

PRESS RELEASE

CZN-TSX CZICF-OTCQB FOR IMMEDIATE RELEASE August 5, 2011

CANADIAN ZINC REPORTS FINANCIAL RESULTS FOR SECOND QUARTER 2011

Vancouver, British Columbia, August 5, 2011 - Canadian Zinc Corporation (TSX: CZN; OTCQB: CZICF) (the "Company" or "Canadian Zinc") announces its financial results for the three and six months ended June 30, 2011.

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 three and six months ended June 30, 2011, both available on SEDAR at www.sedar.com.

Financial Results June 30, 2011

For the three and six month periods ended June 30, 2011, the Company reported a net loss and comprehensive loss of \$10.3 million and \$24.6 million respectively, compared to net loss and comprehensive loss of \$4.5 million and net income and comprehensive income of \$2.7 million for the same periods respectively ending June 30, 2010. The decrease in net income in comparative periods was primarily attributable to mark to market losses on the Company's shares in Vatukoula Gold Mines plc, and by higher exploration and evaluation expenses.

Canadian Zinc currently holds 12.57 million shares of Vatukoula Gold Mines plc ("VGM"), which represents approximately 14% of VGM's issued share capital. VGM is a UK company listed on AIM (part of the London Stock Exchange), which currently owns and operates the Vatukoula Gold Mine located in Fiji. The investment in VGM was acquired during 2009 and represents 100% of the total market value of CZN's marketable securities at June 30, 2011 of \$18.4 million. The market value of the Company's investment in VGM at August 3, 2011 was \$18.7 million.

At June 30, 2011, the Company had a positive working capital balance of \$22.2 million, compared to a positive working capital balance of \$46.4 million at December 31, 2010. At June 30, 2011, the Company had cash and cash equivalents of \$1.1 million, short term investments of \$3.3 million and marketable securities of \$18.4 million (for a total of \$22.8 million).

In May 2011 the Company engaged Northern Securities Inc. subject to certain conditions, to undertake an offering, on a private placement basis, of \$5,000,000 in Units at \$0.80 per Unit. Due to market conditions the offering did not proceed.

Prairie Creek Mine - Environmental Assessment - Public Hearings Completed

The Company's principal focus has been to advance the Prairie Creek Property towards receiving a Class "A" Water Licence and associated Land Use Permits, through the regulatory process established under the *Mackenzie Valley Resource Management Act*, that will permit the further development and subsequent mine production. The proposed development and operation of the Prairie Creek Mine is currently undergoing Environmental Assessment ("EA") by the Mackenzie Valley Environmental Impact Review Board ("MVEIRB" or "Review Board").

Community and Public Hearings, conducted by the Review Board, were held June 22-24, 2011 in both Nahanni Butte and Fort Simpson, Northwest Territories, at which the Company's proposals for the development and operation of the Prairie Creek mine were presented and explained to the local communities.

Participating parties in the Public Hearings included: Canadian Zinc; Dehcho First Nations; Nahanni Butte Dene Band; Liidlii Kue First Nation; Aboriginal Affairs and Northern Development Canada; Fisheries and Oceans Canada; Environment Canada; Parks Canada; Transport Canada; Natural Resources Canada; and Government of the Northwest Territories; together with members of the public and local community and business representatives.

Various technical reports and recommendations, previously submitted by various government departments and other registered parties, were also reviewed and discussed. These technical reports were prepared in accordance with the normal process for environmental assessments in the Northwest Territories, and following such agencies' reviews of the Company's EA, the Company's responses to all the Information Requests and the additional data and other information provided by the Company at and following Technical Meetings held in October 2010 and on April 12, 2011. Technical reports were filed by Environment Canada; Natural Resources Canada; Department of Fisheries and Oceans; Indian and Northern Affairs Canada; Parks Canada; and the Department of Environment and Natural Resources of the Northwest Territories. The purpose of these reports is to provide technical comments, advice and recommendations to the Review Board to assist the Review Board in its decision-making process.

Canadian Zinc believes that technical solutions acceptable to all parties have been identified for most issues raised in the EA. However, there remains a difference in approach between the Company and Aboriginal Affairs and Northern Development Canada ("AANDC") (formerly Indian and Northern Affairs Canada) regarding the methodology used to select site specific water quality objectives relating to the treated water discharge from the Prairie Creek Mine. CZN and AANDC agreed to collaborate to seek a solution to the outstanding issues after the Public Hearing but still within the EA process.

Canadian Zinc agreed with AANDC's proposal to move forward in a timely manner by forming a committee, comprised of representatives of the Company, AANDC and Parks Canada, to further discuss the issue and seek to reach a mutually acceptable solution and approach. The Review Board met on July 14, 2011 and determined that the committee approach is not appropriate. In a letter issued July 15, 2011, the Review Board recommended that the Company, AANDC and other interested parties meet together to discuss the outstanding issue of water quality objectives. The Review Board requested a written report of the meetings be submitted and encouraged the parties to complete the meetings and report preparation prior to the deadline established for final submissions. The Review Board requested final written submissions from the parties prior to September 6, 2011 and from the Company prior to September 9, 2011, and indicated that the public record will be closed on September 9, 2011.

Following closure of the public record it is expected that the Review Board will prepare its Report and Decision on the EA. The Review Board has not indicated when it will issue its Report and Decision.

All proceedings, transcripts, technical reports and detailed information on the ongoing EA (EA0809-002) of the Prairie Creek mine are available on the website registry of the Review Board at http://www.reviewboard.ca/registry/.

Impact Benefit Agreement signed with Liidlii Kue First Nation

In June, 2011 the Company signed an Impact Benefits Agreement with the Liidlii Kue First Nation (LKFN) of Fort Simpson. The LKFN has agreed to support CZN in obtaining all necessary permits and other regulatory approvals required for the Prairie Creek Mine Project.

The LKFN agreement is similar in many respects to the Impact Benefits Agreement signed with the Nahanni Butte Dene Band in January 2011. The Agreements provide a framework such that training, employment and business contracts, and some financial provisions, are made available to the Nahanni Butte Dene Band and to the LKFN to ensure maximization of benefits from opportunities arising from the Prairie Creek Project in a manner that will be to the mutual benefit of all parties.

The Nahanni Butte Dene Band and the Liidlii Kue First Nation are members of the DehCho First Nations. Nahanni Butte is the closest community to the Prairie Creek Mine and LKFN at Fort Simpson is the largest member of the Dehcho First Nations.

<u>Prairie Creek – 2011 Exploration Programs</u>

The summer 2011 diamond drilling program at Prairie Creek was initiated in June and is focusing on two geological targets; the first vein structures, and the second strata bound mineralization. The planned drilling is designed to explore for additional vein structures, with high grade zinc-lead-silver mineralization, and for new strata bound deposits, both outside the currently defined resource at the Prairie Creek Mine. The drilling is being carried out utilizing the Company's two diamond drill rigs.

The exploration drill program is focused in two general locations; firstly the immediate Prairie Creek Mine area and, secondly, the Casket Creek area about 4 km north of the mine and about 1.5 km beyond the existing inferred mineral resource.

In the Prairie Creek Mine area, Canadian Zinc's Longyear drill-rig has, to date, drilled 9 holes totaling 1,235 metres of coring. This rig initially targeted the area immediately along strike and to the south of the defined resource. Three holes were completed in this area while road access was built to establish drill pads to explore the upper extent of the main vein system above the existing underground workings. A series of closely spaced drill holes were then drilled in this upper area. The vein structure was identified in each hole completed and assays are pending. Two holes were abandoned.

The Longyear drill-rig will be moved later to test some further targets lower in elevation and along the strike extension of the current resource.

In the Casket Creek area, deep drill hole PC-10-187, started last year with the Company's TM-2500 drill rig, has been restarted. This hole had reached a depth of 657 metres when drilling was suspended for the season in October 2010. It is testing for a 1.5 km down-plunge extension of the inferred mineral resources and is directed towards a potential vein/structural target where the vein-fault structure intersects the Road River Formation at the nose of an anticlinal fold. PC-10-187 had reached a depth of 1,540 metres at July 31, 2011.

Following completion of this first deep hole, additional wedged holes will be drilled from the same drill set up.

Assay results from this drilling will be forthcoming in late summer and exploration program will continue until the drilling season ends sometime in October.

Feasibility Study Progresses

In February 2011 the Company engaged SNC-Lavalin Inc. (SNC) of Vancouver to complete a Feasibility Study on the Prairie Creek Mine. With the Environmental Assessment Process nearing completion the major operational parameters that will factor into the project implementation are now being determined and this presents the opportunity to evaluate the capital costs and financial analysis through the completion of the Feasibility Study, in anticipation of construction financing.

Work on the Feasibility Study continued over the course of the second quarter of 2011 and involved further planning and design, a site visit to further assess the existing infrastructure, optimizing the mill plan layout and further assessing the transportation corridor. It was planned that the Feasibility Study will be completed before the end of 2011 but completion of the study may be delayed until the EA decision has been received and the permitting details can be incorporated into the study.

Outlook

Canadian Zinc's primary focus during 2011 will be on completing the Environmental Assessment process for the operating permits for the Prairie Creek Mine. It is expected that the EA process will be completed during 2011. The deep drill exploration program at Prairie Creek will continue and in addition further drilling of up to 20 holes will be undertaken in the immediate vicinity of the Prairie Creek mine site. SNC will continue work on the feasibility study on the Prairie Creek Mine.

Canadian Zinc recorded a loss on its investment in Vatukoula Gold Mines during the three and six month periods ended June 30, 2011 due to the decline in the share price of VGM on the London Stock Exchange. At June 30, 2011, the Company's investment in VGM had a market value of \$18.366 million and represents the Company's largest balance sheet item. The market value of the Company's investment in VGM at August 3, 2011, was \$18.7 million. The outlook for this investment is dependent on the ongoing performance of VGM.

Risks and Uncertainties

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, 2010, 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 responsible for the Company's exploration program, and 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.

For further information contact:

John F. Kearney Chairman (416) 362-6686

> Suite 700 – 220 Bay Street Toronto, ON M5J 2W4

Tel: (416) 362-6686 Fax: (416) 368-5344

Alan B. Taylor **VP Exploration & Chief Operating Officer** (604) 688- 2001

Suite 1710-650 West Georgia Street, Vancouver, BC V6B 4N9 Tel: (604) 688-2001 Fax: (604) 688-2043

Tollfree:1-866-688-2001

E-mail: invest@canadianzinc.com Website: www.canadianzinc.com