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ASX ANNOUNCEMENT
01 August 2017

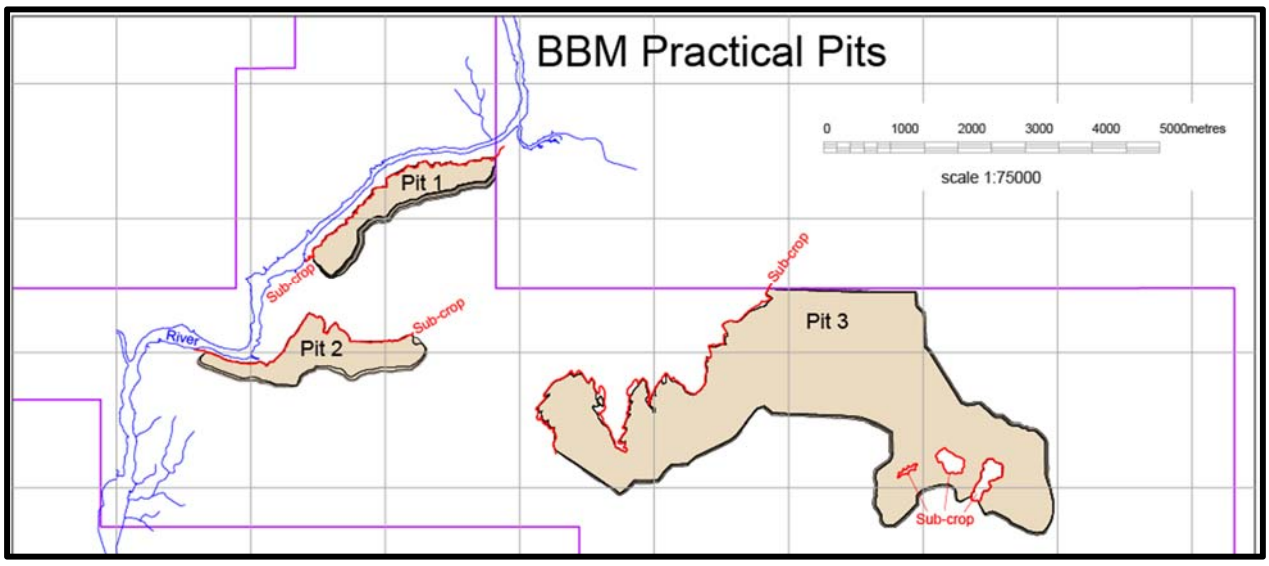
COKAL ANNOUNCES RESERVE UPDATE BUMI BARITO MINERAL (BBM) PROJECT

HIGHLIGHTS

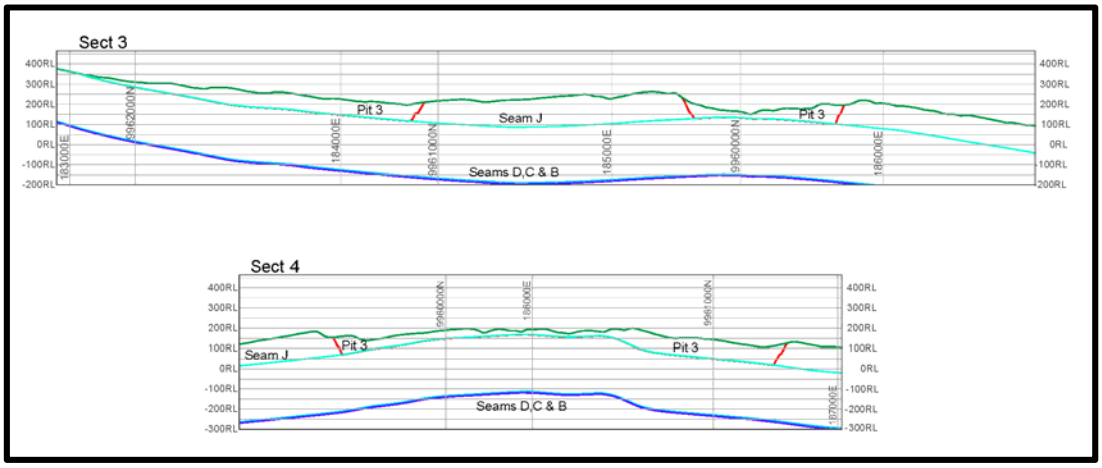
- **Coal Reserve estimate of 20.2Mt of openpit Run-of-Mine (ROM) for BBM, producing 16.9Mt of Marketable Reserves in accordance with the 2012 JORC Code.**
- **Comprised of 13.0Mt Proved and 7.2Mt Probable ROM Reserves, (totalling 20.2Mt ROM coal) for B, C, D and J Seams at US$150/tonne.**
- **Coal Reserves comprise 12.8Mt Coking Coal Product at US$150/tonne and 4.1Mt PCI Product at US$112.50/tonne (totalling 16.9Mt Product coal).**
- **B, C and D coking and Premium PCI (low Vol) products have premium qualities consisting low ash, low sulphur, low moisture and ultra-low phosphorus.**
- **Low Volatile PCI and medium to low Volatile Coking Coal suited to nearby Asian markets.**
- **Construction of BBM Anak port close to completion, barges scheduled to arrive 14th Aug.**
- **Production mid-August planned to produce 10,000t per month of a Premium low Vol PCI.**

Metallurgical coal group Cokal Ltd (ASX:CKA) announces an update to the release of a Coal Reserve statement for economic openpit coal in the eastern portion of the Bumi Barito Mineral (BBM) coal project.

The total Reserve estimate 20.2Mt of Run-of-Mine (ROM) comprises 13Million tonnes (Mt) Proved Reserves, and 7.2Mt Probable Coal Reserves in accordance with the 2012 JORC Code (see Tables 1 and 2). A total Marketable Coal Reserve of 16.9Mt (US$150/t for coking coal and $112.50/t for PCI coal) has been confirmed as metallurgical coal from analyses conducted in an Australian laboratory.



Economic Openpits BBM



Cross Section Through Openpits

The tables below demonstrate the sensitivity of the BBM project as a function of coking coal and PCI sale prices. The economic analysis of BBM's Coal Resources indicated that with additional drilling to convert Inferred Resources to Indicated or Measured Resources, there is potential to delineate additional Coal Reserves.

The J Seam Reserves (5.5Mt Proved and 3.2Mt Probable Product coal) is 100% coking coal. In the case of Seams B, C and D, 3.0Mt Proved and 1.1Mt Probable is Coking Coal Reserves, while 2.4Mt Proved and 1.7Mt Probable is PCI Reserves.

Economic Reserves were determined by using the Definitive Feasibility Study which was prepared in 2014 by Resindo, and recently updated to reflect reduced fuel costs and depreciation of the Rupiah in November, 2016 (see ASX Announcement 2nd November, 2016).

Geotechnical analysis indicated that the pit slope angles of 75°, with 10m berms at every 45m depth, provided a safety factor of 1.59 which is above the minimum regulatory requirement.

Table 1: BBM Coal Reserves by JORC Category

FOB Coking Coal Sale Price ($/Product tonne)	ROM Coal			Coking Product			PCI Product			Total Product Coal		
	Proved (Mt)	Probable (Mt)	Prov + Prob (Mt)	Proved (Mt)	Probable (Mt)	Prov + Prob (Mt)	Proved (Mt)	Probable (Mt)	Prov + Prob (Mt)	Proved (Mt)	Probable (Mt)	Prov + Prob (Mt)
110	7.9	2.7	10.6	4.7	1.3	6	1.8	1	2.8	6.6	2.3	8.9
120	9.8	4.2	14.1	6.2	2.3	8.5	2	1.2	3.3	8.2	3.5	11.7
130	10.4	4.7	15.2	6.6	2.5	9.1	2.2	1.4	3.6	8.7	3.9	12.7
150	**13**	**7.2**	**20.2**	**8.5**	**4.3**	**12.8**	**2.4**	**1.8**	**4.2**	**10.9**	**6**	**16.9**
180	14.7	11.1	25.8	9.8	7	16.8	2.4	2.3	4.7	12.2	9.3	21.5
210	15.2	12.3	27.6	10.2	7.9	18.1	2.5	2.4	4.9	12.7	10.3	23
240	15.9	13.7	29.6	10.6	8.9	19.5	2.6	2.6	5.1	13.2	11.4	24.7

Table 2: BBM Coal Reserves for Coking Coal Product

Coking Coal	Proved Reserves					Probable Reserves					Total Proved + Probable Reserves
	Product Coal (Mt)					Product Coal (Mt)					(Mt)
	Seam				Total	Seam				Total	All Seams
Sale Price	J	D	C	B	Proved	J	D	C	B	Probable	
$110.00	2.4	0.9	0.6	0.7	4.6	1	0.1	0.1	0.1	1.3	5.9
$120.00	3.2	1.2	0.8	0.9	6.1	1.3	0.3	0.4	0.3	2.3	8.4
$130.00	3.6	1.2	0.9	0.9	6.6	1.4	0.4	0.4	0.3	2.5	9.1
$150.00	**5.5**	**1.2**	**0.9**	**0.9**	**8.5**	**3.2**	**0.4**	**0.4**	**0.3**	**4.3**	**12.8**
$180.00	6.8	1.2	0.9	0.9	9.8	5.8	0.4	0.5	0.3	7	16.8
$210.00	7.3	1.2	0.9	0.9	10.3	6.5	0.5	0.5	0.3	7.8	18.1
$240.00	7.6	1.2	0.9	1	10.7	7.5	0.5	0.5	0.4	8.9	19.6

Table 3: BBM Coal Reserves for PCI Coal Product

PCI Coal	Proved Reserves					Probable Reserves					Total Proved + Probable Reserves
	Product Coal (Mt)					Product Coal (Mt)					(Mt)
	Seam				Total	Seam				Total	All Seams
Sale Price	J	D	C	B	Proved	J	D	C	B	Probable	
$82.50	0	0.7	0.7	0.5	1.9	0	0.3	0.3	0.4	1	2.9
$90.00	0	0.8	0.7	0.6	2.1	0	0.4	0.4	0.5	1.3	3.4
$97.50	0	0.8	0.8	0.6	2.2	0	0.5	0.4	0.5	1.4	3.6
$112.50	**0**	**0.9**	**0.8**	**0.7**	**2.4**	**0**	**0.6**	**0.5**	**0.6**	**1.7**	**4.1**
$135.00	0	0.9	0.8	0.7	2.4	0	0.8	0.6	0.8	2.2	4.6
$157.50	0	1	0.8	0.7	2.5	0	0.9	0.7	0.9	2.5	5
$180.00	0	1	0.9	0.7	2.6	0	0.9	0.7	0.9	2.5	5.1

Material Assumptions

The capital and operating costs used by ASEAMCO in the calculation of the Ore Reserve Estimate were defined in the 2014 Definitive Feasibility Study (DFS) prepared by PT Resindo and the October 2016 update to that study (DFS Update) which adjusted the costs for changes in exchange rates and diesel fuel prices. The costs in those studies were derived from a combination of quotations from local Indonesian contractors with experience in Indonesian coal mining operations, independent studies by specialist consultants and an owner cost component developed by PT Resindo with input from Cokal.

The DFS included physicals derived from the life-of-mine schedule developed by ASEAMCO.

The operating costs in US dollars used to estimate ore reserves were:

Item	Unit	Value
Land compensation & clearing	$/ha	6000
Topsoil Removal	$/bcm	1.78
Waste Mining (including blasting)	$/bcm	2.20
Waste Haulage	$/bcm/km	0.30
Coal Mining	$/ROMT	1.885
Haul to ROM Stockpile	$/t.km	0.12
Coal Processing	$/ROMT	1.65
Haul to Port Stockpile	$/t.km	0.12
Port coal handling and barge loading	$/PRODT	1.43
Barging to Kelanis Port	$/PRODT	7.88
Transfer to sea-going barges	$/PRODT	1.50
Barging to ship	$/PRODT	3.98
Rehabilitation, Community Development & Local Gov't	$/PRODT	0.83
Ship loading	$/PRODT	2.52
Marketing	$/PRODT	1.50
General and Administrative	$/PRODT	3.00

The sale prices were set at USD150/tonne FOB for coking coal and USD112.50/tonne FOB for PCI coal.

The coking properties of the marketable reserves were based on testing of a bulk sample at the ALS Riverview laboratory.

Criteria Used for the Classification of Ore Reserves

Ore Reserves were estimated only on the Measured and Indicated portions of the Mineral Resource Estimate. The Ore Reserves are reported to a thickness cut-off of 0.3m in line with the reporting of the Mineral Resources.

It was determined that variations in coking coal sale price would have by far the greatest impact on the estimation of Marketable Reserves. Sensitivity analysis over a wide range of sale prices was therefore undertaken in the pit optimisation process to assess the impact of this Modifying Factor. These sensitivities ranged from USD110/tonne FOB to USD240/tonne FOB for marketable coking coal and 75% of these prices for marketable PCI coal.

Because of a change to the pit design for Pit 1 compared to the DFS waste will need to be either dumped onto land immediately east of the mining tenement outside the project area or else a road will need to be constructed through this area to allow waste to be dumped back in the project area. Land compensation will need to be negotiated with the traditional owners for either of these solutions. It is common practice in Indonesia to seek to construct roads across land which is not owned by the mining company and to pay the traditional owners compensation for the use of this land. This is not considered to be a material issue.

Based on guidelines specified in the 2012 JORC code all Measured Resources falling within the practical pit designs have been classified as Proved Ore Reserves and all Indicated Resources falling within the practical pit designs have been classified as Probable Ore Reserves.

The Mineral Resources in the report are reported inclusive of Ore Reserves.

Mining Method and Assumptions

Waste removal is a major cost in open cut coal mining, particularly in this project where, because of the relatively high value of the coal the volume of waste which can be economically removed for each tonne of coal is quite high. To minimise waste haulage cost it is normal practice to dump waste into the previously mined out strip. However, this is only possible when the dip of the pit floor is flat enough to receive waste without geotechnical instability of the dumps. For this deposit, except for limited situations, the floor dips are generally considered to be too steep to allow in-pit dumping. This means that either, a boxcut is developed to the final highwall and mining progresses using a terrace haul-back method, or waste is taken in strips and is dumped in ex-pit dumps.

To minimise operating costs it is proposed that, except where the distance from the seam subcrop to the final highwall is very short, mining will proceed by removal of waste in strips uncovering the coal below with all waste dumped in ex-pit dumps or along strike against the mined out highwall.

The mining losses and dilutions applied to the resource model in the estimation of the Ore Reserves were:

Parameter	Value
Minimum minable coal thickness	0.3m
Minimum minable parting	0.3m
Mining loss	0.05m
Dilution thickness	0.05m
Waste ash (% adb)	80
Waste density (t/bcm)	2.2

Processing method and assumptions

Coal mined from the pits will be fed via a ROM hopper to a mobile rotary breaker located in the pit as close to the current mining operation as possible which will reduce the haulage distance for the handling of rejects from the rotary breaker. The overflow from the rotary breaker will be directed to a secondary dry screen which will further reduce the ash content of the product. By the end of Year 2 a coal processing plant based on a jig process will be constructed which will accept the overflow from the secondary dry screen. This method is based on a design using a Batac jig provided by MBE (Germany) with a capacity of 150tph.

The overall plant recovery is estimated at 87%.

Coal testing indicates no deleterious elements exist which would have a material impact on the marketability of the coal products.

Cut-off Grades
The cut-off between coking coal and PCI coal was set at a Volatile Matter content of 15% on an air-dried basis. No other cut-offs are required.

Estimation Methodology
The estimation methodology consisted of:

- Loading the geological model into Minex;
- Reviewing the operating costs provided by Cokal, which were backed by recent contractor quotes, and comparing those values with the rates for similar Indonesian operations in ASEAMCO's cost database;
- Assessing the likely loss and dilution which would occur during mining and producing a mining model taking loss and dilution into account;
- Assigning sale values to the Measured and Indicated Resources and setting any Inferred Resources to be mined as waste;
- Running pit optimisation incorporating revenue, cost and geotechnical data to produce a set of nested optimum pits;
- Pit design based on the largest of the nested optimum pits with the logic being that the smaller optimum pits would be used as reporting limits within a mining schedule;
- Assigning resource categories to each seam within the final pit designs and reporting the reserve estimates for those pits;
- Assessing the reserves against the modifying factors and classifying the reserves into Proved and Probable categories.

Material Modifying Factors
The project has following approvals in place:

Description	Number	Issue Date
Clean and Clear Certificate	26/Bb/03/2013	30 May 2012
Pinjam Pakai – Forestry Use Permit	2112/30/DJB/2013	12 Aug 2012
Environmental Feasibility Document (ANDAL, RKL and RPL)	188.44/247/2013	12 Apr 2013
IUP Operation & Production (14980 Ha)	188.45/149/2013	30 Apr 2013

The initial production licence (IUP Operation and Production) has been issued for a period of 20 years. There are no other known environmental issues that would influence the estimation of reserves within the BBM project area.

This is a greenfields project. Development of this project will require the following infrastructure:

Mine Area: In-pit crushing, offices, workshop, warehouse, fuel storage, coal preparation plant, explosives magazine, accommodation and camp facilities.

Purnama Port: This will serve as a coal terminal as well as the main access to and from the mine area. Specific items of development include a materials handling system for receiving coal from trucks and loading to barges, landing barge ramp, fuel unloading facility with storage, offices and emergency stockpile area.

Haul Road: Connecting the Mine Area to Purnama Port over a total distance of 62km and including two substantial bridges over the Osom and Babuat Rivers. This road will support steady-state production haulage for 2Mtpa.

Kelanis Port: This port will be located downstream on the Barito River where the coal will be transferred from smaller river barges to ocean-going barges. Initially coal will be direct transferred from barge to barge. In Phase 2 coal would be transferred via a land-based intermediate stockpile facility which will provide coal supply buffering to the bulk carriers at the offshore loading point. This will mitigate the impact of low river water levels upstream.

Sealed Haul Road Completed

Sealed Stockpile Pad Completed

In the meantime, BBM Anak project continues towards completion of construction. The haul road from the mine site to the stockpile and the barge loading area has been cleared and formed. Drainage gutters and capping are under construction and expected to be completed shortly.

As previously reported, Timber Cruising, (otherwise known as TC in Indonesia, which is the evaluation of timber by the Forestry Dept,) was completed, as was land acquisition and compensation for all areas covered by the mine site, haul road, stockpile and barge loading area. Construction of the barge loading facility is close to completion and barges will arrive in the coming weeks.

Negotiations are well advanced for the sale of BBM Anak's Premium low Volatile PCI coal with initial sales expected to be with domestic users such as mineral processing plants which currently import PCI coals from Australia and Vietnam.

The PCI coal in BBM Anak is included in the Reserves Estimation, and Cokal is confident that it will produce an attractive profit margin for the 10,000t per month production which is expected to commence sometime in August.

Pat Hanna, Cokal Director, said "Although Cokal and its shareholders have had to endure a long period (over two years) of a global downturn in the coal industry, at last we can see the light at the end of the tunnel. Very soon now, Cokal will generate an income from sales of its valuable metallurgical coal and we are confident we can achieve a substantial profit margin."

Consequently, Cokal is considering not to conclude the agreement for a JV partnership with IAA as announced on May 24th, 2017. Development of the infrastructure for BBM Anak will form the basis of the infrastructure for the 0.5mt per annum (mtpa) BBM PCI project as both projects will use the same barge loading port, stockpile and haul road. Upgrading BBM Anak to BBM PCI will cost substantially less than the initial estimates.

Therefore, with the cash flow generated by BBM Anak, Cokal expects that it can develop the 0.5Mt per annum BBM PCI export project without third party funding.

PCI Coal (Seam D) Exposed at BBM Anak Mine Pit.

ENDS

Further enquiries:

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About Cokal Limited

Cokal (ASX:CKA) is an Australian listed company with the objective of becoming a metallurgical coal producer with a global presence. Cokal has interests in four projects in Central Kalimantan, Indonesia considered prospective for metallurgical coal.

Forward Looking Statements

This release includes forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs. Forward looking statements in this release include, but are not limited to, the capital and operating cost estimates and economic analyses from the Study.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the company’s actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of resources or reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the company's business and operations in the future. The company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the company or management or beyond the company's control.

Although the company attempts to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be anticipated, estimated or intended, and many events are beyond the reasonable control of the company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements.

Forward looking statements in this release are given as at the date of issue only. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Competent Person Statement

The Total Coal Reserve estimate is based on information compiled by Robert de Jongh who is a Member of the Australasian Institute of Mining and Metallurgy and a full time employee of ASEAMCO Pty Ltd. Mr de Jongh is a qualified mining engineer and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

The Total Coal Resource estimate was announced on 29 January 2015, titled "Cokal announces updated JORC Resource Statement for Bumi Barito Mineral (BBM) Project". The information in the report relating to Mineral Resources is based on information compiled by Yoga Suryanegara who is a Member of the Australasian Institute of Mining and Metallurgy and a full time employee of Cokal Limited. Mr Suryanegara is a qualified geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

The Company confirms that it is not aware of any new information or data that materially affects the information included in the announcement made on 29 January 2015 and that all material assumptions and technical parameters underpinning the estimates in the announcement made on 29 January 2015 continue to apply and have not materially changed.

The information in this report relating to exploration results is based on information compiled by Patrick Hanna who is a fellow of the Australasian Institute of Mining and Metallurgy and is a consultant (through Hanna Consulting Services) to Cokal Limited. Mr Hanna is a qualified geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking, to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

APPENDIX 1: JORC CODE CHECKLIST

SECTION 1: SAMPLING TECHNIQUES AND DATA	
CRITERIA	**EXPLANATION**
Sampling techniques	Core samples of the coal seams were drilled using standard triple tube diamond core barrels of HQ (62mm) size. The cores were logged by a geologist whilst they remained in the core barrel splits, so that there was minimal disturbance to the core. After the geological logging, a photograph of the core in the core barrel splits was taken to provide a permanent record of the condition of the core. Subsequently the core is wrapped and sealed in plastic to retain the moisture of the coal for the determination of Total Moisture content. It takes on average about 30 minutes for the geologist to log and photograph the core before sealing it in plastic wrap. The core is placed in the core boxes until the borehole is completed and a geophysical log of the borehole has been recorded. Once the core recovery has been confirmed as acceptable to the JORC Code requirements, the coal cores are placed into thick sample bags together with the plastic wrapping to ensure all moisture is captured and measured to determine Total Moisture content. A sample identification tag is placed inside the sample bag and the sample bag is sealed by either tie-wire of masking tape, again to ensure no moisture loss. Once the sample is sealed, it is immediately transported to Australian laboratories for analytical testing. It takes about 4 to 5 days for the core samples to be transported from the drill site to the Australian laboratory. The laboratory has commented that the core samples arrive in peak condition for testing, especially for testing coking properties. Outcrops of coal seams were also sampled for analysis. Coal outcrops were cleared such that a square channel sample could be taken, to ensure a true representation of the full seam (from roof to floor) had been sampled. The outcrops samples were immediately sealed in plastic sample bags and sent to a local laboratory, CCIC in South Kalimantan for analyses within 2 to 3 days of the samples been acquired.
Drilling techniques	Because BBM is a green-field project, and to ensure satisfactory core recovery, Cokal drilled a Pilot Borehole on each site which was open-holed to the target coal seams. A PCD drill bit was used to drill the open-hole using water circulation to remove the chips from the borehole. These Pilot Boreholes were subsequently logged using geophysical sondes to determine the depth, thickness and correlation of the coal seams. This information was used to plan a cored borehole on the same drill site. The drill rig would open-hole down to a few metres above each coal seam, then proceed to core the roof, coal seam and floor using a triple-tube HQ core barrel. A suite of geophysical logs would be recorded for the partially cored borehole to ensure an accurate seam thickness is determined for core recovery estimation.
Drill sample recovery	All boreholes were geophysically logged with a suite of sondes including Gamma-Gamma, Long Spaced Density, Short Spaced Density, Caliper, and Sonic. These logs provided an accurate delineation of each coal seam in terms of depth and thickness, as well as providing a vital tool to determine the correct seam correlation from borehole to borehole. Upon removal from the triple-tubed core barrel, the core remains in the core barrel inner split tube which is handed over to the site geologist. The geologist removes the upper split and proceeds to measure, marked up and photograph the core with a photo board signage. The measurement of the coal core is recorded for subsequent reconciliation with the geophysical log estimate of seam thickness. The core was generally recovered as complete sticks of core. However, if the core was broken, it was compressed in the core splits so as to form a close resemblance to a solid stick of core. The core recovery measurement would be conducted on the solid sticks and compressed broken core pieces to determine a

SECTION 1: SAMPLING TECHNIQUES AND DATA	
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	true core recovery result. All core samples were measured to ensure they achieved a minimum recovery of 90% or greater. Failure to do so would invoke the redrill clause in the drill contract whereby the driller would re-drill the partially cored borehole at their expense until they achieved a recovery of 90% or greater. The overall average core recovery achieved was 95%. Upon further review and comparison of coal quality analytical results between recent outcrop channel samples and nearby earlier borehole core sample results, it is now believed that these early core samples were significantly contaminated with drill mud and non-coal material which collapsed in the borehole from above the seams. These earlier borehole samples are considered by the Competent Person as anomalous. Consequently, appropriate ash cut-offs have been applied to exclude borehole core sample analyses from the estimation of Coal Resource quality attributes. For Seams B, C and D, an Ash cut-off of greater than 16% was applied, whilst for Seam J an Ash cut-off of greater than 20% Ash was applied.
Logging	Core samples have been geologically (full lithological description) and geotechnically (visual defect) logged to a standard appropriate for mineral resource estimation and mining studies. Cokal's rig supervising geologists conducted the logging and adopted the new Australasian CoalLog standard as supplied by AusIMM. For openhole sections of the boreholes, 1m chip samples were recorded and sampled. The lithological description of the chips was conducted at the appropriate level for this type of sample. During openhole drilling, chip samples were collected at 1m intervals and core samples were collected in 1.5m core barrels. All chip and non-coal core samples are held in storage and all core samples have been photographed. Coal core samples have been dispatched for analysis. The geological logs were recorded over the entire borehole including both openhole and cored sections of the boreholes.
Sub-sampling techniques and sample preparation	Where non-coal partings within a coal seam exceed 0.3m in thickness, the coal seam is sampled into separate plies Each ply (whether it is coal or non-coal) is sampled in individual sample bags and analysed separately. The core is wrapped and sealed in plastic to retain the moisture of the coal for the determination of Total Moisture content. It takes on average about 30 minutes for the geologist to log and photograph the core before sealing it in plastic wrap. The core is placed in the core boxes until the borehole is completed and a geophysical log of the borehole has been recorded. Once the core recovery has been confirmed as acceptable to the JORC Code requirements, the coal cores are placed into thick sample bags together with the plastic wrapping to ensure all moisture is captured and measured to determine Total Moisture content. A sample identification tag is placed inside the sample bag and the sample bag is sealed by either tie-wire of masking tape, again to ensure no moisture loss. Once the sample is sealed, it is immediately transported to Australian laboratories for analytical testing. It takes about 4 to 5 days for the core samples to be transported from the drill site to the Australian laboratory. The laboratory has commented that the core samples arrive in peak condition for testing, especially for testing coking properties. Sample preparation is conducted by ALS Laboratory in Richlands, Queensland. Splitting and reserving of samples is conducted in accordance with the procedure sheet, enabling retesting/duplication of results if required. Reserved sample material is kept in refrigerated storage for at least 4 months.
Quality of assay data and laboratory tests	The coal quality analysis procedures were devised by Pat Hanna, an experienced consultant, in conjunction with A&B Mylec, specialist in managing coking coal analytical testing and interpretation of the results. These procedures were presented to the ALS coal laboratory at Richland where the coking coal analyses

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CRITERIA	**EXPLANATION**
	were conducted. ALS conducted the analytical testing in accordance with the Australian standards and the laboratory is NATA accredited ensuring a high quality of analysis and data management. The laboratory and its accreditation documentation were inspected by Pat Hanna prior to sending samples to ALS. For coal outcrop channel samples, analyses were conducted by the CCIC laboratory in Banjarbaru, South Kalimantan. Duplicate samples were sent to ALS and CCIC and the results were shown to be very close. The accreditation documentation for the CCIC laboratory was inspected by Pat Hanna
Verification of sampling and assaying	Each borehole is geophysically logged with a suit of sondes appropriate for the coal industry. These geophysical logs are used to determine the appropriate ply sampling of coal seam cores. These ply sample intervals are correlated using geophysical logs of nearby boreholes to ensure continuity of ply sampling throughout the tenement. The geophysical logs are also used to correct the seam/ply depth intervals including any core loss intervals. These corrected intervals from the geophysical logs are used to correct the geologist's lithological logs as well as the sampling seam/ply intervals. Upon receiving the samples, the laboratory sends a verification notice of the date received to Cokal and the sample weight and identification number is verified by Cokal. Coal samples acquired from coal outcrops were sampled using channel sampling technology. This ensured a true representative of the entire coal seam, from the roof to the floor, was adequately sampled and analysed.
Location of Data Points	Shallow boreholes are positioned near coal seam outcrops to verify the seam correlation and to take a fresh sample for analysis of coking properties. Deep stratigraphic boreholes are generally spaced 2km apart in order to determine the sequence of the coal seams. Seam outcrops and borehole collar coordinates were surveyed using a Handheld GPS system with an X, Y coordinate accuracy of ±5m. The accuracy of elevation of these data points was found to be ±50m and were subsequently adjusted to the topographic model derived from the LIDAR survey data which has an elevation accuracy of ±0.15m in clear areas and ±1m in heavily vegetated areas.
Data spacing and distribution	Borehole spacing was planned to provide confidence to facilitate Coal Resource estimation in accordance with the JORC Code. Shallow boreholes are positioned near coal seam outcrops to verify the seam correlation and to take a fresh sample for analysis of coking properties. Deep stratigraphic boreholes are generally spaced 2km apart in order to determine the sequence of the coal seams. With the recent borehole data, the detail correlation of seam across the eastern part of BBM tenement has demonstrated a consistency and continuity of coal attributes on a seam basis. Based on this consistency of coal seam geology, the categorisation of the Resources is based upon the following observations: • Measured Coal Resources are based on boreholes and coal seam outcrops spaced up to 500m apart • Indicated Coal Resources are based on boreholes and coal seam outcrops spaced up to 1,000m apart • Inferred Coal Resources are based on boreholes and coal seam outcrops spaced up to 4,000m apart. The BBM project area consists of all categories of resources, with Measured, Indicated and Inferred Resources attributed to the B, C, D and J Seams. The Inferred Resources have been estimated to extend up to 1km from the outermost boreholes. This extension beyond the borehole data is supported by the extensive continuation of coal outcrops observed in the surface mapping of the BBM project area.

SECTION 1: SAMPLING TECHNIQUES AND DATA	
CRITERIA	**EXPLANATION**
Orientation of data in relation to geological structure	In accordance with coal industry best practices for shallow dipping coal seams, all boreholes were orientated and levelled to produce vertical (90 degree) holes. The seams are known to dip at shallow angles between 5 and 20 degrees. A few major structural discontinuities (vertical displacement >50m) have been delineated by the current drilling results. However, further drilling is required to determine the position of these features more accurately. Smaller structural features have not been detected in outcrop mapping or from drilling results to date. Further close spaced drilling is required to confirm whether or not they exist in BBM.
Sample security	All non-coal samples are stored on Cokal premises. All coal core samples are packaged in two thick plastic sample bags and labelled both externally and with a sample label tag placed inside the bags before sealing. Samples are dispatched to the Balikpapan by a courier on contract to Cokal. The samples are presented to international courier, DHL, with the appropriate documentation required to be verified and permitted to cross international borders in order to deliver the samples to ALS Laboratories in Brisbane, Australia. Any sample material remaining after analytical testing is preserved by ALS in sealed bags and stored in refrigerated containers until analyses have been finalised to Cokal's satisfaction.
Audits or reviews	The processes and procedures followed by the laboratory are reviewed by both Pat Hanna as well as independent coal quality consultants, A&B Mylec. All analytical results are also reviewed and validated by both Pat Hanna and A&B Mylec.

SECTION 2: REPORTING OF EXPLORATION RESULTS	
CRITERIA	**EXPLANATION**
Mineral tenement and land tenure status	Exploration License IUP 188.45/232/2012 was awarded by the Head of the Murung Raya Regency Government of Central Kalimantan Province (Bupati) to PT BBM (Indonesia) on 18 July 2012 for a period of 2 years, covering an area of 19,400ha in the Seribu Riam and Sumber Barito District, Central Kalimantan Province. This exploration licence is an extension of the previous licence IUP 188.45/273/2010 which was awarded on 1 September 2010. On 30 May 2012, the BBM IUP was listed on the Central Government's Clean and Clear List. On 23 April 2013, BBM's IUP was converted to Produksi status 188.45/149/2013, equivalent to a mining license, for a period of 20 years, with an option to extend for two 10-year periods subsequently.
Exploration done by other parties	Until Cokal started exploration activities on BBM in January 2011, no other exploration had ever been conducted within the BBM tenement. Cokal is currently responsible for all exploration activities on BBM and no other party has been involved in exploring BBM.
Geology	The geology of BBM is typical for coal geology deposits comprising sedimentary strata dipping 5 to 20 degrees and minimal structural disturbance, The dominant formation is the Haloq Sandstone Formation (of Late Eocene age) which consists of 9 coal seams. Four of these seams are the primary target of the exploration activities and this JORC Resource report. Government geological maps are believed to have been compiled from aerial photography without any on-the-ground verification. Based on the recent drilling program and an extensive field geological mapping survey, Cokal has proven some of the information on the Government maps to be incorrect and misleading. To date, there has no evidence of igneous intrusions intersecting the coal seams.
Drill Hole Information	A summary of the borehole collar surveys and seam intersections are listed in the Appendices. Further information is provided throughout the report including core size, drilling methods etc. All boreholes have been logged using a suite of downhole geophysical sondes typical for coal exploration. This information is essential in determining the corrected coal seam intersections and correlations, and thus the borehole data used in determining the Coal Resources in this report is considered to be reliable information.
Data aggregation methods	Coal seam cores were sampled and analysed in plies (sub-samples). The coal quality data is subsequently reported on a seam basis in Minex (i.e. where multiple ply samples from within a seam are composited together) and weighted by default using thickness and density of each ply (except for the variable Relative Density itself). Where a sample does not have an associated density a value of 1.35 was applied within the Minex borehole database.
Relationship between mineralisation widths and intercept lengths	The coal seams were deposited horizontally, and due to minimal post depositional tectonic activity, these seams dip between 5 and 20 degrees and subcrop on or near the surface. The thickness of these seams is also directly related to the depositional environment. All seam intercepts reported in boreholes are reported on a 'down-hole basis', and given the slight dips of the seams, it is considered appropriate to do so. Down-hole geophysical logs are used to confirm the true thickness of the coal seams. The roof and floor contacts of each seam are in general quite sharp with the immediate lithology either siltstone or fine sandstone.
Diagrams	Geological plans and sections are generated from the geological model generated in the MINEX system. These reflect both the raw and modelled borehole data. Sections and maps have been included in the Resource Report, particularly in the Appendices.
Balanced reporting	The nature of the coal deposit in BBM is typical of a Marawai Basin coal deposit in

SECTION 2: REPORTING OF EXPLORATION RESULTS	
CRITERIA	**EXPLANATION**
	Central Kalimantan, Indonesia. The seams are continuous over tens of kilometres with minimal structural deformation, enabling the economic extraction of coal by both open pit and underground coal mining methods. Consequently, a drilling program has been designed to achieve two objects: • The delineation of Measured and indicated Coal Resources over the immediate area of initial open pit mining to enable early cash flow for the project. • The delineation of the continuity and potential (Inferred Coal Resource) of vast tonnages of coal which will be the target of infill drilling programs to increase the Measured and Indicated coal tonnages for future mining. It is therefore deemed by Cokal that a balance report has been produced which demonstrates the initial economic viability of the coal project and the future sustainability of the deposit to provide a significant return for Cokal's shareholders and investors.
Other substantive exploration data	There is no other substantive exploration data available for BBM at this stage.
Further work	Further exploration work is planned for the following purposes: • To increase the categorisation of Inferred Coal Resources to Measured and Indicated Resources. • To more accurately delineate and assess the nature of the structural features and assess their impact (if any) on the mining methods to be adopted at BBM. • Further analytical work focussing on coking coal attributes, in particular coke strength index, and ash liberation.

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES	
CRITERIA	**EXPLANATION**
Database integrity	Data collected in the field is checked and validated by Senior Geologists before it is reviewed again by Yoga Suryanegara (Competent Person). All data is then uploaded into the Minex borehole database where further validation is conducted utilising geophysical logs and other in-built validation processes (geostatistical, etc.) included in the MINEX borehole database system.
Site Visits	Yoga Suryanegara (Competent Person) and Pat Hanna (Peer Reviewer) have conducted various site visits to BBM tenement, usually once every two months since January 2011. These visits included the verification of exploration field procedures including geological logging and sampling, geophysical logging, the condition of the core recovery and the inspection of coal seam outcrops. Discussions with the site exploration team included borehole location planning and field supervision.
Geological Interpretation	Mr Yoga Suryanegara has extensive experience conducting exploration in Indonesia and is considered proficient at interpreting coal seam geophysical signatures in determining core recovery, seam interpretations, and correlation of coal seams from borehole to borehole. Mr Yoga Suryanegara has extensive experience (10 years) in modelling geological data using the MINEX system. The MINEX system allows experienced geologists like Yoga Suryanegara to determine the most appropriate geological interpretation of the borehole data at hand. This includes the coal seam correlation (splitting and coalescing) and structural lineaments such as faults.
Dimensions	The dimensions of the Coal Resource have been determined in MINEX based on the extents of the borehole data, the topographical data and extrapolation beyond the data (1km) incorporating coal outcrop data within the BBM Coal Project. This area is in the order of 4,500ha representing about 30% of the entire BBM tenement.
Estimation and modelling techniques	The process for the estimation of the Coal Resources for BBM was undertaken by Mr Yoga Suryanegara of Cokal and reviewed by Mr Pat Hanna of Hanna Consulting Services (HCS). The modelling algorithm used for generating the geological model is the MINEX Growth Technique, a proprietary 2D-gridding algorithm which calculates the most fitting surfaces for coal deposits, taking into account the regional trends together with the ability to honour the borehole data given the appropriate gridding parameters. The Resources were estimated using the Detail Report Generator in the MINEX system. This tool has been used extensively and proven to be accurate when compared to manual estimations of Resources. The Detail Report Generator has the ability to sub-mesh the gridded model to one fifth ($2m^2$) of the grid model mesh ($10m^2$) to give more accurate volumetrics when using polygonal boundaries to define Resources based on specific areas.
Moisture	Moisture has been recorded in the coal quality analyses of the composite samples for “Total Moisture” as well as for “Air Dried Moisture”. Resource estimates were conducted and reported using Air Dried Relative Density (RD).
Cut-off parameters	The minimum coal seam thickness used for Coal Resource estimation is 0.30m.The seams have been constrained by the base of weathering. Coal within the weathering zone is excluded from the Resource estimates. Cut-offs have been applied to analytical results because it has been determined that some of the earlier borehole core samples may have been contaminated with drilling mud and non-coal material which collapsed in the borehole from above the seams, as the ash content from this initial drilling is significantly higher (e.g. Seam D in borehole BBM004 has 32.5% Ash) than adjacent outcrop channel samples and other boreholes (e.g. Seam D in borehole BBM002 has

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES	
CRITERIA	**EXPLANATION**
	4.0% Ash and out crop samples range from 1.0% to 3.2% Ash) estimates. Consequently, it is the opinion of the Competent Person that the very high (greater than 16%) Ash results for any coal core samples for Seams B, C and D should be eliminated from the estimation of coal quality of the Resources. Similarly, with respect to Seam J anomalous analytical results due to contamination of core samples with very high (greater than 20%) Ash results should be eliminated from the estimation of coal quality of the Resources.
Mining factors or assumptions	No evaluation of mining methods was conducted in this Coal Resource report. However, Coal Resources were reported to depths up to 500m below topography. Open pit mining methods will be used initially where the economics prove favourable. The cost of coal mining in Indonesia is substantially less than most other countries and there is no restriction on the transport of coal using very cost effective river barges throughout the country. Coal seams as thin as 0.3m can be mined economically as this is the common minimal mining thickness for open pit mining in Indonesian coal mines. The coal seams are generally thicker than 1m and the roof predominantly consists of very hard sandstone (up to 95MPa) while the immediate 1m to 2m of roof consists generally of a competent siltstone. This combination is ideal for extraction of the deeper Coal Resources using underground methods such as thin-seam longwall mining. Underground coal mining in Borneo of similar coal seams in similar geological conditions can be found at depths of 500m using longwall mining methods. A cut-off of 0.6m for Coal Resources amenable to underground mining extraction is based on current underground mining technology in Europe where mines operate ploughs that can cut coal seams underground as thin as 50cm. More details of this technology are provided in Appendix 7 of this report.
Environmental factors or assumptions	BBM received its AMDAL permit (environment assessment and planning approval) April 2013, granted by the Governor of the Province of Central Kalimantan in accordance with the laws of Indonesia. This permit allows Cokal to conduct open pit and underground coal mining as well as the construction of and coal haulage along a 52km haul road.
Bulk density	No bulk density data has been collected at this time. The density used for the Resource estimates is the modelled RD for each coal seam as determined from the Laboratory coal quality analyses of the HQ core samples. Where the RD model did not cover the entire Coal Resource, a default density of 1.35 was used in the estimation of the resources.
Classification	With the recent borehole data, the detail correlation of seam across the eastern part of BBM tenement has demonstrated a consistency and continuity of coal attributes on a seam basis. Based on this consistency of coal seam geology, the categorisation of the Resources is based upon the following observations: • Measured Coal Resources are based on boreholes and coal seam outcrops spaced up to 500m apart • Indicated Coal Resources are based on boreholes and coal seam outcrops spaced up to 1,000m apart • Inferred Coal Resources are based on boreholes and coal seam outcrops spaced up to 4,000m apart. The BBM project area consists of all categories of resources, with Measured, Indicated and Inferred Resources attributed to the B, C, D and J Seams. The Inferred Resources have been estimated to extend up to 1km from the outermost boreholes. This extension beyond the borehole data is supported by the extensive continuation of coal outcrops observed in the surface mapping of the BBM project area.

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES	
CRITERIA	**EXPLANATION**
Audits or reviews	The borehole database and geological model has been audited by Mr Pat Hanna of HCS who has also peer reviewed this report including the coal quality analyses. Pat Hanna is a member of the Cokal Board of Directors.
Discussion of relative accuracy/confidence	The borehole data is considered to be reliable for the purpose of reporting Coal Resources in accordance with the JORC Code. The current topographic data has been determined to be accurate to 1m in elevation. This level of accuracy in the topographic surface and borehole data is considered to be within the accuracy of all Coal Resource categories reported.

Appendix A – 2012 JORC Code - Table 1

Sections 1, 2 and 3 are covered in the report titled "Updated Coal Resources of BBM Project, Central Kalimantan, Indonesia (PT. Bumi Barito Mineral - IUP. 188.45/149/2013)" dated April 2016.

Section 4 – Estimation and Reporting of Ore Reserves

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 Mineral Resource estimate used as the basis for the conversion to Ore Reserves was the report "Updated Coal Resources of BBM Project, Central Kalimantan, Indonesia (PT. Bumi Barito Mineral - IUP. 188.45/149/2013)" dated April 2016. • The reported Coal Resources are inclusive of the Coal Reserves.
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.*	• No site visit has been made to this specific site because the Competent Person has visited the area on previous occasions and is familiar with the access, regional infrastructure and topography. It was considered that no additional material data would be obtained from inspecting this greenfield site.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *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 Coal Reserve is based on the Definitive Feasibility Study prepared by PT Resindo and the October 2016 update to that study. • The mine plan in that study was for a 2Mtpa project and was found to be technically achievable and economically viable. • The modifying factors which were considered in the Life-of-Mine plan contained within the Definitive Feasibility Study are not materially different to those used in this report. • The update to the Definitive Feasibility Study showed reduced operating costs, therefore logically the project should be financially more robust than the original study.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• Coal with less than 15% volatile matter was classified as a PCI product. Coal above this cut-off was classified as a coking product. Seam thickness was limited to a minimum of 0.3m.

Criteria	JORC Code explanation	Commentary
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 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 assumptions made regarding geotechnical parameters (eg 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).* • *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.*	• The open pit designs were derived using the Lerchs Grossmann pit optimisation technique. The pit optimisation shells were used as a basis for the practical pit designs. • The reserves have been estimated based on the use of an open pit mining method in which overburden will be removed in strips uncovering the coal below. To minimise waste haulage cost it is normal practice to dump waste into the previously mined out strip. However, this is only possible when the dip of the pit floor is flat enough to receive waste without geotechnical instability of the dumps. For this deposit, except for limited situations, the floor dips are generally considered to be too steep to allow in-pit dumping. This means that waste from the pits must be dumped in ex-pit dumps or along strike against the mined out highwall. • Geotechnical analysis was carried out by Australian Mining Engineering Consultants who specified an overall slope of approximately 63 degrees with individual slopes at 75 degrees. • The Mineral Resource model used for pit optimisation was the same model used for resource estimation modified to account for loss and dilution. • The dilution and mining recovery factors used were: Minimum minable coal thickness: 0.25m Minimum minable parting thickness: 0.25m Mining loss: 0.05m Dilution thickness: 0.05m Waste ash: 80% (air-dried basis) Waste density: 2.2 tonnes/bcm • Any Inferred Mineral Resources in the pits are assumed to be mined as waste and therefore have no impact on the reserves. • It is assumed that the infrastructure as detailed in the Definitive Feasibility Study will be installed. Specifically, the project will require the construction of roads, coal preparation plant, offices and workshops to support the mining operations.

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?*	• The ROM coal produced at BBM will be treated in a coal preparation plant. The processing method selected one of a number of methods which are used for the processing coking and PCI coal to product standards required by the market and is a well-established and proven technology. • A coal preparation study was undertaken by A&B Mylec in 2013. This study examined the washability of Seam J. Cokal reports that the other seams only require crushing prior to sale. The overall seam recovery is estimated at 87%. • Coal testing indicates no deleterious elements exist which would have ar a material impact on the marketability of the coal products. • A bulk sample was taken from Seam J and tested. This sample appears to have been partly oxidised but nevertheless showed that the seam exhibits good coking properties. No bulk sample has been taken from the other seams however within each seam the consistency of the quality variables from hole to hole suggest that the sampling is representative of the deposit as a whole. • The sampling and testing of the coal supports the planned marketing of the coal.
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.*	• All environmental approvals are currently in place to operate the mine. • The project status has been confirmed as "Clean and Clear" by the regional government with certificate No. 26/Bb/03/2013 • There is a Permanent Production Forest covering most of the the BBM project area, however the company has obtained a "Borrowing Use" (Pinjam Pakai) permit which allows mining to proceed. There is also a Limited Production Forest located in the far east of the project area which, because it is well outside the proposed mining areas will have no impact on the estimation of reserves within the BBM project area. There are no other known environmental issues that would influence the estimation of reserves within the BBM project area.

Criteria	JORC Code explanation	Commentary
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.*	• No significant infrastructure currently exists apart from the Barito River which will be used for coal transport. There is sufficient land available for required mine site infrastructure. Power will be provided by site based generators. All other site infrastructure will need to be constructed and there is sufficient capital allowance for this purpose.
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.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• The projected capital costs were estimated in the Definitive Feasibility Study. These have been compared to similar projects in the area and are believed to be adequate and appropriate. • The operating costs were estimated in the Definitive Feasibility Study and the update to that study. ASEAMCO reviewed the unit operating costs and compared these to rates for similar Indonesian operations in ASEAMCO's cost database. Where the comparison showed a material difference ASEAMCO queried those costs and determined the appropriate values to be used. • Analysis has shown that there are no deleterious elements. • Exchange rates were provided in both the Definitive Feasibility Study and the update to that study. • Transportation charges were based on quotations from transportation companies. • Treatment charges were estimated in the Definitive Feasibility Study. If a parcel of ore were to fail to meet specifications it would be blended with other material to achieve the specification. • Government Royalties are set at 7% of the sale value on the river. There are no private royalties.
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 derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• The sales price was nominally taken as $150 per tonne FOB for the coking product and $112.50 per tonne FOB for the PCI product with sensitivities ranging from $110 to $240 for the coking product and 75% of those prices for the PCI product. • Sale prices were assessed by a coal pricing specialist.

Criteria	JORC Code explanation	Commentary
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.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• A market assessment was undertaken as part of the Definitive Feasibility Study. Two potential markets were identified: - Selling the coal as a coking coal and/or - Selling the coal for the blast furnace & foundry coke industry. • The assessment concluded that there is strong market potential for this particular coal.
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.*	• The economic analysis was based on the estimated capital costs, operating costs, an a nominal target tonnage of 2Mtpa of marketable product and a range of discount factors. • The NPV results for the marketable coking coal product at a sale price of USD150/t FOB ship and USD112.50 for the marketable PCI product FOB ship to produce 12.7 Mt of Proved and Probable Coking coal and 4.2 Mt of Proved and Probable PCI coal to be mined over a period of 9 years were USD266 million, USD241 million and USD208 million at discount rates of 10%, 12% and 15% respectively. • The NPV at a discount rate of 12% ranged from USD45 million at a sale price for coking coal of USD110/t FOB ship up to USD821 million at a sale price for coking coal of USD240/t FOB ship.

Criteria	JORC Code explanation	Commentary
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• There are no villages located within the BBM project area. The village of Ampar, located on the western side of the Barito River directly opposite the site logistics port of Krajan, is the closest village to the project. Some locals from this village are illegally undertaking farming within the production forest areas located within the project area. Cokal has negotiated compensation with these farmers and this cost has been included in the financial analysis. As a condition of its Mining Business License Cokal is required to employ a minimum of 70% of its labour force from the local area. Most mining companies experience difficulties in fulfilling such requirements due to lack of necessary experience and level of professionals in such remote areas. To overcome these issues, BBM has established a strong relationship with the local schools and provincial state university to obtain exclusive access to the talent pool. This program is to provide scholarships for students to continue their study to the university.

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. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	• There are no identified material naturally occurring risks. • There are no current material legal agreements or marketing arrangements • All necessary government approvals are in place. • Waste from Pit 1 will need to be either dumped onto land immediately east of the IUP outside the project area or else a road will need to be constructed through this area. Land compensation will need to be negotiated with the traditional owners for either of these solutions. It is common practice in Indonesia to seek to construct roads across land which is not owned by the mining company and to pay the traditional owners compensation for the use of this land. This is not considered to be a material issue.
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).*	• The reserves have been classified based on the confidence of the coal resources, the level of detail in mine planning, and the level of risk associated with the project. • Indicated Resources have been classified as Probable Reserves and Measured Resources within the pit shell have been classified as Proved Reserves.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• No external audits or reviews have been conducted. A peer review of the report has been undertaken.

Criteria	JORC Code explanation	Commentary
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. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *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.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The accuracy of the reserves is highly dependent on the accuracy of the resource model. However, since it was considered that none of the Modifying Factors materially changed the risk in this project the Measured Resources which fell within the practical pit were converted to Proved Reserves and the Indicated Resources which fell within the practical pit were converted to Probable Reserves. • The reserve estimates provided in this report are global estimates. • There are no specific concerns regarding the Modifying Factors which would be expected to have a material impact on the estimation of reserves.