LUCAPA
DIAMOND COMPANY

ASX Announcement 24 May 2021

ACQUISITION OF MERLIN DIAMOND PROJECT AND A$23M CAPITAL RAISING

Strategic acquisition of historic Australian Diamond Project
Strongly supported A$20m Placement plus Share Purchase Plan to raise up to A$3m

MERLIN ACQUISITION HIGHLIGHTS

- Binding agreement to acquire the Merlin Diamond Project, a strategic Australian diamond project previously mined by Rio Tinto and Ashton Diamonds between 1999 - 2003
  - Merlin is home to Australia's largest mined rough diamond on record, and has the potential to be the only producing diamond mine in Australia (following closure of Argyle in 2020)
  - Significant exploration upside in a diamondiferous province (with 70+ unresolved anomalies)
- Adds a near-term development opportunity in Australia to Lucapa's existing two producing assets
- Acquisition price of A$8.5m cash represents an attractive ~A$2/ carat multiple on Merlin's existing 4.4m carat JORC compliant resource
- Includes all existing equipment and assets on the Mining Lease including an airstrip, access roads, camp, workshop, a Tomra XRT sorter and various other items
- The acquisition of the Merlin Diamond Project is subject to the satisfaction of a number of conditions precedent

CAPITAL RAISING

- A$20m (before costs) raised through a two tranche Placement at A$0.050 per share, well supported by several new and existing institutional investors. The second tranche is subject to shareholder approval.
- Share Purchase Plan ("**SPP**") for Eligible Shareholders to raise up to A$3.0m (before costs)
- Proceeds from Placement and SPP to be used to fund the Acquisition, exploration programs at Merlin and Lulo JV, feasibility studies and general working capital

Lucapa Diamond Company Limited ACN 111 501 663 (ASX: **LOM**) ("**Lucapa**" or "**the Company**") is pleased to announce that it has entered into a binding Asset Sale Agreement ("**ASA**") for the acquisition of a 24km^2 mining lease ("**Mining Lease**" or "**MLN 1154**") and a 283km^2 exploration tenement encompassing the Mining Lease ("**Orbit Tenement**" or "**EL 26944**") ("**Merlin Tenements**") and associated equipment and assets (together, the "**Merlin Assets**") from Merlin Operations Pty Ltd ACN 009 171 019 ("**Merlin Operations**") ("**Acquisition**").

Merlin Operations is a wholly-owned subsidiary of Merlin Diamonds Limited (In Liquidation) ACN 009 153 119 ("**Merlin Diamonds**"). The Merlin Tenements are located in the Northern Territory of Australia, approximately 720km south-east of Darwin. Please refer below for further commentary around the commercial terms including the conditions precedent to the Acquisition.

The transformational Acquisition is highly complementary to Lucapa's existing portfolio, adding a near-term development opportunity with an existing 4.4m carat Mineral resource estimate in Australia that was classified and reported in September 2014 in accordance with the guidelines of the JORC Code ("**Resource**") to Lucapa's two existing producing assets in Angola and Lesotho. The ~300km^2 tenement package also comes with significant exploration upside through over 70 unresolved anomalies in areas where all kimberlite discoveries have been diamondiferous. A more detailed overview of the Merlin Diamond Project is included in this announcement.

Lucapa Managing Director Stephen Wetherall commented *"This is a strategic acquisition for Lucapa which represents a value-accretive and logical step in Lucapa's production strategy. The project is well known for being Australia's large stone producer and is a strong complementary fit with the Company's two existing niche productions in Africa that are set to produce solid returns for Lucapa in 2021."*

"The success of the Placement element of the capital raising, and the high level of interest received from existing and new institutional investors, demonstrates the quality of our existing assets and the strategic nature of the Merlin Diamond Project acquisition and our future. We look forward to getting on the ground, completing the work to deliver the various studies and bringing Merlin into production as soon as possible."

Key terms to acquisition of Merlin Assets

Under the ASA, Lucapa has agreed, subject to the satisfaction of a number of conditions precedent, to acquire the Merlin Assets from Merlin Operations. At completion under the ASA, Lucapa is required to pay the purchase price to Merlin Operations in respect of the Merlin Assets of ~A$7.4m in cash ("**Purchase Price**") and will also replace ~A$1.1m financial security relating to the Merlin Tenements with the Department of Industry, Tourism and Trade in the Northern Territory ("**Department**"). Lucapa is acquiring the Merlin Assets through a wholly-owned subsidiary, Australian Natural Diamonds Pty Ltd ACN 648 368 334 ("**AND**").

The cash outlay of ~A$8.5 million in aggregate represents an attractive ~A$2/ carat multiple on Merlin Operations' existing 4.4m carat Resource. The Acquisition is subject to the fulfilment of usual and transaction specific conditions precedent. These conditions precedent need to be either satisfied or waived by the parties prior to the date that is, unless otherwise agreed:

- three months after the date of the ASA; or
- 31 December 2021, if before termination, either Lucapa or Merlin Operations extends the deadline.

The conditions precedent include:

- Lucapa receiving binding commitments in respect of a portion of the capital raising;
- The receipt of indicative approval to the transfer of the Merlin Tenements by the Northern Territory Minister for Mining and Industry;
- Release of various security interests over the Merlin Assets including a mining mortgage over the Mining Lease;
- Execution of deeds of assumption/ assignment in respect of existing obligations owed by Merlin Operations to third parties in respect of the Merlin Tenements relating to access rights, native title rights, royalties, back-in rights and milestone payments in respect of the Merlin Tenements; and
- Other customary closing conditions precedent.

Placement Details

In conjunction with the Acquisition, Lucapa has received binding commitments from institutional and professional investors to raise A$20.0 million through a two tranche Placement ("**Placement**").

The first tranche of the Placement ("**Tranche 1**") comprises the issue of approximately 195.3 million fully paid ordinary shares in Lucapa ("**Shares**") at A$0.050 per Share, to raise approximately A$9.8 million (before costs). Tranche 1 will be completed using Lucapa's existing placement capacity under ASX Listing Rules 7.1 and 7.1A.

The second tranche of the Placement ("**Tranche 2**") will be completed subject to obtaining shareholder approval at a general meeting anticipated to be held in July 2021 ("**General Meeting**"). Tranche 2 will comprise the issue of approximately 204.7 million Shares at A$0.050 per share to raise approximately A$10.2 million (before costs).

The issue price represents a 9.1% discount to Lucapa's last closing price on 19 May 2021.

Lucapa's Directors, Miles Kennedy, Ross Stanley, Stephen Wetherall and Nick Selby ("**Related Party Participation**") and other senior Lucapa management have committed to subscribe for $0.8 million as part of the Placement. As per the requirements of the ASX Listing Rules, the Related Party Participation is subject to shareholder approval which will be sought at the General Meeting.

Ashanti Capital Pty Ltd is acting as lead manager to the Placement ("**Lead Manager**") and Foster Stockbroking Pty Ltd is acting as co-manager to the Placement.

Under the terms of a mandate between the Lead Manager and Lucapa dated 12 May 2021 (**"Mandate"**), the Lead Manager will also receive a total of 5,000,000 unlisted options ("**Options**") exercisable on or before 30 July 2025, exercisable at A$0.080 per share, subject to the available placement capacity of Lucapa or Lucapa otherwise obtaining shareholder approval for the issue of the Options.

Share Purchase Plan

Lucapa will also make offers to eligible shareholders (being those holders of Shares with an address in Australia, Germany, Hong Kong, New Zealand, South Africa and Switzerland as at 5.00pm WST on Friday 21 May 2021) (**"Eligible Shareholders"**) to participate in a share purchase plan ("**SPP**").

The SPP aims to raise up to A$3 million (before costs) and will enable existing Eligible Shareholders to participate in the capital raising at A$0.050, being the same issue price as the Placement without incurring any brokerage fees or other transaction costs. Each Eligible Shareholder will have the opportunity to apply for up to A$30,000 worth of Shares in connection with the SPP.

An SPP Offer Booklet containing further details on the SPP and a personalised application form are expected to be sent to Eligible Shareholders on or around 26 May 2021.

Use of Funds

The proceeds from the Placement and the SPP are to be used as follows:

Merlin acquisition consideration and financial security deposits	$8.5m
Acquisition stamp duty and taxes	$1.2m
Advancing Merlin project – geotechnical drilling, exploration and feasibility study	$6.7m
Advance Lulo JV exploration programs	$3.0m
Costs of the Acquisition and capital raising	$1.6m
General working capital	$2.0m
Total	**A$23.0m**

Acquisition and Capital Raising Timetable

An indicative timetable for the Acquisition, Placement and SPP is set out below. The timetable is indicative only. Lucapa reserves the right to change the timetable at any time or cancel the Placement or the SPP at any time before the new Shares are issued, subject to regulatory requirements.

Indicative timetable	**Indicative Date**
Record Date for Eligibility to Participate in the SPP (5.00pm WST)	Friday 21 May
Announcement of Acquisition, Placement and SPP	Monday 24 May
Dispatch of SPP Offer Documents	Wednesday 26 May
SPP Acceptance Period Opens	Wednesday 26 May
Allotment of Tranche 1 Shares	Wednesday 2 June
Notice of Meeting released to Shareholders	Friday 4 June
SPP Acceptance Period Closes	Wednesday 9 June
Announcement of results of SPP	Tuesday 15 June
Issue of Shares under SPP	Wednesday 16 June
General Meeting to approve Tranche 2	Early July 2021
Allotment of Tranche 2 Shares	Early/Mid July 2021

Overview of Merlin Diamond Project

The Merlin Assets include two tenements - a 24km^2 tenement with a mining lease ("**Mining Lease**" or "**MLN 1154**") and a 283km^2 exploration tenement encompassing the Mining Lease ("**Orbit Tenement**" or "**EL 26944**") - located in the Northern Territory of Australia, approximately 720km south-east of Darwin.

The Mining Lease contains 11 previously discovered kimberlite pipes in three general kimberlite clusters – Northern, Central and Southern. Two kimberlites have also been discovered on the Orbit Tenement. All kimberlite discoveries to date on the tenements are diamondiferous.

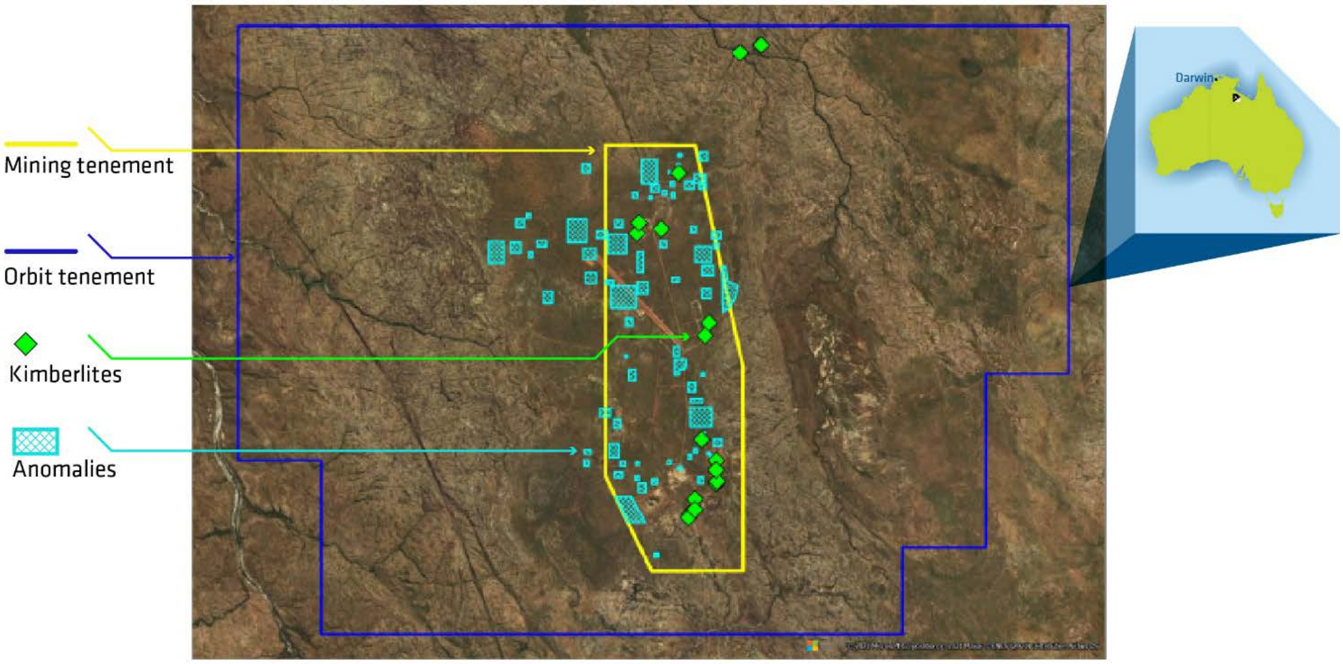

Figure 1: Location of the Mining Lease and Exploration Licence in the Northern Territory, Australia

Of the 11 known kimberlites, eight of the kimberlite pipes were mined by Ashton Diamonds ("**Ashton**") and Rio Tinto ("**Rio**") between 1999 and 2003, producing over 500,000 carats from 2.2 million tonnes ("**Mt**") of kimberlite treated, including the largest diamond ever recovered in Australia, a 104 carat, high-value Type IIa white diamond (as per Merlin Diamonds Limited Information Memorandum distributed in August 2020).

The Mining Lease and Orbit Tenement were sold to Merlin Operations in 2004.

The Mining Lease contains an existing kimberlite diamond resource containing 27.8Mt at an average grade of ~16 carats per hundred tonnes ("cpht") for 4.4m contained carats (Table B). Just under half of the Resource (13.4Mt and 2.3m carats) is classified as indicated resource, based on recovered grades and achieved diamond value data from the 1999 – 2003 Ashton/ Rio mining campaign.

Included in the Purchase Price payable by Lucapa to Merlin Operations is all existing equipment and assets on the Mining Lease on an unencumbered basis, including a 2.4km airstrip, peripheral other logistics and mine infrastructure, a Tomra XRT sorter and various other used items of equipment.

The Mining Lease and Orbit Tenement also contain more than 70 reported, but as yet unresolved geophysical and geochemical anomalies, giving significant potential for further kimberlite discoveries.

The Company has modelled a similar size plant for Merlin to what was first erected at the Mothae mine – a 1.1Mtpa plant (including XRT and DMS circuits)..

The initial plant design and capital costings have been provided by Consulmet (Pty) Ltd in South Africa, who designed and built the existing 1.1Mtpa Mothae plant and completed the 45% expansion of that plant.

Lucapa has, in order to assess the economic merits of acquiring the Merlin Assets, constructed models for various development methodologies – open-pit (conventional mining), open-pit (vertical mining) and underground. For this purpose, Lucapa commissioned AMC Consultants Pty Ltd to carry out open-pit (conventional) optimisations on all 10 kimberlite pipes contained in the Resource and based on updated costs and estimated diamond prices generating updated mine designs and schedules.

Industry experts and geotechnical consultants who developed the vertical mining methodology and were involved with previous applications of the methodology provided the Company with inputs that informed the Company's modelling for open-pit (vertical mining).

Lucapa's preliminary modelling indicates the potential for both open-pit (conventional and vertical mining) and underground developments. Lucapa will immediately further detailed studies and geotechnical drilling following acquisition to optimise the development.

The Company's modelling shows the potential to mine 8.6Mt of indicated resource and 5.2Mt of inferred resource over ~13 years. The split of indicated to inferred per open-pit mining methodology is shown below:

	% Indicated	% Inferred
Open pit mining	94%	6%
Vertical pit mining	44%	56%
Total	**62%**	**38%**

Cautionary statement regarding inferred resources

There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that a production target itself will be realised.

Merlin JORC 2012 Classified Resource

TABLE B: MERLIN JORC 2012 CLASSIFIED RESOURCE										
Cluster	**Pipe**	**INDICATED[4]**			**INFERRED[4]**			**TOTAL RESOURCE[4]**		
		Mt	**kcts**	**cpht**	**Mt**	**kcts**	**cpht**	**Mt**	**kcts**	**cpht**
NORTH	Bedevere[1,3]	0	0	0	0.4	87	22	0.4	87	22
	Kaye[2]	1.1	134	12	1.7	158	9	2.9	293	10
	Ector[1]	2.0	209	10	2.8	248	9	4.9	457	9
	Gareth[1]	0.1	22	18	0.1	10	17	0.2	32	18
	Sub total	**3.3**	**366**	**11**	**5.0**	**504**	**10**	**8.3**	**869**	**10**
CENTRE	Ywain[2]	0.1	47	65	0.1	37	55	0.1	83	60
	Gawain[2]	1.0	314	32	0.6	180	30	1.6	493	31
	Sub total	**1.1**	**360**	**34**	**0.7**	**216**	**32**	**1.7**	**576**	**33**
SOUTH	Excalibur[1]	0.3	109	31	0.2	60	26	0.6	169	29
	Launfal[1]	1.5	199	14	1.5	200	14	2.9	399	14
	Palsac[1]	7.2	1,248	17	6.4	1,057	16	13.7	2,305	17
	Tristram[2,3]	0	0	0	0.6	36	6	0.6	36	6
	Sub total	**9.0**	**1,556**	**17**	**8.7**	**1,352**	**15**	**17.8**	**2,908**	**16**
	Total	**13.4**	**2,282**	**17**	**14.4**	**2,072**	**14**	**27.8**	**4,354**	**16**

Notes:
1. Resource grade based on previous mining operations recovery using a +0.95mm slotted bottom screen and +5DTC cut-off;
2. Resource grade based on bulk sample testwork using a +0.8mm slotted bottom screen and +5 DTC cut-off;
3. Insufficient data available to determine 5 DTC cut-off grade for Tristram and Bedevere pipes, therefore full cutoff grades are used; and
4. Rounding of tonnage and carats may result in computational discrepancies.

This Resource was originally prepared by Merlin Diamonds Limited according to JORC Code 2012 edition guidelines and announced to the ASX on 30 September 2014. The Company confirms that the form and context in which the Competent Person's findings are presented below and in the attached JORC Table 1 have not been materially modified and only minor updates have been made to eliminate out of date statements.

Geology and Geological Interpretation

Merlin Plateau Geology

The Merlin plateau is a preserved, Tertiary aged (Pietsch et al, 1991) planation surface, with a slight declination to the north of less than 1 degree. The plateau surface is a scrubby sand-drifted plain underlain by iron pisolites and, in some instances, ferricrete, which in turn is underlain by a flat-lying section of lower Cambrian Bukalara sandstone. A characteristically intensive jointing pattern dissects the sandstone sheet surface and controls a dendritic to trellis pattern of tributary drainage. The eastern margin of the plateau sharply abuts an uplifted block of Proterozoic aged sediments of the McArthur Group, while more regionally, the plateau lies between NNW trending faults which parallel the Emu fault to the west.

Two differing aged Cretaceous sedimentary rock units have been identified on the plateau:

- White Silicified Quartzite

This rock unit is easily recognisable by both its white silicified nature and the abundance of preserved plant fossil casts it contains. The quartzite is mostly massive, with a maximum preserved thickness of <3m but is usually <1m, and conformably overlies the Bukalara sandstone in all cases. This sandstone unit is reported as being common in the Bauhinia Downs 1:250,000 sheet area and based on the recognised Neocomian plant fossils, the sediments are believed to be deposited in non-marine, shallow water environments. Several plant fossil species have been identified in the rock unit namely: Ptilophylum sp., Hausmannia sp., Cladophlebis sp. and Araucaria sp. These plants date the rocks as belonging to the Neocomian – Early Barremian period of the Early Cretaceous.

- Mottled, Bioturbated Sandstone

These sediments form a thin veneer of <1m in most instances and conformably overlie both Bukalara sandstone and, in rare instances, the white silicified Cretaceous aged quartzite. These sediments have not been dated directly but are believed to equate to sediments in the kimberlite pipes, which have been age dated from marine ammonite fossils, namely Australiceras sp., which has a Late Aptian – Late Albian time range (Table C).

Table C - Age of Merlin Fossils

	Albian	Marine	Infill Sediments
Early Cretaceous	Aptian	Fauna	
	Barremian	Flora	On Plateau
	Neocomian		

The flora and fauna on the Merlin plateau are consistent with regional observations and support the conclusion that widespread Early Cretaceous terrestrial sedimentation was followed by a marine transgression. Evidence of the latter is preserved within the kimberlite pipe structures at Merlin.

The Cambrian aged sediments are represented by the Bukalara sandstone, which comprises a flat lying to gently warped, slightly feldspathic quartz sandstone. Thin interbeds (<2m) of micaceous siltstones are common throughout the formation. It is the dominant sedimentary rock in the area and is intruded by all of the Merlin kimberlite pipes. The thickness of the formation was determined by drilling to be 120m to 150m thick in the vicinity of the Merlin field and appears to shelve to the south. The sandstone unconformably overlies McArthur River Group sediments in the area.

Structural Setting

The Batten region is conducive to structural analysis because of the relatively good exposure of structures, particularly in areas of flat lying, exposed Bukalara sandstone. While the structural setting of the Merlin field and local structural controls are generally apparent, the structural mechanism which controls the focus of the Merlin intrusives is speculative.

Structure

The local structural control for the Merlin kimberlites is best illustrated by Excalibur and its nearby breccia pipes where the pipes can be seen to be associated with indicator mineral bearing fractures trending 015° magnetic.

Other structural features associated with the intrusives are concentric fracturing and marginal sandstone breccias. Concentric fracturing has been observed at E.Mu 2, Excalibur, Gawain, and Perceval, with the best developed examples being at E.Mu 2 and breccia pipe 1. The fractures are usually up to 1m apart and are constrained to within 10m of the edge of the pipe.

Deposit Type

The Merlin field is fortuitously preserved within a sand and iron pisolitic covered, poorly drained Tertiary aged land surface which equates to the basal Cretaceous unconformity. Preserved on the land surface are remnant, Barremian aged, silicious quartzites of terrestrial/lacustrine origin and Albian aged bioturbated sandstones of marine origin. These latter sediments are also preserved within the pipe structures. A possible explanation for this is that the pipes were intruded during the time hiatus between the two sedimentary sequences. However, this explanation is not supported by the geochronological age of the pipes, which is Devonian based on both K-Ar and Rb-Sr dating of phlogopite.

With the exception of the two E.Mu pipes which have no infill sediments associated with them, the Merlin pipes are variously 'corked' by infill sediments. The identical nature of the sediments and similarities with the regional Cretaceous stratigraphy indicates the infill sediments represent preserved basal Cretaceous sediments. The sagged nature of the infill sediments, the upturned edges with associated slickensides, the presence of a basal non-kimberlitic conglomerate and the thickened iron pisolite profiles, all suggest that the Cretaceous aged sediments have subsided into the pipe structures.

This subsidence appears associated with the retreat of the kimberlite, which is likely due to solution weathering of the kimberlite. A greater retreat in some of the pipes allows a greater section of the overlying Cretaceous sediment to be captured and subsequently preserved within the pipe's structures, and accounts for the presence or absence of the mudstone in the infill sediments.

Five broad categories of kimberlite facies have been recognised, these being epiclastic kimberlite, tuffisitic kimberlite, tuffisitic kimberlite breccia, pelletal tuffisitic kimberlite and micaceous tuffisitic kimberlite. Collectively, particularly the presence of epiclastic kimberlite in the E.Mu 1 pipe and in Gawain, indicate the pipes are preserved at the upper diatreme level.

Pipe Geology and Mineralogy

The fifteen kimberlite pipes comprising the Merlin field are regionally located on the eastern shoulder of the Batten trough, some 6km east of the Emu Fault and on the projected trace of the northwest trending Calvert Fault. Four discrete clusters of pipes are present in the elongate field, which extends over an area of 10km by 5km. Within each cluster the distances between the pipes varies from 100 to 400m, but in one instance, is 1500m. The distance between the clusters is usually 3km. The thirteen kimberlite vents representing eleven discrete pipes are situated within the mining lease and named Excalibur, Palomides, Sacramore, Launfal, Launfal North, Kaye, Ywain, Gawain, Tristram, Gareth, Ector, Bedevere and Perceval.

All of the pipes in the field, including the two E.Mu pipes which are outside the bounds of the mining lease, have intruded the Cambrian aged Bukalara sandstone, which is flat lying and unconformably overlies Proterozoic sediments in this area.

Three models for kimberlite pipes have been published, these being Hawthorn (1975), Lorenz (1975) and Mitchell (1986). Hawthorn's model is based on southern Africa kimberlites and uses southern Africa stratigraphy to link the crater deposits of Botswana to the diatremes and roots of South Africa. Lorenz (1975) likens the formation of kimberlite to the processes observed in the formation of alkali basaltic maars and diatremes, which result from the "explosive" action of larger amounts of juvenile gases when they encounter near surface ground water. Mitchell (1986) provides a more complete model of a kimberlite pipe, which includes pre- contemporaneous and post-pipe dykes, sills and crater-rim deposits.

The Merlin pipes mostly follows Mitchell's model in that it shows the diatreme related dykes, which are present at Merlin. However, Mitchell's model is a more complete model than Hawthorne and Lorenz as it includes additional features such as sills, which are not present at Merlin. The Crater facies at Merlin would have been present subsequent to emplacement but have since been eroded and only the diatreme facies are currently evident.

Mitchell divided the pipe into three zones (Figure 1) in the same manner as Hawthorn, these being:

- Crater Zone - Sediment infilling, epiclastics and pyroclastics.
- Diatreme Zone - Tuffisitic kimberlite and tuffisitic kimberlite breccia.
- Root Zone - Complex region of circular and semi-circular bodies making way to en-echelon dykes.

The kimberlite consists of hypabyssal kimberlite and hypabyssal kimberlite breccias.

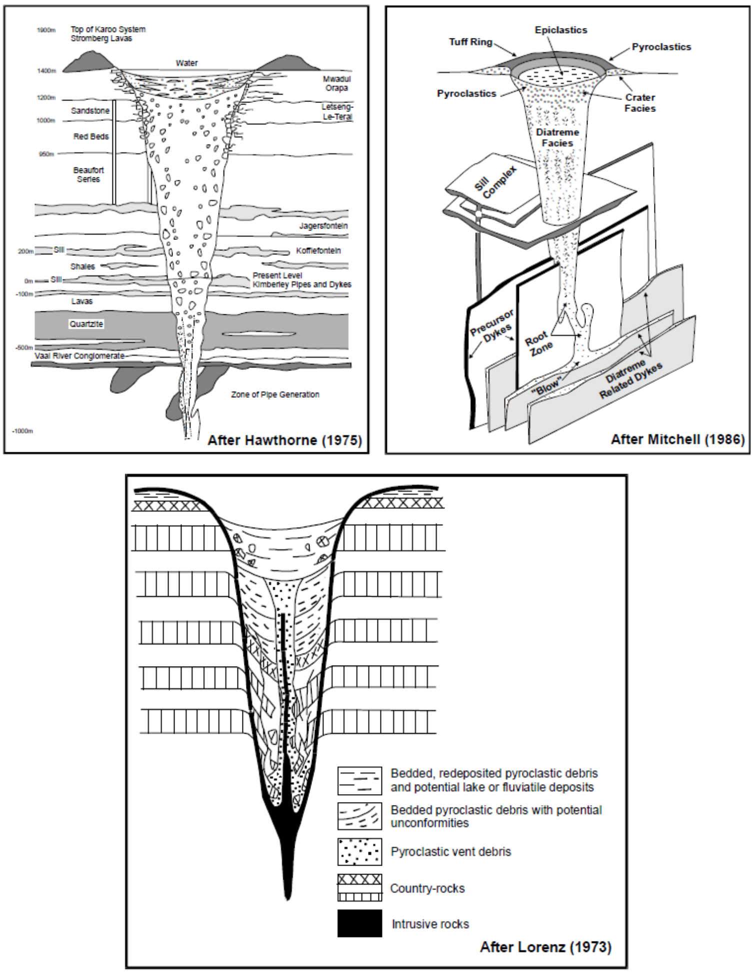

Figure 1 - Kimberlite Pipe Models

Kimberlite Facies

The Merlin kimberlites have been sufficiently core drilled to allow a definitive description of the various kimberlite lithologies which comprise the two kimberlite facies present within the kimberlite pipes. From available material from some of the pipes five broad kimberlite lithologies have been recognised and are described below:

Crater Facies:
Epiclastic Kimberlite
The most significance occurrence of bedded tuffs is within the E.Mu 2 pipe. No tuffs are present in E.Mu 1, or any of the other kimberlite pipes. Description is as follows:

A characteristic feature of the E.Mu 2 is the abundance of spherical lithic lapilli, indicating aerial ejection of consolidated fragments of adhering kimberlite, olivine megacryst or crustal xenoliths, each with molten magma. Bedding varies from 20° at 12.6m to 45° at 63.4m and is indicated by marked variations in the grain size, degree of sorting and by imbrication of clasts. There is also evidence of upward grading of the beds, with coarse bands containing clasts to 4mm. The rock is dominantly composed of rounded to sub-hedral olivine crystals and sub-rounded kimberlite clasts. Minute equant chrome spinels are common within the olivines. There is rare relict phlogopite and occasional pale ragged crystals of aegirine. There is a minor content of angular crustal xenoliths, chiefly white, fine grained dolomite.

Epiclastic kimberlite in the form of bedded tuffs has also been observed as a raft within Gawain at a depth of some 200m below current surface.

Diatreme Facies:
Tuffisitic Kimberlite Breccia
This is the most common component of all of the pipes, with the exception of E.Mu 2 and Ywain, and represents the diatreme facies of kimberlite. The rock is characterised by two generations of mostly pseudomorphed olivine (25-30%), a rounded macrocrystal population <15mm diameter, and an anhedral to subhedral population <1mm. Phlogopite is present as <1mm laths (2-10%), which is typically altered to green chlorite. The fine-grained groundmass is mostly altered to serpentine with primary minerals of mica, spinel, apatite and calcite. Crustal xenolith content varies (15% to 40%) but is dominated by dolomite and sandstone fragments. Mantle xenoliths are not common, appear to be of lherzolitic composition, are totally altered and <4cm in diameter.

Tuffisitic Kimberlite
This is similar to the tuffisitic kimberlite breccia, but with a low (<15%) xenolith content. The olivine macrocrysts and microcrysts can represent up to 40% of the rock.

Geological Model

The geological model is based on the Mitchell kimberlite emplacement model detailed above, which suggests the kimberlite 'pipes' are vertically emplaced volcanic intrusives that maintain a predictable geometry with depth. Drilling at Merlin has demonstrated this to be the case. Drilling has identified that several pipes (Sacramore and Palomides) coalesce at depth.

The kimberlites have intruded flat lying sandstones and dolomitic sediments such that the boundaries are easily discernible by drilling or pit mapping.

Lithological variation has been identified between and within the various kimberlite bodies, which may represent different intrusive events. Insufficient drilling has been undertaken to model the various 'facies' within each pipe hence each pipe has been modelled as a single lithology. The historical mining of the Merlin kimberlite pipes indicates variable facies both laterally and vertically in the Merlin kimberlite pipes however there was no discernible grade variation identified in any of the pipes due to the variable facies.

Sampling and Sub-sampling

Field bulk densities were determined by using a combination of in pit samples and drill core samples using several techniques. Between 20 and 40 in-pit samples were collected from each flitch during mining and weighed and densities calculated using the weight in air and water method. These results represented the 'wet' bulk density of the kimberlite. Drill core was also used to determine density, using either the volume method (a length of core of known diameter was cut and weighed using calibrated scales at the time of drilling) or the weight in air and water method for 'wet' bulk densities and laboratory specific gravity tests for 'dry' bulk densities. This allowed for a comparison between the laboratory and in-field methodologies.

Data pertaining to diamond grade was sourced from historic reverse circulation bulk sampling, large diameter core and auger drilling, production mining records, and carefully excavated and measured bulk samples. Microdiamonds have not been used for grade estimation. For all pipes that have been historically mined, production and mining data is used for grade estimation and have a higher confidence level in their resource classification as a result.

Detailed grade models from production and sampling data have been established for all pipes except Bedevere and Tristram, which are reported as a global grade due to limited information. The methodology used to establish the grade models is described the Sample analysis method and estimation methodology section.

Drilling Techniques

A total of 2,154 holes have been drilled within the mining lease, including open hole rotary air blast, reverse circulation, auger and diamond core drilling techniques. The drilling was carried out a various diameter including BQ, NQ, HQ, 8-inch and one metre diameter drilling. Of these a total of 412 have been used for the resource estimation and have defined the pipes to various depths with varying degrees of confidence.

Criteria used for classification

The Resource Model is sufficiently accurate to classify the resource as Indicated and Inferred. The pipes are easily discernible by drilling and generally have a predictable geometry. There is insufficient data to meet the Measured Resource category.

Sufficient density data has been used to enable the Indicated and Inferred volumes to be converted to tonnages.

The Merlin kimberlites contain various kimberlite facies, which represent varying rock types between and within the kimberlite pipes. The various facies are thought to represent different intrusive events. Accurately defining the facies lateral variation within each pipe is not possible with the current drilling information. Previous mining operations considered each pipe as a bulk facies and the grade data pertains to the pipe as a whole. The internal facies variation is not known and is considered a limiting factor in the Resource not being upgraded to the Measured category.

The diamond grade is based on plant recovered grades and is sensitive to liberation, plant recovery efficiency, and final recovery techniques used. The Resource Grade is not a measure of total diamond content but rather a measure of what may be reasonably recovered from a processing operation using similar processing and recovery methodology. The resource estimation includes a lower slotted screen size of 0.8mm for bulk sample test work and 0.95mm for previous mining operation recovery.

Detailed diamond grade models have been determined based on the contribution to grade of various diamond size fractions. The level of confidence in the grade for the drilling data is lower than for the historically available mining data and is reflected in the resource category.

A diamond grade has been determined and applied to each individual deposit (kimberlite pipe) based on the assumption that the diamonds at the Merlin deposits are homogenously distributed throughout the pipes and that this distribution does not vary with increasing depth.

Cut-off grades have been applied to the final resource using a 5 DTC cut-off.

The continuity of grade at depth in the absence of large bulk samples relies on several key assumptions. These are that the diamonds are distributed reasonably homogenously throughout any particular kimberlite facies, that the size frequency distribution of the diamonds in each pipe is representative of any particular kimberlite facies within the pipe and that the diamond grade and quality at the base of the open pits will continue at depth as there is no material change in kimberlite lithology.

The Resource has been classified as Indicated and Inferred based on a combination of whether the pipes have been mined sufficiently to provide detailed production data for grade confidence levels and the number of geological intercepts from the drilling data for geological and volume confidence levels.

The Local Resource Summary is provided in the Table D below.

Table D – Local Mineral Resource Summary

PIPE	RL from	RL to	Resource Volume (BCM)[4]	Resource Density (t/m^3)[4]	Resource (tonnes)[4]	Resource Category	Weathering	Grade (ct/BCM)[4]	Grade (ct/tonne)[4]	Resource (carats)[4]
YWAIN[2]	150	50	34,050	2.10	71,505	INDICATED	Weathered	1.37	0.65	46,781
	50	0	18,849	2.40	45,237	INFERRED	Fresh	1.37	0.57	25,896
	0	-20	7,750	2.75	21,311	INFERRED	Fresh	1.37	0.50	10,647
GAWAIN[2]	133	80	151,882	2.06	312,877	INDICATED	Weathered	0.73	0.36	111,549
	80	-40	275,094	2.47	679,482	INDICATED	Fresh	0.73	0.30	202,041
	-40	-200	244,397	2.47	603,661	INFERRED	Fresh	0.73	0.30	179,496
EXCALIBUR[1]	100	20	171,202	2.03	347,541	INDICATED	Weathered	0.64	0.31	109,159
	20	-40	93,344	2.49	232,427	INFERRED	Fresh	0.64	0.26	59,516
LAUNFAL[1]	86	50	127,509	2.36	300,920	INDICATED	Weathered	0.33	0.14	42,358
	50	-80	468,753	2.46	1,153,132	INDICATED	Fresh	0.33	0.14	155,717
	-80	-250	601,826	2.46	1,480,492	INFERRED	Fresh	0.33	0.14	199,923
LAUNFAL NORTH[1]	86	70	2,243	2.10	4,710	INDICATED	Weathered	0.33	0.16	745
PALSAC[1]	115	60	428,376	2.31	989,549	INDICATED	Weathered	0.41	0.18	176,250
	60	-200	2,604,446	2.40	6,250,670	INDICATED	Fresh	0.41	0.17	1,071,567
	-200	-550	2,568,790	2.50	6,421,975	INFERRED	Fresh	0.41	0.16	1,056,897
TRISTRAM[2,3]	155	80	186,953	2.03	379,514	INFERRED	Weathered	0.13	0.06	24,304
	80	40	90,423	2.51	226,961	INFERRED	Fresh	0.13	0.05	11,755
KAYE[2]	150	80	619,356	1.80	1,114,840	INDICATED	Weathered	0.22	0.12	134,369
	80	0	730,000	2.38	1,737,401	INFERRED	Fresh	0.22	0.09	158,373
ECTOR[1]	155	80	999,164	2.04	2,038,295	INDICATED	Weathered	0.21	0.10	209,280
	80	0	1,182,350	2.38	2,813,993	INFERRED	Fresh	0.21	0.09	247,649
GARETH[1]	94	70	41,496	2.10	87,142	INDICATED	Weathered	0.40	0.19	16,572
	70	60	13,269	2.38	31,581	INDICATED	Fresh	0.40	0.17	5,299
	60	40	26,098	2.38	62,113	INFERRED	Fresh	0.40	0.17	10,422
BEDEVERE[2,3]	135	25	143,848	2.03	292,011	INFERRED	Weathered	0.47	0.23	67,609
	25	-40	41,948	2.64	110,743	INFERRED	Fresh	0.47	0.18	19,716

[1] Resource grade based on previous mining operation recovery using a +0.95mm slotted bottom screen.
[2] Resource grade based on bulk sample test work using a +0.8mm slotted bottom screen.
[3] Insufficient data available to determine cut-off grade for Tristram and Bedevere pipes.
[4] Rounding of tonnage and carats may result in computational discrepancies.

Sample analysis method and estimation methodology

Volume

The geometry of each pipe at depth was established using the drilling data and some pit mapping was used where available and relevant. Boundary contacts were inferred between upper and lower contacts and it was assumed that the overall shapes of the boundary areas are maintained unless subject to contrary evidence, in general all the pipes are vertically plunging and gradually diminish in gauge with depth.

As depth increases there are fewer drill intercepts and confidence in the geometry decreases, which is represented in the changes to resource classifications from Indicated to Inferred with depth in each of the pipes.

For the final volume calculations boundary areas based on drillhole intercepts of kimberlite were established at depth intervals down the inferred plunge of the pipe using Micromine software, boundary areas were not projected further than 20m below the deepest drill intercept. These wireframes were then used to calculate the resource volumes using Micromine software.

Density

Field (wet) densities were adopted for the Resource Estimate as there was more available data than the laboratory (dry) density data. The higher field density (t/m^3) values result in slightly lower diamond grades when used to convert volume grades (ct/BCM) to Resource Grades (ct/tonne). This is considered a conservative approach for the Resource Estimate.

The variable density with depth enables density values to be assigned to vertical domains within the kimberlite pipes. Density initially increases with depth before becoming relatively constant approximately 100m below surface. However, this transition at depth varies between each kimberlite pipe.

Where the density values change rapidly over a relatively short, change in depth an average value has been assigned.

Density domains have been restricted to vertical change only. Pit mapping and drilling data indicate the margins of the pipes are likely to be of lower density than the central portion even at depths greater than 100m below surface. However, there is not sufficient information to construct a three-dimensional density model.

Table E below summarizes the bulk densities used for the resource estimation.

Table E - Summary of Bulk Density

Pipe	RL (from)	RL (to)	Density (t/m^3)
Palsac	115	60	2.31
	60	-200	2.40
	-200	-550	2.50
Launfal	86	50	2.36
	50	-50	2.46
Excalibur	110	20	2.03
	20	-40	2.49
Gawain	140	50	2.06
	80	-200	2.47
Ywain	150	50	2.10
	50	0	2.40
	0	-20	2.75
Gareth	94	70	2.10
	70	40	2.38
Ector	155	80	2.04

	80	0	2.38
Kaye	150	80	1.80
	80	20	2.38
Bedevere	135	40	2.03
	40	-40	2.64
Tristram	160	80	2.03
	80	0	2.51

Grade

For each pipe data from historic production records, large diameter core samples and 100m3 bulk samples was selected to establish Size Frequency Distributions (SFD) and mean stone size for each size fraction. This data formed the basis for determining the grade.

The available data typically comprised samples with measured volumes (BCM) with both stone weights (carats) and numbers recorded in Diamond Trading Company (DTC) size fractions. The homogeneity of the sample SFDs for each pipe was 'screened' to assess the variability of the sample datasets (i.e. homoscedasticity). Stone numbers were used in assessing the homogeneity of the sample SFDs rather than stone weight (carats) due to large weight stones distorting the total weight (carats) at the upper end of the SFD.

Figure 2 shows historic production data for 10 mining flitches from Gareth pipe with measured volumes of between 3,368 and 7,686 BCMs. The stone numbers for each DTC sieve size were used to develop the sample SFD. From these data sets the SFDs for GR1530, GR01550, GR01580 and GR01380 were identified as outliers and were rejected. Data sets GR01330, GR01400, GR01430, GR01450, GR01480 and GR01500 were used to establish the grade and to determine the minus 0.66 carat size-frequency distribution and mean stone size per size fraction for Gareth pipe.

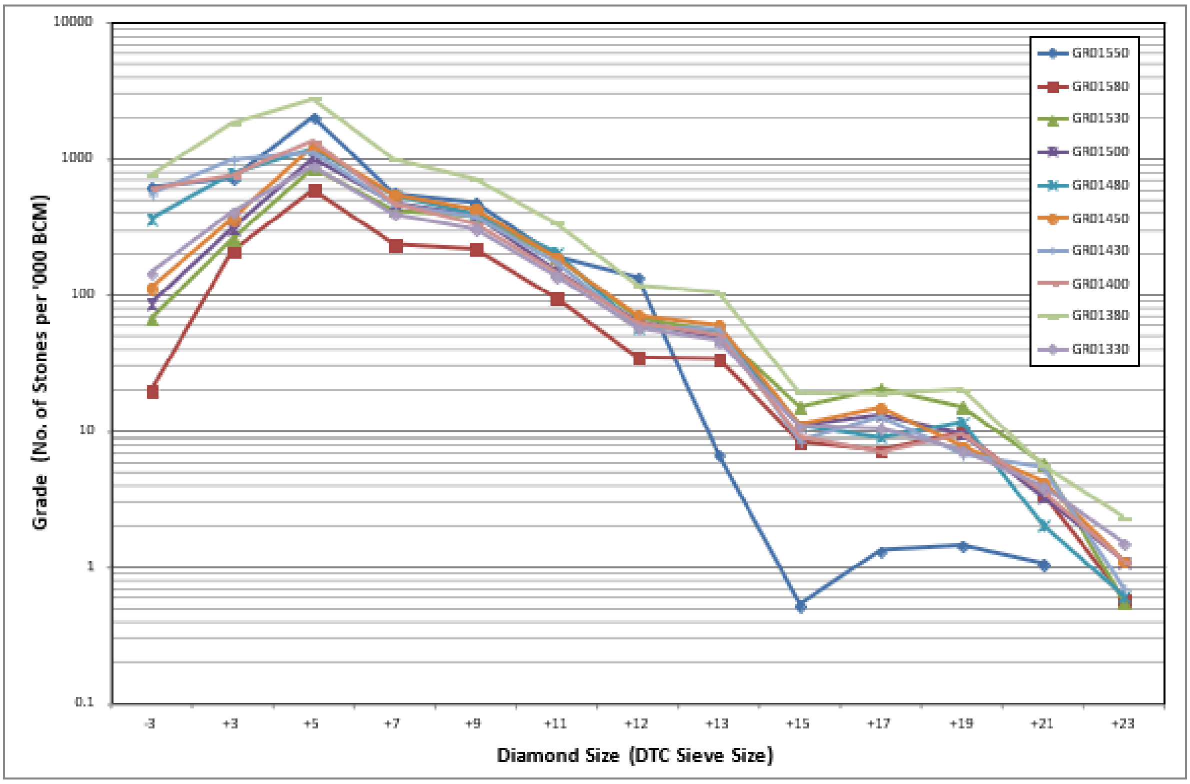

Figure 2 - Gareth Pipe SFD Screening

A substantial portion of the diamond recoveries were recorded on a weight basis (carat) but with only the minus 0.66 carat diamonds classified using DTC sieve sizes. For these samples, the DTC derived mean stone size was used for -0.66 carat samples to estimate the number of stones. The number of stones in the +0.66 carat categories was estimated using the mid-point for each carat weight category (eg the 9 carat category ranges from 8.8 to 9.8 carats hence the mid-point is 9.3). The mean stone size for the Specials category was calculated using the total number of recorded stones and associated weights obtained from past production data.

Figure 3 shows the DTC sized and weighed (Weight Recorded Data) for Gareth pipe together with a small sample (Selected Data – grade control) where only minus 0.66 carat stones are available. A volume was estimated for the weight recorded data such that the size frequency distribution curve could be matched to the Selected DTC sized data (grade control). This formed the basis of developing the Resource Grade Model depicted.

This particular grade model incorporating DTC sizes and carat weights was developed such that a value model could be readily applied and used to determine revenue per size category.

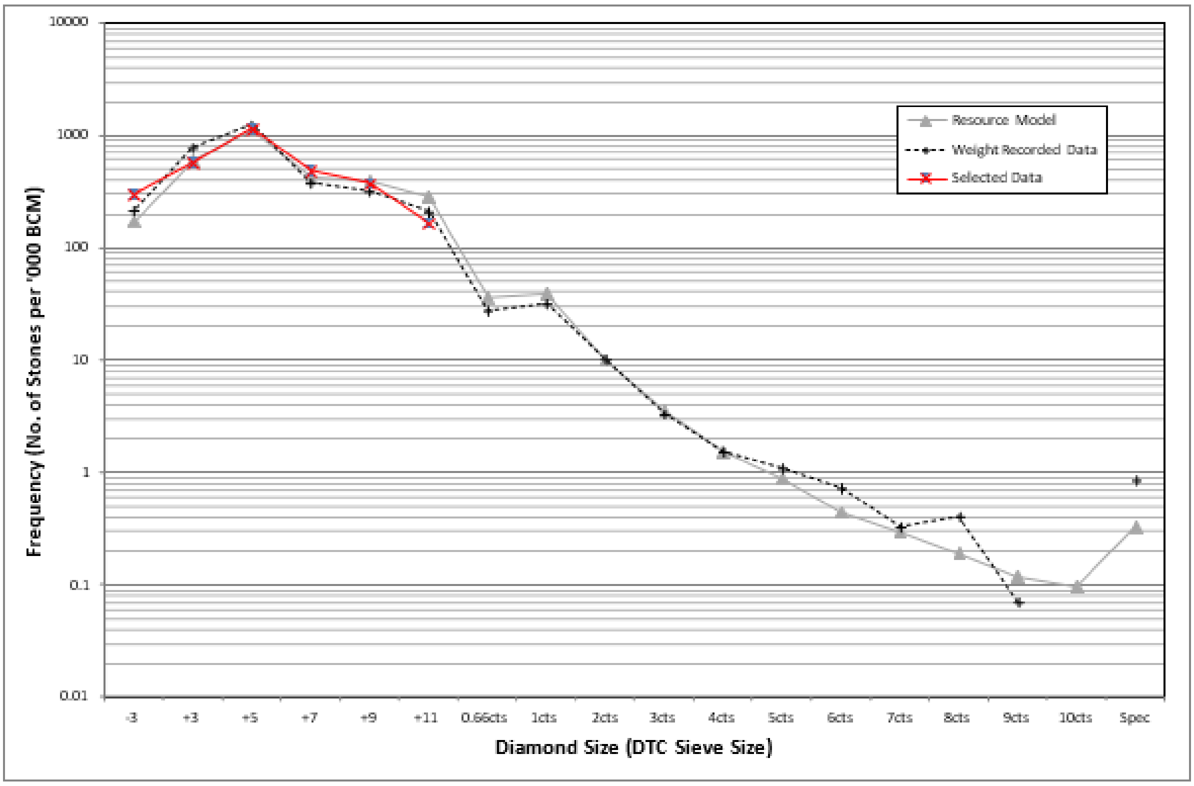

Figure 3 - Gareth Grade Model

This method was applied to all pipes except Bedevere and Tristram to establish a grade (ct/BCM) model. For reporting purposes, the grades in carats per BCM were converted to carats per tonnes using the wet bulk densities described in the Density section above. This conversion yields the Mineral Resource in wet tonnes and the corresponding grade in carats per wet tonnes. As described in the Density section this provides a conservative grade.

The development of Resource grade models for Bedevere and Tristram is shown below:

Bedevere

Bedevere grade is based on results from the Ashton Mining reverse circulation drilling bulk sampling program.

Table F - Bedevere Grade

Drill Hole	Interval (m)	Weight (tonnes)	Diamonds	Carats	Grade(cpht)
BH408	33 to 96	3.857	10	0.38	9.8
BH409	49 to 96	3.689	12	1.2315	33.3
Combined		7.546	22	1.6115	21

Tristram

Tristram grade is based on Ashton Mining reverse circulation bulk sampling program and a Merlin Diamonds Limited wide diameter drilling (Calweld Bucket Drill) program.

Table G - Tristram Grade

Drill Sample	Weight (tonnes)	Diamonds (Stones)	Diamonds (Carats)	Grade(cpht)
06-012-001	12.3	14	1.37	11.1
06-012-002	10.2	3	0.05	0.49
Combined	22.5	17	1.42	6.3

Cut-off Grades

Cut-off grades are not applicable concepts in kimberlite resource estimation, as production and sampling are undertaken through a processing plant with defined bottom cut-off screen sizes, therefore no cut-off grades are applied in the estimation and determination of the resources, as calculations are using actual diamond recoveries. However, a bottom cut-off size of 5 DTC sieve has been applied to the grades post estimation, in order to mimic the likely recoveries obtained by a processing plant with a 1.5mm bottom cut-cut off screen size.

Mining and Metallurgical Methods

Mining methods considered to date include open pit mining, vertical pit mining, clamshell mining and underground mining. The underground mining methods considered have included sublevel caving and longhole stoping.

Diamond metallurgical methods considered to date include staged crushing, scrubbing, screening, dense media separation, XRL and XRT sorting and final hand sorting. Various throughput rates have been contemplated up to 1.5 Mtpa, with the latest studies assuming 1.1 Mtpa.

The Merlin kimberlite pipes were mined by Ashton/ Rio Tinto from 1999 – 2004, using a traditional open pit, drill and blast method. The kimberlite ore was then processed through a standard diamond processing plant, including screening, scrubbing, crushing, dense media separation, XRL sorting and final hand sorting.

References

Hawthorne, JB (1975). Model of a kimberlite pipe. Phys. Chem. Earth, 9, pp 1-15.
Lorenz, V (1975). Formation of phreatomagmatic maar-diatreme volcanoes and its relevance to kimberlite diatremes. Phys. Chem. Earth, 9, pp 17-27.
Mitchell, RH (1986). Kimberlites: mineralogy, geochemistry, and petrology. Plenum Press, New York.

Authorised by the Lucapa Board.

STEPHEN WETHERALL
MANAGING DIRECTOR

ABOUT LUCAPA

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

The 0.5 million bulk cubic metre per annum Lulo alluvial mine and 1.6 million tonnes per annum ("Mtpa") Mothae kimberlite mine both produce large and high-value diamonds, with >75% of revenues generated from the recovery of +4.8 carat stones.

The Lulo mine has been mining commercially since 2015 and has produced over twenty +100 carat diamonds to date, including a 404 carat D-colour Type IIa stone, and is one of the highest average US$ per carat alluvial diamond producers in the world. Lucapa and its Project Lulo JV partners have also achieved highly encouraging results from their search to discover the primary hard-rock source of the high-value Lulo alluvial diamonds.

The Mothae mine in diamond-rich Lesotho commenced commercial mining in 2019 and has produced five +100 carat diamonds to date, including a 213 carat D-colour Type IIa stone. Lucapa has funded a ~45% expansion in the processing capacity of the Mothae mine, which when ramped up in early Q2 2021 will see capacity grow from 1.1 Mtpa to 1.6 Mtpa.

Lucapa has also recently acquired the Merlin tenements and assets in the Northern Territory of Australia. Merlin is well known for being Australia's large stone producer with significant exploration potential. It consists of two tenements - a 24km^2 tenement with a mining lease and a 283km^2 exploration tenement encompassing the Mining Lease, approximately 720km south-east of Darwin, NT. The Mining Lease contains 11 previously discovered kimberlite pipes in three kimberlite clusters with an existing 4.4m carat JORC 2012 resource. The acquisition is subject to the fulfilment of transaction specific and usual conditions precedent.

Lucapa's Board, management team and strategic investors have decades of diamond industry experience across the globe and right through the diamond pipeline, particularly in extracting value from large and high-quality diamonds.

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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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.

JORC Code, 2012 Edition – Table 1 report template
Section 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Sampling techniques used to estimate the resource include various drilling techniques to define the volume, tonnage, and diamond content. Open pit mining and processing data also contribute to the resource estimate. • Ashton Mining carried out exploration and delineation drilling using rotary air blast, reverse circulation and diamond core drilling in the early to mid 1990's to discover and define the kimberlite pipes. • Reverse circulation drilling was completed to obtain larger samples for grade determination and an early indication on diamond quality. • Open pit excavations were then completed in 1996 on a number of pipes to obtain samples of approximately 200 tonnes each for feasibility work. These samples were processed through a 5tph mobile processing plant followed by x-ray and hand sorting to recover the diamonds. • Ashton Mining then carried out commercial scale trial mining from 1998 to 2003. The mining operation was a conventional open pit mine using excavators and trucks to excavate and cart the ore to a production scale dense media separation plant followed by x-ray sorting and acid cleaning of the final product. A total of 2.24 million tonnes of kimberlite was mined and processed to produce approximately 507,000 carats of diamonds. • The mine closed in 2003 and was sold to Merlin Diamonds Limited in 2004. • Open pit mining was undertaken by Merlin Diamonds at various times between 2005 and 2010. The ore was excavated using an excavator and trucked to a 15tph dense media separation plant. Magnetic separation and hand sorting was then undertaken to recover the diamonds. This produced 35,962 carats of diamonds. • Additional reverse circulation, diamond core and wide diameter bucket drilling was completed by Merlin Diamonds Limited between 2004 and 2010 to obtain additional information. • Carefully measured samples of kimberlite were excavated and treated during 2006 and 2009 for grade determination. These samples were excavated in

Criteria	JORC Code explanation	Commentary
		Gawain, Ywain and Kaye pipes. The volumes were able to be accurately measured in the open mining pits.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• A variety of drilling techniques have been used at Merlin mine to recover information on the location and type of ore and the diamond content. • Techniques include open hole rotary air blast, reverse circulation of varying diameter using a variety of bits including hammer and tricone, diamond core drilling of varying diameter (BQ, NQ, HQ and 8 inch core) and one metre diameter auger drilling (Calweld Bucket Drilling). • The core drilling techniques include double tube and triple tube. Core orientation has been carried out using various techniques on an undetermined percentage of the total number of drill holes. Similarly, down hole surveying was also carried out using various surveying methods (eg Eastman camera, Reflex digital instrument). • All drill holes have been collated into a database. A total of 2,154 drill holes have been captured with approximately 412 contributing to the resource statement. The additional holes relate to mine sterilization drilling and exploration within the mining lease.
Drill sample recovery	• *Method of recording and assessing core and 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.*	<u>Reverse Circulation</u> • Feasibility drilling completed by Ashton Mining between 1994 and 1996 utilised reverse circulation with a tricone bit to obtain kimberlite for processing and recovery of diamonds for determination of diamond content. Sample material passed through a cyclone and was captured in a bulka bag. Water was released through a small slit in the top of the bulka bag, which may have resulted in the loss of some fines. These samples contribute to the Bedevere grade estimate only. • Reverse circulation drilling completed by Merlin Diamonds was for delineation purposes and was not used for evaluation of diamond content. <u>Diamond Drilling</u> • Diamond drilling was carried out primarily for determination of geometry and geotechnical test work. A program of large diameter core drilling was carried out by Ashton Mining during 2000 to obtain ore material from Palomides and Sacramore kimberlite pipes. This material was transported to Argyle Mine for

Criteria	JORC Code explanation	Commentary
		processing and determination of diamond content, which has been considered when determining the grade of the pipes. <u>Wide Diameter Bucket Drilling</u> • A 1m diameter Calweld Bucket Drill Rig was utilized in 2006 to obtain material from Tristram kimberlite pipe. The drilling bucket operates similar to an auger rig and makes a 0.5m cut per 'lift'. Material from the bucket is emptied into a loader bucket then into bulka bags. The volume of the drill hole and the weights of the bulka bags are able to be measured for reconciliation and determination of volume and tonnes recovered.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Geological logs have been captured and entered into a database. Numerous geological codes and code systems have been used. A review of all data allowed the reclassification of all logs into a useable database with a single set of geological codes. The level of detail is sufficient to support appropriate Mineral Resource Classification. A significant portion of diamond drill holes has been photographed. • Geotechnical data has been recorded for a number of diamond drill holes. The recording system was established with the assistance of external geotechnical consultants and is thus considered to be of suitable quality for use in resource estimation and mine planning.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No BQ, NQ or HQ diamond core has been used for determination of grade. The large diameter core (8 inch) obtained by Ashton Mining on 2000 was broken up with a sledge hammer over predetermined lengths and transported in 200L drums to Argyle Mine for processing and recovery of diamonds. • Reverse circulation drill samples used for determination of diamond content were obtained from a cyclone direct into a bulka bag. • Due to the nature and size of the samples there were no duplicate samples collected.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Samples for determination of diamond content typically comprise large (ie tonnes) samples processed through either a mobile Mark 3 Dense Media Separation Plant or a larger production scale Dense Media Separation Plant. • Due to the nature of the samples no blanks, duplicates or external laboratory checks were undertaken. • The efficiency of the process plant and x-ray sorting machine were monitored using a variety of tests including beads and tracer tests as part of industry standard procedures for an operating production plant.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Due to the size of the samples no verification of the samples was undertaken by an alternative facility. • No twinned holes were completed. • All available primary data has been captured and entered into a database or is located on compact discs, which have been catalogued.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The location of drilling collars and mine workings were typically recorded using mine surveying equipment and established survey stations. A review of all data highlighted several drill holes that appeared to be mis-located. These holes were removed from the database. Downhole surveys used either the Eastman Camera or the Reflex digital instrument and are considered of sufficient quality for use in resource estimation. All data is reported in AGD66 Zone 53.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*	• The data spacing is variable between kimberlite pipes and within individual pipes. Accordingly, the Mineral Resource classification varies from Inferred to Indicated. There are no Measured Resources. • No sample compositing has been applied and is not applicable.

Criteria	JORC Code explanation	Commentary
	• *Whether sample compositing has been applied.*	
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• For this Resource Estimation the kimberlite pipes are regarded as a bulk ore deposit. Previous mining operations considered each pipe as a bulk facies and the grade data pertains to the pipe as a whole. The internal facies variation and relative diamond content is not known and is considered a limiting factor in the resources not being upgraded to the Measured category. • There are no definable zones or facies of high (or low) grade material, which could be or were deliberately targeted during drilling.
Sample security	• *The measures taken to ensure sample security.*	• During mining operations industry standard security protocols were in place.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• A Merlin Resource Estimate for the Merlin Project was completed in 2011 by Mr Tom Reddicliffe. • Subsequent to this report a further review of drilling data has been undertaken by two in- house personnel (Research Manager and Exploration Manager) resulting in the compilation of an updated database and volume, tonnes and grade model for each kimberlite pipe. • The Company's Database Manager imported the drilling data into Micromine and validated the database to identify errors, these were corrected prior to re-performing the validation.

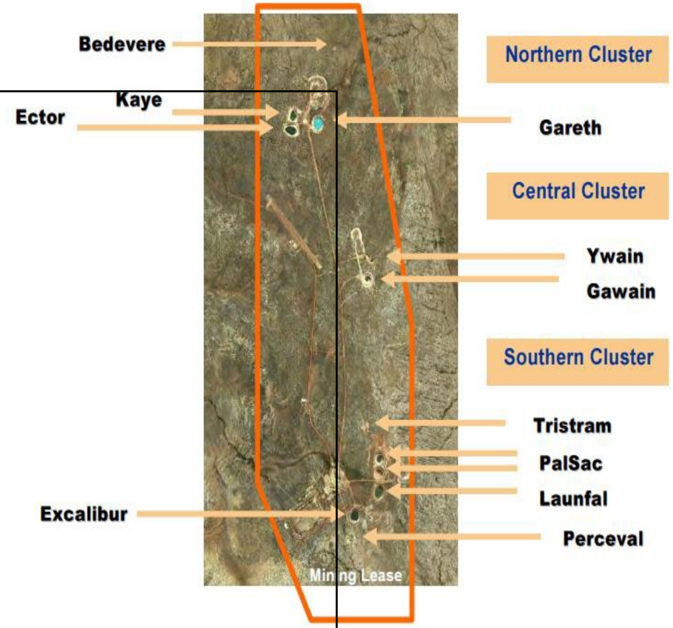
Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The resource is contained within mining lease ML1154 in the Northern Territory, Australia. The lease was granted in 1998 for a period of 25 years. It is held by Merlin Operations Pty Ltd, which is a 100% owned subsidiary of Merlin Diamonds Limited. • The lease is located on Special Purpose Crown Lease held by Wardell Nominees Pty Ltd on behalf of Ashton Mining Limited. • A Native Title Agreement with local traditional owners includes a minimum annual payment of $10,000, and a Net Profit Interest to be paid annually at the rate of 1% on total profit <$10M and scaling up to 5% above $40M. • The project is subject to a Royalty Agreement with Mr R.M. Biddlecombe. A 0.75% royalty is payable to prospector Mr R.M. Biddlecombe who was the original holder of EL6424, which preceded the application for a mining lease based upon diamond sales. • Merlin acquired the mining lease under a Sale and Purchase Agreement with Ashton Mining. The agreement included a buy-back option, milestone payments and a royalty. Legend International Holdings, Inc purchased the buy-back option, milestone payments and royalty from Ashton Mining. Legend has the option to purchase a 51% legal and beneficial interest where the mineral resource identified in a Pre-Feasibility Study has an in-situ value of greater than $1 billion. The milestone payments include a payment of $200,000 on completing the first bulk sample of a new kimberlite pipe of at least 200 tonnes, and a $100,000 payment for each subsequent and discrete bulk sample of kimberlite of at least 200 tonnes from additional kimberlite pipes where diamond grade is in excess of 10 carats per 100 tonnes. A $2,000,000 payment on the commissioning of the first mine within the tenement was paid to Legend in 2013.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Discussed in preceding sections.
Geology	• *Deposit type, geological setting and style of*	• The deposit is a hard rock diamond deposit.

Criteria	JORC Code explanation	Commentary
	mineralisation.	• The ore rock type is kimberlite, which is an ultramafic volcanic rock. • The geological interpretation is based on a standard kimberlite emplacement model, which suggests the kimberlite 'pipes' are vertically emplaced volcanic intrusives that maintain a predictable geometry with depth. • Drilling has demonstrated this to be the case. • Kimberlites originate from the upper mantle at depths greater than 100km below surface and entrain diamonds during ascent. Kimberlites generally occur in clusters within a larger field, which is the case at the Merlin deposit. • The kimberlites at the Merlin deposit include a total of fifteen pipes, which occur in several clusters within a larger field approximately 10km by 5km. The pipes have been shown to vary in size, kimberlite type, and diamond content. • The pipes intrude the Neo-Proterozoic Bukalara Formation and have been dated as Devonian based on K-Ar and Rb-Sr dating of phlogopite. • The pipes are representative of the diatreme facies with the uppermost crater facies having been eroded between emplacement and the Cretaceous.
Drill hole Information	• *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:* o *Easting and northing of the drill hole collar* o *Elevation of RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *Dip and azimuth of the hole* o *Down hole length and interception depth* o *Hole length* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why*	• A total of 2,154 holes have been drilled within the mining lease. Of these a total of 412 have been used for the resource estimation. The additional holes include mine sterilization and exploration drilling

Criteria	JORC Code explanation	Commentary
	this is the case	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• The diamond grade is based on plant recovered grades and is sensitive to liberation issues, plant recovery efficiency, and final recovery techniques used. The Resource Grade is not a measure of total diamond content but rather a measure of what may be reasonably recovered from a processing operation using similar processing and recovery methodology. • Cut-off grades are not used in this resource estimation. The resource estimation does use a lower slotted screen size of +0.8mm and +0.95mm. • Detailed diamond grade models have been determined based on the contribution to grade of various diamond size fractions. • A diamond grade has been determined and applied to each individual deposit (kimberlite pipe) based on the assumption that the diamonds at the Merlin deposits are homogenously distributed throughout the pipes and that this distribution does not vary with increasing depth. There is no evidence to suggest this assumption is invalid.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Due to the massive nature of the ore deposits the mineralization widths are effectively the true widths.

Criteria	JORC Code explanation	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.*	• A map showing the layout of the mining lease and the location of the kimberlite pipes is included below. • Cross sections and plans are included in the 2014 Merlin Diamonds Mineral Resource Estimate report. 
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*	• Sufficient information has been reported to avoid misleading reporting of results.

Criteria	JORC Code explanation	Commentary
	Results.	
Other substantive exploration data	• *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.*	• These targets represent potential new kimberlites.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Geotechnical drilling and exploration programs • Investigations and completion of feasibility study

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *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.* • *Data validation procedures used.*	• During 2013 all available data was reviewed and compiled into a database by an in-house Research Manager. The data was sourced from numerous current and historic databases and where possible checked against the original paper drilling logs. The database was peer reviewed by the Exploration Manager. • The Company's Database Manager imported the drilling data into Micromine and validated the database to identify errors, which were then corrected prior to performing the validation again.

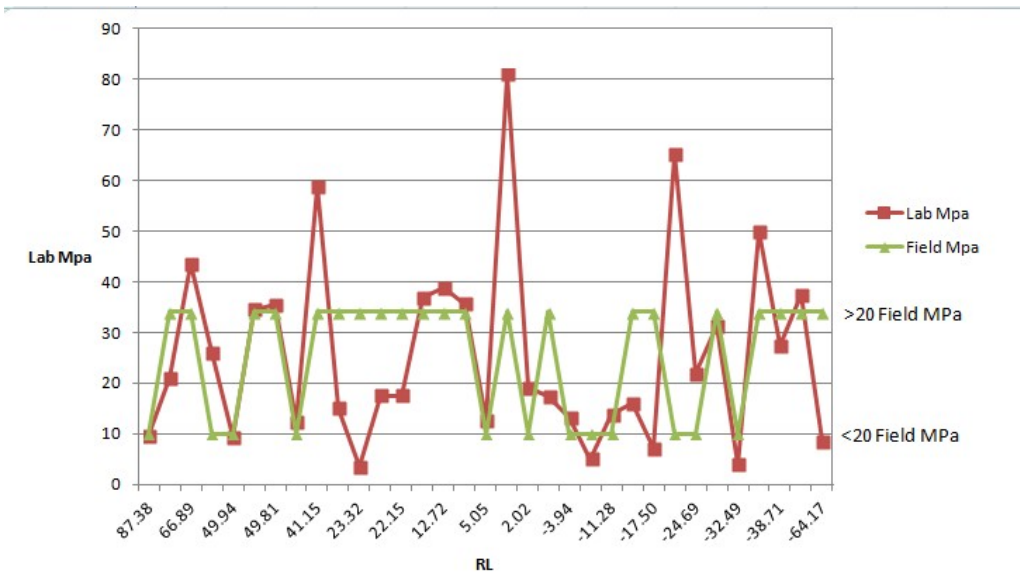
Criteria	JORC Code explanation	Commentary
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Site visits are undertaken on a regular basis by the Competent Persons as part of their normal job function. • No material issues have been identified in relation to the resource estimation.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The geological interpretation is based on a standard kimberlite emplacement model, which suggests the kimberlite 'pipes' are vertically emplaced volcanic intrusive that maintain a predictable geometry with depth. • Drilling has demonstrated this to be the case. • The pipe geometry has been determined using surface expression, open pit excavations, and drilling data. • The kimberlites have intruded flat lying sandstones and dolomitic sediments such that the boundaries are easily discernible by drilling or pit mapping allowing a high level of confidence in distinguishing the pipe boundary at each data point. • The number of data points varies between and within individual pipes and the resource is classified accordingly as Inferred or Indicated. • There are no resources in the Measured category. • Drilling has defined the pipes to various depths with a varying degree of confidence. • A higher degree of confidence is obtained closer to the surface where a greater number of data points exist allowing the resources to be classified as Indicated. • The Merlin kimberlites contain various kimberlite facies, which represent varying rock types between and within the kimberlite pipes. The various facies essentially represent different intrusive events. • Accurately defining the facies variation within each pipe is not possible with the current drilling information. • Previous mining operations considered each pipe as a bulk facies and the grade data pertains to the pipe as a whole. • The continuity of grade at depth in the absence of large bulk samples relies on several key assumptions. o Diamonds are distributed reasonably homogenously throughout any particular kimberlite facies, and;

Criteria	JORC Code explanation	Commentary
		o The size/frequency distribution of the diamonds will be constant for any particular kimberlite facies. o The diamond grade and quality at the base of the open pits will continue at depth provided there is no material change in kimberlite lithology and density. • There is no evidence in the drilling data to suggest the kimberlite lithology is materially different at depth. • The internal facies variation and relative diamond content is not known and is considered a limiting factor in the resources not being upgraded to the Measured category.
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 Mineral Resource includes data from Ywain, Gawain, Kaye, Ector, Gareth, Bedevere, Tristram, Palomides, Sacramore, Launfal, Launfal North, and Excalibur kimberlite pipes. • Palomides and Sacramore coalesce to form Palsac pipe and are reported as one pipe. • Launfal North is reported separately for Local Resources and is combined with Launfal for the Global Resource summary. • The pipes are located in clusters spread over an area approximately 7 km by 2km (see Figure 1). • Drilling has defined the pipes to various depths and to a varying degree of confidence. • The Resource has been defined down to the -250mRL, which is approximately 440m below surface.
Estimation and modelling techniques	• *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.*	Volume Determination • The geometry of each pipe at depth has been established using drilling data. • Some pit mapping has been used where available and relevant. • Boundary contacts are inferred between upper and lower contacts and it is assumed that the overall boundary footprints maintain their shape subject to evidence to the contrary. • In general, the pipes are vertically plunging and diminish in gauge with depth. • With depth there are fewer drill intercepts and confidence in the geometry decreases.

Criteria	JORC Code explanation	Commentary
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• To establish footprints with lower confidence limits, a known footprint is projected downwards along the projected plunge of the pipe, if the next actual footprint fits the projected footprint then the shape of the footprint is maintained, but if it doesn't fit then the shape of the footprint is amended within the constraints of the projection to accommodate the actual footprint. • The footprints are not projected further than 20m below the deepest drill intercept. • Pipe footprints are constructed using Micromine software. • A wireframe model is then created in Micromine using the footprint strings and is validated for errors. • A volume is calculated from the wireframe using Micromine software. <u>Bulk Density Determination</u> • A bulk density is assigned to allow a tonnage to be calculated for wireframes that represent specific domains (e.g., density, weathering, resource category). • Refer to the 'Bulk Density' section for how the density is determined. <u>Moisture Determination</u> • See below. <u>Weathering Determination</u> • The mineralogy of the Merlin kimberlites includes predominantly olivine and phlogopite. When exposed to water particularly near surface, the minerals weather to clay. This results in a decrease in both bulk density and rock strength. • Pit mapping and drilling data indicates the margins of the pipes at surface and depth are more weathered however there is insufficient information to model the lateral variation. • The definition of 'weathered' and 'fresh' is subjective and thus needs to be defined using specific criteria. For the purpose of this report the following criteria has been used; o Weathered <25 MPa, o Fresh >25 MPa. • Weathering domains were defined using a variety of data including field geotechnical logs (rock strength, weathering), core photography, and laboratory determinations of

Criteria	JORC Code explanation	Commentary
		MPa. • Field geotechnical logs recorded a measure of rock strength and MPa using the following table:

FIELD ESTIMATION OF ROCK STRENGTH			
Grade	**Description**	**Field Identification**	**Approximate Range of UCS**
S1	Very soft clay	Easily penetrated several cm's by fist	<0.025
S2	Soft clay	Easily penetrated several cm's by thumb	0.025-0.05
S3	Very soft clay	Easily penetrated several cm's by fist with moderate effort	<0.026
S4	Stiff clay	Readily indented by thumb but penetrated only with great effort	0.10-0.25
S5	Very stiff clay	Readily indented by thumbnail	0.25-0.5
S6	Hard clay	Indented with difficulty by thumbnail	>0.5
R0	Extremely weak rock	Indented by thumbnail	0.25-1.0
R1	Very weak rock	Crumbles under firm blows with point of geological hammer, can be peeled by a pocket knife	1.0-5.0
R2	Weak rock	Can be peeled with a pocket knife with difficulty, shallow indentations made by firm blow with point of geological hammer	5.0-25
R3	Medium strong rock	Cannot be scraped or peeled with a pocket knife, specimen can be fracture with single firm blow of geological hammer	25-50
R4	Strong rock	Specimen requires more than one blow of geological hammer to fracture it	50-100
R5	Very strong rock	Specimen requires many blows of geological hammer to fracture it	100-250
R6	Extremely strong rock	Specimen can only be chipped with geological hammer to fracture it. Rock rings under hammer.	>250

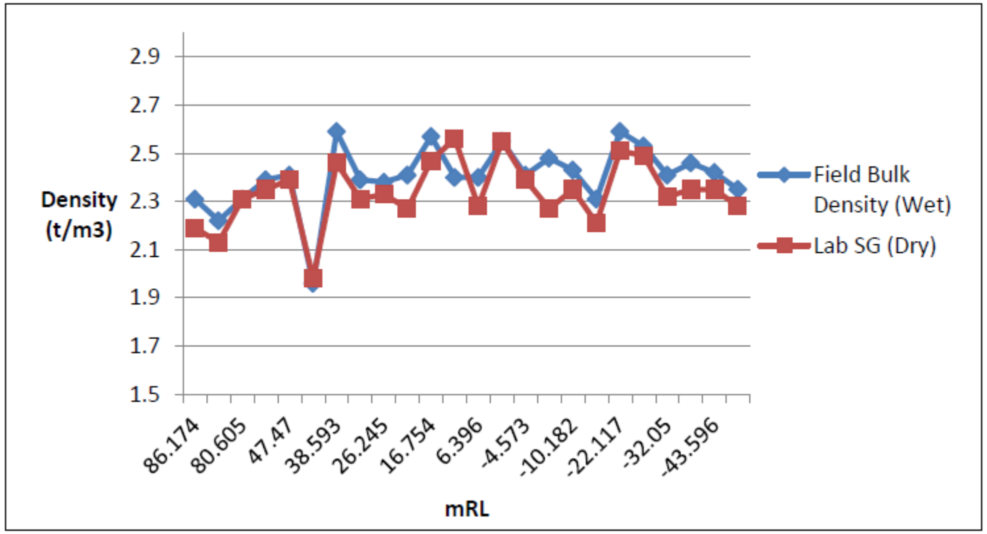
Criteria	JORC Code explanation	Commentary
		• Laboratory results were compared with the Field MPa determinations where available with the resulting chart below showing good correlation between the two data sets to the 30mRL. • This provides a level of confidence that the field MPa data can be used to model the weathered zone.
		
		• The data was simplified in Microsoft Excel to define a Weathered and a Fresh domain based on a 25MPa cut-off. • Where no geotechnical logging data exists the MPa was estimated using a combination of geological logging descriptions, density data and core photography. • A summary table of the weathering domains is given below.

Pipe	RL From	RL To	Mpa
Palsac	115	60	<25
	60	-550	>25

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td rowspan="2">Ywain</td><td>150</td><td>50</td><td><25</td></tr>
<tr><td>50</td><td>-20</td><td>>25</td></tr>
<tr><td rowspan="2">Gawain</td><td>133</td><td>80</td><td><25</td></tr>
<tr><td>80</td><td>-200</td><td>>25</td></tr>
<tr><td rowspan="2">Excalibur</td><td>110</td><td>20</td><td><25</td></tr>
<tr><td>20</td><td>-40</td><td>>25</td></tr>
<tr><td rowspan="2">Launfal</td><td>86</td><td>50</td><td><25</td></tr>
<tr><td>50</td><td>-250</td><td>>25</td></tr>
<tr><td rowspan="2">Bedevere</td><td>135</td><td>25</td><td><25</td></tr>
<tr><td>25</td><td>-40</td><td>>25</td></tr>
<tr><td rowspan="2">Gareth</td><td>94</td><td>70</td><td><25</td></tr>
<tr><td>70</td><td>40</td><td>>25</td></tr>
<tr><td rowspan="2">Kaye</td><td>150</td><td>80</td><td><25</td></tr>
<tr><td>80</td><td>0</td><td>>25</td></tr>
<tr><td rowspan="2">Ector</td><td>155</td><td>80</td><td><25</td></tr>
<tr><td>80</td><td>0</td><td>>25</td></tr>
<tr><td rowspan="2">Tristram</td><td>160</td><td>80</td><td><25</td></tr>
<tr><td>80</td><td>40</td><td>>25</td></tr>
</table>
</td></tr>
<tr><td>Moisture</td><td>• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</td><td>• The tonnages are estimated with natural moisture.
• Due to the variable lateral and vertical weathering of the kimberlite both the density and the moisture vary considerably.
• Most types of kimberlite at Merlin will very quickly dry out and begin to break down when left exposed on the surface. The exception to this is during the northern wet season.
• Pit mapping and drilling data indicate the moisture content will be higher near the surface and at the margins of the pipes at surface and depth.
• Moisture data for a selection of pit and drill samples was compiled and reviewed. From this review it is concluded that;
• Moisture data determined in the field for a selection of pit samples collected in the weathered profile returned a median value of 9%.
• Moisture data determined in the field for 126 drill hole samples returned a median value of 4.6%.
• Moisture data determined by laboratory methods for 35 drill hole samples returned a</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		median value of 4.5%.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The resource estimate is listed with no cut-off and with a 5 DTC cut-off. • A bottom screen size of +0.8mm and +0.95mm has been used for the Resource Estimation.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider 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.*	• Open pit mining was undertaken in 1996 and the periods between 1998 and 2003, 2006 and 2010, to extract kimberlite material for processing and recovery of diamonds. • Limited mining was completed in Ywain pit during 2006 using an excavator and a clam-shell, which proved successful in recovering kimberlite material. • Several Scoping and Prefeasibility Studies have been completed to investigate the potential for an underground mining project or a combined underground and open pit project. • In 2013 Merlin undertook Borehole Mining in Ywain pit, which successfully recovered kimberlite but could not be sustained at an economic rate.
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 Merlin deposit is located on a mining lease that operated as a commercial scale diamond mine between 1998 and 2003. • Site specific metallurgical factors are known due to > 2 million tonnes of ore having been processed

Criteria	JORC Code explanation	Commentary
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.*	• The Merlin deposit is located on a mining lease that operated as a commercial scale diamond mine between 1998 and 2003. • The mining lease operates under an existing approved Mining Management Plan, which addresses all environmental factors pertaining to past, present and proposed mining lease activities.
Bulk density	• *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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Due to the variably weathered nature of the kimberlite pipes the bulk density generally increases with depth as the kimberlite becomes less weathered. A database of bulk density determinations was compiled using; o Field bulk density determinations of pit samples o Field bulk density determinations of drill samples o Laboratory specific gravity determinations of drill samples • The methodology used to determine and assign a bulk density to the volumes is detailed below: • Field bulk densities were recorded for in-pit samples obtained during mining operations and drill core. • The density of in-pit samples was determined using the weight in air and water method. • Between 20 and 40 samples per flitch were collected and weighed. These results represent ‘wet’ bulk densities. • Drill core was used to determine field bulk densities using either the volume method or the weight in air and water method.

Criteria	JORC Code explanation	Commentary
		• For the volume method a length of core of known diameter was cut and weighed using calibrated scales. The weight of core was typically between 1 and 3 kilograms. The core was cut and weighed at the time it was drilled and represents a 'wet' bulk density. • All density measurements have been entered into a database. • Laboratory specific gravity determinations were obtained for a selection of drill core samples and represent 'dry' bulk densities, which allow a comparison to be made with the field bulk density determinations. • The field bulk densities (wet) are on average 3% higher than the laboratory densities (dry), which is attributed to the moisture content. • The chart below shows a reasonable correlation between field and laboratory determined bulk densities, which provides confidence in using the field density values:  • Analysis of the data using Excel software allowed density values to be assigned to domains within the kimberlite pipes. The domains vary in size due to the variation in

Criteria	JORC Code explanation	Commentary
		the density. • The density increases with depth and then remains relatively constant. • Where the density values change rapidly over a relatively short vertical an average value has been assigned. • Density domains have been restricted to vertical change only. Pit mapping and drilling data indicate the margins of the pipes are likely to be of lower density than the central portion even at depths greater than 100m below surface. However, there is insufficient information to construct a more detailed density model. • The table below summarizes the bulk densities used for the resource estimation:

Pipe	RL		Bulk Density (t/m3)
	From (mRL)	To (mRL)	
Palsac	115	60	2.31
	60	-200	2.4
	-200	-550	2.5
Ywain	150	50	2.1
	50	0	2.4
Gawain	140	50	2.06
	80	-200	2.47
Excalibur	110	20	2.03
	20	-40	2.49
Launfal	86	50	2.36
	50	-50	2.46
Bedevere	135	40	2.03
	40	-40	2.64
Gareth	94	70	2.1
	70	40	2.38

Criteria	JORC Code explanation	Commentary
		<table><tr><td rowspan="2">Kaye</td><td>150</td><td>80</td><td>2.31</td></tr><tr><td>80</td><td>20</td><td>2.38</td></tr><tr><td rowspan="2">Ector</td><td>155</td><td>80</td><td>2.04</td></tr><tr><td>80</td><td>0</td><td>2.38</td></tr><tr><td rowspan="2">Tristram</td><td>160</td><td>80</td><td>2.03</td></tr><tr><td>80</td><td>0</td><td>2.51</td></tr></table>
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie 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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Global Mineral Resource estimate is summarized below: (see table below)

GLOBAL RESOURCE (no cut-off)

Pipe	Indicated (tonnes)[4]	Inferred (tonnes)[4]	TOTAL (tonnes)[4]	Grade (cpht)[4]	Carats[4]
YWAIN[2]	71,505	66,548	138,053	84	115,839
GAWAIN[2]	992,359	603,661	1,596,020	37	590,808
EXCALIBUR[1]	347,541	232,427	579,968	30	174,601
LAUNFAL[1]	1,458,763	1,480,492	2,939,255	16	456,126
PALSAC[1]	7,240,219	6,421,975	13,662,194	15	2,632,360
TRISTRAM[2]		606,475	606,475	6	36,059
KAYE[2]	1,114,840	1,737,401	2,852,241	13	364,326
ECTOR[1]	2,038,295	2,813,993	4,852,288	10	479,933
GARETH[1]	118,723	62,113	180,835	19	34,771
BEDEVERE[2]		402,754	402,754	22	87,324
			27,810,083	**18**	**4,972,146**

[1]Resource grade based on previous mining operation recovery using a +0.95mm slotted bottom screen
[2]Resource grade based on bulk sample test work using a +0.8mm slotted bottom screen.
[4]Rounding of tonnage and carats may result in computational discrepancies.

Criteria	JORC Code explanation	Commentary
		(table below)

GLOBAL RESOURCE (5 DTC cut-off))

Pipe	Indicated (tonnes)[4]	Inferred (tonnes)[4]	TOTAL (tonnes)[4]	Grade (cpht)[4]	Carats[4]
YWAIN[2]	71,505	66,548	138,053	60	83,324
GAWAIN[2]	992,359	603,661	1,596,020	31	493,086
EXCALIBUR[1]	347,541	232,427	579,968	29	168,675
LAUNFAL[1]	1,458,763	1,480,492	2,939,255	14	398,742
PALSAC[1]	7,240,219	6,421,975	13,662,194	17	2,304,714
TRISTRAM[2,3]		606,475	606,475	6	36,059
KAYE[2]	1,114,840	1,737,401	2,852,241	10	292,742
ECTOR[1]	2,038,295	2,813,993	4,852,288	9	456,929
GARETH[1]	118,723	62,113	180,835	18	32,294
BEDEVERE[2,3]		402,754	402,754	22	87,324
			27,810,083	**16**	**4,353,888**

[1]Resource grade based on previous mining operation recovery using a +0.95mm slotted bottom screen
[2]Resource grade based on bulk sample test work using a +0.8mm slotted bottom screen.
[3]Insufficient data available to determine a 5 DTC cut-off grade for Tristram and Bedevere
[4]Rounding of tonnage and carats may result in computational discrepancies.

- The level of confidence in the volume of the resource is sufficient to classify the resource as Indicated and Inferred. The pipes themselves are easily discernible by drilling and generally have a predictable geometry. There are insufficient data points to meet the Measured Resource category.
- Sufficient density data points have been used to enable the Indicated and Inferred volumes to be converted to tonnages.
- The Merlin kimberlites contain various kimberlite facies, which represent varying rock types between and within the kimberlite pipes. The various facies essentially represent different intrusive events.

Criteria	JORC Code explanation	Commentary
		• Accurately defining the facies variation within each pipe is not possible with the current drilling information. • Previous mining operations considered each pipe as a bulk facies and the grade data pertains to the pipe as a whole. • The internal facies variation and relative diamond content is not known and is considered a limiting factor in the resources not being upgraded to the Measured category. • The diamond grade is based on plant recovered grades and is sensitive to liberation issues, plant recovery efficiency, and final recovery techniques used. The Resource Grade is not a measure of total diamond content but rather a measure of what may be reasonably recovered from a processing operation using similar processing and recovery methodology. • The resource estimate is listed with no cut-off and with a 5 DTC cut-off. • The resource estimation includes a lower slotted screen size of +0.8mm and +0.95mm. • Detailed diamond grade models have been determined based on the contribution to grade of various diamond size fractions. • The level of confidence in the grade for the drilling data is lower than for the mining data and is reflected in the resource category (eg Bedevere and Tristram are Inferred only). • A diamond grade has been determined and applied to each individual deposit (kimberlite pipe) based on the assumption that the diamonds at the Merlin deposits are homogenously distributed throughout the pipes and that this distribution does not vary with increasing depth. • The continuity of grade at depth in the absence of large bulk samples relies on several key assumptions: o Diamonds are distributed reasonably homogenously throughout any particular kimberlite facies o The size/frequency distribution of the diamonds will be constant for any particular kimberlite facies. o The diamond grade and quality at the base of the open pits will continue

Criteria	JORC Code explanation	Commentary
		at depth provided there is no material change in kimberlite lithology and density. • There is no evidence in the drilling data to suggest the kimberlite lithology is materially different at depth. • Local Tonnages are detailed below:

Criteria	JORC Code explanation	Commentary

LOCAL RESOURCES

PIPE	RL from	RL to	Volume	Density	Tonnes	Category	Weathering
YWAIN	150	50	34,050	2.10	71,505	INDICATED	Weathered
	50	0	18,849	2.40	45,237	INFERRED	Fresh
	0	-20	7,750	2.75	21,311	INFERRED	Fresh
GAWAIN	133	80	151,882	2.06	312,877	INDICATED	Weathered
	80	-40	275,094	2.47	679,482	INDICATED	Fresh
	-40	-200	244,397	2.47	603,661	INFERRED	Fresh
EXCALIBUR	100	20	171,202	2.03	347,541	INDICATED	Weathered
	20	-40	93,344	2.49	232,427	INFERRED	Fresh
LAUNFAL	86	50	127,509	2.36	300,920	INDICATED	Weathered
	50	-80	468,753	2.46	1,153,132	INDICATED	Fresh
	-80	-250	601,826	2.46	1,480,492	INFERRED	Fresh
LAUNFAL NORTH	86	70	2,243	2.10	4,710	INDICATED	Weathered
PALSAC	115	60	428,376	2.31	989,549	INDICATED	Weathered
	60	-200	2,604,446	2.40	6,250,670	INDICATED	Fresh
	-200	-550	2,568,790	2.50	6,421,975	INFERRED	Fresh
TRISTRAM	155	80	186,953	2.03	379,514	INFERRED	Weathered
	80	40	90,423	2.51	226,961	INFERRED	Fresh
KAYE	150	80	619,356	1.80	1,114,840	INDICATED	Weathered
	80	0	730,000	2.38	1,737,401	INFERRED	Fresh
ECTOR	155	80	999,164	2.04	2,038,295	INDICATED	Weathered
	80	0	1,182,350	2.38	2,813,993	INFERRED	Fresh
GARETH	94	70	41,496	2.10	87,142	INDICATED	Weathered
	70	60	13,269	2.38	31,581	INDICATED	Fresh
	60	40	26,098	2.38	62,113	INFERRED	Fresh
BEDEVERE	135	25	143,848	2.03	292,011	INFERRED	Weathered
	25	-40	41,948	2.64	110,743	INFERRED	Fresh

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The 2011 Mineral Resource Estimate was reviewed by the Exploration Manager. • The outcome of this review was the amendment of the pipe geometry and bulk density and hence the overall volume and tonnes contributing to the Resource Estimate. • Bedevere was also moved from a combination of Indicated and Inferred to all Inferred. • The determination of grade was also reviewed and amended as part of this process.
Discussion of relative accuracy/ confidence	• *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.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The Merlin kimberlites contain various kimberlite facies, which represent varying rock types between and within the kimberlite pipes. The various facies essentially represent different intrusive events. • Accurately defining the facies variation within each pipe is not possible with the current drilling information. • Previous mining operations considered each pipe as a bulk facies and the grade data pertains to the pipe as a whole. • The internal facies variation and relative diamond content is not known and is considered a limiting factor in the resources not being upgraded to the Measured category. • A diamond grade has been determined and applied to each individual deposit (kimberlite pipe) based on the assumption that the diamonds at the Merlin deposits are homogenously distributed throughout the pipes and that this distribution does not vary with increasing depth. • The continuity of grade at depth in the absence of large bulk samples relies on several key assumptions o Diamonds are distributed reasonably homogenously throughout any particular kimberlite facies. o The size/frequency distribution of the diamonds will be constant for any particular kimberlite facies. o The diamond grade and quality at the base of the open pits will continue at depth provided there is no material change in kimberlite lithology and density. • There is no evidence in the drilling data to suggest the kimberlite lithology is materially different at depth.

Section 5 Estimation and Reporting of Diamonds and Other Gemstones

Criteria	JORC Code Explanation	Lucapa Commentary
Indicator minerals	• *Reports of indicator minerals, such as chemically/physically distinctive garnet, ilmenite, chrome spinel and chrome diopside, should be prepared by a suitably qualified laboratory.*	• Indicator grains are not relevant to kimberlite grade estimates.
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.*	• The diamonds were recovered from the Merlin kimberlites during sampling and mining production. • The diamonds reported have a variety of sizes, shapes and colours, but contain a high number of gem quality stones, including Australia's largest rough diamond on record – 104 carat Type IIa.
Sample collection	• *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).* • *Sample size, distribution and representivity.*	• The majority of the data used in the resource estimation is derived from mining production recoveries. • Bucket auger drilling Reverse circulation drilling and bulk samples have also been used. • The recovery of over 500,000 carats during production ensures that the samples are representative of most of the pipes.
Sample treatment	• *Type of facility, treatment rate, and accreditation.* • *Sample size reduction. Bottom screen size, top screen size and re-crush.*	• Samples and production material were processed through a variety of DMS plants. The plants are not accredited. • Resource grades based on previous mining operation recovery using a +0.95mm slotted bottom screen. • The recovery process involves DMS separation, X-ray sorting of the dense media concentrate and hand sorting of the X-ray concentrate. • Microdiamonds are not reported.

Criteria	JORC Code Explanation	Lucapa Commentary
	• *Processes (dense media separation, grease, X-ray, hand-sorting, etc.).* • *Process efficiency, tailings auditing and granulometry.* • *Laboratory used type of process for micro diamonds and accreditation.*	
Carat	• *One fifth (0.2) of a gram (often defined as a metric carat or MC).*	• Reported as carats.
Sample grade	• *Sample grade in this section of Table 1 is used in the context of carats per units of mass, area or volume.* • *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.* • *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*	• Grade from production information is calculated from diamond recovery per unit tonne mined. • Resource grades based on previous mining operation recovery using a +0.95mm slotted bottom screen and reported to a 5DTC bottom sieve, except for Bedevere and Tristram which were based on bulk sample test work using a +0.8mm slotted bottom screen. Insufficient data was available to determine a 5 DTC cut-off grade for Tristram and Bedevere.

Criteria	JORC Code Explanation	Lucapa Commentary
	stone) to derive sample grade (carats per tonne).	
Reporting of Exploration Results	• *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.* • *Sample density determination.* • *Per cent concentrate and undersize per sample.* • *Sample grade with change in bottom cut-off screen size.* • *Adjustments made to size distribution for sample plant performance and performance on a commercial scale.* • *If appropriate or employed, geostatistical techniques applied to model stone size, distribution or frequency from size distribution of exploration diamond samples.* • *The weight of diamonds may only be omitted from the report when the diamonds*	• Detailed diamond grade models have been determined based on the contribution to grade of various diamond size fractions. • Granulometry data has not been measured and is not considered material to the understanding of this report. • Sufficient density data points have been used to enable the Indicated and Inferred volumes to be converted to tonnages. • Percent concentrate and undersize have not been measured and are not considered material to the understanding of this report. • Grade estimations have been made using both a total recovered diamond population and where diamonds below 5DTC sieve size have been excluded. • A diamond grade has been determined and applied to each individual deposit (kimberlite pipe) based on the assumption that the diamonds at the Merlin deposits are homogenously distributed throughout the pipes and that this distribution does not vary with increasing depth. • A total of over 500,000 carats has been recovered during mining production.

Criteria	JORC Code Explanation	Lucapa Commentary
	are considered too small to be of commercial significance. This lower cut-off size should be stated.	
Grade estimation for reporting Mineral Resources and Ore Reserves	• *Description of the sample type and the spatial arrangement of drilling or sampling designed for grade estimation.* • *The sample crush size and its relationship to that achievable in a commercial treatment plant.* • *Total number of diamonds greater than the specified and reported lower cut-off sieve size.* • *Total weight of diamonds greater than the specified and reported lower cut-off sieve size.* • *The sample grade above the specified lower cut-off sieve size.*	• The majority of the data used in the resource estimation is derived from mining production recoveries. • Bucket auger drilling Reverse circulation drilling and bulk samples have also been used. • Commercial treatment methodologies were used during the production phase to recover the diamonds. • Resource volumes and carats are reported in-situ once appropriate dilution factors have been applied to estimated and expected production grade and volume. • Resource grades based on previous mining operation recovery using a +0.95mm slotted bottom screen and reported to a 5DTC bottom sieve, except for Bedevere and Tristram which were based on bulk sample test work using a +0.8mm slotted bottom screen. Insufficient data was available to determine a 5 DTC cut-off grade for Tristram and Bedevere. • No Diamond Reserves are reported.
Value estimation	• *Valuations should not be reported for samples of diamonds processed using total liberation method, which is commonly used for processing exploration samples.*	• Value estimates are based on recoveries from a commercial scale DMS plant. Total liberation methods have not been employed. • Value has been modelled from previous sales data. • Resource grades and values are based on previous mining operation recovery using a +0.95mm slotted bottom screen and reported to a 5DTC bottom sieve, except for Bedevere and Tristram which were based on bulk sample test work

Criteria	JORC Code Explanation	Lucapa Commentary

	• *To the extent that such information is not deemed commercially sensitive, Public Reports should include:*
	  o *diamonds quantities by appropriate screen size per facies or depth.*
	  o *details of parcel valued.*
	  o *number of stones, carats, lower size cut-off per facies or depth.*
	• *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.*
	• *The basis for the price (e.g. dealer buying price, dealer selling price, etc.).*
	• *An assessment of diamond breakage.*
		using a +0.8mm slotted bottom screen. Insufficient data was available to determine a 5 DTC cut-off grade for Tristram and Bedevere

Criteria	JORC Code Explanation	Lucapa Commentary
Security and integrity	• *Accredited process audit.* • *Whether samples were sealed after excavation.* • *Valuer location, escort, delivery, cleaning losses, reconciliation with recorded sample carats and number of stones.* • *Core samples washed prior to treatment for micro diamonds.* • *Audit samples treated at alternative facility.* • *Results of tailings checks.* • *Recovery of tracer monitors used in sampling and treatment.* • *Geophysical (logged) density and particle density.* • *Cross validation of sample weights, wet and dry, with hole volume and density, moisture factor.*	• There has been no accredited process audit. • Production and samples were covered by normal operational security protocols • Values are based on sales data. • No microdiamonds are recorded. • No Audit samples were processed. • No Tailings checks were reported. • No tracers tests are reported. • No geophysical density data was acquired • No cross-validation information is reported.
Classification	• *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*	• The level of confidence in the volume of the resource is sufficient to classify the resource as Indicated and Inferred. The pipes themselves are easily discernible by drilling and generally have a predictable geometry. There are insufficient data points to meet the Measured Resource category.

Criteria	JORC Code Explanation	Lucapa Commentary
	stone) to derive grade (carats per tonne). The elements of uncertainty in these estimates should be considered, and classification developed accordingly.	• Sufficient density data points have been used to enable the Indicated and Inferred volumes to be converted to tonnages. • The Merlin kimberlites contain various kimberlite facies, which represent varying rock types between and within the kimberlite pipes. The various facies essentially represent different intrusive events. • Accurately defining the facies variation within each pipe is not possible with the current drilling information. • Previous mining operations considered each pipe as a bulk facies and the grade data pertains to the pipe as a whole. • The internal facies variation and relative diamond content is not known and is considered a limiting factor in the resources not being upgraded to the Measured category. • The diamond grade is based on plant recovered grades and is sensitive to liberation issues, plant recovery efficiency, and final recovery techniques used. The Resource Grade is not a measure of total diamond content but rather a measure of what may be reasonably recovered from a processing operation using similar processing and recovery methodology. • The resource estimate is listed with no cut-off and with a 5 DTC cut-off. • The resource estimation includes a lower slotted screen size of +0.8mm and +0.95mm. • Detailed diamond grade models have been determined based on the contribution to grade of various diamond size fractions. • The level of confidence in the grade for the drilling data is lower than for the mining data and is reflected in the resource category (eg Bedevere and Tristram are Inferred only). • A diamond grade has been determined and applied to each individual deposit (kimberlite pipe) based on the assumption that the diamonds at the Merlin deposits are homogenously distributed throughout the pipes and that this distribution does not vary with increasing depth.

Criteria	JORC Code Explanation	Lucapa Commentary
		• The continuity of grade at depth in the absence of large bulk samples relies on several key assumptions: • Diamonds are distributed reasonably homogenously throughout any particular kimberlite facies • The size/frequency distribution of the diamonds will be constant for any particular kimberlite facies. • The diamond grade and quality at the base of the open pits will continue at depth provided there is no material change in kimberlite lithology and density. • There is no evidence in the drilling data to suggest the kimberlite lithology is materially different at depth.