

## **A Simplistic Workflow to Estimate how much of OOIP is Producible**

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### **ABSTRACT**

The process of calculating original oil in place (OOIP) for unconventional oil plays is an important component in assessing a resource and tier-ranking acreage positions. Not all the oil in place is producible, however. An estimate of what percentage of the oil in place is producible, and how that percentage varies over a play, is also a useful parameter in the assessment process. For example, lower maturity, high TOC acreage where the oil in place consists of higher amounts of immobile bitumen may yield large OOIP numbers but the fraction of that OOIP that is producible may be significantly diminished. Obtaining an accurate measurement of how much of the oil in an unconventional reservoir is producible is a difficult proposition, but obtaining an estimate that admittedly has error bars can be a useful tool. A simplistic approach to obtaining such an estimate involves comparing produced oil to oil extracted from core via some simple geochemical analyses. Three independent methodologies were applied to arrive at an estimate of the amount of producible oil in core: extract GC, bulk composition SARA analysis, and modified programmed pyrolysis. We will discuss one workflow to estimate producible vs. non- producible oil for several reservoirs. The process of calculating original oil in place (OOIP) for unconventional oil plays is an important component in assessing a resource and tier-ranking acreage positions. Not all the oil in place is producible, however. An estimate of what percentage of the oil in place is producible, and how that percentage varies over a play, is also a useful parameter in the assessment process. For example, lower maturity, high TOC acreage where the oil in place consists of higher amounts of immobile bitumen may yield large OOIP numbers but the fraction of that OOIP that is producible may be significantly diminished. Obtaining an accurate measurement of how much of the oil in an unconventional reservoir is producible is a difficult proposition, but obtaining an estimate that admittedly has error bars can be a useful tool. A simplistic approach to obtaining such an estimate involves comparing produced oil to oil extracted from core via some simple geochemical analyses. Three independent methodologies were applied to arrive at an estimate of the amount of producible oil in core: extract GC, bulk composition SARA analysis, and modified programmed pyrolysis. We will discuss one workflow to estimate producible vs. non- producible oil for several reservoirs.