RED HILL MINERALS Limited

ASX: RHI 27 September 2023

RC DRILLING INTERSECTS GOLD MINERALISATION AT THE BARKLEY GOLD TARGET

Highlights

Assays results have been received from a 4 hole 783m RC drilling program at the Barkley Gold and VTEM targets. Best results include:

23BKRC004

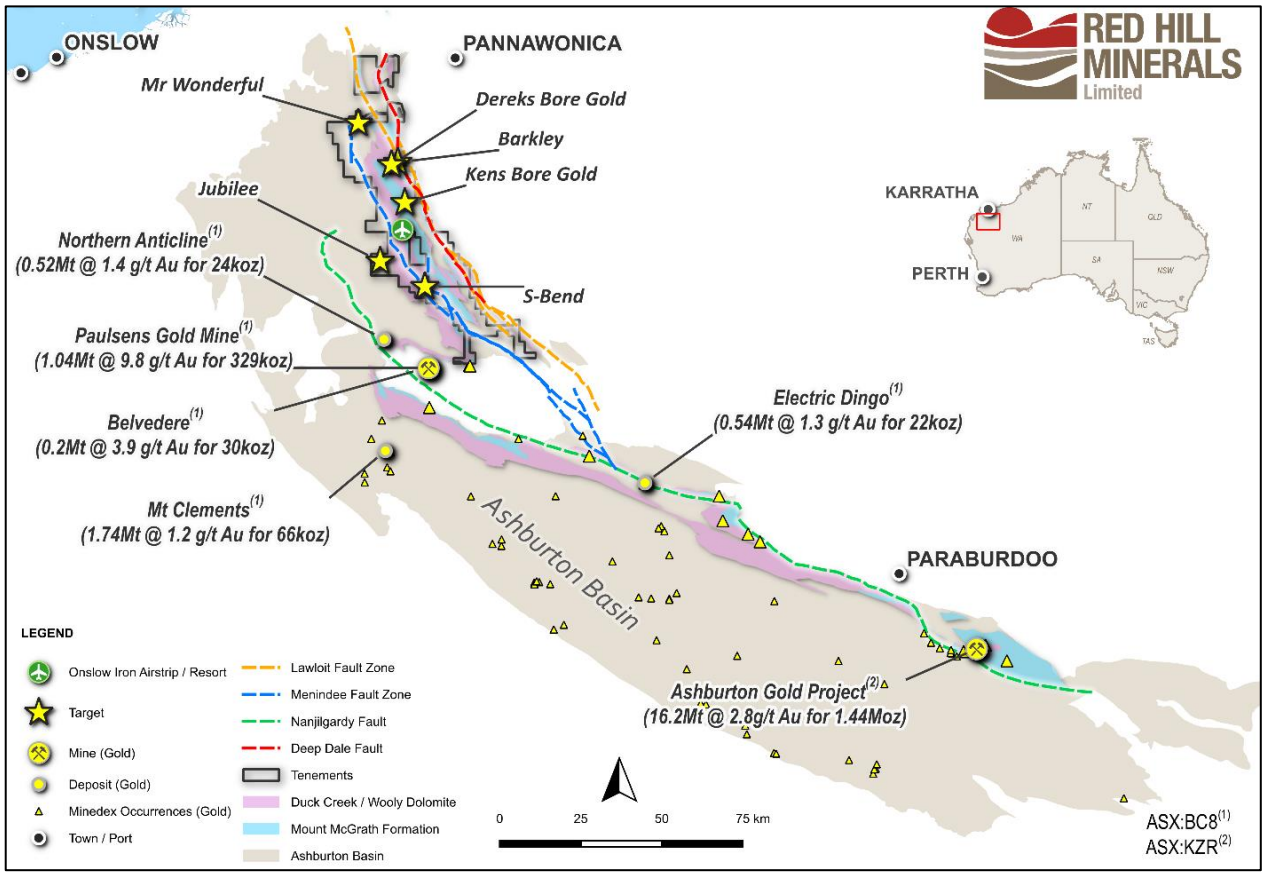
- 1 metre at 0.9 grams per tonne gold from 77 to 78 metres and
- 1 metre at 0.5 grams per tonne gold from 83 to 84 metres.

23BKRC005

- 3 metres at 1.8 grams per tonne gold from 19 to 22 metres and
- **4 metres at 3.7 grams per tonne gold from 90 to 94 metres including 2 metres at 6.4 grams per tonne gold from 91 to 93 metres.**

The significant gold intersection in 23BKRC005 is interpreted to be associated with a steeply South West dipping fault related to the regional scale Deepdale Fault (Figure 1 and Figure 2) and mineralisation remains open. Follow up RC drilling is currently being planned and scheduled to commence in November 2023.

Figure 1: Red Hill Minerals Location Plan.



Address
Level 2, 9 Havelock Street
West Perth WA 6005

Postal Address
PO Box 689
West Perth WA 6872

P (08) 9481 8627
E redhillinfo@redhillminerals.com.au
W www.redhillminerals.com.au
ABN 44 114 553 392

The Barkley gold target is located proximal to the major North West trending Deepdale Fault which separates stratigraphy of the Hammersley and Ashburton Basins (Figure 1 and Figure 2).

The target area was defined by a series of second and third order VTEM anomalies and significant historic drilling results which include[3]:

- 2 metres at 1.39 grams per tonne gold from 31 metres in SRC004,
- 1 metre at 1.58 grams per tonne gold from 13 metres in SRC005, and
- 4 metres at 0.12% copper from 12 metres in SRC006.

During the quarter two RC holes for 400 metre**s (23BKRC004 to 23BKRC005)** were completed to follow up and test for potential depth extensions of the anomalous gold in historical drilling results from SRC004 and SRC005.

Hole **23BKRC004** intersected 1 metre at 0.9 grams per tonne gold from 77 to 78 metres and 1 metre at 0.5 grams per tonne gold from 83 to 84 metres, associated with weak silica-pyrite alteration in unoxidized black siltstones of the Mt McGrath Formation.

Hole **23BKRC005** intersected 3 metres at 1.8 grams per tonne gold from 19 to 22 metres in a supergene zone, and 4 metres at 3.7 grams per tonne gold from 90 to 94 metres (including 2 metres at 6.4 grams per tonne gold from 91 to 93 metres) in moderate silica-pyrite alteration in unoxidized black siltstones of the Mt McGrath Formation (Figure 3). The lower mineralised zone is interpreted to be related to a steeply South West dipping fault related to the major North West striking Deepdale Fault.

Follow-up of these significant gold results will include geological mapping, Ultrafine soil sampling and a further RC drilling program in November 2023 of 5 holes for approximately 750m to test the interpreted structure over a strike length of approximately 750m.

No anomalous intercepts were received from the Barkley VTEM base metal drill targets further to the North (23BKRC002 and 23BKRC003).

Authorised by the Board.

Michael Wall
CHIEF EXECUTIVE OFFICER

References

[1] Refer Black Cat Syndicate Limited ASX Release "Robust Restart Plan for Paulsens" Announcement dated 10 July 2023.
[2] Refer Kalamazoo Resources Limited ASX Release "Independent Mineral Resource Estimate Ashburton Gold Project" Announcement dated 07 February 2023.
[3] Refer Red Hill Minerals ASX Release "Base and Precious Metals Exploration Drilling Results" Announcement dated 20 October 2022.

Figure 2: Gold Results from RC Drilling at the Barkley Prospect and Proposed Soil Sample Locations.

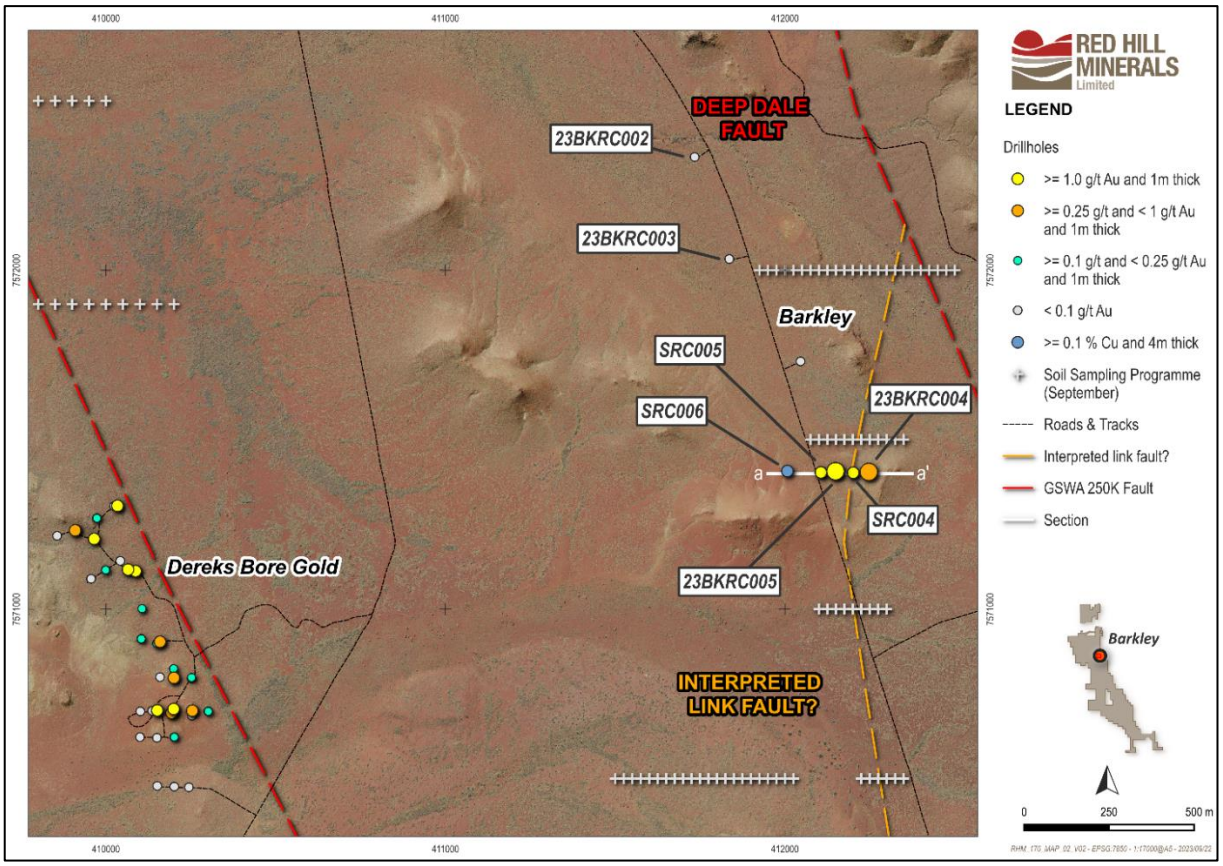


Figure 3: Geological Cross Section (a-a`) at the Barkley Prospect (Looking North).

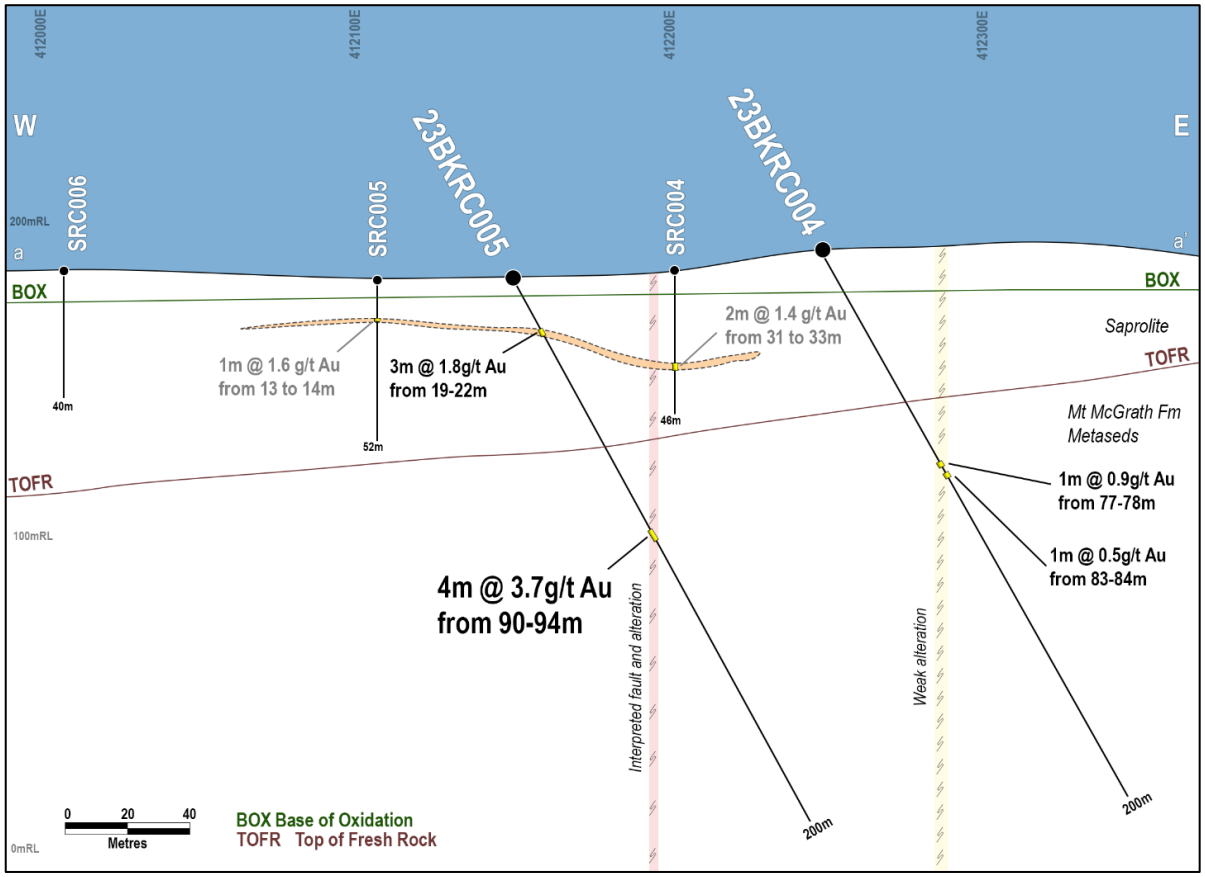


Table 1: Summary of RC Drill Hole Collars.

Hole ID	Target	Easting	Northing	RL (mAHD)	Dip	Azimuth	Total Depth (m)
23BKRC002	Barkley VTEM	411734	7572334	177.61	-60	90	233
23BKRC003	Barkley VTEM	411836	7572033	179.56	-60	90	150
23BKRC004	Barkley Gold	412247	7571405	191.64	-60	90	200
23BKRC005	Barkley Gold	412214	7571407	186.77	-60	75	200

Table 2: Summary of Significant RC Drill Hole Assay Intersections (Gold ≥ 0.5 grams per tonne).

Hole ID	Target	Depth From (m)	Depth To (m)	Width (m)	Au g/t	Gold Intercept	Comments
23BKRC002	Barkley VTEM	NSI					
23BKRC003	Barkley VTEM	NSI					
23BKRC004	Barkley Gold	77	78	1	0.92	1m @ 0.9g/t Au	Primary
		83	84	1	0.49	1m @ 0.5g/t Au	
23BKRC005	Barkley Gold	19	20	1	0.84	3m @ 1.8g/t Au	Supergene
		20	21	1	2.49		
		21	22	1	2.17		
		90	91	1	1.2	4m @ 3.7g/t Au	Primary
		91	92	1	7.37		
		92	93	1	5.51		
		93	94	1	0.58		

Notes: g/t (grams per tonne). Gold (Au) intercept grade rounded to 1 decimal place
NSI = No significant Intersections

Competent Person Statement

The information in this report that relates to exploration activities is based on information compiled by Mr Michael Wall, Chief Executive Officer, Red Hill Minerals Limited who is a Member of the Australian Institute of Mining and Metallurgy. Mr Wall is a full-time employee of Red Hill Minerals Limited. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined by the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Wall consents to the report being issued in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1 Report

Section 1 Sampling Techniques and Data.

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	RC assays in this report were sampled at 1m intervals using a cone splitter from which a 3-4kg sample was obtained. Sample weight, quality, collection method and condition are logged at the time of collection and reported with the available data.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	RC Drilling was completed by Hagstrom Drilling. RC holes were drilled using a 5¾ inch face sampling hammer.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures are taken to maximise sample recovery and ensure the 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.*	Sample recovery was recorded by Geologists during logging. The cyclone used in the RC program was cleaned at the end of each 6m completed rod, and in between drill holes to minimise sample contamination. No association between lessened core/chip recovery and mineralised zones has been established at this time.
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.*	Chip samples were geologically logged for the entire length of the drillhole. Logging is both qualitative or semi-quantitative in nature. No Mineral Resource estimate being reported. Sample spoil piles and chip trays were photographed.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise the 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.*	RC samples were collected in pre-labelled calico bags via a cone splitter mounted directly below the cyclone on the rig (at 1m intervals). Wet and dry samples were collected via the same technique. 6m composite samples were collected initially for analysis, and significant zones (generally >0.1g/t Au) were resampled using the 1m samples from the cone splitter. Samples were stored on site prior to being transported to the laboratory. Wet samples were allowed to dry before being processed. All samples were appropriate for the grain size of the material being collected. Samples were sorted, dried and weighed at the laboratory where they were then crushed and riffle split to obtain a sub-fraction for pulverisation. Field duplicates were collected and certified reference material (CRM) data was submitted with drill samples. These were done at an approximate rate of one in 50 samples each.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Gold analysis was done using either 500g Photon Assay technique, or a 30g Fire Assay and ICP-AES finish. Laboratory QAQC data is requested by the company as part of QAQC processes. Field duplicates were collected and certified reference material (CRM) data was submitted with drill samples. These were done at an approximate rate of one in 50 samples each.

Criteria	JORC Code explanation	Commentary
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 adjustments to assay data.*	Some verification of significant intersections and sampling/assaying has occurred with the re-assaying of 6m composites at 1m intervals. Twinned holes are not required at this early stage. Assay data results are sent electronically in csv and pdf format from the laboratory to the Company.
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.*	All drill holes are initially surveyed by handheld GPS Drill hole collar coordinates were verified in GIS utilising aerial photography and track file data as part of QA/QC procedures. Downhole surveys were completed using a gyroscope at the completion of each drill hole. Topographic coverage of all the Company's projects has been covered by aerial survey (LIDAR) with a vertical accuracy of ±0.15 m. Drillhole collars/rock chip samples only picked up with GPS accuracy have been draped onto the topographic LIDAR data which is considered more accurate for RL; the eastings and northings were not changed. Historic collars surveyed by DGPS methods have not been draped onto topography. Company projects fall within the MGA Zone 50 (GDA 2020 based) for horizontal data and AHD for vertical data. No Mineral Resource estimate is being reported.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	Drilling has been completed on variable spacing. Drilling is considered early stage and spacing is variable due to the first pass assessment of the area being reported. Drill data spacing and distribution is not sufficient to establish a Mineral Resource estimate. Drill hole compositing has not been applied to results reported.
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.*	Drill holes were attempted to be oriented across strike where known, however in areas of cover, strike orientations were assumed. Initial exploratory holes are drilled perpendicular to mineralisation if known, otherwise holes were drilled vertical or at varying angles to determine stratigraphy and mineralisation.
Sample security	• *The measures taken to ensure sample security.*	Samples were kept onsite until taken to transport depot for dispatch to the lab. A consignment number was used and the samples delivered directly to an analytical lab.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	No audits or reviews have been completed on sampling techniques.

Section 2 Reporting of Exploration Results.

Criteria	JORC Code explanation	Commentary
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.*	The drillholes reported in this announcement are located on Red Hill Iron Ore Joint Venture (RHIOJV) tenure of which the Company owns 100% of all mineral rights other than iron ore. Iron ore rights are held by the RHIOJV. No royalties are payable (other than WA Government). No other known impediments exist to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Gold and Base metal mineral exploration has been conducted in the area since late last century resulting in the discovery and extraction of small scattered high grade copper occurrences near Red Hill, Rundle Hill and lead near Urandy Bore. More recently, Allied Minerals, BP-Seltrust, Sipa Resources, MIM, Pasminco, Western Mining, Aberfoyle, Goldfields, Poseidon, Mines Resources Australia and Chalice Gold conducted reconnaissance exploration for gold and base metals over extensive tracts of the lower Wyloo Group. Valiant Consolidated and CRA explored for manganese. Limited drilling for gold and base metals was conducted in several areas, but no economic intersections for the time resulted from this exploration.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The project area lies along the western margin of the Hamersley Basin. It is dominated by the Proterozoic Ashburton Basin, consisting of the sedimentary succession belonging to the Mt Minnie Beds, the Ashburton Formation, and the volcano–sedimentary successions comprising the lower Wyloo Group which unconformably overlies the Hamersley Basin sequences. The area has potential for economic concentrations of gold and base metals. The lower Wyloo Group and the contact zone between the Ashburton and Hamersley Basins comprise the Paraburdoo Hinge Zone, which contains numerous base metal occurrences in the Ashburton Basin some of which is associated with the deep-seated, mantle-tapping faulting/fault splays associated with the Nanjilgardy Fault system. It is believed these deep-seated faults/splays transect the project area as identified from RHI interpretation work and GSWA datasets. Much of the area is undercover and deep weathering, acid leaching and silicification have caused geochemical deletion/suppression of the surface geochemistry.

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.*
		All relevant drill-hole information can be found in Section 1 – “Sampling techniques”, “Drilling techniques”, “Drill Sample Recovery” and the significant intercepts table.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Reported intercepts for the targets discussed in this report are based on the following: ≥1m thick @ >0.5 g/t Au. No upper cuts have been applied. No metal equivalent values are used. Intervals are weighted based on their downhole length.
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').*	Quoted mineralised intercepts are downhole lengths, true widths are not known.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Location maps of reported intercepts are included in 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.*	The accompanying document is considered to be a balanced report with a suitable cautionary note.
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.*	No other material information or data to report.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Further drilling is planned to assess lateral and depth extensions.