Canadian Discovery Ltd.

WEBINAR SERIES

Underground Carbon Sequestration: Understanding the Subsurface Challenges and Solutions

Presenter: Jeremy Walter

Net-Zero by 2050… A carbon emissions goal set by COP26 and the United Nations Climate Accord. In order to meet such a monumental task, the International Energy Agency (IEA) estimates that the current 40 MT of CO_2 currently being captured annually would need to grow to 1.6 GT per year by 2035 and up to 7.6 GT per year by 2050. The EIA's move from a 2070 timeframe to 2050 subsequently increased the requirements for CCUS by a further 40%. To now succeed in these goals, an estimated 95% of the captured amounts would need to be permanently sequestered in the subsurface.

Sequestering CO_2 for permanent storage seems like a straight-forward endeavour: capture the CO_2, compress the fluid, and inject into a suitable formation. However, regulatory and operational risks and challenges are predicated on the underlying physics and geology. By understanding the mechanisms at play via simulation technology, projects can be de-risked by determining monitoring requirements, well injectivity potentials, and short/long-term factors of risk.

This talk will discuss the complexities associated with underground carbon storage (CCUS) operations including the physics and trapping mechanisms, Geomechanical, and geochemical effects. It will also explore how simulation tools and workflows are being applied in CCUS projects around the world for planning and monitoring operations.

500, 622 – 5 Avenue SW
Calgary, Alberta, Canada T2P 0M6
T +1 403.269.3644
F +1 403.265.1273
E info@canadiandiscovery.com
www.canadiandiscovery.com