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Redwater Leduc : Transitioning from Oil Giant to CCUS

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Abstract

Conifer Energy has a large portfolio of world-class carbonate fields and is progressing CO₂ enhanced oil recovery (EOR) and CO₂ storage projects in Redwater Leduc, Judy Creek (West and East) and Carson Creek. This talk focuses on the Redwater Leduc field EOR project.

The Redwater Leduc D3 field was first discovered by Imperial Oil in 1948, and was almost entirely drilled by 1952, with an estimate of 1.24 BBO oil in place. It has produced 0.86 BBO to date (69% RF) through primary production under a strong water drive. Conifer Energy has conducted a field-wide study incorporating seismic reprocessing and mapping, log analysis, stratigraphy and geomodelling to better understand resource distribution. OOIP was found to be higher than previously reported. CO₂-EOR planning is underway for full field development. A location has been selected for the first EOR pattern, which will be drilled in the near future.

Biography



Michelle Lund is a senior reservoir geoscientist and geomodeller at Conifer Energy Resources. She has extensive experience in both conventional and unconventional reservoirs from her time at Imperial Oil and Exxonmobil. Her expertise ranges from local production-scale studies to basin-wide evaluations, integrating datasets from a wide variety of sources to generate opportunities. She holds a B.Sc. from McGill University, a M.Sc. from Sydney University in Australia (where she studied the Great Barrier Reef) and an MBA from Haskayne School of Business.



William Sawchuk is an Engineering Consultant with over 27 years of reservoir engineering experience. He was the Manager of the Enhanced Oil Recovery (EOR) team at ARC Resources and led the evaluation, development and execution of the Redwater CO₂ EOR pilot project from 2006 to 2015. He now specializes in reservoir evaluations for Hydrocarbon and CO₂ Enhanced Oil Recovery (EOR) floods and has evaluated several EOR projects in the Beaverhill Lake, Cardium, Nisku and Leduc formations. He currently consults at Conifer Energy as an EOR Development Engineer.

