



PRESS RELEASE

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CANADIAN ZINC REPORTS FINANCIAL RESULTS FOR FIRST QUARTER OF 2016 AND OPERATIONS UPDATE

Vancouver, British Columbia, May 17, 2016 - Canadian Zinc Corporation (TSX: CZN; OTCQB: CZICF) (“the Company” or “Canadian Zinc”) reports its interim financial results and development activities for the three month period ended March 31, 2016.

This news release should be read in conjunction with the Company's unaudited financial statements for the first quarter ended March 31, 2016 and the related management's discussion and analysis (MD&A) which are available on the Company's website at www.canadianzinc.com, under the “Financials” section, or on SEDAR (www.sedar.com).

Financial Results for First Quarter of 2016

The Company reported a net loss and comprehensive loss of \$777,000 for the three month period ended March 31, 2016 compared to a net loss and comprehensive loss of \$3,822,000 for the three month ended March 31, 2015. Included in the loss for the current period, were exploration and evaluations costs of \$368,000, compared to \$3,846,000 for the comparable period ended March 31, 2015.

At March 31, 2016, the Company had a positive working capital balance of \$1,808,000 including cash and cash equivalents of \$1,939,000 and short term investments of \$32,000.

Updated Preliminary Feasibility for Prairie Creek Project

On May 12, 2016, Canadian Zinc filed a new Technical Report on the Company's 100% owned Prairie Creek lead, zinc, silver mine in the Northwest Territories. The Technical Report, entitled “*Prairie Creek Property Prefeasibility Update NI 43-101 Technical Report*”, effective March 31, 2016, was prepared by AMC Mining Consultants (Canada) Ltd., (“AMC”) with contributions from Tetra Tech Inc. and Canadian Zinc consultants and personnel (collectively “the Authors”), in accordance with National Instrument 43-101 (“NI 43-101”) and is available under the Company's profile on SEDAR at www.sedar.com and on the Company's website at www.canadianzinc.com.

The Technical Report provides results of the 2016 Prefeasibility Study (“PFS”) Update that included optimization work completed over the past three years, including the 2015 underground exploration program at Prairie Creek. This program increased total Measured and Indicated Mineral Resource tonnages by 32% and increased total Proven and Probable Mineral Reserves by 46% from the previous 2012 estimates.

Summary and Conclusions from Prefeasibility Study

The PFS indicates average annual production of approximately 60,000 tonnes of zinc concentrate and 55,000 tonnes of lead concentrate, containing approximately 86 million pounds of zinc (in both

zinc and lead concentrates), 82 million pounds of lead (in both lead and zinc concentrates) and 1.7 million ounces of silver over an initial mine life of 17 years.

The 2016 PFS indicates average annual earnings before interest, taxes, depreciation and amortization (“EBITDA”) of \$90 million per year and cumulative EBITDA earnings of \$1.4 billion, using Base Case metal price forecasts of US\$1.00 per pound for both zinc and lead and US\$19.00 per ounce for silver. The Base Case pre-tax Net Present Value (“NPV”) at 8% discount rate of \$509 million, with an Internal Rate of Return (“IRR”) of 32%; the post-tax NPV is \$302 million, with a post-tax IRR of 26%. The Pre-production Capital Cost, including the new all season road, is estimated at \$244 million, including contingency, with payback of three years from first year of revenue.

In its conclusions AMC considers the Prairie Creek Project to be viable based on the Mineral Reserves, mine plan, production and economic parameters set out in the PFS and recommends that Canadian Zinc proceeds with the development of the Prairie Creek Project.

The base case economic model indicates a robust project at consensus forecasts for the long term prices of lead and zinc and AMC considers that there is excellent potential for additional project optimization, enhanced economics and further extending the projected mine life.

MOUs Signed for Concentrate Production

As announced on March 3, 2016, Canadian Zinc has signed MOUs with Korea Zinc and Boliden for the sale of zinc and lead concentrates to be produced at Canadian Zinc’s 100% owned Prairie Creek Mine. These offtake arrangements with two of the pre-eminent smelting companies in the world, confirm the marketability of Prairie Creek’s zinc and lead concentrates, represent a major step forward in the development of the Prairie Creek Mine and move Canadian Zinc closer to production.

These sale agreements will represent all of the planned production of zinc concentrate and about half of the planned production of lead concentrate for the first five years of operation at the Prairie Creek Mine. It is expected that shipments will be made from the Port of Vancouver with the exact shipping schedule and lot sizes in each delivery to be mutually agreed within the project’s shipping season.

Prairie Creek Permitting Update

In April 2014, the Company submitted an application to the Mackenzie Valley Land and Water Board and to Parks Canada for Land Use Permits to permit the possible future upgrade of the current winter access road to all season use. The application is now undergoing environmental assessment before the Mackenzie Valley Review Board.

On April 11, 2016, Canadian Zinc submitted an Addendum to its Developer's Assessment Report and on May 11, 2016 the Company submitted its responses to Information Requests. A Technical Session is scheduled to be held in Yellowknife beginning June 13, 2016 and concluding June 16, 2016.

Incorporation of an all season road for future operations has significant financial implications, both in additional capital cost but also in potential savings and lower finance costs. The all season road will reduce energy costs and also enable the consideration of more environmentally friendly alternative energy sources. Local gas fields in the area may be producing LNG in the near future, which may provide an opportunity to reduce reliance on diesel fuel. An all season road would also have environmental and safety benefits, in that spreading out the trucking schedule over the full

year would avoid high or congested traffic in winter months, therefore lower the risk of any accidents or spills.

The Company anticipates the environmental assessment process for this all season road application will take most of 2016 to complete.

Outlook

Canadian Zinc's focus for 2016 will be to continue to advance the Prairie Creek Mine towards production.

The updated 2016 Pre-Feasibility Study indicates a robust project at consensus forecasts for the long term prices of lead and zinc and there is good potential for additional project optimization, enhanced economics and further extending the mine life.

As part of the Technical Report, the Authors identified a number of project opportunities that, if implemented, could yield economic, operational and environmental benefits. The Prairie Creek Mineral Resource would support a substantial increase in mining/milling rates and a high-level assessment is envisaged of substantially increasing the mill capacity with various scenarios of mining and milling, including possible mill expansion, that could lead to improved economics with more metal being mined and milled per year.

A recommendation from the Technical Report is the creation of a composite bulk sample, collected from recent underground drilling, on which to carry out Locked Cycle Tests, for better definition of the milling process, recoveries and reagent consumption, together with a high-level assessment of substantially increasing the mill capacity with various scenarios of mining and milling, including possible mill expansion. In addition, Tetra Tech has recommended further metallurgical variability tests be carried out from different mineralization zones for better understanding of metallurgical performances.

It is intended that these recommended metallurgical testing and mill capacity studies will be carried out in 2016, subject to the availability of financing, and that the ongoing environmental assessment and permitting of the proposed all season road will be continued. As part of that environmental assessment CZN submitted its responses to Information Requests on May 10, 2016 and a Technical Session is scheduled to be held in Yellowknife in June. Some front-end detailed engineering and design, and some site maintenance and early works programs, may be undertaken as financing permits.

Meanwhile, the RDC financially supported metallurgical testing program on the central Newfoundland properties is continuing and will be followed-up by the development of a process simulation and cost assessment model which will be used to help focus on the key factors that are critical to realizing the economic potential of the base metal deposits in central Newfoundland. This program will continue throughout 2016 and is scheduled to be completed by November 2016.

At March 31, 2016, Canadian Zinc had working capital of \$1.8 million and expects it will be able to meet its minimum commitments for 2016, but not beyond. Canadian Zinc does not currently generate any cash flow from its operations and will need to generate additional financial resources in the short term to fund its corporate administration costs and working capital and to continue the development of the Prairie Creek Project and in the longer term to put the Prairie Creek Mine into production.

The Company is currently evaluating various opportunities and seeking additional sources of financing. There is no assurance that such financing will be available on a timely basis or on acceptable terms. Careful management and preservation of cash is a top priority. Site programs

have been reduced to a minimum. Cost reduction measures have been implemented across the Company, including reductions in staff, corporate salaries and expenses and directors fees.

The long term outlook for lead and zinc remains very positive and, supported by the results of the 2016 PFS, Canadian Zinc will continue to evaluate all alternatives and possibilities for raising the financing necessary to complete the development and construction and put the Prairie Creek Mine into production. However the ability to raise financing is impacted by conditions beyond the control of the Company, including depressed commodity prices, continued uncertainty in the capital markets and the current lack of investor interest in the resource sector.

About Canadian Zinc

Canadian Zinc is a TSX-listed exploration and development company trading under the symbol "CZN". The Company's key project is the 100%-owned Prairie Creek Project, a fully permitted, advanced-staged zinc-lead-silver property, located in the Northwest Territories. Canadian Zinc also owns an extensive land package in central Newfoundland.

The Prairie Creek Mine contains a partially developed infrastructure including a 1,000 tonne per day flotation mill, workshops, accommodations, and support facilities. The Company holds a Type "A" Water Licence which, along with previously issued permits and licences, permits the operation of a mine at Prairie Creek. A positive updated Preliminary Feasibility Study was completed in March 2016. The Company also continues the Environmental Assessment process as part of its application to upgrade the access road into the Prairie Creek Mine for use on an all season basis.

Canadian Zinc also owns an extensive land package in central Newfoundland that it is exploring for copper-lead-zinc-silver-gold deposits. These include the **South Tally Pond project** (Lemarchant deposit); **Tulks South project** (Boomerang-Domino and Tulks East deposits) and **Long Lake project** (Long Lake deposit). The Company's exploration strategy in central Newfoundland is to continue to build on its existing polymetallic resource base with the aim of developing either a stand-alone mine, similar to the past-producing mines at Buchans and Duck Pond, or a number of smaller deposits that could be developed simultaneously and processed in a central milling facility.

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Cautionary Statement – Forward-Looking Information

This press release contains certain forward-looking information, including, among other things, the expected completion of acquisitions and the advancement of mineral properties. This forward looking information includes, or may be based upon, estimates, forecasts, and statements as to management's expectations with respect to, among other things, the completion of transactions, the issue of permits, the size and quality of mineral resources, future trends for the company, progress in development of mineral properties, future production and sales volumes, capital costs, mine production costs, demand and market outlook for metals, future metal prices and treatment and refining charges, the outcome of legal proceedings, the timing of exploration, development and mining activities, acquisition of shares in other companies and the financial results of the company. There can be no assurances that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that mineral resources will be converted into mineral reserves.

This press release has been reviewed and approved by Alan Taylor, P.Ge., COO & VP Exploration and director of Canadian Zinc who is a Non-Independent QP under NI 43-101.

Cautionary Note to United States Investors

The United States Securities and Exchange Commission ("SEC") permits U.S. mining companies, in their filings with the SEC, to disclose only those mineral deposits that a company can economically and legally extract or produce. We use certain terms in this press release, such as "measured," "indicated," and "inferred" "resources," which the SEC guidelines prohibit U.S. registered companies from including in their filings with the SEC.