



LARGE KIMBERLITIC SIGNATURE DEFINED AT L259

- Gravity survey confirms a well-defined 110 hectare kimberlitic signature at the high-priority L259 directly beneath Mining Block 8 where Lucapa has been recovering large and valuable alluvial diamonds

HIGHLIGHTS

- Gravity survey results from the high-priority L259 kimberlite at Lulo have identified a large and well-defined kimberlitic signature which covers a known area of 110 hectares (~1.1km²) and remains open to the south-west
- The L259 kimberlitic signature subcrops directly beneath the Mining Block 8 area and is adjacent to Mining Block 6 where Lucapa has already recovered a combined total of 72 large special diamonds of up to 133 carats
- Gravity survey being extended to the south-west to fully define the extent of the L259 kimberlitic signature
- Ground-based electromagnetic (EM) survey ongoing at L259 to assist in modelling the signature geology – results and interpretation expected in February 2016
- Drill rig due to arrive in Angola in February 2016. Once on site, this rig will commence drilling the outer rim of L259 to identify any near-surface kimberlite material which may be suitable for bulk sampling to determine diamond content

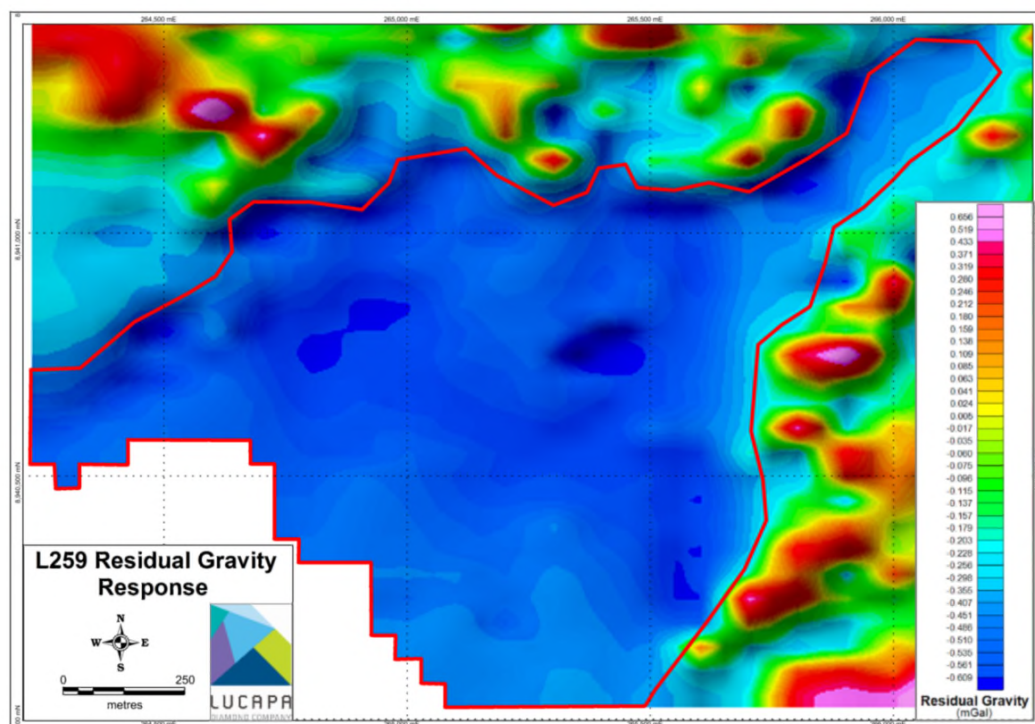


Figure 1: Residual gravity contour map, in mGal, showing well-defined kimberlitic signature outlined in red at the high-priority L259

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Lucapa Diamond Company Limited (ASX: **LOM**) (“Lucapa” or “the Company”) is pleased to announce the results of the gravity survey carried out at the high-priority L259 kimberlite at the Lulo Diamond Project in Angola (See ASX announcement 23 November 2015) (Figure 1).

The gravity survey has successfully identified a large and well-defined kimberlitic signature which covers a known area of approximately 110 hectares (1.1km²) and appears to extend beyond the survey grid boundaries to the south-west (Figures 1 and 2).

Significantly, the kimberlitic signature defined in the gravity survey envelops most of Mining Block 8 and is adjacent to Mining Block 6, where Lucapa and its partners have been recovering large and valuable alluvial diamonds on a regular basis (Figure 2). To date, Mining Blocks 8 and 6 have produced 72 special diamonds (individual stones weighing >10.8 carats) from mining and exploration activities, including a 133 carat compound diamond and a 131 carat D-colour Type IIa gem.

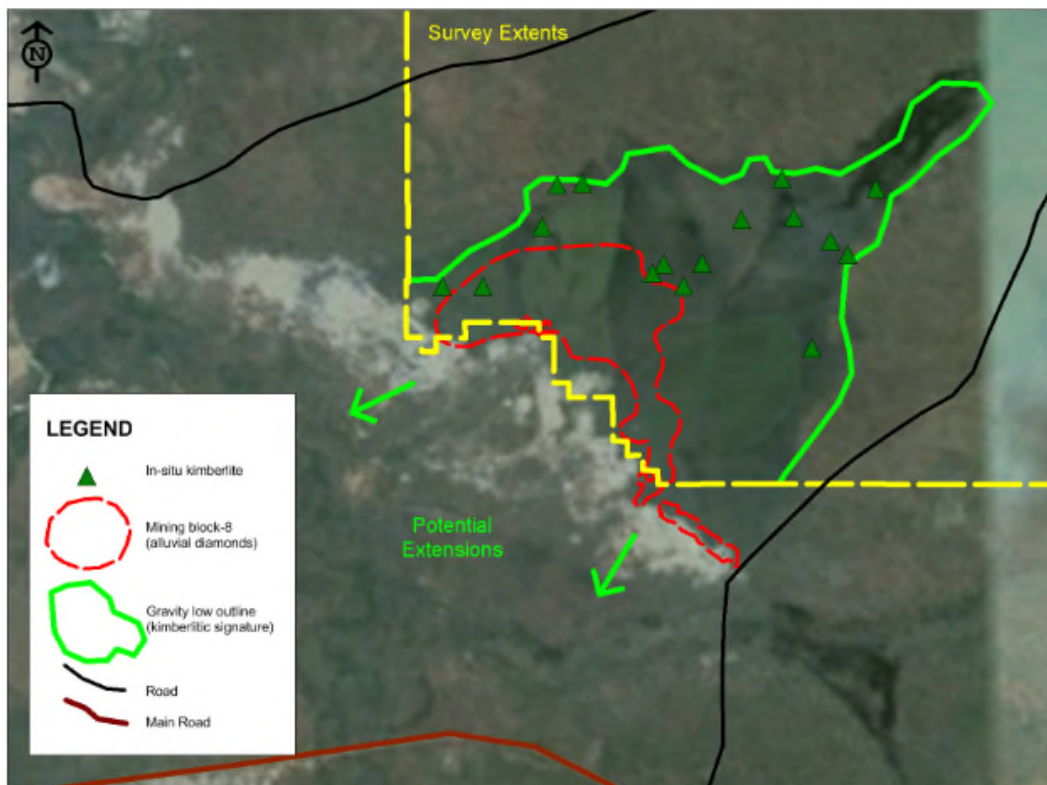


Figure 2: Gravity survey area over L259 in relation to Mining Block 8

Lucapa Chief Executive Stephen Wetherall said the gravity survey results provided further evidence that L259 could be the primary kimberlitic source of the alluvial diamonds from Mining Block 8 - and possibly also those slightly downstream at Mining Block 6, which has in recent weeks produced a number of large special diamonds of up to 133 carats (See ASX announcement 22 January 2016).

This view is supported by the large and angular shape of the diamonds being recovered, larger average stone size recoveries and the concentration of kimberlite indicator minerals being recovered from the area.

Mr Wetherall said: “We are extremely pleased with these gravity results, which build on the kimberlite pitting program carried out earlier resulting in L259 being elevated to our highest priority kimberlite target. It is significant that the pits we recovered kimberlite material from in that pitting program sit within the L259 kimberlitic signature defined by the gravity survey.”

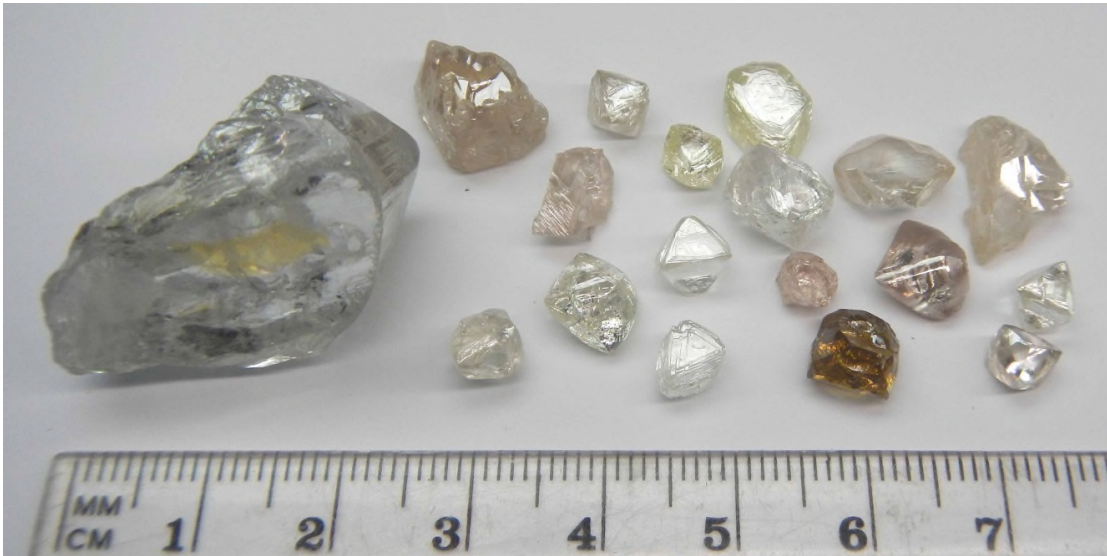
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“The gravity results indicate that a kimberlitic signature is situated right under Mining Block 8 and so far covers an extensive area of 110 hectares. We will now extend the gravity survey to fully define the boundaries of L259 to the south-west and complete the EM survey work this month to assist us in modelling the geology of this large kimberlitic structure.”

Mr Wetherall confirmed the multi-purpose drill rig which Lucapa acquired in late 2015 was scheduled to arrive in Angola in early February 2016.

“As soon as the drill rig arrives on site we can start drilling the outer edges of L259. This drilling will be designed to model the shallow geology and identify any near-surface kimberlite material which could be separately bulk sampled and processed through our diamond plant to test for diamond content.”

As set out in the ASX announcement of 23 November 2015, Lucapa intends to complete gravity and EM surveys at the L13 and L15 kimberlites, which are also near Mining Block 8. However, given the positive gravity results received from L259, follow up work at this kimberlite will take priority.



Selection of Mining Block 8 diamonds included in January 2016 sale parcel that achieved an overall average sale price of A\$2,360 per carat

L259 Gravity Survey - Technical Analysis

The geophysical surveys at L259 were undertaken to assist in defining the extent of the kimberlite deposits found in pits within and to the north and east of Mining Block 8 (Figure 2). The area of the pits showed no significant magnetic signature when the original aeromagnetic surveys were flown over the Lulo project area in 2008 and 2013. Therefore, gravity and EM surveys were commissioned as the most effective survey methods to assist in identifying and defining the areal and depth extent of the body. The possibility of the deposits being transported from nearby magnetic kimberlites at L13, L15 and the E217 magnetic target was considered, so the survey was designed to assist in determining the likelihood of this being the case.

The previous pitting had shown that surficial alluvial deposits made up of clay, sand and gravel covered subcropping bedrock to a depth of 6-9 metres. However, a number of the pits could not be excavated deep enough to intersect the bedrock. Where bedrock was intersected it was observed to be either sandy re-sedimented volcanoclastic kimberlite (SRVK) or a sandstone/shale package that had been interpreted to be of Karoo age.

The gravity survey was carried out using a Scintrex Gravimeter, with elevations measured using a Trimble real-time kinetic differential GPS. Lines were surveyed in a north/ south direction with a 50m station spacing and a 100m line spacing. A total of 1,522 measurements have been recorded to date. An area in the south-west of the survey area has not yet been surveyed due to the presence of historic artisanal (garimpeiro) diggings having disturbed the area making access difficult.

A final Bouguer correction was applied to account for the density of the background geology. This correction relies on an estimate of the density of the background geology. Where this density is unknown, a series of corrections is applied assuming varying densities from 1.5 to 2.2 g/cm³. The data is gridded and then compared to the digital terrain model, and the estimate with the lowest correlation to the elevation model is selected. For this survey, a background density of 1.9 g/cm³ was selected as the most appropriate. In addition to this, a de-trending algorithm was applied to highlight the most anomalous data.

A large gravity low is observable in the data, which almost matches the outline of a large swamp area. It also matches an area of pitting that had previously undertaken where sandy re-sedimented volcanoclastic kimberlite (SVRK) and bedrock sandstone/ shale units have been intersected.

In order to confirm that the gravity low is caused by a significant change in geology, rather than an effect of low density surface material, the data was modelled by consulting geophysical contractors using a 2D data inversion algorithm. Two models - firstly with a density contrast of 1.0 g/cm³ over a 10m vertical thickness and a second model with a density contrast of 0.3 g/cm³ over a 35m vertical thickness - were applied to discount surface effects. The 1.0g/cm³ model is considered to be unlikely due to the extremely low density of the target lithology required to generate this model.

The edges of the gravity low are relatively sharp, indicating a sharp contact between the two different geologies. This is typical of a volcanic pipe contact, but in theory could also be caused by a faulted contact. However, to generate the observed gravity response, a body of sharply contrasting density, or great thickness would need to be brought in immediate contact through the fault. Given the known background geology of the area this is thought to be a possible but unlikely scenario.

The gravity anomaly identified in this survey is interpreted to be as a result of the presence of a large (~110ha) kimberlitic body. The gravity survey will be extended to the south and west to determine the full extent of the signature, while completion of an EM survey will help further define the extent, and possibly the internal geology of the body. Follow up drilling will commence with the arrival of the purpose-ordered drill rig which is scheduled to arrive in Angola in early February 2016.

For and behalf of the Board.

STEPHEN WETHERALL
CHIEF EXECUTIVE OFFICER

Competent Person's Statement

The information reported is based on and fairly represents information and supporting documentation prepared and compiled by Albert Thamm MSc F.Aus.IMM (CP), who is a Corporate Member of the Australasian Institute of Mining and Metallurgy. Mr. Thamm is a Director of Lucapa Diamond Company Limited. Mr. Thamm 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. Thamm 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 this announcement contains references to prior exploration results and Mineral Resource estimates, which have been included in previous market announcements made by the Company, unless explicitly stated, no new information is contained. Other than the gravity results, no other new information is stated. The Company confirms that it is not aware of any new information or data that materially affects the information included in the prior 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

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Appendix 1 General site and reference map



**Appendix 2
Lucapa Gravity Survey
JORC Code, 2012 Edition
Table 1**

**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"> • <i>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.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • This result is the outcome of a geophysical survey, no drilling or related sampling applies. • The current survey is 2.8 km x 1.4 km in size • The survey is an industry standard microgravity survey. • Data generated is measurements designed to determine regional gravity anomalies. • No mineralisation is reported.
Drilling techniques	<ul style="list-style-type: none"> • <i>Drill type (e.g. core, reverse circulation, open-hole 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.).</i> 	<ul style="list-style-type: none"> • No drilling is applicable to this result.
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Drill sample recovery does not apply to this geophysical method.
Logging	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • This gravity geophysical method does not involve the logging of core or chip samples. • Data logging is quantitative in nature. • Total length is not an applicable concept.

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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> • Sub-sampling is not an applicable concept to this type of geophysical survey. • No samples are generated.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> • The method could be considered total. • The geophysical instrument used in the survey was a Scintrex CG5 Autograv. • Standards, blanks, duplicates, external laboratory checks are not applicable concepts. • Reading repeatability, drift, standard deviations, instrument levelling and GPS quality are all closely monitored during the survey.
Verification of sampling and assaying	<ul style="list-style-type: none"> • The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> • The survey was undertaken by independent contractors under the direction of consulting geologists. • Twinning is not an applicable concept. • Processing was carried out using Oasis Montaj's (Geosoft™) gravity processing module. • One main base station and 3 sub-base stations were used for the defined grid. • The data were tide, drift, elevation, free air and latitude corrected and also Bouguer corrected. • Bouguer corrections were done for densities from 1.5 g/cc to 2.8 g/cc, and the density with least correlation with topography selected.

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Criteria	JORC Code explanation	Commentary
Location of data points	<ul style="list-style-type: none"> • Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> • Survey and data location was established using a differential GPS (DGPS) is a Trimble 5700 RTK instrument with base and rover. • Data is geocoded and recorded in projection WGS 84, Zone 34 South. • Topographic control is established during such an RTK DGPS survey.
Data spacing and distribution	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied. 	<ul style="list-style-type: none"> • The data were collected at 100m line spacing and 50m station spacing on a regular grid. Line direction was North-South.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> • The dataset is generated on the surface, above outcrop and sub-cropping geology.
Sample security	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • Not an applicable concept applied to geophysical data.
Audits or reviews	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • The data and interpretation was reviewed by two separate CP's.

Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> • Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> • 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. • 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. • The Angolan Government Gazette, dated 24 December 2007, authorized the formation of a Joint Venture for the exercise of prospecting, evaluation and mining of secondary (alluvial) diamond deposits.

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		<p>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%</p> <ul style="list-style-type: none"> • In May 2014, the authorization for the kimberlite exploration and mining was gazetted. The equity distribution is: ENDIAMA 51%, Lucapa Diamond Company Ltd 39%*, Rosas e Petalas S.A. 19% (*this interest will be reduced to 30% after recoupment of the investment.). • The Joint Ventures Alluvial licence was extended for two years to 25 May 2016. The application to extend Kimberlite Licence for two years until 25 May 2016 was also granted to the concession by the Angolan Ministry of Mines. A new 10 year alluvial mining licence was signed end July 2015 creating "Sociedade Mineira Do Lulo, LDA.", an Angolan company in which Lucapa Diamond Company Ltd will have a 40% beneficial interest.
Exploration done by other parties	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> • Limited exploration has been undertaken by state controlled entities. • Parts of the area have been exploited by artisanal miners – no records of this work are available.
Geology	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • 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.
Drill hole Information	<ul style="list-style-type: none"> • <i>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:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> 	<ul style="list-style-type: none"> • No Drillhole information applies.

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	<ul style="list-style-type: none"> ○ hole length. • 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. 	
Data aggregation methods	<ul style="list-style-type: none"> • 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. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> • Weighting averaging techniques, maximum and/or minimum grade truncations are not applicable concepts. • No aggregate intercepts are used in this technique. • Metal equivalents are not an applied concept to this data.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> • This is not an applicable concept to gravity exploration results.
Diagrams	<ul style="list-style-type: none"> • 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 style="list-style-type: none"> • Diagrams are included in the body of the text.
Balanced reporting	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • The gravity result over kimberlite target L259 is reported as complete. • A free-air gravity anomaly, called the free-air anomaly, is the measured gravity anomaly after a free-air correction is applied to correct for the elevation at which a measurement is made. The reference level is commonly taken as the mean sea level. • The Bouguer anomaly is a gravity anomaly, corrected for the elevation at which it is measured and the attraction of surrounding terrain. • Residual gravity is the portion of a gravity effect remaining after removal of a regional trend.

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Other substantive exploration data	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> Airborne techniques initially used to define kimberlite targets, followed up with pitting, trenching and limited drilling to confirm kimberlite intrusion through Karoo age basement sediments.
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <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> 	<ul style="list-style-type: none"> Ground based electromagnetic survey to test same area, to confirm gravity result and sub-cropping geology as encountered during grade control pitting. Diagrams are included in the text.