

**QUANTUM RESOURCES LIMITED**

(ASX: QUR)

**ASX and Media Release**

23 November 2017

**ALASKA PROJECTS  
DUE DILIGENCE UPDATE****Highlights:**

- Due diligence has been extensive and ongoing on the project portfolio
- Geological review confirms exploration and development potential on Chip-Loy Ni, Cu, Co sulphide project and the Estelle district scale Gold project
- Areas of mineralisation and targets have been identified on the projects
- Exploration Target<sup>1</sup> estimate for a small portion of the Estelle gold project

The directors of Quantum Resources Limited (**Quantum** or **Company**) (ASX: QUR) are pleased to provide an update on due diligence activities associated with reviewing historic data of its farm in JV of the Alaskan project portfolio (the Project).

Quantum has an exclusive and binding option agreement regarding the formation of a JV with AK Minerals Pty Ltd ("AKM").

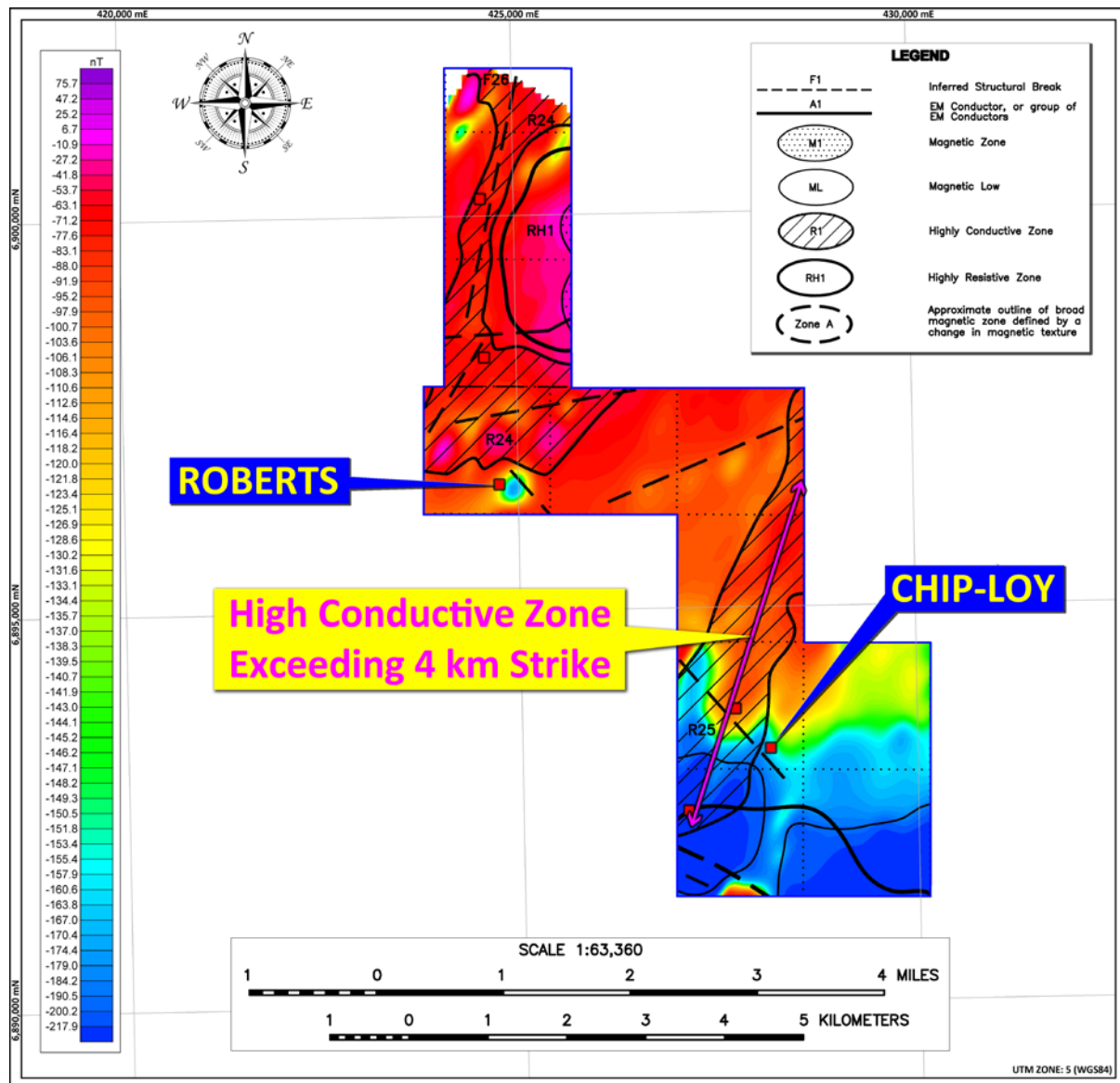
Quantum is in the process of conducting technical and legal due diligence, and to date is satisfied with the progress of the ongoing work. Project due diligence has been extensive, detailed, and has uncovered multiple targets from data reviewed.

**Chip Loy/Roberts Technical discussion**

The Chip-Loy deposit contains disseminated to massive sulfides, mainly pyrrhotite and chalcopyrite, with minor cubanite and sphalerite, and trace galena, bravoite, violarite, tetradymite (Bi<sub>2</sub>Te<sub>2</sub>S), and undetermined Co-Ni-Fe arsenides (Herreid, 1968; Gilbert and Solie, 1983; Bundtzen and others, 1985). This style of deposit has many features in common with various aspects of Canadian deposits such as Thompson, Raglan, Voisey's Bay and most notably the Australian Fraser Range based Nova-Bollinger discovery by Sirius Resources in 2012.

<http://www.igo.com.au/irm/content/nova-project.aspx?RID=503>  
[https://mrdata.usgs.gov/ardf/show-ardf.php?ardf\\_num=MG032](https://mrdata.usgs.gov/ardf/show-ardf.php?ardf_num=MG032)

Figure 1 below shows the magnetic anomaly imagery overlain with other geological and geophysical targets including Resistivity/IP and EM Conductors. The Chip-Loy prospect lies at the contact of a magnetic high and magnetic low zone adjacent to a southeast-northwest trending fault extending into the Roberts prospect. Chip-Loy is also located adjacent to a large highly conductive zone (R25) extending in excess of 4 km in a southwest-northeast trend within the project tenure. A similar high conductive zone (R24) is located north of the Roberts PGE prospect zone located within a magnetic high anomaly.



**Fig 1: magnetic anomaly imagery overlain with other geological targets including Resistivity/IP and EM Conductors (Source: <http://dggs.alaska.gov/pubs/id/29349>)**

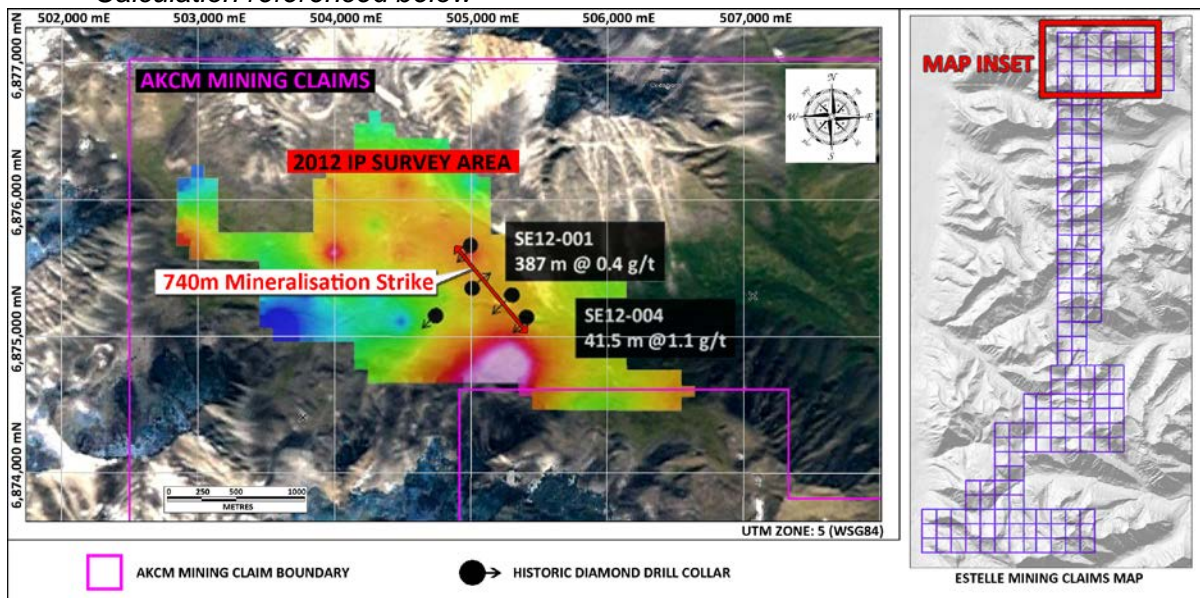
## Estelle Gold project (Oxide Target) Technical discussion

Quantum is pleased to advise an Exploration Target on a very small area of the Estelle gold project Oxide prospect of:

Lower end: 57.72 Mt using an average grade of 0.6 g/t Au provides an exploration target of **1.11 Moz Au**

Higher end: 121.21 Mt using an average grade of 0.6 g/t Au provides an exploration target of **2.33 Moz Au**

<sup>2</sup>Calculation referenced below



**Fig 2: Estelle Project - Oxide prospect exploration target area**

<sup>2</sup>Conservatively it would appear that the dimensions would be in the order of 100m (true width) x 740m (strike) x 300m (depth down dip) making a volume of 22.2 Million Cubic Metres. Assuming a conservative SG of 2.6 based on the Whistler deposit nearby (source: [http://www.goldmining.com/\\_resources/reports/Whistler-2016-Technical-Report.pdf](http://www.goldmining.com/_resources/reports/Whistler-2016-Technical-Report.pdf)), this may represent a minimum target size of 57.72 Mt using an average grade of 0.6 g/t Au (source: <https://www.millrockresources.com/news/millrock-discovers-new-gold-zone-at-estelle-project-alaska-2>) provides an exploration target of **1.11 Moz Au**.

Assuming a true width of 0.7 x hole depth (source: <https://www.millrockresources.com/news/millrock-discovers-new-gold-zone-at-estelle-project-alaska-2>) the exploration target could be 210m (true width) x 740m (strike) x 300m (down dip) x 2.6 (SG) making a target size of 121.21 Mt using an average grade of 0.6 g/t Au provides an exploration target of **2.33 Moz Au**.

Additional source from which the target has been calculated:

<https://www.millrockresources.com/news/millrock-intersects-intrusion-related-gold-system-at-estelle-project-alaska>

The grade of mineralization, however, appears to increase to the southeast. Hole SE12-004, the southeastern-most hole drilled, intersected gold mineralization throughout the majority of the hole with a highlight intercept of 41.45 meters grading 1.14 grams gold per tonne. An induced polarization survey conducted in 2012 revealed a chargeability high corresponding with the drilled mineralized trend. The highest chargeability occurs southeast of drill hole SE12-004 providing a vector to possible higher-grade mineralization to the southeast and is a priority drill target.

Assay results for copper, silver, molybdenum and other minerals were never made public by previous explorers.

The potential quantity and grade is conceptual in nature. There has been insufficient exploration drilling to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target was estimated in order to provide the market with an assessment of the potential scale of the Estelle gold project using the historic Exploration Results.

The Exploration Target takes no account of geological complexity, possible mining method or metallurgical recovery factors. It is acknowledged that the currently available data is insufficient spatially in terms of the density of drill holes, and in quality, in terms of Quantum's final audit of procedures for down hole data, data acquisition and processing, for the results of this analysis to be classified as a Mineral Resource in accordance with the JORC Code. The analysis undertaken has been essentially statistical and geostatistical with minimal reference to geology, although it is clear that stratigraphy, lithology and structure have a major impact on the continuity and grade of gold mineralisation at the district scale Estelle gold project.

Following completion of the regional drilling on the Oxide prospect of the Estelle gold project, the next phase of drilling will comprise infill drilling between the existing lines that have identified the location of redox boundaries and/or gold mineralisation in order to test the validity of the Exploration Target. This further work will commence subject to successful due diligence completion.

The Exploration Target is reported in accordance with Clause 17 of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition) (**JORC Code**).

**QUR Managing Director, Mr. Avi Kimelman said:**

"The initial exploration targets and geophysics reinforce the scale of the Estelle gold project and outlines the prospectivity of a major sulphide discovery. As noted, the assets complement our Thompson Bros lithium project, while the Alaskan project portfolio farm-in diversifies and de-risks QUR from single commodity exposure. Subject to successful due diligence our intent is to fast-track development of our project portfolio with our aim to build a credible and substantial multi commodity exploration, development and production company.

Quantum remains optimistic and committed to finalising the deal and delivering significant value for our shareholders."

The Company will provide shareholders with further updates in due course.

**About Quantum Resources Limited (ASX:QUR):**

Quantum Resource Limited own the rights to earn up to 80% ownership interest of the Thompson Bros. Lithium Project from Ashburton Ventures Inc. by financing their commitments relating to their Option Agreement with Strider Resources Ltd.

The Thompson Bros. Lithium Project, located in Manitoba, Canada contains a historical **(NON-JORC COMPLIANT)** resource estimate of 4,305,000 tonnes of 1.3% Li<sub>2</sub>O, open at depth and along strike. These estimates are historical estimates and are not reported in accordance with the JORC Code. A competent person has not done sufficient work to classify the historical estimates as mineral resources and/or reserves in accordance with the JORC Code. It is uncertain that following evaluation and/or further exploration work that the historical estimates will be able to be reported as mineral resources or ore reserves in accordance with the JORC Code.

### **Competent Person Statement**

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Denis F Walsh. Mr Walsh is a Professional Geoscientist" (B.Sc., P. Geo,) and is registered with the Professional Engineers and Geoscientists of Newfoundland and Labrador (PEGNL) (#3280). He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code") and in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators ("NI 43-101").

*<sup>1</sup>Disclaimer: An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade (or quality), relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource.*

## Appendix 1

### JORC Code, 2012 Edition – Table 1

The following tables are provided to ensure compliance with the JORC Code (2012) requirements for the reporting of Exploration Results for the Estelle Project

#### 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 (eg 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. In cases where 'industry standard' work has been done this would be relatively simple (eg '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 gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>It is believed by the nature of the data presented in the historic reports that the soil sampling, rock chip sampling and diamond drill core sampling have been taken using industry standard practices, however details of the methodology have largely not been documented in the majority of historic reports.</li> <li>Where referenced, soil and rock chip samples taken by Millrock Resources appear to have each been collected and placed in sealed bags up to 2.5 kg and delivered to ALS Chemex in Fairbanks or Anchorage, Alaska for analysis. Gold was analyzed by atomic absorption with a gravimetric finish. The samples were also analyzed for a suite of 41 elements by the ICP-MS method. A sample quality control/quality assurance program was conducted. The Company randomly inserted blank samples and standard samples with known gold content within the submitted chip samples and verified the results obtained.</li> <li>Where referenced, diamond drill core samples taken by Millrock Resources was reported to be split lengthwise at one metre lengths and half of the core was collected as a sample and placed in a sealed bag. All drill core samples were securely shipped to ALS Chemex Labs in Anchorage or Fairbanks, Alaska for preparation, with fire assay and multi-element ICP analyses done at ALS Chemex Labs facility in Reno, Nevada.</li> <li>ALS Chemex is an ISO 9001:2000 certified lab, and as such, has its own stringent quality control/quality assurance program.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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>Drilling technique used was diamond core. The diameter of the core (such as BQ ,NQ, or other) is unknown.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill core sample recoveries were in one metre intervals.</li> <li>Where referenced by Millrock Resources, the core was split lengthwise with half the core being assayed.</li> <li>No relationship has been determined between sample recoveries and grade.</li> <li>Other methodologies have not largely been documented in the historic reports.</li> </ul>



**Logging**

- *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.*
- *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*
- *The total length and percentage of the relevant intersections logged.*
- Drill sample recoveries were in one metre intervals but there is no reference to any data pertaining to the hole being geologically logged.
- No core photography has been located.

**Sub-sampling techniques and sample preparation**

- *If core, whether cut or sawn and whether quarter, half or all core taken.*
- *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*
- *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*
- *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*
- *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.*
- *Whether sample sizes are appropriate to the grain size of the material being sampled.*
- It is believed that industry standard practices have been used; however details of the methodology have largely not been documented in the historic reports. Where referenced, Millrock Resources split the drill core lengthwise at one metre intervals whereby half the sample was assayed.

**Quality of assay data and laboratory tests**

- *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*
- *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.*
- *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*
- Where reported, Millrock Resources employed ALS Chemex for assays; gold was analyzed by atomic absorption with a gravimetric finish. The samples were also analyzed for a suite of 41 elements by the ICP-MS method. A sample quality control/quality assurance program was conducted. The Company randomly inserted blank samples and standard samples with known gold content within the submitted chip samples and verified the results obtained. These assay methods are considered appropriate for the metals being investigated.
- The other historic explorers did not document details any additional QC procedures.

**Verification of sampling and assaying**

- *The verification of significant intersections by either independent or alternative company personnel.*
- *The use of twinned holes.*
- *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*
- *Discuss any adjustment to assay data.*
- Significant drill intersections reported have been sourced from company public announcements and historical reports.
- It is assumed that no adjustments were made to the reported assay data.

**Location of data points**

- *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.*
- *Specification of the grid system used.*
- *Quality and adequacy of topographic control.*
- There is limited reference to the location of drill collars in the historical reports.
- The general location of drilling from photos has been identified utilising available software such as Google Earth.
- There is no reference to the grid system used.
- The quality and adequacy of topographic control is not known.

<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The nominal drill spacing is determined at the prospect level and drill hole coordinates have not been published in historical reports – except for general location of holes from aerial and ground photographs.</li> <li>• Drill hole assay data is representative for continuity of mineralisation and grade to justify future exploration drilling programs to define mineral resource(s).</li> <li>• There is no evidence of sample compositing within the historical data.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The data presented in the historic reports appears to have been taken using industry standard practices, which aims to produce unbiased sampling.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not documented in historic reporting. Assumption is that sample security measures were completed to acceptable industry standards.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Audits were not documented in historic reporting.</li> </ul>

## Section 2 Reporting of Exploration Results

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>• The Estelle Project is comprised of one hundred and seventy-three (173) mining claims each comprising of 160 acres for approximately 27,680 acres.</li> <li>• The mining claims are held in a wholly owned subsidiary of AK Minerals Pty Ltd, AK Custom Mining LLC – an Alaskan incorporated Limited Liability Company.</li> <li>• Apart from details contained in this document, there are no joint ventures or other agreements or liens over the Estelle project or its mining claims.</li> <li>• There are no Native Title interests in any of the Estelle claims and they are not located within any environmentally sensitive areas including National Parks, Conservation Reserves.</li> <li>• The Company is not aware of any other impediments that would prevent an exploration or mining activity.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Estelle Project has had previous exploration activities by Government agencies including the US Bureau of Mines, the State of Alaska, Cominco American Incorporated, Teck America Inc, International Tower Hill Mines, Hidefield Gold Plc and Millrock Resources Inc. The vast majority of the exploration was completed by Millrock Resources which included soil and rock chip assays and diamond core drilling.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and</i></li> </ul>	<ul style="list-style-type: none"> <li>• The primary exploration target at the Estelle</li> </ul>



	style of mineralisation.	Project is gold, silver and copper.
<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>There are numerous styles of mineralisation which is included in this document.</li> <li>Drillhole information and downhole reporting has not been published in historical reports.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Weighted averaging or cutting of grades has not been used in the reporting of the drilling results;</li> <li>All drill core samples are assumed to be assayed at 1m intervals.</li> <li>No metal equivalents have been used.</li> </ul>
<b>Relationship between mineralisation widths and intercept length</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>All drillhole intercepts are measured in downhole metres.</li> <li>While the drilling is believed to have intersected the mineralisation at an optimum angle, the exact relationship between true widths and downhole widths is not known and any bias is yet to be determined. Further exploration drilling will be required.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Maps and appropriate plans, where available are included in the document.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Comprehensive reporting of all historic Exploration Results is not practicable due to the large amount of data present.</li> <li>Exhaustive analysis of all the data will occur as part of due diligence.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported</li> </ul>	<ul style="list-style-type: none"> <li>Substantive historical data is available in historical reports and will be reviewed, compiled</li> </ul>

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.

#### Further work

- The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).
- Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.
- As discussed in the document. Further exploration may be subject to successful completion of due diligence.

and reported as part of due diligence.

The following tables are provided to ensure compliance with the JORC Code (2012) requirements for the reporting of Exploration Results for the Farewell Projects

### 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>• Nature and quality of sampling (eg 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.</li> <li>• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>• Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg '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 gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>• Rock chip sampling was carried out at the geologist discretion. Sampling reported may have been taken to test particular geological features therefore may not be representative of mineralisation at the particular project.</li> <li>• The only historic drilling appears to have been done on the Roberts prospect using DD drilling.</li> <li>• Historic reports have not documented lab preparation and sub sampling techniques.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<ul style="list-style-type: none"> <li>• The only historic drilling appears to have been done on the Roberts prospect using DD drilling.</li> </ul>

<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• On the Roberts prospect, the method of recording and assessing core and chip sample recoveries have not been documented in the historical reports; no relationship has been determined between sample recoveries and grade; and other methodologies have not largely been documented in the historic reports.</li> <li>• Other prospects have not been drilled.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• On the Roberts prospect, there is no reference in historical reports pertaining to the hole being geologically logged nor is there any core photography.</li> <li>• Other prospects have not been drilled.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• On the Roberts prospect, it is believed that industry standard practices have been used; however details of the methodology or any other procedures have not been documented in the historic reports.</li> <li>• Other prospects have not been drilled.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• On the Roberts prospect, there is no reference in the historic reports pertaining to the assaying and laboratory procedures, nor any QA procedures.</li> <li>• Other prospects have not been drilled.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> </ul>	<ul style="list-style-type: none"> <li>• At the Roberts prospect, DD drill interceptions have been sourced from historical reports.</li> <li>• It is assumed that no adjustments were made to the reported assay data.</li> <li>• Other prospects have not been drilled.</li> </ul>

<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• Discuss any adjustment to assay data.</li> <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>• At the Roberts prospect, there is no reference to the location of drill collars in the historical reports.</li> <li>• The general location of drilling from photos has been identified utilising available software such as Google Earth.</li> <li>• There is no reference to the grid system used.</li> <li>• The quality and adequacy of topographic control is not known.</li> <li>• Other prospects have not been drilled.</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>• At the Roberts prospect, the nominal drill spacing appears to be determined at the prospect level and drill hole coordinates have not been published in historical reports – except for general location of holes from photographs.</li> <li>• Drill hole assay data available in the historic reports is representative of mineralisation and grade to justify future exploration drilling programs to define mineral resource(s).</li> <li>• There is no evidence of sample compositing within the historical data.</li> <li>• Other prospects have not been drilled.</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>• At the Roberts prospect, it is assumed from the data presented in the historic reports appears to have been taken using industry standard practices, which aims to produce unbiased sampling.</li> <li>• Other prospects have not been drilled.</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>• Sample security measures have not been documented. Assumption is that sample security measures were completed to acceptable industry standards.</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>• Audits were not documented in historic reporting.</li> </ul>

## Section 2 Reporting of Exploration Results

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>• The Farewell Projects are comprised (in total) of one hundred and twenty-four (124) mining claims each comprising of 160 acres for approximately 19,840 acres. Sizes of individual projects are reported in this document.</li> <li>• The mining claims are held in a wholly owned subsidiary of AK Minerals Pty Ltd, AK Custom Mining LLC – an Alaskan incorporated Limited Liability Company.</li> <li>• Apart from details contained in this document, there are no joint ventures or other agreements or liens over the Farewell projects or its mining claims.</li> <li>• There are no Native Title interests in any of the Farewell claims and they are not located within any environmentally sensitive areas including National Parks, Conservation Reserves.</li> </ul>

<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Company is not aware of any other impediments that would prevent an exploration or mining activity.</li> <li>The Farewell Projects has had previous exploration activities by Government agencies including the US Bureau of Mines and the State of Alaska, Nycon Resources, Homestake Mining Co, International Tower Hill Mines Ltd and Anaconda Mining Company.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>There are multiple exploration targets at the Farewell Project that includes gold, silver, copper, cobalt, nickel, zinc, lead, PGE's and REE's.</li> <li>There are numerous styles of mineralisation mentioned in this document.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li><i>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:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>At the Roberts prospect, drillhole information and downhole reporting has not been published in historical reports.</li> <li>Other prospects have not been drilled.</li> </ul>
<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 (eg 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>At the Roberts prospect, weighted averaging, nor any other procedures and methods have not been documented in historical reports.</li> <li>No metal equivalents have been used.</li> <li>Other prospects have not been drilled.</li> </ul>
<b>Relationship between mineralisation widths and intercept length</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 (eg 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>At the Roberts prospect, drilling is believed to have intersected the mineralisation at an optimum angle, the exact relationship between true widths and downhole widths is not known and any bias is yet to be determined. Further exploration drilling will be required.</li> <li>Other prospects have not been drilled.</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</i></li> </ul>	<ul style="list-style-type: none"> <li>Maps and appropriate plans, where available are included in the document.</li> </ul>

*discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*

<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>• Comprehensive reporting of all historic Exploration Results is not practicable due to the large amount of data present.</li> <li>• Analysis of the data will occur as part of due diligence.</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>• Substantive historical data is available in historical reports at Appendix 1 which will be reviewed as part of the due diligence.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg 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>• As discussed in the document. Further exploration may be subject to successful completion of due diligence.</li> </ul>