Georgina Basin

**Key Points**

- Neoproterozoic to Devonian age
- 330,000 km² (in NT)
- Under-explored frontier basin
- Large volume, high TOC Cambrian shales
- Largely untested unconventional potential
- Extensive areas within oil window
- 38 exploration wells
- Over 2000 km 2D seismic acquired to date

**Main Industry Players**

Central Petroleum Ltd, Baraka Energy and Resources Ltd

**Geology**

Extensive, relatively flat-lying Neoproterozoic to Devonian basin. Highest petroleum potential occurs in the southern part of the basin where the thicker depocentre contains prospective shale units including the Cambrian Arthur Creek Formation. The central to northern parts of the basin contain thinner shelf sediments, which may reservoir gas or liquids sourced from underlying older Proterozoic basins.

**Production**

None to date.

**Current Activity (2015–2016)**

No current activity in NT portion of the basin.

**Unconventional Potential**

Cambrian Arthur Creek Formation is a major shale oil and gas target with average TOC of 3–4% in the basal ‘hot shale’, which has an Unrisked Prospective Recoverable Resource Best Estimate of 26,420 mmbbl oil. Other unconventional targets within basin remain untested.

**Conventional Potential**

Numerous untested stratigraphic and structural conventional plays within basin particularly associated with Cambrian stratigraphy.

Oil staining in small vugs and natural fracture in Thorntonia Limestone in Owen-3 pilot hole at 1107 m depth. Image from Petrofrontier Corp website.

Thorontonian Limestone. Ultraviolet fluorescent light showing the presence of hydrocarbons in Owen-2 core.
