

61 Mt Maiden JORC²⁰¹² Code Inferred Resource at Vitrinite's Wilson Creek Project Adjacent to Glencore's Newlands and Eastern Creek Coal Mines

Vitrinite is pleased to announce the substantial first resource discovered on the company's wholly-owned Queensland coal project – Wilson Creek (EPC 1710)

- Vitrinite Pty Ltd (Vitrinite) has defined 61Mt of shallow JORC Code Inferred Coal Resources on EPC1710, including 39Mt at less than 3:1 ratio. Depth of weathering appears to average under 6 metres. Table 2 shows cumulative Resources tonnage by strip ratio;
- EPC1710 is well placed logistically: it is within 10km of established coal export rail linking north to Abbot Point Coal Terminal or south to Hay Point/Dalrymple Bay. The Resource lies between Newlands and Eastern Creek coal mines and is close to Glenden, Queensland;
- Open cut methods can be used to access the shallow coal resources. This is additionally supported by observing Glencore's 100,000t bulk sample pit at Eastern Creek Mine (ML 4755), that abuts EPC1710, where thick shallow-dipping coal resources straddle the boundary;
- The Lower Newlands Seam (Vermont equivalent) is extensive and current exploration has confirmed it appears to converge over substantial areas with an immediately underlying thick Girrah Seam. These seams form a thick up-brightening coal seam bundle around 18m thick, which, in places, has been thrust stacked to over 30 metres in thickness.
- Coal is export quality, as determined by laboratory analysis of core samples from the Lower Newlands Seam (LN) and Girrah (G) coal seams, which indicates a washed product that has specific energy ~5500 kcal (NAR) at 23.9% ash (ad), Yield 55%, with low sulfur 0.5%(ad), high Ash Fusion Temperature, and favourable ash characteristics;
- There is potential for additional resources from unexplored parts of the tenement, particularly in the north and west, and to expand the search for Upper Newlands Seam outward from initial intersections, to try and resolve deposits for shallow satellite pits. The Upper Newlands Seam is currently mined and exported from Newlands and Eastern Creek;
- Information is sourced from the 2016 exploration program, comprised 3,495m of openhole and selective core drilling at 26 drillhole locations on the tenement. Drillholes were: geophysically and geologically logged, interpreted, selectively cored, sampled, and analysed. Information is stored in the Vitrinite database;



Resource Overview

Following completion of the November 2016 initial exploration programme at Wilson Creek, the geological data obtained has been compiled and loaded into the Company's geological model to ascertain the coal resource estimate below (see Table 1).

Table 1. JORC Resources reported by 50m depth intervals.

TENEMENT	DEPTH	INFERRED RD (t/bcm)	INFERRED RESOURCES (Mt)
EPC 1710	0m to 50m	1.56	35
	50m to 100m	1.57	18
	100m to 150m	1.55	8
	TOTAL INFERRED	1.56	61

JORC Resources Modifier Factors

- 1) JORC Resources area is defined within EPC1710, excluding haul road ML 10322 and base of weathering;
- 2) Minimum seam thickness 0.10m;
- 3) Inferred 1000m radius (or 2000m between drillholes);
- 4) Maximum depth limit of 150m below topography;
- 5) Maximum vertical strip ratio of 7:1 cu.m/tonne (seams LNU1B to G0R1)
- 6) A geological discount has also been applied to some of the seams to account for limitations in the geological structure model.

Table 2. Cumulative Resource tonnage by strip ratio.

STRIP RATIO (less than)	CUMULATIVE TONNES (t)	ROUNDED CUMULATIVE TONNES (Mt)
1:1	3,753,762	4
2:1	26,993,307	27
3:1	39,170,551	39
4:1	45,608,604	46
5:1	50,429,454	50
6:1	55,302,945	55
7:1	60,755,223	61

Coal Quality

Table 3. Indicative energy comparison of Wilson Creek 5,500 kcal/kg coal (NAR).

BASIS		Calorific Value (23.9% Ash)	
		CV kcal/kg	CV MJ/kg
<i>Net as received</i>	NAR	5,500	23.03
<i>Gross as received</i>	GAR	5,695	23.84
<i>Gross air-dry</i>	GAD	6,120	25.62
<i>Dry, ash-free</i>	DAF	8,285	34.69



A single thermal product at 5,500 kcal / kg (net as received basis) is simulated to attain a product ash of on average 23.9% ash (air-dried basis) at an average of 55% yield.

The following table and observations were made from the data supplied to consultant Chris McMahon (MCQR) and further processed by MCQR for average outcomes and ranges from the eleven sections tested from Vitrinite core analysis (McMahon, 2017). The product composite outcomes are favourable to the export thermal coal market, including low sulfur 0.5%(ad), high Ash Fusion Temperature, and favourable ash characteristics;

Table 4. Thermal product weighted average outcomes.

Hole	Depth From	Depth To	Thickness		Predicted Yield %	Proximate Analysis				
			Total	Coal	23.9% Product Ash	Analysis Moisture	Ash	Volatile Matter	Fixed Carbon	Total Sulphur
					As-Tested	Air-dried	Air-dried	Air-dried	Air-dried	Air-dried
			metres		%	%	%	%	%	%
WC008_C	18.39	33.29	14.9	11.31	55	2.20	25.00	24.70	48.10	0.50
						Ash Fusion Temperature - Reducing Atmosphere				Ultimate Analysis
						Deformation	Spherical	Hemispherical	Flow	Nitrogen
						As-Tested	As-Tested	As-Tested	As-Tested	Dry-ash-free
						°C	°C	°C	°C	%
						1455	1500	1530	1580	1.72
						Hardgrove Grindability Index (HGI)	Ash Analysis			
							Fe2O3	CaO	Na2O	K2O
						As-Tested	Dry	Dry	Dry	Dry
						-	%	%	%	%
						62	2	1.6	0.18	0.76

Potential also exists for a coking coal fraction, due to excellent coking properties (including CSN of 8) in the low density fractions.

Vitrinite's Director, Ryan Welker commented:

"This is a very exciting discovery for Vitrinite. We have identified a significant, very shallow coal resource at a strip ratio predominantly less than 3:1. Wilson Creek is ideally situated between two well-known mines, Newlands and Eastern Creek, and is ideally situated to access port and rail. We are particularly proud of achieving this result while the coal sector has been broadly ignored, showing our long-term commitment to coal and the Australian resources sector.

We will continue the exploration program at the Wilson Creek Project with a view to upgrading the resource as quickly as possible, whilst improving our data set for use in a pre-feasibility study. This deposit has a bright future.

Vitrinite has worked closely with all stakeholders and is committed to maintaining and developing strong relationships with landowners, native title groups and the communities we operate within. We believe our deposits represent the next generation of Australian coal production and will provide jobs, royalties and energy for local and international markets, reaffirming Queensland as the world's premier coal mining destination."



Wilson Creek Strategy

To date 26 drillholes have been completed, and successfully delineated JORC (2012) Code compliant Inferred. Exploration is continuing at Wilson Creek, with targeted drilling phases to expand JORC Code compliant coal resources.

A scoping study is underway concurrently to further drilling. This will commence initial mine planning based on margin rank analysis. Infrastructure studies have begun and coal marketing reports will be completed on our clean coal composite data.

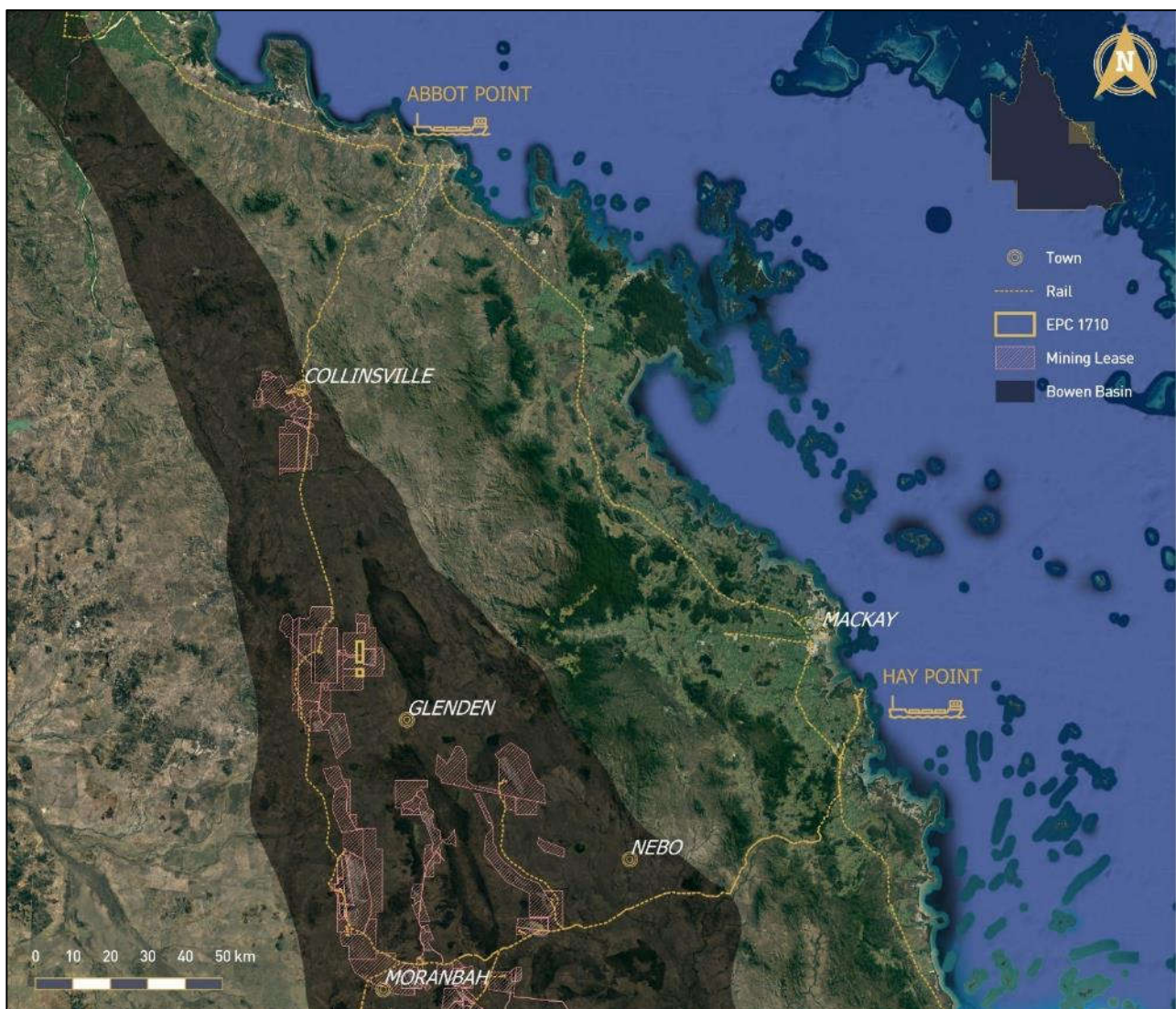


Figure 1. Vitrinite's Wilson Creek Project (1710) Location Map



Compliance Statement

The information in this announcement is from Vitrinite JORC Code Coal Resources and Geology Report that relates to Exploration Results is based on information compiled by Dr Guy LeBlanc Smith and Aaron Donelan: both are Competent Persons and respectively Members of The Australian Institute of Geoscientists (AIG Member No 3278) and Australasian Institute of Mining and Metallurgy (AusIMM Member No 110065). Both competent professionals consent to the release of information.

Dr LeBlanc Smith and Aaron Donelan are qualified geologists who have sufficient experience (40+ years and 25 years respectively) that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Dr LeBlanc Smith and Aaron Donelan consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

ABOUT VITRINITE

Vitrinite Pty Ltd, is a privately-owned company holding an extensive strategic coking coal tenement portfolio within Queensland's world-class Bowen Basin. Our assets are situated in close proximity to operating mines, infrastructure and proven economic resources. Vitrinite is currently focused on executing an exploration drilling and definition program of JORC resources across multiple sites representing the next generation of premium tier one assets in Australia.

Vitrinite is a young, progressive company. We insist on excellence in every aspect of our work and take immense pride in the coal industry and the Australian resources sector. We are stewards of the lands and minerals we are developing, aiming to achieve outsized returns for our shareholders and stakeholders. We embody and encourage an open and collaborative attitude, inward and outward, in our company values. Vitrinite's vision is to create value and wealth through the provision of energy to power world economic growth, exceeding and setting world's best practices in every endeavour.

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Figure 2. Vitrinite Wilson Creek project (EPC 1710) Drillhole locations, FCCM target area, and Glencore test pit.

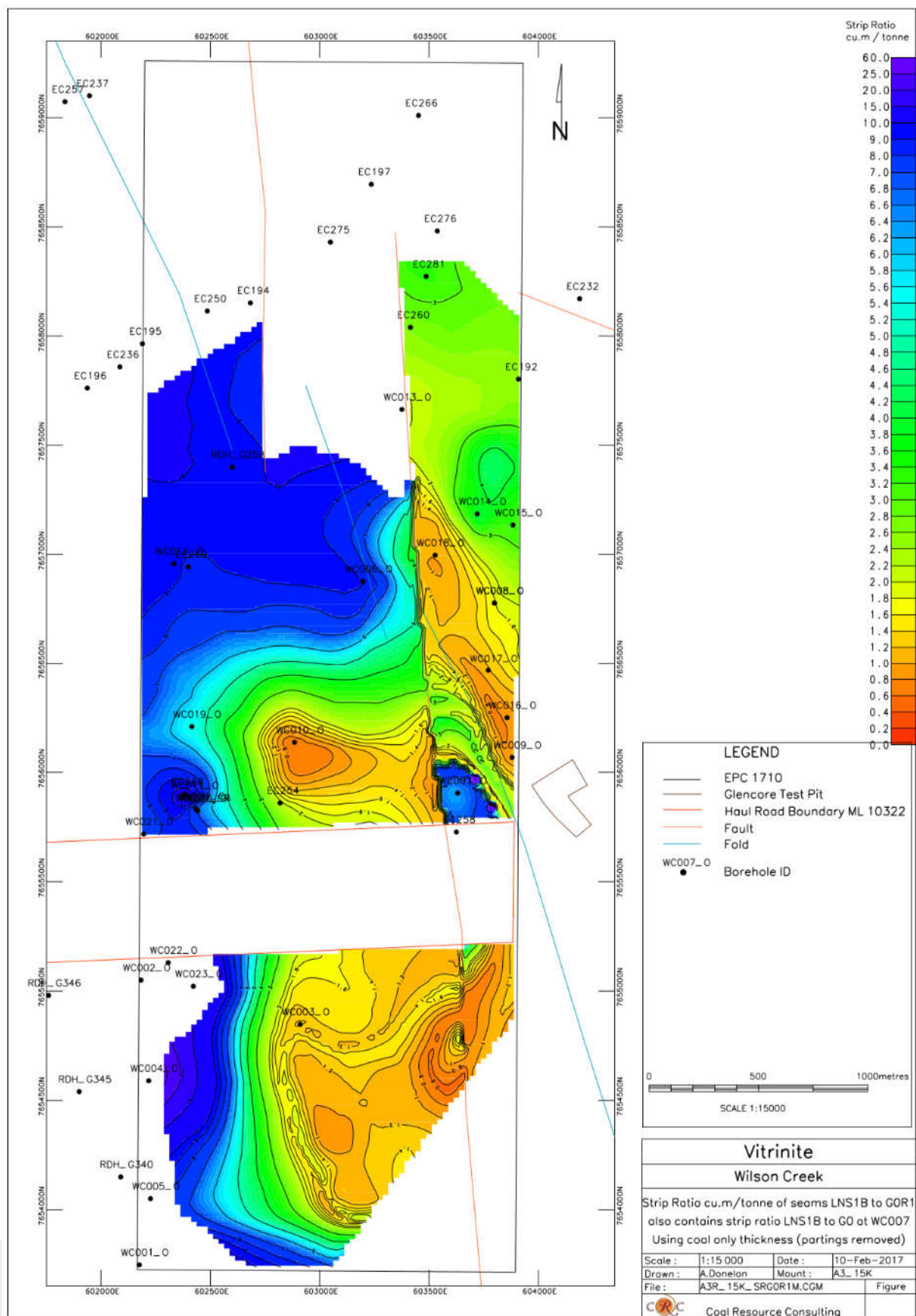


Figure 3. Vitrinite Wilson Creek Project (EPC 1710) Stripping Ratio Map.

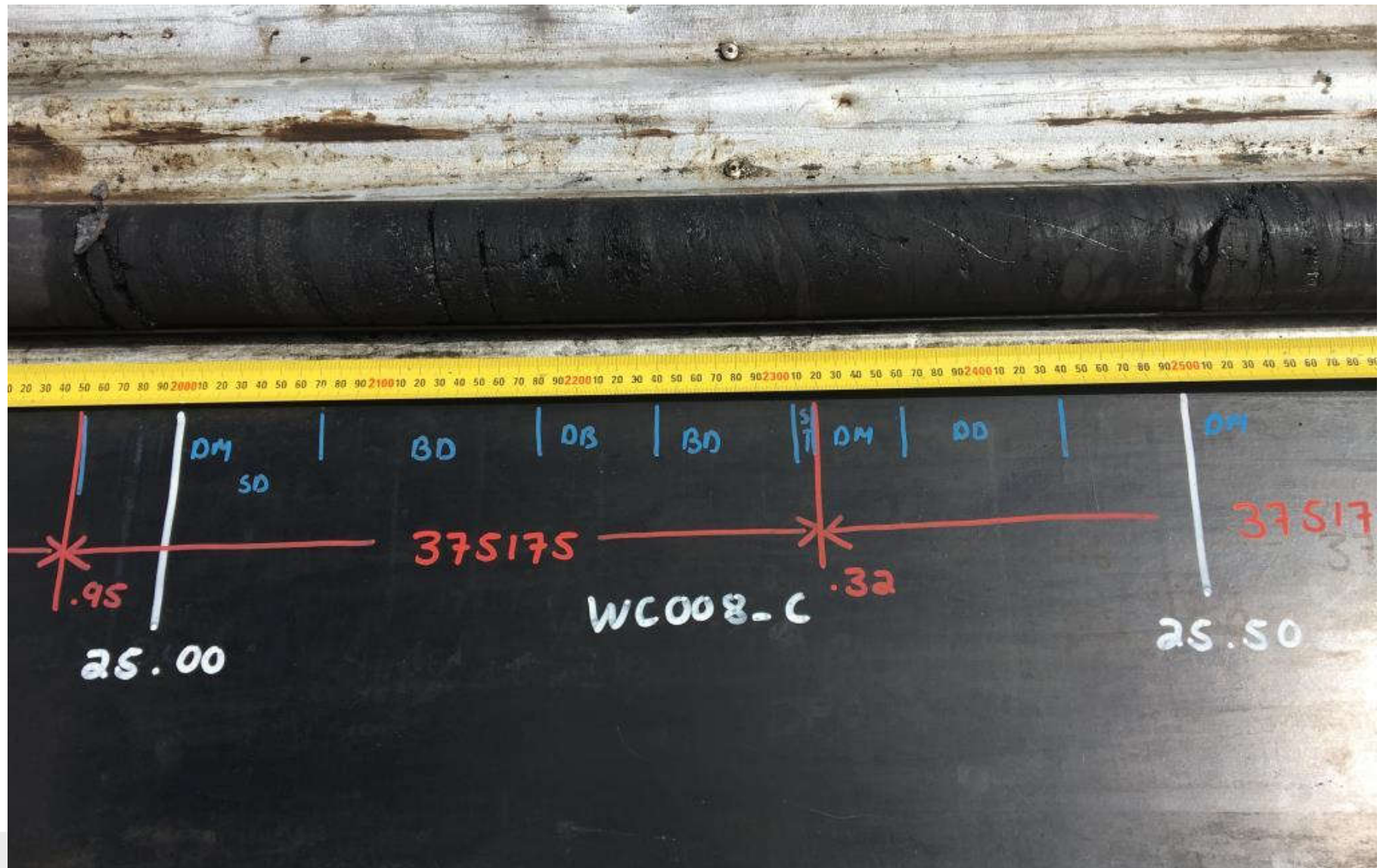


Figure 4. Vitrinite Wilson Creek Project (EPC 1710) example core photo of LNS seam from core hole WC008_C.

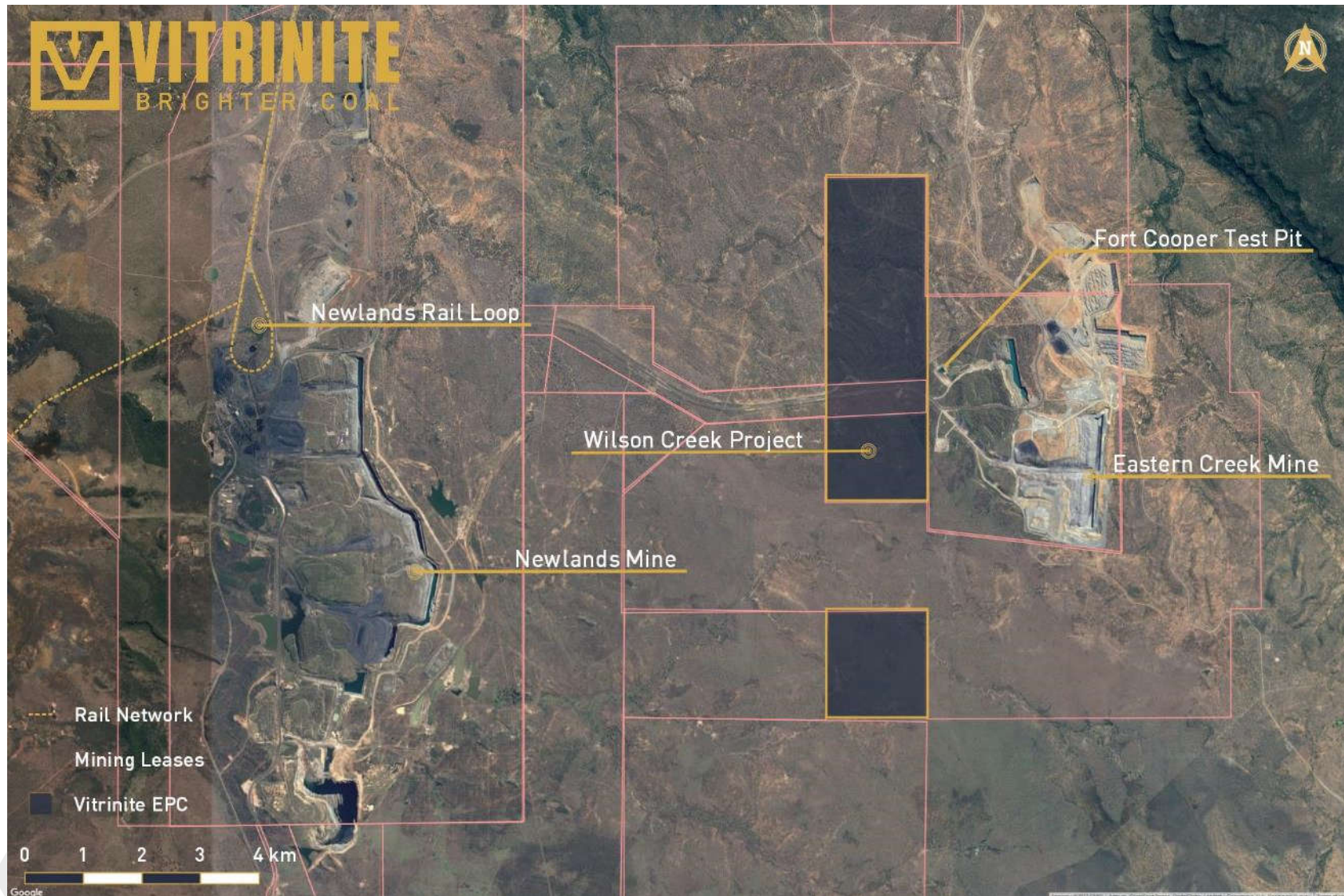


Figure 5. Wilson Creek summary.

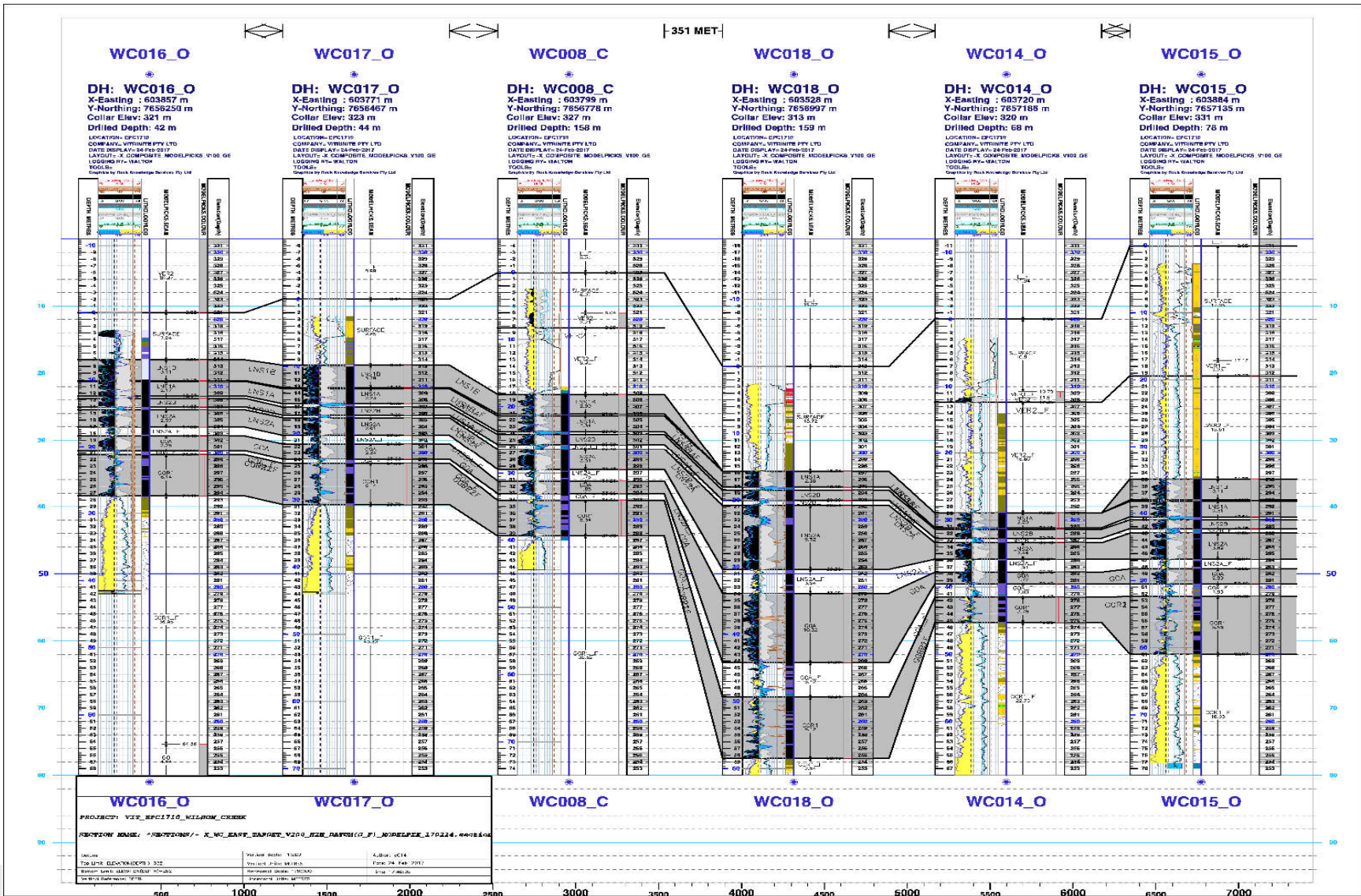


Figure 6. Wilson Creek Cross-Section



Appendix 1 – JORC Code, 2012 Edition – Table 1

This appendix details sections 1, 2 and 3 of the JORC Code 2012 Edition Table 1. Section 4 ‘Estimation and Reporting of Ore Reserves’ and Section 5 ‘Estimation and Reporting 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 in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Coal testing undertaken by Vitrinite was on both chip samples as well as samples cut with HQ3 Core (61mm diameter). All core sample depths were recorded according to depths maintained by the rig geologist. These depths were determined by a combination of driller depths and the geologists own recorded depths according to core loss and gain and down-hole geophysical logs. All sampled core was double bagged and labelled on site. Samples were given unique sample numbers and documented in a sample summary sheet. Coal seams were divided and sampled as plies on the basis of lithological characteristics within the seam. Coal quality core samples were prepared and analysed using Australian Standard testing procedures. Coal quality analysis was undertaken by Preplab Testing Services Pty Ltd at both their Parkhurst and Gladstone Laboratories. Core samples were analysed at Parkhurst, while the chip samples were analysed at Gladstone. Splitting and reserving of samples is conducted in accordance with the procedure sheet, enabling retesting /duplication of results if required. Chips that weren’t sent for analysis from open holes were sampled in industry standard chip trays, logged, labelled and safely stored. Core that was not sent for analysis from cored holes was sampled in industry standard core trays, logged, labelled and safely stored.
Drilling techniques	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> All quality holes were partially cored using a HQ3 core barrel (61mm diameter core).



Criteria	JORC Code explanation	Commentary
Drill sample recovery	standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc)	<ul style="list-style-type: none"> All structural holes were fully chipped open holes using blade, hammer or PCD bits. Chips from all holes have also been logged and photographed.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Each core hole was reviewed for core recovery based on measured recovered thicknesses and geophysical log thicknesses. The overall cored coal recovery was greater than 90%. Linear core recoveries were verified by volumetric core recoveries derived from the Apparent Relative Density determinations on each ply upon receipt at the laboratory.
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All drillholes were geophysically logged with a combination of tools that include; calliper, density, gamma, sonic, neutron, verticality, and most holes included an acoustic televiwer. All cored drillholes were geologically and geophysically logged, marked up and photographed before sampling. Geological/geotechnical features identified were reported. All geological and geotechnical observations were documented. All open drillholes were geologically logged and chip intervals photographed. The geophysical logging company contracted was Walton Bore Geophysics Pty Ltd, who provided geophysical logging services using maintained and calibrated tools.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All core samples were taken as whole core samples (not halved). Core samples were sampled dry, double bagged on site and transported to the laboratory for testing. Preplab Testing Services Pty Ltd (Preplab) used for coal quality analysis that complied with Australian Standards for sample preparation and sub-sampling Sample preparation procedures and analytical testing requirements were devised in consultation with Preplab Management, specialists in managing



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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. 	<p>coal analytical testing and interpretation of the results, and the testing programme was conducted by Preplab in accordance with the supplied sample preparation flow sheets.</p> <ul style="list-style-type: none"> Prior to subdivision and testing, all core samples were crushed to a top size of 11.2 mm as per industry practice.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Preplab is certified by the National Association of Testing Authorities, Australia (NATA), and conducted all coal quality testing and analysis in compliance with Australian (AS) and International (ISO) standard test methods. Preplab undertakes internal audits and round robins testing to ensure analytical results are reporting precisely and accurately. The geophysical logging company (Walton Bore Geophysics Pty Ltd) calibrated all geophysical tools using their standard internal calibration procedures.
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Coal quality verification is undertaken by the laboratory prior to providing the final results – standard industry checks are performed on the results to ensure they comply with known correlations and minimum and maximum values. No adjustments have been made to the laboratory analytical data. Microsoft Excel file holds the database. Vitrinite have also reviewed and verified coal quality results internally using their own checking procedures to the extent data are available.



Criteria	JORC Code explanation	Commentary
Location of data points		<ul style="list-style-type: none"> Twinned holes have been used to date for the purpose of coal quality verification.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drill hole location survey was undertaken on all drill holes included in the geological model and resource estimate using hand held GPS device with an accuracy of +/- 15m. The grid datum used is GDA 94 and projection MGA 94 Zone 55.
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The dataset available for variography did not produce suitable variograms even with anomalous data exclusions. Therefore the JORC Inferred maximum spacing between boreholes of 2,000m has been selected based on seam continuity seen in the correlation and downhole geophysical signatures as well as the structures (faults) identified. Many of the boreholes are within 500m of adjacent boreholes and therefore the 1,000m radius around boreholes is the limiting for extrapolation extent. There are still some seam correlations to the south west of the tenement which are less confident, due to structure and similarities in seam geophysical signatures and therefore there are alternate correlation possibilities which need to be investigated further.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> In accordance with coal industry best practices for shallow dipping coal seams, all boreholes were orientated and levelled to produce vertical (90 degree) holes. Not enough drilling or geophysical surveying has been completed to confidently resolve detail on local structures.
Sample Security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> The sample security was ensured under a chain of custody between Vitrinite personnel and the coal laboratory (Preplab), with all parties maintaining records pertaining to each sample batch dispatched. All samples transferred from the drilling site to the laboratory were logged in laboratory sample advices, and receipt of all dispatched samples was confirmed on arrival at Preplab.



Criteria	JORC Code explanation	Commentary
Audits or reviews		<ul style="list-style-type: none"> Core samples were transferred from the drill site to the Preplab laboratory by Vitrinite personnel.
	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> Vitrinite and Preplab were responsible for implementing and maintaining the sampling techniques and data, with peer review by Rock Knowledge Services Pty Ltd. Preplab undertakes internal audits to ensure analytical results are reporting precisely and accurately.



Section 2 - Reporting of Exploration Results

[Criteria listed in the preceding section also apply to this section].

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Vitrinite Pty Ltd holds Exploration Permits for Coal (EPC) 1710.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Extensive research has been carried out into historical exploration within and around what is now the Wilson Creek Project area. Historical data has been used where possible to inform recent exploration programs. Geological logs and wireline logs where available have been included in the geological model. Further information is available within the report under the section 'Previous Investigations'. All exploration programs have greatly aided the exploration activities of Vitrinite providing solid background data to base their exploration planning upon.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Wilson Creek Project lies in the north of the Bowen Basin in Central Queensland. It's located on the edge of the passive cratonic margin Collinsville Shelf and the Nebo Synclinorium. Nebo Synclinorium is a regional-scale synclinal structure bounded to the east by the Eungella-Cracow Mobile Zone and to the west by the Collinsville Shelf. In the east, the boundary with the Eungella-Cracow Mobile Zone appears sharp as it is commonly fault bounded. To the west however, the boundary with the Collinsville Shelf is transitional though the Burton Range Fault (a major thrust system). The Burton Range Fault has locally uplifted the Rangal coal sequence to shallow depths and is interpreted to separate the Nebo Synclinorium from the Collinsville Shelf to the west. (CR78892) EPC 1710 lies within area affected by the north to north-northwest trending Burton Range Thrust. Strata deformation is extensive in the thrust zone. The thrust zone is indicated by drilling to be 800-1300 m wide and consists



Criteria	JORC Code explanation	Commentary
Drill hole information		<p>of multiple faults that have uplifted and downthrown multiple blocks (CR43339).</p> <ul style="list-style-type: none"> The units dip moderately to the south-southeast equating to a large increase in seam depths from the north to south of the Project. The Rangal coal sequence outcrops through the centre of the northern portion EPC 1710. In the southern portion overburden thickness increases to approximately 250 m to greater than 350 m.
	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A listing of all drillholes and coal seams used in the Resource Estimate is detailed in the JORC Report. All drillholes are vertical holes and have been modelled with verticality data where available. Those drill holes with no available verticality data have been modelled as vertical. Down hole geophysical logs (LAS files) were loaded to Paradigm Geophysical Geolog6 and Minex Software. Logs, section profiles and modelling derived information generated seam correlations that were input for modelling and mapping and for resource determination processing.
Data aggregation methods	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> All coal quality information (raw and potential product) has been composited into samples using coal industry standard methods to derive seam and ply samples for analysis and quality determinations. Washability data, yield and coal quality compositing was performed using Microsoft Excel software where each coal quality value was weighted by both in situ relative density and thickness, and washability fraction. No minimum sample thickness cut-offs were applied as all seams contained samples of greater than 95% recovery or were determined from density log profile attributes.



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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. 	
	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> The current data within the Wilson Creek area demonstrates, with sufficient confidence, that the deposit has lateral continuity. As such, data has been extrapolated to a maximum of 1,000m past the last drill hole for Inferred Resources.
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All relevant diagrams are contained within the body of the JORC Code Resources Report and its Appendices.
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All substantive exploration data for the Wilson Creek Project has been reported within the report.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All substantive exploration data for the Wilson Creek Project has been reported within the report.



Criteria	JORC Code explanation	Commentary
Further work	<ul style="list-style-type: none">• 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.	<ul style="list-style-type: none">• Vitrinite plan on further delineating the Wilson Creek Project resource. A detailed infill drilling program is planned to increase the geological knowledge and confidence of structure, coal quality and potential mine-ability.• A 2D seismic survey is also planned to assist in the accurate determination of the basin structure and coal seam extents, with coal extending into unexplored areas. A Feasibility Study has commenced.





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	Commentary
Database integrity	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Vitrinite uses Task Manager 2014 in communication with an online Google Drive in the field for data storage. Drillhole data is also validated by Rock Knowledge Services Pty Ltd and Coal Resource Consulting Pty Ltd during and after loading data into modelling software.
Site visits	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Vitrinite has undertaken the lithological logging with staff Geologists in conjunction with a single contracting Geologist. Many field site visits during the course of implementing the 2016 drilling and exploration programme. Rock Knowledge Services Pty Ltd has regular meetings and internet connection with Vitrinite to discuss and review sampling and exploration design, results and field procedures to enhance data collection quality.
Geological interpretation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Down hole geophysical logs (LAS files) were loaded to Paradigm Geophysical Geolog6 Software and log and section profiles were generated from which seam correlations, contact depth and elevation attributes were determined and extracted to data files and passed through for resource modelling, sampling and processing using Minex software. The drill hole density in the Wilson Creek Project area allows a low to moderate level of confidence in the nature of the seam thickness and quality consistency and interpreted location of faults. It is recommended that future exploration involve geophysical methods including seismic to assist in delineating the precise location and nature of the faulting identified.
Dimensions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The principal coal resources target lies in the up-thrown section in the eastern edge of the project as mapped. To date all parts of the tenement explored contained multiple coal seams, and there is potential for additional targets in unexplored areas.
Estimation and modelling techniques	<ul style="list-style-type: none"> The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, 	<ul style="list-style-type: none"> Down hole geophysical logs (LAS files) were loaded by Rock Knowledge Services Pty Ltd to Paradigm Geophysical Geolog6 Software and log and section profiles were generated from which seam correlations, contact

The diagram consists of three interconnected hexagonal nodes. The top node is dark blue and contains the text "Cut-off parameters". The bottom-left node is light gray and contains the text "moisture content". The bottom-right node is light gray and contains a bulleted list: "• Whether natural moisture content".

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graph TD; A[Cut-off parameters] --- B[moisture content]; A --- C["• Whether natural moisture content"];
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Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> Coal washability analysis on multiple seams has not been completed, and is planned to yield single cut-point analysis information for various seams.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Resources modelling applied a minimum seam thickness cut-off of 0.10 metres for the shallow coal resources. It is deemed that this thickness cut-off is in line with current opencut mining minimum seam thickness limits. These attributes will be refined once the mining pre-feasibility is undertaken No evaluation of mining methods was conducted in this coal resource report as it was not deemed necessary at this stage of exploration. Investigations into mining factors will be incorporated into future exploration. It is anticipated that exploitation would be through open-cut mining methods
Metallurgical factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> At this early stage of the project there are no limiting metallurgical factors. Full washability testing of the coal seams is yet to be completed, after which metallurgical treatment process simulations and evaluation will be performed.
Bulk density	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> It is Rock Knowledge Services Pty Ltd opinion that there are no limiting environmental factors apparent at this stage of the project, which is guided by the observation that the resource area is located between two operating mines, and surrounded by mining tenure.



Criteria	JORC Code explanation	Commentary
Classification	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The in situ density of the coal seams has been estimated using relative density estimation equations outlined in the JORC Code Report. There is no bulk density determination at this stage. The Relative Density and Raw Ash data used for gridding have been calculated from geophysics Bed Resolution Density Logs (BRD) using second order polynomial regression obtained from Laboratory Relative Density versus Geophysics BRD.
Audits or reviews	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The coal resources are preserved in a structurally complex setting, with moderate sedimentological complexity. There is sufficient confidence to resolve Inferred Resources at the level of variability in the information. The maximum distance between valid points of observation (PoB) for resource categories are: Inferred Radius of influence around point of observation ≤ 1000 metres Inferred drillhole to drillhole spacing ≤ 2000 metres
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> Vitrinite and Prelab were responsible for implementing and maintaining the sampling techniques and data, with peer review by Rock Knowledge Services Pty Ltd. Prelab undertakes internal audits and round robins testing to ensure analytical results are reporting precisely and accurately.