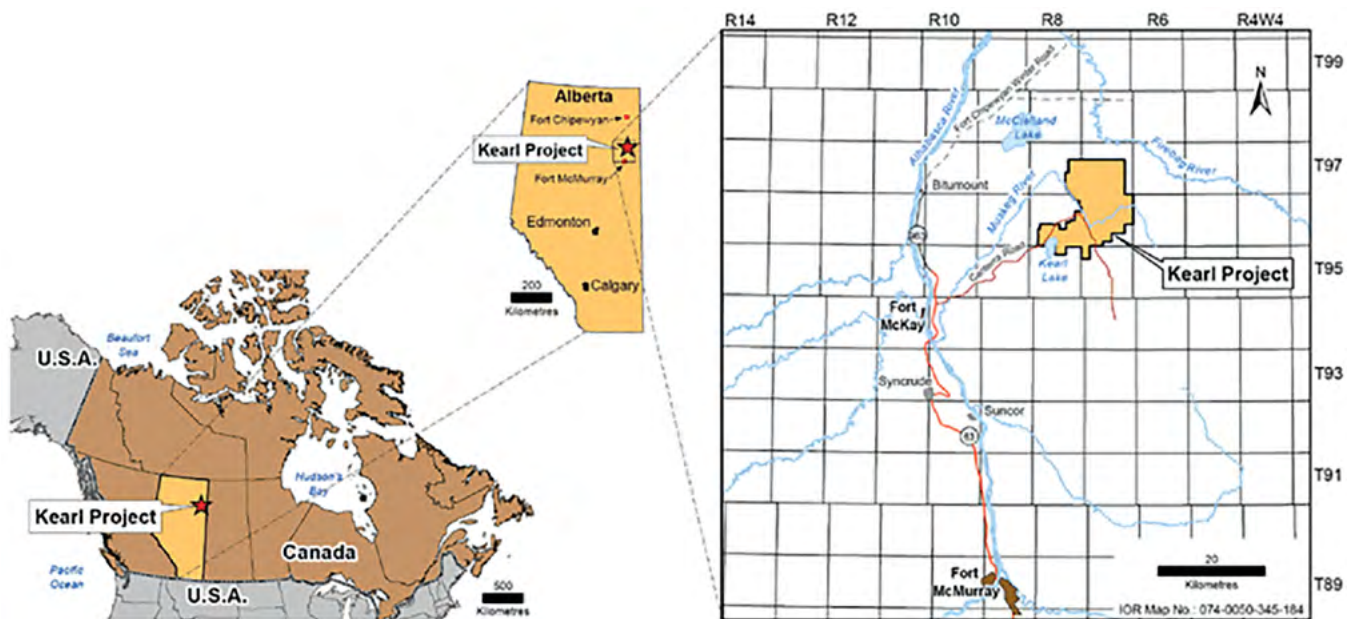


Oil, Gas and Energy

Life Safety PAGA Evacuation Systems

Kearl Oil Sands



Johnson Controls (formerly Tyco) was awarded the contract for the manufacture and supply for the Public Address General Alarm (PAGA) system and Siren system to Kearl Oil Sands based in Alberta Canada.

Scope of Supply

2 x ACE 100 PAGA & Siren systems consisting of:

- 2 x PAGA 'A' & 'B' Central Equipment systems containing:
 - ACE 100 Node and associated hubs
- Fibre optic interface
 - AMPIID frames fitted with 16 x 300 watt AMPIID amplifiers
 - Message Storage Unit
 - Siren array system
- Associated field equipment
 - ACET 18/NK Microphone Access Units
 - Explosion-proof loudspeakers are provided for both indoor and outdoor locations
 - LAK explosion-proof beacons complete with monitoring facility

The Project

The equipment is designed for the broadcast of live speech and alarms initiated from the main access units or via the fire and gas panel. Audio is distributed via several 100 volt lines to loudspeakers positioned around the Kearl Oil Sands Site. Siren distribution is also provided throughout the site.

Further Information

Kearl's total recoverable bitumen is estimated to be 4.6 billion barrels. It is located near the surface and will be recovered using open-pit mining methods similar to those used at existing oil sands mines in the region.

Kearl production is based on full development plans and is expected to average about 300,000 barrels of bitumen per day. This will likely involve start-up of an initial mine development in 2012 with a capacity of about 100,000 barrels per day followed by two additional phases each producing about 100,000

barrels per day. At its peak, Kearl could produce up to 345,000 barrels per day.

For further information on the solutions and services that we can provide visit: www.johnsoncontrols.co.uk