

# DRILLING COMMENCED AT REFLECTION PROSPECT 64NORTH PROJECT, ALASKA

## Summary

- Drilling has commenced on the Reflection Prospect immediately adjacent Northern Star's (ASX: NST) Goodpaster Prospect and Pogo Gold Mine. Hole 20RE06 will test a target zone from 220m to 600m interpreted to be a potential repeat of the Liese Zone at the Pogo Mine
- The Goodpaster Prospect is the focus of A\$21m resource delineation program by NST
- **Echo Prospect hole 20EC05 was completed to a depth of 321m** with the intersection of altered country rock confirming the CSAMT geophysical interpretation, assays expected late September
- Further road accessible drilling is planned at the 2km x 5km Aurora Prospect after completion of the current helicopter supported drilling on the Reflection Prospect
- Field work is underway during the current Alaskan summer field season to finalise drill targets at the Boundary and E1 Prospects, results and planned program to be announced in September
- **Fully funded exploration on multiple drilling targets with news flow for the remainder of 2020 after recent \$5.1m placement and SPP**

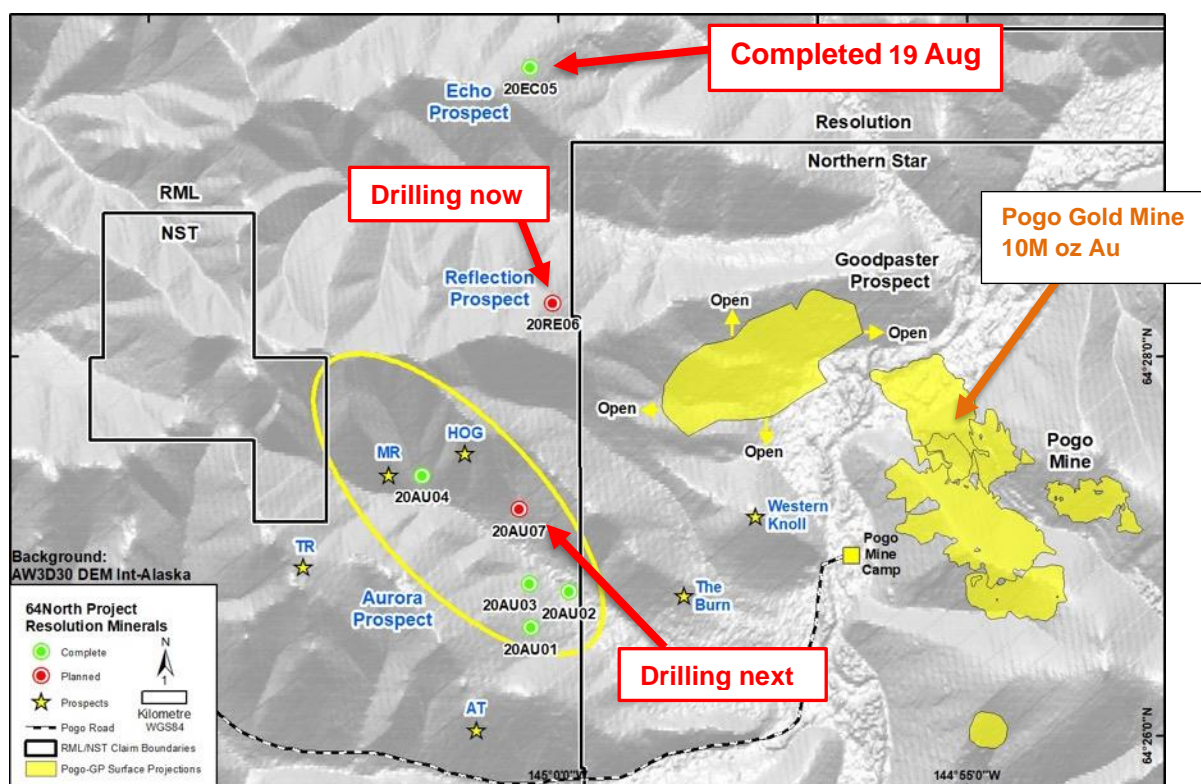


Figure 1 Aurora, Echo & Reflection Prospects - West Pogo Block, 64North Project Alaska, current drilling focus

## CAPITAL STRUCTURE

Ordinary Shares  
Issued 279 M

Options and rights  
Listed options 6.1 M @ 10c  
Unlisted options 12.3 M @ 25c  
Unlisted options 13.4 M @ 6c  
Unlisted rights 7.5 M

Performance Shares  
Class A 9.6 M  
Class B 3.6 M

Last Capital Raise  
August 2020 - Placement & SPP  
\$5.1M @ 7c

## BOARD

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

Level 4, 29-31 King William Street, Adelaide SA 5000

Managing Director, Duncan Chessell commented:

***“The Reflection Prospect drill target is a very exciting target, which we interpret as a structural repeat of the Pogo trend and is only a mile along strike from the neighbouring Goodpaster Prospect, which is about to see a \$21m resource drill out”.***

Resolution Minerals Ltd (RML, Resolution or Company) is pleased to announce that the third phase of drilling for 2020 is well underway at the compelling West Pogo Block adjacent to Northern Star’s Pogo Gold Mine, Alaska. Using a helicopter supported diamond core drill rig Hole ID: 20EC05 was completed on 19 August 2020 to a depth of 321m. The hole intersected strong alteration zones as predicted by the CSAMT geophysics survey. Detailed logging is underway and samples for this hole will be submitted for assay and reported separately. Assays are expected to be returned in late September.

### Reflection Prospect drill hole ID: 20RE06

The **current hole ID: 20RE06** is designed to test a west dipping conductive unit at 220m to 550m depth which mirrors the dip of mineralisation on the Pogo Mine and Goodpaster Prospect. The drill hole is only 1.6km NW from the Goodpaster Prospect which will be the focus of a \$21m resource delineation program for FY2021 announced by Northern Star. Resolution interprets that the Goodpaster Prospect mineralisation may continue to the NW onto RML’s claims at the Reflection Prospect, but is expected to be significantly deeper than the conductive unit targeted by this drill hole (20EC06 - see figures 2 and 3). Resolution’s technical team has combined with Millrock Resources (TSXV:MRO) (64North Project vendor and partner) geologists and using CSAMT (2019) and new ZTEM geophysics data believe the west dipping conductive unit targeted by this hole is potentially a repeat of the greater Pogo trend from east to west (figure 2). Technical team member Gabe Graf was responsible for the Goodpaster Discovery when it was held by Sumitomo and strongly supports the drilling of this target.

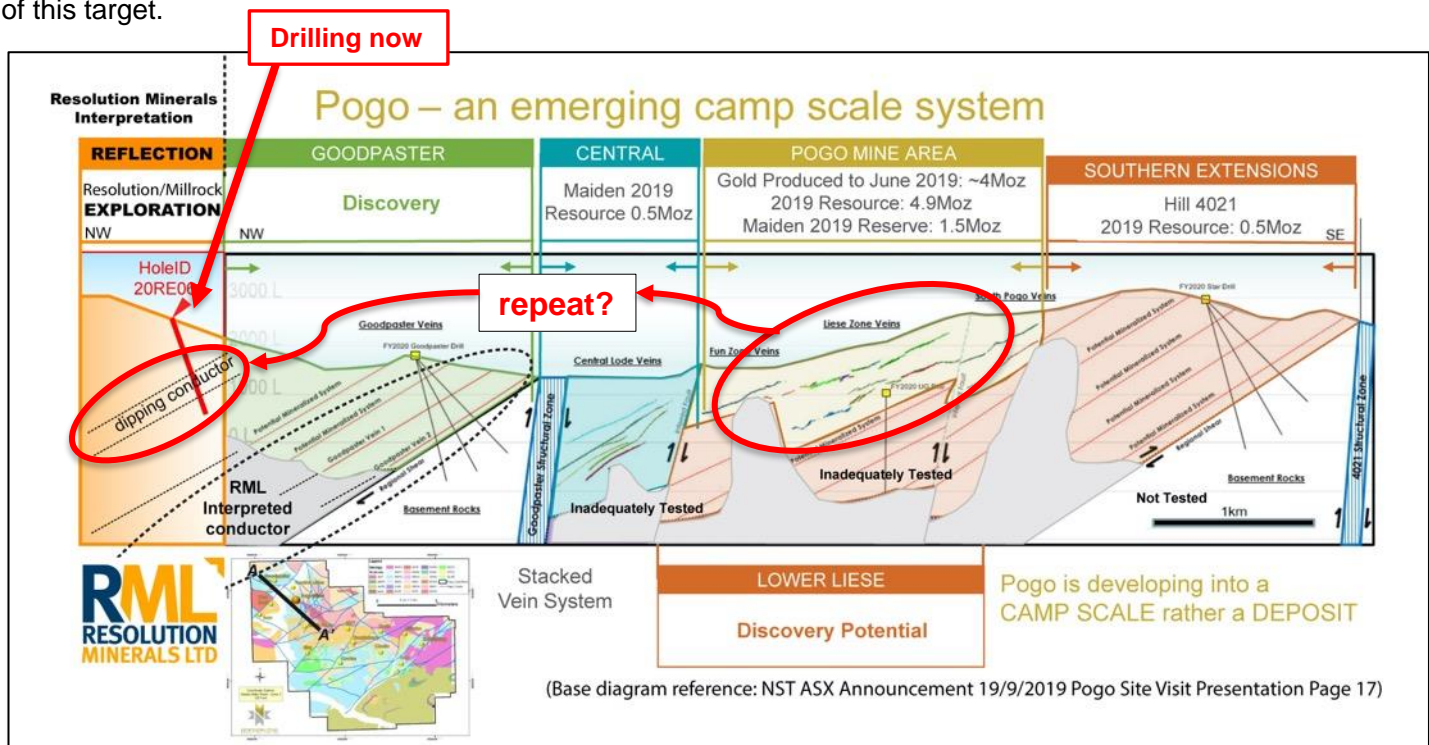


Figure 2 Pogo trend cross section over the Pogo Gold Mine extending west to include RML's Reflection Prospect



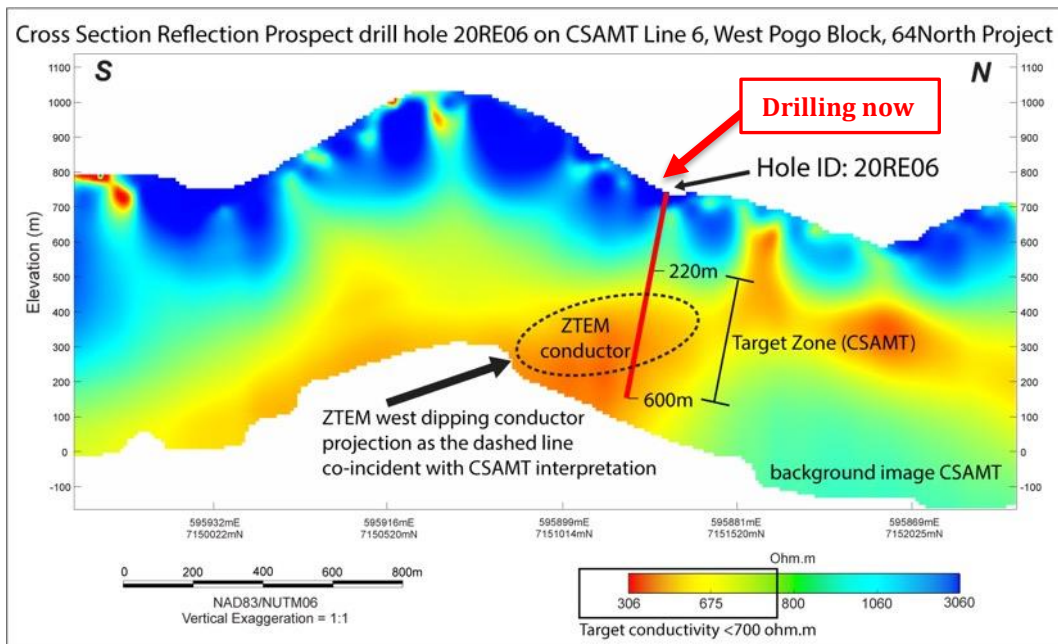


Figure 3 Current drill holeID:20RE06 with planned 600m drill trace on north-south CSAMT cross section Line 6, with ZTEM co-incident conductor with CSAMT target zone indicated with dashed ellipse

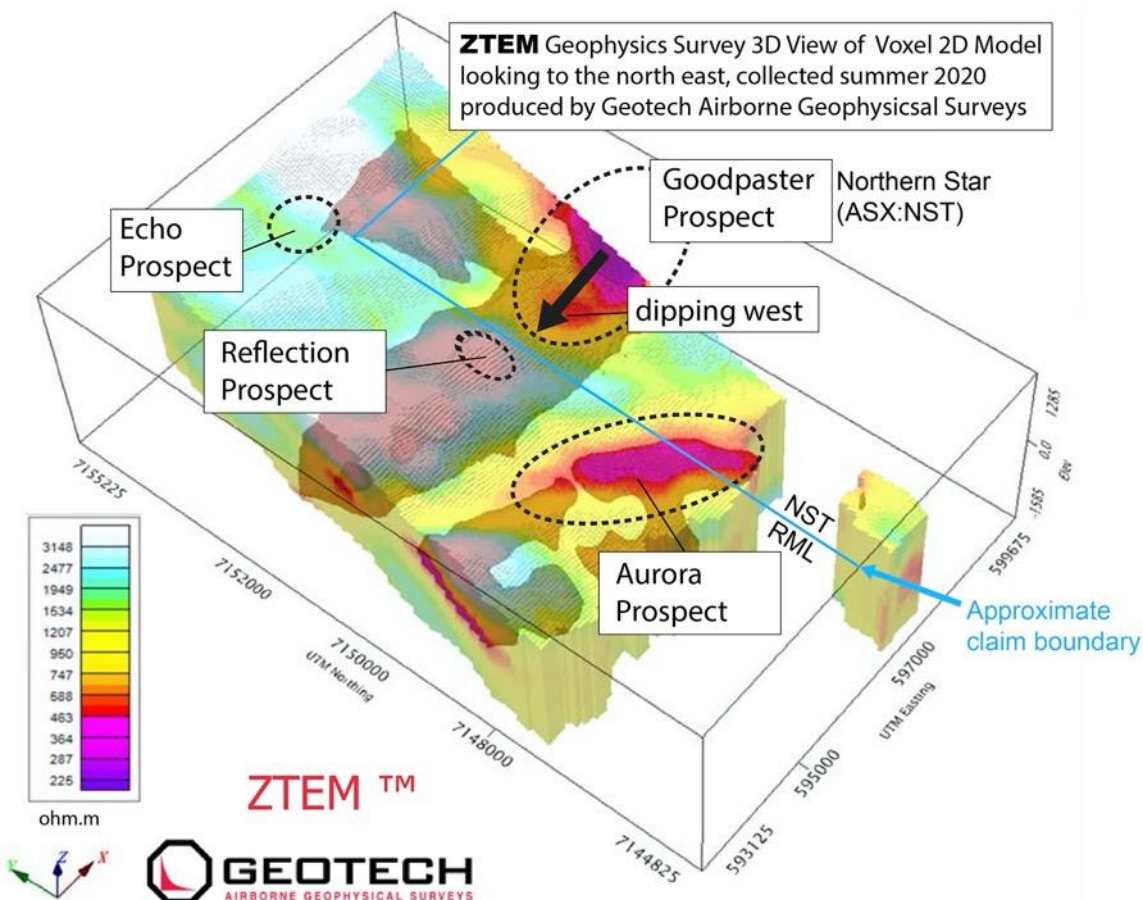


Figure 4 3D view of ZTEM (2D) inversion resistivity voxel model looking to the NE (note different colour scale to CSAMT)



Figure 5 Deposit sizes stated as Endowment (Resources & Reserves + Historic Production) \*sourced from Company websites

For further information please contact the authorising officer:

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or visit our website [www.resolutionminerals.com](http://www.resolutionminerals.com)



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**\*Tintina Gold Province Endowment Map** – source of data: Pebble (Northern Dynasty, [www.northerndynastyminerals.com](http://www.northerndynastyminerals.com)), Pogo (Northern Star Resources, [www.nsrld.com](http://www.nsrld.com)), Fort Knox (Kinross, [www.kinross.com](http://www.kinross.com)), Donlin Creek (NovaGold, [www.novagold.com](http://www.novagold.com)), Livengood (International Tower Hill Mines, [www.ithmines.com](http://www.ithmines.com)), Eagle & Dublin Gulch (Victoria Gold Corp, [www.vgcx.com](http://www.vgcx.com)), Brewery Creek (Golden Predator, [www.goldenpredator.com](http://www.goldenpredator.com)), White Gold (White Gold Corp, [whitegoldcorp.ca](http://whitegoldcorp.ca)), Coffee (Newmont, [www.newmont.com](http://www.newmont.com)), Kensington (Coeur Mining, [www.coeur.com](http://www.coeur.com)).



## **Competent Persons Statement**

*The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Duncan Chessell who is a member of the Australasian Institute of Mining and Metallurgy and Australian Institute of Geoscientists. Mr Duncan Chessell is a full-time employee of the company 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 on 17 October 2019, "Binding agreement earning 80% of Gold Project in Alaska", "Gold Symposium Conference Presentation" 24 October 2019, "AGM Presentation" 26 November 2019 and "Operations Update at 64North Project, Alaska" 31 March 2020, "Exploration Update - 64North Project Alaska" on 14 May 2020, "Drilling Update - 64North Project Alaska" on 24 June 2020 and "Investor Presentation - Noosa Mining Virtual Conference" on 13 July 2020. The Company is not aware of any new information or data that materially affects the information included in this announcement and all material assumptions.*

## **Appendix 1. ZTEM Survey, West Pogo Block, 64North Project**

### **Appendix 1a: ZTEM Geophysics survey results and CSAMT comparison - with context to the 64North Project**

ZTEM (Z-Axis Tipper Electromagnetic System) is an airborne passive electro-magnetic (EM) technique used to map subsurface resistivity and conductivity. Large areas can be covered quickly and cost effectively. ZTEM can penetrate conductive cover to depths beyond 1km and is excellent for discriminating subtle resistivity contrasts (conductivity is the inverse of resistivity). The presence of conductive zones can indicate graphitic schists, shale or ideally alteration zones in paragneiss which is the host rock for the Pogo Gold Mine mineralisation. On the West Pogo Block highly conductive zones of paragneiss rock type are known to be either a fluid pathway or sites of gold mineralisation. It should be clearly understood that existence of elevated conductivity of a unit of rock is not necessarily a direct link to mineralisation.

**Comparison:** The ZTEM survey technique in general is highly effective for depths below 200m, with much greater depth penetration than CSAMT surveys, and can map out the deeper fluid pathways on a regional scale. As ZTEM is an airborne survey, more ground can be covered quickly for lower cost than ground-based CSAMT systems. However, the ZTEM system is not as effective as CSAMT at mapping shallow resistivity variations. CSAMT is an excellent near-surface active-source ground-based survey method that is effective at mapping resistivity variations to 600m depth, and in some circumstances up to 1000m. Both systems are challenged by steep terrain and complex structures. We see strong correlation between both systems on the Aurora Prospect with drill control to verify both methods. A reasonable correlation exists between both systems at the Reflection Prospect (with no drill data yet), with divergence to the west as the terrain steepens where complex structure and stacked conductive units makes interpretation difficult to model. At the Echo Prospect, which is elevated with steep terrain, the CSAMT conductor matched the drill results at Hole ID 20EC05 well, but the ZTEM did not match as closely, likely due to a large scale North-South fault, or terrain. ZTEM appears to clearly delineate the Goodpaster Prospect, (located on flatter terrain) and although the Company does not have access to CSAMT data over this prospect for comparison, the intensity of the ZTEM response at Goodpaster appears to be very similar to the Aurora Prospect, supporting the prospectivity of the Aurora Prospect.

**Summary Geophysics West Pogo:** The Goodpaster Prospect and Pogo Gold Mine are structurally controlled, with alteration and associated gold and sulphide mineralised zones expressed as subtle resistivity contrasts (i.e. weakly conductive). Intrusive rocks provide the source for mineralisation and provide the heat to drive mineralising processes. Diorite (an intrusive rock with a strong magnetic signature) is known to be spatially important to mineralisation at the Pogo Gold Mine. Therefore, the combination of close-spaced airborne ZTEM and magnetics data, with existing ground-acquired CSAMT lines provides a very powerful tool for identifying potential fluid pathways, likely structural controls for mineralisation and locations of intrusive rocks. As the known mineralisation is relatively shallow dipping there need not be a surface expression of mineralisation making geophysics a crucial tool. Every drill hole provides the technical team with more empirical data to better validate geophysical data sets and improve drill targeting.

#### Appendix 1b: Location of ZTEM Survey, West Pogo Block, 64North Project - Alaska

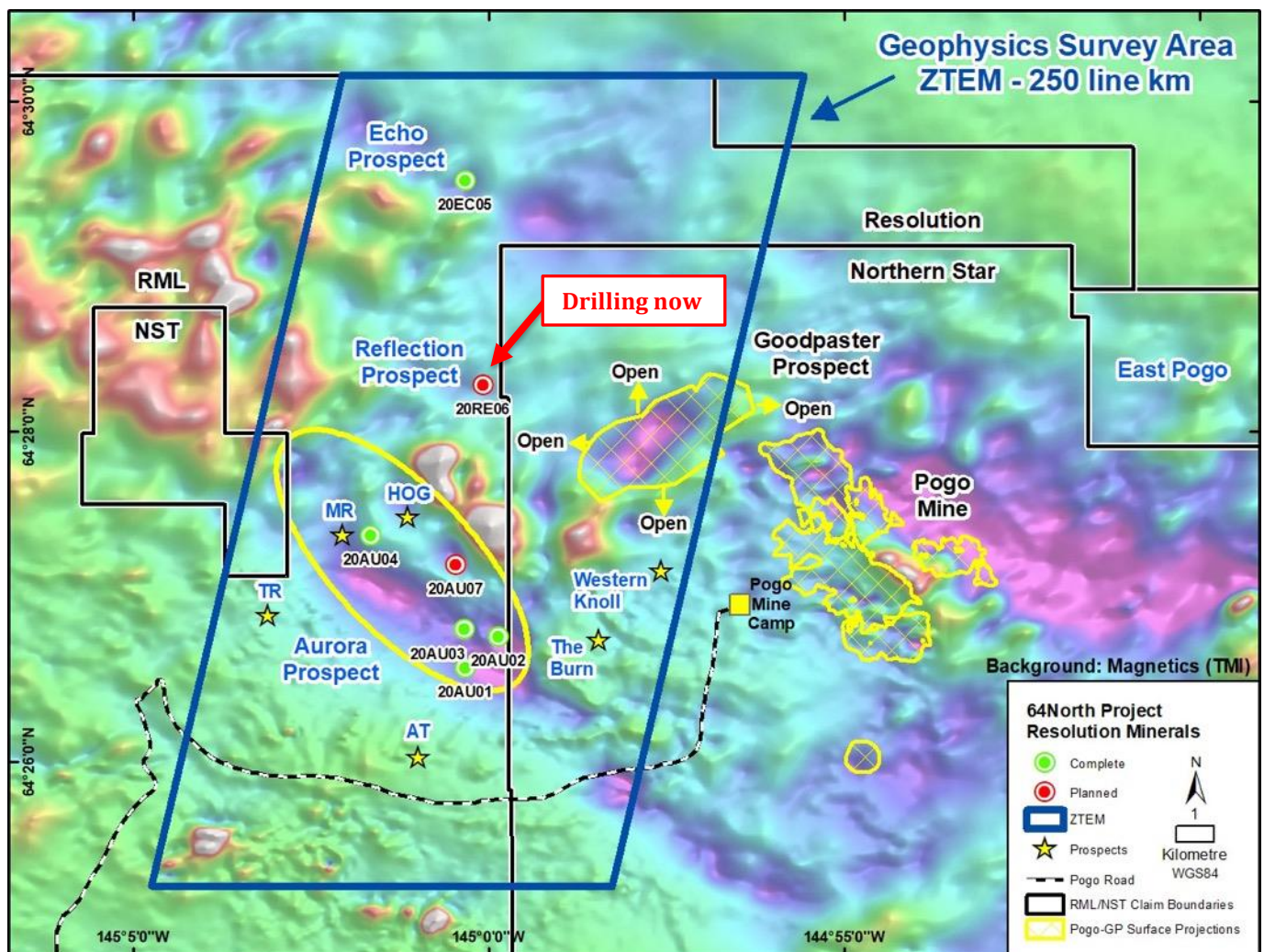


Figure 6 Location of ZTEM Survey 2020, West Pogo Block, 64North Project Alaska

Appendix 2. The following tables are provided to ensure compliance with the JORC Code (2012) requirements for the reporting of the exploration results for the 64North Project – Alaska.

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases, more explanation may be required, such as where there is coarse Au that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li><i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i></li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; therefore the accuracy and quality of surveys used to locate drill holes is not relevant to this release.</li> <li>The grid system used for the geophysical surveys was UTM grid (NAD83 Z6N) and survey lines have been measured by a Real time GPS Navigation System providing an in-flight accuracy up to 1.5 metres.</li> <li>Topographic control of the geophysical surveys was achieved using Radar altimeters with an accuracy of approximately 1 metre.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Geophysical survey data was acquired continuously on 200m line spacing.</li> <li>This release relates to results from geophysical surveys; therefore the data spacing is not relevant for establishing the degree of geological control and grade continuity, nor was any sample compositing applied.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Geophysical survey data was acquired in an orientation to avoid running parallel to the dominant structural trend and therefore maximise structural definition.</li> <li>This release relates to results from geophysical surveys; therefore drilling orientation and sampling bias is not relevant to this release.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No independent audit was undertaken on the geophysical data.</li> <li>Internal review of all data was undertaken by RML geoscientists on contractor provided data and analysis.</li> <li>The internal review determined the data and analysis are of good quality. No issues were identified.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>Resolution Minerals Ltd executed a binding agreement with Millrock Resources to acquire, via joint venture earn-in, up to 80% interest of the 64North Project in Alaska (ASX:RML Announcement 16/12/2019).</li> <li>The total tenement area comprising the 64North Project consists of 1176 State of Alaska claims (66,050 hectares).</li> <li>The 64North Project is located approximately 120km east of Fairbanks.</li> <li>The tenure is in good standing and no known impediments exist.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Previous exploration work includes;</li> <li>Surface Geochemical Sampling: Pan concentrates, fine silts, silts, soils &amp; rock chips. Airborne Geophysics: EM, LiDAR, Radiometric &amp; Magnetics. Ground Geophysics: Magnetics, Radio-metrics, EM, VLF-EM, NSAMT &amp; CSAMT. Exploration Drilling: 46 Diamond.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Resolution Minerals Ltd is primarily exploring for Intrusion Related Gold mineralisation (e.g. Pogo-style) within the Yukon-Tanana Terrane of the northern Cordillera, Alaska.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from geophysical surveys; this section is not relevant to this release.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>A heli-borne Z-Axis Tipper Electromagnetic (ZTEM) survey was flown by Geotech Limited over the West Pogo Block of the 64North Project, see Figure in Appendix 1.</li> <li>The survey comprised 250 line km of data with a NNE line orientation (011.6 – 191.6 degrees), with 200m line spacing and a nominal sensor height of 80m.</li> <li>ZTEM uses the natural or passive fields of the Earth as the source of transmitted energy, therefore no controlled source transmitter is required.</li> <li>The standard signal strength frequencies collected are: 30Hz, 45Hz, 90Hz, 180Hz &amp; 360Hz.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>The grid system used for the survey was NAD83 Z6N.</li> <li>Millrock Resources completed a CSAMT survey. See TSX.V: MRO announcement, released on the 9/10/2019 for details.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>A range of exploration techniques are being considered to progress exploration including drilling.</li> <li>Refer to figures in the body of this report.</li> </ul>