

# Northern Vertex Moss Mine Procurement and Construction Update

"Procurement activities and earthworks program advancing on schedule"

Key Federal and State Permits Complete

**February 2, 2017, Vancouver, B.C. - Northern Vertex Mining Corp. (TSX.V:NEE) (the "Company" or "Northern Vertex")** is pleased to provide an update on mine procurement, construction, permitting and exploration activities at the company's 100 % owned Moss Mine gold-silver project, located in the historic Oatman Mining district in NW Arizona. The Moss Mine project, which is scheduled to commence commercial gold-silver production in Q4 2017, has a capital cost estimated at US\$33m, and is expected to generate an average annual production of 42,000 oz gold Eqv. with an all-in sustaining costs of US\$662/oz gold and an after-tax IRR of 48% (based on \$1,250/oz gold and \$20/oz silver).

# **Moss Mine Development Highlights:**

- Key Federal and State Permits for Phase II are in hand. The final amendment to the Aquifer Protection Permit is expected in March 2017, the closure costs calculation has been approved and the \$1.4m bond submitted.
- The ramp-up of site construction is continuing with bulk earthworks initiated during Q1 2017, with the earthworks contractor having mobilized to the site and, the purchase of the main crushing plant scheduled for delivery and installation by Q2 2017.
- Detailed engineering and mine planning for Phase II nearing completion and is advancing to a planned 95% completion by Q2 2017
- Procurement progress is tracking well, with all major items.
- Completion of two new groundwater production wells that will supply make-up water for leaching of Moss ores.
- Nearing completion of the site perimeter fencing around the patented claims.
- Engaging services of Mine Development Associates ("MDA"), of Reno, NV to initiate mine design for the Phase III Mine Plan of Operations (MPO) and Permitting.
- Continued advancement of local community initiatives, human resources initiative underway to enhance access to local labor pool and skilled work force.

Kenneth Berry, President and CEO, stated: "We are pleased to provide an update on procurement and construction activities at the Moss Mine project that are progressing on schedule and on budget for our Phase II operations. Moss is one of the few gold-silver deposits in the United States with advanced permits, situated in one of the most historic and active gold regions in Arizona. The improved investment environment for precious metal companies and the low capital costs required to place Moss into production has greatly enhanced the Company's ability to expediate the advancement of the project to the construction and development phase. Simultaneously, we are beginning the engineering and design work to enable permitting of Phase III well in advance of when they will be required. We look forward to providing further updates on activities in the future."

#### **Construction and Civil Earthworks**

N.A. Degerstrom continues with the site civil works. The Moss Mine entrance/parking area is 90% complete and requires final site grading. The power station pad is 80% complete also requiring final site grading. The historic mine openings (Old shafts, stopes, adits and tailings) and associated hazards have been reclaimed, making safe the laydown yard where development is now 70% complete. The proposed future crusher pad area is well underway, and NAD have also begun pioneering the east access road over to the proposed Merrill Crowe area.



## Mine Engineering Design & Major Item Procurement

- Crusher M3 Engineering is coordinating completion of shop drawings for the crushing plant.
- **Merrill Crowe** detailed engineering continues and efforts are now focused on the civil and structural designs.
- **Power Station** proposals for the diesel generators and transformers are being reviewed.
- **Heap Leach civil works** Golder Associates ("Golder") have completed the Heap Leach Pad & Ancillary Structures design & M3 has prepared contract documents for proposed construction.

## **Summary of Permitting – Phase II**

### **Federal**

BLM Surface Disturbance on Federal Land

Mine Safety & Health Administration (MSHA)

✓ U. S. Army Corps of Engineers

√ EPA - NESHAP

#### State of Arizona

√ Mine Reclamation Permit

√ Stormwater Multi-Sector General Permit MSGP

√ Air Quality Permit

√ Stormwater Pollution Prevention Plan SWPPP

√ Aquifer Protection Permit - Amendment

No Disturbance of Federal Lands on Phase II

Mine ID # 0202367 April 3, 2013

Phase II erosional features declared non jurisdictional Aug

26, 2016

Granted Jan 31, 2017

Amendment approved - Nov 21, 2016, Bonding in place

Approved Dec 13, 2016

Facilities Construction permit granted Dec. 16, 2016

Revision II approved Dec 22, 2016

Closure Plan Accepted, Bond in place, public hearing in

February, expected award in March

### **Well Drilling and Aquifer Pump Tests**

Yellow Jacket Drilling completed two deep, large diameter groundwater production wells (#16 and well #17) in mid January. Constant rate pumping tests have been completed on these wells and crew has moved to previously completed wells to complete aquifer testing in advance of a final aquifer analysis report by Golder.

## Exploration and Resource Expansion Program – seven drill holes complete, assays pending

Northern Vertex is currently conducting a 3,000 meter drill campaign, simultaneously with the Company's ongoing Moss Mine construction and development program. It is the first phase of a multi-phase drill and resource expansion program designed to further expand the Company's existing gold-silver resources.

The Company has identified four high priority targets that are the focus of the multi-phase drill program on Moss. These include the *West Oatman* stockwork vein target, the high-grade *Old Timer East and West* targets and the *Western Extension of the main Moss Mine deposit*. The Company recently completed 3 drill holes on the Western Extension of the Moss deposit, where extensive silicification and quartz veining has been mapped along the western projection of the Moss vein system. The Company is currently drilling on the West Oatman target and has completed an additional four holes. Assays from recent drilling will be announced in a future release once received and compiled.

Mineralized intersections in Drill holes WW-16 and WW-17, which comprised nine inch diameter holes drilled as water wells, intercepted gold and silver mineralization 130 feet below the established Moss Mine gold-silver open-pit resource. The intercept in WW-16 calculates as 1.178 g/t gold plus 24.152 g/t silver (1.58 g/t gold Eqv.\*) over 115 ft. (645-760 ft.), which converts to a true width of 39.3 ft. (12.0 meters) at 70 degree dip of the Moss vein. The mineralization was in the hanging wall slightly above the main Moss vein. (see news release dated January 30, 2017)

The reverse circulation water well hole 16 that intercepted the Moss gold-silver structure at depth is a significant development that demonstrates the Moss gold-silver mineralization extends below depths



previously recognized. The multi-phase core drilling program is intended to demonstrate the potential for discovery of new zones of gold and silver, which would assist the Company in meeting its goal of increasing its gold-silver resources and potential future production without incurring significant incremental costs.

#### **Phase III – Mine Extension**

A resource of 435,000 gold Eqv. oz (Measured 4.86M tonnes @ 1.1 gpt gold Eqv. and Indicated 10.62M tonnes @ 0.77 gpt gold Eqv., using \$1,250/oz gold and \$20/oz silver price) was identified in the National Instrument 43-101 Technical Report (effective date October 31, 2014, report dated December 30, 2014). The Phase II pit Feasibility Study Technical Report (effective date June 8, 2015, report dated July 13, 2015) was constrained by the boundary limits of the patented property resulting in a proven & probable reserve of 238,010 gold Eqv. oz (7.96M tonnes @ 0.93 gpt) and stock pile reserves of 1,750 gold Eqv. oz (61,965 tonnes @ 0.88 gpt, using \$1,250/oz gold and \$18.50/oz silver price) planned to be mined in Phase II. To utilize the balance of the resource identified in the December 30, 2014 report will require operations on the company's unpatented claims (BLM Land). Mining on, or disturbance on the BLM Land must first undergo NEPA (National Environmental Policy Act) analysis and Federal permitting starting with the submission of a Mining Plan of Operations (MPO) to the BLM. The engagement of MDA for pit design will be the first step in the MPO process and will give Northern Vertex a preliminary start towards Phase III permitting.

## **Safety Record**

The Company is committed to the development of a culture of safety within all of its operations and has developed and provided the engineered designs & solutions, the education & training programs, the development of Standard Operating Procedures and the safety equipment and devices in the continuing efforts to meet this commitment. A reflection of the commitment is that the Company's wholly owned Arizona subsidiary, Golden Vertex Corp. has worked 1561 days without a Lost Time or MSHA reportable accident. Three major safety awards received from MSHA are recognition of our achievements.

## OA/OC

At the company's Bullhead facilities, core samples are dried, and logged by a geologist. The core is then cut longitudinally with a diamond bladed saw, under the supervision of a geologist. One half of the core is stored for future reference, the other half is crushed and pulverized to 85% passing through a 200 mesh sieve and sent to the lab for assay. The pulps are assayed for gold using a 30 g split, Fire Assay (FA) and Atomic Absorption (AA) finish. Pulps are further analyzed using a 15 gram split using 32 elements ICP. Silver assays used the ICP data. Over limit assays for both gold and silver (10 gpt for gold and 100 gpt for silver) were rerun using a gravimetric procedure. Rejects and pulps are stored at the lab for future reference.

### **Qualified Person**

The foregoing technical information contained in this news release has been prepared in accordance with the Canadian regulatory requirements set out in National Instrument 43-101 (Standards for Disclosure for Minerals Projects) and reviewed on behalf the Company by James McDonald, P.Geo & Director for Northern Vertex, a Qualified Person.

#### **About Northern Vertex**

Northern Vertex Mining Corp. is an exploration and mining company focused on the reactivation of its 100% owned Moss Mine Gold/Silver Project located in NW Arizona, USA. The Company's management comprises an experienced management team with a strong background in all aspects of acquisition, exploration, development, operations and financing of mining projects worldwide. The Company is focused on working effectively and respectfully with our stakeholders in the vicinity of the historical Moss Mine and enhancing the capacity of the local communities in the area.

ON BEHALF OF THE BOARD OF NORTHERN VERTEX



"Kenneth Berry " President & CEO

For further information, please visit www.northernvertex.com or contact Investor Relations at: 604-601-3656 or at 1-855-633-8798.

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.

Forward-Looking Statements: This news release contains statements about our future business and planned activities. These are "forward-looking" because we have used what we know and expect today to make a statement about the future. Forward-looking statements including but are not limited to comments regarding the timing and content of upcoming work and analyses. Forward-looking statements usually include words such as may, intend, plan, expect, anticipate, believe or other similar words. We believe the expectations reflected in these forward-looking statements are reasonable. However, actual events and results could be substantially different because of the risks and uncertainties associated with our business or events that happen after the date of this news release. You should not place undue reliance on forward-looking statements. As a general policy, we do not update forward-looking statements except as required by securities laws and regulations.

Cautionary Note to US Investors: This news release may contain information about adjacent properties on which we have no right to explore or mine. We advise U.S. investors that the SEC's mining guidelines strictly prohibit information of this type in documents filed with the SEC. U.S. investors are cautioned that mineral deposits on adjacent properties are not indicative of mineral deposits on our properties. This news release may contain forward-looking statements including but not limited to comments regarding the timing and content of upcoming work programs, geological interpretations, receipt of property titles, potential mineral recovery processes, etc. Forward-looking statements address future events and conditions and therefore involve inherent risks and uncertainties. Actual results may differ materially from those currently anticipated in such statements. This press release uses the terms "Measured", "Indicated", and "Inferred" resources. United States investors are advised that while such terms are recognized and required by Canadian regulations, the United States Securities and Exchange Commission does not recognize them. "Inferred Mineral Resources" have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an Inferred Mineral Resource will ever be upgraded to a higher category. Under Canadian rules, estimates of Inferred Mineral Resources may not form the basis of feasibility or other economic studies. United States investors are cautioned not to assume that all or any part of Measured or Indicated Mineral Resource is economically or legally mineable.

2017 number 02