

15 October 2020

# 280% INCREASE IN MOTHAE INDICATED DIAMOND RESOURCE

### HIGHLIGHTS

- JORC classified Indicated and Inferred Diamond Resource estimate:
  - o Combined dry tonnes increased by 9.6Mt to 48.5Mt
  - Combined carats increased by ~200,000 to ~1.2 million carats
  - o Combined dry grade of 2.57 cpht
- Indicated Diamond Resource estimate extended down to 75m below current pit bottom in the South Lobe:
  - Indicated dry tonnes increased by 6.8Mt to 9.2Mt (~280%) after accounting for 1.5Mt of depletion
  - o Indicated carats increased by ~210,000 carats to ~280,000 carats
  - Indicated dry grade increased to 3.10 cpht
  - o Indicated modelled diamond value updated to US\$635 per carat

### Resource update based on actual diamond recoveries from mining and treatment through the new 1.1Mtpa commercial plant

Lucapa Diamond Company Limited (ASX: **LOM**) ("Lucapa" or "the Company") and its partner, the Government of the Kingdom of Lesotho ("GoL"), are pleased to announce an updated JORC classified Indicated and Inferred Diamond Resource estimate ("Resource") for the Mothae kimberlite diamond mine in Lesotho, southern Africa ("Mothae" or "the Mine").

A total JORC classified Indicated Resource has been estimated for **9.2 million tonnes ("Mt"),** containing ~280,000 carats of diamonds at a diamond grade of 3.10 carats per one hundred tonnes ("cpht") and an average un-escalated modelled diamond value of US\$635 per carat. This Indicated Resource has been estimated to 75m depth below the current pit floor in the South Lobe at a nominal 3mm bottom cut-off size ("BCOS") – Refer Table 1 and Figure 1.

In addition, a total JORC classified Inferred Resource has been estimated for **39.4Mt, containing** ~960,000 carats of diamonds at a diamond grade of **2.44** cpht and an average un-escalated modelled diamond value of US\$601 per carat. This Inferred Resource has been estimated from below the Indicated Resource to 300m below surface, at a nominal 3mm BCOS – Refer Table 1 and Figure 1.

Lucapa Managing Director Stephen Wetherall commented "The updated Mothae Resource is the result of significant work undertaken to increase the resource and classification at Mothae following almost 16 months of mining and treatment through the new commercial plant."

"The increase in tonnes and carats, the classification of 9.2Mt or ~280,000 carats into indicated resource category at an estimated diamond value of US\$635 per carat strongly supports an expansion in production at Mothae that the partners are considering."

MOTHAE JORC CLASSIFIED DIAMOND RESOURCE – 30 September 2020						
	To 300m below surface; 3mm BCOS (including incidentals)					
Resource Domain		Resource Classification	Dry Tonnes (Mt)	Dry Grade (cpht)	Average Modelled Value (US\$ per carat)	Total Resource (M carats)
South West		Indicated	5.80	2.60	748	0.15
South Centr	e	Indicated	1.61	3.90	649	0.06
South East		Indicated	1.74	4.00	377	0.07
		Sub-total	9.16	3.10	635	0.28
South West		Inferred	14.81	2.60	748	0.38
South Centr	re	Inferred	2.74	3.90	649	0.11
South East		Inferred	4.75	4.00	377	0.19
Neck		Inferred	10.62	1.30	584	0.14
North		Inferred	6.42	2.20	485	0.14
		Sub-total	39.35	2.44	601	0.96
Total 48.51 2.57 609 1.24			1.24			
Notes:	(i) (ii) (iii) (iv) (v) (v) (vi)	Table contains rounded figures The grade and average modelled value estimates are quoted at a 3mm BCOS and include incidental diamond recoveries in the +9 and +11 DTC sieves ("incidentals") The Resource estimate was originally reported in accordance with JORC 2012 guidelines on March 2017 at a 2mm BCOS The Indicated Resource contains material to 75m below current pit bottom in the South Lobe only. The Inferred Resource contains the remaining material to 300m below surface in the South, Neck and North lobes The tonnes and grades are quoted as dry tonnes and dry grades Exploration target exists from a depth of 300m to 500m below surface				

Table 1: Inferred and Indicated kimberlite Resource at 30 September 2020

The Mothae kimberlite does extend beyond 300m and has been modelled to a total depth of 500m below surface. This exploration target has not been included in the JORC classified Resource.



Figure 1: Mothae Resource by classification (left) and geological domain (right)

The Resource has been updated using additional information from mining and treatment of material from the South, North and Neck lobes between November 2018 and March 2020 and takes into account ~1.5Mt of depletion.

The increase in dry tonnes in the Resource over the previous estimate is primarily due to the results of sampling of the Neck domain allowing inclusion into the Inferred Resource category.

The change in average modelled diamond values takes into account changes in the diamond market, change in BCOS and inclusion of incidental diamond recoveries.

The updated resource model has been based on an unaltered lithological model, as the information gathered to date indicates that the original model remains robust.

An updated kriged density model has been developed by Z Star Mineral Resource Consultants (Pty) Ltd, based on core dry density measurements validated by bulk density calculated from production information.

A comparison of changes between the 2017 resource previously announced and the update resource is presented in the table below:

2017 MINERAL RESOURCE (2mm BCOS)					
Resource Classification		Dry Tonnes (Mt)	Dry Grade (cpht)	Average Modelled Value (US\$ per carat)	Total Resource (M carats)
Indicated		2.39	3.00	1,196	0.07
Inferred		36.57	2.70	1,053	0.97
TOTAL		38.96	2.70	1,063	1.04
	202	O MINERAL RE	SOURCE (3mm B	COS & INCIDENTAL	S)
Resource Classification		Dry Tonnes (Mt)	Dry Grade (cpht)	Average Modelled Value (US\$ per carat)	Total Resource (M carats)
Indicated		9.16	3.10	635	0.28
Inferred		39.35	2.44	601	0.96
TOTAL		48.51	2.57	609	1.24
DIFFERENCE BETWEEN 2020 AND 2017 MINERAL RESOURCES					
Resource Classification		Dry Tonnes (Mt)	Dry Grade (cpht)	Average Modelled Value (US\$ per carat)	Total Resource (M carats)
Indicated		6.77	0.10	-561	0.21
Inferred		2.78	-0.26	-452	-0.01
TOTAL		9.55	-0.13	-454	0.20
Notes:	(i)       Change in tonnage is largely due to inclusion of the Neck domain         (ii)       Change in grade is largely due to changes in the BCOS and incidentals         (iii)       Change in average modelled diamond values is due to changes in the diamond market, change in BCOS and inclusion of incidentals				

Table 2: Comparison of 2020 Mineral Resource update with 2017 Mineral Resource

Authorised by the Lucapa Board.

#### STEPHEN WETHERALL MANAGING DIRECTOR

#### **ABOUT LUCAPA**

Lucapa is a niche diamond producer with high-value mines in Angola (Lulo) and Lesotho (Mothae).

The Lulo alluvial mine and Mothae kimberlite mine both produce large and high-value diamonds, with >75% of revenues generated from the recovery of +4.8 carat stones.

Lulo has produced 15 +100 carat diamonds to date and is one of the highest average US\$ per carat alluvial diamond producers in the world. Lucapa and its *Project Lulo* partners have also received highly encouraging results from their search to discover the primary hard-rock source of the high-value Lulo alluvial diamonds.

The 1.1Mtpa Mothae kimberlite mine in diamond-rich Lesotho commenced commercial mining and processing operations in January 2019. It produced > 30,000 carats in its first year of production, including 3 +100 carat diamonds.

Lucapa's Board and management team have decades of 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. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this announcement.

This announcement is for information purposes only. Neither this document nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction.

This announcement may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in such jurisdiction. Recipients should inform themselves of the restrictions that apply in their own jurisdiction. A failure to do so may result in a violation of securities laws in such jurisdiction.

This document does not constitute investment advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this representation are not intended to represent recommendations of particular investments to particular persons.

Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments.

No responsibility for any errors or omissions from this document arising out of negligence or otherwise is accepted. This document does include forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of the Company. Actual values, results, outcomes or events may be materially different to those expressed or implied in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements. Any forward-looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and ASX Listing Rules, the Company does not undertake any obligation to update or revise any information.

## Appendix 1

Depleted, Classified Kimberlite Resource as at 30 September 2020
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 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>	The diamond data used in this resource estimate is based on recoveries from mining production data derived for the period from 19 November 2018 to 24 March 2020.In total 1,524,000 wet tonnes were treated 
Drilling techniques	<ul> <li>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.).</li> </ul>	The core drilling campaigns of the five geological domains of the Mothae kimberlite were conducted in 2008/2009 and 2011/2012 and used to define the lithological model on which all other models are based. Altogether, 43 holes were completed for a total drilled length of 8,085 m. All drilling was undertaken by RDS using Boart Longyear LF90D core rigs and standard tubes. During 2008 and 2009, all drill holes commenced with HQ diameter and telescoped down to NQ diameter when stable unweathered ground was intersected. During 2011 and 2012, selected holes commenced with PQ diameter to provide samples for ore dressing studies after which holes telescoped down through HQ to NQ.
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</li> </ul>	Core run lengths were measured and recorded to provide a complete record of core return. Core was sampled and used for heavy mineral analysis to assist in interpretation of the geological model. Core was also sampled for density measurements.

Criteria	JORC Code Explanation	Lucapa Commentary
	preferential loss/gain of fine/coarse material.	PQ, HQ and NQ core sizes were used to optimise sample recovery.
		Drill core was not used for diamond grade estimation; hence no bias exists between core recovery and diamond grade.
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>Drill core was geologically logged in two stages: primary field logging and secondary interpretive logging. Primary logging recorded the depth of all kimberlite-wall rock contacts and preliminary subdivision of kimberlite into codes based on textural and component variations such as: <ul> <li>a visual estimate of the total olivine and olivine macrocryst content, and the sizes of the five largest olivine crystals</li> <li>the type of magma clasts, specifically the relative proportion of cored and uncored varieties, and the maximum magma clast size</li> <li>size and number of country rock xenoliths (measured over 1 m interval)</li> <li>KIM abundance counts over a ±3 cm by 20 cm area.</li> </ul> </li> <li>Secondary interpretive logging involved verifying the kimberlite-wall rock contacts, internal subdivisions and model codes assigned during the primary logging. The nature of and variations in rock texture and components were assessed to establish the major kimberlite types and the variability within them. The internal subdivisions derived from this stage of logging were then composited into geological domains based on their lithological characteristics and spatial distribution for the purpose of geological modelling.</li> </ul>
Sub-sampling	• If core, whether cut or sawn and whether	No diamond grades were determined from
techniques and	quarter, half or all core taken.	drilling.
sumple preparation	<ul> <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</li> </ul>	Data used in the estimation was selected from production days where ore from only one domain was treated. Production data where ore was treated from multiple domains was excluded from the grade analysis.
	<ul> <li>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> </ul>	The treated material was processed using the standard production flowsheet. The scale of the production analysed can be expected to ensure that the data is representative of the in-situ material.

Criteria	JORC Code Explanation	Lucapa Commentary
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	No duplicate samples were collected or deemed necessary
		Mothae kimberlite has a low average grade (<5 cpht) and a relatively coarse diamond size population. The excavated mass (1,524,000 t) is considered to be sufficient for resource estimation.
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 bias) and precision have been established.</li> </ul>	The material used to generate the data for the resource estimation was treated using the standard production flowsheet, and is therefore representative of recoveries that can be expected in the future, as no significant changes to the production flowsheet are anticipated. No specific QC processes were required for the level of sampling undertaken, other than normal data integrity checks. Due to the scale of the sampling, no sampling bias would be expected.
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>	No specific QC processes were required for the level of sampling undertaken, other than normal data integrity checks. No twinning of holes is appropriate. Data entry was undertaken using the site production management systems. Security protocols ensure all diamond recoveries are thoroughly validated and audited
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>	Mining locations are recorded daily using a Garmin handheld GPS. Monthly pit surface surveys are undertaken using a Differential GPS survey system, and quarterly LIDAR surveys are undertaken to map the pit surface. The grid system used is UTM Zone 35S with WGS84 Datum. The DGPS and LIDAR survey systems used have adequate topographic accuracy.
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>	The spatial distribution of the mining data used for this resource estimate covers almost the entire surface area of the pipe. The quantity and quality of data generated on the Project are of a high standard and appropriate for the declaration of an Indicated and Inferred Diamond Resource. The diamond content of the South Lobe domains below (>±20 m) the currently mined depth is reasonably constrained by documenting lithological and mineralogical continuity in the cored holes, with volumetrically minor exceptions, the geology

Criteria	JORC Code Explanation	Lucapa Commentary
		and kimberlitic indicator minerals (KIM) data do not provide evidence for variation at depth beyond what is evident at surface. Data has been composited within geological domains, where that data has been wholly derived from material within that domain.
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>	Data interpretation was conducted on a geological domain basis. Lithological and mineralogical characteristics in holes confirm the vertical continuity of the individual domains. A sub-vertical to vertical (as opposed to horizontal geological and grade homogeneity is a common feature in many kimberlites; Hence no drill- or sampling related bias is to be expected.
Sample security	• The measures taken to ensure sample security.	Normal diamond security protocols are in place to ensure diamond recovery integrity.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits of tails have been undertaken. Regular reviews of diamond size frequency are undertaken to ensure the integrity of the treatment process.

# 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>	A Mining Lease ("ML"; number 001-16/17) for the Mothae kimberlite in the Lesotho highlands is valid until 28 January 2027 and renewable for a further 10 years; The Mining Lease is held 100% by Mothae Diamonds Pty Limited (MDL). Lucapa holds a 70% interest in MDL and the remaining 30% is held by the GoL. A 5% royalty is payable to the GoL and is based upon the gross revenue receivable at the mine gate and, in the case of diamond projects, is negotiable;
		There is no crop farming at the altitude of 2,900m and the vegetation types are classified as 'Least Threatened' but are 'Poorly Protected'. Surface rights have been ceded to the ML holder. Sheep grazing occurs. Lucapa is not aware of any impediments that
		could negatively affect the security of tenure other than as previously announced.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	The most recent phase of prospecting was initiated by Motapa in 2006 which entered into an option agreement with Lucara to secure funding for a bulk sampling and core drilling programme in 2007. Lucara subsequently acquired Motapa. In January 2017 Lucara chose not to advance the Mothae project and returned the lease to the Government of Lesotho.
		Lucapa was awarded the Mothae Project through an international tender process run by the GoL following Lucara's withdrawal from the Project.

Criteria	JORC Code Explanation	Lucapa Commentary
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	The Mothae kimberlite is a diatreme which was the feeder to a now eroded volcano. Kimberlite is the main source of diamonds. Karoo basalt is the country rock. The pipe is made up of three main lobes. The South lobe is currently the one of most economic interest and consists of 3 sub-domains (South- West, South-Centre and South-East), which were defined on visual geological characteristics and interpretation of kimberlitic indicator chemistry. Each of these domains has distinct grade and diamond assortment characteristics. The North lobe is linked to the South lobe by a Neck zone which at surface is diluted by country
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>	No new drill hole information is presented here. The majority of the holes were drilled inclined to determine the contact between kimberlite and basalt country rock and the intersections were used to delineate the shape of the kimberlite and to construct the geological model; A total of 8,085 m were drilled in 43 holes during the two drill campaigns in 2008/2009 and 2011/2012. Details of the drilling and geological interpretation were released in the Competent Persons report announced on 23 October 2017.
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 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>	Diamond grades were determined from the mining production data while the drill holes provided spatial information. Lithological and mineralogical characteristics were used to define five geological domains and delineate them at depth. Diamond grades were determined from the treatment of a total of 1,524,000 wet tonnes processed from each of the five geological domains. Grades were determined for each day of production and the results used for the grade estimation of each domain. No metal equivalent values were used.
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>	Intercept lengths are not applicable to mining production samples. Drill holes were used to delineate the geometry of the kimberlite and demonstrate geological continuity. They were not used to determine diamond mineralisation.

Criteria	JORC Code Explanation	Lucapa Commentary
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.	Maps are included in Appendix 2.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Diamond grades and revenues are reported for each of the five geological domains.
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>	Ground geophysics was conducted and all three methods used (magnetic, gravity and EM) were effective in defining the pipe margins; The magnetic survey was also effective in discriminating most of the internal pipe geology; Total liberation (microdiamonds) has been conducted on two samples. Geotechnical studies, including examining the contact characteristics of kimberlite with the basalt country rock and detailing rock hardness and joint patterns within the basalt have been conducted.
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>	Further analysis of the production data, including detailed diamond size frequency analysis will be undertaken as production continues.

## **Estimation and Reporting of Mineral Resources**

Criteria	JORC Code explanation	Lucapa 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>	Z Star Mineral Resource Consultants (Pty) Ltd ("Z Star") reviewed the data for the Diamond Resource estimation. The data on which the resource estimate has been based has been reviewed by Z Star and found to have been carried out according to best practice principles, excluding data where appropriate, and following a strict protocol.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	The Competent Person has visited the site on a regular basis as part of normal management responsibilities.
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> </ul>	The geological model is well constrained by drill holes. Mineralogical and lithological data from the drill holes were used to delineate individual geological domains which were then assigned at depth with the grades from the bulk samples from the same domains.

Criteria	JORC Code explanation	Lucapa Commentary	
	<ul> <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>	Geological characteristics were used exclusively to identify and delineate the 5 domains which were then assigned the diamond grades established from the near surface bulk samples collected from these domains. Geological continuity of the individual domains is adoquately domonstrated	
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The South lobe which makes up the majority of the mineral resource is a roughly circular body covering approximately 5 ha. This body has been drilled to a maximum depth of approximately 600 m and modelled to 500 m below surface. The neck and north lobes are more linear in nature and have a maximum width of approximately 110m and a combined length of approximately 380m. (See Figures 1 and 2)	
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 (e.g. 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> <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>	The geological model is the same as that used in the 2017 resource estimate depleted for mining that has occurred. The grade model is generated by using the tonnage data combined with the carat and stone size frequency distributions to generate grade size plots per domain. These grade size plots typically follow a polynomial model once plotted in log space. The grade size plots provide an estimate of the size frequency distribution as well as the grade of each unit. The tonnage reported from production is wet and a moisture content factor needs to be applied. The moisture factor was obtained from the density data and comprises an average moisture content per domain within the mined-out polygon of the focused mining volumes. Dry tonnes are used in the grade calculation. The nominal 3mm bottom cut off generates incidental diamonds from +3 sieve size. A 3mm square mesh bottom cut off would include some 80% of the stones in the +11 DTC sieve size and nothing below -11 sieve size. However, the sampling data include recoveries down to the +3 DTC sieve and significant recoveries in the -9 DTC sieve size. The grade and revenue estimates are therefore quoted at a 3mm bottom cut-off size but with incidental diamonds in the +9 and +11 DTC sieve sizes included. The current treatment plant is considered as operating at a steady state with significant process changes being considered, implying that the current bottom cut off efficiency is likely to remain as is for the foreseeable future. A kriged density model has been generated from dry density measurements of core during the drilling programs.	

Criteria	JORC Code explanation	Lucapa Commentary
		The revenue parcels used to estimate the assortment model and the value per carat comprise sales which extend over the period November 2018 to January 2020. As the sales are combined there is no possibility of identifying different assortment profiles in the different domains below 4.8 carats. However, each of the +4.8 carat diamonds have been allocated to a particular domain.
		The assortment profile of each domain is based on all the valuation data for the interval +3 DTC sieve to +4.8 carats; thereafter the assortment per domain is added to the profile for the +4.8 and +10.8 carat sizes. Assortment models per domain have been determined from these profiles.
		There are no by-products.
		No deleterious elements have been identified.
		Block model interpolation was not carried out, other than for the density model.
		No selective mining unit ("SMU") determination was carried out due to the bulk nature of the deposit.
		No variables were correlated.
		The lithological domains were used to apply the mined production data grades.
		No grade capping or cutting was applied.
		The grade estimate is directly derived from the production data.
		The grade and revenue modelling was undertaken by Z Star.
		Final compilation of the resource was undertaken by the Competent Person.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnage estimates were made on a dry basis. Corrections were made for moisture content based on moisture measurements on core.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied	No grade cut-offs have been applied.
		The grade and revenue are estimated based on expected recoveries when using a 3mm bottom cut-off screen on a production plant. The inclusion of incidental diamond recoveries is catered for.
Mining factors or assumptions	<ul> <li>Assumptions made regarding possible mining methods, minimum mining</li> </ul>	Open pit mining is currently being undertaken.
	dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for	A total of 1,524,000 wet tonnes of predominantly weathered material have been mined and processed during the period used for estimation.
	eventual economic extraction to consider	The material was extracted initially with free-dig

Criteria	JORC Code explanation	Lucapa Commentary
	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.	truck and excavator mining methods with blasting introduced in some areas as the ore got harder and less weathered with depth. Future mining is likely to use the same mining methods. The grade and size of diamonds in the deeper, unweathered portion of the pipe will be confirmed through mining, and the processing plant will be optimised for the unweathered, fresh material.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	The physical bottom cut of screen size is 3mm (slotted). Lock up factors have been modelled from SFD and sales data. Due to the relatively coarse bottom cut-off size, it is not expected that lock up will have a significant effect on diamond recoveries. Metallurgical methods applied were crushing, scrubbing, screening, dense media separation and XRT (X-ray transmissive technology to generate a concentrate with X-ray fluorescence recovery and hand sorting used for final diamond recovery.
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.	Environmental Management Programme and Environmental Impact Assessment have been completed for the Mothae Project following the granting of the Lease. In addition, Lucapa continues an ongoing public participation process; To Lucapa's knowledge, there are no environmental impediments to the Project continuing.
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>	Bulk density measurements were determined from 543 surface samples and 785 drill core samples using the 'Archimedes Principle' method; Results were used for the tonnage calculations; The frequency and spatial distribution of measurements are considered adequate by the CP. The method applied is considered suitable and adequate for this type of deposit. Bulk density measurements on a range of kimberlite material were used for the Resource estimation. The bulk density estimate was undertaken by Z Star.
Classification	• The basis for the classification of the	The South lobe (including South-West, South- Central and South East domains), which have the

Criteria	JORC Code explanation	Lucapa Commentary
	<ul> <li>Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>largest production tonnages, were classified as 'Indicated' for the portion to 75 m below the current pit depth.</li> <li>The remaining part of the resource in each domain to 300 m has been classified as Inferred.</li> <li>The portion of the geological model below 300m down to 500 m is classified as an Exploration Target and has not been included in the resource.</li> <li>All relevant factors have been considered for the Diamond Resource estimate.</li> <li>The results appropriately reflect the level of acquired data for this type of kimberlite deposit (low grade, high diamond value).</li> <li>The resource classification was undertaken by the Competent Person.</li> </ul>
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	No independent audit or review of the mineral resource estimate has been undertaken.
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 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 relevant with production data, where available.</li> </ul>	A global estimate by geological domain has been made. The CP considers that the quantity of bulk sample processed is sufficient to determine average diamond grade and value for the deposit, however local estimation has not been performed. Diamond drilling and interpretation of the various data sets generated on the core form that drilling has confirmed geological continuity at depth. Given the geological processes involved in the generation of a kimberlite diamond deposit and supported by data analysis, it can be assumed that grades and revenue will be reasonably consistent with depth. However, the assumption that the grades and diamond values are the same at depth as the production material mined near surface has not been verified at this stage.

# Estimation and Reporting of Diamonds and Other Gemstones

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>	Quantitative KIM abundances of purple garnet and ilmenite were used to discriminate different geological domains and to demonstrate geological continuity with depth.
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>	Diamonds are derived from the Mothae kimberlite and in excess of 40,000 carats were recovered from five geological domains.

Criteria	JORC Code Explanation	Lucapa Commentary
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>	Diamond grade and size distribution were established from mining production.
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>	A total of 1,524,000 wet tonnes of predominantly weathered material were processed from five geological domains identified in the kimberlite. The industry standard processing plant is operated by experienced company employees. The current plant process consists of a headfeed mineral sizer crushing to -150mm and feeding to a scrubber. Scrubber product (+8mm) is fed to TOMRA XRT units, and -8mm + 3mm material is fed to a DMS unit. The DMS concentrate is processed by a Flowsort diamond recovery unit. Final diamond recovery is by hand sorting in glove boxes. All rejects +20mm are returned to a secondary crusher with product recirculated into the scrubber.
Carat	<ul> <li>One fifth (0.2) of a gram (often defined as a metric corat or MC)</li> </ul>	audits of other tailings have been carried out. Grades are quoted in carats per hundred metric tonnes: diamonds are reported as carats.
Sample grade	<ul> <li>Sample grade in this section of Table 1 is used in the context of carats per units of mass, area or volume.</li> <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).</li> </ul>	<ul> <li>80,470 diamonds weighing 40,065 carats were recovered during the production period for an overall wet grade of 2.63 cpht.</li> <li>A screen bottom cut-off size of 3mm is used on the production plant. However incidental diamonds recovered below this size are included in the grade and revenue calculations.</li> <li>All resource grades are reported based on carats per dry tonne.</li> <li>Size frequency distribution models were created for the five major diamond bearing geological domains.</li> </ul>
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>	No exploration results are reported.

Criteria	JORC Code Explanation	Lucapa Commentary
	<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> </ul>	
Grade 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>	A total of 1,524,000 wet tonnes of predominantly weathered material were processed from 5 geological domains identified in the kimberlite. A total of 80,470 diamonds weighing 40,065 carats were recovered from the production period used in the resource estimate. The overall estimated wet bulk sample grade for Mothae is 2.63 cpht at a 3mm bottom cut-off.
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 cutoff 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>	The revenue parcels used to estimate the assortment model and the value per carat comprise sales which extend over the period November 2018 to January 2020 comprising 35,245 carats. As the sales are combined across domains, there is no possibility of identifying different assortment profiles in the different domains below 4.8 carats. However, the +4.8 carat goods have each been allocated to a particular domain. For diamond assortment modelling purposes the -4.8 carat sizes were modelled using the combined sale parcels while the +4.8 carat assortment was modelled per domain. Diamonds sold into a cutting and polishing partnership as announced on 14 <sup>th</sup> April 2020 have not been included in the revenue estimation process. Diamonds were sold on a sealed tender basis, with the estimated \$ per carat based on actual sales prices for the entire size distribution. Very little diamond breakage has been observed.

Criteria	JORC Code Explanation	Lucapa Commentary
Security and integrity	<ul> <li>Accredited process audit.</li> <li>Whether samples were sealed after excavation</li> </ul>	Industry standard security protocols are in place and have been reviewed regularly.
	<ul> <li>Valuer location, escort, delivery, cleaning losses, reconciliation with recorded sample carats and number of stones.</li> </ul>	Ore is transported ±1 km from pit to plant, stored on a security monitored stockpile and processed within a few days.
	<ul> <li>Core samples washed prior to treatment for micro diamonds.</li> <li>Audit samples treated at alternative facility.</li> </ul>	Recovered diamonds are couriered to Bonas Group in Antwerp, Belgium for valuation and final sale. Minimal cleaning losses have been observed.
	<ul> <li>Results of tailings checks.</li> <li>Recovery of tracer monitors used in sampling and treatment.</li> </ul>	All material was treated on site and no audit samples have been treated.
	<ul> <li>Geophysical (logged) density and particle density.</li> <li>Cross validation of sample weights, wet and</li> </ul>	Regular in-process tracer monitoring is undertaken, with no significant tracer losses.
	dry, with hole volume and density, moisture factor.	No down-hole geophysics was carried out.
		Bulk density measurements using 'Archimedes Principle' was carried out on 543 bulk samples and 785 drill core samples.
		A cross validation of sample densities with production masses and volumes has been undertaken with good correlation.
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</li> </ul>	The South lobe (including South-West, South- Central and South East domains), which have the largest bulk sample tonnages, were classified as 'Indicated' for the portion to 75m below the current pit depth.
	estimates should be considered, and classification developed accordingly.	The remaining part of the resource in each domain to 300m has been classified as Inferred. The portion of the geological model below 300m down to 500m is classified as an Exploration Target and has not been included in the resource.
		All relevant factors have been considered for the Diamond Resource estimate.
		The results appropriately reflect the level of acquired data for this type of kimberlite deposit (low grade, high diamond value).
		The level of uncertainty with regards to diamond valuation due to the potential presence of extremely high value, large stones has been considered in the resource classification process.





Figure 1: Location and local geology after MSA 2017



Figure 2: Plan view of the Mothae pipe shell model showing the modelled pipe outline at surface (blue) in relation to drill holes (red = country rock, green = kimberlite) and surveyed surface contact points (purple)



Figure 3: Diagrams showing Mothae Resource by Geological Domain and Resource Classification