

Loncor Resources Inc.

PRESS RELEASE

LONCOR REPORTS INITIAL GOLD ASSAY RESULTS FROM ITS YINDI PROSPECT AT NGAYU PROJECT

Results include channel samples of 14.79 metres grading 5.11 g/t Au and 19.4 metres grading 1.30 g/t Au

Toronto, Canada – April 23, 2010 - Loncor Resources Inc. (the "**Company**" or "**Loncor**") (TSX-V: "**LN**") is pleased to provide initial assay results from its Yindi prospect at the Company's Ngayu Project in Orientale Province in northeastern Democratic Republic of the Congo (the "**DRC**"). Loncor has an option for 100 percent of the gold rights at Ngayu.

As previously announced, Loncor established the main Ngayu exploration camp in February 2010 at the Yindi prospect, located in the southwest corner of the 4,550 square kilometer Ngayu project area that covers most of the Ngayu Archaean Greenstone Belt in northeast DRC.

The Yindi prospect consists of a series of quartz veins that have intruded complexly folded, interbedded banded ironstones (BIF), talc sericite and sericite schists with colonial and artisanal workings.

A soil sampling grid was initially established over a 5,000 x 2,000 metre area, centred on the main artisanal workings which also corresponds to a discrete magnetic high (Figure 1). Soil samples were taken at intervals of 40 metres on 160 metre-spaced lines, at a depth of 40 centimetres. Results have been received for a total of 262 soil samples which had been taken on five lines over a strike length of 640 metres. Results show a well defined +100 ppb Au anomaly, 250 - 500 metres wide and open to the northwest and southeast where assay results are still to be received. Values of up to 2,150 ppb Au are present in residual soil with values up to 23,000 ppb Au occurring in alluvium as shown on Figure 2.

Locality plans (Figures 1 and 2) of the Yindi prospect can be found on the Company's website at http://www.loncor.com/i/pdf/2010-04-16_NRM.pdf.

Results have also been received from channel and grab rock chip samples. Channel sampling results were obtained at the southeast end of the Golgota open pit workings with an intersection of 14.79 metres grading 5.11 g/t Au (open to the northeast and southwest). Seventy metres along strike at the northwest end of the Golgota workings, channel sampling results gave 19.40 metres grading 1.30 g/t Au (open to the northeast) and 2.40 metres at 3.19 g/t Au (open to the southwest). These two channel samples are perpendicular to strike and due to the subvertical nature of the BIF and sericite schists and quartz veinlets, represent approximate true thicknesses. The BIF wall rock is extensively mineralized with a maximum value of 18.4 g/t Au.

In addition, 108 grab rock chip samples of quartz veins over a strike length of 4.0 kilometres averaged 2.12 g/t Au and varied from 0.005 to 42.00 g/t Au. Grab sample assay results were also received from 44 wall rock sericite schist and banded ironstone lithologies and varied from 0.005 to 12.90 g/t Au with an average of 0.84 g/t Au.

Commenting on these initial results at Yindi, Peter Cowley, President and C.E.O. of the Company, said: "These first results from Yindi are encouraging and demonstrate that the wall rock banded ironstones and sericite schists as well as the quartz veins and stockworks are mineralized over significant widths. This initial soil and rock sampling of the workings, including the adits, should be completed by the end of next month with drilling expected to commence in July."

All soil and rock samples were placed in sealed bags by Company geologists and sent to the SGS Laboratory (which is independent of the Company) in Mwanza, Tanzania where the samples were prepared and analyzed for gold by fire assay using a 50g charge. The channel and rock chip samples were crushed down to minus 2 mm and split with half of the sample pulverised down to 90% passing 75 microns. The soil samples were sieved to minus 2 mm and the undersized fraction pulverised down to 90% passing 75 microns. As part of the Company's QA/QC procedures, internationally recognized standards, duplicates and blanks are being used.

Qualified Person

The exploration results disclosed by this press release have been reviewed, verified (including sampling, analytical and test data) and compiled by the Company's geological staff based in Butembo, DRC, under the supervision of Dr. Howard Fall (Aus.I.M.M), the Company's Exploration Manager and a "qualified person" (as such term is defined in National Instrument 43-101).

Loncor is a gold and platinum exploration company with three projects in the DRC: the Ngayu, North Kivu and Bas Congo projects. Additional information with respect to the Company's projects can be found on the Company's web site at www.loncor.com.

Forward-Looking Information: This press release contains forward-looking information. All statements, other than statements of historical fact, that address activities, events or developments that the Company believes, expects or anticipates will or may occur in the future (including, without limitation, statements regarding exploration results, potential mineralization and the Company's exploration plans) are forward-looking information. This forward-looking information reflects the current expectations or beliefs of the Company based on information currently available to the Company. Forward-looking information is subject to a number of risks and uncertainties that may cause the actual results of the Company to differ materially from those discussed in the forward-looking information, and even if such actual results are realized or substantially realized, there can be no assurance that they will have the expected consequences to, or effects on the Company. Factors that could cause actual results or events to differ materially from current expectations include, among other things, risks related to the exploration stage of the Company's properties, the possibility that future exploration results will not be consistent with the Company's expectations, changes in world gold markets and equity markets, political developments in the DRC, uncertainties relating to the availability and costs of financing needed in the future, the uncertainties involved in interpreting exploration results and other geological data and the other risks involved in the mineral exploration business. Forward-looking information speaks only as of the date on which it is provided and, except as may be required by applicable securities laws, the Company disclaims any intent or obligation to update any forward-looking information, whether as a result of new information, future events or results or otherwise. Although the Company believes that the assumptions inherent in the forward-looking information are reasonable, forward-

looking information is not a guarantee of future performance and accordingly undue reliance should not be put on such information due to the inherent uncertainty therein.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

For further information, please visit our website at www.loncor.com or contact: Peter N. Cowley, President and Chief Executive Officer, Telephone: + 44 (0) 790 454 0856; or Arnold T. Kondrat, Executive Vice President, or Martin Jones, Vice President, Corporate Development, Telephone: (416) 366-2221 or 1 (800) 714-7938.