

# Further Cobalt Intersections Returned From Skuterud Drilling

## Highlights

- **Assay results from infill drill core sampling return additional anomalous cobalt zones**
  - **Three distinct cobalt anomalous zones now identified in both of the sections drilled at Middagshville, Skuterud**
- **New results have defined a 7.6m wide anomalous cobalt/copper zone in hole MDV006 including 2m @ 0.08% Co; and 9m wide anomalous cobalt/copper zone in hole MDV003**
- **Less than 3% of 6.5km trend of historic cobalt workings tested with drilling**
- **Field work planning for Skuterud underway to prepare for follow up drilling**

Berkut Minerals Limited (ASX: BMT) ("Berkut" or the "Company") is pleased to advise that assay results have been received from recent additional sampling of core from the maiden diamond drill program at the 100% owned Skuterud Cobalt Project in Norway (Refer Figure 1 and 3).

In March 2018, relogging of the core was undertaken along with additional cutting and sampling of selected core targeting intersections of anomalous cobalt/copper mineralisation that were not completely terminated by previous sampling. Significant results from this sampling include:

- 2m @ 0.08% Co (from 72m in MDV006), within a 7.6m wide anomalous cobalt/copper zone (0.04% Co and 0.1% Cu from 72m); and
- 9m @ 0.03% Co and 0.15 Cu (from 46m in MDV003).

The newly identified zones will aid in both 3D interpretation (refer Figures 2, 4 and 5) and targeting on the ground.

Berkut's Managing Director, Neil Inwood commented:

*"The company looks forward to progressing field activities at Skuterud in May this year. The results from the recent infill core sampling have confirmed that at least three distinct cobalt anomalous zones are being seen within a broader copper halo near the Middagshville workings. Berkut is now preparing for a follow up drilling program designed to vector in on high grade cobalt zones exploited within the historical workings. With \$4 million of cash, Berkut is well funded to continue to explore this exciting 6.5 kilometre trend of cobalt workings at Skuterud which was, in its day, the World's largest cobalt producer."*

### Fast Facts

Shares on Issue 54.3M  
Tradeable Shares 40.4M  
Market Cap (@ 13 cents) A\$7.0M  
Cash (31 March 2018) A\$4.0M  
Enterprise Value A\$3.0M

### Board and Management

Neil Inwood, Managing Director  
Justin Tremain, Non-Exec Chairman  
Paul Payne, Non-Exec Director

Ben Cairns, General Mgr Geology  
Aaron Bertolatti, Company Secretary

### Company Highlights

- European cobalt and nickel projects in Norway and Sweden, strategically located within proximity to operating cobalt refineries and European markets
- 100% ownership of the Skuterud Cobalt Project in Norway
- Historic mined cobalt grades up to 2% at the 100% owned Gladhammar Project in Sweden
- 100% ownership of historical Lainejaur Ni, Co, Cu resource in Sweden
- Swedish ground position of approx. 100km<sup>2</sup> and Norwegian ground position of 19km<sup>2</sup>, both covering historic mine workings
- Tight capital structure
- Well-funded | Strong cash position

### Registered Office

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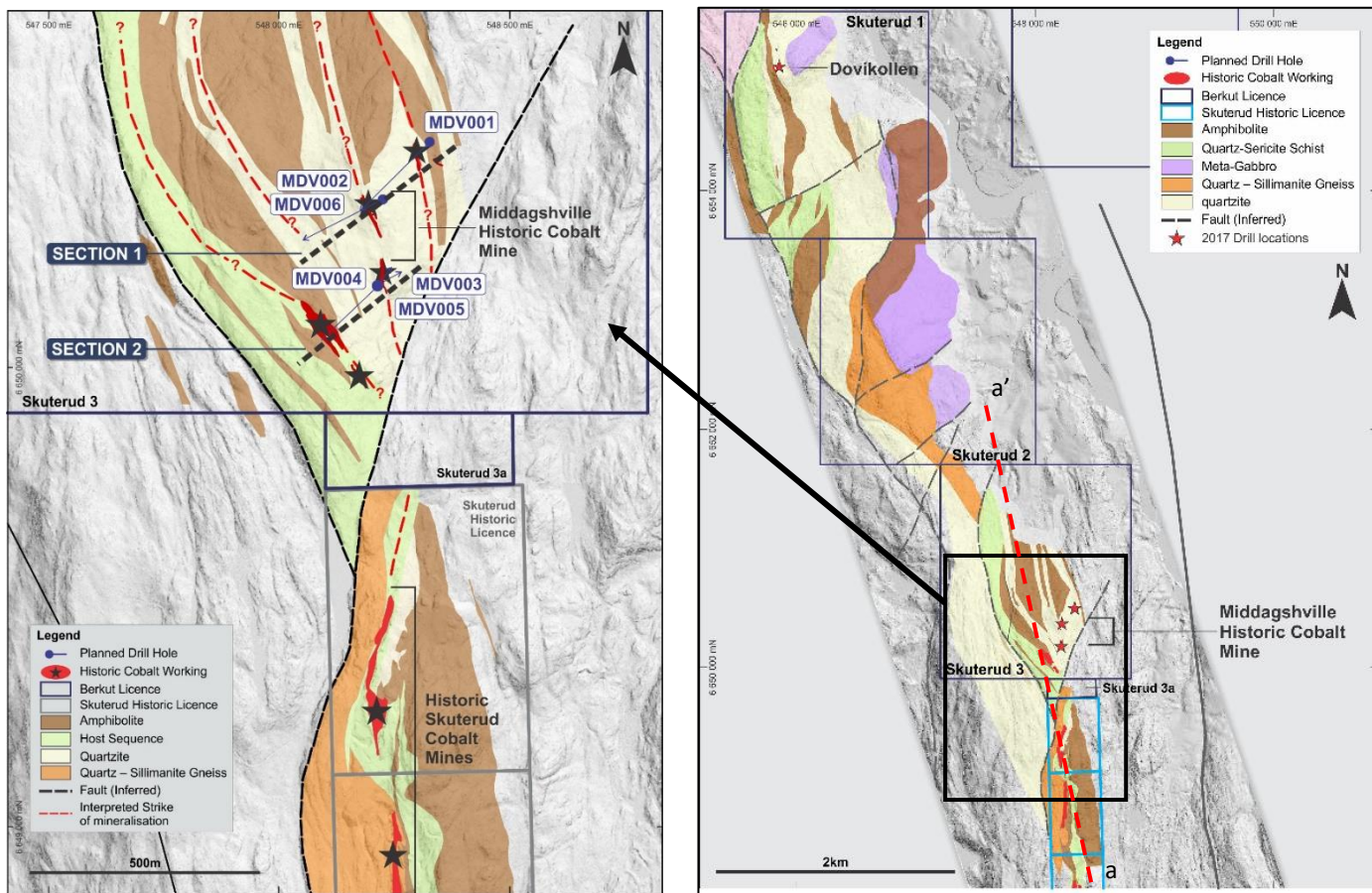


Figure 1| Skuterud South drill positions: Showing historical workings and the nearby historic Skuterud Cobalt Mine

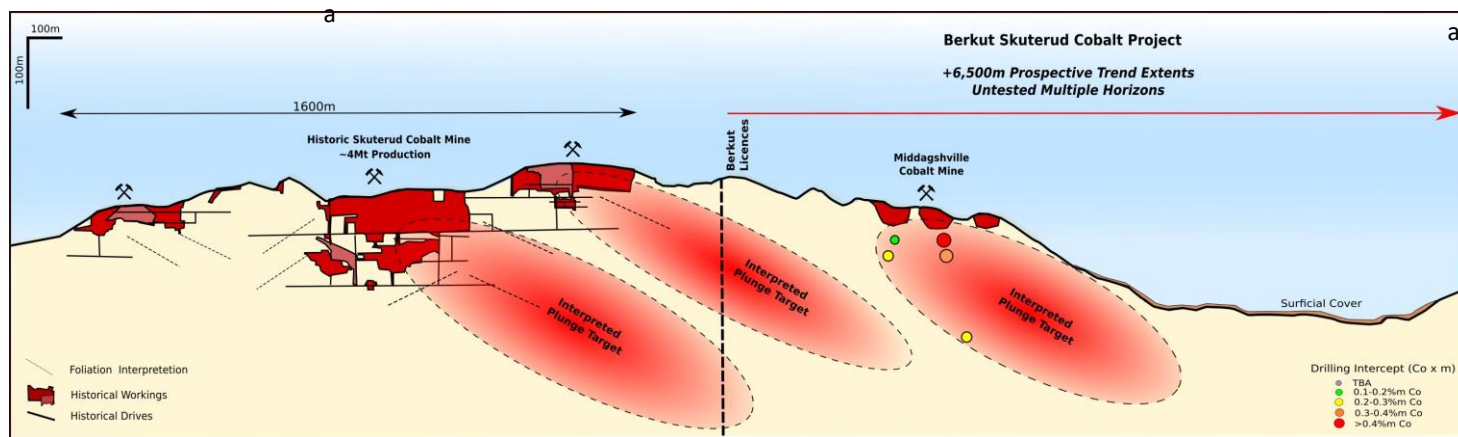
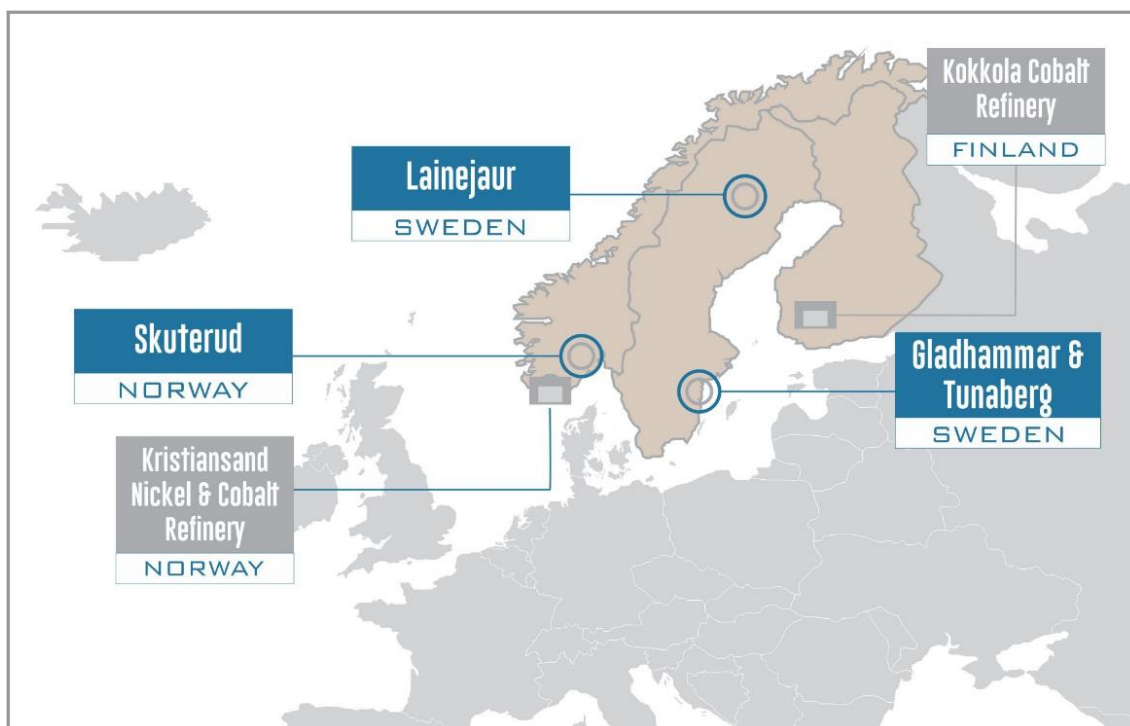


Figure 2| Skuterud drilling relative to historical workings (section line a-a' Figure 2)



**Figure 3 | Project and Drilling Locations**

### **Middagshville Cobalt Mine Drilling**

The Middagshville region has spoil grab samples up to 0.8% Co and 0.5% Cu<sup>1</sup> (associated with disseminated sulphides in quartz-mica schist) and hosts three interpreted repeats of the mine-sequence host lithologies (quartzites and mica-schists). The maiden drilling program of six diamond holes for 1,192m at Middagshville identified sulphide mineralisation typically occurring as 1% to 5% disseminated mixed sulphides and locally as concentrations up to 20% over a metre. The sulphide mineralogy consists mainly of pyrrhotite/pyrite, chalcopyrite, disseminated cobalt sulphides (cobaltite and linnaeite), and skutterudite with occasional occurrences of cobalt-rich stringers zones.

The presence of wide copper/cobalt anomalous haloes up to 35m wide (true thickness), with repetitions over a 65m width (refer Figure 5) demonstrate that a broad alteration system can be targeted. Each drilled section has demonstrated at least three anomalous cobalt zones within the broader copper/cobalt halo.

This is the first known drilling to test the highly prospective 6.5km strike trend north of the historic Skuterud Cobalt Mine. This initial drilling has tested less than 3% of the prospective strike trend and has provided a greater understanding of the project geology. Results from the first phase of drilling will feed into subsequent phases of exploration and drilling in Q2 and Q3 2018. Drill locations and significant results are shown below in Table 1.

Table 1   Skuterud Cobalt project - Anomalous Intersections (above a nominal 0.02% Co cut-off) Coordinates in (ETRS89 Z32)										
Hole	East	North	RL	Depth	Dip	Az	From (m)	Length (m)	Co %	Cu %
MDV001	548330	6650497	288	301.1	-45	240	207.5	2.5	0.03	0.08
MDV002	548226	6650369	342	291	-45	240	21	3	0.02	0.05
MDV003	548214	6650180	354	119.5	-60	60	46	9	0.03	0.11
MDV006	548226	6650370	342	131.5	-70	240	71.4	7.6	0.04	0.10
						<i>including</i>	<b>72</b>	<b>2</b>	<b>0.08</b>	<b>0.09</b>
							82	4	0.02	0.03
DVK001	545829	6655040	102	102.07	-60	195	No Significant Assays			

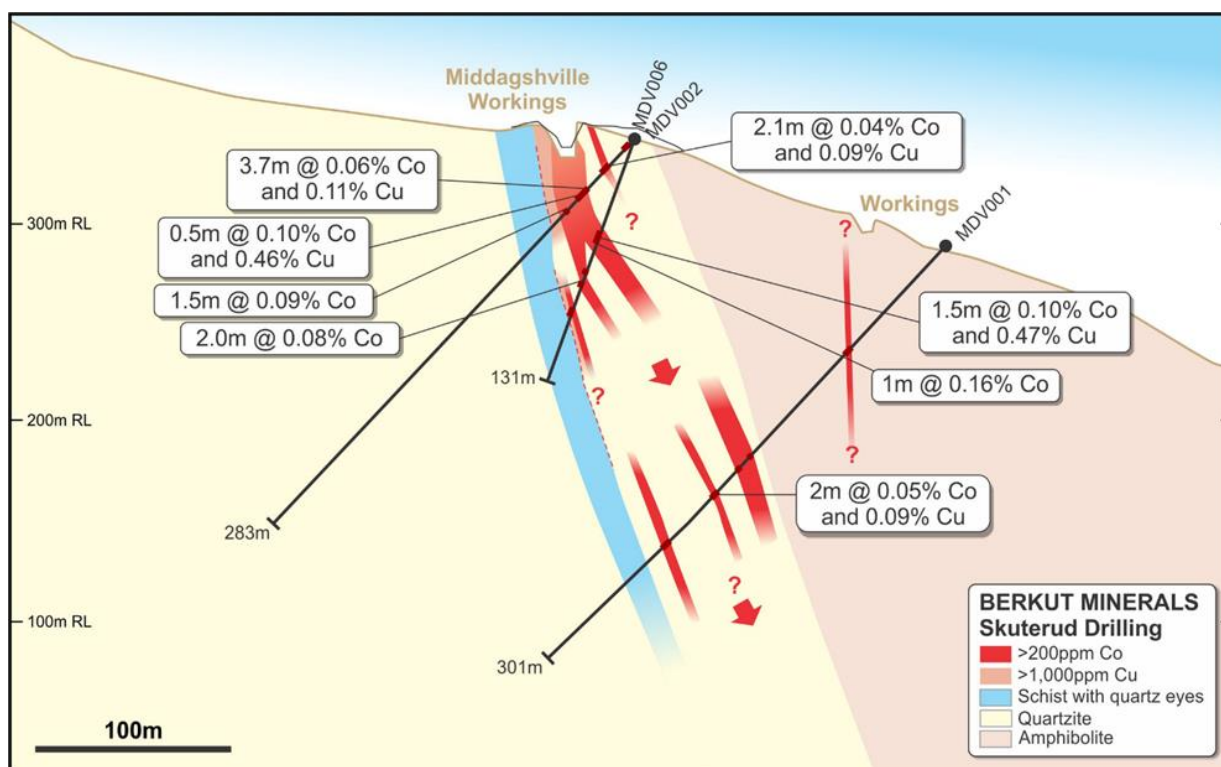
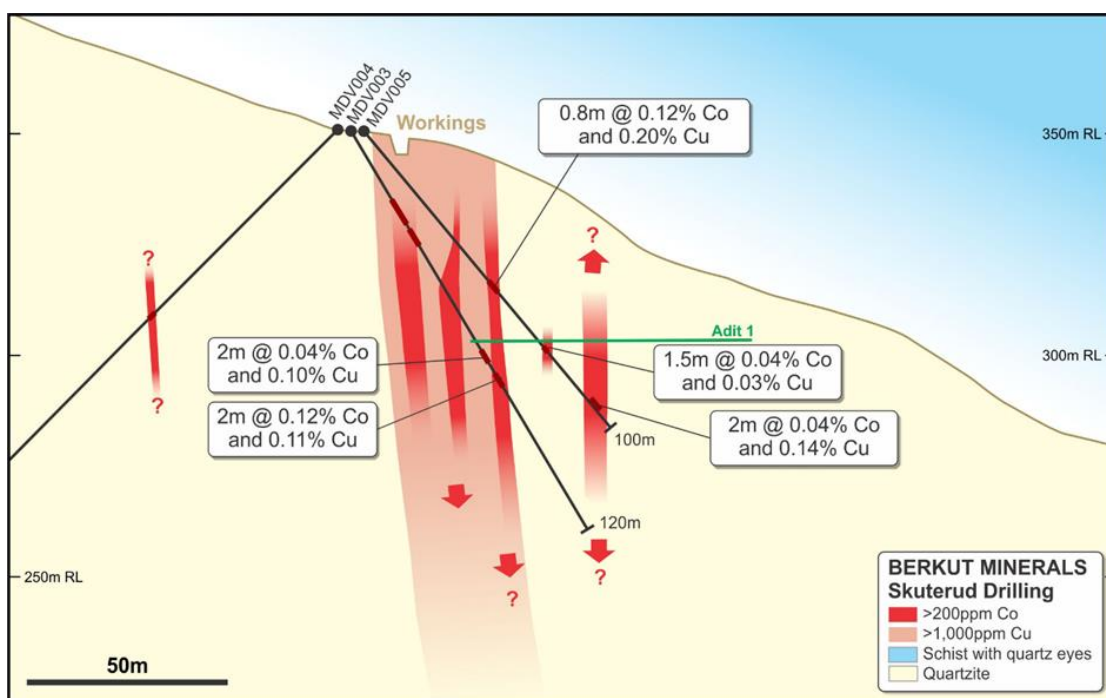


Figure 4 | Middagshville Section 1: Showing +1,000ppm Copper (Cu) halo and + 200ppm Cobalt (Co) haloes





**Figure 5 | Middagshville Section 2: Showing +1,000ppm Copper (Cu) halo and + 200ppm Cobalt (Co) haloes**

## Next Stages

The next phases of exploration at the Middagshville workings will focus on defining a potential high-grade core or plunge position utilising the valuable geological and geochemical insight gained from the maiden drilling program. Soil geochemistry and additional detailed mapping will be undertaken to assist with geological and structural interpretations to lead into a follow up drilling program. Suitable geophysical methods will also be investigated, in consultation with our geophysical consultants. It is envisaged that surface IP or EM surveys may be effective in providing geophysical vectors to focus future drilling programs. Further mapping in the central licence area will also be undertaken to define additional drill targets around other historic workings, including the Djupedal workings.

## Competent Persons Statement

The information in this document that relates to exploration results is based upon information compiled by Mr Neil Inwood, a full-time employee of Berkut Minerals Limited. Mr Inwood is a Fellow of the AUSIMM and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Inwood consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

## Notes

<sup>1</sup> For full details of exploration results refer to ASX announcements on 18 May, 15 June, 7 July 2017, 26 July, 31 July, 23 October 2017 and 8 January 2018. Berkut Minerals is not aware of any new information or data that materially affects this information. Other than as specified in this announcement and the mentioned announcements, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, Exploration Target or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Detailed information on all aspects of Berkut Minerals projects can be found on the Company's website [www.berkutminerals.com.au](http://www.berkutminerals.com.au).

For further information please contact  
 Berkut Minerals Limited  
 Neil Inwood, Managing Director

Appendix One | JORC Code, 2012 Edition | 'Table 1' Report

**Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<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.</li> <li>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>Where reporting historical production grades or quantities this ASX Release refers to historical production records from the Norwegian Geological Survey (NGU), available from <a href="http://geo.ngu.no/kart/mineralressurser/">http://geo.ngu.no/kart/mineralressurser/</a> for the Skuterud project.</li> <li>Hand samples collected as composites based on consistent mineralogy</li> <li>Diamond core was cut in half using a diamond saw. Left hand side of cut core submitted for analysis. Intervals ranged typically from 0.4 to 2.0m</li> </ul>
Drilling techniques	<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>2017 drilling was by diamond core with a nominal NQ diameter. The core was orientated using the DeviCore orientation system. and downhole surveys were completed using a DeviFlex survey tool</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>For the 2017 program, drill recovery was consistently high with close to 100% recovery recorded for all holes.</li> <li>Drill run length and recovered lengths are recorded at core retrieval and checked during the core orientation process.</li> </ul>
Logging	<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. The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All core was logged geologically and with the exception of MDV001 has been photographed.</li> <li>With the exception of hole MDV001 all core has been geotechnically logged.</li> <li>Representative density samples were taken from half core (water immersion method).</li> </ul>
Sub-sampling techniques and sample preparation	<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>As the faces of the historical workings were not accessible, selected hand samples of nearby spoil material were selected to highlight mineralisation styles in the area.</li> <li>Core was cut in half using a 14" diamond saw.</li> <li>Sample intervals ranged from 0.4 to 2.0m.</li> <li>Standards were inserted at approximately 1:20 ratio.</li> <li>No field duplicates have been taken at this stage.</li> <li>The sampling protocol is considered appropriate for the style of mineralisation.</li> </ul>

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>The Niton XL3t hand held XRF was used to obtain field samples and was tested against calibration standards for cobalt and copper, iron and nickel prior to the commencement of field work. These calibrations indicated that cobalt readings often exhibited a step change, but that high-grade readings (&gt;0.1% Co) were reproducible. Copper, nickel and iron readings performed closely to the calibration standards. It is noted that further matrix matched cobalt calibration may be required for the deposits in question. The XL3t was used to aid in the identification of cobalt bearing intervals to guide sampling and field results have not been reported</li> <li>Approximately 60 second readings were taken with 20s per filter pass.</li> <li>Drill core was assayed by MS Analytical. Preparation was undertaken at their facility in Storuman in Sweden.</li> <li>Pulp samples were then sent to the MS Analytical facility in Vancouver Canada. Samples were digested using an industry standard mixed four acid digest with an ICP-MS finish. Gold is determined via fire assay</li> </ul>
Verification of sampling and assaying	<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>There has been no twinning of drill holes or umpire assays yet include in the current drill program.</li> <li>Pulverised and homogenised reference samples have been included in the routine sampling at the rate of approximately 1:20.</li> <li>No duplicate or blank samples have included.</li> <li>Selected samples have been assayed using an aqua regia digest with ICP-MS finish for comparison.</li> </ul>
Location of data points	<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>Samples were recorded against the ETRS1989 UTM Z32 grid system.</li> <li>Only national based topographic control (~5m accuracy) has been used to date.</li> <li>Collar location have been collected using a Garmin Oregon 700 hand held GPS.</li> </ul>
Data spacing and distribution	<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>Spoil samples were taken from the base of historical workings. They indicate the style of mineralisation present but are not indicative of mineralisation thickness or continuity.</li> <li>Drill spacing is broad at a nominal 50 to 300m spacing.</li> </ul>
Orientation of data in relation to geological structure	<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>Drill spacing is broad at a nominal 50 to 300m spacing based upon access limitations and is appropriate for a proof of concept, first pass program.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond samples were stored on site in a shed then transported by DB Schenker courier to the MS Analytical facility in Storuman Sweden.</li> </ul>
Audits or reviews	<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>Senior management has audited the site sampling protocols. All sampling was performed under the supervision of an experienced geologist.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	<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 Skuterud licences are held 100% either directly by Berkut or through its 100% subsidiary Kobald Mineral Holdings Pty Ltd.</li> </ul>
<i>Acknowledgment and appraisal of exploration by other parties.</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The company is in the process of assessing exploration by other parties by compiling and assessing historical records.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The cobalt occurrences at Skuterud in Norway are related to meta-sedimentary, sulphide-rich schist zones, so-called 'fahlbands'. The most extensive sulphide-rich zone has a length of 12km along strike, and is up to 100-200m wide. The rock type hosting the sulphides may be characterized as a quartz-plagioclase-tourmaline-phlogopite-sulphide gneiss or schist. The cobalt mineralisation is, to a large degree, characterised by impregnation of cobaltite, glaucodote, safflorite and Skutterudite, which partly occur in quartz-rich zones and lenses.</li> </ul>
Drill hole Information	<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> </ul> <p>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.</p>	<ul style="list-style-type: none"> <li>Seven drill holes have been completed in the current program, all relevant location and survey data has been included in the report. There has been no historic drilling undertaken in the project area.</li> </ul>
Data aggregation methods	<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>Length weighted averages have been used in reporting of results.</li> <li>A nominal grade of 0.02% Co over 1m has been used to report anomalous intersections; with anomalous intercepts over approximately 0.05% Co over 1m also used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<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>Drill holes were sited to be approximately parallel to the mapped stratigraphy.</li> <li>The dip of target horizons is inferred from historic workings to be sub-vertical, however the exact orientation of mineralisation is not well understood.</li> <li>Holes were angled to maximise drill coverage and to target down dip projections of mineralisation.</li> </ul>
Diagrams	<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>Included in body of report as deemed appropriate by the competent person for the stage of exploration the company is currently at.</li> </ul>
Balanced reporting	<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>Significant and anomalous intersects are included in Table 1</li> </ul>



Criteria	Explanation	Commentary
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Meaningful observations included in the body of the report</li> </ul>
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>The company plans to continue exploration activity at Skuterud. Phase 2 programs will include surface geochemical sampling grids and geophysical surveying.</li> <li>The company is in early stages of assessment of the project and is not in a position to provide detailed diagrams showing potential extensions at this time</li> </ul>