stanmorecoal

30 August 2019

2019 OPEN CUT COAL RESERVES UPDATE FOR ISAAC PLAINS MINE AND ISAAC PLAINS EAST

Highlights

- Total Coal Reserves of 13.0 Million tonnes (Mt) at Isaac Plains Mine and Isaac Plains East updated as at 30 June 2019
- Marketable Coal Reserves total 9.95 Mt of which 9.6 Mt is semi-soft coking coal and 0.4 Mt is thermal coal

Stanmore Coal Limited (**Stanmore or the Company**) (**ASX: SMR**) is pleased to announce that the Open Cut Coal Reserves for the Isaac Plains Mine and Isaac Plains East have been updated in August 2019. The Coal Reserves have been reported to the standard required by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code, 2012').

The updated Coal Reserve estimate includes both the Isaac Plains Mine (IPM) which suspended mining in Q3 FY19 and Isaac Plains East (IPE), which commenced mining operations in Q1 FY19.

A summary of the Coal Reserve estimate by area and reserve category is contained in Table 1 and Table 2 below. Note that in some cases, totals may not sum correctly due to the rounding of sub-totals.

Table 1: Isaac Plains Mine and Isaac Plains East Open-Cut Coal Reserves

	Coal Reserve (ROM)	LHD/LHU (Mt)	LHL (Mt)	Total (Mt)
Isaac Plains Mine	Proved	0.93	0.03	**0.97**
	Probable	0.00	0.08	**0.08**
	Total	0.93	0.12	**1.05**
Isaac Plains East	Proved	9.36	0.00	**9.36**
	Probable	2.58	0.00	**2.58**
	Total	11.94	0.00	**11.94**
IPM & IPE Open Cut	**Proved**	**10.30**	**0.03**	**10.33**
	Probable	**2.58**	**0.08**	**2.66**
	Total	**12.87**	**0.12**	**12.99**

Notes:
1. Seam nomenclature for the Leichhardt Seam as follows: LHD = Leichhardt, LHU = Leichhardt Upper, LHL = Leichhardt Lower.

Table 2: Isaac Plains Mine and Isaac Plains East Open-Cut Marketable Coal Reserves

	Marketable Reserves (Product)	Semi-Soft Coking Coal (Mt)	Thermal Coal (Mt)	Total (Mt)
Isaac Plains Mine	Proved	0.48	0.20	**0.69**
	Probable	0.02	0.02	**0.04**
	Total	0.50	0.23	**0.73**
Isaac Plains East	Proved	7.09	0.12	**7.22**
	Probable	1.98	0.03	**2.00**
	Total	9.07	0.15	**9.22**
IPM & IPE Open Cut	**Proved**	**7.58**	**0.33**	**7.90**
	Probable	**2.00**	**0.05**	**2.05**
	Total	**9.57**	**0.38**	**9.95**

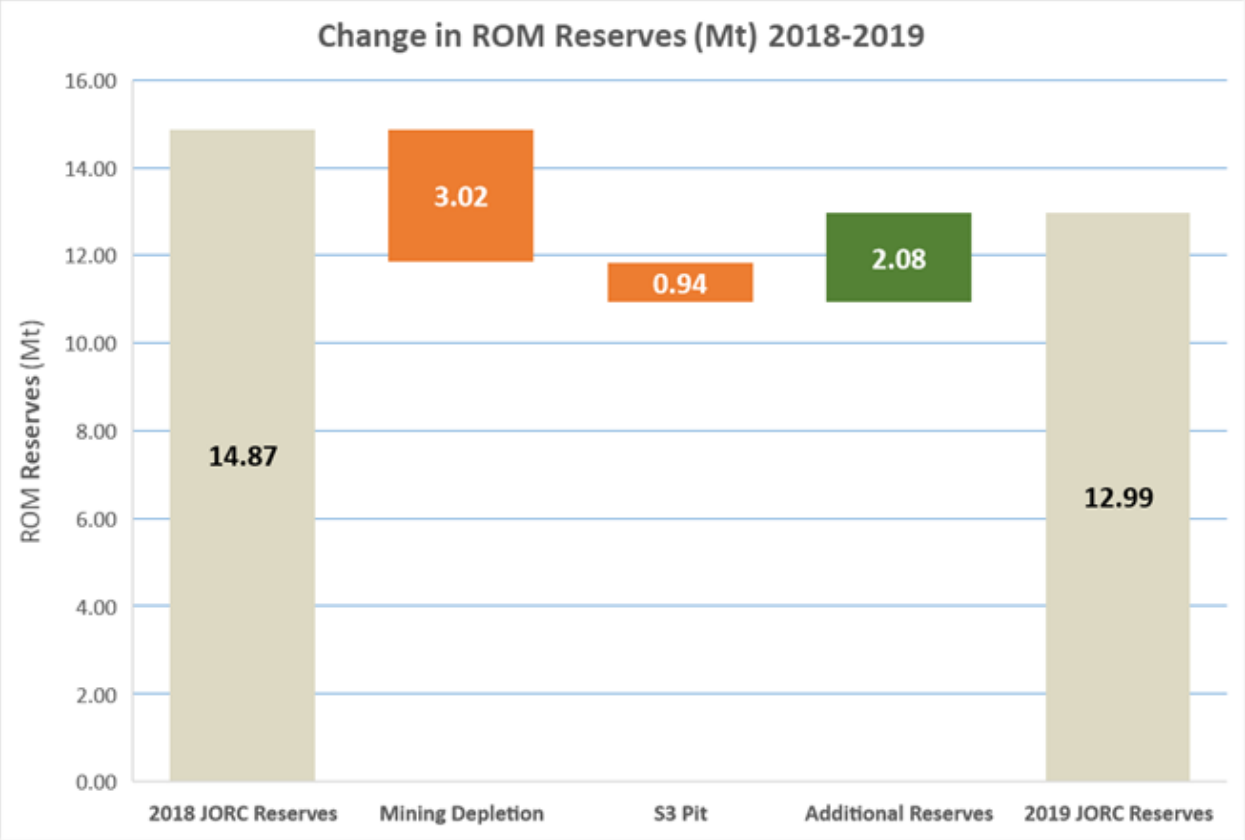
Table 3 and
*Figure **1*** below provide a summary of changes in Coal Reserve estimates between August 2018 and August 2019, noting that 3.02 Mt has been mined (depleted) from Isaac Plains Mine and Isaac Plains East since the last Coal Reserve estimate.

Table 3: Isaac Plains Mine and Isaac Plains East Open-Cut Reserves – Comparison to Previous Estimate

	Reserves	2019 (Mt)	2018 (Mt)	Difference (Mt)
Isaac Plains Mine	ROM (Proved + Probable)	1.05	2.72	**(1.67)**
	Marketable (Proved + Probable)	0.73	2.01	**(1.28)**
Isaac Plains East	ROM (Proved + Probable)	11.94	12.15	**(0.21)**
	Marketable (Proved + Probable)	9.22	9.50	**(0.28)**
IPM & IPE Open Cut	ROM (Proved + Probable)	**12.99**	**14.87**	**(1.88)**
	Marketable (Proved + Probable)	**9.95**	**11.51**	**(1.56)**

Figure 1: Waterfall Chart Comparison to Previous Estimate

The following waterfall chart illustrates the change in Coal Reserves at the Isaac Plains Opencut Complex (excluding Isaac Downs) since 2018. A reduction in Coal Reserves due to mining depletion and the removal of Reserves contained in the S3 pit at Isaac Plains were partially offset by additional Coal Reserves. Further evaluation of the S3 pit has highlighted that the previous Reserves contained within this pit will be difficult and potentially more costly to extract than other areas within IPM. Additionally, these Reserves restrict strategic dump room for IPE waste. For these reasons, the previous Reserves contained within the S3 pit have been removed and the pit is now part of the Isaac Plains rehabilitation effort.



Coal Reserve Estimate Process and Assumptions

The process and assumptions adopted for completing the 2019 Isaac Plains Mine and Isaac Plains East JORC Coal Reserve estimate is described below:

- Geological models were prepared by Xenith Consulting Pty Ltd and Coal Resources were updated and published in May 2018[1] for both IPM and IPE.
- Pit designs for IPM and IPE were completed by Measured Group Pty Ltd (Measured Group) and Optimal Mining Solutions Pty Ltd (Optimal Mining Solutions).
- Design stage outputs were 3-dimensional solids in Deswik. Mine designs included pit wall batters, berm offsets and subdivisions into mining benches in truck and shovel waste. Solids were subdivided into the appropriate pits, strips and blocks.
- Insitu coal solids were interrogated against the latest geological model, including qualities for all coal solids.
- Details for each solid were imported into Spry model for processing, analysis and scheduling.
- In Spry, minimum mining thicknesses, coal losses and dilution factors were applied to the coal solids. Moisture adjustments, ROM ash cut off and coal recovery assumptions were also applied to convert the insitu values to ROM values.
- Product tonnes, for both semi-soft and thermal, were calculated for all coal solids based on the modelled in-seam yield and ROM moisture values. A yield adjustment was applied for the IPM coal solids based on reconciliation work undertaken at IPM.
- Unit cost values were applied to all mining, processing, railing and shipping processes to calculate the total cost for each solid.
- Forecast sale prices were applied to the product tonnage to calculate the overall revenue generated by each coal solid. Total margin for each mining block and strip was calculated and then used to determine the economic limits for each pit.
- The Coal Resource category polygons (published in May 2018) were overlaid on positive cash flow strips, and then Inferred or unclassified tonnes were excluded from the Coal Reserve estimate.

[1] ASX Announcement 28 May 2018 – Updated JORC Resource for Isaac Plains Complex

- The Coal Reserve has been categorised as Proved or Probable based on Coal Resource confidence, the level of detail in the mine planning and considering all relevant modifying factors to quantify the risks surrounding the project.

The Isaac Plains Mine and Isaac Plains East is covered by Mining Leases ML70342, ML700016, ML700017, ML700018, and ML700019 held by Stanmore IP Coal Pty Ltd (Table 4).

Table 4: Isaac Plains Complex Mining Tenements

Tenure	Tenement Holder	Grant/Lodge Date	Expiry Date	Area (Ha)
ML70342	Stanmore IP Coal Pty Ltd	1-Dec-2005	31-Dec-2025	2,143
ML700016	Stanmore IP Coal Pty Ltd	3-Jan-2018	31-Mar-2030	138
ML700017	Stanmore IP Coal Pty Ltd	3-Jan-2018	31-Mar-2030	387
ML700018	Stanmore IP Coal Pty Ltd	3-Jan-2018	31-Mar-2030	369
ML700019	Stanmore IP Coal Pty Ltd	3-Jan-2018	31-Mar-2030	353

Coal Quality

The following table provides a summary of raw coal quality for the Isaac Plains Complex.

Table 5: Summary of Leichhardt Seam Raw Coal Quality for Isaac Plains Complex

Area	RD Insitu (g/cc)	Ash (%ad)	Inherent Moisture (%ad)	Volatile Matter (%ad)	Fixed Carbon (%ad)	Total Sulphur (%ad)	Specific Energy kcal/kg (ad)
IPM	1.42	16.6	2.5	24.4	56.2	0.39	6666
IPE	1.40	13.8	2.3	24.1	59.7	0.48	7005

Notes:
1. Values sourced from Xenith Consulting Pty Ltd Resource Estimate Reports for IPM and IPE (May 2018).
2. IPM = Isaac Plains Mine.
3. IPE = Isaac Plains East.

A summary of forecast product coal yields for semi-soft coking and thermal coal product types for IPM and IPE for the economic pit are provided in Table 6 below:

Table 6: Summary of Product Coal Yields for Isaac Plains Complex

Area	Semi-Soft Coking Coal (wet %)	Thermal Coal (wet %)	Total (wet %)
IPM	48%	22%	70%
IPE	76%	1%	77%
IPM & IPE	74%	3%	77%

Notes:
1. Values sourced from Measured Group Pty Ltd Reserve Estimate (August 2019).
2. IPM = Isaac Plains Mine.
3. IPE = Isaac Plains East.

Attached to this ASX announcement is the Table 1, Section 4 extracted from the formal JORC Coal Reserve report for the Open cut Isaac Plains Mine and Isaac Plains East.

Yours faithfully

Ian Poole
Company Secretary

For further information, please contact:

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Competent Person Statement

The information in this report relating to Coal Reserves for Isaac Plains Mine and Isaac Plains East is based on information prepared by a team of consultants under the guidance of Mr Tony O'Connell who is a Principal Mining Consultant with Measured Group Pty Ltd. Mr O'Connell is a qualified Mining Engineer (BE (Mining Engineering), University of Queensland), a member of the Australian Institute of Mining and Metallurgy and with over 21 years' experience, 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 O'Connell consents to the inclusion in the report of the matters based on the information, in the form and context in which it appears.

JORC coal reserves note – Isaac Plains & Isaac Plains East

The Isaac Plains Mine and Isaac Plains East open cut Marketable Reserve of 9.95 Mt is derived from a run-of-mine (**ROM**) open cut Coal Reserve estimate of 12.99 Mt, with an estimated overall yield for IPM and IPE of 77%. The Coal Reserve is included in the current JORC Resource estimate for Isaac Plains Mine and Isaac Plains East as shown in Table 7 below:

Table 7: Isaac Plains Complex – JORC Coal Resource Estimate (Xenith, May 2018)

Resource Category	IPM	IPE	Total (IPM & IPE)
Measured (Mt)	22.2	12.9	35.1
Indicated (Mt)	21.3	8.8	30.1
Inferred (Mt)	9	8	17
Total (Mt)	52.5	29.7	82.2

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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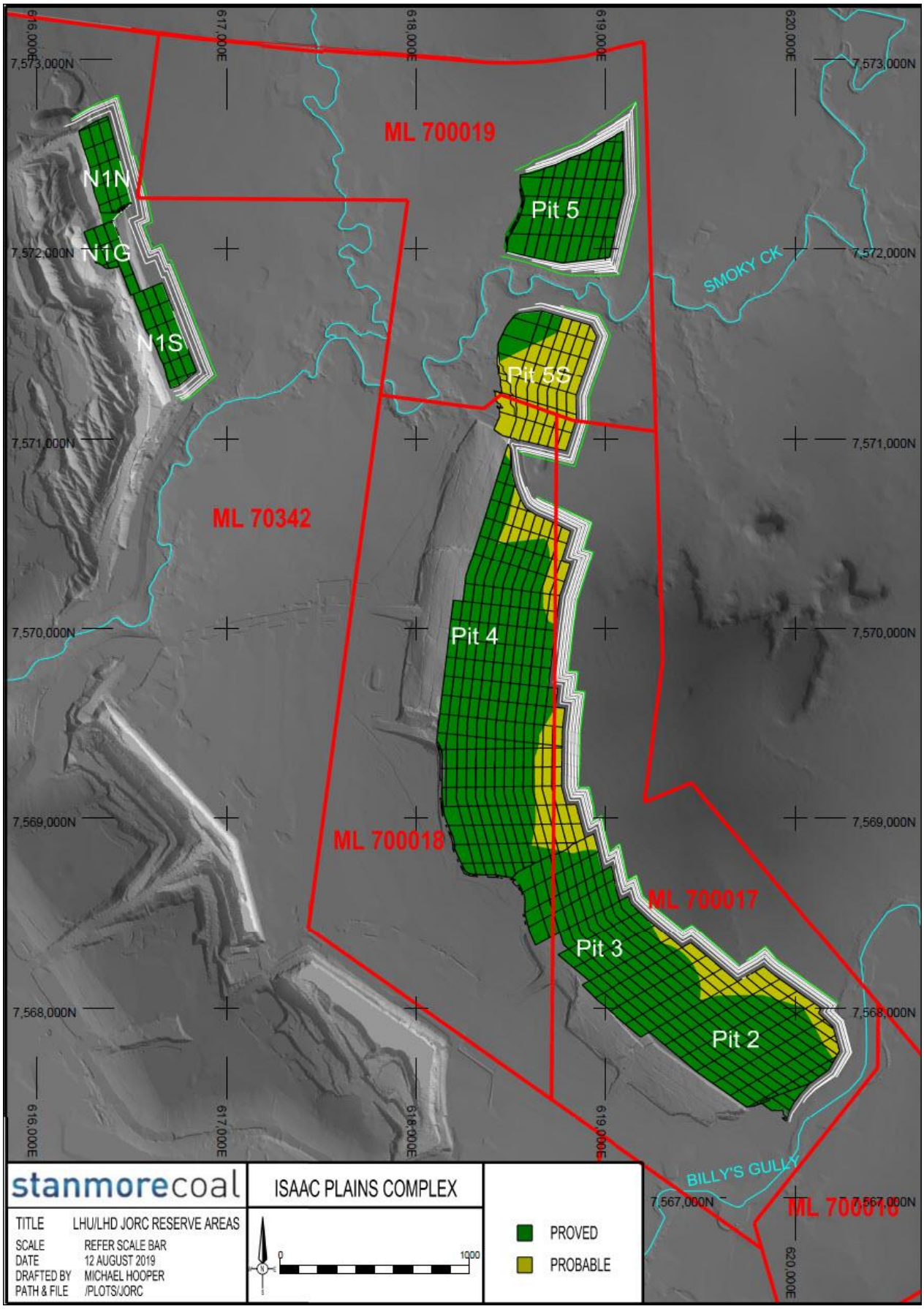
Figure 1: Isaac Plains Mine and Isaac Plains East JORC Reserve Area- LHU and LHD Seams



APPENDIX A

JORC CODE, 2012 EDITION – TABLE 1; ISAAC PLAINS (IP) RESOURCE

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	JORC Code Explanation	CP Comments
Sampling Techniques	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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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	Exploration 2015 - Present 94 open holes were drilled, mainly for the purpose of fault delineation. 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 Isaac Plains project. 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. For the Stanmore 2015/16 and 2016/17 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

Criteria	JORC Code Explanation	CP Comments
	inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	separately. Approximately 0.30m of immediate roof and floor were also collected as dilution samples. 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. All remaining un-sampled cored material has been retained in marked core boxes for future reference. 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. 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. 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 ISOMEC 17025, corporate accreditation number 1805. Site

Criteria	JORC Code Explanation	CP Comments
		accreditation number 18415. Samples were stored in cold storage at Bureau Veritas until instruction are available to conduct the analytical program. Exploration 2009 to 2014: Xenith is not aware of any Coal quality drilling undertaken within in this period. Exploration drilling in 2013 involving 36 holes of structural fault definition. Exploration 2008 to 2009: In July 2008 to September 2009 BCCM drilled a further 287 drill holes to assist with determining gas content, improving fault definition. For the 2008 program, samples were taken at approximately 30cm intervals (2010 JORC Resource report) All cored holes were photographed in the field (digital Camera), sampled, boxed into core trays where depth were recorded for subsequent reference. No detail of interburden thickness sampling rules was presented. The immediate roof and floor have been sampled of lengths >than 0.1m in general. At the minimum Ash and RD analysis has been conducted. All coal samples were collected into plastic bags and then transported to the laboratory via courier and were accompanied by a sample advice sheet. Coal Quality samples were sent to ALS / Actest Laboratory in Maitland NSW, or Bureau Veritas (previously CCI) Laboratory in Newcastle. 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. Exploration 2004 to 2006: For the 2004 program, samples were taken on approximately 25-30cm intervals (2010 JORC Resource report)

Criteria	JORC Code Explanation	CP Comments
		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 No detail of interburden thickness sampling rules was presented. The immediate roof and floor have been sampled of lengths >than 0.1m in general. At the minimum ash and RD analysis has been conducted. All coal samples were collected into plastic bags and then transported to the laboratory via courier and were accompanied by a sample advice sheet. Coal Quality samples were sent to Casco Australia Pty Ltd (Casco) laboratory in Mackay. All coal quality samples were prepared and analysed using Casco testing methodologies. Casco is a National Association of Testing Authorities (NATA) registered organisation. Line of oxidation (LOX) samples were collected in 0.5m samples. Lox samples were bagged on site and sent to CCI Australia Laboratory in Moranbah for analysis. Gas sampling was conducted at three sites, located in pits N1, N2 and S3. The full seam was sampled into gas canisters. Q1 gas testing was undertaken by the field Geologist in the field. The process of analysis involved Geogas standard procedures. Gas samples were sent to Geogas laboratory in Mackay for gas analysis (Q2 and Q3). 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 representative 30cm length samples wrapped in plastic and sealed from moisture. 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 in Mackay.

Criteria	JORC Code Explanation	CP Comments
		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. Ground magnetic survey undertaken by Resolve Geological in October 2004 to delineate extent of intrusive material within the area. 15 lines of Mini-Sosie seismic survey were completed by Velseis in 2015/16 covering 32 km. These traverse both the IP and the IPE project areas. Historic exploration: Details for the sampling of historic drilling information Pre -2004 are not available. A review of suitable historic holes was reported to have been conducted as part of the 2010 resource estimate.
Drilling Techniques	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.).	2015/16 and 2016/17 exploration: 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. 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. All core was photographed in 0.5m intervals against a blackboard with 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. Historic exploration:

Criteria	JORC Code Explanation	CP Comments
		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). Structural holes were drilled as part of a fault delineation program. As part of this work, these holes were fully open (chipped). Lines of Oxidation ("LOX") holes were drilled by a reverse circulation hammer drill rig. Non-cored holes were used in the model to define structure and stratigraphy but were not used as Points of Observation ("POB"). A full list of drill holes and drilling types is available at the end of Table 1 in Appendix C. Appendix C is not included with the ASX release but is a subset of the full report.
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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.	2015/16 and 2016/17 program: Only cores were sampled for analysis Adequate recovery was assessed on a length basis A 95% linear seam recovery was required; otherwise the seam would be redrilled. The CP is adequately satisfied no sample bias has occurred. Pre 2015: No details of the process followed for determining % recovery were viewed for the purpose of producing this resource report. If there was less than 95% core recovery, it appears the seam was required to be redrilled. No details were available on the relationship between sample recovery and quality or sample bias.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate	All drill core was geologically logged, marked and photographed prior to sampling. Geological and geotechnical features were identified and

Criteria	JORC Code Explanation	CP Comments
	Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged.	logged as part of this process. All chip holes had chips collected every metre, which were then geologically logged and photographed. All drill holes have been geophysically logged (except where blocked) with the minimum suite of tools run including: Density, Calliper, Verticality/Deviation and Gamma. 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. The calibration of the geophysical tools was conducted by the geophysical logging company engaged in the project at the time.
Sub-Sampling Techniques and Sample Preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled.	2015/16 and 2016/17 program: All core coal samples were double bagged on site and were transported by tracked freight courier to the laboratory for testing. 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. Wash composites were created per each LHD seam intersection, consisting of either: 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* Two composites per seam being: **Top** of seam composite (approx. 2.0m to 2.3m thickness) **Bottom** of seam (remainder of seam, generally 1.3m to 1.8m thickness) The decision to create either a one or two composites was based on several

Criteria	JORC Code Explanation	CP Comments
		factors, primary among which were the core holes' physical location and seam thickness. 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 >50mm was hand knapped to 50mm, dry tumbled and dry sized at 31.5, 25, 16, 8, 4 and 2mm. Composite samples were then split and further analysed as follows: 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 & Dilatation 1/8 for raw analysis: Crush to 4mm, mill sample to test for RD, MHC, Proximate, TS, CSN, Calorific Value & Cl ¾ for float sink: Wet tumble and wet size at 31.5, 25, 16, 8, 4, 2, 1, 0.5, 0.25, 01.25 & 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. 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. 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 Gas holes: Selected coal core sequences from the 4 designated gas-holes were placed in canisters on site and tested for gas content (Q1 test). Subsequent laboratory testing completed (Q2 and Q3) the testing for gas content. Pre 2015:

Criteria	JORC Code Explanation	CP Comments
		Casco complies with the Australian Standards for sample preparation and sub-sampling. 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. Two, 200mm cores were drilled to take a bulk sample for detailed sizing, washability and coke oven testing.
Quality of Assay Data and Laboratory Tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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.	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 ISOMEC 17025, corporate accreditation number 1805. Site accreditation number 18415. Casco in Mackay, QLD comply with the Australian Standards for coal quality testing and are certified by the NATA. Geophysical tools were calibrated by the logging company engaged in the project at the time.
Verification of Sampling and Assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	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. Coal quality results were verified by Stanmore and Xenith Consulting Pty Ltd ("Xenith") personnel before inclusion into the geological model and resource estimate. 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).

Criteria	JORC Code Explanation	CP Comments
Location of Data Points	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. Specification of the grid system used. Quality and adequacy of topographic control.	The topographic surface has been generated from LiDAR, which was flown by Atlass (Aust) Pty Ltd, 2nd September 2015. Vertical Accuracy: +/- 0.2m. It has been updated with the End of December 2017 mine survey. All holes from the 2016 and 2017 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 The 2015/16 drill holes were surveyed by MSS and JTH Surveys, Moranbah, using site base station (RTCM0000) and Trimble R10 GPS. Previous drilling was surveyed by Shield Surveying Pty Ltd (Mackay) and Mackay Surveys Pty Ltd. The datum used AGD 84 and the projection used AMG 84 Z55.
Data Spacing and Distribution	Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied.	Drill hole spacing has been dictated by the characteristics and consistency of the target seams within the deposit. 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. Structural drilling is in general on 250m centres and coal quality drilling is located on approximately 500m centres. The inclusion of holes from neighbouring areas has given the model a reasonable amount of lateral continuity in the north of the ML area. 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.

Criteria	JORC Code Explanation	CP Comments
		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.
Orientation of Data in Relation to Geological Structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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.	The orientation and spacing of the drilling grid is deemed to be suitable to detect geological structures and coal seam continuity within the resource area. 2D seismic sections complement the distribution of drill holes. 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.
Sample Security	The measures taken to ensure sample security.	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. All samples were held in cold storage prior to leaving site and at laboratory prior to analysis. The same procedure was used for all geotechnical samples derived from the cored holes. Previous programs provide no details on sample security from the provided literature.
Audits or Reviews	The results of any audits or reviews of sampling techniques and data.	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. Bureau Veritas undertake internal audits and checks in line with the Australian Standards and their NATA certification. Corporate Accreditation no. 1805 and site no. 18415 Casco undertake internal audits and checks in line with the Australian

Criteria	JORC Code Explanation	CP Comments
		Standards and their NATA certification. Vale reported to have performed a high level technical review of the geological data system during the sale process in 2007

SECTION 2 REPORTING OF EXPLORATION RESULTS

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

Criteria	JORC Code Explanation	CP Comments
Mineral Tenement and Land Tenure Status	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. 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.	Isaac Plains Mine consists of Mining Lease 70342, held by Stanmore IP Coal Pty Ltd, and fully owned subsidiary of Stanmore Coal Limited. 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. Until recently Stanmore Wotonga Pty Ltd also held MDL135 (Morambah), with this permit having formally transferred from previous holder Millennium Coal Pty Ltd on 19 July 2017. 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. Stanmore acquired MDL135 and the northern part of MDL137 from Millennium Coal Pty Ltd, a subsidiary of Peabody Australia, in July 2015, with the transaction completed in September 2015. MDLs 135 & 137 (north) are both pre-cursor permits which underlie the newly established IPE Mining Leases (ML 700016 to 700019). MDL 135 was extinguished on 1st March 2018, as it is now entirely covered by Mining Leases 700018 and 700019. MDL 137 is still current, given that portions of the permit continue to exist outside of the newly granted Mining Lease areas. The eastern part of the underground resource estimated herein is now

Criteria	JORC Code Explanation	CP Comments

covered under ML700018 & ML700019. ML 700018 and ML 70019 also cover Stanmore Coal's Isaac Plain East (IPE) project. 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.

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 & 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.

Stanmore has the relevant licences to operate in the Isaac Plains area.

Tenure	Tenement Holder	Grant Date	Expiry Date	Area (Ha)
ML 70342	Stanmore IP Coal Pty Ltd	1/12/2005	31/12/2025	2141.9
EPC 667	Fitzroy (CQ) Pty Ltd	17/10/1997	30/05/2021	10807, (34 Sub-blocks)
MDL 135*	Stanmore Wotonga Pty Ltd	7/06/1993	30/06/2018	589.4
MDL137	Millennium Coal Pty Ltd	7/06/1993	30/06/2018	1203.4 (N and S)
ML700018	Stanmore IP Coal Pty Ltd	1/03/2018	31/03/2030	369.1
ML700019	Stanmore IP Coal Pty Ltd	1/03/2018	31/03/2030	353.8

Criteria	JORC Code Explanation	CP Comments
		*MDL135 was extinguished on 1st March 2018 upon grant of MLA700018 and 70019 which fully overlie its area
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	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. A total of 7 parties have undertaken exploration activities within the project area. 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. Within the lease boundary and EPC 677 resource zone, a total of 37 drill holes with publically 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. 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. MGC Resources Australia Pty Ltd conducted 2D dynamite seismic surveys within the area during the early 1990's.
Geology	Deposit type, geological setting and style of mineralisation.	The Isaac Plains project area 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. The general stratigraphy of the project area includes (oldest to youngest) – Lower-Permian Reids Dome Beds, Lower-Upper Permian Back Creek Group, Upper Permian Blackwater Group, and Rewan group.

Criteria	JORC Code Explanation	CP Comments
		Coal seams occur within the Rangal Coal Measures which are Late Permian in age. These seams dip gently to the east at approximately 5 degrees. The coal seams found within the Rangal Coal Measures are the Leichhardt, Leichhardt Upper and Leichhardt Lower, and Vermont. The seams have a cumulative thickness of approximately 7-10 m across the deposit. 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.
Drill Hole Information	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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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.	A detailed list of the drill holes used to define the coal quality of the resource in the Isaac Plains Project can be found in Appendix C. Appendix C is not included with the ASX release but is a subset of the full report. Geophysical deviation logs (verticality) are available for all holes. Shallow holes (open-cut area) have been modelled as vertical holes, i.e. deviation has not been modelled. The verticality data for the deeper underground holes has been loaded and the holes were modelled with account of any inclination.
Data Aggregation Methods	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. Where aggregate intercepts incorporate short lengths of high grade	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. Seams with a raw ash (adb) above 50% are not classified as coal and has not been included as a resource.

Criteria	JORC Code Explanation	CP Comments
	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. The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship Between Mineralisation Widths and Intercept Lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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').	All holes were drilled vertical. 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.
Diagrams	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.	All appropriate diagrams are contained within the main body of the report Reference maps in the ASX release are a subset of the full report.
Balanced Reporting	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.	All available exploration data for the Isaac Plains area has been collated and reported.
Other Substantive Exploration Data	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	All exploration data was gathered and or utilised in the resource estimation. 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. A geostatistical assessment of the Isaac Plains deposit was reported to have

Criteria	JORC Code Explanation	CP Comments
	characteristics; potential deleterious or contaminating substances.	been undertaken by Snowden Mining Industry Consultants (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". Velseis conducted a 2D seismic survey featuring 15 lines to further define faults in the IP 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.
Further Work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Production drilling will be planned based on the mine reserves and mining schedule. 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.

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
Database Integrity	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. Data validation procedures used.	Data was entered in the field by the field Geologist into LogCheck software. All lithological logs, and coal intersection depths have been reconciled and corrected to the geophysical log. A review of the historical geophysical logs was conducted as part of the 2015 resource estimate. All new data was validated by Xenith post correction by exploration geologists. 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. Coal Quality data has been checked against lab reports and cross referenced with lithology and ply logs. 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.
Site Visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	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. The Competent Person's familiarity with the Isaac Plains project area and stratigraphy is thorough and sufficient. Review of the previous exploration data indicates that the geology is typical of the area.
Geological	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	The drill hole density (core and chip) in the Isaac Plains project allows good level of confidence in the nature of seam splitting, seam thickness, coal

Criteria	JORC Code Explanation	CP Comments
Interpretation	Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	quality, the location of sub-crops and general location of faults.
Dimensions	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.	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. The depth of first coal ranges from between 15m in the proximal to the main central thrust fault (uplifted), and 300m in the Northeast. The current resource extent covers approximately 9.2km2 Variability in the coal seam parameters, such as seam thickness and raw coal quality, is reflected in the resource classifications assigned to each seam.
Estimation and Modelling Techniques	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. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	The geological model was constructed in ABB Minescape version 5.11 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. The inverse distance squared interpolator was used for raw coal quality modelling. A maximum extrapolation distance of 3000m from the last data point has been used. 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 the seam split occurs.

Criteria	JORC Code Explanation	CP Comments
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Coal resource tonnages were estimated using a calculated Preston and Sanders in situ relative density. 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. Coal qualities relating to the resource tonnages are reported on an air-dried basis.
Cut-Off Parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	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.
Mining Factors or Assumptions	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 economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters	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. The depth limit of potential open-cut mining varies based on multiple 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

Criteria	JORC Code Explanation	CP Comments
	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.	to take place, a minimum mining thickness of 1.5m would be required. As such a minimum seam mining thickness was applied to depths >150m, thereby excluding any seams <1.5m thickness from the resource estimate. Absolute depth of resource was a maximum of 300m from topography.
Metallurgical Factors or Assumptions	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.	It is Xenith's opinion that at this stage of the project that there are no limiting metallurgical factors. Isaac Plains has been an operating open-cut mine since 2006. Some historically reported higher than average Rangal Coal Measures phosphorous percentages may potentially require blending before shipping.
Environmental Factors or Assumptions	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.	It is Xenith's opinion that at this stage of the project that there are no limiting environmental factors. The coal below "Smoky Creek" has been included in the resource estimate. The necessary approvals will need to be obtained to divert this creek, for this coal to be extracted within the open cut mine.

Criteria	JORC Code Explanation	CP Comments
Bulk Density	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. 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. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Preston and Sanders In situ Relative Density Estimation – The in situ density of the coal seams has been estimated using the Preston and Sanders in situ relative density estimation equation: $$RD(in\ situ) = \frac{RDad \times (100 - Mad)}{\{100 + RDad \times (ISM - Mad) - ISM\}}$$ Inherent (air dried) moisture values have been derived from sampled core intervals. In situ Moisture was assumed to be 4.5% for the purpose of the resource estimation.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. 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). Whether the result appropriately reflects the Competent Person's view of the deposit.	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. Drill holes, mined out areas, and seismic sections provide the basis for structural/thickness continuity. Points of Observation have been used to establish coal quality continuity. The level of drilling information and presence of an operating mine also assist with the classification of resource categories.
Audits or Reviews	The results of any audits or reviews of Mineral Resource estimates.	No external audits have been performed on the Mineral Resource estimate, but internal QAQC protocols have been followed. 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"
Discussion of Relative	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	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 2017 JORC Resource report.

Criteria	JORC Code Explanation	CP Comments
Accuracy/ Confidence	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. 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. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	A geostatistical review of the coal seam thickness data for the Isaac Plains Project area was conducted in 2010 by Snowden. Factors that could affect accuracy include unknown structures between completed drill holes, seam washouts in roof or inseam 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.

APPENDIX A. JORC CODE, 2012 EDITION – TABLE 1; ISAAC PLAINS EAST (IPE) RESOURCE

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	JORC Code Explanation	CP Comments
Sampling techniques	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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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.	Exploration Prior to 2002 JB Mining Report 227 holes were drilled in the 1980's, prior to the resource report being completed by JB Mining in 2002. Of these 14 were cored holes and 213 were chipped holes. Only 177 of the chipped holes made it into the 2016 resource model. 36 were rejected based on locality (outside IPE), suspect survey and twinned locations. Following the 2015/16 drilling campaign confidence in the historic drilling had been bolstered. As such a decision to include the historic Coal Quality was investigated. To enable the inclusion of this data it was decided that a twin structural chip hole, with down hole geophysics would be drilled at a nearby location. This "twinning was undertaken as part of the 2016/17 exploration campaign and as such 11 of the historic cored holes were added to the 2017 Coal Quality model and Points of Observation Exploration 2011 Blue Energy Limited drilled several CSG wells within and around the area under ATP 814P in 2011. One hole, Sapphire_4 was drilled within the IPE area. Data supplied for this hole was sufficient enough to be able to use for the resource model. Exploration 2015 to 2017 For the 2015/16, 2016/17 and August 2017 programs, samples were taken on approximately 20-40cm intervals.

Criteria	JORC Code Explanation	CP Comments
		For cored holes, coal seams were ply sampled discretely on the basis of lithological characteristics and quality. Non coal interburden material greater than 0.1m thick and up to 0.3m was sampled separately. The immediate roof and floor have been sampled of lengths of approximately 0.3 m in general. At the minimum ARD analysis has been conducted. All coal samples were collected in plastic bags and transported to the laboratory via tracked freight courier and accompanied by a sample advice sheet. Chain of Custody and field observations were emailed to the Bureau Veritas Laboratories to arrive before the sample. Coal Quality samples were sent to Bureau Veritas Pty Ltd laboratory in Brendale, Queensland. All coal quality samples were prepared and analysed using Bureau Veritas testing methodologies. Bureau Veritas is a National Association of Testing Authorities (NATA) registered organisation. Line of oxidation (lox) samples, were collected in 1 m samples. Lox samples were bagged on site and sent to Bureau Veritas Laboratory in Brendale Queensland for analysis. 7 fully cored geotechnical (diamond) holes from the 2016 / 2017 campaign were drilled to analyse the overburden, coal and floor sediments for rock strength and other geotechnical considerations. Samples were stored in core trays, with representative 30cm+ length samples wrapped in plastic, foil and sealed from moisture. 10 samples were tested for UCS, and 5 samples for three-stage tri-axial testing. 25 geotechnical samples were reviewed and collected from 11, 4C core holes. Samples were dispatched for destructive geotechnical test work to Cardno, Ullman and Nolan Geotechnic laboratories in Mackay. Samples received UCS, Modulus and Poisson's Ratio testing. For the entire Isaac Plains and Isaac Plains East area multiple mini-Sosie

Criteria	JORC Code Explanation	CP Comments
		seismic work has been undertaken by Velseis Pty Ltd including March / April 2004 (8.7km), July/August 2005 (9.3 km) and February 2016 (32km – of which 22km on nine lines are within IPE). The seismic has enabled further delineation and confirmation of structure within the Isaac Plains and IPE deposits. Historic exploration: Details for the historic exploration are included in Authority to Prospect 292C, Report on ML Application Area No.441-Mackay, Volume 1, August, 1982. A review of suitable historic holes was conducted as part of this resource estimate. Historic coal quality information was utilised only for holes that have been "twinned", i.e. where a Stanmore exploration hole, that has been geophysically logged, occurs at a reasonable distance to the collar location
Drilling techniques	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).	All recent coal quality holes were cored (partially or fully) using core barrel, producing a 100mm core diameter. Structural holes were drilled as part of a resource program and to confirm historic drilling information. As part of this work, these holes were fully open (chipped). Lines of Oxidation ("LOX") holes were drilled by a reverse circulation hammer drill rig. Non-cored holes were used in the model to define structure and stratigraphy but were not used as Points of Observation ("POB"). A full list of boreholes and drilling types is available at the end of Table 1 in Appendix C. Appendix C is not included with the ASX release but is a subset of the full report.
Drill sample	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure	Interpreted intersection thickness, determined by downhole geophysics, versus corrected logged thickness was used to help determine core sample recoveries.

Criteria	JORC Code Explanation	CP Comments
recovery	representative nature of the samples. 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.	If there was less than 95% core recovery, and sample recovery did not satisfy CP the hole was required to be redrilled. No details were available on the relationship between sample recovery and quality or sample bias.
Logging	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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	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. All chip holes had chips collected every metre, which were then geologically logged and photographed. All 2015/16, 2016/17 and August 2017 coal quality, structural and LOX holes have been geophysically logged (except where blocked or no coal exists (LOX Holes only)) with the minimum suite of tools run including: Density, Calliper, Verticality/Deviation (not for LOX) and Gamma. A full list of the suite of geophysical logs that have been run on each drill hole can be found in Chapter 6.5 of the 2015 Resource estimate report and for each hole in Appendix C. Appendix C is not included with the ASX release but is a subset of the full report. The calibration of the geophysical tools was conducted by the Weatherford Pty Ltd.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field	All core coal samples were double bagged on site and were transported to the laboratory for testing. The lab(s), Bureau Veritas complies with the Australian Standards for sample preparation and sub-sampling. Raw Coal plies were initially tested for Apparent Relative Density (ARD). Plies were then combined to create two (2) composite sections, being a "TOP" ~2m sample and a remainder "BOTTOM" sample of between 0.5 and 2.5m. To simulate mine transport conditions each composite sample was then drop shattered 20 times from a height of 2 metres, any sample mass

Criteria	JORC Code Explanation	CP Comments
	duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	remaining of > 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. 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 & Dilatation 1/8 for raw analysis: Crush to 4mm, mill sample to test for RD, MHC, Proximate, TS, CSN, Calorific Value & Chlorine ¾ for float sink: Wet tumble and wet size at 31.5, 25, 16, 8, 4, 2, 1, 0.5, 0.25, 01.25 & 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. 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.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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.	Bureau Veritas in Brendale, QLD comply with the Australian Standards for coal quality testing and are certified by the NATA. Geophysical tools were calibrated by Weatherford Pty Ltd, the company engaged in geophysically logging the holes from the 2015/16, 2016/17 and August 2017 coal quality, structural and LOX drilling. Weatherford conduct regular testing on all logging equipment. No geophysical logging was conducted on the historic drilling.
Verification of	The verification of significant intersections by either independent or alternative company personnel.	Bureau Veritas in Brendale, QLD comply with the Australian Standards for coal quality testing, and as such conduct the verifications for coal quality

Criteria	JORC Code Explanation	CP Comments
sampling and assaying	The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	analysis outlined in the standards. Coal quality results were verified by Stanmore and Xenith Consulting Pty Ltd ("Xenith") personnel before inclusion into the geological model and resource estimate. Coal analysis procedure design, laboratory program management, lab data validation, washability simulation (undiluted coal only) and product coal assessment was first undertaken by Chris McMahon at McMahon Coal Quality Resources (MCQR). The subsequent coal analysis results database was transferred to David Hornsby of Minserve Group. Dataset validation was undertaken, followed by diluted washability simulations via inclusion of laboratory pre-treated and fractionally washed stone dilution results and summary analysis of product potential given No further adjustment to the resultant assay data has been undertaken.
Location of data points	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. Specification of the grid system used. Quality and adequacy of topographic control.	August 2017 Drilling - Professional survey of the exploration work was conducted by MSS (Golding), being the Isaac Plains Mine Site Surveyors. 2016/17 Drilling – Professional survey of the exploration work was conducted by MSS (Golding), being the Isaac Plains Mine Site Surveyors. 2015/16 Drilling - Professional survey of the exploration work was conducted by JTH Surveys Pty Ltd (Moranbah). The datum used AGD 84 and the projection used AMG 84 Z55. Data was also published in MGA 94 The aerial topographic survey was conducted in September 2015 by Atlass (Aerometrex). The survey accuracy is determined to be +-0.25m. The previous topography model was based on drill collar coordinates
Data spacing and distribution	Data spacing for reporting of Exploration Results. 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)	Borehole spacing has been dictated by the characteristics and consistency of the target seams within the deposit. August 2017 Drilling has been conducted to address recommendations arising from the August 2017 Resource report, particularly in relation to

Criteria	JORC Code Explanation	CP Comments
	and classifications applied. Whether sample compositing has been applied.	further enhancing Basalt and Fault definition and infilling areas for Coal Quality confidence. 2016/17 Exploration drilling has been conducted to both confirm selected historic drill results and to assign an Measured resource category for the IPE area 2015/16 structural and coal quality drilling is in general on < 1000m centres. LOX drilling was on lines spaced between 100 to 150m apart with distance between holes on line at 20 to 50m. Historic Drilling was generally constructed on lines spaced ~200 -250m apart with holes at 100 -200m spacing along those lines Samples were reported to have been taken on approximately 20 - 40 cm interval prior to compositing into top and bottom plies for wash and product testing. As such, where appropriate, sample compositing has been completed. 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.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • 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.	The orientation and spacing of the drilling grid is deemed to be suitable to detect geological structures and coal seam continuity within the resource area. Additional drilling around the southern basalt area was undertaken to determine the effect on the target seam coal structure and quality.
Sample security	The measures taken to ensure sample security.	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. All samples were held in cold storage prior to leaving site and at laboratory

Criteria	JORC Code Explanation	CP Comments
		prior to analysis. The same procedure was used for all geotechnical samples derived from the cored holes
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No results sited for this resource update Bureau Veritas undertake internal audits and checks in line with the Australian Standards and their NATA certification. Corporate Accreditation no. 1805 and site no. 18415 Xenith performed a high level technical review of the historic geological data during the sale process in 2014/15. Identifying the lack of geophysical data to support the historic seam picks down hole and the need to employ modern exploration standards and test holes near historic data to confirm findings and approve the historic resource assumptions.

SECTION 2 REPORTING OF EXPLORATION RESULTS

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

<table>
<tr><th>Criteria</th><th>JORC Code Explanation</th><th>CP Comments</th></tr>
<tr>
<td>Mineral tenement and land tenure status</td>
<td>

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.
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.

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<td>

There are no known impediments to operate in the Isaac Plains East area.

<table>
<tr><th>Tenure</th><th>Tenement Holder</th><th>Lodge Date</th><th>Expiry Date</th><th>Area (Ha)</th></tr>
<tr><td>ML700016</td><td>Stanmore IP Coal Pty Ltd</td><td>25-Oct-2016</td><td>31-Mar-2030</td><td>138.5</td></tr>
<tr><td>ML700017</td><td>Stanmore IP Coal Pty Ltd</td><td>25-Oct-2016</td><td>31-Mar-2030</td><td>387.6</td></tr>
<tr><td>ML700018</td><td>Stanmore IP Coal Pty Ltd</td><td>25-Oct-2016</td><td>31-Mar-2030</td><td>369.1</td></tr>
<tr><td>ML700019</td><td>Stanmore IP Coal Pty Ltd</td><td>25-Oct-2016</td><td>31-Mar-2030</td><td>353.8</td></tr>
<tr><td>MDL137(north)</td><td>Millennium Coal Pty Ltd</td><td>10-Feb-93</td><td>30-Jun-18</td><td>554</td></tr>
<tr><td>PL191</td><td>CH4 Pty Ltd</td><td>12-Jul-2001</td><td>20-Mar-2032</td><td>20,700</td></tr>
<tr><td>ATP814</td><td>Eureka Petroleum Pty Ltd</td><td>17-Nov-2004</td><td>28-Feb-2018</td><td>110,998.8</td></tr>
<tr><td>Pl1034</td><td>Eureka Petroleum Pty Ltd</td><td>6-Sep-17</td><td>Application</td><td>7,628.01</td></tr>
</table>

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.
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;

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</tr>
</table>

Criteria	JORC Code Explanation	CP Comments
		however the full underlying contractual rights are held by Stanmore. • Until recently Stanmore Wotonga Pty Ltd also held MDL135 (Morambah), with this permit having formally transferred from previous holder Millennium Coal Pty Ltd on 19 July 2017. • MDLs 135 & 137 (north) are both pre-cursor permits to the newly established IPE Mining Leases. MDL 135 was extinguished on 1st March 2018, as it is now entirely covered by Mining Leases 700018 and 700019. MDL 137 is still current, given that portions of the permit continue to exist outside of the newly granted Mining Lease areas. • A granted Petroleum Lease ("PL") 191 covers the western half of the IPE area and into the neighbouring Isaac Plains ML and is currently held by CH4 Pty Ltd. The eastern half and northern portion of the IPE area are overlain by a Petroleum Lease Application ("PLA") 1034 and Authority to Prospect for petroleum ("ATP") 814, held by Eureka Petroleum Pty Ltd.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• Three parties have undertaken exploration activities within the project area, Thiess Dampier Mitsui, Peabody Energy and Blue Energy • Exploration drilling and geophysical surveys that have been completed within and in close proximity to the Isaac Plains East area has been reviewed as part of this report. • Within the IPE resource a total of 228 boreholes one with publically available information drilled by other parties were reviewed, including drilling for coal seam gas Among them, 192 historic holes were considered suitable for use in the geological model.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Isaac Plains project area 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

Criteria	JORC Code Explanation	CP Comments

		back-arc to foreland basin.
		• The general stratigraphy of the project area includes (oldest to youngest) –
		  • Lower-Permian Reids Dome Beds,
		  • Lower-Upper Permian Back Creek Group,
		  • Upper Permian Blackwater Group, *and*
		  • Rewan group.
		• Coal seams occur within the Rangal Coal Measures which are Late Permian in age. These seams to the east at approximately 4 to 10 degrees.
		• The coal seams found within the Rangal Coal Measures are as follows – Leichhardt, Lower Leichhardt Seam and Vermont.
		• The Lower Leichhardt Seam and Vermont seams were not included in the resource estimate as the seams were judged to be either of poor quality and or poorly represented in the drilling data.

Drill hole Information	• 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:
	  • easting and northing of the drill hole collar
	  • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar
	  • dip and azimuth of the hole
	  • down hole length and interception depth
	  • hole length.
	• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not
		• A detailed list of the boreholes used to define the coal quality of the resource in the Isaac Plains Project can be found in Appendix C. Appendix C is not included with the ASX release but is a subset of the full report.
		• All historic boreholes have been modelled from vertical; hole deviation (from vertical) has been applied for all 2015 / 2016 and 2016 / 2017 holes.

Criteria	JORC Code Explanation	CP Comments
	detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	• 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. • 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. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• It is reported that all seams where multiple coal quality samples were taken were given composite coal quality values.
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • 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').	• Historical holes were all modelled as vertical. All 2015/16 and 2016/17 holes have verticality data applied to the downhole survey information. • As reported in the 2002 resource report constraints were applied in thickness modelling to two historic holes to exclude over thickened sections in the model. • The variations in the thickness was largely attributable to faulting and LOX thinning
Diagrams	• 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.	• All appropriate diagrams are contained within the main body of the report. Reference maps in the ASX release are a subset of the full report.
Balanced	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high	• All available exploration data for the Isaac Plains area has been collated and reported.

Criteria	JORC Code Explanation	CP Comments
reporting	grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	
Other substantive exploration data	• 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.	• All current and historic drilling data was gathered and or utilised in the resource estimation except where excluded for reasons of twinning suspect drilling location data. • Historic model interpretations assisted with the interpretation of the 2016 resource model and subsequent 2017 models. • The 2D seismic data was referred to where available for the approximate truthing of the interpreted faulting. • Geotechnical logging and sampling has been undertaken. Sample testing from the overburden, seam roof / floor (laboratory testing) has been undertaken by Cardno, Ullman & Nolan Geotechnic Pty Ltd in Mackay. • Ground Magnetic Survey was carried out in October / November 2017 by Atlas Geophysics across the entire area on east west lines spaced every 50m.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• No future work has been planned for the IPE area. • Recommendations for future work have been proposed but no detailed planning has been undertaken.

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
Database integrity	• 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. • Data validation procedures used.	• Data was entered in the field by the field Geologist into LogCheck software. • Lithological logs and coal intersection depths were reported to have been reconciled and corrected to the geophysical log. A review of the geophysical logs was conducted as part of this resource estimate • All bore hole collars were checked against the natural topographic surface and all historic hole locations were adjusted to the new topographic surface. The adjustment was conducted because of limited confidence in the scaling and input from historic drilling data. All 2015/16 and 2016/17 drilling was within one metre of the topographic surface used • Coal Quality data was reportedly checked against lab reports and cross referenced with lithology and ply logs. At each stage of lab reporting, lab reports were validated by a range of tests, using proprietary coal quality software by consultant Chris McMahon (MCQR). Where queries arose Bureau Veritas was asked to check and provide updates as required. All data is as such considered validated and final. As part of this resource estimate seam picks and sample thicknesses were validated and raw qualities were compared to results from the historic resource reports.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The CP visited the neighbouring Isaac Plains Mining Lease and IPE area in late November 2015. • The Competent Persons familiarity with the nearby Isaac Plains' project area and stratigraphy is sufficient as exploration data indicates that the IPE geology is typical of the area.

Criteria	JORC Code Explanation	CP Comments
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• 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. • Interpretation of Basalt affected areas is from the drilling and Ground magnetic Survey. Interpretation is predominately reliant on the results of the drilling program.
Dimensions	• 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.	• 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. • The depth of first coal ranges from between 15 to 20 m in the west at the fresh coal interface, and 170 m in the east under the central topographical high. • The current resource extent covers approximately 7km^2 the central and eastern part of the tenement. • 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.
Estimation and modelling techniques	• 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. • The availability of check estimates, previous estimates and/or	• The geological model was constructed in Minescape using different modelling algorithms for structure, thickness and coal quality parameters. The finite element method was applied for structure thickness and trend. Finite element method was also applied for structure surface but with first order factor applied. Inverse distance algorithm was used for creating the raw seam interval composited coal quality grids.

Criteria	JORC Code Explanation	CP Comments
	mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding by-products recovery. • Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using (or not) grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• A maximum extrapolation distance for resource categorization of 500 m from the last data point has been used for Indicated Resources. • 2 holes with anomalously thick sections were "normalized to the surrounding average thickness. These historic holes without geophysical support material are located near interpreted faults. Seam interpreted floor and roof for these holes was picked through sectional analysis. • Where drilling is sparse in the down dip areas of IPE deposit, the preliminary seismic interpretation was utilized to confirm the consistency in seam structure.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• 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). • Based on the results from coal quality testing, the in situ moisture has been estimated to be 4.7%. The 4.7% was derived from the analysed Moisture Holding Capacity values.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• Typically, 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.

Criteria	JORC Code Explanation	CP Comments
Mining factors or assumptions	• *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 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.*	• A depth categorisation was estimated for the nominal cut –off for potential open cut resource of 100m to the top of the target LHD seam. • The LHD seam thickness and depth is deemed suitable for highwall or underground development and therefore underground resources have been classified.
Metallurgical factors or assumptions	• *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.*	• It is Xenith's opinion that at this stage of the project that there are no limiting metallurgical factors. • The nearby Isaac Plains Mine (IP) has been an operating open cut mine since 2006. Target seams within IPE are similar in coal quality characteristics. • Fully diluted washability simulations of pre-treated and sized results show better yields and product splits for equivalent ash than that derived at IP or within the IP core washability dataset. • Laboratory coal product coal testing and analysis of Coking and Thermal composites shows market acceptable products of similar or marginally better characteristics are readily achievable from IPE, versus IP.
Environmental factors or assumptions	• *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*	• Two drainage channels lie across the IPE area one in the north, Smokey Creek and one in the south, Billy's Gully. • Neither channel is a permanent water course but should be considered for future evaluation.

Criteria	JORC Code Explanation	CP Comments
	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.	
Bulk density	• *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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Preston and Sanders In situ Relative Density Estimation – The in situ density of the coal seams has been estimated using the Preston and Sanders in situ relative density estimation equation. • Inherent moisture values have been derived from the supplied grids and the cored holes utilised in the CQ model across the IPE area. • In situ Moisture ("ISM") was assumed to be 4.7% 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: ISM= 0.348 + 1.1431 x MHC. • Air dried RD that was used in the Preston Sanders Equation was derived from analysis of the cored holes used in the CQ model.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Three resource categories have been identified within the IPE area, dependent on the level of confidence in the seam structure and continuity plus the level of variability in the coal quality data. • The level of drilling information determined the classification of resource categories.

Criteria	JORC Code Explanation	CP Comments
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• John Bamberry of Palaris Australia audited the Xenith modelling procedures and dataset in May 2017. Several non-material issues were highlighted, which were administered for this model update.
Discussion of relative accuracy/ confidence	• *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.* • *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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• Xenith have assigned three level(s) of confidence to the coal resource estimate, depending on the seam and borehole spacing, as described in the Chapter 10 of the 2017 JORC Resource report. • No geostatistical review of the coal seam thickness data for the Isaac Plains East Project area has been conducted. • Overlying basalt altered areas have been recognised at site and interpreted for the resource estimate. • Factors that could affect accuracy include unknown structures between completed boreholes, seam washouts in roof or inseam 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.

JORC CODE 2012 EDITION – TABLE 1 FOR ISAAC PLAINS COMPLEX COAL RESERVE AS AT JULY 1 2019

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)

<table>
<tr><th>Criteria</th><th>JORC Code Explanation</th><th>Commentary</th></tr>
<tr>
<td>Mineral Resource estimate for conversion to Ore Reserves</td>
<td>

Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.
Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.

</td>
<td>

The JORC Coal Resource for Isaac Plains Mine (IP) (May, 2018) and Isaac Plains East (IPE) (April, 2018) were 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.”
The Coal Resource Estimate for the Isaac Plains Complex (IPC) is:
<table>
<tr><th>Resource Category</th><th>IP</th><th>IPE</th><th>Total (IPC)</th></tr>
<tr><td>Measured (Mt)</td><td>22.2</td><td>12.9</td><td>35.1</td></tr>
<tr><td>Indicated (Mt)</td><td>21.3</td><td>8.8</td><td>30.1</td></tr>
<tr><td>Inferred (Mt)</td><td>9</td><td>8</td><td>17</td></tr>
<tr><td>Total (Mt)</td><td>52.5</td><td>29.7</td><td>82.2</td></tr>
</table>

Mr Turner’s estimates have been used as the basis for the estimate of Coal Reserves for the Isaac Plains Complex.
Coal Resource estimates are inclusive of Coal Reserve estimates.

</td>
</tr>
</table>

Criteria	JORC Code Explanation	Commentary
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The Competent Person, Mr Tony O'Connell, has visited the site on multiple occasions in the past 2 years. • 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.
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• 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. • The mining parameters and modifying factors are based on the experience of the current operations.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• The pit designs for the IPC were developed to cover all coal production that is expected to be economical. • At Isaac Plains Mine, a block margin ranking estimation was undertaken to determine the economic limits for each pit, whilst at Isaac Plains East, Minex Pit Optimiser (Lerchs-Grossmann) was utilised to determine the economic pit shell.
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either	• The mining methodology considered for this estimate is: * a combination of cast, doze, dragline or truck & excavator to move waste into the adjacent strip or dump. The strip width selected is nominally 55m at IPM and 50m at IPE.

Criteria	JORC Code Explanation	Commentary
	by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods.	* Drilling and blasting (D&B) of the in situ waste. * A maximum horizon of 50m of waste is allocated to the dragline. * Remaining waste is removed by truck and excavator. * Coal mining using excavators and rear dump trucks haul the coal to the Isaac Plains Coal Preparation Plant (IPM CHPP) for washing. * Parting > 0.3m thick is stripped separately. • Batter allowances that have been considered are: * Highwall (hard): 65° * Highwall (soft): 45° * Spoil Lowwall & Angle of Repose: 37° Loss & Dilution factors used are: • Roof Loss: 0.075m • Floor Loss: 0.025m • Edge Loss: 0.25m • Global Loss (for faults): 3% • Roof Dilution: 0.05m • Floor Dilution: 0.05m • Edge Dilution: 0.25m • Dilution density: 2.42 t/bcm • Dilution ash: 85% • The existing infrastructure at IPC is suitable for the methodology described.

<table>
<tr><th>Criteria</th><th>JORC Code Explanation</th><th>Commentary</th></tr>
<tr>
<td>Metallurgical factors or assumptions</td>
<td>

The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.
Whether the metallurgical process is well-tested technology or novel in nature.
The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.
Any assumptions or allowances made for deleterious elements.
The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.
For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?

</td>
<td>

The existing IPM CHPP is suitable to process the target seams.
Two products are planned, a primary product semi-soft coking coal and a secondary product thermal coal.
The CHPP yield predictions are based on modelled theoretical laboratory yield data with plant efficiency factors applied to predict plant performance.
Forecast yields for the two coal types at IPM and IPE for the economic pit are:

<table>
<tr><th>CHPP Yields</th><th>Semi-soft Coking Coal (wet %)</th><th>Thermal Coal (wet %)</th><th>Total (wet %)</th></tr>
<tr><td>Isaac Plains Mine</td><td>48%</td><td>22%</td><td>70%</td></tr>
<tr><td>Isaac Plains East</td><td>76%</td><td>1%</td><td>77%</td></tr>
<tr><td>Isaac Plains Complex</td><td>74%</td><td>3%</td><td>77%</td></tr>
</table>
</td>
</tr>
</table>

Criteria	JORC Code Explanation	Commentary

Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• All Mining Leases within the IPC are subject to environmental authority (**EA**) EPML00932713.
		• Stanmore's onsite activities are managed in accordance with the following:
		  * Environmental Management Strategy;
		  * 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;
		  * IPM Mine environmental management plan; and
		  * contractor's environment management plans.
		• These strategies, procedures and plans will be amended as required.
		• Environmental risk assessments of the following aspects have been undertaken, in conjunction with relevant specialists:
		  * Groundwater
		  * Flood modelling
		  * Water management
		  * Air quality
		  * Noise
		  * Terrestrial ecology
		  * Aquatic ecology.
		• Stanmore assesses and monitors environmental and approvals risks on an ongoing basis.

Criteria	JORC Code Explanation	Commentary
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.	• Existing Infrastructure supporting IPC operations includes: * Mine infrastructure Area; * Heavy vehicle haul roads connecting IPE to IPM CHPP; * Workshop including surrounding laydown areas; * Light vehicle maintenance igloo; * Boiler makers area; * Fuel storage and distribution; * Administration Office (including parking areas); * Warehouse; * Emergency Response Facilities Equipment; * Fuel and Lubrication Facilities; * Electrical and communications; and * Water Infrastructure (Raw, Potable & Process) • The original design criteria for the Isaac Plains mine was 3.5 Mtpa ROM and the existing infrastructure capacity is currently surplus to requirements.
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements.	• The utilised costs have been sourced from current contractor rates or built up from first principles where required. • All unit cost rates are in Australian Dollars. • The unit costs used are summarised in the following table:

<table>
<tr><th>Criteria</th><th>JORC Code Explanation</th><th>Commentary</th></tr>
<tr><td></td><td>

The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.
The source of exchange rates used in the study.
Derivation of transportation charges.
The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.
The allowances made for royalties payable, both Government and private.

</td><td>
<table>
<tr><th>Cost Item</th><th>Units</th><th>Unit Cost</th></tr>
<tr><td>Drill & Blast</td><td>$/bcm</td><td>$1.12</td></tr>
<tr><td>Waste Mining</td><td>$/bcm</td><td>$1.45</td></tr>
<tr><td>Coal Mining</td><td>$/ROM t</td><td>$4.75</td></tr>
<tr><td>Processing</td><td>$/ROM t</td><td>$8.20</td></tr>
<tr><td>Rail</td><td>$/Product t</td><td>$7.30</td></tr>
<tr><td>Port</td><td>$/Product t</td><td>$5.50</td></tr>
<tr><td>Site Costs</td><td>$/Product t</td><td>$8.00</td></tr>
<tr><td>Admin</td><td>$/Product t</td><td>$2.20</td></tr>
<tr><td>Rehabilitation</td><td>$/ha</td><td>$23,024</td></tr>
</table>

Royalty charges were applied as follows:

7.0% up to and including $100 per tonne
12.5% over $100 up to including $150 per tonne
15.0% above $150 per tonne

A private royalty for Isaac Plains East is also included.

</td></tr>
<tr><td>Revenue factors</td><td>

The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.
The derivation of assumptions made of metal or commodity price(s), for the

</td><td>

Forecast coal prices for Coking Coal are based on annual hard coking coal sale price forecasts and USD: AUD exchange rates from Consensus Economics.
A realisation factor of 67% has been applied to the forecast hard coking coal sale prices for Isaac Plains Coking Coal.
The table below shows the forecast pricing and exchange rates applied.

</td></tr>
</table>

<table>
<tr><th>Criteria</th><th>JORC Code Explanation</th><th>Commentary</th></tr>
<tr><td></td><td>principal metals, minerals and co-products.</td><td><table>
<tr><th>Year</th><th>USD HCC Price</th><th>USD:AUD</th><th>Realised SS Price (AU$)</th></tr>
<tr><td>2019</td><td>$201.50</td><td>0.693</td><td>$194.82</td></tr>
<tr><td>2020</td><td>$178.78</td><td>0.704</td><td>$170.14</td></tr>
<tr><td>2021</td><td>$163.50</td><td>0.727</td><td>$150.68</td></tr>
<tr><td>2022</td><td>$154.39</td><td>0.75</td><td>$137.92</td></tr>
<tr><td>2023</td><td>$149.23</td><td>0.75</td><td>$133.31</td></tr>
</table></td></tr>
<tr><td>Market assessment</td><td>• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.
• A customer and competitor analysis along with the identification of likely market windows for the product.
• Price and volume forecasts and the basis for these forecasts.
• For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</td><td>• 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 9 years (approximately).
• It would be reasonable to expect that the IPC will have no difficulty in successfully marketing future coal tonnes produced (Coking Coal and Thermal).</td></tr>
<tr><td>Economic</td><td>• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.
• NPV ranges and sensitivity to variations</td><td>• The IP deposit was assessed on a block-by-block basis with the total margin for each block calculated based on the unit costs and revenues detailed above.
• The IPE deposit was assessed using Minex Pit Optimiser software which applies the Lerchs-Grossmann algorithm to the unit costs and revenues to determine a maximum economic pit shell.</td></tr>
</table>

Criteria	JORC Code Explanation	Commentary
	in the significant assumptions and inputs.	
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The mining tenure for Isaac Plains is Mining Lease (**ML**) 70342. Isaac Plains East is covered by Mining Leases 700016, 700017, 700018, and 700019 which are all held by Stanmore IP Coal Pty Ltd. • All Mining Leases for IPC are current and are subject to environmental authority (**EA**) EPML00932713. • 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 operate.
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study.	• There are no known issues that impact might impact on the Coal Reserve Estimate and classifications of the Coal Reserves. • Stanmore commenced mining operations at IPE in mid-2018.

<table>
<tr><th>Criteria</th><th>JORC Code Explanation</th><th>Commentary</th></tr>
<tr><td></td><td>Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</td><td></td></tr>
<tr><td>Classification</td><td>• The basis for the classification of the Ore Reserves into varying confidence categories.
• Whether the result appropriately reflects the Competent Person’s view of the deposit.
• The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</td><td>• 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.
• The Coal Reserve Estimate and classification of Coal Reserves reflect the Competent Person’s view and assessment of the deposit.
<table>
<tr><th colspan="2">Coal Reserve (ROM tonnes)</th><th>LHD/LHU (Mt)</th><th>LHL (Mt)</th><th>Total (Mt)</th></tr>
<tr><td rowspan="3">Isaac Plains Mine</td><td>Proved</td><td>0.93</td><td>0.03</td><td>0.97</td></tr>
<tr><td>Probable</td><td>0.00</td><td>0.08</td><td>0.08</td></tr>
<tr><td>Total</td><td>0.93</td><td>0.12</td><td>1.05</td></tr>
<tr><td rowspan="3">Isaac Plains East</td><td>Proved</td><td>9.36</td><td>0.00</td><td>9.36</td></tr>
<tr><td>Probable</td><td>2.58</td><td>0.00</td><td>2.58</td></tr>
<tr><td>Total</td><td>11.94</td><td>0.00</td><td>11.94</td></tr>
<tr><td rowspan="3">Isaac Plains Complex</td><td>Proved</td><td>10.30</td><td>0.03</td><td>10.33</td></tr>
<tr><td>Probable</td><td>2.58</td><td>0.08</td><td>2.66</td></tr>
<tr><td>Total</td><td>12.87</td><td>0.12</td><td>12.99</td></tr>
</table>
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<table>
<tr><th>Criteria</th><th>JORC Code Explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th colspan="2">Marketable Reserves (Product tonnes)</th><th>Semi-soft Coking Coal (Mt)</th><th>Thermal Coal (Mt)</th><th>Total (Mt)</th></tr>
<tr><td rowspan="3">Isaac Plains Mine</td><td>Proved</td><td>0.48</td><td>0.20</td><td>0.69</td></tr>
<tr><td>Probable</td><td>0.02</td><td>0.02</td><td>0.04</td></tr>
<tr><td>Total</td><td>0.50</td><td>0.23</td><td>0.73</td></tr>
<tr><td rowspan="3">Isaac Plains East</td><td>Proved</td><td>7.09</td><td>0.12</td><td>7.22</td></tr>
<tr><td>Probable</td><td>1.98</td><td>0.03</td><td>2.00</td></tr>
<tr><td>Total</td><td>9.07</td><td>0.15</td><td>9.22</td></tr>
<tr><td rowspan="3">Isaac Plains Complex</td><td>Proved</td><td>7.58</td><td>0.33</td><td>7.90</td></tr>
<tr><td>Probable</td><td>2.00</td><td>0.05</td><td>2.05</td></tr>
<tr><td>Total</td><td>9.57</td><td>0.38</td><td>9.95</td></tr>
</table>
</td></tr>
<tr><td>Audits or reviews</td><td>• The results of any audits or reviews of Ore Reserve estimates.</td><td>• Coal Reserve Estimates were reconciled back to previous estimates to ensure consistency.</td></tr>
<tr><td>Discussion of relative accuracy/ confidence</td><td>• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</td><td>• No statistical or geostatistical procedures have been used in the estimation of Coal Reserves themselves.
• 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, these present forecasts are based on highly regarded industry experts in this field.
• Small differences may be present in the totals due to the tonnage information being rounded so as to reflect the usual uncertainty associated with the estimate.
• The in-seam yields for IPM and IPE have been adjusted by factors calculated via a robust reconciliation process.</td></tr>
</table>

Criteria	JORC Code Explanation	Commentary
	• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	