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Field testing of Electrofrac™ process elements at ExxonMobil's Colony Mine

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ExxonMobil's Electrofrac™ process is an energy-efficient method for converting oil shale to producible oil and gas. The method heats oil shale *in situ* by hydraulically fracturing the oil shale and filling the fracture with an electrically conductive material, forming a resistive heating element. The generated shale oil and gas are produced by conventional methods. Because Electrofrac relies on heat conduction from a large planar heat source, it has the potential to provide cost-effective recovery in deep, thick oil shale with less surface disturbance than other proposed methods. Electrofrac laboratory research has included small-scale experiments, numerical modelling, and resource description work addressing critical technical issues. The results of this research have been encouraging. As a result, field tests are currently underway at ExxonMobil's Colony Mine. These tests are aimed at testing Electrofrac process elements at a larger scale. They address Electrofrac construction and low-temperature operation. This presentation will describe the field tests and their results.