Canadian Zinc aims for 2020 production at Prairie Creek

Canadian Zinc's Prairie Creek zinc-lead-silver project, 500 km west of Yellowknife in the Northwest Territories. Credit: Canadian Zinc

POSTED BY: MATTHEW KEEVIL OCTOBER 4, 2017

VANCOUVER — **Canadian Zinc** (TSX: CZN; US-OTC: CZICF) has set the stage for a "mid-2020" production target at its past-producing Prairie Creek zinc-lead mine, which sits amid the Mackenzie Mountains, 500 km due west of Yellowknife, Northwest Territories.

On Sept. 28, the company released an updated feasibility study (FS) that it hopes will underpin project financing for the $280-million development.

The FS lays out a 15-year mine plan that leverages recent efforts to optimize Prairie Creek's grade profile and throughput. Canadian Zinc has boosted mill rates by 25% compared to previous studies to 1,200 tonnes per day, which reportedly contributes to "significantly increased metal production and lower operating costs."

"The [higher rate] will require additional lateral mine development, and it does shorten the mine life very slightly on the back end," elaborated chairman and CEO John Kearney during a conference call.

"The strategy does improve early production metrics, however, due to our ability to leverage more sulphide ore upfront, which provides better revenue value than the oxide material. We've also modeled new grinding and flotation circuits, a more efficient flow sheet, and a new reagent scheme," he added.

The portal to underground workings at Canadian Zinc's Prairie Creek zinc-lead-silver project in the Northwest Territories. Credit: Canadian Zinc.

Prairie Creek's upfront capital requirements have jumped roughly $35 million. The factors that contributed to the higher price tag include: a longer construction period; earlier mine dewatering; larger ramp and mine development; and additional infrastructure required for higher mining rates.

Prairie Creek's existing infrastructure includes: 5 km of underground workings on three levels; a 910 tonne per day mill; a fleet of heavy duty and light duty surface vehicles; three exploration diamond drill rigs; and camp-maintenance footprints.

The project's processing plant and concentrator was largely complete before the project was shut down in 1982. The facility also includes a 1.5 million tonne capacity tailings impoundment, power plant and water treatment plant.

Canadian Zinc's FS is based on proven and probable reserves of 8 million tonnes grading 8.64% zinc, 124 grams silver per tonne, and 8.1% lead, which marks a 6% increase in tonnage due to lower zinc equivalent cut-off grades, rising zinc prices and stope optimization.

The company forecasts that the initial 10 years of annual production will average around 65,000 tonnes of zinc concentrate and 72,000 tonnes of lead concentrate, containing an average of 95 million lbs. zinc, 105 million lbs. lead and 2.1 million oz. silver. The company estimates life-of-mine operating costs of $223 per tonne mined.

"We've been working on the financing strategy over the past twelve months. We don't anticipate that it will be a one-stop shop, and we see a number of legs to the table, so to speak," Kearney continued.

"Our plan at the moment certainly involves bank debt for between 60% and 70% of the capital costs. The balance would be backfilled by a combination of other financing mechanisms, whether that's a stream, mezzanine-type financing, or off-take arrangements," he said.

Equipment in front of a portal to underground workings at Canadian Zinc's Prairie Creek polymetallic project in the Northwest Territories. Credit: Canadian Zinc.

The FS features an 18.4% post-tax internal rate of return, and a $188 million net present value at an 8% discount rate. The base case assumes US$1.10 per lb. zinc, US$1 lead, and US$19 per oz. silver.

The study incorporates all-season road access following approval from the Mackenzie Valley Environmental Impact Review Board (MVEIRB) for an access route to Prairie Creek.

The environmental assessment (EA) report has been forwarded to the Federal Minister of Crown-Indigenous Relations and Northern Affairs, Carolyn Bennett, for final approval. Canadian Zinc said there were "no surprises" in the review process, and noted it could start construction on a winter road before transitioning to the year-round alternative.

"The road development cannot be overstated. It enables year-round operations and will enable timely delivery and concentrate exporting to market on a consistent basis," Kearney explained.

"Obviously it also lowers the logistical risk by not limiting us to just the winter months, which also leads to smaller trucking fleets. In addition, all-season road access allows us to consider alternative energy sources like liquefied natural gas (LNG)," he continued.

Canaccord Genuity analyst Eric Zaunscherb maintains a "speculative buy" rating on Canadian Zinc, and dropped his price target by 5¢ following release of the FS to 30¢ per share.

He noted that "the project is impaired by a stronger Canadian dollar and lower silver price," though added that the mine design "features notable improvements" from a pre-feasibility study released last year.

Canadian Zinc has moved within a 52-week window of 15¢ and 32¢, and closed at 32¢ per share at the time of writing. The company 266 million shares outstanding for a $53 million press-time market capitalization, and reported roughly $1 million in working capital at press time.

COMMODITY: SilverZinc-Lead
REGION: Canada
COMPANY: Canadian Zinc Corporation