

## Kipushi Copper-Cobalt Project Leaching Engineering Study Completed

- **Engineering Study on Kipushi Leaching Plant completed;**
- **Metallurgical testing shows recoveries of 90% for copper and 85% for cobalt achievable;**
- **Board of Soludo Lambert Mining SAS decide to proceed to build the Kipushi Leaching Plant.**

Australian resources and investment company, Cape Lambert Resources Limited (ASX: CFE) (**Cape Lambert** or the **Company**) is pleased to announce that an Engineering Study for a leaching plant at the Kipushi Cobalt-Copper Tailings Project (**Project**) in the Democratic Republic of Congo (**DRC**) was recently completed by consultants Minnovo Pty Ltd (**Minnovo**).

The Engineering Study was undertaken following the excellent results achieved from a leach testwork program at the Project, with recoveries of 90% for copper and 85% for cobalt being achieved from laboratory scale testwork undertaken to date.

The Project is held by Soludo Lambert Mining SAS (**Soludo Lambert**), which is a 50/50 joint venture arrangement with local entity Paragon Mining SARL (**Paragon**) and Cape Lambert.

The Project involves the reprocessing of copper-cobalt tailings contained in the Kipushi Tailings Storage Facility (**TSF**) located near the town of Kipushi approximately 25km from Lubumbashi, refer Figure 1.

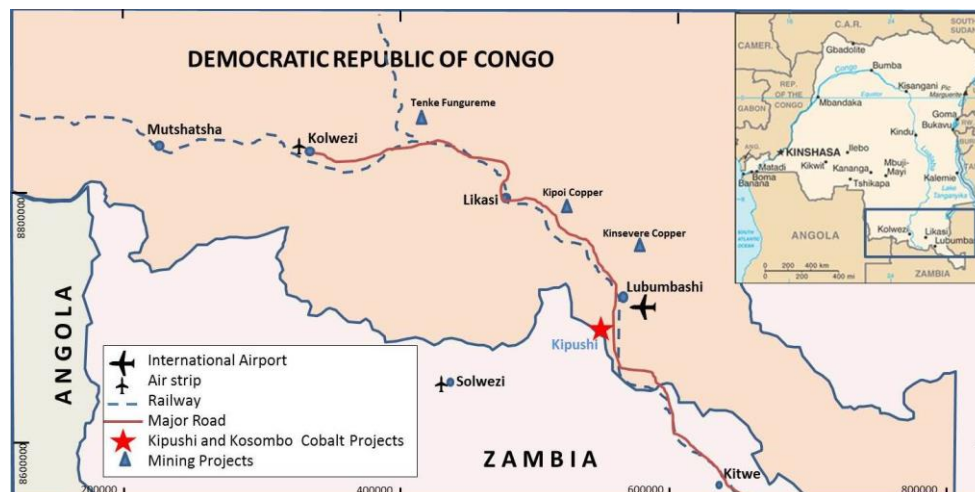


Figure 1: Project Location

Cape Lambert Resources Limited (ASX: CFE) is a fully funded mineral development company with exposure to iron ore, cobalt, copper, gold, uranium, lithium and lead-silver-zinc assets in Australia, Europe, Africa and South America.

Australian Securities Exchange  
Code: CFE

Ordinary shares  
949,310,216

Unlisted Options  
23,500,000 (\$0.05 exp 31 Dec 2018)  
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)

### Board of Directors

Tony Sage  
Executive Chairman

Tim Turner  
Non-executive Director

Stefan Muller  
Non-executive Director

Melissa Chapman  
Company Secretary

### Cape Lambert Contact

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The tailings will be processed through a newly built 1Mtpa acid leach plant, adjacent to the existing flotation plant, designed to produce a mixed hydroxide precipitate (**MHP**) product.

The process flow sheet developed by Minnovo based on the testwork completed is shown in Figure 2.

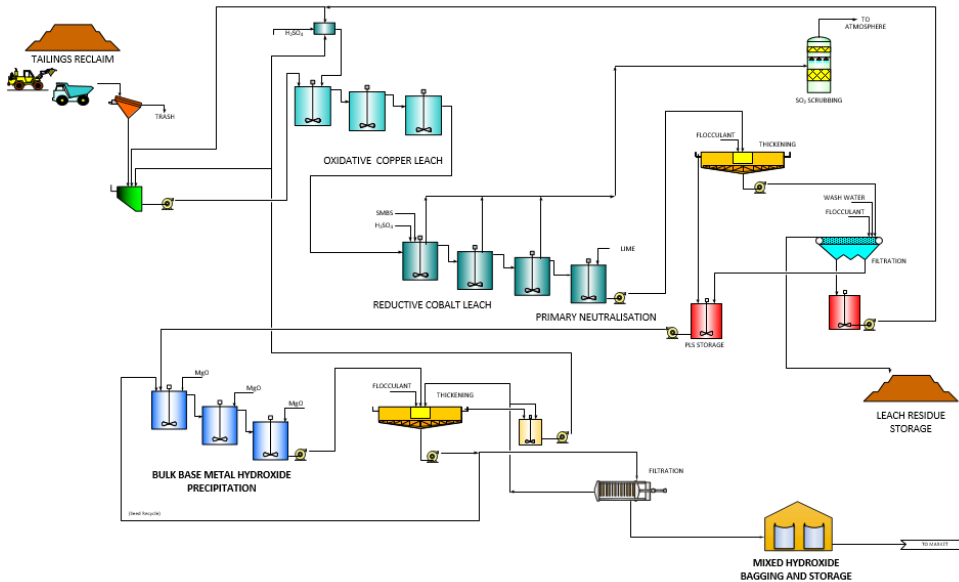


Figure 2: Kipushi Process Flowsheet

The capital costs estimated by Minnovo, with inputs from Soludo Lambert, presented in second quarter 2018 in United States dollars (USD) to an accuracy of  $\pm 35\%$  are summarised in Table 1.

Table 1: Capital Cost Estimate Summary

Description	Total (USD)
<b>Direct Costs</b>	
Civils	\$1,570,000
Tailings Reclamation	\$125,000
Process Plant	\$17,719,114
Infrastructure	\$3,725,000
Mobile Fleet	\$677,500
<b>TOTAL DIRECTS</b>	<b>\$23,816,614</b>
<b>Indirect Costs</b>	
Freight/Spares/First Fills	\$2,644,818
Engineering/commissioning	\$2,559,162
Owner Management	\$3,271,332
<b>TOTAL INDIRECTS</b>	<b>\$8,475,311</b>
Contingency	\$3,572,492
<b>TOTAL CAPITAL BUDGET</b>	<b>\$35,864,418</b>

The capital cost was developed from a number of sources as summarised in Table 2.

Table 2: Basis for Capital Cost Estimate

Cost Category	Source Of Cost Data
Direct Costs	Equipment costs based on budget quotations for major equipment and from recent projects/database pricing for other equipment where similar sized equipment quotes were available. Earthworks, concrete, structural steel and platework and E&IC costs were factored against mechanical equipment costs estimated from a recent in-country copper project. Contractor indirects and P&G costs were factored based on detailed estimate for recent in-country copper project.
Infrastructure	Building costs, detailed earthworks, fencing costs costs were factored against mechanical equipment costs derived from similar reference factored to reflect costs estimated from a recent in-country project . PCS and Comms in the process plant area are included in the E&IC factors for the plant. External communications infrastructure is excluded.
Indirects	Factored based on historical Minnovo EPC contracting work.
Owners costs	Provided by Soludo Lambert.
Contingency	Allowance for Owner's contingency of 15% of the direct Project costs.

The operating costs estimated by Minnovo, with inputs from Soludo Lambert, presented in second quarter 2018 in United States dollars (USD) to an accuracy of  $\pm 35\%$  and is summarized in Table 2.

Table 2: Kipushi Operating Costs

Description	USD/tonne Tailings
Tailings Reclamation (including fees to Gecamines)	\$12.30
Processing	\$46.25
Administration	\$6.10
<b>TOTAL OPERATING COST</b>	<b>\$64.66</b>

The operating cost estimate was developed from a number of sources as detailed in Table 3.

Table 3: Basis for Site Operating Cost Estimate

Cost Category	Source Of Cost Data
Labour	Owner operating strategy. Labour rates are for expatriate and local labour based on 12 hour shifts.
Power	Consumption from Electrical Load List. Grid power rate advised by Soludo Lambert.
Maintenance Materials	Calculated as a percentage of direct capital costs based on benchmarking with operating plants.
Reagents and Consumables	Reagent consumption from testwork and unit prices from regional and international suppliers.

Based on the preliminary details delivered by Minnovo prior to the completion of the Engineering Study the Board of Soludo Lambert made a decision to pursue construction of the leaching plant and appointed Minnovo in May 2018 to undertake the detailed design.

Cape Lambert's Chairman, Tony Sage, said "I am very pleased that we pursued the leaching alternative to process the Kipushi tailings, as the recoveries for the leaching are far superior than achieved with the existing flotation plant. Preliminary details from the Engineering Study provided the basis for the decision to build the plant, which will be done in earnest to capitalise on the current high price for cobalt".

Yours faithfully  
Cape Lambert Resources Limited

Tony Sage  
**Executive Chairman**

The Metallurgical testwork data in this presentation is based on information compiled by Mr Chris Larder who has 35 years experience in the mining and mineral processing industries. Mr Larder has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration. Mr Larder is a consultant to Cape Lambert Resources Limited and consents to the results being released in the form and context in which they appear.

## 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 style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Manual channel samples were taken vertically down the walls of small excavations across the tailings dam. 8 bags of approximately 10kg each were collected from five locations across the tailings dam.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>No drilling was conducted.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling was conducted.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were not logged.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>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. The 8 lots of 10 kg samples were placed in thick plastics bags and sealed and packed in suitcases for transport.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Leaching testwork was conducted at the laboratory of ALS Metallurgy Pty Ltd, Balcatta, WA.</li> <li>Solid assays performed by XRF BM Method.</li> <li>Solution assays performed by ICM/AAS Direct Spray Dilution.</li> <li>No duplicates or blanks were used in the leaching process.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Lab standards and repeat samples were not carried out as part of the leaching procedure.</li> <li>Leach testing was conducted at the Laboratory of ALS.</li> <li>There has been no independent or alternative verification of the leaching results.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> </ul>	<ul style="list-style-type: none"> <li>The samples were collected from the following locations:</li> </ul>

Criteria	JORC Code explanation	Commentary																								
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	<table border="1"> <thead> <tr> <th>Sample ID</th> <th>UTM Easting</th> <th>UTM Northing</th> <th>Estimated thickness</th> </tr> </thead> <tbody> <tr> <td>KT001</td> <td>529878</td> <td>8698797</td> <td>1.0m</td> </tr> <tr> <td>KT002</td> <td>529923</td> <td>8698767</td> <td>1.0m</td> </tr> <tr> <td>KT003</td> <td>529987</td> <td>8698755</td> <td>1.0m</td> </tr> <tr> <td>KT004</td> <td>530083</td> <td>8698778</td> <td>1.0m</td> </tr> <tr> <td>KT005</td> <td>530765</td> <td>869746</td> <td>1.0m</td> </tr> </tbody> </table>	Sample ID	UTM Easting	UTM Northing	Estimated thickness	KT001	529878	8698797	1.0m	KT002	529923	8698767	1.0m	KT003	529987	8698755	1.0m	KT004	530083	8698778	1.0m	KT005	530765	869746	1.0m
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Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The spacing of sampling is shown in the table above.</li> </ul>																								
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>No particular geological structure is evident in the tailings</li> </ul>																								
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were delivered by courier services and freight handling services from the DRC to the laboratory of ALS.</li> </ul>																								
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews have been done.</li> </ul>																								

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any</li> </ul>	<ul style="list-style-type: none"> <li>Work was conducted on PER 12347 in the Kipushi Tailings area of southern DRC.</li> <li>The licence is reportedly held by state owned company Gecamines and is the subject of a rights agreement between Gecamines and Paragon SARL and the joint venture agreement between Paragon SARL and Cape</li> </ul>

Criteria	JORC Code explanation	Commentary																								
	<i>known impediments to obtaining a licence to operate in the area.</i>	Lambert Resources Limited. <ul style="list-style-type: none"> <li>PER 12347 is valid until 25/1/2021</li> </ul>																								
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>No known exploration has been conducted on the tailings.</li> <li></li> </ul>																								
<i>Geology</i>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Post processing tailings.</li> </ul>																								
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Tailings samples were collected from small excavations across the tailing dams at the following locations</li> </ul> <table border="1" data-bbox="1332 662 2049 885"> <thead> <tr> <th>Sample ID</th> <th>UTM Easting</th> <th>UTM Northing</th> <th>Estimated thickness</th> </tr> </thead> <tbody> <tr> <td>KT001</td> <td>529878</td> <td>8698797</td> <td>1.0m</td> </tr> <tr> <td>KT002</td> <td>529923</td> <td>8698767</td> <td>1.0m</td> </tr> <tr> <td>KT003</td> <td>529987</td> <td>8698755</td> <td>1.0m</td> </tr> <tr> <td>KT004</td> <td>530083</td> <td>8698778</td> <td>1.0m</td> </tr> <tr> <td>KT005</td> <td>530765</td> <td>869746</td> <td>1.0m</td> </tr> </tbody> </table>	Sample ID	UTM Easting	UTM Northing	Estimated thickness	KT001	529878	8698797	1.0m	KT002	529923	8698767	1.0m	KT003	529987	8698755	1.0m	KT004	530083	8698778	1.0m	KT005	530765	869746	1.0m
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<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Tailings samples were removed from the 8 the bags and blended. Testwork charges for leach testing were then split out using a rotary splitter.</li> <li>Testing conducted on the samples is explained below.</li> </ul>																								
<i>Relationship between mineralisation widths and</i>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true</li> </ul>	<ul style="list-style-type: none"> <li>Samples were taken vertically down the walls of small pit excavations.</li> <li>The base of the tailings was not intersected at any time.</li> </ul>																								



Criteria	JORC Code explanation	Commentary
<i>intercept lengths</i>	<i>width not known</i> ’).	
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were leached in a small agitated leach vessel at atmospheric pressure and ambient temperature. Sulphuric Acid was introduced until the target leach pH was reached and Sodium Meta Bisulphite was also added to achieve a target reduction potential. Total leach time was 6 hours with sub-samples removed every hour for assay determination.</li> <li>• At the end of the leach test, the sample was filtered and the solids dried at 105 degrees. A sub sample of solids was submitted for XRF whereas the solution was passed through an ICP for key element determination.</li> <li>• Copper and Cobalt recoveries are then determined by dividing the Copper and Cobalt metal in solution by the total calculated Copper and Cobalt content of the leach feed.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Further samples from the tailings dam will be collected to undertake additional confirmatory leach testing.</li> </ul>