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MANAGEMENT OF OIL SANDS TAILINGS

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ABSTRACT

In Alberta, oil sands bitumen is utilized for synthetic crude oil (SCO) production by surface mining, bitumen extraction followed by primary (coking) and secondary

(catalytic) processes. The primary process involves the extraction of bitumen from oil sands

designed to produce synthetic crude oil. Oil sands tailings, which are produced as a byproduct of the primary process, are used as a

water reagent in the secondary process. The secondary process involves the extraction of bitumen from oil sands tailings, which are produced as a byproduct of the primary process.

performing a secondary extraction process. The secondary process involves the extraction of bitumen from oil sands tailings, which are produced as a byproduct of the primary process.

tailings, which are produced as a byproduct of the primary process. The secondary process involves the extraction of bitumen from oil sands tailings, which are produced as a byproduct of the primary process.

resulting in the production of synthetic crude oil. The secondary process involves the extraction of bitumen from oil sands tailings, which are produced as a byproduct of the primary process.

consolidated and the use of a thickener results in the release of process water in short retention

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times without accumulation of any ions in the recovered water. This makes it possible to recycle the recovered water, probably after a chemical treatment, as warm as possible, which improves the thermal efficiency of the extraction process. The AEI Process can be applied in many different fashions for the management of different fractions of the tailings effluent, depending on the overall plant operating priorities.

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