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MAIDEN RESOURCE ESTIMATE FOR ISAAC RIVER PROJECT

1 November 2018

Highlights

- **Maiden Resource estimate of 5.3Mt for the Leichhardt seam of which 4.2Mt is classified as Indicated, and 1.1 Mt as Inferred**
- **The entire Indicated Resource estimate is based on open cut assumptions**
- **Exploration target identified for the Leichhardt Lower, Vermont and Girrah seams**

Bowen Coking Coal Ltd (ASX: BCB, "Company") is pleased to announce the maiden Mineral Resource estimate in accordance with the JORC Code (2012) for its 100% owned Isaac River Project (MDL 444) (the "Project"), located along strike from BHP Mitsubishi Alliance's ("BMA") Daunia Mine (Figure 1).

The maiden Mineral Resource estimate for the Leichhardt seam is 5.3Mt, which includes Indicated Resources of 4.2Mt (open cut) and Inferred Resources of 1.1Mt (underground). The Leichhardt seam has an average thickness of 4.7m across the Project and is sub-cropping within the boundary of MDL 444.

The Leichhardt and Vermont seams are part of the Rangal Coal Measures and are mined at neighbouring mines to produce high quality metallurgical coal for the export market. The Leichhardt Lower seam has been encountered in 7 drill holes within the boundary of the tenement at an average thickness of 2.7 metres, but has not been included in the Resource estimate at this stage, due to a lack of suitable coal quality data. Regionally, the Leichhardt Lower and Vermont seams are regarded as having good coking properties (QDEX, EPC 646 2014 Report).

Although not a large resource, the Company is excited with the potential of an open pit operation with high quality coal and the Project's proximity to existing infrastructure. This

positions Isaac River as a project BCB can potentially fast track to a development decision.

Figure1. Location of the Isaac River Project (MDL 444 and EPC 830)

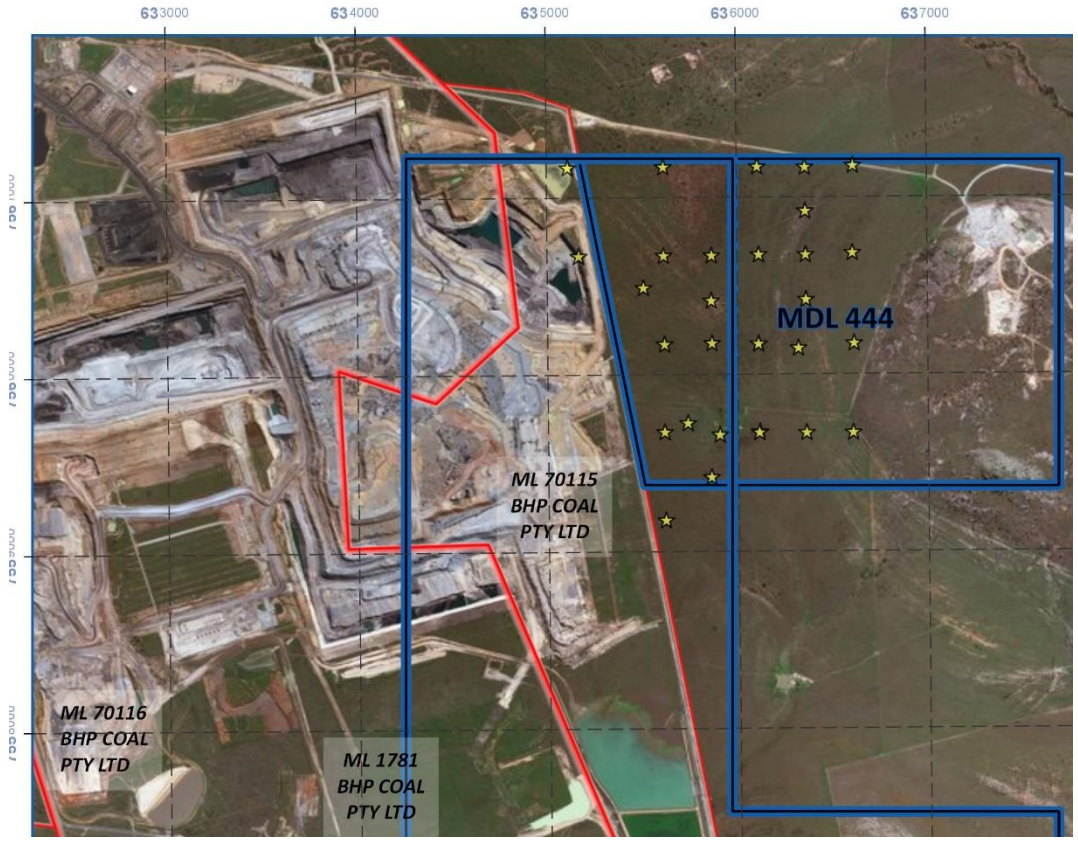

Table 1. Resource Estimate for the Leichhardt seam (Raw coal quality, air dried basis ("adb"))

Seam	Lease	Mass	Seam Thickness	Insitu RD	Moisture					
		Mt	(m)	t.cu.m	% (adb)	RAW Ash % (adb)	FC % (adb)	VM % (adb)	TS % (adb)	RAW CV MJ/kg (adb)
LHD Indicated	MDL 444	4.2	4.4	1.40	1.5	16.8	62.0	19.6	0.33	6779
LHD Inferred	MDL 444	1.1	4.7	1.45	1.5	17.6	61.2	19.7	0.31	6680
LHD Total	**MDL 444**	**5.3**		**1.44**	**1.5**	**17.0**	**61.9**	**19.6**	**0.33**	**6758**

The coal resource has been estimated in accordance with the JORC Code (JORC, 2012) and utilising the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (Coalfields Geology Council of NSW and the Queensland Mining Council, 2014). Four partly cored boreholes within the area of

MDL 444, and an additional hole within the EPC 830 and to the immediate west of the MDL qualified as Points of Observation. Structural drilling is in general on 500 m north-south centres and 250m centres east-west and coal quality drilling is located on approximately 500m centres. Coal quality and washability demonstrated potential for a primary semi soft/semi hard coking coal with a secondary high energy thermal coal. A higher yielding single product PCI option was also identified and is assumed as the base case.

Given the relatively small resource tonnage, the assessment of reasonable prospects for economic extraction has been based on a likely scenario of minimal on-site development and infrastructure with coal washing and other services to be negotiated with nearby operations. This allows the small resource based to be exploited much like a satellite pit of a nearby mine.

The seam structural continuity is well supported by the structural drilling and seismic interpretation, resulting from the seismic program undertaken in 2015 by Velseis, comprising four 2D mini-sosie lines, covering 7.4 line kilometres. The base of weathering is observed at between 20m and 25m.

The Indicated Resource area was constrained according to:

- Spatial distribution of Points of Observation,
- Confidence in seam structure and coal quality continuity,
- Lease boundaries,
- Depth to seam floor of less than 150m, which was deemed appropriate for reasonable prospects for potential open cut economic extraction,
- Seam thickness greater than 0.3m, and
- Raw ash values less than 50% adb.

The Inferred Resource was developed from the above constraints for the down-dip deeper areas of the western limb of the syncline and was extended approximately 300m from the 150m depth line to consider a potential highwall mining resource.

For the project, qualification for a Point of Observation for the LHD seam includes:

- A cored target coal seam,
- Geophysically logged,
- Data points that sufficiently establish seam thickness and quality continuity,
- Raw coal quality data, and
- Coal core recovery generally >95%.

Exploration Target

Xenith also estimated a further Exploration Target* of between 9Mt and 15Mt for the underlying Leichhardt Lower, Vermont, and Girrah seams based on an open cut pit configuration shallower than 150m depth and minimum seam thickness of 0.3m.

**The potential quantity and grade for the Exploration Target is conceptual in nature. There has been insufficient exploration to date to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource in this area.*

Management is currently re-designing the proposed exploration plan to test the Exploration Target through the drilling of up to 4 cored drill holes in the coming months.

Table 2. Exploration Target* per seam

Seam	Lease	Exploration Target (Mt)	
		Minimum	Maximum
LH Lower	MDL 444	0.5	1.5
	EPC 830		0.1
Total LH Lower		**0.5**	**1.6**
Vermont Plies	MDL 444	2.5	3.5
	EPC 830	0.1	0.5
Total Vermont		**2.6**	**4.0**
Girrah Plies	MDL 444	3.5	5.5
	EPC 830	2.5	3.5
Total Girrah		**6.0**	**9.0**
Exploration Target	MDL 444	6.5	10.5
Exploration Target	EPC 830	2.5	4.5
Total Exploration Target		**9**	**15**

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Competent Person Statement:

The information in the report that relates to the Coal Mineral Resources of the Isaac River coal deposit (MDL 444), and an Exploration Target, is based on information compiled and reviewed by Mr Troy Turner, who is a Member of the Australian Institute of Mining & Metallurgy. Mr Turner, Managing Director and a fulltime employee of Xenith Consulting Pty Ltd, has sufficient experience that is relevant to the styles of mineralisation under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Turner consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Appendix A. Table 1

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 inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• All core holes were geophysically logged and photographed. It was a requirement for all holes used in modelling coal quality to have associated verticality data. The following description of sampling procedure is as described by Aquila personnel as to standard processes followed. • Coal samples were taken on 0.5 m intervals throughout the target LHD seam where possible, or on the basis of observable variations in expected coal quality. • The immediate 20 to 30cm cm above and below the coal seam was taken for analysis for roof and floor dilution testing. • Target ply recovery for the sampled coal seams was 95%. Seam recoveries were determined by measured core length versus interpreted length derived from a review of the downhole geophysics. Where seam recovery was less than 95% a redrill of the hole was required if the recovered portion was not deemed representative. • The competent person has reviewed the recoveries reported from the drilling and deemed them acceptable for this level of resource categorisation. • Samples were composited to approximate 1m intervals for representative coal quality analysis and subsequent modelling of coal targets.
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.).*	• Partially-cored holes for coal quality were drilled in 4C diameter (100m) 2005 / 2006 or HQ 2015 hole E830041C. 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. • All core was photographed in 0.5m intervals against a board with depth markings. • 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 is available in Appendix A (Table 1-1)
Drill Sample Recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	2005/06 and 2015 program: • Only cores were sampled for analysis.

Criteria	JORC Code Explanation	CP Comments
	• *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.*	• Adequate recovery was assessed on a length basis. • Only holes with available verticality information were used for coal quality modelling. • A 95% linear seam recovery was required; otherwise the seam would be redrilled. If this was not established a review of the supplied core photos was undertaken. • The CP is adequately satisfied no sample bias has occurred. • 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 features were identified and logged as part of this process. • All drill holes have been geophysically logged (except where blocked) with the minimum suite of tools run including: Density, Calliper, Verticality/Deviation and Gamma. • The calibration of the geophysical tools was not provided with the dataset.
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.*	• All core holes were geophysically logged and photographed. It was a requirement for all holes used in modelling coal quality to have associated verticality data. The following description of sampling procedure is as described by Aquila personnel as to standard processes followed. • Coal samples were taken on 0.5 m intervals throughout the target LHD seam where possible, or on the basis of observable variations in coal quality. • The immediate 20 to 30cm cm above and below the coal seam was taken for analysis for roof and floor dilution testing. • Target ply recovery for the sampled coal seams was 95%. Seam recoveries were determined by measured core length versus interpreted length derived from a review of the downhole geophysics. Where seam recovery was less than 95% a redrill of the hole was required if the recovered portion was not deemed representative. • The competent person has reviewed the recoveries reported from the drilling and deemed them acceptable for this level of resource categorisation. • Samples were composited to approximate 1m intervals for representative coal quality analysis and subsequent modelling of coal targets.
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.*	• The results of the quality analyses indicate standard and appropriate practices were followed and completed. • No audit, or calibration of instruments used was sighted for this report or provided with the dataset. If available this data would be beneficial for future resource assessment.

Criteria	JORC Code Explanation	CP Comments
	• *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.*	
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.*	• Coal quality results were verified by Aquila and Xenith Consulting Pty Ltd ("Xenith") personnel before inclusion into the geological model and resource estimate. • Product coal assessment and analysis was undertaken by Mr R Stainlay from MResources. • No adjustments have been made to the historic lab analysis sheets sited in the data room.
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 (topo) for the current geological model was sourced from 2004 Aerial Survey by CCS and adjusted SRTM-1S 25m grid data located vertically using aerial survey as reference. The determined vertical accuracy for this data is +/- 2 to 10m across site. A review of the supplied drill collars vs topography at same location indicated most of the holes in the database are within 2m of topography. Three of the holes that were at distance from topography greater than 2m did not intersect seams of interest and have had no effect on the modelling results. • Only holes E830001 to E830018 were reportedly professionally surveyed by Derek Anthony Woods on 19/01/06 using check station OPM 162976. No information for the survey of the other holes was provided for this report. • The datum used GD94 and the projection used 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. • Structural drilling is in general on 500 m north south and 250m centres east west 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 west of the MDL area. • Samples were reported to have been taken on approximately 0.5 m interval and compositing into 1mcomposites. 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. • 2D seismic sections complement the distribution of drill holes.

Criteria	JORC Code Explanation	CP Comments
Sample Security	• *The measures taken to ensure sample security.*	• No information was provided pertaining to sample security was provided with the dataset.
Audits or Reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No results or information pertaining to auditing of the sampling was provided with the data set.

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.</td><td>• Isaac River Project consists of Mineral Development Licence 444, and EPC 830 held by Coking Coal One Pty Ltd, a fully owned subsidiary of Bowen Coking Coal Ltd.
<table>
<tr><th>Tenement</th><th>Holder</th><th>Lodge Date</th><th>Granted Date</th><th>Expiry date</th><th>Area (ha)</th><th>Sub-Blocks</th></tr>
<tr><td>MDL 444</td><td>Coking Coal One Pty Ltd</td><td>7-July 2010</td><td>19-Jan-2012</td><td>31-Jan-2022</td><td>433.13</td><td></td></tr>
<tr><td>EPC 830</td><td>Coking Coal One Pty Ltd</td><td>11-Dec-2002</td><td>7-Sep-2003</td><td>7-Aug-2019</td><td>2,221.88</td><td>7</td></tr>
</table></td></tr>
<tr><td>Exploration Done by Other Parties</td><td>• Acknowledgment and appraisal of exploration by other parties.</td><td>• All available information is from historic exploration programs conducted prior to the purchase of the project by Bowen Coking Coal Ltd.
• Historically (since the early 1960’s), there have been several EPC’s (EPC 3, 6, 575, 649) held over the Isaac River area.
• A total of 5 parties have undertaken exploration activities around and within the project area.
• Exploration drilling and geophysical surveys that have been completed within and in close proximity to the Isaac River area have been reviewed as part of this report.
• Within the MDL 444 and EPC 830 tenement, a total of 45 drill holes drilled by other parties were reviewed, including drilling for coal.
• An additional 3 drill holes located outside of the MDL and EPC were included to ensure adequate structural and quality control of the resource deposit.
• Velseis Pty Ltd conducted 2D dynamite seismic surveys within the area during 2015.</td></tr>
</table>

Criteria	JORC Code Explanation	CP Comments
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Isaac River 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) – • Coal seams occur within the Rangal Coal Measures and underlying Fort Cooper Coal Measures which are Late Permian in age. These seams dip to the east at approximately 7 - 25 degrees. • The coal seams of interest found within the Project area are as follows – Leichhardt, Leichhardt Lower, Vermont and Girrah. • The seams have a cumulative thickness of approximately 19 m across the deposit. • The Leichhardt Lower, Vermont and Girrah seams were only included as an exploration target due to the lack of coal quality information.
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 River Project can be found in Appendix A (Table 1-1). • All drill holes have been modelled from vertical, although hole deviation has been applied for all holes where the information exists.
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 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 based on top and bottom plies. • Coal quality samples were weighted on thickness (length) and relative density and composited on a per seam basis. • Seams with a raw ash (adb) above 50% are not classified as coal and has not been included as a resource.
Relationship Between	• *These relationships are particularly important in the reporting of Exploration Results.*	• All holes were drilled vertical and verticality information has been applied to modelled holes where available.

Criteria	JORC Code Explanation	CP Comments
Mineralisation Widths and Intercept Lengths	• *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').*	
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
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 River 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 characteristics; potential deleterious or contaminating substances.*	• All exploration data was gathered and or utilised in the resource estimation. • Velseis conducted a 2D seismic survey featuring 4 lines to further define faults in the Isaac River area. This work resulted in the structural interpretation which was 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.*	• Further exploration drilling is planned for the area.

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. • All drilling data was reviewed by Xenith post correction by exploration geologists. • All bore hole collars were checked against the natural topographic surface and except for approximately 3 drill holes the difference in RL was less than 2m. • Coal Quality data has been checked against lab reports and cross referenced with lithology and ply logs.
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 has not conducted a site visit to the Project area but is quite familiar with the stratigraphy and coal seams as described in this report. • The Competent Person's familiarity with the regional operating coal projects and stratigraphy is thorough and sufficient. Review of the exploration data indicates that the geology is typical of the area.
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 drill hole density (core and chip) in the Isaac River project allows good level of confidence seam splitting, seam thickness, coal quality, and the location of sub-crops.
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 LHD target seam(s) extends approximately 1.8 km along strike and ranges from 300 to 600m across strike with an approximate average cumulative thickness of 4.8m. • The depth of first coal ranges from between 25m in the south of the MDL, and 260m in the North at the hinge of the syncline. • The current resource extent covers approximately 62ha for the Indicated resource and 16ha for Inferred resource area. • Variability in the coal seam parameters, such as seam thickness and raw coal quality, is reflected in the resource classifications assigned to the LHD 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*	• The geological model was constructed in ABB Minescape version 5.12 using different modelling algorithms for structure and coal quality parameters. The Finite Element Method (FEM) interpolator with Order: 0 for thickness, 1 for surface and 0 for trend.

Criteria	JORC Code Explanation	CP Comments
	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).* • *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.*	• The inverse distance squared interpolator was used for raw coal quality modelling. • A maximum extrapolation distance of 1500m 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 opencut region, with the minimum parting thickness of 0.3m to be considered within the seam. • 150m depth cut of limit has been applied to limit the potential open cut resource • An extension of 300 Planar metres has been applied to the Indicated resource area down dip on the western limb to estimate for an area of possible High Wall mining and classified as Inferred resource • The eastern limb of the syncline has not been included in the resource estimate or exploration target as more data and interpretation is required to understand this portion of the project area.
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 4.2%. The 4.2% was assumed based on similar Rangal Coal Measure seams located within the area. • 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 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.*	• 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. • A depth limiting factor has been applied to the resource deemed reasonable for traditional opencut extraction methods. • Absolute depth of Indicated resource was a maximum of 150m from topography. • A further 300m for potential high wall mining practices has been identified and is included as the Inferred resource

Criteria	JORC Code Explanation	CP Comments
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.
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, given its proximity to the operating Daunia mine
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: $RD(in\ situ) = RDad \times (100 - Mad)\{100 + RDad \times ISM - Mad - ISM\}$ • Inherent (air dried) moisture values have been derived from sampled core intervals. • In situ Moisture was assumed to be 4.2% 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.*	• Two resource categories have been identified within the Isaac River area, depending on the level of confidence in the seam structure and continuity plus the level of variability in the coal quality data and finally the potential extraction methods. • A further exploration target has also been reviewed. • Drill holes 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 assisted 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.

Criteria	*JORC Code Explanation*	CP Comments
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 two levels of confidence to the coal resource estimate, depending on the seam and drill hole spacing, as described in Chapter 10 of the 2018 JORC Resource report. • 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.

Figure 1-1. Leichhardt Seam Resource areas

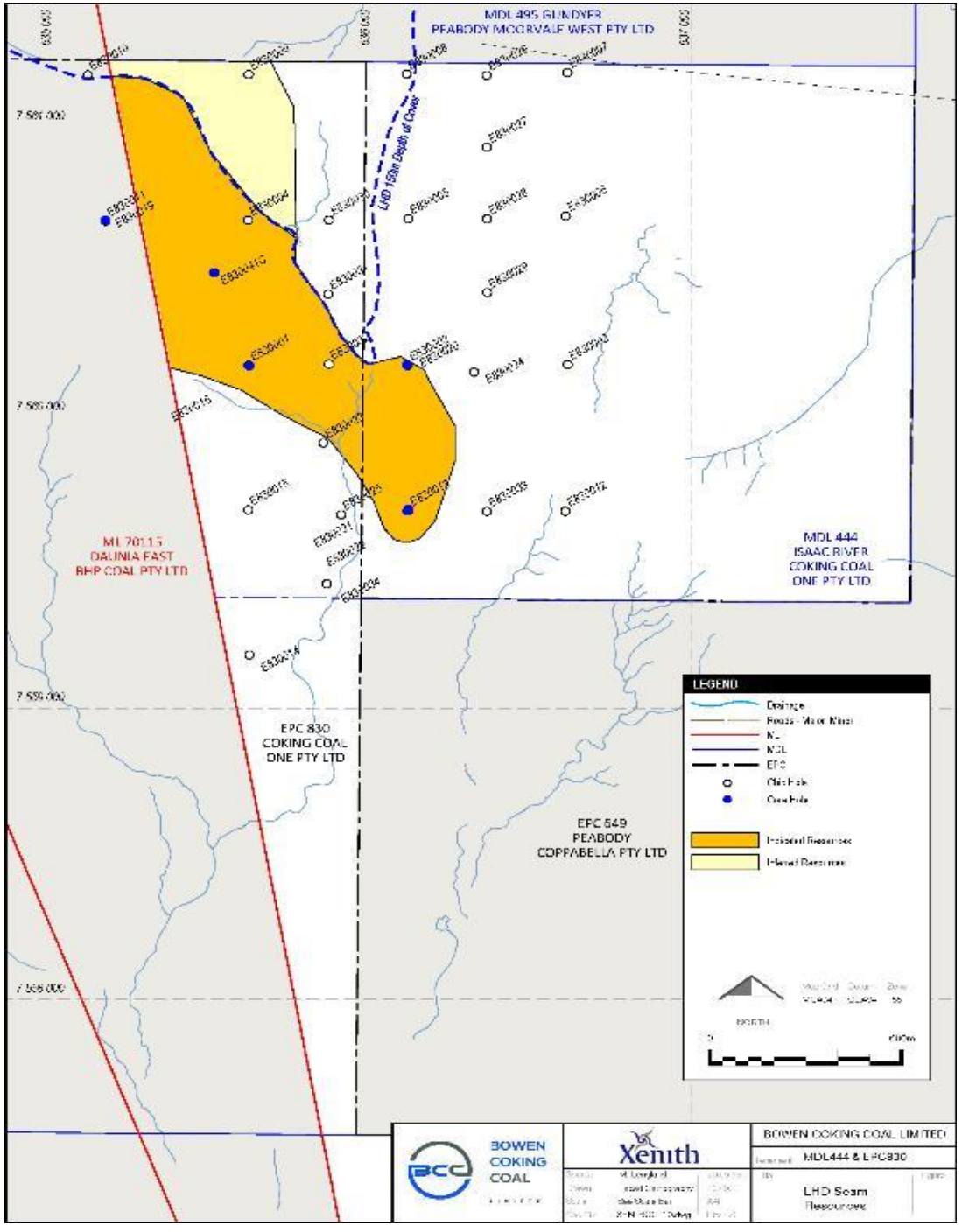

Figure1-2: Leichhardt Lower seam Exploration Target

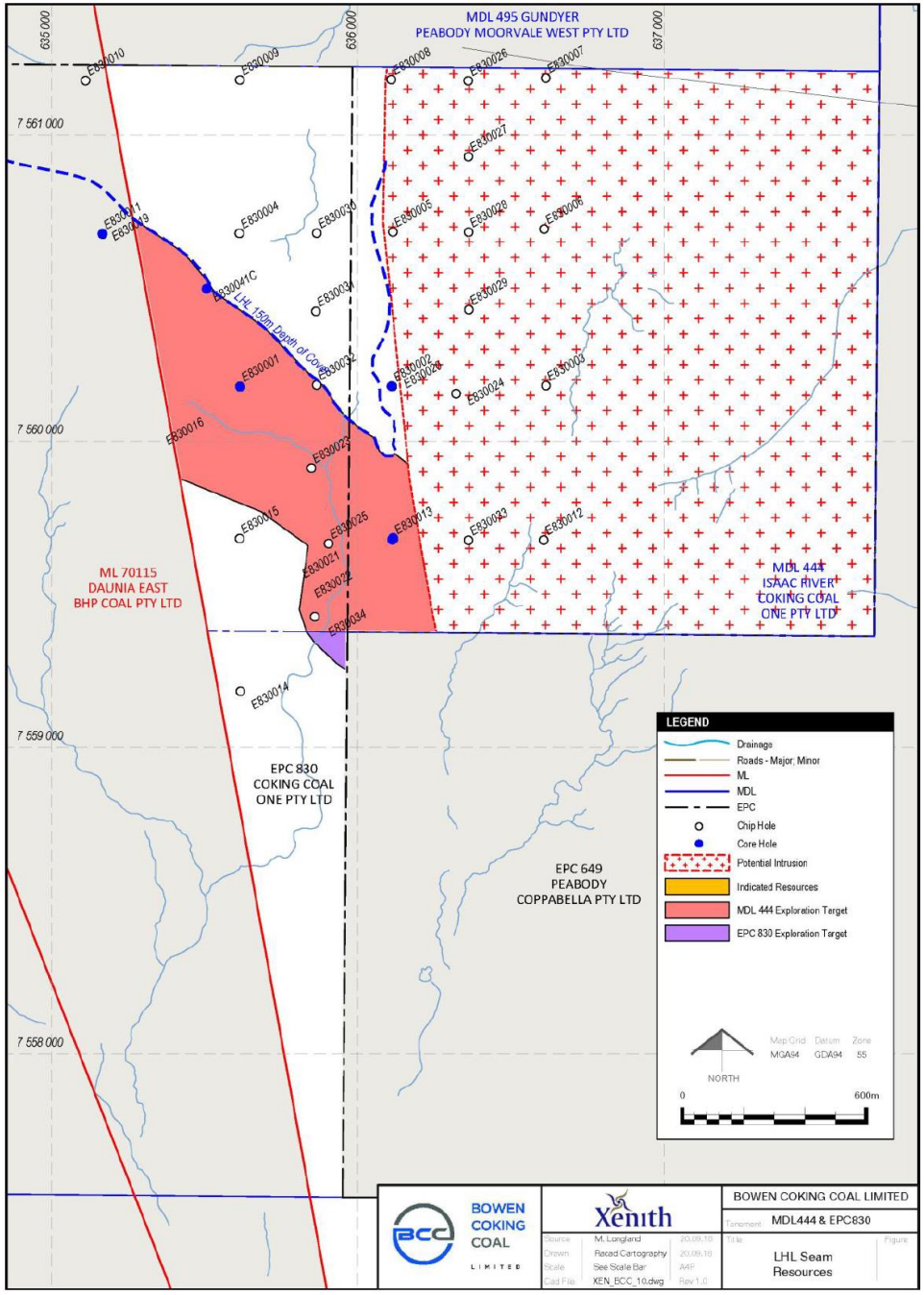

Figure1-3: Vermont seam Exploration Target

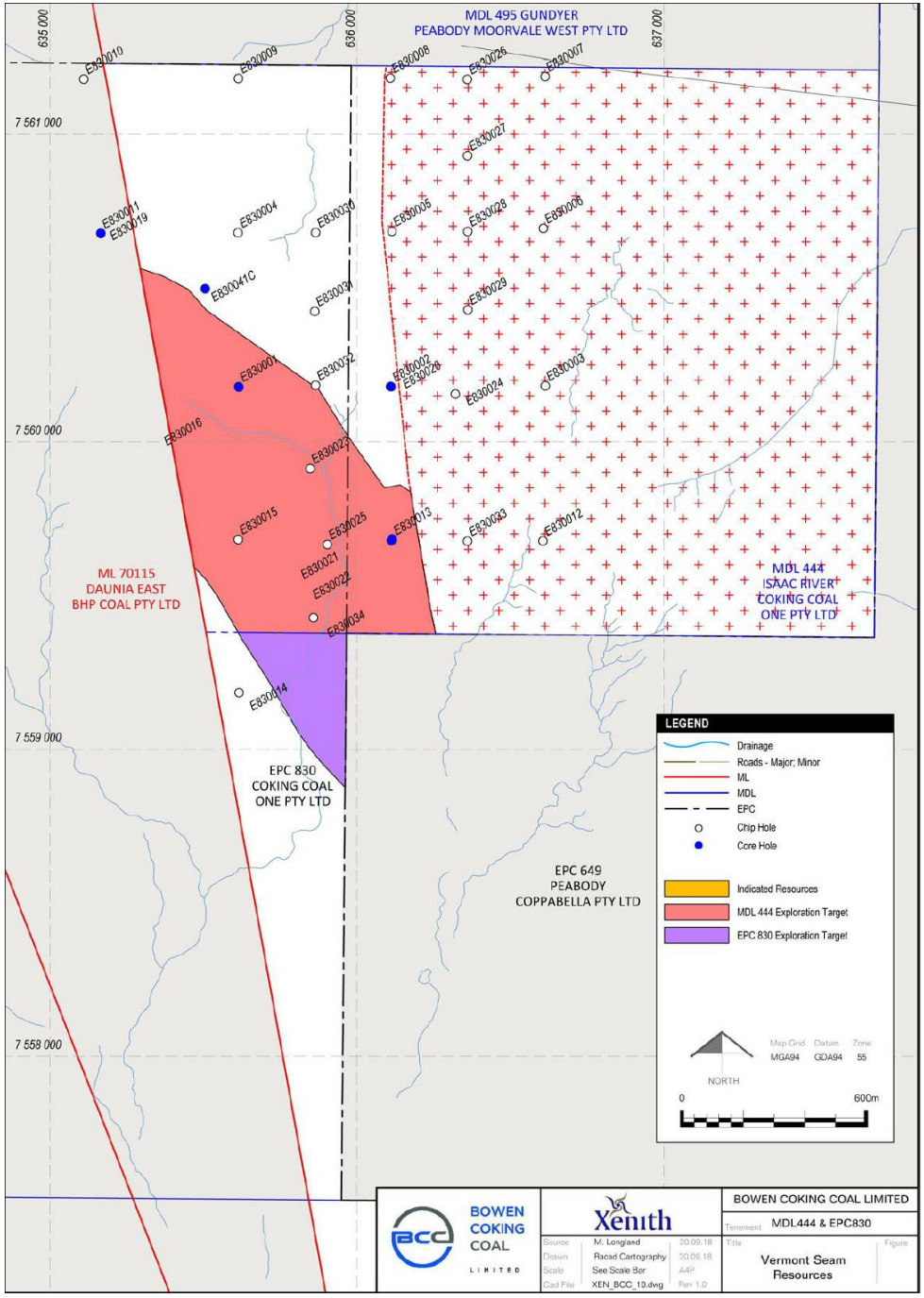

Figure1-2: Girrah seam Exploration Target

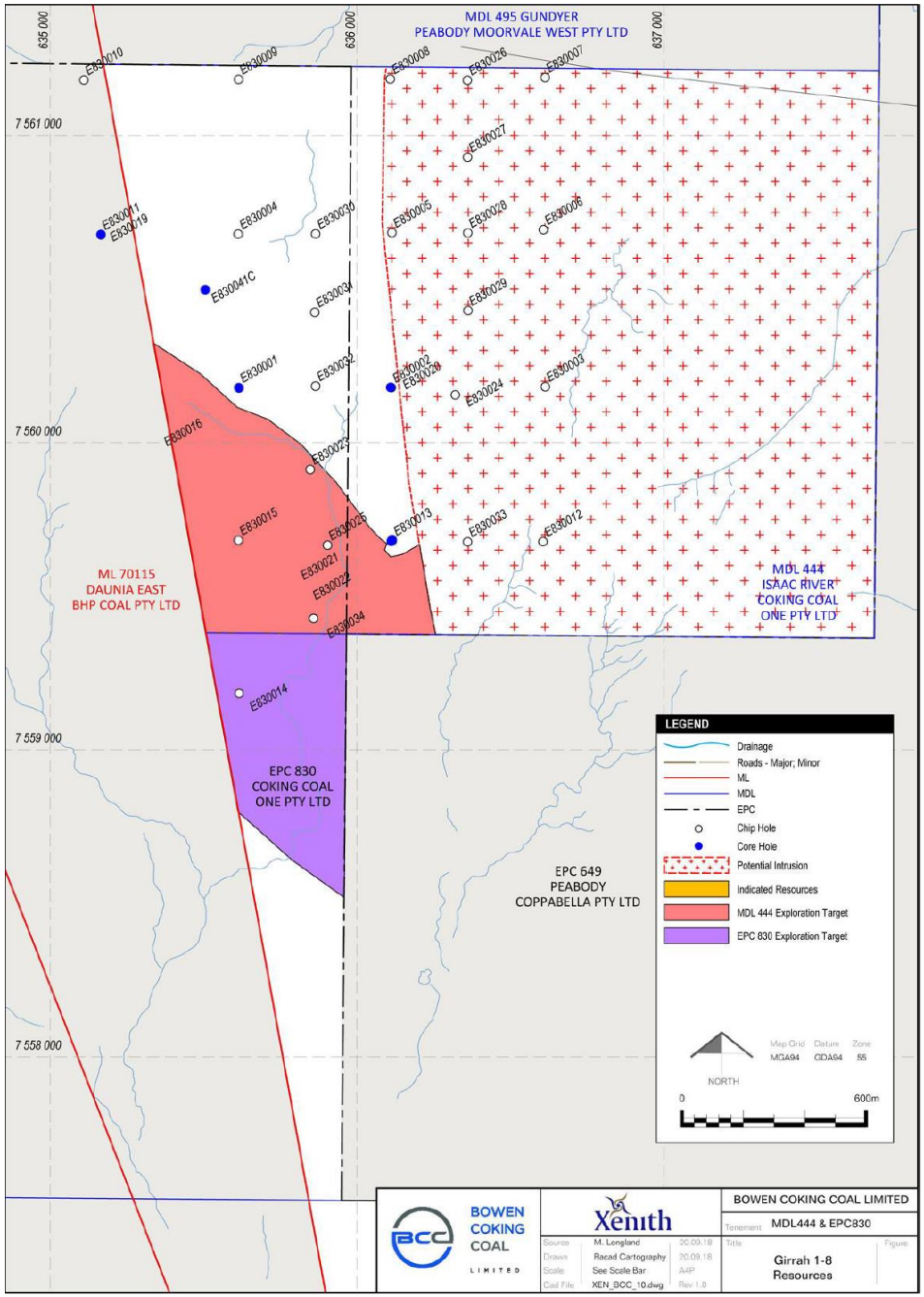

Table 1-1: Total drill hole database

HOLE ID	E	N	RL	T.D.	Geophysics	Modelled	Seams	Tenure	PoO
E830001R	635,500.05	7,559,998	226.85	209	Y	Y	LHD,LHL,V,G	MDL444	
E830002R	635,997.04	7,559,998	225.84	167	Y	Y	LHD,LHL,V no V3	MDL444	
E830003R	636,498.63	7,560,001	227.89	87	Y	Y	Intruded	MDL444	
E830004R	635,498.17	7,560,498	224.67	179	Y	Y	LHD Only	MDL444	
E830005R	635,999.07	7,560,503	225.84	166		Y	Unknown	MDL444	
E830006R	636,492.87	7,560,512	225.13	171	Y	N	LHD?, LHL?	MDL444	
E830007R	636,497.82	7,561,005	218.68	178		Y	Intruded	MDL444	
E830008R	635,993.59	7,561,000	218.59	177	Y	Y	LHD Below	MDL444	
E830009R	635,499.13	7,560,999	219.33	177	Y	Y	LHD Below	MDL444	
E830010R	634,995.43	7,560,997	222.49	171	Y	Y	LHD	EPC830	
E830011R	635,050.74	7,560,495	227.58	187	Y	Y	LHD,LHL,V	EPC830	
E830012R	636,491.49	7,559,496	228.09	175		Y	Intruded	MDL444	
E830013R	636,000.54	7,559,500	220.89	153	Y	Y	LHD,LHL,V	MDL444	
E830014R	635,501.37	7,559,003	215.99	123	Y	Y	G	EPC830	
E830015R	635,498.42	7,559,501	223.48	135	Y	Y	V,G	MDL444	
E830016C	635,500.34	7,559,997	226.79	51	Y	Y	LHD	MDL444	Y
E830017R	632,999.41	7,551,504	188.61	171	Y	Y	N	Relinquished	
E830018R	631,605.9	7,552,733	191.75	135	Y	Y	N	Relinquished	
E830019C	635,051.15	7,560,497	227.50	107	Y	Y	LHD	EPC830	Y
E830020C	635,994.91	7,559,999	225.83	71	Y	Y	LHD	MDL44	Y
E830021C	635,999.4	7,559,503	221.02	41	Y	N	LHD	MDL444	
E830022C	635,997.2	7,559,798	220.9	59	Y	Y	LHD	MDL44	Y
E830023R	635,735.0	7,559,732	222.5	155	Y	Y	LHD,LHL,V, G except G1,G2	MDL444	
E830024R	636,205.31	7,559,975	228.93	101	Y	Y	LHD	MDL444	
E830025R	635,788.78	7,559,485	219.52	90	Y	Y	LHD,LHL, V	MDL444	

HOLE ID	E	N	RL	T.D.	Geophysics	Modelled	Seams	Tenure	PoO
E830026R	636,244.99	7,560,997	220.16	192		Y	N	MDL444	
E830027R	636,245.52	7,560,749	223.51	204		Y	N	MDL444	
E830028R	636,246.08	7,560,502	227.11	217		Y	N	MDL444	
E830029R	636,246.59	7,560,249	229.65	88	Y	Y	N	MDL444	
E830030R	635,750.5	7,560,499	222.99	210	Y	Y	LHD	MDL444	
E830031R	634,747.72	7,560,244	226.5	175	Y	Y	LHD	MDL444	
E830032R	635,750.25	7,560,003	224.99	121	Y	Y	LHD	MDL444	
E830033R	636,245.66	7,559,496	225.6	73	Y	Y	N	MDL444	
E830034R	635,743.63	7,559,246	217.06	79	Y	Y	LHL,V	MDL444	
E830035R	636,499.0	7,552,251	190	209	Y	Y	N	EPC830	
E830036R	636,1250	7,552,692	193	203	Y	Y	N	EPC830	
E830037R	637,256.0	7,555,743	227	191	Y	Y	N	EPC830	
E830038R	637,069	7,556,843	221	191	Y	Y	N	EPC830	
E830039R	636,499	7,552,251	190	209	Y	Y	N	EPC830	
E830040R	633,113	7,556,245	202	149	Y	Y	N	Relinquished	
E830041C	635,505.2	7,560,498	227.34	120.23	Y	Y	LHD	MDL 444	Y
RI001	636,776.14	7,554,608	201.79	336	Y	Y	N	EPC830	