

COPPER MINERALISATION CONFIRMED AT WHALESHARK

- Initial EIS co-funded diamond drilling campaign completed
- Bedrock copper mineralisation (chalcopyrite) intersected in two holes
- Core being processed for analysis – further drilling planned

Miramar Resources Limited (ASX:M2R, “Miramar” or “the Company”) is pleased to advise that diamond drilling at the Company’s 100%-owned Whaleshark Project, in the Ashburton region of WA, has confirmed the presence of bedrock copper sulphide mineralisation within the Project for the first time.

Diamond drilling

The Company recently completed an initial diamond drilling programme which consisted of three holes totalling 1,050m. The programme is co-funded under the WA government Exploration Incentive Scheme.

The first diamond drilling campaign targeted a discrete gravity anomaly within the Whaleshark granite which is crosscut by a NW-trending structure and located beneath coincident MMI soil anomalism and strongly anomalous “interface” aircore results up to 435ppm Cu, 889ppm Co and 7.7g/t Ag (Figure 1).

WSDD001 targeted the southern part of the gravity anomaly, whilst **WSDD002** and **WSDD003** targeted the 4 km long NW-trending structure itself (Figure 1).

WSDD001 and **WSDD002** intersected medium to coarse-grained biotite-rich granodiorite, with varying chlorite and/or epidote alteration, and fine-grained disseminated sulphides, predominantly pyrite.

WSDD003 intersected chlorite-altered and silicified diorite, also with coarse grained biotite, fine-grained disseminated pyrite and occasional coarse-grained magnetite.

Chalcopyrite was observed in two of the three holes with the most significant copper mineralisation observed within a steeply dipping shear zone in **WSDD002** at 231.6m downhole (Figure 2).

Rafts of brown iron oxide-rich material were also observed within the shear zone (Figure 3) indicating that the copper sulphides and iron-rich rafts had been dragged into the NW-trending structure from elsewhere.

Miramar’s Executive Chairman, Mr Allan Kelly, said the Company was greatly encouraged by the results of the first diamond drilling programme.

“We have now confirmed the presence of bedrock copper sulphide mineralisation at Whaleshark for the first time indicating the MMI and aircore anomalies have a bedrock source,” Mr Kelly said.

“This is the most significant evidence of the potential for IOCG mineralisation at Whaleshark since the project was first highlighted by WMC Resources in the mid 1990’s” he added.

“Given the strong relationship between copper mineralisation and iron oxides in this style of deposit, our next step will be to drill test the other MMI, gravity and aircore anomalies associated with the Banded Iron Formation at each end of the NW-trending structure” Mr Kelly said.

Core from the three holes was logged on site in Onslow and has been shipped to Kalgoorlie for cutting, sampling and analysis. Results for these holes will be released once received and processed.

The next steps at Whaleshark include:

- Further diamond drilling along the NW-trending fault
- Completion of interface aircore drilling over all MMI anomalies identified to date
- Investigation of suitable geophysical methods to help target further drilling

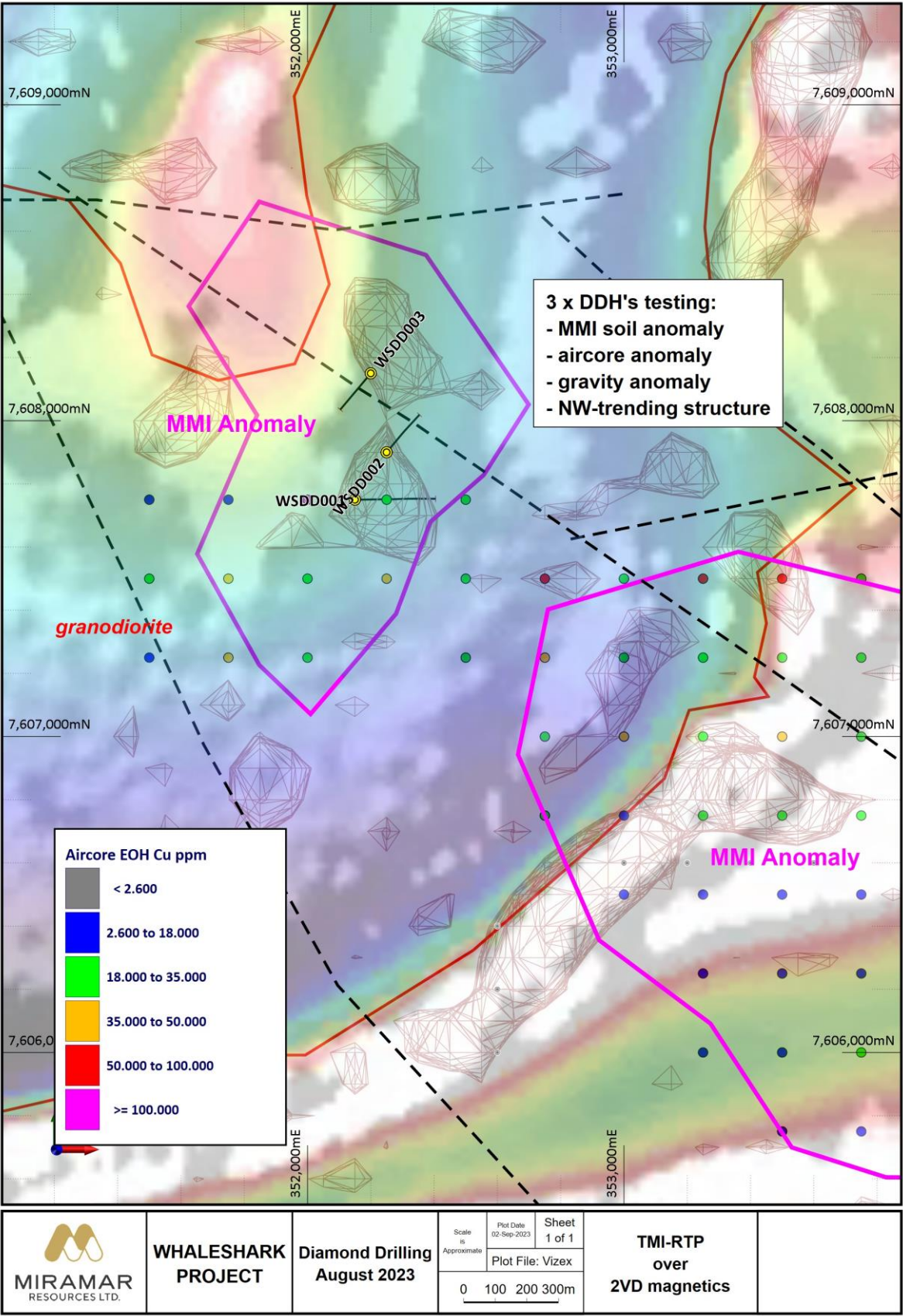
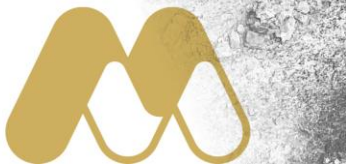


Figure 1. Whaleshark Project showing diamond drilling in relation to MMI and aircore results.

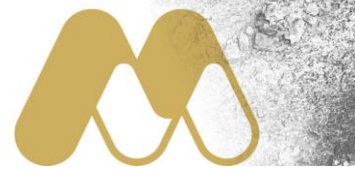


Figure 2. Chalcopyrite “seam” in shear zone within biotite granodiorite (WSDD002 – 231.6m).



Figure 3. Iron oxide “raft” within shear zone (WSDD002 – 231.6m)



Table 1. Diamond drilling summary

Hole ID	Easting	Northing	Dip /Azimuth	Basement depth	EOH depth
WSDD001	352150	7607750	-60/090	54.6	476.2
WSDD002	352250	7607900	-60/040	57.15	282.3
WSDD003	352200	7608150	-60/220	75.85	300.2

Table 2. Summary Geological Log for Whaleshark diamond drilling

Hole ID	From	To	Geology	Notes
WSDD001	0	54.6	<i>black mudstone with pyrite</i>	Cover sequence
	54.6	128	Biotite granodiorite	epidote alteration
	128	137	Albite-altered granodiorite with patchy hematite	~1% coarse grained patchy chalcopyrite
	137	195	Biotite granodiorite	fine-grained magnetite
	195	235	Biotite granodiorite	
	235	269	Biotite granodiorite	fine-grained magnetite
	269	281	Diorite	
	281	310	Biotite granodiorite	
	310	312	biotite schist	
	312	438	Biotite granodiorite	
	438	438.1	Biotite rich raft	~1% coarse patchy chalcopyrite
	438.1	444.4	Biotite granodiorite	
	444.4	445.0	Qtz vein	<1% patchy chalcopyrite
WSDD002	445.0	467.2	Biotite granodiorite	
	0	57.15	<i>black mudstone with pyrite</i>	Cover sequence
	57.15	64.7	Biotite granodiorite	
	64.7	65.1	Diorite and quartz veins	1% pyrite and chalcopyrite in sheared qtz vein
	65.1	71.75	Biotite granodiorite	
	71.75	71.85	Quartz vein	Coarse chalcopyrite blebs
	71.85	125.6	Biotite granodiorite	1% chalcopyrite at 89.5m
	125.6	167	Biotite granodiorite	
	167	170	Granodiorite with biotite rafts	~1% chalcopyrite at 169m
	170	231.5	Biotite granodiorite	
WSDD003	231.5	231.85	Shear zone with hematite rafts	5% chalcopyrite within shear
	231.85	282.3	Biotite granodiorite	
	0	75.85	<i>Black mudstone with pyrite</i>	Cover sequence
	75.85	90.4	diorite	Chlorite-altered Coarse patchy magnetite at 84 and 86m
	90.4	91.7	gabbro	
	91.7	122	diorite	
	122	125	Shear zone	Intensely sheared and altered diorite
	125	142.8	diorite	
	142.8	146.3	diorite	5% coarse patchy pyrite
	146.3	300.2	diorite	

Cautionary statement: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.



For more information on Miramar Resources Limited, please visit the company's website at www.miramarresources.com.au, follow the company on social media on social media (Twitter @MiramarRes and LinkedIn @Miramar Resources Ltd) or contact:

Allan Kelly
Executive Chairman
info@miramarresources.com.au

Margie Livingston
Ignite Communications
margie@ignitecommunications.com.au

This announcement has been authorised for release by Mr Allan Kelly, Executive Chairman, on behalf of the Board of Miramar Resources Limited.

COMPETENT PERSON STATEMENT

The information in this report that relates to Exploration Targets or Exploration Results is based on information compiled by Allan Kelly, a "Competent Person" who is a Member of The Australian Institute of Geoscientists. Mr Kelly is the Executive Chairman of Miramar Resources Ltd. He is a full-time employee of Miramar Resources Ltd and holds shares and options in the company.

Mr Kelly has sufficient experience that is relevant to the style of mineralisation and type of deposits 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'.

Mr Kelly consents to the inclusion in this Announcement of the matters based on his information and in the form and context in which it appears.

Historical exploration results for the Whaleshark Project, including JORC Table 1 and 2 information, is included in the Miramar Prospectus dated 4 September 2020.

JORC Table 1 and 2 information for recent exploration results at the Whaleshark Project is contained in the following ASX Announcements:

- 7 August 2023 - *Diamond Drilling Underway at Whaleshark*
- 14 June 2023 – *Whaleshark Project Update*
- 21 April 2023 – *Successful EIS Application for Whaleshark Diamond Drilling*
- 14 February 2023 - *Significant Basement Copper and Cobalt Results Upgrade Whaleshark IOCG Potential*
- 14 December 2022 – *Whaleshark REE Results Upgrade IOCG Potential*
- 7 Nov 2022 - *Aircore Drilling Confirms IOCG Potential at Whaleshark*
- 18 Aug 2022 – *Drilling underway at Whaleshark Copper-Gold Project*
- 13 Dec 2021 – *Large IOCG targets outlined at Whaleshark*
- 3 Sep 2021 - *Whaleshark Soil Survey Outlines Numerous Large Targets*



About the Whaleshark Project

The Whaleshark IOCG project is located in the Ashburton region of WA, approximately 40km east of Onslow. The Project is characterised by a large Proterozoic banded iron formation and granite intrusion beneath approximately 100m of Cretaceous sediments of the Northern Carnarvon Basin.

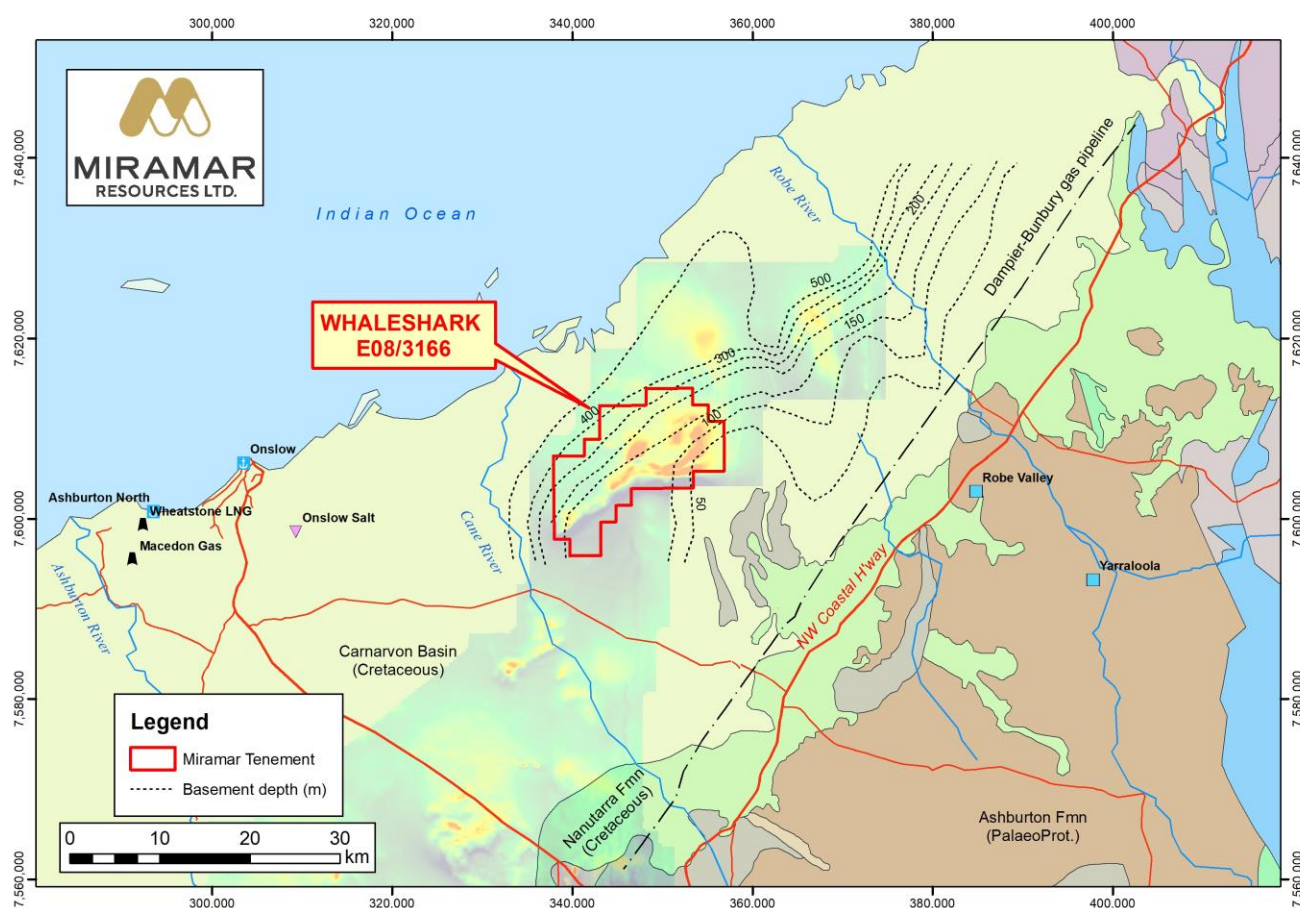
The Project has potential for discovery of a large shallow iron-oxide copper-gold (IOCG) deposit such as Ernest Henry, Starra, Carrapateena and Prominent Hill, but with the advantage of much shallower cover.

Since commencing exploration at Whaleshark in mid-2021, Miramar has identified strongly anomalous Cu, Co, Au, Ag and other IOCG pathfinders in shallow aircore drilling beneath surface geochemical anomalism.

Detailed gravity surveys identified a discrete gravity anomaly in the “neck” of the granite that has been crosscut by a NW-trending fault and is coincident with the surface and aircore geochemical anomalism.

The scale, magnitude and suite of elements seen at Whaleshark is very similar to the large Ernest Henry IOCG in Queensland.

In addition, comparison of results from aircore drilling at Whaleshark with published results from research carried out at the Prominent Hill IOCG deposit in South Australia also indicate the potential for the rare earth element (REE) anomalism seen at Whaleshark to be related to buried IOCG mineralisation.

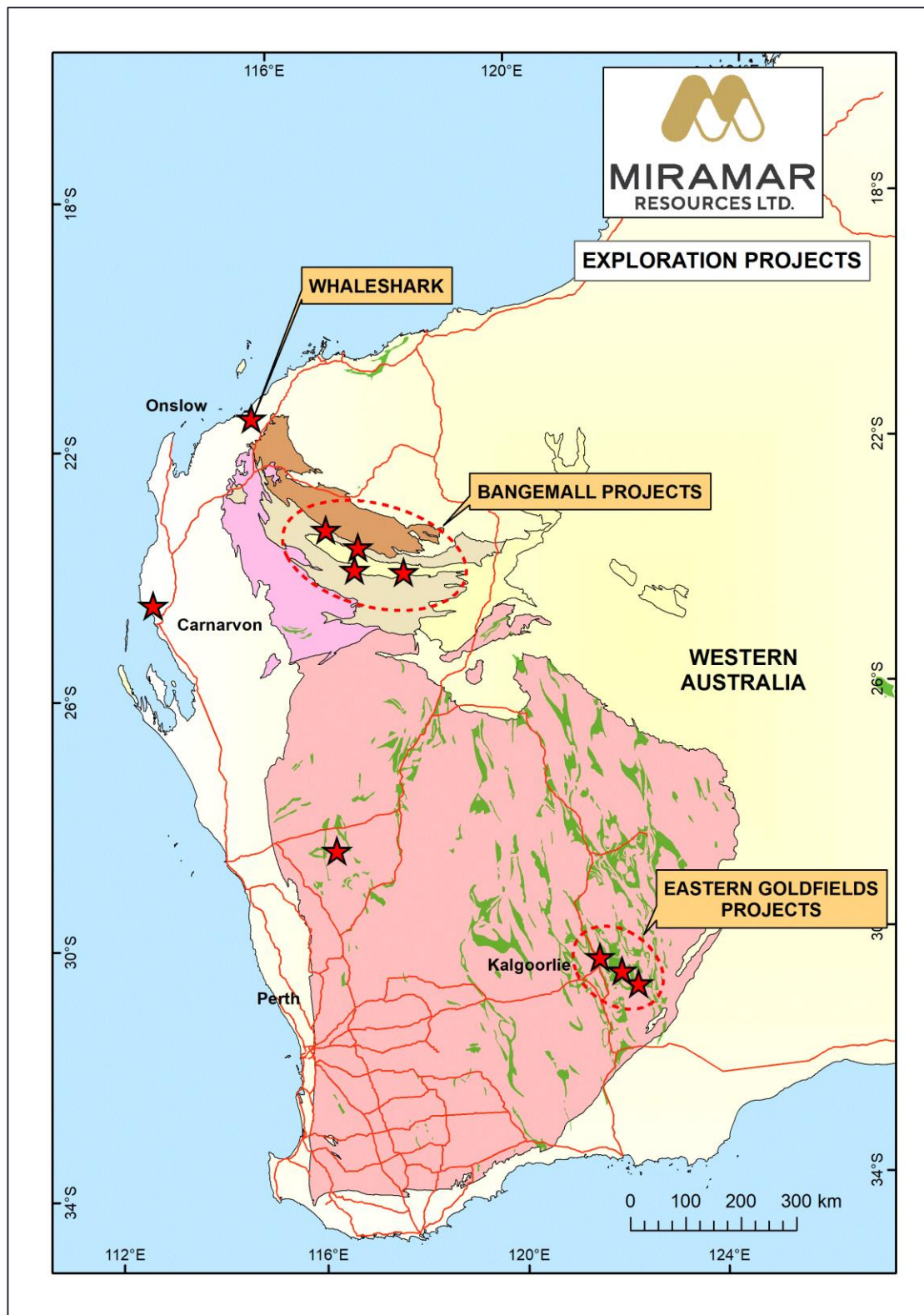




About Miramar Resources Limited

Miramar Resources Limited is an active, WA-focused mineral exploration company exploring for gold, IOCG and Ni-Cu-PGE deposits in the Eastern Goldfields and Gascoyne regions of WA.

Miramar's Board has a track record of discovery, development and production within Australia, Africa, and North America, and aims to create shareholder value through discovery of high-quality mineral deposits.





JORC 2012 Table 1 – Whaleshark Diamond drilling

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (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. 	<ul style="list-style-type: none"> No drilling results reported at this stage
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Diamond drilling with mud rotary through cover sequence followed by HQ and NQ2 drilling to end of hole
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Core recovery was very high due to the competent nature of the rock
Logging	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Samples were logged for colour, weathering, grain size, geology, alteration and mineralisation where possible



Criteria	JORC Code explanation	Commentary
	<i>relevant intersections logged.</i>	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>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.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> No drill results reported at this stage
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>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.</i> <i>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.</i> 	<ul style="list-style-type: none"> No drill results reported at this stage
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> No verification conducted to date
Location of data points	<ul style="list-style-type: none"> <i>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.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> Hole collar locations were recorded with a handheld GPS in MGA Zone 50 RL was also recorded with handheld GPS but accuracy is variable
Data spacing and distribution	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>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.</i> <i>Whether sample compositing has been</i> 	<ul style="list-style-type: none"> The spacing is appropriate for the stage of exploration



Criteria	JORC Code explanation	Commentary
	<i>applied.</i>	
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drill holes were planned to intersect the gravity anomaly and NW structure at right angles
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Samples were transported from site to Onslow by Miramar staff Samples were then shipped to the laboratory by a road freight contractor
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits have been undertaken

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The exploration was conducted on E08/3166 which is owned 100% by "MQ Minerals Pty Ltd", a wholly owned subsidiary of Miramar Resources Limited
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Exploration has been previously completed by other companies including WMC Resources Limited and Spectrum Minerals Limited, and included RC and diamond drilling, along with various geophysical surveys
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The target is IOCG mineralisation +/- BIF-hosted gold mineralisation
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Figure 1 shows the recent diamond drilling in relation to 2022 aircore drilling. Table 1 shows drill collar information



Criteria	JORC Code explanation	Commentary
	<i>detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	
Data aggregation methods	<ul style="list-style-type: none"> <i>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.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be stated.</i> 	<ul style="list-style-type: none"> No drill results reported
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>These relationships are important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>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').</i> 	<ul style="list-style-type: none"> No drill results reported
Diagrams	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> See attached Figures
Balanced reporting	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> All holes shown in Figure 1
Other substantive exploration data	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> No other relevant data
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Further diamond drilling planned