Finding bitumen

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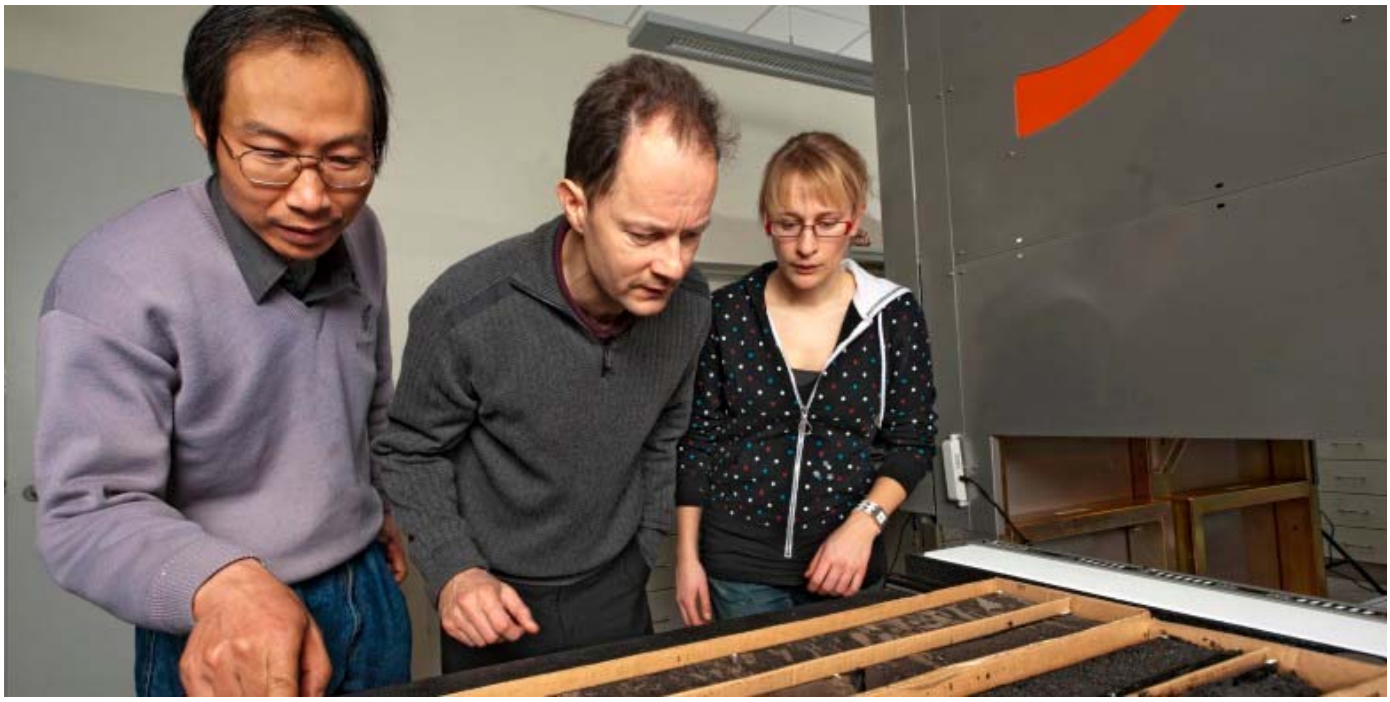

(Edmonton) A University of Alberta geologist is hoping a one-of-a-kind imaging system will satisfy two needs of oilsands producers: to find more energy and to return mining sites to a natural state.

Benoit Rivard, a researcher with the U of A's Earth and Atmospheric Sciences, is adapting the new Finnish-made device to analyze drilling core samples taken from the oilsands region of northern Alberta.

"This device is like no other," says Rivard. "It measures the reflective light given off by mineral samples, and the data could help us not only determine the presence of bitumen, but the ease or difficulty of getting at it."

Rivard also hopes the technology can help oilsands producers reclaim land by monitoring the densification process of tailings ponds. Oil producers are required to return old tailings ponds to forest eventually, but the challenge is getting the moisture out of the ground so it can support equipment for final reclamation and re-vegetation.

"With this technology, we aim to tell if the levels of clay and other minerals in the soft muds are conducive to drying at a rate consistent with plans to replant with trees and other vegetation," says Rivard.

The standard procedure for analyzing the oil-bearing potential of core samples involves people meticulously poring over drilling samples that can be 50 metres long, followed by chemical analysis of select samples. Rivard hopes the new half-million-dollar technology can do the job more quickly, but the researchers first have to prove its accuracy.

"We're working with the resource industry to make sure we're identifying the same minerals and other indicators of bitumen that core-sample analysts rely on to make their findings," says Rivard. "We hope to have the oilsands-related imaging potential of this equipment perfected and up and running within three years."

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