

14 November 2016 ASX Code: WCN

# Air-core Drilling Approvals Received-Ironstone Gold Project

## **Key Points:**

- Air core drilling programme approved
- Drilling contract signed
- 2,000 metre drilling programme to commence 21 November 2016
- Drilling will target 340 ppb gold (0.34 g/t gold) gold soil anomaly at surface

White Cliff Minerals Limited ("White Cliff" or the "Company") is pleased to report that statutory approvals have been received to conduct drilling at the Ironstone Gold prospect, part of the Merolia gold project, near Laverton Western Australia.

The Company has signed a drilling contract with Orbit Drilling to conduct 2,000 metres of air core blade and hammer drilling that will target the soil anomaly which occurs at surface and extends over 240 by 180 metre area. The maximum gold value is **340 ppb (0.34 g/t)** which occurs within a halo of +100ppb gold values (figure 1).

The anomaly occurs 190 metres west of recent and historical drilling that intersected 4 metres at **5 g/t** and 0.3 metres at **25 g/t** gold.

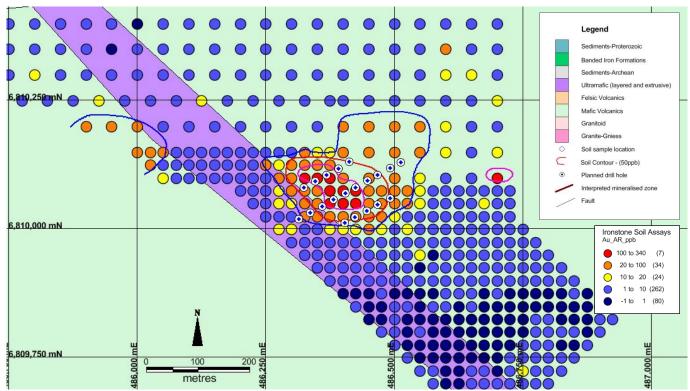


Figure 1: Geology map showing the Ironstone gold soil anomalies and planned air-core drilling locations

Managing Director Todd Hibberd commented that "The upcoming drilling is the culmination of six months of soil sampling and detailed exploration that has identified substantial gold anomalies at Ironstone, Burtville East and Comet Well. The gold anomaly at the Ironstone gold prospect is substantial and very high grade. We believe the Merolia project has great potential for a major gold discovery and this drill program is the first phase of a broader exploration strategy aimed at delivering on that potential."

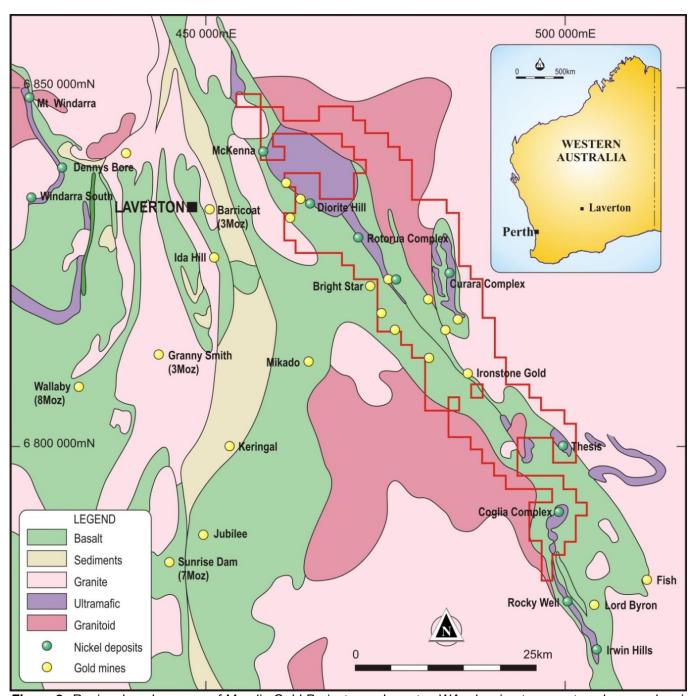


Figure 2: Regional geology map of Merolia Gold Project near Laverton WA, showing tenement package and main gold anomalies.

### The Ironstone Gold Prospect

Drilling in January 2016, followed up historical gold anomalism identified substantial gold mineralisation interpreted to trend north-northwest. To confirm the orientation of mineralisation prior to additional drilling the Company conducted a 407 sample and 151 sample soil geochemical programs that have identified the current bullseye gold anomaly. Drilling will commence later this month.

For further information please contact: www.wcminerals.com.au

Todd Hibberd Managing Director +61 8 9321 2233

### **About White Cliff Minerals Limited**

White Cliff Minerals Limited is a Western Australian based exploration company with the following projects:

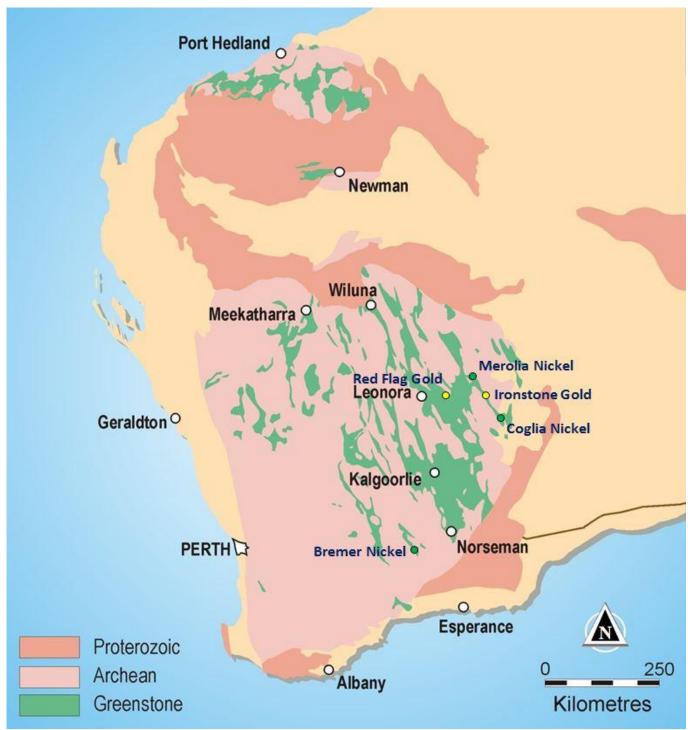
Chanach Copper-Gold Project (89%): The Project contains extensive porphyry related gold and copper mineralisation starting at the surface and extending over several kilometres. Drilling during 2014 has defined a major gold discovery with an initial inferred resource of 1.15Mt at 4.2 g/t containing 156,000 ounces of gold Drilling has also defined a significant copper deposit at surface consisting of 10Mt at 0.41% copper containing 40,000 tonnes of copper. Drilling in 2015 identified extensions of the known mineralisation over an additional 900 metres of strike with multiple intersections greater than 1 ounce per tonne (31.1 g/t) gold. Extensive mineralisation occurs around both deposits demonstrating significant expansion potential. The project is located in the Kyrgyz Republic, 350km west-southwest of the capital city of Bishkek and covers 83 square kilometres. The Chanach project is located in the western part of the Tien Shan Belt, a highly mineralised zone that extending for over 2,500 km, from western Uzbekistan, through Tajikistan, Kyrgyz Republic and southern Kazakhstan to western China.

**Merolia Project (100%):** The project consists of 771 square kilometres of the Merolia Greenstone belt and contains extensive ultramafic sequences including the Diorite Hill layered ultramafic complex, the Rotorua ultramafic complex, the Coglia ultramafic complex and a 51 kilometre long zone of extrusive ultramafic lava's. The Intrusive complexes are prospective for nickel-copper sulphide accumulations possibly with platinum group elements, and the extrusive ultramafic rocks are prospective for nickel sulphide and nickel-cobalt accumulations. The project also contains extensive basalt sequences that are prospective for gold mineralisation including the Ironstone prospect where historical drilling has identified 24m at 8.6g/t gold.

**Bremer Range (100%):** The project covers over 127 square kilometres in the Lake Johnson Greenstone Belt, which contains the Emily Ann and Maggie Hayes nickel sulphide deposits. These mines have a total resource of approximately 140,000 tonnes of contained nickel. The project area has excellent prospectivity for both komatiite associated nickel sulphides and amphibolite facies high-grade gold mineralisation.

**Laverton Gold Project (100%):** The project consists of 136 square kilometres of tenement applications in the Laverton Greenstone belt. The core prospects are Dacian and Jupiter North located 20km southwest of Laverton in the core of the structurally complex Laverton Tectonic zone immediately north of the Granny Smith Gold Mine (3 MOz) and 7 kilometres north of the Wallaby Gold Mine (7MOz).

The Information in this report that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr Todd Hibberd, who is a member of the Australian Institute of Mining and Metallurgy. Mr Hibberd is a full time employee of the company. Mr Hibberd has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the `Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves (the JORC Code)`. Mr Hibberd consents to the inclusion of this information in the form and context in which it appears in this report.



**Tenement Map - Australia** Regional geology and location plan of White Cliff Minerals Limited exploration projects in the Yilgarn Craton, Western Australia

## Appendix 1

The following information is provided to comply with the JORC Code (2012) requirements for the reporting of the Exploration results over the Merolia gold and Nickel project.

### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

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	This ASX Release dated 17 October 2016 reports on exploration results from of the Company's Merolia project area.
	handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling	<b>Soil Sampling:</b> The prospect was sampled by manual scoop sampling on nominal 100m x 50m grid spacing at the Ironstone gold prospect and at nominal 100 by 50m grid for the balance of the survey. A total of 407 samples were collected consisting of 100-200 grams of soil.
		Soil Analysis: Onsite XRF analysis is conducted on the fines from RC chips using a hand-held Olympus Innov-X Spectrum Analyser. These results are only used for onsite interpretation and preliminary base metal assessment subject to final geochemical analysis by laboratory assays.
		RC Sampling: All samples from the RC drilling are taken as 1m samples. Samples are sent to Bureau Veritas Laboratories for assaying. Appropriate QAQC samples (standards, blanks and duplicates) are inserted into the sequences as per industry best practice. Samples are collected using cone or riffle splitter. Geological logging of RC chips is completed at site with representative chips being stored in drill chip trays.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The sample collar locations are picked up by handheld GPS. Soil samples were logged for landform, and sample contamination. Sampling was carried out under standard industry protocols and QAQC procedures
	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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	All samples were analyzed for gold by Aqua-regia digest of a 30 gram sample followed by Inductively Coupled Plasma - mass spectrophotometry.
Drilling Techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, 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).	Reverse Circulation Drilling, 1800CFM/550PSI compressor, with 133mm (5.25 inch) diameter face sampling hammer bit. Industry standard processes
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Calculated volume of 1m RC sample is 36kg based on rock density of 2.6 g/cm3. Sample bags were visually inspected for volume to ensure minimal size variation. Were variability was observed, sample bags were weighed. Sampling was carried out under standard industry protocols and QAQC procedures
	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	No measures have been deemed necessary  No studies have been carried out
Logging	due to preferential loss/gain of fine/coarse material.  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.	Drill samples have been geologically logged and have been submitted for petrological studies. Samples have been retained and stored. The logging is considered sufficient for JORC compliant resource estimations
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) Photography The total length and percentage of the relevant intersections logged.	Logging is considered qualitative  Refer to text in the main body of the announcement
Sub-sampling techniques and	If core, whether cut or sawn and whether quarter, half or all core taken.	Not Applicable- no core drilling was carried out

Criteria	JORC Code Explanation	Commentary
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Samples were riffle split from 35kg down to 3kg. Where samples were too wet to riffle split, samples were tube sampled.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique	Samples were collected using a face sampling hammer which pulverises the rock to chips. The chips are transported up the inside of the drill rod to the surface cyclone where they are collected in one metre intervals. The one metres sample is riffle split to provide a 2.5-3kg sample for analysis. Industry standard protocols are used and deemed appropriate
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples	At this stage of the exploration no sub sampling is undertaken
	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	The whole sample collected is pulverised to 75um in a ring mill and a 200g sub-sample is collected. A 2-30 gram sub sample of the pulverised sample is analysed. Field duplicates are not routinely collected
	Whether sample sizes are appropriate to the grain size of the material being sampled	The sample sizes are considered to be appropriate to correctly represent the sought after mineralisation style
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.	The analytical techniques used Aqua Regia digest multi element suite with ICP/MS finish, suitable for the reconnaissance style sampling undertaken.
	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.	Samples were analysed with a Innovex portable XRF instrument using a 60 second analysis time. Calibration checks were carried out against a nickel standard every 50 samples. Samples were tested three times and the average reading recorded. The standard deviation of the three reading has been recorded
	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	A selection the samples have had the XRF results repeated a second time to verify and elevated samples will be checked against Laboratory analysis. The Laboratory will analyse the samples via Aqua Regia with ICP-MS finish.
Verification of	The verification of significant intersections by either	Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in house procedures.  Significant intersections in drill samples have been
sampling and assaying	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	Not Applicable Primary data was collected using a set of standard Excel templates on paper and re-entered into laptop computers. The information was sent to WCN in-house database manager for validation and compilation into an Access database.
	Discuss any adjustment to assay data	No adjustments or calibrations were made to any assay data used in this report.
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.	Sample locations were recorded using handheld Garmin GPS. Elevation values were in AHD RL and values recorded within the database. Expected accuracy is + or - 5 m for easting, northing and 10m for elevation coordinates.  No down hole surveying techniques were used due to the sampling methods used.
	Specification of the grid system used.	The grid system is MGA_GDA94 (zone 51)
	Quality and adequacy of topographic control.	Topographic surface uses handheld GPS elevation data, which is adequate at the current stage of the project.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The nominal drill sample spacing is 1 metre down hole. Each drill hole targets a specific target so there is no nominal drill spacing
	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.	The mineralised domains have not yet demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resource and Reserves, and the classifications applied under the 2012 JORC Code.
Orientation of data in	Whether sample compositing has been applied.  Whether the orientation of sampling achieves unbiased	Not applicable  The soil sampling method is used to provide a surface

Criteria	JORC Code Explanation	Commentary
relation to geological	sampling of possible structures and the extent to which	sample only.
structure	this is known, considering the deposit type.	
	If the relationship between the drilling orientation and the	No orientation based sampling bias has been identified in
	orientation of key mineralised structures is considered to	the data at this point.
	have introduced a sampling bias, this should be assessed and reported if material	
Sample security	The measures taken to ensure sample security.	Sample security is managed by the Company. Since at
Campic coamy	The modernes raises to should be sainly.	this stage these are field analyses, no sample transit security has been necessary.
Audits of reviews	The results of any audits or reviews of sampling techniques and data.	The Company carries out its own internal data audits. No problems have been detected.

**Section 2 Reporting of Exploration Results** (Criteria listed in the preceding section also apply to this section.)

Criteria	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 sample positions occur is located within Exploration Licenses E38/2727, E38/2690 and E38/2758 which are 100% owned by White Cliff Minerals Limited or a subsidiary
	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 tenements are in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Extensive historical exploration for platinum, gold and nickel mineralisation has been carried out by Placer Dome, WMC, Comet resources and their predecessors. Occurrences of nickel laterite mineralisation were identified but was deemed uneconomic
Geology	Deposit type, geological setting and style of mineralisation.	The geological setting is of Archaean aged mafic and ultramafic sequences intruded by mafic to felsic porphyries and granitoids. Mineralisation is mostly situated within the regolith profile of the ultramafic units. The rocks are strongly talc-carbonate altered. Metamorphism is mid-upper Greenschist facies. The target mineralisation has yet to be identified but is analogous to Kambalda or Sally Malay style or nickel sulphide deposits.
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:	Drilling detailed in Tables 1-3 in the main body of the announcemnet
	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	
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.	No length weighting has been applied due to the nature of the sampling technique. No top-cuts have been applied.
	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	Not applicable for the sampling methods used.
	aggregations should be shown in detail.  The assumptions used for any reporting of metal equivalent values should be clearly stated	No metal equivalent values are used for reporting exploration results.
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 sampling technique used defines a surficial geochemical expression. No information is attainable relating to the geometry of any mineralisation based on these results.
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	Refer to figs. in the body of text.
Balanced Reporting	collar locations and appropriate sectional views` Where comprehensive reporting of all Exploration Results	All results are reported.
	is not practicable, representative reporting of both low and high grades and/or widths should be practiced to	

Criteria	Explanation	Commentary
	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.	NIL
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.	RAB/AC drilling will be used to further define the nature and extent of the geochemical anomalism, and to gain lithological information.