

DRILLING PREPARATIONS UNDERWAY - ALASKA

- Road construction to the Aurora Creek Prospects has reached priority drill targets.
- A water well contractor has commenced drilling a water bore for a diamond core drilling program planned for Q1 2020.
- Q1 2020 winter drilling program has all necessary drill permits in place.
- An infill geophysics survey (ELF-EM) to refine drilling targets at Aurora Creek Prospects has commenced.
- New compilation of eight historic geophysical magnetic data sets shows Pogo lookalike signatures.
- Historic drill core from the ER and Eagle Prospects has been recovered, which will be geologically logged and geochemical analysis undertaken, to assist the Company in defining the various regional mineral systems and prioritising prospects.
- Detailed planning of the 2020 field programs, final due diligence on the project is ongoing under the one hundred day exclusive option period.
- Proposed name change to Resolution Minerals Ltd.



CAPITAL STRUCTURE

Ordinary Shares Issued 75.9 M

Options and rights Listed options 6.1 M @ 10c Unlisted options 12.3 M @ 25c Unlisted rights 2.5 M Performance Shares Class A 9.6 M Class B 3.6 M

Last Capital Raise October 2019 – Placement \$1.5M @ 3.5c

BOARD

Len Dean - Chair Duncan Chessell - MD Andrew Shearer - NED Jarek Kopias - Co Sec



"The unique logistical advantage we have with the all year access Pogo Gold Mine road through our project is a massive advantage over the usual helicopter hungry Alaskan projects"; "our team on the ground remains undaunted by the cold conditions and road construction is continuing to secondary drill targets" – Duncan Chessell, Managing Director – Northern Cobalt.

In October 2019 Northern Cobalt Limited (ASX: N27 or Company) entered into a binding term sheet (Term Sheet) with Millrock Resources Inc (TSXV: MRO or Millrock) to acquire, via joint venture earn-in, up to **80% in the Goodpaster Project** in Alaska. The Goodpaster Project is adjacent to Northern Star's Pogo Mine which has a total endowment of 10 million ounces of gold and is currently producing at a rate of 300,000 ounces per annum, with previous production of 4m ounces of gold at 13.6 g/t Au (ASX:NST). The Initial exploration program for Year 1, will utlise diamond core drilling, lidar, field mapping, geochemical sampling and geophysical surveys to unlock the structural controls and focus in on gold mineralisation on the West Pogo Prospect; as well as conduct regional work to identify further drill targets in this district scale gold mineralised system.



Figure 1: Aurora Creek Prospects looking NE to the Pogo Gold Mine, note new drilling road along southern boundary of image



Field Operations Update Summary

Since signing a Binding Agreement with Millrock Resources (TSXV:MRO) on 17th October 2019 to earn up to 80% of the Goodpaster Project (Alaska) Northern Cobalt has been active on site undertaking detailed duediligence and preparing for drilling in early 2020.

Northern Cobalt is planning a **US\$5.0 million exploration program** in 2020 that will include a thorough test of drill targets established on the West Pogo Focus Area, located immediately adjacent to recent Northern Star's (ASX:NST) Goodpaster Prospect discovery, located only 420m from the tenement boundary.

Northern Cobalt's intended project partner and Millrock Resources has **received exploration permits** for camp construction, drill road construction, and exploration drilling, and trenching, and is undertaking the following tasks in conjunction with Northern Cobalt's technical team:

- Water bore drill rig is on site at Aurora Creek Prospects to drill a water bore for use in the Q1 2020 diamond drilling program on priority drill targets on the Aurora Creek Prospect.
- A **Geophysics crew has commenced** an ELF-EM (Extreme Low Frequency Electromagnetic) survey to conduct an orientation survey over the previous CSAMT survey (line 6, *Figure 3*). If the results are positive the geophysical method will be expanded to infill the Aurora Creek Prospects (*Figure 3*) to refine drill targets and increase the 3D understanding of the geology.
- **Received an expanded and updated Pogo Mine Road Use Permit** to allow passage of semi-truck and trailers.
- Northern Star Resources (ASX:NST), owner of the adjacent Pogo Gold Mine, is entering into a Shared Use Agreement with MRO to set forth safety protocols on the Pogo Gold Mine Road.
- A construction crew camp has been established at Mile 39 of the Pogo Gold Mine Road, and a lay-down area at Mile 45.5 a short distance south of the Aurora target.
- Drill core examined and recovered from field at the ER Prospect (10 km west of the Pogo Gold Mine). These drill cores were produced by prior operators. Despite the presence of altered rocks and quartz veins bearing arsenopyrite and bismuth sulphide, the core was not adequately sampled. The core has been recovered and moved to Fairbanks, Alaska, for logging and sampling.
- Similarly, at the Eagle Prospect (30 km southwest of the Pogo Mine), drill cores stored on-site that visually appear to be mineralised and altered but sparsely sampled by prior workers were located. Recovery of this core to Fairbanks has been completed and detailed logging is underway.
- The presence of multiple widespread mineralised prospects and the recent Northern Star's exploration success, close to the tenement boundary, indicate **this gold district has the potential to become a Camp Scale system** i.e. with potentially multiple deposits.



West Pogo Block – Area of Interest



Figure 2: West Pogo Block - Area of Interest and prospects with surface geochemistry

Northern Cobalt's geophysicist has merged eight (8) historic magnetic survey data sets and used an ASVI filter to remove some of the effects of magnetic remanence from a TMI (Total Magnetic Intensity) image. (ASVI: Analytic Signal of the Vertical Integral of the TMI)

As a result the identification of significant geophysical similarities between Northern Star's Pogo Deposit and Goodpaster Prospect and Northern Cobalt's Echo and Aurora Creek Prospects has been identified. Demagnetised zones (darker colours, *Figure 3*) are often associated with the destruction of magnetic minerals during either shearing or fluid flow, that can be also associated with mineralisation.



Aurora Creek Prospects

The new road allows vehicle access and winter drilling options for this highly prospective area. The prospectivity is highlighted in the presence of coincident highly anomalous surface geochemistry, a strongly demagnetised zone, and a predicted conductive rock unit (Millrock's 2019 CSAMT survey), leads us to prioritise the Aurora Creek Prospects as our primary drill target for Q1 2020. Historic shallow drilling, which we believe targeted the vertical feeder systems reported narrow intersections of 1.2m@1.71g/t Au



Figure 3: West Pogo Block - Area of Interest and prospects over magnetic (ASVI) image

from 165m.5m (HoleID:MR-12-01), demonstrating gold mineralised fluids are present in this area. This drill hole is interpreted to be too shallow to have intersected the potential Pogo-style gently dipping mineralisation we aim to drill test, based on the available CSAMT data.

Aurora Creek Prospects – ELF-EM geophysical survey

An ELF-EM (extremely low frequency electromagnetic) geophysical survey has commenced at the Aurora Creek Prospects, with the aim to tighten up drill targets for Q1 2020. The system will be tested over the existing CSAMT line 6 to verify the effectiveness of the system in this geological setting.

ELF-EM is a portable ground geophysical technique, which measures vertical and horizontal components of the natural time-varying geomagnetic field originating primarily from global lightning activity. The system is designed to image resistivity to depths of up to 2 kilometres and is highly cost-effective



alternative to other deep EM imaging techniques such as CSAMT which usually require cut lines in this area. Test surveys completed at Rackla Metals' Sixty Mile property within the Yukon Terrane, have demonstrated that ELF-EM is comparable to CSAMT results in Intrusion Related Gold Systems.

Echo Prospects

NST's Goodpaster Prospect has been interpreted to be associated with a magnetic mineral destructive event and the Echo Prospects (Figure 3) on our project ground to the NW of the Goodpaster Prospect appear to be look-alike geophysical and geological features. Sparse geochemical surveys are inconclusive as there is not necessarily surface evidence of potential flat lying Pogo-style mineralisation at depth, and no drilling has taken place on the Echo Prospects.

The 2019 CSAMT survey conducted by project partners Millrock Resources indicates a conductive unit of similar rock properties to that at the Goodpaster Prospect. We surmise that the Echo Prospects are potentially an NW expression of Pogo-style mineralisation. Further geophysical surveys will be conducted in spring to tighten up drill targets, but this area is of significant interest to Northern Cobalt and is our priority two area for drilling.

ER Prospect

The ER Prospect is not associated with а demagnetised zone, however mineralisation of up to 373 g/t Au over 0.1m in historic drilling (Hole ID: ER03-05) in is certainly worthy further of investigation. Our continued work to ascertain alternative controls on mineralisation and identify the different mineral methodical systems by geochemical fingerprinting and other methods. is ongoing throughout the



Figure 4: ER Prospect, West Pogo Block historic drilling highlights

district. It is typical to find variations of mineralisation styles of IRGS (intrusion related gold systems) and Pogo-style mineralisation is a unique subset of IRGS and it is important to not be fixated on one model.



Competent Person Statement

The information in this report that relates to exploration results is based on, and fairly represents, information and supporting documentation compiled by Mr Duncan Chessell who is a member of the Australian Institute of Geoscientists. Mr Duncan Chessell is an employee of Northern Cobalt and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Duncan Chessell consents to the inclusion in the report of the matters based on his information in the form in which it is appears and confirms that the data reported as foreign estimates are an accurate representation of the available data and studies of the material mining project. This report includes results that have previously been released under JORC 2012 by the Company as "Stanton Resource Upgrade Increases Contained Cobalt" on 9 April 2018, "Binding Agreement earning 80% of Gold Project in Alaska" on 17th October 2019 and "Gold Symposium Conference Presentation" on 24th October 2019. The Company is not aware of any new information or data that materially affects the information included in this announcement and all material assumptions and technical parameters underpinning the Mineral Resource continue to apply and have not materially changed.

For further information please contact:

Duncan Chessell Managing Director Northern Cobalt Ltd M: +61 414 804 055 E: <u>duncan@n27.com.au</u>

"THE ALL YEAR-ROUND 24X7 MINE-ROAD ACCESS AVAILABLE TO THIS PROJECT, IS A HUGE LOGISTICAL AND COST SAVING ADVANTAGE OVER TYPICAL SUMMER ONLY -HELICOPTER SUPPORTED PROJECTS IN ALASKA."

- DUNCAN CHESSELL, MD



TINTINA GOLD PROVINCE - GOODPASTER GOLD DISTRICT



Province Gold System

- 100m oz Au Endowment
- 80-102 Ma Age main mineralizing event

Goodpaster District

- Pogo Gold Mine has produced 4m oz Au @ 13.6g/t Au; with 6m oz in resource with 4 new discoveries announced
- 120km from Fairbanks second largest city in Alaska
- All year mine road to ASX:NST Pogo Gold Mine

OTHER PROJECTS SUMMARY- USA & AUSTRALIA



- Three historic gold mines on the property
- Drilling approvals in place for proof of concept drilling of Vanadium – Magnetite layered mafic targets
- Reviewing project for gold potential



- Stanton Cobalt Deposit Total Mineral Resource Estimate
 942,000t @ 0.13% Co, 0.06% Ni and 0.12% Cu
- Significant IP anomalies defined under both Running Creek and Gregio Prospects potential for Cu-Co with copper and cobalt mineralisation in shallow drilling above the IP anomalies
- Drilling approvals in place (Dry season is May-Dec)