



21 August 2020

## MINERAL RESOURCES AND COAL RESERVE UPDATE FOR ISAAC PLAINS MINE AND ISAAC PLAINS EAST MINE

### Highlights

- Mining depletion, and additional exploration activities and further assessment over the last 2 years has resulted in a change to the Mineral Resource estimates for:
  - Isaac Plains mine with a 46 million tonne (Mt) total Coal Resource estimated from prospective open-cut and underground mining operations. Importantly, 25 Mt are Measured Resources, 16 Mt are Indicated Resources and 5 Mt remain as Inferred Resources
  - Isaac Plains East mine with a 22 million tonne (Mt) total Coal Resource estimated from prospective open-cut and underground mining operations. The categorisation under the JORC Code is 10 Mt are Measured Resources, 8 Mt are Indicated Resources and 4 Mt remain as Inferred Resources
- The Recoverable Coal (ROM) Reserve estimates for both Isaac Plains and Isaac Plains East open cut mines has been updated and now combine to total 11.3Mt, of which 9.3Mt is classified as Proved Reserves and 2.0 Mt is classified as Probable Reserves
- The Recoverable Coal (ROM) Reserves for the Isaac Plains Underground Project remain as 12.9Mt, classified as Probable under the JORC Code
- Marketable Coal Reserves at Isaac Plains and Isaac Plains East open cut mines now totals 8.5 Mt (8.0Mt is coking coal and 0.5Mt is thermal coal) and 9.4 Mt of Marketable Reserves are defined for the underground project (8.3 Mt coking coal and 1.1 Mt thermal coal)

Stanmore Coal Limited (**Stanmore** or the **Company**) is pleased to announce an update to the Mineral Resources and Coal Reserves at the Isaac Plains Mine and the Isaac Plains East Mine effective as at 30<sup>th</sup> June 2020. This work is reported to the standard required by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code, 2012').

### Mineral Resources - Isaac Plains Mine

Xenith Consulting have undertaken an update of the Isaac Plains Mine coal resource modelling to consider:

- Resource depletion due to mining activities since May 2018 (effective date of last Coal Resource report)
- Additional exploration and pre-mining drilling activities
- Reinterpretation of the Burton Thrust Fault based on recent drilling programme and the 3-D seismic information collated for the underground project
- Additional coal quality information

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The following table summarises the updated Coal Resources for the Isaac Plains Mine – these resources will be utilised by open cut mining operations in the northern part of the mine as well as planned underground operations of the government approved Isaac Plains Underground Project.

Seam	Resource Category – Isaac Plains Mine			Total (Mt)
	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	
LHD	23.8	14.7	4.2	42.8
LHU	1.2	1.1	0.2	2.6
LHL	0.1	0.1	0.7	1.0
<b>Total Resource</b>	<b>25.2</b>	<b>16.0</b>	<b>5</b>	<b>46</b>

*Note – Rounding to the nearest significant figure is applied to the Total Resource Tonnes in the Inferred category. This is deemed conservative and reflective of the Inferred category confidence level and accounts for minor differences in the overall reported resource*

LHD refers to the Leichardt seam – the principle economic seam in the area. To the north the seam splits into an Upper (LHU) and Lower (LHL) seam plies. These Coal Resources are all contained within granted mining lease ML70342, ML700018, and ML700019.

The reconciliation to previous Coal Resource estimates is shown below:

Isaac Plains Mine	2018 Resource Estimate (Mt) <sup>1</sup>	2020 Resource Estimate (Mt)	Difference (Mt)
Measured	22.2	25.2	+3.0
Indicated	21.3	16.0	-5.3
Inferred	9	5	-4
<b>Total</b>	<b>52.5</b>	<b>46</b>	<b>-6.5</b>

*Note – Rounding to the nearest significant figure is applied to the Total Resource Tonnes in the Inferred category. This is deemed conservative and reflective of the Inferred category confidence level and accounts for minor differences in the overall reported resource*

## Mineral Resources - Isaac Plains East Mine

Dr Bronwyn Leonard of Stanmore Coal has undertaken an update of the Isaac Plains East coal resource modelling and assessment to take into account:

- Resource depletion due to mining activities since May 2018 (date of last Coal Resource report)
- Additional exploration and pre-mining drilling activities
- Additional coal quality information

The following table summarise the updated Coal Resources for Isaac Plains East:

Seam	Resource Category – Isaac Plains East Mine			Total (Mt)
	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	
LHD	9.8	8.0	4	22

*Note – Rounding to the nearest significant figure is applied to the Inferred category.*

These Coal Resources are all contained with granted mining lease ML700016, ML700017, ML700018, and ML700019.

<sup>1</sup> Refer ASX announcement “Updated JORC Resource for Isaac Plains Complex” dated 28 May 2018

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The reconciliation to previous coal resource estimates is shown below:

Isaac Plains East Mine	2018 Resource Estimate (Mt) <sup>2</sup>	2020 Resource Estimate (Mt)	Difference (Mt)
Measured	12.9	9.8	-3.1
Indicated	8.8	8.0	-0.8
Inferred	8	4	-4
<b>Total</b>	<b>29.7</b>	<b>21.6</b>	<b>-8.1</b>

## Coal Reserves

Optimal Mining Solutions/Measured Resources have updated the previous Coal Reserve assessment that covers operations at both the Isaac Plains and Isaac Plains East mines. This update is based on the updated Coal Resource models as described above. This estimate was prepared in compliance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code - 2012 Edition) and the Australian Guidelines for the Estimating and Reporting of Coal Resources (2014 Edition).

The Reserves are estimated as at 30th June 2020 and reflect the mine designs currently used for the open cut mining operation at the Isaac Plains Complex.

### Open Cut Mining Reserves

The open cut Coal Reserve estimate for Isaac Plains and Isaac Plains East open cut Coal Reserves are shown in the table below:

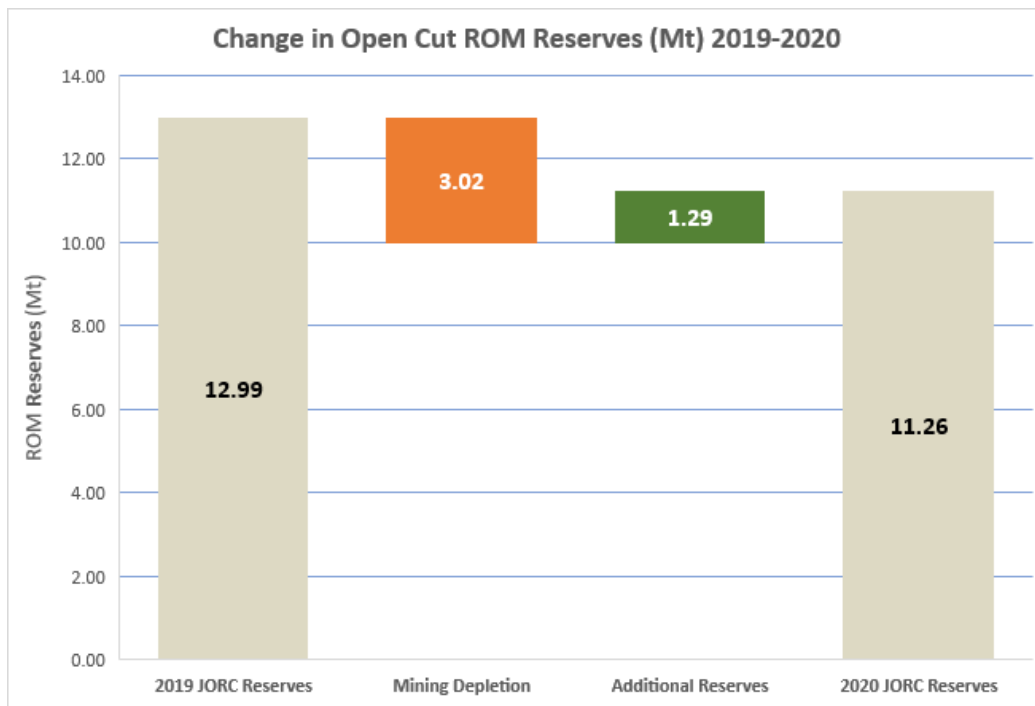
Recoverable Coal Reserves	JORC Category	LHD/LHU seams (Mt)	LHD seam (Mt)	Total (Mt)
Isaac Plains	Proved	0.93	0.03	0.97
	Probable	0.00	0.08	0.08
Isaac Plains East	Proved	8.30	0.00	8.30
	Probable	1.90	0.00	1.90
	<b>Total</b>	<b>11.1</b>	<b>0.1</b>	<b>11.3</b>

Subject to rounding – totals may not be strictly additive and reflect significant figure rounding

The change in open cut Coal Reserves is represented by the graph below and accounts for mining depletion over the July 2019 to June 2020 financial year, offset by increased reserves recognised between Pit 4 and Pit 5S in a faulted area and extension to Pit 3, Pit 5S and Pit 5.

<sup>2</sup> Refer ASX announcement "Updated JORC Resource for Isaac Plains Complex" dated 28 May 2018

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### Underground Mining Reserves

The underground Recoverable Coal Reserves remain unchanged from that previously announced to the market<sup>3</sup>. The Isaac Plains Underground Project has a total of 12.9 Mt of Probable Coal Reserves. A Bankable Feasibility Study for the underground project was completed in 2019 and this confirmed that at least 12.9 Mt is justifiable and provides a positive business case<sup>4</sup>. A formal update the Recoverable Reserve for the Underground project is yet to be commissioned.

Seam	Recoverable Reserve Category - Isaac Plains Underground		
	Proved (Mt)	Probable (Mt)	Total (Mt)
LHD	0	12.9	12.9

### Isaac Plains Marketable Reserves – open cut and underground

Marketable Coal Reserves have been estimated by applying Coal Handling and Preparation Plant yield recoveries based on historical performance at the Isaac Plains Coal Handling and Preparation Plant considering the modelled raw coal quality parameters. The open cut Marketable Coal Reserves for the Isaac Plains and Isaac Plains East are shown below:

Marketable Reserves	JORC Category	Semi-soft Coking (Mt)	Thermal Coal (Mt)	Total (Mt)
Isaac Plains	Proved	0.48	0.20	0.69
	Probable	0.02	0.02	0.04
Isaac Plains East	Proved	6.16	0.19	6.35
	Probable	1.35	0.05	1.40
Isaac Plains Underground	Probable	8.2	1.2	9.4
<b>Total</b>		<b>16.2</b>	<b>1.7</b>	<b>17.9</b>

Subject to rounding – totals may not be strictly additive and reflect significant figure rounding

- Marketable Coal Reserves at Isaac Plains and Isaac Plains East open cut mines now totals 8.5 Mt (8.0Mt is coking coal and 0.5Mt is thermal coal)

<sup>3</sup> Refer ASX announcement “Maiden JORC Reserve Isaac Plains Underground” dated 28 May 2018

<sup>4</sup> Refer ASX announcement “Stanmore Coal investing in open cut efficiency” dated 3 July 2019

- Marketable Coal Reserves for the Isaac Plains Underground Project are 9.4 Mt project (8.3 Mt coking coal and 1.1 Mt thermal coal)

Attached to this ASX announcement is Table 1 sections 1-3 of the updated resource reports and section 4, as relevant to the Reserve Report for Isaac Plains and Isaac Plains East Mines.

This announcement has been approved for release by the Board of Directors of Stanmore Coal Limited.

### For further information, please contact:

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Interim Chief Financial Officer  
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### Competent Person Statement

The information in this report relating to Mineral Resources for the Isaac Plains Mine is based on information prepared by consultants under the guidance of Mr Troy Turner who is Managing Director of Xenith Consulting Pty Ltd. Mr Turner is a qualified Geologist (BAppSc (Geology), University of Southern Queensland), a member of the Australian Institute of Mining and Metallurgy and with over 25 years' experience. Mr Turner has sufficient relevant experience to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Turner consents to the inclusion in the report of the matters based on the information, in the form and context in which it appears.

The information in this report relating to Mineral Resources for Isaac Plains East Mine is based on information prepared Dr Bronwyn Leonard who is a full-time employee of Stanmore Coal and holds the position of Superintendent Mine Geology. Dr Leonard is a qualified Geologist with a degree from University of Canterbury, a PhD from James Cook University majoring in Geology/Earth Sciences and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Dr Leonard has over 15 years' experience in exploration and resource modelling and has sufficient relevant experience to the style of mineralisation and type of deposit under consideration and to the activity which is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Leonard consents to the inclusion in the report of the matters based on the information, in the form and context in which it appears.

The openpit Ore Reserve estimate is based on information compiled by Mr Tony O'Connel, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr O'Connel is an employee of Optimal Mining Solutions Pty Ltd and holds a Bachelor Degree in Mining Engineering University of Queensland and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity 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. Mr O'Connel has over 20 years' experience in the estimation, assessment, evaluation and economic extraction of Coal Reserves. He consents to the inclusion of this Reserve Estimate in reports disclosed by the Company in the form in which it appears.

The underground Ore Reserve estimate is based on information compiled by Mr Mark McKew, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr McKew is a full time employee of Geostudy Pty Ltd, 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 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. Mr McKew consents to the inclusion of this Reserve Estimate in reports disclosed by the Company in the form in which it appears.

### About Stanmore Coal Limited (ASX: SMR)

Stanmore Coal operates the Isaac Plains coking coal mine in Queensland's prime Bowen Basin region. Stanmore Coal owns 100% of the Isaac Plains Complex which includes the original Isaac Plains Mine, the adjoining Isaac Plains East (operational), Isaac Downs (open cut mine project) and the Isaac Plains Underground Project. The Company is focused on the creation of shareholder value via the efficient operation of the Isaac Plains Complex and the identification of further development opportunities within the region. In addition, Stanmore Coal holds a number of high-quality development assets (both coking and thermal coal resources) located in Queensland Bowen and Surat basins.

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## APPENDIX A

### JORC CODE 2012 EDITION – TABLE 1 FOR ISAAC PLAINS COAL RESOURCES AS AT JUNE 30 2020

This Appendix details sections 1, 2 and 3 of the JORC Code 2012 Edition Table 1. Sections 4 'Estimation and Reporting of Ore Reserves' and 5 Estimation and Report of Diamonds and Other Gemstones' have been excluded as they are not applicable to this deposit and estimation.

### SECTION 1 SAMPLING TECHNIQUES AND DATA

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

Criteria	JORC Code Explanation	CP Comments
<b>Sampling Techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<p>Exploration April 2018 – present:</p> <ul style="list-style-type: none"> <li>23 open holes were drilled in the IPU area , mainly for the purpose of fault delineation.</li> </ul> <p>Exploration 2015 – April 2018:</p> <ul style="list-style-type: none"> <li>94 open holes were drilled, mainly for the purpose of fault delineation.</li> <li>29 cored coal quality holes were completed within the ML. An additional 5 holes were drilled within Isaac Plains East where the LHD seam has been intersected on the western side of the Burton Range thrust and is consequently included in the IPC area. 19 holes were drilled in the potential underground mining area in the second half of 2017. Four (4) of these were for the purpose of gas testing.</li> <li>For the Stanmore 2015/2016 and 2016 / 2017 program, all cored intervals were sampled where coal was present at thickness of 0.1m or more, with a maximum sample thickness of 0.5m. Coal plies were sample discretely on the basis of lithological characteristics and quality. All non-coal material and partings less than 0.1m were included with the coal ply and noted in the lithological description. Non-coal interburden material greater than 0.1m and up to a maximum of 0.3m were sampled separately. Approximately 0.30m of</li> </ul>

Criteria	JORC Code Explanation	CP Comments
		<p>immediate roof and floor were also collected as dilution samples.</p> <ul style="list-style-type: none"><li>• Geotechnical samples were collected from roof (up to 10m above seam) and floor sections (up to 6 metres below seam). Selected samples were analysed with testing including UCS, Young's Modulus, Poisson's Ratio, Slake Durability or Tri-axial testing.</li><li>• All remaining un-sampled cored material has been retained in marked core boxes for future reference.</li><li>• All coal quality samples were double bagged at site and marked with sample number, hole and project. The samples were then kept in cold storage on site before dispatch to the laboratory via a tracked freight service. Chain of Custody and sample documentation were sent to the laboratory by email ahead of the samples. Coal was stored on site for periods of no more than two weeks prior to dispatch. Geophysical corrections were undertaken as soon as practicable following sample collection and these were used to confirm representative core recovery.</li><li>• Line of Oxidation chip samples were collected from the shallowest coal seam in each hole where coal was intersected, regardless of whether it appeared weathered or not. If deeper seams also appeared weathered, these too were sampled. Samples were collected in 1m intervals in sealed plastic bags and marked with sample number, hole number and project. These sample bags were then grouped into larger plastic bags. These samples were stored and shipped in the same manner as the coal quality core samples.</li><li>• Coal quality samples were sent to Bureau Veritas Laboratories in Brendale, Queensland. Bureau Veritas Minerals Pty Ltd is a NATA registered and a well-recognized coal analytical organization conducting coal quality sampling for many years. Bureau Veritas are accredited for compliance with ISOMECEC 17025, corporate accreditation number 1805. Site accreditation number 18415.</li><li>• Samples were stored in cold storage at Bureau Veritas until instruction</li></ul>

Criteria	JORC Code Explanation	CP Comments
		<p>are available to conduct the analytical program.</p> <p>Exploration 2009 to 2014:</p> <ul style="list-style-type: none"> <li>• Xenith is not aware of any Coal quality drilling undertaken within in this period.</li> <li>• Exploration drilling in 2013 involving 36 holes of structural fault definition.</li> </ul> <p>Exploration 2008 to 2009:</p> <ul style="list-style-type: none"> <li>• In July 2008 to September 2009 BCCM drilled a further 287 drill holes to assist with determining gas content, improving fault definition.</li> <li>• For the 2008 program, samples were taken at approximately 30cm intervals (2010 JORC Resource report)</li> <li>• All cored holes were photographed in the field (digital camera), sampled, boxed into core trays, where depths were recorded for subsequent reference.</li> <li>• No detail of interburden thickness sampling rules was presented.</li> <li>• The immediate roof and floor have been sampled of lengths &gt;than 0.1m in general. At the minimum Ash and RD analysis has been conducted.</li> <li>• All coal samples were collected into plastic bags and then transported to the laboratory via courier and were accompanied by a sample advice sheet.</li> <li>• Coal Quality samples were sent to ALS / Actest Laboratory in Maitland NSW, or Bureau Veritas (previously CCI) Laboratory in Newcastle.</li> <li>• All coal quality samples were prepared and analysed using ALS/ Actest or Bureau Veritas testing parameters. Both laboratories are NATA registered and have been operating in Australia for over 50 years.</li> </ul>



Criteria	JORC Code Explanation	CP Comments
		<p>Exploration 2004 to 2006:</p> <ul style="list-style-type: none"> <li>• For the 2004 program, samples were taken on approximately 25-30cm intervals (2010 JORC Resource report)</li> <li>• For cored holes, coal seams were sampled discretely on the basis of lithological characteristics such as the brightness profile, and where reasonable were sampled on a ply basis into approximately 0.5m plies</li> <li>• No detail of interburden thickness sampling rules was presented.</li> <li>• The immediate roof and floor have been sampled of lengths &gt;than 0.1m in general. At the minimum Ash and RD analysis has been conducted.</li> <li>• All coal samples were collected into plastic bags and then transported to the laboratory via courier and were accompanied by a sample advice sheet.</li> <li>• Coal Quality samples were sent to Casco Australia Pty Ltd (Casco) laboratory in Mackay.</li> <li>• All coal quality samples were prepared and analysed using Casco testing methodologies. Casco is a National Association of Testing Authorities (NATA) registered organisation.</li> <li>• Line of oxidation (lox) samples were collected in 0.5m samples.</li> <li>• Lox samples were bagged on site and sent to CCI Australia Laboratory in Moranbah for analysis.</li> <li>• Gas sampling was conducted at three sites, located in pits N1, N2 and S3. The full seam was sampled into gas canisters.</li> <li>• Q1 gas testing was undertaken by the field Geologist in the field. The process of analysis involved Geogas standard procedures.</li> <li>• Gas samples were sent to Geogas laboratory in Mackay for gas analysis (Q2 and Q3).</li> <li>• Seven fully cored (diamond) holes were drilled to analyse the overburden, coal and floor sediments for rock strength and other geotechnical issues. Samples were stored in core trays, with</li> </ul>

Criteria	JORC Code Explanation	CP Comments
		<p>representative 30cm length samples wrapped in plastic and sealed from moisture.</p> <ul style="list-style-type: none"> <li>• Geotechnical samples were reviewed from 7 HQ fully cored drill holes by Insite Geology and sent samples for destructive geotechnical test work with Ullman and Nolan laboratories I Mackay.</li> <li>• Multiple mini-Sosie seismic work undertaken by Velseis Pty Ltd in March/April 2004 and July/August 2005 (8.7km and 9.3km surveys respectively) to better delineate structure within the deposit.</li> <li>• Ground magnetic survey undertaken by Resolve Geological in October 2004 to delineate extent of intrusive material within the area.</li> <li>• 15 lines of Mini-Sosie seismic survey were completed by Velseis in 2015 / 2016 covering 32 km. These traverses both the IPC and the IPE</li> </ul> <p>Historic exploration:</p> <ul style="list-style-type: none"> <li>• Details for the sampling of historic drilling information Pre -2004 are not available.</li> <li>• A review of suitable historic holes was reported to have been conducted as part of the 2010 resource estimate.</li> </ul>
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <li>• <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i></li> </ul>	<p>2015/16 and 2016 / 2017 exploration:</p> <ul style="list-style-type: none"> <li>• The 2018/2019 open holes were 100m diameter drilled with either PCD or Blade bit.</li> <li>• For the Stanmore 2015/2016 and 2016 / 2017 exploration program, part-cored holes for coal quality were drilled in HQ3 diameter (61.1mm diameter core). Holes were extended at least 4m below the base of the last intercepted coal seam to allow for geophysical logging of the entire seam.</li> <li>• Chip holes were drilled using either poly-crystalline diamond or blade bits. Hole size varied between a minimum of 99 mm and a maximum of 229mm, depending on the type and diameter of bit used.</li> <li>• All core was photographed in 0.5m intervals against a blackboard with</li> </ul>

Criteria	JORC Code Explanation	CP Comments
		<p>depth markings, lithology and sample numbers added. Chips were laid out on bare ground in lines of 30 one metre samples further subdivided into 6m runs. Chips were photographed in 6m runs with a whiteboard showing hole number, date and depth range. In all photographs, depth increases from left to right.</p> <p>Historic exploration:</p> <ul style="list-style-type: none"> <li>• All coal quality holes were cored (partially or fully) using core barrel, producing a 63.5 mm and 100mm core diameter (also a series of 200mm cores were drilled late 2004).</li> <li>• Structural holes were drilled as part of a fault delineation program. As part of this work, these holes were fully open (chipped).</li> <li>• Lines of Oxidation (“LOX”) holes were drilled by a reverse circulation hammer drill rig.</li> <li>• Non-cored holes were used in the model to define structure and stratigraphy but were not used as Points of Observation (“POO”).</li> <li>• A full list of drill holes and drilling types is available at the end of Table 1 in Appendix C</li> </ul>
<p><b>Drill Sample Recovery</b></p>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<p>2015/16 and 2016 / 2017 program:</p> <ul style="list-style-type: none"> <li>• Only cores were sampled for analysis</li> <li>• Adequate recovery was assessed on a length basis</li> <li>• A 95% linear seam recovery was required; otherwise the seam would be redrilled.</li> <li>• The CP is adequately satisfied no sample bias has occurred.</li> </ul> <p>Pre 2015:</p> <ul style="list-style-type: none"> <li>• No details of the process followed for determining % recovery were viewed for the purpose of producing this resource report.</li> <li>• If there was less than 95% core recovery, it appears the seam was required to be redrilled.</li> </ul>

Criteria	JORC Code Explanation	CP Comments
		<ul style="list-style-type: none"> <li>No details were available on the relationship between sample recovery and quality or sample bias.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>All drill core was geologically logged, marked and photographed prior to sampling. Geological and geotechnical features were identified and logged as part of this process.</li> <li>All chip holes had chips collected every metre, which were then geologically logged and photographed.</li> <li>All drill holes have been geophysically logged (except where blocked) with the minimum suite of tools run including: Density, Calliper, Verticality/Deviation and Gamma.</li> <li>A full list of the suite of geophysical logs that have been run on each drill hole can be found in Chapter 6.7 of the Resource estimate report.</li> <li>The calibration of the geophysical tools was conducted by the geophysical logging company engaged in the project at the time.</li> </ul>
<b>Sub-Sampling Techniques and Sample Preparation</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>2015/16 and 2016/17 program:</p> <ul style="list-style-type: none"> <li>All core coal samples were double bagged on site and were transported by tracked freight courier to the laboratory for testing.</li> <li>Ply samples were initially tested by Bureau Veritas for Apparent Relative Density (ARD), which is a non-destructive water immersion density test. The results were provided and analysed prior to creation of float-sink (wash) composite sections.</li> <li>Wash composites were created per each LHD seam intersection, consisting of either: <ul style="list-style-type: none"> <li>A single full-seam section, being the total intersected coal thickness at a core hole location, with composited full-seam thickness for the LHD seam ranging from 2.85 to 4.01m or</li> <li>Two composites per seam being: <ul style="list-style-type: none"> <li><b>Top</b> of seam composite (approx. 2.0m to 2.3m thickness)</li> </ul> </li> </ul> </li> </ul>

Criteria	JORC Code Explanation	CP Comments
		<ul style="list-style-type: none"> <li>– <b>Bottom</b> of seam (remainder of seam, generally 1.3m to 1.8m thickness)</li> <li>• The decision to create either a one or two composites was based on several factors, primary among which were the core holes' physical location and seam thickness.</li> <li>• To simulate mine transport conditions each composite sample was then drop shattered 20 times from a height of 2 metres, any sample mass remaining of &gt;50mm was hand knapped to 50mm, dry tumbled and dry sized at 31.5, 25, 16, 8, 4 and 2mm.</li> <li>• Composite samples were then split and further analysed as follows:</li> <li>• 1/8 for quick coke: Crush to 11.2mm, float sink at 1.425 density, crush to 4mm and mill sample to test for Proximate, CSN, Gieseler &amp; Dilatation</li> <li>• 1/8 for raw analysis: Crush to 4mm, mill sample to test for RD, MHC, Proximate, TS, CSN, Calorific Value &amp; Cl</li> <li>• 3/4 for float sink: Wet tumble and wet size at 31.5, 25, 16, 8, 4, 2, 1, 0.5, 0.25, 0.125 &amp; 0.063mm. Re-combine samples in following fractions: -50+16mm, -16+8mm, -8+2mm and -2+0.25mm. Float sink each size fraction at densities (F1.30, F1.35, F1.375, F1.40, F1.45, F1.50, F1.55, F1.60, F1.70, F1.80, F2.00). -0.25+0mm fraction subject to tree froth flotation. All fractions analysed for ash and CSN.</li> <li>• Washability simulations were performed on the float sink results and from that data clean coal composite samples were compiled and analysed for: Primary Coking (-16+0mm), Coarse Coking (-50+16mm) and Secondary Thermal Coal Composites.</li> <li>• The various product types were identified for each hole (from the float sink dataset) and clean coal composite samples were derived and assayed for the various representative properties</li> <li>• Gas holes: Selected coal core sequences from the 4 designated gas-holes were placed in canisters on site and tested for gas content (Q1</li> </ul>

Criteria	JORC Code Explanation	CP Comments
		<p>test). Subsequent laboratory testing completed (Q2 and Q3) the testing for gas content.</p> <p>Pre 2015:</p> <ul style="list-style-type: none"> <li>• Casco complies with the Australian Standards for sample preparation and sub-sampling.</li> <li>• All coal samples were crushed to a top size of 32mm before analysis, for HQ and PQ core (63.5 mm and 85 mm core diameter) and for 100mm core.</li> <li>• Two, 200mm cores were drilled to take a bulk sample for detailed sizing, washability and coke oven testing.</li> </ul>
<p><b>Quality of Assay Data and Laboratory Tests</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Bureau Veritas Minerals Pty Ltd is a NATA registered and a well-recognized coal analytical organization conducting coal quality sampling for many years. Bureau Veritas are accredited for compliance with ISOMECEC 17025, corporate accreditation number 1805. Site accreditation number 18415.</li> <li>• Casco in Mackay, QLD comply with the Australian Standards for coal quality testing and are certified by the NATA.</li> <li>• Geophysical tools were calibrated by the logging company engaged in the project at the time.</li> </ul>
<p><b>Verification of Sampling and Assaying</b></p>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Bureau Veritas in Brendale, QLD comply with the Australian Standards for coal quality testing, and as such conduct the verifications for coal quality analysis outlined in the standards. Casco in Mackay, QLD comply with the Australian Standards for coal quality testing, and as such conduct the verifications for coal quality analysis outlined in the standards.</li> <li>• Coal quality results were verified by Stanmore and Xenith Consulting Pty Ltd (“Xenith”) personnel before inclusion into the geological</li> </ul>

Criteria	JORC Code Explanation	CP Comments
		<p>model and resource estimate.</p> <ul style="list-style-type: none"> <li>Coal quality procedure design, data validations, washability simulations and product coal assessment and analysis was undertaken by Chris McMahon of McMahon Coal Quality Resources (MCQR).</li> </ul>
<b>Location of Data Points</b>	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>The topographic surface has been generated from LiDAR, which was flown by Aerometrix, February 2020. Vertical Accuracy: +/- 0.15m.</li> <li>All holes from the 2016, 2017, 2018 and 2019 campaigns were professionally surveyed by MSS (Golding) surveyors that currently undertake all survey control at the nearby Stanmore owned Isaac Plains Mine Site. The origin of the survey was based on the calculated site base station coordinates and level of the site survey station from the AUSPOS static data listed below. All values are in AMG84 Zone55 coordinates as is the site base station RTCM0000 coordinates</li> <li>The 2015/16 drill holes were surveyed by MSS and JTH Surveys, Moranbah, using site base station (RTCM0000) and Trimble R10 GPS.</li> <li>Previous drilling was surveyed by Shield Surveying Pty Ltd (Mackay) and Mackay Surveys Pty Ltd.</li> <li>The datum used AGD 84 and the projection used AMG 84 Z55.</li> </ul>
<b>Data Spacing and Distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill hole spacing has been dictated by the characteristics and consistency of the target seams within the deposit.</li> <li>Exploration drilling has been conducted on different drilling patterns depending on the nature of the program. For instance, the fault delineation drill holes were spaced between 10 to 20m apart along a pre-determined targeted line.</li> <li>Structural drilling is in general on 250m centres and coal quality drilling is located on approximately 500m centres.</li> <li>The inclusion of holes from neighbouring areas has given the model a reasonable amount of lateral continuity in the north of the ML area.</li> </ul>

Criteria	JORC Code Explanation	CP Comments
		<ul style="list-style-type: none"> <li>• Samples were reported to have been taken on approximately 20 - 40 cm interval and compositing into top and bottom plies. As such, where appropriate, sample compositing has been completed.</li> <li>• Considering the continuity of the target seam(s) in the deposit, this spacing has proven to be sufficient to give adequate control to the model and give the required confidence in the geological interpretation.</li> </ul>
<b>Orientation of Data in Relation to Geological Structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The orientation and spacing of the drilling grid are deemed to be suitable to detect geological structures and coal seam continuity within the resource area.</li> <li>• 2D seismic sections complement the distribution of drill holes.</li> <li>• Comprehensive 3D seismic data was acquired in late 2017. Data points and fault interpretations were included in the geological model to compliment the 2D seismic and drill hole intersections.</li> </ul>
<b>Sample Security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All coal quality cored samples were double bagged in plastic bags on site and the dispatched to Bureau Veritas in Brendale Queensland via tracked freight service. Chain of custody and sample information was emailed to the laboratory ahead of the sample.</li> <li>• All samples were held in cold storage prior to leaving site and at laboratory prior to analysis.</li> <li>• The same procedure was used for all geotechnical samples derived from the cored holes.</li> <li>• Previous programs provide no details on sample security from the provided literature.</li> </ul>
<b>Audits or Reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Cross plots for raw Rd and raw ash% have been produced to validate the results of the coal quality data. The variability of the data is within the expected range.</li> <li>• Bureau Veritas undertake internal audits and checks in line with the</li> </ul>



Criteria	JORC Code Explanation	CP Comments
		<p>Australian Standards and their NATA certification. Corporate Accreditation no. 1805 and site no. 18415</p> <ul style="list-style-type: none"><li>• Casco undertake internal audits and checks in line with the Australian Standards and their NATA certification.</li><li>• Vale reported to have performed a high level technical review of the geological data system during the sale process in 2007</li></ul>

## SECTION 2 REPORTING OF EXPLORATION RESULTS

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

Criteria	JORC Code Explanation	CP Comments								
<b>Mineral Tenement and Land Tenure Status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>Isaac Plains Mine consists of Mining Lease 70342, held by Stanmore IP Coal Pty Ltd, and fully owned subsidiary of Stanmore Coal Limited.</li> <li>Isaac Plains East (IPE) is covered by four (4) Mining Leases, ML 700016, ML 700017, ML 700018, and ML 700019, each of which was granted to Stanmore IP Coal Pty Ltd on 1st March 2018.</li> <li>Stanmore Wotonga Pty Ltd is contractual holder of MDL 137 (north) although this portion of the MDL, which is north of the Peak Downs Highway, continues to be formally held by Millennium Coal Pty Ltd. Tenure title of MDL 137 (Wotonga) must remain with Millennium due to the fact that this MDL also continues to the south of the highway; however, the full underlying contractual rights are held by Stanmore.</li> <li>The eastern part of the underground resource estimated herein is now covered under ML700018 &amp; ML700019. ML 700018 and ML 70019 also cover Stanmore Coal's Isaac Plain East Mine(IPE). IPE targets the Leichhardt (LHD) seam on the up-thrown side of the Burton Thrust Fault. The eastern portion of the IPE resources is a fault repeat and overlies the Isaac Plains underground resource.</li> <li>EPC 677 is located to the North of the ML and is currently held by Fitzroy (CQ) Pty Ltd. Stanmore have a signed Designated Area Agreement (DAA) with Fitzroy. The DAA allows Stanmore to explore and apply for a Mining Lease over the area of the DAA within EPC 667 between ML 70342 &amp; MDL135 to the South of the Goonyella to DBCT Rail line. Stanmore subsequently, explored and applied for a Mining Lease (ML 700019) over this area, which was granted on 1 March 2018.</li> <li>Stanmore has the relevant licences to operate in the Isaac Plains area.</li> </ul>								
			<table border="1"> <thead> <tr> <th>Tenure</th> <th>Tenement Holder</th> <th>Grant Date</th> <th>Expiry Date</th> <th>Area (Ha)</th> </tr> </thead> <tbody> <tr> <td><b>ML 70342</b></td> <td>Stanmore IP Coal Pty Ltd</td> <td>1/12/2005</td> <td>31/12/2025</td> <td>2141.9</td> </tr> </tbody> </table>	Tenure	Tenement Holder	Grant Date	Expiry Date	Area (Ha)	<b>ML 70342</b>	Stanmore IP Coal Pty Ltd
Tenure	Tenement Holder	Grant Date	Expiry Date	Area (Ha)						
<b>ML 70342</b>	Stanmore IP Coal Pty Ltd	1/12/2005	31/12/2025	2141.9						

Criteria	JORC Code Explanation	CP Comments				
		EPC 667	Fitzroy Australia (CQ) Pty Ltd	17/10/1997	30/05/2021	10807, (34 Sub-blocks)
<p><b>Exploration Done by Other Parties</b></p>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	ML700018	Stanmore IP Coal Pty Ltd	01/03/2018	31/03/2030	369.1
		ML700019	Stanmore IP Coal Pty Ltd	01/03/2018	31/03/2030	353.8
<p><b>Geology</b></p>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<p>*MDL135 was extinguished on 1<sup>st</sup> March 2018 upon grant of MLA700018 and 70019 which fully overlies its area</p> <ul style="list-style-type: none"> <li>Historically (since the early 1970's), there have been 6 EPC's (EPC 6, 3, 292, 755, 602, 1454) held over the Isaac Plains area.</li> <li>A total of 7 parties have undertaken exploration activities within IPC.</li> <li>Exploration drilling and geophysical surveys that have been completed within and in close proximity to the Isaac Plains area have been reviewed as part of this report.</li> <li>Within the lease boundary and EPC 677 resource zone, a total of 37 drill holes with publicly available information drilled by other parties were reviewed, including drilling for coal. Among them, 36 historic holes were considered suitable for use in the geological model.</li> <li>An additional 3 drill holes located outside of the lease boundary and EPC resource zone were included to ensure adequate structural control of the resource deposit.</li> <li>MGC Resources Australia Pty Ltd conducted 2D dynamite seismic surveys within the area during the early 1990's.</li> <li>IPC lies within the Permo-Triassic Bowen Basin. The Bowen Basin consists of 10 kilometre (km) thick sequences of volcanic, shallow marine and terrestrial sediments and is categorised back-arc to foreland basin.</li> <li>The general stratigraphy of IPC includes (oldest to youngest) –</li> <li>Lower-Permian Reids Dome Beds, Lower-Upper Permian Back Creek Group, Upper Permian Blackwater Group, and Rewan group.</li> <li>Coal seams occur within the Rangal Coal Measures which are Late</li> </ul>				

Criteria	JORC Code Explanation	CP Comments
		<p>Permian in age. These seams dip gently to the east at approximately 5 degrees.</p> <ul style="list-style-type: none"> <li>The coal seams found within the Rangal Coal Measures are the Leichhardt, Leichhardt Upper and Leichhardt Lower, and Vermont.</li> <li>The seams have a cumulative thickness of approximately 7-10 m across the deposit.</li> <li>The Vermont seam was not included in the resource estimate due to the lack of geological information. The results at hand indicate the coal to be of poorer quality.</li> </ul>
<b>Drill Hole Information</b>	<ul style="list-style-type: none"> <li><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li>– easting and northing of the drill hole collar</li> <li>– elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>– dip and azimuth of the hole</li> <li>– down hole length and interception depth</li> <li>– hole length.</li> </ul> </li> <li><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>A detailed list of the drill holes used to define the coal quality of the resource in IPC can be found in Appendix C.</li> <li>Geophysical deviation logs (verticality) are available for all holes.</li> <li>Shallow holes (open-cut area) have been modelled as vertical holes, i.e. deviation has not been modelled.</li> <li>The verticality data for the deeper underground holes has been loaded and the holes were modelled with account of any inclination.</li> </ul>
<b>Data Aggregation Methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results,</i></li> </ul>	<ul style="list-style-type: none"> <li>It is reported that all seams where multiple coal quality samples were taken were given composite coal quality values based on the length and relative density weighted sum of the raw ply results.</li> <li>Seams with a raw ash (adb) above 50% are not classified as coal and has not been included as a resource.</li> </ul>

Criteria	JORC Code Explanation	CP Comments
	<p><i>the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	
<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>All holes were drilled vertical.</li> <li>Constraints were applied in thickness modelling to exclude over thickened and under thickened working sections in the model. The variations in the thickness were attributable to faulting.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>All appropriate diagrams are contained within the main body of the report</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>All available exploration data for the Isaac Plains area has been collated and reported.</li> </ul>
<b>Other Substantive Exploration Data</b>	<ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>All exploration data was gathered and or utilised in the resource estimation.</li> <li>Geotechnical logging, sampling and testing from the overburden, interburden, seam roof/floor and coal (such as defect logging, field point load testing and laboratory testing) has been undertaken.</li> <li>A geostatistical assessment of the Isaac Plains deposit was reported to have been undertaken by Snowden Mining Industry Consultants</li> </ul>

Criteria	JORC Code Explanation	CP Comments
		<p>(Snowdens) in 2010. The original report and date for which were not sited. This study concluded that a drill hole spacing of 250m is “suitable for to confirm the thickness continuity as indicated by the JORC Code of 1999 for the definition of Measured Resources”.</p> <ul style="list-style-type: none"> <li>• Velseis conducted a 2D seismic survey featuring 15 lines to further define faults in the IPC and IPE areas. Historical seismic data as described above was re-evaluated. This work resulted in updated fault interpretations which were used in the creation of the geological model.</li> </ul>
<p><b>Further Work</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Production drilling will be planned based on the mine reserves and mining schedule.</li> <li>• Further resource drilling may be planned for the area of potential underground area, including structural drilling in the fault repeat block in the south-west.</li> </ul>

## SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

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

Criteria	JORC Code Explanation	CP Comments
<b>Database Integrity</b>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Data was entered in the field by the field Geologist into LogCheck software.</li> <li>All lithological logs, and coal intersection depths have been reconciled and corrected to the geophysical log.</li> <li>A review of the historical geophysical logs was conducted as part of the 2015 resource estimate.</li> <li>All new data was validated by Xenith post correction by exploration geologists.</li> <li>All bore hole collars were checked against the natural topographic surface and with the exception of approximately 18 drill holes the difference in RL was less than 1m.</li> <li>Coal Quality data has been checked against lab reports and cross referenced with lithology and ply logs.</li> <li>As part of the 2015 resource estimate seam picks and sample thicknesses for historical holes were validated and raw qualities were compared to results from the historic resource reports.</li> </ul>
<b>Site Visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Mr T. Turner as Competent Person conducted a site visit in late November 2015. Drilling, logging and sampling procedures and techniques were evaluated. All works sighted during the site visit were found to be of a satisfactory standard.</li> <li>The Competent Person's familiarity with IPC and stratigraphy is thorough and sufficient. Review of the previous exploration data indicates that the geology is typical of the area.</li> </ul>
<b>Geological Interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> </ul>	<ul style="list-style-type: none"> <li>The drill hole density (core and chip) in IPC allows good level of confidence in the nature of seam splitting, seam thickness, coal quality, the location of sub-crops and general location of faults.</li> </ul>

Criteria	JORC Code Explanation	CP Comments
	<ul style="list-style-type: none"> <li>• <i>Nature of the data used and of any assumptions made.</i></li> <li>• <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li>• <i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> <li>• <i>The factors affecting continuity both of grade and geology.</i></li> </ul>	
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>• <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Leichhardt target seam(s) extends approximately 5 km along strike and from 3km (max) in the North to less than 100m (min) in the South, perpendicular to strike with an approximate average cumulative thickness of 3.5m.</li> <li>• The depth of first coal ranges from between 15m in the proximal to the main central thrust fault (uplifted), and 300m in the Northeast.</li> <li>• The current resource extent covers approximately 9.2km<sup>2</sup></li> <li>• Variability in the coal seam parameters, such as seam thickness and raw coal quality, is reflected in the resource classifications assigned to each seam.</li> </ul>
<b>Estimation and Modelling Techniques</b>	<ul style="list-style-type: none"> <li>• <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li>• <i>The assumptions made regarding recovery of by-products.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></li> </ul>	<ul style="list-style-type: none"> <li>• The geological model was constructed in ABB Minescape version 5.12 using different modelling algorithms for structure and coal quality parameters. The Finite Element Method (FEM) interpolator with Order: 0 for thickness, 1 for surface and 0 for trend.</li> <li>• The inverse distance squared interpolator was used for raw coal quality modelling.</li> <li>• A maximum extrapolation distance of 3000m from the last data point has been used.</li> <li>• Limits were placed on the Resource Estimate with cut-offs at 0.3m thickness for all coal seams within the proposed open-cut region and 1.5m for the remainder of the resource, with the minimum parting thickness of 0.3m to be considered within the seam. Stone bands greater than 0.3m are not included within the seam, so modelling of</li> </ul>



Criteria	JORC Code Explanation	CP Comments
	<ul style="list-style-type: none"> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<p>the seam split occurs.</p>
<b>Moisture</b>	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>Coal resource tonnages were estimated using a calculated Preston and Sanders in situ relative density.</li> <li>Based on the results from coal quality testing, the in-situ moisture has been estimated to be 4.5%. The 4.5% was assumed based on similar Rangal Coal Measure seams located within the area, as well as MHC data.</li> <li>Coal qualities relating to the resource tonnages are reported on an air-dried basis.</li> </ul>
<b>Cut-Off Parameters</b>	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>A maximum raw ash percentage has been applied, where a maximum raw ash of 50%, air-dried basis, has been applied to the resource estimate.</li> </ul>
<b>Mining Factors or Assumptions</b>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual</i></li> </ul>	<ul style="list-style-type: none"> <li>Xenith have applied a minimum thickness appropriate to the potential mining method, see 'Modelling technique' and deem the coal resource have reasonable prospects of economic extraction.</li> <li>The depth limit of potential open-cut mining varies based on multiple</li> </ul>

Criteria	JORC Code Explanation	CP Comments
	<p><i>economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></p>	<p>and variable inputs. Presently the limit of open-cut mining is likely to occur between 100 to 150m (depth from surface). If underground mining were to take place, a minimum mining thickness of 1.5m would be required. As such a minimum seam mining thickness was applied to depths &gt;150m, thereby excluding any seams &lt;1.5m thickness from the resource estimate.</p> <ul style="list-style-type: none"> <li>• Absolute depth of resource was a maximum of 330m from topography.</li> </ul>
<p><b>Metallurgical Factors or Assumptions</b></p>	<ul style="list-style-type: none"> <li>• <i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>• It is Xenith’s opinion that at this stage of the project that there are no limiting metallurgical factors.</li> <li>• Isaac Plains has been an operating open-cut mine since 2006.</li> <li>• Some historically reported higher than average Rangal Coal Measures phosphorous percentages may potentially require blending before shipping.</li> </ul>
<p><b>Environmental Factors or Assumptions</b></p>	<ul style="list-style-type: none"> <li>• <i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>• It is Xenith’s opinion that at this stage of the project that there are no limiting environmental factors.</li> <li>• The coal below “Smoky Creek” has been included in the resource estimate. The CP has regarded this coal as having reasonable prospects for eventual economic extraction due to its shallow nature and seam thickness results. The necessary approvals will need to be obtained to divert this creek, for this coal to be extracted within the open-cut mine.</li> </ul>
<p><b>Bulk Density</b></p>	<ul style="list-style-type: none"> <li>• <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or</i></li> </ul>	<ul style="list-style-type: none"> <li>• Preston and Sanders In situ Relative Density Estimation – The in situ density of the coal seams has been estimated using the Preston and</li> </ul>

Criteria	JORC Code Explanation	CP Comments
	<p><i>dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></p> <ul style="list-style-type: none"> <li><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</i></li> <li><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<p>Sanders in situ relative density estimation equation:</p> $RD(in\ situ) = \frac{RDad \times (100 - Mad)}{\{100 + RDad \times (ISM - Mad) - ISM\}}$ <ul style="list-style-type: none"> <li>Inherent (air dried) moisture values have been derived from sampled core intervals.</li> <li>In situ Moisture was assumed to be 4.5% for the purpose of the resource estimation.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>Three resource categories have been identified within the Isaac Plains area, depending on the level of confidence in the seam structure and continuity plus the level of variability in the coal quality data.</li> <li>Drill holes, mined out areas, and seismic sections provide the basis for structural/thickness continuity.</li> <li>Points of Observation have been used to establish coal quality continuity.</li> <li>The level of drilling information and presence of an operating mine also assist with the classification of resource categories.</li> </ul>
<b>Audits or Reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>No external audits have been performed on the Mineral Resource estimate, but internal QAQC protocols have been followed.</li> <li>A review of the geological model was undertaken by Palaris in February 2017. The results of which are included in "Report – Isaac Plains Reconciliation Process"</li> </ul>
<b>Discussion of Relative Accuracy/ Confidence</b>	<ul style="list-style-type: none"> <li><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion</i></li> </ul>	<ul style="list-style-type: none"> <li>Xenith have assigned three level(s) of confidence to the coal resource estimate, depending on the seam and drill hole spacing, as described in the Chapter 10 of the 2020 JORC Resource report.</li> <li>A geostatistical review of the coal seam thickness data for the IPC was conducted in 2010 by Snowden.</li> <li>Factors that could affect accuracy include unknown structures</li> </ul>

Criteria	JORC Code Explanation	CP Comments
	<p data-bbox="465 277 1128 341"><i>of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <ul data-bbox="421 352 1189 628" style="list-style-type: none"><li data-bbox="421 352 1189 517">• <i>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.</i></li><li data-bbox="421 528 1189 628">• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li></ul>	<p data-bbox="1272 277 2101 442">between completed drill holes, seam washouts in roof or in-seam stone bands developing. No evidence exists at this point in time for these, apart from what has currently been geologically modelled or exists within the models design database. The inclusion/exclusion of these features was discussed in the report.</p>

## APPENDIX B

### JORC CODE 2012 EDITION – TABLE 1 FOR ISAAC PLAINS EAST COAL RESOURCES AS AT JUNE 30 2020

#### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	CP Comments
<i>Sampling techniques</i>	<ul style="list-style-type: none"><li>• <i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li><li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li><li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li><li>• <i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li></ul>	<ul style="list-style-type: none"><li>• Vertical drillholes were used to obtain core samples of the coal seam and associated stone partings.</li><li>• Cored intervals were sampled where coal was present at thickness of 0.1m or more, with a maximum sample thickness of 0.5 m. Holes used for washability analysis were drilled at 4C or PQ size. Coal plies were sampled discretely on the basis of lithological characteristics and quality. All non-coal material and partings less than 0.1 m were included with the coal ply and noted in the lithological description.</li><li>• Cored holes were geophysically logged with down-hole wireline gamma/density/calliper tools to confirm sample recovery and ply representation.</li><li>• Open hole rotary drilling for structure holes and non-cored intervals of quality holes provided chip samples for the description of geological units. Downhole geophysical logs were acquired to supplement the geological description of the drillholes, to assist with correlation of the various seams and to demonstrate continuity of seam character.</li><li>• Geophysical logging was carried out by external contractors and subject to their internal calibration, quality assurance and quality control procedures.</li></ul>

Criteria	JORC Code explanation	CP Comments
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>• All Stanmore coal quality holes were cored (partially or fully) using a conventional 4” core barrel, producing a 101mm core diameter.</li> <li>• Structural holes were drilled as openholes using a polycrystalline diamond hammer or blade bit depending on the lithology.</li> <li>• Lines of Oxidation (“LOX”) holes were drilled by a reverse circulation hammer drill rig.</li> <li>• Details of the drill type is not available for all historic (pre-Stanmore) holes</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Linear core recovery was calculated by dividing the measured length of the core by the drilled length. Geophysical density logs were used to confirm seam thicknesses and adjust seam depths if required.</li> <li>• Laboratory ARD (Apparent Relative Density) were used to calculate the expected mass of each sample based on the recorded length and this was compared to the laboratory weight to ensure that the seam recoveries were satisfactory (&gt; 90%)</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant</i></li> </ul>	<ul style="list-style-type: none"> <li>• All Stanmore drill core was geologically logged, marked and photographed prior to sampling. Geological and geotechnical features were identified and logged as part of this process.</li> <li>• All Stanmore open holes had chips collected every metre, which were then geologically logged and photographed.</li> <li>• Geological and geotechnical logging was undertaken in</li> </ul>

Criteria	JORC Code explanation	CP Comments
	<i>intersections logged.</i>	<p>accordance with the CoalLog industry standard.</p> <ul style="list-style-type: none"> <li>• Details of the logging is not available for historic (pre-Stanmore) holes</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sampling of core was in accordance with the CoalLog industry standard.</li> <li>• Cored intervals were sampled where coal was present at thickness of 0.1m or more, with a maximum sample thickness of 0.5 m. Holes used for washability analysis were drilled at 4C or PQ size. Coal plies were sampled discretely on the basis of lithological characteristics and quality. All non-coal material and partings less than 0.1 m were included with the coal ply and noted in the lithological description.</li> <li>• All core coal samples were double bagged on site and were transported to a NATA accredited laboratory for testing.</li> <li>• Coal samples were initially tested for Apparent Relative Density (ARD). Samples were then composite to form washability sections.</li> <li>• To simulate mine transport conditions each composite sample was then drop shattered 20 times from a height of 2 metres, any sample mass remaining of &gt; 50 mm was hand knapped to 50 mm, dry tumbled and dry sized at 31.5 mm, 25 mm, 16 mm, 8 mm, 4 mm and 2 mm.</li> <li>• After the dry pre-treatment each composite sample was divided into three parts:</li> </ul>

Criteria	JORC Code explanation	CP Comments
		<ul style="list-style-type: none"> <li>• 1/8 for quick coke: Crush to 11.2mm, float sink at 1.425 density, crush to 4mm and mill sample to test for Proximate, CSN, Gieseler &amp; Dilatation</li> <li>• 1/8 for raw analysis: Crush to 4mm, mill sample to test for RD, Proximate, TS and CSN. Selected samples were also test for Calorific Value, Moisture Holding Capacity &amp; Chlorine</li> <li>• 3/4 for float sink: Wet tumble and wet size at 31.5, 25, 16, 8, 4, 2, 1, 0.5, 0.25, 0.125 &amp; 0.063mm. Re-combine samples in following fractions: -50+16mm, -16+8mm, -8+2mm and -2+0.25mm. Float sink each size fraction at densities (F1.30, F1.35, F1.375, F1.40, F1.45, F1.50, F1.55, F1.60, F1.70, F1.80, F2.00). -0.25+0mm fraction subject to tree froth flotation. All fractions analysed for ash and CSN.</li> <li>• Washability simulations were performed on the float sink results and from that data clean coal composite samples were compiled</li> <li>• The historic washability data collected from the Thiess Dampier Mitsui (TDM) drilling in the mid-2000's was from smaller diameter cores that were not pre-treated and were crushed to a reduced top size such as an -11.2mm size fraction. Chris McMahon (MCQR) validated and produced large wash simile data from the TDM borecores by employing steps of density standardisation, pre-treatment alignment and size splitting of the crushed coal. This data was then used to produce yield</li> </ul>



Criteria	JORC Code explanation	CP Comments
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	<p>simulations comparable to the Stanmore large washability data.</p> <ul style="list-style-type: none"> <li>All coal quality analysis techniques are per Australian Standards and completed at NATA accredited laboratories.</li> <li>All coal quality results were checked by cross plots and comparison to original geological logging for accuracy.</li> <li>David Hornsby of Minserve Group reviewed and assessed the coal quality (and dilution) dataset.</li> <li>Geophysical logging was carried out by external contractors (Weatherford and Kinetic) and subject to their internal calibration, quality assurance and quality control procedures.</li> <li>No geophysical logging was conducted on the historic drilling.</li> </ul>
<p><i>Verification of sampling and assaying</i></p>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Coal quality sample intervals and results were checked and correlated against lithological and geophysical logs.</li> <li>Raw coal quality data was checked for internal consistency and consistency with the existing data set by checking cumulative totals and cross correlations.</li> <li>Validation processes by a NATA registered laboratory were conducted for all samples as well as an internal statistical check for anomalies within the laboratory dataset.</li> <li>Data is stored within Stanmore Geobank database and copies of lab reports are also stored digitally on a separate server</li> </ul>
<p><i>Location of data</i></p>	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine</i></li> </ul>	<ul style="list-style-type: none"> <li>Survey of drill collars was conducted using high precision differential GPS</li> </ul>

Criteria	JORC Code explanation	CP Comments
<i>points</i>	<p><i>workings and other locations used in Mineral Resource estimation.</i></p> <ul style="list-style-type: none"> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>Survey was undertaken by the Isaac Plains mine surveyor or a qualified contract surveyor</li> <li>The coordinate system used was AGD 84 Z55 which is the system used at the Isaac Plains Mine.</li> <li>The aerial topographic survey was conducted in September 2015 by Atlass (Aerometrex). The survey accuracy is determined to be +/-0.25m.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Borehole spacing has been dictated by the characteristics and consistency of the target seams within the deposit.</li> <li>Geostatistical and classical statistical analysis of coal ply and working section parameters (thickness and ash) were used to assist in determining the variability of the deposit.</li> <li>Cored holes are generally spaced between 300m and 600m apart</li> <li>Structural holes are generally spaced ~100m apart in areas where a pit is planned and up to 800m apart at the limits of the resources.</li> <li>Structural holes may be very closely spaced (~25m) to define areas of rapid change (e.g. along the Limit of Oxidation, across a fault, along the edge of a basalt channel).</li> <li>Considering the continuity of the target seam(s) in the deposit, this spacing has proven to be sufficient to give adequate control to the model and give the required confidence in the geological interpretation.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>If the relationship between the drilling orientation</i></li> </ul>	<ul style="list-style-type: none"> <li>Samples distributed along known coal seam strike and down dip to ensure unbiased sampling.</li> <li>All drillholes used as points of observation were drilled as vertical holes, which is appropriate given the flat lying and stratiform nature of the coal deposits.</li> </ul>

Criteria	JORC Code explanation	CP Comments
	<i>and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	
Sample security	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>All coal quality cored samples were double bagged in plastic bags on site and the dispatched via tracked freight service. Chain of custody and sample information was emailed to the laboratory ahead of the sample</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No audits or data reviews have been undertaken as part of this resource update</li> <li>The testing laboratories undertake internal audits and checks in line with the Australian Standards and their NATA certification</li> <li>The IPE data was fully reviewed as part of the Bankable Feasibility Study (BFS) in 2017 prior to commencement of mining</li> <li>Prior to this resource update the previous resources estimates were reviewed and any variances between the current model and the model used for the last resource estimate were investigated.</li> <li>Since mining commenced in 2018 reconciliations have been conducted for both coal quality and coal quantity on each IPE strip and these have shown very good agreement with the geological model</li> </ul>

## Section 2 - Reporting of Exploration Results

(Criteria)	JORC Code explanation	CP Comments
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>The IPE resource is covered by four Mining Leases, ML 700016, ML 700017, ML 700018, and ML 700019, each of which was granted to Stanmore IP Coal Pty Ltd on 1st March 2018.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Prior to Stanmore acquiring the IPE tenure, Thiess Dampier Mitsui, Peabody Energy and Blue Energy had all undertaken exploration activities within the project area</li> <li>Xenith reviewed the historic data prior to Stanmore undertaking their own exploration program</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The IPE deposit occurs in the northern Bowen Basin</li> <li>The economic coal is contained in the Leichhardt (LHD) Seam of the late Permian Rangal Coal Measures (RCM)</li> <li>The RCM are unconformably overlain by Tertiary sediments and basalt flows</li> <li>The LHD has an average thickness of 2.8m and is able to produce a primary semi-soft coking coal +/- a secondary low ash thermal</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Detailed drillhole data has not been included as it is deemed commercially sensitive. This information may be supplied if requested.</li> <li>Given that coal is bulk commodity and that there are a large number of drillholes (738) in the deposit individual drillhole details are not considered Material to understanding the resource report</li> </ul>

(Criteria)	JORC Code explanation	CP Comments
	<ul style="list-style-type: none"> <li>• <i>dip and azimuth of the hole</i></li> <li>• <i>down hole length and interception depth</i></li> <li>• <i>hole length.</i></li> <li>• <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>• <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Resources have been estimated and reported on a full seam basis.</li> <li>• Where multiple coal quality samples were taken from the seam results have been composited within the modelling software.</li> <li>• Individual samples have been weighted by thickness and density (mass weighting). Laboratory determined relative density (RD ad) has been used for the density weighting.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>• Seam thicknesses have been reconciled to geophysics to ensure accuracy.</li> <li>• Coal thicknesses shown are for downhole thickness. Coal resource modelling and estimation adjusts for seam thickness versus the apparent thickness modelled.</li> <li>• Seam thickness was contoured, and any bullseyes were investigated.</li> <li>• The variations in the thickness was largely attributable to faulting and LOX thinning</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and</i></li> </ul>	<ul style="list-style-type: none"> <li>• All appropriate diagrams are contained within the main</li> </ul>

(Criteria)	JORC Code explanation	CP Comments
	<i>tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	body of the report
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All available exploration data for the Isaac Plains area has been collated and reported.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• 2D Mini-sosie surveys were undertaken as part of the 2016 exploration campaign to better understand the nature of the faulting and structure at IPE.</li> <li>• Ground Magnetic Survey was carried out in October / November 2017 by Atlas Geophysics across the entire area on east west lines spaced every 50m. The resultant data was reviewed by Geo Discovery Pty Ltd and an interpretation of the surface basalt coverage was produced</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No future work has been planned for the IPE area.</li> <li>• Recommendations for future work have been proposed for the southern limit of the deposit but no detailed planning has been undertaken.</li> </ul>

### Section 3 - Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	CP Comments
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>• <i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></li> <li>• <i>Data validation procedures used.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Isaac Plains geological database (Geobank) contains all hole surveys, drilling details, lithological data, and coal quality results and is the primary source for all such information.</li> <li>• Original geological field logs (scanned), down hole geophysics (LAS) files and hard copy logs, hole collar survey files, digital laboratory data and reports and other similar source data are maintained on the Stanmore servers and available for reference at any time</li> <li>• A number of validations were undertaken on the database that help ensure consistency and integrity of data including, but not limited to:             <ul style="list-style-type: none"> <li>• relational link between geological, down hole geophysical and coal quality data;</li> <li>• exclusion of overlapping geological intervals;</li> <li>• restriction of data entry to the interval of the defined hole depth;</li> <li>• use only of defined rock type and stratigraphic codes; and</li> <li>• basic coal quality integrity checks such ensuring data is within normal range limits, that proximate analyses add to 100 percent.</li> </ul> </li> <li>• Lithological logs, geophysical wireline logs, assay results and coal intersection depths were adjusted to geophysics before modelling and resource estimation.</li> <li>• Coal quality data checked against NATA laboratory reports where available prior to resource estimation.</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>• <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li>• <i>If no site visits have been undertaken indicate why this is the</i></li> </ul>	<ul style="list-style-type: none"> <li>• The competent person works at the Isaac Plains Complex and frequently visits the active mining areas at IPE. She also oversees any exploration activity undertaken on the IPE mining</li> </ul>

Criteria	JORC Code explanation	CP Comments
	<i>case.</i>	leases.
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>• <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></li> <li>• <i>Nature of the data used and of any assumptions made.</i></li> <li>• <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li>• <i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> <li>• <i>The factors affecting continuity both of grade and geology.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The borehole density (core and chip) in the IPE area allows for a good level of confidence in the nature of seam splitting, seam thickness, coal quality, the location of sub-crops and general location of faults.</li> <li>• Interpretation of Basalt affected areas is from the drilling and ground magnetic Survey. Interpretation is predominately reliant on the results of the drilling program.</li> </ul>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>• <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Leichhardt target seam(s) extends approximately 7 km along strike and approximately 1.2km perpendicular to strike with an approximate average cumulative thickness of 2.8m.</li> <li>• The depth of first coal ranges from between 15 to 20 m in the west at the fresh coal interface, and 195m in the east under the central topographical high.</li> <li>• Variability for the LHD seam is very minimal; the thickness generally increases to the central north and raw ash increase slightly to the south, north and down dip.</li> </ul>
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li>• <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li>• <i>The assumptions made regarding by-products recovery.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade</i></li> </ul>	<ul style="list-style-type: none"> <li>• The structural model was updated in May 2020 and the coal quality model was updated in Jan 2020.</li> <li>• Modelling was done in Maptek's Vulcan 12.0.4 modelling software using the Integrated Stratigraphic Modelling package to produce grids and triangulations. FixDHD was used to interpolate drillhole data prior to structure modelling.</li> <li>• Seam surfaces and thicknesses were modelled using triangulation and coal quality was modelled using inverse distance squared</li> <li>• Seams were stacked using the LHD roof as the reference surface</li> </ul>



Criteria	JORC Code explanation	CP Comments
	<p><i>variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></p> <ul style="list-style-type: none"> <li>• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li>• <i>Any assumptions behind modelling selective mining units.</i></li> <li>• <i>Any assumptions about correlation between variables.</i></li> <li>• <i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li>• <i>Discussion of basis for using (or not) grade cutting or capping.</i></li> <li>• <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Modelled grid size is 5m for the structure model and 20m for the coal quality model</li> <li>• Seam grids were cropped to the Permian base of weathering</li> <li>• Faults are treated as vertical and modelled using throw</li> <li>• Dummy points were used to control the LHD roof to the west beyond the subcrop line and adjacent to some faults where data is sparse.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li>• <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Coal resource tonnages were estimated using a calculated Preston and Sanders in situ relative density, using air-dried moisture, total moisture and moisture holding capacities from coal samples (where available).</li> <li>• Based on the results from coal quality testing, the in situ moisture has been estimated to be 4.3%. The 4.3% was derived from the analysed Moisture Holding Capacity values.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>• <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• A raw ash % (ad) cut-off grade of 50% was used to distinguish between coal and rock material.</li> <li>• No weathered or oxidised coal was included in the Coal Resource estimate.</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>• <i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual</i></li> </ul>	<ul style="list-style-type: none"> <li>• It is assumed that the mining methods currently used at IPE (a combination of dragline and CDX (cast doze excavate)) will continue down dip as long as it economic to do so. No depth cut off has been applied but resources have been reported by</li> </ul>

Criteria	JORC Code explanation	CP Comments
	<p><i>economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></p>	<p>overburden depth and a depth of 100m to the top of the LHD seam is considered a nominal limit for opencut mining.</p> <ul style="list-style-type: none"> <li>The LHD seam thickness and depth is deemed suitable for highwall or underground development and therefore resources have been classified below the nominal limit for opencut mining.</li> </ul>
<p><i>Metallurgical factors or assumptions</i></p>	<ul style="list-style-type: none"> <li><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>The coal from IPE has been successfully processed through the Isaac Plains CHPP since 2018.</li> <li>Washability simulations from exploration cores show that the remainder of the IPE deposit is similar in character and is therefore very unlikely to have any processing limitations</li> </ul>
<p><i>Environmental factors or assumptions</i></p>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>Two drainage channels lie across the IPE area one in the north, Smokey Creek and one in the south, Billy's Gully.</li> <li>Neither channel is a permanent water course but should be considered for future evaluation.</li> </ul>
<p><i>Bulk density</i></p>	<ul style="list-style-type: none"> <li><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> </ul>	<ul style="list-style-type: none"> <li>The in situ density of the coal seams has been estimated using the Preston and Sanders in situ relative density estimation equation.</li> <li>Inherent moisture values have been derived from the coal</li> </ul>

Criteria	JORC Code explanation	CP Comments
	<ul style="list-style-type: none"> <li><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> <li><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<p>quality grids which are based on analysis of the exploration cores.</p> <ul style="list-style-type: none"> <li>In situ Moisture (“ISM”) was assumed to be 4.3% for the purpose of the resource estimation. The average ISM was calculated from the analysed moisture holding capacity values derived from the cored holes. Formula for calculation was based on the ACARP report C10041 and is: <math>ISM = 0.348 + 1.1431 \times MHC</math>.</li> <li>Air dried RD values have been derived from the coal quality grids which are based on the analysis of exploration cores</li> </ul>
Classification	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>Whether appropriate account has been taken of all relevant factors (ie. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li><i>Whether the result appropriately reflects the Competent Person’s view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>The classification of resources is based on the spacing and distribution of “points of observation” for coal quality and structure.</li> <li>Coal quality points of observation are defined as cored boreholes with greater than 90% recovery across the seam (or accepted by the Competent Person as being representative of the seam through analysis of the coal quality results, core photography and geophysical signature), and Raw and Washability coal quality data</li> <li>Quantity (structure) points of observation are defined as boreholes with downhole geophysical gamma and density logs through the coal seam</li> <li>Statistical analysis was conducted to determine optimal ranges for each resource category, consisting of general statistics and variability based on seam thickness and raw ash (ad%).</li> <li><b>Measured Resources:</b> <ul style="list-style-type: none"> <li>500m spacing of coal quality points of observation</li> <li>Extrapolated up dip or towards the current pit exposure</li> <li>No extrapolation down dip</li> </ul> </li> </ul>

Criteria	JORC Code explanation	CP Comments
		<ul style="list-style-type: none"> <li>• <b>Indicated Resources:</b> <ul style="list-style-type: none"> <li>• 1000m spacing of coal quality points of observation</li> <li>• Extrapolation out a structure point of observation if no more than 333m (1/3 of the observation spacing) away from the coal quality point of observation</li> </ul> </li> <li>• <b>Inferred Resources:</b> <ul style="list-style-type: none"> <li>• 5000m spacing of structure points of observation</li> <li>• Extrapolation 600m to supporting data points (historic drillholes with no geophysical logs) in the south of the deposit</li> </ul> </li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• John Bamberry of Palaris Australia audited the Xenith modelling procedures and dataset in May 2017.</li> <li>• No audits or reviews were conducted for the current resource estimate</li> </ul>
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> <li>• <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li>• <i>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</i></li> </ul>	<ul style="list-style-type: none"> <li>• The coal seam resource polygons are limited by the modelled coal seam sub crops and by the drillhole distribution. This ensures no weathered coal can be counted within the estimate.</li> <li>• The thickness grids of each of the seams are based on actual drill intersections. These intersections are checked and adjusted against geophysics in both cored and chip holes.</li> <li>• A geostatistical review of the coal seam thickness data for the Isaac Plains East Project area has been conducted.</li> <li>• Overlying basalt altered areas have been recognised at site and interpreted for the resource estimate.</li> <li>• The geological model in-situ coal estimate has been reconciled against production on a strip by strip basis and these have shown very good agreement with the geological model. The</li> </ul>

Criteria	JORC Code explanation	CP Comments
	<p><i>and the procedures used.</i></p> <ul style="list-style-type: none"><li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li></ul>	<p>main variance was in the initial boxcuts where production included weathered coal, which had been excluded from the resource estimate.</p>

## APPENDIX C

### JORC CODE 2012 EDITION – TABLE 1 FOR ISAAC PLAINS AND ISAAC PLAINS EAST OPENCUT COAL RESERVE AS AT JUNE 30 2020

This Appendix details section 4 of the JORC Code 2012 Edition Table 1. Section 5 Estimation and Report of Diamonds and Other Gemstones has been excluded as they are not applicable to this deposit and estimation.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in Section 1, and where relevant in Sections 2 and 3, also apply to Section 4)

Criteria	JORC Code Explanation	Commentary										
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	<ul style="list-style-type: none"> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<ul style="list-style-type: none"> <li>The JORC Coal Resource for Isaac Plains Mine (<b>IPM</b>) (June 2020) was estimated by Troy Turner, a full-time employee of Xenith Consulting Pty Ltd. Mr Turner 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 Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.”</li> <li>The Coal Resource Estimate for the Isaac Plains Mine is: <table border="1" data-bbox="1496 959 1872 1217"> <thead> <tr> <th>Resource Category</th> <th>IPM</th> </tr> </thead> <tbody> <tr> <td>Measured (Mt)</td> <td>25.2</td> </tr> <tr> <td>Indicated (Mt)</td> <td>16</td> </tr> <tr> <td>Inferred (Mt)</td> <td>5</td> </tr> <tr> <td><b>Total (Mt)</b></td> <td><b>46</b></td> </tr> </tbody> </table> </li> <li>The JORC Coal Resource for Isaac Plains East (IPE) (June 2020) was estimated by Bronwyn Leonard, a full-time employee of Stanmore IP Coal Pty Ltd. Ms Leonard is a qualified geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under</li> </ul>	Resource Category	IPM	Measured (Mt)	25.2	Indicated (Mt)	16	Inferred (Mt)	5	<b>Total (Mt)</b>	<b>46</b>
Resource Category	IPM											
Measured (Mt)	25.2											
Indicated (Mt)	16											
Inferred (Mt)	5											
<b>Total (Mt)</b>	<b>46</b>											

Criteria	JORC Code Explanation	Commentary										
		<p>consideration and to the activity which he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.”</p> <ul style="list-style-type: none"> <li>The Coal Resource Estimate for Isaac Plains East is: <table border="1" data-bbox="1485 440 1863 695"> <thead> <tr> <th>Resource Category</th> <th>IPE</th> </tr> </thead> <tbody> <tr> <td>Measured (Mt)</td> <td>9.8</td> </tr> <tr> <td>Indicated (Mt)</td> <td>8</td> </tr> <tr> <td>Inferred (Mt)</td> <td>4</td> </tr> <tr> <td><b>Total (Mt)</b></td> <td><b>22</b></td> </tr> </tbody> </table> </li> </ul> <ul style="list-style-type: none"> <li>Both estimates have been used as the basis for the estimate of Coal Reserves for the Isaac Plains Complex.</li> <li>Coal Resource estimates are inclusive of Coal Reserve estimates.</li> </ul>	Resource Category	IPE	Measured (Mt)	9.8	Indicated (Mt)	8	Inferred (Mt)	4	<b>Total (Mt)</b>	<b>22</b>
Resource Category	IPE											
Measured (Mt)	9.8											
Indicated (Mt)	8											
Inferred (Mt)	4											
<b>Total (Mt)</b>	<b>22</b>											
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>The Competent Person, Mr Tony O’Connell, has visited the site on multiple occasions in the past 3 years.</li> <li>The site visits, reports and a review of mining, production and reconciliation data confirms the mining methods used at IPM and IPE are suitable for current and planned open-cut mining operation; and are being well managed by the IPC operations teams.</li> </ul>										
<b>Study status</b>	<ul style="list-style-type: none"> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Mine planning for IPC has been undertaken to a high level of detail to support current open-cut mining operations. Stanmore maintains an in-house mine planning function for mid to long term planning, and the current mining contractor (Golding) maintains a mine planning function to manage the open-cut mining operation.</li> <li>The mining parameters and modifying factors are based on the experience of the current operations.</li> </ul>										

Criteria	JORC Code Explanation	Commentary
	mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The pit designs for the IPC were developed to cover all coal production that is expected to be economical.</li> <li>At Isaac Plains Mine, a block margin ranking estimation was undertaken to determine the economic limits for each pit, whilst at Isaac Plains East, Deswik (Pseudoflow) was utilised to determine the economic pit shell backed up by a block margin rank to confirm the limits.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>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).</li> <li>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.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are</li> </ul>	<ul style="list-style-type: none"> <li>The mining methodology considered for this estimate is: <ul style="list-style-type: none"> <li>a combination of cast, doze, dragline or truck &amp; excavator to move waste into the adjacent strip or dump. The strip width selected is nominally 55m at IPM and 50m at IPE.</li> <li>Drilling and blasting (D&amp;B) of the in situ waste.</li> <li>A maximum horizon of 50m of waste is allocated to the dragline.</li> <li>Remaining waste is removed by truck and excavator.</li> <li>Coal mining using excavators and rear dump trucks haul the coal to the Isaac Plains Complex Coal Preparation Plant (IPC CHPP) for washing.</li> <li>Parting &gt; 0.3m thick is stripped separately.</li> </ul> </li> <li>Batter allowances that have been considered are: <ul style="list-style-type: none"> <li>Highwall (hard): 65°</li> <li>Highwall (soft): 45°</li> <li>Spoil Lowwall &amp; Angle of Repose: 37°</li> </ul> </li> </ul> <p>Loss &amp; Dilution factors used are:</p> <ul style="list-style-type: none"> <li>Roof Loss: 0.075m</li> <li>Floor Loss: 0.025m</li> <li>Edge Loss: 0.25m</li> </ul>



Criteria	JORC Code Explanation	Commentary																								
	<p>utilised in mining studies and the sensitivity of the outcome to their inclusion.</p> <ul style="list-style-type: none"> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul style="list-style-type: none"> <li>Fault Loss for faulted blocks: 3%</li> <li>Roof Dilution: 0.05m</li> <li>Floor Dilution: 0.05m</li> <li>Edge Dilution: 0.25m</li> <li>Dilution density: 2.42 t/bcm</li> <li>Dilution ash: 85%</li> </ul> <p>Moisture Assumptions used:</p> <table border="1" data-bbox="1149 531 2051 919"> <thead> <tr> <th>Item</th> <th>Units</th> <th>IPM</th> <th>IPE</th> </tr> </thead> <tbody> <tr> <td>Air-dried Moisture</td> <td>%</td> <td>As modelled*</td> <td>As modelled*</td> </tr> <tr> <td>Insitu Moisture</td> <td>%</td> <td>5.0%</td> <td>4.7%</td> </tr> <tr> <td>ROM Moisture</td> <td>%</td> <td>7.0%</td> <td>7.0%</td> </tr> <tr> <td>Semi-soft Product Moisture</td> <td>%</td> <td>11%</td> <td>9%</td> </tr> <tr> <td>Thermal Product Moisture</td> <td>%</td> <td>10.5%</td> <td>9.5%</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>The existing infrastructure at IPC is suitable for the methodology described.</li> </ul>	Item	Units	IPM	IPE	Air-dried Moisture	%	As modelled*	As modelled*	Insitu Moisture	%	5.0%	4.7%	ROM Moisture	%	7.0%	7.0%	Semi-soft Product Moisture	%	11%	9%	Thermal Product Moisture	%	10.5%	9.5%
Item	Units	IPM	IPE																							
Air-dried Moisture	%	As modelled*	As modelled*																							
Insitu Moisture	%	5.0%	4.7%																							
ROM Moisture	%	7.0%	7.0%																							
Semi-soft Product Moisture	%	11%	9%																							
Thermal Product Moisture	%	10.5%	9.5%																							
<p><b>Metallurgical factors or assumptions</b></p>	<ul style="list-style-type: none"> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the</li> </ul>	<ul style="list-style-type: none"> <li>The existing IPC CHPP is suitable to process the target seams.</li> <li>Two products are planned, a primary product semi-soft coking coal and a secondary product thermal coal.</li> <li>The CHPP yield predictions are based on modelled theoretical laboratory yield data with plant efficiency factors applied to predict plant performance.</li> <li>Forecast yields for the two coal types at IPM and IPE for the economic pit are:</li> </ul>																								

Criteria	JORC Code Explanation	Commentary																			
	<p>corresponding metallurgical recovery factors applied.</p> <ul style="list-style-type: none"> <li>Any assumptions or allowances made for deleterious elements.</li> <li>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.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	<table border="1"> <thead> <tr> <th data-bbox="1220 245 1547 368">CHPP Yields</th> <th data-bbox="1554 245 1711 368">Semi-soft Coking Coal (wet %)</th> <th data-bbox="1718 245 1874 368">Thermal Coal (wet %)</th> <th data-bbox="1881 245 2038 368">Total (wet %)</th> </tr> </thead> <tbody> <tr> <td data-bbox="1220 373 1547 411">Isaac Plains Mine</td> <td data-bbox="1554 373 1711 411">48%</td> <td data-bbox="1718 373 1874 411">22%</td> <td data-bbox="1881 373 2038 411">70%</td> </tr> <tr> <td data-bbox="1220 416 1547 454">Isaac Plains East</td> <td data-bbox="1554 416 1711 454">74%</td> <td data-bbox="1718 416 1874 454">2%</td> <td data-bbox="1881 416 2038 454">76%</td> </tr> <tr> <td data-bbox="1220 459 1547 497">Isaac Plains Complex</td> <td data-bbox="1554 459 1711 497">71%</td> <td data-bbox="1718 459 1874 497">4%</td> <td data-bbox="1881 459 2038 497">75%</td> </tr> </tbody> </table>				CHPP Yields	Semi-soft Coking Coal (wet %)	Thermal Coal (wet %)	Total (wet %)	Isaac Plains Mine	48%	22%	70%	Isaac Plains East	74%	2%	76%	Isaac Plains Complex	71%	4%	75%
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<p><b>Environmen-tal</b></p>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All Mining Leases within the IPC are subject to environmental authority (EA) EPML00932713.</li> <li>Stanmore’s onsite activities are managed in accordance with the following: <ul style="list-style-type: none"> <li>Environmental Management Strategy;</li> <li>Environmental management procedures for complaints, stakeholder interaction, water management, dams, air quality/dust, land (including permit to disturb, weed and pest control, and spills management), waste, blasting and safety;</li> <li>IPM Mine environmental management plan; and</li> <li>contractor’s environment management plans.</li> </ul> </li> <li>These strategies, procedures and plans will be amended as required.</li> <li>Environmental risk assessments of the following aspects have been undertaken, in conjunction with relevant specialists: <ul style="list-style-type: none"> <li>Groundwater</li> <li>Flood modelling</li> <li>Water management</li> <li>Air quality</li> <li>Noise</li> <li>Terrestrial ecology</li> </ul> </li> </ul>																			

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		<ul style="list-style-type: none"> <li>• Aquatic ecology.</li> <li>• Stanmore assesses and monitors environmental and approvals risks on an ongoing basis.</li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Existing Infrastructure supporting IPC operations includes: <ul style="list-style-type: none"> <li>• Mine infrastructure Area;</li> <li>• Heavy vehicle haul roads connecting IPE to IPM CHPP;</li> <li>• Workshop including surrounding laydown areas;</li> <li>• Light vehicle maintenance igloo;</li> <li>• Boiler makers area;</li> <li>• Fuel storage and distribution;</li> <li>• Administration Office (including parking areas);</li> <li>• Warehouse;</li> <li>• Emergency Response Facilities Equipment;</li> <li>• Fuel and Lubrication Facilities;</li> <li>• Electrical and communications; and</li> <li>• Water Infrastructure (Raw, Potable &amp; Process)</li> </ul> </li> <li>• The original design criteria for the Isaac Plains mine was 3.5 Mtpa ROM and the existing infrastructure capacity is currently surplus to requirements.</li> </ul>
<b>Costs</b>	<ul style="list-style-type: none"> <li>• The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>• The methodology used to estimate operating costs.</li> <li>• Allowances made for the content of deleterious elements.</li> <li>• The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.</li> </ul>	<ul style="list-style-type: none"> <li>• The utilised costs have been sourced from current contractor rates or built up from first principles where required.</li> <li>• All unit cost rates are in Australian Dollars.</li> <li>• The unit costs used are summarised in the following table:</li> </ul>

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	<ul style="list-style-type: none"> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	<table border="1" data-bbox="1301 245 1957 967"> <thead> <tr> <th>Cost Item</th> <th>Units</th> <th>Unit Cost</th> </tr> </thead> <tbody> <tr><td>Topsoil Stripping</td><td>\$/bcm</td><td>\$5.68</td></tr> <tr><td>Drill &amp; Blast for T&amp;S</td><td>\$/bcm</td><td>\$0.83</td></tr> <tr><td>Drill &amp; Blast for DL</td><td>\$/bcm</td><td>\$1.24</td></tr> <tr><td>Truck &amp; Shovel</td><td>\$/bcm</td><td>\$2.40</td></tr> <tr><td>Dragline Total</td><td>\$/bcm</td><td>\$0.97</td></tr> <tr><td>Dragline Dozer</td><td>\$/bcm</td><td>\$0.97</td></tr> <tr><td>Coal mining</td><td>\$/ROM t</td><td>\$6.22</td></tr> <tr><td>Coal mining for Pit 4</td><td>\$/ROM t</td><td>\$4.90</td></tr> <tr><td>Site admin</td><td>\$/Product t</td><td>\$6.00</td></tr> <tr><td>CHPP Wash</td><td>\$/ROM t</td><td>\$5.43</td></tr> <tr><td>Rejects disposal</td><td>\$/Reject t</td><td>\$2.58</td></tr> <tr><td>Rail and TLO</td><td>\$/Product t</td><td>\$8.99</td></tr> <tr><td>Port</td><td>\$/Product t</td><td>\$5.68</td></tr> <tr><td>Capital allowance</td><td>\$/Product t</td><td>\$1.50</td></tr> <tr><td>Rehabilitation</td><td>\$/hectare</td><td>\$24,017</td></tr> </tbody> </table> <ul style="list-style-type: none"> <li>Royalty charges were applied as follows: <ul style="list-style-type: none"> <li>up to and including \$100 per tonne: 7.0%</li> <li>over \$100 up to including \$150 per tonne: 12.5%</li> <li>above \$150 per tonne: 15.0%</li> </ul> </li> <li>A private royalty for Isaac Plains East is also included.</li> </ul>	Cost Item	Units	Unit Cost	Topsoil Stripping	\$/bcm	\$5.68	Drill & Blast for T&S	\$/bcm	\$0.83	Drill & Blast for DL	\$/bcm	\$1.24	Truck & Shovel	\$/bcm	\$2.40	Dragline Total	\$/bcm	\$0.97	Dragline Dozer	\$/bcm	\$0.97	Coal mining	\$/ROM t	\$6.22	Coal mining for Pit 4	\$/ROM t	\$4.90	Site admin	\$/Product t	\$6.00	CHPP Wash	\$/ROM t	\$5.43	Rejects disposal	\$/Reject t	\$2.58	Rail and TLO	\$/Product t	\$8.99	Port	\$/Product t	\$5.68	Capital allowance	\$/Product t	\$1.50	Rehabilitation	\$/hectare	\$24,017
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	<p>etc.</p> <ul style="list-style-type: none"> <li>• he derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	<ul style="list-style-type: none"> <li>• A USD:AUD exchange rate of 0.715 has been used.</li> </ul>
<b>Market assessment</b>	<ul style="list-style-type: none"> <li>• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>• A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>• Price and volume forecasts and the basis for these forecasts.</li> <li>• For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	<ul style="list-style-type: none"> <li>• Two product coal types are produced by IPC, these coal products have been successfully marketed by Stanmore and sold into export markets for the past 10 years (approximately).</li> <li>• It would be reasonable to expect that the IPC will have no difficulty in successfully marketing future coal tonnes produced (SSCC and Thermal).</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul style="list-style-type: none"> <li>• The IPM deposit was assessed on a block-by-block basis with the total margin for each block calculated based on the 2019 JORC unit costs and revenues then depleted by mining activities in the previous twelve months.</li> <li>• The IPE deposit was assessed using Deswik Pseudoflow software which applies optimisation algorithms to the unit costs and revenues to determine a maximum economic pit shell.</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>• The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	<ul style="list-style-type: none"> <li>• The mining tenure for Isaac Plains is Mining Lease (<b>ML</b>) 70342. Isaac Plains East is covered by Mining Leases 700016, 700017, 700018, and 700019 which are all held by Stanmore IP Coal Pty Ltd.</li> <li>• All Mining Leases for IPC are current and are subject to environmental authority (<b>EA</b>) EPML00932713.</li> <li>• Stanmore will continue to manage the IPC mining operations, which they have successfully done so to date, whilst developing and maintaining good relationships with key stakeholders and maintaining their social licence to</li> </ul>

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<b>Other</b>	<ul style="list-style-type: none"> <li>• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>• Any identified material naturally occurring risks.</li> <li>• The status of material legal agreements and marketing arrangements.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• There are no known issues that impact might impact on the Coal Reserve Estimate and classifications of the Coal Reserves.</li> <li>• Stanmore commenced mining operations at IPE in mid-2018.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>• The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>• Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>• The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	<ul style="list-style-type: none"> <li>• Measured, Indicated and Inferred Coal Resources are estimated for IPC. All of the Measured Coal Resources contained within the economic limit of the open-cut pit have been classified as Proved Coal Reserves, while all Indicated Coal Resources contained within the economic limit of the open cut pit have been classified as Probable Coal Reserves.</li> <li>• The Coal Reserve Estimate and classification of Coal Reserves reflect the Competent Person's view and assessment of the deposit.</li> </ul>

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<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Ore Reserve estimates.</li> </ul>	<ul style="list-style-type: none"> <li>Coal Reserve Estimates were reconciled back to previous estimates to ensure consistency.</li> </ul>																																																																																																																
<b>Discussion of relative</b>	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative</li> </ul>	<ul style="list-style-type: none"> <li>No statistical or geostatistical procedures have been used in the</li> </ul>																																																																																																																

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accuracy/ confidence	<p>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.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> </ul>	<p>estimation of Coal Reserves themselves.</p> <ul style="list-style-type: none"> <li>• The most significant areas of uncertainty in the Isaac Plains Complex open-cut reserve estimate relates to the coal pricing and foreign exchange rate. However, the present forecasts are based on highly regarded industry experts in this field.</li> <li>• Small differences may be present in the totals due to the tonnage information being rounded to reflect the usual uncertainty associated with the estimate.</li> <li>• The in-seam yields for IPM and IPE have been adjusted by factors calculated via a robust reconciliation process.</li> </ul>