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## INTRODUCTION

The Ore Reserve and Mineral Resource estimates presented in this report are prepared in accordance with the Anglo American plc (AA plc) Group Ore Reserves and Mineral Resources Reporting Policy. This policy requires that the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 edition (the JORC Code) be used as a minimum standard. Some Anglo American plc subsidiaries have a primary listing in South Africa where public reporting is carried out in accordance with the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the SAMREC Code). The SAMREC Code is similar to the JORC Code and the Ore Reserve and Mineral Resource terminology appearing in this section follows the definitions in both the JORC (2012) and SAMREC (2016) Codes. Ore Reserves in the context of this report have the same meaning as 'Mineral Reserves' as defined by the SAMREC Code and the CIM (Canadian Institute of Mining and Metallurgy) Definition Standards on Mineral Resources and Mineral Reserves.

The information on Ore Reserves and Mineral Resources was prepared by or under the supervision of Competent Persons as defined in the JORC or SAMREC Codes. All Competent Persons have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking. All the Competent Persons consent to the inclusion in this report of the information in the form and context in which it appears. The names of the Competent Persons (CPs) along with their Recognised Professional Organisation (RPO) affiliation and years of relevant experience are listed in the Ore Reserve and Mineral Resource Report 2018.

Anglo American Group companies are subject to a comprehensive programme of reviews aimed at providing assurance in respect of Ore Reserve and Mineral Resource estimates. The reviews are conducted by suitably qualified Competent Persons from within the Anglo American Group or by independent consultants. The frequency and depth of the reviews is a function of the perceived risks and/or uncertainties associated with a particular Ore Reserve and Mineral Resource. The overall value of the entity and time that has elapsed since an independent third-party review are also considered. Those operations/projects that were subjected to independent third-party reviews during the year are indicated in footnotes to the tables.

The JORC and SAMREC Codes require due consideration of reasonable prospects for eventual economic extraction for Mineral Resource definition. These include long-range commodity price forecasts which are prepared by in-house specialists largely using estimates of future supply and demand and long-term economic outlooks. The calculation of Mineral Resource and Ore Reserve estimates are based on long-term prices determined at the beginning of the second quarter of each year. Ore Reserves are dynamic and are more likely to be affected by fluctuations in the prices of commodities, uncertainties in production costs, processing costs and other mining, infrastructure, legal, environmental, social and governmental factors which may impact the financial condition and prospects of the Group. Mineral Resource estimates also change and tend to be influenced mostly by new information pertaining to the understanding of the deposit and secondly by the conversion to Ore Reserves. Unless otherwise stated, Mineral Resources are additional to (exclusive of) those resources converted to Ore Reserves and are reported on a dry

The appropriate Mineral Resource classification is determined by the appointed Competent (or Qualified) Persons. The choice of appropriate category of Mineral Resource depends upon the quantity, distribution and quality of geoscientific information available and the level of confidence in these data.

To accommodate the various factors that are important in the development of a classified Mineral Resource estimate, a scorecard approach is generally used. Mineral Resource classification defines the confidence associated with different parts of the Mineral Resource. The confidence that is assigned refers collectively to the reliability

of the Grade and Tonnage estimates. This reliability includes consideration for the fidelity of the base data, the geological continuity predicated by the level of understanding of the geology, the likely precision of the estimated grades and understanding of grade variability, as well as various other factors (in particular density) that may influence the confidence that can be placed on the Mineral Resource. Most business units have developed commodity-specific scorecard-based approaches to the classification of their Mineral Resources.

The estimates of Ore Reserves and Mineral Resources are stated as at 31 December 2018. The figures in the tables have been rounded, and if used to derive totals and averages, minor differences with stated results could occur.

The Ore Reserves and Mineral Resources Report 2018 should be considered the only valid source of Ore Reserve and Mineral Resource information for the Anglo American Group exclusive of Kumba Iron Ore and Anglo American Platinum Limited, which publish their own independent annual reports.

It is accepted that mine design and planning may include some Inferred Mineral Resources. Inferred Mineral Resources in the Life of Mine Plan (LOM Plan) are described as 'Inferred (in LOM Plan)' separately from the remaining Inferred Mineral Resources described as 'Inferred (ex. LOM Plan)', as required. These resources are declared without application of any Modifying Factors. Reserve Life reflects the scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan.

The Ownership (Attributable) Percentage that Anglo American holds in each operation and project is presented beside the name of each entity and is the Group's effective ownership interest. Operations and projects which fall below the internal threshold for reporting (25% attributable interest) are excluded from the Ore Reserves and Mineral Resources estimates. Operations or projects which were disposed of during 2018 and hence not reported are: Union (Platinum), Kriel, New Denmark, New Vaal Collieries and the Drayton South, Elders UG Extension, Kriel East, New Largo, Nooitgedacht and Vaal Basin Projects (Coal).

In South Africa, the Minerals and Petroleum Resources Development Act, Number 28 of 2002 (MPRDA) was implemented on 1 May 2004 (subsequently amended by the Minerals and Petroleum Resources Development Amendment Act 49 of 2008) effectively transferred custodianship of the previously privately held mineral rights to the State.

A Prospecting Right is a right issued in terms of the MPRDA that is valid for up to five years, with the possibility of a further extension of three years.

A Mining Right is a right issued in terms of the MPRDA and is valid for up to 30 years, with the possibility of a further extension of 30 years. The Minister of Mineral Resources will grant a renewal of the Mining Right if the terms and conditions of the Mining Right have been complied with and the applicant is not in contravention of any relevant provisions of the MPRDA.

In preparing the Ore Reserve and Mineral Resource statement for South African assets, Anglo American plc has adopted the following reporting principles in respect of Prospecting Rights and Mining Rights:

- Where applications for Mining Rights and Prospecting Rights have been submitted and these are still being processed by the relevant regulatory authorities, the relevant Ore Reserves and Mineral Resources have been included in the statement.
- Where applications for Mining Rights and Prospecting Rights have been initially refused by the regulatory authorities, but are the subject of ongoing legal process and discussions with the relevant authorities and where Anglo American plc has reasonable expectations that the Prospecting Rights will be granted in due course, the relevant Mineral Resources have been included in the statement (any associated comments appear in the footnotes).

## LOCATIONS AT A GLANCE

# OUR OPERATIONS AND SELECTED PROJECTS AROUND THE WORLD

Anglo American is a leading global mining company with a world class portfolio of mining and processing operations and undeveloped Mineral Resources. We provide the metals and minerals to meet the growing consumer driven demands of the world's developed and maturing economies. And we do so in a way that not only generates sustainable returns for our shareholders, but that also strives to make a real and lasting positive contribution to society.

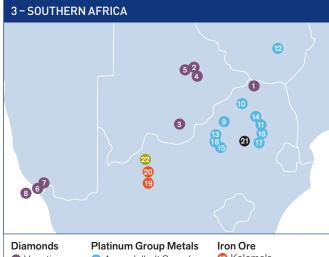














- Venetia
- 2 Damtshaa
- 3 Jwaneng 4 Letlhakane
- Orapa

#### 6 Mining Area 1 Orange River

8 Atlantic 1

- Amandelbult Complex Tumela and Dishaba
- 100 Mogalakwena 11 Twickenham
- 1 Unki
- Bafokeng-Rasimone
- Bokoni
- 15 Kroondal Marikana
- 16 Modikwa
- Mototolo 18 Siphumelele 3 shaft
- 19 Kolomela20 Sishen
- Coal
- 21 Goedehoop 21 Greenside
- 21 Isibonelo
- 2 Kleinkopje (Khwezela)
- 2 Landau
- (Khwezela)
- Mafube Zibulo
- Manganese
- 22 Hotazel Mines



## Coal

- 1 Capcoal 2 Dawson 3 Grosvenor
- 3 Moranbah North
- Manganese
- 4 GEMCO



# QUELLAVECO GEOLOGY

The Quellaveco Project is located about 3,500 metres above sea level in the Asana valley, close to the southern Peru town of Moquegua. This is an active copper mining district and Quelleveco is one of the world's largest undeveloped copper orebodies.

Quellaveco is located within the Palaeocene-Eocene metallogenic belt, which extends northwards from Chile into southern Peru; this belt runs parallel to the convergent continental margin which is defined by the Andean subduction zone, located along the Pacific coastline of South America. The Andes Range is an expression of the magmatic arc developed above the subduction zone and the porphyry copper deposits located in Chile, Peru and Ecuador are genetically linked to specific periods of magmatic activity within the Andean orogeny.

The Quellaveco deposit has a NW-SE trending elongated mineralised zone with a surface area of approximately two square kilometres. The mineralisation which is open both laterally and vertically is exposed in the Asana valley.

Primary sulphide mineralisation (grey volume in 3D view of orebody opposite) dominates the Quellaveco deposit and is successively overlain by a secondary supergene copper mineralisation blanket (green volume in 3D view of orebody opposite), followed by copperbearing oxides that are capped by barren ignimbrites of the younger Hualyllas Formation.

There are at least five stages of intrusion recognised at Quellaveco; the oldest intrusives correspond to a regional granodiorite surrounding the main orebody and are essentially barren. Three syn-mineralisation intrusions of monzonitic to dacitic composition host most of the mineralisation. All of these are cut by a suite of late post-mineral intrusives, which are dominantly emplaced in the central part of the mineralised body.

The intrusions have been overprinted by alteration with a centre of potassic alteration grading outwards to a distal zone of propyllitic alteration. These events are followed by phyllic alteration, generated by interaction of rainwater with the rock, composed of quartz-sericite-pyrite, and superimposed by argillization in the upper levels in contact with the supergene enrichment.

The Quellaveco orebody is emplaced in the intersection of a series of regional faults, trending N  $45^{\circ}$  W parallel to the Incapuquio and Micalaco fault systems, with faults trending E-W and NE-SW (Asana Fault), which have created a zone of structural weakness, favourable to the emplacement of the porphyry. The mineralisation in the porphyry is dominated by chalcopyrite with minor contribution of bornite; scarce molybdenite is hosted in veinlets along with chalcopyrite.

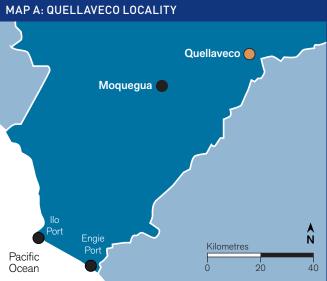
Based on the latest Mineral Resource Estimates and an economic cut-off of 0.3 %TCu, the primary copper mineralisation within the Reserve Pit enables declaration of Ore Reserves estimated at 1.3 billion tonnes at a grade of 0.57 %TCu, containing approximately 7.5 million tonnes of copper as at 31 December 2018. Additional exclusive Mineral Resources of 1.6 billion tonnes at a grade of 0.37 %TCu are also declared above a 0.20 %TCu cut-off within an optimised pit shell. For details of the classification categories please see the Copper section of this report.

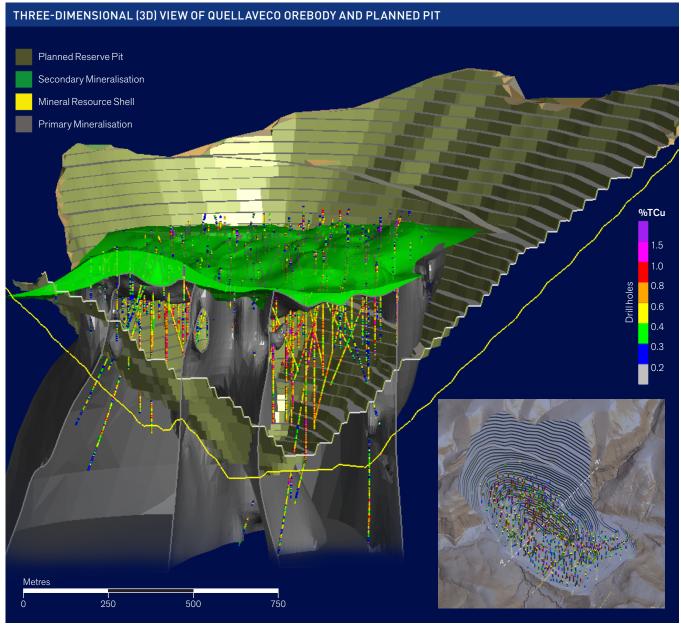
The project will be developed as open pit mine and a conventional copper flotation plant with SAG milling. Material between 0.30 %TCu and the operational cut-off grade will be stockpiled during the earlier years and will be fed to the plant mainly after mining from the open pit has ceased in approximately 25 years.



View of the As an availey looking to the south east, showing early earthworks in the foreground, the camp and drilling platforms in the background.







 $Three-dimensional \ model \ of the \ Quellave co\ or ebody\ and\ planned\ reserve\ pit\ with\ drill\ holes\ shown\ colour-coded\ by\ percent\ Total\ Copper\ (\%TCu).$ 

## ESTIMATED ORE RESERVES(1)

## as at 31 December 2018

Detailed Proved and Probable estimates appear on the referenced pages in the Ore Reserves and Mineral Resources Report 2018.

|  |  |           |                |                  | _                                      | P                           | roved + Probable                     |                               |
|--|--|-----------|----------------|------------------|--|-----------------------------|--------------------------------------|-------------------------------|
| DIAMOND <sup>(3)</sup> OPERA<br>(See page 10 in R&R  |  | Ø         | Ownership<br>% | Mining<br>Method | LOM <sup>(2)</sup><br>(years)          | Saleable Carats<br>(Mct)    | Treated Tonnes<br>(Mt)               | Recovered Grade (cpht)        |
| Gahcho Kué   | Kimberlite                                     |           | 43.4           | OP               | 11                                     | 46.0                        | 30.1                                 | 152.8                         |
| Victor   | Kimberlite                                     |           | 85.0           | OP               | 1                                      | 0.0                         | 0.0                                  | 22.2                          |
| DIAMOND <sup>(3)</sup> OPERA<br>(See page 11 in R&R  |  | Ø         | Ownership<br>% | Mining<br>Method | LOM <sup>(2)</sup><br>(years)          | Saleable Carats<br>(Mct)    | Treated Tonnes<br>(Mt)               | Recovered Grade<br>(cpht)     |
| Venetia (OP)   | Kimberlite                                     |           | 62.9           | OP               | 27                                     | 13.8                        | 11.0                                 | 125.2                         |
| Venetia (UG)   | Kimberlite                                     |           |                | UG               |  | 78.6                        | 98.6                                 | 79.7                          |
|  | ATIONS – Debswana<br>n R&R Report for details) | Ø         | Ownership<br>% | Mining<br>Method | LOM <sup>(2)</sup><br>(years)          | Saleable Carats<br>(Mct)    | Treated Tonnes<br>(Mt)               | Recovered Grade (cpht)        |
| Damtshaa   | Kimberlite                                     |           | 42.5           | OP               | 17                                     | 4.7                         | 24.4                                 | 19.2                          |
| Jwaneng  | Kimberlite                                     |           | 42.5           | OP               | 17                                     | 166.6                       | 131.7                                | 126.5                         |
| Letlhakane   | TMR  |           | 42.5           | n/a              | 25                                     | 7.6                         | 31.9                                 | 23.8                          |
| Orapa  | Kimberlite                                     |           | 42.5           | OP               | 12                                     | 131.2                       | 130.3                                | 100.7                         |
| DIAMOND <sup>(3)</sup> OPERA<br>(See page 14 in R&R  |  | Ø         | Ownership<br>% | Mining<br>Method | LOM <sup>(2)</sup><br>(years)          | Saleable Carats<br>(kct)    | Treated Tonnes<br>(kt)               | Recovered Grade<br>(cpht)     |
| Mining Area 1  | Beaches  |           | 42.5           | OC               | 3                                      | 22                          | 447                                  | 4.92                          |
| Orange River   | Fluvial Placers                                |           | 42.5           | OC               | 3                                      | 117                         | 11,873                               | 0.99                          |
|  |  |           |                |                  |  | Saleable Carats<br>(kct)    | Area<br>k (m²)                       | Recovered Grade<br>(cpm²)     |
| Atlantic 1   | Marine Placers                                 |           | 42.5           | MM               | 32                                     | 4,922                       | 74,611                               | 0.07                          |
| COPPER OPERATION (See page 16 in R&R                 |  | Ø         | Ownership<br>% | Mining<br>Method | Reserve Life <sup>(2)</sup><br>(years) | Contained Copper (kt)       | ROM Tonnes<br>(Mt)                   | Grade<br>(%TCu)               |
| Collahuasi   | Sulphide (direct feed)                         |           | 44.0           | OP               | 63                                     | 26,901                      | 2,735.5                              | 0.98                          |
|  | Low Grade Sulphide (incl. ROMs                 | tockpile) |                |                  |  | 2,239                       | 395.6                                | 0.57                          |
| El Soldado   | Sulphide                                       |           | 50.1           | OP               | 9                                      | 538                         | 67.1                                 | 0.80                          |
| Los Bronces  | Sulphide – Flotation                           | -         | 50.1           | OP               | 30                                     | 7,440                       | 1,278.5                              | 0.58                          |
|  | Sulphide - Dump Leach                          |           |                |                  |  | 2,049                       | 775.4                                | 0.26                          |
| PLATINUM <sup>(4)</sup> OPER<br>(See page 21 & 22 in | ATIONS<br>R&R Report for details)              | Ø         | Ownership<br>% | Mining<br>Method | Reserve Life <sup>(2)</sup><br>(years) | Contained Metal<br>(4E Moz) | ROM Tonnes<br>(Mt)                   | Grade<br>(4E g/t)             |
| Amandelbult Comp                                     | lex MR + UG2 Reefs                             |           | 78.0           | UG               | >22                                    | 15.1                        | 103.5                                | 4.54                          |
| Mogalakwena  | Platreef (incl. stockpiles)                    |           | 78.0           | OP               | >22                                    | 118.0                       | 1,200.3                              | 3.06                          |
| Unki   | Main Sulphide Zone                             |           | 78.0           | UG               | 24                                     | 5.6                         | 52.5                                 | 3.30                          |
| Non-Managed  | MR + UG2 Reefs                                 |           | 35.5           | UG               | n/a                                    | 28.5                        | 221.7                                | 3.99                          |
| KUMBA IRON ORE<br>(See page 26 in R&R                |  | Ø         | Ownership<br>% | Mining<br>Method | Reserve Life <sup>(2)</sup><br>(years) |                             | Saleable Product<br>(Mt)             | Grade<br>(%Fe)                |
| Kolomela   | Hematite (incl. ROM stockpile)                 |           | 53.2           | OP               | 14                                     |                             | 179                                  | 64.6                          |
| Sishen   | Hematite (incl. ROM stockpile)                 |           | 53.2           | OP               | 14                                     |                             | 416                                  | 64.4                          |
| IRON ORE BRAZIL<br>(See page 27 in R&R               |  | Ø         | Ownership<br>% | Mining<br>Method | Reserve Life <sup>(2)</sup><br>(years) |                             | Saleable Product <sup>(5)</sup> (Mt) | Grade <sup>(5)</sup><br>(%Fe) |
| Serra do Sapo  | Friable Itabirite and Hematite                 | •         | 100            | OP               | 48                                     |                             | 668                                  | 67.5                          |
|  | Itabirite                                      |           |                |                  |  |                             | 717                                  | 67.5                          |

Operations = Mines in steady-state or projects in ramp-up phase. TMR = Tailings Mineral Resource. Mining method: OP = Open Pit, UG = Underground, OC = Open Cast/Cut, MM = Marine Mining. Mct = Million carats. Mt = Million tonnes. kct = thousand carats. kt = thousand tonnes. k (m²) = thousand square metres.

Diamond Recovered Grade is quoted as carats per hundred metric tonnes (cpht) or as carats per square metre (cpm²).

Estimates of 0.0 represent numbers less than 0.05.

TCu = Total Copper. 4E is the sum of Platinum, Palladium, Rhodium and Gold.

Moz = Million troy ounces. g/t = grams per tonne.

ROM = Run of Mine.

MR = Merensky Reef.

Non-Managed = Bafokeng-Rasimone, Kroondal, Modikwa, Mototolo mines and Siphumelele 3 shaft.

| Estimated Ore Reser                          | ves continued          |   |                |                  | _                                      | Pr                       | oved + Probable                     |                  |
|--|------------------------|---|----------------|------------------|--|--------------------------|-------------------------------------|------------------|
| COAL OPERATIONS -<br>(See page 28 in R&R Re  |                        | Ø | Ownership %    | Mining<br>Method | Reserve Life <sup>(2)</sup><br>(years) |                          | Saleable Tonnes <sup>(6)</sup> (Mt) | Saleable Quality |
| Capcoal (OC) *                               | Metallurgical - Coking |   | 77.9           | OC               | 20                                     |                          | 34.6                                | 5.5 CSN          |
|  | Metallurgical - Other  |   |                |                  |  |                          | 50.9                                | 6,850 kcal/kg    |
|  | Thermal – Export       |   |                |                  |  |                          | 10.2                                | 5,990 kcal/kg    |
| Capcoal (UG) *                               | Metallurgical - Coking |   | 70.0           | UG               | 3                                      |                          | 15.7                                | 8.5 CSN          |
| Dawson                                       | Metallurgical - Coking |   | 51.0           | OC               | 13                                     |                          | 57.5                                | 7.0 CSN          |
|  | Thermal – Export       |   |                |                  |  |                          | 53.2                                | 6,510 kcal/kg    |
| Grosvenor                                    | Metallurgical - Coking |   | 100            | UG               | 29                                     |                          | 103.9                               | 8.5 CSN          |
| Moranbah North                               | Metallurgical - Coking |   | 88.0           | UG               | 10                                     |                          | 74.2                                | 8.0 CSN          |
| COAL OPERATIONS -<br>(See page 28 in R&R Re  |                        | Ø | Ownership %    | Mining<br>Method | Reserve Life <sup>(2)</sup><br>(years) |                          | Saleable Tonnes <sup>(6)</sup> (Mt) | Saleable Quality |
| Cerrejón                                     | Thermal - Export       |   | 33.3           | OC               | 15                                     |                          | 375.8                               | 6,080 kcal/kg    |
| COAL OPERATIONS -<br>(See page 29 & 32 in Ra |                        | Ø | Ownership<br>% | Mining<br>Method | Reserve Life <sup>(2)</sup><br>(years) |                          | Saleable Tonnes <sup>(6)</sup> (Mt) | Saleable Quality |
| Goedehoop                                    | Thermal – Export       |   | 100            | UG               | 7                                      |                          | 22.3                                | 5,920 kcal/kg    |
| Goedehoop – MRD                              | Thermal – Export       |   |                | n/a              | 1                                      |                          | 0.5                                 | 5,070 kcal/kg    |
| Greenside                                    | Thermal – Export       |   | 100            | UG               | 9                                      |                          | 27.2                                | 5,870 kcal/kg    |
| Greenside – MRD                              | Thermal – Export       |   |                | n/a              | 1                                      |                          | 0.4                                 | 5,590 kcal/kg    |
| Isibonelo                                    | Synfuel                |   | 100            | OC               | 8                                      |                          | 39.8                                | 4,640 kcal/kg    |
| Kleinkopje +                                 | Thermal – Export       |   | 100            | OC               | 9                                      |                          | 18.6                                | 6,250 kcal/kg    |
| Kleinkopje – MRD +                           | Thermal – Export       |   |                | n/a              | 2                                      |                          | 1.9                                 | 5,140 kcal/kg    |
| Landau +                                     | Thermal – Export       |   | 100            | OC               | 8                                      |                          | 22.5                                | 5,860 kcal/kg    |
|  | Thermal - Domestic     |   |                |                  |  |                          | 1.9                                 | 4,250 kcal/kg    |
| Mafube                                       | Thermal – Export       |   | 50.0           | OC               | 12                                     |                          | 40.4                                | 5,690 kcal/kg    |
| Zibulo                                       | Thermal – Export       |   | 73.0           | UG&OC            | 15                                     |                          | 49.5                                | 5,980 kcal/kg    |
|  | Thermal – Domestic     |   |                |                  |  |                          | 8.6                                 | 4,940 kcal/kg    |
| NICKEL OPERATIONS<br>(See page 35 in R&R Re  |                        | Ø | Ownership %    | Mining<br>Method | Reserve Life <sup>(2)</sup><br>(years) | Contained Nickel<br>(kt) | ROM Tonnes<br>(Mt)                  | Grade<br>(%Ni)   |
| Barro Alto                                   | Saprolite              |   | 100            | OP               | 21                                     | 682                      | 52.0                                | 1.31             |
| Niquelândia                                  | Saprolite              |   | 100            | OP               | 15                                     | 105                      | 8.3                                 | 1.26             |
| SAMANCOR MANGAI<br>(See page 36 in R&R Re    |                        | Ø | Ownership %    | Mining<br>Method | Reserve Life <sup>(2)</sup><br>(years) |                          | ROM Tonnes<br>(Mt)                  | Grade<br>(%Mn)   |
| GEMCO <sup>(7)</sup>                         | ROM                    |   | 40.0           | OP               | 7                                      |                          | 60                                  | 44.0             |
|  | Sands                  |   |                |                  |  |                          | 6.8                                 | 40.0             |
| Mamatwan                                     |                        |   | 29.6           | OP               | 16                                     |                          | 51                                  | 36.7             |
| Wessels                                      |                        |   | 29.6           | UG               | 57                                     |                          | 78                                  | 42.4             |

Operations = Mines in steady-state or projects in ramp-up phase. MRD = Mineral Residue Deposit. Mining method: OP = Open Pit, UG = Underground, OC = Open Cast/Cut.

\* Capcoal comprises operations at Lake Lindsay and Oak Park, with an underground longwall operation at Grasstree.

(2) Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan.

(4) Details of the individual Anglo American Platinum Limited managed and Non-Managed operations appear in the AA plc R&R Report. Ownership percentage for Non-Managed is weighted by Contained Metal (4E Moz) contributions from each operation.

(5) Iron Ore Brazil Saleable Product tonnes are reported on a wet basis (average moisture content is 9.2 wt% of the wet mass) with grade stated on a dry basis.

Metallurgical – Coking: High-, medium- or low-volatile semi-soft, soft or hard coking coal primarily for blending and use in the steel industry.

Metallurgical – Other: Semi-soft, soft, hard, semi-hard or anthracite coal, other than Coking Coal, such as pulverized coal injection (PCI) or other general metallurgical coal for the export or domestic market with a wider range of properties than Coking Coal.

Thermal – Export: Low- to high-volatile thermal coal primarily for export in the use of power generation; quality measured by calorific value (CV).

Thermal – Domestic: Low- to high-volatile thermal coal primarily for domestic consumption for power generation.

Synfuel: Coal specifically for the domestic production of synthetic fuel and chemicals.

Peace River Coal (Trend and Roman Mountain) is now considered a project and no longer included in the summary of operations.

<sup>&</sup>lt;sup>+</sup> Kleinkopje and Landau operate under an integrated management structure, forming Khwezela Colliery.

<sup>(1)</sup> Estimated Ore Reserves are the sum of Proved and Probable Ore Reserves (on an exclusive basis, i.e. Mineral Resources are reported as additional to Ore Reserves unless otherwise stated). Please refer to the detailed Ore Reserve estimates tables in the AA plc R&R Report for the individual Proved and Probable Reserve estimates. The Ore Reserve estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012) as a minimum standard. Ore Reserve estimates for operations in South Africa are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016). The figures reported represent 100% of the Ore Reserves. Anglo American plc ownership is stated separately. Rounding of figures may cause computational discrepancies.

LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning.

(3) DBCi = De Beers Canada, DBCM = De Beers Consolidated Mines, Debswana = Debswana Diamond Company, Namdeb = Namdeb Holdings.

Reported Diamond Reserves are based on a Bottom Cut-off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh). Specific BCO's applied to derive estimates are included in the detailed Diamond Reserve tables in the AA plc R&R Report.

<sup>6)</sup> Total Saleable Tonnes represents the product tonnes quoted as metric tonnes on a Product moisture basis. The coal quality for Coal Reserves is quoted as either kilocalories per kilogram (kcal/kg) or Crucible Swell Number (CSN). Kilocalories per kilogram represent Calorific Value (CV) on a Gross As Received (GAR) basis. CV is rounded to the nearest 10 kcal/kg and CSN to the nearest 0.5 index.

<sup>(7)</sup> GEMCO Manganese grades are reported as per washed ore samples and should be read together with their respective mass yields, ROM: 59%, Sands: 22%.

## ESTIMATED MINERAL RESOURCES(1)

## as at 31 December 2018

Detailed Measured, Indicated and Inferred estimates appear on the referenced pages in the Ore Reserves and Mineral Resources Report 2018.

|  |                               |              |                |                  | Measur                      | ed + Indicate                 | <u></u>                       | Tota                        | l Inferred <sup>(2)</sup>     |                               |
|--|-------------------------------|--------------|----------------|------------------|-----------------------------|-------------------------------|-------------------------------|-----------------------------|-------------------------------|-------------------------------|
| DIAMOND <sup>(3)</sup> OPERATI<br>(See page 10 in R&R Re   |                               | Ø _          | Ownership<br>% | Mining<br>Method | Carats<br>(Mct)             | Tonnes<br>(Mt)                | Grade<br>(cpht)               | Carats<br>(Mct)             | Tonnes<br>(Mt)                | Grade<br>(cpht)               |
| Gahcho Kué   | Kimberlite                    |              | 43.4           | OP               | 2.5                         | 1.8                           | 140.5                         | 17.0                        | 12.1                          | 140.0                         |
| Victor   | Kimberlite                    |              | 85.0           | OP               | 0.1                         | 0.5                           | 24.1                          | 0.1                         | 0.4                           | 28.7                          |
| DIAMOND <sup>(3)</sup> OPERATI<br>(See page 11 in R&R Re   |                               | Ø _          | Ownership<br>% | Mining<br>Method | Carats<br>(Mct)             | Tonnes<br>(Mt)                | Grade<br>(cpht)               | Carats<br>(Mct)             | Tonnes<br>(Mt)                | Grade<br>(cpht)               |
| Venetia (OP)   | Kimberlite                    |              | 62.9           | OP               | -                           | -                             | -                             | 1.3                         | 5.6                           | 24.0                          |
| Venetia (UG)   | Kimberlite                    |              |                | UG               | _                           | -                             | -                             | 59.6                        | 69.9                          | 85.3                          |
| Voorspoed  | Kimberlite                    |              | 62.9           | OP               | 0.5                         | 1.9                           | 26.9                          | 3.5                         | 18.5                          | 19.0                          |
| DIAMOND <sup>(3)</sup> OPERATI<br>(See pages 12 & 13 in Ra |                               | Ø            | Ownership<br>% | Mining<br>Method | Carats<br>(Mct)             | Tonnes<br>(Mt)                | Grade<br>(cpht)               | Carats<br>(Mct)             | Tonnes<br>(Mt)                | Grade<br>(cpht)               |
| Damtshaa   | Kimberlite                    |              | 42.5           | OP               | 0.9                         | 3.7                           | 22.9                          | 4.6                         | 18.8                          | 24.6                          |
| Jwaneng  | Kimberlite                    |              | 42.5           | OP               | 57.8                        | 70.4                          | 82.1                          | 62.3                        | 72.7                          | 85.7                          |
|  | TMR & ORT                     |              |                | n/a              |                             | _                             | _                             | 23.6                        | 32.0                          | 73.8                          |
| Letlhakane   | TMR & ORT                     |              | 42.5           | n/a              | 1.3                         | 0.0                           | 5,320.0                       | 14.1                        | 54.8                          | 25.8                          |
| Orapa  | Kimberlite                    |              | 42.5           | OP               | 297.0                       | 292.0                         | 101.7                         | 66.2                        | 77.6                          | 85.3                          |
| DIAMOND <sup>(3)</sup> OPERATI<br>(See pages 14 & 15 in Ra |                               | Ø _          | Ownership<br>% | Mining<br>Method | Carats<br>(kct)             | Tonnes<br>(kt)                | Grade<br>(cpht)               | Carats<br>(kct)             | Tonnes<br>(kt)                | Grade<br>(cpht)               |
| Douglas Bay  | Aeolian and Deflation         | on           | 42.5           | OC               | 160                         | 2,269                         | 7.05                          | 1                           | 127                           | 0.79                          |
| Elizabeth Bay  | Aeolian, Marine and           | d Deflatio   | n 42.5         | OC               | 148                         | 2,165                         | 6.84                          | 2,151                       | 28,469                        | 7.56                          |
| Mining Area 1  | Beaches                       |              | 42.5           | OC               | 344                         | 38,043                        | 0.90                          | 3,070                       | 192,213                       | 1.60                          |
| Orange River   | Fluvial Placers               |              | 42.5           | OC               | 170                         | 40,527                        | 0.42                          | 160                         | 53,010                        | 0.30                          |
|  |                               |              |                |                  | Carats<br>(kct)             | Area<br>k (m²)                | Grade<br>(cpm²)               | Carats<br>(kct)             | Area<br>k (m²)                | Grade<br>(cpm²)               |
| Atlantic 1   | Marine Placers                |              | 42.5           | MM               | 11,171                      | 143,701                       | 0.08                          | 74,620                      | 1,071,431                     | 0.07                          |
| Midwater   | Marine                        |              | 42.5           | MM               | 1,192                       | 7,396                         | 0.16                          | 1,031                       | 11,334                        | 0.09                          |
| COPPER OPERATION<br>(See page 17 in R&R Re                 |                               | Ø _          | Ownership<br>% | Mining<br>Method | Contained Copper (kt)       | Tonnes<br>(Mt)                | Grade<br>(%TCu)               | Contained Copper (kt)       | Tonnes<br>(Mt)                | Grade<br>(%TCu)               |
| Collahuasi   | Oxide and Mixed               |              | 44.0           | OP               | 469                         | 67.3                          | 0.70                          | 253                         | 45.2                          | 0.56                          |
|  | Sulphide (direct fee          | d)           |                |                  | 8,469                       | 892.6                         | 0.95                          | 30,055                      | 3,404.0                       | 0.88                          |
|  | Low Grade Sulphid             | e (in situ - | + stockpile)   |                  | 5,539                       | 1,237.0                       | 0.45                          | 7,309                       | 1,602.7                       | 0.46                          |
| El Soldado   | Sulphide                      |              | 50.1           | OP               | 726                         | 127.7                         | 0.57                          | 27                          | 7.0                           | 0.39                          |
| Los Bronces  | Sulphide - Flotation          | 1            | 50.1           | OP               | 10,340                      | 2,363.5                       | 0.44                          | 5,858                       | 1,285.4                       | 0.46                          |
|  | Sulphide – Dump Le            | each         |                |                  | _                           | _                             | -                             | 13                          | 5.3                           | 0.25                          |
| PLATINUM <sup>(4)</sup> OPERAT<br>(See page 23 & 24 in R&  | IONS<br>R Report for details) | Ø _          | Ownership<br>% | Mining<br>Method | Contained Metal<br>(4E Moz) | Tonnes<br>(Mt)                | Grade<br>(4E g/t)             | Contained Metal<br>(4E Moz) | Tonnes<br>(Mt)                | Grade<br>(4E g/t)             |
| Amandelbult Complex  | MR & UG2 Reefs +              | Tailings     | 78.0           | UG               | 57.6                        | 363.4                         | 4.93                          | 23.2                        | 115.4                         | 6.25                          |
| Mogalakwena  | Platreef                      |              | 78.0           | OP               | 110.8                       | 1,607.8                       | 2.14                          | 58.1                        | 826.6                         | 2.19                          |
| Twickenham   | MR & UG2 Reefs                |              | 78.0           | UG               | 60.7                        | 335.7                         | 5.62                          | 56.0                        | 313.9                         | 5.55                          |
| Unki   | Main Sulphide Zone            | Э            | 78.0           | UG               | 16.8                        | 122.4                         | 4.26                          | 6.4                         | 47.4                          | 4.23                          |
| Non-Managed  | MR & UG2 Reefs                |              | 36.5           | UG               | 154.0                       | 872.3                         | 5.49                          | 109.9                       | 656.8                         | 5.20                          |
| KUMBA IRON ORE OP<br>(See page 26 in R&R Re                |                               | Ø _          | Ownership<br>% | Mining<br>Method |                             | Tonnes<br>(Mt)                | Grade<br>(%Fe)                |                             | Tonnes<br>(Mt)                | Grade<br>(%Fe)                |
| Kolomela   | Hematite (in situ + s         | tockpile)    | 53.2           | OP               |                             | 132.5                         | 62.2                          |                             | 39.1                          | 62.8                          |
| Sishen   | Hematite (in situ + s         | tockpile)    | 53.2           | OP               |                             | 438.9                         | 54.2                          |                             | 31.4                          | 51.4                          |
| IRON ORE BRAZIL OP<br>(See page 27 in R&R Re               |                               | Ø _          | Ownership<br>% | Mining<br>Method |                             | Tonnes <sup>(5)</sup><br>(Mt) | Grade <sup>(5)</sup><br>(%Fe) |                             | Tonnes <sup>(5)</sup><br>(Mt) | Grade <sup>(5)</sup><br>(%Fe) |
|  |                               |              | 100            | 0.0              |                             | 289.6                         | 31.2                          |                             | 87.6                          | 37.1                          |
| Serra do Sapo  | Friable Itabirite and         | Hematite     | e 100          | OP               |                             | 209.0                         | 01.2                          |                             | 01.0                          | 01.1                          |

Operations = Mines in steady-state or projects in ramp-up phase. TMR = Tailings Mineral Resource. ORT = Old Recovery Tailings. Mining method: OP = Open Pit, UG = Underground, OC = Open Cast/Cut, MM = Marine Mining.

Mct = Million carats. Mt = Million tonnes. kct = thousand carats. kt = thousand tonnes. k (m²) = thousand square metres.

Diamond Grade is quoted as carats per hundred metric tonnes (cpht) or as carats per square metre (cpm²).

Estimates of 0.0 represent numbers less than 0.05.

Estimates of 0.0 represent numbers less than 0.05.

TCu = Total Copper. 4E is the sum of Platinum, Palladium, Rhodium and Gold.

Moz = Million troy ounces. g/t = grams per tonne.

MR = Merensky Reef.

Non-Managed = Bafokeng-Rasimone, Bokoni, Kroondal, Marikana, Modikwa, Mototolo mines and Siphumelele 3 shaft.

| Estimated Mineral R                        | esources continued                              | l   |                |                  | Measure               | ed + Indicate               | ed                        | Total                 | Inferred <sup>(2)</sup>     |                           |
|--|---|-----|----------------|------------------|-----------------------|-----------------------------|---------------------------|-----------------------|-----------------------------|---------------------------|
| COAL OPERATIONS<br>(See page 30 in R&R R   |   | Ø   | Ownership %    | Mining<br>Method | _                     | MTIS <sup>(6)</sup><br>(Mt) | Coal Quality<br>(kcal/kg) | _                     | MTIS <sup>(6)</sup><br>(Mt) | Coal Quality<br>(kcal/kg) |
| Capcoal (OC) *                             |   |     | 77.9           | OC               |                       | 144.8                       | 6,940                     |                       | 175.7                       | 6,810                     |
| Capcoal (UG) *                             |   |     | 70.0           | UG               |                       | 81.1                        | 6,810                     |                       | 5.6                         | 6,550                     |
| Dawson                                     |   |     | 51.0           | OC               |                       | 663.3                       | 6,700                     |                       | 351.2                       | 6,680                     |
| Grosvenor                                  |   |     | 100            | UG               |                       | 214.5                       | 6,370                     |                       | 44.5                        | 6,360                     |
| Moranbah North                             |   |     | 88.0           | UG               |                       | 82.9                        | 6,630                     |                       | 4.4                         | 6,420                     |
| COAL OPERATIONS<br>(See pages 30 in R&R    |   | Ø   | Ownership<br>% | Mining<br>Method | _                     | MTIS <sup>(6)</sup><br>(Mt) | Coal Quality<br>(kcal/kg) |                       | MTIS <sup>(6)</sup><br>(Mt) | Coal Quality<br>(kcal/kg) |
| Cerrejón                                   |   |     | 33.3           | OC               |                       | 3,886.9                     | 6,570                     |                       | 672.0                       | 6,430                     |
| COAL OPERATIONS<br>(See pages 31 & 32 in F | - <b>South Africa</b><br>&R Report for details) | Ø   | Ownership<br>% | Mining<br>Method | _                     | MTIS <sup>(6)</sup><br>(Mt) | Coal Quality<br>(kcal/kg) | _                     | MTIS <sup>(6)</sup><br>(Mt) | Coal Quality<br>(kcal/kg) |
| Goedehoop                                  |   |     | 100            | UG               |                       | 210.6                       | 5,360                     |                       | 6.0                         | 4,750                     |
| Greenside                                  |   |     | 100            | UG               |                       | 22.8                        | 5,720                     |                       | 0.2                         | 5,950                     |
| Greenside – MRD                            |   |     |                | n/a              |                       | 8.8                         | 3,860                     |                       | _                           |                           |
| Isibonelo                                  |   |     | 100            | UG               |                       | 23.6                        | 5,250                     |                       | _                           | _                         |
| Kleinkopje †                               |   |     | 100            | OC               |                       | 2.1                         | 6,250                     |                       | 3.1                         | 5,740                     |
| Kleinkopje – MRD +                         |   |     |                | n/a              |                       | 9.7                         | 2,700                     |                       | -                           | _                         |
| Landau +                                   |   |     | 100            | OC               |                       | 50.1                        | 5,020                     |                       | 5.9                         | 6,320                     |
| Landau – MRD +                             |   |     |                | n/a              |                       | 22.4                        | 2,580                     |                       | _                           |                           |
| Mafube                                     |   |     | 50.0           | OC               |                       | 73.0                        | 5,070                     |                       | -                           |                           |
| Zibulo                                     |   |     | 73.0           | UG&OC            |                       | 326.0                       | 4,920                     |                       | 248.9                       | 4,760                     |
| NICKEL OPERATION<br>(See page 35 in R&R R  |   | Ø   | Ownership<br>% | Mining<br>Method | Contained Nickel (kt) | Tonnes<br>(Mt)              | Grade<br>(%Ni)            | Contained Nickel (kt) | Tonnes<br>(Mt)              | Grade<br>(%Ni)            |
| Barro Alto                                 | Saprolite                                       |     | 100            | OP               | 89                    | 8.0                         | 1.11                      | 222                   | 17.5                        | 1.27                      |
|  | Ferruginous Later                               | ite |                |                  | 49                    | 4.0                         | 1.21                      | 64                    | 5.3                         | 1.21                      |
| Niquelândia                                | Saprolite                                       |     | 100            | OP               | 21                    | 1.6                         | 1.27                      |                       | _                           |                           |
| SAMANCOR MANGA<br>(See page 36 in R&R R    |   | Ø   | Ownership<br>% | Mining<br>Method |                       | Tonnes<br>(Mt)              | Grade<br>(%Mn)            | _                     | Tonnes<br>(Mt)              | Grade<br>(%Mn)            |
| GEMCO <sup>(7)(8)</sup>                    | ROM   |     | 40.0           | OP               |                       | 128                         | 44.3                      | _                     | 27                          | 40.5                      |
|  | Sands   |     |                |                  |                       | 9.4                         | 20.8                      |                       | 2.3                         | 20.0                      |
| Mamatwan <sup>(7)</sup>                    |   |     | 29.6           | OP               |                       | 78                          | 35.0                      |                       | 0.5                         | 37.5                      |
| Wessels <sup>(7)</sup>                     |   |     | 29.6           | UG               |                       | 136                         | 42.5                      |                       | 7.6                         | 44.1                      |
|  |   |     |                |                  |                       |                             |                           |                       |                             |                           |

 $Operations = Mines in steady-state or projects in ramp-up \ phase. \ MRD = Mineral \ Residue \ Deposit. \ Mining \ method: OP = Open \ Pit, \ UG = Underground, \ OC = Open \ Cast/Cut.$ 

- (1) Estimated Mineral Resources are presented on an exclusive basis, i.e. Mineral Resources are reported as additional to Ore Reserves unless otherwise stated. Please refer to the detailed Mineral Resource estimates tables in the AA plc R&R Report for the detailed Measured, Indicated and Inferred Resource estimates. The Mineral Resource estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012) as a minimum standard. The Mineral Resource estimates for operations in South Africa are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016). The figures reported represent 100% of the Mineral Resources. Anglo American plc ownership is stated separately. Rounding of figures may cause computational discrepancies.
- (2) Total Inferred is the sum of 'Inferred (in LOM Plan)', the Inferred Resources within the scheduled Life of Mine Plan (LOM Plan) and 'Inferred (ex. LOM Plan)', the portion of Inferred Resources with reasonable prospects for eventual economic extraction not considered in the Life of Mine Plan (LOM Plan) as relevant. Due to the uncertainty that may be attached to some Inferred Resources, it cannot be assumed that all or part of an Inferred Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.
- (3) DBCi = De Beers Canada, DBCM = De Beers Consolidated Mines, Debswana = Debswana Diamond Company, Namdeb = Namdeb Holdings. Estimated Diamond Resources are presented on an exclusive basis, i.e. Diamond Resources are quoted as additional to Diamond Reserves. Reported Diamond Resources are based on a Bottom Cut-off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh). Specific BCO's applied to derive estimates are included in the detailed Diamond Resource tables in the AA plc R&R Report.
- (4) Details of the individual Anglo American Platinum Limited managed and Non-Managed operations appear in the AA plc R&R Report.

  Ownership percentage for Non-Managed is weighted by Contained Metal (4E Moz) contributions from each operation.

  Merensky Reef, UG2 Reef and Main Sulphide Zone Mineral Resources are estimated over a 'Resource Cut' which takes cognisance of the mining method, potential economic viability and geotechnical aspects in the hangingwall or footwall of the reef.

(5) Iron Ore Brazil Mineral Resource tonnes and grade are reported on a dry basis.

(6) Coal Resources are quoted on a Mineable Tonnes In Situ (MTIS) basis in million tonnes, which are in addition to those Coal Resources that have been modified to produce the reported Coal Resources are reported on an in situ moisture basis. The coal quality for Coal Resources is quoted on an in situ heat content as kilocalories per kilogram (kcal/kg), representing Calorific Value (CV) on a Gross As Received (GAR) basis. CV is rounded to the nearest 10 kcal/kg.

(7) Manganese Mineral Resources are quoted on an inclusive basis and must not be added to the Ore Reserves.

(8) GEMCO ROM Mineral Resource tonnes are stated as *in situ*, manganese grades are given as per washed ore samples and should be read together with their respective mass yields, ROM: 48%.

<sup>\*</sup> Capcoal comprises opencast operations at Lake Lindsay and Oak Park, with an underground longwall operation at Grasstree

<sup>&</sup>lt;sup>+</sup> Kleinkopje and Landau operate under an integrated management structure, forming Khwezela Colliery.

## estimates as at 31 December 2018

#### **DE BEERS CANADA**

The Diamond Reserve and Diamond Resource estimates are reported in accordance with the Canadian Institute of Mining and Metallurgy (CIM) Definition Standards on Mineral Resources and Mineral Reserves. The estimates reported represent 100% of the Diamond Reserves and Diamond Resources. Diamond Resources are reported as additional to Diamond Reserves. Rounding of figures may cause computational discrepancies. The mines, located in Canada, are operated under De Beers Canada Incorporated (DBCi).

| De Beers Canada - Operat     | ions        |      | всо        |                | Trea | ated Tonnes | Red   | overed Grade | Sale | eable Carats |
|------------------------------|-------------|------|------------|----------------|------|-------------|-------|--------------|------|--------------|
| DIAMOND RESERVES             | Ownership % | LOM  | (mm)       | Classification | 2018 | 2017        | 2018  | 2017         | 2018 | 2017         |
| Gahcho Kué (OP)              | 43.4        | 11   | 1.00       |                | Mt   | Mt          | cpht  | cpht         | Mct  | Mct          |
| Kimberlite                   |             |      |            | Proved         | -    | _           | -     | _            | -    | -            |
|                              |             |      |            | Probable       | 30.1 | 30.9        | 152.8 | 156.9        | 46.0 | 48.4         |
|                              |             |      |            | Total          | 30.1 | 30.9        | 152.8 | 156.9        | 46.0 | 48.4         |
| Victor (OP)                  | 85.0        | 1    | 1.50       |                |      |             | cpht  | cpht         |      |              |
| Kimberlite                   |             |      |            | Proved         | -    | _           | -     | -            | -    | _            |
|                              |             |      |            | Probable       | 0.0  | 0.1         | 22.2  | 18.7         | 0.0  | 0.0          |
|                              |             |      |            | Total          | 0.0  | 0.1         | 22.2  | 18.7         | 0.0  | 0.0          |
|                              |             |      |            |                |      |             |       |              |      |              |
| De Beers Canada – Operations |             |      | BCO        |                |      | Tonnes      |       | Grade        |      | Carats       |
| DIAMOND RESOURCES            | Ownership % |      | (mm)       | Classification | 2018 | 2017        | 2018  | 2017         | 2018 | 2017         |
| Gahcho Kué (OP)              | 43.4        |      | 1.00       |                | Mt   | Mt          | cpht  | cpht         | Mct  | Mct          |
| Kimberlite                   |             |      |            | Measured       | -    | _           | -     | -            | -    | _            |
|                              |             |      |            | Indicated      | 1.8  | 1.8         | 140.5 | 142.2        | 2.5  | 2.6          |
|                              |             | Meas | sured ar   | nd Indicated   | 1.8  | 1.8         | 140.5 | 142.2        | 2.5  | 2.6          |
|                              |             | In   | iferred (i | n LOM Plan)    | 1.2  | 0.2         | 156.3 | 61.0         | 1.9  | 0.2          |
|                              |             | Inf  | erred (e   | x. LOM Plan)   | 10.9 | 12.6        | 138.2 | 141.9        | 15.1 | 17.8         |
|                              |             |      | To         | otal Inferred  | 12.1 | 12.8        | 140.0 | 140.4        | 17.0 | 18.0         |
| Victor (OP)                  | 85.0        |      | 1.50       |                |      |             | cpht  | cpht         |      |              |
| Kimberlite                   |             |      |            | Measured       | _    | _           | -     | -            | _    | _            |
|                              |             |      |            | Indicated      | 0.5  | 0.5         | 24.1  | 24.1         | 0.1  | 0.1          |
|                              |             | Meas | sured ar   | nd Indicated   | 0.5  | 0.5         | 24.1  | 24.1         | 0.1  | 0.1          |
|                              |             | In   | iferred (i | n LOM Plan)    | 0.0  | 0.5         | 27.9  | 31.6         | 0.0  | 0.2          |
|                              |             | Inf  | erred (e   | x. LOM Plan)   | 0.3  | 0.4         | 28.9  | 38.3         | 0.1  | 0.1          |
|                              |             |      | Ťc         | otal Inferred  | 0.4  | 0.8         | 28.7  | 34.5         | 0.1  | 0.3          |

DIAMOND RESOURCES ARE REPORTED AS ADDITIONAL TO DIAMOND RESERVES.

| De Beers Canada - Projects |             | BCO                    |      | Tonnes |       | Grade |      | Carats |
|----------------------------|-------------|------------------------|------|--------|-------|-------|------|--------|
| DIAMOND RESOURCES          | Ownership % | (mm) Classification    | 2018 | 2017   | 2018  | 2017  | 2018 | 2017   |
| Chidliak                   | 85.0        | 1.18                   | Mt   | Mt     | cpht  | cpht  | Mct  | Mct    |
| Kimberlite                 |             | Measured               | _    | _      | _     | _     | _    | _      |
|                            |             | Indicated              | _    | _      | _     | _     | _    | _      |
|                            |             | Measured and Indicated | _    | _      | _     | _     | _    | _      |
|                            |             | Inferred               | 12.5 | _      | 178.2 | _     | 22.2 | _      |
| Snap Lake (UG)             | 85.0        | 1.14                   |      |        | cpht  | cpht  |      |        |
| Kimberlite                 |             | Measured               | _    | _      | -     | _     | _    | _      |
|                            |             | Indicated              | 7.7  | 7.7    | 197.3 | 197.1 | 15.1 | 15.2   |
|                            |             | Measured and Indicated | 7.7  | 7.7    | 197.3 | 197.1 | 15.1 | 15.2   |
|                            |             | Inferred               | 10.8 | 14.7   | 187.2 | 179.5 | 20.2 | 26.4   |

DIAMOND RESOURCES ARE REPORTED AS ADDITIONAL TO DIAMOND RESERVES.

LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning.

Reported Diamond Reserves/Resources are based on a Bottom Cut-Off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh). Unless stated otherwise tonnage is quoted as dry metric tonnes. Estimates of Diamond Reserve tonnes reflect the tonnage to be treated. Estimates of 0.0 represent numbers less than 0.05 Recovered Grade is quoted as carats per hundred metric tonnes (cpht).

Due to the uncertainty that may be attached to some Inferred Diamond Resources, it cannot be assumed that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated or Measured Diamond Resource after continued exploration

Gahcho Kué is held by an unincorporated Joint Venture between DBCi (51%) and Mountain Province Diamonds Incorporated (49%). Victor, Chidliak and Snap Lake are wholly owned by DBCi.

Gahcho Kué: The decrease in Saleable Carats due to production is partially offset by increases associated with new drilling and sampling information. Estimates are based on both micro-diamonds (75 micron BCO) and macro-diamonds. The Stockpile Probable Reserves at a 1.00mm BCO of 1.9 Mct (1.0 Mt at 203.5 cpht) are excluded from the table.

Victor: The decrease in Saleable Carats is primarily due to production. The decrease in the Diamond Resource due to production is partially offset by new drilling information. The geographically separate Tango Extension Diamond Resource estimates at a 1.50mm BCO of 3.1 Mct (14.2 Mt at 22.0 cpht) Inferred decrease due to revised economic assumptions given the planned closure of Victor Mine in 2019.

Chidliak: De Beers acquired the Chidliak Diamond Resources from Peregrine Diamonds (PGD) in September 2018. The Diamond Resource is reported per the PGD Preliminary Economic Assessment.

Snap Lake: The mine was placed on care and maintenance at the end of 2015 and allowed to flood in Q1 2017. Closure activities have continued in 2018. Estimates are based on both micro-diamonds (150 micron BCO) and macro-diamonds. The decrease in Diamond Resource is due to revised economic assumptions.

#### LIFE OF MINE INFORMATION

| Operations        | LOM Plan<br>(years) | LOM Plan<br>Final Year | Mining Lease<br>Last Year | % Inferred carats in LOM Plan |
|-------------------|---------------------|------------------------|---------------------------|-------------------------------|
| DBCi – Gahcho Kué | 11                  | 2029                   | 2023/2026*                | 4%                            |
| DBCi – Victor     | 1                   | 2019                   | 2024                      | 51% <sup>+</sup>              |

Application to renew the Mining Leases will be submitted at the appropriate time. There is a reasonable expectation that such renewal will not be withheld.

Aspects of the Diamond Reserve estimates were reviewed by independent consultants during 2018 at Victor. Aspects of the Diamond Resource estimates were reviewed by independent consultants during 2018 at Gahcho Kué and Chidliak.

The current Victor LOM Plan contains 35% low geoscientific confidence material which has not been classified as Diamond Resource.

## estimates as at 31 December 2018

#### DE BEERS CONSOLIDATED MINES

The Diamond Reserve and Diamond Resource estimates are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition). The estimates reported represent 100% of the Diamond Reserves and Diamond Resources. Diamond Resources are reported as additional to Diamond Reserves. Rounding of figures may cause computational discrepancies. The mines, located in South Africa, are operated under De Beers Consolidated Mines Proprietary Limited (DBCM). DBCM is indirectly owned, through DBCM Holdings, by De Beers plc (74%) and its broad based black economic empowerment partner Ponahalo Investments Proprietary Limited (26%).

| De Beers Consolidated Min | es – Operations |      | всо  |                | Т    | reated Tonnes | Re    | covered Grade | 5    | Saleable Carats |
|---------------------------|-----------------|------|------|----------------|------|---------------|-------|---------------|------|-----------------|
| DIAMOND RESERVES          | Ownership %     | LOM  | (mm) | Classification | 2018 | 2017          | 2018  | 2017          | 2018 | 2017            |
| Venetia                   | 62.9            | 27   | 1.00 |                | Mt   | Mt            | cpht  | cpht          | Mct  | Mct             |
| Kimberlite (OP)           |                 |      |      | Proved         | -    | _             | -     | _             | -    | -               |
|                           |                 |      |      | Probable       | 11.0 | 14.7          | 125.2 | 125.5         | 13.8 | 18.4            |
|                           |                 |      |      | Total          | 11.0 | 14.7          | 125.2 | 125.5         | 13.8 | 18.4            |
| Kimberlite (UG)           |                 |      |      | Proved         | -    | -             | _     | _             | _    |                 |
| Life Extension Project    |                 |      |      | Probable       | 98.6 | 98.9          | 79.7  | 80.3          | 78.6 | 79.4            |
|                           |                 |      |      | Total          | 98.6 | 98.9          | 79.7  | 80.3          | 78.6 | 79.4            |
| <b></b>                   |                 |      |      |                |      | Tonnes        |       | Grade         |      | Carats          |
| De Beers Consolidated Min |                 |      | BCO  |                |      |               |       |               |      |                 |
| DIAMOND RESOURCES         | Ownership %     |      | (mm) | Classification | 2018 | 2017          | 2018  | 2017          | 2018 | 2017            |
| Venetia (OD)              | 62.9            |      | 1.00 |                | Mt   | Mt            | cpht  | cpht          | Mct  | Mct             |
| Kimberlite (OP)           |                 |      |      | Measured       | _    | _             | _     | _             | _    | _               |
|                           |                 |      |      | Indicated      | _    | _             | _     | _             | _    | _               |
|                           |                 |      |      | nd Indicated   | _    | _             | _     | -             | _    | _               |
|                           |                 |      | ,    | n LOM Plan)    | _    | 2.1           | -     | 25.0          | _    | 0.5             |
|                           |                 | Inte |      | x. LOM Plan)   | 5.6  | 15.8          | 24.0  | 16.1          | 1.3  | 2.5             |
|                           |                 |      | To   | otal Inferred  | 5.6  | 18.0          | 24.0  | 17.1          | 1.3  | 3.1             |
| Kimberlite (UG)           |                 |      |      | Measured       | _    | _             | -     | _             | -    | _               |
| Life Extension Project    |                 |      |      | Indicated      | -    | -             | -     | _             | _    | _               |
|                           |                 |      |      | nd Indicated   | _    | _             | _     | _             | _    | _               |
|                           |                 |      | ,    | n LOM Plan)    | 36.7 | 36.7          | 84.9  | 84.9          | 31.2 | 31.2            |
|                           |                 | Infe | ,    | x. LOM Plan)   | 33.2 | 33.2          | 85.6  | 85.6          | 28.4 | 28.4            |
|                           |                 |      |      | tal Inferred   | 69.9 | 69.9          | 85.3  | 85.3          | 59.6 | 59.6            |
| Voorspoed (OP)            | 62.9            |      | 1.47 |                |      |               | cpht  | cpht          |      |                 |
| Kimberlite                |                 |      |      | Measured       | _    | _             | -     | _             | _    | _               |
|                           |                 |      |      | Indicated      | 1.9  | 1.9           | 26.9  | 26.9          | 0.5  | 0.5             |
|                           |                 |      |      | nd Indicated   | 1.9  | 1.9           | 26.9  | 26.9          | 0.5  | 0.5             |
|                           |                 |      |      | n LOM Plan)    | _    | 5.8           | -     | 19.1          | -    | 1.1             |
|                           |                 | Infe | ,    | x. LOM Plan)   | 18.5 | 14.3          | 19.0  | 19.1          | 3.5  | 2.7             |
|                           |                 |      | To   | tal Inferred   | 18.5 | 20.1          | 19.0  | 19.1          | 3.5  | 3.8             |

DIAMOND RESOURCES ARE REPORTED AS ADDITIONAL TO DIAMOND RESERVES.

Mining method: OP = Open Pit, UG = Underground.

LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning.

Reported Diamond Reserves/Resources are based on a Bottom Cut-Off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh). Unless stated otherwise tonnage is quoted as dry metric tonnes. Estimates of Diamond Reserve tonnes reflect the tonnage to be treated. Estimates of 0.0 represent numbers less than 0.05. Recovered Grade is quoted as carats per hundred metric tonnes (cpht).

Due to the uncertainty that may be attached to some Inferred Diamond Resources, it cannot be assumed that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated or Measured Diamond Resource after continued exploration.

#### **EXPLANATORY NOTES**

Venetia: The Life of Mine (LOM) is stated as 27 years which reflects the full duration of the current Venetia consolidated OP and UG Life of Mine Plan. The current Mining Right expires in 2038. Venetia Mine will apply to extend the Mining Right at the appropriate time in the future.

Venetia (OP): The decrease in Saleable Carats is primarily due to production. The decrease in Diamond Resource is due to revised economic assumptions associated with the K03 and K04 pipes. The LOM Plan includes the K01, K02 and K03 pipes. The estimates are based on both micro-diamonds (104 micron BCO)

Venetia (UG): The project is expected to treat approximately 132 Mt of material containing an estimated 100 Mct. Scheduled Inferred Resources (33.0 Mt) constitute 22% (21.9 Mct) of the estimated carats. The estimates are scheduled tonnes and carats as per the Life of Mine Plan approved in 2018.

Namaqualand: The Diamond Resource estimates reflect the tonnes and carats associated with the Buffels Marine Mining Right. The Beach Placers Diamond Resource estimates at a 1.15mm BCO, consisting of 0.8 Mct (12.7 Mt at 6.5 cpht) Indicated Resources and 0.6 Mct (39.5 Mt at 1.5 cpht) Inferred Resources are excluded from the table as operations have ceased.

Voorspoed: Production ceased in Q4 2018 and mine closure processes are underway.

#### LIFE OF MINE INFORMATION

| Operations     | LOM Plan<br>(years) | LOM Plan<br>Final Year | Mining Right<br>Last Year | % Inferred carats in LOM Plan |
|----------------|---------------------|------------------------|---------------------------|-------------------------------|
| DBCM - Venetia | 97                  | 2045                   | 2038*                     | 19%+                          |

Application to renew the Mining Right will be submitted at the appropriate time. There is a reasonable expectation that such renewal will not be withheld.

Aspects of the Diamond Reserve estimates were reviewed by independent consultants during 2018 at Venetia

The current Venetia LOM Plan contains 2% low geoscientific confidence material which has not been classified as Diamond Resource.

## estimates as at 31 December 2018

#### **DEBSWANA DIAMOND COMPANY**

The Diamond Reserve and Diamond Resource estimates are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition). The estimates reported represent 100% of the Diamond Reserves and Diamond Resources. Diamond Resources are reported as additional to Diamond Reserves. Rounding of figures may cause computational discrepancies. In Botswana the mines are owned in equal share by De Beers plc and the Government of the Republic of Botswana through the Debswana Diamond Company joint venture. Two resource types are processed, Kimberlite (mined from in situ material) and Tailings Mineral Resource (TMR).

| Debswana – Operations    |                   |            | всо        | _                        | Tre                   | ated Tonnes           | Recovered Grade       |                     | Saleable Carats       |                       |  |
|--------------------------|-------------------|------------|------------|--------------------------|-----------------------|-----------------------|-----------------------|---------------------|-----------------------|-----------------------|--|
| DIAMOND RESERVES         | Ownership %       | LOM        | (mm)       | Classification           | 2018                  | 2017                  | 2018                  | 2017                | 2018                  | 2017                  |  |
| Damtshaa (OP)            | 42.5              | 17         | 1.65       |                          | Mt                    | Mt                    | cpht                  | cpht                | Mct                   | Mct                   |  |
| Kimberlite               |                   |            |            | Proved                   | -                     | _                     | -                     | -                   | -                     | -                     |  |
|                          |                   |            |            | Probable                 | 24.4                  | 25.6                  | 19.2                  | 19.2                | 4.7                   | 4.9                   |  |
|                          |                   |            |            | Total                    | 24.4                  | 25.6                  | 19.2                  | 19.2                | 4.7                   | 4.9                   |  |
| Jwaneng (OP)             | 42.5              | 17         | 1.47       |                          |                       |                       | cpht                  | cpht                |                       |                       |  |
| Kimberlite               |                   |            |            | Proved                   |                       |                       |                       |                     |                       |                       |  |
|                          |                   |            |            | Probable                 | 131.7                 | 138.2                 | 126.5                 | 126.5               | 166.6                 | 174.8                 |  |
| 0 (07)                   | 10.5              | 10         | 1.05       | Total                    | 131.7                 | 138.2                 | 126.5                 | 126.5               | 166.6                 | 174.8                 |  |
| Orapa (OP)               | 42.5              | 12         | 1.65       | D                        | _                     |                       | cpht                  | cpht                | _                     |                       |  |
| Kimberlite               |                   |            |            | Proved                   |                       | 1445                  |                       |                     |                       | 1400                  |  |
|                          |                   |            |            | Probable<br><b>Total</b> | 130.3<br><b>130.3</b> | 144.5<br><b>144.5</b> | 100.7<br><b>100.7</b> | 97.5<br><b>97.5</b> | 131.2<br><b>131.2</b> | 140.8<br><b>140.8</b> |  |
|                          |                   |            |            | TOTAL                    | 130.3                 | 144.5                 | 100.7                 | 91.5                | 131.2                 | 140.0                 |  |
| Debswana – Operations    |                   |            | всо        | -                        |                       | Tonnes                |                       | Grade               |                       | Carats                |  |
| DIAMOND RESOURCES        | Ownership %       |            | (mm)       | Classification           | 2018                  | 2017                  | 2018                  | 2017                | 2018                  | 2017                  |  |
| Damtshaa (OP)            | 42.5              |            | 1.65       |                          | Mt                    | Mt                    | cpht                  | cpht                | Mct                   | Mct                   |  |
| Kimberlite               |                   |            |            | Measured                 | -                     | -                     | -                     | -                   | _                     | -                     |  |
|                          |                   |            |            | Indicated                | 3.7                   | 3.7                   | 22.9                  | 22.9                | 0.9                   | 0.9                   |  |
|                          |                   |            |            | d Indicated              | 3.7                   | 3.7                   | 22.9                  | 22.9                | 0.9                   | 0.9                   |  |
|                          |                   |            | (          | n LOM Plan)              | 8.2                   | 7.5                   | 24.9                  | 24.9                | 2.0                   | 1.9                   |  |
|                          |                   | Int        | ,          | k. LOM Plan)             | 10.6                  | 13.1                  | 24.4                  | 24.0                | 2.6                   | 3.2                   |  |
| Jwaneng (OP)             | 42.5              |            | 1.47       | tal Inferred             | 18.8                  | 20.7                  | 24.6<br>cpht          | 24.3<br>cpht        | 4.6                   | 5.0                   |  |
| Kimberlite               | 42.0              |            | 1.47       | Measured                 | _                     | _                     | cprit                 | cprit               | _                     | _                     |  |
| Tamberne                 |                   |            |            | Indicated                | 70.4                  | 74.1                  | 82.1                  | 84.1                | 57.8                  | 62.3                  |  |
|                          |                   | Meas       | sured ar   | d Indicated              | 70.4                  | 74.1                  | 82.1                  | 84.1                | <b>57.8</b>           | 62.3                  |  |
|                          |                   |            |            | n LOM Plan)              | 0.0                   | 0.0                   | 50.0                  | 30.0                | 0.0                   | 0.0                   |  |
|                          |                   |            | (          | k. LOM Plan)             | 72.7                  | 70.8                  | 85.7                  | 84.8                | 62.3                  | 60.0                  |  |
|                          |                   |            | ,          | tal Inferred             | 72.7                  | 70.8                  | 85.7                  | 84.7                | 62.3                  | 60.0                  |  |
| Orapa (OP)               | 42.5              |            | 1.65       |                          |                       |                       | cpht                  | cpht                |                       |                       |  |
| Kimberlite               |                   |            |            | Measured                 | _                     | _                     | _                     | · –                 | -                     | -                     |  |
|                          |                   |            |            | Indicated                | 292.0                 | 292.0                 | 101.7                 | 101.7               | 297.0                 | 297.0                 |  |
|                          |                   | Meas       | sured ar   | d Indicated              | 292.0                 | 292.0                 | 101.7                 | 101.7               | 297.0                 | 297.0                 |  |
|                          |                   | In         | iferred (i | n LOM Plan)              | -                     | _                     | _                     | -                   | _                     | -                     |  |
|                          |                   | Inf        | erred (e   | k. LOM Plan)             | 77.6                  | 77.5                  | 85.3                  | 85.3                | 66.2                  | 66.2                  |  |
|                          |                   |            |            | tal Inferred             | 77.6                  | 77.5                  | 85.3                  | 85.3                | 66.2                  | 66.2                  |  |
| DIAMOND RESOURCES ARE RE | PORTED AS ADDITIO | NAL TO DIA | AMOND R    | ESERVES.                 |                       |                       |                       |                     |                       |                       |  |
| Debswana – Projects      |                   |            | BCO        |                          |                       | Tonnes                |                       | Grade               |                       | Carats                |  |
| DIAMOND RESOURCES        | Ownership %       |            | (mm)       | Classification           | 2018                  | 2017                  | 2018                  | 2017                | 2018                  | 2017                  |  |
| Letlhakane               | 42.5              |            | 1.65       |                          | Mt                    | Mt                    | cpht                  | cpht                | Mct                   | Mct                   |  |
| Kimberlite               |                   |            |            | Measured                 | _                     | _                     | _                     | -                   | _                     | -                     |  |
|                          |                   |            |            | Indicated                | 22.3                  | 22.3                  | 31.7                  | 31.7                | 7.1                   | 7.1                   |  |
|                          |                   |            |            | d Indicated              | 22.3                  | 22.3                  | 31.7                  | 31.7                | 7.1                   | 7.1                   |  |
|                          |                   |            | ,          | n LOM Plan)              | _                     | -                     | _                     | -                   | _                     | -                     |  |
|                          |                   | Inf        | ,          | k. LOM Plan)             | 18.7                  | 18.7                  | 27.8                  | 27.8                | 5.2                   | 5.2                   |  |
|                          |                   |            | To         | tal Inferred             | 18.7                  | 18.7                  | 27.8                  | 27.8                | 5.2                   | 5.2                   |  |

Mining method: OP = Open Pit, UG = Underground.

LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning.

Reported Diamond Reserves/Resources are based on a Bottom Cut-Off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh).

Unless stated otherwise tonnage is quoted as dry metric tonnes. Estimates of Diamond Reserve tonnes reflect the tonnage to be treated. Estimates of 0.0 represent numbers less than 0.05. Recovered Grade is quoted as carats per hundred metric tonnes (cpht).

Due to the uncertainty that may be attached to some Inferred Diamond Resources, it cannot be assumed that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated

## estimates as at 31 December 2018

| Debswana - Operations |                     |      | всо          |                       | Treated Tonnes Recovered Grade |        | covered Grade | Saleable Carats |       |        |
|-----------------------|---------------------|------|--------------|-----------------------|--------------------------------|--------|---------------|-----------------|-------|--------|
| DIAMOND RESERVES      | Ownership %         | LOM  | (mm)         | Classification        | 2018                           | 2017   | 2018          | 2017            | 2018  | 2017   |
| Letlhakane            | 42.5                | 25   | 1.15         |                       | Mt                             | Mt     | cpht          | cpht            | Mct   | Mct    |
| TMR                   |                     |      |              | Proved                | -                              | _      | -             | _               | -     | _      |
|                       |                     |      |              | Probable              | 31.9                           | 34.6   | 23.8          | 24.3            | 7.6   | 8.4    |
|                       |                     |      |              | Total                 | 31.9                           | 34.6   | 23.8          | 24.3            | 7.6   | 8.4    |
| Debswana – Operations |                     |      | всо          |                       |                                | Tonnes |               | Grade           |       | Carats |
| DIAMOND RESOURCES     | Ownership %         |      | (mm)         | Classification        | 2018                           | 2017   | 2018          | 2017            | 2018  | 2017   |
| Jwaneng               | 42.5                |      | 1.47         |                       | Mt                             | Mt     | cpht          | cpht            | Mct   | Mct    |
| TMR & ORT             | 12.0                |      |              | Measured              | -                              | _      | - op.it       | - op.ii         | -     | -      |
|                       |                     |      |              | Indicated             | _                              | _      | _             | _               | _     | _      |
|                       |                     | Meas | sured a      | nd Indicated          | _                              | _      | _             | _               | _     | _      |
|                       |                     | In   | ferred (     | in LOM Plan)          | 31.9                           | 33.3   | 46.1          | 46.1            | 14.7  | 15.4   |
|                       |                     | Inf  | erred (e     | x. LOM Plan)          | 0.1                            | 0.1    | 8,333.6       | 8,333.6         | 8.9   | 8.9    |
|                       |                     |      | To           | otal Inferred         | 32.0                           | 33.4   | 73.8          | 72.7            | 23.6  | 24.3   |
| Letlhakane            | 42.5                |      | 1.15         |                       |                                |        | cpht          | cpht            |       |        |
| TMR & ORT             |                     |      |              | Measured              | -                              | _      | -             | _               | -     | _      |
|                       |                     |      |              | Indicated             | 0.0                            | 0.0    | 5,320.0       | 5,322.2         | 1.3   | 1.4    |
|                       |                     |      |              | nd Indicated          | 0.0                            | 0.0    | 5,320.0       | 5,322.2         | 1.3   | 1.4    |
|                       |                     |      |              | in LOM Plan)          | 54.8                           | 54.6   | 25.8          | 25.8            | 14.1  | 14.1   |
|                       |                     | Inf  | ,            | x. LOM Plan)          | -                              | _      | -             | _               | -     | _      |
|                       |                     |      | To           | otal Inferred         | 54.8                           | 54.6   | 25.8          | 25.8            | 14.1  | 14.1   |
|                       |                     |      |              |                       |                                | Tonnes |               | Grade           |       | Carats |
| Debswana – Projects   |                     |      | BCO          | O                     |                                |        |               |                 |       |        |
| DIAMOND RESOURCES     | Ownership %<br>42.5 |      | (mm)<br>1.15 | Classification        | 2018                           | 2017   | 2018          | 2017            | 2018  | 2017   |
| Orapa<br>TMR & ORT    | 42.5                |      | 1.15         |                       | Mt                             | Mt     | cpht          | cpht            | Mct   | Mct    |
| TIVIR & URT           |                     |      |              | Measured<br>Indicated | 189.3                          | 189.3  | 68.6          | 68.8            | 129.8 | 130.3  |
|                       |                     | Moor | oured o      | nd Indicated          | 189.3                          | 189.3  | 68.6          | 68.8            | 129.8 | 130.3  |
|                       |                     |      |              | in LOM Plan)          | 109.3                          | 109.3  | 00.0          | 00.0            | 129.0 | 130.3  |
|                       |                     |      |              | x. LOM Plan)          | _                              | _      | _             | _               | _     | _      |
|                       |                     | IIII |              | otal Inferred         | _                              | _      | _             | _               |       | _      |
|                       |                     |      | - 10         | Jiai iiiieiieu        |                                |        |               |                 |       |        |

DIAMOND RESOURCES ARE REPORTED AS ADDITIONAL TO DIAMOND RESERVES.

LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning.

Reported Diamond Reserves/Resources are based on a Bottom Cut-Off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh).

Unless stated otherwise tonnage is quoted as dry metric tonnes. Estimates of Diamond Reserve tonnes reflect the tonnage to be treated. Estimates of 0.0 represent numbers less than 0.05.

Recovered Grade is quoted as carats per hundred metric tonnes (cpth).

Due to the uncertainty that may be attached to some Inferred Diamond Resources, it cannot be assumed that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

#### **EXPLANATORY NOTES**

Damtshaa: The decrease in Saleable Carats is due to production. The decrease in Diamond Resource is primarily due to revised economic assumptions. The BK/9 and BK/12 Stockpile Resource estimates at a 1.65mm BCO of 0.2 Mct (1.6 Mt at 10.5 cpht) Inferred (in LOM Plan) are excluded from the table.

Jwaneng – Kimberlite: The estimates are based on both micro-diamonds (104 micron BCO) and macro-diamonds. The Life of Mine Plan approved in 2018 includes the Cut-8 estimates of 75 Mt of material to be treated containing an estimated 88 Mct and the Cut-9 estimates of 44 Mt of material to be treated containing an estimated 53 Mct. The Stockpile Probable Reserves at a 1.47mm BCO of 3.8 Mct (5.1 Mt at 75.2 cpht) are excluded from the table. The DK/2 Stockpile Resource estimates at a 1.47mm BCO of 7.1 Mct (15.7 Mt at 45.1 cpht) Inferred (in LOM Plan) and 0.6 Mct (1.0 Mt at 56.2 cpht) Inferred (ex. LOM Plan) are excluded from the table.

Jwaneng – TMR & ORT: The Jwaneng Tailings Mineral Resource (TMR) is reported as Inferred (in LOM Plan) and Old Recovery Tailings (ORT) is reported as Inferred (ex. LOM Plan).

LetIhakane – Kimberlite: Open pit operations remain dormant as planned. The remaining Diamond Resources are reported as a project for potential underground mining. DK/1 and DK/2 Stockpile Resource estimates at a 1.65mm BCO of 0.2 Mct (1.3 Mt at 13.8 cpht) Inferred (ex. LOM Plan) are excluded from the table.

LetIhakane – TMR & ORT: Ramp-up of the TMR was achieved in 2018 and is now reported as an operation. The decrease in Saleable Carats is due to production. The operation is expected to treat approximately 87 Mt of material containing an estimated 21 Mct. Scheduled Inferred Resources (54.8 Mt) constitute 65% (14.0 Mct) of the estimated carats. The estimates are scheduled tonnes and carats as per the Life of Mine Plan approved in 2018. The LetIhakane Tailings Mineral Resource (TMR) is reported as Inferred (in LOM Plan) and Old Recovery Tailings (ORT) is reported as Indicated.

Orapa – Kimberlite: The decrease in Saleable Carats is due to production. The estimates are based on both micro-diamonds (104 micron BCO) and macro-diamonds.

Orapa – Kimberlite: The decrease in Saleable Carats is due to production. The estimates are based on both micro-diamonds (104 micron BCO) and macro-diamonds The AK/1 Stockpile Resource estimates at a 1.65mm BCO of 13.7 Mct (34.1 Mt at 40.2 cpht) Inferred (in LOM Plan) are excluded from the table.

Orapa – TMR & ORT: Probable Reserves at a 1.15mm BCO of 0.4 Mct (0.0 Mt at 20,000.0 cpht) are excluded from the table.

The Orapa TMR and ORT Diamond Resources estimates are combined in the tables:

TMR estimates: 1.15 mm BCO: 113.4 Mct (189.2 Mt at 59.9 cpht) Indicated Resources.

ORT estimates: 1.15 mm BCO: 16.4 Mct (0.1 Mt at 24,101.5 cpht) Indicated Resources.

## LIFE OF MINE INFORMATION

| Operations                  | LOM Plan<br>(years) | LOM Plan<br>Final Year | Mining Right<br>Last Year | % Inferred carats in LOM Plan |
|-----------------------------|---------------------|------------------------|---------------------------|-------------------------------|
| Debswana – Damtshaa         | 17                  | 2035                   | 2029*                     | 32%                           |
| Debswana – Jwaneng          | 17                  | 2035                   | 2029*                     | 11%                           |
| Debswana – Letlhakane (TMR) | 25                  | 2043                   | 2029*                     | 65%                           |
| Dobowana - Orana            | 10                  | 2020                   | 2020*                     | 1.00%                         |

Application to renew the Mining Right will be submitted at the appropriate time. There is a reasonable expectation that such renewal will not be withheld.

Aspects of the Diamond Reserve and Diamond Resource estimates were reviewed by independent consultants during 2018 at Damtshaa, Jwaneng, Letlhakane and Orapa.

## estimates as at 31 December 2018

#### NAMDEB HOLDINGS

The Diamond Reserve and Diamond Resource estimates are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition). The estimates reported represent 100% of the Diamond Reserves and Diamond Resources. Diamond Resources are reported as additional to Diamond Reserves. Rounding of figures may cause computational discrepancies. As of 1 October 2011 Namdeb Holdings (Pty) Ltd (NDBH), a 50/50 joint venture between De Beers plc and the Government of the Republic of Namibia, holds the licences for both the land and sea operations. In addition, NDBH holds 100% ownership of the operating companies, Namdeb Diamond Corporation (Pty) Ltd and De Beers Marine Namibia (Pty) Ltd.

| Ownership % | LOM   | BCO<br>(mm)  | Classification  | 2018             |  |  |  |          | Saleable Carats       |  |
|-------------|---|--|-----------------|------------------|--|--|--|----------|-----------------------|--|
|             |   | (111111)   | Ciassilication  | 2018             | 2017   | 2018   | 2017   | 2018     | 2017                  |  |
| 42.5        | -   | 1.40   |                 | kt               | kt   | cpht   | cpht   | kct      | kct                   |  |
|             |   |  | Proved          | _                | -  | -  | _  | _        | -                     |  |
|             |   |  | Probable        | _                | 754  | _  | 10.28  | _        | 78                    |  |
|             |   |  | Total           | _                | 754  | _  | 10.28  | _        | 78                    |  |
| 42.5        | 3   | 2.00   |                 |                  |  | cpht   | cpht   |          |                       |  |
|             |   |  |                 |                  | -  | -  | -  |          | -                     |  |
|             |   |  |                 |                  |  |  |  |          | 36                    |  |
|             |   |  | Total           | 447              | 673  | 4.92   | 5.37   | 22       | 36                    |  |
| 42.5        | 3   | 3.00   |                 |                  |  | cpht   | cpht   |          |                       |  |
|             |   |  |                 |                  | -  |  | -  |          | _                     |  |
|             |   |  |                 |                  | ,  |  |  |          | 132                   |  |
|             |   |  | Total           | 11,873           | 13,796   | 0.99   | 0.96   | 117      | 132                   |  |
|             |   |  |                 |                  | Area   | Paco   | vered Grade  | Sale     | eable Carats          |  |
|             |   |  |                 |                  |  |  |  |          |                       |  |
|             |   |  | Classification  |                  |  |  |  |          | 2017                  |  |
| 42.5        | 32  | 1.47   | Drovod          | k (m²)           | к (m <sup>+</sup> )  | cpm <sup>-</sup>   | cpm <sup>-</sup>   |          | kct                   |  |
|             |   |  |                 | 74611            | 00.002   | 0.07   | 0.07   |          | 6.004                 |  |
|             |   |  |                 |                  |  |  |  |          | 6,094<br><b>6.094</b> |  |
| 40.5        |   | 2.00   | Iotai           | 74,011           | 09,003   |  |  | 4,922    | 0,094                 |  |
| 42.0        |   | 2.00   | Proved          |                  | _  | cpm  | cpm  |          |                       |  |
|             |   |  |                 | _                | 125  | _  | 0.20   |          | 129                   |  |
|             |   |  |                 | _                |  |  |  |          | 129                   |  |
|             |   |  | IUtai           |                  | 433  |  | 0.30   |          | 123                   |  |
|             |   |  |                 |                  | Tonnoc   |  | Grado  |          | Carats                |  |
|             |   |  |                 |                  |  |  |  |          |                       |  |
| <u>.</u>    |   |  | Classification  |                  |  |  |  |          | 2017                  |  |
| 42.5        |   | 1.40   | Magaurad        |                  | kt   |  |  |          | kct                   |  |
|             |   |  |                 |                  | 0.000  |  |  |          | 160                   |  |
|             | Maa   |  |                 |                  |  |  |  |          | 160                   |  |
|             | ivieas  | sured an   |                 |                  | ,  |  |  |          | 1 1                   |  |
| 40.5        |   | 1.40   | IIIIeIIeu       | 121              | 121  |  |  | 1        | - 1                   |  |
|             |   | 1.40   | Mossurod        |                  | _  | срп  | Срп  |          | _                     |  |
| 711         |   |  |                 |                  | 2 300  | 6.84   | 5.60   |          | 131                   |  |
|             | Мозя  | surad an   |                 |                  | ,  |  |  |          | 131                   |  |
|             |   |  |                 | 2,105            |  |  |  | 140      | 447                   |  |
|             |   |  |                 | 28.469           | ,  | 7 56   |  | 2 151    | 2,037                 |  |
|             | """   | ,  | ,               |                  |  |  |  | ,        | 2,484                 |  |
| 42.5        |   |  | IIIIOII Cu      | 20,400           | 55,575   |  |  | 2,101    | 2,404                 |  |
| 12.0        |   |  | Measured        | _                | _  | - cprit  | - Cprit  | _        | _                     |  |
|             |   |  |                 |                  | 37,898   | 0.90   | 0.91   | 344      | 346                   |  |
|             | Meas  | sured an   |                 |                  |  |  |  |          | 346                   |  |
|             |   |  |                 |                  |  | 9.50   | 9.04   |          | 755                   |  |
|             |   | ,  | ,               |                  | ,  |  |  |          | 2,248                 |  |
|             |   | ,  | ,               |                  |  |  |  | ,        | 3,003                 |  |
| 42.5        |   | 3.00   |                 | ,                | ,  |  |  | -,       | -,- 30                |  |
|             |   |  | Measured        | _                | _  | -  | _  | _        | _                     |  |
|             |   |  | Indicated       | 40.527           | 45.158   | 0.42   | 0.43   | 170      | 194                   |  |
|             | Meas  | sured an   |                 | 40,527           | 45,158   | 0.42   | 0.43   | 170      | 194                   |  |
|             |   |  |                 | 165              | 28   | 11.52  | 70.11  | 19       | 20                    |  |
|             |   |  |                 |                  |  |  |  |          |                       |  |
|             | Inf   | erred (ex  | k. LOM Plan)    | 52,845           | 51,421   | 0.27   | 0.27   | 141      | 140                   |  |
|             | 42.5  42.5  Operations Ownership % 42.5  42.5  42.5  42.5  42.5  42.5  42.5  42.5 | 42.5 3  2 Operations Ownership % LOM 42.5 32  42.5  ial Operations Ownership % 42.5  Meas In Inf 42.5  Meas In Inf 42.5  Meas In Inf | A2.5   3   3.00 | Probable   Total | Probable   Total   Proved   Probable   Probable   Probable   447   Total   447   Total   447   Proved   Probable   11,873   Total   Proved   Probable   Proba | Probable   Total   -   754   Total   44.7   673   Total   11,873   13,796   Total   13,796   Total   14,25   32   1,47 | Probable   Total   - 754   - | Probable | Probable              |  |

DIAMOND RESOURCES ARE REPORTED AS ADDITIONAL TO DIAMOND RESERVES.

Mining method: OC = Open Cast, MM = Marine Mining.

Mining method: OC = Open Cast, Min = Marine Mining.

LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning.

Reported Diamond Reserves/Resources are based on a Bottom Cut-Off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh).

Unless stated otherwise tonnage is quoted as dry metric tonnes. Estimates of Diamond Reserve tonnes reflect the tonnage to be treated. Estimates of 0.0 represent numbers less than 0.05.

Recovered Grade is quoted as carats per hundred metric tonnes (cpht) or as carats per square metre (cpm²). Area estimates are quoted in k (m²) = thousand square metres.

Due to the uncertainty that may be attached to some Inferred Diamond Resources, it cannot be assumed that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

## estimates as at 31 December 2018

| Namdeb Holdings – Offsho | re Operations | BCO                     |           | Area      |                  | Grade            |        | Carats |
|--------------------------|---------------|-------------------------|-----------|-----------|------------------|------------------|--------|--------|
| DIAMOND RESOURCES        | Ownership %   | (mm) Classification     | 2018      | 2017      | 2018             | 2017             | 2018   | 2017   |
| Atlantic 1 (MM)          | 42.5          | 1.47                    | k (m²)    | k (m²)    | cpm <sup>2</sup> | cpm <sup>2</sup> | kct    | kct    |
| Marine Placers           |               | Measured                | _         | _         | _                | _                | _      | _      |
|                          |               | Indicated               | 143,701   | 90,512    | 0.08             | 0.07             | 11,171 | 6,635  |
|                          |               | Measured and Indicated  | 143,701   | 90,512    | 0.08             | 0.07             | 11,171 | 6,635  |
|                          |               | Inferred (in LOM Plan)  | 371,505   | 301,196   | 0.11             | 0.11             | 39,291 | 31,951 |
|                          |               | Inferred (ex. LOM Plan) | 699,926   | 825,816   | 0.05             | 0.06             | 35,329 | 46,846 |
|                          |               | Total Inferred          | 1,071,431 | 1,127,012 | 0.07             | 0.07             | 74,620 | 78,797 |
| Midwater (MM)            | 42.5          | 2.00                    |           |           | cpm <sup>2</sup> | cpm <sup>2</sup> |        |        |
| Marine                   |               | Measured                | _         | _         | _                | _                | _      | _      |
|                          |               | Indicated               | 7,396     | 2,447     | 0.16             | 0.23             | 1,192  | 565    |
|                          |               | Measured and Indicated  | 7,396     | 2,447     | 0.16             | 0.23             | 1,192  | 565    |
|                          |               | Inferred (in LOM Plan)  | -         | -         | _                | -                | _      | _      |
|                          |               | Inferred (ex. LOM Plan) | 11,334    | 1,572     | 0.09             | 0.09             | 1,031  | 134    |
|                          |               | Total Inferred          | 11,334    | 1,572     | 0.09             | 0.09             | 1,031  | 134    |

DIAMOND RESOURCES ARE REPORTED AS ADDITIONAL TO DIAMOND RESERVES.

Mining method: OC = Open Cast, MM = Marine Mining.

LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning.

Reported Diamond Reserves/Resources are based on a Bottom Cut-Off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh). Unless stated otherwise tonnage is quoted as dry metric tonnes. Estimates of Diamond Reserve tonnes reflect the tonnage to be treated. Estimates of 0.0 represent numbers less than 0.05. Recovered Grade is quoted as carats per hundred metric tonnes (cpht) or as carats per square metre (cpm<sup>2</sup>). Area estimates are quoted in k (m<sup>2</sup>) = thousand square metres.

Due to the uncertainty that may be attached to some Inferred Diamond Resources, it cannot be assumed that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated or Measured Diamond Resource after continued exploration.

Namdeb Land consists of Elizabeth Bay, Midwater, Mining Area 1 and Orange River. Orange River consists of the Auchas, Daberas, Obib and Sendelingsdrif operations. Namdeb Marine (Debmarine Namibia) consists of Atlantic 1.

#### **EXPLANATORY NOTES**

Elizabeth Bay: The Saleable Carats are depleted primarily due to production and revised economic assumptions which resulted in no Diamond Reserve being declared for 2018. The decrease in Diamond Resources are also due to production and revised economic assumptions. The operation was placed on care and maintenance at the end of 2018.

Mining Area 1: The decrease in Saleable Carats is primarily due to production. The Life of Mine includes a material portion of scheduled tonnes with low geoscientific confidence, which are planned to be upgraded to Inferred Resources on a continuous basis. Incremental Inferred Resource development is dependent on beach accretion for drilling and sampling. Beach accretion is a process through which an existing beach is built seaward to extend into areas previously under water. The Overburden Stockpile Resource estimates at a 2.00mm BCO of 15 kct (4,421 kt at 0.34 cpht) Inferred (ex. LOM Plan) and the DMS and Recovery Tailings Resource estimates at a 2.00mm BCO of 455 kct (40,567 kt at 1.12 cpht) Inferred (ex. LOM Plan) are excluded from the table.

Atlantic 1: The decrease in Saleable Carats is due to production, reduced overall mining rates and revised economic assumptions. The Life of Mine has been increased from 20 years to 32 years following a revision of the reporting strategy. The Life of Mine Plan includes a material proportion of Inferred Resources.

Bogenfels: The operation remains on care and maintenance.

Inferred Resource estimates are as follows:

Deflation deposits: 1.40mm BCO: 524 kct (7,913 kt at 6.62 cpht) Inferred.

Pocket beaches: 2.00mm BCO: 228 kct (3,042 kt at 7.50 cpht) Inferred.

Midwater: The majority of the decrease in Saleable Carats is due to production. A trial mining campaign led to revised mining assumptions which resulted in no Diamond Reserve being declared for 2018. The increase in Diamond Resource is due to the revised mining assumptions using lower cost, lower mining rate vessels in the test for reasonable prospects for eventual economic extraction (RPEEE). The Midwater Resource comprises the offshore portion of the Diamond Area No. 1 (DA1) Mining Licences 43, 44 and 45, as well as the offshore licences ML 128A, B and C, at water depths greater than 30m.

#### LIFE OF MINE INFORMATION

| Operations                                   | LOM Plan<br>(years) | LOM Plan<br>Final Year | Mining Licence<br>Last Year | % Inferred carats<br>in LOM Plan |
|--|---------------------|------------------------|-----------------------------|----------------------------------|
| Namdeb Holdings Terrestrial - Mining Area 1* | 3                   | 2021                   | 2035                        | 66%+                             |
| Namdeb Holdings Terrestrial – Orange River*  | 3                   | 2021                   | 2035                        | 14%                              |
| Namdeb Holdings Offshore - Atlantic 1        | 32                  | 2050                   | 2035                        | 86%++                            |

- \* Mining Area 1 and Orange River operate under an integrated management structure.
- The Mining Area 1 LOM Plan contains 32% low geoscientific confidence material which has not been classified as Diamond Resource.
- ++ Due to the high costs associated with resource development and the large size of the Atlantic 1 licence, only a small portion of the Indicated Resources are converted to Diamond Reserves.

Aspects of the Diamond Reserve and Diamond Resource estimates were reviewed by independent consultants during 2018 at the Offshore operations Aspects of the Diamond Resource estimates were reviewed by independent consultants during 2018 at the Terrestrial operations.

## **COPPER**

## estimates as at 31 December 2018

#### **COPPER**

The Ore Reserve and Mineral Resource estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012) as a minimum standard. The estimates reported represent 100% of the Ore Reserves and Mineral Resources. Rounding of figures may cause computational discrepancies for totals.

| Copper - Operations   |             | Reserve | _              |         | ROM Tonnes |       | Grade | Con    | tained Metal |
|-----------------------|-------------|---------|----------------|---------|------------|-------|-------|--------|--------------|
| ORE RESERVES          | Ownership % | Life    | Classification | 2018    | 2017       | 2018  | 2017  | 2018   | 2017         |
| Collahuasi (OP)       | 44.0        | 63      |                | Mt      | Mt         | %TCu  | %TCu  | kt     | kt           |
| Sulphide              |             |         | Proved         | 437.5   | 469.1      | 1.12  | 1.15  | 4,900  | 5,395        |
| Flotation             | Copper      |         | Probable       | 2,298.0 | 2,252.4    | 0.96  | 0.96  | 22,001 | 21,690       |
| (direct feed)         |             |         | Total          | 2,735.5 | 2,721.5    | 0.98  | 1.00  | 26,901 | 27,085       |
|                       |             |         |                |         |            | %Mo   | %Mo   |        |              |
|                       |             |         | Proved         |         |            | 0.024 | 0.023 | 105    | 108          |
|                       | Molybdenum  |         | Probable       |         |            | 0.028 | 0.026 | 633    | 575          |
|                       |             |         | Total          |         |            | 0.027 | 0.025 | 738    | 683          |
|                       |             |         |                |         |            | %TCu  | %TCu  |        |              |
| Low Grade Sulphide    |             |         | Proved         | 10.6    | 10.2       | 0.55  | 0.57  | 58     | 58           |
| Flotation             | Copper      |         | Probable       | 385.0   | 487.9      | 0.57  | 0.57  | 2,181  | 2,760        |
| (incl. ROM stockpile) |             |         | Total          | 395.6   | 498.1      | 0.57  | 0.57  | 2,239  | 2,818        |
|                       |             |         |                |         |            | %Mo   | %Mo   |        |              |
|                       |             |         | Proved         |         |            | 0.009 | 0.010 | 1      | 1            |
|                       | Molybdenum  |         | Probable       |         |            | 0.014 | 0.014 | 52     | 66           |
|                       |             |         | Total          |         |            | 0.013 | 0.014 | 53     | 67           |
| El Soldado (OP)       | 50.1        | 9       |                |         |            | %TCu  | %TCu  |        |              |
| Sulphide              |             |         | Proved         | 50.4    | 50.5       | 0.79  | 0.80  | 398    | 404          |
| Flotation             |             |         | Probable       | 16.7    | 26.9       | 0.84  | 0.78  | 140    | 210          |
|                       |             |         | Total          | 67.1    | 77.4       | 0.80  | 0.79  | 538    | 614          |
| Los Bronces (OP)      | 50.1        | 30      |                |         |            | %TCu  | %TCu  |        |              |
| Sulphide              |             |         | Proved         | 815.3   | 746.2      | 0.60  | 0.64  | 4,892  | 4,776        |
| Flotation             | Copper      |         | Probable       | 463.2   | 308.6      | 0.55  | 0.54  | 2,548  | 1,667        |
|                       |             |         | Total          | 1,278.5 | 1,054.9    | 0.58  | 0.61  | 7,440  | 6,443        |
|                       |             |         |                |         |            | %Mo   | %Mo   |        |              |
|                       |             |         | Proved         |         |            | 0.014 | 0.015 | 114    | 112          |
|                       | Molybdenum  |         | Probable       |         |            | 0.017 | 0.015 | 79     | 46           |
|                       |             |         | Total          |         |            | 0.015 | 0.015 | 193    | 158          |
|                       |             |         |                |         |            | %TCu  | %TCu  |        |              |
| Sulphide              |             |         | Proved         | 609.5   | 361.7      | 0.26  | 0.30  | 1,585  | 1,085        |
| Dump Leach            |             |         | Probable       | 165.9   | 98.5       | 0.28  | 0.28  | 464    | 276          |
| ·                     |             |         | Total          | 775.4   | 460.2      | 0.26  | 0.30  | 2,049  | 1,361        |

 $Mining\ method:\ OP = Open\ Pit.\ Reserve\ Life = The\ scheduled\ extraction\ period\ in\ years\ for\ the\ total\ Ore\ Reserves\ in\ the\ approved\ Life\ of\ Mine\ Plan.\ TCu = Total\ Copper.$ 

 $El Soldado \ and \ Los \ Bronces \ are \ operated \ by \ Anglo \ American \ Sur \ S.A. \ Its \ shareholders \ are \ Anglo \ American \ through \ Inversiones \ Anglo \ American \ Sur \ S.A. \ and \ Anglo \ American \ Clarent \ (UK) \ Ltd; \ Mitsubishi, through \ MC \ Resource \ Development \ Ltd. \ and \ Codelco \ and \ Mitsubishi, through \ Inversiones \ Minera \ Becrux \ SpA.$ 

#### **EXPLANATORY NOTES**

Copper Reserves Cut-off grades (%TCu): Collahuasi – 0.3%, El Soldado – 0.2%, Los Bronces (Flotation) – 0.2%, Los Bronces (Dump Leach) – 0.15%. Collahuasi – Oxide and Mixed: The Life of Mine Plan does not include the Oxide and Mixed (Leach) material due to higher processing costs compared to the concentrator plant

Collahuasi - Flotation: The Ore Reserves decrease slightly but the Reserve Life decreases significantly as a result of a higher planned production rate.

Collahuasi - Low Grade Sulphide: The decrease is due to new drilling information.

A Low Grade Sulphide Stockpile of ~970 kt Cu (167.3 Mt at 0.58 %TCu) and 23 kt Mo (167.3 Mt at 0.014 %Mo) Probable Reserves is included in the 2018 estimates. **El Soldado:** The decrease is primarily due to production offset by conversion of Mineral Resources to Ore Reserves enabled by an updated pit design.

Estimates include mineralised void-fill material from the collapse of previously mined areas of ~122 kt Cu (14.1 Mt at 0.87 %TCu) Probable Reserves. The current approved Life of Mine Plan is based on extension of the current Environmental Permit to 2027. There is a reasonable expectation that the permit will be extended.

Los Bronces – Flotation: The increase is due to an updated pit design which also increases the Reserve Life significantly. Los Bronces – Dump Leach: The increase is due to an updated economic cut-off grade and pit design.

Los Bronces – Ore Reserves: Estimates exclude Flotation material containing ~258 kt Cu (40.3 Mt @ 0.64 %TCu) and Dump Leach material containing ~99 kt Cu (42.2 Mt @ 0.24 %TCu) within the Andina exploitation concession area that is incorporated into the Los Bronces Life of Mine Plan as per historical agreements between Anglo American Sur S.A. and Codelco's División Andina.

#### Mineral Tenure

Los Bronces: The current pit design is in accordance with the limits approved in the EIA-LBDP (RCA N° 3159/2007) and a permit (DIA Fase 7, RCA N°498/2015) obtained in late 2015 with the exception of six pit development phases. The updated pit design is consistent with the principles applied in the previous Ore Reserve Statements. In the updated pit design, the planned pushbacks are beyond the approved limits and approach environmentally sensitive areas. There is reasonable expectation these Ore Reserves will be extracted with permitting processes to commence in 2023.

Audits related to the generation of the Ore Reserve estimates were carried out by independent consultants during 2018 at Collahuasi.

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## estimates as at 31 December 2018

| Copper - Operations        |                  |                                   |                     | Tonnes                    |                  | Grade               | Cor               | ntained Metal          |
|----------------------------|------------------|-----------------------------------|---------------------|---------------------------|------------------|---------------------|-------------------|------------------------|
| MINERAL RESOURCES          | Ownership %      | Classification                    | 2018                | 2017                      | 2018             | 2017                | 2018              | 2017                   |
| Collahuasi (OP)            | 44.0             |                                   | Mt                  | Mt                        | %TCu             | %TCu                | kt                | kt                     |
| Oxide and Mixed            |                  | Measured                          | 36.6                | 36.2                      | 0.67             | 0.67                | 245               | 243                    |
| Leach                      |                  | Indicated                         | 30.6                | 28.8                      | 0.73             | 0.73                | 224               | 210                    |
|                            |                  | Measured and Indicated            | 67.3                | 65.0                      | 0.70             | 0.70                | 469               | 453                    |
|                            |                  | Inferred (in LOM Plan)            |                     |                           |                  |                     |                   | _                      |
|                            |                  | Inferred (ex. LOM Plan)           | 45.2                | 51.3                      | 0.56             | 0.57                | 253               | 292                    |
|                            |                  | Total Inferred                    | 45.2                | 51.3                      | 0.56             | 0.57                | 253               | 292                    |
| 6 1 1 1                    |                  |                                   | 100                 | 10.0                      | %TCu             | %TCu                | 100               | 100                    |
| Sulphide                   |                  | Measured                          | 18.3                | 18.8                      | 0.89             | 1.01                | 163               | 190                    |
| Flotation<br>(direct feed) |                  | Indicated  Measured and Indicated | 874.3               | 927.4                     | 0.95             | 0.94                | 8,306             | 8,717                  |
| (direct leed)              | Copper           | Inferred (in LOM Plan)            | <b>892.6</b> 628.7  | 946.2                     | <b>0.95</b> 0.94 | <b>0.94</b><br>0.98 | <b>8,469</b>      | 8,907                  |
|                            |                  | Inferred (ex. LOM Plan)           | 2,775.4             | 556.1<br>2,406.3          | 0.94             | 0.98                | 5,909<br>24,146   | 5,450<br>21,416        |
|                            |                  | Total Inferred                    | 3,404.0             | 2,400.3<br><b>2,962.4</b> | 0.88             | 0.89                | 30,055            | 26,866                 |
|                            |                  | Totalillerieu                     | 3,404.0             | 2,902.4                   | %Mo              | %Mo                 | 30,033            | 20,000                 |
|                            |                  | Measured                          |                     |                           | 0.015            | 0.014               | 3                 | 3                      |
|                            |                  | Indicated                         |                     |                           | 0.013            | 0.014               | 315               | 287                    |
|                            | Molybdenum       | Measured and Indicated            |                     |                           | 0.036            | 0.031               | 317               | 290                    |
|                            | Molybuellulli    | Inferred (in LOM Plan)            |                     |                           | 0.017            | 0.013               | 107               | 72                     |
|                            |                  | Inferred (ex. LOM Plan)           |                     |                           | 0.020            | 0.013               | 555               | 409                    |
|                            |                  | Total Inferred                    |                     |                           | 0.019            | 0.016               | <b>662</b>        | 481                    |
|                            |                  | Totalilleried                     |                     |                           | %TCu             | %TCu                | 002               | 701                    |
| Low Grade Sulphide         |                  | Measured                          | 220.1               | 219.7                     | 0.45             | 0.44                | 990               | 967                    |
| Flotation                  |                  | Indicated                         | 1,016.9             | 954.4                     | 0.45             | 0.44                | 4,548             | 4,200                  |
| (in situ + stockpile)      | Copper           | Measured and Indicated            | 1,237.0             | 1,174.1                   | 0.45             | 0.44                | 5,539             | 5,167                  |
| (menta i eteenphe)         | оорро.           | Inferred (in LOM Plan)            | 120.8               | 115.0                     | 0.53             | 0.54                | 640               | 621                    |
|                            |                  | Inferred (ex. LOM Plan)           | 1,481.9             | 1.315.8                   | 0.45             | 0.44                | 6,669             | 5,790                  |
|                            |                  | Total Inferred                    | 1,602.7             | 1,430.8                   | 0.46             | 0.45                | 7,309             | 6,411                  |
|                            |                  |                                   | 1,000               | .,                        | %Mo              | %Mo                 | -,                | -,                     |
|                            |                  | Measured                          |                     |                           | 0.012            | 0.010               | 26                | 22                     |
|                            |                  | Indicated                         |                     |                           | 0.010            | 0.010               | 105               | 96                     |
|                            | Molybdenum       | Measured and Indicated            |                     |                           | 0.011            | 0.010               | 131               | 118                    |
|                            |                  | Inferred (in LOM Plan)            |                     |                           | 0.009            | 0.007               | 11                | 8                      |
|                            |                  | Inferred (ex. LOM Plan)           |                     |                           | 0.007            | 0.006               | 104               | 79                     |
|                            |                  | Total Inferred                    |                     |                           | 0.007            | 0.006               | 115               | 87                     |
| El Soldado (OP)            | 50.1             |                                   |                     |                           | %TCu             | %TCu                |                   |                        |
| Sulphide                   |                  | Measured                          | 97.3                | 103.5                     | 0.60             | 0.60                | 584               | 621                    |
| Flotation                  |                  | Indicated                         | 30.3                | 33.0                      | 0.47             | 0.47                | 143               | 156                    |
|                            |                  | Measured and Indicated            | 127.7               | 136.5                     | 0.57             | 0.57                | 726               | 777                    |
|                            |                  | Inferred (in LOM Plan)            | 1.0                 | 0.8                       | 0.43             | 0.49                | 4                 | 4                      |
|                            |                  | Inferred (ex. LOM Plan)           | 6.1                 | 13.8                      | 0.38             | 0.44                | 23                | 61                     |
| (OD)                       | F0.1             | Total Inferred                    | 7.0                 | 14.6                      | 0.39             | 0.44                | 27                | 65                     |
| Los Bronces (OP)           | 50.1             | Magaurad                          | 005.0               | 1 210 0                   | %TCu             | %TCu                | 4140              | E E 20                 |
| Sulphide<br>Flotation      |                  | Measured<br>Indicated             | 985.8<br>1 377 7    | 1,318.8<br>1,724.4        | 0.42<br>0.45     | 0.42<br>0.45        | 4,140<br>6,200    | 5,539                  |
| i iolalion                 | 0                | Measured and Indicated            | 1,377.7             |                           |                  | 0.45<br><b>0.44</b> |                   | 7,760<br><b>13,299</b> |
|                            | Copper           | Inferred (in LOM Plan)            | <b>2,363.5</b> 56.6 | <b>3,043.2</b> 29.3       | 0.44             | 0.44                | <b>10,340</b> 328 | 13,299                 |
|                            |                  | Inferred (ex. LOM Plan)           | 1,228.8             | 1,281.9                   | 0.36             | 0.34                | 5,530             | 5,769                  |
|                            |                  | Total Inferred                    | 1.285.4             | 1.311.2                   | 0.45             | 0.45                | <b>5,858</b>      | 5,709<br><b>5,927</b>  |
|                            |                  | Totalillerieu                     | 1,203.4             | 1,311.2                   | %Mo              | %Mo                 | 3,030             | 3,321                  |
|                            |                  | Measured                          |                     |                           | 0.008            | 0.009               | 79                | 119                    |
|                            |                  | Indicated                         |                     |                           | 0.010            | 0.010               | 138               | 172                    |
|                            | Molybdenum       | Measured and Indicated            |                     |                           | 0.009            | 0.010               | 217               | 291                    |
|                            | 51, 5 5 511 6111 | Inferred (in LOM Plan)            |                     | •                         | 0.008            | 0.016               | 5                 | 5                      |
|                            |                  | Inferred (ex. LOM Plan)           |                     |                           | 0.011            | 0.011               | 135               | 141                    |
|                            |                  | Total Inferred                    |                     |                           | 0.011            | 0.011               | 140               | 146                    |
|                            |                  |                                   |                     |                           | %TCu             | %TCu                |                   |                        |
| Sulphide                   |                  | Measured                          | _                   | _                         | -                | _                   | _                 | -                      |
| Dump Leach                 |                  | Indicated                         | _                   | _                         | _                | _                   | _                 | _                      |
| 1                          |                  | Measured and Indicated            | _                   | _                         | _                | _                   | _                 | _                      |
|                            |                  | Inferred (in LOM Plan)            | 5.3                 | 4.7                       | 0.25             | 0.29                | 13                | 14                     |
|                            |                  |                                   |                     |                           |                  |                     | _                 | _                      |
|                            |                  | Inferred (ex. LOM Plan)           | -                   | _                         | _                | _                   | _                 | _                      |

Mining method: OP = Open Pit. TCu = Total Copper.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

## **EXPLANATORY NOTES**

Copper Resources: An optimised pit shell is used as the basis for the test of reasonable prospects for eventual economic extraction. Mineralised material outside the optimised pit shell is not included in the Mineral Resource statement. Mineral Resources are quoted above the following cut-off grades (%TCu): Collahuasi - 0.3%, El Soldado - 0.2%, Los Bronces (Flotation) - 0.2%, Los Bronces (Dump Leach) - 0.15%.

Collahuasi - Sulphide: The increase is due to new information from deep drilling and an updated geological model.

Collahuasi - Low Grade Sulphide: The increase is due to new information from deep drilling and an updated geological model.

A Low Grade Sulphide Stockpile of ~399 kt Cu (73.9 Mt at 0.54 %TCu) and ~10 kt Mo (73.9 Mt at 0.014 %Mo) Indicated Resources is included in the 2018 estimate. El Soldado: The decrease is due to a new Mineral Resource shell as a result of updated economic assumptions and conversion of additional Mineral Resources to Ore Reserves. Estimates include mineralised void-fill material from the collapse of previously mined areas of ~11 kt Cu (1.0 Mt at 1.04 %TCu) Indicated Resources. Los Bronces - Sulphide (Flotation): The decrease is due to conversion of Mineral Resources to Ore Reserves enabled by the updated mine design and reallocation of some lower grade material to Mineralisation. Estimates include material containing ~228 kt Cu (51.8 Mt at 0.44 %TCu) within the Los Bronces exploitation concession area scheduled to be mined by Codelco's División Andina.

## COPPER

## estimates as at 31 December 2018

| Copper - Projects       |             | Reserve                           |                       |                       | Grade               | Contained Metal     |                       |                                |
|-------------------------|-------------|-----------------------------------|-----------------------|-----------------------|---------------------|---------------------|-----------------------|--------------------------------|
| ORE RESERVES            | Ownership % | Life Classification               | 2018                  | 2017                  | 2018                | 2017                | 2018                  | 2017                           |
| Quellaveco (OP)         | 60.0        | 30                                | Mt                    | Mt                    | %TCu                | %TCu                | kt                    | kt                             |
| Sulphide                |             | Proved                            | 898.2                 | 898.2                 | 0.58                | 0.58                | 5,209                 | 5,209                          |
| Flotation               | Copper      | Probable                          | 435.2                 | 435.2                 | 0.54                | 0.54                | 2,350                 | 2,350                          |
|                         |             | Total                             | 1,333.4               | 1,333.4               | 0.57                | 0.57                | 7,560                 | 7,560                          |
|                         |             |                                   |                       |                       | %Mo                 | %Mo                 |                       |                                |
|                         |             | Proved                            |                       |                       | 0.021               | 0.021               | 189                   | 189                            |
|                         | Molybdenum  | Probable                          |                       | •                     | 0.023               | 0.023               | 100                   | 100                            |
|                         |             | Total                             |                       |                       | 0.022               | 0.022               | 289                   | 289                            |
| Copper - Projects       |             |                                   |                       | Tonnes                |                     | Grade               | Con                   | ntained Metal                  |
| MINERAL RESOURCES       | Ownership % |                                   | 2018                  | 2017                  | 2018                | 2017                | 2018                  | 2017                           |
| Los Bronces Underground | 50.1        |                                   | Mt                    | Mt                    | %TCu                | %TCu                | kt                    | kt                             |
| Sulphide                |             | Measured                          | _                     | -                     | _                   | -                   | _                     | -                              |
|                         |             | Indicated                         | 203.0                 | -                     | 1.55                | -                   | 3,147                 | -                              |
|                         |             | Measured and Indicated            | 203.0                 | -                     | 1.55                | -                   | 3,147                 | -                              |
|                         |             | Inferred                          | 3,077.0               | 2,126.0               | 1.16                | 1.20                | 35,693                | 25,512                         |
| Quellaveco (OP)         | 60.0        |                                   | Mt                    | Mt                    | %TCu                | %TCu                | kt                    | kt                             |
| Sulphide                |             | Measured                          | 70.6                  | 70.6                  | 0.32                | 0.32                | 226                   | 226                            |
| Flotation               |             | Indicated                         | 719.3                 | 719.3                 | 0.43                | 0.43                | 3,093                 | 3,093                          |
|                         | Copper      | Measured and Indicated            | 789.9                 | 789.9                 | 0.42                | 0.42                | 3,319                 | 3,319                          |
|                         |             | Inferred (in LOM Plan)            | 32.4                  | 32.4                  | 0.48                | 0.48                | 155                   | 155                            |
|                         |             | Inferred (ex. LOM Plan)           | 804.4                 | 804.4                 | 0.32                | 0.32                | 2,574                 | 2,574                          |
|                         |             | Total Inferred                    | 836.8                 | 836.8                 | 0.33                | 0.33                | 2,729                 | 2,729                          |
|                         |             |                                   |                       |                       | %Mo                 | %Mo                 | kt                    | kt                             |
|                         |             | Measured                          |                       |                       | 0.011               | 0.011               | 8                     | 8                              |
|                         |             | Indicated                         |                       |                       | 0.020               | 0.020               | 144                   | 144                            |
|                         | Molybdenum  | Measured and Indicated            |                       | •                     | 0.019               | 0.019               | 152                   | 152                            |
|                         |             | Inferred (in LOM Plan)            |                       |                       | 0.013               | 0.013               | 4                     | 4                              |
|                         |             | Inferred (ex. LOM Plan)           |                       |                       | 0.013               | 0.013               | 105                   | 105                            |
|                         |             | Total Inferred                    |                       |                       | 0.013               | 0.013               | 109                   | 109                            |
| Sakatti                 | 100         |                                   | Mt                    | Mt                    | %TCu                | %TCu                | kt                    | kt                             |
| Sulphide                |             | Measured                          | -                     | -                     | - 0.45              |                     | -                     | -                              |
|                         | _           | Indicated                         | 3.5                   | 3.5                   | 3.45                | 3.45                | 121                   | 121                            |
|                         | Copper      | Measured and Indicated            | <b>3.5</b><br>40.9    | 3.5                   | 3.45                | 3.45                | 121                   | 121                            |
|                         |             | Inferred                          | 40.9                  | 40.9                  | 1.77                | 1.77                | 724                   | 724                            |
|                         |             | Measured                          |                       |                       | %Ni<br>_            | %Ni                 | kt<br>–               | kt<br>–                        |
|                         |             | Indicated                         |                       |                       | 2.47                | 2.47                | 87                    | 87                             |
|                         | NP-1-1      | Measured and Indicated            |                       |                       | 2.47<br><b>2.47</b> | 2.47                | 87<br>87              | 87                             |
|                         | Nickel      | Inferred                          |                       |                       | 0.83                | 0.83                | 337                   | 337                            |
|                         |             | Illierred                         |                       |                       |                     |                     | 3E Moz                | 3E Moz                         |
|                         |             | Measured                          |                       | l l                   | 3E g/t              | 3E g/t              | 3E MOZ                | 3E IVIOZ                       |
|                         |             | Indicated                         |                       |                       | 2.49                | 2.49                | 0.3                   | 0.3                            |
|                         | PGE         | Measured and Indicated            |                       |                       | 2.49<br><b>2.49</b> | 2.49                | <b>0.3</b>            | 0.3                            |
|                         | FGE         | Inferred                          |                       |                       | 1.37                | 1.37                | 1.8                   | 1.8                            |
|                         |             | iiiiciicu                         | Mt                    | Mt                    | %TCu                | %TCu                | kt                    | kt                             |
| West Wall               | 50.0        |                                   |                       |                       | /0 I GU             | /0 I Cu             | r.t                   | ΝL                             |
|                         | 50.0        | Measured                          | - IVIL                | _                     | _                   | _                   | _                     | _                              |
| West Wall<br>Sulphide   | 50.0        | Measured<br>Indicated             | _                     | -                     |                     | -<br>0.55           |                       | 2.723                          |
| West Wall<br>Sulphide   | 50.0        | Indicated                         | -<br>861.0            | -<br>495.0            | 0.51                | 0.55<br><b>0.55</b> | 4,391                 | ,                              |
|                         | 50.0        | Indicated  Measured and Indicated | 861.0<br><b>861.0</b> | 495.0<br><b>495.0</b> | 0.51<br><b>0.51</b> | 0.55                | 4,391<br><b>4,391</b> | 2,723                          |
|                         | 50.0        | Indicated                         | -<br>861.0            | -<br>495.0            | 0.51                |                     | 4,391                 | 2,723                          |
|                         | 50.0        | Indicated  Measured and Indicated | 861.0<br><b>861.0</b> | 495.0<br><b>495.0</b> | 0.51<br><b>0.51</b> | 0.55                | 4,391<br><b>4,391</b> | 2,723<br><b>2,723</b><br>4,656 |

Mining method: OP = Open Pit. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan. TCu = Total Copper. Ni = Total Nickel. 3E is the sum of Platinum, Palladium and Gold.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

Quellaveco is a Joint Venture with Mitsubishi Corporation. West Wall is a Joint Venture with Glencore. Los Bronces Sur and Los Bronces Underground are part of Anglo American Sur.

## **EXPLANATORY NOTES**

Los Bronces Underground: The reported Mineral Resources include mineralisation within a volume defined using a \$50/t Net Smelter Return (NSR) value. The test for reasonable prospects of eventual economic extraction is based on an underground operation.

The increase is due to an updated resource model based on new drilling information and updated economic assumptions.

Quellaveco - Ore Reserves: A minimum cut-off of 0.30 %TCu is applied to determine Ore Reserves.

Quellaveco - Mineral Resources: Mineral Resources are quoted above a 0.20 %TCu cut-off within an optimised pit shell.

Sakatti: Mineral Resources are quoted at a 1% Copper Equivalent (CuEq) cut-off as Copper contributes approximately 46% of the total gross revenue. Sakatti co-product estimated grades:

Indicated - Cobalt 0.11%, Platinum 0.98 g/t, Palladium 1.18 g/t and Gold 0.33 g/t. CuEq average grade 11.41%.

Inferred - Cobalt 0.04%, Platinum 0.61 g/t, Palladium 0.43 g/t and Gold 0.33 g/t. CuEq average grade 4.68%.

A test for reasonable prospects for eventual economic extraction (RPEEE) is based on a predominantly underground Cut & Fill mining method and the Mineral Resources fall within a volume defined using a \$45/t Net Smelter Return (NSR) value.

West Wall: Mineral Resources are quoted above a 0.20 %TCu cut-off within an optimised pit shell. The increase is due to the change in economic cut-off grade from 0.30 %TCu to 0.20 %TCu using an updated geological model.

Los Bronces Sur: The test for reasonable prospects of eventual economic extraction is based on an underground operation.

Audits related to the generation of the Ore Reserve and Mineral Resource estimates for Copper Projects were carried out by independent consultants during 2018 at Quellaveco. Audits related to the generation of the Mineral Resource estimates for Copper Projects we're carried out by independent consultants during 2018 at Los Bronces Underground, Sakatti and West Wall.

## estimates as at 31 December 2018

#### ANGLO AMERICAN PLATINUM LIMITED

The Ore Reserve and Mineral Resource estimates are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition). The estimates reported represent 100% of the Ore Reserves and Mineral Resources. All Mineral Resources are reported over an economic and mineable cut appropriate to the specific reef. Rounding of figures may cause computational discrepancies.

Anglo American plc's ownership of Anglo American Platinum Limited (AAPL) is 78.0%.

| South Africa Operations  |             |                | F       | ROM Tonnes |        | Grade | Conf      | tained Metal | Conta  | ained Metal |
|--------------------------|-------------|----------------|---------|------------|--------|-------|-----------|--------------|--------|-------------|
| ORE RESERVES             | Ownership % | Classification | 2018    | 2017       | 2018   | 2017  | 2018      | 2017         | 2018   | 2017        |
| Merensky Reef            | 31.7        |                | Mt      | Mt         | 4E g/t | 4Eg/t | 4E Tonnes | 4E Tonnes    | 4E Moz | 4E Moz      |
|                          |             | Proved         | 57.2    | 60.4       | 4.69   | 4.72  | 269       | 286          | 8.6    | 9.2         |
|                          |             | Probable       | 27.0    | 27.3       | 4.32   | 4.32  | 116       | 118          | 3.7    | 3.8         |
|                          |             | Total          | 84.2    | 87.7       | 4.57   | 4.60  | 385       | 404          | 12.4   | 13.0        |
| UG2 Reef                 | 57.6        | Proved         | 158.1   | 158.1      | 4.01   | 4.10  | 634       | 649          | 20.4   | 20.8        |
|                          |             | Probable       | 82.9    | 96.0       | 4.05   | 3.95  | 336       | 378          | 10.8   | 12.2        |
|                          |             | Total          | 241.0   | 254.1      | 4.02   | 4.04  | 970       | 1,027        | 31.2   | 33.0        |
| Platreef                 | 78.0        |                |         |            |        |       |           |              |        |             |
|                          |             | Proved         | 727.8   | 840.6      | 3.06   | 2.86  | 2,227     | 2,404        | 71.6   | 77.3        |
|                          |             | Probable       | 408.5   | 504.5      | 3.25   | 2.86  | 1,328     | 1,443        | 42.7   | 46.4        |
| Primary stockpiles       |             | Proved         | 23.1    | 13.1       | 2.42   | 2.26  | 56        | 30           | 1.8    | 1.0         |
|                          |             | Probable       | 40.9    | 40.9       | 1.47   | 1.47  | 60        | 60           | 1.9    | 1.9         |
| Including stockpiles     |             | Total          | 1,200.3 | 1,399.1    | 3.06   | 2.81  | 3,671     | 3,937        | 118.0  | 126.6       |
| All Reefs                | 70.5        | Proved         | 966.2   | 1,072.2    | 3.30   | 3.14  | 3,186     | 3,369        | 102.4  | 108.2       |
| Merensky, UG2 & Platreef |             | Probable       | 559.2   | 668.7      | 3.29   | 2.99  | 1,840     | 1,999        | 59.2   | 64.3        |
| -                        |             | Total          | 1,525.5 | 1,740.9    | 3.29   | 3.08  | 5,026     | 5,368        | 161.6  | 172.5       |
|                          |             |                | _       |            |        |       | 0         |              | 0 1    |             |
| Zimbabwe Operations      |             |                |         | ROM Tonnes |        | Grade | Conf      | tained Metal | Conta  | ained Metal |
| ORE RESERVES             | Ownership % | Classification | 2018    | 2017       | 2018   | 2017  | 2018      | 2017         | 2018   | 2017        |
| Main Sulphide Zone       | 78.0        |                | Mt      | Mt         | 4E g/t | 4Eg/t | 4E Tonnes | 4E Tonnes    | 4E Moz | 4E Moz      |
|                          |             | Proved         | 25.4    | 13.8       | 3.35   | 3.50  | 85        | 48           | 2.7    | 1.5         |
|                          |             | Probable       | 27.0    | 33.6       | 3.26   | 3.41  | 88        | 115          | 2.8    | 3.7         |
|                          |             | Total          | 52.5    | 47.4       | 3.30   | 3.44  | 173       | 163          | 5.6    | 5.2         |

Ownership percentages per reef are weighted by Total 4E Moz of the individual operations

Tonnes are quoted as dry metric tonnes.
4E is the sum of Platinum, Palladium, Rhodium and Gold.

Contained Metal is presented in metric tonnes and million troy ounces (Moz). Estimates of 0.0 represent numbers less than 0.05.

Concentrator recoveries for Merensky Reef range from 85% to 87%, UG2 Reef from 82% to 85%, Platreef from 77% to 82% and Main Sulphide Zone from 80% to 83%

Details of the individual operations and projects which contributed to the combined 2018 Ore Reserve estimates stated per reef appear later in this section. Additional details of other potentially recoverable metals are available in the Anglo American Platinum Limited R&R Report.

#### **EXPLANATORY NOTES**

Ore Reserves: Ore Reserve pay limits are directly linked to the 2019 Business Plan which takes into account Platinum Group Elements (PGEs), Base Metals and other credits. The pay limit is based on 'Cost 4' which consists of 'Direct Cash Cost' (on and off mine), 'Other Indirect Costs' and 'Stay in Business Capital' (on and off mine). The in situ Ore Reserve pay limit varies across all Anglo American Platinum Limited managed operations between 2.5 g/t and 3.9 g/t 4E. The range is a function of various factors including depth of the orebody, geological complexity, mining method, infrastructure and economic parameters. Union Mine has been sold therefore is excluded from the total Merensky and UG2 reef estimates for 2017 and 2018.

Merensky Reef: The 4E ounce content decreased primarily due to production and at Dishaba Mine where some previously reported Ore Reserves have been reallocated to Mineral Resources as a result of a revised mine design.

UG2 Reef: The 4E ounce content decreased primarily due to production and at Dishaba Mine where some previously reported Ore Reserves have been reallocated to Mineral Resources as a result of a revised mine design. The decrease is partially offset by the increase in Ore Reserves at Tumela and Modikwa Mine due to conversion of Mineral Resources to Ore Reserves as a result of implementation of life extension projects.

Platreef: The 4E ounce decreased mainly due to economic assumptions (pit shell re-design and reallocation of some lower grade material to Mineralisation). Primary stockpiles – The Ore Reserve pay limit varies between 1.0 g/t and 1.7 g/t 4E. These stockpiles are scheduled for future treatment and reported separately as Proved and Probable Reserves but included in the Total Platreef Ore Reserves. ROM stockpiles are reported as Proved and longer-term stockpiles as Probable

Main Sulphide Zone: The 4E ounce content increased mainly due to additional Mineral Resources converted to Ore Reserves as a result of a revised mine design. Anglo American Platinum Limited reports an effective 100% interest in Southridge Limited (Unki Mine), subject to the finalisation of the indigenisation laws by the Zimbabwean Government.

Alternative units: Tonnage in million short tons (Mton) and associated grade in troy ounces per short ton (oz/ton) are:

|                    | Total Ore Reserves |           |                |       |  |  |  |  |  |  |
|--------------------|--------------------|-----------|----------------|-------|--|--|--|--|--|--|
| _                  | Tor                | ns (Mton) | Ounces (oz/ton |       |  |  |  |  |  |  |
| Reef               | 2018               | 2017      | 2018           | 2017  |  |  |  |  |  |  |
| Merensky Reef      | 92.8               | 96.7      | 0.133          | 0.134 |  |  |  |  |  |  |
| UG2 Reef           | 265.7              | 280.1     | 0.117          | 0.118 |  |  |  |  |  |  |
| Platreef           | 1,323.1            | 1,542.2   | 0.089          | 0.082 |  |  |  |  |  |  |
| Main Sulphide Zone | 57.9               | 52.2      | 0.096          | 0.100 |  |  |  |  |  |  |

## estimates as at 31 December 2018

| South Africa Operations  |                         |                        |         | Tonnes  |        | Grade | Cont      | ained Metal | Conta  | ained Metal |
|--------------------------|-------------------------|------------------------|---------|---------|--------|-------|-----------|-------------|--------|-------------|
| MINERAL RESOURCES        | Ownership %             | Classification         | 2018    | 2017    | 2018   | 2017  | 2018      | 2017        | 2018   | 2017        |
| Merensky Reef            | 55.5                    |                        | Mt      | Mt      | 4E g/t | 4Eg/t | 4E Tonnes | 4E Tonnes   | 4E Moz | 4E Moz      |
|                          |                         | Measured               | 221.7   | 218.6   | 5.35   | 5.33  | 1,186     | 1,164       | 38.2   | 37.5        |
|                          |                         | Indicated              | 280.4   | 278.5   | 5.16   | 5.15  | 1,448     | 1,434       | 46.5   | 46.1        |
|                          | Measur                  | Measured and Indicated |         |         | 5.25   | 5.23  | 2,634     | 2,598       | 84.7   | 83.6        |
|                          | Inferred (in LON        |                        | 6.2     | 6.1     | 8.11   | 7.54  | 51        | 46          | 1.6    | 1.5         |
|                          | Inferr                  | ed (ex. LOM Plan)      | 588.1   | 583.5   | 4.80   | 4.80  | 2,822     | 2,800       | 90.7   | 90.0        |
|                          |                         | Total Inferred         | 594.3   | 589.6   | 4.83   | 4.83  | 2,873     | 2,846       | 92.3   | 91.5        |
| UG2 Reef                 | 53.3                    | Measured               | 526.8   | 524.0   | 5.73   | 5.76  | 3,018     | 3,020       | 97.0   | 97.1        |
|                          |                         | Indicated              | 471.3   | 480.4   | 5.86   | 5.84  | 2,761     | 2,803       | 88.8   | 90.1        |
|                          |                         | ed and Indicated       | 998.1   | 1,004.4 | 5.79   | 5.80  | 5,779     | 5,823       | 185.8  | 187.2       |
|                          | Infe                    | red (in LOM Plan)      | 0.4     | 0.4     | 5.16   | 5.16  | 2         | 2           | 0.1    | 0.1         |
|                          | Inferr                  | ed (ex. LOM Plan)      | 490.2   | 488.8   | 6.13   | 6.13  | 3,006     | 2,994       | 96.7   | 96.3        |
|                          |                         | Total Inferred         |         | 489.3   | 6.13   | 6.13  | 3,008     | 2,996       | 96.7   | 96.4        |
| Platreef                 | 78.0                    | Measured               | 236.6   | 255.5   | 1.99   | 2.09  | 471       | 534         | 15.1   | 17.2        |
|                          |                         | Indicated              | 1,371.1 | 1,069.4 | 2.17   | 2.30  | 2,975     | 2,460       | 95.7   | 79.1        |
|                          | Measur                  | ed and Indicated       | 1,607.8 | 1,324.9 | 2.14   | 2.26  | 3,446     | 2,994       | 110.8  | 96.2        |
|                          | Infe                    | red (in LOM Plan)      | 2.5     | 1.6     | 4.77   | 4.51  | 12        | 7           | 0.4    | 0.2         |
|                          | Inferred (ex. LOM Plan) |                        | 824.2   | 1,138.4 | 2.18   | 1.95  | 1,797     | 2,220       | 57.8   | 71.4        |
|                          |                         | Total Inferred         | 826.6   | 1,140.0 | 2.19   | 1.95  | 1,809     | 2,227       | 58.1   | 71.6        |
| All Reefs                | 60.6                    | Measured               | 985.1   | 998.1   | 4.75   | 4.73  | 4,675     | 4,718       | 150.3  | 151.8       |
| Merensky, UG2 & Platreef |                         | Indicated              | 2,122.9 | 1,828.2 | 3.38   | 3.66  | 7,184     | 6,697       | 231.0  | 215.3       |
|                          | Measu                   | red and Indicated      | 3,108.0 | 2,826.3 | 3.82   | 4.04  | 11,859    | 11,415      | 381.3  | 367.1       |
|                          | Infe                    | red (in LOM Plan)      | 9.1     | 8.1     | 7.06   | 6.83  | 65        | 55          | 2.1    | 1.8         |
|                          | Inferr                  | ed (ex. LOM Plan)      | 1,902.4 | 2,210.8 | 4.01   | 3.63  | 7,625     | 8,014       | 245.1  | 257.7       |
|                          |                         | Total Inferred         | 1,911.5 | 2,218.9 | 4.02   | 3.64  | 7,690     | 8,069       | 247.2  | 259.5       |
| Tailings                 | 78.0                    | Measured               | 63.0    | 63.0    | 0.79   | 0.79  | 50        | 50          | 1.6    | 1.6         |
|                          |                         | Indicated              | 8.1     | 8.1     | 0.82   | 0.82  | 7         | 7           | 0.2    | 0.2         |
|                          | Measur                  | ed and Indicated       | 71.1    | 71.1    | 0.79   | 0.79  | 57        | 57          | 1.8    | 1.8         |
|                          | Infe                    | red (in LOM Plan)      | _       | _       | _      | -     | -         | _           | _      | -           |
|                          | Inferr                  | ed (ex. LOM Plan)      | 1.2     | 1.2     | 0.91   | 0.91  | 1         | 1           | 0.0    | 0.0         |
|                          |                         | Total Inferred         | 1.2     | 1.2     | 0.91   | 0.91  | 1         | 1           | 0.0    | 0.0         |

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

| Zimbabwe Operations |             | Tonnes             |       |       | Grade  |       | ained Metal | Contained Metal |        |        |
|---------------------|-------------|--------------------|-------|-------|--------|-------|-------------|-----------------|--------|--------|
| MINERAL RESOURCES   | Ownership % | Classification     | 2018  | 2017  | 2018   | 2017  | 2018        | 2017            | 2018   | 2017   |
| Main Sulphide Zone  | 78.0        |                    | Mt    | Mt    | 4E g/t | 4Eg/t | 4E Tonnes   | 4E Tonnes       | 4E Moz | 4E Moz |
|                     |             | Measured           | 11.1  | 20.8  | 3.96   | 3.77  | 44          | 78              | 1.4    | 2.5    |
|                     |             | Indicated          | 111.3 | 109.7 | 4.29   | 4.26  | 477         | 467             | 15.3   | 15.0   |
|                     | Measu       | red and Indicated  | 122.4 | 130.5 | 4.26   | 4.18  | 521         | 545             | 16.8   | 17.5   |
|                     | Infe        | rred (in LOM Plan) | 0.0   | 8.3   | 3.37   | 3.70  | 0           | 31              | 0.0    | 1.0    |
|                     | Infer       | red (ex. LOM Plan) | 47.4  | 37.7  | 4.23   | 4.37  | 200         | 165             | 6.4    | 5.3    |
|                     |             | Total Inferred     | 47.4  | 46.0  | 4.23   | 4.25  | 200         | 196             | 6.4    | 6.3    |

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

Ownership percentages per reef are weighted by Total 4E Moz of the individual operations.

Tonnes are quoted as dry metric tonnes.
4E is the sum of Platinum, Palladium, Rhodium and Gold.

 $Contained\ Metal\ is\ presented\ in\ metric\ tonnes\ and\ million\ troy\ ounces\ (Moz).\ Estimates\ of\ 0.0\ represent\ numbers\ less\ than\ 0.05.$ 

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or

Details of the individual operations and projects which contributed to the combined 2018 Mineral Resource estimates stated per reef appear later in this section.  $Additional\ details\ of\ other\ potentially\ recoverable\ metals\ are\ available\ in\ the\ Anglo\ American\ Platinum\ Limited\ R\&R\ Report.$ 

#### **EXPLANATORY NOTES**

Mineral Resources: Union Mine has been sold therefore is excluded from the total Merensky and UG2 reef estimates for 2017 and 2018.

Merensky Reef, UG2 Reef and Main Sulphide Zone: The Mineral Resources are estimated over a 'Resource Cut' which takes cognisance of the mining method, potential economic viability and geotechnical aspects in the hangingwall or footwall of the reef.

Platreef: A 1.0 g/t 4E cut-off is used to define Platreef Mineral Resources (excluding oxidised and calc-silicate material for which a 3.0 g/t 4E cut-off is applied).

An oxidised and calc-silicate stockpile of ~0.4 4E Moz (4.4 Mt at 3.20 g/t 4E) Measured Mineral Resource is excluded from the 2018 estimates.

Tailings: At Amandelbult Complex dormant tailings storage facilities have been evaluated and are separately reported as Tailings Mineral Resources. Main Sulphide Zone: Anglo American Platinum Limited reports an effective 100% interest in Southridge Limited (Unki Mine), subject to the finalisation of the indigenisation laws by the Zimbabwean Government.

Alternative units: Tonnage in million short tons (Mton) and associated grade in troy ounces per short ton (oz/ton) are:

|                    | N       | leasured and | d Indicated |          | Total Inferred |           |                 |       |  |  |
|--------------------|---------|--------------|-------------|----------|----------------|-----------|-----------------|-------|--|--|
|                    | Tor     | ns (Mton)    | Ounces      | (oz/ton) | Tonne          | es (Mton) | Ounces (oz/ton) |       |  |  |
| Reef               | 2018    | 2017         | 2018        | 2017     | 2018           | 2017      | 2018            | 2017  |  |  |
| Merensky Reef      | 553.5   | 547.9        | 0.153       | 0.153    | 655.1          | 650.0     | 0.141           | 0.141 |  |  |
| UG2 Reef           | 1,100.2 | 1,107.1      | 0.169       | 0.169    | 540.8          | 539.3     | 0.179           | 0.179 |  |  |
| Platreef           | 1,772.3 | 1,460.5      | 0.063       | 0.066    | 911.2          | 1,256.6   | 0.064           | 0.057 |  |  |
| Main Sulphide Zone | 134.9   | 143.8        | 0.124       | 0.122    | 52.2           | 50.7      | 0.123           | 0.124 |  |  |

## estimates as at 31 December 2018

| AAPL Managed – Operations  |             | Reserve |                | F       | ROM Tonnes |        | Grade  | Cont      | ained Metal | Conta  | ined Metal |
|----------------------------|-------------|---------|----------------|---------|------------|--------|--------|-----------|-------------|--------|------------|
| ORE RESERVES               | Ownership % | Life    | Classification | 2018    | 2017       | 2018   | 2017   | 2018      | 2017        | 2018   | 2017       |
| Amandelbult - Dishaba (UG) | 78.0        | >22     |                | Mt      | Mt         | 4E g/t | 4Eg/t  | 4E Tonnes | 4E Tonnes   | 4E Moz | 4E Moz     |
| Merensky Reef              |             |         | Proved         | 4.0     | 6.2        | 5.10   | 4.91   | 20        | 31          | 0.6    | 1.0        |
|                            |             |         | Probable       | 4.8     | 4.5        | 4.89   | 5.18   | 23        | 23          | 0.8    | 0.8        |
|                            |             |         | Total          | 8.8     | 10.7       | 4.98   | 5.02   | 43        | 54          | 1.4    | 1.7        |
| UG2 Reef                   |             |         | Proved         | 45.5    | 55.0       | 4.37   | 4.41   | 199       | 243         | 6.4    | 7.8        |
|                            |             |         | Probable       | 8.8     | 8.0        | 4.43   | 4.53   | 39        | 36          | 1.3    | 1.2        |
|                            |             |         | Total          | 54.3    | 63.0       | 4.38   | 4.43   | 238       | 279         | 7.6    | 9.0        |
| Amandelbult – Tumela (UG)  | 78.0        | 15      |                |         |            | 4E g/t | 4Eg/t  |           |             |        |            |
| Merensky Reef              |             |         | Proved         | 0.1     | 0.1        | 5.72   | 5.75   | 1         | 1           | 0.0    | 0.0        |
|                            |             |         | Probable       | _       | _          | _      | -      | _         | _           | _      | -          |
|                            |             |         | Total          | 0.1     | 0.1        | 5.72   | 5.75   | 1         | 1           | 0.0    | 0.0        |
| UG2 Reef                   |             |         | Proved         | 40.3    | 39.5       | 4.65   | 4.73   | 188       | 187         | 6.0    | 6.0        |
|                            |             |         | Probable       | 0.1     | 0.1        | 4.46   | 4.51   | 0         | 0           | 0.0    | 0.0        |
|                            |             |         | Total          | 40.4    | 39.5       | 4.65   | 4.73   | 188       | 187         | 6.0    | 6.0        |
| Mogalakwena (OP)           | 78.0        | >22     |                |         |            | 4E g/t | 4Eg/t  |           |             |        |            |
| Platreef                   |             |         | Proved         | 727.8   | 840.6      | 3.06   | 2.86   | 2,227     | 2,404       | 71.6   | 77.3       |
|                            |             |         | Probable       | 408.5   | 504.5      | 3.25   | 2.86   | 1,328     | 1,443       | 42.7   | 46.4       |
|                            |             |         | Total          | 1,136.4 | 1,345.1    | 3.13   | 2.86   | 3,555     | 3,847       | 114.3  | 123.7      |
| Primary stockpiles         |             |         | Proved         | 23.1    | 13.1       | 2.42   | 2.26   | 56        | 30          | 1.8    | 1.0        |
|                            |             |         | Probable       | 40.9    | 40.9       | 1.47   | 1.47   | 60        | 60          | 1.9    | 1.9        |
|                            |             |         | Total          | 63.9    | 54.0       | 1.81   | 1.66   | 116       | 90          | 3.7    | 2.9        |
| Unki (UG)                  | 78.0        | 24      |                |         |            | 4E g/t | 4E g/t |           |             |        |            |
| Main Sulphide Zone         |             |         | Proved         | 25.4    | 13.8       | 3.35   | 3.50   | 85        | 48          | 2.7    | 1.5        |
|                            |             |         | Probable       | 27.0    | 33.6       | 3.26   | 3.41   | 88        | 115         | 2.8    | 3.7        |
|                            |             |         | Total          | 52.5    | 47.4       | 3.30   | 3.44   | 173       | 163         | 5.6    | 5.2        |

Mining method: OP = Open Pit, UG = Underground. Estimates of 0.0 represent numbers less than 0.05.

Mining methods: UP = Open Pit, OG = Underground. Estimates of 0.0 represent numbers less transl.o.o.

Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan within the current Mining Right. Where applicable, an application to extend the Mining Right will be submitted at the appropriate time and there is reasonable expectation that such extension will not be withheld.

#### EXPLANATORY NOTES

**Dishaba:** The material decrease in Merensky and UG2 4E ounces is due to reallocation of Ore Reserves to Mineral Resources due to a revised mine design. The anticipated Life of Mine Plan exceeds the current Mining Right expiry date (2040).

Tumela: The Reserve Life (for Merensky and UG2 Reefs) decreases as a result of implementing a mechanisation project in a part of the mine.

Mogalakwena: The 4E ounce decreased mainly due to economic assumptions (pit shell re-design and reallocation of some lower grade material to Mineralisation). The anticipated Life of Mine Plan exceeds the current Mining Right expiry date (2040).

Primary stockpiles – The Ore Reserve pay limit varies between 1.0 g/t and 1.7 g/t 4E. These stockpiles are scheduled for future treatment and reported separately as Proved and Probable Reserves. ROM stockpiles are reported as Proved and longer-term stockpiles as Probable Ore Reserves. Increase in the ROM stockpile is the result of production.

Unki: The increase in 4E ounces is primarily due to conversion of Mineral Resources to Ore Reserves as a result of a revised mine design. The Reserve Life decreases due to a higher planned mining rate. Anglo American Platinum Limited reports an effective 100% interest in Southridge Limited (Unki Mine), subject to the finalisation of the indigenisation laws by the Zimbabwean Government.

Union Mine has been sold therefore is no longer reported. Twickenham remains on care and maintenance hence no Ore Reserves are reported.

#### LIFE OF MINE INFORMATION

|                          | Pay-limit | Planned | d Stoping Width (cr |     |  |  |
|--------------------------|-----------|---------|---------------------|-----|--|--|
| AAPL Managed Operations: | 4E g/t    | MR      | UG2                 | MSZ |  |  |
| Amandelbult – Dishaba    | 3.9       | 151     | 161                 |     |  |  |
| Amandelbult – Tumela     | 3.9       | 154     | 154                 |     |  |  |
| Mogalakwena              | 2.5       |         |                     |     |  |  |
| Unki                     | 3.3       |         |                     | 204 |  |  |

 $Audits \ related \ to \ the \ generation \ of \ the \ Ore \ Reserve \ estimates \ were \ carried \ out \ by \ independent \ consultants \ during \ 2018 \ at \ the \ following \ AAPL \ Managed \ operations: \ Unking \ AAPL \ Managed \ operations: \ Unking \ AAPL \ Managed \ operations \ op$ 

## estimates as at 31 December 2018

| Non-Managed – Operations |             | Reserve |                | RC   | OM Tonnes |        | Grade  | Cont      | ained Metal | Contai | ined Metal |
|--------------------------|-------------|---------|----------------|------|-----------|--------|--------|-----------|-------------|--------|------------|
| ORE RESERVES             | Ownership % | Life    | Classification | 2018 | 2017      | 2018   | 2017   | 2018      | 2017        | 2018   | 2017       |
| Bafokeng-Rasimone (UG)   | 25.7        | 21      |                | Mt   | Mt        | 4E g/t | 4E g/t | 4E Tonnes | 4E Tonnes   | 4E Moz | 4E Moz     |
| Merensky Reef            |             |         | Proved         | 53.2 | 54.0      | 4.66   | 4.70   | 248       | 254         | 8.0    | 8.2        |
|                          |             |         | Probable       | 22.2 | 22.8      | 4.20   | 4.15   | 93        | 95          | 3.0    | 3.0        |
|                          |             |         | Total          | 75.3 | 76.9      | 4.52   | 4.54   | 341       | 349         | 11.0   | 11.2       |
| UG2 Reef                 |             |         | Proved         | 7.7  | 8.8       | 4.04   | 3.83   | 31        | 34          | 1.0    | 1.1        |
|                          |             |         | Probable       | 42.2 | 42.9      | 3.80   | 3.81   | 161       | 163         | 5.2    | 5.2        |
|                          |             |         | Total          | 49.9 | 51.7      | 3.84   | 3.81   | 192       | 197         | 6.2    | 6.3        |
| Kroondal (UG)            | 39.0        | 6       |                |      |           | 4E g/t | 4E g/t |           |             |        |            |
| UG2 Reef                 |             |         | Proved         | 16.0 | 15.2      | 2.78   | 2.68   | 44        | 41          | 1.4    | 1.3        |
|                          |             |         | Probable       | _    | 5.0       | _      | 2.78   | -         | 14          | _      | 0.5        |
|                          |             |         | Total          | 16.0 | 20.2      | 2.78   | 2.70   | 44        | 55          | 1.4    | 1.8        |
| Modikwa (UG)             | 39.0        | >24     |                |      |           | 4E g/t | 4E g/t |           |             |        |            |
| UG2 Reef                 |             |         | Proved         | 15.9 | 11.7      | 4.49   | 4.70   | 71        | 55          | 2.3    | 1.8        |
|                          |             |         | Probable       | 31.9 | 31.4      | 4.27   | 4.59   | 136       | 144         | 4.4    | 4.6        |
|                          |             |         | Total          | 47.8 | 43.1      | 4.34   | 4.62   | 207       | 199         | 6.7    | 6.4        |
| Mototolo (UG)            | 78.0        | 5       |                |      |           | 4E g/t | 4E g/t |           |             |        |            |
| UG2 Reef                 |             |         | Proved         | 11.9 | 13.0      | 4.16   | 4.02   | 50        | 52          | 1.6    | 1.7        |
|                          |             |         | Probable       | _    | _         | _      | -      | _         | _           | _      | -          |
|                          |             |         | Total          | 11.9 | 13.0      | 4.16   | 4.02   | 50        | 52          | 1.6    | 1.7        |
| Siphumelele 3 shaft (UG) | 78.0        | 12      |                |      |           | 4E g/t | 4E g/t |           |             |        |            |
| UG2 Reef                 |             |         | Proved         | 20.7 | 14.9      | 2.46   | 2.45   | 51        | 37          | 1.6    | 1.2        |
|                          |             |         | Probable       | _    | 8.6       | _      | 2.43   | -         | 21          | _      | 0.7        |
|                          |             |         | Total          | 20.7 | 23.6      | 2.46   | 2.44   | 51        | 58          | 1.6    | 1.9        |

Mining method: OP = Open Pit, UG = Underground. Estimates of 0.0 represent numbers less than 0.05.

Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan within the current Mining Right. Where applicable, an application to extend the Mining Right will be submitted at the appropriate time and there is reasonable expectation that such extension will not be withheld.

Information for Non-Managed operations provided by the Joint Venture partners; for additional details please refer to the applicable Annual Reports.

## **EXPLANATORY NOTES**

Bafokeng-Rasimone: Anglo American Platinum Limited has sold its interest in the Bafokeng-Rasimone Platinum Mine and the transaction has been submitted for approval to the South African Department of Mineral Resources in terms of Section 11 of the Mineral and Petroleum Resources Development Act. The effective date of transfer of the Mining Right is expected in 2019 following the completion of the approval process.

Kroondal: The UG2 4E ounces decrease primarily due to production.

Mototolo: The UG2 4E ounces decrease primarily due to production. Mototolo is reported as a non-managed operation as the estimates were prepared and signed-off under the Glencore reporting policy, therefore only five years of Ore Reserves are declared. Following the acquisition of the remainder of Motololo by

AAPL the Ore Reserves will in future be defined as per the AAPL processes.

Siphumelele 3 shaft: Siphumelele 3 shaft is being mined on a royalty basis from Kroondal Mine (Sibanye-Stillwater). The UG2 4E ounces decrease due to production.

Bokoni and Marikana remain on care and maintenance hence no Ore Reserves are reported.

## estimates as at 31 December 2018

| · · · · · · · · · · · · · · · · · · ·  | AAPL Managed – Operations  |                         |       | Tonnes  |        | Grade  | Cont  | ained Metal | Conta | ined Metal |
|--|----------------------------|-------------------------|-------|---------|--------|--------|-------|-------------|-------|------------|
| MerenskyReef   |                            |                         | 2018  | 2017    | 2018   | 2017   | 2018  | 2017        | 2018  | 2017       |
| Measured and Indicated   Inferred (in LOM Plan)   122   127, 627, 624   124  | Amandelbult – Dishaba (UG) | 78.0                    |       |         | 4E g/t | 4Eg/t  |       |             |       | 4E Moz     |
| Measured (In-LOM Plan)   12.0   12. | Merensky Reef              |                         | 9.3   | 7.0     | 7.11   | 7.10   |       |             | 2.1   |            |
| Inferred (in, LOM Plan)   122   127   627   624   77   79   25   25   25   25   26   26   26   26  |                            | Indicated               | 11.0  | 11.2    | 6.90   | 6.69   | 76    | 75          | 2.4   | 2.4        |
| Inferred (ex. LOM Plan)   122   127   6.27   6.24   77   79   2.5   2.5   2.5   1. |                            | Measured and Indicated  | 20.3  | 18.2    | 7.00   | 6.85   | 142   | 124         | 4.6   | 4.0        |
| Total Inferred   13.0   13.1   6.30   6.29   83   82   2.6   2.6   2.6   2.6   2.6   2.6   2.6   2.6   2.6   2.6   2.6   2.6   2.5   5.31   1.40   1.07   4.5   3.4   3.4   3.4   3.4   3.4   3.5   3.4   3.4   3.5   3.4   3.4   3.5   3.4    |                            | Inferred (in LOM Plan)  | 0.8   | 0.4     | 6.67   | 7.75   | 6     | 3           | 0.2   | 0.1        |
| UG2 Reef   |                            | Inferred (ex. LOM Plan) | 12.2  | 12.7    | 6.27   | 6.24   | 77    | 79          | 2.5   | 2.5        |
| Indicated   Measured and Indicated   14.6   26.7   5.76   5.77   271   272   8.7   |                            | Total Inferred          | 13.0  | 13.1    | 6.30   | 6.29   | 83    | 82          | 2.6   | 2.6        |
| Measured and Indicated Interred (in LOMPlan)   16   17   17   17   17   17   17   17   | UG2 Reef                   | Measured                | 26.6  | 20.1    | 5.25   | 5.31   | 140   | 107         | 4.5   | 3.4        |
| Inferred (in.LOMPlan)   Ba8   B.7   5.54   5.54   49   48   1.6  |                            | Indicated               | 24.6  | 26.7    | 5.74   | 5.75   | 141   | 154         | 4.5   | 4.9        |
| Inferred (ex LOM Plan)   8.8   |                            | Measured and Indicated  | 51.3  | 46.9    | 5.49   | 5.56   | 281   | 261         | 9.0   | 8.4        |
| Total Inferred   S.B.   S.7   S.5.4   S.5.4   49   48   1.6   1.6  |                            | Inferred (in LOM Plan)  | _     | _       | _      | _      | _     | _           | _     | -          |
| Mandelbult - Tumela (UG)   |                            | Inferred (ex. LOM Plan) | 8.8   | 8.7     | 5.54   | 5.54   | 49    | 48          | 1.6   | 1.6        |
| Merensky Reef  |                            |                         | 8.8   | 8.7     | 5.54   | 5.54   | 49    | 48          | 1.6   | 1.6        |
| Merensky Reef  | Amandelbult - Tumela (UG)  |                         |       |         |        | 4E a/t |       |             |       |            |
| Indicated   46.9   46.4   7.05   7.05   331   327   10.6   10.5  |                            |                         | 25.3  | 25.4    |        |        | 173   | 174         | 5.6   | 5.6        |
| Measured and Indicated Inferred (in LOM Plan)   16.2   16.1   16.2   16.1   16.2   16.1   16.2   16.1   16.2   16.1   16.2   16.1   16.2   16.1   16.2   16.1   16.2   16.1   16.2   16.1   16.2   16.1   16.2   16.1   16.2   16.1   16.2   16.1   16.2   16.2   16.1   16.2   16.2   16.1   16.2   16.2   16.1   16.2   1 | 2. 2, 20.                  |                         |       |         |        |        |       |             |       |            |
| Inferred (in LOM Plan)   45.3   45.2   7.00   7.03   317   318   10.2   10.2   |                            |                         |       |         |        |        |       |             |       |            |
| Inferred (ex. LOM Plan)  |                            |                         |       |         |        | -      |       | -           |       |            |
| Total Inferred   45.3   45.2   7.00   7.03   317   318   10.2   10.2   |                            | ,                       | 45.3  | 45.9    |        | 7.03   | 317   | 318         |       | 10.9       |
| Measured   Measured  |                            | ,                       |       |         |        |        |       |             |       |            |
| Indicated   45.0   45.0   5.52   5.52   249   248   8.0   8.0   8.0   1.0   8.0   1.0    | LIG2 Reef                  |                         |       |         |        |        |       |             |       |            |
| Measured and Indicated Inferred (in LOM Plan)   Manual Infer | Od2 Neel                   |                         |       |         |        |        |       |             |       |            |
| Inferred (in LOM Plan)   147.1   47.2   5.76   5.77   271   272   8.7   8.7  |                            |                         |       |         |        |        |       |             |       |            |
| Inferred (ex.LOM Plan)   47.1   47.2   5.76   5.77   271   272   8.7   |                            |                         | 140.5 | 134.5   | 5.44   | 3.40   | 809   | 040         | 20.0  | 21.2       |
| Total Inferred   47.1   47.2   5.76   5.77   271   272   8.7   8.7   |                            | ,                       | 471   | 47.0    | 5.76   | 5 77   | 071   | 070         | 0.7   | 0.7        |
| Measured   Color   C |                            | ,                       |       |         |        |        |       |             |       |            |
| Measured Indicated   R.1   R.1   R.1   R.1   R.1   R.2   R.2   R.3   R | A man alalbudi             |                         | 47.1  | 41.2    |        |        | 2/1   | 212         | 0.1   | 0.1        |
| Measured and Indicated   8.1   8.1   0.82   0.82   7   7   0.2   0.2     Measured and Indicated   71.1   71.1   0.79   0.79   57   57   1.8   1.8     Inferred   1.2   1.2   0.91   0.91   0.91   1   1   0.0   0.00     Mogalakwena (OP)   78.0   4Eg/t   4Eg/t     Platreef   Measured and Indicated   1,371.1   1,069.4   2.17   2.30   2,975   2,460   95.7   77.1     Measured and Indicated   1,371.1   1,069.8   1,324.9   2.14   2.26   3,446   2,994   110.8   96.2     Inferred (in LOM Plan)   2.5   1.6   4.77   4.51   12   7   0.4   0.2     Inferred (ex. LOM Plan)   824.2   1,138.4   2.18   1.95   1,797   2,220   57.8   71.6     Merensky Reef   Measured   826.6   1,140.0   2.19   1.95   1,809   2,227   57.8   71.6     Merensky Reef   Measured   48.4   47.5   4.75   4.75   4.75   2.30   2,225   7.4   7.2     Merensky Reef   Measured   48.4   47.5   4.75   4.75   4.75   2.30   2.25   7.4   7.2     Measured and Indicated   135.7   133.1   4.89   4.89   664   650   21.3   20.9     UG2 Reef   Measured   165.7   160.3   5.26   5.26   872   843   28.0   27.1     UG2 Reef   Measured and Indicated   145.4   146.1   6.05   6.05   879   884   28.3   28.4     Measured and Indicated   200.0   201.3   6.12   6.12   1,23   1,231   39.3   39.6     Inferred (in LOM Plan)   1.11   2.08   3.96   3.77   4.4   7.8   7.5   2.50     Measured and Indicated   111.3   10.97   4.29   4.26   4.77   467   15.3   15.0     Measured and Indicated   111.3   10.97   4.29   4.26   4.77   467   15.3   15.0     Measured and Indicated   111.3   10.97   4.29   4.26   4.77   467   15.3   15.0     Measured and Indicated   111.3   10.97   4.29   4.26   4.77   4.67   15.3   15.0     Measured and Indicated   111.1   20.8   3.96   3.77   4.4   7.8   7.5     Inferred (in LOM Plan)   0.0   8.3   3.37   3.70   0.0   31   0.0   1.5     Inferred (in LOM Plan)   4.74   3.77   4.23   4.37   2.00   165   6.4   5.3   |                            |                         | 62.0  | 62.0    |        |        | ΕO    | FO          | 1.6   | 1.6        |
| Measured and Indicated Inferred   71.1   71.1   0.79   0.79   0.79   57   57   1.8 | railings                   |                         |       |         |        |        |       |             |       |            |
| Inferred   1.2   1.2   0.91   0.91   1   1   0.0   0.00  |                            |                         |       |         |        |        |       |             |       |            |
| Measured and Indicated   1,371, 1   1,069,4   2,17   2,30   2,975   2,460   95.7   79.1  |                            |                         |       |         |        |        |       |             |       |            |
| Platreef   |                            |                         | 1.2   | 1.2     |        |        | I     | - 1         | 0.0   | 0.0        |
| Indicated   1,371.1   1,069.4   2.17   2.30   2,975   2,460   95.7   79.1  |                            |                         | 0000  | 055.5   |        |        | 474   | F0.4        | 454   | 47.0       |
| Measured and Indicated Inferred (in LOM Plan)   2.5   1.6   4.77   4.51   12   7   0.4   0.2   | Platreet                   |                         |       |         |        |        |       |             |       |            |
| Inferred (in LOM Plan)   2.5   1.6   4.77   4.51   12   7   0.4   0.2  |                            |                         |       |         |        |        | ,     |             |       |            |
| Inferred (ex. LOM Plan)   824.2   1,138.4   2.18   1.95   1,797   2,220   57.8   71.4     Total Inferred   826.6   1,140.0   2.19   1.95   1,809   2,227   58.1   71.6     Twickenham (UG)   78.0   4E g/t   4E g/t     Merensky Reef   Measured and Indicated   135.7   133.1   4.89   4.89   664   650   21.3   20.9     Measured and Indicated   165.7   160.3   5.26   5.26   872   843   28.0   27.1     UG2 Reef   Measured   145.4   146.1   6.05   6.05   879   884   28.3   28.4     Indicated   145.4   146.1   6.05   6.05   879   884   28.3   28.4     Inferred   148.2   145.8   5.88   5.88   871   857   28.0   27.6     Unki (UG)   78.0   4E g/t   4E g/t     Measured and Indicated   111.1   20.8   3.96   3.77   44   78   1.4   2.5     Measured and Indicated   111.1   20.8   3.96   3.77   44   78   1.4   2.5     Measured and Indicated   111.1   20.8   3.96   3.77   4.26   4.77   467   15.3   15.0     Measured and Indicated   111.1   20.8   3.37   3.70   0   31   0.0   1.0     Inferred (in LOM Plan)   0.0   8.3   3.37   3.70   0   31   0.0   1.0     Inferred (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3   |                            |                         |       |         |        |        |       |             |       |            |
| Total Inferred   826.6   1,140.0   2.19   1.95   1,809   2,227   58.1   71.6   |                            | ,                       |       |         |        |        |       |             |       |            |
| Twickenham (UG)   78.0   Measured   48.4   47.5   4.75   4.75   4.75   230   225   7.4   7.2   |                            |                         |       |         |        |        |       |             |       |            |
| Merensky Reef   Measured Indicated   48.4   47.5   4.75   4.75   4.97   4.96   434   425   14.0   13.7     Measured and Indicated   135.7   133.1   4.89   4.89   664   650   21.3   20.9     Inferred   165.7   160.3   5.26   5.26   872   843   28.0   27.1     UG2 Reef   Measured   145.4   146.1   6.05   6.05   879   884   28.3   28.4     Indicated   145.4   146.1   6.05   6.05   879   884   28.3   28.4     Measured and Indicated   148.2   145.8   5.88   5.88   871   857   28.0   27.6     Unki (UG)   78.0   4Eg/t   4Eg/t     Measured and Indicated   111.3   109.7   4.29   4.26   4.77   467   15.3   15.0     Inferred (in LOM Plan)   0.0   8.3   3.37   3.70   0   31   0.0   1.0     Inferred (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured (and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured (and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured (and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured (and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured (and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured (and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured (and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured (and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured (and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured (and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured (and Indicated (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured (and Indicated (ex. LOM Plan)   47. |                            |                         | 826.6 | 1,140.0 |        |        | 1,809 | 2,227       | 58.1  | 71.6       |
| Indicated   87.3   85.7   4.97   4.96   434   425   14.0   13.7   13.1   4.89   4.89   664   650   21.3   20.9   4.96   4.96   4.97   4.96   4.97   4.96   4.97   4.96   4.97   4.96   4.97   4.96   4.97   4.96   4.97   4.96   4.97   4.96   4.97   4.96   4.97   4.96   4.97   4.96   4.97   4.96   4.97   4.98   4.99   4.99   4.98   |                            |                         |       |         |        |        |       |             |       |            |
| Measured and Indicated Inferred   135.7   133.1   4.89   4.89   664   650   21.3   20.9  | Merensky Reef              |                         |       |         |        |        |       |             |       |            |
| Inferred   165.7   160.3   5.26   5.26   872   843   28.0   27.1   |                            |                         |       |         |        |        |       |             |       |            |
| UG2 Reef         Measured Indicated Indicate                               |                            |                         |       |         |        |        |       |             |       |            |
| Indicated Measured and Indicated Inferred   145.4   146.1   6.05   6.05   879   884   28.3   28.4   28.3   39.6   200.0   201.3   6.12   6.12   1,223   1,231   39.3   39.6   27.6   201.0   |                            | Inferred                |       |         |        |        |       |             | 28.0  |            |
| Measured and Indicated Inferred   200.0   201.3   6.12   6.12   1,223   1,231   39.3   39.6     Inferred (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured and Indicated Inferred Inferred Inferred (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured and Indicated Inferred (ex. LOM Plan)   47.4   37.7   4.23   4.37   200   165   6.4   5.3     Measured and Indicated Inferred I | UG2 Reef                   | Measured                | 54.6  | 55.2    | 6.29   | 6.29   | 344   | 347         | 11.1  | 11.2       |
| Inferred   148.2   145.8   5.88   5.88   871   857   28.0   27.6   |                            |                         |       |         |        |        |       |             |       |            |
| Unki (UG)         78.0         4Eg/t   |                            | Measured and Indicated  |       |         | 6.12   | 6.12   | 1,223 |             |       | 39.6       |
| Main Sulphide Zone         Measured Indicated Indicated Inferred (in LOM Plan)         11.1 Inferred (ex. LOM Plan)         20.8 Inferred (in LOM Plan)         3.96 Inferred (in LOM Plan)         3.77 Inferred (in LOM Plan)         4.29 Inferred (in LOM Plan)         4.29 Inferred (in LOM Plan)         4.26 Inferred (in LOM Plan)  |                            |                         | 148.2 | 145.8   | 5.88   | 5.88   | 871   | 857         | 28.0  | 27.6       |
| Main Sulphide Zone         Measured Indicated Indicated         11.1         20.8         3.96         3.77         44         78         1.4         2.5           Measured and Indicated Inferred (in LOM Plan) Inferred (ex. LOM Plan)         11.3         109.7         4.29         4.26         477         467         15.3         15.0           Measured and Indicated Inferred (in LOM Plan)         10.0         8.3         3.37         3.70         0         31         0.0         1.0           4.24         4.23         4.23         4.37         200         165         6.4         5.3   | Unki (UG)                  | 78.0                    |       |         | 4E g/t | 4Eg/t  |       |             |       | _          |
| Measured and Indicated     122.4     130.5     4.26     4.18     521     545     16.8     17.5       Inferred (in LOM Plan)     0.0     8.3     3.37     3.70     0     31     0.0     1.0       Inferred (ex. LOM Plan)     47.4     37.7     4.23     4.37     200     165     6.4     5.3   | Main Sulphide Zone         | Measured                | 11.1  | 20.8    | 3.96   | 3.77   | 44    | 78          | 1.4   | 2.5        |
| Inferred (in LOM Plan)         0.0         8.3         3.37         3.70         0         31         0.0         1.0           Inferred (ex. LOM Plan)         47.4         37.7         4.23         4.37         200         165         6.4         5.3  | -                          | Indicated               | 111.3 | 109.7   | 4.29   | 4.26   | 477   | 467         | 15.3  | 15.0       |
| Inferred (in LOM Plan)         0.0         8.3         3.37         3.70         0         31         0.0         1.0           Inferred (ex. LOM Plan)         47.4         37.7         4.23         4.37         200         165         6.4         5.3  |                            | Measured and Indicated  | 122.4 | 130.5   | 4.26   | 4.18   | 521   | 545         | 16.8  | 17.5       |
| Inferred (ex. LOM Plan) 47.4 37.7 4.23 4.37 200 165 6.4 5.3  |                            |                         |       |         |        |        |       |             |       |            |
|  |                            | ,                       |       |         |        |        |       |             |       |            |
|  |                            | ,                       |       |         |        |        |       |             |       |            |

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

#### **EXPLANATORY NOTES**

Dishaba: The Merensky and UG2 4E ounces increased due to reallocation of Ore Reserves to Mineral Resources as a result of a revised mine plan.

Mogalakwena: A 1.0 g/t 4E cut-off is used to define Platreef Mineral Resources (excluding oxidised and calc-silicate material for which a 3.0 g/t 4E cut-off is applied). An oxidised and calc-silicate stockpile of ~0.4 4E Moz (4.4 Mt at 3.20 g/t 4E) Measured Mineral Resource is excluded from the 2018 estimates.

Union Mine has been sold and therefore is no longer reported.

#### Resource Cut definition for UG operations

The Mineral Resources are estimated over a variable 'Resource Cut' targeting a minimum width which takes cognisance of the mining method, potential economic viability and geotechnical aspects in the hangingwall or footwall of the reef.

| Minimum 'Resource Cut' Width (cm) |                  |                        |  |  |  |  |  |
|-----------------------------------|------------------|------------------------|--|--|--|--|--|
| MR                                | UG2              | MSZ                    |  |  |  |  |  |
| 120                               | 120              |                        |  |  |  |  |  |
| 120                               | 120              |                        |  |  |  |  |  |
| 105                               | 95               |                        |  |  |  |  |  |
|                                   |                  | 120/180*               |  |  |  |  |  |
|                                   | MR<br>120<br>120 | MR UG2 120 120 120 120 |  |  |  |  |  |

<sup>\*</sup> The current mining areas at Unki East and West are estimated over a 'Resource Cut' of 180cm and the remaining area estimated over a 'Resource Cut' of 120cm.

Audits related to the generation of the Mineral Resource estimates were carried out by independent consultants during 2018 at the following AAPL Managed operations: Unki.

estimates as at 31 December 2018

| Non-Managed – Operations |   |             | Tonnes      |                | Grade               | Conta      | ained Metal | Contai            | ined Metal |
|--------------------------|---|-------------|-------------|----------------|---------------------|------------|-------------|-------------------|------------|
| MINERAL RESOURCES        | Ownership % Classification                        | 2018        | 2017        | 2018           | 2017                | 2018       | 2017        | 2018              | 2017       |
| Bafokeng-Rasimone (UG)   | 25.7  | Mt          | Mt          | 4E g/t         | 4E g/t              | 4E Tonnes  | 4E Tonnes   | 4E Moz            | 4E Moz     |
| Merensky Reef            | Measured  | 27.4        | 27.4        | 7.88           | 7.86                | 216        | 215         | 7.0               | 6.9        |
|                          | Indicated   | 31.7        | 31.7        | 7.05           | 7.05                | 223        | 223         | 7.2               | 7.2        |
|                          | Measured and Indicated                            | 59.1        | 59.0        | 7.44           | 7.43                | 439        | 438         | 14.1              | 14.1       |
|                          | Inferred (in LOM Plan)                            | 5.4         | 5.7         | 8.33           | 7.53                | 45         | 43          | 1.4               | 1.4        |
|                          | Inferred (ex. LOM Plan)                           | 20.5        | 21.0        | 7.61           | 7.60                | 156        | 160         | 5.0               | 5.1        |
|                          | Total Inferred                                    | 25.9        | 26.7        | 7.76           | 7.59                | 201        | 203         | 6.5               | 6.5        |
| UG2 Reef                 | Measured  | 57.2        | 56.7        | 5.05           | 5.07                | 289        | 287         | 9.3               | 9.2        |
|                          | Indicated   | 64.9        | 65.3        | 4.98           | 4.97                | 323        | 325         | 10.4              | 10.4       |
|                          | Measured and Indicated                            | 122.1       | 122.0       | 5.01           | 5.02                | 612        | 612         | 19.7              | 19.7       |
|                          | Inferred (in LOM Plan)                            | 0.4         | 0.4         | 5.16           | 5.16                | 2          | 2           | 0.1               | 0.1        |
|                          | Inferred (ex. LOM Plan)                           | 29.2        | 29.3        | 5.00           | 5.00                | 146        | 146         | 4.7               | 4.7        |
|                          | Total Inferred                                    | 29.7        | 29.7        | 5.00           | 5.00                | 148        | 148         | 4.8               | 4.8        |
| Bokoni (UG)              | 38.2  |             |             | 4E g/t         | 4E g/t              |            |             |                   |            |
| Merensky Reef            | Measured  | 92.8        | 92.8        | 4.82           | 4.82                | 447        | 447         | 14.4              | 14.4       |
|                          | Indicated   | 47.8        | 47.8        | 4.85           | 4.85                | 232        | 232         | 7.5               | 7.5        |
|                          | Measured and Indicated                            | 140.6       | 140.6       | 4.83           | 4.83                | 679        | 679         | 21.8              | 21.8       |
| LIG2 Reef                | Inferred  | 205.8       | 205.8       | 5.02           | 5.02                | 1,033      | 1,033       | 33.2              | 33.2       |
| UG2 Reef                 | Measured  | 198.6       | 198.6       | 6.43           | 6.43                | 1,277      | 1,277       | 41.1              | 41.1       |
|                          | Indicated   | 92.3        | 92.3        | 6.57           | 6.57                | 606        | 606         | 19.5              | 19.5       |
|                          | Measured and Indicated                            | 290.9       | 290.9       | 6.47           | 6.47                | 1,883      | 1,883       | 60.6              | 60.6       |
|                          | Inferred  | 174.6       | 174.6       | 6.71           | 6.71                | 1,172      | 1,172       | 37.7              | 37.7       |
| Kroondal (UG)            | 39.0  | 4.4         | 0.0         | 4E g/t         | 4Eg/t               | 0          | 0           | 0.4               | 0.4        |
| UG2 Reef                 | Measured  | 1.1         | 0.9         | 3.05           | 2.92                | 3          | 3           | 0.1               | 0.1        |
|                          | Indicated   | 0.5         | 0.9         | 3.40           | 3.23                | 2          | 3           | 0.1               | 0.1        |
|                          | Measured and Indicated                            | 1.6         | 1.9         | 3.16           | 3.07                | 5          | 6           | 0.2               | 0.2        |
|                          | Inferred (in LOM Plan)                            | -           | -           | -              | -                   | _          | -           | _                 | -          |
|                          | Inferred (ex. LOM Plan)                           | _           | -           | -              | -                   | -          | -           | -                 | -          |
| M - 1 (110)              | Total Inferred                                    | _           |             |                | -                   | _          |             | _                 |            |
| Marikana (UG)            | 39.0  | 07.2        | 04.0        | 4E g/t         | 4E g/t              | 00         | 77          | 0.0               | 0.5        |
| UG2 Reef                 | Measured  | 27.3        | 24.2        | 3.29           | 3.20                | 90         | 77          | 2.9               | 2.5        |
|                          | Indicated   | 9.4         | 11.9        | 3.75           | 3.52                | 35         | 42          | 1.1               | 1.3        |
|                          | Measured and Indicated                            | 36.7        | 36.1        | 3.41           | 3.31                | 125        | 119         | 4.0               | 3.8        |
| Modikwa (UG)             | Inferred 39.0                                     | 4.9         | 5.5         | 2.95           | 2.96                | 15         | 16          | 0.5               | 0.5        |
| Merensky Reef            | Measured  | 18.5        | 18.5        | 4E g/t<br>2.93 | 4E g/t<br>2.93      | 54         | 54          | 1.7               | 1.7        |
| Merensky Reel            | Indicated   | 55.7        | 55.7        | 2.93           | 2.93                | 152        | 152         | 4.9               | 4.9        |
|                          | Measured and Indicated                            | <b>74.3</b> | <b>74.3</b> | 2.72<br>2.77   | 2.72<br><b>2.77</b> | 206        | 206         | 4.9<br><b>6.6</b> | 6.6        |
|                          | Inferred (in LOM Plan)                            | 74.5        | 74.5        | 2.11           | 2.11                | 200        | 200         | -                 | 0.0        |
|                          | Inferred (ex. LOM Plan)                           | 138.6       | 138.6       | 2.65           | 2.65                | 367        | 367         | 11.8              | 11.8       |
|                          | Total Inferred                                    | 138.6       | 138.6       | 2.65           | 2.65                | <b>367</b> | <b>367</b>  | 11.8              | 11.8       |
| UG2 Reef                 | Measured  | 46.6        | 49.8        | 5.90           | 5.92                | 275        | 295         | 8.8               | 9.5        |
| OG2 Reel                 | Indicated   | 89.2        | 91.0        | 5.90           | 5.92                | 526        | 538         | 16.9              | 17.3       |
|                          | Measured and Indicated                            | 135.8       | 140.7       | <b>5.90</b>    | 5.92                | 801        | <b>833</b>  | <b>25.8</b>       | 26.8       |
|                          | Inferred (in LOM Plan)                            | -           | 140.7       | -              | 0.52                | -          | -           | 20.0              | 20.0       |
|                          | Inferred (ex. LOM Plan)                           | 77.3        | 77.8        | 6.24           | 6.21                | 482        | 483         | 15.5              | 15.5       |
|                          | Total Inferred                                    | 77.3        | 77.8        | 6.24           | 6.21                | 482        | 483         | 15.5              | 15.5       |
| Mototolo (UG)            | 78.0  | 77.0        | 7710        | 4E g/t         | 4E g/t              | 102        | -100        | 10.0              | 10.0       |
| UG2 Reef                 | Measured  | 6.3         | 5.9         | 3.91           | 3.81                | 25         | 22          | 0.8               | 0.7        |
| _ 32                     | Indicated   | -           | -           | -              | -                   | _          | _           | -                 | -          |
|                          | Measured and Indicated                            | 6.3         | 5.9         | 3.91           | 3.81                | 25         | 22          | 0.8               | 0.7        |
|                          | Inferred (in LOM Plan)                            | -           | _           | -              | -                   | _          | _           | -                 | -          |
|                          | Inferred (ex. LOM Plan)                           | _           | _           | _              | _                   | _          | _           | _                 | _          |
|                          | Total Inferred                                    | _           | _           | _              | _                   | _          | _           | _                 | _          |
| Siphumelele 3 shaft (UG) | 78.0  |             |             | 4E g/t         | 4E g/t              |            |             |                   |            |
| UG2 Reef                 | Measured  | 4.9         | 2.7         | 3.04           | 2.64                | 15         | 7           | 0.5               | 0.2        |
|                          | Indicated   | _           | 1.2         | _              | 2.69                | _          | 3           | -                 | 0.1        |
|                          | Measured and Indicated                            | 4.9         | 3.9         | 3.04           | 2.66                | 15         | 10          | 0.5               | 0.3        |
|                          |   |             |             |                |                     |            | . •         |                   |            |
|                          | Inferred (in LOM Plan)                            | _           | -           | _              | -                   | _          | -           | _                 | _          |
|                          | Inferred (in LOM Plan)<br>Inferred (ex. LOM Plan) | _           | -           | _              | _                   | _          | _           | _                 | _          |

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

Information for Non-Managed operations provided by the Joint Venture partners; for additional details please refer to the applicable Annual Reports.

#### **EXPLANATORY NOTES**

Bokoni and Marikana: Both remain on care and maintenance.

Mototolo and Siphumelele 3 shaft: The UG2 4E ounces increase primarily as a result of geological model refinement.

estimates as at 31 December 2018

| AAPL - Projects        |             |                   |       | Tonnes |        | Grade  | Cont      | ained Metal | Conta  | ined Metal |
|------------------------|-------------|-------------------|-------|--------|--------|--------|-----------|-------------|--------|------------|
| MINERAL RESOURCES      | Ownership % | Classification    | 2018  | 2017   | 2018   | 2017   | 2018      | 2017        | 2018   | 2017       |
| Der Brochen            | 78.0        |                   | Mt    | Mt     | 4E g/t | 4E g/t | 4E Tonnes | 4E Tonnes   | 4E Moz | 4E Moz     |
| Merensky Reef          |             | Measured          | 41.4  | 41.4   | 4.75   | 4.75   | 197       | 197         | 6.3    | 6.3        |
|                        |             | Indicated         | 59.2  | 59.2   | 4.51   | 4.51   | 267       | 267         | 8.6    | 8.6        |
|                        | Measu       | red and Indicated | 100.6 | 100.6  | 4.61   | 4.61   | 464       | 464         | 14.9   | 14.9       |
|                        |             | Inferred          | 74.4  | 74.4   | 4.53   | 4.53   | 337       | 337         | 10.8   | 10.8       |
| UG2 Reef               |             | Measured          | 111.3 | 111.3  | 3.96   | 3.96   | 441       | 441         | 14.2   | 14.2       |
|                        |             | Indicated         | 155.1 | 155.1  | 3.96   | 3.96   | 614       | 614         | 19.8   | 19.8       |
|                        | Measu       | red and Indicated | 266.5 | 266.5  | 3.96   | 3.96   | 1,055     | 1,055       | 33.9   | 33.9       |
|                        |             | Inferred          | 126.1 | 126.1  | 4.10   | 4.10   | 517       | 517         | 16.6   | 16.6       |
| Sheba's Ridge          | 27.3        |                   | Mt    | Mt     | 3Eg/t  | 3Eg/t  | 3E Tonnes | 3E Tonnes   | 3E Moz | 3E Moz     |
| Mineralised Pyroxenite |             | Measured          | _     | 79.9   | _      | 0.88   | _         | 70          | _      | 2.3        |
|                        |             | Indicated         | _     | 97.2   | _      | 0.85   | _         | 83          | _      | 2.7        |
|                        | Measu       | red and Indicated | _     | 177.1  | _      | 0.87   | -         | 153         | _      | 4.9        |
|                        |             | Inferred          | _     | 428.3  | -      | 0.96   | _         | 411         | _      | 13.2       |

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

#### **EXPLANATORY NOTES**

Der Brochen: The Merensky Mineral Resources are estimated over a 'Resource Cut' of 90cm, the UG2 Mineral Resources are estimated over a variable 'Resource Cut' targeting a minimum width of 180cm which takes cognisance of the mining method, potential economic viability and geotechnical aspects in the hangingwall

or footwall of the reef.

Sheba's Ridge: Uncertainty surrounding Mineral Rights, paired with a review of the reasonable prospects for eventual economic extraction assumptions, led to a reallocation of Mineral Resources to Mineralisation.

Tonnes are quoted as dry metric tonnes. 3E is the sum of Platinum, Palladium and Gold. Contained Metal is presented in metric tonnes and million troy ounces (Moz).

## **IRON ORE**

## estimates as at 31 December 2018

#### **KUMBA IRON ORE**

The Ore Reserve and Mineral Resource estimates are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition). The estimates reported represent 100% of the Ore Reserves and Mineral Resources. Rounding of figures may cause computational discrepancies.

Anglo American plc's interest in Kumba Iron Ore Limited is 69.7%

| Kumba Iron Ore - Operations |             | Reserve |                |       | ROM Tonnes |      | Grade |     | Sa   | aleable F | Product |
|-----------------------------|-------------|---------|----------------|-------|------------|------|-------|-----|------|-----------|---------|
| ORE RESERVES .              | Ownership % | Life    | Classification | 2018  | 2017       | 2018 | 2017  |     | 2018 |           | 2017    |
| Kolomela (OP)               | 53.2        | 14      |                | Mt    | Mt         | %Fe  | %Fe   | Mt  | %Fe  | Mt        | %Fe     |
| Hematite (incl. ROM stock   | pile)       |         | Proved         | 117.9 | 92.2       | 64.3 | 64.3  | 115 | 64.6 | 88        | 64.3    |
|                             |             |         | Probable       | 70.4  | 83.4       | 63.2 | 64.4  | 64  | 64.6 | 80        | 64.4    |
|                             |             |         | Total          | 188.2 | 175.6      | 63.9 | 64.4  | 179 | 64.6 | 168       | 64.3    |
| Sishen (OP)                 | 53.2        | 14      |                |       |            | %Fe  | %Fe   |     |      |           |         |
| Hematite (incl. ROM stock   | pile)       |         | Proved         | 323.0 | 352.1      | 58.7 | 58.3  | 248 | 64.8 | 261       | 64.7    |
|                             |             |         | Probable       | 221.6 | 148.7      | 55.6 | 57.1  | 167 | 63.9 | 109       | 64.4    |
|                             |             |         | Total          | 544.6 | 500.8      | 57.4 | 57.9  | 416 | 64.4 | 370       | 64.6    |

| Kumba Iron Ore - Operations | S           | _                       |       | Tonnes |      | Grade |  |
|-----------------------------|-------------|-------------------------|-------|--------|------|-------|--|
| MINERAL RESOURCES           | Ownership % | Classification          | 2018  | 2017   | 2018 | 2017  |  |
| Kolomela (OP)               | 53.2        |                         | Mt    | Mt     | %Fe  | %Fe   |  |
| Hematite (in situ + stockp  | ile)        | Measured                | 36.4  | 36.2   | 63.2 | 63.1  |  |
|                             |             | Indicated               | 96.1  | 57.5   | 61.8 | 62.7  |  |
|                             |             | Measured and Indicated  | 132.5 | 93.8   | 62.2 | 62.9  |  |
|                             |             | Inferred (in LOM Plan)  | 5.3   | 19.4   | 64.7 | 60.9  |  |
|                             |             | Inferred (ex. LOM Plan) | 33.8  | 60.3   | 62.5 | 63.3  |  |
|                             |             | Total Inferred          | 39.1  | 79.6   | 62.8 | 62.7  |  |
| Sishen (OP)                 | 53.2        |                         |       |        | %Fe  | %Fe   |  |
| Hematite (in situ + stockp  | ile)        | Measured                | 113.7 | 216.8  | 56.3 | 55.7  |  |
|                             |             | Indicated               | 325.2 | 228.4  | 53.4 | 48.9  |  |
|                             |             | Measured and Indicated  | 438.9 | 445.1  | 54.2 | 52.2  |  |
|                             |             | Inferred (in LOM Plan)  | 11.8  | 25.5   | 57.2 | 57.5  |  |
|                             |             | Inferred (ex. LOM Plan) | 19.6  | 88.9   | 47.9 | 49.0  |  |
|                             |             | Total Inferred          | 31.4  | 114.4  | 51.4 | 50.9  |  |

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES

| Kumba Iron Ore - Projects |             |                        |       | Tonnes |      | Grade |                                 | Grade                           |
|---------------------------|-------------|------------------------|-------|--------|------|-------|---------------------------------|---------------------------------|
| MINERAL RESOURCES         | Ownership % | Classification         | 2018  | 2017   | 2018 | 2017  | 2018                            | 2017                            |
| Zandrivierspoort          | 26.6        |                        | Mt    | Mt     | %Fe  | %Fe   | %Fe <sub>3</sub> O <sub>4</sub> | %Fe <sub>3</sub> O <sub>4</sub> |
| Magnetite and Hematite    |             | Measured               | 95.1  | 107.0  | 35.5 | 34.7  | 41.4                            | 41.5                            |
|                           |             | Indicated              | 178.8 | 206.4  | 35.5 | 34.4  | 39.9                            | 42.5                            |
|                           |             | Measured and Indicated | 273.9 | 313.4  | 35.5 | 34.5  | 40.4                            | 42.2                            |
|                           |             | Inferred               | 145.2 | 162.7  | 35.2 | 34.5  | 37.6                            | 38.1                            |

Mining method: OP = Open Pit. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan. The tonnage is quoted as dry metric tonnes and abbreviated as Mt for million tonnes.
The Mineral Resources are constrained by a Resource Shell and iron cut-off grade, which defines the spatial limits of eventual economic extraction.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or

An audit related to the generation of the Ore Reserve and Mineral Resource estimates was carried out by independent consultants during 2018 at Kolomela. An audit related to the generation of the geological model was carried out by independent consultants during 2018 at Zandrivierspoort.

## **EXPLANATORY NOTES**

Kolomela - Ore Reserves: Ore Reserves are reported above a cut-off of 50.0 %Fe inclusive of dilution. The Reserve Life is maintained by the replenishment of Ore Reserves enabled by continued drilling which offsets production.

A ROM stockpile of ~12.3 Mt @ 57.2 %Fe (7Mt @ 64.6 %Fe Saleable Product) Probable Reserves is included in the table.

Sishen - Ore Reserves: Ore Reserves are reported above a cut-off of 40.0 %Fe inclusive of dilution. The increase in Ore Reserves and Reserve Life is due to a larger pit enabled by the steepening of pit slopes based on improved geotechnical modelling and mining execution. Improved mining recovery also contributes to the increase.

A ROM stockpile of ~9.8 Mt @ 56.7 %Fe (8 Mt @ 64.4 %Fe Saleable Product) Probable Reserves is included in the table.

Kolomela – Mineral Resources: Mineral Resources are reported above a cut-off of 50.0 %Fe in situ. The decrease is primarily due to new drilling information which provides increased resource confidence allowing conversion of previously Inferred Mineral Resources to Ore Reserves which is partially offset by additions enabled by model refinement.

A long-term stockpile of  $\sim$ 3.2 Mt @ 55.0 %Fe Indicated Resources is included in the table.

Sishen - Mineral Resources: Mineral Resources are reported above a cut-off of 40.0 %Fe in situ. The decrease is primarily due to the removal of a portion of the lower grade Mineral Resources which geometallurgical test-work has demonstrated to have poor beneficiation characteristics. A long-term stockpile of ~17.9 Mt @ 43.4 %Fe Indicated Resources is included in the table.

Zandrivierspoort: The Zandrivierspoort Magnetite Project Mineral Resources are reported above a cut-off of 20.2 %Fe in situ. This is a 50:50 Joint Venture between ArcelorMittal SA and Sishen Iron Ore Company (SIOC). The decrease is due to updated economic assumptions and a new geological model.

All Ore Reserves and Mineral Resources (in addition to Ore Reserves) quoted are held under notarially executed Mining and Prospecting Rights granted to Sishen Iron Ore Company (Pty) Ltd (SIOC) in terms of the Mineral and Petroleum Resources Development Act No. 28 of 2002 (MPRDA).

The Zandrivierspoort Prospecting Right expires in 2020 and SIOC is in discussions with its JV partner on future options.

For additional details please refer to the Kumba Iron Ore Limited Ore Reserve (and Saleable Product) and Mineral Resource Report 2018.

## **IRON ORE**

## estimates as at 31 December 2018

#### **IRON ORE BRAZIL**

The Ore Reserve and Mineral Resource estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012) as a minimum standard. The estimates reported represent 100% of the Ore Reserves and Mineral Resources. Rounding of figures may cause computational discrepancies.

| Iron Ore Brazil - Operations |             | Reserve |                |         | ROM Tonnes | Grade |      | Saleable Produ |      |     | roduct |
|------------------------------|-------------|---------|----------------|---------|------------|-------|------|----------------|------|-----|--------|
| ORE RESERVES                 | Ownership % | Life    | Classification | 2018    | 2017       | 2018  | 2017 |                | 2018 |     | 2017   |
| Serra do Sapo (OP)           | 100         | 48      |                | Mt      | Mt         | %Fe   | %Fe  | Mt             | %Fe  | Mt  | %Fe    |
| Friable Itabirite and Hemat  | tite        |         | Proved         | -       | _          | -     | -    | -              | -    | -   | -      |
|                              |             |         | Probable       | 1,365.8 | 1,479.1    | 37.8  | 37.3 | 668            | 67.5 | 715 | 67.5   |
|                              |             |         | Total          | 1,365.8 | 1,479.1    | 37.8  | 37.3 | 668            | 67.5 | 715 | 67.5   |
| Itabirite                    |             |         | Proved         | -       | _          | -     | _    | _              | _    | _   | _      |
|                              |             |         | Probable       | 1,814.9 | 1,903.1    | 31.3  | 30.9 | 717            | 67.5 | 738 | 67.5   |
|                              |             |         | Total          | 1,814.9 | 1,903.1    | 31.3  | 30.9 | 717            | 67.5 | 738 | 67.5   |

| Iron Ore Brazil - Operation | ıs          |                         |         | Tonnes  |      | Grade |
|-----------------------------|-------------|-------------------------|---------|---------|------|-------|
| MINERAL RESOURCES           | Ownership % | Classification          | 2018    | 2017    | 2018 | 2017  |
| Serra do Sapo (OP)          | 100         |                         | Mt      | Mt      | %Fe  | %Fe   |
| Friable Itabirite and Hemi  | atite       | Measured                | 151.4   | 141.7   | 31.2 | 32.1  |
|                             |             | Indicated               | 138.2   | 108.8   | 31.2 | 32.0  |
|                             |             | Measured and Indicated  | 289.6   | 250.5   | 31.2 | 32.0  |
|                             |             | Inferred (in LOM Plan)  | 48.7    | 55.1    | 38.8 | 36.7  |
|                             |             | Inferred (ex. LOM Plan) | 38.9    | 45.0    | 35.0 | 34.8  |
|                             |             | Total Inferred          | 87.6    | 100.1   | 37.1 | 35.8  |
| Itabirite                   |             | Measured                | 439.2   | 290.3   | 29.8 | 30.4  |
|                             |             | Indicated               | 846.3   | 853.0   | 30.6 | 31.1  |
|                             |             | Measured and Indicated  | 1,285.5 | 1,143.2 | 30.3 | 30.9  |
|                             |             | Inferred (in LOM Plan)  | 84.8    | 77.3    | 31.3 | 31.0  |
|                             |             | Inferred (ex. LOM Plan) | 526.7   | 536.8   | 31.0 | 31.1  |
|                             |             | Total Inferred          | 611.5   | 614.1   | 31.1 | 31.1  |

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

| Iron Ore Brazil – Projects     |            |                        |       | Tonnes |      | Grade |
|--------------------------------|------------|------------------------|-------|--------|------|-------|
| MINERAL RESOURCÉS O            | wnership % | Classification         | 2018  | 2017   | 2018 | 2017  |
| Itapanhoacanga                 | 100        |                        | Mt    | Mt     | %Fe  | %Fe   |
| Friable Itabirite and Hematite |            | Measured               | 31.0  | 31.0   | 40.6 | 40.6  |
|                                |            | Indicated              | 117.5 | 117.5  | 41.3 | 41.3  |
|                                |            | Measured and Indicated | 148.6 | 148.6  | 41.1 | 41.1  |
|                                |            | Inferred               | 114.5 | 114.5  | 40.4 | 40.4  |
| Compact Itabirite              |            | Measured               | 23.2  | 23.2   | 33.6 | 33.6  |
|                                |            | Indicated              | 73.4  | 73.4   | 34.5 | 34.5  |
|                                |            | Measured and Indicated | 96.6  | 96.6   | 34.3 | 34.3  |
|                                |            | Inferred               | 57.0  | 57.0   | 34.5 | 34.5  |
| Serro                          | 100        |                        | Mt    | Mt     | %Fe  | %Fe   |
| Friable Itabirite and Hematite | ·          | Measured               | 4.7   | 4.7    | 44.7 | 44.7  |
|                                |            | Indicated              | 87.3  | 87.3   | 41.0 | 41.0  |
|                                |            | Measured and Indicated | 92.0  | 92.0   | 41.2 | 41.2  |
|                                |            | Inferred               | 32.8  | 32.8   | 41.0 | 41.0  |
| Compact Itabirite              |            | Measured               | 7.3   | 7.3    | 33.0 | 33.0  |
|                                |            | Indicated              | 274.4 | 274.4  | 32.1 | 32.1  |
|                                |            | Measured and Indicated | 281.7 | 281.7  | 32.1 | 32.1  |
|                                |            | Inferred               | 111.1 | 111.1  | 34.6 | 34.6  |

Mining method: OP = Open Pit. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan. The ROM tonnage is quoted as dry metric tonnes and abbreviated as Mt for million tonnes.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

#### **EXPLANATORY NOTES**

Minas-Rio: Minas-Rio comprises the Serra do Sapo operation and the Itapanhoacanga project. Licences to exploit the principal portion of the Serra do Sapo orehody have been granted

Serra do Sapo – Ore Reserves: Ore Reserves are reported above a cut-off of 28.0 %Fe inclusive of dilution.

Saleable Product tonnes are reported on a wet basis (average moisture content is 9.2 wt% of the wet mass) with grade stated on a dry basis. The decreases are due to the change in economic cut-off grade from 25 to 28 %Fe.

**Serra do Sapo – Mineral Resources:** Mineral Resources are reported above a cut-off of 25.0 %Fe *in situ*.

In situ tonnes and grade are reported on a dry basis.

Friable Itabirite and Hematite includes Friable Itabirite, Semi-Friable Itabirite, High Alumina Friable Itabirite, Soft Hematite and Canga.

The increases are due to reallocation of Ore Reserves to Mineral Resources as a result of the change in Ore Reserve economic cut-off grade.

Itapanhoacanga: Mineral Resources are reported above a cut-off of 25.0 %Fe in situ. In situ tonnes are reported on a dry basis. Friable Itabirite and Hematite includes Friable Itabirite, Semi-Compact Itabirite, Soft Hematite and Hard Hematite.

Serro: The Serro project has been sold but the transfer of Mineral Rights is not complete so is still reported.

Audits related to the generation of the Ore Reserve and Mineral Resource estimates were carried out by independent consultants during 2018 at Serra do Sapo.

## estimates as at 31 December 2018

#### COAL

The Coal Reserve and Coal Resource estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012) as a minimum standard as well as the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition) as applicable. The estimates reported represent 100% of the Coal Reserves and Coal Resources. Rounding of figures may cause computational discrepancies.

| Coal - Australia Operations                    |                | Reserve | _              | R          | OM Tonnes <sup>(2)</sup> |             | Yield <sup>(3)</sup> | Salea               | ıble Tonnes <sup>(2)</sup> | Salea   | able Quality <sup>(4)</sup> |
|--|----------------|---------|----------------|------------|--------------------------|-------------|----------------------|---------------------|----------------------------|---------|-----------------------------|
|  | wnership%      |         | Classification | 2018       | 2017                     | 2018        | 2017                 | 2018                | 2017                       | 2018    | 2017                        |
| Capcoal (OC)                                   | 77.9           | 20      |                | Mt         | Mt                       | ROM %       | ROM %                | Mt                  | Mt                         | CSN     | CSN                         |
| Metallurgical - Coking                         |                |         | Proved         | 73.5       | 57.8                     | 28.2        | 25.4                 | 21.6                | 15.2                       | 5.5     | 5.5                         |
|  |                |         | Probable       | 43.4       | 45.9                     | 29.0        | 26.8                 | 13.1                | 12.8                       | 5.0     | 5.5                         |
|  |                |         | Total          | 116.9      | 103.8                    | 28.5        | 26.0                 | 34.6                | 28.0                       | 5.5     | 5.5                         |
|  |                |         |                |            |                          |             |                      |                     |                            | kcal/kg | kcal/kg                     |
| Metallurgical – Other                          |                |         | Proved         |            |                          | 42.2        | 41.4                 | 32.2                | 24.9                       | 6,850   | 6,840                       |
|  |                |         | Probable       |            |                          | 41.5        | 40.8                 | 18.7                | 19.5                       | 6,850   | 6,840                       |
|  |                |         | Total          |            |                          | 41.9        | 41.1                 | 50.9                | 44.3                       | 6,850   | 6,840                       |
| T  |                |         | Б              |            |                          | 0.0         | 7.0                  | 0.7                 | 4.0                        | kcal/kg | kcal/kg                     |
| Thermal – Export                               |                |         | Proved         |            |                          | 8.8         | 7.0                  | 6.7                 | 4.2                        | 5,980   | 6,180                       |
|  |                |         | Probable       |            |                          | 7.7         | 6.5                  | 3.5                 | 3.1                        | 6,010   | 6,240                       |
| 0  | 70.0           |         | Total          |            |                          | 8.4         | 6.8                  | 10.2                | 7.3                        | 5,990   | 6,210                       |
| Capcoal (UG) - Grasstree                       | 70.0           | 3       | Dd             | 170        | 0.0                      | 70.7        | 01.0                 | 100                 | 0.4                        | CSN     | CSN                         |
| Metallurgical – Coking                         |                |         | Proved         | 17.9       | 0.6                      | 70.7        | 61.9                 | 13.2                | 0.4                        | 8.5     | 9.0                         |
|  |                |         | Probable       | 3.5        | 4.8                      | 68.2        | 74.2                 | 2.5                 | 3.7                        | 8.5     | 8.5                         |
| Dawson (OC)                                    | 51.0           | 13      | Total          | 21.4       | 5.4                      | 70.3        | 72.8                 | 15.7                | 4.1                        | 8.5     | 8.5                         |
| Metallurgical – Coking                         | 31.0           | 13      | Proved         | 51.0       | 59.8                     | 37.9        | 38.2                 | 20.1                | 23.7                       | 7.5     | CSN<br>7.5                  |
| Metallul gical – Cokilig                       |                |         | Probable       | 75.4       | 75.7                     | 47.7        | 47.5                 | 37.4                | 37.4                       | 6.5     | 6.5                         |
|  |                |         | Total          | 126.4      | 135.5                    | 43.7        | 47.5<br>43.4         | 57.4<br><b>57.5</b> | 61.1                       | 7.0     | 7.0                         |
|  |                |         | IOIAI          | 120.4      | 133.5                    | 43.7        | 43.4                 | 37.3                | 01.1                       | kcal/kg | kcal/kg                     |
| Thermal – Export                               |                |         | Proved         |            |                          | 45.3        | 43.3                 | 24.0                | 26.9                       | 6,550   | 6,550                       |
|  |                |         | Probable       |            |                          | 37.3        | 37.4                 | 29.2                | 29.4                       | 6,480   | 6,470                       |
|  |                |         | Total          |            |                          | <b>40.5</b> | 40.0                 | <b>53.2</b>         | 56.3                       | 6,510   | 6,510                       |
| Grosvenor (UG)                                 | 100            | 29      | Total          |            |                          | 40.0        | 40.0                 | 30.2                | 30.0                       | CSN     | CSN                         |
| Metallurgical - Coking                         |                |         | Proved         | 36.4       | 36.4                     | 64.9        | 64.9                 | 24.3                | 24.3                       | 8.5     | 8.5                         |
| g.   |                |         | Probable       | 125.2      | 132.8                    | 61.9        | 61.5                 | 79.6                | 83.9                       | 8.0     | 8.5                         |
|  |                |         | Total          | 161.6      | 169.2                    | 62.6        | 62.2                 | 103.9               | 108.2                      | 8.5     | 8.5                         |
| Moranbah North (UG)                            | 88.0           | 10      |                |            |                          |             |                      |                     |                            | CSN     | CSN                         |
| Metallurgical - Coking                         |                |         | Proved         | 67.7       | 76.9                     | 77.6        | 77.7                 | 54.0                | 61.4                       | 8.0     | 8.0                         |
| -  |                |         | Probable       | 25.1       | 25.1                     | 78.4        | 78.4                 | 20.2                | 20.2                       | 8.0     | 8.0                         |
|  |                |         | Total          | 92.8       | 102.0                    | 77.8        | 77.8                 | 74.2                | 81.6                       | 8.0     | 8.0                         |
| Australia Metallurgical - Cok                  | ing 82.7       |         |                | Mt         | Mt                       | Plant %     | Plant %              | Mt                  | Mt                         | CSN     | CSN                         |
|  |                |         | Proved         | 246.4      | 231.5                    | 60.6        | 61.3                 | 133.1               | 125.0                      | 7.5     | 7.5                         |
|  |                |         | Probable       | 272.7      | 284.3                    | 57.9        | 57.8                 | 152.8               | 157.9                      | 7.5     | 7.5                         |
|  |                |         | Total          | 519.1      | 515.8                    | 59.1        | 59.2                 | 286.0               | 282.9                      | 7.5     | 7.5                         |
| Australia Metallurgical – Oth                  | <b>er</b> 77.9 | _       |                |            |                          |             |                      |                     |                            | kcal/kg | kcal/kg                     |
|  |                |         | Proved         |            |                          | 42.2        | 41.4                 | 32.2                | 24.9                       | 6,850   | 6,840                       |
|  |                |         | Probable       |            |                          | 41.5        | 40.8                 | 18.7                | 19.5                       | 6,850   | 6,840                       |
| A start Theory                                 |                |         | Total          |            |                          | 41.9        | 41.1                 | 50.9                | 44.3                       | 6,850   | 6,840                       |
| Australia Thermal – Export                     | 55.3           | -       | D !            |            |                          | 27.0        | 20.4                 | 20.7                | 01.1                       | kcal/kg | kcal/kg                     |
|  |                |         | Proved         |            |                          | 37.3        | 38.4                 | 30.7                | 31.1                       | 6,430   | 6,500                       |
|  |                |         | Probable       |            |                          | 34.1        | 34.5                 | 32.7                | 32.5                       | 6,430   | 6,450                       |
|  |                |         | Total          |            |                          | 35.4        | 36.2                 | 63.4                | 63.6                       | 6,430   | 6,480                       |
| Cool Colombia Omensticas                       |                | _       |                | R          | OM Tonnes <sup>(2)</sup> |             | Yield <sup>(3)</sup> | Sales               | able Tonnes(2)             | Sales   | able Quality <sup>(4)</sup> |
| Coal – Colombia Operations COAL RESERVES(1) Ox | wnership%      | Reserve | Classification | 2018       | 2017                     | 2018        | 2017                 | 2018                | 2017                       | 2018    | 2017                        |
| Cerrejón (OC)                                  | 33.3           | 15      | Ciassilication | 2018<br>Mt | 2017<br>Mt               | ROM %       | ROM %                | 2018<br>Mt          | Mt                         | kcal/kg | kcal/kg                     |
|  | 33.3           | 13      | Drovod         | 327.7      |                          | 95.9        | 96.5                 | 317.8               | 418.4                      | 6,070   | 6,140                       |
| Thermal – Export                               |                |         | Proved         |            | 431.3                    |             |                      |                     |                            |         | ,                           |
|  |                |         | Probable       | 59.8       | 42.0                     | 95.8        | 96.5                 | 58.0                | 40.7                       | 6,140   | 6,170                       |
|  |                |         | Total          | 387.4      | 473.3                    | 95.9        | 96.5                 | 375.8               | 459.1                      | 6,080   | 6,140                       |

Mining method: OC = Open Cast/Cut, UG = Underground. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan.

For the multi-product operations, the ROM tonnes apply to each product.

The Saleable tonnes cannot be calculated directly from the ROM reserve tonnes using the air dried yields as presented since the difference in moisture content is not taken into account.

Ownership percentages for country totals are weighted by Saleable tonnes and should not be directly applied to the ROM tonnes. Footnotes appear at the end of the section.

## estimates as at 31 December 2018

| Coal – South Africa Operations | R       | eserve |                          | RC    | OM Tonnes <sup>(2)</sup> |             | Yield <sup>(3)</sup> | Salea             | ble Tonnes(2)     | Salea                 | able Quality          |
|--------------------------------|---------|--------|--------------------------|-------|--------------------------|-------------|----------------------|-------------------|-------------------|-----------------------|-----------------------|
|                                | ership% |        | Classification           | 2018  | 2017                     | 2018        | 2017                 | 2018              | 2017              | 2018                  | 2017                  |
| Goedehoop (UG)                 | 100     | 7      |                          | Mt    | Mt                       | ROM %       | ROM %                | Mt                | Mt                | kcal/kg               | kcal/kg               |
| Thermal – Export               |         |        | Proved                   | 18.6  | 21.8                     | 50.5        | 51.6                 | 9.6               | 11.5              | 5,970                 | 5,970                 |
|                                |         |        | Probable                 | 21.4  | 22.8                     | 57.8        | 57.6                 | 12.7              | 13.5              | 5,890                 | 5,890                 |
|                                |         |        | Total                    | 40.0  | 44.5                     | 54.4        | 54.7                 | 22.3              | 25.0              | 5,920                 | 5,930                 |
| Greenside (UG)                 | 100     | 9      |                          |       |                          |             |                      |                   |                   | kcal/kg               | kcal/kg               |
| Thermal – Export               |         |        | Proved                   | 8.9   | 11.8                     | 73.2        | 73.9                 | 6.7               | 9.0               | 5,960                 | 5,970                 |
|                                |         |        | Probable                 | 28.0  | 28.3                     | 70.0        | 69.9                 | 20.4              | 20.6              | 5,840                 | 5,840                 |
|                                |         |        | Total                    | 36.9  | 40.1                     | 70.8        | 71.1                 | 27.2              | 29.6              | 5,870                 | 5,880                 |
| Isibonelo (OC)                 | 100     | 8      |                          |       |                          |             |                      |                   |                   | kcal/kg               | kcal/kg               |
| Synfuel                        |         |        | Proved                   | 31.0  | 35.6                     | 100         | 100                  | 31.0              | 35.6              | 4,640                 | 4,640                 |
|                                |         |        | Probable                 | 8.8   | 8.8                      | 100         | 100                  | 8.8               | 8.8               | 4,620                 | 4,620                 |
|                                |         |        | Total                    | 39.8  | 44.4                     | 100         | 100                  | 39.8              | 44.4              | 4,640                 | 4,640                 |
| Kleinkopje (OC)                | 100     | 9      |                          | 20.0  |                          | 40.0        |                      |                   |                   | kcal/kg               | kcal/kg               |
| Thermal – Export               |         |        | Proved                   | 29.9  | 10.7                     | 49.2        | 51.5                 | 15.1              | 5.7               | 6,260                 | 6,320                 |
|                                |         |        | Probable                 | 7.4   | 31.1                     | 46.5        | 46.8                 | 3.5               | 14.9              | 6,230                 | 6,250                 |
| (2.2)                          | 100     |        | Total                    | 37.3  | 41.8                     | 48.7        | 48.0                 | 18.6              | 20.6              | 6,250                 | 6,270                 |
| Landau (OC)                    | 100     | 8      |                          | 1.0   | 201                      | 00.0        | 44.4                 | 1.0               | 0.7               | kcal/kg               | kcal/kg               |
| Thermal – Export               |         |        | Proved                   | 4.9   | 8.8                      | 38.8        | 41.4                 | 1.9               | 3.7               | 6,120                 | 6,190                 |
|                                |         |        | Probable                 | 38.2  | 34.9                     | 52.0        | 51.1                 | 20.6              | 18.2              | 5,840                 | 5,810                 |
|                                |         |        | Total                    | 43.1  | 43.7                     | 50.5        | 49.2                 | 22.5              | 21.9              | 5,860                 | 5,870                 |
| Thermal – Domestic             |         |        | Proved                   |       | 1.0                      | 38.3        | 27.3                 | 1.9               | 2.4               | kcal/kg<br>4,250      | kcal/kg<br>4,480      |
| memai – Domestic               |         |        | Probable                 |       |                          | - 30.3      | 2.8                  | 1.5               | 1.0               | 4,200                 | 4,320                 |
|                                |         |        | Total                    |       |                          | 4.3         | 7.7                  | 1.9               | 3.4               | 4,250                 | 4,430                 |
| Mafube (OC)                    | 50.0    | 12     | IOtal                    |       |                          | 4.5         | 1.1                  | 1.9               | 3.4               | kcal/kg               | kcal/kg               |
| Thermal – Export               | 00.0    | - 12   | Proved                   | _     | 0.8                      | _           | 55.2                 | _                 | 0.5               | - Kcai/ kg            | 6,170                 |
| mema Export                    |         |        | Probable                 | 62.0  | 64.0                     | 65.2        | 42.8                 | 40.4              | 27.4              | 5,690                 | 6,040                 |
|                                |         |        | Total                    | 62.0  | 64.8                     | 65.2        | 43.0                 | 40.4              | 27.9              | 5,690                 | 6,040                 |
|                                |         |        |                          | 02.0  |                          | 00.2        | 10.0                 | -101-1            | 27.0              | kcal/kg               | kcal/kg               |
| Thermal – Domestic             |         |        | Proved                   |       |                          | _           | 17.7                 | _                 | 0.2               | _                     | 5,010                 |
|                                |         |        | Probable                 |       |                          | _           | 22.4                 | _                 | 14.3              | _                     | 5,010                 |
|                                |         |        | Total                    |       |                          | _           | 22.3                 | _                 | 14.4              | _                     | 5,010                 |
| Zibulo                         | 73.0    | 15     |                          |       |                          |             |                      |                   |                   | kcal/kg               | kcal/kg               |
| Thermal – Export (UG)          |         |        | Proved                   | 34.5  | 39.5                     | 67.4        | 68.4                 | 23.3              | 27.1              | 5,990                 | 5,990                 |
|                                |         |        | Probable                 | 38.3  | 39.1                     | 59.0        | 60.3                 | 22.7              | 23.3              | 5,970                 | 5,970                 |
|                                |         |        | Total                    | 72.8  | 78.6                     | 63.0        | 63.9                 | 46.1              | 50.4              | 5,980                 | 5,980                 |
|                                |         |        |                          |       |                          |             |                      |                   |                   | kcal/kg               | kcal/kg               |
| Thermal – Domestic (UG)        |         |        | Proved                   |       |                          | 10.4        | 10.4                 | 3.6               | 4.1               | 4,950                 | 4,960                 |
|                                |         |        | Probable                 |       |                          | 12.4        | 12.5                 | 4.8               | 4.8               | 4,940                 | 4,940                 |
|                                |         |        | Total                    |       |                          | 11.5        | 11.3                 | 8.4               | 8.9               | 4,940                 | 4,950                 |
| T (0.0)                        |         |        |                          |       |                          | 500         | 00.4                 |                   | 0.7               | kcal/kg               | kcal/kg               |
| Thermal – Export (OC)          |         |        | Proved                   | 2.8   | 4.2                      | 53.2        | 63.4                 | 1.5               | 2.7               | 5,980                 | 5,980                 |
|                                |         |        | Probable                 | 3.0   | 3.0                      | 63.9        | 63.9                 | 1.9               | 1.9               | 5,960                 | 5,960                 |
|                                |         |        | Total                    | 5.8   | 7.2                      | 58.7        | 63.6                 | 3.4               | 4.6               | 5,970                 | 5,970                 |
| Thormal Domastic (OC)          |         |        | Dravad                   |       |                          | 1.0         | 7.0                  | 0.0               | 0.2               | kcal/kg               | kcal/kg               |
| Thermal – Domestic (OC)        |         |        | Proved                   |       |                          | 1.2<br>7.6  | 7.2<br>7.6           | 0.0               | 0.3               | 5,020                 | 4,940                 |
|                                |         |        | Probable<br><b>Total</b> |       |                          | 4.5         | 7.6<br><b>7.4</b>    | 0.2<br><b>0.3</b> | 0.2<br><b>0.5</b> | 4,930<br><b>4,940</b> | 4,930<br><b>4,940</b> |
| South Africa Thermal – Export  | 81.4    |        | iotai                    | N 4+  | N //+                    | Plant %     |                      | Mt                | Mt                |                       |                       |
| South Annea Thermal - Export   | 01.4    |        | Proved                   | 130.5 | 133.2                    | 59.2        | Plant %<br>62.4      | 58.2              | 60.1              | 6,060                 | kcal/kg<br>6,030      |
|                                |         |        | Probable                 | 207.2 | 232.0                    | 61.3        | 54.4                 | 122.2             | 119.9             | 5,830                 | 5,970                 |
|                                |         |        | Total                    | 337.7 | 365.2                    | <b>60.5</b> | 56.9                 | 180.4             | 180.0             | <b>5,900</b>          | 5,990                 |
| South Africa Thermal - Domest  | ic 77.9 |        |                          |       |                          | 55.5        |                      |                   |                   | kcal/kg               | kcal/kg               |
|                                |         |        | Proved                   |       |                          | 19.9        | 16.3                 | 5.5               | 7.0               | 4,710                 | 4,790                 |
|                                |         |        | Probable                 |       |                          | 12.2        | 18.9                 | 5.0               | 20.3              | 4,940                 | 4,960                 |
|                                |         |        | Total                    |       |                          | 10.0        | 16.6                 | 10.5              | 27.3              | 4,820                 | 4,920                 |
| South Africa – Synfuel         | 100     |        |                          |       | -                        |             |                      |                   |                   | kcal/kg               | kcal/kg               |
|                                |         |        | Proved                   |       |                          | 100         | 100                  | 31.0              | 35.6              | 4,640                 | 4,640                 |
|                                |         |        | Probable                 |       |                          | 100         | 100                  | 8.8               | 8.8               | 4,620                 | 4,620                 |
|                                |         |        | Total                    |       |                          | 100         | 100                  | 39.8              | 44.4              | 4,640                 | 4,640                 |

Mining method: OC = Open Cast/Cut, UG = Underground. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan. For the multi-product operations, the ROM tonnes apply to each product.

The Saleable tonnes cannot be calculated directly from the ROM reserve tonnes using the air dried yields as presented since the difference in moisture content is not taken into account. Ownership percentages for country totals are weighted by Saleable tonnes and should not be directly applied to the ROM tonnes. Footnotes appear at the end of the section.

## estimates as at 31 December 2018

| Coal – Australia Operations   | _                                      |              | MTIS(5) | С                      | oal Quality |
|---|--|--------------|---------|------------------------|-------------|
| COAL RESOURCES (5) Ownership %                                      | Classification                         | 2018         | 2017    | 2018                   | 2017        |
| <b>Capcoal (OC)</b> 77.9  |  | Mt           | Mt      | kcal/kg <sup>(6)</sup> | kcal/kg     |
|   | Measured                               | 46.1         | 56.6    | 6,910                  | 6,910       |
|   | Indicated                              | 98.7         | 109.7   | 6,960                  | 6,920       |
|   | Measured and Indicated                 | 144.8        | 166.3   | 6,940                  | 6,920       |
|   | Inferred (in LOM Plan) <sup>(7)</sup>  | 29.7         | 34.5    | 6,710                  | 6,770       |
|   | Inferred (ex. LOM Plan) <sup>(8)</sup> | 146.0        | 162.8   | 6,830                  | 6,860       |
|   | Total Inferred                         | 175.7        | 197.3   | 6,810                  | 6,840       |
| Capcoal (UG) - Grasstree 70.0                                       | Measured                               | 61.1         | 69.7    | 6,840                  | 6,760       |
|   | Indicated                              | 20.1         | 20.7    | 6,730                  | 6,640       |
|   | Measured and Indicated                 | 81.1         | 90.4    | 6,810                  | 6,730       |
|   | Inferred (in LOM Plan) <sup>(7)</sup>  | _            | -       | _                      | _           |
|   | Inferred (ex. LOM Plan) <sup>(8)</sup> | 5.6          | 6.3     | 6,550                  | 6,470       |
|   | Total Inferred                         | 5.6          | 6.3     | 6,550                  | 6,470       |
| <b>Dawson (OC)</b> 51.0   | Measured                               | 307.4        | 307.4   | 6,720                  | 6,720       |
|   | Indicated                              | 355.9        | 355.9   | 6,690                  | 6,690       |
|   | Measured and Indicated                 | 663.3        | 663.3   | 6,700                  | 6,700       |
|   | Inferred (in LOM Plan) <sup>(7)</sup>  | 0.6          | 0.6     | 5,960                  | 5,960       |
|   | Inferred (ex. LOM Plan) <sup>(8)</sup> | 350.6        | 350.6   | 6,680                  | 6,680       |
|   | Total Inferred                         | 351.2        | 351.2   | 6,680                  | 6,680       |
| Grosvenor (UG) 100  | Measured                               | 153.2        | 153.2   | 6,360                  | 6,360       |
|   | Indicated                              | 61.2         | 61.2    | 6,400                  | 6,400       |
|   | Measured and Indicated                 | 214.5        | 214.5   | 6,370                  | 6,370       |
|   | Inferred (in LOM Plan)(7)              | 14.0         | 14.0    | 6,130                  | 6,130       |
|   | Inferred (ex. LOM Plan) <sup>(8)</sup> | 30.4         | 30.4    | 6,460                  | 6,460       |
|   | Total Inferred                         | 44.5         | 44.5    | 6,360                  | 6,360       |
| Moranbah North (UG) 88.0  | Measured                               | 67.2         | 67.2    | 6,680                  | 6,680       |
|   | Indicated                              | 15.7         | 15.7    | 6,400                  | 6,400       |
|   | Measured and Indicated                 | 82.9         | 82.9    | 6,630                  | 6,630       |
|   | Inferred (in LOM Plan) <sup>(7)</sup>  | -            | -       | -                      | -           |
|   | Inferred (ex. LOM Plan) <sup>(8)</sup> | 4.4          | 4.4     | 6,420                  | 6,420       |
|   | Total Inferred                         | 4.4          | 4.4     | 6,420                  | 6,420       |
| Australia – Mine Leases 65.8  | Measured                               | 634.9        | 654.1   | 6,650                  | 6,650       |
| Tabliana Innie Edases 55.5  | Indicated                              | 551.6        | 563.3   | 6,700                  | 6,690       |
|   | Measured and Indicated                 | 1,186.6      | 1,217.3 | 6,670                  | 6,670       |
|   | Inferred (in LOM Plan) <sup>(7)</sup>  | 44.3         | 49.1    | 6,520                  | 6,580       |
|   | Inferred (ex. LOM Plan) <sup>(8)</sup> | 537.0        | 554.6   | 6,700                  | 6,720       |
|   | Total Inferred                         | 581.4        | 603.7   | 6,690                  | 6,710       |
| Ocal Octombia Operations  |  |              | MTIS(5) | C                      | oal Quality |
| Coal – Colombia Operations COAL RESOURCES <sup>(5)</sup> Ownership% | -<br>Classification                    | 2018         | 2017    | 2018                   | 2017        |
| Cerrejón (OC) 33.3  |  | Mt           | Mt      | kcal/kq <sup>(6)</sup> | kcal/kg     |
|   | Measured                               | 2,764.7      | 2,675.0 | 6,560                  | 6,550       |
|   | Indicated                              | 1,122.2      | 1,006.4 | 6,580                  | 6,610       |
|   | Measured and Indicated                 | 3,886.9      | 3,681.4 | 6,570                  | 6,570       |
|   | Inferred (in LOM Plan) <sup>(7)</sup>  | 34.0         | 33.2    | 6,420                  | 6,510       |
|   | Inferred (ex. LOM Plan) <sup>(8)</sup> | 637.9        | 689.5   | 6,430                  | 6,410       |
|   | Total Inferred                         | <b>672.0</b> | 722.6   | 6,430                  | 6,410       |
| COAL DESCRIBERS ARE REPORTED AS ADDITIONAL TO COAL DESERVES         | Total illerred                         | 012.0        | 122.0   | 0,730                  | 0,710       |

COAL RESOURCES ARE REPORTED AS ADDITIONAL TO COAL RESERVES.

 $\label{eq:mining} \begin{array}{ll} \mbox{Mining method: OC = Open Cast/Cut, UG = Underground.} \\ \mbox{Ownership percentages for country totals are weighted by Total MTIS.} \end{array}$ 

Due to the uncertainty that may be attached to some Inferred Coal Resources, it cannot be assumed that all or part of an Inferred Coal Resource will necessarily be upgraded to an Indicated or Measured Coal Resource after continued exploration.

## estimates as at 31 December 2018

| Coal - South Africa Operations |          | _   |              | MTIS(5)      | С                      | oal Quality |
|--------------------------------|----------|---|--------------|--------------|------------------------|-------------|
|                                | nership% | Classification                                      | 2018         | 2017         | 2018                   | 2017        |
| Goedehoop (UG)                 | 100      |   | Mt           | Mt           | kcal/kg <sup>(6)</sup> | kcal/kg(    |
|                                |          | Measured  | 193.2        | 192.5        | 5,380                  | 5,380       |
|                                |          | Indicated   | 17.4         | 17.4         | 5,100                  | 5,100       |
|                                |          | Measured and Indicated                              | 210.6        | 209.9        | 5,360                  | 5,360       |
|                                |          | Inferred (in LOM Plan) <sup>(7)</sup>               | _            | _            | · –                    | · –         |
|                                |          | Inferred (ex. LOM Plan) <sup>(8)</sup>              | 6.0          | 6.0          | 4,750                  | 4,750       |
|                                |          | Total Inferred                                      | 6.0          | 6.0          | 4,750                  | 4,750       |
| Greenside (UG)                 | 100      | Measured  | 22.0         | 23.0         | 5,730                  | 5,730       |
| dicenside (od)                 | 100      | Indicated   | 0.8          | 0.8          | 5,360                  | 5,360       |
|                                |          | Measured and Indicated                              | <b>22.8</b>  | 23.8         | 5,720                  |             |
|                                |          |   |              |              |                        | 5,720       |
|                                |          | Inferred (in LOM Plan) <sup>(3)</sup>               | 0.2          | 0.2          | 5,950                  | 5,950       |
|                                |          | Inferred (ex. LOM Plan) <sup>(8)</sup>              | _            | _            |                        |             |
|                                |          | Total Inferred                                      | 0.2          | 0.2          | 5,950                  | 5,950       |
| Isibonelo (UG)                 | 100      | Measured  | 5.4          | 5.4          | 4,880                  | 4,880       |
|                                |          | Indicated   | 18.2         | 18.2         | 5,360                  | 5,360       |
|                                |          | Measured and Indicated                              | 23.6         | 23.6         | 5,250                  | 5,250       |
|                                |          | Inferred (in LOM Plan) <sup>(7)</sup>               | _            | -            | _                      | -           |
|                                |          | Inferred (ex. LOM Plan)(8)                          | _            | -            | _                      | -           |
|                                |          | Total Inferred                                      | _            | -            | _                      | _           |
| Kleinkopje (OC)                | 100      | Measured  | 0.5          | -            | 6,430                  | _           |
|                                |          | Indicated   | 1.5          | _            | 6,180                  | _           |
|                                |          | Measured and Indicated                              | 2.1          | _            | 6,250                  | _           |
|                                |          | Inferred (in LOM Plan) <sup>(7)</sup>               | 3.1          | 3.7          | 5,740                  | 6,070       |
|                                |          | Inferred (In LOW Harry) Inferred (ex. LOM Plan) (8) | J. I<br>_    | 3.1          | 5,740                  | 0,070       |
|                                |          |   |              | 2.7          | F 740                  | 6 070       |
| 1 (0.0)                        | 100      | Total Inferred                                      | 3.1          | 3.7          | 5,740                  | 6,070       |
| Landau (OC)                    | 100_     | Measured  | 33.5         | 30.4         | 5,020                  | 4,990       |
|                                |          | Indicated   | 16.7         | 15.3         | 5,020                  | 5,000       |
|                                |          | Measured and Indicated                              | 50.1         | 45.7         | 5,020                  | 4,990       |
|                                |          | Inferred (in LOM Plan) <sup>(7)</sup>               | 0.6          | 6.0          | 6,340                  | 5,480       |
|                                |          | Inferred (ex. LOM Plan) <sup>(8)</sup>              | 5.4          | 5.2          | 6,320                  | 6,320       |
|                                |          | Total Inferred                                      | 5.9          | 11.2         | 6,320                  | 5,870       |
| Mafube (OC)                    | 50.0     | Measured  | 70.9         | 72.7         | 5,070                  | 5,090       |
|                                |          | Indicated   | 2.1          | 2.1          | 5,150                  | 5,150       |
|                                |          | Measured and Indicated                              | 73.0         | 74.8         | 5,070                  | 5,090       |
|                                |          | Inferred (in LOM Plan)(7)                           | _            | -            | _                      | . –         |
|                                |          | Inferred (ex. LOM Plan) <sup>(8)</sup>              | _            | _            | _                      | _           |
|                                |          | Total Inferred                                      | _            | _            | _                      | _           |
| Zibulo                         | 73.0     | 1014111101104                                       |              |              |                        |             |
| UG                             | . 5.0    | Measured  | 168.9        | 169.7        | 4,920                  | 4,910       |
| 33                             |          | Indicated   | 157.1        | 157.1        | 4,930                  | 4,930       |
|                                |          | Measured and Indicated                              | <b>326.0</b> | <b>326.7</b> | 4,930<br><b>4,920</b>  |             |
|                                |          |   |              |              |                        | 4,920       |
|                                |          | Inferred (in LOM Plan) <sup>(7)</sup>               | 26.9         | 26.9         | 5,250                  | 5,250       |
|                                |          | Inferred (ex. LOM Plan) <sup>(8)</sup>              | 222.0        | 222.0        | 4,700                  | 4,700       |
|                                |          | Total Inferred                                      | 248.9        | 248.9        | 4,760                  | 4,760       |
| OC                             |          | Measured  | _            | -            | _                      | -           |
|                                |          | Indicated   | _            | -            | _                      | -           |
|                                |          | Measured and Indicated                              | _            | -            | _                      | -           |
|                                |          | Inferred (in LOM Plan) <sup>(7)</sup>               | -            | -            | _                      | -           |
|                                |          | Inferred (ex. LOM Plan)(8)                          | 0.1          | 0.1          | 5,700                  | 5,700       |
|                                |          | Total Inferred                                      | 0.1          | 0.1          | 5,700                  | 5,700       |
| South Africa – Mine Leases     | 80.3     | Measured  | 494.4        | 493.6        | 5,170                  | 5,160       |
|                                | 33.0     | Indicated   | 213.8        | 210.8        | 5,000                  | 4,990       |
|                                |          | Measured and Indicated                              | 708.1        | 704.5        | 5,000                  | 5,110       |
|                                |          | Inferred (in LOM Plan) <sup>(7)</sup>               |              |              |                        |             |
|                                |          |   | 30.7         | 36.8         | 5,320                  | 5,370       |
|                                |          | Inferred (ex. LOM Plan) <sup>(8)</sup>              | 233.4        | 233.3        | 4,740                  | 4,740       |
|                                |          | Total Inferred                                      | 264.1        | 270.1        | 4,810                  | 4,830       |

 $\label{eq:minimum} \begin{array}{ll} \mbox{Mining method: OC} = \mbox{Open Cast/Cut, UG} = \mbox{Underground.} \\ \mbox{Ownership percentages for country totals are weighted by Total MTIS.} \end{array}$ 

Due to the uncertainty that may be attached to some Inferred Coal Resources, it cannot be assumed that all or part of an Inferred Coal Resource will necessarily be upgraded to an Indicated or Measured Coal Resource after continued exploration.

## estimates as at 31 December 2018

| Coal - South Africa MRD | Operations R | eserve     |            | RC   | OM Tonnes <sup>(2)</sup> |       | Yield <sup>(3)</sup> | Salea | ble Tonnes <sup>(2)</sup> | Salea      | Saleable Quality(4)    |  |
|-------------------------|--------------|------------|------------|------|--------------------------|-------|----------------------|-------|---------------------------|------------|------------------------|--|
| COAL RESERVES(1)        | Ownership%   | Life Class | sification | 2018 | 2017                     | 2018  | 2017                 | 2018  | 2017                      | 2018       | 2017                   |  |
| Goedehoop - MRD         | 100          | 1          |            | Mt   | Mt                       | ROM % | ROM %                | Mt    | Mt                        | kcal/kg    | kcal/kg                |  |
| Thermal – Export        |              |            | Proved     | _    | -                        | _     | -                    | _     | -                         | _          | _                      |  |
|                         |              | Pr         | robable    | 2.1  | 4.4                      | 22.3  | 26.9                 | 0.5   | 1.3                       | 5,070      | 5,070                  |  |
|                         |              |            | Total      | 2.1  | 4.4                      | 22.3  | 26.9                 | 0.5   | 1.3                       | 5,070      | 5,070                  |  |
| Greenside - MRD         | 100          | 1          |            |      |                          |       |                      |       |                           | kcal/kg    | kcal/kg                |  |
| Thermal – Export        |              |            | Proved     | -    | -                        | -     | -                    | _     | -                         | _          | _                      |  |
|                         |              | Pr         | robable    | 1.1  | 1.4                      | 35.0  | 26.4                 | 0.4   | 0.4                       | 5,590      | 5,590                  |  |
|                         |              |            | Total      | 1.1  | 1.4                      | 35.0  | 26.4                 | 0.4   | 0.4                       | 5,590      | 5,590                  |  |
| Kleinkopje – MRD        | 100          | 2          |            |      |                          |       |                      |       |                           | kcal/kg    | kcal/kg                |  |
| Thermal – Export        |              |            | Proved     | _    | -                        | _     | -                    | _     | -                         | _          | _                      |  |
| ·                       |              | Pi         | robable    | 5.8  | 4.6                      | 31.8  | 31.3                 | 1.9   | 1.5                       | 5,140      | 5,180                  |  |
|                         |              |            | Total      | 5.8  | 4.6                      | 31.8  | 31.3                 | 1.9   | 1.5                       | 5,140      | 5,180                  |  |
|                         |              |            |            |      |                          |       |                      |       |                           |            |                        |  |
| Coal - South Africa MRD | Operations 0 |            |            |      |                          |       | _                    |       | MTIS <sup>(5)</sup>       | С          | oal Quality            |  |
| COAL RESOURCES (5)      | Ownership%   |            |            |      |                          | CI    | assification         | 2018  | 2017                      | 2018       | 2017                   |  |
| Greenside – MRD         | 100          |            |            |      |                          |       |                      | Mt    | Mt                        | kcal/kg(6) | kcal/kn <sup>(6)</sup> |  |

| al – South Africa MRD Operations |     | _                                      |      | MTIS <sup>(5)</sup> | С                      | oal Quality            |
|----------------------------------|-----|--|------|---------------------|------------------------|------------------------|
| COAL RESOURCES(5) Ownersh        | ip% | Classification                         | 2018 | 2017                | 2018                   | 2017                   |
| Greenside – MRD                  | 100 |  | Mt   | Mt                  | kcal/kg <sup>(6)</sup> | kcal/kg <sup>(6)</sup> |
|                                  |     | Measured                               | 8.8  | 9.7                 | 3,860                  | 3,750                  |
|                                  |     | Indicated                              | _    | -                   | _                      | -                      |
|                                  |     | Measured and Indicated                 | 8.8  | 9.7                 | 3,860                  | 3,750                  |
|                                  |     | Inferred (in LOM Plan) <sup>(7)</sup>  | _    | -                   | _                      | -                      |
|                                  |     | Inferred (ex. LOM Plan) <sup>(8)</sup> | _    | -                   | _                      | -                      |
|                                  |     | Total Inferred                         | _    | -                   | _                      | -                      |
| Kleinkopje – MRD                 | 100 | Measured                               | -    | -                   | -                      | _                      |
|                                  |     | Indicated                              | 9.7  | -                   | 2,700                  | -                      |
|                                  |     | Measured and Indicated                 | 9.7  | -                   | 2,700                  | -                      |
|                                  |     | Inferred (in LOM Plan) <sup>(7)</sup>  | -    | -                   | _                      | -                      |
|                                  |     | Inferred (ex. LOM Plan) <sup>(8)</sup> | -    | -                   | _                      | -                      |
|                                  |     | Total Inferred                         | _    | -                   | _                      | _                      |
| Landau – MRD                     | 100 | Measured                               | -    | -                   | _                      | -                      |
|                                  |     | Indicated                              | 22.4 | 22.4                | 2,580                  | 2,580                  |
|                                  |     | Measured and Indicated                 | 22.4 | 22.4                | 2,580                  | 2,580                  |
|                                  |     | Inferred (in LOM Plan) <sup>(7)</sup>  | -    | -                   | _                      | -                      |
|                                  |     | Inferred (ex. LOM Plan) <sup>(8)</sup> | -    | -                   | _                      | -                      |
|                                  |     | Total Inferred                         | _    | -                   | _                      | -                      |

COAL RESOURCES ARE REPORTED AS ADDITIONAL TO COAL RESERVES.

Ownership percentages for country totals are weighted by Total MTIS. MRD = Mineral Residue Deposit.

Due to the uncertainty that may be attached to some Inferred Coal Resources, it cannot be assumed that all or part of an Inferred Coal Resource will necessarily be upgraded to an Indicated or Measured Coal Resource after continued exploration.

| Coal - Australia Projects |            | Reserve |                | F    | ROM Tonnes <sup>(2)</sup> |       | Yield <sup>(3)</sup> | Salea | able Tonnes <sup>(2)</sup> | Salea | ble Quality <sup>(4)</sup> |
|---------------------------|------------|---------|----------------|------|---------------------------|-------|----------------------|-------|----------------------------|-------|----------------------------|
| COAL RESERVES(1)          | Ownership% | Life    | Classification | 2018 | 2017                      | 2018  | 2017                 | 2018  | 2017                       | 2018  | 2017                       |
| Capcoal (UG) - Aquila     | 70.0       | 6       |                | Mt   | Mt                        | ROM % | ROM %                | Mt    | Mt                         | CSN   | CSN                        |
| Metallurgical - Coking    |            |         | Proved         | _    | _                         | _     | _                    | _     | -                          | _     | _                          |
|                           |            |         | Probable       | 38.7 | 46.6                      | 66.3  | 68.1                 | 27.3  | 33.5                       | 9.0   | 9.0                        |
|                           |            |         | Total          | 38.7 | 46.6                      | 66.3  | 68.1                 | 27.3  | 33.5                       | 9.0   | 9.0                        |

| Coal - Canada Projects   |            | Reserve |          | F    | ROM Tonnes <sup>(2)</sup> |         | Yield <sup>(3)</sup> | Sale | able Tonnes <sup>(2)</sup> | Sale | able Quality <sup>(4)</sup> |
|--------------------------|------------|---------|----------|------|---------------------------|---------|----------------------|------|----------------------------|------|-----------------------------|
| COAL RESERVES(1)         | Ownership% | Life    |          | 2018 | 2017                      | 2018    | 2017                 | 2018 | 2017                       | 2018 | 2017                        |
| Trend (OC)               | 100        | 7       |          | Mt   | Mt                        | ROM %   | ROM %                | Mt   | Mt                         | CSN  | CSN                         |
| Metallurgical - Coking   |            |         | Proved   | _    | _                         | -       | _                    | _    | _                          | _    | _                           |
|                          |            |         | Probable | 11.6 | 11.6                      | 69.5    | 69.5                 | 8.3  | 8.3                        | 7.0  | 7.0                         |
|                          |            |         | Total    | 11.6 | 11.6                      | 69.5    | 69.5                 | 8.3  | 8.3                        | 7.0  | 7.0                         |
| Roman Mountain (OC)      | 100        | 15      |          |      |                           |         |                      |      |                            | CSN  | CSN                         |
| Metallurgical - Coking   |            |         | Proved   | _    | _                         | -       | _                    | _    | _                          | _    | _                           |
|                          |            |         | Probable | 36.8 | 36.8                      | 67.0    | 67.0                 | 25.8 | 25.8                       | 7.0  | 7.0                         |
|                          |            |         | Total    | 36.8 | 36.8                      | 67.0    | 67.0                 | 25.8 | 25.8                       | 7.0  | 7.0                         |
| Canada Metallurgical - C | oking 100  |         |          | Mt   | Mt                        | Plant % | Plant %              | Mt   | Mt                         | CSN  | CSN                         |
|                          |            |         | Proved   | -    | -                         | _       | -                    | -    | -                          | -    | _                           |
|                          |            |         | Probable | 48.4 | 48.4                      | 67.6    | 67.6                 | 34.1 | 34.1                       | 7.0  | 7.0                         |
|                          |            |         | Total    | 48.4 | 48.4                      | 67.6    | 67.6                 | 34.1 | 34.1                       | 7.0  | 7.0                         |

Mining method: OC = Open Cast/Cut, UG = Underground. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan. For the multi-product operations, the ROM tonnes apply to each product.

The Saleable tonnes cannot be calculated directly from the ROM reserve tonnes using the air dried yields as presented since the difference in moisture content is not taken into account.

 $Ownership\ percentages\ for\ country\ totals\ are\ weighted\ by\ Saleable\ tonnes\ and\ should\ not\ be\ directly\ applied\ to\ the\ ROM\ tonnes\ . Footnotes\ appear\ at\ the\ end\ of\ the\ section.$ 

## estimates as at 31 December 2018

| Coal – Australia Projects      |                             |  |                         | MTIS(5)            | (                      | Coal Quality           |
|--------------------------------|-----------------------------|--|-------------------------|--------------------|------------------------|------------------------|
|                                | rship%                      | Classification   | 2018                    | 2017               | 2018                   | 2017                   |
| Capcoal (UG) – Aquila          | 70.0                        |  | Mt                      | Mt                 | kcal/kg <sup>(6)</sup> | kcal/kg <sup>(6)</sup> |
|                                |                             | Measured   | 24.2                    | 17.5               | 6,850                  | 6,820                  |
|                                |                             | Indicated  | 18.2                    | 16.1               | 6,620                  | 6,450                  |
|                                |                             | Measured and Indicated   | 42.4                    | 33.6               | 6,750                  | 6,640                  |
|                                |                             | Inferred (in LOM Plan) <sup>(7)</sup> Inferred (ex. LOM Plan) <sup>(8)</sup> | 0.0<br>3.7              | 0.0<br>3.6         | 7,010<br>6,620         | 6,660                  |
|                                |                             | Total Inferred   | 3.7<br><b>3.7</b>       | 3.6                | 6,620                  | 6,030<br><b>6,030</b>  |
| Moranbah South                 | 50.0                        | Measured   | 481.9                   | 481.9              | 6,270                  | 6,270                  |
| Wiordingali Coutii             | 00.0                        | Indicated  | 222.5                   | 222.5              | 6,420                  | 6,420                  |
|                                |                             | Measured and Indicated   | 704.4                   | 704.4              | 6,320                  | 6,320                  |
|                                |                             | Inferred   | 28.0                    | 28.0               | 6,700                  | 6,700                  |
| Teviot Brook                   | 88.0                        | Measured   | 45.0                    | 45.0               | 6,720                  | 6,720                  |
|                                |                             | Indicated  | 142.2                   | 142.2              | 6,630                  | 6,630                  |
|                                |                             | Measured and Indicated   | 187.2                   | 187.2              | 6,650                  | 6,650                  |
|                                |                             | Inferred   | 14.5                    | 14.5               | 6,330                  | 6,330                  |
| Theodore                       | 51.0                        | Measured   | -                       | -                  | -                      | -                      |
|                                |                             | Indicated  | 258.5                   | 258.5              | 6,260                  | 6,260                  |
|                                |                             | Measured and Indicated   | 258.5                   | 258.5              | 6,260                  | 6,260                  |
| A study But t                  | 507                         | Inferred   | 106.0                   | 106.0              | 6,160                  | 6,160                  |
| Australia – Projects           | 56.7                        | Measured   | 551.2                   | 544.4              | 6,330                  | 6,320                  |
|                                |                             | Indicated  Measured and Indicated  | 641.3<br><b>1,192.5</b> | 639.2              | 6,410                  | 6,400                  |
|                                |                             | Inferred (in LOM Plan) <sup>(7)</sup>  | 1,192.5<br>0.0          | <b>1,183.6</b> 0.0 | <b>6,370</b> 7,010     | <b>6,360</b> 6,660     |
|                                |                             | Inferred (in LOM Plan)(*) Inferred (ex. LOM Plan)(8)                         | 152.2                   | 152.1              | 6,290                  | 6,270                  |
|                                |                             | Total Inferred   | 152.2                   | 152.1              | <b>6,290</b>           | 6,270                  |
|                                |                             | 10.01.11101100   | 10212                   | 10211              | 0,200                  | 0,270                  |
| Coal – Canada Projects         |                             |  |                         | MTIS(5)            | (                      | Coal Quality           |
| COAL RESOURCES (5) Owne        | rship%                      | Classification   | 2018                    | 2017               | 2018                   | 2017                   |
| Belcourt Saxon                 | 100_                        |  | Mt                      | Mt                 | kcal/kg <sup>(6)</sup> | kcal/kg(6)             |
|                                |                             | Measured   | 166.7                   | 166.7              | 6,500                  | 6,500                  |
|                                |                             | Indicated  | 4.3                     | 4.3                | 6,500                  | 6,500                  |
|                                |                             | Measured and Indicated   | 171.0                   | 171.0              | 6,500                  | 6,500                  |
| T1 (OC)                        | 100                         | Inferred   | 0.2                     | 0.2                | 6,500                  | 6,500                  |
| Trend (OC)                     | 100_                        | Measured<br>Indicated  | 20.1<br>6.5             | 20.1<br>6.5        | 7,010<br>6,900         | 7,010<br>6,900         |
|                                |                             | Measured and Indicated   | <b>26.5</b>             | <b>26.5</b>        | <b>6,980</b>           | 6,980                  |
|                                |                             | Inferred (in LOM Plan) <sup>(7)</sup>  | 0.0                     | 0.0                | 7,600                  | 7,600                  |
|                                |                             | Inferred (ex. LOM Plan) <sup>(8)</sup>                                       | 2.6                     | 2.6                | 6,370                  | 6,370                  |
|                                |                             | Total Inferred   | 2.6                     | 2.6                | 6,370                  | 6,370                  |
| Roman Mountain (OC)            | 100                         | Measured   | 1.9                     | 1.9                | 7,870                  | 7,870                  |
|                                |                             | Indicated  | 2.4                     | 2.4                | 7,940                  | 7,940                  |
|                                |                             | Measured and Indicated   | 4.3                     | 4.3                | 7,910                  | 7,910                  |
|                                |                             | Inferred (in LOM Plan) <sup>(7)</sup>  | 0.5                     | 0.5                | 7,920                  | 7,920                  |
|                                |                             | Inferred (ex. LOM Plan) <sup>(8)</sup>                                       | 1.7                     | 1.7                | 7,960                  | 7,960                  |
|                                |                             | Total Inferred   | 2.2                     | 2.2                | 7,950                  | 7,950                  |
| Canada – Projects              | 100                         | Measured   | 188.6                   | 188.6              | 6,570                  | 6,570                  |
|                                |                             | Indicated  | 13.1                    | 13.1               | 6,960                  | 6,960                  |
|                                |                             | Measured and Indicated   | 201.8                   | 201.8              | <b>6,600</b>           | <b>6,600</b>           |
|                                |                             | Inferred (in LOM Plan) <sup>(7)</sup> Inferred (ex. LOM Plan) <sup>(8)</sup> | 0.5                     | 0.5                | 7,920                  | 7,920<br>6,980         |
|                                |                             | Total Inferred   | 4.4<br><b>4.8</b>       | 4.4<br><b>4.8</b>  | 6,980<br><b>7,080</b>  | 7,080                  |
|                                |                             | .0   | 5                       |                    | .,                     | .,                     |
| Coal – South Africa Projects   |                             | _  |                         | MTIS(5)            | (                      | Coal Quality           |
|                                | rship%                      | Classification   | 2018                    | 2017               | 2018                   | 2017                   |
| Elders                         | 73.0                        |  | Mt                      | Mt                 | kcal/kg <sup>(6)</sup> | kcal/kg <sup>(6)</sup> |
|                                |                             | Measured   | 86.4                    | 86.4               | 5,190                  | 5,190                  |
|                                |                             | Indicated  | 3.6                     | 3.6                | 4,900                  | 4,900                  |
|                                |                             | Measured and Indicated   | 89.9                    | 89.9               | 5,180                  | 5,180                  |
|                                | 70.0                        | Inferred   | 11.5                    | 11.5               | 4,930                  | 4,930                  |
| South Rand                     | 73.0                        | Measured   | 79.5                    | 79.5               | 4,860                  | 4,860                  |
|                                |                             | Indicated  | 171.8                   | 171.8              | 4,850                  | 4,850                  |
|                                |                             | Measured and Indicated   | 251.3                   | 251.3              | <b>4,850</b>           | <b>4,850</b>           |
| South Africa – Projects        | 73.0                        | Inferred<br>Measured   | 233.5<br>165.9          | 233.5<br>165.9     | 4,590                  | 4,590<br>5,030         |
| South Africa - Projects        | 13.0                        | Indicated  | 175.4                   | 175.4              | 5,030<br>4,850         | 4,850                  |
|                                |                             | Measured and Indicated   | <b>341.2</b>            | 341.2              | 4,630<br><b>4,940</b>  | 4,830<br><b>4,940</b>  |
|                                |                             | Inferred   | 245.0                   | 245.0              | <b>4,940 4,610</b>     | 4, <b>940</b><br>4,610 |
| COAL RESOURCES ARE REPORTED AS | ADDITIONAL TO COAL DESERVES | inierieu   | 270.0                   | 270.0              | 7,010                  | 7,010                  |

COAL RESOURCES ARE REPORTED AS ADDITIONAL TO COAL RESERVES.

Ownership percentages for country totals are weighted by Total MTIS.

Due to the uncertainty that may be attached to some Inferred Coal Resources, it cannot be assumed that all or part of an Inferred Coal Resource will necessarily be upgraded to an Indicated or Measured Coal Resource after continued exploration.

## estimates as at 31 December 2018

#### Table footnotes:

- Coal Reserves are quoted on a ROM (Run of Mine) reserve tonnes basis, which represents the tonnes delivered to the plant. Saleable Reserve tonnes represents the estimated product tonnes Coal Reserves (ROM and Saleable) are on the applicable moisture basis.
- ROM tonnes quoted on an As Delivered moisture basis and Saleable tonnes on a Product moisture basis.

  Yield ROM % represents the ratio of Saleable Reserve tonnes to ROM reserve tonnes and is quoted on a constant moisture basis or on an air dried to air dried basis whereas Plant % is based on the 'Feed to Plant' tonnes
- The coal quality for Coal Reserves is quoted as either kilocalories per kilogram (kcal/kg) or Crucible Swell Number (CSN). Kilocalories per kilogram represent Calorific Value (CV) on a Gross As Received (GAR) basis. CV is rounded to the nearest 10 kcal/kg and CSN to the nearest 0.5 index.

  Coal Resources are quoted on a Mineable Tonnes In Situ (MTIS) basis in million tonnes, which are in addition to those Coal Resources that have been modified to produce the reported Coal Reserves.
- Coal Resources are reported on an in situ moisture basis.

  The coal quality for Coal Resources is quoted on an in situ heat content as kilocalories per kilogram (kcal/kg), representing Calorific Value (CV) rounded to the nearest 10 kcal/kg.
- (7) Inferred (in LOM Plan) refers to Inferred Coal Resources that are included in the life of mine extraction schedule of the respective collieries and are not reported as Coal Reserves.
  (8) Inferred (ex. LOM Plan) refers to Inferred Coal Resources outside the Life of Mine Plan but within the mine lease area.

Metallurgical - Coking refers to a high-, medium- or low-volatile semi-soft, soft or hard coking coal primarily for blending and use in the steel industry; quality measured as Crucible Swell Number (CSN). Metallurgical – Other refers to semi-soft, soft, hard, semi-hard or anthracite coal, other than Coking Coal, such as pulverised coal injection (PCI) or other general metallurgical coal for the export or domestic market with a wider range of properties than Coking Coal; quality measured by calorific value (CV).

Thermal – Export refers to low- to high-volatile thermal coal primarily for export in the use of power generation; quality measured by calorific value (CV).

Thermal – Domestic refers to low- to high-volatile thermal coal primarily for domestic consumption for power generation; quality measured by calorific value (CV).

Synfuel refers to a coal specifically for the domestic production of synthetic fuel and chemicals; quality measured by calorific value (CV).

Capcoal comprises opencast operations at Lake Lindsay and Oak Park, an underground longwall operation at Grasstree and the Aquila Project. Lake Lindsay, Grasstree and the Aquila Project are owned by the Capcoal Joint Venture and Oak Park is owned by the Roper Creek Joint Venture. Due to the differing ownership structure, the attributable shareholding of Capcoal OC (Lake Lindsay and Oak Park) is determined annually using the proportion of the Saleable tonnes in the individual pits. The calculated ownership percentage therefore varies each year due to differing production schedules. Jellinbah and Lake Vermont are not reported as Anglo American's shareholding is below the internal threshold for reporting.

The Drayton South project has been sold and therefore is no longer reported.

Peace River Coal consists of Trend and Roman Mountain operations. The Belcourt Saxon Project is a wholly owned entity of Peace River Coal.

Kleinkopje and Landau operate under an integrated management structure, forming Khwezela Colliery.
Kriel, New Denmark, New Vaal Collieries and the Elders UG Extension, Kriel East, New Largo, Nooitgedacht and Vaal Basin Projects have been sold and therefore are no longer reported.

Estimates for the following operations were updated by depletion (geological models and Coal Resource estimates not updated): Dawson, Grosvenor, Moranbah North, Greenside, Goedehoop, Isibonelo, Mafube and Zibulo.

#### **EXPLANATORY NOTES**

#### Australia - Operations:

Capcoal (OC): Coal Reserves increase due to conversion of Coal Resources following additional drilling and revised economic assumptions used in the Life of Mine Plan which increases the Reserve Life.

Capcoal (UG) - Grasstree: Coal Reserves increase due to revised economic assumptions used in the Life of Mine Plan which converted Coal Resources to Coal

#### Colombia - Operations:

Cerrejón: Coal Reserves decrease due to a revised Life of Mine Plan and production.

#### South Africa – Operations:

**Goedehoop:** Coal Reserves decrease due to production.

Isibonelo: Coal Reserves reported on the expectation that Isibonelo Coal production can be sold at market-related prices. Coal Reserves decrease due to production

Kleinkopje: Coal Reserves decrease primarily due to the application of revised Modifying Factors and production. Coal Resources increase due to reallocation of Coal Reserves based on the revised Life of Mine Plan.

Landau: The total yield is calculated using the total ROM tonnes; hence the difference in the Thermal Domestic Proved and Total Reserve yields.

Mafube: The Saleable Reserve reported consists of a 5,800 and 4,800 kcal/kg NAR quality specification products. The lower quality export portion may in future be sold as a Thermal Domestic product subject to prevailing market conditions.

#### Australia - Projects:

Capcoal (UG) - Aquila: Coal Reserves decrease due to revised economic assumptions used in the Life of Mine Plan. In addition Reserve Life decreases as a consequence of a higher planned production rate.

#### Canada - Projects:

Trend: The mine was placed on care and maintenance at the end of 2014. The Mineral Resources are considered to have reasonable prospects for eventual economic extraction based on current long-term economic assumptions.

Roman Mountain: The mine was placed on care and maintenance at the end of 2014. The Mineral Resources are considered to have reasonable prospects for eventual economic extraction based on current long-term economic assumptions.

#### **Mineral Tenure**

Teviot Brook: This area is actively under exploration and contains sufficient identified Coal Resources for the purposes of the current Moranbah North Life of Mine Plan identified for extraction starting in approximately 2022. Once the Mining Lease Application for Teviot Brook (EPC 706) has been submitted which includes environmental approval, Coal Reserves will be reported.

Cerrejón: Coal Reserves are estimated for the area defined by the current approved Mining Right which expires in 2033. In order to exploit the Coal Resources, a renewal will be applied for at the appropriate time.

Elders: Mining Right for the Elders Project has been granted and is pending execution.

Goedehoop: The Mining Right for the Komati Power Station area (MP30/5/1/2/2/3 MR) is pending approval. There is a reasonable expectation that such approval will not be withheld.

Greenside: The Waterpan area has been ceded into the Mining Right and will be incorporated into the Life of Mine Plan during the 2019 reporting cycle

Audits related to the generation of the Coal Reserve estimates were carried out by independent consultants during 2018 at the following operations and projects

Audits related to the generation of the Coal Resource estimates were carried out by independent consultants during 2018 at the following operations and projects: Capcoal OC, Capcoal UG, Isibonelo and Zibulo

# **NICKEL**

### estimates as at 31 December 2018

#### **NICKEL**

The Ore Reserve and Mineral Resource estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012) as a minimum standard. The estimates reported represent 100% of the Ore Reserves and Mineral Resources. Rounding of figures may cause computational discrepancies for totals.

| Nickel - Operations |             | Reserve |                | R    | OM Tonnes |      | Grade | Cor  | tained Nickel |
|---------------------|-------------|---------|----------------|------|-----------|------|-------|------|---------------|
| ORE RESERVES        | Ownership % | Life    | Classification | 2018 | 2017      | 2018 | 2017  | 2018 | 2017          |
| Barro Alto (OP)     | 100         | 21      |                | Mt   | Mt        | %Ni  | %Ni   | kt   | kt            |
| Saprolite           |             |         | Proved         | 13.9 | 10.6      | 1.42 | 1.53  | 197  | 162           |
|                     |             |         | Probable       | 38.1 | 31.3      | 1.27 | 1.35  | 485  | 424           |
|                     |             |         | Total          | 52.0 | 41.9      | 1.31 | 1.40  | 682  | 586           |
| Niquelândia (OP)    | 100         | 15      |                |      |           | %Ni  | %Ni   |      |               |
| Saprolite           |             |         | Proved         | _    | 6.0       | _    | 1.28  | _    | 77            |
| ·                   |             |         | Probable       | 8.3  | 1.7       | 1.26 | 1.20  | 105  | 21            |
|                     |             |         | Total          | 8.3  | 7.8       | 1.26 | 1.26  | 105  | 98            |

| Nickel - Operations  |             |                         |      | Tonnes |      | Grade | Co   | ntained Nickel |
|----------------------|-------------|-------------------------|------|--------|------|-------|------|----------------|
| MINERAL RESOURCES    | Ownership % | Classification          | 2018 | 2017   | 2018 | 2017  | 2018 | 2017           |
| Barro Alto (OP)      | 100         | -                       | Mt   | Mt     | %Ni  | %Ni   | kt   | kt             |
| Saprolite            |             | Measured                | 0.5  | 3.0    | 1.18 | 1.28  | 6    | 38             |
|                      |             | Indicated               | 7.5  | 13.1   | 1.11 | 1.17  | 83   | 154            |
|                      |             | Measured and Indicated  | 8.0  | 16.1   | 1.11 | 1.19  | 89   | 192            |
|                      |             | Inferred (in LOM Plan)  | 9.2  | 17.7   | 1.34 | 1.36  | 123  | 240            |
|                      |             | Inferred (ex. LOM Plan) | 8.3  | 4.8    | 1.19 | 1.14  | 99   | 54             |
|                      |             | Total Inferred          | 17.5 | 22.5   | 1.27 | 1.31  | 222  | 295            |
| Ferruginous Laterite |             | Measured                | -    | _      | -    | _     | -    | -              |
|                      |             | Indicated               | 4.0  | 4.1    | 1.21 | 1.21  | 49   | 49             |
|                      |             | Measured and Indicated  | 4.0  | 4.1    | 1.21 | 1.21  | 49   | 49             |
|                      |             | Inferred (in LOM Plan)  | -    | -      | -    | _     | -    | _              |
|                      |             | Inferred (ex. LOM Plan) | 5.3  | 5.2    | 1.21 | 1.21  | 64   | 64             |
|                      |             | Total Inferred          | 5.3  | 5.2    | 1.21 | 1.21  | 64   | 64             |
| Niquelândia (OP)     | 100         |                         |      |        | %Ni  | %Ni   |      |                |
| Saprolite            |             | Measured                | -    | 1.1    | -    | 1.27  | -    | 14             |
|                      |             | Indicated               | 1.6  | 1.8    | 1.27 | 1.24  | 21   | 22             |
|                      |             | Measured and Indicated  | 1.6  | 2.9    | 1.27 | 1.25  | 21   | 36             |
|                      |             | Inferred (in LOM Plan)  | -    | -      | -    | _     | -    | -              |
|                      |             | Inferred (ex. LOM Plan) | _    | -      | _    | _     | _    | -              |
|                      |             | Total Inferred          | _    |        | -    | _     | _    |                |

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

| Nickel - Projects    |             |                        |       | Tonnes |      | Grade | Co    | ontained Nickel |
|----------------------|-------------|------------------------|-------|--------|------|-------|-------|-----------------|
| MINERAL RÉSOURCES    | Ownership % | Classification         | 2018  | 2017   | 2018 | 2017  | 2018  | 2017            |
| Jacaré               | 100         |                        | Mt    | Mt     | %Ni  | %Ni   | kt    | kt              |
| Ferruginous Laterite |             | Measured               | 6.3   | 6.3    | 1.15 | 1.15  | 72    | 72              |
|                      |             | Indicated              | 53.8  | 53.8   | 1.21 | 1.21  | 651   | 651             |
|                      |             | Measured and Indicated | 60.1  | 60.1   | 1.21 | 1.21  | 723   | 723             |
|                      |             | Inferred               | 125.0 | 125.0  | 1.17 | 1.17  | 1,462 | 1,462           |
| Saprolite            |             | Measured               | -     | _      | _    | _     | _     | _               |
|                      |             | Indicated              | 39.6  | 39.6   | 1.49 | 1.49  | 590   | 590             |
|                      |             | Measured and Indicated | 39.6  | 39.6   | 1.49 | 1.49  | 590   | 590             |
|                      |             | Inferred               | 81.9  | 81.9   | 1.39 | 1.39  | 1,138 | 1,138           |

Mining method: OP = Open Pit. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

#### EXPLANATORY NOTES

Barro Alto – Ore Reserves: The Ore Reserves are derived from a mine plan which targets a smelter feed of between 12.5–19.0 %Fe and a SiO<sub>2</sub>/(MgO+CaO) ratio of 1.80. The increase is due to a revised mine scheduling strategy offset by production and an updated pit design. The Reserve Life however decreases by a year due to a higher planned production rate. There is a material amount of Inferred Resources in the current LOM Plan; however work is ongoing to reduce the proportion of Inferred in the LOM Plan. A stockpile of ~161kt Ni (12.2 Mt at 1.32 %Ni) Probable Reserves is excluded from the table. The stockpile material is used for blending when the appropriate smelter feed chemistry can be achieved.

Niquelândia – Ore Reserves: The Niquelândia Mine is adjacent to the Codemin Ferro-Nickel smelter which is fed with ore from Barro Alto and is blended with Niquelândia ore to achieve an appropriate smelter feed chemistry. Ore is scheduled for extraction from 2024. Ore Reserves are derived from a mine plan which targets a smelter feed between 13.0–19.0 %Fe and a SiO<sub>2</sub>/(MgO+CaO) ratio of 1.75. The increase is due to a revised mine scheduling strategy and an updated pit design. Proved Ore Reserves were reclassified following a review of historical sampling information.

Barro Alto – Saprolite Mineral Resources: Mineral Resources are quoted above a 0.9 %Ni cut-off. The decrease is primarily due to conversion of Mineral Resources to Ore Reserves and new drilling information offset by inclusion of a portion of the mineralised boulder zone at the base of the saprolite and an updated Mineral Resource shell. A stockpile of ~57kt Ni (4.3 Mt at 1.34 %Ni) Indicated Resources is excluded from the table.

Barro Alto – Ferruginous Laterite Mineral Resources: Material that is scheduled for stockpiling or has already been mined and stockpiled. A stockpile of ~14kt Ni (1.2 Mt at 1.18 %Ni) Indicated Resources is excluded from the table.

Niquelândia – Mineral Resources: Mineral Resources are quoted above a 0.9 %Ni cut-off. The decrease is due to an updated Mineral Resource shell and conversion of Mineral Resources to Ore Reserves due to a revised mine scheduling strategy. Measured Resources were reclassified following a review of historical sampling information.

Jacaré: The Mineral Resources are reported within a pit shell developed for the Concept Study with a cut-off of 1.3 %Ni. A minimum mineralised width of 1m must be present to allow material to be categorised as higher-grade Saprolite Mineral Resource (1.5m for Low-Grade Saprolite and Ferruginous Laterite). The Saprolite Resources are a combination of higher-grade Mineral Resources (>1.3 %Ni) that are expected to feed a pyrometallurgical treatment facility and lower-grade Mineral Resources (1.3–0.9 %Ni) that could be used to neutralise the acid in the proposed hydrometallurgical treatment of the Ferruginous Laterite material while still recovering Nickel in the process. The Ferruginous Laterite has an average Cobalt grade of 0.19 %Co. The Plano de Aproveitamento Econômico (PAE) is in progress and pending approval by Brazil's Agência Nacional de Mineração (ANM).

 $Audits \, related \, to \, the \, Generation \, of \, the \, Ore \, Reserve \, and \, Mineral \, Resource \, estimates \, were \, carried \, out \, by \, independent \, consultants \, during \, 2018 \, at \, Barro \, Alto \, and \, Niquelândia.$ 

## **MANGANESE**

#### estimates as at 31 December 2018

#### SAMANCOR MANGANESE

The Ore Reserve and Mineral Resource estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012). Rounding of figures may cause computational discrepancies. The estimates reported represent 100% of the Ore Reserves and Mineral Resources on an inclusive basis (source: South32).

| Samancor Manganese – Ope       | erations    | Reserve | _                | R    | OM Tonnes |      | Grade |      | Yield |
|--------------------------------|-------------|---------|------------------|------|-----------|------|-------|------|-------|
| ORE RESERVES                   | Ownership % | Life    | Classification   | 2018 | 2017      | 2018 | 2017  | 2018 | 2017  |
| GEMCO (OP)                     | 40.0        | 7       |                  | Mt   | Mt        | %Mn  | %Mn   | %    | %     |
| ROM                            |             |         | Proved           | 41   | 41        | 44.3 | 45.0  | 60   | 59    |
|                                |             |         | Probable         | 19   | 21        | 43.4 | 44.4  | 58   | 56    |
|                                |             |         | Total            | 60   | 62        | 44.0 | 44.8  | 59   | 58    |
| Sands                          |             |         | Proved           | -    | -         | -    | -     | -    | _     |
|                                |             |         | Probable         | 6.8  | 6.3       | 40.0 | 40.0  | 22   | 31    |
|                                |             |         | Total            | 6.8  | 6.3       | 40.0 | 40.0  | 22   | 31    |
| <b>Hotazel Manganese Mines</b> | 29.6        |         |                  |      |           | %Mn  | %Mn   |      |       |
| Mamatwan (OP)                  |             | 16      | Proved           | 18   | 18        | 37.2 | 37.1  |      |       |
|                                |             |         | Probable         | 33   | 37        | 36.4 | 36.7  |      |       |
|                                |             |         | Total            | 51   | 55        | 36.7 | 36.8  |      |       |
| Wessels (UG)                   |             | 57      | Proved           | -    | 2.4       | -    | 42.2  |      |       |
|                                |             |         | Probable         | 78   | 80        | 42.4 | 42.4  |      |       |
|                                |             |         | Total            | 78   | 83        | 42.4 | 42.4  |      |       |
|                                |             |         |                  |      |           |      |       |      |       |
| Samancor Manganese - Ope       | erations    |         | _                |      | Tonnes    |      | Grade |      | Yield |
| MINERAL RESOURCES              | Ownership % |         | Classification   | 2018 | 2017      | 2018 | 2017  | 2018 | 2017  |
| GEMCO (OP)                     | 40.0        |         |                  | Mt   | Mt        | %Mn  | %Mn   | %    | %     |
| ROM                            |             |         | Measured         | 71   | 73        | 45.9 | 46.4  | 48   | 48    |
|                                |             |         | Indicated        | 57   | 47        | 42.3 | 42.2  | 48   | 49    |
|                                |             | Measure | ed and Indicated | 128  | 120       | 44.3 | 44.7  | 48   | 48    |
|                                |             |         | Inferred         | 27   | 32        | 40.5 | 41.3  | 48   | 48    |
| Sands                          |             |         | Measured         | -    | _         | _    | _     | -    | -     |
|                                |             |         | Indicated        | 9.4  | 12        | 20.8 | 20.8  | _    | -     |
|                                |             | Measure | ed and Indicated | 9.4  | 12        | 20.8 | 20.8  | _    | _     |
|                                |             |         | Inferred         | 2.3  | 2.3       | 20.0 | 20.8  | _    | -     |
| <b>Hotazel Manganese Mines</b> | 29.6        |         |                  |      |           | %Mn  | %Mn   |      |       |
| Mamatwan (OP)                  |             |         | Measured         | 33   | 36        | 35.1 | 34.9  |      |       |
| (- /                           |             |         | Indicated        | 45   | 51        | 35.0 | 34.9  |      |       |
|                                |             | Measure | ed and Indicated | 78   | 87        | 35.0 | 34.9  |      |       |
|                                |             |         | Inferred         | 0.5  | 0.5       | 37.5 | 37.2  |      |       |
| Wessels (UG)                   | -           |         | Measured         | _    | 18        | _    | 44.1  |      |       |
| ` -/                           |             |         | Indicated        | 136  | 126       | 42.5 | 42.4  |      |       |
|                                |             | Measure | ed and Indicated | 136  | 144       | 42.5 | 42.6  |      |       |
|                                |             |         | Inferred         | 7.6  | 3.1       | 44.1 | 45.7  |      |       |

MINERAL RESOURCES INCLUDE ORE RESERVES

Mining method: OP = Open Pit, UG = Underground. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved life of operations plan. The tonnage is quoted as dry metric tonnes

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or

Samancor Manganese is a Joint Venture with South32.

Estimates are prepared and signed-off under the South32 reporting policy. The 2017 estimates have been restated to align with South32 reporting policy

#### **EXPLANATORY NOTES**

GEMCO - Ore Reserves: ROM Ore Reserve estimates are reported at a cut-off of >40.0 %Mn washed product. Sands Ore Reserve estimates are reported at a cut-off of 0 %Mn in situ. Ore Reserve tonnes are stated as delivered to process plant; manganese grades are reported as expected product and should be read together with their respective mass yields. Sands beneficiation plant yield and throughput revised based on plant performance. Mamatwan - Ore Reserves: Ore Reserves for all zones are reported at a cut-off of 35.0 %Mn.

Wessels - Ore Reserves: Ore Reserves for the Lower Body and Upper Body ore types are reported at a cut-off of 37.5 %Mn. Ore Reserves reclassified due to changes in Mineral Resource classification. The reduction in Ore Reserves results in the reduced Reserve Life.

GEMCO - Mineral Resources: ROM Mineral Resource are reported at a cut-off of >35.0 %Mn washed product. ROM Mineral Resource tonnes are stated as in situ; manganese grades are given as per washed ore samples and should be read together with their respective mass yields. Sands Mineral Resource tonnes and manganese grades are reported as in situ.

Mamatwan – Mineral Resources: Mineral Resources within the M, C, N and X Zones are reported at a cut-off of 35.0 %Mn. The Top Cut (balance I&O) Mineral Resources are reported at a cut-off of 28.0 %Mn. The Mineral Resources decreased due to some sterilisation of X-Zone and Top-cut during mining along with removal of Mineral Resources on the southern portion of the pit where these are no longer accessible.

Wessels - Mineral Resources: Mineral Resources within the Lower Body and Upper Body ore types are reported at a cut-off of 37.5 %Mn. Mineral Resources reclassified due to exclusion of channel sample data and decrease following Lower Body resource model update.

For additional details please refer to the South32 Annual Report 2018.

## **DEFINITIONS**

#### **ORE RESERVES**

An 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. 'Modifying Factors' are (realistically assumed) considerations used to convert Mineral Resources to Ore Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.

A 'Proved Ore Reserve' is the economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors.

A 'Probable Ore Reserve' is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve. A Probable Ore Reserve has a lower level of confidence than a Proved Ore Reserve but is of sufficient quality to serve as the basis for a decision on the development of the deposit.

#### MINERAL RESOURCES

A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered.

A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Ore Reserve or under certain circumstances to a Probable Ore Reserve.

An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered.

An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Ore Reserve.

An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

#### **COMMON TERMINOLOGY**

#### Grade

The relative quantity, percentage or quality of a metal or mineral/diamond content estimated to be contained within a deposit.

#### Cut-off (grade)

A grade (see grade units) above which the Mineral Resource or Ore Reserve is reported as being potentially economic.

#### Run of Mine (ROM)

The mined material delivered from the mine to the processing plant is called Run of Mine, or ROM. This is the raw unprocessed mineralised material and includes mineralised rock and varying amounts of internal and external contamination (either unmineralised rock or mineralised material below the cut-off grade). Contamination is usually introduced by the mining process to ensure all the mineralised material is mined or to provide a minimum mining height. ROM material can have highly variable moisture content and maximum particle size.

#### Inferred (in LOM Plan)/Inferred (ex. LOM Plan)

Inferred (in LOM Plan): Inferred Resources within the scheduled Life of Mine Plan (LOM Plan).

Inferred (ex. LOM Plan): the portion of Inferred Resources with reasonable prospects for eventual economic extraction not considered in the Life of Mine Plan (LOM Plan).

#### Reserve Life

The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan.

#### Life of Mine Plan (LOM / LOM Plan)

A design and costing study of an existing operation in which appropriate assessments have been made of realistically assumed geological, mining, processing, metallurgical, economic, infrastructure, marketing, legal, environmental, social, governmental, engineering, operational and all other Modifying Factors, which are considered in sufficient detail to demonstrate at the time of reporting that extraction is reasonably justified.

### Reasonable Prospects for Eventual Economic Extraction (RPEEE)

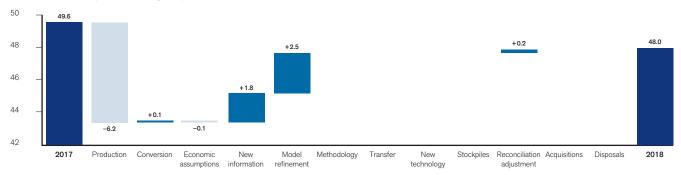
Assessment of RPEEE implies the judgement (albeit preliminary) by the Competent Person in respect of technical and economic factors likely to influence the prospect of economic extraction. The test should be applied at an appropriate and reasonable scale including consideration of geological, mining, metallurgical, processing, economic, marketing, legal, governmental, infrastructure, environmental, and socio-political factors.

Total
Negative
Positive

Detailed 2017 and 2018 information appears on pages 10-36. Rounding of figures may cause computational discrepancies.

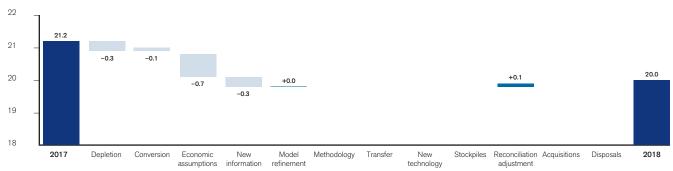
#### De Beers Canada 2017-2018 Diamond Reserves reconciliation

Saleable Carats (Mct) - Operations (including Stockpiles) (100% basis)



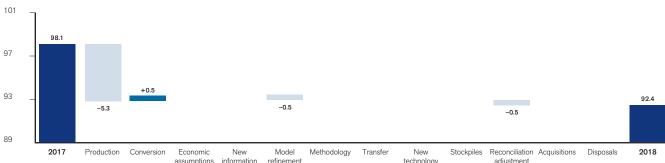
#### De Beers Canada 2017-2018 Exclusive Diamond Resources reconciliation

Carats (Mct) - Operations (including Stockpiles) (100% basis)



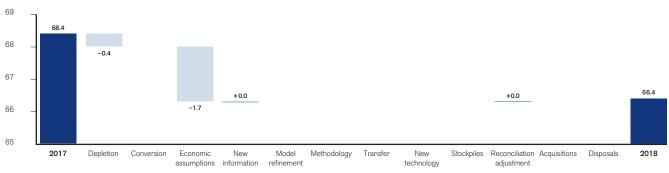
#### De Beers Consolidated Mines 2017-2018 Diamond Reserves reconciliation

Saleable Carats (Mct) - Operations (including Stockpiles) (100% basis)



#### De Beers Consolidated Mines 2017-2018 Exclusive Diamond Resources reconciliation

Carats (Mct) - Operations (including Stockpiles) (100% basis)

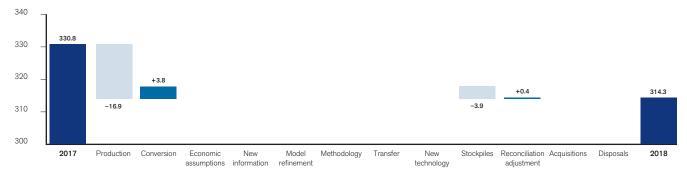


Total
Negative
Positive

Detailed 2017 and 2018 information appears on pages 10-36. Rounding of figures may cause computational discrepancies.

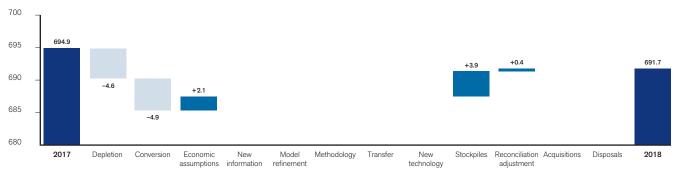
#### Debswana Diamond Company 2017-2018 Diamond Reserves reconciliation

Saleable Carats (Mct) - Operations, TMRs, ORTs and Stockpiles (100% basis)



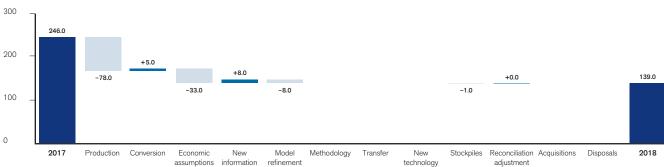
#### Debswana Diamond Company 2017-2018 Exclusive Diamond Resources reconciliation

Carats (Mct) - Operations, TMRs, ORTs and Stockpiles (100% basis)



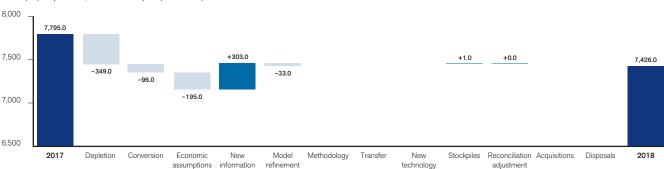
#### Namdeb Holdings 2017-2018 Terrestrial Diamond Reserves reconciliation

Saleable Carats (kct) - Operations (100% basis)



## Namdeb Holdings 2017–2018 Terrestrial Exclusive Diamond Resources reconciliation

Carats (kct) - Operations, TMRs and Stockpiles (100% basis)

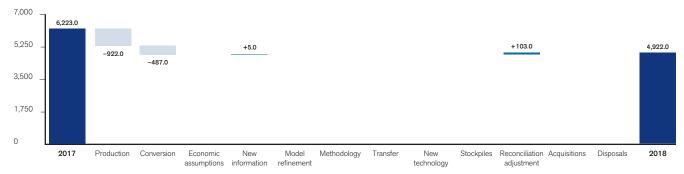




Detailed 2017 and 2018 information appears on pages 10-36. Rounding of figures may cause computational discrepancies.

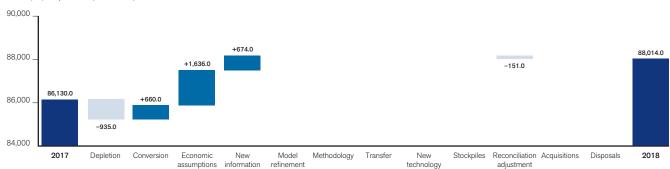
#### Namdeb Holdings 2017-2018 Offshore Diamond Reserves reconciliation

Saleable Carats (kct) - Operations (100% basis)



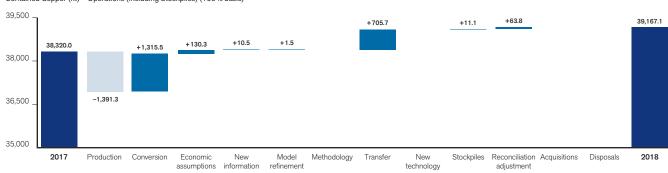
#### Namdeb Holdings 2017-2018 Offshore Exclusive Diamond Resources reconciliation

Carats (kct) - Operations (100% basis)



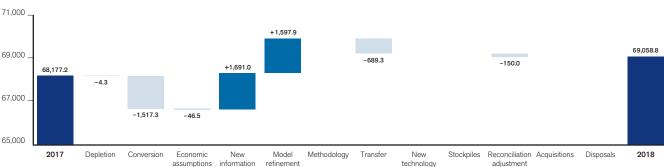
#### Copper 2017-2018 Ore Reserves reconciliation

Contained Copper (kt) – Operations (including Stockpiles) (100% basis)



## Copper 2017–2018 Exclusive Mineral Resources reconciliation

Contained Copper (kt) - Operations (including Stockpiles) (100% basis)

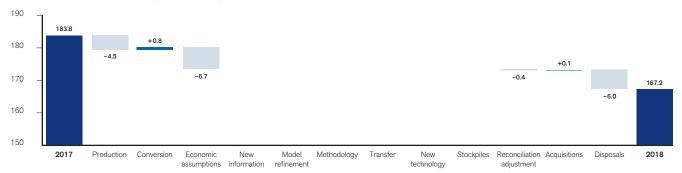


Total
Negative
Positive

Detailed 2017 and 2018 information appears on pages 10-36. Rounding of figures may cause computational discrepancies.

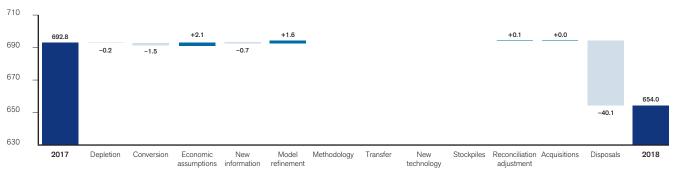
#### Platinum 2017-2018 Ore Reserves reconciliation

Contained Metal (4E Moz) - All Reefs, Stockpiles and MSZ (Disposal reflects the sale of Union Mine) (100% basis)



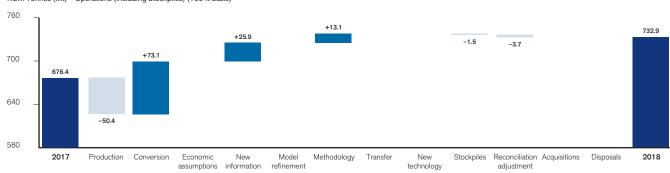
#### Platinum 2017–2018 Exclusive Mineral Resources reconciliation

Contained Metal (4E Moz) – All Reefs, Tailings, Stockpiles and MSZ (Disposal reflects the sale of Union Mine) (100% basis)



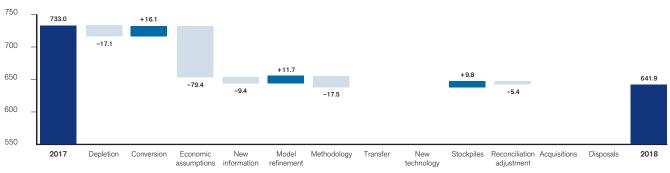
#### Kumba Iron Ore 2017–2018 Ore Reserves reconciliation

ROM Tonnes (Mt) – Operations (including Stockpiles) (100% basis)



## Kumba Iron Ore 2017–2018 Exclusive Mineral Resources reconciliation

Tonnes (Mt) - Operations (including Stockpiles) (100% basis)

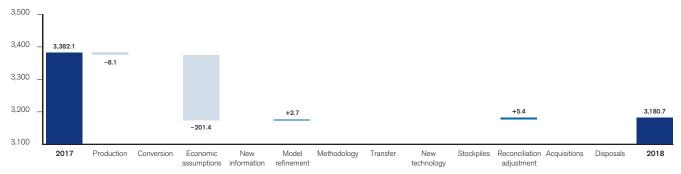




Detailed 2017 and 2018 information appears on pages 10-36. Rounding of figures may cause computational discrepancies.

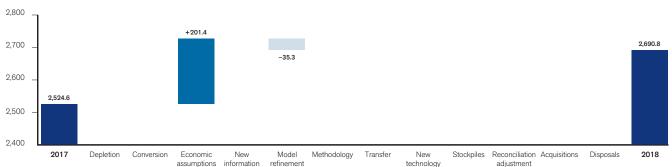
#### Minas-Rio 2017-2018 Ore Reserves reconciliation

ROM Tonnes (Mt) - Operation (100% basis)



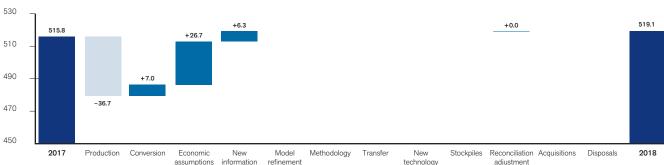
#### Minas-Rio 2017-2018 Exclusive Mineral Resources reconciliation

Tonnes (Mt) - Operation and Project (Serra do Sapo and Itapanhoacanga) (100% basis)



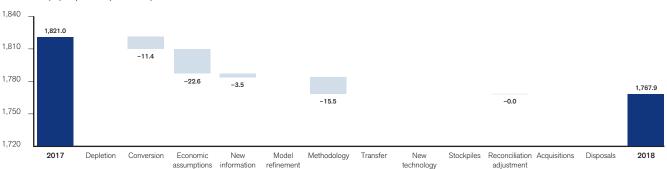
#### Coal Australia 2017-2018 Coal Reserves reconciliation

ROM Tonnes (Mt) - Operations (100% basis)



## Coal Australia 2017–2018 Exclusive Coal Resources reconciliation

MTIS Tonnes (Mt) - Operations (100% basis)

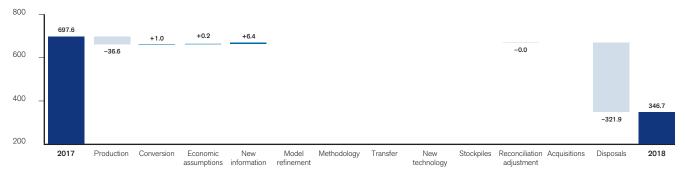


Total
Negative
Positive

Detailed 2017 and 2018 information appears on pages 10-36. Rounding of figures may cause computational discrepancies.

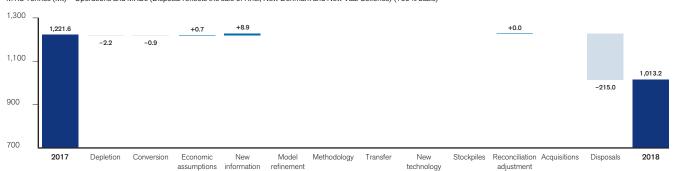
#### Coal South Africa 2017-2018 Coal Reserves reconciliation

ROM Tonnes (Mt) - Operations and MRDs (Disposal reflects the sale of Kriel, New Denmark and New Vaal Collieries) (100% basis)



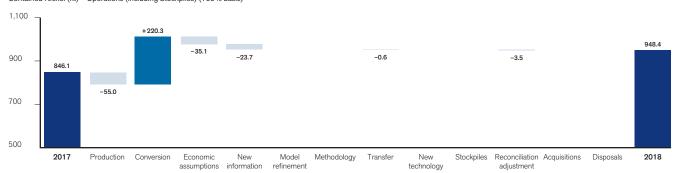
#### Coal South Africa 2017-2018 Exclusive Coal Resources reconciliation

MTIS Tonnes (Mt) - Operations and MRDs (Disposal reflects the sale of Kriel, New Denmark and New Vaal Colleries) (100% basis)



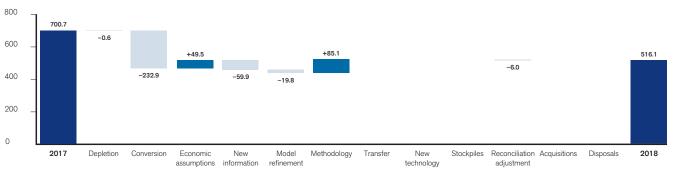
#### Nickel 2017-2018 Ore Reserves reconciliation

Contained Nickel (kt) – Operations (including Stockpiles) (100% basis)



## Nickel 2017–2018 Exclusive Mineral Resources reconciliation

Contained Nickel (kt) - Operations (including Stockpiles) (100% basis)



Detailed 2017 and 2018 information appears on pages 10-36. Rounding of figures may cause computational discrepancies.

#### (1) Ore Reserve and Mineral Resource reconciliation categories

| Tonnage and content change categories | Definition and explanation  |
|---------------------------------------|---|
| Opening Balance                       | as at 31 December – previous reporting year (as publicly reported in the AA plc R&R Report).  |
| Production* (from Reserve Model)      | The amount of material (expressed in terms of tonnage and content as applicable) removed by planned mining from the scheduled Ore Reserves, i.e. the areas actually mined during the reporting period which are removed from the reserve model(s).  |
| Depletion*<br>(from Resource Model)   | The amount of material (expressed in terms of tonnage and content as applicable) removed by mining from the Mineral Resources, i.e. the areas actually mined during the reporting period which are removed from the resource model(s). Material removed from the 'Inferred in Mine Plan' category should be reported as Depletion.  |
| Conversion                            | The effect of applying updated Modifying Factors to Ore Reserves and Mineral Resources which include geotechnical, mining, metallurgical, marketing, legal, environmental, social and governmental considerations including infrastructure. Includes changes to the mining method, mine plan and/or layout changes, e.g. changes in pit slope angles or mineable cut due to geotechnical reasons. The change can be positive or negative year-on-year.  |
|                                       | Sub-Categories:   |
|                                       | $\bullet \ \ Conversion \ is \ the \ process \ of \ upgrading \ Mineral \ Resources \ to \ Ore \ Reserves \ based \ on \ a \ change \ in \ confidence \ levels \ and/or \ Modifying \ Factors.$   |
|                                       | Reallocation is the process of downgrading of Ore Reserves to Mineral Resources or Mineral Resources to Mineralised Inventory based on a change in confidence levels and/or Modifying Factors.  |
|                                       | Sterilisation is the process of removing material from Ore Reserves and/or Mineral Resources that no longer has reasonable prospects for eventual economic extraction (RPEEE).  |
| Economic Assumptions                  | The effect of RPEEE assumptions based on the current or future price of a commodity and associated exchange rate estimates as determined by the corporate centre (Global Assumptions) which has a direct impact on the Mineral Resources or Ore Reserves, particularly the cut-off grade (which can be affected by changes in costs).   |
| New Information/Exploration**         | The effect of additional resource definition information (with QA/QC information) which initiates an update to the geological models (facies, structural, grade, geotechnical) and results in an updated (reclassified) resource model and subsequent determination of new Ore Reserve estimates. Includes orebodies (or portions of current orebodies) within the same project/operation not previously reported.  |
| Model Refinement                      | No additional resource definition drilling has been undertaken but the interpretation (geometry/ore-waste contacts) of the orebody has been refined or internal mine/lease boundaries changed, e.g. based on mapping information obtained during mining or a different structural model being applied. Changes to in situ tonnages as a result of new geological losses being applied or a change to the definition of the boundary of the Mineral Resources due to an updated 'economically mineable cut' being applied. |
| Methodology                           | Only valid for changes in the estimation or classification methodologies applied to the resource model evaluation, i.e. no new information available or model refinement taken place.   |
| Transfer                              | Movement of Mineral Resources and/or Ore Reserves from one type of product/ore type facies to another due to internal contact changes/updates or from one mining/project area to another or relocation of in situ material to stockpiles.   |
| New Technology                        | Changes to Mineral Resources or Ore Reserves in response to the application of new or improved mining and/or processing methods.  |
| Stockpiles                            | Denotes material destined for long-term stockpiles, to be used for blending or processed in the latter years of the life of mine plan.  |
| Reconciliation Adjustment             | Changes which cannot be allocated to a defined category or an adjustment necessary to mitigate inaccurate production/depletion estimates of the previous year.*   |
| Acquisitions                          | Additional Mineral Resources and Ore Reserves due to acquisitions of assets or increased direct ownership in JV agreements/associate companies.   |
| Disposals                             | Reduction in Mineral Resources and Ore Reserves due to disposals of assets or reduced direct ownership in JV agreements/associate companies, refusal/withdrawal/relinquishment of Mining/Prospecting Rights or related permits, e.g. due to environmental issues, changes in policy.  |
| Closing Balance                       | as at 31 December – current reporting year.   |
|                                       |   |

#### (2) Ore Reserves: Includes Proved and Probable.

**Exclusive Mineral Resources:** Includes Measured, Indicated and Inferred.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

<sup>\*</sup> The Production/Depletion figures can be estimated for the last three months of the reporting period based on the monthly average of the previous nine months.
\*\* Exploration – Applicable to greenfields drilling in a new project area for which a pre-feasibility study has not yet been undertaken or does not form part of a current project area.

# COMPETENT PERSONS (CP) LIST ORE RESERVES

| DE BEERS CANADA – Operations Gahcho Kué Victor Mine DE BEERS CONSOLIDATED MINES – Operations | Karen Woo<br>Marc Nadeau            | APEGA<br>PEO | 10      |
|--|-------------------------------------|--------------|---------|
| Victor Mine  | Marc Nadeau                         |              |         |
|  |                                     | PEO          | 27      |
| DE DEEDS CONSOLIDATED MINES Operations   | 6: 1 0 1 1 51 1                     |              |         |
| DE BEEKS CONSOLIDATED MINES - Operations   | 0: 1 0 1 1 D1 11                    |              |         |
| Venetia (OP)   | Siyanda Caleb Dludla                | SACNASP      | 6       |
| Venetia (UG)   | Mervin Smit                         | SAIMM        | 11      |
| DEBSWANA DIAMOND COMPANY – Operations  |                                     |              |         |
| Damtshaa, Letlhakane & Orapa   | Khumo Moswela                       | SAIMM        | 12      |
| Jwaneng  | Withus Mbi Kuswani                  | SAIMM        | 23      |
| NAMDEB HOLDINGS – Terrestrial Operations   |                                     |              | -       |
| Mining Area 1 & Orange River   | Edmund Nel                          | IMSSA        | 16      |
| NAMDEB HOLDINGS – Offshore Operations  |                                     |              |         |
| Atlantic 1   | Simon Hengua                        | SACNASP      | 11      |
| COPPER - Operations  |                                     |              |         |
| Collahuasi   | Andrés Pérez                        | AuslMM       | 22      |
| El Soldado   | Rodrigo Cifuentes                   | AuslMM       | 18      |
| Los Bronces  | Andres Fierro Jones                 | CMC          | 14      |
| COPPER - Projects  |                                     |              |         |
| Quellaveco   | Pierre Perrier                      | AuslMM       | 27      |
| PLATINUM SOUTH AFRICA – Operations   |                                     |              |         |
| Bafokeng-Rasimone  | Clive Ackhurst & Robby Ramphore (1) | ECSA & SAIMM | 18 & 22 |
| Dishaba Mine   | Vinodh Sewpersad                    | SACNASP      | 27      |
| Kroondal & Marikana Platinum Mine  | Brian Smith (1)                     | SAGC         | 16      |
| Modikwa Platinum Mine  | Jurie de Kock <sup>(1)</sup>        | SAIMM        | 17      |
| Mogalakwena Mine   | Marlon van Heerden                  | SAIMM        | 11      |
| Mototolo Platinum Mine   | Frederik C Fensham                  | SACNASP      | 25      |
| Siphumelele Mine 3   | Brian Smith (1)                     | SAGC         | 16      |
| Tumela Mine  | Vinodh Sewpersad                    | SACNASP      | 27      |
| PLATINUM ZIMBABWE – Operations   |                                     |              |         |
| Unki Mine  | Clever Dick                         | SAIMM        | 15      |

 $\mathsf{RPO} = \mathsf{Registered}\,\mathsf{Professional}\,\mathsf{Organisation}.\,\mathsf{Years} = \mathsf{Years}\,\mathsf{of}\,\mathsf{Relevant}\,\mathsf{Experience}\,\mathsf{in}\,\mathsf{the}\,\mathsf{commodity}\,\mathsf{and}\,\mathsf{style}\,\mathsf{of}\,\mathsf{mineralisation}.$ 

 $<sup>\</sup>ensuremath{^{(1)}}$  Not employed by Anglo American Group.

# COMPETENT PERSONS (CP) LIST ORE RESERVES

|                                       | Name                           | RPO     | Years |
|---------------------------------------|--------------------------------|---------|-------|
| KUMBA IRON ORE – Operations           |                                |         |       |
| Kolomela                              | Grant Crawley (1)              | ECSA    | 8     |
| Sishen                                | Derek Esterhuysen              | ECSA    | 10    |
| IRON ORE BRAZIL – Operations          |                                |         |       |
| Serra do Sapo                         | Antônio Hamilton Caires Junior | AusIMM  | 14    |
| COAL AUSTRALIA – Operations           |                                |         |       |
| Capcoal (OC)                          | Innocent Mashiri               | AuslMM  | 9     |
| Capcoal (UG)                          | Johnson Lee                    | AusIMM  | 13    |
| Dawson                                | Innocent Mashiri               | AusIMM  | 9     |
| Grosvenor                             | Johnson Lee                    | AusIMM  | 13    |
| Moranbah North                        | Johnson Lee                    | AusIMM  | 13    |
| COAL AUSTRALIA - Projects             |                                |         |       |
| Capcoal (UG) – Aquila                 | Johnson Lee                    | AusIMM  | 13    |
| COAL CANADA – Projects                |                                |         |       |
| Trend                                 | Bernard Colman                 | AusIMM  | 34    |
| Roman Mountain                        | Bernard Colman                 | AusIMM  | 34    |
| COAL COLOMBIA - Operations            |                                |         |       |
| Cerrejón                              | Shahzad Chaudari               | AuslMM  | 15    |
| COAL SOUTH AFRICA – Operations        |                                |         |       |
| Goedehoop                             | Shaun Levings                  | SAGC    | 11    |
| Greenside                             | Maqadini Mpepe                 | ECSA    | 20    |
| Isibonelo                             | Shaun Levings                  | SAGC    | 11    |
| Kleinkopje                            | Maqadini Mpepe                 | ECSA    | 20    |
| Landau (operation and life extension) | Maqadini Mpepe                 | ECSA    | 20    |
| Mafube                                | Deborah Xaba                   | SACNASP | 19    |
| Zibulo                                | Joanne Uys                     | SACNASP | 16    |
| NICKEL - Operations                   |                                |         |       |
| Barro Alto & Niquelândia              | Bruno Conceição                | AusIMM  | 11    |
| SAMANCOR MANGANESE – Operations       |                                |         |       |
| GEMCO                                 | Ursula Sandilands              | AusIMM  | 21    |
| Mamatwan & Wessels                    | Johann Lamprecht (2)           | SACNASP | 7     |

 $\mathsf{RPO} = \mathsf{Registered} \ \mathsf{Professional} \ \mathsf{Organisation}. \ \mathsf{Years} = \mathsf{Years} \ \mathsf{of} \ \mathsf{Relevant} \ \mathsf{Experience} \ \mathsf{in} \ \mathsf{the} \ \mathsf{commodity} \ \mathsf{and} \ \mathsf{style} \ \mathsf{of} \ \mathsf{mineralisation}.$ 

<sup>(1)</sup> Not employed by Anglo American Group.

<sup>(2)</sup> Not employed by Samancor Manganese.

# COMPETENT PERSONS (CP) LIST MINERAL RESOURCES

|  | Name                                       | RPO         | Years  |
|--|--|-------------|--------|
| DE BEERS CANADA – Operations   |  |             |        |
| Gahcho Kué   | Kevin Earl Gostlin                         | NAPEG       | 12     |
| Victor Mine  | Pamela Cook Ellemers                       | APGO        | 11     |
| DE BEERS CANADA – Projects   |  |             |        |
| Chidliak   | Jennifer Pell                              | APEGBC      | 17     |
| Snap Lake  | Jason Dankowski                            | NAPEG       | 5      |
| Tango Extension  | Pamela Cook Ellemers                       | APGO        | 11     |
| DE BEERS CONSOLIDATED MINES – Operations   |  |             |        |
| Namaqualand  | William Graham MacDonald                   | SACNASP     | 22     |
| Venetia (OP & UG)  | Siyanda Caleb Dludla                       | SACNASP     | 14     |
| Voorspoed  | Maanda Ratshitanga                         | SACNASP     | 19     |
| DEBSWANA DIAMOND COMPANY – Operations  |  |             |        |
| Damtshaa, Letlhakane & Orapa   | Olefile Mashabila                          | SACNASP     | 12     |
| Jwaneng  | Phenyo Maoto                               | SACNASP     | 14     |
| NAMDEB HOLDINGS – Terrestrial Operations   |  |             |        |
| Bogenfels, Douglas Bay, Elizabeth Bay, Mining Area 1 and Orange River            | Jana Jacob                                 | SACNASP     | 20     |
|  | Jana Jacob                                 | SACNASE     | 20     |
| NAMDEB HOLDINGS – Offshore Operations  |  |             |        |
| Atlantic 1   | Godfrey Ngaisiue                           | SACNASP     | 15     |
| Midwater   | Jana Jacob                                 | SACNASP     | 20     |
| COPPER - Operations  |  |             |        |
| Collahuasi   | Yuan Tay                                   | AusIMM      | 17     |
| El Soldado   | Raúl Ahumada                               | AusIMM      | 30     |
| <u>Los Bronces</u>   | César Ulloa                                | AusIMM      | 14     |
| COPPER - Projects  |  |             |        |
| Los Bronces Sur  | César Ulloa                                | AusIMM      | 14     |
| Los Bronces Underground  | Ivan Vela                                  | CMC         | 32     |
| Quellaveco   | José Cardenas                              | CMC         | 9      |
| Sakatti  | Janne Siikaluoma                           | AusIMM      | 11     |
| West Wall  | Manuel Machuca (1)                         | AusIMM      | 24     |
| PLATINUM SOUTH AFRICA – Operations   |  |             |        |
| Bafokeng-Rasimone  | Prinushka Padiachy & Jakobus Vermeulen (1) | SACNASP     | 9 & 14 |
| Bokoni Platinum Mine   | Vinodh Sewpersad                           | SACNASP     | 27     |
| Kroondal Platinum Mine   | Etienne Malherbe (1)                       | SACNASP     | 24     |
| Marikana Platinum Mine   | Leonard Changara (1)                       | SACNASP     | 19     |
| Mogalakwena Mine   | Kavita Mohanlal                            | SACNASP     | 15     |
| Mototolo Platinum Mine   | Frederik C Fensham                         | SACNASP     | 25     |
| Siphumelele Mine 3   | Etienne Malherbe (1)                       | SACNASP     | 24     |
| Dishaba Mine, Modikwa Platinum Mine, Tumela Mine and<br>Twickenham Platinum Mine | lain Colquhoun                             | SACNASP     | 21     |
| PLATINUM SOUTH AFRICA - Projects   |  |             |        |
| Der Brochen  | lain Colquhoun                             | SACNASP     | 21     |
| PLATINUM SOUTH AFRICA – Tailings Dams  |  |             |        |
| Amandelbult  | Kavita Mohanlal                            | SACNASP     | 15     |
| PLATINUM ZIMBABWE – Operations   |  |             |        |
| Unki Mine  | lain Colquhoun                             | SACNASP     | 21     |
|  | iam ooiqanoan                              | 3, 314, 101 |        |

RPO = Registered Professional Organisation. Years = Years of Relevant Experience in the commodity and style of mineralisation.

<sup>(1)</sup> Not employed by Anglo American Group.

# COMPETENT PERSONS (CP) LIST MINERAL RESOURCES

|                                       | Name   | RPO     | Years   |
|---------------------------------------|--|---------|---------|
| KUMBA IRON ORE – Operations           |  |         |         |
| Kolomela                              | Hannes Viljoen                               | SACNASP | 11      |
| Sishen                                | Fanie Nel                                    | SACNASP | 10      |
| KUMBA IRON ORE - Projects             |  |         |         |
| Zandrivierspoort                      | Stuart Mac Gregor                            | SACNASP | 12      |
| IRON ORE BRAZIL – Operations          |  |         |         |
| Serra do Sapo                         | Fernando Rosa Guimarães                      | AusIMM  | 10      |
| IRON ORE BRAZIL - Projects            |  |         |         |
| Itapanhoacanga & Serro                | Fernando Rosa Guimarães                      | AusIMM  | 10      |
| COAL AUSTRALIA – Operations           |  |         |         |
| Capcoal OC                            | Andrew Laws                                  | AusIMM  | 23      |
| Capcoal UG                            | Andrew Laws                                  | AusIMM  | 23      |
| Dawson                                | Sue de Klerk                                 | AusIMM  | 15      |
| Grosvenor                             | Georgina Rees                                | AusIMM  | 9       |
| Moranbah North                        | Georgina Rees                                | AusIMM  | 9       |
| COAL AUSTRALIA - Projects             |  |         |         |
| Capcoal Aquila                        | Andrew Laws                                  | AusIMM  | 23      |
| Moranbah South                        | Andrew Laws                                  | AusIMM  | 23      |
| Theodore                              | lan Driver (1)                               | AusIMM  | 32      |
| Teviot Brook                          | Georgina Rees                                | AusIMM  | 9       |
| COAL CANADA – Projects                |  |         |         |
| Belcourt Saxon                        | David Lortie                                 | APEGBC  | 25      |
| Trend                                 | David Lortie                                 | APEGBC  | 25      |
| Roman Mountain                        | David Lortie                                 | APEGBC  | 25      |
| COAL COLOMBIA – Operations            |  |         |         |
| Cerrejón                              | Germán Hernández                             | GSSA    | 29      |
| COAL SOUTH AFRICA – Operations        |  |         |         |
| Goedehoop                             | Adri Opperman                                | SACNASP | 10      |
| Greenside                             | Masixole Simakuhle                           | SACNASP | 15      |
| Isibonelo                             | Meaker Katuruza                              | SACNASP | 11      |
| Kleinkopje                            | Phumzile Mkhize                              | SACNASP | 13      |
| Landau (operation and life extension) | Phumzile Mkhize                              | SACNASP | 13      |
| Mafube                                | Deborah Xaba                                 | SACNASP | 19      |
| Zibulo                                | Ulrike Herrmann                              | SACNASP | 17      |
| COAL SOUTH AFRICA – Projects          |  |         |         |
| Elders                                | Adri Opperman                                | SACNASP | 10      |
| South Rand                            | Ulrike Herrmann                              | SACNASP | 17      |
| NICKEL - Operations                   |  |         |         |
| Barro Alto & Niquelândia              | Paulo Henrique Faria                         | AusIMM  | 8       |
| NICKEL - Projects                     |  |         |         |
| Jacaré                                | Cláudia Mara Sperandio Neves                 | AusIMM  | 13      |
| SAMANCOR MANGANESE – Operations       |  |         |         |
| GEMCO                                 | David Hope & Joshua Harvey                   | AusIMM  | 12 & 16 |
| Mamatwan & Wessels                    | Edward Ferreira & Farisani Thomas<br>Rambuda | SACNASP | 21 & 9  |

 ${\sf RPO} = {\sf Registered\,Professional\,Organisation}. \ {\sf Years} = {\sf Years\,of\,Relevant\,Experience\,in\,the\,commodity\,and\,style\,of\,mineralisation}.$ 

<sup>(1)</sup> Not employed by Anglo American Group.

# **GLOSSARY**

#### **MASS UNITS**

carat is a unit of mass equal to 0.2g

kt: kilotonne; metric system unit of mass equal to 1,000 metric tonnes

Moz: million troy ounces (a kilogram is equal to 32.1507 ounces; a troy ounce is equal to 31.1035 grams)

Mt: million tonnes, metric system unit of mass equal to 1,000 kilotonnes

MTIS: Mineable Tonnes In Situ; quoted in million tonnes, adjusted for geological loss and derated for any previous mining

mtpa: million tonnes per annum

**Tonnes:** metric system unit of mass equal to 1,000 kilograms

#### GRADE UNITS (expressed on a moisture-free basis)

Au: Gold (g/t)

cpht: carats per hundred metric tonnes

cpm<sup>2</sup>: carats per square metre

**CSN:** Crucible Swell Number (CSN is rounded to the nearest 0.5 index)

CuEq: Copper equivalent grade

CV: Calorific Value (CV is rounded to the nearest 10 kcal/kg)

 kcal/kg:
 kilocalories per kilogram

 g/t:
 grams per tonne

 kct:
 thousand carats

 Mct:
 million carats

 TCu:
 Total Copper (%)

**4E PGE:** the sum of Platinum, Palladium, Rhodium and Gold grades in grams per tonne (g/t)

**3E PGE:** the sum of Platinum, Palladium and Gold grades in grams per tonne (g/t)

% Cu: weight percent Copper
% Fe: weight percent Iron
% Mn: weight percent Manganese
% Mo: weight percent Molybdenum
% Ni: weight percent Nickel

#### MINING METHODS

MM: Marine Mining – Mining diamonds deposited on the continental shelf using mining vessels equipped with specialised underwater mining

tools such as suction drills and crawlers.

OC: Open Cast/Cut – A surface mining method performed on orebodies with shallow-dipping tabular geometries.

Beach Accretion is a form of Open Cast mining and is a process through which an existing beach is built seaward to extend into areas previously

submerged by sea water. The accretion is accomplished by sand build-up derived from current mining activities.

OP: Open Pit - A surface mining method in which both ore and waste are removed during the excavation of a pit. The pit geometry is related to the

orebody shape, but tends to have a conical form, closing with depth.

UG: Underground - A class of subsurface mining methods, where the ore is accessed either through a vertical shaft or decline. Ore and waste are

 $moved \ within \ subsurface \ excavations, which \ may \ be \ located \ on \ several \ different \ elevations. \ The \ nature \ of \ the \ underground \ excavations \ is$ 

dependent on the geometry and size of the mineralisation.

#### PROCESSING METHODS

Dump Leach: A process similar to Heap Leaching, but usually applied to lower grade material. Rather than constructing a heap of material with a controlled

 $grain\ size, the\ material\ grain\ sizes\ are\ as\ mined, similar\ to\ the\ situation\ found\ within\ a\ waste\ rock\ dump.$  This material is\ then\ irrigated\ with\ a

leach solution that dissolves the valuable minerals, allowing recovery from the drained leach solution.

Flotation: A process for concentrating minerals based on their surface properties. Finely ground mineral is slurried with water and specific reagents that

 $increase the water repellent \ nature of the \ valuable \ mineral \ and \ agitated \ with \ air. The \ water \ repellent \ mineral \ grains \ cling \ to \ froth \ bubbles \ that$ 

concentrate the mineral at the top of the flotation cell, from where it is mechanically removed.

Heap Leach: A process in which mineral-bearing rock is crushed and built into a designed heap. The heap is irrigated with a leach solution that dissolves the

 $desirable\ mineral\ and\ carries\ it\ into\ a\ drain\ system\ from\ which\ solution\ is\ pumped\ and\ the\ mineral/elements\ of\ interest\ are\ recovered.$ 

#### PROFESSIONAL ORGANISATIONS

APEGA: The Association of Professional Engineers and Geoscientists of Alberta

APEGBC: The Association of Professional Engineers and Geoscientists of British Columbia

APGO: Association of Professional Geoscientists of Ontario
AuslMM: The Australasian Institute of Mining and Metallurgy

CMC: Chilean Mining Commission (Comisión Calificadora de Competencias en Recursos y Reservas Mineras)

ECSA: Engineering Council of South Africa
GSSA: Geological Society of South Africa
IMMM: Institute of Materials, Minerals and Mining
IMSSA: The Institute of Mine Surveyors of South Africa

**NAPEG:** Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists

**PEO:** Professional Engineers of Ontario

SACNASP: South African Council for Natural Scientific Professions

**SAGC:** South African Geomatics Council

**SAIMM:** South African Institute of Mining and Metallurgy

# **GLOSSARY**

**RESOURCE TYPES** 

Aeolian: Diamond deposits created and enriched during transport of sediment through wind action (aeolian processes) resulting in the

formation of wind-blown dunes, ripples and sand sheets within which localised enrichment of diamonds may occur.

Banded Iron Formation: A chemical sedimentary rock consisting of silica and iron oxide. The rock texture is characteristically laminated or banded.

Beaches: Diamond deposits enriched through marine processes and preserved along the marine shoreline within a series of fossil terraces.

Canga: An iron rich rock formed where material weathered from an original iron ore deposit has been cemented by iron minerals.

Colluvium: Loose, unconsolidated material that accumulates above the weathering iron orebodies.

**Deflation:** Diamond deposits enriched through wind driven removal of light particles resulting in concentration of diamonds.

Ferruginous Laterite: An especially iron-rich laterite.

Fluvial Placer: Diamond deposits formed and preserved within fossil sand and gravel terraces located adjacent to contemporary fluvial

(river) systems.

Fresh Rock: Mineable material that has not been significantly modified by surface weathering processes.

**Hematite:** An iron oxide mineral with the chemical formula Fe<sub>2</sub>O<sub>3</sub>.

Itabirite: Itabirite is a banded quartz hematite schist. Friable Itabirite is the extensively weathered equivalent leading to disaggregation of the

individual mineral grains comprising the rock.

Kimberlite: A potassic ultrabasic volcanic rock, emplaced as either pipes, dykes or sills, which sometimes contain diamonds.

Laterite: A clay-like soil horizon rich in iron and aluminium oxides that formed by the weathering of igneous rocks under tropical

conditions.

**Magnetite:** An iron oxide mineral with the chemical formula Fe<sub>3</sub>O<sub>4</sub>.

Main Sulphide Zone (MSZ): The MSZ is a Platinum Group Metals (PGMs) and Base Metals (BMs) layer within the uppermost pyroxenite unit of the ultramafic

 $succession\ of\ the\ Great\ Dyke.\ The\ MSZ\ reef\ is\ a\ tabular\ zone\ with\ disseminated\ sulphides, consisting\ of\ an\ upper\ zone\ enriched$ 

with BMs and a lower zone enriched with PGMs.

Marine: Submerged diamond deposits enriched through fluvial (river), beach and marine reworking processes.

Merensky Reef (MR): The Merensky Reef is located within the Upper Critical Zone of the Bushveld Complex and ranges in width from a few millimetres

to  $\sim$ 9m but normally expected to vary between 0.2m to 2.5m. The Merensky Reef occurs at the interface between the Merensky Pyroxenite and the underlying anorthosite to norite. The Merensky Reef is characterised by the occurrence of one or more

narrow chromitite stringers and frequently includes a coarse-grained pegmatoidal feldspathic pyroxenite.

MRD: Mineral Residue Deposit is material discarded from the beneficiation process. This material may be re-treated to produce a

saleable product or sold as is, where there is reasonable prospects for eventual economic extraction.

ORT: Old Recovery Tailings are heavy minerals discarded from the Recovery Section of the Ore Processing Plant. In some cases these

tailings can be re-treated.

Oxide: Oxide ores are those found within close proximity to the surface and whose mineralogy is dominated by oxidised species,

including oxides and sulphates. Frequently, silicate minerals have broken down partially or completely to clay-rich species. The Platreef dips to the west and strikes North-West/South-East within the Northern Limb of the Bushveld Complex; ranging in

width from  $\sim$ 40m to  $\sim$ 200m. The upper portion is predominantly top-loaded with Platinum Group Metals (PGMs) and this mineralisation is often but not always associated with Base Metal (BM) mineralisation. The Platreef is characterised as a multi-pulse mafic magmatic horizon predominantly pyroxenitic in composition typified by an extensive assimilation of footwall

lithologies

Pocket Beach: Diamond deposits formed due to interactions of ocean (longshore) currents with specific shoreline topographic features that

facilitate the concentration of diamonds.

Porphyry (Copper): Large copper deposits hosted by intermediate felsic rocks. These deposits form close to large-scale subduction zones.

Saprolite: Clay-rich rock formed by decomposition of pre-existing rocks within a surface weathering environment.

Stockpile: Stockpile resources comprise material that is mined together with the principal ore, but for economic or technical reasons is not

processed. This material is stockpiled in preparation for processing when economic or technical conditions are more favourable.

Sulphide: Sulphide ores contain sulphide minerals that have not been subjected to surface oxidation.

Tailings: Material left over after the process of separating the valuable fraction of the mineralised material from the uneconomic fraction

(gangue) of the ROM. In some cases tailings can be re-treated to extract by-products.

TMR: Tailings Mineral Resource is Coarse Processed Kimberlite discarded from the Ore Processing Plant. In some cases these

tailings can be re-treated.

**UG2 Reef (UG2):** The UG2 Reef is located between 20m and 400m below the Merensky Reef and is the second chromitite unit within the Upper

Group. The UG2 Reef is typically a massive chromitite unit and ranges in width from 0.3m to 3.0m but normally expected to vary between 0.6m to 2.0m. The hanging wall of the UG2 Reef is characterised by a feldspathic pyroxenite unit that may include several narrow chromitite stringers and the footwall of the UG2 Reef typically a coarse-grained pegmatoidal feldspathic

pyroxenite.

COAL PRODUCTS

Platreef (PR):

Metallurgical - Coking: High-, medium- or low-volatile semi-soft, soft or hard coking coal primarily for blending and use in the steel industry; quality

measured as Crucible Swell Number (CSN).

Metallurgical - Other: Semi-soft, soft, hard, semi-hard or anthracite coal, other than Coking Coal, such as pulverized coal injection (PCI) or other

 $general\ metallurgical\ coal\ for\ the\ export\ or\ domestic\ market\ with\ a\ wider\ range\ of\ properties\ than\ Coking\ Coal;\ quality\ measured$ 

by calorific value (CV).

Thermal – Export: Low- to high-volatile thermal coal primarily for export in the use of power generation; quality measured by calorific value (CV).

Thermal – Domestic: Low- to high-volatile thermal coal primarily for domestic consumption for power generation; quality measured by calorific value (CV).

Synfuel: Coal specifically for the domestic production of synthetic fuel and chemicals; quality measured by calorific value (CV).

# OTHER ANGLO AMERICAN PUBLICATIONS

- Annual Report 2018
- Sustainability Report 2018
- Tax and Economic Contribution Report
- Transformation Report
- Our Code of Conduct
- The Safety, Health and Environment (SHE) Way
- The Social Way
- The Socio-Economic Assessment Toolbox (SEAT)
- Notice of 2019 AGM
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