



PRESS RELEASE

CZN-TSX
CZICF-OTCBB

FOR IMMEDIATE RELEASE
May 12, 2010

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- **CANADIAN ZINC REPORTS FIRST QUARTER 2010 RESULTS**
 - **NET INCOME OF \$7.239 MILLION RECORDED**
 - **GRANT OF STOCK OPTIONS**

Vancouver, British Columbia, May 12, 2010 - Canadian Zinc Corporation (TSX: CZN; OTCBB: CZICF) (the “Company” or “Canadian Zinc”) announces its financial results for the quarter ended March 31, 2010.

This press release should be read in conjunction with the unaudited financial statements and notes thereto for the period ended March 31, 2010, and management’s discussion & analysis (“MD&A”) for the period ended March 31, 2010 available on SEDAR at www.sedar.com.

Financial Results for Quarter ended March 31, 2010

For the quarter ended March 31, 2010, Canadian Zinc reported net income of \$7.239 million compared to a net loss of \$297,000 for the quarter ended March 31, 2009. The net income in 2010 was primarily attributable to gains on the Company’s marketable securities.

For the quarter ended March 31, 2010, the Company recorded overall gains on its marketable securities of \$8.094 million, compared to \$331,000 for the quarter ended March 31, 2009. The primary contribution to the gain in the quarter ended March 31, 2010, was the increase in the market value of the shares held in Vatukoula Gold Mines Plc (“VGM”).

As at March 31, 2010, the Company had cash and cash equivalents of \$4.956 million, short term investments of \$1.687 million and marketable securities of \$23.476 million, for a total of \$30.119 million. The Company also had a positive working capital balance of \$29.771 million.

As at December 31, 2009, the Company had cash and cash equivalents of \$5.197 million, short term investments of \$2.246 million, marketable securities of \$15.382 million and a positive working capital balance of \$22.476 million.

The Prairie Creek Mine:

Canadian Zinc's principal focus is to advance the Prairie Creek Mine, a zinc/lead/silver property located in the Northwest Territories of Canada, towards production. The Prairie Creek Property hosts total Measured and Indicated Resources of 5,840,329 tonnes grading 10.71% zinc, 9.90% lead, 0.326% copper, and 161.12 grams silver per tonne, a large Inferred Resource of 5,541,576 tonnes grading 13.53% zinc, 11.43% lead, 0.514% copper and 215 grams silver per tonne and additional exploration potential. The Mine is partially developed with an existing 1,000 tonne per day mill and related infrastructure.

The Prairie Creek mineral deposit contains substantial quantities of zinc, lead and silver. The Measured and Indicated Resource is capable of supporting a mine life in excess of fourteen years at the planned initial rate of 600 tonnes per day, which will increase to 1,200 tonnes per day, and the future inclusion of Inferred Resources is expected to extend the mine life to at least 20 years.

Prairie Creek Environmental Assessment Update

In March 2010, the Company submitted its Developer's Assessment Report ("DAR") for filing with the Mackenzie Valley Environmental Impact Review Board ("MVEIRB"). The DAR is a report compiled by the Company and its consultants which incorporates further detailed mine site studies relating to various aspects of the proposed operation and the potential impact on the environment, in addition to the studies previously completed as part of the original Project Description Report. The Developers Assessment Report concludes that potential impacts of the development and operation of the Prairie Creek Mine can be effectively managed and minimized by implementing mitigation programs during the course of mine operations, and will also result in minimal long term effects after mine closure.

A comprehensive Socio-Economic Impact Assessment was prepared as part of the DAR. The assessment indicates that during the operations phase the Prairie Creek Mine will directly employ approximately 220 people and 11 in head office, equivalent to 3,234 person years employment, and create an additional 288 Full-Time Equivalent (FTE) jobs across Canada, including 138 in the Northwest Territories.

The real economic and social impact of this project will be generated through the participation of local labour and business in the area, including the communities of Nahanni Butte, Fort Simpson and Fort Liard. Participation will come in the form of direct employment, direct supply of goods and services, and spin-off activities. The socio-economic assessment indicates that for those living in the project area, an operating Prairie Creek Mine offers an opportunity for a generation of employment, and will result in a population that is better educated, better trained and better able to cope with, adapt to and capture new opportunities in the future.

The DAR is currently being reviewed by the MVEIRB as part of the ongoing Environmental Assessment. The MVEIRB had indicated that it anticipated concluding its Report of Environmental Assessment by October 2010; however, it is likely that this timeframe will be extended.

Vatukoula Gold Mines Plc:

Canadian Zinc holds 628,669,022 ordinary shares, representing approximately 17% of the issued share capital, of Vatukoula Gold Mines Plc, a UK company listed on the AIM Market of the London Stock Exchange, which currently owns and operates the Vatukoula Gold Mine located in Fiji.

At March 31, 2010, the quoted market value of the Company's investment in VGM was \$22.299 million compared to \$14.039 million at December 31, 2009.

Cautionary note: *The historic and forward-looking information presented below with regard to the operations of Vatukoula Gold Mines Plc has been summarized from VGM's publicly filed documents.*

Vatukoula Gold Mine Operations Report (unaudited)

(per VGM December 17, 2009 and March 22, 2010 Updates)

	December 1 – February 28, 2010 Q2	September 1 - November 30, 2009 Q1	Year ended August 31, 2009
<u>Underground Mining / Sulphide Processing</u>			
Ore mined (t)	62,606	45,105	212,029
Average grade	6.93	8.34	7.59
Ore delivered (t)	58,230	43,406	188,344
Sulphide head grade (g/t)	6.60	8.63	6.28
Oxide Plant			
Ore delivered (t)	43,472	43,899	32,095
Oxide head grade (g/t)	1.99	1.93	1.78
Total			
Development (metres)	2,036	1,664	5,755
Ore processed (t)	102,302	86,329	220,439
Average ore head grade (g/t)	4.64	5.29	6.27
Recovery (%)	84%	84%	75%
Gold recovered * (oz)	12,869	12,227	33,757
Gold shipped (oz)	15,267	8,826	33,246

* includes gold which has been partially processed but not produced as gold doré or shipped.

For its quarter ended February 28, 2010, VGM reported gold sales of 15,267 ounces, up from the previous quarter (8,826 ounces), an average realized gold price of US\$ 1,104 per ounce, compared with the previous quarter of US\$ 1,096 per ounce and gold recovery of 12,869 ounces, compared with the previous quarter of 12,227 ounces.

VGMs underground production for the quarter ended February 28, 2010, was 62,606 tonnes, with an average mine grade of 6.93 grams of gold per tonne (45,105 tonnes with an average grade of 8.34 grams per tonne for the quarter ended November 30, 2009). The

lower mining grade was as a result of increased ore delivered from development and mining of lower grade areas. During the quarter ended February 28, 2010, a total of 58,230 tonnes of ore from underground sources was milled at a grade of 6.60 grams gold per tonne and the Oxide circuit treated 43,472 tonnes of surface mined material at a grade of 1.99 grams of gold per tonne.

For further information on VGM refer to the company website: www.vgmpc.com.

Grant of Stock Options

The Board of Directors has approved the grant, subject to regulatory approval, of incentive stock options under the Company's Stock Option Plan to certain directors, officers, employees, consultants and service providers of the Company, to purchase up to 4,630,000 common shares of the Company. The options are exercisable at a price of \$0.45 per common share for a period of five years. 2,460,000 stock options will vest immediately while 2,170,000 stock options will vest as to one-eighth quarterly over a period of two years.

Resignation of Chief Financial Officer

Martin Rip has resigned as Chief Financial Officer of the Company with effect from June 4, 2010 to take up employment elsewhere.

Risks and Uncertainties

This press release should be read in conjunction with the unaudited financial statements and notes thereto and management's discussion & analysis ("MD&A") for the period ended March 31, 2010, available on SEDAR at www.sedar.com.

The Company's business and results of operations are subject to numerous risks and uncertainties, many of which are beyond its ability to control or predict. Because of these risks and uncertainties, actual results may differ materially from those expressed or implied by forward-looking statements, and investors are cautioned not to place undue reliance on such statements, which speak only as of the date hereof.

Investors are advised to review the discussion of risk factors associated with the Company's business set out in the Company's Annual Information Form for the year ended December 31, 2009, which has been filed with the Canadian Securities Regulators on SEDAR (www.sedar.com). The risks and uncertainties, as summarized in the Company's MD&A and in other Canadian and U.S. filings, are not the only risks facing the Company. Additional risks and uncertainties not currently known to the Company, or that are currently deemed to be immaterial, also may materially adversely affect the Company's business, financial condition and/or operating results.

Alan Taylor, P.Geo., Chief Operating Officer, Vice President Exploration and a Director of Canadian Zinc Corporation, is a Qualified Person for the purposes of National Instrument 43-101 and has approved this press release.

Cautionary Statement - Forward Looking Information

This press release contains certain forward-looking information. 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 issue of permits, the size and quality of the company's mineral resources, future trends for the company, progress in development of mineral properties, future production and sales volumes of VGM, capital costs, mine production costs, demand and market outlook for metals, future metal prices and treatment and refining charges, the timing of exploration, development and mining activities 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. The Company does not currently hold a permit for the operation of the Prairie Creek Mine. 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.

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. U.S. Investors are urged to consider closely the disclosure in our Form 20-F which may be secured from us, or from the SEC's website at <http://www.sec.gov/edgar.shtml>.

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