



# Berkut Secures Historical 1.3M lb Cobalt Resource in Sweden

ASX Announcement  
26 July 2017

## Highlights

- **Berkut secures the 'Lainejaur Project' in Sweden with a historical resource of 645Kt @ 1.3% Ni, 0.66% Cu and 0.09% Co<sup>1</sup>**
  - **Contains high-grade massive and semi-massive nickel sulphide ore**
  - **Open at depth - 1.5km northerly dip potential**
  - **41.2km<sup>2</sup> of exploration licence secured**
  - **Historic Ni-Co Cu mine last active in the 1940's**
- **Significant intersects include;**
  - **7.65m @ 2.1% Ni, 0.1% Co and 1.01% Cu from 168m**
  - **9.88m @ 2.28% Ni, 0.17 % Co and 0.61% Cu from 277.35m**
- **Swedish licence holdings now comprise approximately 100km<sup>2</sup> (approved and pending)**

Berkut Minerals Ltd ('Berkut'), is pleased to announce the granting of a recent exploration licence over the Lainejaur Nickel-Cobalt-Copper Project (refer Figure 1) in northern Sweden. The Lainejaur Project is located at the north-west end of the renowned Skellefteå mineral belt and only 15km from the regional centre of Malä.

The Lainejaur Project includes an historic Ni-Co-Cu mine which was discovered in 1941 and was quickly bought into production to supply nickel for Sweden during the Second World War. When it closed in 1945 the mine had two shafts extending to 213m below surface and had produced 100,526t of ore @ 2.21% Ni, 0.1% Co and 0.93% Cu.

Berkut's Managing Director, Neil Inwood, commented *"The Lainejaur Project presents an advanced and attractive near-mine exploration opportunity for the company which can be tested by down-hole geophysics and drilling. There is massive and semi-massive sulphide mineralisation open at depth in an untested extension up to 1.5km in length. Additionally, our substantial land holding in the surrounding area will allow us to explore for repeats of the known mineralisation. Lainejaur is only 15km from the industrial centre of Malä - you couldn't ask for a better operating location."*

<sup>1</sup> **JORC Cautionary Statement: The estimates are historical or foreign 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 or Ore Reserves in accordance with the JORC code; and it is uncertain that following evaluation and/or exploration work that the historical estimates will be reported as Mineral Resources or Ore Reserves in accordance with the JORC Code.**

### Fast Facts

Shares on Issue: 47.3M  
Market Cap: ~\$7.6M  
Cash (current): ~\$4.1M

### 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

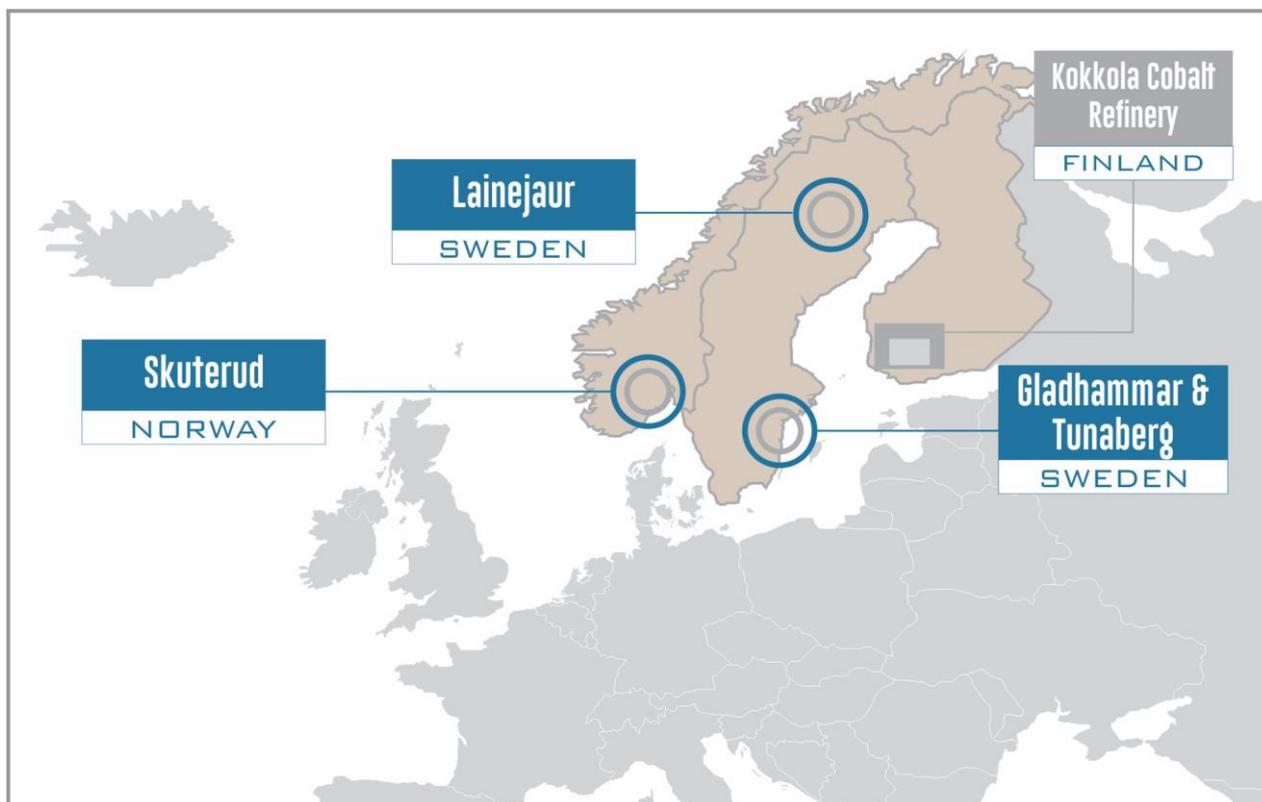
### Company Highlights

- 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
- 100% ownership of historical Lainejaur Ni, Co, Cu resource in Sweden
- Historic mined cobalt grades up to 2% at the 100% owned Gladhammar Project in Sweden
- Swedish ground position of approx. 100km<sup>2</sup> and Norwegian ground position of 19km<sup>2</sup>, both covering historic cobalt and nickel mine workings and base metals
- Tight capital structure | 31.1M non-escrowed shares
- Well funded | Strong cash position

### Registered Office

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**Figure 1 | Project Locations**

### About Lainejaur

The Lainejaur Project (refer Figures 1, 2 & 4) is centred on an historical Ni-Co-Cu mine which was discovered in 1941 and was bought into production to supply nickel for Sweden during the Second World War. When it closed in 1945 the mine had two shafts extending to 213m below surface and had produced 100,526t of ore @ 2.21% Ni, 0.1% Co and 0.93% Cu (Grip, 1961). The Lainejaur ground was largely unexplored from 1945 to 2002 when a subsidiary of Lundin Mining Corporation secured the property before optioning it to Blackstone Minerals AB ('Blackstone'). Blackstone drilled 39 drill holes for approximately 13,200m in 2007 and 2008 culminating in the definition of a NI43-101 compliant resource in 2009 (refer Table 1).

The Lainejaur mineralisation (refer Figures 3 and 4) is hosted at the base of a lopolithic gabbro-diorite intrusion overlain by mafic intrusive with minor intercalated metasedimentary units and underlain by meta-basalts. Sulphides consist of pyrrhotite, pentlandite, gersdorffite and chalcopyrite

The previous resource drilling was undertaken to the limit of the Blackstone tenure at the time (only 0.3km<sup>2</sup>) and remains open down dip. Berkut has secured 100% ownership of 42km<sup>2</sup> of ground around the project area (Lainejaur nr20). The host unit is interpreted to continue for an approximate 1.5km down dip. A number of geophysical targets have been identified based upon historical work that warrant further attention and which appear to have been restricted due to the very limited Blackstone tenure at the time. Berkut's immediate focus is to conduct down-hole geophysical surveys in the northern most drill line, where massive sulphides were intersected in drill hole LAI-08-34 (refer Figures 3, 4 & 5).

**Table 1 | Historical Lainejaur NI43-101 Resource, May 2009<sup>1</sup>**

Category	Tonnes	Ni (%)	Co (%)	Cu (%)
Inferred	645,000	1.33	0.09	0.66

*Reported above a gross metal value of US\$100/t; with a nominal metal price of US\$8/lb for nickel, US\$2/lb for copper and US\$8/lb for cobalt*

Berkut undertook a site visit in June 2017 which included inspecting drill core from the Lainejaur deposit, collection of hand-samples, identification of previous drill collars and inspection of historical workings.

Results from historical drilling data include (refer Appendix One for all significant intercepts):

- 7.65m @ 2.1% Ni, 0.1% Co and 1.01% Cu from 168m in LAI-07-010;
- 5.18m @ 2.64% Ni, 0.10% Co and 1.06% Cu from 215.9m in LAI-07-14A;
- 9.88m @ 2.28% Ni, 0.17 % Co and 0.61% Cu from 277.35m in LAI-07-015; and
- 0.75m @ 5.06% Ni, 1.03% Co and 0.43% Cu from 229.5m in LAI-08-033.

Hand samples taken by Berkut from remnant surface mining spoil showed nickel grades of up to 2.4% and cobalt grades of up to 0.25% (refer Appendix One).

Additional information pertaining to the requirements for reporting on foreign and historical mineral resources at the Lainejaur Deposit are given in Appendix Two and JORC reporting tables are in Appendix Three.

#### **Competent Persons Statement**

The information in this document that relates to exploration results is based upon information compiled by Mr Ben Cairns, a full-time employee and shareholder of Berkut Minerals Limited. Mr Cairns is a Member of the Australian Institute of Geoscientists (AIG) 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 Cairns consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

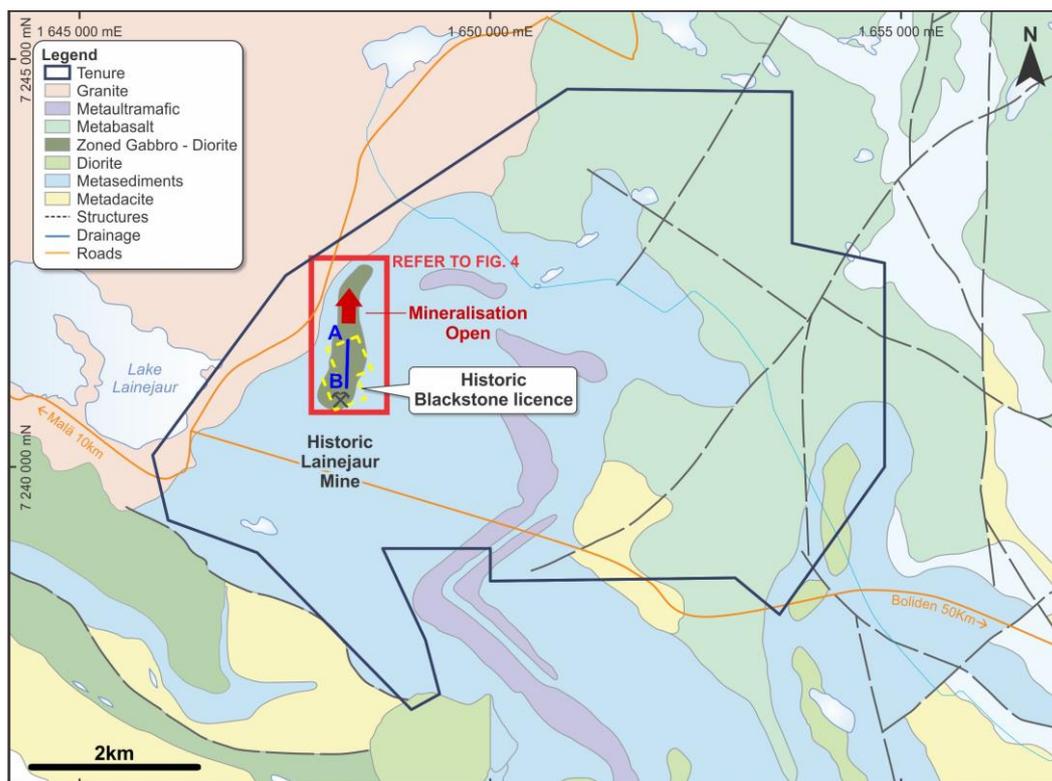


Figure 2 | Lainejaur Project Region: Showing Berkut license area and historical Blackstone licence

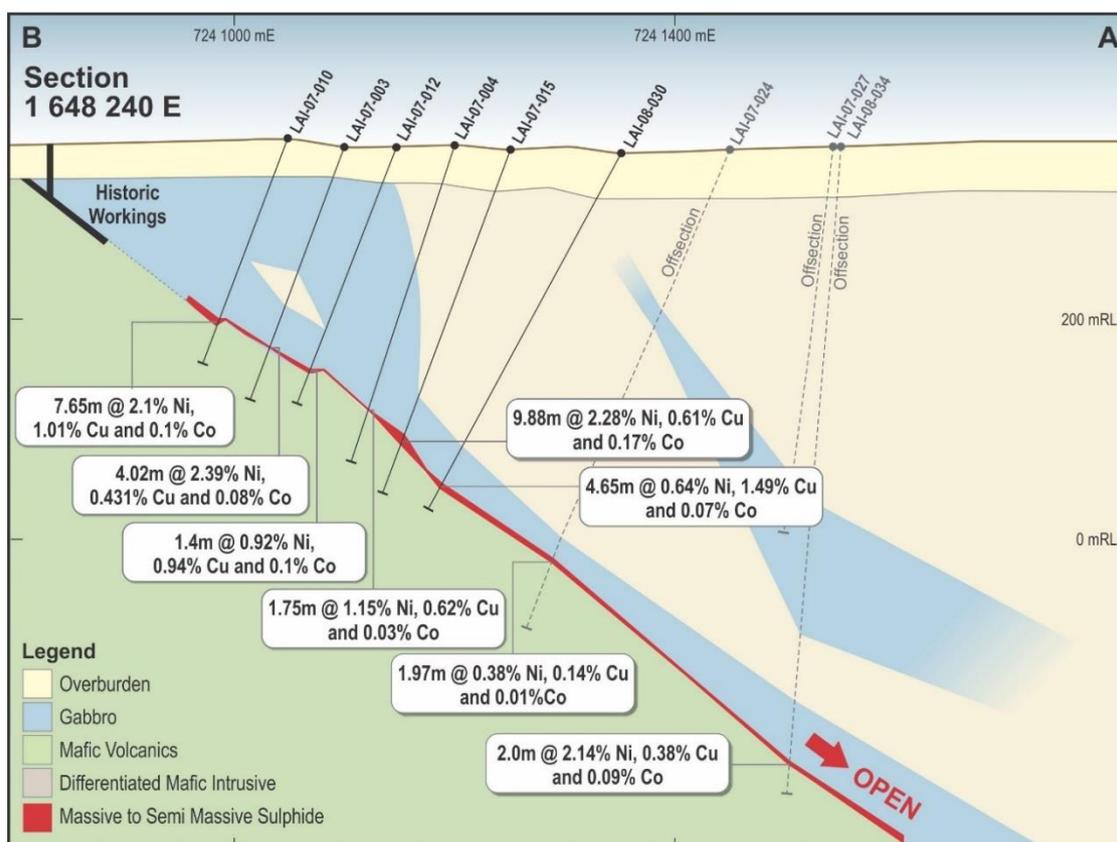


Figure 3 | Cross section through Lainejaur





**Mala Core Archives - 15km from the Lainejaur Project**



**Lainejaur core ready for inspection**



**Pentlandite and pyrrhotite sulphide mineralisation with spot handheld XRF readings in LAI-07-015**



**Pentlandite, pyrrhotite and chalcopyrite sulphide mineralisation with spot handheld XRF readings in LAI-07-015**



**Pentlandite and pyrrhotite sulphide mineralisation with spot handheld XRF readings in LAI-08-034 (northern most drill line)**



**LAI-07-003 showing massive, pentlandite and chalcopyrite and pyrrhotite mineralisation**

**Figure 5 | Lainejaur drill core**



**Figure 6 | Historical Lainejaur workings and a historical drill hole collar**

## Appendix One | Sampling Results

### Significant Intercepts from Historical Lainejaur Drilling

(Reported above 0.5% Ni and greater than 0.5m)

Hole ID	Easting (RT90 2.5)	Northing (RT90 2.5)	RL	Max Depth	Dip	Azimuth	From	Length	Ni (%)	Co (%)	Cu (%)
LAI-07-005	1,648,255	7,241,300	359	353.2	-70	180	321.8	0.53m	1.98	0.09	0.28
LAI-07-009	1,648,215	7,241,050	359	227.2	-70	180	167.93	1.14m	0.96	0.03	0.39
LAI-07-009							170.14	0.62m	0.64	0.02	0.91
LAI-07-010	1,648,240	7,241,050	357	210	-70	180	168	<b>7.65m</b>	<b>2.10</b>	<b>0.10</b>	<b>1.01</b>
LAI-07-011A	1,648,260	7,241,050	366	190.8	-70	180	172.75	1.7m	1.31	0.06	0.46
LAI-07-012	1,648,240	7,241,147	358	249.6	-70	180	216.95	1.45m	0.68	0.04	0.13
LAI-07-012							220.6	1m	1.16	0.12	1.11
LAI-07-013	1,648,265	7,241,150	362	244.6	-70	180	217.44	1.2m	1.68	0.02	0.46
LAI-07-014A	1,648,215	7,241,150	356	236.8	-70	180	215.9	<b>5.18m</b>	<b>2.64</b>	<b>0.13</b>	<b>1.06</b>
LAI-07-015	1,648,240	7,241,250	356	332.7	-70	180	277.35	<b>9.88m</b>	<b>2.28</b>	<b>0.17</b>	<b>0.61</b>
LAI-07-017	1,648,190	7,241,150	358	229.8	-70	180	211.65	2.1m	2.13	0.10	0.62
LAI-07-022	1,648,290	7,241,150	355	250	-70	180	211.7	0.96m	1.70	0.08	0.64
LAI-08-029	1,648,340	7,241,550	359	306.5	-70	180	280.98	1.02m	0.95	0.17	0.55
LAI-08-030	1,648,240	7,241,350	352	366.71	-85	180	344.47	1.38m	1.28	0.08	1.86
LAI-08-033	1,648,282	7,241,352	356	363.7	-85	180	339.5	<b>0.75m</b>	<b>5.06</b>	<b>1.03</b>	<b>0.43</b>
LAI-08-034	1,648,297	7,241,550	355	587.2	-85	180	559.15	2m	2.15	0.09	0.38

### Lainejaur Rock Field Samples (June 2017)

Sample ID	Easting (SWERF 99)	Northing (SWERF 99)	RL	Ni %	Co %	Cu %	Au g/t	Comments
LNJ001	682,387	7,240,522	-	2.44	0.04	0.02	0.02	Surface spoil grab sample
LNJ002	685,661	7,240,741	-	1.59	0.07	0.25	0.38	Surface spoil grab sample

## Appendix Two | Additional Information on Foreign and Historical Mineral Resources and Ore Reserves

The reported historical and foreign resource estimate for the Lainejaur Deposit was sourced from the report entitled "*Technical Report On Resource Estimates For The Lainejaur, Lappvattnet And Ror Deposits, Northern Sweden*" with a date of 5th May, 2009. The report was a historical NI 43-101 report prepared for Blackstone Ventures Inc ("BLV") and retrieved from [www.Sedar.com](http://www.Sedar.com).

The Lainejaur deposit was previously mined from 1941 to 1945 and produced a reported 100,526 tonnes grading 2.2% Ni, 0.93% Cu and 0.1% Co to a depth of 150m below surface. The Lainejaur property is hosted by a lopolithic gabbro-diorite intrusion. Sulphides consist of pyrrhotite, pentlandite, gersdorffite and chalcopyrite. The sulphide body plunges shallowly northward and varies in width and thickness on a metre to tens of metre scale. The sulphide-rich unit that hosts the bulk of the mineralisation is described as a tabular body that strikes roughly east-west with a shallow dip of ~30° to the north. It is tabular in shape with a cross-sectional area that varies from 40 to 80 metres across and averages about 5 m thick.

Sectional polygons were used to constrain and estimate grade populations to similar mineralised units, however grade capping was not applied. The estimate was reported for polygons above a gross metal value of US\$100/t; with a nominal metal price of US\$8/lb for nickel, US\$2/lb for copper and US\$8/lb for cobalt. The estimate was classified as Inferred due to the broad drill spacing.

### **Statements made in response to Listing Rule 5.12.**

#### **5.12.1 The source and date of the historical estimates or foreign estimates.**

The reported historical and foreign resource estimate for the Lainejaur Deposit was sourced from the report entitled "*Technical Report On Resource Estimates For The Lainejaur, Lappvattnet And Ror Deposits, Northern Sweden*" with a date of 5th May, 2009". The report was a historical NI 43-101 report prepared for Blackstone Ventures Inc ("BLV") and retrieved from [www.Sedar.com](http://www.Sedar.com). Additional detail is shown in Appendix A.

#### **5.12.2 Whether the historical estimates or foreign estimates use categories of mineralisation other than those defined in Appendix 5A (JORC Code) and if so, an explanation of the differences.**

The historical resources were prepared and reported in accordance the Canadian National Instrument "NI-43-101" and was stated to conform to the NI 43-101 Standards of Disclosure for Mineral Projects defined at that time (2009). As a general rule, the classification scheme applied to NI-43-101 resources were similar to those of the JORC Code at the time and used mineral resource and mineral reserve categories that are based on the CRIRSCO Template. Estimates created under NI43-101 may not necessarily incorporate the additional reporting criteria introduced into the JORC (2012) code.

#### **5.12.3 The relevance and materiality of the historical estimates or foreign estimates to the entity.**

The reported historical and foreign estimate for Lainejaur forms one of six project areas owned by Berkut; as such it is currently not considered a material project per se. The estimate is considered relevant in that it summarises the historical work undertaken on the project by the previous owners and the technical work that informed the estimate provides indicators for potential additional nickel, cobalt and copper mineralisation.

#### **5.12.4 The reliability of the historical estimates or foreign estimates, including by reference to any criteria in Table 1 of the JORC Code which are useful in understanding the reliability of the historical estimates or foreign estimates.**

The historical estimate was undertaken utilising the sectional polygon method. Top cutting of composites was not used. This method can potentially lead to over-estimate high grade outlier regions. The historical workers did not measure insitu dry bulk density for the mineralisation zones; with a value of 3.55t/m<sup>3</sup> used for the resource. The massive, semi-massive and disseminated zones of mineralisation would be expected to have different density characteristics which should be utilised in future resource estimates. No metallurgical test work is known to have been conducted on the Lainejaur core. Metallurgical test work should be undertaken in future test programs to assess recovery characteristics and for any penalty elements.

Independent checks of the underlying resource data by Berkut in June/July 2017 did not identify any material issues with available drill hole database data. The checks undertaken included a review of the drill hole, lithological and assay data that was available. It is noted that Berkut currently has drilling data for only approximately 90% of the known historical drill holes over the project. Included in this review was a physical inspection of select available core at the SGU core archives in Mala.

Reviews of the underlying drill hole information by Berkut staff have indicated the following:

- Available select original PDF's of assay laboratory return sheets match the values recorded in the database.
- Comparison of the drill logs to 4 mineralised core holes in the Mala archives indicated that the stated geology descriptions, logged sulphide mineralisation, sample intervals and sample numbers matched those of the logs.
- Selected high-grade intervals, were tested by the use of a pre-calibrated handheld XRF ('HHRXF') unit (Niton XL3T). The resulting HHXRF grade readings were of similar magnitude to the quoted nickel, copper and cobalt grades.
- A field visit was made to the Lainejaur project area and several drill hole collars were identified. The location and orientation of the collars matched closely of that of the historical drill hole database.
- As the field investigations supported the general veracity of the drilling data; a decision was made not to undertake additional ¼ sampling sample the available core at the time. This decision was made as: 1) the current resources were only quoted to Inferred level; to 2) it was considered important to preserve core for potential future metallurgical and density test work; and 3) the stored mineralised core in the archives is an important historical record.

**5.12.5 To the extent known, a summary of the work programmes on which the historical estimates or foreign estimates are based and a summary of the key assumptions, mining and processing parameters and methods used to prepare the historical estimates or foreign estimates.**

Summary exploration work undertaken on the project is shown below:

- 1940 -Boliden- drilling and discovery of the Lainejaur deposit
- 1941-1945-Boliden - underground development and commercial nickel and copper production
- 2002-NAN- ground mag and EM surveys; 2 diamond drill holes
- 2007-2009 - Blackstone - ground and bore hole EM surveys and diamond drilling of 43 holes totalling 13,200 metres (including four failed collars). NI43-101 resource estimate.

The historical Blackstone estimate covers an area of approximately 600m by 300m with a drill hole spacing of nominally 100m x 50m. The average sample length was 0.9m, ranging from 0.1 to 2.5m. A total of 16 intervals from an assay database of 1,552 samples in 43 drill holes, representing approximately 1,346 metres of drilling, were reportedly used for the estimate. Figures 3 and 4 illustrate the drilling work undertaken on the project.

Core samples were cut in half then processed at the ALS Chemex facility in Pitea Sweden then sent to ALS Chemex in Vancouver for analysis for Ni, Cu, Co, Ag and S by peroxide fusion and ICP-AES. QAQC data (Standards and blanks) were reportedly available and reviewed for the post 2007 BLV drill holes, and considered acceptable for the project by the previous workers, however Berkut could not locate this data to review.

Sectional polygons were used to constrain grade populations to similar mineralised units, however grade capping was not applied. Polygons were reportedly interpolated half-way between adjacent drill holes on a section, to a maximum of 50m from a drill hole and were extrapolated to a maximum of 50m from a qualifying intercept where there were no constraining holes. The influence of a polygon was 25m towards or away from the plane of a section. The estimate was reported for polygons above a gross metal value of US\$100/t; with a nominal metal price of US\$8/lb for nickel, US\$2/lb for copper and US\$8/lb for cobalt. The estimate was classified as Inferred due to the broad drill spacing. Appendix One includes additional details of the historical work undertaken.

Mineralisation is open to depth as the previous works ceased extensional drilling as they were close to the then license boundary. For example, hole LAI-08-034 at 7241550N is reported to contain grades 2% Ni, 0.38% Cu and 0.09% Co over a core length of 2.0m from 558.3m in semi-massive to massive sulphide units.

**5.12.6 Any more recent estimates or data relevant to the reported mineralisation available to the entity.**

Berkut is not aware of any more recent mineral resource estimates undertaken on the project; or of any other relevant data not discussed in this announcement.

**5.12.7 The evaluation and/or exploration work that needs to be completed to verify the historical estimates or foreign estimates in accordance with the JORC Code.**

Berkut intends to investigate additional data sources for the historical data, and may undertake further logging, density and potentially sampling validation work on the available historical core. Additional data compilation work is also required to validate the drill hole database for use to determining a mineral resource in accordance with the JORC (2012) Code.

**5.12.8 The proposed timing of any evaluation and/or exploration work that the entity intends to undertake and a comment on how the entity intends to fund that work.**

Berkut intends to undertake geological and geophysical reviews on the broader project area in the next 6 to 18 months. Funding for these activities will be from existing cash reserves. Pending these investigation additional resource studies and geophysical investigations may be undertaken on the project.

**Competent Persons Statement**

Mr Neil Inwood confirms that the information in the announcement presented under the ASX Listing Rules 5.12.2 to 5.12.7 is an accurate representation of the available data and studies for the Lainejaur Deposit. Mr Inwood is a full time Berkut full time employee of Berkut Minerals and is a Fellow of the AusIMM. Mr Inwood 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).

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

**Section 1 Sampling Techniques and Data**

Note: Details of the historical Blackstone drilling, sampling and assaying are taken from the May 2009 43-101 report for the project. Berkut has conducted investigation into the appropriateness of the information and has no reason to believe the information is not factual. This information is included to supply supporting information on the quoted sampling data.

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 assay grades or quantities this ASX Release refers to historical drilling records obtained from the Swedish Geological Survey</li> <li>Berkut undertook field investigations to confirm collar locations where possible in June 2017.</li> <li>A hand held XRF machine (Niton XL3t) was used to take spot readings of hand and core samples. Multiple readings were taken on the best exposed sample face to assist in minimising sampling bias. The hand-held device was calibrated using commercially available certified reference material</li> <li>Hand samples collected as composite samples from within 5m of the recorded sample location. Samples were selected based on mineralogy.</li> <li>The historical diamond core samples were cut in half then processed at the ALS Chemex facility in Pitea Sweden then sent to ALS Chemex in Vancouver for analysis for Ni, Cu, Co, Ag and S by peroxide fusion and ICP-AES.</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>All historical drill samples are understood to be from diamond core. Blackstone diamond core was nominally of BQ size.</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>Detailed drill recovery information is not available; comments in reporting indicates good recovery. Visual inspection of core at the Mala archive indicates generally high recovery.</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.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>The core was completely logged for lithology, mineralisation style and sulphides. Geotechnical data is understood not to have been collected.</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>Core was longitudinally cut using a diamond saw with one half submitted for sampling. This method is industry standard practice.</li> <li>The samples were reportedly shipped to ALS Chemex in Pitea for crushing and pulverisation, with pulps then shipped to ALS Chemex Vancouver for analysis. Drill core samples analysed at ALS Chemex were first prepared at ALS' preparation lab in Pitea, Sweden. There samples were logged in their tracking system, then weighed and the entire sample was crushed to better than 70% -2mm. A split off 250 gram sample was then pulverized to better than 85% passing 75 microns. These pulps were then shipped to Vancouver, B.C by commercial aircraft for completion of analytical work. Pulps and rejects were returned to BLV and stored in Vallen, Sweden.</li> <li>Standards and blanks were reportedly submitted for every 20 samples and inserted at the end of mineralised zones. Field duplicates were not taken.</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 Blackstone diamond core was analysed by ALS Chemex in Vancouver, B.C. with analysis for Ni, Cu, Co, Ag and S by peroxide fusion and ICP-AES; and Pt, Pd and Au by fire assay and ICP-AES finish (30 gram nominal sample weight). Post 2007 a nominal 1:20 standard and blank submission regime was reportedly implemented.</li> <li>Berkut hand samples were prepared at the ALS Chemex facility in Pitea and assayed at the ALS assay hub in Ireland. Determination was undertaken with a mixed four acid digest ICP-MS finish. Gold was determined by lead collection with fire assay. For field hand-samples, 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 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.</li> <li>Approximately 60 second readings were taken with 20s per filter pass.</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>Berkut used a handheld XRF to spot analyse select core with empirically equivalent nickel and base metal results noted with respect to the documented assays.</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>Blackstone collars were recorded against the RT90 2.5 gon V grid system.</li> <li>Berkut samples were picked up in the SWEREF99 grid system. Field verification of the Blackstone collars showed accuracy to within 1-10m using against a handheld Garmin GPS.</li> <li>Only national based topographic control (~5m accuracy) has been used to date.</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 vicinity of historical workings. They indicate the style of mineralisation present but are not indicative of mineralisation thickness or continuity.</li> <li>The Blackstone drill spacing was nominally 100m x 50m and was considered appropriate for an inferred resource by the historical workers.</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>Based upon the current understanding of the mineralisation geometry, the historical drilling generally intersected the mineralisation at close to right angles to the mineralisation.</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>The Blackstone drill core samples were reportedly kept with Blackstone's possession until transport to the laboratory</li> <li>Berkut samples were directly posted to the ALS laboratory in Stockholm.</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>Berkut has checked geological logging and sample depth intervals to the recorded database for 4 holes, no material issues were identified.</li> <li>Berkut has conducted spot checks of significant assay intervals against original laboratory pdf files; no material issues were identified.</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 Lainejaur licences (Lainejaur nr 20 – 41.2km<sup>2</sup>, granted 28 June 2017 for an initial 3 year period) held 100% by Berkut Minerals Ltd. There is a small area classified as a nature reserve in the eastern portion of the licence: this is distant from the currently known mineralisation.</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>	<p>Summary exploration work undertaken on the project is shown below:</p> <ul style="list-style-type: none"> <li>1940 -Boliden- drilling and discovery of the Lainejaur deposit</li> <li>1941-1945-Boliden - underground development and commercial nickel and copper production</li> <li>2002-NAN- ground mag and EM surveys; 2 diamond drill holes</li> <li>2007-2009 - Blackstone - ground and bore hole EM surveys and diamond drilling 43 holes totalling 12,733 metres. NI43-101 resource estimate.</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 nickel-copper sulphide deposit is hosted at the base of a lopolithic gabbro-diorite intrusion. The intrusion cuts 1.88 to 1.86 Ga sedimentary rocks of the Vargfors Group. The Lainejaur intrusion grades upwards from gabbro to diorite to granodiorite. The gabbro portions (which host nickel-copper sulphides) consist of fine-grained olivine gabbro, forming the cumulative host rocks and a probable younger magma pulse of coarse-grained sulphide-bearing gabbro.</li> <li>According to Grip (1961) three principal ore types occur at Lainejaur. The first type is massive sulphide ore near the basal portions of the intrusion. The second type is the disseminated sulphides grading upward into the gabbro host from the massive sulphides. A third, less common type is represented by nickel-copper-arsenic veins.</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> <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 information is included in release.</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 averaging is used for material intervals.</li> <li>Metal equivalents are not 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>Based upon the current understanding of the mineralisation geometry, the historical drilling generally intersected the mineralisation at close to right angles to the mineralisation. Reported intervals are expected to be close to true thicknesses.</li> </ul>

<b>Criteria</b>	<b>Explanation</b>	<b>Commentary</b>
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.</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>• Balanced reporting has been used for hand samples.</li> <li>• Significant intercepts have been reported for the historical drill data.</li> </ul>
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 compile historical production records and exploration results from the Projects and then carry out additional works as required. Additional geophysical surveys are likely.</li> </ul>