

Title (en)

METHOD AND APPARATUS FOR TREATING TAILINGS USING AN AC VOLTAGE WITH A DC OFFSET

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ABRAUMBEHANDLUNG UNTER VERWENDUNG EINER WECHSELSTROMSPANNUNG MIT GLEICHSTROM-OFFSET

Title (fr)

MÉTHODE ET APPAREIL DE TRAITEMENT DE RÉSIDUS EN UTILISANT UNE TENSION CA AVEC UN DÉCALAGE EN CC

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Application

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Abstract (en)

[origin: WO2015051444A1] There is a method of facilitating the consolidation of fine tailings through the application of an electrical current. The fine tailings include a combination of at least some water and some clay particles. Electrodes are placed into contact with the fine tailings. An AC voltage with a DC offset is applied to the electrodes to separate water from the clay particles and to induce movement of the separated water to a collection area. The separated clay particles can consolidate more readily than unseparated clay particles. In an embodiment, the fine tailings are mixed fine oil sands extraction tailings which include residual hydrocarbons. In an embodiment, the application of an AC voltage with a DC offset across the electrodes includes applying an AC voltage of about 1 V/cm and a DC offset of about ½ V/cm.

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