

## **RNC's Innovative Roasting Approach Delivers 25% Increase In Payable Nickel Value For Nickel Sulphide Concentrates**

**CRU Value-In-Use Market Analysis Determines 94% Nickel Payability For Dumont Concentrate Grades (Compared to 70-75% Market Terms for Traditional Smelting/Refining)**

TORONTO, Aug. 23, 2018 /CNW/ - RNC Minerals ("RNC") (TSX: RNX) is pleased to announce it has received positive results from CRU's value-in-use market analysis on RNC's innovative roasting approach on several different nickel concentrates, including the nickel-cobalt concentrate grades expected to be produced by the Dumont Nickel-Cobalt Project ("Dumont").

Dumont is the largest undeveloped nickel reserve in the world and second largest undeveloped cobalt reserve. CRU is the leading provider of analysis, prices and consulting in the mining, metals and fertilizer markets.

"CRU's market analysis determined a significantly higher value from RNC's roasting approach over traditional smelting and refining. The 25% improvement in payability calculated for nickel concentrates would allow a producer of various nickel concentrates to realize an additional US\$1.10 for every pound of nickel in concentrate produced at current \$US6.00 per pound nickel prices," said Mark Selby, President and CEO of RNC Minerals.

"This benefit provides tremendous leverage as nickel prices increase," continued Selby. "Dumont is expected to produce the highest-grade nickel (29%) and cobalt (1%) sulphide concentrate in the world<sup>2</sup>, providing maximum flexibility for potential partners and offtake parties from a wide range of nickel consuming sectors, including the battery and stainless steel markets."

The CRU study looked at toll-processing in Asia for a range of nickel concentrates with nickel content ranging from 14% to 29% through to a final ferronickel product. It found that net payabilities utilizing this approach for all concentrates were significantly higher than current market terms based on CRU's estimate of long-term nickel prices, product premiums, and tolling costs. For a 29% nickel concentrate, which is the grade expected to be produced from Dumont, the nickel payability for concentrate was estimated to be 94%, or 25% higher than the top end of the estimated current 70-75% market range for nickel sulphide concentrates.

1. Source: S&P Global Market Intelligence, company reports (also see RNC news release dated January 15, 2018)
2. Source: Wood Mackenzie (also see RNC news release dated March 1, 2018) and, with respect to Dumont, the Technical Report on the Dumont Ni Project, dated July 25, 2013, available at [www.rncminerals.com](http://www.rncminerals.com) and under Royal Nickel Corporation's profile on [www.sedar.com](http://www.sedar.com)

### **Alternate Roasting Approach**

RNC's alternate roasting approach allows for the use of nickel concentrate by a wide range of nickel consumers, including large scale integrated NPI/stainless plants converting feed into finished product at higher recoveries and significantly lower processing costs, resulting in expected payabilities that are much higher than traditional smelting and refining.

RNC successfully completed a bulk concentrate test in early 2016 and, in co-operation with a leading Japanese trading house, successfully delivered roasted concentrate samples to multiple potential end users across Asia and Europe utilizing RNC's alternate roasting approach (see RNC news releases dated December 15, 2015 and May 17, 2016).

RNC believes that market prices over the last several years from traditional nickel smelters and refiners results in the concentrate producer receiving approximately 70-75% of the contained value of the nickel in the concentrate, allowing the smelter/refiner to capture 25-30% of the concentrate value (less their operating costs and recovery).

After successfully demonstrating the potential of roasted nickel concentrate as a more valuable alternative to traditional smelting and refining in 2011, RNC worked with the Tsingshan Group ("Tsingshan"), beginning in 2012, to validate the concept. In 2014, Tsingshan began construction of the first plant to directly utilize nickel sulphide concentrate as part of the stainless steel making process and has since built an additional plant utilizing the roasted nickel concentrate approach. Additionally, Tsingshan signed an offtake agreement with Western Areas Ltd. in late 2016. RNC believes Tsingshan's successful use of roasted nickel concentrate in their production facilities in China is an important development for the nickel market (see RNC news release dated November 28, 2016).

RNC's work with a large Japanese trading house indicates that roasters in Asia are able to process feed at an approximate cost of \$30/tonne. When combined with the average integrated NPI/stainless conversion cost of approximately \$80-\$90/tonne (according to Wood Mackenzie), the

implied conversion cost is approximately \$110-\$120/tonne of concentrate (equivalent to approximately \$400 per tonne of contained nickel for a 29% concentrate or approximately 3% of the current LME price of \$13,800 per tonne). This compares very favourably to the 25-30% of the concentrate value believed to be currently captured by traditional smelters/refiners. The CRU value-in-use study is expected to be used to estimate the terms that roasting market participants would require to be willing to process the nickel-cobalt concentrate expected to be produced by Dumont as compared to these current market benchmarks (see RNC news release dated March 1, 2018).

Note: dollar amounts referred to above are US\$.

### **CRU Methodology to Determine Value-In-Use**

CRU has considered a scenario under which Asian processors would process nickel concentrate on a tolling basis. This means that the concentrate producer would retain ownership of the ferronickel product, and simply pay the processor to cover their costs, plus a margin.

The tolling costs were derived by estimating the operating costs and margins at a typical NPI producer using CRU's Nickel Cost Model and the estimated operating costs and margins at a typical roasting facility. CRU adjusted the NPI producer costs by assuming that the higher nickel content of the concentrate means that lower amounts of power, reductants, and energy would be required in the furnace for each tonne of nickel produced. The assumption is made that this relationship is linear, and that other costs remain constant. An additional margin to incentivise the switch to using nickel concentrate rather than their typical feed was then applied to these costs. Due to the current and forecasted thin margins at some NPI producers, only a relatively small incentive payment would be required to encourage such NPI producers to use a nickel concentrate for feed instead of their current laterite feeds.

### **Dumont Highlights:<sup>1</sup>**

- World's largest undeveloped nickel reserve and second largest cobalt reserve
- Large scale, long life nickel and cobalt production - 33-year life with over 1 billion tonnes of reserves. Potential for much longer life/future expansions from equally large resource.
  - Initial annual production of 33 ktpa (73 million pounds) of nickel and 1.0 ktpa of cobalt (2.3 million pounds) contained in concentrate
  - Expanded in year five to an annual average of 51 ktpa (113 million pounds) of nickel and 2.0 ktpa of cobalt (4.3 million pounds)
- World's highest grade nickel (29%) and cobalt (1%) sulphide concentrate - suitable for feed to both the stainless steel and battery market.
- Dumont proven and probable reserves consist of 1.18 billion tonnes of ore containing 3.15 million tonnes of nickel (6.9 billion pounds) and 126,000 tonnes (278 million pounds) of cobalt.<sup>2</sup>
- Shovel-ready: feasibility study and permitting complete. Strong community support.
- Conventional open pit, mine-mill operation using proven sulphide flotation.
- Structurally low-cost operation: significant infrastructure in place, low strip ratio (1.1:1).
- Excellent jurisdiction: Abitibi region of Quebec with significant labour and capital infrastructure.
- Significant additional value potential from the roasted nickel concentrate approach advanced by RNC.
- RNC has a 28% interest in the nickel joint venture (with Waterton Global Resource Management) that owns Dumont.

1. See "Dumont Nickel Project NI 43-101 Compliance" statement below.
2. Reference is made to table 15-1 in section 15 of the Technical Report on the Dumont Ni Project, dated July 25, 2013, available at [www.rncminerals.com](http://www.rncminerals.com) and under Royal Nickel Corporation's profile on [www.sedar.com](http://www.sedar.com).

### **Dumont Nickel Project NI 43-101 Compliance**

Unless otherwise indicated, RNC has prepared the technical information contained in this news release ("Technical Information") based on information contained in the feasibility study dated July 25, 2013 relating to the Dumont Nickel-Cobalt Project available under RNC's company profile on SEDAR at [www.sedar.com](http://www.sedar.com). The feasibility study was prepared by or under the supervision of a qualified person (a "Qualified Person") as defined in NI 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators. Readers are encouraged to review the full text of the feasibility study which qualifies the Technical Information. Readers are advised that mineral resources that are not mineral reserves do not have demonstrated economic viability. The feasibility study is intended to be read as a whole, and sections should not be read or relied upon out of context. The Technical Information is subject to the assumptions and qualifications contained in the feasibility study.

The Technical Information in this news release has been reviewed by Alger St-Jean, P. Geo., Vice President Exploration of RNC and Johnna Muinonen, Vice President, Nickel of RNC, with respect to the Dumont Nickel-Cobalt Project, both Qualified Persons under NI 43-101.

### **About RNC Minerals**

RNC is a multi-asset mineral resource company with a portfolio of nickel, cobalt, and gold production and exploration properties. RNC has a 28% interest in a nickel joint venture with Waterton that owns the Dumont Nickel-Cobalt Project located in the Abitibi region of Quebec which contains the second largest nickel reserve and eighth largest cobalt reserve (the largest undeveloped nickel reserve and second largest undeveloped cobalt reserve in the world). RNC has a 100% interest in the producing Beta Hunt gold and nickel mine located in Western Australia and a 35% interest in Orford Mining Corporation, a mineral explorer focused on highly prospective and underexplored areas of Northern Quebec and the Carolina Gold Belt in the United States. RNC also has a 27% stake in the producing Reed Mine in Manitoba. RNC has a strong management team and Board with over 100 years of mining experience at Inco and Falconbridge. RNC's common shares trade on the TSX under the symbol RNX. RNC shares also trade on the OTCQX market under the symbol RNKLF.

#### **Cautionary Statement Concerning Forward-Looking Statements**

*This news release contains "forward-looking information" including without limitation statements relating to the liquidity and capital resources of RNC, production guidance and the potential of the Beta Hunt and Reed mines as well as the and the potential of the Dumont development project and Qiqavik, West Raglan, Jones-Keystone Loflin and Landrum-Faulkner exploration properties.*

*Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of RNC to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Factors that could affect the outcome include, among others: future prices and the supply of metals; the results of drilling; inability to raise the money necessary to incur the expenditures required to retain and advance the properties; environmental liabilities (known and unknown); general business, economic, competitive, political and social uncertainties; accidents, labour disputes and other risks of the mining industry; political instability, terrorism, insurrection or war; or delays in obtaining governmental approvals, projected cash costs, failure to obtain regulatory or shareholder approvals. For a more detailed discussion of such risks and other factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements, refer to RNC's filings with Canadian securities regulators, including the most recent Annual Information Form, available on SEDAR at [www.sedar.com](http://www.sedar.com).*

*Although RNC has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended. Forward-looking statements contained herein are made as of the date of this news release and RNC disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise, except as required by applicable securities laws.*

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