

12<sup>th</sup> January 2022

# 2022 AIRCORE DRILLING FOR JULIMAR-STYLE NICKEL-SULPHIDE TARGETS AT LAKE GRACE HAS COMMENCED

Sultan Resources Ltd ACN: 623652 522

**CORPORATE DETAILS** 

**ASX Code: SLZ** 

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- Aircore drilling of interpreted Ni-prospective ultramafic occurrences in the Lake Grace/Kulin area that commenced late in 2021 re-starts in early January
- Ultramafic lithology confirmed in first 4 hole stage of program in late 2021
  - Approximately 2km strike of ultramafic lithology confirmed at first target zone
  - Geological similarities between this zone and the Gonneville Intrusion have been recognised
- A further 9 holes at other target areas were completed by the end of 2021
- The targets lie within part of interpreted mobile zone that hosts the recent Julimar Ni-Cu-PGE discovery
- Historic exploration at Lake Grace has shown ultramafic rocks with evidence of nickel + cobalt bearing sulfides and copper sulphides in drilling
- Strong geophysical evidence for >25km of cumulative strike length of ultramafic rocks across Sultan's Lake Grace portfolio
- Lake Grace portfolio surrounded by major mining and exploration companies:
  - Anglo American to north and west
  - Gold Road Resources to east

Sultan Resources Limited (ASX: SLZ) (**Sultan** or **Company**) is pleased to announce the recommencement of the reconnaissance exploration aircore drilling for nickel-prospective ultramafic rocks at the Company's Lake Grace prospect during January. The project is located in the Wheatbelt area between Lake Grace and Kulin in WA where the company has been exploring since listing in 2018.

The Ni-prospectivity of Sultan's Lake Grace tenement portfolio has long been recognised by the company (see ASX Announcement 20/07/2020, 20/11/2020) and has been verified by the discovery of Chalice Mining Ltd's Julimar Ni-Cu-PGE deposit ~200km to the northwest in the same belt of rocks (see CHN ASX announcement of 23/03/2020). Sultan's licences contain historically drilled ultramafic rocks with evidence of nickel and cobalt bearing sulfides¹ and detailed airborne magnetic surveying by the company (ASX Announcement 03/07/2020) has revealed several unexplored areas with geophysical characteristics indicative of ultramafic rocktypes. The aircore program is designed to confirm the presence of ultramafic rocks interpreted from the magnetics interpretation and help determine the prospectivity of the region for hosting Ni-sulphide deposits

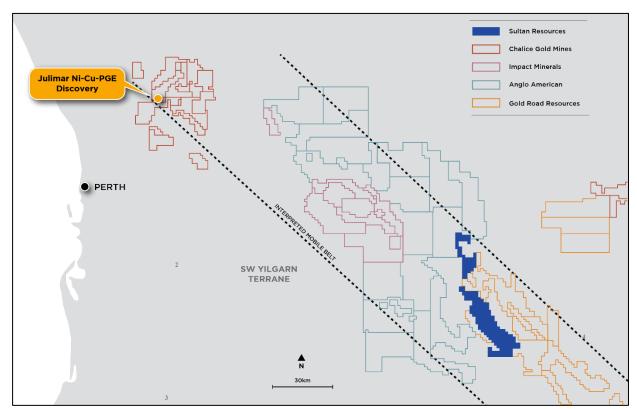


Figure 1: Sultan's Lake Grace portfolio of tenements in relation to the tenement positions of Anglo American (blue outline), Impact Minerals (maroon outline) and the Gold Road Resources/Cygnus Gold JV (orange outline). All of Sultan's tenure lies within an interpreted mobile zone prospective for Ni-Cu mineralisation as postulated by Impact Minerals Ltd (see Impact Minerals announcement dated 10/06/2020)

### Aircore Drilling Progress - December 2021

The aircore program commenced at Target area 1 ("Kulin Hill") in the northern end of the project at Kulin (E70/5095, Figure 2) where previously identified ultramafic rocks have been noted in historic drilling and mapping by Sultan (see ASX Announcement 20/11/2020). The first four holes at this target have been completed and geological logging has confirmed the presence of ultramafic lithology in at least 3 holes (see ASX Announcement 16/12/2021). The aircore holes lie approximately 2km northwest of the historic diamond holes and confirm the strike extent of this first ultramafic target.

The rig also completed a further 6 holes in a single traverse at Target Area 2 some 20 km southeast of Target 1 (Figure 2). These holes ranged from 34 to 61m in depth and intersected mostly granitic rocks, though the two deepest holes (60 & 61m) ended in dark green to black, magnetic mafic rocks containing olivine, pyroxene and feldspar. Further work is required to classify these rocktypes but it is noted that the Gonneville Resource at Jumilar (see CHN ASX Announcement 09/11/2021) is hosted in a mafic-ultramafic intrusive complex ranging from gabbro (mafic) to pyroxenite (UM), peridotite (UM) and harzburgite (UM). Sulphide mineralisation is hosted predominantly in ultramafic units though the mafic gabbroic units are also noted to host sulphide mineralisation.

Following this single traverse at Target Area 2, the rig moved south to Target Area 3 but only managed 3 holes before the program was halted due to extreme weather and a Total Fire Ban. This area, which is much closer to Lake Grace, revealed some intersections of mafic granulites which are the host rocks to gold mineralisation previously drilled by Sultan at Lake Grace (see ASX Announcement 03/07/2019) as well as at established gold resources at Katanning (ASX: AUC) and Tampia (ASX: RMS) in a similar geological setting. No ultramafic rocks were recognised in the initial three holes at Target 3. The magnetic anomaly at Target Area 3 is strongly deformed and, if it represents folded mafic granulites, would present as a highly prospective, previously unrecognised gold target.

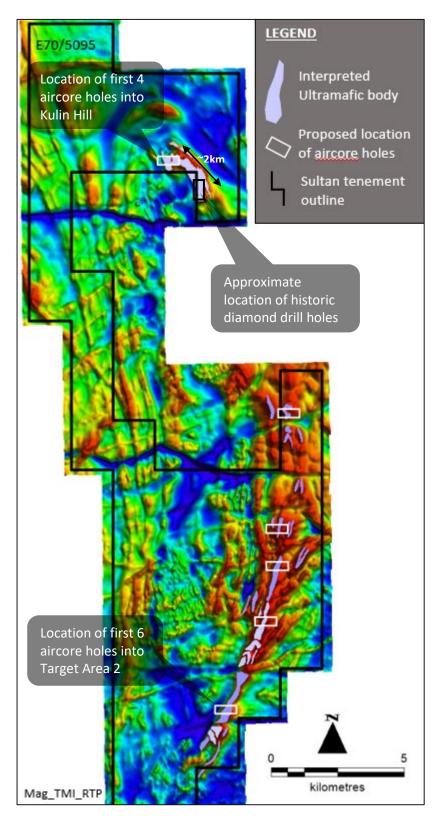


Figure 2: Location of the interpreted ultramafic bodies (purple) and positions of proposed aircore traverses over the Total Magnetic Intensity reduced to pole image over E70/5095.

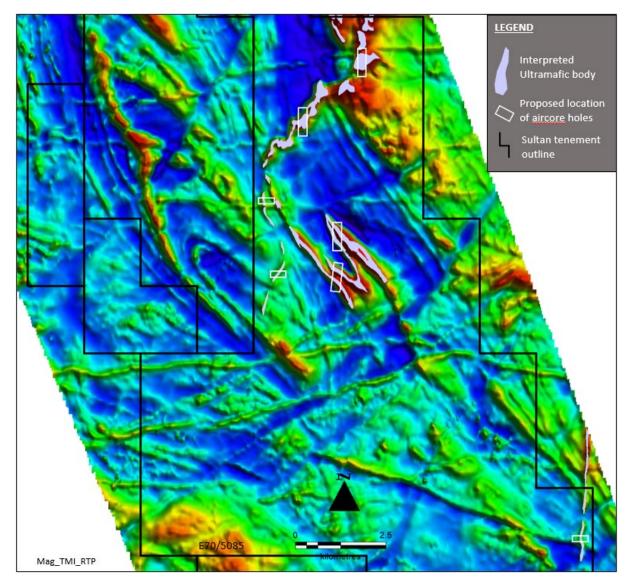


Figure 3: Location of the interpreted ultramafic bodies (purple) and positions of proposed aircore traverses over the Total Magnetic Intensity reduced to pole image over E70/5085.

#### Comparison between Kulin Hill and the Gonneville Intrusive Complex

Kulin Hill presents as a compelling Ni-sulphide exploration target and shows a number of geological similarities to the Gonneville discovery by Chalice Mining Ltd some 200km to the northwest within the same interpreted mobile belt (Figures 1 & 4)

During November 2021, Chalice Mining Ltd released the maiden resource for the Gonneville Deposit at the Company's Julimar Nickel-Copper-PGE Project (See CHN ASX Announcement 09/11/2021). Ni-Cu-PGE sulphide mineralisation is hosted within the Gonneville Intrusion which is a 1.9km x 09.km x 0.8km section at the southern end of the larger Julimar mafic-ultramafic intrusive complex. The Gonneville intrusion is composed predominantly of serpentinised olivine peridotite / harzburgite, with lesser intervals of pyroxenite, gabbro and leucogabbro and is interpreted to have undergone upper greenschist to lower amphibolite facies metamorphism. Primary Ni-Cu-PGE sulphide mineralisation at Gonneville occurs mostly within the ultramafic domains (harzburgite, pyroxenite), and also within the minor gabbroic domains within the intrusion. Initial drilling targeted prominent EM conductors which marked the location of sulphide mineral accumulations.

Sultan's Kulin Hill target is marked by an intense, arcuate magnetic anomaly that spans  $\sim$ 2.6km x 0.5 to 1 km in the northern end of E70/5095 (Figures 2 & 4). A series of 5 diamond drillholes were completed at into the anomaly during the late 1960's after outcropping ultramafic rocks were identified to be associated with the magnetic response<sup>1</sup>. Four of these holes were located at the southern edge of the anomaly and a further hole was drilled in a more central position. The contact zones of the ultramafic rocks with the surrounding host rocks were poorly or not tested.

Examination of the original drillhole logs, petrology reports and a report by Muskett (2001)<sup>2</sup> by Sultan has revealed that the magnetic anomaly represents a mafic to ultramafic sequence containing norites, gabbros, pyroxenites, serpentinised dunite and harzburgite. The sequence has been interpreted to have undergone greenschist facies metamorphism<sup>2</sup>.

Of particular interest in the drill holes was the presence of minor amounts of disseminated nickel sulphides. The finely disseminated sulphides are found throughout the ultramafic sequence and AMDEL petrologists who examined them at the time with an electron probe<sup>1</sup> identified that the rounded sulphide grains represent an unknown sulphide containing 50% Ni and 5% Co. These workers concluded that they represent immiscible liquid sulphide drops possibly similar in nature to that in the Skaergaard and Stillwater intrusions<sup>1</sup>. The AMDEL petrologists also noted that the abundant magnetite in the sequence is slightly nickeliferous and chromiferous<sup>1</sup>. Further examination of the drill hole logs has also identified minor zones of chalcopyrite mineralisation that return narrow, elevated copper assay results.

Although early days in the exploration at Kulin Hill and surrounds, Sultan is highly encouraged by the broad geological similarities between the mineralised Gonneville intrusion and the mafic-ultramafic sequence at Kulin Hill. The presence of immiscible, Ni and Co-bearing sulphide droplets is considered a key feature for the possible development of Ni-sulphide mineralisation and the scale of the Kulin Hill mafic-ultramafic sequence provides plenty of room for the development of significant accumulation(s) of Ni-sulphide minerals. The area is very poorly explored and Sultan intends to follow up the initial encouraging results with further drill testing and geophysical work to develop deep targets.

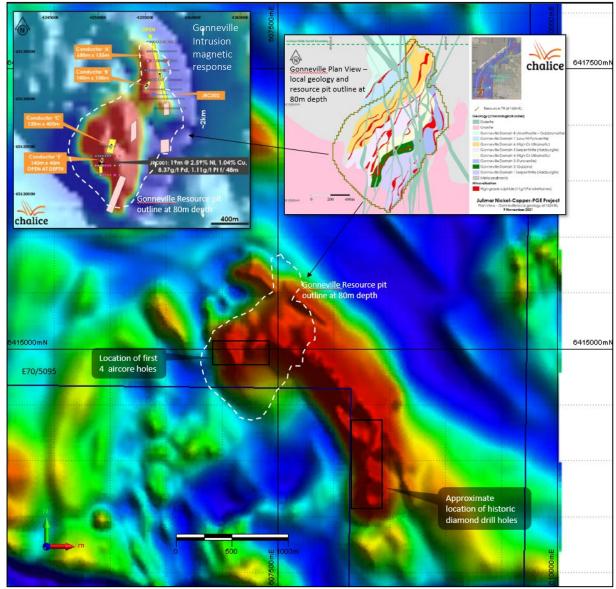


Figure 4: Comparison of the scale of the magnetic anomaly representing mafic-ultramafic rocks at Kulin Hill and the Gonneville resource (insets) at CHN's Julimar Project. The inset at top left shows the size of the Gonneville intrusion magnetic response(see ACHN ASX announcement 23/03/2020) with the outline of the resource overlaid (white dashes) and the inset at top right shows the geology and resource extent at Gonneville at 80m depth (see CHN ASX Announcement 09/11/2021). Both insets are shown at the same scale as the Kulin Hill underlay and the 80m resource outline from Gonneville (white dashes) has been overlaid on a portion of the Kulin Hill magnetic response for scale comparison purposes.

Full geochemical analysis coupled with petrographic interpretation and possible QEMSCAN testing will be undertaken on bottom of hole samples from the aircore program and the market will be informed as drilling progresses and results come to hand.

This announcement is authorised by Steve Groves, Sultan Resource Managing Director

For further information contact: Managing Director Steve Groves info@sultanresources.com.au

#### **Competent Persons Statement**

The information in this report that relates to Exploration Targets and Exploration Results is based on historical exploration information compiled by Mr Steven Groves, who is a Competent Person and a Member of the Australian Institute of Geoscientists. Mr Groves is Managing Director and a full-time employee of Sultan Resources Limited. Mr Groves 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 the reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Groves consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The Competent Person is not aware of any new information or data that materially affects the information contained in the above sources or the data contained in this announcement.

#### **About Sultan Resources**

Sultan Resources is an Australian focused exploration company with a portfolio of quality assets in emerging discovery terranes currently targeted by successful explorers such as Newcrest Mining, Alkane Resources, Gold Road Resources, and Sandfire Resources. Sultan's tenement portfolio includes prospective targets for porphyry Au-Cu, structurally-hosted gold, Nickel, Cobalt and base metals and include tenements located in the highly prospective east Lachlan Fold Belt of Central NSW as well as projects located within the southern terrane region of the Yilgarn Craton in south and south eastern Western Australia. Sultan's board and management strategy is for a methodical approach to exploration across the prospects in order to discover gold and base metals that may be delineated via modern exploration techniques and exploited for the benefit of the company and its shareholders.

#### References

- 1. Summers, K.W.A., 1969, Final Report, Corrigin Project, WA. Electrolytic Zinc Company of Australasia Limited, WAMEX Report A7659
- 2. Muskett, R., 2001, Annual and Final Report E70/2029, My Casino Ltd, WAMEX Report A63529

## Appendix 1 – Proposed Collar Details

Hole No	East	North	RL
1	618507.1	6370902	300
2	616811.6	6369350	300
3	616808.9	6369267	300
4	616807.9	6369179	300
5	616810.5	6369106	300
6	616825.2	6369026	300
7	618518.6	6370676	300
8	617765	6366204	300
9	617771.6	6366130	300
10	617777.6	6365847	300
11	617774.7	6365762	300
12	617716.1	6364758	300
13	617760.7	6365055	300
14	616053.5	6364974	300
15	606970.2	6415110	300
16	606941.1	6415113	300
17	606908.8	6415124	300
18	606877.6	6415138	300
19	606852.7	6415112	300
20	607148.2	6415712	300
21	608965	6394718	300
22	609010.8	6394670	300
23	609037.1	6394629	300
24	609065.1	6394591	300
25	609102.1	6394548	300
26	609137.2	6394500	300
27	609174.1	6394452	300
28	609223.3	6394386	300
29	609220.9	6394334	300

## Appendix 2 – JORC Table

## **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 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 (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.	No Sampling referred to in the document
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).	Vertical Aircore drilling to blade or hammer refusal, ideally at the top of bedrock.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures 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>	Nothing reported
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>	Holes logged visually
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	No Sampling referred to in the document  No Sampling referred to in the document
	appropriateness of the sample preparation technique.	

Criteria	JORC Code explanation	Commentary
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	
	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.	
	<ul> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	No Sampling referred to in the document
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.	No Sampling or assay data referred to in the document
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> </ul>	No twins reported
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	
	□ Discuss any adjustment to assay data.	No adjustments have been made by the author to any of the historical data reviewed
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.	Collar placement and pickups were via hand held GPS using MGA94, Zone 50.  MGA94, Zone 50
	<ul> <li>Quality and adequacy of topographic</li> </ul>	Elevation were in AHD (MGA94, Zone 50)
D. /	control.	Data an aris a la sullada la Colonia
Data spacing	<ul> <li>Data spacing for reporting of Exploration Results.</li> </ul>	Data spacing is suitable in first pass exploration
and distribution	☐ 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 drilling data at its established density and nature is not sufficient for use in a mineral resource estimation. The approaches used are only suitable for the exploration stage.
	<ul> <li>Whether sample compositing has been applied.</li> </ul>	No Sampling referred to in the document
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.	

Criteria	JORC Code explanation	Commentary
	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 holes were all vertical and are deemed sufficient for at this stage of exploration.
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	No Sampling referred to in the document
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	No Sampling or results referred to in the document

## 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 Lake Grace Project lies in the eastern wheatbelt, approximately 250km east-southeast of Perth. The Project comprises five Exploration Licences (70/5081, 70/5082, 70/5085, 70/5095 and 70/5179) covering an area of approximately 690km2 over or near the prospective Yandina Shear Zone which is known to host gold mineralisation elsewhere in the Southwest Terrane. All licences are held 100% by Sultan Resources The Lake Grace tenements are subject to Native Title Claim by the Ballardong People (WAD6181/1998). The North Tarin Rock Nature Reserve has a trivial impact the western margin E70/5081.
	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.	Titles are granted. No issues or impediments to prevent work proceeding.
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Historic exploration by Electrolytic Zinc Company has been referred to in the document. Relevant reports are referenced in the document
		Ltd's Julimar Project where some geological similarities and targets types are noted.
Geology	Deposit type, geological setting and style of mineralisation.	The Project lies in the Lake Grace Domain of the Southwest Terrane. It is comprised of granulite facies granitic gneisses, gneissic remnants of greenstone belts, charnokitic granites and post-tectonic granites. The greenstone rock sequences are metamorphosed to high-grade upper amphibolite to granulite facies. Structurally-controlled gold mineralisation occurs broadly as multiple, well-defined stacked elongate to ellipsoidal lodes that vary in size from 1-10 m thick, 50-150 m wide (east-west) and 50-200 m long (north-south) that have undergone post-mineralisation deformation. The gneissic package dips between 35° to 40° to the southeast and strikes 040°. The host rocks form an open synform that plunges 30° toward 120
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:	A table of collar coordinates is included in the appendices of this report. Plan figures showing the target areas is included in the document

Criteria	JORC Code explanation	Commentary
	Easting and northing of the drill hole collar	Drilling is reported in MGA94, Zone 50.
	o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	AHD in MGA94, Zone 50
	o dip and azimuth of the hole	Holes were all drilled vertically.
	o down hole length and interception depth	All holes logged in 1 m increments down the length of the hole
	o hole length.	Hole length is the distance from the surface to the end of the hole, as measured along the drill trace.
	· 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	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 results referred to in the document
	· 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.	
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	No mineralisation referred to in the document
	<ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	
	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').	Any intersections included in the accompanying report are down hole lengths. The true widths of these intersections 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.	Appropriate maps included within the body of the report.

Criteria	JORC Code explanation	Commentary
Balanced reporting	<ul> <li>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.</li> </ul>	The accompanying document is considered to represent a balanced report.  The author has referenced numerous ASX releases by neighbouring exploration companies where balanced reporting is considered to have been undertaken.
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.	The author has referenced publicly available historic reports where balanced reporting is considered to have been undertaken.  The document also refers to Chalice Mining Ltd's Julimar Project where some geological similarities and target types are noted. Chalice's work has all been publicly reported in line with JORC 2012 standards. Otherwise, the balance of the information is not considered material.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting	The aircore program has only recently commenced. If successful in identifying prospective areas, further work would include geophysical surveying and further drilling  Diagrams covering the target areas and main
	the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	geological interpretation are contained within the report.