28 March 2018

Australian Pacific Coal Limited (ASX: AQC)

Coal Reserve Estimate for Dartbrook Project

Highlights:

- Total Marketable Coal Reserve[1] 370 Mt (Probable Reserve 370 Mt), covering the area of the Dartbrook Mine leases
- Coal Reserves support mine life of up to 45 years at a life of mine strip ratio of 4.2 to 1
- Positions Dartbrook as one of the largest, underdeveloped coal assets in New South Wales

Australian Pacific Coal Limited (**Company** or **AQC**) is pleased to announce an Open Cut Coal Reserve for the Dartbrook Mine (**Dartbrook** or **Mine**). The Reserve has been estimated for the area within the Dartbrook Mine leases and reaffirms Dartbrook as one of the largest, under-developed coal deposits in New South Wales. This Coal Reserve is included within the Coal Resource[2] of 2,534 Mt (comprised of Measured 588 Mt, Indicated 850 Mt, Inferred 1,097 Mt) announced to the ASX 27 June 2017.

The Coal Reserve estimate (JORC, 2012 Edition) has the following quantities:

Table 1 - Reserve Area

	Total (Mt)
Mineable ROM	572
Reserves	
ROM Probable	470
Marketable Product	370

Note: the totals in this table and those below are rounded to reflect the accuracy of the estimate.

Table 2 - Reserve Area by Lease

Lease	ROM tonnes (Mt)		Marketable tonnes (Mt)	
	Probable	Proven	Probable	Proven
EL 4574	-	-	-	-
A 256	32	-	24	-
ML 1497	168	-	134	-
CL 386	266	-	215	-
ML 1456	3	-	3	-
ML 1381	1	-	-	-
Total	**470**	**-**	**370**	**-**

Note: Totals rounded to nearest 10 Mt

The Competent Person has classified the entire Reserve as a Probable Reserve as presently Dartbrook does not hold any open cut mining leases.

[1] Refer Competent Person Statement
[2] Refer Competent Person Statement

Table 3 - Product Tonnes by Lease Area

Lease	Probable Tonnes (Mt)		
	Dartbrook Premium Product 1	Dartbrook Standard Product 2	Total
EL 4574	-	-	-
A 256	16	8	24
ML 1497	91	43	134
CL 386	146	69	215
ML 1456	2	1	3
ML 1381	-	-	-
Total	**250**	**120**	**370**

Note: Totals rounded to nearest 10 Mt

Product 1 tonnes relate to the "Dartbrook Premium" specification which have been modelled at 11.0% moisture, 12.0% ash, and 6,100kcal/kg gross energy content on an as received basis.

Product 2 tonnes relate to the "Dartbrook Standard" specification which have been modelled at 11.0% moisture, 19.0% ash, and 5,545kcal/kg gross energy content on an as received basis.

Open Cut Pre-Feasibility Study (OC PFS)

The mine plan underpinning the Coal Reserve (**Reserve Mine Plan**) considers the full area of the Dartbrook Mine leases. The Reserve Mine Plan mines 572 Mt run of mine (ROM) coal with 470 Mt, or 82%, classified as a ROM Coal Reserve, at a strip ratio of 4.2 to 1 (bcm waste to ROM tonne coal).

The OC PFS mine plan mines 226 Mt ROM coal with 190 Mt, or 84%, classified as a ROM Coal Reserve. Based on the modelled processing yield applied by the Competent Person and rounding, this equates to a Marketable Reserve of 140 Mt. This reflects the capacity of the proposed 10 Mtpa pit operating for 25 years, at a strip ratio of 4.0 to 1. Beyond the OC PFS mining pit, the Coal Reserve extends to the south, west and north of the OC PFS mining pit. The OC PFS mine plan is a subset of the Reserve Mine Plan.

Refer to **Appendix A** for Competent Person disclosure.

Yours faithfully,

Andrew Roach
Company Secretary
Australian Pacific Coal Limited

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Note 1:

Marketable Reserves Note

The Dartbrook Marketable Coal Reserve of 370Mt is derived from a run of mine Coal Reserve of 470 Mt estimated in accordance with JORC 2012 with a predicted overall yield of 78%. The 370Mt Marketable Coal Reserve is included in the 2,534 Mt Coal Resource (588Mt Measured, 850 Mt Indicated, 1,097Mt Inferred).

The Company confirms that it is not aware of any new information or data that materially affects the information included in the announcement and that all material assumptions and technical parameters underpinning the estimates in the announcement continue to apply and have not materially changed.

Competent Persons Statement - Resources

The information in this report relating to Coal Resources for the Dartbrook Project was announced on 27 June 2017, titled "Dartbrook Coal Resource Estimate 2.5 Billion Tonnes" and is based on information compiled by Lynne Banwell, a Principal Consultant of Collective Experience Pty Limited and Associate Consultant of GPPH & Associates. Structure modelling was carried out by Rebecca Jackson and Monica Davis of Palaris; coal quality modelling, structure model audit and resource estimations were carried out by Lynne Banwell. Lynne Banwell is a qualified geologist (BSc (Hons) University of Sydney, 1980) with 30 years' experience in coal geology and over 20 years' experience in resource evaluation. Lynne is a Member of the Australasian Institute of Mining and Metallurgy and has experience in this style of mineralisation and qualifies as a Competent Person under the JORC code. This Resource Statement has been prepared under the guidelines of the December 2012 edition of the Australian Code for Reporting of Mineral Resources and Ore Reserves (The JORC Code). Neither Lynne Banwell nor GPPH & Associates has any material interest or entitlement, direct or indirect, in the securities of Australian Pacific Coal or any companies associated with Australian Pacific Coal Limited.

Lynne Barnwell consents to the release of this announcement.

Competent Persons Statement - Reserves

The information in this report relating to Coal Reserves for the Dartbrook Project was announced on 28 March 2018, titled "Dartbrook Coal Reserve Estimate" and is based on information compiled by Ernst Brian Baumhammer, a Principal Consultant of GPPH & Associates. The Reserve estimations were carried out under the supervision and review of Brian Baumhammer. Brian Baumhammer is a qualified mining engineer (BE (Hons) University of Sydney, 1984) with 33 years' experience in mining, 24 years' experience in coal mining and over 15 years' experience in reserve estimation. Brian Baumhammer is a Member of the Australasian Institute of Mining and Metallurgy and has experience in this style of mineralisation and qualifies as a Competent Person under the JORC code. This Reserve Statement has been prepared under the guidelines of the December 2012 edition of the Australian Code for Reporting of Mineral Resources and Ore Reserves (The JORC Code). Neither Brian Baumhammer nor GPPH & Associates has any material interest or entitlement, direct or indirect, in the securities of Australian Pacific Coal Ltd or any companies associated with Australian Pacific Coal Limited.

Brian Baumhammer consents to the release of this announcement.

The information is extracted from the report entitled "Dartbrook Coal Reserve Estimate" created on 28 March 2018 and is available to view on www.aqc.ltd.com. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Coal Resources or Coal Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

APPENDIX A
JORC Table 1

Table F.1 Check List of Assessment and Reporting Criteria – The JORC Code, 2012 Edition, Table 1

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

SECTION 1 – SAMPLING TECHNIQUES AND DATA

Criteria	Commentary
Sampling techniques	• All cored coal seams drilled have been sampled to determine quality. • Raw ply samples (coal and non coal) are taken on known ply boundaries or wherever there is significant variation, based on geophysical or visual distinctions. • Roof and floor samples of 0.15m are taken.
Drilling techniques	• Slim cores, large diameter cores and non-cored holes.
Drill sample recovery	• Core recovery was calculated for every cored hole from the measured core lengths compared to the geophysical logs. • A redrill was required where core recoveries were less than 95%, except when due to adverse geological conditions. • Sample recoveries were recorded within the geologist's field logs at the completion of each core run.
Logging	• Non-cored boreholes are chip sampled every metre with the samples being laid out for lithological logging. • Non-cored sections of partially cored boreholes are treated the same way if required. • Cored sections of boreholes are logged describing the same characteristics but with extra details.
Sub-sampling techniques and sample preparation	• Core samples are boxed at the rig immediately after lithological logging. • The boxes are lined and sealed with plastic, those containing coal samples are promptly transported to the core shed, for cool room storage at, or just above 4°C at all times when not being worked on. • Sampling is conducted as soon as practical after geophysical logging and correcting
Quality of assay data and laboratory tests	• All analysis and testing is conducted at NATA (National Association of Testing Authorities) certified laboratories using the relevant Australian Standard testing procedures and a mixture of NATA and ISO proficiency testing as part of the QA process. • Laboratories participate in "Round Robin" exercises and quality assurance programs.
Verification of sampling and assaying	• On arrival at the laboratory, sample mass is compared with theoretical mass for that core size to check for recovery and thickness loss/inconsistencies. • Samples are compared with geophysics to confirm to ensure consistency and check for core loss. • If lithological logs are adjusted to geophysics, sample depths are adjusted accordingly. • No adjustments have been made to the coal quality data. • Analysis results are presented on an air-dried basis.
Location of data points	• Cored holes provide coal quality, geotechnical properties and structural information while open holes provide structural details and the interpretation of the geophysical logs also adds some general quality and geotechnical information. • Open holes have been used to aid in interpretations of fault and dyke delineation and structural anomalies.
Data spacing	• 1122 holes exist in the modelling data, which includes about 20 holes from the neighbouring

Criteria	Commentary
and distribution	Mt Pleasant project. • Drilling is generally on a 250m grid pattern with a combination of cored and non cored holes. • The grid does not cover the whole area because drilling over the years has been targeted only at the area of interest at the time. • The majority of holes were drilled to the Wynn seam.
Orientation of data in relation to geological structure	• Drilling has been attempted to maintain hole verticality. As the strata is gently dipping, hole deviation is generally not significant despite the depth of the holes. • Downhole deviation logs (where available) are used to calculate seam roof and floor positions in space.
Sample security	• Core samples were bagged and labelled with a unique field sample ID. In addition the field sample No. was placed on a tag and bagged with the sample material. • Field sample despatch records were compiled detailing the sample depths, general composition (coal/parting) and intended analyses instructions. • On arrival at the laboratory field samples were re-weighed and confirmed against sample despatch advice data.
Audits or reviews	• A formal audit of the Anglo 2010 model was undertaken by ASEAMCO. • Several internal company reviews have been undertaken. • Prior to this resource estimation, a routine model audit of the Palaris 2011 structure model was carried out, ensuring that there were no crossing surfaces and that data ranges made sense. The model was declared fit-for-purpose. • The Palaris structure model and the Vulcan structure model generated by JB Mining Services in January 2016 and used for a previous resource statement were used to perform a resource estimation check for a small polygon outside the previously mined area. Volume and mass differences of less than 1% were demonstrated

SECTION 2 – REPORTING OF EXPLORATION RESULTS

Criteria	Commentary
Mineral tenement and land tenure status	• The project comprises several exploration licences, mining leases and an authorisation as listed below. The ground covered by the various titles is complex, often with two separate titles covering the same areas spatially, but to different depths.

Title	Expiry	Surface	Comments
CL 386	19.12.33	Subsurface + minor surface areas	Excludes surface and 20 m below Surface to unlimited depth, covering No1 Shaft Surface to 20 m below, covering No2 Shaft & ML1381
ML 1497	5.12.22	Subsurface + minor surface areas	Surface to 20 m below Dartbrook JVs Excludes surface and 20 m below Excludes surface and below to 20 m above roof of Mt Arthur seam Surface to unlimited depth
ML 1456	26.09.20	Surface	Surface to 20 m below, covering No2 Shaft
ML 1381	23.10.16 Under renewal application	Subsurface	Excludes surface and 20 m below, adjacent to Wynn seam decline
A 256	2.5.15	Surface	Surface to 20 m below (above part ML1497) Surface to depth of 900 m below Australian

Criteria	Commentary			
		Under renewal application		Height Datum (AHD)
	EL 5525	21.9.16 Under renewal application	Surface + subsurface	Surface to 20 m above roof of Mt Arthur seam (above part ML1497) Between 40m below the surface and 20 m above roof of Mt Arthur seam (above part ML1497)
	EL 4574	7.4.15 Under renewal application	Surface	Surface to 20 m below (above part CL386) Surface to unlimited depth
	EL 4575	23.5.16 Under renewal application	Surface	Surface to 20 m above roof of Mt Arthur seam (above part ML1497) Surface to depth of 900 m below Australian Height Datum (AHD)

Exploration done by other parties	• Initial coal exploration of the Dartbrook area was carried out in the early 1970s by Peabody Coal.
	• The Department of Mineral Resources (DMR) undertook further drilling in the late 1970s.
	• From 1980 to 1983 a major drilling programme of the area now known as ML386 was undertaken by the Bellambi Coal Company to allow an open cut feasibility study to be completed. This programme comprised 46 cored and 129 non-cored holes.
	• In 1989 17 cored holes were completed during for the UG mine pre-feasibility study, including bulk sampling for combustion testing.
	• During the period of 1992 to 1993 nine cored holes and 12 non-cored holes were drilled along the line of this tunnel, and an additional three non-cored holes were drilled along the site of the personnel and equipment access (Western Drift) in the south-east corner of the main lease area.
	• During the period 1993 to 1995, exploration drilling and associated evaluation programmes comprised:
	  • 44 geophysically logged partly cored holes (HQ), drilled to enhance existing seam gas, geotechnical, coal quality, structural and stratigraphic information and to investigate strata permeability, seam gas content and composition in the vicinity of the Hunter Tunnel; and 67 non-cored holes drilled to assess the likelihood of structural disturbances particularly within the initial longwall blocks;
	  • a 2D surface seismic survey to identify any potential structural dislocations;
	  • a high resolution ground magnetics survey in association with previous magnetic surveys and surface trenching to target magnetic anomalies and confirm igneous dykes and plugs, particularly over the southern half of the first four longwall blocks;
	  • various mapping, sampling and analyses of in-seam workings for definition, prediction and reconciliation of structural features, product quality and coal preparation parameters; and
	  • four large diameter (200 mm) core holes to assess likely run-of-mine size distribution and coal preparation plant performance characteristics.
	• In 1996, Rust PPK Pty Ltd completed reports on geotechnical and groundwater assessments The findings of these reports were derived from detailed geotechnical logging and joint orientation and field and laboratory materials testing of the six 1996 exploration HQ cores, review of existing groundwater data, measurement of open hole water levels, bulk hydraulic conductivity tests, piezometer installation, discrete zone hydraulic testing and groundwater chemistry determinations in selected 1996 exploration boreholes.
	• Further drilling, testing and allied investigations were conducted within ML386, A256, EL5525			

Criteria	Commentary

	and EL4575 during 1997 and 1998 as part of ongoing Dartbrook Mine development and exploration programs.
	• The 1999 Exploration Programme was principally designed to:
	  • evaluate, confirm and upgrade the structure, coal quality, geotechnical, groundwater and seam gas regimes of the most prospective Kayuga Seam underground resource within A256 and the eastern half of EL5525 to a status suitable for detailed feasibility studies; and,
	  • provide an indicative evaluation of the structure and coal quality of the western extension of this Kayuga Seam underground resource within the western half of EL5525.
	• The 1999 exploration programme included the drilling of 73 non-cored holes and 15 partly cored HQ core holes. In addition, the programme included a high resolution ground magnetic survey, coal quality analysis, geophysical logging, geotechnical, groundwater and seam gas investigations.
	• An exploration programme over western EL5525 and EL4575 was carried out in early 2000 comprising a detailed infill (ground) magnetometer investigation and drilling programme including coal quality, geophysical, geotechnical logging, groundwater and seam gas investigations. This exploration programme comprised the drilling of 28 non-cored holes, 15 partly cored HQ holes and two large (200mm) diameter cored holes).
	• From 2001 to 2005, 30 partly cored holes and eight non-cored holes were drilled. These boreholes specifically targeted the deeper underground minable seams (Kayuga, Piercefield, and Wynn Seams) and were drilled for the purpose of evaluating underground mining options, increasing the resource status of the area, and supporting the underground mining operations.
	• Exploration during the period January to May 2006 targeted the Kayuga, Piercefield and Vaux seams. Nine holes were completed with three holes being gas tested and two being Stress and Permeability tested. Post closure of the mine, a revised exploration programme was implemented, to focus on collecting samples for coal quality and geotechnical testing of the upper sequence of seams. Of the 26 planned HQ boreholes, 17 were completed.
	• The 2007 exploration programme focused on obtaining coal samples for coal quality analysis and overburden/interburden samples for geotechnical testing. A total of 39 slim (HQ) core holes were planned, of these nine were carried over from the incomplete 2006 programme. Five of the slim core holes have been converted to piezometers and an additional two slim non-core holes were drilled and converted to piezometers. Three large diameter (200mm) core holes were drilled to obtain detailed pre-treatment and washability data for coal handling and preparation plant simulation.
	• The 2008 drilling programme commenced in January 2008 to obtain more coal quality analyses and overburden/interburden samples for geotechnical testing. 1 slim (HQ) fully cored hole was completed and two redrills and a relocation of one of the abandoned holes from the 2007 exploration programme Four slim non-cored holes were drilled on the tertiary sediments along the Hunter River for ground water monitoring piezometers.
	• The 2009 Exploration program targeted the upper sequence of seams in the western and south western areas of the lease. It included 14 fully cored and partly cored holes and 10 non-cored holes.
	• Exploration in 2010 was confined to 1 HQ redrill in the southwest.

Geology	• The Dartbrook coal resources are located on the western side of the Muswellbrook Anticline. Strata of the Permian Wittingham Coal Measures outcrop in the area and dip gently to the west. Underlying marine sediments of the Maitland Group outcrop approximately three kilometres to the east, on the eastern side of the Aberdeen Thrust. Further to the east lies the

<table>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>northern limit of the Sydney Basin, the Hunter Thrust. The Greta Coal Measures occur below the Maitland Group.
• The Wittingham Coal Measures contain the coal-bearing Jerrys Plains Subgroup and the Vane Subgroup in the Dartbrook area. Elsewhere in the basin these subgroups are separated by the Archerfield Sandstone, a massive, well sorted sandstone unit. However, at Dartbrook, the Bayswater seam at the base of the Jerrys Plains Subgroup has coalesced with the Wynn seam, the top of the Vane Subgroup
• The Jerrys Plains Subgroup is divisible into five main coal-bearing formations of which the basal four, the Malabar, Mt Ogilvie, Mt Thorley and Burnamwood Formation, occur at Dartbrook. Seams of the subgroup show a high degree of splitting, particularly towards the east, and major seams are generally represented by several plies /splits.
• Interburdens in the Jerrys Plains Subgroup are generally coarse-grained in the upper sequence, above the Vaux Seam, and become progressively finer with depth to the Bayswater Seam. These interburdens generally comprise interbedded sandstones, siltstone, and mudstones with minor claystones and tuffs and occasional conglomerates and thin siderite. Non-coal units in the Vane Subgroup are generally fine to medium grained sandstones.
• Tertiary basalts and dolerites intrude the Permian Coal Measures and are present as lava flows in the Liverpool Ranges to the northwest of Dartbrook.
• Of the seams under evaluation in this statement: the Arrowfield, Bowfield and Warkworth Seams are of the Mt Thorley formation. The Mt Arthur, Kayuga, Piercefield, Vaux, Broonie and Bayswater Seams are of the Burnamwood Formation, and the Wynn and Edderton seams are in the underlying Foybrook Formation.
• Fault trends are NW and ENE. Faults with significant displacements are confined to the Kayuga Fault Zone, its North-Western Branch, and the WNW Fault Zone. Most other faults are less than 0.5m displacement
• Coals at Dartbrook can be classed as high volatile bituminous coal. It is slightly lower in rank than the coals to the south in the Hunter Valley. The raw coal inherent moisture ranges from 2.0% to 8.0%, averaging 4.3%.
• The coal will require beneficiation for export markets. It is able to produce a range of Thermal coal products between 10 to 20% Ash adb.</td></tr>
<tr><td>Drill hole Information</td><td>• Due to the large amount of borehole data for Dartbrook (~100,000 lines), the tables of information have been excised from this table and included as Appendices H, I & J to the Resource Statement.
<table>
<tr><th>Holes</th><th>Number</th></tr>
<tr><td>In Database</td><td>1123</td></tr>
<tr><td>In Model</td><td>1026</td></tr>
<tr><td>With some Geophysics</td><td>547</td></tr>
<tr><td>With Raw CQ Analyses</td><td>355</td></tr>
<tr><td>With Washed CQ Analyses</td><td>343</td></tr>
</table></td></tr>
<tr><td>Data aggregation methods</td><td>• All coal plies where multiple coal quality samples were taken were given composite coal quality values. These composite values were calculated using Maptek's Vulcan modelling software (Coal Compositing application). Density values were weighted by thickness; all raw coal parameters were weighted by thickness and density (ad), i.e., mass weighted.
• Reported coal quality is for ply only.</td></tr>
<tr><td>Relationship between mineralisat-ion widths</td><td>• Seam thicknesses have been reconciled to geophysics where available to ensure accuracy.
• Coal resource modelling and estimation methods adjust for seam thickness versus the apparent thickness</td></tr>
</table>

Criteria	Commentary
and intercept lengths	
Diagrams	• Due to the large number of accompanying plans, no plans are embedded in this table. Rather they have been embedded in the main text of the Resource Statement where appropriate or attached as Appendices. • Please refer to Appendices B, C, D & E for Resource Area, Structure Thickness, Raw Ash and Structure Floor pans respectively.
Balanced reporting	• All available validated data has been included in the geological model and associated resources report. • Coal resources are report by ply, confidence level (Measured, Indicated & Inferred), depth and tenement.
Other substantive exploration data	• 2D seismic surveys provide substantive information on the structure of the area, particularly with respect to faulting. • Magnetic (airborne & ground) have been used to delineate dykes and plugs. • Underground mine survey data supplements drilling particular for dyke and fault definition. • Geotechnical, hydrological and gas testing and studies have been carried out.

Further work	• Previous studies have this deposit at pre-feasibility stage. Studies beyond this will require additional drilling to:
	  • raise the status of some resources within possible mine plans to measure status;
	  • to add further definition to LOX line;
	  • to provide additional coal quality information on less well sampled seams/plies; and
	  • to gather additional geotech data.

SECTION 3 – ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	Commentary
Database integrity	• All borehole data have been stored in an acQuire database, which incorporates automated validation procedures. • Lithological logs, wireline geophysical logs, assay results and coal intersection depths have been reconciled in previous modelling and resource estimations. • Spot checks of intervals against geophysical logs reveal no systematic errors.
Site visits	• The Competent Person has visited the site, toured the underground workings and the site facilities. • The Competent Person has extensive experience with Hunter Valley coal deposits, with on-the-ground experience at Mount Arthur, Hunter Valley Operations, Ravensworth, United, Wambo, Mt Thorley-Warkworth, and Mt Owen.
Geological interpretation	• The geological interpretation for this resource estimate is based in the integration of all borehole and coal quality data. • There is sufficient drilling data to allow an unambiguous interpretation of the area. • The interpretation is consistent with previous work on the deposit.
Dimensions	• The Dartbrook resource is approximately 6.4 km along strike by 5 km downdip. • The area bounded by the tenements reported in this statement is 3,832 hectares. • The resource dips to the northwest and the lowest seam is ~520m deep in the west.
Estimation and modelling techniques	• Geological modelling was carried out by Palaris using Minex software. • Coal quality modelling and resource estimation has been carried out by the Competent Person using Version 9 of Maptek's VULCAN 3-D geological modelling software. • The model is of the coal plies only (not working sections) and with waste modelled as a default.

Criteria	Commentary
	• Ply structure modelling (10x10m grid) is based on triangulation of the structure roof and floor intercepts corrected for borehole deviation. • Coal quality models (100x100m grid) are generated using the Inverse Distance interpolation (Power =1, points =5).
Moisture	• Air dry Relative Density and Inherent Moisture are modelled from directly from analytical data for each ply. • *In situ* Moisture is calculated using the seam average Moisture Holding Capacity using the ACARP Report C10041 formula as follows: • *In situ* Moisture = 1.1431 x Moisture Holding Capacity (MHC) +0.348. • For an MHC of 8.0% the calculated average *in situ* Moisture is 9.5%.
Cut-off parameters	• Minimum ply thickness for resource calculation is 30cm. • A cut-off grade of 45% ash has been applied. • Strip ratio to the basal seam is always <6:1 and amenable to assessment as an open cut resources. • Western boundary of the resource is defined by the lease boundaries.
Mining factors or assumptions	• A 2011 pre-feasibility study has indicated the deposit is viable for large-scale deep open cut mining. • Further mining studies will be required to determine the most appropriate open cut mining method.
Metallurgical factors or assumptions	• This coal resource estimation is based on the assumption that most of the coal will require beneficiation prior to export, allowing a range of export-grade thermal products to be produced
Environmen-tal factors or assumptions	• .Resources occurring under the Hunter River alluvial lands have been estimated, but classified as underground potential only.

Bulk density	• .*In situ* density has been estimated using the Preston & Sanders formula using:
	  • Air dried Relative Density and Inherent Moisture modelled directly from analytical data for each ply.
	  • In situ Moisture calculated from MHC as detailed previously.

Classification	• The criteria adopted to determine the resource status are broadly those outlined in Guidelines for the Estimation and Classification of Coal Resources – 2014 Edition prepared by the Coalfield Geology Council of New South Wales and the Queensland Resources Council.
	• The salient points for resource categorisation are:
	  • A quality point of observation (POB) for each ply is defined as a cored hole with coal recovery of >90 % and having raw ash data. NB., most samples with raw ash data have corresponding washability data (either analysed or interpolated – see section 6.5) which will support future reserves estimation. Measured and Indicated resource limits are defined by quality POBs.
	  • A structural point of observation for each ply is defined as a ply borehole intercept with downhole geophysics and/or a fully cored section. The most of structural boreholes have downhole geophysics. Inferred resource limits are defined by quantity POBs.
	  • Supporting data for coal continuity are holes with downhole geophysics and 2D seismic surveys over the area.
	  • The project area is considered to be a single structural domain, with the dykes being exclusion zones rather than domain boundaries
	  • Overall confidence in the geological interpretation of the deposit is high. This is due to the number of boreholes and the relatively low variability shown by the laterally

Criteria	Commentary
	consistent seam dip and lack of structural domain boundaries. The area has been underground mined in the Wynn Upper and Kayuga seams, providing direct evidence of the coal continuity in the mined seams. • The igneous geology is well understood and underground mining shows that dykes and plugs have a very limited effect on the quality of the coal in the contact zone. • Ply thickness contours indicate strong continuity and consistency with local trending. Significant effort has been put into detailed ply correlations across the deposit. The correlation is aided by good stratigraphic markers and facilitated by downhole geophysics and detailed core logging. • The density and location of coal quality points of observation (POB) and the consistency of coal quality data and ply/working section thickness, based on statistical analysis and spatial distribution. • Raw ash is not as consistent as the ply thickness but it is still reasonably consistent with low coefficients of variation for individual plies. The consistency of raw coal ash is a feature of this area and provides additional confidence in the resource classification. • Results from 2016 geostatistical analyses, while not exhaustive, indicate that the borehole spacing criteria used in the previous assessments is conservative (Measured=500m, Indicated=1000m, Inferred=2000m). Therefore, the classification is broadly based on these spacings, but extend over short distances (~100m for measured, ~150m for indicated) between adjacent boreholes where ply thickness and ash show good continuity. • Extrapolation of the resource limits beyond the last POB to approx. 2km. This is in keeping with previous resource estimations, and it is also supported by the regional geology, observations and the author's knowledge of adjacent leases.
Audits or reviews	• No audit of this resource estimation has been carried out to date. • The Palaris structure model and the Vulcan structure model generated by JB Mining Services in January 2016 and used for a previous resource statement were used to perform a resource estimation check for a small polygon outside the previously mined area. Volume and mass differences of less than 1% were demonstrated.
Discussion of relative accuracy/ confidence	• .The lateral consistency of the coal ply structure (thickness and position) combined with adequate borehole density (spacing in the order of 250m) provides high confidence in structural definition over the majority of the deposit. • Coal quality is marginally less laterally consistent and the coal quality borehole density (spacing 250m to 500m) is sparser. • Measured and Indicated resource classification is essentially determined by quality POBs; Inferred by structure POBs. • Confidence is reflected in the categories applied to the resource estimates.

JORC Code, 2012 Edition – Table 1 report template

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary

Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*
	• *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*
		• The Dartbrook Open Cut Mine Project (the "Project") is in the Hunter Valley of New South Wales.
		• It is owned by Australian Pacific Coal ("AQC" or "the company") through owning all shares in AQC Investments 2 Pty Ltd.
		• AQC completed the acquisition of the Dartbrook assets from the joint venture partners in May 2017.
		• The tenements of Dartbrook consist of 1 coal and 3 mining leases and 3 exploration leases and 1 authorisation:
		  ○ Coal Lease 386 – expiry 19/12/2033
		  ○ Mining Lease 1381 – pending renewal
		  ○ Mining Lease 1456 – expiry 26/09/2020
		  ○ Mining Lease 1497 – expiry 05/12/2022
		  ○ Exploration Lease 4574 – Pending Renewal
		  ○ Exploration Lease 4575 – Pending Renewal
		  ○ Exploration Lease 5535 – Pending Renewal
		  ○ Authorisation 256 – Pending Renewal
		• Tenements are either current or under approval for extension, with the NSW Government Department of Industry Mineral Resources and Energy. (DRG)
		• Resource estimate has been undertaken by Lynne Banwell of Collective Experience, working for GPPH and Associates of 541 High Street Maitland NSW 2320. The Resource Statement was reported for AQC 27 June 2017.
		• The geological model was a ply and grid model generated in Vulcan and Minex software.
		  ○ Structure (including subsidence) created in 2010 by Polaris in Minex.
		  ○ Raw coal quality model created in 2012 by Lynn Banwell of Collective Experience.
		  ○ Washed coal quality database March 2017 GPPH, based on the slim and LD core wash analysis. (data points were interpolated into the grids a for seams with sparse data). This was a subdivision of the wash sampling undertaken on a working section basis, split into the different ply constituents.
		• The Coal Resources are reported inclusive of the Coal Reserves.

Criteria	JORC Code explanation	Commentary

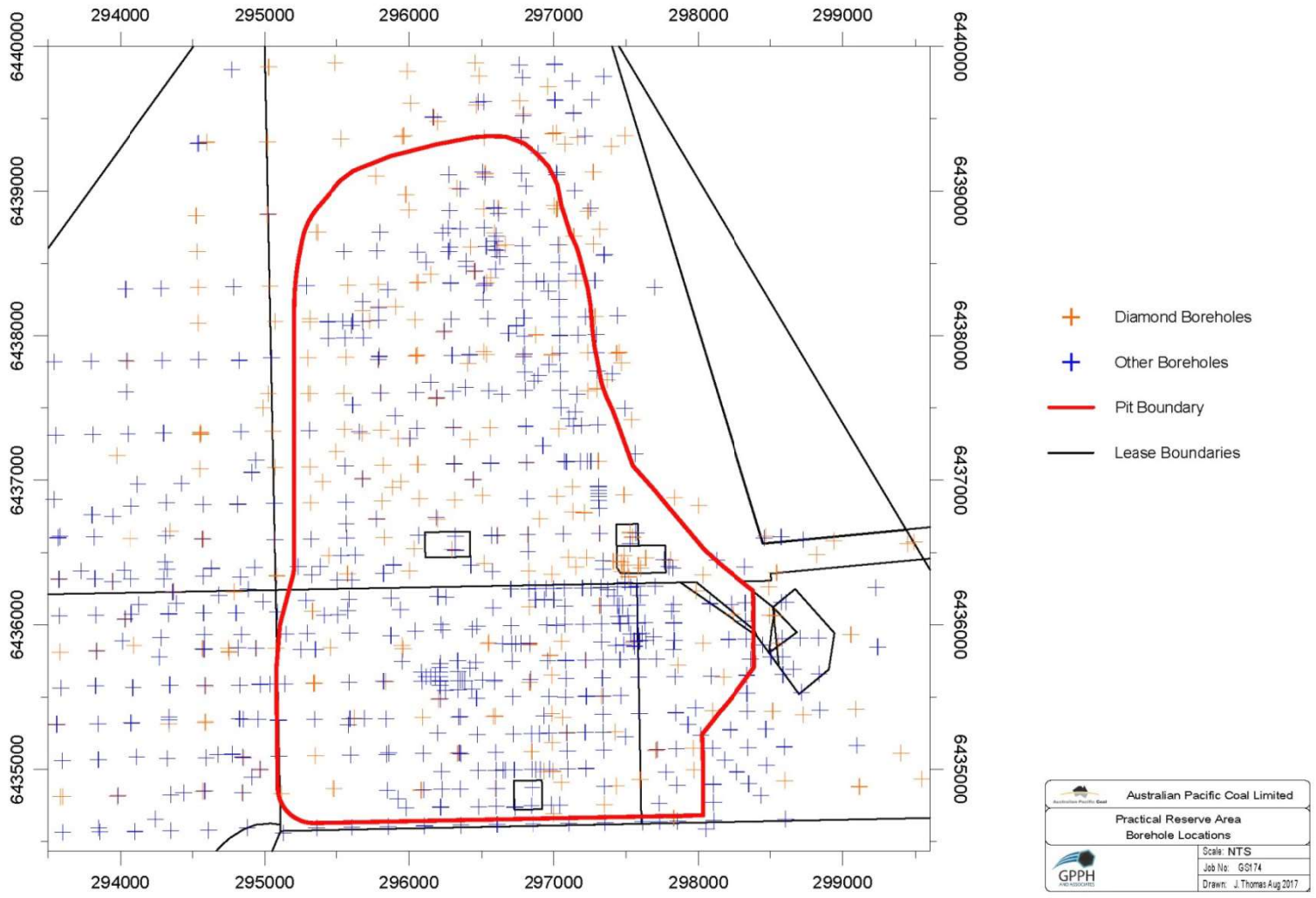
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*
	• *If no site visits have been undertaken indicate why this is the case.*
		The Competent Person is familiar with the site having worked on the site with the previous owner of the deposit. (AAMC) from 2007 until 2011.
		• Several site visits have been undertaken by the Competent Person.
		  ○ Underground tours of the Hunter Tunnel, Wynn and Kayuga Seam workings to the current seals. May 2017
		  ○ Field visits to the site and infrastructure. March, June 2017
		• Site visits were invaluable to identify the extent and influence of the igneous intrusions identified underground, the extent of seam splits identified in the highwall of the Kayuga Boxcut and underground workings and observations of the wet and dry underground workings on the Hunter River Tunnel and Wynn Seam mains.

Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.*	• The Project Pre-Feasibility Study (PFS) evaluated the economics of the project to export thermal coal through the Port of Newcastle. The PFS identified a technically viable and economic case for the project.
		• The Project consists of:
		  ○ existing coal handling and preparation plant,
		  ○ product stock yard with stacking and reclaim equipment,
		  ○ train load out and balloon rail loop interconnected to the Hunter Valley Coal Chain.
		• The Project proposes to develop an open cut mine with:
		  ○ in-pit crushing and conveyor systems (IPCC)
		  ○ a series of overburden emplacement areas (OEA),
		  ○ covered over land conveyors,
		  ○ Run of Mine (ROM) stockpile,
		  ○ coal stockpile spreaders,
		  ○ coal crushing and sampling station,
		  ○ CHPP upgrades with a return rejects conveyor system
		  ○ supporting site infrastructure.

Criteria	JORC Code explanation	Commentary
Study status	• *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• The Project completed the convergent phase of the PFS with the selected IPCC mining method case. The divergent phase of the PFS was undertaken by GPPH for AAMC. The divergent study reviewed options of pit depth, mining method, and equipment selection. Concluding there were limited options for traditional Truck Excavator cases at Dartbrook. • The Project will use standard excavator truck haulage in pit to the IPCC hoppers. • Hauls are flat and short <~2km, with the crusher located within 30 m elevation of the mining faces. • Overburden (OB) will be stacked in the OEA and when sufficient space is available the overburden will also be placed in pit emplacement area (IEA). • The project targets to produce up to 12 Mtpa of coal product by mining up to 15 Mtpa of ROM coal. The coal preparation and washability has been designed around the 11 large diameter core holes and the multiple slim core washability for the deposit. See ***Figure 1 Exploration Bore holes*** • The PFS finalised March 2018 was compiled to a Class 4 Estimate level, it used a methodology of semi detailed material take-offs, budget vendor estimates. Engineering and cost estimates have been estimated at a +/- 25% level. • This statement has been reported under the JORC 2012 Edition reporting code, • Modifying factors derived in the PFS, detailed below, have been used in the estimation of the Reserve.

Criteria	JORC Code explanation	Commentary

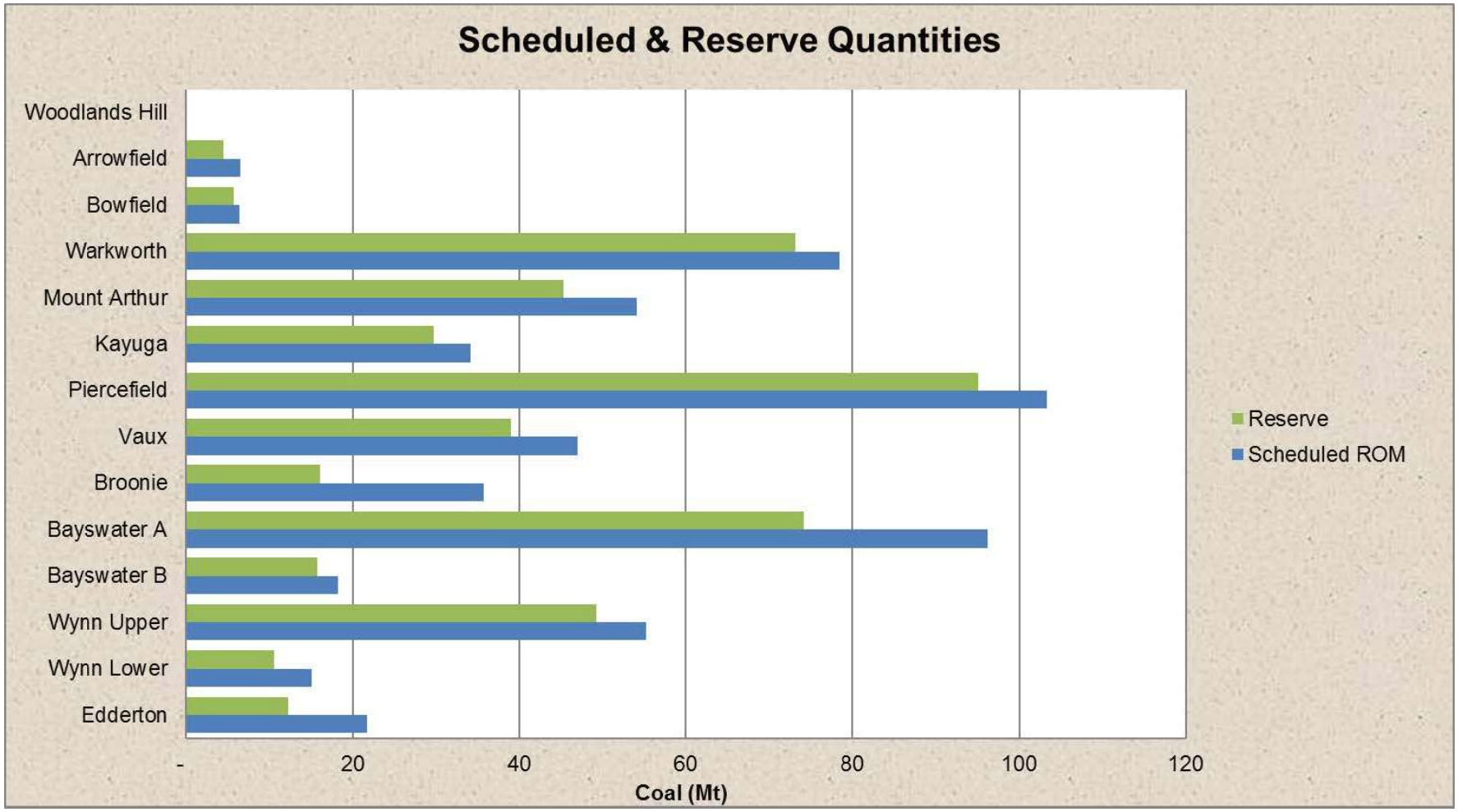
Figure 1 Exploration Bore holes

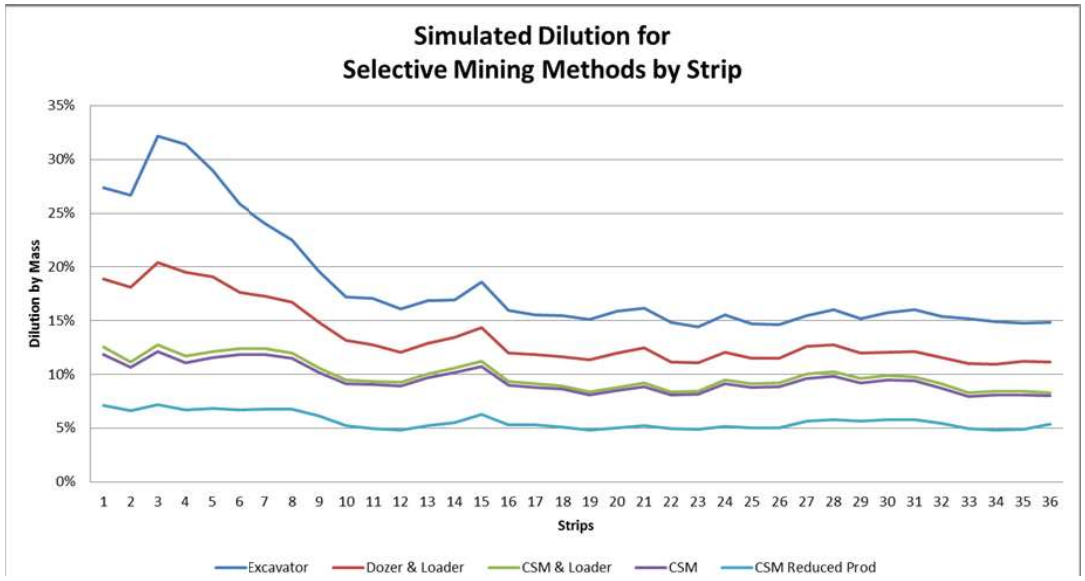


Criteria	JORC Code explanation	Commentary
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• Coal has been defined in the resources with a grade limitation of less than 45% ash and greater than 0.3m thick • Coal working sections were defined based on the individual coal ply variability. Noting the coalescing and splitting identified as a regional issue in the coal structural model.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* •	• The Coal Resources were reported on a ply model basis. • The raw ply grids were combined under the working section rules listed below. • Working sections are defined by the following structural occurrences: ❒ splitting & coalescing of coal plies; ❒ degradation of ply horizons; ❒ gradual thickening of multiple interburden horizons; and, ❒ rapid thickening of interburden (palaeochannels). • Working section definition uses the following criteria: ❒ Minimum ply and sequence thickness of ❒ 0.1m for grades lower than 14% ❒ 0.5m for grades greater than 14% ❒ 0.5m for any working section separated by 5 m of waste or more ❒ 1m for areas affected by underground mining. ❒ Ratio of not less than 2.7t of coal per BCM of waste. • Any coal greater than 50% ash is treated as waste. • The coal in the working sections may contain some material that is not categorised as Measured or Indicated resource. This other material has been included as a coal in the working section, where it is defined in the model as coal. Where it is partings then the quantity and assumed dilution quality has been included into the working section calculations. The working section maintains the classification if the percentage resource in the working section is 75% or greater (Measured and/or Indicated). This assumption was applied because of the existence of thick working sections of 25m or greater of which the resources are unable to recover sufficient core across the entire working section profile. • The chart below ***Figure 2 – PRA Scheduled Rom Coal and* Reserve by *Seam Group*** illustrates the proportions of Reserve and ROM material in the schedule. As can be seen there are some identified seam working sections that have a proportion of non-reserve coal. The non-reserve quantity represents 17% of the total schedule material in the PRA.

Criteria	JORC Code explanation	Commentary

Figure 2 – PRA Scheduled ROM Coal and Reserve by Seam Group

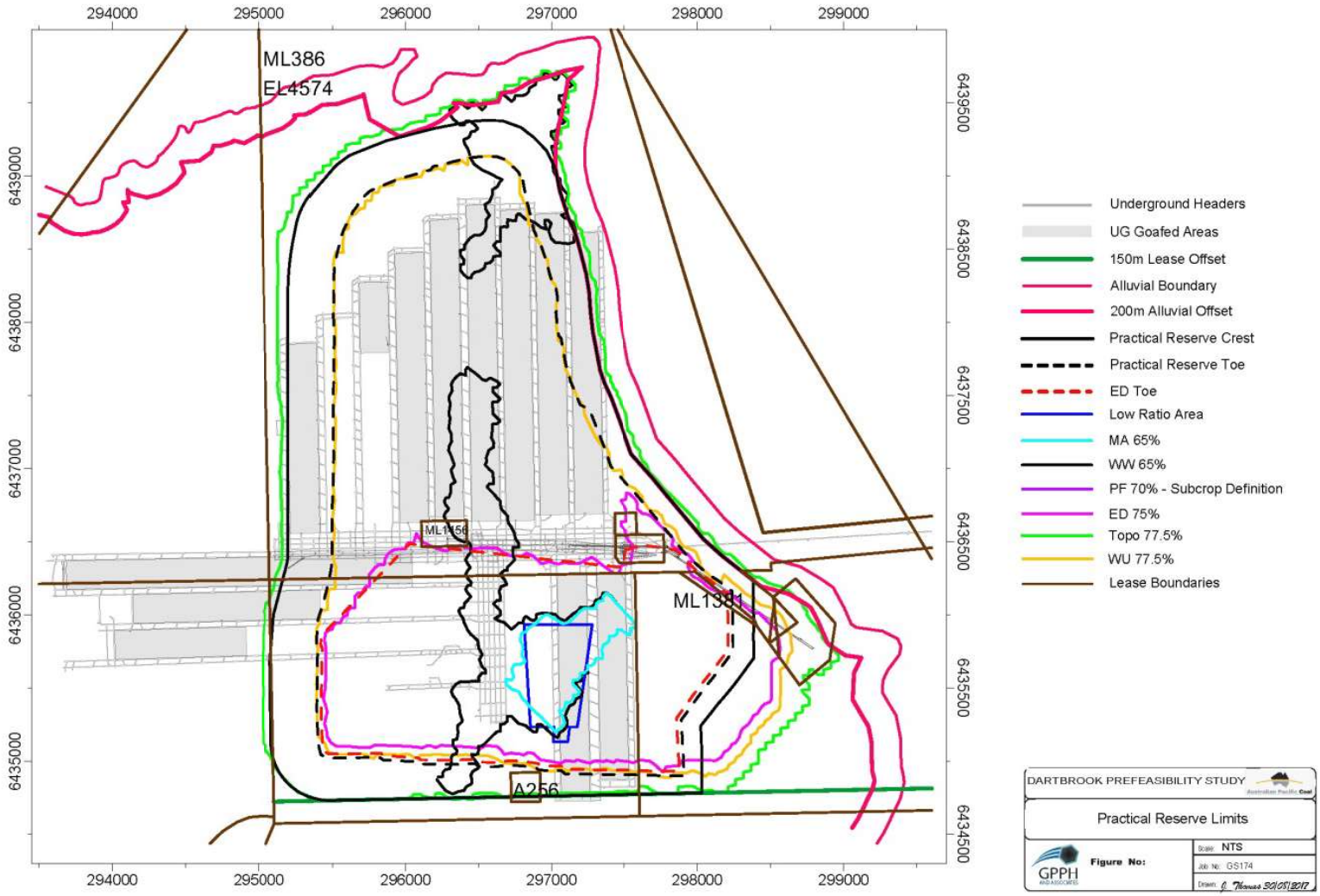


Criteria	JORC Code explanation	Commentary
Mining factors or assumptions (Continued)	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.*	• The Competent Person has reviewed the equipment selection and mining method for the Project as appropriate and notes the work designed to lower the mining method impact, reducing the approval risk. • The mining method has been specifically designed around the capacity and requirements of the IPCC system. • The productivity of the IPCC system is the key driver early in the operations. • Truck haul profiles are short and flat, throughout the mine life. • The selective coal recovery and mining with CSM's, adds significant advantage to the project and allows an increase in production throughput of the CHPP via the quantity of coal able to be bypassed to product. • The use of selective mining techniques is predicted to recover 7-8% ROM coal over conventional dozer and excavator recoveries. The use of surface miners particularly in the early years allows the recovery of greater portions of the coal. See ***Figure 3 - Dilution Estimation*** below. **Figure 3 - Dilution Estimation**  One key observation of the deposit is that the seam qualities and thickness generally improve to the west.

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions (continued)	• *The assumptions made regarding geotechnical parameters (egg pit slopes, stope sizes, etc.), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).*	• Due to the increased recovery and cleaner coal there is a greater percentage of the ROM coal product that can then be directly bypassed to Marketable coal. The use of the surface miners has facilitated an improvement of 10-15 % in the bypass capacity. This has a direct impact on the revenue and project profitability. Even at slower operating rates the improved recovery and overall plant throughput improves the project viability. Normal excavator dozer truck recovery systems will reduce the plant throughput and reduce the overall marketable product. As shown in **Figure 3** above. • Insitu Coal Moisture basis has been adjusted to a 9.5% moisture basis for Insitu density. ROM coal is on a 10% moisture basis, this is bypass product moisture. Washed product moisture is at a 12% basis. Historic Dartbrook shipments were at a 12 % moisture basis as surveyed and sampled by cargo. • Mining Loss 2%, Geological Loss 3%, to allow for variability and spillage. Edge loss is 0%, as a 50-200m buffer is designed into the benches and OB will be buffer blasted. Roof loss is dip dependent, dips less than 8% 0.025 m, 8-14% 0.03m, greater than 14% 0.075m. has been applied. This is based on the use of surface miners for dips less than 14% and Excavator and dozer for dips greater than 14%. Floor Loss is 0.025m • Pit designs are based on a geotechnical report from Holt which defined a safe working slope for the long-term stability of the deposit. Overall wall angles are 45 ^{o} in the weathered material with good drain management and 49 ^{o} overall for the highwalls. The EOA areas are designed with a 15m high pass and a 45m low pass. Overburden swell factors of +30% have been applied. The rill angle of the OEA material is 37^{o}. • Final rehabilitation slopes are planned at 10^{o}. • The deposit was evaluated with an optimisation process with the cost of mining varying for depth, distance and product quality. • The product calculation was based on regressions with practical offsets evaluated from washability estimates undertaken on large diameter and slim core samples. • The optimisation identified a series of pit shells that mined to the target basal seam (Edderton). The Practical Reserve Area (PRA) was defined by combining features of the 70% and 77.5 % forcing factor shells. With the eastern pit wall being defined by 70% shell. • The Western limit was defined by the 77.5% shell. The remainder of the pit was defined by the limit of 200 m from the known Alluvium line. (defined by previous trenching exploration). Refer ***Figure 4 – PRA Pit Limits***

Criteria	JORC Code explanation	Commentary

Figure 4 – PRA Pit Limits



Criteria	JORC Code explanation	Commentary

Mining factors or assumptions (continued)	• *The mining dilution factors used.*
	• *The mining recovery factors used.*
	• *Any minimum mining widths used.*
	• *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.*
	• *The infrastructure requirements of the selected mining methods.*
		• Working section dilution is dip dependent, dips less than 8% 0.025 m, 8-14% 0.03m, greater than 14% 0.075m, Roof dilution 0.025m
		• High ash cut off of 50% has been applied, based on the incremental washed ash from the CHPP being approximately 50%.
		• Maximum partings thickness included in the coal working section is dependent on location. Where the coal working section is:
		  ○ within 30m above a goafed longwall panel the partings less than 1m thick are included,
		  ○ if the dip gradient is less than 14% then the partings thickness drops to 0.1 m,
		  ○ if the dip gradient is greater than 14% the minimum partings thickness is 0.5m
		• Minimum coal thickness where the coal is within 30m above a goafed longwall panel and the coal less than 1m thick are included in the working section:
		  ○ if the dip gradient is less than 14% then the partings thickness drops to 0.1 m,
		  ○ if the dip gradient is greater than 14% the minimum partings thickness is 0.5m

Mining factors or assumptions (continued)	• *The mining dilution factors used.*
	• *The mining recovery factors used.*
	• *Any minimum mining widths used.*
	• *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.*
	• *The infrastructure requirements of the selected mining methods.*
		• Minimum sequence thickness and separation, if the coal working section is less than or equal to 0.5 m thick, and the next nearest coal working section is greater than 5 m away the coal is wasted.
		• Dilution default quality, Ash 85%, TS 0.1%, Moisture 9.5% Density 2.2
		• As noted in the geology Resources statement there are many coal plies >110 which exist in the 13 seam groups in the deposit. These plies split and join to make 350 different working sections across the pit area
		• Infrastructure for the Project is designed and costed in the PFS. The infrastructure required is limited to the coal and overburden IPCC and conveying systems, heavy equipment workshop and facilities, high voltage power connection modifications, coal stockpiling, sizing and stacking and bypass facilities and associated surface water management. All planned infrastructure has a precedent in the Hunter Valley or other Australian applications.
		• Major infrastructure already exists on site from the Dartbrook underground mine. It has been kept in good order on Care and Maintenance since 2006. This includes:
		  ○ A coal preparation plant.
		  ○ A coal handling and product yard.
		  ○ A train load out and rail balloon loop connected to the Hunter Valley Coal Chain.
		  ○ Administration, bathhouse and warehousing facilities.
		  ○ Hunter Tunnel, Kayuga and Wynn seam underground operations.
		  ○ Surface and underground water management systems.
		  ○ Staged discharge dam and Licensing to the Hunter River Salinity Trading Scheme (HRSTS).
		  ○ Road access from the New England Highway, Dartbrook and Kayuga Roads.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* •	• The proposed coal processing of the Dartbrook coals will run through the CHPP that produced 25 Mt of coal from 1996-2006. The alterations and upgrades to the plant include debottlenecking for the different coal seams now proposed as coal feed. A summary of the historic shipment qualities of the Kayuga seam shipments is listed in ***Table 1 - Average Shipment Quality 2004-2006.*** Though the previous underground operation mined a selected seam section the PRA and PFS target the production of two coal products from the many working sections present in the deposit. The historic production improves the confidence in the end products achieving the target qualities.

Table 5 - Average Shipment Quality 2004-2006

Parameter	Value	Shipments
Total Moisture (AR)	12.7%	62
Inherent Moisture (AD)	2.5%	62
Ash (AD)	11.5%	62
Volatile Matter (AD)	34.0%	62
Total Sulphur (AD)	0.35%	62
CV (GAR)	6960	62
CV (GAD)	6241	62
Nitrogen (DAF)	1.76%	461
HGI	59	57
AFT (Initial Defm Red)	1303°c	40
Size (-2mm)	23.4%	52

- The upgrades include additional spirals, New flotation circuit, flotation product dewatering, additional thickener and thickener underflow dewatering. These items are engineered to allow the plant to achieve a nominal 1000t/hr feed rate for 7000 hours per year.
- The ROM coal will be mined and conveyed at a 2500-3000tph rate to the ROM stockpile. The coal will be differentially stacked and dozed out as required.

Criteria	JORC Code explanation	Commentary
. Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• Washability analysis was undertaken on slim and large diameter cores for most of the plies. Feed to the CHPP will be consistent, e.g. mining of the BOU21-WUA11 working section will take weeks to months. With a selected process and mining location operating for several weeks to months. (e.g. Broonie Bayswater Wynn Seam working section thickness of +20 m thick for the panel length of 1.8km and a panel width of 200m at a density of 1.4 is equivalent to15Mt) • The product specifications defined for the two products produced have been favorably analysed against the export market standards. • Dartbrook Premium **Table 1 Current Specification for Dartbrook Premium (High Energy)**

		As Received	Air Dried	Dry	Dry Ash Free
Total Moisture	%	11.0			
Inherent Moisture	%		4.5		
Ash	%	12.00	12.9	13.5	
Volatile Matter	%	29.5	31.7	33.2	38.4
Fixed Carbon	%	47.5	50.9	53.3	61.6
Total Sulphur	%	0.37	0.40	0.42	0.48
Chlorine	%	0.02	0.02	0.02	0.02
Hardgrove Grindability Index	%		52.0		
Specific Energy					
Net	kcal/kg	5835			
Gross	Kcal/kg	6100	6545	6855	7920
	BTU/lb	10980	11780	12340	14260
	Mj/kg	25.54	27.40	28.70	33.16

Criteria	JORC Code explanation	Commentary
	•	Dartbrook Standard

Table 2 Current Specification Dartbrook Standard (Low Energy)

		As Received	Air Dried	Dry	Dry Ash Free
Total Moisture	%	11.0			
Inherent Moisture	%		4.5		
Ash	%	19.0	20.4	21.4	
Volatile Matter	%	26.9	28.8	30.2	38.4
Fixed Carbon	%	43.1	46.3	48.5	61.6
Total Sulphur	%	0.36	0.39	0.41	0.52
Chlorine	%	0.02	0.02	0.02	0.03
Hardgrove Grindability Index	%		53.0		
Specific Energy					
Net	kcal/kg	5280			
Gross	Kcal/kg	5545	5950	6230	7920
	BTU/lb	9980	10710	11210	14260
	Mj/kg	23.22	24.91	26.08	33.16

Criteria	JORC Code explanation	Commentary
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• The PFS is completed. An EIS is being prepared for approval of the Dartbrook Open Cut Development approval. Preliminary studies have completed for noise modelling, dust modelling, visual amenity, ground water, surface water, geochemistry, geotechnical studies, coal and overburden spontaneous combustion testing, native vegetation and land use, aboriginal and other heritage surveys. • Ongoing community consultation has progressed through the Dartbrook Community consultative committee for the Dartbrook underground operations (care and maintenance) status. • Previous studies of the divergent phase of the PFS reviewed geo technical data and analysis of the overburden and highwall stability. This work identified the pit to be long term stable Factor of Safety 1.7 to 1.8.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• The Project will use the facilities and infrastructure already in place from the previous underground operations. A new high voltage power connection is required for the upgraded power demand. The connection point is either Muswellbrook or Aberdeen, 10 or 4 km distant to the project. The train load out and balloon train loading loop connected to the Hunter Valley coal chain gives direct access to the port of Newcastle. Discussions with above and below rail freight providers, formed the basis of the PFS rail cost estimate. • As the Project is in the Hunter Valley, the Project will source personnel from the local community and surround areas where a skilled work force is existing.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* •	• Capital costs were based on budget quotes and estimates from OEM's compiled into a financial database. • Operating costs were tabulated in the financial model from OEM base data and recommended Life cycle costing. Budget quotes were sourced for all major consumables. • The estimation of dilution was defined above in working section determination. The dilution was carried through in the ROM calculation and added to the CHPP feed. • Coal price forecasts were obtained through the PFS from Chris Hartley, (Hartley Coal & Resource Marketing Pty Ltd) and Wood Mackenzie forecasts. Marketing to a cross section of potential customers has been factored into the revenue stream.

Criteria	JORC Code explanation	Commentary
Costs	• *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The allowances made for royalties payable, both Government and private.*	• Government Royalties of 8.2 % of saleable product minus an allowance of AUD3.2/t for washing costs. • A separate royalty to previous owners for the first 10 Mt. • A AUD2.5M capital fee for a rail passing line extension is also included. • USD : AUD 0.75 EUR : AUD 0.65. Assumed exchange rates from the PFS.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*	• The Product coal is sold on an energy adjusted basis. The adjustments to revenue are for Moisture, Ash and Sulphur. As the product qualities are all in acceptable ranges no penalties have been used to adjust the price other than for energy adjustment. • Forecast prices for the two products are listed. ***Table 4*** • Coal Price forecast. Real long-term pricing is USD 83 and USD 72 for Premium and Standard respectively.

Criteria	JORC Code explanation	Commentary

Table 3 – Price Forecast

Dartbrook Standard

FOB prices		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Forecast Price @ (gar)	US$/t	65	66	67	69	70	70	70	70	69	69	69	71	72

Dartbrook Premium

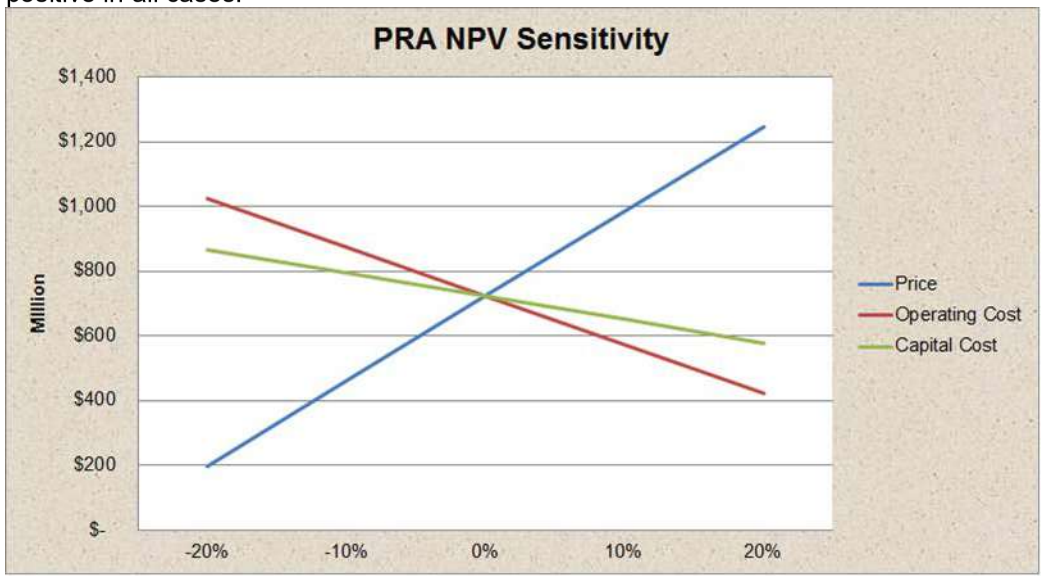
FOB prices		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Forecast Price @ (gar)	US$/t	73	74	75	77	78	78	78	79	80	80	80	82	83

•

Market assessment

- *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.*
- *A customer and competitor analysis along with the identification of likely market windows for the product.*
- *Price and volume forecasts and the basis for these forecasts.*

- The project has produced and sold 25Mt into the SE Asian Export coal market. The product planned is similar to the previous specification sold by Dartbrook.
- The market research identified a reducing supply of the Premium quality coal. That this product type would fit into. The scheduled life and stability of the product quality would make an attractive commodity.
- The main competitors are from Australia and Indonesia. Market analysis proposed a Flat market demand with some restrictions on supply.

Criteria	JORC Code explanation	Commentary
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• All major capital and operating costs are based on budget quotes and engineered quantities. • Minor capital items have been drawn from a data base of previous estimates and escalated to the current date where necessary. • Sensitivities of Price, Capital and Operating cost were varied by 20% The Project NPV remained positive in all cases.  • The Incremental rate of return (IRR) of the remaining PRA after the mining of the Approval pit was 50% with a positive NPV
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• The Project has an active Community Consultative committee. The company is currently engaged with levels of the community stakeholders and government departments.

Criteria	JORC Code explanation	Commentary
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals.*	• All Reserves have been classified as Probable due to sovereign risk associated with the NSW government approval process. As actions by various lobby groups have delayed or terminated projects in NSW over recent times. • The risks have been reviewed in a project review workshop. The main significant risks were associated with approvals and volatility of coal pricing. Other mining risks were evaluated and mitigation measures proposed for further analysis in the next stages of the project: ○ Spontaneous combustion, ○ Gas make, and ○ Mining through underground workings. ○ Highwall stability over voids for LOM highwalls adjacent to the conveyor ramp. ○ Operational acceptance of the IPCC system. These risks are within the projects capacity to manage and mitigate and are not deemed to be significant in terms of reserve classification. • The Company has submitted tenement renewals for leases that are due. The NSW Government Department of Industry Resources & Energy (DRG) is processing the renewals. The Mining leases are listed above. The current expectation from discussions with the DRG is that the leases are proposed to be renewed in full.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• Measured and Indicated Resources have been used in the estimate of Reserves. The combination of Measured and Indicated Resources on a ply basis were accumulated in the working sections defined for mining. Where the total thickness of material that was not Measured or indicated represented 25% of the working section or more the entire working section was not reported as Reserve. • The Competent Person understands the deposit is of state significance. Representing an asset to the company and the state. The reserve is limited by the uncertainty of the approval process or delays to the approvals. The reserve is open at depth. • Across the PRA Pit LOM of 45 years an average of 85% of the Scheduled ROM quantities is Measured or Indicated. A total of 52% of the Probable reserve is derived from Measured Resources.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• The geological model has had a previous Resource statement reported by JB Mining in 2016. Checks were undertaken for the same area of reporting and confirmed the same quantities of coal.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• A previous Reserve for an underground target of the "Dartbrook Kayuga Seam Underground JORC Reserve Statement" by MCS February 2017, was broadly compared for the plies listed in that Statement. The general comparison identified the UG project economics base case to be negative NPV. The "reserve" of 8.8Mt Rom and 6.7Mt product. In comparison, the open cut Reserve for the Kayuga seam inside the underground area had a similar quantity although there were higher recoveries and different working sections with the selectivity available to the Open cut. • A review of the Model and process has identified no fatal flaws for the reporting of reserves.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person.*	• The Competent Person has recommended that a programme of exploration drilling and data gathering for the EIS and into detailed design be completed before the next stage of the Project. The confidence in the geology is high with confirmation of structure given from the previous underground workings. A portion of the Reserve (52%) maybe reclassified from Probable to Proven, with the granting of development approval. • There are however some plies scheduled throughout the LOM schedule that need additional washability and raw coal sampling to modify the Resource and Reserve classifications.
Discussion of relative accuracy/ confidence	• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*	• The risk of coal washability variation is reduced because of the previous test work, and successful operation as an underground mine. However further test work and analysis from the Detailed Feasibility study (DFS) phase 1 exploration programme recommended. • The DFS will address the approvals and risk issues identified including those from the Gateway approval process. Measured and Indicated Resources have been used to define the Proven and Probable Reserves. The combination of working sections has allowed a 75% criteria for Measured or Indicated coal to allow a working section to be classified as probable reserve. For Proven this criterion was set at 75% measured only.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	• *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.*	• The Competent Person used this method with the knowledge of sample recovery of seams in thick working sections. Where the coal mining is planned through goafed workings thick coal working sections form the major part of the goaf. (4.5 m of coal was extracted from the +25m working section.) In these areas, the mining is planned to occur by excavator and have the reduced selectivity. The ROM coal feed from these areas represents less than 17% of the reserve and a smaller % of the ROM coal tonnage. • The selectivity designed into the system for general coal mining will reduce the coal loss and dilution generally compared to the “normal blast/ rip and excavate processes. • The coal mined by the Continuous Surface Miner has used a gradational coal recovery dependent on dip of the coal. As detailed above in the working section rules. As the general dip of the deposit is 3-5 % the surface miners will mine most coal in a panel with edges and walls being the areas mined by the excavator.