

Change to Argyle Diamonds Mineral Resources**2 March 2017**

Included in Rio Tinto's annual Mineral Resources and Ore Reserves tables, released to the market today as part of its 2016 Annual Report, are decreases in Mineral Resources at Rio Tinto's 100 per cent-owned Argyle Diamond mine in the East Kimberley, Western Australia.

The updated Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 (JORC Code) and the ASX Listing Rules. As such, the reported decreases relating to the Argyle Mine requires the additional supporting information set out in this release and its appendix.

Rio Tinto's Ore Reserves and Mineral Resources are set out in full in its 2016 Annual report.

During 2016, estimated Argyle Mineral Resources exclusive of Ore Reserves decreased by 29Mt from 44Mt to 15Mt. Previously reported Mineral Resources included mineralisation that could support a potential extension of the currently planned mine life. As mine life extension options are under ongoing review, the reported Mineral Resources have now been restricted to those parts of the mineralisation which can be potentially developed, mined and processed during the existing mine-life defined by the current underground operation. It is for this reason that there has been a material reduction in reported Mineral Resources in 2016.

As the change to Argyle Mineral Resources does not impact reported Ore Reserves, this reduction has no bearing on the current mine plan which sees production continuing until 2021.

2016 Annual report Mineral Resource table, showing line items relating to Argyle Diamonds

	Likely mining method (a)	Resources at end 2016						Total resources 2016 compared with 2015				Rio Tinto interest %
		Measured		Indicated		Inferred		2016		2015		
		Millions of tonnes	carats per tonne	Millions of tonnes	carats per tonne	Millions of tonnes	carats per tonne	Millions of tonnes	carats per tonne	Millions of tonnes	carats per tonne	
		DIAMONDS										
Argyle Diamonds (Australia) (b)	O/P + U/G			15	3.2			15	3.2	44	3.4	100

Notes

- (a) Likely mining method: O/P = open pit; O/C = open cut; U/G = underground; D/O = dredging operation.
- (b) Argyle Resources, previously reported as AK1 pipe, decreased following a review and curtailment of development studies. A JORC table 1 in support of these changes will be released to the market contemporaneously with the release of this Annual report and can be viewed at riotinto.com/JORC. Argyle Resources are reported to a nominal 0.5 millimetre lower cut-off size and a final re-crushing size of 6 millimetres.

Summary of information to support the Mineral Resources estimates

Mineral Resource Estimates for Argyle Diamonds are supported by the information set out in the appendix to this release and also located at riotinto.com/JORC in accordance with Table 1 checklist in the JORC Code (Sections 1 to 3 and Section 5).

A change in the Argyle Diamonds Mineral Resources follows the ongoing review of potential mine-life extension options and restricts reported Resources to that component of the known mineralisation which may be developed, mined and processed within the current operational mine life.

The following summary of information for Mineral Resource Estimates is provided in accordance with rule 5.8 of the ASX Listing Rules.

Geology and geological interpretation

Argyle Diamonds is a mining operation comprising a diamond processing plant and underground mine located in the East Kimberley region of Western Australia. The operation has been in existence since 1983. Mining transitioned from open pit operations to underground operations in 2013.

Primary mineralisation at Argyle comprises a volcanic lamproite intrusion. Argyle Diamonds have constructed a single geology model representing this mineralisation based on comprehensive data sets drawn from drilling data, surface outcrops, wall mapping during the open pit operation and mapping of exposures in the tunnels of the current underground mining operation. In excess of 700 holes have been drilled into the deposit, totalling more than 157,000 metres of drilling.

In addition, surface mineralisation exists in the form of alluvial deposits, surface stockpiles and deposited tailings.

The reported Mineral Resources represent a subset of the interpreted mineralisation and is exclusive of reported Ore Reserves.

Drilling techniques

Core drilling has been the primary drilling technique for both sample collection and geological definition. Large diameter core (200mm), PQ (85mm), HQ (63.5mm) and NQ (47.6mm) drilling techniques have all been used to define mineralisation over a number of campaigns drilled from the original surface, open pit benches and underground locations.

Sampling, sub-sampling and sample analysis methods

Sample processing methods include bulk processing of the large diameter core and PQ samples through a Mk iii sample treatment plant, and caustic fusion of micro-diamond samples from the smaller diameter drill cores.

The reported Mineral Resource largely relies on micro-diamond sampling techniques. Samples are collected in 20kg aliquots, digested and the residues are hand sorted for micro-diamonds larger than 0.106mm. The size distribution of stones from the mineralisation at Argyle and the relationship between commercially recoverable stones and micro-diamonds is known from the earlier bulk sampling campaigns as well as 30 years of operational diamond recovery. This relationship is used to estimate commercially recoverable grades from the micro-diamond samples. Reported grades are expressed at a bottom stone size of 0.5mm. Micro-diamond sample processing has been carried out over the years at Rio Tinto laboratories in Canning Vale and Belmont, Western Australia, and Thunder Bay, Ontario, Canada.

Criteria used for classification

Resource classification is directly related to geological interpretation, drill hole and sampling density and grade estimation of particular geological domains. Classification is also influenced by potential mining methods, with bulk mining methods likely to better represent global grade estimates from larger block sizes than smaller scale selective mining methods requiring smaller estimation blocks.

The Mineral Resource is reported at an indicated classification and reflects the Competent Person's view of how well that component of the deposit has been evaluated. No measured or inferred Mineral Resource is reported.

Estimation methodology

Estimation constraints are defined for mineralisation boundaries and internal sub-domains representing different depositional emplacements (lamproite units) classified by stone size and quality distribution. Estimation is undertaken using ordinary kriging techniques within these sub-domains to interpolate sample grades into the block model. The estimated model is validated by visual checks of estimated grades against composite drill hole data. The model has been reconciled with actual production data over the history of the Argyle operation and the results are used to verify the key parameters used in both the development of the model and the estimation of grade within the model.

Reasonable prospects for eventual economic extraction

Prospects for eventual economic extraction are assessed in scoping studies for individual potential developments. The reported Mineralised Resource represents mineralisation which may be extracted using a combination of underground and surface mining methods.

Previously reported Mineral Resources have included mineralisation which could support a potential extension of the planned mine-life. As any material mine-life extension options are under review, reported Mineral Resources have now been restricted to a smaller component of known mineralisation which may be developed, mined and processed within the currently planned mine life. This material includes a smaller high grade sub-component of the primary mineralisation beneath the existing underground mine, which could be mined using small scale underground methods; a component of the coarse tailings storage which may be excavated and reprocessed to recover diamonds deposited at times of different plant configuration; and a small high grade stockpile of reject material from the existing diamond recovery process which could be amenable to further recovery using alternate processing techniques.

The scoping studies referred to are based on low-level technical and economic assessments, and are insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the scoping studies will be realised.

Competent Persons Statement

The material in this report that relates to Mineral Resources is based on information prepared by Stephen Brennan, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy, Murray Rayner, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy, and David Ford, a Competent Person who is a Member of The Australasian Institute of Geoscientists. Mr Brennan, Mr Rayner and Mr Ford are all full-time employees of Rio Tinto.

Mr Brennan, Mr Rayner and Mr Ford have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Each of Mr Brennan, Mr Rayner and Mr Ford consents to the inclusion in the report of the material based on information prepared by him in the form and context in which it appears.

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Argyle Diamonds - Table 1

The following table provides a summary of important assessment and reporting criteria used at Argyle Diamonds for the reporting of mineral resources and ore reserves in accordance with the Table 1 checklist in The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition). Criteria in each section apply to all preceding and succeeding sections.

SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	Commentary
Sampling techniques	<ul style="list-style-type: none"> Diamond core drilling has been used to collect geological, geotechnical and hydro-geological information. Core sizes comprise Large Diameter Core (LDC) (200mm), PQ (85mm), HQ (63.5mm), and NQ (47.6mm). A variation in sample size and processing exists due to differing core diameter size. <ul style="list-style-type: none"> LDC core was sampled in 20m lengths (weight ~1.5tonnes) and processed using a mkihi sample treatment plant (lower cut-off size of 0.5mm). PQ core was sampled in 20m lengths (weight ~0.3tonnes) and processed using a customised crushing circuit and mkihi sample treatment plant (lower cut-off size of 0.5mm). NQ/HQ core is sampled at a size of 20kg, (5m lengths for NQ or 2.5m lengths for HQ) and digested using a caustic fusion process to recover microdiamonds which are counted and weighed (lower cut-off size of 0.106mm). Alluvial tailings samples range from 100kg to 10t and have been processed through the AK1 audit plant (lower cut-off size of 0.65mm). Coarse tailings samples range from 50t to 135t and have been processed using the mkihi sample treatment plant (lower cut-off size of 0.5mm). Further details can be found in section 5.
Drilling techniques	<ul style="list-style-type: none"> Drilling is predominantly by diamond core drilling methods using LDC, PQ, HQ & NQ core size over a number of programs drilled on both grids and in fans from the original surface, pit benches and underground tunnels. Refer to the table of drilling programs in Section 2 and the sample drilling sections in the appendix.
Drill sample recovery	<ul style="list-style-type: none"> Diamond drill core recovery loss of 5 cm or greater is recorded by the driller. Overall recovery from diamond drill core has exceeded 95%.
Logging	<ul style="list-style-type: none"> Standardised Rio Tinto diamond core logging systems are utilised for all drilling. Diamond drill core is logged to 1m intervals within geologically complex zones and intervals are terminated on geological boundaries. Zones of geological continuity may feature intervals of 20m or more. Older core has been photographed to various degrees of quality. Since 2001 each tray of core is photographed digitally in both wet and dry condition Remaining core (after sampling) from drilling programs since 2005 are stored in secure racks or core pods, while older core is stored on site in varying conditions
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> Sampling techniques are discussed above and in section 5. The processing of LDC and PQ samples was carried out in a customised crushing circuit and mkihi batch treatment plant at the mine site; the LDC sample grades formed the basis for the original resource estimate. The processing of all HQ and NQ samples that are used for the grade estimation in the current resource model (December 2016) was carried out at the Argyle Diamonds Laboratory at Canning Vale in Western Australia, the RTE (Rio Tinto Exploration) Belmont laboratory in Western Australia, or the Kennecott laboratory in Thunder Bay, Canada. Each laboratory used the same standard procedures. Samples were dried and weighed, then crushed and kiln-treated in caustic to dissolve all non-diamond material. The recovered diamonds were sized using standard Endecott sieve sizes down to +0.15mm. The numbers of stones per sieve size were counted and individual stones greater than 0.85mm were weighed.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> Samples are spiked with synthetic diamonds and diamond breakage is closely observed and documented as part of standard QA/QC procedures.

Verification of sampling and assaying	<ul style="list-style-type: none"> The assay grade (carats/tonne) in the block model is empirically derived by development of stone size distributions for each ore domain. The LDC sample grades formed the basis for the original resource estimate and are known as the “mkiii grade”. The micro-diamond based sample grades are linked to the LDC sample grades by way of the continuous stone size distribution. LDC grades were calculated by dividing the weight of recovered stones greater than 0.6mm by the sample weight. This mkiii grade does not represent the total diamond content of the sample due to incomplete liberation of the smaller stones, some of which remain locked in the plant tailings. The final re-crushing size in the mkiii plant was set at 6mm, so a proportion of stones finer than this size would remain unliberated, with the losses becoming increasingly significant towards the finer sizes. PQ-method sample grades were calculated from the number of stones greater than 0.6mm (stones per tonne (SPT)), multiplied by the mean stone size of the LDC distribution. The distribution obtained from the PQ program differed significantly from the LDC distribution, most notably in the finer size classes, due to higher recovery of small stones from the PQ samples using a modified crushing and screening module in the mkiii plant. A factor was therefore applied to the PQ results to correct for this difference so as to arrive at grades that were comparable with the earlier LDC results. The microdiamond method recovers 100% of the contained diamonds for all size classes greater than 0.150mm. Stone-size distributions for individual samples are truncated because few commercial-size stones are obtained, due to the relatively small sample size. A ratio was therefore developed to convert the SPT in the microdiamond range +0.21 to +0.42mm size classes to an equivalent “mkiii” SPT, allowing the estimation of mkiii equivalent grades.
Location of data points	<ul style="list-style-type: none"> All drill hole collar locations are surveyed to Geocentric Datum of Australia 1994 (GDA94) grid by Rio Tinto surveyors using Differential Global Positioning System (DGPS) survey equipment. Drill hole collars are compared to detailed topographic maps and underground development models to check that the collar survey data are accurate.
Data spacing and distribution	<ul style="list-style-type: none"> Drill hole spacing is predominately 25m (East-West) by 50m (North-South) throughout the deposit after numerous drill programs over the years. Due to access constraints, holes drilled from underground locations are drilled across established sections. Refer to the figures included in the appendix for the distribution of drilling. Alluvial tailings sample spacing is predominately 25-50m (East-West) by 25-50m (North-South). Coarse tailings sample spacing is predominately 50-100m (East-West) by 50-100m (North-South).
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Drilling is predominantly vertical to sub vertical intersecting a moderately dipping (45-50 degrees) ore body. The drill grid is east-west to north-south sub-perpendicular to the deposit strike. In cases where the relationship between the drilling orientation and the orientation of the ore body contact is considered to have introduced a sampling bias, these samples have been removed from the estimate.
Sample security	<ul style="list-style-type: none"> All samples are inspected by site security prior to being sealed in a drum for transportation. Overseas documentation (Commercial Invoice and Customs Declaration) accompanies samples en-route to Thunder Bay, Canada. Samples are tracked via an external contracted shipping company. Receipt of samples at the laboratory is confirmed and signoff takes place by both parties prior to sample weighing and analysis.
Audits or reviews	<ul style="list-style-type: none"> An independent Resources and Reserves audit took place in 2014. Moderate level findings related to the storage condition of older drill core and the documentation of current logging procedures. Pre 2006 core storage is being progressively upgraded and logging procedures will be reviewed prior to any new drilling program. Revisions of the block model over the years have been subjected to critical internal peer review.

SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria	Commentary																											
Mineral tenement and land tenure status	<ul style="list-style-type: none">The Argyle deposits together with the mining and processing operations are located in the East Kimberley region of Western Australia.They are situated on mining lease M259SA granted in 1983 for a period of 21 years.The lease was renewed in October 2003 for a further 21 years and is due to expire on 26 January 2025. The State Agreement Act which governs the operation allows for successive renewals of the mining lease.The present lease duration is three years beyond the expected mine life of the currently approved operation. The reported ore reserves and mineral resources can be developed and mined within the present lease period without the requirement for a further lease renewal.Argyle Diamonds is 100% owned by Rio Tinto Ltd.																											
Exploration done by other parties	<ul style="list-style-type: none">No exploration undertaken by other parties is incorporated in the mineral resource estimates.CRAE (now RT Exploration (RTX)) undertook initial creek sampling in 1979 resulting in alluvial discovery with subsequent identification of the primary AK1 pipe.Multiple drillhole programs have been undertaken by Argyle Diamonds as outlined in the table below.Some regional exploration was carried out by RTX over the period 2003-2008.																											
Geology	<ul style="list-style-type: none">The primary Argyle deposit (referred to as the 'AK1') is a volcanic magmatic lamproite and lamproitic tuff intruded into a Proterozoic sequence of interbedded quartzite, siltstone and mudstone units that overlie dolerite and basalt units that in turn, overlie a granite basement.Alluvial deposits, representing eroded material from the primary volcanic pipe, exist within the mining lease and have been exploited in the past. Currently no alluvial material is reported.																											
Drill hole Information	<ul style="list-style-type: none">A summary of drilling data is presented below: <table><tr><th>Program and Year</th><th>Holes</th><th>Description</th></tr><tr><td>Ore Reserve Program 1980-82</td><td>312 holes: 9 300m LDC 3 500m open hole 29 000m NQ</td><td>LDC (200mm) drilling for sampling and NQ core for delineation. 50x50m spacing (Sth) to 100x100m spacing (Nth). Collared on original surface topography (approx. 10 350mRL). Depths to 10 100mRL</td></tr><tr><td>Deep Ore Resource Program 1989-90</td><td>67 holes: 18 900m</td><td>NQ core drilling for sampling and delineation. Sampling on 100x50m grid collared on open pit benches. Depths to 10 000mRL.</td></tr><tr><td>UG Mining Study 1994-95</td><td>49 holes: 14 400m PQ 7 000m HQ/NQ</td><td>PQ core drilling for sampling and HQ/NQ/PQ core drilling for delineation. One to two holes on 50m spaced sections collared on open pit benches. Depths to 9 700mRL.</td></tr><tr><td>Deep Exploration Program 1998-2000</td><td>31 holes: 19 200m</td><td>NQ core drilling for sampling and delineation. Collared on open pit benches. Depths to 9 300mRL.</td></tr><tr><td>UG Mining PFS Program 2002-2003</td><td>53 holes 12 100m</td><td>HQ core for sampling and geotechnical information. Collared on open pit benches and oriented to cross the pipe from HW to FW. Depths to 9 750mRL</td></tr><tr><td>Nthn Bowl and Sthn Tail Resource Program 2002, 2004-2005</td><td>74 holes: 18 200m</td><td>HQ and NQ core for sampling and delineation. Used to infill northern sampling to the same coverage as that in the south (25m E-W to 50m N-S). Collared on open pit benches. Depths to 9 800mRL</td></tr><tr><td>UG Geotechnical Program 2006-08</td><td>57 holes: 9 900m</td><td>HQ core drilling for cover drilling, geotechnical information and sampling. Collared in underground tunnels on the Exploration Level at a variety of locations and orientations. Fan drilling designed to intercept lamproitic contacts. Depths to 9 600mRL.</td></tr><tr><td>UG 2 Resource Program 2012-13</td><td>91 holes: 15 700m</td><td>HQ core drilling for sampling and delineation. Collared in underground tunnels at the base and beneath the block cave mine at a variety of locations and orientations. Fan drilling designed to intercept lamproitic contacts. Depths to 9 200mRL.</td></tr></table> <ul style="list-style-type: none">Miscellaneous geotechnical, piezometer, hydrogeology and cover drilling programs are not included in this table.Refer to the figures included in the appendix for the location of drilling.	Program and Year	Holes	Description	Ore Reserve Program 1980-82	312 holes: 9 300m LDC 3 500m open hole 29 000m NQ	LDC (200mm) drilling for sampling and NQ core for delineation. 50x50m spacing (Sth) to 100x100m spacing (Nth). Collared on original surface topography (approx. 10 350mRL). Depths to 10 100mRL	Deep Ore Resource Program 1989-90	67 holes: 18 900m	NQ core drilling for sampling and delineation. Sampling on 100x50m grid collared on open pit benches. Depths to 10 000mRL.	UG Mining Study 1994-95	49 holes: 14 400m PQ 7 000m HQ/NQ	PQ core drilling for sampling and HQ/NQ/PQ core drilling for delineation. One to two holes on 50m spaced sections collared on open pit benches. Depths to 9 700mRL.	Deep Exploration Program 1998-2000	31 holes: 19 200m	NQ core drilling for sampling and delineation. Collared on open pit benches. Depths to 9 300mRL.	UG Mining PFS Program 2002-2003	53 holes 12 100m	HQ core for sampling and geotechnical information. Collared on open pit benches and oriented to cross the pipe from HW to FW. Depths to 9 750mRL	Nthn Bowl and Sthn Tail Resource Program 2002, 2004-2005	74 holes: 18 200m	HQ and NQ core for sampling and delineation. Used to infill northern sampling to the same coverage as that in the south (25m E-W to 50m N-S). Collared on open pit benches. Depths to 9 800mRL	UG Geotechnical Program 2006-08	57 holes: 9 900m	HQ core drilling for cover drilling, geotechnical information and sampling. Collared in underground tunnels on the Exploration Level at a variety of locations and orientations. Fan drilling designed to intercept lamproitic contacts. Depths to 9 600mRL.	UG 2 Resource Program 2012-13	91 holes: 15 700m	HQ core drilling for sampling and delineation. Collared in underground tunnels at the base and beneath the block cave mine at a variety of locations and orientations. Fan drilling designed to intercept lamproitic contacts. Depths to 9 200mRL.
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Data aggregation methods	<ul style="list-style-type: none"> Sample compositing for the HQ and NQ core has been applied, 20m is the nominal composite length, matching the length of the earlier PQ and LDC samples. Actual composite length may vary within an intersection to equalise the length of each composite in the intersection, thereby avoiding the creation of short “tails” at the intersection ends.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> Mineralised intercept lengths are not used as a determinant of mineralisation width. Current modelling of the mineralisation converted to ore reserves and mineral resource is supported by drilling programs which deliberately target the geological contacts to determine the true size of the lamproite pipe. The more recent UG drilling programs consist of fan drilling targeted across the orebody or from within the orebody targeting the lateral extents. The geometry of the lamproite pipe is understood from these drilling intersections with the geological contact as well as from mapping of open pit exposures and underground mine development. This modelled geometry is used to estimate tonnage. Refer to the diagrams in the appendix for sectional views and drillhole details.
Diagrams	<ul style="list-style-type: none"> Refer to the diagrams appended to this Table 1 document
Balanced reporting	<ul style="list-style-type: none"> Not applicable. Argyle Diamonds has not specifically released exploration results for this deposit.
Other substantive exploration data	<ul style="list-style-type: none"> Substantive geological exposures are available from 30 years of open pit mining and substantial underground development. Mapping of these exposures are used extensively to confirm orebody limits, shape and size.
Further work	<ul style="list-style-type: none"> Drilled mineralisation extends substantially beyond currently reported ore reserves and mineral resources (refer to the sections appended to the report). Mineralisation is open at depth, though the deposit is known to narrow with depth. No further drilling of the primary deposit is currently planned. Small scale sampling of surface alluvial deposits is expected to be carried out over the next few years to identify surface resource potential

SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	Commentary
Database integrity	<ul style="list-style-type: none"> All drilling data are securely stored in an Access Database using DataShed as a front end. Management of the data is restricted to two site based custodians (geoscience professionals). The database is housed on a site based SQRL server and is backed up daily. Rio Tinto Diamonds regularly perform internal checks of the Vulcan datasets extracted from the Access database. Queried anomalies are rectified by the database custodians prior to modelling and Mineral Resource estimations.
Site visits	<ul style="list-style-type: none"> A competent person regularly visits the Argyle Mine Site.
Geological interpretation	<ul style="list-style-type: none"> Geological modelling is undertaken by the principal geologist and all work is reviewed internally. The method involves interpretation of down-hole stratigraphy (using lithological core logging data, core photographs and assay data) and interpretation of underground development face and back-mapping. Five grade domains, based on stone size and quality distribution and relating to discrete phases of emplacement during the genesis of the deposit are interpreted from the geometry and geology of the pipe. Beneath the block cave further sub-domains have been interpreted from different geological textures/units (maintaining same stone size distribution of the parent domain). Vulcan 3D software is employed to capture the interpretation of the pipe geometry in 3D and on East-West sections. Wall rock units and structural features are considered where these have influenced the pipe geometry. The digitised points are triangulated to form a three-dimensional “wireframe” model to represent the pipe geometry.
Dimensions	<ul style="list-style-type: none"> The Argyle mineralisation is a lamproite pipe of elongate shape in plan view and dips approximately 50 to 70 degrees from horizontal to the west. It has a 2km NNE strike and ranges from 150m-500m in width. The known pipe extends approximately 1km in depth from the topographic surface. The pipe tapers at depth and diverges into four distinct ‘roots’.

Estimation and modelling techniques	<ul style="list-style-type: none"> The block model is aligned to the mine grid that is 3 degrees off magnetic north. Block size is 25m (east-west) by 50m (north-south) by 15m (elevation). Sub-cells are used to improve the resolution of the volume near the domain boundaries and are maintained at a constant fraction of the parent cell size, with the smallest permitted sub-cell being 12.5m by 12.5m (in plan) by 15m (elevation). Beneath the block cave the sub-cell size is reduced to 6.25m (east-west) by 6.25m (north-south) by 5m (elevation) to provide additional resolution along internal domain boundaries. Blocks are estimated for the five mineralised domains (and any internal domains) in Vulcan using an Ordinary Kriging interpolator and a three pass search. The estimated model is validated using visual checks of the estimated blocks with composite drill hole data superimposed. Early development of the model incorporated statistical analysis on all five domains through an external consultant. This analysis enabled correct choice of search neighbourhood constraints to be applied. The model has been reconciled with actual production data and the results have verified the key parameters utilised both in the development of the model and in the grade estimation, in particular the use of hard domain boundaries and uncut composites.
Moisture	<ul style="list-style-type: none"> The resource model is quoted as dry tonnage. Production figures incorporate a moisture content of 5% for underground material and 3-4% for surface material.
Cut-off parameters	<ul style="list-style-type: none"> Cut off parameters are not used for the composite data in the model.
Mining factors or assumptions	<ul style="list-style-type: none"> Reporting of Mineral Resources is aligned with the longer term Argyle strategic business plan and only includes mineralisation where reasonable prospects for eventual economic extraction have been demonstrated in Scoping Studies. Previously reported Mineral Resources have included material which could support a potential extension of the planned mine-life. As mine-life extension options are under review, reported Mineral Resources have now been restricted to those parts of the mineralisation which can be developed, mined and processed during the existing mine-life defined by the current block cave operation. As such, there has been a material reduction in reported Resources in 2016. There are three components to the reported Mineral Resources. Extraction potential for these three areas has been investigated in various Scoping Studies completed to order of magnitude level of confidence. <ul style="list-style-type: none"> Area 1 (11Mt) represents AK1 lamproite beneath the central portion of the block cave operation, north of 56,600mN and between 9,550mRL and 9,675mRL. This portion of the AK1 pipe contains a higher grade core which is proposed as a target for a small scale underground mining operation. The scoping mine plan is based on a stable, non-caving stope/gallery extraction system whereby the integrity of the existing overlying orehandling infrastructure is not compromised. Mining would be undertaken in parallel with current block cave operations with ore introduced into the existing ore handling system. There would be reliance on existing access, ventilation and dewatering infrastructure. Area 2 (3.8Mt) represents a portion of the coarse-tails embankment of the Argyle tailings storage facility where potentially economic diamonds were deposited during times of differing configurations of the process plant. It has been proposed that this material could be mined by a number of cut-backs into the embankment and processed using spare processing capacity in the existing Argyle Diamond Processing Plant. Area 3 (0.02Mt) represents a small stockpile of high grade tailings/rejects from the recovery process (the final stage of diamond processing carried out on site). Studies have highlighted the potential for economic recovery of these stones using alternate processing methods (grease-belt technology). The Scoping Studies referred to are based on low-level technical and economic assessments, and are insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Studies will be realised
Metallurgical factors or assumptions	<ul style="list-style-type: none"> It is assumed that the reported Mineralised Resources, if converted to Ore Reserves in the future, will be processed in the existing Diamond Process Plant at the Argyle mine site. Metallurgical factors and assumptions are based on historical performance.
Environmental factors or assumptions	<ul style="list-style-type: none"> As the Mineral Resources will likely be developed on an existing brownfields site, little additional environmental impact is expected. The Environmental Protection Statement submitted in 2005 for the current underground development included potential further mine expansions including the mining of material beneath the current operation, together with the development of an additional tailings storage facility. The current resource development case assumes a smaller scale development without the need for

	additional tailings storage sites.
Bulk density	<ul style="list-style-type: none"> Bulk density is estimated into the model using an inverse distance interpolator over a three-pass search. A default value of 2.6 is assigned for the quartzite and mudstone waste rocks. Density measurements are now collected as standard practice from the laboratory when samples are submitted for assay analysis.
Classification	<ul style="list-style-type: none"> Resource classification is directly related to geological interpretation, drill hole and sampling density, and grade estimation of particular geological domains. Classification is also influenced by potential mining methods (bulk mining will see greater grade confidence than small scale selective mining as the extraction volumes would be better aligned with the size of the estimation blocks. In general, the resource classification decreases in confidence with depth and boundary blocks along the pipe contact are classified at no more than an Indicated level of confidence reflecting potential dilution along the margins. The Resource classification appropriately reflects the Competent Person's view of how well the deposit has been evaluated.
Audits or reviews	<ul style="list-style-type: none"> Resource estimation has historically been subject to numerous internal peer reviews, though there has been limited recent review. An independent Resources and Reserves audit took place in 2014. No high or moderate level findings were made on the estimation processes.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> Geological certainty is considered to be good for the majority of the resource. Due to the nature of the mineralisation, continuity between drill hole intersections can be assumed with a good degree of confidence. Along the ore body margins, there are likely to be local variations between the available drill hole intersections as minor fluctuations will occur along the contacts relative to the model shape. From historical production data the recovered grade has shown good annual reconciliation with the modelled target grade (+/-5%) suggesting that the Argyle Resource model is robust. There is greater uncertainty with the pipe size and shape at depth as the number of drill holes intersecting the contacts decreases significantly. Potential mining feasibility, dilution and recovery estimates and potential mining economics are only understood to an order of magnitude level and are of insufficient certainty at this stage to provide assurance of development.

SECTION 5 ESTIMATION AND REPORTING OF DIAMONDS AND OTHER GEMSTONES

Criteria	Commentary
Indicator minerals	<ul style="list-style-type: none"> Indicator minerals are rare in the Argyle deposit. Chromite is the only mineral of significance. Dense Media Separation concentrate yields are extremely low, less than 0.1% of plant head feed. There are no commercial uses for chromite and it is not used as a surrogate for monitoring efficiency of the diamond recovery process.
Source of diamonds	<ul style="list-style-type: none"> The Argyle lamproite is a primary diamond source rock. The deposit is 1.1 Bn years old.
Sample collection	<ul style="list-style-type: none"> After discovery in 1979, surface bulk samples were processed for diamonds. Six small shafts were sunk to 60m to obtain larger parcels of diamonds from below the weathering horizon for sorting and valuation. LDC drilling was conducted on a 50m grid to produce diamonds from up to 250m below surface. These sampling exercises generated diamond size/frequency distributions (SFDs) and diamond size/quality distributions (SQDs) that were used for grade and price estimation. Over 100 000 carats of diamonds were recovered in the initial sampling programs for definition of the SQD and run of mine price. The diamond SFD and SQD assumptions are based on thirty years of mine operation and, while there continues to be short term regional variation, these distributions are reasonably well understood. Since the initial evaluation program, almost no sampling for commercial size diamonds has been undertaken. Production data revealed that the diamonds in each ore domain have slightly different SFDs, and the diamonds in the non-sandy domain have a slightly better SQD than the diamonds in the other three domains. In the early 2000s when the ore domains were being resolved, single domain special (or trial) batches of ore were processed and the diamonds were kept separate from normal production for sorting and definition of the SQD. The ore domain SQDs have been tested over the years and found to be robust. The ore domain diamond parcels contains hundreds of thousands of carats and provide accurate SFD and SQD data. The actual and expected SQDs are reconciled every five weeks, variance is typically in the range +/-5%

	<ul style="list-style-type: none"> Bulk sampling was conducted along the underground exploration decline in 2005/6 and the diamond SQD matched the SQD from Open Pit production in the same domain.
Sample treatment	<ul style="list-style-type: none"> A small (10 tph) mkiii bulk sample processing plant (scrubbing, crushing & DMS) is located on Site. This plant was used for sampling and auditing, but in recent years it has been placed on care and maintenance because it is expensive to operate. Top crushing size and recrush size in the sample plant replicate the main plant sizes (i.e. 15 mm and 6 mm respectively). The mkiii plant lower cut-off size is 0.5mm, the lower cut-off size in the main plant was reduced from 1.5mm to 1.0mm in 2013 and further to 0.8mm in 2015. Argyle staff undertake all the processing for commercial size diamonds including final diamond recovery using x-sorting machines in the main Recovery Plant. Drill core has been treated for micro-diamonds is processed through RTD's Thunder Bay Laboratory. This Laboratory is ISO 9000 accredited. The core is crushed to -12mm and digested in hot caustic soda. The product is neutralised and washed over a 106 micron mesh. The +106 micron material is re-fused and the residue is sorted by hand for micro-diamonds >150 microns.
Carat	<ul style="list-style-type: none"> One fifth (0.2) of a gram (often defined as a metric carat or MC).
Sample grade	<ul style="list-style-type: none"> Resource grades are reported based on a lower cut-off size of 0.50mm (square mesh woven wire sieve). As the lower cut-off size for production is nominally 0.8 mm, Reserve grades are reported to this bottom cut size. Sample stone densities or stone frequencies (stones per dry tonne of material processed) are converted into sample grades (carats per dry tonne) using the mean stone sizes (MSS) in carats per stone that reflect the equivalent mkiii SFD for each ore domain. $Spt \times MSS = \text{carats per tonne}$. The ore domain SFDs are based on stones greater than 0.60mm.
Reporting of Exploration Results	<ul style="list-style-type: none"> Commercial size diamonds are diamonds that remain on top of a 1 DTC round-hole punched metal sieve plate. The hole diameter of a 1 DTC sieve is 1.092mm. This sieve is equivalent, approximately, to a 0.85mm square mesh sieve. The diamond results from treating samples for commercial size stones are reported as carats and stones per square mesh sieve class, for the $\sqrt{2}$ series of square mesh sieves, the DTC series of round-hole sieves, and the Carats/Grainer/DTC series of boundary weights and sieves. The diamond results from treating drill core for micro-diamonds are reported as stones per sieve class, for the $\sqrt{2}$ series of square mesh sieves.
Grade estimation for reporting Mineral Resources and Ore Reserves	<ul style="list-style-type: none"> Resource grades are reported based on a nominal lower stone size cut-off of 0.5mm achieved by the mkiii sample plant, while Ore Reserve grades are reported based on a nominal lower stone size cut-off of 0.8mm achieved in the Process Plant. The process plant also incorporates improved liberation and recovery techniques. This miss-match is taken into account through the Reserve to Resource grade reconciliation factor. This factor is based on production reconciliation history. Diamond size/frequency distributions are not modelled using geostatistical techniques because there are sufficient clean sizing data from Special Production batches to provide robust SFDs for the diamonds in each ore domain. The grade reconciliation factor used for Reserve reporting is based on 18 months of production data where ore has been sourced from a single domain.
Value estimation	<ul style="list-style-type: none"> Production parcels from the Argyle mine are sorted and valued by RTD's staff in Antwerp every five weeks. The actual SQD for each parcel is reconciled against the expected SQD, and hence this relationship is tracked/monitored on a continuous basis. The results of the valuations are used to price the sales assortments offered to customers. Sales prices are considered confidential and, therefore, are not reported in the Public Domain. RTD (Antwerp) uses two methods for selling Argyle diamonds: the bulk of production is sold via two-year supply agreements with approx. 20 core customers, and the balance is sold via auctions that are open to a wider array of diamond companies. The auctions are used for price discovery; they help to set prices for the bulk of production. Assortment prices are reviewed monthly. RTD sells Argyle diamonds at "Producer Selling Prices", which equate to "Diamantaire Buying Prices". RTD (Antwerp) employs strict QA/QC methods during the diamond sorting and valuation process. Although routine assessment for diamond damage is not undertaken, the QC methods will identify changes in the proportion of damaged stones. If excessive damage is identified, feedback loops are in place for asking staff in the Recovery Plant at Site to review any changes made to their recovery processes. The micro-diamonds recovered from drill core for grade estimation are not sorted for quality.
Security and integrity	<ul style="list-style-type: none"> All RTD's entities are required to comply with the Diamond Security Standards that specify the minimum level of control needed to ensure that assets are appropriately protected. These Standards also provide a framework for implementing regular internal and external audits and for operating according to the Kimberly Process Certification Standards. RTD's security standards and processes are strictly confidential. Product handling at Argyle, in Antwerp and at the Thunder Bay Laboratory is conducted according

	to protocols and tolerance limits. Out-of-tolerance limits (OTL) are specified for diamond handling activities. Diamond parcels are weighed out and weighed in and any OTL are investigated by Departmental managers. Weight losses are permitted for the diamond cleaning processes that occur at Site, but the weight losses are trended and any OTL's are investigated.
Classification	<ul style="list-style-type: none"> The SFDs for each ore domain are reviewed periodically as part of the quarterly reconciliation processes.

APPENDIX – REPRESENTATIVE DRILLING SECTIONS

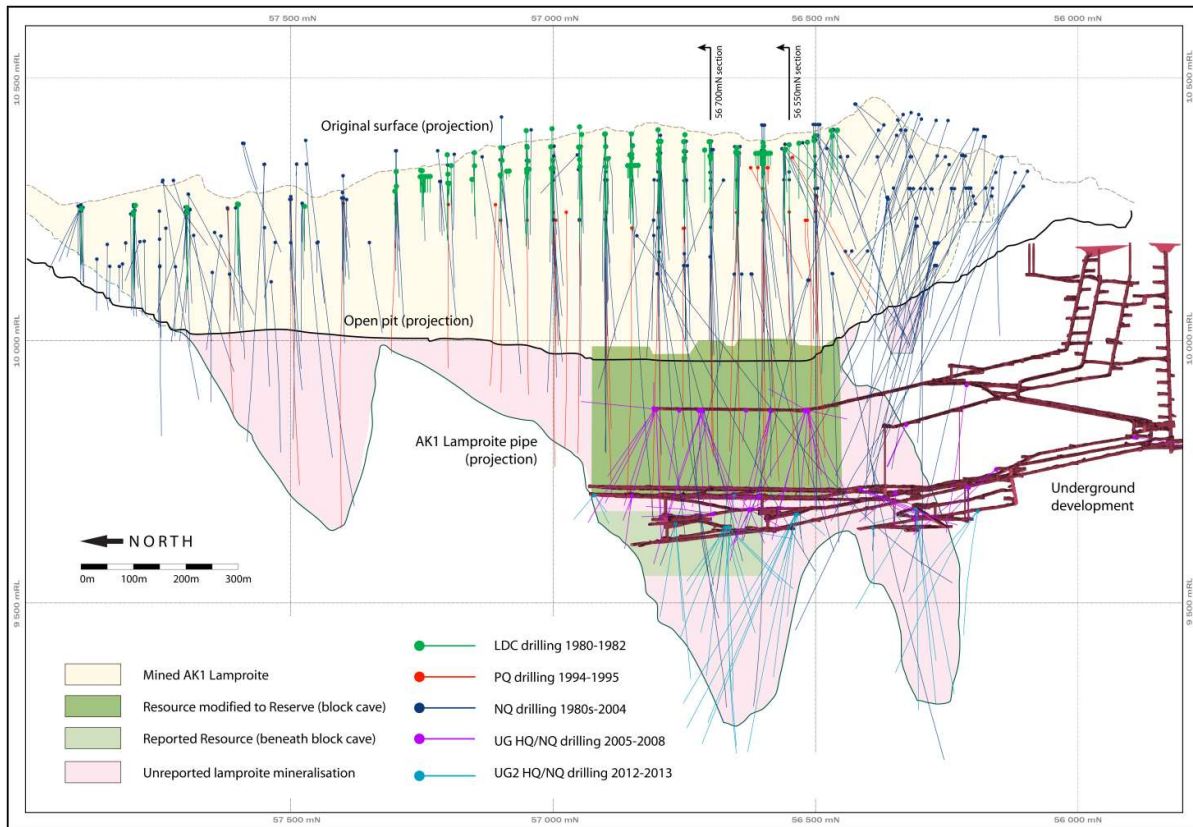


Figure 1 – Longsection projection of the orebody and historical drilling campaigns. Due to the dipping nature of the lamproite pipe, the open pit, pipe extents and drill holes are shown projected onto the section. For clarity, surface geotechnical, piezometer, underground hydrogeology, cover drilling and cave monitoring holes are not shown

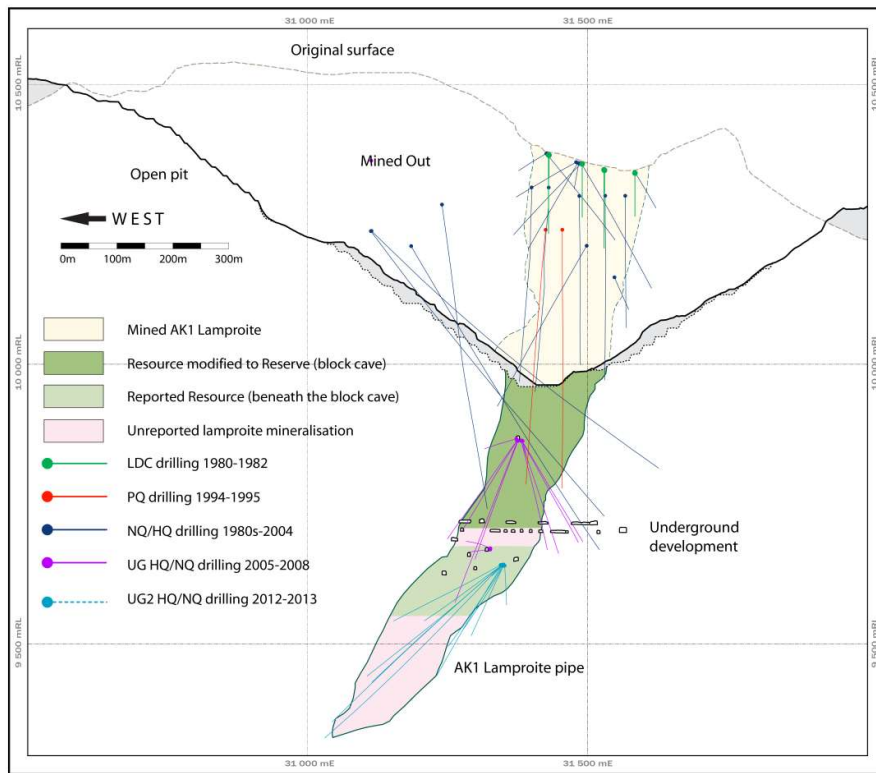


Figure 2 – Cross section through the reported reserve and resource (56 700m northing)
 Drill holes collared approx. +/- 40mm off section are shown. Complete hole traces are shown for holes that are not drilled vertically within the section. For clarity, surface geotechnical, piezometer, underground hydrogeology, cover drilling and cave monitoring holes are not shown

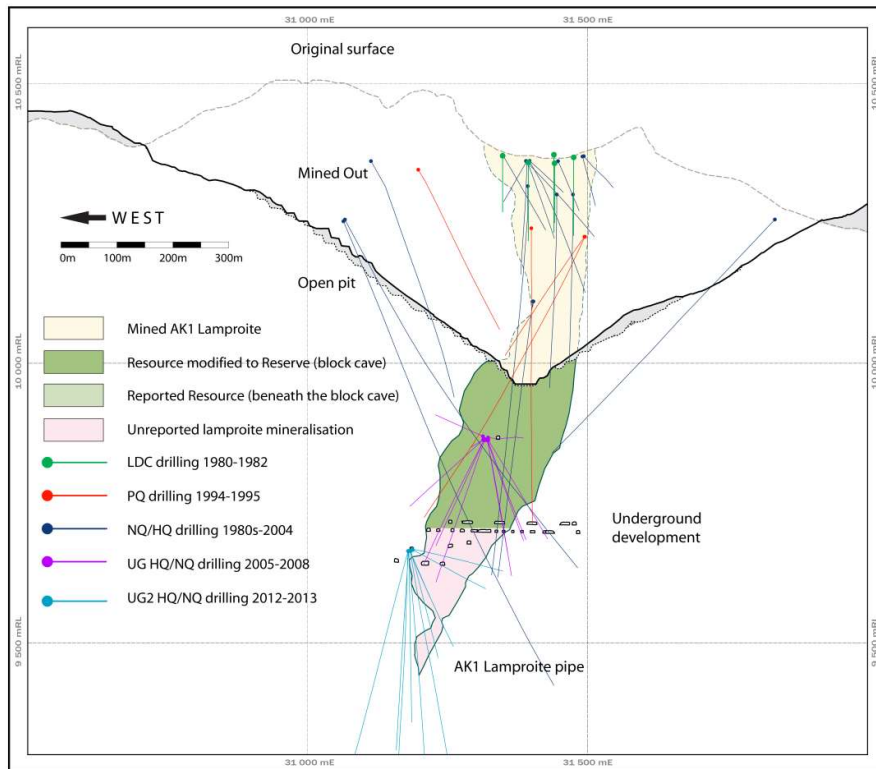


Figure 3 – Cross section through the reported reserve and resource (56 550m northing)
 Drill holes collared approx. +/- 40mm off section are shown. Complete hole traces are shown for holes that are not drilled vertically within the section. For clarity, surface geotechnical, piezometer, underground hydrogeology, cover drilling and cave monitoring holes are not shown