



## CO<sub>2</sub> Sequestration in Shallow, Thin, Heavy Oil Reservoirs

**Project Leader:**  
**Husky Oil Operations Ltd.**

**Project Title:**  
**Pilot Project to Inject CO<sub>2</sub> for Enhanced Oil Recovery and CO<sub>2</sub> Storage**

**CO<sub>2</sub> Source:**  
**Husky Facility, which includes an ethanol plant and a heavy oil upgrader**

**CO<sub>2</sub> Storage Type:**  
**Enhanced Oil Recovery (EOR)**

**Location:**  
**Lloydminster, Saskatchewan/Alberta**

### Project Description

This project will focus on targeted research R&D activities to develop new knowledge and methods for enhanced oil recovery (EOR) in heavy oil reservoirs, using injected CO<sub>2</sub> that could be permanently stored in the reservoirs, a new approach in heavy oil extraction. It will capture CO<sub>2</sub> from Husky's ethanol plant and heavy oil upgrader, then transport and inject it into heavy oil reservoirs located in the vicinity of the upgrader. This is expected to enhance oil recovery and help determine the suitability of heavy oil reservoirs for CO<sub>2</sub> sequestration. Eventually, this project could lead to the capture of up to 400,000 tonnes of CO<sub>2</sub> per year from the Husky ethanol plant and upgrader by purifying, dehydrating, compressing and transporting the CO<sub>2</sub> to heavy oil reservoirs throughout the Lloydminster area. Value added by CO<sub>2</sub>-based EOR can be a key component of sustainable sequestration, and the demonstration of the integration of capture and EOR with ultimate sequestration would be a major milestone.

### Expected Outcomes

The project will develop new knowledge and methods for enhanced oil recovery in heavy oil reservoirs, which have not been used in CO<sub>2</sub> sequestration in the past because of the shallowness and thinness of such reservoirs compared with conventional oil reservoirs. This project is expected to advance the state of the art in this area. Given the relatively large heavy oil resource in Saskatchewan and Alberta, it is hoped that in the future such reservoirs could be used to permanently sequester large quantities of CO<sub>2</sub>, with a portion of the costs of sequestration offset by the incremental value of oil produced in EOR.

### Company Profile

Headquartered in Calgary, Alberta, Husky Energy Inc. is one of Canada's largest energy and energy-related companies, with approximately 5,000 employees. Husky owns a portfolio of fossil-fuel producing properties in western Canada, eastern Canada and Asia.



Production ranges from shorter-term shallow oil and gas production in eastern Alberta to longer-life, deep oil and gas production in western Alberta, northeast British Columbia and southwest Saskatchewan, as well as the east coast of Canada. Husky also has significant holdings in the Alberta oil sands.

## Project Leader Web Site

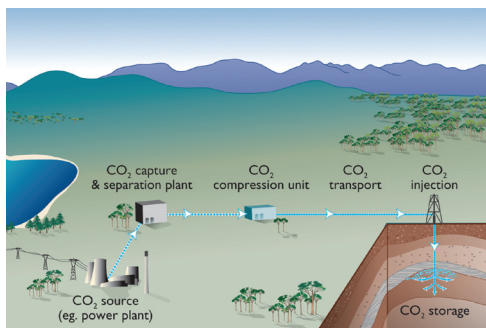
<http://www.huskyenergy.ca>

*Aussi disponible en français sous le titre :*  
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