

#### 21 August 2018

### **Pardoo Diamond Drilling to Commence**

- PRC10B drilled to 146m before being abandoned due to RC drilling difficulties
- PRC10B encountered disseminated to semi-massive sulphides from 134m-144m. This is interpreted to be the intersection of the upper target (vertical FLTEM plate model)
- PRC10B was abandoned approximately 40m from the lower target (shallow dipping FLTEM plate model)
- Last 2m interpreted as a lithology change to mafic volcanic
- Follow-up Diamond Drilling to commence in approximately two weeks

Caeneus Minerals Ltd (ASX: CAD) (or "the Company") provides the following update of the recently commenced RC drilling campaign at the Pardoo Supply Well Project (announcement 10 August 2018).

### **Drilling Update**



Figure 1. Pardoo RC drilling 13 August 2018

The first RC hole (PRC10B) was abandoned at 146m due to lost drilling equipment as a result of paleochannel running sands and water incorporated with large cobble stones. Due to these difficulties diamond drilling is required to test the target.



The RC drilling (PRC10B) intersected what is interpreted to be the vertical FLTEM plate model (modelled at 2,000 - 3,000 Siemens; refer ASX Announcement 6 August 2018) at ~134m and ending at ~144m. This zone was logged as having >20% pyrite and the plate is consistent with disseminated to semi-massive sulphides (pyrite). The observed pyrite is fairly massive to moderately foliated and associated with thin zones of more intense silica and/or silica-sericite alteration.

The target (flat lying and modelled at 10,000 to 14,000+ Siemens) is at a depth of 175m to 200m based on FLTEM plate modelling and remains untested, making it a priority for immediate drill testing.

The upcoming diamond drilling campaign will test the target as shown in figure 2 below.

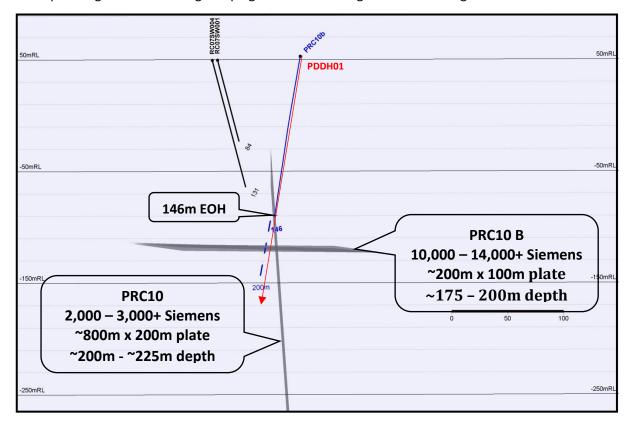


Figure 2. Caeneus RC drill hole in blue (PRC10B) showing planned depth and depth hole had to be abandoned. FLTEM plate models also shown (refer ASX Announcement 6 August 2018).

A change in geology was observed from 144 to 146m (EOH). Hand held magnetic susceptibility readings greatly increased from an average of below 20 to approximately 2,000 x 10-3 SI. A change in sulphide species from pyrite to pyrite + pyrrhotite was also observed, with assay required to confirm the sulphides present due to their fine grained, disseminated and stringer nature.

The total sulphide content in these two metres was estimated to be between 10 and 20%, again the fine grained nature of the minerals makes more definitive estimation difficult.

The new geological unit was logged as a mafic volcanic however the entire lithological sequence is fine grained, highly deformed as well as altered making lithological identification difficult. Thin (<1m) graphitic units were observed in logging however these are not in sufficient abundance to explain the response in the EM survey.



Samples have been submitted to ALS Global for analysis for a full suite of elements (method ME-MS61 and PGM-ICP24). 4m composites were taken from the entire hole with a 2m and a single 1m EOH sample also selected. Any 4m samples that return values of interest will have the corresponding 1m samples collected from storage and sent for analysis.

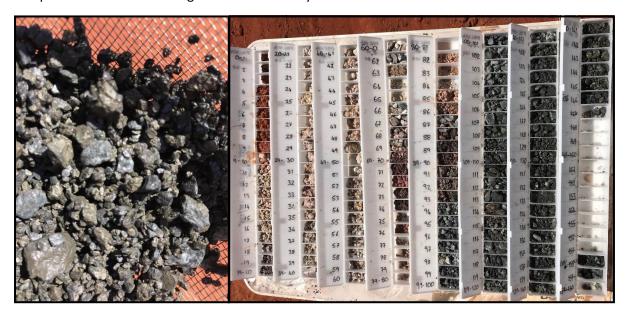


Figure 3. Sieved RC chips from 130m (left) & PRC10B 1m to 146m EOH (right)

### **Capital Raising**

For the purpose of funding the above diamond drilling program and provide ongoing working capital, the board of the Company has resolved to undertake a private placement to issue 1,170,924,212 shares at a price of \$0.0005 with an attaching 1:1 option \$0.0015 expiring 31 December 2023 to raise \$585,462.

The shares will be issued to exempt investors under section 708 of the *Corporations Act (2001)* (Cth) as soon as the private placement is finalised utilising the Company's capacity under ASX Listing Rule 7.1. The attaching 1:1 options will be issued at a later date subject to the Company obtaining the necessary shareholder approval.

The Company looks forward to keeping the market updated with progress at the Pardoo Project.

The Company requests the ASX to reinstate it to trading following the release of this announcement.

For and on behalf of the board

Johnathon Busing

**Non-executive Director and Company Secretary** 

#### **Caeneus Minerals Limited**

Visit <u>www.caneus.com.au</u> for additional information including past announcements.



#### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results and Mineral Resources has been compiled under the supervision of Mr Bill Oliver, a consultant to the Company. Mr Oliver is a Member of the Australasian Institute of Mining and Metallurgy and the Australasian Institute of Geoscientists. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Oliver consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

#### Forward Looking Statements Disclaimer

This announcement contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

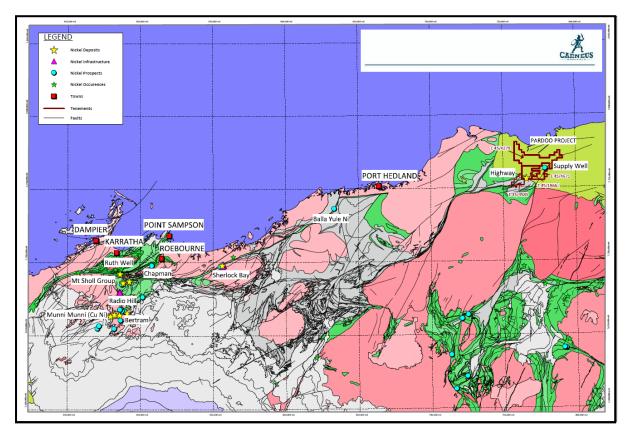


Figure 4. Caeneus tenure location, structure/geology and other known nickel/copper/cobalt deposits.



#### **About Pardoo**

The Company's Pardoo Highway Ni/Cu/Co deposit is situated in a similar structural setting, adjacent to the major regional Tabba Shear Zone which extends for some ~150km and is well endowed with multiple hydrothermal shear related gold deposits also, most notably De Grey Mining's (ASX: DEG) Indee Gold deposits' as well as other significant Pilbara based nickel-copper occurrences such as Radio Hill and Sherlock Bay (Figure 3) and is considered highly prospective for magmatic and shear-hosted nickel, copper and cobalt sulphide mineralisation.

The geology of the Pardoo Project is complex with package of deformed, sheared metasediments, metabasalts and other mafic lithologies. Historical reports accessed via the open file WAMEX system has recorded potential conductive sources including both sulphide-bearing intervals and shale units with anomalous nickel and zinc results being reported (Weir, 1990; Weir, 1991; Haederle et. al., 1992).

The Pardoo Projects are ideally located 90km east north-east of Port Headland Western Australia with the Great Northern Highway dissecting the Company's tenement package. The Highway deposit lies only 900m from the highway. The project area covers 434 square kilometres of prospective tenure.



**Appendix 1** Caeneus Minerals Limited – Pardoo Project – Drilling JORC CODE 2012.

### **Section1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling technique	<ul> <li>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 XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</li> <li>Aspects of the determination of mineralisation that are material to the Public report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was 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.</li> </ul>	<ul> <li>The Pardoo RC drilling using standard techniques – face sampling hammer and 5 ½" drill bit. One drill hole of six planned partly completed to 146m, planned depth was 250m for this hole (PRC10B). The drill hole collar at this stage of exploration was surveyed using a handheld GPS, with standard accuracy of +/- 5metres. Down hole surveys using a gyroscope.</li> <li>Samples taken every 1m utilising a cone splitter to produce sub sample (retained and stored) and bulk sample (placed on ground for logging and composite sampling)</li> <li>Cyclone cleaned every rod and also when blocked</li> <li>Composite 4m samples taken by spear sampling and submitted to laboratory.</li> <li>Composite sampling will solely be used to determine intervals for submission of 1m samples.</li> <li>No analytical results are presented in this release.</li> </ul>
Drilling techniques	Drill type (e.g. core, reverse circulation, openhole 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.).	Reverse circulation drilling using face sampling hammer



Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed</li> <li>Measurements taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	•	RC recovery was assessed by subjective assessment based on volume recovered. RC recoveries were observed to be generally acceptable with recoveries typically 80% or greater. RC recovery information is recorded in the geologist logs and entered into the database. RC sample recoveries were visually checked for recovery, moisture and contamination. The cyclone and splitter were routinely cleaned to minimise material build-up.  No analysis results so relationship with recovery unknown at this preliminary stage
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	JORC Code explanation	Commentary
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged</li> </ul>	<ul> <li>Drill chips logged geologically on 1m intervals and combined into intervals based on geological contacts</li> <li>Logging is both qualitative (lithology, weathering, alteration) and quantitative (% sulphides, veining)</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and wether quarter, half or all core taken.</li> <li>If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	No analysis results presented



Quality of	•	The nature, quality and appropriateness of	•	No analysis results presented
assay data		the assaying and laboratory procedures used		
and		and whether the technique is considered		
laboratory		partial or total.		
tests	•	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.		



	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No analysis results are presented so not applicable.</li> <li>Data collected on site and entered into Excel spreadsheets by geologist technician daily. Emailed back to Company regularly.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resources estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Holes have been located using handheld GPS with an accuracy of +/- 5 metres.</li> <li>Topographic control is based on topographic data derived from public data.</li> <li>All data is collected in MGA94 Zone 50 and these coordinates are used in diagrams shown.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Reserve and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	Data is not regularly spaced, as holes are testing geophysical targets
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	Drilling oriented perpendicular to modelled geophysical targets.     Relationship to stratigraphy not well understood – certain targets parallel to stratigraphy, others crosscut stratigaphy. Drilling results will aid further interpretation.



	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	No drilling results presented so not applicable.
Audits or reviews	The results of and audits or reviews of sampling techniques and data.	No audits have been undertaken at this time.

### **Section2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenements and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interest, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	Tenement E 45/4585, E 45/1866-I and E45/4671. Pilbara mineral field. The tenement is 100% held by Caeneus Minerals Ltd The tenure is secure and in good standing at the time of writing
Exploration done by other parties	Acknowledgement and appraisal of exploration by other parties.	The Pardoo Nickel Project was explored by CRA Exploration Pty Ltd (CRAE), Segue resources (Segue) and Mithril Resources (Mithril). Previous exploration has primarily focused in the known Highway deposit with drilling completed by CRAE, Segue and Mithril along with various geophysical surveys. Caeneus is currently exploring the Supply Well prospect located 20km East of Highway. CRA Exploration Pty Ltd carried out numerous RC and diamond drilling campaigns at Supply Well targeting geophysics anomalies generated in the late 1980,s and early 1990's. Segue also detected geophysical anomalies in their exploration however drilling was unsuccessful at reaching target depths.
Geology	Deposit type, geological settings and style of mineralisation.	Caeneus Minerals is exploring primarily for magmatic hosted Ni-Cu sulphide.
Drill hole information	A summary of all information material for the understanding of the exploration results	No analysis results presented so not applicable



<ul> <li>including a tabulation of the following</li> <li>information for all Material drill holes:</li> <li>Easting and northing of the drill hole</li> <li>collar</li> <li>Elevation or RL (Reduced level-elevation above sea level in metres) and the drill hole collar</li> <li>Dip and azimuth of the hole</li> </ul>
<ul> <li>Down hole length and interception</li> </ul>
depth
<ul> <li>Hole length</li> </ul>



Criteria	JORC Code explanation	Commentary
	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.	
Data aggregation methods	<ul> <li>In reporting Exploration results, weighing averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No analysis results presented so not applicable
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known')</li> </ul>	No analysis results presented so not applicable
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts would be included for any significant discovery being reported. These should include, but not be limited too plan view of drill hole collar locations and appropriate sectional views.	Appropriate plans have been included in the body of the report



Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No drilling results presented so not applicable
Criteria Other	Other exploration data, if meaningful and	Commentary     Historical exploration by other
substantive exploration data	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 containing substances.	parties included drilling and geophysical surveys. The company has access to this data and is utilising it in designing its exploration programmes. The Company announced on the 26th July that its High Powered Fixed Loop Electromagnetics (FLEM) survey was complete. Final processing and modelling conducted by Southern Geoscience has confirmed the presence of 7 previously untested conductors within historic (2006) Versatile Time-Domain Electromagnetic (VTEM) targets. The VTEM targets were generated from a survey in September 2006 and have attracted previous surface EM surveys and drilling campaigns. The latest High Power FLEM survey completed by Vortex Geophysics outdates historic EM systems used in the Pardoo Project area as the latest ground EM technology has significantly higher power and signal to noise ratio. As a result the latest survey has better defined the bedrock conductors and enabled more robust plate models to be designed for forthcoming drill testing. Current work is focussing on



		integrating historical geological information with the EM plate models to rank their prospectivity.
Further work	<ul> <li>The nature and scale of planned further work         (e.g. tests for lateral extensions or depth         extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of         possible extensions, including the main         geological interpretations and future drilling         areas, providing this information is not         commercially sensitive.</li> </ul>	Further work will be the commencement of diamond drilling replacing the RC drill rig. It is anticipated that the surface paleochennel material will be cased off and core (HQ & NQ) will be collected from fresh rock at approximately 70 meters. Down hole guyro surveys will be utilised throughout the diamond hole to track its path so that the optimum target is reached. Down hole geophysics (DHEM) will be completed at the end of each hole, either to map discovered mineralisation or to map if the DHEM response is off the drilled hole.