pick heaters inc.

Process Heating Solutions Worldwide

# Oil Refining Industry Case History

## Brackish Water Heating

### Application

In the Alberta Oil Sands, the refining process involves recovering bitumen, a tar-like substance, through a process called Steam Assisted Gravity Drainage (SAGD). The recovered bitumen carries a substantial amount of water. Further treatment separates oils, deposits and water.

In this case the de-oiled wastewater along with raw brackish water is heated prior to a lime softener, for ultimate re-use. Higher temperature water, around 57°C was required to maximize softener efficiency, especially during cold climate conditions.

### Solution

With water flow rates up to 4200 gpm, and steam load reaching 50,000 lb/hr, a **Pick Model 6X500-1FAB** fabricated heater was designed, with 16” Class 150 flanged liquid connections.

Heaters run continuously for 24 hours. Maintenance has been limited to a regular 2-year PM Schedule. Nine units have been installed with the customer over a 10-year period.

### Features and Benefits:

- **Fabricated design to handle 16” line size**
- **Direct steam injection lessens boiler demand**
- **Precisely controlled water temperature enhances softener performance**
- **Reliable heating in cold climate conditions**

**Learn more at www.pickheaters.com**
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