Maiden Cobalt Resource Estimate for Talga at Kiskama, north Sweden

Advanced carbon battery materials and industrial graphene solutions provider, Talga Resources Ltd ("**Talga**" or "**the Company**")(**ASX:TLG**) is pleased to announce a maiden JORC Mineral Resource Estimate for its Kiskama copper-cobalt deposit ("Kiskama") 40km east of Kiruna in northern Sweden. A high-level pit design and optimisation program was also completed to visualise and plan for any potential development.

Kiskama lies in a low risk cobalt jurisdiction close to Europe's emerging battery supply chains. Talga will now seek development partners for the early stage cobalt opportunity as the Company's priority is its flagship and highly advanced north Sweden battery anode (graphite) project.

Highlights of the Kiskama maiden resource estimate (MRE) include:

- **7.7Mt @ 0.25% Cu**, **0.04% Co**, **0.36% CuEq** (0.1% CuEq cut-off[1], 2.7t/m³, 20% geological loss) based predominantly on historical drilling, without any extensions or targets such as the large K2 conductor discovered in 2019.
- 100% of the Kiskama MRE is classified as *Inferred*.
- Positive, high-level Whittle™ pit optimisation returned with the optimal open-pit shell containing **4.2Mt @ 0.3% Cu**, **0.05% Co**, **0.45% CuEq**.

Talga Managing Director, Mr Mark Thompson: "*The maiden JORC-compliant mineral resource estimate for Kiskama has achieved a solid base from which to lift the project above exploration level. In addition, the timing of its potential further development is right to match the growing need for conflict-free sources of critical minerals, such as cobalt, to make lithium-ion batteries in Europe. From here, Talga will seek partners to further explore and develop this copper-cobalt project in north Sweden. The potential is to build larger scale on this core estimate with growth-targeted exploration along strike and down dip, including the newly identified large geophysical conductor "K2" located just 600m to the east.*"

Mineral Resource Overview

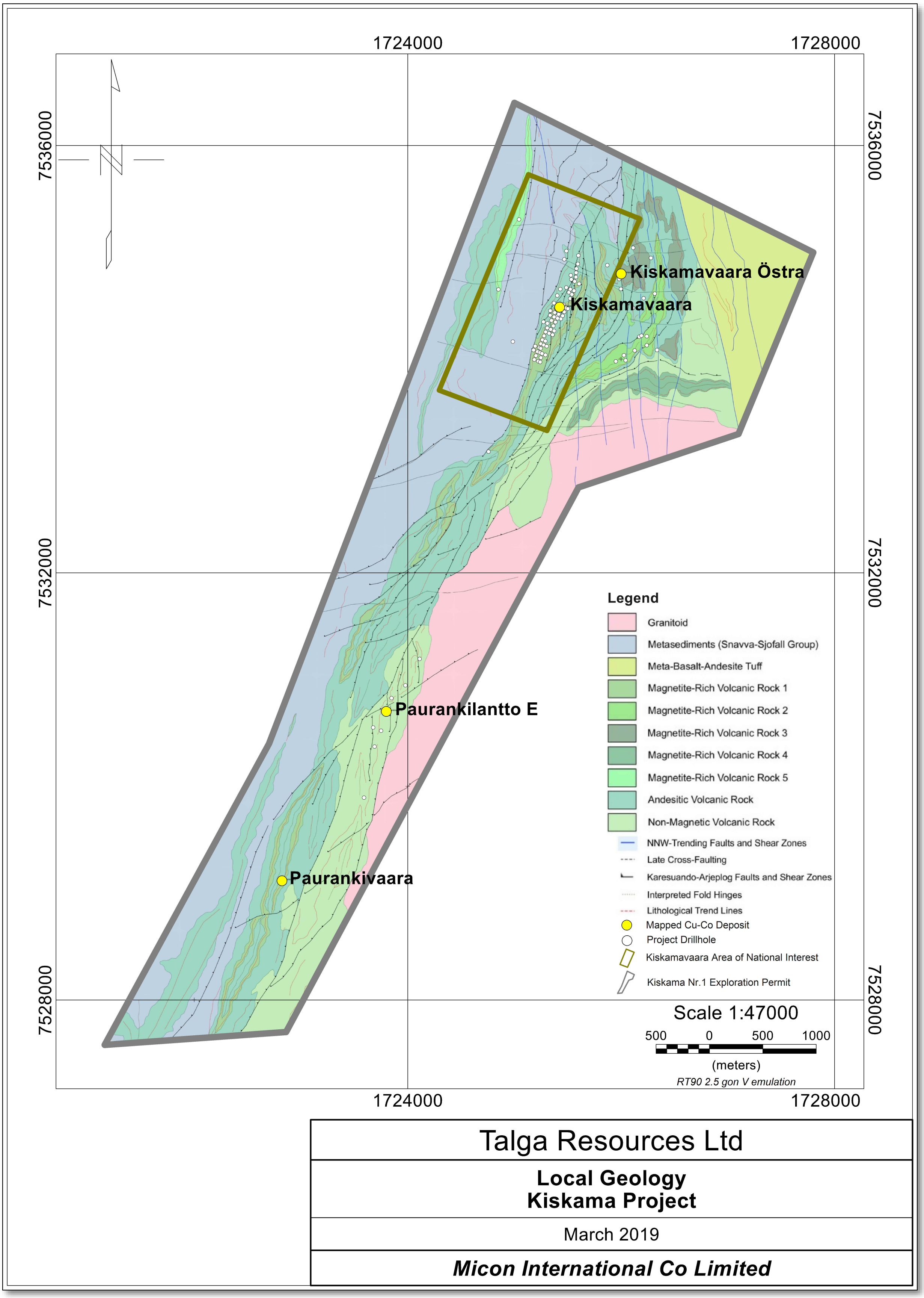
The Kiskama MRE update was completed by independent geological consultancy, Micon International Co Limited (Micon), utilising a substantial historical drillhole database, Talga's own and more recent drillhole database, exploration and metallurgical results. The Inferred Mineral Resources for Kiskama have been estimated according to the guidelines of the 2012 edition of the JORC Code. A 20% geological loss has been applied to the tonnes to take into consideration the Inferred classification status. The Mineral Resources for Kiskama are tabulated in Table 1.

Table 1 *Kiskama Project JORC Code Compliant Mineral Resource Statement.*

Resource Category	Orebody	Volume (m³)	Density	Geological Loss (%)	Tonnage (t)	Cu %	Cu (t)	Co (%)	Co (t)	CuEq (%)	CuEq (t)
Inferred	Main	2,774,000	2.7	20	5,996,000	0.25	14,000	0.03	1000	0.36	21,000
Inferred	Lower	782,000	2.7	20	1,676,000	0.23	3,000	0.05	793	0.38	6,000
Total		**3,556,000**	**2.7**	**20**	**7,672,000**	**0.25**	**17,000**	**0.04**	**1,793**	**0.36**	**27,000**

Notes: 1. *Minimum 0.1% CuEq cut-off applied.* 2. *20% geological loss applied to account for potential unknown geological losses for Inferred Mineral Resources.* 3. *Data source: historical state records (SGU & Talga), high level checked and verified where practical by Micon.* 4. *Inferred Mineral Resources rounded down to nearest 100,000t.* 5. *Errors may exist due to rounding.*

Figure 1 *Interpreted Structure and Geology of the Kiskama Project.*



Source: *McCormack, 2018*

Kiskama Mineral Resource Estimate & Pit Optimisation

Geology

Northern Norrbotten forms a part of an important metallogenetic province in the northern region of the Fennoscandian Shield of Finland, Norway and Sweden, an area referred to as the Northern Norrbotten ore province. The Northern Norrbotten ore province has been the focus during past decades of intense exploration and research related to Fe oxide ± Cu ± Au mineralisation, leading to it becoming the most significant mining district of Sweden and largest producer of iron and copper in Europe.

The Kiskama deposits are hosted within 2.3 Ga to 1.9 Ga Palaeoproterozoic volcanic and sedimentary formations. Based on the style of the Fe oxide ± Cu ± Au mineralisation, extensive albite-scapolite ± amphibole alteration and subsequent K-feldspar-sericite-iron oxide-sulphide alteration and mineralisation, the region has been classified as an iron oxide-copper-gold (IOCG) province. The Kiskama deposit is specifically classified as a shear-zone related Svecofennian-hosted Cu-Au ± Fe oxide deposit.

Kiskama contains three rich sulphide lenses across a ca. 900 m long and 15 m to 40 m wide mineralised zone within a strongly K-feldspar altered and brecciated Svecofennian andesitic host rock. The deposit consists of cobalt-bearing pyrite occurring disseminated in the matrix to the fragmental rock together with magnetite and lesser chalcopyrite.

The highest-grade cobalt bearing portions of the Kiskama deposit (Fig 1) are partitioned between the fault/shear zones that cross through the deposit, becoming narrower and more drawn-out where multiple structures converge. The higher-grade pyrite and cobalt bearing ores occur in wider low-strain zones away from any main structures.

Exploration & Drilling

The majority of the historical drilling (diamond drilling) at the Kiskama Project was undertaken and reported by the SGU on behalf of the Nämnden för Statens Gruvegendom (NSG, State Mining Agency). Drilling first occurred on the Project in 1972 on an episodic basis until 1982. Drilling primarily focussed on the 1km long Kiskama deposit in the north of the project area which defined three sulphidic lenses up to 40 m wide and up to 180 m deep.

A total of 96 diamond drill holes have historically been drilled across the Kiskama Project – 91 by the SGU and 5 by Anglo American. Core from the SGU drill holes is stored at the SGU's core storage facility in Malå, Sweden. Historic drill core was selectively sampled according to the observed mineralisation and alteration. Of the 12,824 metres of historical drilling completed, 2,602 samples were collected totalling 3,843m. Only 27% of samples were analysed for copper and <2% for gold.

Density determination was undertaken using the powder method with a total of 1,533 density measurements collected.

No information on sample preparation, quality control procedures or sample representivity was reported for the historical SGU sampling. Historical assaying was conducted by the SGU's laboratories in Luleå and Stockholm. Samples were analysed using atomic absorption spectroscopy to an accuracy of ±5%. Sulphur was analysed for using wet chemical techniques. No systematic analysis for Au was undertaken, with <5% of all samples analysed for Au via fire assay.

No quality assurance (QA) or quality control (QC) procedures or protocols were implemented in the historical drilling. In order to verify the accuracy of the historical drilling geological data, two phases of check logging on the original drill core were independently completed by Talga.

In 2014, Talga completed 4 drill holes using standard tube, wireline core drilling techniques with an NQ drill hole size. A total of 200 samples totalling 402 metres were collected. The entirety of each drill hole was sampled except for the uppermost weathered horizon. A consistent sample length of 2m was selected which did not honour lithological contacts or visible mineralisation.

Sample preparation was undertaken at the ALS Piteå preparation facility in Sweden. Sample analysis was undertaken at ALS Loughrea in County Galway, Ireland (INAB accreditation number 173T). All samples were analysed for gold using ICP-AES finish and for 48 elements using four acid digest and analysis using ICP-MS. A total of 24 density measurements were collected by Talga using the Archimedes measurement technique.

A limited QA/QC programme supporting the sampling campaign was implemented. Of the total of 215 samples submitted, 15 were gold certified reference materials (CRM) and/or blank material such that the entire sampling campaign had an overall resultant reference material insertion rate of 7% to 3% for CRMs and 4% for blanks. No CRM's for copper or cobalt were submitted, nor any sample duplicates, twinned half-core duplicates or pulp duplicates.

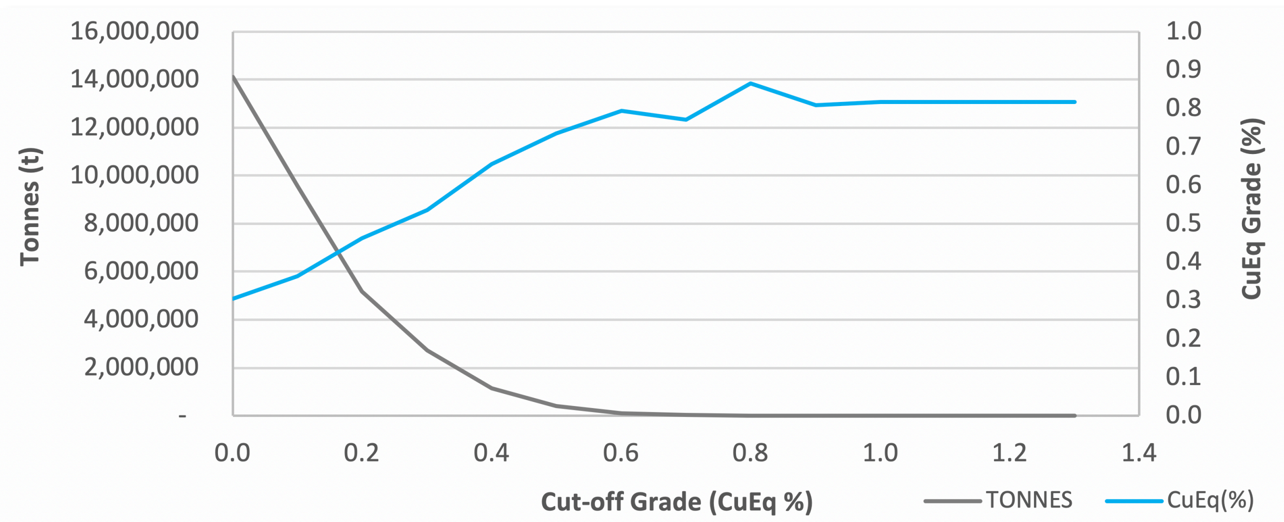
Mineral Processing & Metallurgical Testwork

During 2017, Talga appointed Simulus Laboratories of Perth, Australia to complete a batch metallurgical testwork program in order to investigate flotation recovery of copper, cobalt and gold. Test work was completed on three samples of Kiskama drill core – high, medium and low grade. Mineralogical examinations of the samples including microprobe analyses of selected pyrite grains returning 0.5% to 2.1% Co supported that cobalt was present only in the pyrite lattice as cobaltiferous pyrite. Copper mineralisation was predominantly hosted within chalcopyrite.

Results indicated that high mineral recoveries could be obtained (up to 91% recovery of cobalt and 86% recovery of copper) and that flotation was relatively simple with samples responding well to a large range of conditions. The 'medium cobalt' grade sample appeared insensitive to grind size while a slight increase in recovery was noted with the 'high cobalt' grade sample at a P80 of 75µ.

In terms of cobalt extraction, the pyrite structure needs to be broken down (i.e. oxidised) in order to release the cobalt. The Kell process testwork successfully produced cobalt and copper extractions from the flotation concentrate via pressure oxidation (POX)/atmospheric leach steps. The leach residue, considerably smaller in mass than the concentrate, also provided high gold extractions through HCl pre-leach and chlorination leach steps.

Figure 2 *Grade Tonnage Curve of the Combined Main and Lower Orebodies of the Kiskama Deposit.*



Mineral Resource Estimation, Methodology & Assumptions

Micon performed two forms of validation checks, one on the actual input data (‘database validation’) and one on the drill hole database validity (‘drill hole validation’). As the historic test campaigns had not sampled the entire drill hole, Micon opted to leave these missing intervals with no value instead of inserting dummy values. These intervals may be assayed at a later date to provide data instead of null values.

Once the drillhole database had been validated, a value for copper equivalent (CuEq) was calculated based on the following formula:

CuEq = (% Co x recovery x 5) + (% Cu x recovery)

Where cobalt recovery was 0.80%, copper recovery was 0.95% and 5 is based on a 5:1 price ratio using a cobalt price of US$14.5/lb and a copper price of US$2.9/lb.

Since the historical logging did not use normalised coding for lithology or alteration, Micon created a grade model and used fault and shear zone modelling by Outlier Geoscience to compare grade distribution in the drill holes and confirm the relationship between mineralisation and structure.

After conducting further data checks and modelling considerations, Micon opted to apply a 0.1% CuEq cut-off grade for the following reasons:

- The Kiskama deposit is a shallow orebody that will be mined by open pit methods where selective mining of high-grade areas will not be practical;
- The mineral resource has a low level of confidence in grade continuity due to the unsampled drillcore intervals; and,
- Copper equivalent was calculated using a spot price and not a long-term forecast resulting in a conservative estimate of grade.

Based on the overall quality of the drill hole sampling and spacing, Micon has assigned an Inferred Resource category to the Kiskama deposit.

Figure 3 *Composited Grades and Digitised Strings around Main and Lower Orebodies of the Kiskama deposit.*

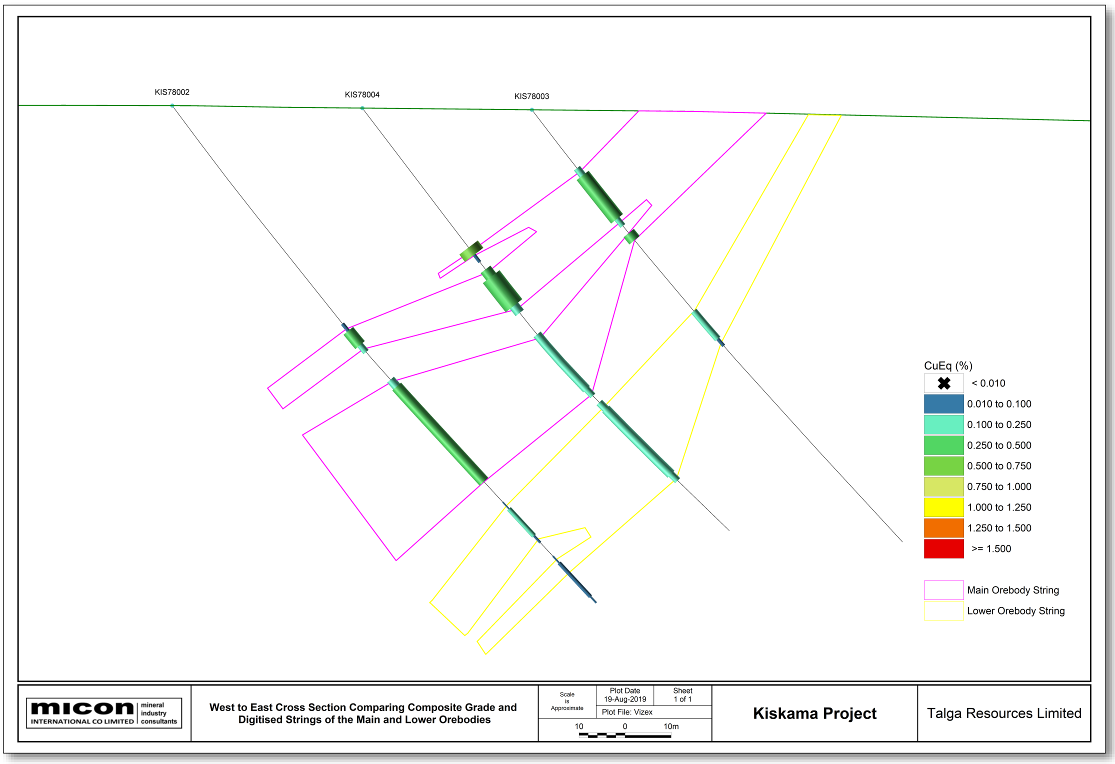


Figure 4 *Modelled Main and Lower Orebody Wireframes of the Kiskama deposit (looking down dip).*

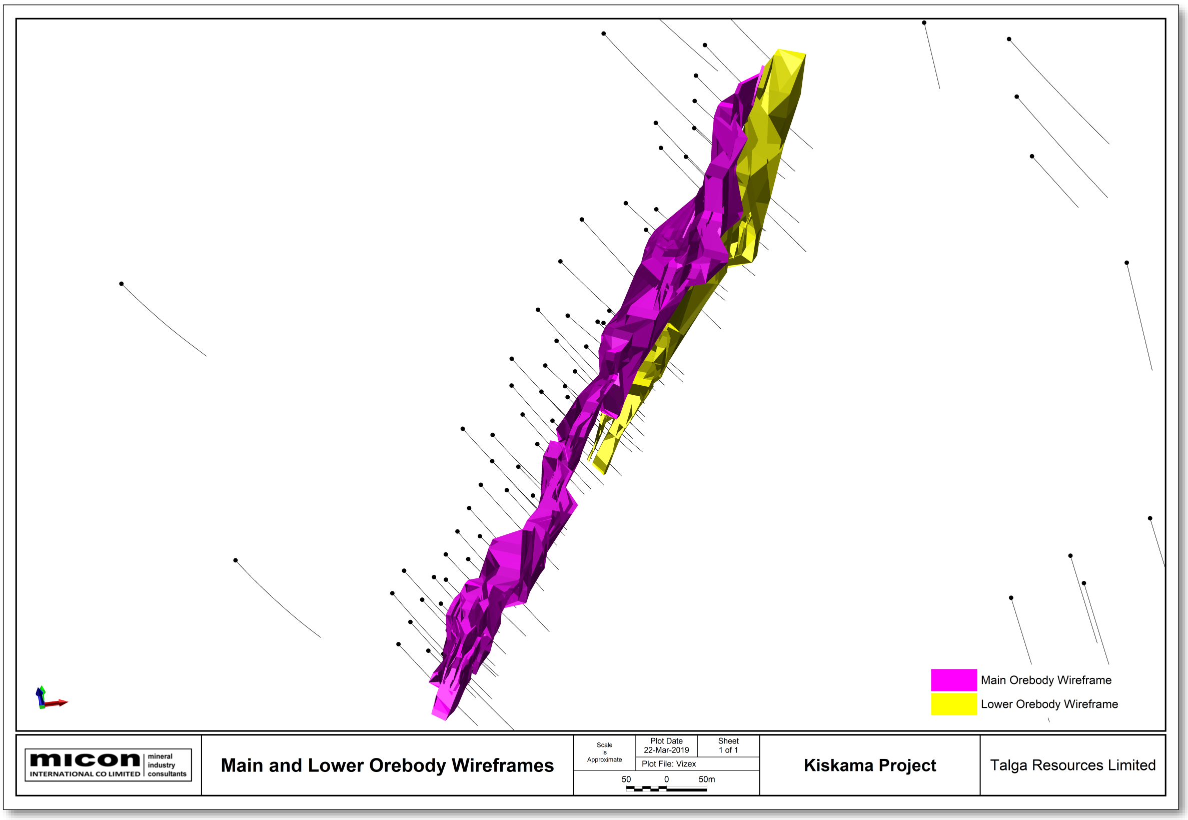
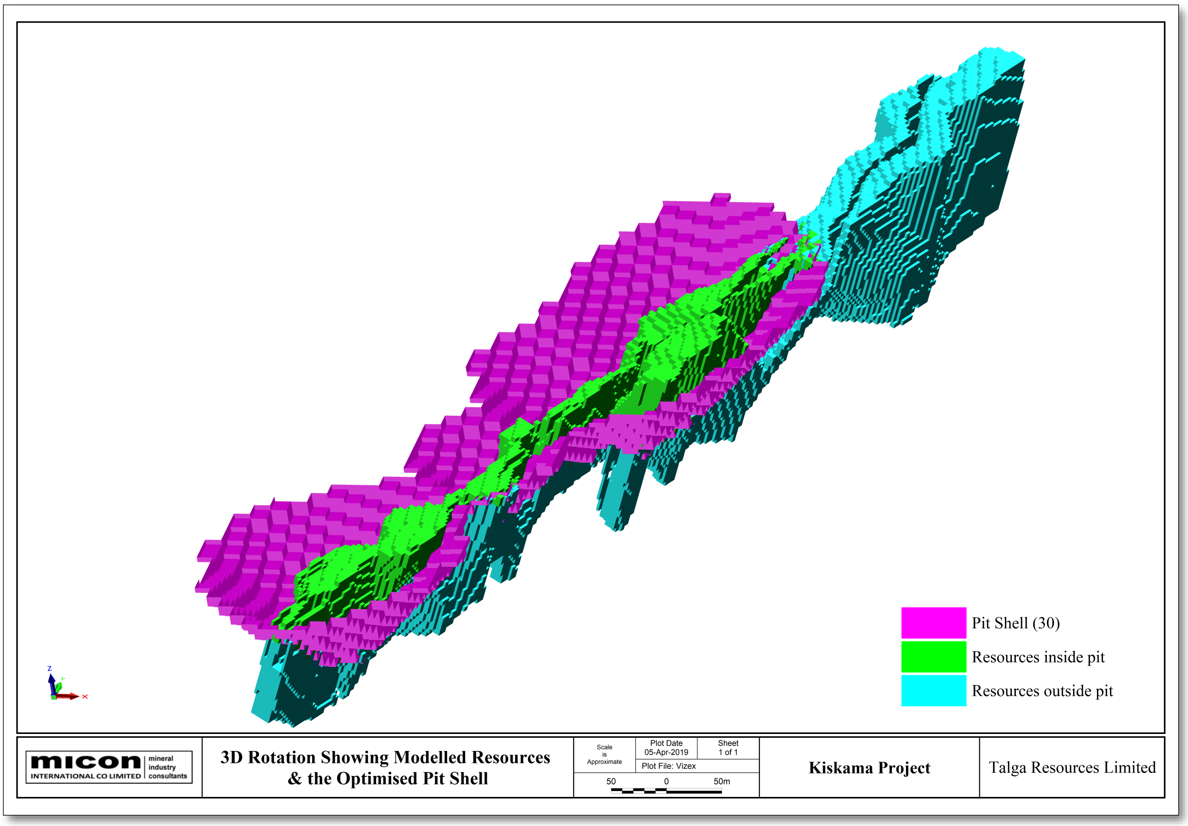


Figure 5 *Pit Shell Produced by the Pit Optimisation.*



Potential 'Mineable Resource' Estimate/Pit Optimisation

In order to visualise and plan for any potential mining that could occur at the Kiskama deposit, Talga requested a high-level pit design to be generated by Micon. As the Kiskama Project is classified as a Pre-Development Project, according to the 2015 edition of the VALMIN Code, the level of engineering work completed is not yet sufficient to convert mineral resources to ore reserves.

Micon estimated the potential 'mineable resources' that fall within an optimised open-pit shell (Fig 5) which assisted in proving reasonable prospects for eventual economic extraction (RPEEE) at the Kiskama deposit. This 'mineable resource' cannot be regarded as ore reserves as defined by the 2012 edition of the JORC Code.

Table 2: *'Mineable Resource' of the Kiskama deposit.*

Resources	Volume (m^3)	Tonnage (t)	Cu (%)	Cu (t)	Co (%)	Co (t)	CuEq (%)	CuEq (t)
'Mineable'	1,603,850	4,289,171	0.30	12,719	0.05	2,024	0.45	19,290

A preliminary review of the technical parameters (see Table 3 below) related to the Kiskama deposit indicates that it would be appropriate to exploit the deposit via open-pit mining. Micon based its 'mineable resource' estimate on an economically optimal final pit shell with a revenue factor of 1.0. The optimal pit shell was generated using GEOVIA Whittle™ software and final pit designs were not prepared. For the pit optimisation an overall pit-wall slope angle of 45° was used.

Table 3: *Pit Shell Optimisation Parameters*

Parameter	Value	Reference
Copper Price (US$/kg)	7.1	Value Proposed by Micon
Cobalt Price (US$/kg)	44.1	Value Proposed by Micon
Ratio Cu/Co	6.0	Value Received by Micon
CuEq (US$/kg)	14.4	Value Calculated by Micon
Mining Cost (US$/t)	3.00	Cost Proposed by Micon
Waste Stripping Cost (US$/t)	2.50	Cost Proposed by Micon
Losses (%)	5.00	Losses Proposed by Micon
Dilution (%)	5.00	Dilution Proposed by Micon
Ore Concentration Cost (US$/t)	12.00	Cost Proposed by Micon
Ore Refining Cost (US$/t)	12.00	Cost Proposed by Micon
General & Admin Cost (US$/t)	5.00	General and Administrative Cost
Recovery for Cu (%)	82.00	Minimal recovery proposed by Micon
Recovery for Co (%)	77.00	Minimal recovery proposed by Micon
Recovery for Au (%)	63.00	Minimal recovery proposed by Micon
Recovery for CuEq (%)	81.29	Recovery calculated by Micon
Royalty (US$/t contained metal)	372	Calculated by Micon incorporating information from Talga

Cautionary Statement: *The pit optimisation study referred to in this announcement has been undertaken to gain an initial understanding of the potential economic viability of the Kiskama deposit. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further exploration and feasibility-level evaluation work and appropriate studies are required before Talga would be in a position to estimate any ore reserves or to provide any assurance of an economic development case. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the pit optimisation study contained within this document.*

The final pit shell was used to cut the geological (Micromine) block model and estimate potential 'Mineable Resources'. No production schedule or economic modelling has been based upon this pit shell. The potential 'Mineable Resources' are presented in Table 2 above.

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Footnotes: [1] *Copper equivalents were calculated using a cobalt price of USD $14.5/lb, a copper price of USD $2.9/lb a cobalt recovery of 0.8%, a copper recovery of 0.95% and 5.1 price ratio. The equation is as follows: CuEq= (%Co x recovery x 5) + (%Cu x recovery). It is the company's opinion that the metal prices (spot commodity prices) used in the metal equivalent calculations have a reasonable potential for recovery and sale based on metallurgical testwork from the project.*

Competent Persons Statement

The information in this document that relates to exploration results is based on information compiled by Amanda Scott, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy (Membership No.990895). Amanda Scott is a full-time employee of Scott Geological AB.

Amanda Scott has sufficient experience, which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which has been undertaken 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 (JORC Code). Amanda Scott consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

The information in this report that relates to Mineral Resource Estimates is based on information compiled by Elizabeth and Andrew de Klerk. Both Mr and Mrs de Klerk are consultants to the Company. Mr de Klerk is a member of the South African Institute of Mining and Metallurgy (SAIMM) and of the Geological Society of Africa (GSSA) and a registered Professional Natural Scientist (Pr.Sci.Nat. 400030/11) and Mrs de Klerk is a member of the South African Institute of Mining and Metallurgy (SAIMM) and a Fellow of the Geological Society of Africa (GSSA) and a registered Professional Natural Scientist (Pr.Sci.Nat. 400090/08).

Both Mr and Mrs de Klerk have sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this document and to the activity which both 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” (“JORC Code”). Mr and Mrs de Klerk consent to the inclusion in this report of the Matters based on this information in the form and context in which it appears.

About Talga

Talga Resources Ltd is a provider of advanced carbon battery materials and industrial graphene solutions. We produce advanced natural graphite materials, graphene additives and semi-synthetic blends to power our customers’ innovations. Vertical integration, including ownership of several high-grade Swedish graphite projects, provides security of supply and creates long-lasting value for our shareholders. Joint development programs are underway with a range of international corporations. Company website: **www.talgaresources.com**

APPENDICES

Table 4 *Drillhole Information*

Hole ID	East (RT90)	North (RT90)	RL (m)	Dip (°)	Azimuth (°)	EOH (m)	Main Intersection (m)		Lower Intersection (m)	
KIS01	1725435.00	7534377.00	358.19	-59.79	110.00	79.70	0.00	16.00	not intersected	
KIS02	1725401.00	7534400.00	360.11	-59.81	110.00	132.40	36.11	66.20	not intersected	
KIS03	1725462.00	7534487.00	366.36	-60.01	110.00	100.25	0.00	40.10	40.10	94.24
KIS04	1725452.00	7534492.00	366.68	-61	110.00	112.30	2.00	40.11	78.21	104.28
KIS72001	1725290.26	7534039.78	358.29	-59.8	292.30	159.05	4.00	83.75	not intersected	
KIS72002	1725364.13	7534312.12	356.34	-60.1	112.30	94.98	18.19	48.50	not intersected	
KIS72003	1724984.94	7534165.00	370.74	-59.6	112.30	153.44	not intersected		not intersected	
KIS72004	1725216.25	7534070.13	361.56	-58.8	112.30	146.64	58.25	106.46	not intersected	
KIS72005	1725231.42	7534107.14	359.74	-61.4	112.30	145.95	58.00	122.00*	not intersected	
KIS72006	1725246.60	7534144.15	358.22	-59.6	112.30	156.98	82.52	120.75	not intersected	
KIS72007	1725261.78	7534181.16	357.17	-61.1	112.30	188.93	42.21	108.53	not intersected	
KIS72008	1725201.07	7534033.12	363.81	-60	112.30	207.97	72.00	118.00	not intersected	
KIS72009	1725308.62	7534334.88	358.20	-60	112.30	146.84	102.59	136.78	not intersected	
KIS72010	1725346.92	7534362.40	358.64	-60.5	112.30	140.65	66.31	104.48	not intersected	
KIS73001	1725307.32	7534292.18	356.88	-58.7	112.30	142.00	92.00	120.00	not intersected	
KIS73002	1725292.14	7534255.17	356.52	-60.7	112.30	160.00	102.00	138.00	not intersected	
KIS73003	1725276.96	7534218.17	356.83	-60	112.30	155.19	114.00	130.00	not intersected	
KIS73004	1725185.89	7533996.12	366.21	-59.1	112.30	156.04	80.02	114.03	not intersected	
KIS73005	1725179.24	7534085.31	363.16	-61.5	112.30	200.76	118.45	154.59	not intersected	
KIS73006	1725194.42	7534122.32	361.38	-61.1	112.30	181.19	98.00	162.00*	not intersected	
KIS74001	1724756.85	7533134.48	424.28	-60	112.30	171.39	not intersected		not intersected	
KIS74002	1726314.77	7534613.97	390.54	-60.9	112.30	187.81	not intersected		126.00	132.00
KIS74003	1725334.35	7534410.80	361.28	-61	112.30	188.24	112.14	128.16	not intersected	
KIS75001	1725377.28	7534436.42	362.51	-54.1	112.30	172.44	58.15	84.21	100.26	138.35*
KIS75002	1725407.64	7534510.44	367.79	-50.9	112.30	145.75	56.00	94.00	112.00	145.75
KIS75003	1725401.00	7534596.00	374.90	-54.9	112.30	223.54	102.00	168.00	184.00	198.00
KIS75004	1726112.37	7535042.84	424.56	-58.5	112.30	120.11	16.01	18.02	not intersected	
KIS75005	1725975.04	7534839.76	416.44	-60.4	112.30	199.79	62.00	82.00	130.00	134.00
KIS76001	1725981.69	7534750.57	407.17	-61.7	112.30	189.93	10.00	12.00	not intersected	
KIS76002	1725997.59	7534657.58	396.29	-60	112.30	96.34	28.10	42.15	not intersected	
KIS76003	1726278.67	7534947.62	411.86	-59.1	314.60	142.39	not intersected		not intersected	
KIS76004	1726292.44	7534823.07	407.85	-58.9	112.30	178.69	12.05	14.05	not intersected	
KIS76006	1725430.00	7534656.00	381.23	-60	112.30	203.27	122.00	124.00	156.00	160.00
KIS76007	1725271.61	7534350.06	359.33	-59.7	112.30	194.69	158.56	182.65	not intersected	
KIS76008	1725335.65	7534453.50	363.57	-59.9	112.30	222.12	108.06	138.07	174.09	200.11
KIS77001	1725444.65	7534495.26	366.88	-54.6	112.30	124.00	16.00	64.00	66.00	106.00
KIS77002	1725370.63	7534525.62	368.40	-59.8	112.30	213.90	132.00	176.00	178.00	192.00
KIS77003	1725510.00	7534626.00	381.02	-55	112.30	140.60	36.15	80.34	92.39	106.45
KIS77004	1725578.00	7534810.00	404.77	-53.4	112.30	157.08	52.00	92.00	92.00	128.00
KIS77005	1725487.00	7535013.00	420.60	-54.2	112.30	179.86	not intersected		not intersected	
KIS77006	1725481.65	7534480.08	365.96	-55.2	112.30	105.54	not intersected		10.00	72.00
KIS77007	1725414.29	7534421.24	361.60	-53.2	112.30	127.00	32.25	52.77	52.77	102.81
KIS77008	1725594.00	7534892.00	415.05	-57.5	112.30	201.53	not intersected		106.00	160.00
KIS77009	1725599.00	7534971.00	423.90	-60.4	112.30	159.40	not intersected		61.03	113.20
KIS77010	1725467.00	7534935.00	411.40	-59.8	112.30	209.40	168.00	186.00	not intersected	

Hole ID	East (RT90)	North (RT90)	RL (m)	Dip (°)	Azimuth (°)	EOH (m)	Main Intersection (m)		Lower Intersection (m)	
KIS77011	1725581.00	7534848.00	409.33	-57.6	112.30	185.81	74.00	78.00	94.00	162.00
KIS77012	1725576.00	7534769.00	400.00	-53.2	112.30	187.13	64.00	76.00	98.00	140.00
KIS77013	1725528.00	7534786.00	399.54	-59.3	112.30	208.65	110.34	170.53	170.53	204.64
KIS77014	1725606.00	7534706.00	393.71	-56	112.30	165.25	not intersected		24.00	70.00
KIS77015	1725533.00	7534747.00	395.21	-58.6	112.30	199.09	76.00	130.00	132.00	184.00
KIS78001	1725564.00	7534728.00	394.49	-58.7	112.30	146.43	32.09	84.25	86.25	146.43
KIS78002	1725486.00	7534671.00	385.09	-53.2	112.30	141.84	62.00	106.00*	112.00	122.00
KIS78003	1725558.00	7534641.00	384.19	-52.8	112.30	123.57	16.00	0.29	56.00	66.00
KIS78004	1725524.00	7534655.00	384.54	-52.6	112.30	121.61	38.00	80.00*	82.00	106.00
KIS78005	1725538.00	7534606.00	379.62	-54.7	112.30	103.22	34.00	70.00	80.00	88.00
KIS78006	1725522.00	7534568.00	375.14	-55.1	112.30	121.19	12.00	52.00*	not intersected	
KIS78009	1724112.00	7531194.00	424.28	-56	112.30	109.15	not intersected		not intersected	
KIS78010	1723978.00	7530946.00	424.28	-51.5	112.30	155.11	not intersected		not intersected	
KIS78011	1723848.18	7530826.67	424.28	-60	112.30	206.38	not intersected		not intersected	
KIS78012	1723749.88	7530521.12	424.28	-53.6	112.30	141.89	not intersected		not intersected	
KIS78013	1723675.87	7530551.48	424.28	-61.1	112.30	200.39	not intersected		not intersected	
KIS78014	1723689.17	7530373.09	424.28	-53.5	112.30	77.26	not intersected		not intersected	
KIS78015	1723590.30	7529894.84	424.28	-51.6	112.30	163.27	not intersected		not intersected	
KIS78016	1722807.08	7529091.99	424.28	-54.5	112.30	120.93	14.11	32.25	not intersected	
KIS80001	1725247.33	7534014.15	361.45	-56.8	112.30	90.47	20.10	54.28*	not intersected	
KIS80002	1725222.90	7533980.94	364.36	-56.3	112.30	90.77	32.27	66.56*	not intersected	
KIS80003	1725241.40	7533973.35	363.39	-60	112.30	54.74	20.03	30.41	not intersected	
KIS80004	1725239.38	7534060.65	360.54	-55.7	112.30	90.12	16.02	68.09	not intersected	
KIS80005	1725257.88	7534053.06	359.72	-58	112.30	60.76	6.08	46.58	not intersected	
KIS80006	1725246.23	7534101.07	359.08	-57.6	112.30	102.47	32.15	94.43*	not intersected	
KIS80007	1725274.36	7534132.77	357.22	-58	112.30	93.62	34.00	66.00	not intersected	
KIS80008	1725302.12	7534121.38	356.08	-55	112.30	56.00	8.00	46.00	not intersected	
KIS80009	1725289.54	7534169.77	356.14	-55.8	112.30	90.80	18.16	78.69	not intersected	
KIS80010	1725324.52	7534241.89	355.60	-60	112.30	103.37	52.00	90.00	not intersected	
KIS80011	1725356.90	7534228.61	354.42	-56.1	112.30	66.00	12.00	58.00	not intersected	
KIS80012	1725339.70	7534278.90	355.50	-56.5	112.30	90.39	54.23	76.33	not intersected	
KIS80013	1725372.08	7534265.62	354.58	-55	112.30	60.00	14.00	36.00	not intersected	
KIS80014	1725383.93	7534347.23	357.41	-55	112.30	73.67	30.00	58.00	not intersected	
KIS80015	1725371.35	7534395.62	359.93	-55	112.30	98.54	60.33	88.48	not intersected	
KIS80016	1725403.74	7534382.34	358.80	-55	112.30	70.50	26.19	52.37	not intersected	
KIS80017	1725451.30	7534406.06	360.32	-55	112.30	76.45	6.04	12.07	26.15	64.38
KIS80018	1725466.48	7534443.07	363.21	-55	112.30	74.10	not intersected		16.02	56.08
KIS80019	1725429.47	7534458.25	364.12	-55	112.30	110.00	28.00	46.00	82.00	86.00
KIS80020	1725392.46	7534473.43	364.81	-60	112.30	161.12	not intersected		128.00	138.00
KIS80021	1725500.16	7534472.49	365.38	-55	112.30	50.09	not intersected		4.01	46.08
KIS80022	1725460.00	7534510.00	368.18	-55	112.30	120.70	28.16	68.40	68.40	94.55
PNJ82001	1726336.00	7534086.00	340.73	-55	165.00	168.24	not intersected		not intersected	
PNJ82002	1726239.95	7534214.58	348.33	-55	165.00	194.50	not intersected		not intersected	
PNJ82003	1726041.37	7533989.48	334.90	-55	165.00	108.14	not intersected		not intersected	
PNJ82004	1726025.43	7534036.87	336.34	-55	165.00	115.50	not intersected		not intersected	
PNJ82005	1725949.69	7533979.73	334.95	-55	165.00	163.69	not intersected		not intersected	
PNJ82006	1726126.49	7534081.44	338.51	-55	165.00	123.25	not intersected		not intersected	

* ±10-15 m gap of no grade in the middle

JORC CODE 2012 EDITION

Section 1 Sampling Techniques and Data

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample retrospectivity and the appropriate calibration of any measurement tools or systems used.* • *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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• The Kiskama sample database is made up of 96 historical diamond drill holes – 91 drilled by the SGU and five by Anglo America plus an additional 4 drillholes drilled by Talga in 2014. Core from the SGU drill holes is stored at the SGU's core storage facility in Malå. Of the 12823.88m of historical drilling completed a total of 2,602 samples were collected totalling 3,842.74 m. Only 27% of samples were analysed for copper and <2% for gold. In 2014 Talga drilled 4 new diamond core drillholes, totalling 200 samples and 401.55 m. Sample analysis in 2014 was undertaken at the accredited OMAC Laboratories Ltd, trading as ALS Loughrea, located in County Galway, Ireland. • Information regarding measurements taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used was not recorded during the drilling campaigns. No sampling or assay data is available from the 1998/99 drilling campaign undertaken by Anglo American. No quantitative data on core recovery was recorded during the drilling period 1972 to 1980 and thus it cannot be determined whether a relationship exists between sample recovery and grade. Core loss on a per run basis was logged in 2014 by the contracted drillers on wooden blocks placed in the core trays at the end of each drill run. This core loss data was not captured by Talga and as such no quantitative analysis has been undertaken in order to determine any relationships that could exist between sample recovery and grade. A high-level check of some drill hole core in Malå indicates that core loss was not an issue for the 2014 drilling. • No project specific standard operating procedures for either the historical or 2014 sampling was followed. Historic drill core was selectively sampled at the discretion of the geologist according to the observed mineralisation and alteration. Sampling of the drill core was selective with only 27% of samples analysed for copper and <2% for gold. In 1985 the SGU undertook an infill drill core copper sampling campaign on some of the unsampled drill runs containing sulphide mineralisation. The entirety of each drill hole was sampled except for the uppermost weathered horizon. A consistent sample length of 2m was selected which did not honour lithological contacts or visible mineralisation.
Drilling techniques	• *Drill type (e.g. 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).*	• Early historical diamond drilling was completed using standard tube, wireline core drilling techniques with a 47 mm diameter drill hole producing 29 mm diameter drill core. The drill hole diameter was changed early in the SGU drilling campaign (date unknown) to an NQ3 size i.e. a 75.7 mm diameter drill hole producing a 45 mm diameter drill core. Drill holes were collared to intersect mineralisation perpendicular to the strike of the mineralisation, with dips of 55° to 60°. In 2014, all four Talga drill holes were drilled using standard tube, wireline core drilling techniques with an WL76 drill hole size – i.e. a 57 mm diamond core being produced from 76.3 mm drill hole width. Drill holes were collared to intersect mineralisation perpendicular to the strike of the mineralisation, with dips of 60°. None of the drilling was orientated.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• No quantitative data on core recovery was recorded during the drilling period 1972 to 1980 and thus it cannot be determined whether a relationship exists between sample recovery and grade. During the 2014 drilling campaign, core loss on a per run basis was logged by the contracted drillers on wooden blocks placed in the core trays at the end of each drill run. This core loss data was not captured by Talga and as such no quantitative analysis has been undertaken in order to determine any relationships that could exist between sample recovery and grade.
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.*	• The entire drill hole core was logged by geologists for both the historical and 2014 drilling campaigns. No geotechnical logging was carried out. Historical drill holes were logged with a magnetometer to determine the susceptibility of the rocks. No standard lithological coding was devised or implemented during the logging resulting in subjective and descriptive logs being captured that were not bound by prescriptive Project developed codes. This has resulted in the ability to replicate geological logging as well as attempting to compare against the SGU lithological logs as being practically impossible. McCormack undertook a reassessment of the lithological logging in 2018 by relogging a selection of the Talga drill holes and the SGU drill holes. This reassessment of the logging and Project geology as a whole remains the most up to date, accurate and reliable geological interpretation of the Project which Micon has relied upon. • Qualitative geological logging was undertaken on all drill holes from start to end of each drill hole capturing descriptions of lithology, mineralisation and alteration recorded in hard copy. Core photography was completed on all 2014 drill holes but not the historical drill holes. • Historic drill core was selectively sampled at the discretion of the geologist according to the observed mineralisation and alteration with sample lengths ranging from 0.12 m to 5.9 m. Of the 12,823.88 m of historical drilling completed by the SGU, 30% was sampled. For the 2014 drill holes, a consistent sample length of 2 m was selected which did not honour lithological contacts or visible mineralisation. Sample lengths varied for those samples collected at the top and bottom of each drill hole with a maximum sample length of 2.6 m and a minimum of 1.7 m collected. Of the 424.65 m of historical drilling completed by the Talga, 95% was sampled.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
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.*	• Historical drill core was cut using a core saw, with half core collected for assaying. 2014 drill holes were split using a conventional core cutter with the top half of the core bagged and tagged with a unique sample number. No conventional sampling annotations were scribed onto the corresponding remaining reference half core, or onto the wooden core trays. • No non-core samples were taken. • No information on sample preparation, quality control procedures or sample representivity was reported for the 96 historical diamond drill holes that were drilled and sampled by the SGU. Historical assaying was conducted by the SGU's laboratories in Luleå and Stockholm. Samples were analysed using atomic absorption spectroscopy to an accuracy of ±5%. Sulphur was analysed for using wet chemical techniques. No systematic analysis for Au was undertaken, with <5% of all samples analysed for Au via fire assay. For the 4 2014 Talga drillholes, sample preparation was undertaken at the ALS Piteå preparation facility located in Sweden. Sample analysis was undertaken at ALS Loughrea in County Galway, Ireland (INAB accreditation number 173T). All samples were analysed for gold using ICP-AES finish and for 48 elements using four acid digest and analysis using ICP-MS. A total of 24 density measurements were collected by Talga using the Archimedes measurement technique. • No reported quality assurance (QA) or quality control (QC) procedures or protocols support any of the historical drilling. No sample pulps remain from the original SGU samples with which to undertake a check assaying campaign. A total of seven gold certified reference materials (CRMs) and eight blank samples were inserted by Talga in 2014. No CRMs were submitted to confirm the accuracy and reliability of the Cu or Co results. • No twinned half-core duplicates or pulp duplicates were submitted by SGU or Talga during the diamond drilling campaigns. However, eight internal random duplicate results were reported by ALS Loughrea in 2014, three of which duplicated blank material submitted by Talga and produced acceptable results. In order to verify the accuracy of the historical drilling geological data, two phases of check logging on the original drill core has been independently completed under Talga's direction, in 2018 by Outlier GeoScience and 2019 by Micon. • The varied sample length will have reduced any chance of bias as a result of erratic grade distribution. Historical samples selected after initial 'D jumbo' analysis underwent atomic absorption spectroscopy to an accuracy of ±5%. In 2014 samples were analysed using ICP-AEM (gold), ICP-MS (48 elements including Co and Cu) and LECO (sulphur).

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
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 (i.e. lack of bias) and precision have been established.*	• Historical assaying was conducted by the SGU's laboratories in Luleå and Stockholm. An initial 'D jumbo' analysis was conducted on all samples to determine those with elevated Cu, Co or Ni grades, which were then subjected to atomic adsorption spectrometry. Sulphur • Historical drill holes were logged with a magnetometer to determine the susceptibility of the rocks. Vertical deflection of the drill holes was measured from the magnetometer measurements with variations in resistivity and radioactivity in the bedrock registered. No other geophysical methods were adopted. • Only a single low-grade Au standard was submitted in a limited manner to confirm data accuracy and reliability along with a similar number of blank material submissions. Based on the CRM results all batches containing a G909-6 CRM passed with all the results plotting within one standard deviation consistently below the certified gold grade, an indication of potential under reporting. No other CRMs were submitted by Talga while all blank material results were at, or very near to, detection limit. No duplicate sampling on the remaining SGU Project core stored at Malå has been quarter-core sampled by Talga or previous owners to verify historically reported assays.
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.*	• No assay verification has been undertaken historically or by Talga. Two phases of check logging on the original drill core has been independently completed in 2018 and 2019. Depth intersections could be replicated but due to a lack of logging protocols, the lithological descriptions could not be easily reproduced. • No twin drilling has been undertaken, but the 2014 drill holes were drilled within 30 m from an historical drill hole. • Scanned originals for all historical drill hole logs are on record and available to Talga. The original logs are in storage at the SGU. 2014 Talga drill hole records are stored in the Scott Geological offices in Mala. The historical and 2014 drill hole data was entered into an access database by Talga in 2017. • No adjustments have been made to the 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.*	• Drill hole collar locations were surveyed on local grids during the 1970s and 1980s by the SGU, with the precision of the eastings and northings considered sufficient by Micon. However, none of the historic drill holes matched the Project DTM, with the decision made by Micon to snap all historical collars thereon. No collar survey was undertaken upon completion of the 2014 drilling campaign. Collars were pegged in the field using a standard hand held global positioning system (GPS) with a horizontal accuracy of ± 4 m. Verification of drill hole collars in the field was not undertaken by Micon due to thick snow cover at the time of the site visit. A high-level collar verification field checking programme was undertaken by Talga in 2012. The extent of the checks is unknown but it is apparent that most, but not all, of the checked collars were field verified using the pre-translated real-world coordinates (e.g. drill holes KIS80021, KIS80016 and KIS80017) – all of which had ~1 m standpipes extruding from surface. • The coordinate system used for the project is projection method RT90 zone 2.5 gon V emulation and Rikets koordinatsystem 1990 datum. The ellipsoid is Bessel 1841. • High resolution elevation data was purchased from Metria AB in order to construct a Project DTM. All drill hole collars were snapped to the DTM.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Drill holes have been drilled along lines perpendicular to the strike of the ore body. The spacing between drill traverses is ± 40 m and the average drill hole spacing is 45 m. • Based on the quality of the drill hole database, lack of QAQC and the results of geostatistical analysis indicating a maximum drill hole spacing of 50 m, Micon has assigned an Inferred Resource category to the Kiskama deposit. • Samples were not composited for analysis.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Drill holes were collared to intersect mineralisation perpendicular to the strike of the mineralisation, with dips of 55 - 60°. • No sample bias is expected to have been introduced due to the angled drilling method used.
Sample security	• *The measures taken to ensure sample security.*	• Sample security measures used during the historical drilling are unknown as they were not recorded when the drilling took place. All 2014 samples were dispatched by the Project geologist to ALS Limited (ALS) for both preparation and analysis. Sample preparation was undertaken at the ALS preparation facility located in Piteå, Norrbotten County, Sweden (ALS Piteå). Upon sample preparation being completed, the prepared pulps were internally transported by ALS from ALS Piteå to its ALS analytical laboratory located in Loughrea, Ireland.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits have been conducted on the sampling techniques. Both Micon and Outlier Geoscience have reviewed the logging and sampling methods and interviewed staff at the SGU but details regarding procedures are lacking.

Section 2 Reporting of Exploration Results

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Mineral tenement and land tenure status	• *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.* • *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.*	• The Kiskama Nr. 1 exploration permit covers an extent of 1,807.16 ha and was initially valid for a period of three years to explore for copper. A series of successful exploration renewals occurred before the Kiskama Nr. 1 (No. 2009:34) exploration permit was renewed and issued to Talga' wholly owned Australian registered subsidiary of Talga Mining Pty Ltd on 24th March 2015 (Dnr BS 201-130-2015). Following the acquisition of TCL Sweden Ltd, a 100% owned subsidiary of Teck Resources Limited, by Talga Ltd in June 2012, a sole 1% net smelter royalty (NSR) was agreed as payable to Teck Resources Limited due on any future production. A deed of assignment was executed on 18th May 2016 assigning the 1% NSR from Teck Resources Limited to SA Targeted Investing Corp. The Kiskama Project is located on the properties of Allmänningsskogen 2:1, Jukkasjärvi 16:43 and Jukkasjärvi 31:4 as well as the community of Allmänningsskogen S:1. The surface rights of these properties are variously owned by a mix of state-owned and private landowners, the largest of which is Allmänningsskogen S:1. To conduct exploration no access agreements with any landowners is required, however the exploration workplan requires approval from all landowners prior to commencement. • Exploration permit No. 2009:34 was valid for a period of four years until expiration on 11th February 2019. Application for renewal was made on 7th February 2019 for a further five years in the name of Talga Battery Metals AB, a recently established wholly owned Swedish domiciled subsidiary of Talga.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Kiskama Nr. 1 undersökningstillstånd (exploration permit) was first issued as condition No. 2009:34 (Dnr 200-211-09) to Teck Cominco Sweden Ltd by the Bergsstaten (Mining Inspectorate) on behalf of the government of Sweden under the Minerals Act (1991:45) on 11th February 2009. On 21st November 2016 the SGU declared a ~238 ha portion of the Kiskama Project as an area of national interest (Dnr 31-2613/2016) i.e. is an area of major importance to the needs of society and the deposit has particularly valuable properties which has been well defined, studied and documented.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Northern Norrbotten forms a part of an important metallogenetic province in the northern region of the Fennoscandian Shield of Finland, Norway and Sweden, an area referred to as the Northern Norrbotten ore province. Based on the style of the Fe oxide ± Cu ± Au mineralisation, extensive albite-scapolite ± amphibole alteration and subsequent K-feldspar-sericite-iron oxide-sulphide alteration and mineralisation, the region has been classified as a typical iron oxide-copper-gold (IOCG) province. Host rocks in the Northern Norrbotten ore province include rift related Palaeoproterozoic greenstones (c. 2.3 Ga to 2.0 Ga) and subduction related igneous and sedimentary rocks of the Svekokarelian Orogen when oceanic crust was subducted beneath the Archaean Craton at c. 1.9 Ga to 1.8 Ga. The north-northeast trending Karesuando-Arjeplog Deformation Zone (KADZ) is the most prominent ore separating domain of different metamorphic grades and lithostratigraphy in the Northern Norrbotten ore province and this is key in understanding the ore genesis at Kiskama. The Kiskama Cu-Co-Au deposit is one of several other epigenetic Cu-Co sulphide occurrences which have been mapped in the Project, including the Kiskamavaara Östra, Paurankilantto and Paurankivaara deposits. These deposits occur partly in association with extensive zones of albite-carbonate alteration, along the major KADZ tectonic shear zone of which the Kiskama deposit is the largest within the Project. Primary ore minerals, which include chalcopyrite ($CuFeS2$), pyrite (FeS), magnetite ($Fe3O4$) and haematite ($Fe2O3$), occur as breccia infill in association with strong K-feldspar alteration within an extensive zone of hydrothermal brecciation of andesitic host rock of the Porphyrite Group. A hydrothermal origin has been suggested with contemporaneous alteration and fragmentation due to tectonic and hydrothermal activity. The mineralisation and structures of the Kiskama deposit dip steeply west to west-northwest.
Drill hole Information	• *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:* • *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.*	• All historical exploration and drilling at Kiskama was undertaken and reported by the SGU with the first two drill holes drilled in 1960. No further drilling occurred in the region until 1972 when the majority of historic drilling on the Kiskama Project was undertaken by the SGU between 1972 and 1982 on an episodic basis. The drillhole database for Kiskama is made up of 92 drill holes (Table 1.1) • The information has been provided and is considered Material.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Assay data was composited according to grade with the following parameters: Minimum trigger cut-off of 0.01% CuEq; Minimum sample length of 0.14 m as this represents the shortest sample length in the database; Maximum sample length of 40 m as this is the approximate thickness of the orebody; Internal waste with a minimum grade of the final composite of 0.001% CuEq; Maximum total length of waste of 1.5 m; and, Maximum consecutive waste of 1 m. All assay values reported are weighted values against length. Higher grade sample outliers were identified by creating probability plots and a top cut was applied to both the Main and Lower ore bodies of 1.016135 % CuEq (Main) and 0.696299 % CuEq (Lower). • Internal was with a minimum grade of the final composite of 0.001% CuEq, maximum total length of waste of 1.5m and a maximum consecutive length of waste of 1m was allowed in the composite. • Once the drillhole database had been validated, a value for copper equivalent (CuEq) was calculated based on the following formula: CuEq = (% Co x recovery x 5) + (% Cu x recovery); Where cobalt recovery was 0.80%, copper recovery was 0.95% and 5 is based on a 5:1 price ratio using a cobalt price of US$14.5/lb and a copper price of US$2.9/lb. Spot prices were used to be conservative in the estimation.
Relationships between mineralisatio n widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• All of the drillholes were drilled at inclined angles so that the ore body intersection was approximately perpendicular. Dips ranged from 55° to 60°. Two drill holes were drilled from the east side of the orebody with a bearing towards the west, whilst the remaining drill holes were drilled from the west of the orebody with a bearing towards the east. 4 drill holes have a bearing of 110°, 80 drillholes have a bearing of 112.3° and 6 drill holes have a bearing of 165°.
Diagrams	• *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.*	• Refer Figures 1-5 in the main body of this document.
Balanced reporting	• *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.*	• All available drill hole information was used. Kiskama has been reported as a mineral resource, see Section 3 of Table 1.
Other substantive exploration data	• *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.*	• As well as diamond drillhole information described above, multiple broad-scale and detailed geological mapping and boulder survey campaigns have been historically undertaken on the Kiskama Project and across broader regions. These have formed the basis of the Project geological maps and interpretations. All mapping on the Kiskama Project has been completed by the SGU. In addition, three historic principle geophysical campaigns including magnetic and slingram measurements were undertaken on the Kiskama Project and across the broader region. From 1975 to 1978 an IP, resistivity and spontaneous potential (SP) geophysical campaign was also undertaken. This was followed with a ground based geomagnetic survey conducted in 2012 by Talga as a JV with TCL Sweden Ltd. In 2018 an infill IP geophysical survey was carried out resulting in the identification of three main target areas, including Kiskama. The first geochemical sampling campaign was undertaken in 1966 by the SGU when a reconnaissance stream sediment sampling campaign was completed in the target mapped area. Results from this stream sediment sampling campaign led to the discovery of the

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		Kiskama deposit that same year. A total of 1,809 geochemical soil samples have historically been collected at the Kiskama Project by the SGU which were variably analysed for a suite of elements, primarily zinc, copper, iron and cobalt.
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.*	• Planned exploration work at Kiskama will primarily focus on increasing confidence in the historical information that is available in order to convert the resources into an Indicated category. Such work will include relogging of all historical drill holes following a prescribed protocol, a systematic quarter-core resampling programme assaying for at least gold, copper and cobalt and resurveying of all drill hole collars. This will be followed by an update to the geological model and resource estimation. • The strike extension indicated by the extensive magnetic and induced polarisation anomalies at Kiskama and the Kiskamavaara Östra prospect should be prioritised for follow up exploration drilling.

Section 3 Estimation and Reporting of Mineral Resources

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• The data received from Talga was provided in *.csv format which had been exported from a Microsoft Access database, which had been populated by Talga from the original hard copy drill hole logs and assays. Whilst at the SGU archives in Malå, Micon compared 10% of the original logs with the Access database downloads and re-logged 2 drill holes. Micon note that whilst there were consistent discrepancies in the logged lithologies, the logged intervals were broadly comparable throughout. This is a function of all logging completed on the Project not being bound to a set of prescriptive Project lithological codes. • The data was imported into Micromine and consisted of collar, lithology, mineralogy, alteration, downhole survey, assay and density datasets. A Project drill hole database was created and two forms of validation checks were conducted, one on the actual input data (‘database validation’) and one on the drill hole database validity (‘drill hole validation’). Errors associated with the drill hole assay data totalled 415 out of the 871 reported errors, most noticeably due to the fact that during the historical SGU sampling campaign the entire drill hole had not been sampled, leaving gaps in the downhole assay data. Based on the visual inspection of the drill core whilst at the SGU archives in Malå and discussions with the SGU geological team and Talga, Micon opted to leave these missing intervals with no value instead of inserting dummy values. 97 errors indicated that there was an issue with the dip and azimuth used in the collar file when compared to the dip and azimuth in the survey file. Upon investigation it became apparent that the error was in the collar file which Micon corrected to match the survey file. Drill hole collars did not rest on the surveyed Lidar topographic DTM surface and so Micon corrected the elevations by draping them onto the DTM.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The Micon Competent Person visited the SGU Mineral Resources Information Office located in Malå, Sweden from 14th to 16th January 2019 March 2018. This state geological facility houses all of the Project drill core for the Kiskama Project. During the visit drill holes KIS002 and KIS77001 were check-logged by the Competent Person and depths and sample intervals were confirmed. • No site visit was undertaken to the Kiskama Project itself due to prevailing thick snow cover at the time rendering any field inspections as futile. Since all core and historical data is held at the SGU archive Micon considered this to be of more importance.

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Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• Despite the inability to model geology (see below), Micon is confident that the interpretation of the deposit is accurate as mineralisation is structurally controlled and strongly associated with KADZ faults and shear zones with a northeast orientation. • The geological and structural setting of the Kiskama deposit is highly complex. Compounding this was that the historical logging did not follow any form of normalised coding for lithology or alteration; nor was any standard logging or sampling operating procedures adhered to. This resulted in interpretation and geological modelling as challenging and somewhat unsuccessful as the interpretations recorded in the lithology logs were speculative. Due to this, Micon did not attempt to model geology and the model created by Micon for resource estimation is a grade model only. • In 2018 Outlier Geoscience undertook a detailed review of the structural controls of the Kiskama Project. A preliminary review of the fault and shear zones modelled by Outlier Geoscience compared to the grade distribution in the drill holes confirms the relationship. The Leapfrog model created by Outlier Geoscience was imported into Micromine by Micon and visually compared to the validated drill hole database. Although slightly different to the final model created by Micon, the interpretation by Outlier Geoscience was sufficiently comparable. • Due to the inconsistent use of logging codes and lithological nomenclature, compounded by the complex alteration observed in the core, a geological model could not be created. Micon recommend that all of the historical core is relogged, preferably by one geologist, using predefined logging codes and protocols. The mineralisation at Kiskama Project is structurally controlled and the model was restricted to interpreted faulting associated with the KADZ. • Mineralisation at the Kiskama Project is hosted within a strongly K-feldspar altered and brecciated andesite host rock. The deposit displays zonation on a more regional scale with A core rich in magnetite, with traces of molybdenite, is surrounded by an inner magnetite-pyrite-chalcopyrite assemblage and an outer and more extensive zone of haematite. In this transition zone sericite ± tourmaline alteration partly overprints K-feldspar alteration. The highest-grade cobalt bearing portions of the Kiskama deposit are partitioned between the fault/shear zones that cross through the deposit, becoming narrower and more drawn-out where multiple structures converge. Higher copper grades tend to occur within the low-strain zones (but offset from cobalt) along narrow linear zones interpreted to represent some of the fault/shear structures. In general, the Lower Orebody is slightly lower grade than the Main Orebody.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The modelled mineralisation at the Kiskama Project extended for ±1,020 m along strike in a northeast direction. The deposit is split into a Main Orebody and a Lower Orebody that are separated by a small gap (± 2 - 12 m) with no grade. In the North of the deposit, where both the Main and Lower orebodies occur, the surface width is ± 60 m. At its narrowest point in the southern part of the deposit where only the Main Orebody is present the surface width decreases to ± 30 m. The deposit subcrops at surface and has been modelled to a depth of ± 200 m based on the drill hole information. It is possible that mineralisation is open at depth but there is not data to confirm this. The dip of the Kiskama deposit ranges from 55° to 70° west.

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Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• Micon modelled the validated drill hole database in Micromine™ modelling software. The validated Project drill hole database underwent statistical interpretation to normalise the data before wireframing could commence. This was done by plotting histograms of grade and sample thickness followed by compositing of the assay database. The grade produced a normal distribution and low variance but the sample thickness histogram had a high variance. Micon composited the Project drill hole database to a uniform sample length of 2 m with a minimum grade cut-off of 0.01% CuEq. Higher grade sample outliers were identified by creating probability plots for the Main and Lower wireframes. The assay database for the Main orebody was cut at a top-cut copper equivalent grade of 1.016135% and the Lower orebody was top-cut at a copper equivalent grade of 0.696299%. Results of the composited assay database enabled two separate domains to be distinguished termed the Main and the Lower orebodies. String files were digitised along 40 m cross sections perpendicular to the strike of the Kiskama deposit and extended half of the length from the last known point of observation. The strings were combined using a maximum volume parameter to create separate wireframes for the Main and Lower orebodies. The basic statistics highlight the relatively low variance in the known grades. These two facts suggest that the most appropriate method of interpolation is inverse distance. Kriging was also attempted; however, the resulting block model was not as comparable to the drill hole data as either of the inverse distance method. Grade estimation was conducted using the inverse distance cubed (ID3) method to fill the blank block model with values for copper, cobalt, copper equivalent and gold. The results of the variography indicated flaws in the assay data due to the irregular and selective nature of the sampling resulting in gaps. • Five historical mineral resource and reserve estimations have been undertaken by the various owners of the Project since completion of drilling by the SGU in 1982, the majority of which were estimated prior to the introduction of the JORC Code and all were based on different target commodities (copper or cobalt) and applied different cut-off criteria. In 2016 Talga produced an internal and unpublished JORC compliant Inferred Mineral Resource of 7.07 Mt at a grade of 0.32 % Cu and 0.04 % Co using a cut-off of 0.1 % Cu. The Micon Inferred Mineral Resources have been compared to the historical resource estimations, although the. comparison cannot be regarded as true or reflective as different databases and cut-off criteria were used the Micon Inferred Mineral Resources compare favourably to the historical estimates especially the 2016 Talga estimate. • No by-products have been considered in the estimation, although gold is present but there was insufficient data to include in the model. • No modelling of deleterious elements has been conducted as the assay data available was not complete enough to allow for this. • Variography was attempted for major (strike), semi-major (dip) and minor (plunge) axis directions. Downhole, omnidirectional and directional semi-variograms were plotted that confirmed the erratic sample data resulted in variance modelling being difficult, thereby supporting the use of inverse distance (ID) interpolation as opposed to kriging. The variograms created were used together with a general knowledge and understanding of the Kiskama deposit orebodies in order to provide inputs into the search ellipse (Major axis = 22°; semi-major axis = 70° and minor axis = 8°). Blank block models for the Main and Lower orebodies were created using the search ellipse and a parent block cell size of 25

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		m by 25 m by 5 m (average drill hole spacing is ± 50 m). Grade estimation was conducted using the inverse distance cubed (ID3) method to fill the blank block model with values for copper, cobalt, copper equivalent and gold. • No selective mining units were modelled, although a preliminary pit optimisation exercise was conducted that used a revenue of 1 to produce a potential 'mineable resource' of 4.29 Mt at a grade of 0.3 % Cu and 0.05 % Co. • No assumptions were made about correlation between variables. • Due to the inconsistent use of logging codes and lithological nomenclature, compounded by the complex alteration observed in the core, a geological model could not be created. Micon therefore created a grade model and defined two ore bodies based on assay information available. Mineralisation is structurally controlled and Micon made use of faults that had been modelled by Outlier Geoscience based on drill hole data and geophysical surveys. • Natural log histograms of grade were plotted of the copper, cobalt and copper equivalent producing a normal distribution and low variance. One copper sample (drill hole KIS72001 sample 509323) was considered as a slight outlier value with a high grade of 5.72% which was remedied when the data was top cut based on probability plots. The assay database for the Main Orebody was cut at a top-cut copper equivalent grade of 1.016135% and the Lower Orebody was top-cut at a copper equivalent grade of 0.696299%. • The block models were viewed against the composited drill hole database to confirm they are a true representation of the data. A graphical swath plot was created for the northing direction in 100 m swaths to compare the copper and cobalt grades in the block model against the original drill hole data. The two data sets compare favourably and provide confidence in the block model estimation.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• The tonnages are estimated on an air-dried basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Micon plotted a grade-tonnage curve and applied a minimum grade cut-off of 0.1 % CuEq to the Mineral Resources for both orebodies. The reasons for the 0.1 % CuEq cut-off are due to the fact that selective mining of higher-grade areas will be complicated, there is a low level of confidence in grade continuity due to erratic historical sampling methods and CuEq was calculated using spot price.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• A preliminary review of the technical parameters related to the Kiskama deposit indicates that it would be appropriate to exploit it via open-pit mining. Micon has not specified potential mining equipment or fleet, such as shovels, trucks, front-end loaders, due to the early stage of this assessment. Micon has assumed that the mining costs for this deposit will be considered as typical for an operation of this type. No mining dilution was applied and Micon did not set a cut-off grade within Whittle for the calculation of processing and used the “cash flow” attribute to separate ore from waste.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this*	• During 2017 Talga appointed Simulus Laboratories of Perth, Australia to complete a batch metallurgical test work program in order to investigate flotation recovery of copper, cobalt and gold. Results indicated that high cobalt and copper recoveries could be obtained and that flotation was relatively simple with samples responding well to a large range of conditions. Kell testing successfully produced cobalt and copper extractions from the pressure oxidation (POX)/atmospheric leach steps. The leach

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	is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	residue, considerably smaller in mass than the concentrate, provided high gold extractions through HCl pre-leach and chlorination leach steps.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a Greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• No assumptions have been made as this will form part of a Scoping Study.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• A total of 24 density measurements were collected by Talga using the Archimedes measurement technique with the sample first weighed in air to determine the mass and then weighed in water to determine the apparent mass from which the volume and density could be calculated. An average of density of 2.75 m^3 was yielded during this determination. A total of 1,557 samples out of 2,802 in the modelling database have density measurements resulting in 1,245 samples having no density data. For the samples with missing densities a dummy value was used based on a weighted average density of 2.91 g/cm^3. The average density of waste samples was estimated by filtering all data with a copper grade of 0.2%, which results in a density of 2.3 g/cm^3. • This is not a bulk material deposit. • No assumptions were made about bulk density. See above, an average was used for each mineralised horizon based on measured data.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The whole of the Kiskama Project included in the model has been classified as an Inferred Mineral Resource. The key factor considered when selecting an appropriate resource classification for the Kiskama deposit was the quality of the drill hole database. • Although the exploration was well documented and carried out by professionals, the lack of standard operating procedures for logging and sampling protocols, the lack of supporting QA/QC data and little to no historical data verification having been completed has resulted in a data set that can be regarded as irregular. As a result of this, the subsequent resource model and estimation are likely to contain a certain error range. In addition, the quality of the variography that was able to be produced suggested that the appropriate confidence limit when considering drill hole spacing is a maximum of 50 m. Based on the above Micon has assigned an Inferred Resource category to the Kiskama deposit. • The stated tonnage and grade are considered an appropriate reflection of the Competent Persons view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• This is a maiden publicly reported JORC compliant Mineral Resource for the Kiskama Project and no audit has taken place.

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Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The Inferred Mineral Resources for Kiskama have been estimated according to the guidelines of the 2012 edition of the JORC Code. The stated resource tonnage and grades stated are considered based on the detailed drill hole database and 3D modelling. The use of the inverse distance squared method is considered appropriate for the Kiskama Project based on the results of variography. A 20% geological loss has been applied to the tonnes to take into consideration the Inferred classification status. Stated volumes and tonnages were rounded down to the nearest 100,000 t. • This statement relates to the global Kiskama Project resource. • There has never been any production on the Kiskama Project held by Talga Resources Ltd.