



Treatment Feasibility Study Lab Test

Oil & Gas Client

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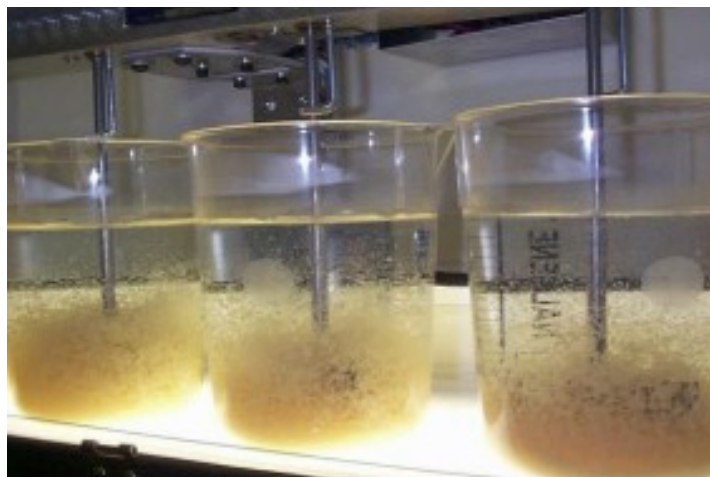
PROJECT DESCRIPTION

ClearBakk was approached by a major Oil & Gas client in Alberta, which required a solution aimed to treat its Frac 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 the Fracking Water Treatment Plant (FWTP) engineering design.

LAB TEST STRATEGY

- Chemical precipitation followed by mechanical separation system was selected as the treatment process.
- Jar testing was to be used for chemical precipitation experiments.
- Lab filtration was to be used for slurry separation.
- Raw water and treated water qualities were to be analyzed.
- Test several samples with different water qualities.



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ACHIEVEMENTS

- 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 OPEX.
- Lab filtration quantified slurry disposal volumes for OPEX considerations.
- Raw and treated water quality analysis identified treatment sensitivity to changing feedstock.
- Up to 40 tests of several samples of different water qualities were conducted.

