



## \$5 Billion Dollar Bitumen Upgrader in Alberta

Canadian Natural Resources Ltd. & North West Upgrading Inc.

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### PROJECT OVERVIEW

- ✿ Alberta ranks third, after Venezuela and Saudi Arabia, in terms of proven global crude oil reserves. Out of the 19% accessible oil in the world – the rest is controlled by national governments, 53% is found in Alberta. Of Alberta's total oil reserves about 99% come from the oil sands and the remaining 1% come from conventional crude oil. As of July 2013, there were 114 active oil sands projects in Alberta and several upgrades were on their way. Alberta remains the Canadian gateway to procurement and supply opportunities in the global oil industry.

### MARKET DEMAND

- ✿ Global energy demand is expected to increase by 41% by the year 2035. More than half of this growth will be met by fossil fuels. Major fossil fuels are converging with oil, natural gas and coal each expected to make up around 27%. Among these, gas is growing fastest. About 1.9 million barrels of raw crude bitumen are produced every day in the oil sands, and that number is expected to more than double within the decade. Alberta is one of the few non-OPEC regions in the world that can accommodate significant growth in oil production to help meet continued and growing consumer demand.

### CNRL BITUMEN UPGRADER

- ✿ On November 8 2012, North West Redwater Partnership (NWR), a partnership between North West Upgrading Inc. (NWU) and Canadian Natural Resources Limited (Canadian Natural), approved the construction of Phase 1 of the Sturgeon Refinery. NWR will build and operate a world class bitumen refinery in Alberta's Industrial Heartland, which will add significant value to Alberta's bitumen resources. The first 50,000 barrels per day phase of the bitumen refinery has a cost estimate of \$5.7 billion and is expected to take approximately three years to build. Above ground building began in 2013.
- ✿ As of April 2014, the reactor assembly building (RAB) is essentially complete and final welding assembly of the reactor segments will commence as soon as surface preparation has been completed.

### BEST PROSPECTS

Main procurement needs for the sector include:

- ✿ Maintenance Repair and Operations (MRO) –over \$30 billion
- ✿ Estimated annual capital investments- \$20 billion
- ✿ Truck and shovel mining equipment
- ✿ The supply chain associated with the implementation of new environmental and energy efficient technologies

The Alberta government offers strong political incentives and show real commitment to new recovery technologies. The Innovative Energy Technology Program funds less energy-intensive upgrading practices of oil sands resources and the total industry/government commitment to important new technologies, is more than \$800 million. The Government of Alberta is also working with industry and researchers to develop new tailings performance criteria, management technologies and practical solutions to reduce and potentially eliminate tailings ponds as we know them today.



## Market Research CS Calgary

### FOR MORE INFORMATION

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