

# **QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 MARCH 2019**

Lucapa Diamond Company Limited (ASX: LOM) delivered on key operational goals in the March 2019 Quarter ("the Quarter") to emerge as one of the few global producers of large and premium-value diamonds from two operating mines – Mothae and Lulo.

## Highlights

PROJECT PRODUCTION FOR THE MARCH 2019 QUARTER					
Mothae <sup>1</sup> Lulo <sup>2</sup> Total					
Tonnes treated	283,042	124,537*	407,579		
Total carats recovered	6,918	3,369	10,287		
+4.8ct diamonds recovered	138	92	230		
+10.8ct diamonds (Specials) recovered	42	31	73		
Closing diamond inventories (carats)	4,552	4,871	9,423		

<sup>1</sup>70% owned subsidiary; <sup>2</sup>40% owned associate. \* Converted from bulk cubic metres to tonnes

Exceptional performance from the high-value 1.1 Mtpa **Mothae kimberlite mine in Lesotho** in its first full quarter of production:

- Carats recovered 54% ahead of plan
- > Average diamond grade 29% ahead of plan
- > Tonnes treated 20% ahead of plan
- Recovery of 138 +4.8 carat diamonds, including 42 Specials and rare Type IIa and IIb diamonds
- Successful first commercial run of mine tender held in Antwerp

More significant milestones achieved at the **Lulo mine in Angola**, the world's highest US\$ per carat alluvial diamond producer:

- > First historic sale of Lulo diamonds via international tender
- > Wet-season plant treatment record of 73,257 bulk cubic metres (124,537 tonnes)
- 90% increase in in-situ carats in the JORC classified Lulo alluvial diamond resource
- 71 kimberlites confirmed in latest hard-rock drilling campaign, further mineral chemistry results pending

## INTRODUCTION

Lucapa Diamond Company Limited ("Lucapa" or "the Company") is a growing diamond company with high-value mines in Angola (Lulo) and Lesotho (Mothae), along with exploration projects in Angola (Lulo kimberlite exploration), Australia (Brooking), and Botswana (Orapa Area F).

Lucapa's vision is to become a leading producer of large and premium-quality diamonds – from alluvial and kimberlite sources. The Company's current focus on high-value production is designed to maximise cash flows in a niche sector of the diamond market where demand and prices remain robust.

Diamonds produced from the Lulo and Mothae mines can be marketed through international sales channels, creating opportunities for Lucapa and its mining partners to generate additional profits through cutting and polishing partnerships with leading global diamantaires.



Select Mothae diamonds from the tenders held in Antwerp

## Mothae, Lesotho Kimberlite diamond mine (*Mothae Diamonds (Pty) Ltd* ("Mothae") - Lucapa 70%; Government of the Kingdom of Lesotho 30%)

## Diamond mining

Commercial production commenced at the new 1.1 Mtpa Mothae kimberlite plant on 1 January 2019. This followed a successful plant commissioning and ramp-up phase in Q4 2019.



The 1.1Mtpa Mothae treatment plant, which delivered an exceptional performance in its first full quarter of production

The new mine delivered an exceptional first Quarter performance, which included:

- Recovery of 6,918 carats 54% ahead of plan
- Average diamond grade of 2.44 carats per 100 tonnes 29% ahead of plan
- Treatment of 283,042 tonnes 20% ahead of plan
- Achieved average plant operating rate of 173 tonnes per hour 15% ahead of plan

Production included a total of 138 +4.8 carat diamonds, including 42 Specials, underlining Mothae's status as a large stone resource (Table 1).

The Specials included three +50 carat diamonds (the largest being 83 carats), taking to five the number of +50 carat stones recovered to date from the new Mothae commercial plant and the earlier bulk sampling program. Like the Lulo mine, production from Mothae included rare Type IIa diamonds, as well as Type IIb diamonds.

The consistently higher plant processing or operating rates achieved during the Quarter illustrate the potential to materially increase throughput targets under Phase 1 with relatively minor modifications.

MOTHAE MARCH 2019 QUARTER PRODUCTION RESULTS						
	Jan-19	Feb-19	Mar-19	TOTAL	Var Q1 19 to plan	
Tonnes processed	76,960	87,180	118,902	283,042	20%	
Recovered carats	2,236	1,785	2,897	6,918	54%	
Actual recovered grade (cpht)	2.91	2.05	2.44	2.44	29%	
+4.8ct diamonds recovered	34	38	66	138	n/a	
+10.8ct diamonds (Specials) recovered	10	10	22	42	n/a	
Closing diamond inventories (carats)	-	-	4,552	4,552	n/a	

Table 1: Mothae monthly diamond production results for the Quarter and variance to plan



55 carat Mothae diamond recovered during the Quarter

#### **Diamond sales**

The first tender of commercial diamonds produced through the new 1.1 Mtpa plant was completed in Antwerp during the Quarter (Refer ASX announcement 27 February 2019).

The parcel of 5,411 carats included diamonds recovered during the plant ramp-up phase in Q4 2018 and in the first month of commercial mining operations in January 2019.



Members of the Government of Lesotho, including the Honourable Minister of Mining, Keketso Sello, Lucapa management, including CEO Stephen Wetherall and Mothae Board members visiting the Antwerp World Diamond Centre during the inaugural Mothae tender during the Quarter

The parcel sold for a total of US\$3.8 million (A\$5.3 million). This represented an overall average price per carat of US\$707 (A\$987) for the total parcel. The highest price achieved for an individual diamond was >US\$36,000 per carat.

As noted during the Quarter, the efficiency of the new Mothae plant in processing material, that in the short term mine plan is highly weathered, has resulted in the liberation of and recovery of a significant quantity of additional diamonds, primarily diamonds below the plant's 3mm bottom cut-off screen size ("BCOS").

While generating additional revenues, these additional smaller recoveries impact the overall average price. The ~4,100 carats in the +11 sieve size fraction and above achieved an average price per carat of ~US\$900 (~A\$1,260), while the ~1,300 carats of smaller stones in the -11 sieve size fraction and below sold for an average market price per carat of US\$36.

The recovery of small diamonds below the 3mm BCOS will normalise or diminish as mining progresses through the weathered zones and into the more competent kimberlite material with depth.

Mothae had a closing diamond inventory of 4,552 carats at the end of the Quarter. The next sale of Mothae diamonds is scheduled for Q2 2019 in Antwerp.

As previously advised, Lucapa plans to update guidance for the Mothae mine in Q2 2019 following the first quarter of commercial mining operations.

## Lulo, Angola Alluvial diamond mine (*Sociedade Mineira Do Lulo* ("SML") - Lucapa 40% associate and operator)

#### **Diamond sales**

The March Quarter marked an historic occasion for the Lulo mine and the Angolan diamond sector when the first sale of diamonds was conducted via international tender under the new diamond marketing reforms enacted by the Angolan President, His Excellency Joao Lourenco.

Having operated in Angola for a decade, Lucapa and its partners Empresa Nacional de Diamantes E.P. ("Endiama") and Rosas & Petalas were delighted to be given the opportunity to showcase production from the Lulo mine in this inaugural international tender, which was organised by Sodiam in Luanda and completed on 31 January 2019.

The seven large and top-quality Lulo diamonds weighing 498 carats offered for sale in the electronic tender achieved total highest bids of US\$16.7 million (A\$22.9 million), representing an average price of US\$33,530 per carat.

To note, payment for one of the Lulo diamonds included in the historic tender was not received within the terms of the tender and was therefore retained by SML and not included in revenue for the Quarter (Table 2).

As previously advised, the opportunity to sell Lulo production under the new Angolan marketing policy has enabled Lucapa and its partners to advance the partnership strategy and discussions with a number of leading global diamantaires. Lucapa and its Lulo partners will advise the market when these discussions are finalised.



The seven Special Lulo diamonds in the historic Angolan tender organised by Sodiam during the Quarter



Lucapa CEO Stephen Wetherall (third from left) at the successful conclusion of the historic inaugural international tender of Lulo diamonds with representatives from the Company's Angolan partners Endiama and Rosas & Petalas, Sodiam, the Ministry of Petroleum and Natural Resources and SML

LULO MARCH 2019 QUARTER SALES RESULTS					
Q1 17 Q1 18 Q1 19 Var Q1 19 to Q1 18					
Actual sales (carats)	4,498	6,424	451	-93%	
Actual sales (US\$)         10,660,855         10,807,629         12,070,696         12 <sup>o</sup>					
Actual price per carat (US\$)	2,370	1,731	26,754	1,445%	

Table 2: Lulo diamond sales for the Quarter and comparative periods

## Diamond mining

Lulo alluvial diamond mining company, SML, treated 73,257 bulk cubic metres ("bcm") of alluvial gravels during the Quarter, which was up 18% on the previous corresponding period and a wet-season record (Table 3).

Diamond production for the Quarter totalled 3,369 carats. This was 25% below the previous corresponding quarter, during which a high proportion of plant throughput was sourced from highergrade mining blocks. Mining during the current Quarter focused predominantly on lower grade mining areas.

A total of 92 +4.8 carat diamonds were recovered during the Quarter, including 31 Specials. The largest Special was a top-colour 128 carat stone – the 12<sup>th</sup> +100 carat diamond recovered to date at Lulo. Coloured recoveries of note during the Quarter included a 7.5 carat fancy purple pink gem.



7.5 carat fancy purple pink Lulo gem recovered during the Quarter

LULO MARCH 2019 QUARTER PRODUCTION RESULTS				
	Q1 17	Q1 18	Q1 19	Var Q1 19 to Q1 18
Treated m <sup>3</sup> (bulked)	70,967	61,869	73,257	18%
Carats recovered	4,098	4,507	3,369	-25%
Grade recovered (cphm³)	5.8	7.3	4.6	-37%
+4.8ct diamonds recovered	111	174	92	-47%
+10.8ct diamonds (Specials) recovered	38	58	31	-46%
Closing inventory (carats)	2,545	976	4,871	399%

Table 3: Lulo diamond production results for the Quarter and comparative periods

SML held a diamond inventory of 4,871 carats at the end of the Quarter, almost five times the 976 carat Quarter-end inventory held in the previous corresponding period. This diamond inventory will be sold in Q2 2019.

## Alluvial resource upgrade

SML continued an auger drilling program during the Quarter to define new sources of diamondbearing alluvial gravels along the Cacuilo River valley.

On 21 March 2019, the Lulo partners announced that the auger drilling program had resulted in a 90% increase in in-situ resource carats in an updated JORC Classified Inferred Alluvial Diamond Resource ("Lulo Diamond Resource") independently estimated by consultants Z Star Mineral Resource Consultants (Pty) Ltd (Refer Appendix 2).

Significantly, the 90% increase in resource carats to 80,400 carats in the updated Lulo Diamond Resource came after 19 months of mining depletion to 31 December 2018, during which time >30,000 carats of diamonds were recovered and sold for ~US\$62 million.

In addition, the average US\$ per carat value for Lulo diamonds modelled by Z Star in the updated Lulo Diamond Resource of US\$1,420 per carat was up 17% on the previous modelled estimate.

The updated total of in-situ carats equates to more than four times SML's annual production of 19,196 carats in calendar 2018.

The auger drilling program will continue in the June 2019 quarter, with additional exploration targets of 250,000 – 300,000 bcm of alluvial gravels already identified.

#### Kimberlite exploration

## (Project Lulo - Lucapa 39% JV partner and operator)

The Lulo kimberlite exploration program is designed to identify the primary hard-rock source or sources of the exceptional alluvial diamonds being recovered along the Cacuilo River valley within the 3,000km<sup>2</sup> Lulo concession.

During the Quarter, the Lulo partners completed the latest phase of this program, which involved drill-testing 95 targets proximal to and/or upstream of the main alluvial mining blocks. Of the 95 targets drilled, 71 were confirmed as kimberlites (Table 4).

The drill core from the confirmed kimberlites is progressively logged and exported in batches to laboratories in South Africa and Canada for mineral chemistry analysis.

To date, laboratory results have been received from 32 of the 71 confirmed kimberlites. Lucapa is expecting further mineral chemistry results from the Canadian laboratory throughout Q2 2019.

As previously advised, the Lulo partners undertook a detailed review of all kimberlite drilling and exploration results received to date to direct the next phase of this systematic hard-rock exploration program. Details of the follow-up exploration program will be announced in Q2 2019.

LULO KIMBERLITE DRILLING CAMPAIGN		
	Number	
Planned targets drilled	60	
Additional proximal targets drilled	35	
Planned targets remaining	0	
Confirmed kimberlites	71	
Mineral chemistry results received from laboratory	32	
Kimberlites highlighted to date for follow-up test work	11	

Table 4: Lulo kimberlite drilling campaign completed during the Quarter

## Brooking, Western Australia (Brooking Diamonds (Pty) Ltd - Lucapa 100% - tenements 80% Lucapa; 20% Leopold Diamond Co)

## Lamproite exploration

The Brooking project is in the West Kimberley region of Western Australia within 50km of the Ellendale mine which, until its recent closure, produced more than 50% of the world's fancy yellow diamonds.

In the previous quarter, Lucapa launched an exploration program to follow up on the significant micro- and macro-diamond counts from the first two holes drilled at the Little Spring Creek ("LSC") lamproite discovery at Brooking.

This included excavating a ~100 tonne bulk sample of lamproite material from LSC to test for macrodiamond population, value and grade; drilling new lamproite targets; re-evaluating the known Big Spring lamproite cluster; and stream sampling programs.

As announced to the ASX on 18 February 2019, 11 diamonds weighing 0.284 carats were recovered from the processing of the LSC bulk sample at the Nagrom laboratory in Perth. While these results confirmed the diamondiferous nature of the LSC lamproite, the results were considered below the Company's commercial hurdle.

No lamproite was observed in the drill core of eight other targets drilled at Brooking, with five other drill targets identified.

A new target area ~2km east of LSC was identified from the stream sampling results, which included two micro-diamonds and high levels of chromites. Positive chromite counts were also recorded in other areas.

While the trench sampling results indicate the LSC lamproite body is unlikely to be economic, Brooking has been proven to host source rocks with extremely high diamond counts. The primary sources of anomalous levels of diamonds and indicator minerals recovered from other distinct target areas at Brooking remain undiscovered. For these reasons, Lucapa believes Brooking remains prospective for diamondiferous lamproite discoveries.

Late in the Quarter, Lucapa received the micro-diamond results from 218.6kg of rock samples from the known Big Spring lamproites which were sent to the Saskatchewan Research Council Laboratories in Canada for analysis.

A total of 97 micro-diamonds were recovered from the three samples (Appendix 3). These microdiamond counts are in line with historic results and validate the diamondiferous nature of the Big Spring lamproites.

As announced to the ASX on 20 February, Lucapa is reviewing the scope and timing of future exploration programs at Brooking in line with the Company's belief it will maximise shareholder value in the near term by focusing on growing production and cash flows from the Lulo and Mothae diamond mines.

### Orapa Area F, Botswana (Lucapa Diamonds (Botswana) Pty Ltd - Lucapa 100% subsidiary)

## Kimberlite exploration

Orapa Area F project is ~40km east of the prolific Orapa diamond mine in Botswana. Previous exploration programs completed by Lucapa at Orapa Area F were successful in defining kimberlite drilling targets.

As per Brooking above, Lucapa is reviewing the scope and timing of future exploration programs at Orapa Area F.

## Corporate

At Quarter end, Lucapa had a group cash balance of US\$7.1 million, while SML (which is treated as an associate and not consolidated into Lucapa's accounts in accordance with International Financial Reporting Standards) had a cash balance of US\$10.8 million. To note, the cash balance of US\$7.1m above does not include the loan repayment and distribution declared by SML in Q4 2018 which is expected to be received in Q2 2019.

In addition, Mothae and Lulo had combined closing diamond inventories of 9,423 carats, with further sales from both mines planned for Q2 2019.

Lucapa paid the first US\$1.9 million quarterly capital repayment on the Company's debt facility with Equigold Pte Ltd during the Quarter. The Company also repaid a US\$1.2 million short-term loan to New Azilian Pty Ltd.

During the Quarter, Lucapa advanced funding and refinancing discussions with New Azilian and Equigold to replace or reduce the higher-cost debt used to fund the development of the new Mothae mine to improve its financial position.

These discussions, which were concluded post-Quarter end and announced to the ASX on 4 April 2019, comprised a A\$10 million (US\$7 million) loan facility with New Azilian and a capital repayment and conversion schedule to reduce the Equigold debt to US\$7.5 million in Q2 2019.

For and on behalf of the Lucapa Board.

### STEPHEN WETHERALL MANAGING DIRECTOR

#### **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.

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	Schedule of Tenements as at 31 March 2019					
Country	Туре	Size (km <sup>2</sup> )	Period	Interest (%)	End date	
Angola	Exploration (primary) Kimberlite	3,000	5 years	39	Apr-23	
Angola	Mining (secondary) and Exploration Alluvial 1,500		10 years	40	Jul-25	
Lesotho	Mining Licence	47 <sup>1</sup>	10 years	70	Jan-27	
Botswana	Reconnaissance	8	2 years	100	Sep-20	
Australia	Exploration Licence	72	5 years	80	Dec-20	
Australia	Exploration Licence	13	5 years	80	03/2019 <sup>2</sup>	
Australia	Exploration Licence	29	5 years	80	Jun-22	
Australia	Exploration Licence	3	5 years	80	Jun-23	

## **Appendix 1: Schedule of Tenements**

<sup>1</sup>Includes 26km<sup>2</sup> protection area; <sup>2</sup>Application to renew licence submitted

# Appendix 2: Lulo Alluvial Diamond Resource

	LULO CLASSIFIED INFERRED DIAMOND RESOURCE - 31 December 2018							
			LOM - 40°	% attributa	able			
Inferred	Area (m²)	In-situ volume (m³)	Grade (stns/m³)	cts/stn	Stones	Carats	In-situ grade (cphm³)	Modelled value (US\$/ct)
31 Dec 18	1,313,900 454,400 0.15 1.14 70,400 80,400 17.7 US\$1,420							
31 May 17	<b>31 May 17</b> 1,158,100 603,700 0.06 1.13 37,370 42,200 6.99 US\$1,215						US\$1,215	
Notes:								
(i) Cphm <sup>3</sup> : c	arats per 100	) cubic met	res; Stns/m <sup>3</sup>	: stones pe	r cubic me	tre		
(ii) Average realised sales may be significantly higher in value than the modelled values shown above								
(iii) Bottom screen size: effective 1.5mm								
(iv) Undiluted	d grade at 31	December	2018. Diluted	grade at 3	1 May 2017	1		

Lulo Classified Inferred Alluvial Diamond Resource

Inferred Diluted Resource	Area (m²)	In-situ Volume inc. dilution (m³)	Stones	Carats	Diluted grade (cphm³)	Modelled value (US\$/ct)
31 Dec 18	1,313,900	1,132,700	70,400	80,400	7.1	US\$1,420

Estimated Lulo Inferred Diluted Alluvial Diamond Resource

#### Appendix 3: Exploration Update - Big Spring, Brooking Project

#### Criteria **IORC Code Explanation** Lucapa Commentary Sampling • Nature and quality of sampling (e.g. cut The 3 microdiamond samples were techniques channels, random chips, or specific collected from surface material, specialised industry standard measurement outcropping at Big Spring - 01. A tools appropriate to the minerals under small pit was dug at Big Spring - 02 with the excavated spoil being investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.) sampled. These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of anv measurement tools or systems used. • 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 q 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. **Drilling techniques** • Drill type (e.g. core, reverse circulation, No drilling is reported. 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.). Drill sample • Method of recording and assessing core and No drilling is reported. recovery chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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. Logging • Whether core and chip samples have been No drilling is reported. geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is gualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged.

## Sampling Techniques and Data

Criteria	JORC Code Explanation	Lucapa Commentary
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>	• No subsampling was undertaken.
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>	<ul> <li>The process undertaken is a common process for samples at this stage of exploration.</li> <li>the Saskatchewan Research Council Geoanalytical Laboratories ("SRC") is accredited to the ISO/IEC 17025 standard by the Standards Council of Canada as a testing laboratory for diamond analysis using caustic fusion.</li> <li>QC measures including resorting of selected concentrates and spiking with synthetic diamond tracers were applied. 98% of the tracers were recovered.</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 has been undertaken.</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>Sample sites were located using a hand-held GPS with a nominal accuracy of about 5m. No elevation data was captured.</li> <li>The grid system is MGA Zone 51 GDA94.</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</li> </ul>	<ul> <li>The objective of the sample was to confirm the presence of microdiamonds within the various lamproite lithologies identified close to surface. This has been confirmed.</li> </ul>

Critoria	IODC Code Explanation	Lucana Commontany
CILCIId		Lucapa commentary
	estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	<ul> <li>3 samples were collected with results interpreted both separately and combined.</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 bodies are believed to be massive bodies, with the samples taken representative of each major lithology type.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Security of the sampling, and sample storage area, was monitored by on-site staff.</li> <li>Sample material was stored and transported in a locked container.</li> <li>Samples were sealed at the core storage area.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• The sampling techniques are industry standard and no audits or reviews have been undertaken to validate the information presented at this stage.

# **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 Brooking Diamond Project comprises Exploration Licences E04/1936, E04/2317, E04/2471 and E04/2502.</li> <li>The Project area is located approximately 55km NNW of Fitzroy Crossing in the West Kimberley region of Western Australia on the Lennard River 1:250,000 (SE51-08) and Leopold Downs 1:100,000 (3692) map-sheets. The Project area straddles the boundary between the Brooking Springs and Leopold Downs pastoral leases. The Exploration Licences E04/1936 and E04/2317 are 100% owned and operated by Brooking Diamonds (Pty) Ltd.</li> <li>On 13 October 2016, Lucapa (ASX: LOM) announced that it had agreed to acquire 80% of the project.</li> <li>On 6 June 2017 Brooking Diamond Company was granted E04/2471 for a period of 5 years.</li> <li>On 11 June 2018 Brooking Diamonds Pty Ltd were awarded exploration license E04/2502.</li> </ul>

Criteria	JORC Code Explanation	Lucapa Commentary
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The project area has been continuously explored for diamonds since 1976; following the discovery by the Ashton Joint Venture, of the Big Spring Cluster of sub-economic, variably diamondiferous, dykes, pipes and sills of Miocene-aged olivine lamproite and leucite-lamproite at Big Spring, 5 km NNE of the Brooking Project area. The Ashton Joint Venture also recovered diamonds and fresh to fresh-worn kimberlitic indicator minerals suggestive of derivation from at least one local provenance; from stream-sediment and soil samples collected from the tributaries of the Brooking, Homestead and Cajuput Creeks which drain the black-soil covered Devonian limestone reef complexes forming the Oscar Plateau.</li> <li>These positive results provided the stimulus for persistent exploration between 1976 and 2002 by Stockdale Prospecting, Metana Minerals NL, Mr Manning, Moonstone Diamond Corporation, Diamond Rose NL, Thundelarra Exploration Ltd/Resource Exploration and Diamond Exploration geochemistry/ and radiometric surveys, ground magnetic traverses, regional stream-sediment, soil and loam sampling and associated geochemistry, kimberlitic indicator mineral geochemistry and shallow percussion drilling. In 2002, following a regional HEM survey, Rio Tinto Exploration Pty Ltd discovered Leopold 1; a Miocene-aged polyphase dyke of olivine-phlogopite lamproite and olivine-leucite lamproite, approximately 1.5km east of the eastern boundary of the Brooking Project Area. This discovery, although barren of diamonds, provided impertal for similar lamproites concealed under the transported Quaternary black-soils developed over the Devonian limestone karst topography forming</li> </ul>

Criteria	JORC Code Explanation	Lucapa Commentary		
Criteria Geology	JORC Code Explanation    Deposit type, geological setting and style of mineralisation.	<ul> <li>Lucapa Commentary <ul> <li>the Oscar Plateau.</li> </ul> </li> <li>The targets for this exploration program are diamondiferous lamproites similar to the nearby Big Springs pipes or the Ellendale bodies to the WNW.</li> <li>Like kimberlite, lamproite magma originates at upper mantle depths of 150 - 200km, and may entrain diamonds and other minerals from the upper mantle during its rapid ascent to the earth's surface.</li> <li>The interaction of the hot magma with groundwater results in a highly explosive eruption that, in the case of the Ellendale Lamproite Field, has generally resulted in large flared champagne glass shaped pipes near surface with a narrow pipe stem extending to depth.</li> </ul>		
		<ul> <li>lamproites include olivine, clinopyroxene, phlogopite, leucite and amphibole. Xenoliths and xenocrysts, including pyrope garnets and rare diamonds (of upper mantle origin) may also be present. The presence of these xenocrysts is dictated by the mantle lithologies sampled by the lamproite magma on its ascent to surface.</li> <li>Lamproites can only be diamondiferous if the lamproite magma intersects and samples diamondiferous mantle lithologies during its ascent, and if the conditions within the lamproite magma are such that the entrained diamonds are preserved once emplaced near or on the earth's surface (by rapid cooling of the lamproite to limit diamond resorption).</li> <li>The subcrop geology of the area consists of Devonian limestones and related rocks.</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</li> </ul> </li> </ul>	• No drilling information is presented.		

Criteria	JORC Code Explanation	Lucapa Commentary			
	<ul> <li>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>				
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>	<ul> <li>No drilling information is presented.</li> <li>Micro-diamond recoveries are shown in their entirety.</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>	• No drilling information is presented.			
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>No new discoveries reported.</li> </ul>			
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.	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>Previous stream and loam sampling have been undertaken in some of the areas surrounding the drill sites.</li> <li>Diamonds and chrome spinels have been recovered from these samples and are reported in an announcement on 23 November 2016.</li> <li>Ground electromagnetic, magnetic and Ground Penetrating Radar</li> </ul>			

Criteria	JORC Code Explanation	Lucapa Commentary		
		<ul> <li>surveys have been conducted over the Little Spring Creek target.</li> <li>An airborne Xcite electromagnetic survey has been carried out over the entire project area.</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>Field checking and heavy mineral sampling of additional identified geophysical targets.</li> <li>Additional heavy mineral steam and loam sampling over the identified lamproite indicator anomalies.</li> <li>Drilling of selected targets.</li> <li>No further work is planned for the Big Spring targets.</li> </ul>		

# 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>	<ul> <li>No indicators have been recovered from the samples.</li> </ul>		
Source of diamonds	• 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.	<ul> <li>The micro diamonds reported have a variety of sizes, shapes and colours. The morphology and colours of microdiamonds have been demonstrated to have a poor correlation to those in commercial categories and are not included in the report.</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>The 3 microdiamond samples were collected from surface material, outcropping at Big Spring 01. A small pit was dug at Big Spring 02 with the excavated spoil being sampled.</li> <li>A total of 218.6kg of sample was processed.</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>Selected core samples were submitted to the Saskatchewan Research Council Geoanalytical Laboratories ("SRC") accredited to the ISO/IEC 17025 standard by the Standards Council of Canada as a testing laboratory for diamond analysis using caustic fusion.</li> <li>The samples were treated to a bottom cut-off size of 0.075mm.</li> </ul>		
Carat	• One fifth (0.2) of a gram (often defined as a metric carat or MC).	Reported as carats.		

Criteria	JORC Code Explanation	Lucapa Commentary			
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) to derive sample grade (carats per tonne).</li> </ul>	<ul> <li>No sample grade has been calculated for these samples.</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> <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 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>	<ul> <li>No sample grade has been calculated for these samples.</li> <li>Samples were treated to a bottom cut-off size of 0.075mm.</li> <li>No sample density has been calculated.</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>	<ul> <li>No Diamond Resources or Reserves are reported.</li> </ul>			
Value estimation	• Valuations should not be reported for samples of diamonds processed using	• No diamond value is estimated from micro-diamonds.			

Criteria	JORC Code Explanation	Lucapa Commentary		
	<ul> <li>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:</li> <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> <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>			
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> <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>No process audit was conducted for the bulk sample.</li> <li>Samples were sealed before transport.</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>	<ul> <li>No diamond grade or resource is estimated from these samples, so no classification is appropriate.</li> </ul>		

Numbers of Diamonds by Sieve Size Fraction (mm)							
Erom	То	No of Stones					
From		BS01/MD01	BS01/MD02	BS02/MD01	Total		
-1.18	0.85						
-0.85	0.6						
-0.6	0.425		1	1	2		
-0.425	0.3		2		2		
-0.3	0.212		1	1	2		
-0.212	0.15		9	1	10		
-0.15	0.106	1	20	8	29		
-0.106	0.075	2	39	11	52		
Total # of Stones		3	72	22	97		
Total Sample Weight (kg)		48.7	46.95	122.95	218.6		
Total # of Carats		0.00004	0.00388	0.00225	0.00618		
Total Diamonds Per Kg		0.0616	1.53355	0.17893	0.44373		
Total Carats Per Kg		0	0.00008	0.00002	0.00003		

Big Spring micro-diamond recoveries

## Appendix 4: Lulo Kimberlite Drilling Program - Drill Collar Details

HOLE-ID	Drilling type	Easting	Northing	Elevation	Azi	Dip	Total Depth
HJ/241/01	Core	265,601	8,945,721	1,039	0	-90	102.74
HJ/011/01	Core	266,656	8,945,253	1,015	0	-90	102.74
HJ/010/01	Core	266,805	8,945,901	1,053	0	-90	102.74
HJ/009/01	Core	269,425	8,947,151	1,027	0	-90	102.74