RICHMONT

PRESS RELEASE

Richmont Mines Inc., 1501 McGill College Avenue, Suite 2920, Montreal, QC H3A 3M8 Canada

IMMEDIATE RELEASE

RICHMONT MINES ANNOUNCES COMMENCEMENT OF ADDITIONAL DEEP EXPLORATION DRILLING AT ISLAND GOLD

MONTREAL, Quebec, Canada, September 15, 2014 - Richmont Mines Inc. (TSX - NYSE MKT: RIC), ("Richmont" or the "Corporation"), is pleased to announce that it is commencing an additional exploration drilling program from surface to test part of the down plunge projection of the Island Gold deposit. This is in addition to the remaining budgeted 2014 exploration and definition drill programs currently underway from underground. The new program will consist of four diamond drill holes for approximately 4,800 metres at an estimated cost of $0.5 million.

The Island Gold Mine, near Wawa Ontario, has produced over 300,000 ounces of gold from above the 400 metre level, and is expected to produce over 40,000 ounces this year. The Corporation commenced more intensive drilling at depth below the mine in 2011 with favourable results driving an expanded drilling program through 2012. In February 2013, the first estimate was announced for a new 508,000 ounce inferred resource grading 10.73 g/t Au directly below the existing Island Gold Mine. Additional drilling in 2013 resulted in a doubling of this resource estimate one year later in January 2014 to 1.1 million ounces grading 9.3 g/t Au. The deposit remains open along strike and at depth, which presents good potential for expanding the resource through additional exploration. As this new deposit is immediately beneath the operating mine, Richmont has extended the mine ramp to its current depth of 625 metres, which is in the upper 125 metres of the new zone.

Elaine Ellingham, Interim CEO stated, "This new 1.1 million ounce resource under our operating Island Gold Mine came together very quickly. It remains open at depth and along strike, presenting some compelling potential for expanding this resource. These additional exploration drill holes will enable us to test the down plunge potential to the east of our existing resource base at depths of between 800 and 1,000 metres."

"The Island Gold Mine lies within a highly prospective regional gold-rich structure that also hosts Argonaut's 5.2 million ounce low-grade Magino resource, located less than 2 km along strike to the west. We expect to continue our exploration through 2015 and likely into 2016, in order to test the full upside potential of the deposit, as this information will be important to determine the optimal longer term development for the mine. At the same time, as previously reported, we have already extended the ramp into the upper portion of this new zone and commenced development. We expect to be mining from the first stope in this lower zone later this year."

The recently approved 4,800 metre exploration drill program (~4 holes) is expected to commence shortly. This program is designed to test the down plunge extension of the deposit between 800 and 1,000 metres of depth, at a total cost of approximately $0.5 million. This is in addition to 3,000 metres of drilling (~4-5 holes) planned from underground that will test the area immediately east of the known deposit below the 800 metre level. An additional 9,800 metres of definition drilling is underway in a number of areas of the mine, as per the 2014 plan, and is expected to contribute to upgrading some of the inferred resources into the measured and indicated resources before year end. Please see the attached longitudinal for details.

Chart 1: Island Gold Mine – Exploration and Definition Drill Programs

About Richmont Mines Inc.

Richmont Mines has produced over 1.4 million ounces of gold from its operations in Quebec, Ontario and Newfoundland since beginning production in 1991. The Corporation currently produces gold from the Island Gold Mine in Ontario, and the Beaufor Mine and Monique Mine in Quebec. The Corporation is also advancing development of the extension at depth of the Island Gold Mine in Ontario. With over 20 years of experience in gold production, exploration and development, and prudent financial management, the Corporation is well-positioned to cost-effectively build its Canadian reserve base and to successfully enter its next phase of growth. Richmont routinely posts news and other important information on its website (www.richmont-mines.com).

Forward-Looking Statements

This news release contains forward-looking statements that include risks and uncertainties. When used in this news release, the words "estimate", "project", "anticipate", "expect", "intend", "believe", "hope", "may" and similar expressions, as well as "will", "shall" and other indications of future tense, are intended to identify forward-looking statements. The forward-looking statements are based on current expectations and apply only as of the date on which they were made. Except as may be required by law, the Corporation undertakes no obligation and disclaims any responsibility to publicly update or revise any forward-looking statements or information, whether as a result of new information, future events or otherwise.

The factors that could cause actual results to differ materially from those indicated in such forward-looking statements include changes in the prevailing price of gold, the Canadian-United States exchange rate, grade of ore mined and unforeseen difficulties in mining operations that could affect revenue and production costs. Other factors such as uncertainties regarding government regulations could also affect the results. Other risks may be set out in Richmont Mines' Annual Information Form, Annual Reports and periodic reports. The forward-looking information contained herein is made as of the date of this news release, and the Corporation undertakes no obligation to publicly update such forward-looking information to reflect new information, subsequent or otherwise, unless required by applicable securities laws.

Cautionary note to US investors concerning resource estimates

Information in this press release is intended to comply with the requirements of the Toronto Stock Exchange and applicable Canadian securities legislation, which differ in certain respects with the rules and regulations promulgated under the United States Securities Exchange Act of 1934, as amended ("Exchange Act"), as promulgated by the SEC. The reserve and resource estimates in this press release were prepared in accordance with National Instrument 43-101 adopted by the Canadian Securities Administrators. The requirements of National Instrument 43-101 differ significantly from the requirements of the United States Securities and Exchange Commission (the "SEC").

U.S. Investors are urged to consider the disclosure in our annual report on Form 20-F, File No. 001-14598, as filed with the SEC under the Exchange Act, which may be obtained from us (without cost) or from the SEC's web site: http://sec.gov/edgar.shtml.

National Instrument 43-101 ("NI 43-101")

The geological data in this news release has been reviewed by Mr. Daniel Adam, Geo., Ph.D., Vice-President, Exploration, an employee of Richmont Mines Inc., and a qualified person as defined by NI 43-101.

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