

LONG LAKE OIL SANDS PROJECT USES HG VERTICAL PUMPS

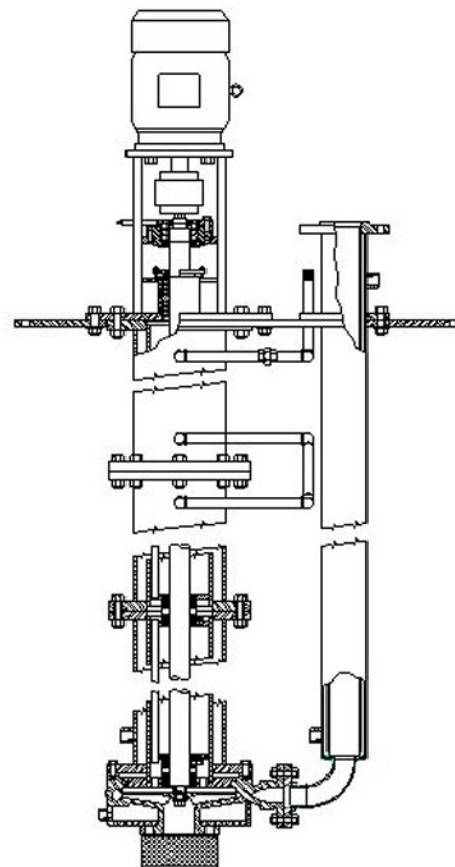
The Long Lake project is a \$3.5 billion joint venture between OPTI Canada and Nexen Inc. to produce a premium synthetic crude from oil sands in the Fort McMurray area of Alberta. Phase 1 development includes the processing of 70,000 barrels per day of bitumen, the thick black tar-like raw material extracted from the oil sands. The bitumen is upgraded to a cleaner, more fluid product called synthetic crude which is then transferred by pipeline to refineries. The recovered bitumen will be converted into approximately 60,000 barrels per day of synthetic crude oil.

Our customer for this project is Propak Systems Ltd. which is an engineering consultant who also procures equipment and coordinates assembly of their engineered “modules”. The pre-built modules are designed to minimize on-site labour which is lacking right now in the Fort McMurray area.

As with more conventional energy deposits, a by-product of the extraction

and refining process is sulphur. The sulphur is extracted during the refining process at an elevated temperature (280-300°F) which is in its liquid or molten phase. Sulphur will solidify at lower temperatures and its viscosity increases dramatically at higher temperatures. Therefore, the secret to reliably pumping molten sulphur is to ensure the sulphur remains in this strict temperature range in all areas of the pump. This is the job of the specially designed jacketing system which normally uses saturated steam or heated glycol as the temperature source. Our pumps deliver the molten sulphur to an area of the plant designed to cool the influent to solid elemental sulphur which can then be shipped to fertilizer, concrete or acid manufacturers.

In addition to the molten sulphur pumps supplied on this project, three vertical bearing process sump pumps will also be provided to handle water, amine, selexol and sour oil.



Jacketed Vertical Molten Sulphur Pump