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# Corvus Gold Receives Sulfide Gold Recovery of +90% Using AAO Process at the North Bullfrog Project, Nevada

Vancouver, B.C... Corvus Gold Inc. ("Corvus" or the "Company") - (TSX: KOR, OTCQX: CORVF) announces the initial results from testing the Atmospheric Alkaline Oxidation (AAO) method of oxidizing sulfide mineralization for low cost cyanide gold extraction (Figure 1). Initial results indicate the AAO method for oxidizing sulfide material could result in overall gold recoveries of approximately 93% from milled material in the Sierra Blanca tuff (largest host unit), which is comparable to oxidized milled material recoveries in the current production plan. The estimated additional operational cost to the mill ore for the AAO process would raise the mill cutoff grade to approximately 0.65 g/t.

The current North Bullfrog model has several areas below the current designed pit bottom that could be mined at above the projected sulfide mill cutoff grade. Further test work is on going for both mill material as well as testing of lower grade material using a sulfide leaching process.



Figure 1 Comparing original sulfide floatation concentrate to post AAO process oxidized concentrate that is readily leachable with standard CIL gold extraction.

The AAO process has been extensively tested at the Hycroft project in northern Nevada where a demonstration plant has been operated using trona. In addition, Hycroft constructed two sulfide heap leach test pads to confirm the effectiveness of a sulfide leach processing technique. The results of the demonstration plant, including the AAO process, have been included in the recent feasibility study done for the Hycroft project for commercial application.

Jeff Pontius, President and CEO of Corvus said, "The encouraging results from the application of the AAO process to North Bullfrog sulfide material could be a bonus to the project which already hosts a large oxide resource. In addition to the higher-grade, millable sulfide material, Corvus is conducting tests of sulfide leaching for heap leach applications, similar to the test work conducted at the Hycroft Mine which if positive, could amplify its impact on the project. The current oxide deposit in our PEA study is underlain by an extensive sulfide zone that if amenable to this new low-cost method of extraction could change the way we approach exploration and expansion of the North Bullfrog project and district."

## **AAO Sulfide Oxidation Process Test work**

The test work conducted by Hazen Research, Inc. on North Bullfrog sulfide material is testing the four rock types which host nearly all of the known sulfide mineralization on the project (Table 1). The current test results are from the Sierra Blanca unit which hosts about 50% of the currently known sulfide mineralization on the North Bullfrog property. The test work conducted standard flotation concentration of the sulfide material which produced a high-quality concentrate that averaged 92% gold in just 12% of the original materials (9:1 concentration ratio) for the Sierra Blanca rock unit. That concentrate was then mixed with a sodium carbonate reagent (Soda Ash) in a reaction tank with oxygen introduced for a period of 72 hours at which point there was no sulfide sulfur remaining in the concentrate. That material was then leached using cyanide in a process similar to that which is proposed for North Bullfrog mill facility. As a control, an unoxidized (no AAO treatment) concentrate sample was cyanide leached which recovered only 12% of the gold.

The key additional cost elements in adding the AAO process to the existing North Bullfrog mill flow sheet are: a flotation circuit, a fine grinding circuit, AAO reaction tankage; and an oxygen system. These added costs and reagents are currently projected to increase the mill cutoff grade for sulfide material to approximately 0.65 g/t Au. The company has identified a number of potential cost saving opportunities for the system that will also be explored in the coming months. The current North Bullfrog project has a number of areas that host sulfide mineralization of sufficient grade to be processed using the AAO system, as well as a local source for soda ash, which is a key reagent. Corvus Gold will report additional results for the other host units and heap leach tests as data becomes available.

Corvus Gold is also conducting column leach tests patterned after those used at the Hycroft project where trona was used as the additive, and that were scaled up to two, successful 5,000t test pads. The Corvus column tests use a highly reactive sodium carbonate material (soda ash) as an additive to the leach material in place of the standard lime addition. If the heap leach test work is successful, it would significantly lower the cut-off grade required and greatly expand the potential material that could be economically processed.

Table 1
North Bullfrog Mill Concentrate AAO Testing

Sample Unit	Gold Recovery	Concentration	Post AAO CN	Overall Gold
	to Concentrate	Ratio (ore to	Gold Recovery	Recovery
		concentrate)	(from con)	(from ore tonne)
Sierra Blanca	94%	9:1	99%	93%
Pioneer Tuff	94%	14:1	Pending	Pending
Rhyolite	89%	14:1	Pending	Pending
Dacite	88%	5;1	Pending	Pending

## About the North Bullfrog Project, Nevada

Corvus controls 100% of its North Bullfrog Project, which covers approximately 72 km² in southern Nevada. The property package is made up of a number of private mineral leases of patented federal mining claims and 865 federal unpatented mining claims. The project has excellent infrastructure, being adjacent to a major highway and power corridor as well as a large water right.

The North Bullfrog project includes numerous prospective gold targets at various stages of exploration with four having NI 43-101 mineral resources (Sierra Blanca, Jolly Jane, Mayflower and YellowJacket). The project contains a measured mineral resource of 3.86 Mt at an average grade of 2.55 g/t gold and 19.70 g/t silver, containing 316.5k ounces of gold and 2,445k ounces of silver, an indicated mineral resource of 1.81 Mt at an average grade of 1.53 g/t gold, and 10.20 g/t silver, containing 89.1k ounces of gold and 593.6k ounces of silver and an inferred resource of 1.48 Mt at an average grade of 0.83 g/t gold and 4.26 g/t silver, containing 39.5k ounces of gold and 202.7k ounces of silver for oxide mill processing. The mineral resource for the mill process was defined by Whittle<sup>TM</sup> optimization using all cost and recovery data and a breakeven cut-off grade of 0.52 g/t gold. In addition, the project contains a measured mineral resource of 0.3 Mt at an average grade of 0.25 g/t gold and 2.76 g/t silver, containing 2.4k ounces of gold and 26.6k ounces of silver, an indicated mineral resource of 22.86 Mt at an average grade of 0.30 g/t gold and 0.43 g/t silver, containing 220.5k ounces of gold and 316.1k ounces of silver and an inferred mineral resource of 176.3 Mt at an average grade of 0.19 g/t gold and 0.67 g/t silver, containing 1,077.4k ounces of gold and 3,799.2k ounces of silver for oxide, heap leach processing. The mineral resource for heap leach processing was defined by Whittle<sup>TM</sup> optimization using all cost and recovery data and a breakeven cut-off grade of 0.15 g/t.

# **Qualified Person and Quality Control/Quality Assurance**

Jeffrey A. Pontius (CPG 11044), a qualified person as defined by National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101"), has supervised the preparation of the scientific and technical information that forms the basis for this news release and has approved the disclosure herein. Mr. Pontius is not independent of Corvus, as he is the CEO & President and holds common shares and incentive stock options.

Carl E. Brechtel, (Nevada PE 008744 and Registered Member 353000 of SME), a qualified person as defined by NI 43-101, has coordinated execution of the work outlined in this news release and has approved the disclosure herein. Mr. Brechtel is not independent of Corvus, as he is the COO and holds common shares and incentive stock options.

The work program at North Bullfrog was designed and supervised by Mark Reischman, Corvus Gold's Nevada Exploration Manager, who is responsible for all aspects of the work, including the quality control/quality assurance program. On-site personnel at the project log and track all samples prior to sealing and shipping. Quality control is monitored by the insertion of blind certified standard reference materials and blanks into each sample shipment. All resource sample shipments are sealed and shipped to ALS Chemex in Reno, Nevada, for preparation and then on to ALS Chemex in Reno, Nevada, or Vancouver, B.C., for assaying. ALS Chemex's quality system complies with the requirements for the International Standards ISO 9001:2000 and ISO 17025:1999. Analytical accuracy and precision are monitored by the analysis of reagent blanks, reference material and replicate samples. Finally, representative blind duplicate samples are forwarded to ALS Chemex and an ISO compliant third party laboratory for additional quality control.

For additional information on the North Bullfrog project, including information relating to exploration, data verification and the mineral resource estimates, see "Technical Report and Preliminary Economic Assessment for Combined Mill and Heap Leach Processing at the North Bullfrog Project, Bullfrog Mining District, NYE County, Nevada" dated June 16, 2015 as amended and restated May 18, 2016 which is available under Corvus' SEDAR profile at www.sedar.com.

## **About Corvus Gold Inc.**

Corvus Gold Inc. is a North American gold exploration and development company, focused on its near-term gold-silver mining project at the North Bullfrog and Motherlode Districts in Nevada. In addition, the Company controls a number of royalties on other North American exploration properties representing a spectrum of gold, silver and copper projects. Corvus is committed to building shareholder value through new discoveries and the expansion of its projects to maximize share price leverage in a recovering gold and silver market.

On behalf of **Corvus Gold Inc.** 

(signed) *Jeffrey A. Pontius*Jeffrey A. Pontius,
President & Chief Executive Officer

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### Cautionary Note Regarding Forward-Looking Statements

This press release contains forward-looking statements and forward-looking information (collectively, "forward-looking statements") within the meaning of applicable Canadian and US securities legislation. All statements, other than statements of historical fact, included herein including, without limitation, statements regarding the potential for new deposits and expected increases in a system's potential; anticipated content, commencement and cost of exploration programs, anticipated exploration program results, the discovery and delineation of mineral deposits/resources/reserves, the potential to develop multiple YellowJacket style high-grade zones, the Company's belief that the parameters used in the Whittle<sup>TM</sup> pit optimization process are realistic and reasonable, the potential to discover additional high grade veins or additional deposits, the potential to expand the existing estimated resource at the North Bullfrog project, the potential for any mining or production at North Bullfrog, are forwardlooking statements. Information concerning mineral resource estimates may be deemed to be forward-looking statements in that it reflects a prediction of the mineralization that would be encountered if a mineral deposit were developed and mined. Although the Company believes that such statements are reasonable, it can give no assurance that such expectations will prove to be correct. Forward-looking statements are typically identified by words such as: believe, expect, anticipate, intend, estimate, postulate and similar expressions, or are those, which, by their nature, refer to future events. The Company cautions investors that any forwardlooking statements by the Company are not guarantees of future results or performance, and that actual results may differ materially from those in forward looking statements as a result of various factors, including, but not limited to, variations in the nature, quality and quantity of any mineral deposits that may be located, variations in the market price of any mineral products the Company may produce or plan to produce, the Company's inability to obtain any necessary permits, consents or authorizations required for its activities, the Company's inability to produce minerals from its properties successfully or profitably, to continue its projected growth, to raise the necessary capital or to be fully able to implement its business strategies, and other risks and uncertainties disclosed in the Company's 2014 Annual Information Form and latest interim Management Discussion and Analysis filed with certain securities commissions in Canada and the Company's most recent filings with the United States Securities and Exchange Commission (the "SEC"). All of the Company's Canadian public disclosure filings in Canada may be accessed via www.sedar.com and filings with the SEC may be accessed via www.sec.gov and readers are urged to review these materials, including the technical reports filed with respect to the Company's mineral properties.

### Cautionary Note Regarding References to Resources and Reserves

NI 43-101 is a rule developed by the Canadian Securities Administrators which establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. Unless otherwise indicated, all resource estimates contained in or incorporated by reference in this press release have been prepared in accordance with NI 43-101 and the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum (the "CIM") Standards on Mineral Resource and Mineral Reserves, adopted by the CIM Council on May 10, 2014 (the "CIM Standards") as they may be amended from time to time by the CIM.

United States investors are cautioned that the requirements and terminology of NI 43-101 and the CIM Standards differ significantly from the requirements and terminology of the SEC set forth in the SEC's Industry Guide 7 ("SEC Industry Guide 7"). Accordingly, the Company's disclosures regarding mineralization may not be comparable to similar information disclosed by companies subject to SEC Industry Guide 7. Without limiting the foregoing, while the terms "mineral resources", "inferred mineral resources", "indicated mineral resources" and "measured mineral resources" are recognized and required by NI 43-101 and the CIM Standards, they are not recognized by the SEC and are not permitted to be used in documents filed with the SEC by companies subject to SEC Industry Guide 7. Mineral resources which are not mineral reserves do not have demonstrated economic viability, and US investors are cautioned not to assume that all or any part of a mineral resource will ever be converted into reserves. Further, inferred resources have a great amount of uncertainty as to their existence and as to whether they can be mined legally or economically. It cannot be assumed that all or any part of the inferred resources will ever be upgraded to a higher resource category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of a feasibility study or prefeasibility study, except in rare cases. The SEC normally only permits issuers to report mineralization that does not constitute SEC Industry Guide 7 compliant "reserves" as in-place tonnage and grade without reference to unit amounts. The term "contained ounces" is not permitted under the rules of SEC Industry Guide 7. In addition, the NI 43-101 and CIM Standards definition of a "reserve" differs from the definition in SEC Industry Guide 7. In SEC Industry Guide 7, a mineral reserve is defined as a part of a mineral deposit which could be economically and legally extracted or produced at the time the mineral reserve determination is made, and a "final" or "bankable" feasibility study is required to report reserves, the three-year historical price is used in any reserve or cash flow analysis of designated reserves and the primary environmental analysis or report must be filed with the appropriate governmental authority. U.S. investors are urged to consider closely the disclosure in our latest reports and registration statements filed with the SEC. You can review and obtain copies of these filings at http://www.sec.gov/edgar.shtml. U.S. Investors are cautioned not to assume that any defined resource will ever be converted into SEC Industry Guide 7 compliant reserves.

This press release is not, and is not to be construed in any way as, an offer to buy or sell securities in the United States.