

29 November 2018

# LULO KIMBERLITE EXPLORATION UPDATE

- Micro-diamond and diamond-associated garnets recovered from eight Lulo kimberlites in latest laboratory results
  - 2 carat diamond recovered from bulk sampling of kimberlite L104
    - 53 targets confirmed as kimberlites in current drilling campaign
- Core samples from another 25 kimberlites to undergo laboratory analysis as current drilling campaign nears completion

Lucapa Diamond Company Limited (ASX: **LOM**) ("Lucapa" or "the Company") and its partners, Empresa Nacional de Diamantes E.P. ("Endiama") and Rosas & Petalas, are pleased to update progress on the kimberlite exploration program at the Lulo diamond project in Angola.

The kimberlite exploration program is designed to identify the primary hard-rock source or sources of the exceptional alluvial diamonds mined at Lulo, the world's highest average US\$ per carat alluvial production.

The Lulo partners are systematically drilling ~80 targets in the current campaign proximal to, and/or upstream of, the alluvial mining blocks. Drill core from the confirmed kimberlites is progressively logged and exported in batches to laboratories in South Africa and Canada for mineral chemistry analysis.

## Latest laboratory results

Further to the ASX announcement of 29 October 2018, Lucapa has received the mineral chemistry results from the latest batches of kimberlite core – together with results from historical pit, stream and loam samples sent to the laboratory.

A micro-diamond was recovered from a pit sample at kimberlite L204, which also recorded a strong lherzolitic garnet chemistry signature, which is also closely associated with diamonds.

In addition, diamond-associated G3D, G4D and G10D garnets were recovered from seven Lulo kimberlites, including:

- Four G4D and one G10D garnet from kimberlite L048
- Three G4D garnets from kimberlite L050
- Two G3D and two G4D garnets from kimberlite L232
- Two G10D garnets from kimberlite target E192<sup>1</sup>
- Two G4D garnets from kimberlite L103
- One G10D garnet from kimberlite L028<sup>2</sup>
- One G4D garnet from kimberlite L104<sup>3</sup>

These eight kimberlites will be the subject of further testing. The location of these kimberlites – and their proximity to the alluvial mining blocks - is shown on the Figure 3 map.

The mineral chemistry results from the remaining five kimberlites in the current batches of core to undergo laboratory analysis were considered to be of low interest and will not be tested further.

#### Diamond recovered from kimberlite L104

As set out in the AGM presentation of 24 May 2018, an orange eclogitic garnet and phlogopite in possible mantle xenolith were visually observed in the drill core from kimberlite L104.

This, combined with the presence of historic garimpeiro activity on the kimberlite, prompted the Lulo partners to excavate a bulk sample from L104 to test through the Lulo diamond plant (Figure 1).

A diamond weighing 2.05 carats was recovered from the 614 cubic metre kimberlite bulk sample (Figure 2).



Figure 1: Kimberlite material from L104 being excavated for bulk sampling



Figure 2: 2.05 carat diamond recovered from kimberlite L104 bulk sample

#### **Kimberlite drilling progress**

Further to the ASX announcement of 29 October 2019, the Lulo partners continue to make very good progress with the kimberlite drilling program, which remains on target for completion this quarter. The Lulo partners have completed drilling 72 targets, of which 53 have been confirmed as kimberlites (Table 1).



Figure 3: Progress of Lulo kimberlite drilling program, including 11 kimberlites highlighted for follow-up work (blue dots) and 25 confirmed kimberlites to undergo laboratory analysis (green dots)

Core from a further 25 targets successfully confirmed as kimberlites is to undergo mineral chemistry analysis. This includes core already batched and en-route to the South African laboratory; core logged and batched in preparation for export; and kimberlite core recently drilled and in the core shed at Lulo.

This leaves just seven targets to be drilled to complete the current campaign, along with any additional proximal targets identified.

Once the drilling of the remaining targets is completed, the Lulo partners plan to conduct a comprehensive independent review of all results received from the kimberlite drilling and sampling completed to date to guide follow-up programs.

Original targets planned in drilling campaign	62
Planned targets drilled	55
Additional proximal targets drilled	17
Planned targets remaining	7
Confirmed kimberlites	53
Mineral chemistry results received from laboratory	28
Kimberlites highlighted for follow-up test work	11

Table 1: Status of current Lulo kimberlite drilling campaign

For and on behalf of the Lucapa Board.

STEPHEN WETHERALL MANAGING DIRECTOR

#### Notes

- <sup>1.</sup> From stream sample results kimberlite target E192 to be drilled
- <sup>2.</sup> From stream sample results L028 since drilled and confirmed as kimberlite
- <sup>3.</sup> 2.05 carat diamond also recovered from kimberlite L104 from a 614 cubic metre bulk sample

#### **ABOUT LUCAPA**

Lucapa is a growing diamond company with a portfolio of high-quality production, development and exploration assets in Angola, Lesotho, Australia and Botswana. The Company's focus on high-value diamond production is designed to protect cash flows in a sector of the diamond market where demand remains robust.

Lucapa's flagship asset is the Lulo Diamond Project in Angola, which is a prolific producer of large and premium-value alluvial diamonds. Lulo has produced 11 +100ct diamonds to date and is the highest US\$ per carat alluvial diamond production in the world. Lucapa and its Lulo partners continue to advance their search for the primary kimberlite sources of these exceptional alluvial gems through a systematic drilling and exploration program.

Lucapa has a 70% interest in the advanced Mothae kimberlite project in diamond-rich Lesotho. The Mothae kimberlite pipe is a high-quality diamond resource located within 5km of Letšeng, the highest US\$ per carat kimberlite diamond mine in the world. Lucapa is commissioning the new 1.1Mtpa diamond treatment plant at Mothae, complete with XRT recovery technology, under its Phase 1 development program.

Lucapa is also furthering two exploration projects in known diamond provinces, including an extensive exploration program at Brooking in the West Kimberley lamproite province in Western Australia to follow up on the discovery of lamproite with very high concentrations of micro- and macro-diamonds. Lucapa plans to drill kimberlite targets at the Orapa Area F project in Botswana's Orapa diamond field in Q1 2019.

Lucapa's Board and management team have extensive diamond industry experience across the globe with companies including De Beers and Gem Diamonds.

#### Competent Person's Statement

Information included in this announcement that relates to exploration results and resource estimates is based on and fairly represents information and supporting documentation prepared and compiled by Richard Price MAusIMM who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Price is an employee of Lucapa Diamond Company Limited. Mr Price has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves. Mr Price consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

#### **No New Information**

To the extent that announcement contains references to prior exploration results and Mineral Resource estimates, which have been cross referenced to previous market announcements made by the Company, unless explicitly stated, no new information is contained. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

#### Forward-Looking Statements

This announcement has been prepared by the Company. This document contains background information about the Company and its related entities current at the date of this announcement. This is in summary form and does not purport to be all inclusive or complete.

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## Appendix 1 Reporting of kimberlite exploration results for the Lulo Project – JORC Code (2012) requirements – Sampling Techniques and Data

Criteria	JORC Code Explanation	Lucapa Commentary
Sampling techniques	<ul> <li>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.</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. 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.</li> </ul>	<ul> <li>Drilling was undertaken using a combination of a Sedidrill conventional core drill rig owned by the company, a contract wireline rig provided by Rosanstroi and a Hanjin wireline coring rig owned and operated by the company.</li> <li>The Sedidrill, drills a 76mm diameter hole recovering 61.7mm core.</li> <li>The Rosanstroi rig has drilled both PQ and 112mm hole/96mm core diameters.</li> <li>The Hanjin rig drills HQ diameter core.</li> <li>Heavy mineral samples were collected as approximately 301 of material from soil, stream beds or pits into kimberlite. The recovered material was screened, and hand concentrated in a prospecting pan. The concentrate was then packed and dispatched to the RES laboratory for indicator mineral recovery.</li> <li>The bulk sample from L104 was collected from a large excavated pit. The surface overburden was removed by excavator and truck, before all earthmoving equipment was thoroughly cleaned. A pit was then excavated into the clean kimberlite material and directly loaded into trucks for transport to the Lulo processing plant. The sample material was placed on a sterilised pad of sand before being fed into the plant by front-end loader.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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>The drilling to date has consisted of diamond core drilling.</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>Core is recovered from the core barrel and stored in core boxes, before being transported by light vehicle to the core shed, where it is visually logged.</li> <li>Core recovery is generally high.</li> </ul>

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Criteria	JORC Code Explanation	Lucapa Commentary
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All core is visually, semi-quantitatively logged and photographed at the operation's core shed.</li> <li>The bulk sample pit was visually inspected to ensure no contamination of surface material entered the sample material.</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>Sections of core were selected for petrographic analysis and indicator mineral recovery to represent the major lithologies present at each body.</li> <li>Each petrography sample was marked up and submitted to the laboratory for thin section and polished slab production.</li> <li>Each mineral chemistry sample was a composite of small sections down a hole to fully represent the intercept of the rock being sampled.</li> <li>The mineral chemistry samples were crushed and screened to -2.36mm -+0.3mm fractions. The material was passed through tetrabromoethane (TBE) to separate heavy mineral concentrates.</li> <li>The concentrates were split into ~10g splits which were visually picked for kimberlitic indicator minerals (KIM's) to provide unbiased populations of grains for compositional analysis.</li> <li>Representative sets of each KIM species were selected and mounted into epoxy disks for compositional analysis using a Zeiss EVO® MA15 Scanning Electron Microscope.</li> <li>The loam, stream and pit samples were hand concentrated at the operation, with concentrates submitted to the laboratory to undergo similar treatment processes to the core samples.</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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of</li> </ul>	<ul> <li>The laboratory procedures are standard for kimberlite exploration purposes.</li> <li>Mineral standards provided by Mineral Services Laboratories, acquired from The Smithsonian Institution, were used for standardization and verification of the analyses</li> <li>Apart from Na<sub>2</sub>O concentration in garnet, the mineral compositions were quantified by energy dispersive spectrometry using an Oxford Instruments<sup>®</sup> X-Max 20mm<sup>2</sup> detector and Oxford INCA software. Beam conditions during the quantitative analyses were 20 KV, with a working distance of 8.5</li> </ul>

Criteria	JORC Code Explanation	Lucapa Commentary
	bias) and precision have been established.	<ul> <li>mm and an approximate beam current of -20 nA. The counting time was 10 seconds live-time. Pure Co was used periodically to correct for detector drift on the ED detector.</li> <li>Na2O and MnO concentrations in garnet were measured by wavelength dispersive spectrometry using an Oxford Instruments<sup>®</sup> Wave Dispersive X-ray Spectrometer</li> <li>The bulk sample was processed through the Lulo diamond recovery plant using standard processing parameters. The plant was thoroughly cleaned and decontaminated before processing of the sample.</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>	<ul> <li>No verification of samples or twinning has been undertaken, however QA/QC grains were inserted into the mineral sequences for quality control purposes.</li> <li>No verification of the bulk sample is possible due to its nature.</li> </ul>
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>Drill sites are initially located using a handheld GPS with a nominal accuracy of about 5m. The final location was measured using a Trimble Real-Time differential GPS system.</li> <li>The grid system is WGS84 Zone 34L.</li> <li>Loam, stream and pit samples were located using a handheld GPS.</li> <li>The bulk sample pit location and dimensions were measured using a Trimble Real-Time differential GPS system.</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>Drill spacing is variable and dependent on the size of the target being investigated.</li> <li>Sample compositing of mineral chemistry samples is applied to improve representivity.</li> <li>The loam stream and pit samples were located in proximity to magnetic targets, to recover indicator minerals representative of that target.</li> <li>The bulk sample was taken for an early indication of diamond potential and should not be considered as a representative measure of the grade of the deposit as a whole.</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>The samples are considered spot samples within a kimberlitic body.</li> <li>Insufficient data exists to determine whether sample bias is present but given the nature of the bodies, bias is considered unlikely.</li> </ul>

Criteria	JORC Code Explanation	Lucapa Commentary
Sample security	• The measures taken to ensure sample security.	<ul> <li>Security of the drilling and core storage area, processing and diamond recovery is monitored by company and Angolan State Diamond Security personnel.</li> <li>All samples were securely sealed before departure from site and unsealed on arrival at the laboratory. No evidence of tampering was observed.</li> <li>All bulk sample material was escorted to the processing plant by on site security personnel, and was kept under surveillance while awaiting treatment.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>The sampling techniques are industry standard and no audits or reviews have been undertaken to validate the information presented at this stage.</li> <li>Samples were selected using a procedure recommended by an independent consultant specialising in kimberlite sampling.</li> </ul>

## **Reporting of Exploration Results**

Criteria	JORC Code Explanation	Lucapa Commentary
Mineral tenement and land tenure status	<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>The 1994 legislation covering the Angolan diamond industry stipulates that only Endiama (Empresa Nacional de Diamantes de Angola, the State Diamond Company) or joint ventures with Endiama, can hold diamond mining rights awarded by the Council of Ministers.</li> <li>Under the terms of the Lulo Joint Venture Association Agreements, separate titles are granted for alluvial and kimberlite mining. The exploration for both alluvials and kimberlites on the Lulo Concession is a requirement under the Act.</li> <li>The Angolan Government Gazette, dated 24 December 2007, authorized the formation of a Joint Venture for the purpose of prospecting, evaluation and mining of secondary (alluvial) diamond deposits. These rights were granted for a maximum period of five years. Should the Joint Venture wish to extend the agreement beyond five years, then 50% of the Concession would be relinquished. The equity distribution is: Endiama 32%, Lucapa Diamond Company Ltd 40%, Rosas e Petalas S.A. 28%.</li> <li>In May 2014, the authorization for the kimberlite exploration and mining was gazetted and equity distribution in this is Endiama 51%, Lucapa Diamond Company Ltd 39%*, Rosas e Petalas S.A. 19% (*This interest will be reduced to 30%</li> </ul>

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Criteria	JORC Code Explanation	Lucapa Commentary
		<ul> <li>after recoupment of the investment).</li> <li>A new kimberlite licence was awarded by the Angolan Ministry of Mines on 15<sup>th</sup> November 2016; a new Mineral Investment Contract was subsequently gazetted and expires 30 April 2023.</li> <li>The 10-year alluvial mining licence was signed end July 2015 creating "Sociedade Mineira Do Lulo, LDA.", an Angolan incorporated company with which Lucapa Diamond Company Ltd has a 40% beneficial interest. This entity was incorporated in Angola in May 2016.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Limited exploration has been undertaken by state controlled entities and joint ventures Diamang and Condiama.</li> <li>Parts of the area have been exploited by artisanal miners – no records of this work are available.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>Significant diamond bearing alluvial systems, of Mesozoic to Recent ages overlie a major, but relatively poorly explored, kimberlite field. The kimberlite pipes intrude flat-lying Proterozoic sediments within the Lucapa Graben. The kimberlite field is believed to be the source of the alluvial diamonds.</li> </ul>
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 hole length.</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> </li> </ul>	<ul> <li>Drill hole collar information of the new drill holes reported is tabulated as Table 2:</li> <li>Intercept information is not presented here.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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</li> </ul>	<ul> <li>No weighting, averaging, grade truncations or cut-off grades have been used.</li> <li>No short or long length aggregation applicable.</li> <li>No metal equivalent values are used.</li> </ul>

Criteria	JORC Code Explanation	Lucapa Commentary
	<ul> <li>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>	
Relationship between mineralisation widths and intercept lengths	<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 (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>The deposits may be regarded as massive deposits so drill hole orientation is not relevant.</li> <li>The bulk sample is regarded as a spot sample within a bulk deposit so orientation is not relevant.</li> </ul>
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.	<ul> <li>Appropriate map and plans for the reported mineralisation with scale and north points are included with the text of the report.</li> </ul>
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>	• Results reported are complete.
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>	<ul> <li>The drilling at L259 has been planned based on the ground geophysics work undertaken in Dec 2015 and Jan 2016.</li> <li>All other targets have been drilled and sampled based on the aeromagnetic surveys conducted in 2008 and 2013, as well as a TDEM survey carried out in 2017.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. 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>Drilling will continue on the priority targets that have been identified by the company.</li> <li>Core from the ongoing drilling program will be selected for laboratory testing in South Africa for petrographic and heavy mineral analysis, as well as dating, spectrographic analysis and possibly micro diamond analysis.</li> </ul>

Section 3 (Resources) does NOT apply to this announcement

Section 4 (Reserves) does NOT apply to this announcement

Criteria	JORC Code Explanation	Lucapa Commentary
Indicator minerals	<ul> <li>Reports of indicator minerals, such as chemically/physically distinctive garnet, ilmenite, chrome spinel and chrome diopside, should be prepared by a suitably qualified laboratory.</li> </ul>	<ul> <li>Kimberlite core samples were crushed and concentrated by Scientific Services in Cape Town.</li> <li>Indicator grains were selected by Remote Exploration Services and submitted to the Central Analytical Facility (CAF) at the University of Stellenbosch for microprobe analysis.</li> </ul>
Source of diamonds	<ul> <li>Details of the form, shape, size and colour of the diamonds and the nature of the source of diamonds (primary or secondary) including the rock type and geological environment.</li> </ul>	<ul> <li>A single diamond of 2.05 carats was recovered from processing of kimberlite from the bulk sample at L104.</li> <li>Image: Second sec</li></ul>
Sample collection	<ul> <li>Type of sample, whether outcrop, boulders, drill core, reverse circulation drill cuttings, gravel, stream sediment or soil, and purpose (e.g. large diameter drilling to establish stones per unit of volume or bulk samples to establish stone size distribution).</li> <li>Sample size, distribution and representivity.</li> </ul>	<ul> <li>Samples were selected from HQ and PQ diameter core. Between 8 and 20kg of sample were submitted to the laboratory for analysis. Material was collected from throughout the sampled zone to ensure representivity of the sampled interval. The purpose of this sampling is to recover indicator minerals to be analysed for mineral chemistry, which assist in prioritising further work based on diamond association of the minerals.</li> <li>The sample size, distribution and representivity are appropriate for this activity.</li> <li>Loam, stream and pit samples of approximately 30 litres volume were collected for heavy mineral recovery.</li> </ul>
Sample treatment	<ul> <li>Type of facility, treatment rate, and accreditation.</li> <li>Sample size reduction. Bottom screen size, top screen size and re-crush.</li> <li>Processes (dense media separation, grease, X-ray, hand-sorting, etc.).</li> <li>Process efficiency, tailings auditing and granulometry.</li> <li>Laboratory used type of process for micro diamonds and accreditation.</li> </ul>	<ul> <li>Sections of core were selected for petrographic analysis and indicator mineral recovery to represent the major lithologies present at each body.</li> <li>Each petrography sample was marked up and submitted to the laboratory for thin section and polished slab production.</li> <li>Each mineral chemistry sample was a composite of small sections down a hole to fully represent the intercept of the rock being sampled.</li> <li>The mineral chemistry samples were crushed and screened to -2.36mm +0.3mm fractions. The material was</li> </ul>

## Estimation and Reporting of Diamonds and Other Gemstones

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		<ul> <li>passed through tetrabromoethane (TBE) to separate heavy mineral concentrates.</li> <li>The concentrates were split into ~10g splits which were visually picked for kimberlitic indicator minerals (KIM's) to provide unbiased populations of grains for compositional analysis.</li> <li>Representative sets of each KIM species were selected and mounted into epoxy disks for compositional analysis using a Zeiss EVO® MA15 Scanning Electron Microscope.</li> <li>No microdiamond analysis was conducted for these samples</li> <li>The bulk sample was treated through the Lulo production plant. The sample was fed into a scrubber and screened to +1.6mm. The +18mm material was fed to a Tomra XRT unit, and -18mm material fed to a DMS, with the concentrate processed through a Flowsort X-ray recovery unit. All final concentrates were hand sorted for final recovery of diamonds.</li> <li>No tailings audits have been carried out for this sample.</li> </ul>
Carat	• One fifth (0.2) of a gram (often defined as a metric carat or MC).	Reported as carats.
Sample grade	• Sample grade in this section of Table 1 is used in the context of carats per units of	Bulk Sample Result Summary Sample Carats Stones Grade
	mass, area or volume.	Volume Recovered Recovered (cphm <sup>3</sup> )
	<ul> <li>The sample grade above the specified lower cut-off sieve size should be reported as carats per dry metric tonne and/or carats per 100 dry metric tonnes. For alluvial deposits, sample grades quoted in carats per square metre or carats per cubic metre are acceptable if accompanied by a volume to weight basis for calculation.</li> <li>In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive sample grade (carats per tonne).</li> </ul>	614 2.05 1 0.33
Reporting of Exploration Results	<ul> <li>Complete set of sieve data using a standard progression of sieve sizes per facies. Bulk sampling results, global sample grade per facies. Spatial structure analysis and grade distribution. Stone size and number distribution. Sample head feed and tailings particle granulometry.</li> <li>Sample density determination.</li> <li>Per cent concentrate and undersize per sample.</li> <li>Sample grade with change in bottom cutoff screen size.</li> </ul>	<ul> <li>Only one diamond of 2.05 carats was recovered.</li> <li>Diamonds were recovered to a bottom cut-off size of 1.6mm.</li> <li>Sample volume was measured, no density conversion to tonnes has been undertaken.</li> <li>Mass flow was not calculated for the sample.</li> <li>No adjustments have been made to account for plant performance or bottom cut-off size.</li> </ul>

Criteria	JORC Code Explanation	Lucapa Commentary
Grade	<ul> <li>Adjustments made to size distribution for sample plant performance and performance on a commercial scale.</li> <li>If appropriate or employed, geostatistical techniques applied to model stone size, distribution or frequency from size distribution of exploration diamond samples.</li> <li>The weight of diamonds may only be omitted from the report when the diamonds are considered too small to be of commercial significance. This lower cut-off size should be stated.</li> <li>Description of the sample type and the</li> </ul>	<ul> <li>No geostatistical techniques have been employed.</li> <li>No diamond resources are reported</li> </ul>
estimation for reporting Mineral Resources and Ore Reserves	<ul> <li>Description of the sample type and the spatial arrangement of drilling or sampling designed for grade estimation.</li> <li>The sample crush size and its relationship to that achievable in a commercial treatment plant.</li> <li>Total number of diamonds greater than the specified and reported lower cut-off sieve size.</li> <li>Total weight of diamonds greater than the specified and reported lower cut-off sieve size.</li> <li>The sample grade above the specified lower cut-off sieve size.</li> </ul>	<ul> <li>No diamond resources are reported.</li> <li>No diamond reserves are reported.</li> </ul>
Value estimation	<ul> <li>Valuations should not be reported for samples of diamonds processed using total liberation method, which is commonly used for processing exploration samples.</li> <li>To the extent that such information is not deemed commercially sensitive, Public Reports should include: <ul> <li>diamonds quantities by appropriate screen size per facies or depth.</li> <li>details of parcel valued.</li> <li>number of stones, carats, lower size cut-off per facies or depth.</li> </ul> </li> <li>The average \$/carat and \$/tonne value at the selected bottom cut-off should be reported in US Dollars. The value per carat is of critical importance in demonstrating project value.</li> <li>The basis for the price (e.g. dealer buying price, dealer selling price, etc.).</li> <li>An assessment of diamond breakage.</li> </ul>	No diamond value estimates are reported.
Security and integrity	<ul> <li>Accredited process audit.</li> <li>Whether samples were sealed after excavation.</li> <li>Valuer location, escort, delivery, cleaning losses, reconciliation with recorded sample carats and number of stones.</li> <li>Core samples washed prior to treatment for micro diamonds.</li> <li>Audit samples treated at alternative facility.</li> </ul>	<ul> <li>There has been no accredited process audit.</li> <li>Samples were sealed in the presence of mine security personnel and Angolan State diamond security personnel.</li> <li>Diamond recovered by the bulk sampling was subject to normal production security protocols.</li> <li>Microdiamonds were not processed.</li> <li>No audit samples were collected because</li> </ul>

Criteria	JORC Code Explanation	Lucapa Commentary
	<ul> <li>Results of tailings checks.</li> <li>Recovery of tracer monitors used in sampling and treatment.</li> <li>Geophysical (logged) density and particle density.</li> <li>Cross validation of sample weights, wet and dry, with hole volume and density, moisture factor.</li> </ul>	<ul> <li>of the nature of the samples.</li> <li>Tailings have not been checked for diamonds or indicators.</li> <li>No tracer monitoring was undertaken, but standard grains were used to check the analysis.</li> <li>Geophysical densities were not determined.</li> <li>Cross validation of weights with hole volume and density is not considered appropriate for the stage of exploration.</li> </ul>
Classification	<ul> <li>In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive grade (carats per tonne). The elements of uncertainty in these estimates should be considered, and classification developed accordingly.</li> </ul>	• No resource is classified in this report.

# Table 2: Kimberlite Drilling Project - Drill Collar and Sample Details

Hole_ID	Drilling Type	Easting	Northing	Azi	Dip	Max depth	Sample_ID	From	То
HJ/050/08	Core	263,915	8,933,933	0	-90	100	MC05-01	0	34
HJ/050/08	Core	263,915	8,933,933	0	-90	100	MC05-02	38.22	54.64
HJ/050/08	Core	263,915	8,933,933	0	-90	100	MC05-03	57.06	98.95
RS/008/02	Core	261,496	8,933,397	0	0	79	MC05-04	13.15	31.51
RS/008/02	Core	261,496	8,933,397	0	0	79	MC05-05	37.12	78.83
HJ/048/02	Core	265,502	8,934,200	0	-90	213.84	MC05-06	14.15	26
HJ/048/02	Core	265,502	8,934,200	0	-90	213.84	MC05-07	36.84	67.47
HJ/048/02	Core	265,502	8,934,200	0	-90	213.84	MC05-08	76.23	109.28
HJ/048/02	Core	265,502	8,934,200	0	-90	213.84	MC05-09	114.84	146.66
HJ/048/02	Core	265,502	8,934,200	0	-90	213.84	MC05-10	147.48	175.32
HJ/048/02	Core	265,502	8,934,200	0	-90	213.84	MC05-11	193.23	212.95
HJ/050/09	Core	262,805	8,932,681	0	-90	102.89	MC05-12	12.89	15.89
HJ/050/09	Core	262,805	8,932,681	0	-90	102.89	MC05-13	52.63	82.68
RS/204/03	Core	286,658	8,920,989	0	-90	101	MC06-01	79.34	88.75
HJ/103/02	Core	269,668	8,927,546	273.25	-60	105.54	MC06-02	63.24	92.15
HJ/103/02	Core	269,668	8,927,546	273.25	-60	105.54	MC06-03	14.04	100.07
HJ/054/01	Core	267,195	8,929,551	0	-90	102.74	MC06-04	53.53	75.55
HJ/104/02	Core	269,323	8,926,894	0	-90	195.79	MC06-05	24.89	182.81
HJ/052/02	Core	265,394	8,930,423	0	-90	96.94	MC06-06	36.49	74.58
HJ/232/02	Core	267,508	8,927,326	0	-90	144.84	MC06-07	21.25	89.03
RS/256/01	Core	262,748	8,934,869	0	-90	101.5	MC06-08	24	79
HJ/047/04	Core	265,847	8,933,287	152	-60	57.6	MC06-09	20	46.17