

## ASX Announcement 2 May 2019

# Kipushi Cobalt-Copper Tailings Project Market Update

#### Highlights

- Contractual arrangements between Paragon and Patience finalised.
- Soludo Lambert's interest in the Kipushi Project increases to 75%.
- A maiden JORC compliant resource for the Kipushi Project estimated with copper cobalt tailings of 2.3Mt @ 0.33% co and 1.0% cu, and zinc cobalt tailings of 2.1Mt @ 0.14% co and 1.2% zn for a total of 4.4Mt of treatable tailings.
- Only approximately half of the available tailings drilled and estimated allowing for significant upside in the resources.
- Large zinc resources identified in addition to the copper and cobalt providing for significant increase in revenues.
- Additional exploration target for remainder of the tailings determined.

Australian resources and investment company, Cape Lambert Resources Limited (ASX: **CFE**) (**Cape Lambert** or the **Company**) is pleased to provide an update on its Kipushi Cobalt-Copper Tailings Project (**Project**) in the Democratic Republic of Congo (**DRC**).

#### **Project Joint Venture**

The Project, located near the town of Kipushi approximately 25km from Lubumbashi, involves the reprocessing of cobalt-copper tailings contained in the Kipushi Tailings Storage Facility (**Kipushi TSF**) and is operated by Soludo Lambert Mining SAS (**Soludo Lambert**), under a 50/50 joint venture arrangement between local entity Paragon Mining SARL (**Paragon**) and Cape Lambert. Paragon has a 70% interest in the Project, increasing to 75%, via a contract it has with La Patience SPRL (**Patience**) that gives it the right to exploit and process the tailings from the Kipushi TSF and sell the product. The agreement between Patience and Paragon is subject to DRC laws.

The Company's interest in the Project is derived from its 50% interest in Soludo Lambert (refer ASX Announcement dated 3 May 2017 for terms of the joint venture arrangement).

On 8 January 2019, the Company's securities were suspended from official quotation pending an announcement on the Project, and in particular the security of tenure over the Kipushi tailings.

Cape Lambert Resources Limited ABN 71 095 047 920 Corporate - 32 Harrogate Street, West Leederville WA 6007 Cape Lambert Resources Limited is a listed (ASX: CFE), diversified mineral development and investment company that aims to meet global demand for minerals that drive progress and power our future

#### Australian Securities Exchange

Code: CFE

Ordinary shares 1,013,401,581

Unlisted Options 15,336,363 (\$0.07 exp 12 Mar 2020) 7,667,727 (\$0.07 exp 19 Mar 2020) 5,250,000 (\$0.04 exp 31 Mar 2020) 15,000,000 (\$0.03 exp 30 June 2021) 5,000,000 (\$0.05 exp 13 Dec 2020 10,000,000 (\$0.075 exp 30 Jun 2019)

Convertible Note 548,310 convertible notes

#### **Board of Directors**

Tony Sage Executive Chairman

Tim Turner Non-executive Director

Stefan Müller Non-executive Director

Melissa Chapman Company Secretary

#### Cape Lambert Contact

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#### **Paragon and Patience Settlement Agreement**

The Company was informed in Q4 2018 that Patience had purported to terminate its agreement with Paragon, on the basis of delays in the production timeline that had resulted from the development change of repairing the existing flotation plant to a much more efficient leaching plant. Whilst a leaching plant provides better Project financial outcomes, this has delayed the revenues Patience, and State-owned mining company La Générale des Carrières et des Mines (**Gecamines**), had anticipated receiving from the Project in 2018. Paragon disputed the purported termination.

Due to the concerns raised, the Company had minimized the work undertaken on the Project since Q4 2018 pending a resolution of the matter, and also engaged in discussions separately with both Patience and Paragon.

After a period of lengthy negotiation (which the Company was not party to) on 10 April 2019 Paragon and Patience reached a commercial settlement and executed a settlement agreement (**Settlement Agreement**). The Settlement Agreement reconfirm the terms of the contractual arrangement that Patience has with Paragon for the exploitation of the tailings from the Kipushi TSF, provides the security of tenure for the Project to recommence and move forward, and for Paragon's interest in the Project to increase to 75%.

The Company is not a party to the Settlement Agreement.

#### Cape Lambert Warranties on Settlement Agreement

The Settlement Agreement is subject to the Company providing certain warranties as outlined below. These warranties were negotiated in parallel with the Settlement Agreement and reflect the basis of the Soludo Lambert joint venture arrangement whereby the Company is responsible for funding the working capital and capital costs of the Project. In agreeing to give the warranties and given its 50% interest in Soludo Lambert, the Company considered the uncertainties, risks and likely delays if Paragon and Patience had not reached any agreement and the dispute resolved under DRC law.

The warranties provided by the Company pursuant to the Settlement Agreement are:

- make a US\$500,000 payment to Patience within 21 days of the date of the Settlement Agreement, being a prepayment repayable from Patience's future profits from the Project (non-refundable should production not commence);
- commencing 1 month after the date of the Settlement Agreement, make a US\$25,000 monthly payment to Patience, being prepayments repayable from Patience's future profits from the Project (non-refundable should production not commence);
- commencing 1 month after the date of the Settlement Agreement, purchase 42,700 tons of tailings per month from Gecamine at a monthly cost US\$292,068;
- within 3 months from the date of the Settlement Agreement, Cape Lambert will provide certification from a financier that project development funding has been approved; and
- commence production of a newly constructed gravity separation and leach plant no later than 15 months from the date of the Settlement Agreement.

Failing to meet the above warranties entitles Patience to terminate the Settlement Agreement and Cape Lambert will lose its interest in the Project.



Payments as detailed above are planned to be funded from proceeds of the Company's finance facility with MEF I, L.P. (Magna or Investor) as announced 17 December 2018 (remaining facility amount of A\$6.75m).

In line with the release of this announcement, the ASX has advised that the Company's securities will be reinstated to at the commencement of trading on 2 May 2019.

#### Kipushi Maiden JORC Compliant Resource

A maiden resource estimation has been completed for the drilled area representing approximately half of the Kipushi TSF. As the tailings are contained by dam walls at both the east and west ends, the remainder of the area not yet drilled has been included as an exploration target based on interpreted continuance of the river channel profile and expected grade ranges as known from the drilling.

#### Geology

The mineralisation consists entirely of post processing tailings from the nearby KIKO process plant. The deposit was interpreted as an artificial sedimentary deposit contained within a natural river valley with dam wall up and down stream.

#### Sampling

Samples were taken of a dead stick auger at varying lengths according to auger penetration up to a maximum of 1.4m in length. Sample material was removed from the auger flights for each respective interval. No sub sampling was undertaken.

#### Sample Analysis

Samples were analysed by ALS in Lubumbashi and Johannesburg. Multi element analysis using method ME-MS61 and OG62 for over grade samples was used.

#### Drilling

Drilling was undertaken with a dead stick auger method using approximately 1 inch flights on a 6 inch shaft.

#### Estimation Methodology

An Inverse distance method was used for interpolation of grades with a power of 2.5. A flattened circular search was employed orientated downstream to limit vertical influence of samples within the tailing profile.

#### Cut off Grades

No cut-off grades were used to report the tailings resource andthe entire contained tailings deposit within the estimation area was reported. Statistics were run on the assay data set which showed the minimum cobalt grade for the cobalt copper zone is 0.106%, well above potentially economic grade. Similarly, the zinc cobalt zone had only 4 samples out of 244 with zinc grades below 0.5% however they all had corresponding cobalt grade above 0.15%. This allowed the entire deposit to be included as resource and no cutoff grade for reporting was necessary.



#### Classification

The resource was classified using a combination of data availability (drill hole spacing), material type continuity, grade continuity and physical constraints on volume. Drilling was nominally on a 75m x 75m diamond pattern for which an indicated category as applied. Where drill holes were missing (subject to interpreted continuity) but still volumetrically constrained within known boundaries, the resource was categorised as inferred.

#### Mining and Metallurgical Considerations

Mining is assumed to use either a hydraulic method or via dredge given the semi saturated nature of the deposit. Processing is assumed to use gravity to produce a pre concentrate followed by leaching for a saleable product.

Drilling of 47 holes for a total of 432m was completed during the second half of 2018 with all assays received by the end of January 2019. Holes were planned nominally on a 75m x 75m grid using a diamond pattern and were drilled with a dead stick auger method where captured sample was removed from the flights of the auger progressively as the holes were drilled. Some of the hole locations were unable to be accessed due to wet ground conditions, although sufficient holes were drilled to enable the estimation of a resource, refer figure 1 for hole location plan. Cross sections of the drilling are included in Appendix 1, while Appendix 2 includes a list of the assay results as received.

The assay results clearly showed a discrete layer of copper cobalt tailings in the top half of the total tails underlain by zinc rich tails deposited from the nearby Kiko mine. The drilling covered less than half of the tails area due to a lack of access from water inundation. The results however reflect what was anticipated.

A topographic survey of the TSF was completed in August 2018, which combined with the drilling information provided the basis for the volume calculation of the tailings.

The data was imported directly from the lab into Micromine software as a comma delimited file and validated in three dimensions for a number of common errors and inconsistencies. Minor corrections were made where GPS measured surface levels were inconsistent with the digital terrain model or where there were typographical errors in hole location made by the field geologists. The data was also checked for out of range assay values and other possible lab errors.

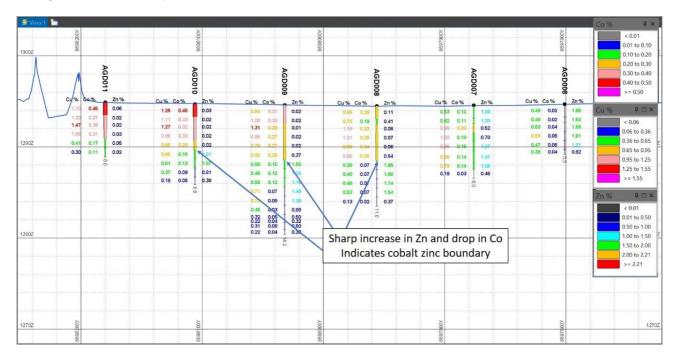




Figure 1. Hole Location Plan

Interpretation of the data was conducted using a combination of assayed grades and geological logging information particularly in the determination of the tailings basement. This was easily determined due to the contrast of fine grained light grey to dark grey tailings against orange brown pisolitic gravels of the natural basement.

In determination of the two different material types, this was also clear because of the sharp changes in zinc and cobalt grades at the boundary of the material types, refer figure 2. These variations were consistent between holes in all directions allowing a base of copper cobalt tailings above older zinc tailings to be accurately determined.





#### Figure 2. Grade contrast used in interpretation

After consideration of the artificial nature of the deposit it was decided that an inverse distance interpolation method would be best suited. The search ellipse and lengths in each direction were determined by sample density and spacing rather than geological control due to a lack of knowledge of depositional history other than an assumed single discharge point in the northwest corner of the deposit. The search was restricted to a very flat ellipse with 1m in the vertical direction and roughly 1.5 times the hole spacing in both the X and Y directions to intersect sufficient samples for estimation. The estimation was carried out in three successive stages increasing the search area at each stage. An additional 4<sup>th</sup> stage was included for the zinc material type due to the greater sparsity of drilled data in this area. All model cells were successfully filled at the completion of the resource estimate, refer to figure 3 for an example of the estimation performance.

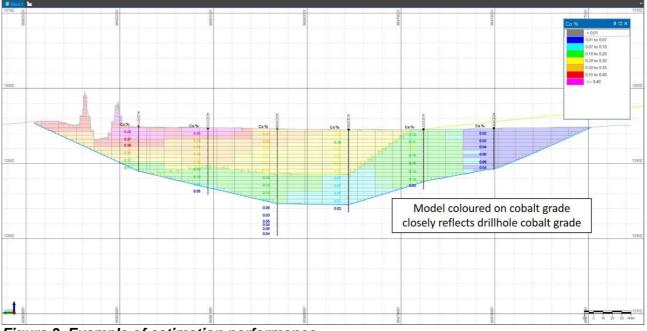


Figure 3. Example of estimation performance

Density was determined by collecting known volumes of in-situ tailings from several locations and depths within the deposit and individually drying them in an oven to determine an in-situ dry density. Samples that were logged as being overly wet or contaminated in some way were excluded from the calculation with the remainder giving an average result of 1.27.

Resource classification was based on data availability and continuity. The copper cobalt material type is classified entirely as indicated and the zinc material type is classified as indicated and inferred where drilling was lacking but volumetric controls were still considered adequate. Table 2 contains the results of the estimated resource.



#### Table 2. Estimation Results

MATERIAL TYPE	CATEGORY	VOLUME	DENSITY	TONNES	Co %	Tonnes Co	Cu %	Tonnes Cu	Zn %	Tonnes Zn
Cobalt	Indicated	1,850,000	1.27	2,330,000	0.33	7,542	1.00	23,652	0.12	2,789
Copper Sub Total		1,850,000	1.27	2,330,000	0.33	7,542	1.00	23,652	0.12	2,789
Zinc Cobalt	Indicated	1,130,000	1.27	1,450,000	0.14	2,008	0.60	8,568	1.2	17,306
Zinc Cobalt	Inferred	500,000	1.27	630,000	0.13	819	0.55	3,482	1.3	8,191
Sub Total		1,630,000	1.27	2,080,000	0.137	2,827	0.58	12,050	1.23	25,497
TOTAL		3,480,000		4,410,000		10,369		35,702		28,286
TOTAL		3,400,000		4,410,000		10,309		33,702		20,200

In addition, the remainder of the tailings downstream up to the confining dam wall left undrilled have been estimated using an interpreted continuance of the river valley profileand applying the average grade ranges of the resultsfrom the resource estimation as a direct extension of the estimated deposit. The volume was determined using a 3 dimensional wireframe to define the river valley and an upper surface as mapped by the topographic survey. The volume is the material calculated between these two surfaces from the eastern end of the resource down to the confining dam wall at the western end of the tailings. The target is downstream from the cobalt copper tailings and is expected to be a continuance of this material type.

The resultant exploration target is 1.8 - 2.0 million tonnes with between 0.3% and 0.35% cobalt, 1.0% - 1.1% copper and 0.1% - 0.15% zinc. The exploration target is based on a proposed exploration programme which will extend directly on from the completed programme using the same drilling method and hole spacing within the same geological terrain, that being the continued downstream flow of the tailings contained by the eastern dam wall. Drilling to support this exploration target is anticipated during the next dry season (from now until November 2019) subject to availability of resources and progression of the project. The potential quantity and grade of the exploration target is conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource.

Commenting on the resolution of the Patience matter, Cape Lambert's Executive Chairman, Mr Tony Sage, said " In the interest of all Cape Lambert shareholders, I am very pleased to bring this matter to a satisfactory resolution so that trading of the Company's shares can recommence He added "with the matter now resolved, and with the maiden resource estimate inclusive of zinc for the tailings being issued, Cape Lambert can now refocus on developing the Kipushi Project. The resource together with the exploration target is significantly larger than expected and the planned changes to the plant design should result in a more efficient and more profitable project overall to the benefit of all shareholders."

#### **Competent Persons Statement**

The contents of this Announcement relating to Exploration Results, Exploration Target and Resource Estimation are based on information compiled by Olaf Frederickson, a Member of the Australasian Institute of Mining and Metallurgy. Mr Frederickson is a consultant to Cape Lambert and has sufficient experience relevant to the style of mineralisation and the deposit under consideration and to the activity he is 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". Mr Frederickson consents to the inclusion in this report of the matters compiled by him in the form and context in which they appear.



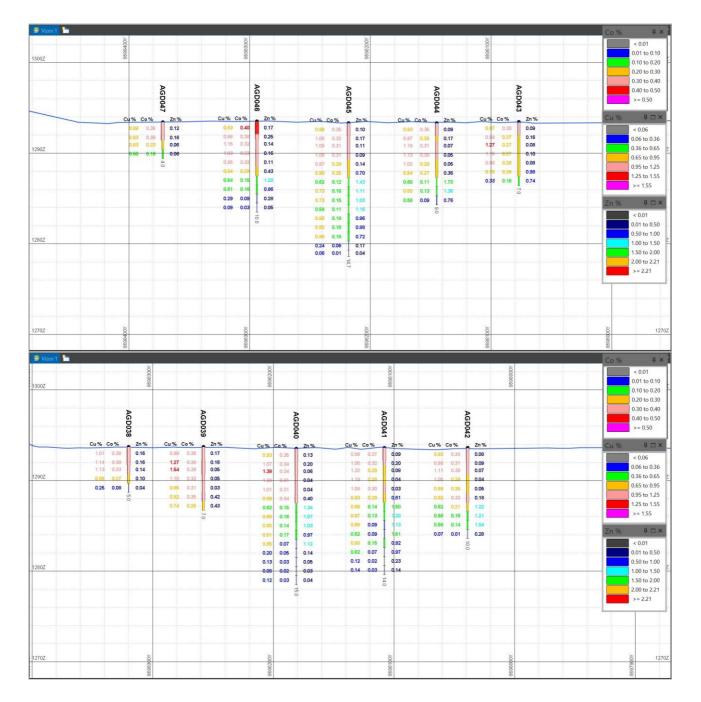
This announcement may contain forecasts and forward looking information. Such forecasts, projections and information are not a guarantee of future performance and may involve unknown risks and uncertainties. Actual results and developments will almost certainly differ materially from those expressed or implied. Cape Lambert has not audited or investigated the accuracy or completeness of the information, statements and opinions contained in this announcement. Accordingly, to the maximum extent permitted by applicable laws, Cape Lambert makes no representation and can give no assurance, guarantee or warranty, express or implied, as to, and takes no responsibility and assumes no liability for, the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omission, from any information, statement or opinion contained in this announcement.

Yours faithfully Cape Lambert Resources Limited

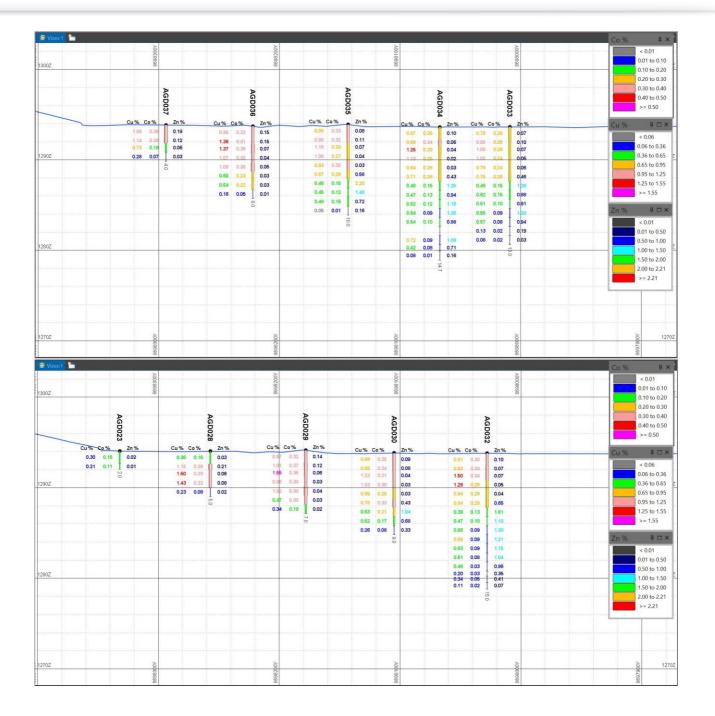
Tony Sage Executive Chairman



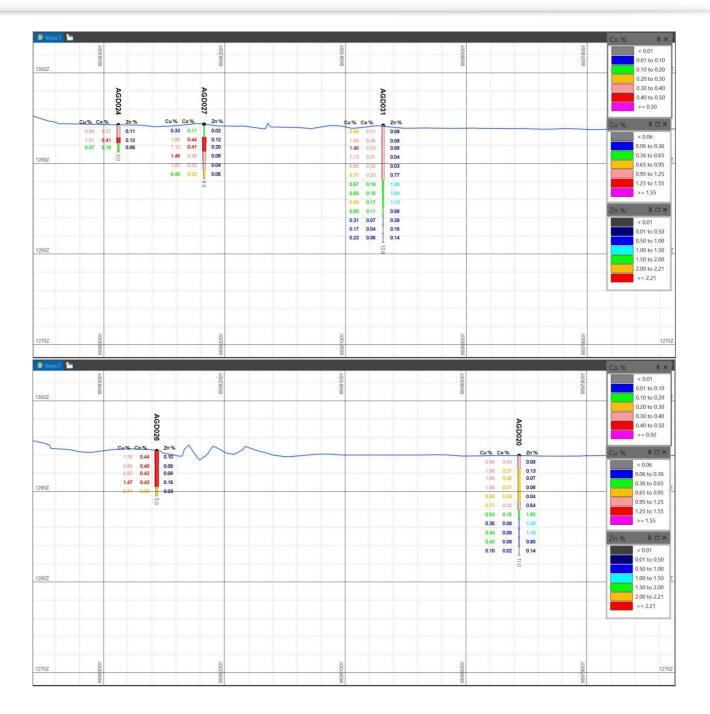
#### Appendix 1 – Drillhole Cross Sections



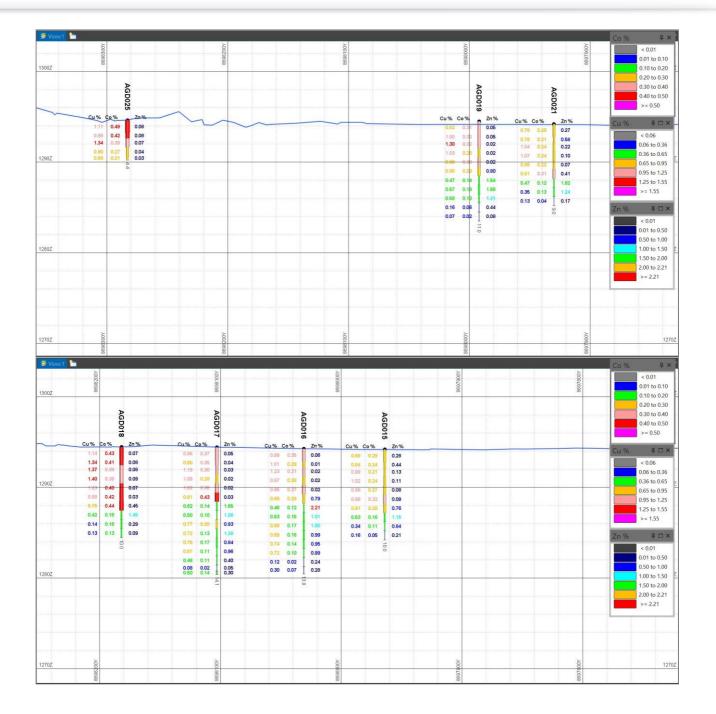




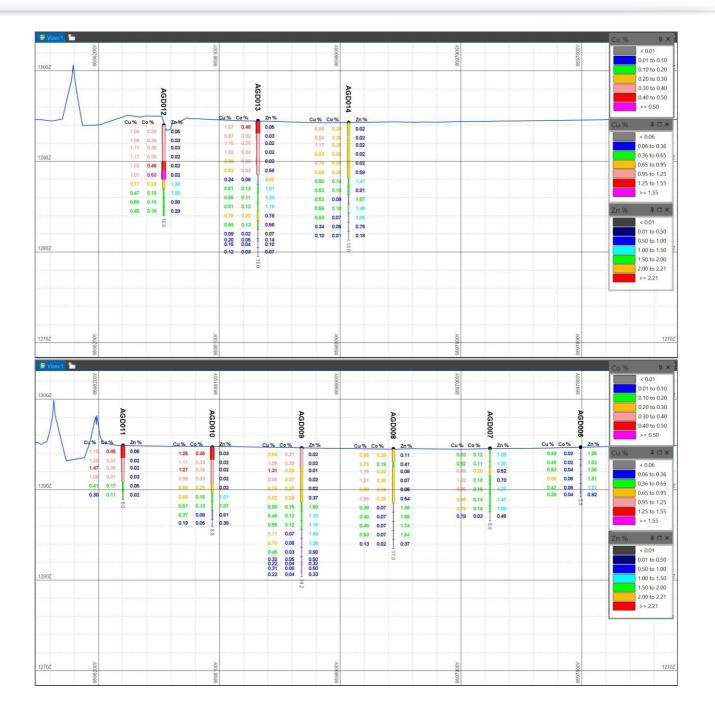




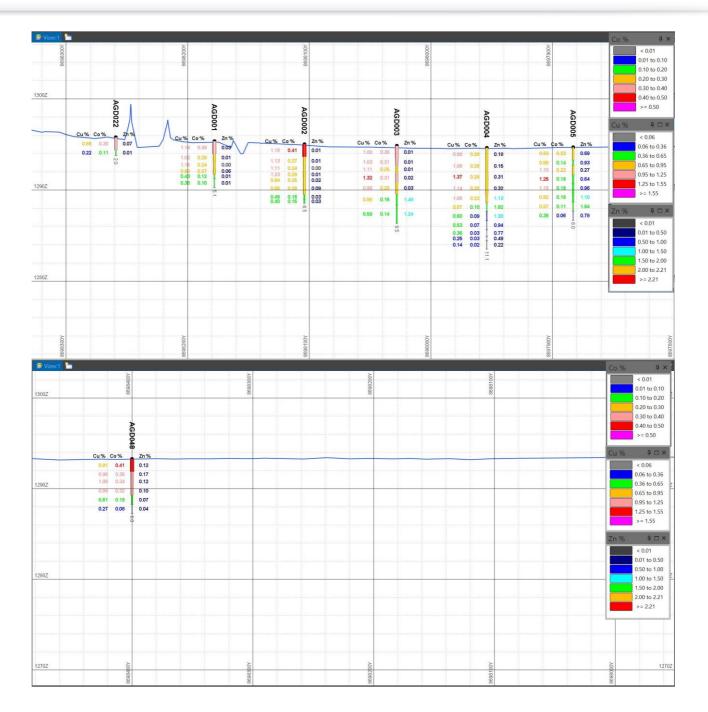














### Appendix 2 – Table of Assay Results

Hole ID	Easting	Northing	RL	From	То	Zn	Co %	Cu %	Zn %
KHT- AGD 001	529861	8698178	1298	0	1.4	<b>ppm</b> 389	0.394	1.14	70
KHT- AGD 001				1.4	2.2	115	0.287	1.025	
KHT- AGD 001				2.2	3	91	0.241	1.15	
KHT- AGD 001				3	3.6	648	0.271	0.804	
KHT- AGD 001				3.6	4.1	151	0.124	0.435	
KHT- AGD 001				4.1	5.1	97	0.106	0.384	
KHT- AGD 002	529860	8698104	1299	0	1.4	193	0.414	1.165	
KHT- AGD 002				1.4	2.3	101	0.275	1.135	
KHT- AGD 002				2.3	3	91	0.246	1.11	
KHT- AGD 002				3	3.7	181	0.296	1.235	
KHT- AGD 002				3.7	4.25	229	0.256	0.948	
KHT- AGD 002				4.25	5.5	955	0.282	0.852	
KHT- AGD 002				5.5	6.1	368	0.163	0.499	
KHT- AGD 002				6.1	6.5	379	0.152	0.406	
KHT- AGD 003	529860	8698028	1298	0	1.4	142	0.366	1.08	
KHT- AGD 003				1.4	2.2	152	0.311	1.035	
KHT- AGD 003				2.2	3	159	0.255	1.115	
KHT- AGD 003				3	4	232	0.317	1.325	
KHT- AGD 003				4	5.3	367	0.269	0.96	
KHT- AGD 003				5.3	6.5	>10000	0.168	0.88	1.49
KHT- AGD 003				6.5	8.5	>10000	0.145	0.592	1.24
KHT- AGD 004	529860	8697954	1298	0	1.4	1830	0.283	0.994	
KHT- AGD 004				1.4	2.6	1540	0.268	1.06	
KHT- AGD 004				2.6	3.8	3190	0.285	1.37	
KHT- AGD 004				3.8	5.1	3270	0.282	1.14	
KHT- AGD 004				5.1	6	>10000	0.228	1.065	1.13
KHT- AGD 004				6	7	>10000	0.109	0.679	1.82
KHT- AGD 004				7	8	>10000	0.0988	0.608	1.305
KHT- AGD 004				8	9	9400	0.076	0.538	
KHT- AGD 004				9	9.7	7700	0.0376	0.366	
KHT- AGD 004				9.7	10.2	4980	0.0352	0.255	
KHT- AGD 004				10.2	11.1	2290	0.0283	0.145	
KHT- AGD 005	529862	8697883	1297	0	1.4	6920	0.232	0.838	
KHT- AGD 005				1.4	2	9350	0.143	0.685	
KHT- AGD 005				2	3	2730	0.223	1.1	
KHT- AGD 005				3	4	6430	0.192	1.255	
KHT- AGD 005				4	5	9610	0.197	1.155	
KHT- AGD 005				5	6	>10000	0.191	0.923	1.105
KHT- AGD 005				6	7	>10000	0.111	0.871	1.945
KHT- AGD 005				7	8	7870	0.0652	0.388	



Hole ID	Easting	Northing	RL	From	То	Zn ppm	Co %	Cu %	Zn %
KHT- AGD 006	529930	8697801	1296	0	1.4	>10000	0.0196	0.497	1.65
KHT- AGD 006				1.4	2	>10000	0.0244	0.481	1.62
KHT- AGD 006				2	3	>10000	0.0458	0.634	1.56
KHT- AGD 006				3	4	>10000	0.0602	0.69	1.915
KHT- AGD 006				4	5	>10000	0.0597	0.475	1.31
KHT- AGD 006				5	5.5	9290	0.0463	0.397	
KHT- AGD 007	529932	8697876	1299	0	1.4	>10000	0.126	0.63	1.09
KHT- AGD 007				1.4	2	>10000	0.116	0.621	1.205
KHT- AGD 007				2	3	5250	0.203	0.995	
KHT- AGD 007				3	4	7080	0.181	1.02	
KHT- AGD 007				4	5	>10000	0.152	0.958	1.27
KHT- AGD 007				5	6.3	>10000	0.149	0.86	1.475
KHT- AGD 007				6.3	7	>10000	0.148	0.79	1.095
KHT- AGD 007				7	8	4670	0.0367	0.198	
KHT- AGD 008	529933	8697956	1298	0	1.4	1120	0.291	0.856	
KHT- AGD 008				1.4	2	4100	0.197	0.75	
KHT- AGD 008				2	3	805	0.223	1.165	
KHT- AGD 008				3	4	697	0.267	1.21	
KHT- AGD 008				4	5	604	0.248	0.888	
KHT- AGD 008				5	6	5430	0.259	0.95	
KHT- AGD 008				6	7	>10000	0.0787	0.386	1.955
KHT- AGD 008				7	8	>10000	0.0742	0.404	1.68
KHT- AGD 008				8	9	>10000	0.0715	0.48	1.745
KHT- AGD 008				9	10	>10000	0.073	0.533	1.54
KHT- AGD 008				10	11	3750	0.0219	0.138	
KHT- AGD 009	529935	8698032	1299	0	1.4	240	0.318	0.943	
KHT- AGD 009				1.4	2	251	0.332	1.065	
KHT- AGD 009				2	3	186	0.28	1.315	
KHT- AGD 009				3	4	262	0.272	0.957	
KHT- AGD 009				4	5	222	0.271	0.764	
KHT- AGD 009				5	6	3740	0.296	0.827	
KHT- AGD 009				6	7	>10000	0.155	0.5	1.5
KHT- AGD 009				7	8	>10000	0.127	0.484	1.105
KHT- AGD 009				8	9	>10000	0.126	0.555	1.16
KHT- AGD 009				9	10	>10000	0.0752	0.713	1.495
KHT- AGD 009				10	11	>10000	0.0641	0.704	1.395
KHT- AGD 009				11	12	9830	0.0326	0.452	
KHT- AGD 009				12	12.6	5040	0.0584	0.328	
KHT- AGD 009				12.6	12.9	3240	0.0437	0.223	
KHT- AGD 009				12.9	13.7	5090	0.0632	0.318	
KHT- AGD 009				13.7	14.2	3350	0.0422	0.226	



Hole ID	Easting	Northing	RL	From	То	Zn ppm	Co %	Cu %	Zn %
KHT- AGD 010	529937	8698106	1295	0	1.4	387	0.451	1.255	
KHT- AGD 010				1.4	2	284	0.336	1.115	
KHT- AGD 010				2	3	210	0.327	1.275	
KHT- AGD 010				3	4	256	0.332	0.993	
KHT- AGD 010				4	5	277	0.284	0.854	
KHT- AGD 010				5	6	10000	0.183	0.808	1.015
KHT- AGD 010				6	7	>10000	0.136	0.514	1.875
KHT- AGD 010				7	8	8160	0.0955	0.371	
KHT- AGD 010				8	8.8	3880	0.0539	0.195	
KHT- AGD 011	529938	8698180	1295	0	1.4	645	0.458	1.105	
KHT- AGD 011				1.4	2	208	0.375	1.2	
KHT- AGD 011				2	3	254	0.367	1.47	
KHT- AGD 011				3	4	326	0.318	1.065	
KHT- AGD 011				4	5	497	0.177	0.413	
KHT- AGD 011				5	6	245	0.117	0.308	
KHT- AGD 012	530011	8698146	1298	0	1.4	520	0.396	1.08	
KHT- AGD 012				1.4	2	310	0.394	1.06	
KHT- AGD 012				2	3	308	0.369	1.115	
KHT- AGD 012				3	4	252	0.358	1.175	
KHT- AGD 012				4	5	234	0.456	1.025	
KHT- AGD 012				5	6	210	0.502	1.01	
KHT- AGD 012				6	7	>10000	0.28	0.773	1.38
KHT- AGD 012				7	8	>10000	0.157	0.479	1.305
KHT- AGD 012				8	9	9880	0.189	0.559	
KHT- AGD 012				9	10	2950	0.165	0.406	
KHT- AGD 013	530013	8698068	1297	0	1.4	522	0.466	1.07	
KHT- AGD 013				1.4	2	358	0.397	0.978	
KHT- AGD 013				2	3	281	0.369	1.155	
KHT- AGD 013				3	4	223	0.349	1.025	
KHT- AGD 013				4	5	236	0.399	0.899	
KHT- AGD 013				5	6	5650	0.33	0.823	
KHT- AGD 013				6	7	>10000	0.0836	0.347	2.02
KHT- AGD 013				7	8	>10000	0.139	0.515	1.015
KHT- AGD 013				8	9	>10000	0.114	0.553	1.23
KHT- AGD 013				9	10	>10000	0.126	0.611	1.18
KHT- AGD 013				10	11	7880	0.205	0.709	
KHT- AGD 013				11	12	5670	0.137	0.554	
KHT- AGD 013				12	13	702	0.0205	0.0956	
KHT- AGD 013				13	13.3	1470	0.0566	0.206	
KHT- AGD 013				13.3	14	1080	0.0434	0.151	
KHT- AGD 013				14	15	785	0.0385	0.127	



Hole ID	Easting	Northing	RL	From	То	Zn ppm	Co %	Cu %	Zn %
KHT- AGD 014	530011	8797993	1301	0	1.4	283	0.29	0.993	
KHT- AGD 014				1.4	2	242	0.25	0.999	
KHT- AGD 014				2	3	245	0.255	1.175	
KHT- AGD 014				3	4	287	0.269	0.933	
KHT- AGD 014				4	5	270	0.29	0.799	
KHT- AGD 014				5	6	5910	0.263	0.662	
KHT- AGD 014				6	7	>10000	0.149	0.502	1.415
KHT- AGD 014				7	8	9130	0.169	0.527	
KHT- AGD 014				8	9	>10000	0.0907	0.526	1.575
KHT- AGD 014				9	10	>10000	0.1	0.594	1.465
KHT- AGD 014				10	11	>10000	0.0776	0.595	1.285
KHT- AGD 014				11	12	7640	0.0555	0.341	
KHT- AGD 014				12	13	1880	0.01385	0.104	
KHT- AGD 015	530084	8697964	1292	0	1.4	2850	0.291	0.886	
KHT- AGD 015				1.4	2	4430	0.24	0.846	
KHT- AGD 015				2	3	1390	0.218	0.999	
KHT- AGD 015				3	4	1180	0.241	1.02	
KHT- AGD 015				4	5	824	0.279	0.969	
KHT- AGD 015				5	6	895	0.328	0.984	
KHT- AGD 015				6	7	7660	0.294	0.911	
KHT- AGD 015				7	8	>10000	0.16	0.534	1.15
KHT- AGD 015				8	9	8410	0.111	0.347	
KHT- AGD 015				9	10	2100	0.0531	0.16	
KHT- AGD 016	530082	8698031	1300	0	1.4	611	0.356	0.995	
KHT- AGD 016				1.4	2	189	0.295	1.015	
KHT- AGD 016				2	3	213	0.31	1.235	
KHT- AGD 016				3	4	211	0.285	0.975	
KHT- AGD 016				4	5	243	0.374	0.956	
KHT- AGD 016				5	6	7920	0.28	0.698	
KHT- AGD 016				6	7	>10000	0.12	0.461	2.21
KHT- AGD 016				7	8	>10000	0.156	0.533	1.01
KHT- AGD 016				8	9	>10000	0.174	0.681	1
KHT- AGD 016				9	10	9970	0.162	0.695	
KHT- AGD 016				10	11	9500	0.147	0.74	
KHT- AGD 016				11	12	9930	0.109	0.727	
KHT- AGD 016				12	13	2430	0.0293	0.12	
KHT- AGD 016				13	13.8	2830	0.0718	0.305	
KHT- AGD 017	530086	8698103	1297	0	1.4	542	0.378	0.964	
KHT- AGD 017				1.4	2	460	0.354	0.906	
KHT- AGD 017				2	3	298	0.305	1.18	
KHT- AGD 017				3	4	219	0.283	1.09	



Hole ID	Easting	Northing	RL	From	То	Zn ppm	Co %	Cu %	Zn %
KHT- AGD 017				4	5	291	0.385	1.02	
KHT- AGD 017				5	6	299	0.43	0.914	
KHT- AGD 017				6	7	>10000	0.149	0.622	1.65
KHT- AGD 017				7	8	>10000	0.107	0.504	1.065
KHT- AGD 017				8	9	9300	0.205	0.77	
KHT- AGD 017				9	10	>10000	0.138	0.721	1.26
KHT- AGD 017				10	11	8420	0.1765	0.758	
KHT- AGD 017				11	12	9650	0.115	0.676	
KHT- AGD 017				12	13	4040	0.1115	0.464	
KHT- AGD 017				13	13.65	512	0.0268	0.086	
KHT- AGD 017				13.65	14.05	3040	0.142	0.503	
KHT- AGD 018	530081	8698182	1298	0	1.4	751	0.432	1.14	
KHT- AGD 018				1.4	2	851	0.411	1.34	
KHT- AGD 018				2	3	885	0.394	1.37	
KHT- AGD 018				3	4	905	0.394	1.4	
KHT- AGD 018				4	5	793	0.408	1.235	
KHT- AGD 018				5	6	385	0.422	0.992	
KHT- AGD 018				6	7	4560	0.448	0.758	
KHT- AGD 018				7	8	>10000	0.16	0.421	1.45
KHT- AGD 018				8	9	2940	0.161	0.144	
KHT- AGD 018				9	10	981	0.137	0.134	
KHT- AGD 019	530165	8697992	1293	0	1.4	587	0.319	0.823	
KHT- AGD 019				1.4	2	502	0.325	1.005	
KHT- AGD 019				2	3	260	0.321	1.3	
KHT- AGD 019				3	4	201	0.264	1.03	
KHT- AGD 019				4	5	264	0.309	0.909	
KHT- AGD 019				5	6	8000	0.296	0.801	
KHT- AGD 019				6	7	>10000	0.143	0.476	1.54
KHT- AGD 019				7	8	>10000	0.199	0.57	1.565
KHT- AGD 019				8	9	>10000	0.138	0.501	1.215
KHT- AGD 019				9	10	4410	0.063	0.16	
KHT- AGD 019				10	11	841	0.0251	0.079	
KHT- AGD 020	530235	8697956	1295	0	1.4	796	0.342	0.98	
KHT- AGD 020				1.4	2	1340	0.272	1.06	
KHT- AGD 020				2	3	713	0.267	1.095	
KHT- AGD 020				3	4	690	0.271	1.08	
KHT- AGD 020				4	5	473	0.29	0.906	
KHT- AGD 020				5	6	5480	0.326	0.775	
KHT- AGD 020				6	7	>10000	0.151	0.526	1.555
KHT- AGD 020				7	8	>10000	0.0883	0.354	1.285
KHT- AGD 020				8	9	>10000	0.095	0.445	1.195



Hole ID	Easting	Northing	RL	From	То	Zn ppm	Co %	Cu %	Zn %
KHT- AGD 020				9	10	9030	0.0976	0.421	
KHT- AGD 020				10	11	1490	0.0293	0.109	
KHT-AGD021	530161	8697930	1296	0	1.4	2720	0.267	0.782	
KHT-AGD021				1.4	2	5850	0.211	0.766	
KHT-AGD021				2	3	2260	0.241	1.04	
KHT-AGD021				3	4	1020	0.244	1.07	
KHT-AGD021				4	5	752	0.229	0.868	
KHT-AGD021				5	6	4160	0.319	0.819	
KHT-AGD021				6	7	>10000	0.126	0.479	1.82
KHT-AGD021				7	8	>10000	0.139	0.359	1.24
KHT-AGD021				8	9	1720	0.0429	0.132	
KHT-AGD022	529866	8698259	1293	0	1.4	757	0.302	0.888	
KHT-AGD022				1.4	2	184	0.115	0.229	
KHT-AGD023	530385	8698332	1293	0	1.4	202	0.15	0.302	
KHT-AGD023				1.4	2	185	0.112	0.21	
KHT-AGD024	530312	8698288	1298	0	1.4	1180	0.378	0.999	
KHT-AGD024				1.4	2	1270	0.417	1.01	
KHT-AGD024				2	3	650	0.196	0.479	
KHT-AGD025	530162	8698283	1292	0	1.4	832	0.492	1.115	
KHT-AGD025				1.4	2	798	0.427	0.989	
KHT-AGD025				2	3	770	0.399	1.34	
KHT-AGD025				3	4	475	0.272	0.909	
KHT-AGD025				4	4.4	383	0.217	0.684	
KHT-AGD026	530162	8698256	1293	0	1.4	1080	0.441	1.155	
KHT-AGD026				1.4	2	892	0.409	0.957	
KHT-AGD026				2	3	889	0.425	0.971	
KHT-AGD026				3	4	1560	0.433	1.47	
KHT-AGD026				4	5	383	0.269	0.71	
KHT-AGD027	530311	8698217	1293	0	1.4	233	0.118	0.337	
KHT-AGD027				1.4	2	1280	0.446	1.065	
KHT-AGD027				2	3	2070	0.412	1.105	
KHT-AGD027				3	4	630	0.383	1.45	
KHT-AGD027				4	5	464	0.325	1.025	
KHT-AGD027				5	6	524	0.222	0.454	
KHT-AGD028	530384	8698257	1294	0	1.4	301	0.154	0.369	
KHT-AGD028				1.4	2	2120	0.392	1.15	
KHT-AGD028				2	3	692	0.333	1.5	
KHT-AGD028				3	4	821	0.321	1.43	
KHT-AGD028				4	5	247	0.0847	0.232	
KHT-AGD029	530385	8698178	1298	0	1.4	1420	0.326	0.979	
KHT-AGD029				1.4	2	1240	0.373	1.015	



Hole ID	Easting	Northing	RL	From	То	Zn ppm	Co %	Cu %	Zn %
KHT-AGD029				2	3	694	0.351	1.55	
KHT-AGD029				3	4	359	0.3	0.986	
KHT-AGD029				4	5	417	0.388	1.025	
KHT-AGD029				5	6	347	0.3	0.471	
KHT-AGD029				6	7	294	0.198	0.342	
KHT-AGD030	530387	869805?	1293	0	1.4	924	0.351	0.883	
KHT-AGD030				1.4	2	891	0.342	0.898	
KHT-AGD030				2	3	480	0.318	1.23	
KHT-AGD030				3	4	302	0.302	1.03	
KHT-AGD030				4	5	379	0.295	0.899	
KHT-AGD030				5	6	4390	0.334	0.787	
KHT-AGD030				6	7	>10000	0.216	0.638	1.04
KHT-AGD030				7	8	6810	0.178	0.528	
KHT-AGD030				8	9	3300	0.0826	0.265	
KHT-AGD031	530316	8698069	1299	0	1.4	942	0.315	0.856	
KHT-AGD031				1.4	2	967	0.358	1.065	
KHT-AGD031				2	3	843	0.33	1.4	
KHT-AGD031				3	4	401	0.313	1.135	
KHT-AGD031				4	5	360	0.326	0.984	
KHT-AGD031				5	6	7780	0.334	0.776	
KHT-AGD031				6	7	>10000	0.194	0.576	1.49
KHT-AGD031				7	8	>10000	0.159	0.583	1.04
KHT-AGD031				8	9	>10000	0.173	0.694	1.135
KHT-AGD031				9	10	8910	0.112	0.607	
KHT-AGD031				10	11	2990	0.0776	0.312	
KHT-AGD031				11	11.92	1530	0.0449	0.178	
KHT-AGD031				11.92	12.92	1460	0.0581	0.231	
KHT-AGD032	530386	8698028	1290	0	1.4	1080	0.301	0.918	
KHT-AGD032				1.4	2	744	0.344	0.931	
KHT-AGD032				2	3	730	0.345	1.505	
KHT-AGD032				3	4	509	0.284	1.295	
KHT-AGD032				4	5	429	0.29	0.947	
KHT-AGD032				5	6	6570	0.296	0.843	
KHT-AGD032				6	7	>10000	0.132	0.396	1.61
KHT-AGD032				7	8	>10000	0.104	0.474	1.105
KHT-AGD032				8	9	>10000	0.0909	0.563	1.3
KHT-AGD032				9	10	>10000	0.0924	0.693	1.215
KHT-AGD032				10	11	>10000	0.0935	0.638	1.15
KHT-AGD032				11	12	>10000	0.0853	0.616	1.04
KHT-AGD032				12	13	9640	0.0332	0.481	
KHT-AGD032				13	13.55	3500	0.0344	0.206	



Hole ID	Easting	Northing	RL	From	То	Zn ppm	Co %	Cu %	Zn %
KHT-AGD032				13.55	14.25	4190	0.0589	0.345	
KHT-AGD032				14.25	15	794	0.0289	0.113	
KHT-AGD033	530461	8698009	1297	0	1.4	732	0.287	0.789	
KHT-AGD033				1.4	2	1010	0.259	0.959	
KHT-AGD033				2	3	738	0.268	1.05	
KHT-AGD033				3	4	613	0.248	1.02	
KHT-AGD033				4	5	669	0.241	0.795	
KHT-AGD033				5	6	4650	0.269	0.751	
KHT-AGD033				6	7	>10000	0.155	0.491	1.265
KHT-AGD033				7	8	8800	0.154	0.629	
KHT-AGD033				8	9	9180	0.105	0.512	
KHT-AGD033				9	10	>10000	0.0938	0.553	1.29
KHT-AGD033				10	11	9430	0.0876	0.576	
KHT-AGD033				11	12	1910	0.0219	0.134	
KHT-AGD033				12	13	391	0.01955	0.0808	
KHT-AGD034	530459	8698067	1299	0	1.4	1070	0.269	0.877	
KHT-AGD034				1.4	2	657	0.347	0.899	
KHT-AGD034				2	3	455	0.296	1.255	
KHT-AGD034				3	4	290	0.258	1.135	
KHT-AGD034				4	5	348	0.285	0.942	
KHT-AGD034				5	6	4360	0.288	0.717	
KHT-AGD034				6	7	>10000	0.155	0.491	1.255
KHT-AGD034				7	8	9400	0.131	0.476	
KHT-AGD034				8	9	>10000	0.12	0.529	1.16
KHT-AGD034				9	10	>10000	0.0937	0.54	1.25
KHT-AGD034				10	11	8810	0.108	0.542	
KHT-AGD034				12	13	>10000	0.0928	0.722	1.09
KHT-AGD034				13	13.7	7120	0.0819	0.42	
KHT-AGD034				13.7	14.7	1680	0.0181	0.0842	
KHT-AGD035	530460	8698143	1297	0	1.4	876	0.333	0.85	
KHT-AGD035				1.4	2	1160	0.322	0.966	
KHT-AGD035				2	3	738	0.295	1.165	
KHT-AGD035				3	4	429	0.279	1.06	
KHT-AGD035				4	5	333	0.307	0.932	
KHT-AGD035				5	6	5660	0.297	0.676	
KHT-AGD035				6	7	>10000	0.1505	0.465	2.2
KHT-AGD035				7	8	>10000	0.129	0.452	1.405
KHT-AGD035				8	9	7210	0.155	0.483	
KHT-AGD035				9	10	1620	0.01795	0.0574	
KHT-AGD036	530461	8698222	1294	0	1.4	1590	0.328	0.954	
KHT-AGD036				1.4	2	1510	0.317	1.36	



Hole ID	Easting	Northing	RL	From	То	Zn ppm	Co %	Cu %	Zn %
KHT-AGD036				2	3	723	0.362	1.37	
KHT-AGD036				3	4	440	0.326	1.07	
KHT-AGD036				4	5	511	0.382	1.09	
KHT-AGD036				5	6	325	0.232	0.604	
KHT-AGD036				6	7	387	0.221	0.645	
KHT-AGD036				7	8	148	0.0554	0.164	
KHT-AGD037	530461	8698294	1294	0	1.4	1840	0.368	1.085	
KHT-AGD037				1.4	2	1290	0.384	1.145	
KHT-AGD037				2	3	682	0.191	0.738	
KHT-AGD037				3	4	298	0.0719	0.284	
KHT-AGD038	530523	8698320	1294	0	1.4	1630	0.391	1.015	
KHT-AGD038				1.4	2	1690	0.392	1.14	
KHT-AGD038				2	3	1410	0.334	1.135	
KHT-AGD038				3	4	1060	0.273	0.887	
KHT-AGD038				4	5	413	0.0836	0.256	
KHT-AGD039	530533	8698258	1291	0	1.4	1700	0.35	0.996	
KHT-AGD039				1.4	2	1680	0.384	1.275	
KHT-AGD039				2	3	531	0.391	1.54	
KHT-AGD039				3	4	527	0.329	1.105	
KHT-AGD039				4	5	323	0.316	0.85	
KHT-AGD039				5	6	4260	0.355	0.821	
KHT-AGD039				6	7	4330	0.252	0.746	
KHT-AGD040	530536	8698181	1298	0	1.4	1300	0.355	0.934	
KHT-AGD040				1.4	2	2020	0.341	1.07	
KHT-AGD040				2	3	661	0.347	1.395	
KHT-AGD040				3	4	465	0.319	1.2	
KHT-AGD040				4	5	426	0.312	1.015	
KHT-AGD040				5	6	4030	0.347	0.897	
KHT-AGD040				6	7	>10000	0.154	0.627	1.34
KHT-AGD040				7	8	>10000	0.161	0.694	1.075
KHT-AGD040				8	9	>10000	0.148	0.801	1.035
KHT-AGD040				9	10	9720	0.1705	0.819	
KHT-AGD040				10	11	>10000	0.0747	0.653	1.125
KHT-AGD040				11	12	1490	0.054	0.207	
KHT-AGD040				12	13	559	0.0312	0.13	
KHT-AGD040				13	14	340	0.0252	0.0951	
KHT-AGD040				14	15	410	0.0332	0.121	
KHT-AGD041	530537	8698108	1295	0	1.4	973	0.374	0.996	
KHT-AGD041				1.4	2	2020	0.324	1.005	
KHT-AGD041				2	3	863	0.298	1.22	
KHT-AGD041				3	4	475	0.281	1.195	



Hole ID	Easting	Northing	RL	From	То	Zn ppm	Co %	Cu %	Zn %
KHT-AGD041				4	5	380	0.308	1.085	
KHT-AGD041				5	6	6110	0.298	0.933	
KHT-AGD041				6	7	>10000	0.1485	0.665	1.505
KHT-AGD041				7	8	>10000	0.137	0.67	1.205
KHT-AGD041				8	9	>10000	0.0975	0.664	1.13
KHT-AGD041				9	10	>10000	0.0933	0.627	1.51
KHT-AGD041				10	11	9250	0.152	0.8	
KHT-AGD041				11	12	9720	0.0726	0.626	
KHT-AGD041				12	13	2320	0.0217	0.129	
KHT-AGD041				13	14	1440	0.0329	0.148	
KHT-AGD042	530535	8698039	1297	0	1.4	795	0.347	0.928	
KHT-AGD042				1.4	2	927	0.31	0.991	
KHT-AGD042				2	3	765	0.304	1.11	
KHT-AGD042				3	4	491	0.296	1.055	
KHT-AGD042				4	5	549	0.281	0.885	
KHT-AGD042				5	6	1820	0.32	0.923	
KHT-AGD042				6	7	>10000	0.211	0.626	1.225
KHT-AGD042				7	8	>10000	0.165	0.585	1.215
KHT-AGD042				8	9	>10000	0.1465	0.587	1.045
KHT-AGD042				9	10	2880	0.0181	0.0741	
KHT-AGD043	530613	8698077	1296	0	1.4	956	0.309	0.878	
KHT-AGD043				1.4	2	1610	0.274	0.998	
KHT-AGD043				2	3	848	0.278	1.275	
KHT-AGD043				3	4	1000	0.277	1.155	
KHT-AGD043				4	5	803	0.287	0.984	
KHT-AGD043				5	6	9810	0.281	0.763	
KHT-AGD043				6	7	7420	0.1625	0.337	
KHT-AGD044	530611	8698145	1298	0	1.4	918	0.354	0.931	
KHT-AGD044				1.4	2	1740	0.286	0.977	
KHT-AGD044				2	3	745	0.31	1.195	
KHT-AGD044				3	4	570	0.303	1.135	
KHT-AGD044				4	5	518	0.298	1.02	
KHT-AGD044				5	6	3620	0.275	0.944	
KHT-AGD044				6	7	>10000	0.115	0.603	1.7
KHT-AGD044				7	8	>10000	0.133	0.684	1.365
KHT-AGD044				8	9	7680	0.0985	0.588	
KHT-AGD045	530620	8698145	1292	0	1.4	1000	0.357	0.891	
KHT-AGD045				1.4	2	1740	0.322	1.005	
KHT-AGD045				2	3	1120	0.317	1.09	
KHT-AGD045				3	4	991	0.319	1.085	
KHT-AGD045				4	5	1410	0.283	0.97	



Hole ID	Easting	Northing	RL	From	То	Zn ppm	Co %	Cu %	Zn %
KHT-AGD045				5	6	7020	0.251	0.908	
KHT-AGD045				6	7	>10000	0.129	0.62	1.43
KHT-AGD045				7	8	>10000	0.162	0.736	1.115
KHT-AGD045				8	9	>10000	0.152	0.736	1.035
KHT-AGD045				9	10	>10000	0.112	0.649	1.16
KHT-AGD045				10	11	8680	0.1825	0.809	
KHT-AGD045				11	12	8830	0.163	0.823	
KHT-AGD045				12	13	7230	0.1815	0.885	
KHT-AGD045				13	14	1760	0.0613	0.249	
KHT-AGD045				14	14.7	478	0.01685	0.0689	
KHT-AGD046	530610	8698294	1295	0	1.4	1700	0.4	0.934	
KHT-AGD046				1.4	2	2570	0.381	0.982	
KHT-AGD046				2	3	1400	0.325	1.155	
KHT-AGD046				3	4	1620	0.335	1.035	
KHT-AGD046				4	5	1170	0.326	0.958	
KHT-AGD046				5	6	4310	0.298	0.84	
KHT-AGD046				6	7	>10000	0.157	0.648	1.2
KHT-AGD046				7	8	8680	0.1685	0.615	
KHT-AGD046				8	9	2890	0.0909	0.298	
KHT-AGD046				9	10	499	0.0318	0.0904	
KHT-AGD047	530611	8698372	1295	0	1.4	1270	0.386	0.895	
KHT-AGD047				1.4	2	1640	0.396	0.939	
KHT-AGD047				2	3	633	0.234	0.831	
KHT-AGD047				3	4	661	0.168	0.507	
KHT-AGD048	530688	8698400	1293	0	1.4	1250	0.415	0.915	
KHT-AGD048				1.4	2	1740	0.351	0.965	
KHT-AGD048				2	3	1240	0.346	1.065	
KHT-AGD048				3	4	1060	0.329	0.987	
KHT-AGD048				4	5	749	0.1895	0.618	
KHT-AGD048				5	6	443	0.0861	0.271	



Appendix 3 – JORC Code Table 1

# JORC Code, 2012 Edition – Table 1 Kipushi Tailings

### **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <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> <li>Auger holes drilled on a 75m x 75m grid.</li> <li>Dead stick method was employed.</li> <li>Varying sample intervals were taken according to auger penetration up to a maximum of 1.4m per sample.</li> <li>Samples were collected in polyweave bags.</li> </ul>
Drilling techniques	<ul> <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> <li>Auger drilling was conducted with flights approximately 1 inch wide on a 6 inch auger shaft.</li> </ul>
Drill sample recovery	<ul> <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> <li>Dead stick drilling was employed</li> <li>Samples were recovered by removing all sample captured on the auger flights for each respective interval.</li> </ul>
Logging	Whether core and chip samples have been geologically and	Samples were logged for colour, grain size, moisture.



Criteria	JORC Code explanation	Commentary
	<ul> <li>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>	
Sub- sampling techniques and sample preparation	<ul> <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> <li>All samples were partially wet but were competent to the touch. The material was in the form of stratigraphically layered non saturated tailings of fairly uniform consistency.</li> </ul>
Quality of assay data and laboratory tests	<ul> <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> <li>Samples were prepared in ALS in Lubumbashi and sent to ALS Johannesburg for analysis.</li> <li>Multi element analysys was conducted using methods ME-MS61 and OG62 for over grade samples.</li> </ul>
Verification of sampling and assaying	<ul> <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>	Verification work was conducted by use of twin holes using an excavator and channel sample alongside existing drilled holes.



Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <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> <li>Samples were located with handheld GPS.</li> </ul>
Data spacing and distribution	<ul> <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> <li>Samples were taken according to depth penetration of the auger.</li> <li>The data will be suitable for resource estimation.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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> <li>No particular geological structure is evident in the tailings</li> <li>Artificial stratigraphic layering is evident as controlled by tails deposition locations.</li> <li>There is an interface at approximately 6m – 8m between cobalt copper rich tailings and zinc rich tailings. These are discrete tailings from different sources of ore fed through the Kico plant.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Sample chain of custody was maintained by the geologist throughout delivery to their place of storage.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been done.

## Section 2 Reporting of Exploration Results

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

Crite	eria	JORC Code explanation	Commentary
	ement land ire	<ul> <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> <li>Work was conducted on PER 12347 in the Kipushi Tailings area of southern DRC.</li> <li>The licence is held by state owned company Gecamines and is the subject of a rights agreement between Gecamines and Paragon SARL and a proposed joint venture agreement between Paragon SARL and Cape Lambert Resources.</li> <li>Details of tenure are to be confirmed as part of the due diligence.</li> </ul>



Criteria	JORC Code explanation	Commentary
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>No known exploration has been conducted on the tailings.</li> <li>Historical plant records have been requested.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	Post processing tailings.
Drill hole Information	<ul> <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> <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>	See attached table for sample information.
Data aggregatio n methods	<ul> <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>	No averaging or aggregate intercept results have been reported.
Relationshi p between mineralisati on widths and	<ul> <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> <li>Samples were taken vertically down the drillhole according to penetration of the auger.</li> <li>Holes were terminated when base of tailings was intercepted.</li> </ul>



Criteria	JORC Code explanation	Commentary
intercept lengths		
Diagrams	<ul> <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>	See attached location plan.
Balanced reporting	<ul> <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> <li>All results have been reported</li> </ul>
Other substantive exploration data	<ul> <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>	• N/A
Further work	<ul> <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> <li>Resource estimation and density testwork is to follow.</li> <li>Additional drilling may be conducted if deemed necessary in areas of data sparcity.</li> </ul>

## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Data was extracted directly from comma delimited files and imported directly into Micromine for interpretation, interpolation and estimation.</li> <li>Validation was done to check for out of range results, missing results, sample outliers, locational errors.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> </ul>	<ul> <li>Several site visits were undertaken by the CP prior to drilling, during drilling to supervise drilling and sampling</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	technique, after drilling to supervise a density sampling program.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Confidence in interpretation is high. The results reflect what was expected being an artificial sedimentary tailing deposit and match closely to discrete layers of material from different material sources.</li> <li>Alternative interpretations may slightly affect material type volumes but this is not expected to be significant.</li> <li>Main factor affecting continuity would be depositional history. There is no way of knowing how the material was tailed originally. The data indicates a single point of tailings disposal.</li> </ul>
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.	<ul> <li>The resource extends approximately 900m x 400m x 10m from surface.</li> <li>The deposit has two sources of material and has a discrete boundary between Co Cu tails and Zn Co tails.</li> <li>Grade within the Co Cu tails appears to decrease from north to south as expected with preferential settling of the more dense minerals closer to the point of deposition.</li> </ul>
Estimation and modelling techniques	<ul> <li>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.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> </ul>	<ul> <li>Micromine was the chosen software.</li> <li>The estimation technique was ID2.5 as cubed was too localized.</li> <li>Inverse distance was chosen over geostatistical methods as this is a man made deposit without knowledge of depositional history.</li> <li>A flattened circular search orientated downstream was used in particular to limit the search vertically based on expected method of tailing deposition.</li> <li>No check estimates or previous estimates exist. No mine records were available.</li> <li>Estimation was restricted to the main economic minerals cobalt, copper and zinc.</li> <li>Sample spacing was 75m x 75m by ~1m. Block size was 18.75 x 18.75 x 0.5 with a maximum of 5 subcells in each</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>direction.</li> <li>Two discrete material types were estimated as described previously.</li> <li>A circular search was used. Vertical variability was controlled with hard boundaries and a flat search ellipse.</li> <li>No grade cutting or capping was necessary.</li> <li>Geostatistical comparison of drillhole data against estimated data was conducted as well as visual comparisons of holes against the block model in cross section, long section and vertically.</li> </ul>
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	<ul> <li>Tonnages are estimated on a dry basis.</li> <li>Samples of a known volume were collected in 1m lengths throughout the deposit. These samples were individually dried in a oven and weighed to determine an average dry in situ SG.</li> </ul>
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	• No cut off used. Statistics were run on the assay data set which showed the minimum cobalt grade for the cobalt copper zone is 0.106%, well above potentially economic grade. Similarly, the zinc cobalt zone had only 4 samples out of 244 with zinc grades below 0.5% however they all had corresponding cobalt grade above 0.15%. This allowed the entire deposit to be included as resource and no cutoff grade for reporting was necessary.
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.	<ul> <li>Mining is likely to be hydraulic or dredge given the saturated and unconsolidated nature of the deposit.</li> </ul>



Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	<ul> <li>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 is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul> <li>Metallurgical assumptions are that the material may be concentrated through gravity methods with the remaining concentrate leached to produce a saleable product.</li> </ul>
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.	<ul> <li>Waste produced by gravity separation will be water and coarse gangue. Fines valuable minerals will be captured through a thickening stage and sent to the leach plant. Coarse clean gangue will be dumped back in the void.</li> <li>Tails from the leach process will be captured in a lined TSF local to the plant.</li> </ul>
Bulk density	<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	See section under Moisture.
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie 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).</li> </ul>	<ul> <li>The majority of the resource is indicated. Minor additional sampling will be required to convert to measured.</li> <li>Areas to be classified as inferred are extensions of the tails that lack drilling but are known to be tails.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	
Audits or reviews	<ul> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	No audits conducted.
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>The drill results show strong consistency and a grade distribution to be expected from the assumed depositional history. Hard boundaries created by the valley sides and contrast between tailings material and natural basement is absolute and will only result in minor dilution in the basement samples. Additional data will increase confidence to measured but high confidence can be placed in the indicated classification.</li> </ul>