

The Lower Amaranth, Manitoba

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The Lower Amaranth, referred to as the Spearfish Formation in North Dakota and Lower Watrous member of the Watrous Formation in eastern Saskatchewan, was the second most productive oil horizon in Manitoba in 2010. Since 1980 it has produced 5.4 million cubic meters of oil, with close to 0.5 million cubic meters being produced in 2010 from the Pierson and Waskada oil fields. This, on a volume per hectare basis, is roughly equal to the 2010 production for the Bakken-Three Forks in Manitoba.

The Lower Amaranth formation can be split into 2 units, an upper shaly and a lower oil bearing sandy unit. The Lower sandy unit is characterized by the presence of tight siltstone and contains up to 4 sandstone subunits. Recent completions have concentrated on these relatively high porosity permeability sandstone subunits with up to 2.27 cubic meters per hour initial production oil volumes being reported in the Waskada Field.

Past and present Lower Amaranth development is concentrated in the Waskada and Pierson oil fields. Isopach maps generated from geophysical logs indicate additional Lower Amaranth potential in other areas of southwestern Manitoba.

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