12 December 2018



UNIVERSAL COAL INCREASES NORTH BLOCK COMPLEX ("NBC") ORE RESERVE BY 98% TO 55.5 MILLION TONNES

- Significant operational improvement achieved at NBC with 208ktpm of saleable thermal coal product produced in November – a substantial increase on historic year-to-date average production of 140ktpm by the previous owner
- Increased production levels expected to be sustained for the remainder FY2019 with all saleable product earmarked for domestic supply to Eskom (effective annualized 2.4 million sales tonnes per annum)
- NBC planned to be transitioned into a multi-product operation via the integration of the adjacent Paarpdeplaats Project (subject to receipt of regulatory approvals)
- Previous SAMREC Code¹ compliant Ore Reserves at NBC updated to be JORC Code² compliant

Universal Coal PIc ("**Universal**" or "**the Company**") (ASX:UNV) is pleased to announce a JORC Code complaint update to the Ore Reserve for the North Block Complex ("**NBC**") in the Mpumalanga Province, South Africa of 55.5 million tonnes ("Mt"). The updated Ore Reserve represents an increase of 98.4% (or 27.54Mt) on the previously announced 27.96Mt SAMREC Code compliant Ore Reserve⁽¹⁾.

Universal completed the acquisition of NBC, the Company's third fully-operational colliery, in early November (see ASX announcement dated 12 November 2018). Since completing the acquisition, the Company has commenced increasing production towards the Company's monthly production target of 200 thousand tonnes per month ("ktpm") of saleable product. The Company is pleased to report that 208ktpm was produced for the month of November. Production levels for the year to date at NBC by the previous owner averaged 140ktpm. The November result demonstrates the achievement of a significant improvement by the Universal operational team since NBC's acquisition. Universal is confident that November's rate of production can be maintained going forward, with all saleable coal product expected to be sold for domestic supply to Eskom.

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 edition)



South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (2016 edition).

The increased production rate at NBC is in line with historical production rates (over the years between 2013 and 2017) which averaged a ROM production of circa 3.5Mtpa, similarly with sales of around 2.7Mtpa⁽²⁾.

The development of the adjacent Paardeplaats Project is expected to commence in FY2020 (subject to the receipt of all regulatory approvals). Paardeplaats is anticipated to be a lower quartile cost operation, with a substantial resource base to increase the current reserve well in excess of the current 55.5Mt ROM over a life of mine in excess of 15 years at an average stripping ratio is 2.82:1 (bcm:tonne).

The volumes contributed by NBC, will increase Universal's current annual coal production of 5.1Mtpa⁽³⁾ from its existing collieries, to an annualized forecast of up to 7.5Mtpa.

Commenting on the NBC Reserve increase, Universal's CEO, Tony Weber said: "The delivery of a 98% increase to NBC's Ore Reserve is a tremendous achievement by our operational team and further validates the strategic rationale to acquire the NBC project."

"The quick turnaround to full production at NBC has been well executed and proves the ability of the management team on site. It is prudent to say that the mine has transitioned well under the new management and we are proud to include the NBC under the Universal Coal banner. With historical production levels now restored at the North Block Complex, the project should add up to ~2.4Mtpa to the Company's production outlook for the next 15 years, significantly bolstering our saleable product pipeline. We look forward to providing updates on further operational developments achieved within the Company's suite of fully-operational collieries."

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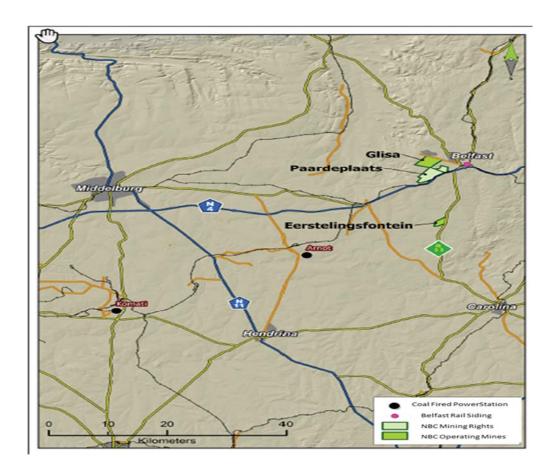
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References:

- (1) <u>Universal</u> coal acquires interest in third operation The North Block Complex 3 March 2018 https://www.asx.com.au/asxpdf/20180308/pdf/43s8l8cd3tpb3q.pdf
- (2) 2016 Group and Company Annual Financial Statements, Exxaro http://www.exxaro-reports.co.za/reports/ar-2016/exxaro-afs-2016/downloads/full-afs-2016.pdf
- (3) UNV forecast 29% increase in FY2019 EBITDA to A\$93million https://www.asx.com.au/asxpdf/20181010/pdf/43z3wtkcttz6bq.pdf

About North Block Complex (Glisa, Eerstelingsfontein and Paardeplaats)

Glisa Colliery and Paardeplaats is located about 5 km west of the town Belfast while Eestelingfontein is 20 km in the south.



Glisa Colliery is a multi-seam opencast mining operation, which has three contractor and owner mined pits, namely B&E, Block A and Block C, while Eerstelingfontein colliery is a single seam (No.2 seam) opencast mining operation along the R33 Belfast-Carolina road.

The Paardeplaats project is adjacent to Glisa colliery, along the southeastern border, and its coal resources are seen as a natural extension of the Glisa coal resource. The project is at pre-feasibility stage, and Ministerial approval of its mining right by the Department of Minearal Resources was received in the last week of November 2018 but not yet notarially executed. Universal awaits the granting of the section 11 transfer of ownership approval from the DMR.

NBC supplies thermal coal to two Eskom power stations. The Eskom product specification in terms of Calorific Value (CV) is 21.50 Mj/Kg. Mining activities at Paardeplaats are envisaged to mainly complement production at Glisa with a substantial allowance of a B grade peas product for both the domestic and export markets.

The Mineral Resource and Ore Reserve estimates and raw coal qualities for North Block Complex are summarised in the table below.

Mineral Resource Category	Tonnage (Mt)	CV (MJ/kg)	VM (%)	Ash (%)	S (%)
Measured Resource	69,94	21,05	21,74	26,93	0,74
Indicated Resource	17,67	19,30	20,90	28,60	1,00
Inferred Resource	25,38	19,10	21,60	29,40	1,20
Total Resource	112,99	19,50	20,50	30,90	1,00
Ore Reserve Category					
Probable Reserve	6,46				
Proved Reserve	49,03				
Total Reserve	55,50				

- CV calorific value, VM volatile matter, S sulphur
- Coal qualities are quoted on a Gross Tonnage In-Situ (GTIS) and on an air-dried basis
- The tonnages are quoted in metric tonnes and million tonnes is abbreviated as Mt
- · Rounding-off of figures in this report may result in minor computational discrepancies

NBC estimates the production of two products:

	PRODUCT QUALITIES					
Product Options	Ash (%)	CV (Mj/kg)	VM(%)	IM %	S %	Yield (%)
Export Thermal Coal	15	25.5	24	3.9	0.32	57.82
Eskom Thermal Coal	24.1	21.9	22.6	3.7	0.48	64.62

- Yield Plant yield, CV Calorific Value, VM Volatile Matter, IM Inherent Moisture, S Sulphur
- · Qualities are quoted as air dried

The Ore Reserve estimate was prepared by Mr Mike Vertue, a competent and independent mining engineer with appropriate coal experience. Measured and Indiciated mineral resource has been converted to Proved and Probable ore reserves respectively, subject to mine designs, modifying factors and economic evaluation.

Resource and Reserve Estimate

The North Block Complex hosts a JORC Code compliant Mineral Resource of 112.99Mt (inclusive of a Proved and Probable Ore Reserves) of which 69.94 Mt are classified as Measured, 17.76Mt as Indicated and 25.38 Mt as Inferred.

Only Measured and Indicated resources were converted to 49.03Mt Proved and 6.46Mt Probable Ore Reserves respectively. The remaining Inferred Resources are planned to be drilled in the following financial year to a minimum of 350m spacing, which is sufficient for JORC Code limits for classification of Measured and Indicated Resources. Pre-production infill drilling will also be conducted at 50m intervals at Paardeplaats, which should further assist in improving confidence in the geological model and resource estimate.

The table below provides a JORC Code compliant breakdown of Mineral Resources and Ore Reserves for North Block Complex:

Seam	Ore Reserves				Mineral	Resources			
			GLISA	EFN	PA	ARDEPLAAT	·s	Total (Mt)	Attributable to Universal Coal (Mt)
	Proved	Probable		Measured	Measured	Indicated	Inferred		
	(Mt)	(Mt)	Measured (Mt)	(Mt)	(Mt)	(Mt)	(Mt)		
S4U									
	10,95	1,53	1,72		14,48	4,16	5,64	26,00	12,74
S4L	4,47	0,33	0,01		5,50	2,70	2,08	10,29	5,04
S3	0,47		1,21					1,21	0,59
S2UU									
	0,12		1,05					1,05	0,52
S2U	4,14	0,51	0,82		5,54	2,42	2,79	11,57	5,67
S2S	2,13		2,45	0,65				3,10	1,52
S2L	26,02	4,10	0,81		33,26	8,35	14,10	56,52	27,69
S1	0,48	-	1,27		0,08	0,04	0,77	2,16	1,06
S1A	0,25		0,94					0,94	0,46
S1B			0,16					0,16	0,08
Total	49,03	6,46	10,44	0,65	58,86	17,67	25,38	112,99	55,37
Total Reserve	55,50		Total Measured		69,94				

- Mineral Resources are quoted on a Gross In-situ Tonnage inclusive of Proved and Probable Ore Reserves
- The tonnages are quoted in metric tonnes and million tonnes is abbreviated as Mt
- Rounding-off of figures in this report may result in minor computational discrepancies

Competent Person's Statement

Although the Ore Reserve estimate was prepared by Mr Mike Vertue, the information used in this announcement was compiled by Mr. Simon Mokitimi (as the Resource Competent Person), who is a registered natural scientist and member of the South African Council for Natural Scientific Professions (a Recognised Overseas Professional Organisation) and Mr. Kevin Donaldson (as the Reserve Competent Person), who is registered with ECSA, and is a member of both SAIMM and SACMA (recognised Overseas Professional Organisation). Messrs. Mokitimi and Donaldson are employed by Universal Coal PLC and have sufficient experience which is relevant to the style of mineralisation and the type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results (JORC). Messrs Mokitimi and Donaldson consent to the inclusion in this report of this information in the form and context in which it appears.

Forward-looking statements

This announcement contains or refers to forward-looking statements, including statements regarding production, EBITDA projections, plans, strategies and objectives of management, anticipated productive life of mines and regulatory processes. Forward-looking statements can be identified by the use of terminology such as 'intend', 'aim', 'project', 'anticipate', 'estimate', 'plan', 'believe', 'expect', 'may', 'should', 'will', 'continue', 'annualised' or similar words. These statements discuss future expectations concerning the results of operations or financial conditions, or provide other forward-looking statements. These forward-looking statements are not guarantees or predictions of future performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this announcement. Readers are cautioned not to put undue reliance on forward-looking statements. For example, future revenues from the North Block Complex mines, operations and projects described in this announcement will be based, in part, upon the market price of thermal coal, which may vary significantly from current levels. These variations, if materially adverse, may affect the timing or the feasibility of the development of a particular project, the expansion of certain facilities or mines, or the continuation of existing operations. Other factors that may affect the costs or production output and anticipated lives of operations, mines or facilities include our ability to profitably produce and transport the coal extracted to applicable markets; the impact of foreign currency exchange rates on the market prices of the coal we produce; activities of government authorities in South Africa, including increases in taxes, changes in environmental and other regulations and political uncertainty; labour unrest; and other factors identified in the risk factors discussed in Universal Coal's Annual Reports which are available at www.universalcoal.com. Except as required by applicable regulations or by law, Universal Coal does not undertake any obligation to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance.

Annexure 1: JORC Code (2012) Table 1 for the combined North Block Complex (NBC) – Glisa, Eerstelingsfontein and Paardeplaats Resources and Reserves

Criteria	JORC Code explanation	CP Comments
Section 1: Samplin	g Techniques and Data	
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 is used to obtain 1 m samples from which 3 kg is pulverised to produce a 30g 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. 	 Core drilling was used and all coal intersections were sampled and subjected to full washability analysis. No record of the sampling techniques used is available, however, core is considered to have been logged and sampled accurately by experienced geologists using acceptable industry procedures and standards. Coal seams thinner than the minimum mining thickness cut-off of 0.5m were not sampled. seam partings thick enough (≥ 0.5m) to be mined selectively were not sampled as part of the coal seam a minimum sample mass of 5kg to do float and sink analysis at nine relative density (RD) fractions were made available as per laboratory requirements.
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.). 	 All past drilling was diamond drilling using conventional equipment and TNW core size. It is reasonable to assume drilling was vertical and not oriented.
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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 No record of the sample recoveries is available. No record of downhole density logs is available to assume reasonable recovery assessments, Core recovery is recorded by the geologist in the field and is a standard logging procedure. It is reasonable to assume that recoveries were recoded historically and where recovery for a seam fell below acceptable levels the specific hole was re-drilled or excluded from the seam modelling process and resource estimation calculations.
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.	 The borehole core, after being washed, was laid on corrugated zinc plates, from where it was logged. Detailed geological logging involved a top-down fine scale observation (centimeter scale) and recording of the observed data. Logging entailed the identification and description of lithologies, and the delineation of contacts between different lithologies. The logging of the coal lithology followed a standardized classification code. Textures of the non-coal lithologies observed were based on the sphericity of the grains; sorting; maturity; cement type; vertical variations in grain sizes (grading); and mineral inclusions (sulphides, oxides and carbonates). The presence of sedimentary structures was also recorded Logging data was captured in a predetermined format according to a log sheet template. The following information was captured on the log sheet: The farm or prospecting property name, borehole identity,

Criteria	JORC Code explanation	CP Comments
Sub-sampling	If core, whether cut or sawn and whether quarter, half or all core taken.	Drilling date; name of drilling company; core diameter, Logging geologist; number of samples (if any), X, Y, Z coordinates; end of hole depth, 'From and To' depths of lithological units and description of the lithological units - No record of geotechnical logging procedure is available. - It is reasonable to assume that whole coal core was sampled, bagged on site and transported to a laboratory for testing as is standard procedure in the South African coal exploration industry.
techniques and sample preparation	 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. 	 The laboratories used by the historic and current owners of the mining rights comply with the specifications as per the South African Bureau of Standards for sample preparation and sub sampling and analyses. It is reasonable to assume that all coal samples were crushed to a top size of 40mm before analyses as prescribed on their sample preparation analysis flow chart, a size deemed appropriate for the type and nature of the coal at NBC.
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.	 Analytical test work was undertaken by Advanced Coal Technology (ACT) and SGS, both independent coal testing laboratories based in Pretoria and Trichardt, respectively. Both laboratories are accredited by the South African National Accreditation System (SANAS), which gives formal recognition of a laboratory's competency in performing specified analytical work. For each NBC sample the following tests/analyses were performed: The raw Relative Density ("RD") was determined. The sample was air dried to eliminate all surface moisture and the air dried mass was recorded. The air-dried sample was crushed and screened and divided into –0.5mm and +0.5-25mm fractions Proximate analysis (raw) was done on the two size fractions including inherent moisture content (C030-403W - Based on SABS 925), ash content (C030-401W - based on ISO 1171:97), volatile matter content (C030-404W - based on ISO 562:98) and fixed carbon (by difference). Raw gross calorific value (MJ/Kg) (C030-405W - based on ISO 1928:95) and total sulphur content (C030-402W - based on ASTM:D4239-04a (Method B)) were determined for each size fraction. Calculation of reconstituted raw coal values for total sample. Washability tests (Float & Sink) were conducted on all specified samples. Ten wash densities plus sink were used (F1.35, 1.40, 1.45, 1.50, 1.55, 1.60, 1.65, 1.70, 1.80, 1.90 and S1.9). The samples were screened and then submerged in a chemical solution at specific densities starting with the lowest (F1.35). The float was removed, dried and weighed and the sink moved onto the next barrel containing a higher density solution. This process was repeated until the maximum requested density (F1.90) was reached. After the washing process a representative sample of the different float fractions were submitted for a variety of laboratory tests on an air dried basis, including gross calorific value, inherent moisture (IM), volatile matter (VM), to
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. 	No record of any verification of the historic data is mentioned in the available information and could therefore not be confirmed, however, it is reasonable to assume that documentation of primary data, data entry procedures, data verification and data storage (physical and electronic) protocols did exist and adhered to acceptable industry norms. Although it is known that SGS Laboratory makes use of a custom designed LIMS with traceability to all raw data, no records are available.

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. 	A total of 237 boreholes have been drilled at NBC including 76 at Glisa, 71 at Eerstelingsfontein and 90 at Paardeplaats respectively. The coordinates of the holes are available and it is reasonable to assume that borehole coordinates and elevations were accurately surveyed by certified surveyors, however no evidence of any official certified co-ordinates and elevations exists. Planned borehole positions were staked out in the field by surveyors using Trimble RTK GPS equipment with an accuracy level of ± 2cm. The GPS equipment was calibrated on site using a minimum of five survey trig beacons in the near vicinity of the project area. Before drilling a borehole, the staked position was verified by the project geologist using a handheld GPS to check that the markers had not been moved. Final collar positions of completed holes were surveyed by professional surveyors. Final XY coordinates and elevations (Z) were compared to the Digital Terrain Model (DTM) of the project area: any discrepancies were investigated and, where necessary, the positions re-surveyed. It is reasonable to assume that the South African LO29 grid system, Cape datum was historically used.
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. Whether sample compositing has been applied. 	 At both Glisa and Eerstelingsfontein, the drilled boreholes provide adequate cover for the respective resource areas, and the borehole spacing is within 350m, the recommended minimum borehole spacing to confirm physical continuity and coal quality continuity for a measured coal resource. At Paardeplaats, exploration boreholes are distributed irregularly, with spacing varying between 350m and 1000m. The data distribution is sufficient to meet the JORC 2012 code requirements for classification of measured, indicated and inferred resources.
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 coal measures of NBC occur on the eastern edge of the Witbank coalfield and the pre-Karoo topography is relatively flat with a regional dip towards the south. The coal seams are nearly horizontal and the apparent thickness (width) of the intersected coal seams closely approximates the true thickness.
Sample security	The measures taken to ensure sample security.	 No record of measures taken to ensure sample security during the historic drilling is available, however, it is reasonable to assume that appropriate protocols and procedures existed and were adhered to.
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	 No records of audits or reviews of sampling techniques during historic drilling campaigns are available, however, it is reasonable to assume that such audits were conducted by past owners.
Section 2: Reportin	g of Exploration Results	
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. 	 North Block Complex (Pty) Ltd acquired 100 percent of Exxaro's asset subject to potential liability off-sets The acquired asset include the following North Block Complex mining rights: Glisa - MP 30/5/1/2/2/326MR /Executed/end period 2039-12-05 Eerstelingsfontein - MP 30/1/2/2/19MR/Executed/end period 2013-06-11 Eerstelingsfontein - MP 30/5/1/2/2/10068MR /Renewal in Application Paardeplaats - MP 30/5/1/2/2/10090MR/Received approval of mining right/not yet executed A share allocation of 49% of the NBC tenement is to be held by Universal Coal and Energy Holdings South Africa (Pty) Ltd (UCEHSA), with the remaining 51% by Universal Coal's black economic partner Ndalamo Resources (Pty) Ltd. Universal Coal has assumed full responsibility for production at Glisa from 1st of November 2018 The transaction remains subject to the fulfilment, or to the extent possible, the waiver of suspensive conditions of transactions of this nature. Approvals received thus far for Glisa and Eestelingsfontein is of the Competition Commission and Ministerial consent in terms of section 11 of the Mineral Resources and Petroleum Development Act 28 of 2002 (as amended) ("MPRDA") Paardeplaats received granting of the mining right and still awaits section 11 transfer from the Department

Criteria	JORC Code explanation	CP Comments
		- The mining rights, number MP 30/5/1/2/2/326MR, MP 30/5/1/2/2/10068MR and MP 30/5/1/2/2/10090MR covers a total area of 2,740.36 hectares.
Exploration done by other parties	Acknowledgment and appraisal of exploration by otherparties.	 NBC has a long exploration history predating its ownership by Exxaro Resources Ltd and Eyesizwe Coal (Pty) Ltd, respectively. For the purpose of this coal resource estimate, the exploration history is restricted to the Eyesizwe Coal (Pty) Ltd era (Strathrae) and Exxaro Resources Ltd era (Glisa, Eerstelingsfontein and Paardeplaats). Infill drilling by Universal Coal on Paadeplaats is expected to commence in first quarter of financial year 2019. A total of 237 holes were drilled historically during the Exxaro Resources Ltd era and all the data with the exception of 8 holes at Paardeplaats were used in the current resource estimation. The historical assay data included raw assay values and those washed at density fractions F1.35, F1.4, F1.45, F1.5, F1.55, F1.6, F1.65, F1.7, F1.75 and F1.80.
Geology	Deposit type, geological setting and style of mineralisation.	The coal measures of NBC occur on the eastern edge of the Witbank coalfield, within the Permian-age Vryheid formation of the Ecca Group in the Karoo Sequence. The Witbank coalfield is situated in the northern part of the Main Karoo basin and extends about 190km west-east between Brakpan and Belfast and about 60km north-south between Middelburg and Ermelo. The main Karoo Basin: Was filled between the Late Carboniferous and Middle Jurassic periods; It is lithostratigraphically subdivided into the Dwyka, Ecca and Beaufort Groups, succeeded by the Molteno, Elliot and Clarens Formations and the Drakensburg Formation (volcanics); The coal bearing Ecca Group has been divided into three sub-units: the Pietermaritzburg; Vryheid and Volksrust Formations. WITHAMSIC PERMIAN DRAKENSBERG FORMATION CLARENS FORMATION MUTBANK MAROO SUPERGROUP ECCA GROUP DWYKA GROUP COAL SEAMS
		The Witbank Coalfield: - The coal-bearing Vryheid Formation attains a thickness of 70m to 200m in the Witbank Coalfield; - Here the Vryheid Formation consists of five coarsening-upward sequences with coal seams associated predominantly
		with the coarser-grained fluvial facies at the top of each sequence;

Criteria	JORC Code explanation	CP Comments
		- The No. 5, 4, 2 and 1 coal seams are of economic interest.
		Granulestone Sandstone
		10-
		No.5 SEAM SEQUENCE
		30-
		No.4 SEAM SEQUENCE
		50-
		60-
		70- 1 No.2 SEAM SEQUENCE
		80
		Local Geology: - The coal succession occurs within the Permian-age Vryheid formation of the Ecca Group
		 Local basement highs cause the thinning and pinching out of both the No. 2 and No. 1 seams, with the depth to the seams depending largely on the local surface topography. Lithological sequence consists predominantly of the No. 1A, No. 1 and No. 2 (2T, 2S and 2A/L) seams with the No. 4 (4UA, 4U, 4LA and 4L) and 5 seams limited to the eastern, elevated part of the project area as well as the far western
		area Typical stratigraphic sequence is illustrated below:

Criteria	JORC Code explanation	CP Comments
		SEAM WIDTH SOIL AND CLAY 5 1.05m Coal Predominantly Sandstone Shale
		4U 1.2m 4L 2.2m 3 SEAM 3 0.3m
		2 SEAM 2P 0.8m 2S 2.2m 2A SEAM 2A 1.00m 1 1.4m 1A 1.3m
Drill hole	A summary of all information material to the understanding of the	The coal seams are characteristically near horizontal and often split by shale and sandstone bands. A full list of details of drill holes used in the Resource Estimate can be found in Appendix 2.
information	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 meters) 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.	- All drill holes have been used and modelled as vertical.
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	 All seams where multiple coal quality samples exist, composite values (generated within the Minex software) were given, weighting each quality by thickness and relative density.

Criteria	JORC Code explanation	CP Comments
	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.	
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 full list of details of drill holes used in the Resource Estimate can be found in Appendix 2. All drill holes have been used and modelled as vertical.
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'). 	The coal seams are nearly horizontal and the apparent thickness (width) of the intersected coal seams closely approximates the true thickness.
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. 	- A typical plan view of Glisa showing boreholes distribution is presented below: Contract pit (August 2017) Contract pit (Augu

Criteria	JORC Code explanation	CP Comments
		Driffnoire (71) Current pit (August 2017) Mined-out (August 2017) Resource Classification Measured Standard patrotein mining right Carolina Carolina O 0.25 0.5 Homeleire
		- A typical plan view of Paardeplaats showing boreholes distribution is presented below:

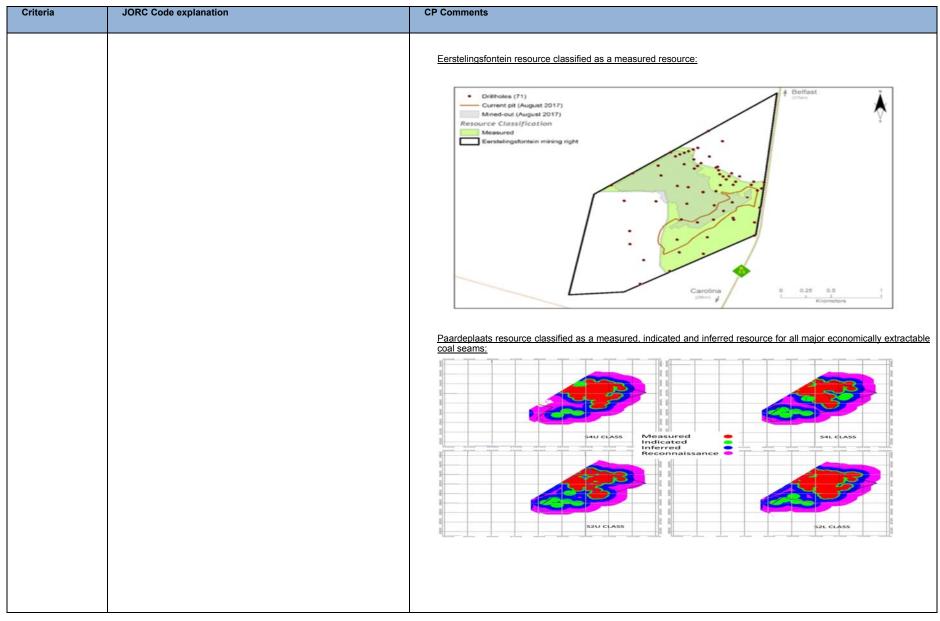
Criteria	JORC Code explanation	CP Comments
		- A typical northwest – southeast cross section at Glisa showing physical continuity of the coal seams
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		10X Exaggeration
		- A typical northwest – southeast cross section at Eerstelingsfontein showing physical continuity of the coal seams
		N 8 e S
		EN406,J7/03 60623 E40617 E406J7/ E406J7/
		EN406
		10 T CON 10
		10X Exaggeration
0-7296-2572,		

Criteria	JORC Code explanation	CP Comments				
		- A typical southwest – northeast cross section at Paardeplaats showing physical continuity of the coal seams				
		N S				
		Seam S4L Seam S2U Seam S1 DWKRF				
Balanced reporting	Where comprehensive reporting of all Exploration Results is	All exploration results within the NBC area have been reported.				
	not practicable, representative reporting of both low and high 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.	 A number of additional geology-related studies were completed during the Pre-Feasibility study at Paardeplaats, and during the mining period at NBC. These include: A Geotechnical Investigation; Coal wash simulation studies; Geohydrological study. Glisa and Eestelingsfontein by virtue of being operating opencast mines were extensively drilled with the exception of Paardeplaats, a development asset. Universal Coal intends doing infill drilling at Paardeplaats to further delineate the extend of the resource limit and subsequently update the geological model and resource estimate based on the additional drilling and quality information. 				
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	 Glisa and Eestelingsfontein by virtue of being operating opencast mines were extensively drilled with the exception of Paardeplaats, a development asset. Universal Coal intends doing infill drilling at Paardeplaats to further delineate the extend of the resource limit and 				

Criteria	JORC Code explanation	CP Comments					
Continue & Fatiment	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	subsequently update the geological model and resource estimate based on the additional drilling and quality information. - Further infill drilling will be conducted at 250X250m intervals at Paardeplaats and should assist in improving confident in the geological model and resource estimate.					
Section 3: Estimati	on and Reporting of Mineral Resources						
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.	 All the exploration data and analytical results were imported into a GBIS database and subjected to validation routines. Lithological descriptions were verified and coal seam correlations were validated. Coal sample positions were verified against coal seam occurrences, and raw coal analyses compared to lithological descriptions. A number of analytical tests and routines were used to validate all the raw and washability data as received from the laboratory. Anomalies were identified, queried and corrected where possible, otherwise flagged and removed from the final modelling dataset prior to geological modelling and resource calculation 					
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.	 Universal Coal's Competent Persons reviewed the geological data (logging, sampling, quality and Topography) and procedures and are satisfied with the data collection and protocols Universal Coal's Competent Person visited the site on numerous occasions and did not observe any issues that would impact negatively on the resource potential of NBC. 					
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 Mineral Resource estimation was primarily guided by geology. Confidence in the geological interpretation is high to moderate. Borehole coverage and density confirmed the nature, continuity of the seams and coal quality. Boreholes were geologically detailed logged, acceptably sampled and data used was validated. Continuity in geology and quality is primarily affected by basement topography and inseam stone bands thickening. It is recommended that future exploration involve further Infill drilling required at <250m intervals to allow more accurate geological information. 					
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. Resource.	 The main target Seams (S5, S4, S3, S2, & S1) At Glisa, the S5 and S1 is sporadically developed while the S4, S3 and S2 is fairly well developed and consistent throughout the mining area extending approximately 3.5km along strike and 2.5km perpendicular to strike with an approximate average combined seam thickness of 15m. The depth of cover to the S4 seam ranges from 2.3m in the northwest to 16m in the southeast. The depth of cover to the S2 seam ranges from 25m in the northwest to 45m in the southeast. The depth of cover to the S1 seam ranges from 28m to 45 in the northwest. At Eerstelingsfontein, the S2 occurs as an erosional remnant on high ground, at shallow depths extending approximately 1km along strike and 2km perpendicular to strike with an approximate average seam thickness of 2.2m, the depth to cover ranges between 10.5m and 18m on average. At Paardeplaats, the S1 occur as thin bands while the S5 is only developed in the eastern part of portion 30, which is the area of interest. The S4, S3 and S2 seams are fairly well developed and consistent throughout portion 30, extending approximately 1.5km along strike and 1.5km perpendicular to strike with an approximate average combined seam thickness of 9m. The depth of cover to the S4 seam ranges from 11m in the northwest to 38m in the southeast. The depth of cover to the S2 seam ranges from 17m in the northwest to 49m in the southeast. The depth of cover to the S2 seam ranges from 28m in the northwest to 60m in the southeast. 					
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.	 Geological modelling and Resource Estimation were performed using Gemcom MinexTM software. A minimum seam thickness of 0.5 metres was applied to the open cast resource estimate, and 1 meter was applied to the underground resource estimate. Sections were used across the resource area to ensure all these correlations are consistent, and were verified against the lithological logging as well as downhole geophysical logs. 					

Criteria	JORC Code explanation	CP Comments				
	Method is 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 is 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.	 Structural models were created for each seam as well as relevant sub-units and selections where applicable. The surface topography was created using the borehole collars, and verified with topography maps and surface contours. The stratigraphical sequence was verified in Geobank as well as in Minex (including gaps and overlaps) before structural modelling commenced. Each coal seam, unit and partings were modelled on a grid of 20x20m, based on the average borehole spacing in the project area. Coal extrapolation was limited to 500m from the last borehole with data. The final structural model was created, using the topographic surface, weathering limit and base surface as cutting surfaces to remove coal where it intersects these surfaces. Universal Coal's Competent Person with the support of external geological resource modeler and estimator was able to check previous resource estimates and update the remaining resource at Glisa accordingly. 				
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	- Tonnages are estimated as in situ using the in situ density estimation method using air dried moisture and air dried relative density laboratory values.				
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	- No cut-off was applied on qualities as the data falls well within the acceptable limits				
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.	The following modifying factors were applied; The coal resources are limited to the boundaries of the Tenement area. A minimum seam thickness of 0.5 meter. Coal resources above the limit of weathering (LOW) horizon are excluded.				
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.	respectively for the domestic market. The 21.5 MJ/kg product is predominantly for power-station supply parable prospects for eventual asider potential metallurgical above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5%, however select portions of the seams have the potential of supplying coal suitable for the export above 21.5% and volatile above 21.5% a				
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,	 It is the Competent Person's opinion that there are no limiting environmental factors at this stage of the project development other than regulations relating to mining adjacent to wetlands, which should be managed through applying buffer zones and wetland offsets. The regulatory framework in South Africa makes provision for waste and process residue disposal and the project area has suitable areas available to host such facilities. 				

Criteria	JORC Code explanation	CP Comments
	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.	
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. 	The density used in the tonnage calculation is relative density (air-dried) determined by accredited laboratories using the Archimedes method according to ISO 5072:1997. The apparent relative density is determined by weighing a sample suspended in water, allowing the sample to drain to remove surface liquid and then reweighing the sample in air. All coal samples submitted to the laboratory was subjected to RD determination. .
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. 	Resource classification was done according to the JORC code guidelines and appropriately reflects the Competent Person's view of the deposit. Borehole spacing up to 350m was used to classify a measured resource, up to 500m to classify an indicated resource and up to 2000m was classified as an inferred resource. Only boreholes where the relevant seam was analysed were considered as point observations to be used for resource classification. Anomalous drill hole data and structurally complex areas are accounted for and resource classification is used to control the adequacy of drill hole data. Separate confidence zones are determined for structural features based on a matrix approach. The effect of extrapolation is controlled by resource classification in which classification domains are not extrapolated beyond half the average drill hole spacing for the classification. The figures below illustrate the resource classification at NBC (yellow = inferred, orange = indicated and green = measured). Glisa resource classified as a measured resource: Dinibose (76) Current pit (August 2017) Mined-out (August 2017)



Criteria	JORC Code explanation	CP Comments
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	There have been no audits to date undertaken on the Resource Estimate.
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.	 The Competent Person applied the principles of the JORC code in estimating the Resources at NBC. To date no geostatistical studies have been undertaken to ascertain a feel for the confidence in drill hole spacing for the purposes of resource estimation The Coal Resources are estimates at a point in time and will be affected by changes in coal market pricing, currency fluctuations, regulatory costs and other geological and operating parameters. Geological factors that could affect the accuracy of the resource estimate include dolerite intrusions and structures between completed drill holes, seam wash outs and thickening of in-seam stone bands. Further pre-production infill drilling will be conducted at 50m intervals at Paardeplaats and should assist in improving confidence in the geological model and resource estimate.
	on and Reporting of Ore Reserves	
Mineral Resource estimate for conversion to Ore Reserves	 Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of the Ore Reserves. 	 The Ore Reserve Estimate is based on studies conducted by Universal Coal and completed by Simon Mokitimi, Resource Competent Person and Kevin Donaldson, Reserve Competent Person as defined by the JORC 2012 Code. The Mineral Resource estimate is based on a geologically model prepared in Minex (Refer to Section 3 above). The Ore Reserve Estimate was generated using X-Pac mine scheduling software. X-Pac takes into account the in-situ coal resources as generated from the resource model (Minex). In the case of Glisa, where portions of seam 2 select were mined underground, the tonnage that has already been mined was subtracted from the in-situ coal resources. The Ore Reserve Estimate is based on the approved pit layout, which forms the basis of the scheduling. After factoring all technical modifying factors, the reserve model generates an estimate of ROM and resultant saleable product and qualities. All Mineral Resources are reported inclusive of Ore Reserves.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits If no site visits have been undertaken indicate why this is the case.	- The Competent Person from Universal Coal that completed the Reserve Estimate did undertake a site visit
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.	- A Pre-Feasibility study has been completed for the NBC.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	- Minimum yield of 25% for dense medium separation plant Minimum calorific value of 16 MJ/Kg for crush and screen plant Raw ash of 50% and above.

Criteria	JORC Code explanation	CP Comments					
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used. The mining recovery factors used. Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. The infrastructure requirements of the selected mining methods.	 The classification of Coal Reserves into Proved and Probable categories has been based on the JORC 2012. The mining methods assumed for the NBC open cast areas include conventional truck-shovel methods with assistance from bulk dozer push. The following mine design parameters were deemed appropriate for NBC: Type of operation: Load and Haul Surface Strip Mining Minimum coal seam thickness after losses: 0.5m Maximum average mining depth: 50m Buffer from wetland and/or 100-year flood line: 50m Geological loss applied: 5% Total mining loss on reserve: 10% Contamination applied: 5% These factors may require revision on an ongoing basis. Final pit slope design parameters are still to be finalized at Paardeplaats. Loading and haulage are achieved by a conventional truck and backhoe excavator fleet with; Trucks - 30t ADTs, 40t ADTs, 50t Rigid Dump Trucks or 90t Rigid Dump Trucks Shovels - 50t, 80t, 120t and 200t Class Shovels The Ore Reserve is estimated within an open pit design that includes ramps and safety berms on the pit walls. A life of mine production schedule was generated and showed that ROM coal can be presented to the processing pufficient quantity in each year of the mine life to satisfy the assumptions regarding costs used in the Ore Reserve estificated quantity in each year of the mine life to satisfy the assumptions regarding costs used in the Ore Reserve estification, water management, including pipelines and pumps, stormwater drains, a pollution control dam, a processing security fencing, lighting, weighbridges and a fuel depot, electrical infrastructure, offices and maintenance work waste dumps and ROM coal stockpiles. No Inferred Coal Resources were utilised in the mining studies. 					
Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	Currently there is a DMS coal beneficiation plant with a capacity of 400t/hr ROM and four conventional crushing and screening plants, two owned and operated by Universal Coal and the other two owned and operated by a contractor. One contractor operated crush and screen plant is at Eestelingsfontein while the remaining three and the DMS plants are all located at Glisa. All metallurgical processes to be utilised are well tested technologies and are currently in use at the NBC. No account or records of prior metallurgical test work has been available to the competent persons.					
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.	The two operating mines, Glisa and Eestelingsfontein have approved National Environmental Management Act (NEMA) Authorisations, approved Mining Rights, EMPRs, Social and Labour Plans (SLP) and Integrated Water Use Licenses. The project area, Paardeplaats has an approved Mining Right and EMPR. Awaiting Integrated Water Use License. The recommendations and commitments of the EMP and SLP have been taken into consideration in the Ore Reserve estimate and there are no other factors likely to have a material impact on the estimate. Coal processing tailings and waste water would be retained in a tailing storage facility (TSF) and pollution control dam (PCD). Their design and position have been incorporated into the approved EMPR, Waste License and Integrated Water Use License applications.					
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.	 Since Glisa and Eestelingsfontein are presently operating mines, the existing infrastructure would be utilised during future commissioning of the operations at Paardeplaats project area. Sufficient water, power and road infrastructure exists on/close to the Paardeplaats project area to support the proposed extension operation. Sufficient labour is available from the two operating mines to complement the Paardeplaats project. 					

Criteria	JORC Code explanation	CP Comments					
Costs	 The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. 	 The assumed mining costs are not disclosed in this document as they are commercially sensitive. Capital costs for the infrastructure at NBC (including Mining (Incl box-cut at Paardeplaats), processing plant, discard disposal facility, earthworks, buildings, roads and bridges, fencing, water, storm water, electricity, maintenance vehic staff & ancillaries, information software and hardware, acquisition of land, legal costs and rehabilitation bonds) have be estimated as part of the Pre-Feasibility study. Capital cost inputs have been applied based on the results of the individex pert contributions and are in real terms. Mine operating costs have been estimated with a combination of first principle calculations, and life of mine (long to cost estimates. Mining costs vary with strip ratio and waste rock classification (free-dig or hard waste) - hard waste coal have a higher extraction cost due to blasting and grade control charges (for coal). Ore processing operating costs distributed over the range of processing throughput rates for the purposes of estimating a total unit cost of process General and Administration unit costs for the site were estimated. Cost of major consumables (fuel, electrical power, st chemicals) are based on a combination of supplier contracts and market intelligence. No allowances for deleterious elements are necessary or have been made. Coal product specifications include limits for these, and coal is produced and sold within specifications. Estimates for transportation charges and government royalties and taxes have been obtained from Government legisla or from existing medium-term coal sales agreements between Universal Coal and relevant parties. No export penalties have been included in the estimate of Ore Reserves. The long-term USD/ZAR exchange rate assumed is commercially sensitive but is not inconsistent with actual long thistorical average exchange. 					
Revenue factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	The actual assumed coal prices are not disclosed in this document as they are commercially sensitive. For export thermal coal the pricing has been based on guidance obtained from independent market analysts and is to on Richards Bay export thermal coal price (RB1) projections. Eskom coal sales pricing and transportation charges are based on existing medium-term coal sales agreements bet Universal Coal and relevant parties.					
Market assessment	 The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	 Product tonnage forecasts for NBC are primarily driven by Ore Reserve controls and internal analyses of market trends based on independent marketing reviews by London Commodity Brokers (LCB) and XMP Consulting (XMP). Consensus amongst these analysts is that domestic (Eskom) and worldwide demand for thermal coals will continue to increase over the long term. The price forecasts from market analysts take into account the forecast relationship between supply and demand on regional and worldwide bases. 					
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs.	 Net present values are not reported in this document, however the NPV and IRR confirms the economic viability of the NBC project. The assumptions and inputs to the economic analysis to produce the net present value (NPV) in the study include: The ore reserves included in the reserve statement of 2016. The results of the 2016 pre-feasibility study done on Paardeplaats Portion 30 resources. The Mine will produce 55.5mt ROM over a life of mine of 15 years from the 4 and 2 seams (excluding inferred resources). The average stripping ratio is 2.82:1 bcm/t. The stripping ratio peaks in year 13 at 4.0:1. The ror is processed in a double stage DMS washing plant. The total product yield is 55% and the mine produces a total product of 30.6mt. The Pre-Feasibility study targets a 22.0 MJ/kg CV product for sale to the local power producer and a 6000kCal product for the export market. Coal for the local market is sold ex gate, free-on-truck, while coal for the export market is sold free-on-rail at the rail siding. The coal prices applied are based on the contract price from Eskom and the API index for RB1 specifiation coal. Refer to "Costs" above for details on assumptions of costs, royalties and taxes used in the economic analysis. A discount rate of 12.5% was applied. The confidence of the economic inputs complies with the requirements of a Pre-Feasibility study. 					

Criteria	JORC Code explanation	CP Comments					
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	 A detailed Social and Labour Plan (SLP) was developed in conjunction with all stakeholders as part of NBC's mining right application. The SLP was approved by the Department of Mineral Resources and entails commitments relating to huma resource development, local economic development and housing and living conditions of employees. The costs relating to the SLP commitments have been taken into consideration in the economic analysis of the NBC project. 					
Other	 To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. 	The material naturally-occurring risks expected to impact the proposed NBC operation are: Floods – The Project is positioning adjacent to environmental sensitive areas and could be exposed to floods result from particularly high-rainfall events. A 50m buffer zone from the 100-year flood line has been incorporated in the m design. Berms will also be placed along the buffer zone to protect the mines and project area from flood levels about a "1 in 100 year" event. The following regulatory approvals are in place: At Glisa and Eestelingsfontein operating mines Mining Right and EMPR. Integrated Water Use License. Coal marketing arrangements and supplier agreements for mining, processing, fuel, railing, port handling, a electricity are in place for the current operating mines. At Paardeplaats project area Approved Mining Right and EMPR.(Awaits the granting of the Section 11 transfer of ownership from DMR) The following regulatory approvals are outstanding at Paardeplaats:					
Classification	The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• Integrated Water Use License. The NBC operating mines' Ore Reserves are classified as Proved Coal Reserves based on the JORC 2012. The basis for classification of Coal Reserves is the Coal Resource category polygons (Measured) for each seam within the open cast areas, in conjunction with the calculated profits and other modifying factors.					
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	 The Ore Reserve estimate has been prepared by an external Competent Person and verified by Universal Coal's Reserve Compentent Person. The Competent Person is an employee of Universal Coal and is suitably qualified and experience to act in that capacity. 					
Discussion of relative accuracy/ confidence	 Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. 	The design, schedule and financial model on which the Ore Reserve is based has been completed to a Pre-Feasibility standard, with a corresponding level of confidence The modifying factors, the quantum of which was determined by experienced Universal Coal geological, mining, processing, environmental and marketing experts was applied to the NBC project on a global scale. The financial model and the applied modifying factors were developed by Universal Coal's own technical team.					

Criteria	JORC Code explanation	CP Comments
	 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. 	

Appendix 2: Drill Hole Data Summary for the NBC Project

Hole Name	Hole Type	Datum	Grid	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Azimuth	Dip
GLB02	Core	LO29CAPE	South Africa	-100254.008	-2844056.16	1900.051	57.07	0	-90
GLB03	Core	LO29CAPE	South Africa	-100047.637	-2843875.38	1894.39	48.06	0	-90
GLB04	Core	LO29CAPE	South Africa	-100124.27	-2843668.88	1882.94	43.02	0	-90
GLB05	Core	LO29CAPE	South Africa	-100313.78	-2843861.88	1897.65	51.03	0	-90
GLB06	Core	LO29CAPE	South Africa	-100383.39	-2843963.57	1900.95	60.07	0	-90
GLB07	Core	LO29CAPE	South Africa	-100600.92	-2844186.98	1882.55	48.04	0	-90
GLB09	Core	LO29CAPE	South Africa	-100311.11	-2843683.98	1887.33	45.03	0	-90
GLB10	Core	LO29CAPE	South Africa	-100278.88	-2843494.68	1877.56	30.05	0	-90
GLB11	Core	LO29CAPE	South Africa	-100630.37	-2843644.19	1896.91	61.7	0	-90
GLB14	Core	LO29CAPE	South Africa	-100847.93	-2843633.46	1891.77	60.07	0	-90
GLB15	Core	LO29CAPE	South Africa	-100990.98	-2843211.43	1892.32	50.03	0	-90
GLB16	Core	LO29CAPE	South Africa	-100972.45	-2843540.48	1890.51	51.88	0	-90
GLB17	Core	LO29CAPE	South Africa	-100857.66	-2843287.44	1894.21	57.13	0	-90
GLB21	Core	LO29CAPE	South Africa	-101238.4	-2843366.6	1890.53	56.7	0	-90
GLB23	Core	LO29CAPE	South Africa	-99897.98	-2843626.72	1881.7	33.05	0	-90
GLB25	Core	LO29CAPE	South Africa	-101849.33	-2842893.57	1887.38	51.05	0	-90
GLB26	Core	LO29CAPE	South Africa	-101892.37	-2842865.25	1889.17	40.87	0	-90
GLB27	Core	LO29CAPE	South Africa	-101669.48	-2843018.24	1881.886	51.08	0	-90
GLB28	Core	LO29CAPE	South Africa	-101472.22	-2842773.48	1886.99	48.07	0	-90
GLB29	Core	LO29CAPE	South Africa	-101729.3	-2842659.32	1891.42	41.2	0	-90

Hole Name	Hole Type	Datum	Grid	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Azimuth	Dip
GLB30	Core	LO29CAPE	South Africa	-100817.09	-2843526.38	1894.02	59.12	0	-90
GLB31	Core	LO29CAPE	South Africa	-100840.28	-2842910.31	1884.86	25.67	0	-90
GLB32	Core	LO29CAPE	South Africa	-101369.88	-2843276.46	1887.2	47.1	0	-90
GLB33	Core	LO29CAPE	South Africa	-100784.53	-2843111.68	1887.73	38.82	0	-90
GLB34	Core	LO29CAPE	South Africa	-100971.15	-2843010.08	1889.88	48.09	0	-90
GLB35	Core	LO29CAPE	South Africa	-101106.64	-2843148.53	1892.885	43.9	0	-90
GLB36	Core	LO29CAPE	South Africa	-101189.01	-2843207.46	1893.37	44.06	0	-90
GLB37	Core	LO29CAPE	South Africa	-100944.06	-2842708.5	1879.91	35.05	0	-90
GLB39	Core	LO29CAPE	South Africa	-101342.16	-2842632.05	1887.35	51.02	0	-90
GLB40	Core	LO29CAPE	South Africa	-101440.8	-2842290.88	1881.25	30.05	0	-90
GLB41	Core	LO29CAPE	South Africa	-99433.17	-2843332.22	1868.91	12.06	0	-90
GLB43	Core	LO29CAPE	South Africa	-100610.08	-2843921.095	1894.3	63.08	0	-90
GLB44	Core	LO29CAPE	South Africa	-100690.77	-2844012.58	1888.81	57.05	0	-90
GLB45	Core	LO29CAPE	South Africa	-100686.14	-2842861.11	1878.788	38.5	0	-90
GLB46	Core	LO29CAPE	South Africa	-100360.791	-2843353.876	1876.432	38.59	0	-90
GLB47	Core	LO29CAPE	South Africa	-100657.043	-2843264.69	1888.479	47.46	0	-90
GLB49	Core	LO29CAPE	South Africa	-102067.696	-2843939.031	1846.574	22.3	0	-90
GLB50	Core	LO29CAPE	South Africa	-101874.949	-2843662.749	1847.35	15.1	0	-90
GLB52	Core	LO29CAPE	South Africa	-101357.542	-2842889.1	1886.142	53.1	0	-90
GLB53	Core	LO29CAPE	South Africa	-101234.499	-2842814.011	1884.487	46.2	0	-90
GLB54	Core	LO29CAPE	South Africa	-100992.495	-2842560.626	1879.916	41.5	0	-90
GLB55	Core	LO29CAPE	South Africa	-102295.864	-2843953.64	1855.761	18.7	0	-90

Hole Name	Hole Type	Datum	Grid	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Azimuth	Dip
GLB56	Core	LO29CAPE	South Africa	-102080.633	-2843624.384	1858.985	27.07	0	-90
GLB57	Core	LO29CAPE	South Africa	-101910.171	-2843398.489	1863.115	31.9	0	-90
GLB58	Core	LO29CAPE	South Africa	-102555.738	-2843998.919	1862.904	38.66	0	-90
GLB59	Core	LO29CAPE	South Africa	-102366.848	-2843701.519	1871.933	29.46	0	-90
GLB60	Core	LO29CAPE	South Africa	-102104.27	-2843426.555	1864.314	32.04	0	-90
GLB61	Core	LO29CAPE	South Africa	-101958.529	-2843157.732	1879.552	46.49	0	-90
GLB62	Core	LO29CAPE	South Africa	-102584.829	-2843759.888	1871.933	32.48	0	-90
GLB63	Core	LO29CAPE	South Africa	-102370.052	-2843480.892	1880.255	35.4	0	-90
GLB64	Core	LO29CAPE	South Africa	-102154.155	-2843206.056	1881.691	40.18	0	-90
GLB65	Core	LO29CAPE	South Africa	-101605.747	-2842929.068	1884.695	57.3	0	-90
GLB70	Core	LO29CAPE	South Africa	-101024.77	-2843972.886	1857.51	30.73	0	-90
GLB71	Core	LO29CAPE	South Africa	-100907.711	-2844169.018	1863.193	29.43	0	-90
GLB72	Core	LO29CAPE	South Africa	-100858.078	-2844283.346	1864.035	27.04	0	-90
GLB73	Core	LO29CAPE	South Africa	-100936.533	-2844178.085	1857.513	25.58	0	-90
GLB74	Core	LO29CAPE	South Africa	-100894.441	-2843970.46	1870.895	31.94	0	-90
GLB75	Core	LO29CAPE	South Africa	-100971.815	-2843794.251	1882.742	44.51	0	-90
GLB76	Core	LO29CAPE	South Africa	-101191.702	-2843576.625	1879.218	40.11	0	-90
GLB77	Core	LO29CAPE	South Africa	-101824.544	-2843882.25	1842.547	11.34	0	-90
GLB78	Core	LO29CAPE	South Africa	-101581.848	-2842472.718	1888.791	39.04	0	-90
GLB79	Core	LO29CAPE	South Africa	-101155.561	-2842380.357	1879.777	28.09	0	-90
GLB80	Core	LO29CAPE	South Africa	-101269.141	-2842194.9	1877.322	25.67	0	-90
GLB81	Core	LO29CAPE	South Africa	-101490.182	-2842997.343	1881.687	46.94	0	-90

Hole Name	Hole Type	Datum	Grid	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Azimuth	Dip
GLB82	Core	LO29CAPE	South Africa	-101641.219	-2843191.476	1870.46	36.09	0	-90
GLB83	Core	LO29CAPE	South Africa	-100706.689	-2842735.989	1868.904	23.94	0	-90
GLB84	Core	LO29CAPE	South Africa	-102751.657	-2844033.884	1858.22	31.78	0	-90
GLB85	Core	LO29CAPE	South Africa	-101713.521	-2843348.668	1858.507	22.16	0	-90
GLB86	Core	LO29CAPE	South Africa	-101143.48	-2842942.85	1887.402	46.76	0	-90
GLB87	Core	LO29CAPE	South Africa	-101032.249	-2842841.446	1884.039	37.86	0	-90
GLB88	Core	LO29CAPE	South Africa	-101034.478	-2843393.669	1892.861	52.73	0	-90
GLB89	Core	LO29CAPE	South Africa	-100717.271	-2843787.989	1891.635	54.28	0	-90
GLB90	Core	LO29CAPE	South Africa	-100569.534	-2843458.949	1891.577	48.26	0	-90
GLB91	Core	LO29CAPE	South Africa	-100273.388	-2843203.465	1874.804	32.67	0	-90
GLB92	Core	LO29CAPE	South Africa	-100967.458	-2843550.421	1891.272	49.44	0	-90
GLB93	Core	LO29CAPE	South Africa	-99938.739	-2843510.359	1879.543	30.01	0	-90
E40601	Core	LO31CAPE	South Africa	-97829.01	-2861503.1	1788.83	19.35	0	-90
E40602	Core	LO31CAPE	South Africa	-98682.18	-2860350.63	1783.22	25.3	0	-90
E40603	Core	LO31CAPE	South Africa	-99057.08	-2860648.6	1781.43	30	0	-90
E40604	Core	LO31CAPE	South Africa	-99265.82	-2860819.33	1772.5	26.05	0	-90
E40605	Core	LO31CAPE	South Africa	-98220.09	-2860884.66	1786.05	31.27	0	-90
E40606	Core	LO31CAPE	South Africa	-98508.44	-2861070.93	1785.34	34.66	0	-90
E40607	Core	LO31CAPE	South Africa	-99073.94	-2861458.8	1770.7	16.31	0	-90
E40608	Core	LO31CAPE	South Africa	-99068.12	-2861639.56	1792.39	30.04	0	-90
E40609	Core	LO31CAPE	South Africa	-98664.35	-2862009.64	1781.53	23.43	0	-90
E40610	Core	LO31CAPE	South Africa	-98166.47	-2860187.98	1774.48	30.66	0	-90

Hole Name	Hole Type	Datum	Grid	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Azimuth	Dip
E40611	Core	LO31CAPE	South Africa	-97780.55	-2861116.05	1786.01	27.5	0	-90
E40612	Core	LO31CAPE	South Africa	-98957.3	-2862191.11	1776.66	19.07	0	-90
E40613	Core	LO31CAPE	South Africa	-98308.31	-2860046.99	1774.52	27.19	0	-90
E40614	Core	LO31CAPE	South Africa	-97741.95	-2860756.95	1779.81	28.1	0	-90
E40615	Core	LO31CAPE	South Africa	-99135.41	-2861039.81	1769.54	20.44	0	-90
E40616	Core	LO31CAPE	South Africa	-98927.91	-2861859.34	1774.18	21.68	0	-90
E40617	Core	LO31CAPE	South Africa	-98607.78	-2860818.1	1784.68	42.95	0	-90
E40618	Core	LO31CAPE	South Africa	-98038.09	-2861284.96	1790.69	36.2	0	-90
E40619	Core	LO31CAPE	South Africa	-98598.39	-2861571.17	1780.47	28.53	0	-90
E40620	Core	LO31CAPE	South Africa	-98816.65	-2861042.79	1775.12	22.57	0	-90
E40621	Core	LO31CAPE	South Africa	-98224.7	-2860556.74	1782.8	27.4	0	-90
E40622	Core	LO31CAPE	South Africa	-98544.13	-2860514.8	1783.07	16.1	0	-90
E40623	Core	LO31CAPE	South Africa	-98772.4	-2860675	1783.27	18.24	0	-90
E40624	Core	LO31CAPE	South Africa	-98498.87	-2860834.27	1785.66	20.67	0	-90
E40625	Core	LO31CAPE	South Africa	-98152.6	-2860679.8	1782.3	14.3	0	-90
E40626	Core	LO31CAPE	South Africa	-97906.7	-2860970.4	1784.35	12.35	0	-90
E40627	Core	LO31CAPE	South Africa	-98234.41	-2861089.16	1791.33	20.88	0	-90
E40628	Core	LO31CAPE	South Africa	-97830.2	-2861320.3	1788.65	18.53	0	-90
E40629	Core	LO31CAPE	South Africa	-98400.5	-2861328.1	1788.65	14.5	0	-90
E40630	Core	LO31CAPE	South Africa	-98297.9	-2861533.5	1790.28	16.1	0	-90
E40631	Core	LO31CAPE	South Africa	-98573.4	-2861746.7	1783.42	14.46	0	-90
E40632	Core	LO31CAPE	South Africa	-98333.43	-2861764.21	1789.16	18.47	0	-90

Hole Name	Hole Type	Datum	Grid	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Azimuth	Dip
EN406JT/01	Core	LO31CAPE	South Africa	-98294.759	-2860402.889	1779.767	23.5	0	-90
EN406JT/02	Core	LO31CAPE	South Africa	-98448.201	-2860446.226	1781.174	29.55	0	-90
EN406JT/03	Core	LO31CAPE	South Africa	-98802.949	-2860537.626	1784.806	34.11	0	-90
EN406JT/04	Core	LO31CAPE	South Africa	-98632.783	-2860406.437	1783.536	20.37	0	-90
EN406JT/05	Core	LO31CAPE	South Africa	-98050.674	-2860794.387	1782.566	11.5	0	-90
EN406JT/06	Core	LO31CAPE	South Africa	-98056.105	-2861044.761	1788.904	16.12	0	-90
EN406JT/07	Core	LO31CAPE	South Africa	-98141.673	-2861166.533	1792.085	20.5	0	-90
EN406JT/08	Core	LO31CAPE	South Africa	-98239.683	-2861288.611	1791.523	23.54	0	-90
EN406JT/09	Core	LO31CAPE	South Africa	-98560.992	-2861291.143	1781.764	11.52	0	-90
EN406JT/10	Core	LO31CAPE	South Africa	-98442.032	-2860574.558	1783.668	12.94	0	-90
EN406JT/11	Core	LO31CAPE	South Africa	-98186.62	-2860648.474	1783.099	17.47	0	-90
EN406JT/12	Core	LO31CAPE	South Africa	-98588.868	-2860378.158	1782.389	17.47	0	-90
EN406JT/13	Core	LO31CAPE	South Africa	-98545.928	-2860356.014	1780.95	11.54	0	-90
EN406JT/14	Core	LO31CAPE	South Africa	-98502.465	-2860332.503	1779.798	11.54	0	-90
EN406JT/15	Core	LO31CAPE	South Africa	-98456.661	-2860308.613	1778.392	6.28	0	-90
EN406JT/16	Core	LO31CAPE	South Africa	-98411.037	-2860284.593	1778.107	5.73	0	-90
EN406JT/17	Core	LO31CAPE	South Africa	-98409.954	-2860536.63	1782.995	17.52	0	-90
EN406JT/18	Core	LO31CAPE	South Africa	-98376.123	-2860496.461	1781.941	16.44	0	-90
EN406JT/19	Core	LO31CAPE	South Africa	-98198.407	-2860593.381	1783.037	13.55	0	-90
EN406JT/20	Core	LO31CAPE	South Africa	-98209.732	-2860544.824	1782.478	14.57	0	-90
EN406JT/21	Core	LO31CAPE	South Africa	-97987.87	-2860676.454	1781.485	20.56	0	-90
EN406JT/22	Core	LO31CAPE	South Africa	-98026.317	-2860750.655	1782.427	9.67	0	-90

Hole Type	Datum	Grid	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Azimuth	Dip
Core	LO31CAPE	South Africa	-97807.241	-2860870.323	1781.339	11.53	0	-90
Core	LO31CAPE	South Africa	-97767.024	-2860840.469	1780.962	10.05	0	-90
Core	LO31CAPE	South Africa	-98178.725	-2860800.348	1783.15	8.01	0	-90
Core	LO31CAPE	South Africa	-98120.431	-2860719.986	1781.137	11.58	0	-90
Core	LO31CAPE	South Africa	-98094.513	-2860675.631	1781.348	11.47	0	-90
Core	LO31CAPE	South Africa	-98068.488	-2860632.799	1781.597	11.48	0	-90
Core	LO31CAPE	South Africa	-98044.997	-2861261.827	1790.698	23.55	0	-90
Core	LO31CAPE	South Africa	-97869.641	-2860792.366	1781.64	11.52	0	-90
Core	LO31CAPE	South Africa	-97846.812	-2860747.254	1780.853	5.9	0	-90
Core	LO31CAPE	South Africa	-98351.205	-2860899.178	1786.951	34.71	No survey data	
Core	LO31CAPE	South Africa	-98349.945	-2860899.384	1787	16.64	No survey data	
Core	LO31CAPE	South Africa	-98348.431	-2860899.63	1787.008	16.74	No survey data	
Core	LO31CAPE	South Africa	-98347.105	-2860899.95	1786.971	16.68	No survey d	ata
Core	LO31CAPE	South Africa	-98351.4	-2860900.772	1786.975	16.64	No survey d	lata
Core	LO31CAPE	South Africa	-98350.45	-2860900.954	1786.977	16.54	No survey d	ata
Core	LO31CAPE	South Africa	-98348.903	-2860901.347	1787.006	16.41	No survey d	lata
Core	LO31CAPE	South Africa	-98347.676	-2860901.779	1787.011	16.34	No survey d	lata
Core	LO31CAPE	South Africa	101207.962	-2847434.285	1928.483	45.56	0	-90
Core	LO31CAPE	South Africa	101460.809	-2847566.446	1920.122	47.56	0	-90
Core	LO31CAPE	South Africa	101888.38	-2847148.972	1919.958	64.97	0	-90
Core	LO31CAPE	South Africa	101898.853	-2847010.704	1919.674	32.07	0	-90
Core	LO31CAPE	South Africa	101900.267	-2846770.264	1913.918	23.3	0	-90
	Core Core Core Core Core Core Core Core	Core LO31CAPE Core LO31CAPE	Core LO31CAPE South Africa Core LO31CAPE South Africa	Core LO31CAPE South Africa -97807.241 Core LO31CAPE South Africa -97767.024 Core LO31CAPE South Africa -98178.725 Core LO31CAPE South Africa -98120.431 Core LO31CAPE South Africa -98094.513 Core LO31CAPE South Africa -98068.488 Core LO31CAPE South Africa -98044.997 Core LO31CAPE South Africa -98044.997 Core LO31CAPE South Africa -98044.997 Core LO31CAPE South Africa -98369.641 Core LO31CAPE South Africa -98346.812 Core LO31CAPE South Africa -98351.205 Core LO31CAPE South Africa -98349.945 Core LO31CAPE South Africa -98348.431 Core LO31CAPE South Africa -98347.105 Core LO31CAPE South Africa -98347.676 Core L	Core LO31CAPE South Africa -97807.241 -2860870.323 Core LO31CAPE South Africa -97767.024 -2860840.469 Core LO31CAPE South Africa -98178.725 -2860800.348 Core LO31CAPE South Africa -98120.431 -2860719.986 Core LO31CAPE South Africa -98094.513 -2860675.631 Core LO31CAPE South Africa -98094.513 -2860632.799 Core LO31CAPE South Africa -98048.488 -2860632.799 Core LO31CAPE South Africa -98044.997 -2861261.827 Core LO31CAPE South Africa -97846.812 -2860792.366 Core LO31CAPE South Africa -98351.205 -2860899.178 Core LO31CAPE South Africa -98349.945 -2860899.178 Core LO31CAPE South Africa -98347.105 -2860899.95 Core LO31CAPE South Africa -98347.105 -2860899.95 Core	Core LO31CAPE South Africa -97807.241 -2860870.323 1781.339 Core LO31CAPE South Africa -97767.024 -2860840.469 1780.962 Core LO31CAPE South Africa -98178.725 -2860800.348 1783.15 Core LO31CAPE South Africa -98120.431 -2860719.986 1781.137 Core LO31CAPE South Africa -98094.513 -2860675.631 1781.548 Core LO31CAPE South Africa -98068.488 -2860632.799 1781.597 Core LO31CAPE South Africa -98044.997 -2861261.827 1790.698 Core LO31CAPE South Africa -97869.641 -2860792.366 1781.64 Core LO31CAPE South Africa -97846.812 -2860899.178 1786.951 Core LO31CAPE South Africa -98351.205 -2860899.178 1786.951 Core LO31CAPE South Africa -98349.945 -2860899.93 1786.971 Core LO31CAPE	Core LO31CAPE South Africa -97807.241 -2860870.323 1781.339 11.53 Core LO31CAPE South Africa -97767.024 -2860840.469 1780.962 10.05 Core LO31CAPE South Africa -98178.725 -2860800.348 1783.15 8.01 Core LO31CAPE South Africa -98120.431 -2860719.986 1781.137 11.58 Core LO31CAPE South Africa -98094.513 -2860675.631 1781.348 11.47 Core LO31CAPE South Africa -98068.488 -2860632.799 1781.597 11.48 Core LO31CAPE South Africa -98044.997 -2861261.827 1790.698 23.55 Core LO31CAPE South Africa -97846.812 -2860792.366 1781.64 11.52 Core LO31CAPE South Africa -98351.205 -2860899.178 1786.951 34.71 Core LO31CAPE South Africa -98349.945 -2860899.918 1786.951 34.71 <tr< td=""><td>Core LO31CAPE South Africa</td></tr<>	Core LO31CAPE South Africa

Hole Name	Hole Type	Datum	Grid	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Azimuth	Dip
PS380JT106	Core	LO31CAPE	South Africa	101531.568	-2846521.124	1911.872	32.08	0	-90
PS380JT107	Core	LO31CAPE	South Africa	101342.771	-2847214.079	1924.739	39.7	0	-90
PS380JT108	Core	LO31CAPE	South Africa	100966.33	-2846993.412	1925.289	38.73	0	-90
PS380JT109	Core	LO31CAPE	South Africa	100396.642	-2847130.05	1906.314	86.95	0	-90
PS380JT110	Core	LO31CAPE	South Africa	100597.944	-2847082.894	1908.052	83.15	0	-90
PS380JT111	Core	LO31CAPE	South Africa	100736.288	-2847011.92	1912.765	74.26	0	-90
PS380JT112	Core	LO31CAPE	South Africa	100658.917	-2847299.512	1913.287	63.29	0	-90
PS380JT113	Core	LO31CAPE	South Africa	100710.175	-2847524.087	1912.893	59.32	0	-90
PS380JT114	Core	LO31CAPE	South Africa	101443.709	-2847016.993	1911.844	20.54	0	-90
PS380JT115	Core	LO31CAPE	South Africa	100815.278	-2847597.201	1918.153	56.6	0	-90
PS380JT116	Core	LO31CAPE	South Africa	100669.958	-2847735.945	1913.629	56.11	0	-90
PS380JT117	Core	LO31CAPE	South Africa	100954.875	-2847516.216	1923.479	51.84	0	-90
PS380JT118	Core	LO31CAPE	South Africa	100775.822	-2847969.744	1912.239	56.28	0	-90
PS380JT119	Core	LO31CAPE	South Africa	100563.986	-2848175.838	1895.664	38.1	0	-90
PS380JT120	Core	LO31CAPE	South Africa	100750.944	-2848185.774	1906.916	52.26	0	-90
PS380JT121	Core	LO31CAPE	South Africa	100144.552	-2847777.639	1882.371	32.24	0	-90
PS380JT122	Core	LO31CAPE	South Africa	100209.244	-2847495.265	1886.824	37.75	0	-90
PS380JT123	Core	LO31CAPE	South Africa	100486.52	-2847649.243	1901.264	46.65	0	-90
PS380JT124	Core	LO31CAPE	South Africa	100461.489	-2847484.357	1898.487	42	0	-90
PS380JT125	Core	LO31CAPE	South Africa	100482.12	-2847928.294	1900.14	37.74	0	-90
PS380JT126	Core	LO31CAPE	South Africa	100338.694	-2848163.691	1884.467	28.2	0	-90
PS380JT127	Core	LO31CAPE	South Africa	100641.68	-2848333.839	1898.574	46.54	0	-90

Hole Name	Hole Type	Datum	Grid	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Azimuth	Dip
PS380JT128	Core	LO31CAPE	South Africa	100428.887	-2848367.389	1885.812	46.74	0	-90
PS380JT129	Core	LO31CAPE	South Africa	100148.711	-2847022.164	1898.646	53.45	0	-90
PS380JT130	Core	LO31CAPE	South Africa	100999.879	-2846500.011	1915.957	73	0	-90
PS380JT131	Core	LO31CAPE	South Africa	101042.427	-2846015.423	1894.487	37.6	0	-90
PS380JT132	Core	LO31CAPE	South Africa	100490.635	-2846066.341	1882.563	49.24	0	-90
PS380JT133	Core	LO31CAPE	South Africa	100500.685	-2846510.292	1892.387	57.6	0	-90
PS380JT134	Core	LO31CAPE	South Africa	99525.405	-2846506.244	1886.643	69.9	0	-90
PS380JT135	Core	LO31CAPE	South Africa	99961.874	-2846474.44	1884.312	60.15	0	-90
PS380JT136	Core	LO31CAPE	South Africa	102003.426	-2846488.291	1901.862	22.9	0	-90
PS380JT137	Core	LO31CAPE	South Africa	102501.53	-2846499.027	1904.556	21.34	0	-90
PS380JT138	Core	LO31CAPE	South Africa	102387.036	-2846026.4	1891.323	31.07	0	-90
PS380JT139	Core	LO31CAPE	South Africa	101979.124	-2846006.786	1890.45	20.95	0	-90
PS380JT140	Core	LO31CAPE	South Africa	101517.7	-2846012.62	1892.991	24.49	0	-90
PS380JT141	Core	LO31CAPE	South Africa	101989.752	-2845503.988	1883.721	22.19	0	-90
PS380JT142	Core	LO31CAPE	South Africa	102623.95	-2845495.856	1881.941	22.49	0	-90
PS380JT143	Core	LO31CAPE	South Africa	102444.321	-2845014.752	1873.66	20.67	0	-90
S380JT144	Core	LO31CAPE	South Africa	102000.454	-2845000.332	1886.625	21.67	0	-90
S380JT145	Core	LO31CAPE	South Africa	101729.727	-2846041.498	1887.744	22.21	0	-90
°S380JT146	Core	LO31CAPE	South Africa	101643.139	-2845893.068	1887.455	22.65	0	-90
°S380JT147	Core	LO31CAPE	South Africa	101567.012	-2845961.609	1890.31	21.32	0	-90
PS380JT148	Core	LO31CAPE	South Africa	101573.119	-2846018.599	1890.775	26.13	0	-90
PS380JT149	Core	LO31CAPE	South Africa	101383.277	-2846151.092	1900.921	37.05	0	-90

Hole Name	Hole Type	Datum	Grid	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Azimuth	Dip
PS380JT150	Core	LO31CAPE	South Africa	101449.748	-2845964.379	1895.37	26.02	0	-90
PS380JT151	Core	LO31CAPE	South Africa	100994.04	-2846247.48	1897.62	53.22	0	-90
PS380JT152	Core	LO31CAPE	South Africa	100777.04	-2845973.41	1880.28	41.72	0	-90
PS380JT153	Core	LO31CAPE	South Africa	100797.74	-2845841.43	1882.37	46.44	0	-90
PS380JT154	Core	LO31CAPE	South Africa	100752.46	-2846263.12	1893.45	58.15	0	-90
PS380JT155	Core	LO31CAPE	South Africa	100540.44	-2846278.43	1891.36	56.33	0	-90
PS380JT156	Core	LO31CAPE	South Africa	100237.51	-2846244.83	1875.31	41.79	0	-90
PS380JT157	Core	LO31CAPE	South Africa	100476.54	-2845758.59	1869.88	37.93	0	-90
PS380JT158	Core	LO31CAPE	South Africa	99744.06	-2846007.2	1873.38	42.76	0	-90
PS380JT159	Core	LO31CAPE	South Africa	99498.98	-2846246.09	1878.97	47	0	-90
PS380JT160	Core	LO31CAPE	South Africa	100252.55	-2845993.17	1876.79	44.3	0	-90
PS380JT161	Core	LO31CAPE	South Africa	100168.41	-2845758.98	1868.18	35.39	0	-90
PS380JT162	Core	LO31CAPE	South Africa	100247.82	-2845546.28	1857.18	29.77	0	-90
PS380JT163	Core	LO31CAPE	South Africa	100014.08	-2845748.21	1860.15	29.52	0	-90
PS380JT164	Core	LO31CAPE	South Africa	99749.88	-2846499.59	1888.5	62.6	0	-90
PS380JT165	Core	LO31CAPE	South Africa	99747.4	-2846749.21	1895.96	71.13	0	-90
PS380JT166	Core	LO31CAPE	South Africa	100001.41	-2846748.56	1893.95	60.06	0	-90
PS380JT167	Core	LO31CAPE	South Africa	100170.8	-2846782.42	1888.42	47.7	0	-90
PS380JT168	Core	LO31CAPE	South Africa	100250.11	-2847247.73	1894.72	62.1	0	-90
PS380JT169	Core	LO31CAPE	South Africa	100517.54	-2846992.26	1896.41	59.58	0	-90
PS380JT170	Core	LO31CAPE	South Africa	100724.03	-2846511.35	1908.8	71.02	0	-90
PS380JT171	Core	LO31CAPE	South Africa	100500.7	-2846748.49	1893.37	53.02	0	-90

Hole Name	Hole Type	Datum	Grid	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Azimuth	Dip
PS380JT172	Core	LO31CAPE	South Africa	100283.98	-2846487.31	1881.31	40.78	0	-90
PS380JT173	Core	LO31CAPE	South Africa	100991.6	-2846724.55	1918.52	62.24	0	-90
PS380JT174	Core	LO31CAPE	South Africa	100754.03	-2846748.51	1912.24	71.35	0	-90
PS380JT175	Core	LO31CAPE	South Africa	99750.1	-2847000.2	1897.91	70	0	-90
PS380JT176	Core	LO31CAPE	South Africa	99500.05	-2847000.39	1885.69	62.37	0	-90
PS380JT177	Core	LO31CAPE	South Africa	99507.27	-2847262.19	1889.99	64.54	0	-90
PS380JT178	Core	LO31CAPE	South Africa	99751.95	-2847245.22	1896.16	68.62	0	-90
PS380JT179	Core	LO31CAPE	South Africa	99999.85	-2846999.8	1901.19	63.59	0	-90
PS380JT180	Core	LO31CAPE	South Africa	99249.48	-2846750.38	1883.82	58.4	0	-90
PS425JS101	Core	LO31CAPE	South Africa	99664.066	-2849036.954	1892.983	80.24	0	-90
PS425JS102	Core	LO31CAPE	South Africa	99201.769	-2848855.632	1878.524	71.76	0	-90
PS425JS103	Core	LO31CAPE	South Africa	98671.467	-2848671.423	1858.942	53.48	0	-90
PS425JS104	Core	LO31CAPE	South Africa	98330.033	-2848963.025	1852.888	50.66	0	-90
PS425JS105	Core	LO31CAPE	South Africa	98804.604	-2849236.347	1870.26	65.46	0	-90
PS425JS106	Core	LO31CAPE	South Africa	99074.42	-2848303.415	1836.109	20.57	0	-90
PS425JS107	Core	LO31CAPE	South Africa	99337.016	-2847967.973	1844.288	29.67	0	-90
PS425JS108	Core	LO31CAPE	South Africa	99704.742	-2847543.317	1881.965	62.86	0	-90
PS425JS109	Core	LO31CAPE	South Africa	99982.767	-2847134.298	1900.286	70.1	0	-90
PS425JS110	Core	LO31CAPE	South Africa	99495.026	-2846835.091	1886.766	67.57	0	-90