



Treatment Feasibility Study Lab Test

Oil & Gas Client

Treatment Feasibility Study – Lab Test

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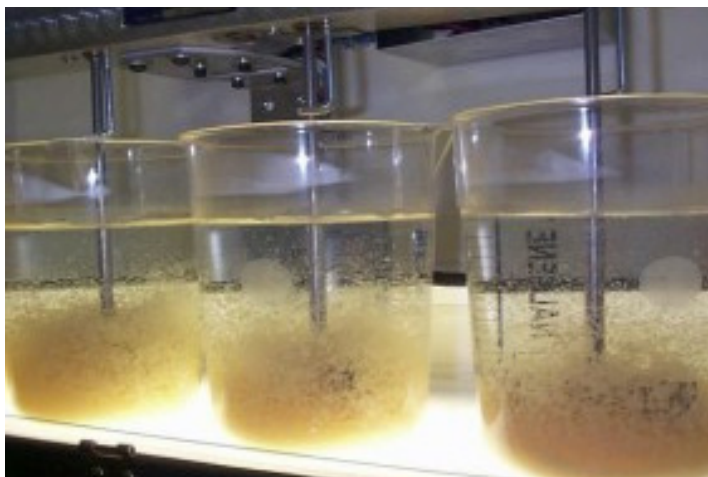
PROJECT DESCRIPTION

ClearBakk was approached by a major Oil & Gas client in Alberta, which required a solution aimed to treat its Frack Return Water and reclaim the water as a saleable product. Raw water was from different sources resulting in highly variable water quality. The goal of the treatment is to remove oil, Total Suspended Solids (TSS), and lower the mineral levels of the disposal Return Water, especially the level of Barium (Ba) and Strontium (Sr).

ClearBakk performed lab tests to verify the treatment process and optimize the chemical dosing recipe to assist with Fracking Water Treatment Plant (FWTP) engineering design.

LAB TEST STRATEGY

- Chemical precipitation followed by mechanical separation system was selected as the treatment process.
- The Jar Test was used for chemical precipitation experiments.
- The lab filter was used for slurry separation.
- Raw water and treated water qualities were analyzed.
- Several samples with different water quality were tested. Approximately 30-40 tests were conducted.



Mine Tailings Dewatering Polymer Hydration

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ACHIEVEMENT

- Determined a chemical dosing recipe and treatment process that will meet the required water quality.
- The chemical dosing was optimized to save chemical usage and minimize operating cost.
- A lab filter was used for slurry separation.
- Raw water and treated water qualities were analyzed.
- Several samples with different water quality were tested. Approximately 30-40 tests were conducted.

