). The CMC stretches from the Canadian Shield on the east to the Mackenzie Mountains on the west and covers an area greater than 250,000 sq km (28 million ha) or 3,000 Alberta townships. To date 689 wells have been drilled in the area of which 384 wells lie within the vicinity of the Norman Wells Oil field, the only commercially producing oil and gas field in the area. This gives an average well density (outside of the Norman wells field of 1 well every 90, 000 ha (approximately 1 well for every 10 townships).

The most recent round of exploration in the CMC began with the 1994 with the announcement by the federal government that “for the first time in 25 years, industry is invited to select, through a Call for Nominations, parcels that might be of interest to them in the Mackenzie Valley of the Northwest Territory” (INAC Bull Volume 1, Number 4). Since that initial announcement, outside of the Norman Wells area, 62 parcels have been nominated and 46 parcels awarded through to May 2007. With the granting of these permits new seismic has been shot, new gravity, magnetic and geochemical surveys have been undertaken and a total of 36 new wells have been drilled.

The new wells have tested a number of play concepts from the basal Cambrian through to the Lower Cretaceous and have resulted in 3 new discoveries being announced: a 250 Bcf Cambrian-aged sandstone gas discovery in the Colville Hills area, a new Cambrian aged oil discovery on Maunoir Ridge east of Colville Lake, and an new oil and gas discovery in the Summit Creek area of the Mackenzie Mountains southwest of Tulita.