ASX ANNOUNCEMENT

MIRAMAR RESOURCES LTD.

WHALESHARK EXPLORATION UPDATE

- **Significant magnetite Exploration Target outlined at Whaleshark in proximity to substantial mining, processing, power, transport and shipping infrastructure**
- **Project-wide passive seismic survey maps basement topography**

Miramar Resources Limited (ASX:M2R, "Miramar" or "the Company") is pleased to provide an update on exploration activities at the Company's 100%-owned Whaleshark Project, in the Gascoyne region of WA, where the Company has outlined a significant magnetite Exploration Target of **411Mt - 2,353Mt at 25-30% Fe** in proximity to substantial mining, processing, power, transport and shipping infrastructure.

Miramar's Executive Chairman, Mr Allan Kelly, said that along with significant copper and gold potential, the Whaleshark Project had the potential to host a substantial "green iron" project.

"There is strong demand for magnetite from steel producers looking to reduce their carbon emissions through production of Direct Reduced Iron (DRI), which requires the higher grades obtained from magnetite iron ore to be effective," Mr Kelly said.

"Whaleshark has several large magnetite-rich banded iron formations that have not been previously targeted or explored for magnetite iron mineralisation," he said.

"Data from the passive seismic survey recently completed confirms that these magnetite-rich banded iron formation lie under relatively shallow cover," he added

"Importantly, the Whaleshark Project is located in proximity to substantial existing and proposed mining, processing, power, transport and shipping infrastructure," he said.

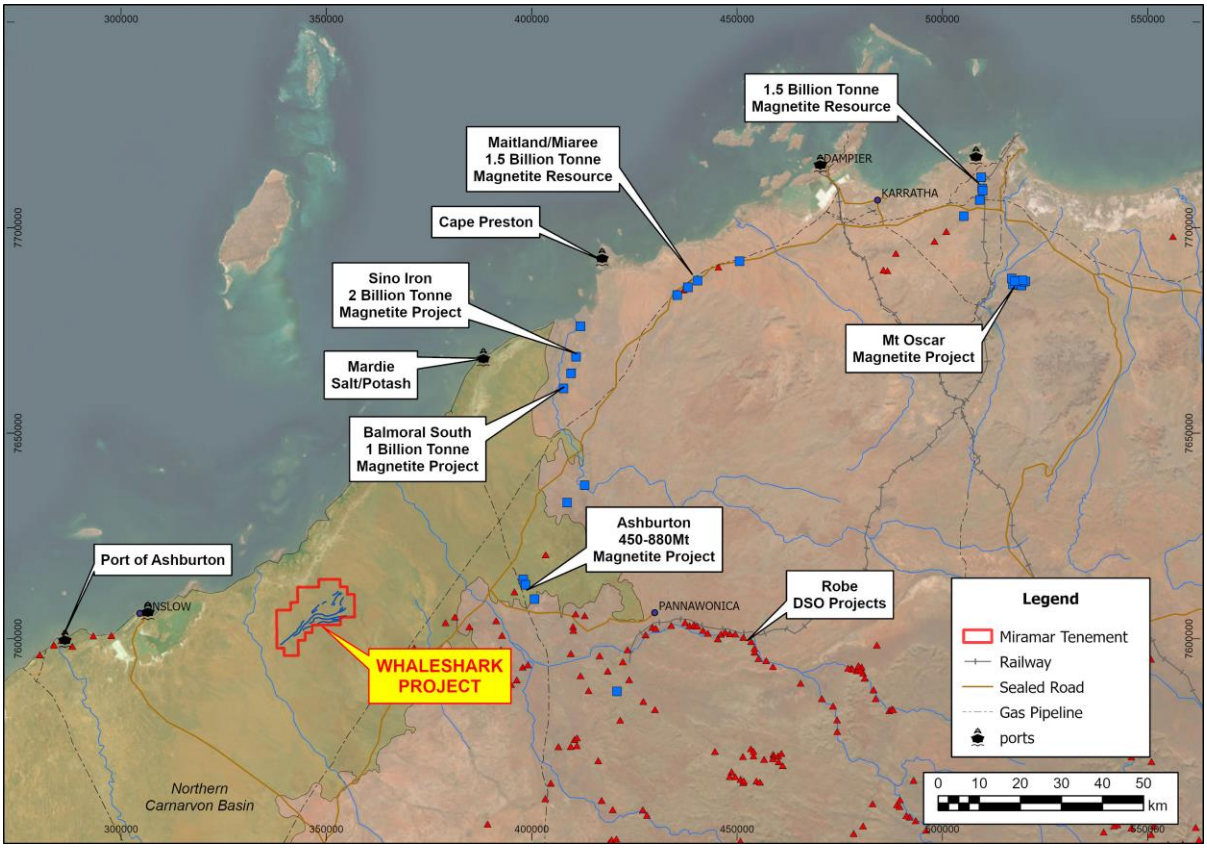

Figure 1. *Location of Miramar's Whaleshark Project in relation to various infrastructure.*

Magnetite Exploration Target

The Company has estimated an initial magnetite "Exploration Target" for the Whaleshark Project as summarised in Table 1.

By using modelled geophysical data, geological logging and assay results from historical drilling within the Whaleshark magnetic anomaly and extrapolating those results to the two banded iron formations south of the Whaleshark Granodiorite, the Company has outlined a significant potential volume of magnetite iron ore, with the midpoint in the order of 1 Billion tonnes.

The scale of the potential magnetite iron mineralisation at Whaleshark compares favourably with several large magnetite projects within WA (Figure 2).

Table 1. Whaleshark Exploration Target Summary

	Tonnage Range (Mt)		Grade Range (Fe %)	
Domain	**Lower**	**Upper**	**Lower**	**Upper**
Whaleshark	128	384	25	30
Blackfish North	158	1,050		
Blackfish South	126	919		
TOTAL (Mt)	**411**	**2,353**	25	30

Cautionary Statement:

The above Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code. The potential quantity and grade are conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a JORC-compliant Mineral Resource.

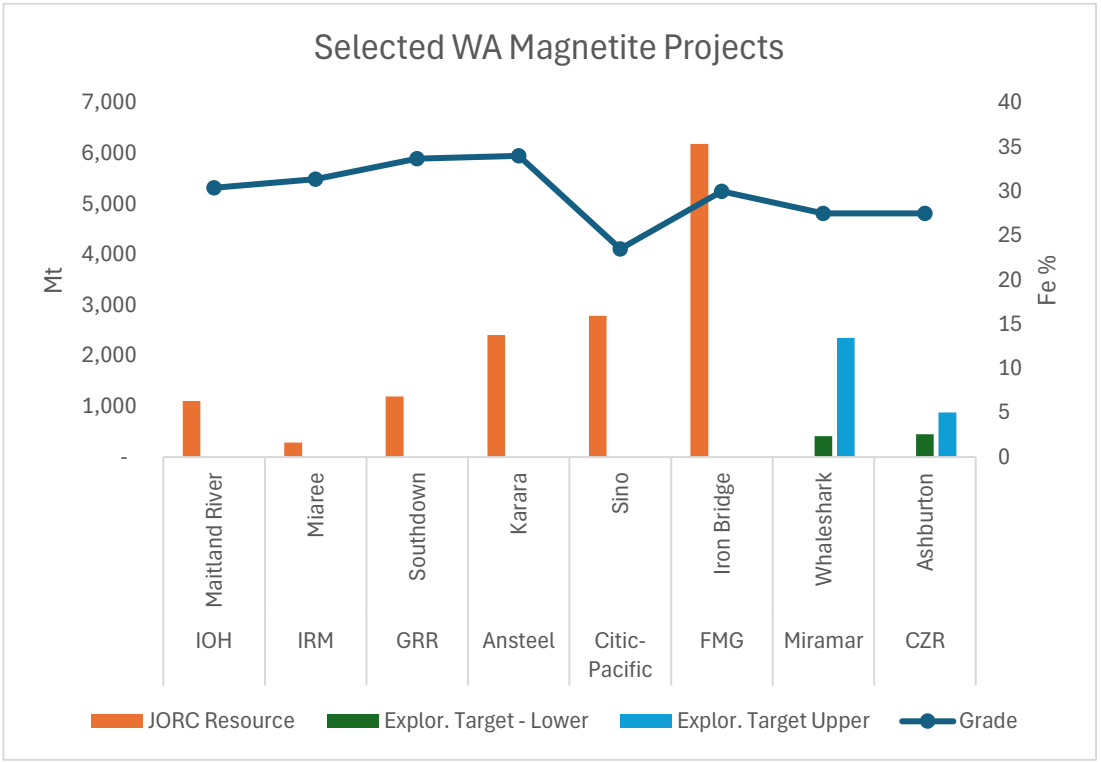

Figure 2. *Whaleshark Exploration Target compared with selected WA magnetite projects (Source: ASX Announcements).*

Background

In the mid-1990's, whilst exploring for iron oxide copper gold (IOCG) mineralisation around Onslow, Western Mining Corporation (WMC) modelled airborne and ground magnetic data over the Whaleshark magnetic anomaly and interpreted it as being caused by a sub-vertical and highly magnetic unit, approximately 200m thick and extending downwards from approximately 150m depth below surface.

RC and diamond drilling by WMC intersected magnetite-rich BIF beneath 125-130m of basin sediments with several holes ending in mineralisation (Table 2). Density measurements conducted on drill core from these holes indicated an average specific gravity of approximately 3.2g/cm^3 for the BIF unit.

Drill core from within the Whaleshark BIF appears similar to the Archean Cleaverville Formation, which hosts the 1.5 Billion tonne Maitland River and Miaree magnetite iron deposits[1].

Table 2. Summary of historic Whaleshark BIF drill results (using lower cutoff of 20% Fe).

Hole ID	From	To	Interval	Fe %	Comments
PMLC10	142	154 **EOH**	**12**	**25.0**	Vertical hole Ended in mineralisation
PMLC11	134	166 **EOH**	**32**	**29.1**	Vertical hole Ended in mineralisation
PMLD7	128	167.2	**39.2**	**28.5**	Vertical hole Ended in mineralisation
	170.1	242.1 **EOH**	**72**	**28.5**	
PMLD8	124.8	138	**13.2**	**25.7**	Vertical hole Ended in mineralisation
	140.3	218.2	**77.9**	**25.6**	
	218.9	244 **EOH**	**25.1**	**22.1**	
PMLD9	137.5	241.8 **EOH**	**104.3**	**22.5**	Ended in mineralisation

Two larger magnetic anomalies, interpreted to represent magnetite-rich BIF units, are observed on the southern side of the granodiorite pluton where, based on drilling and recent passive seismic survey information (see below), the estimated cover thickness is in the order of 25-40m (Figure 3).

Drilling in the area is limited to historic vertical RC holes, many of which did not reach basement, and vertical aircore holes completed by Miramar in 2022, several of which ended in 15% to 32.5% Fe.

The Exploration Target for the three BIF Domains was calculated using parameters shown in Table 3.

Given the significant size of the Exploration Target, the increasing demand for magnetite ore and the location in proximity existing infrastructure, the Company plans to complete further work to assess the potential to produce a high-quality magnetite ore and/or concentrate from the Project including:

- an initial RC and/or diamond drill programme testing the "Blackfish" BIF units
- preliminary metallurgical test work including Davis Tube Recovery (DTR) tests to determine the potential grade of a magnetite concentrate
- further drilling to estimate a maiden JORC-compliant Resource
- additional metallurgical test work including for Abrasive Index, Bond Work Index and Wet LIMS (low intensity Magnetic Separation)
- discussions with potential project partners

[1] Iron Ore Holdings Ltd 13 August 2012 and Iron Mountain Ltd 13 Aug 2012

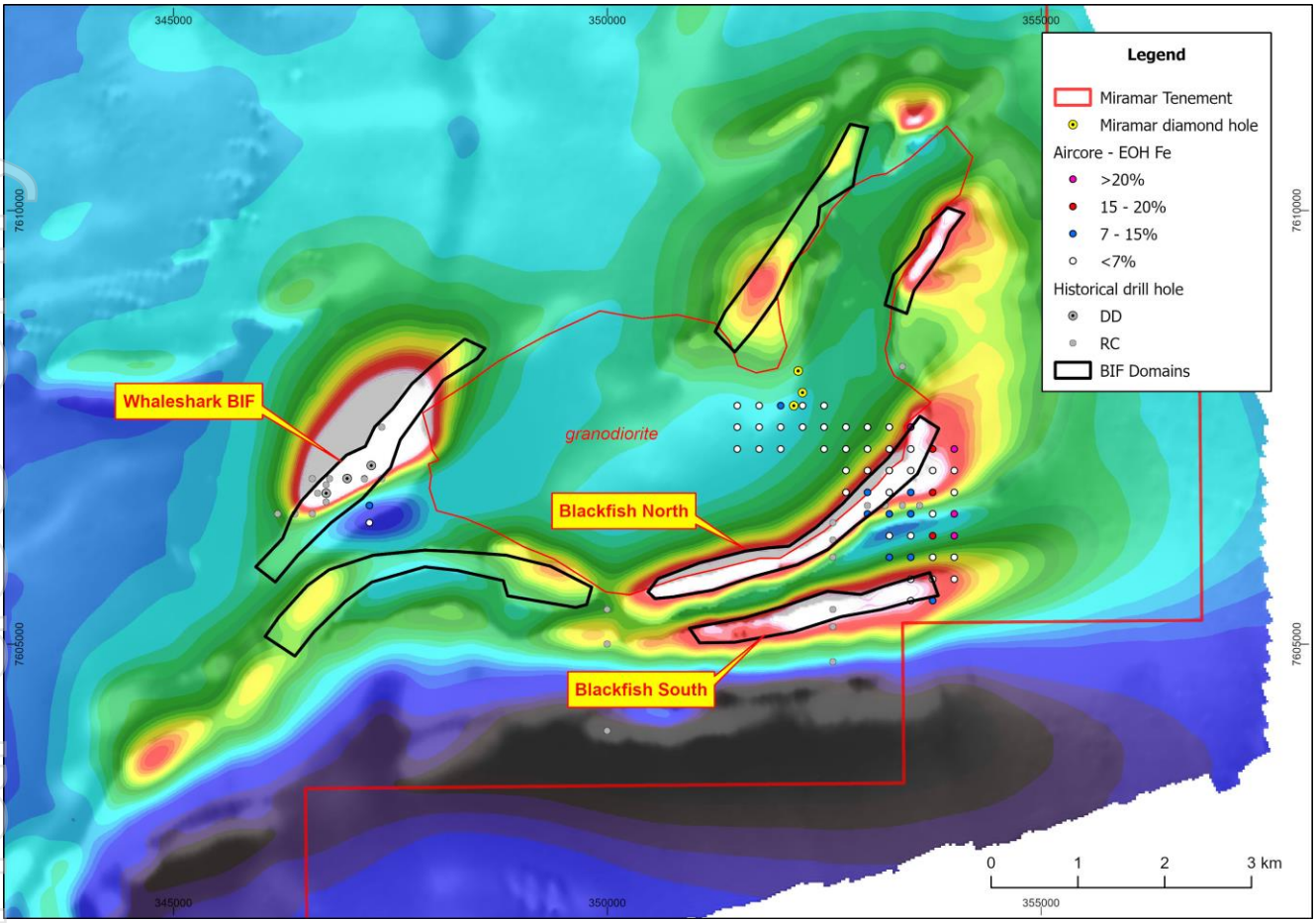

Figure 3. *Magnetic image showing Whaleshark and Blackfish BIF domains.*

Table 3. Whaleshark Exploration Target Parameters

	Lower	Mid	Upper
Whaleshark			
Length (m)	1,000	2,000	3,000
Thickness (m)	200	200	200
Depth extent (m)	200	200	200
SG (g/cm^3)	3.2	3.2	3.2
Tonnes (Mt)	**128**	**256**	**384**
Blackfish North			
Length (m)	2,500	3,000	4,000
Thickness (m)	150	200	300
Depth extent (m)	150	200	250
SG (g/cm^3)	2.8	3.2	3.5
Tonnes (Mt)	**157.5**	**384**	**1050**
Blackfish South			
Length (m)	2,000	3,000	3,500
Thickness (m)	150	200	300
Depth extent (m)	150	200	250
SG (g/cm^3)	2.8	3.2	3.5
Tonnes (Mt)	**126**	**384**	**918.75**
TOTAL	411.5	1,024	2,352.75
Grade (Fe %)	25	27.5	30

Passive Seismic Survey

To assist in planning further exploration work at Whaleshark, the Company has recently completed a passive seismic survey to map the depth to basement and basement topography across the Project.

Passive seismic horizontal to vertical spectral ratio (HVSR) surveying is a geophysical technique which uses “seismic noise”, ambient-acoustic energy caused by human activities and atmospheric events such as earthquakes and ocean waves, to measure depth to fresh bedrock beneath unconsolidated or poorly lithified cover sediments and/or weathered crystalline bedrock.

HVSR passive seismic works on the basis that ambient shear waves travel slower through regolith cover, poorly consolidated sediments and/or weathered bedrock compared to fresh and/or crystalline bedrock.

The Whaleshark Project, with unconsolidated Cretaceous sediments overlying crystalline Proterozoic basement rocks, therefore theoretically provides an excellent environment for the use of the passive seismic HVSR technique to map depth to basement and basement topography.

Miramar field staff collected a total of 418 stations across the Project using a series of eight TROMINO seismometers (Figure 4).

Figure 4. *Miramar field staff collecting passive seismic data at the Whaleshark Project with a TROMINO seismometer.*

Data was collected along lines with station intervals of 200m and on a grid over the location of diamond drilling conducted in 2023. Reading time for each station was 20 minutes.

The data was reviewed each day by staff from Resource Potentials and confirmed to generally be of excellent quality, with any problematic stations repeated the next day.

Following the completion of the survey, the dataset was compared with information from historic and recent drilling to confirm the interpretation of the basement depth. Interpreted basement depth from HVSR and actual drillhole information was found to be within a few metres.

A 3-D surface of the depth to basement was then created, as shown in Figure 5.

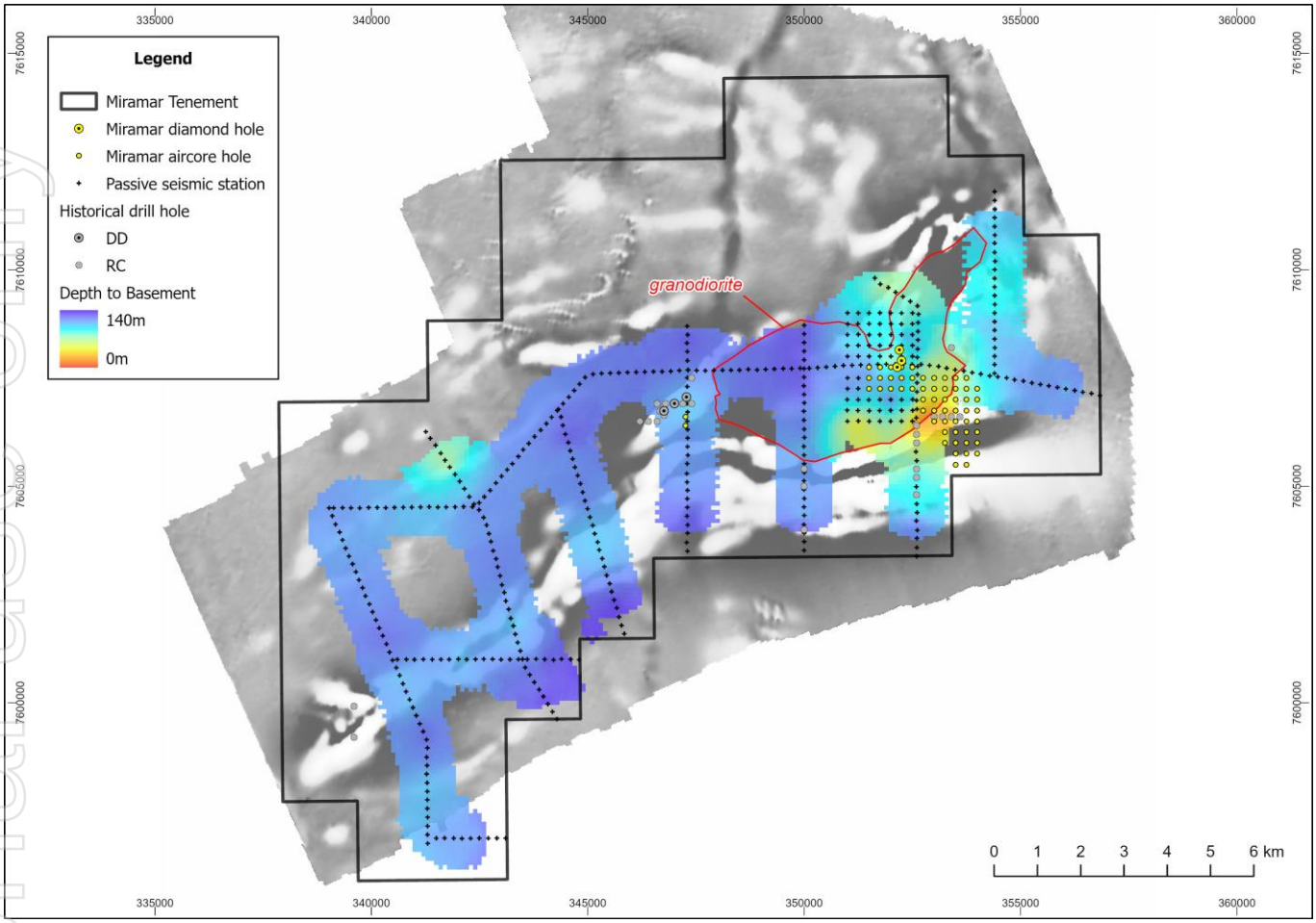

Figure 5. *Whaleshark Project showing passive seismic stations and interpreted depth to basement over 1VD magnetic image.*

Key findings from this survey include:

- Basement depths range from 29m, over the granodiorite and BIF in the eastern part of the Project, to 143m in the southwestern part of the Project
- Cover depth over the Blackfish magnetite targets is in the order of 25-40m
- Basement depth increases towards the northwest, but not as quickly as expected
- Miramar's 2022 aircore drilling was able to reach depths of up to 147m meaning that basement across most of the Project is amenable to testing with relatively inexpensive aircore drilling
- There is basement topography observed in the area tested by the 2023 diamond drilling campaign which, in hindsight, could have impacted modelling of gravity data used to target that drilling

The new passive seismic data will be used along with recent and historical geochemical and geophysical data to plan future exploration for gold, copper and magnetite at Whaleshark.

Next Steps

The Company believes there is potential for multiple styles of mineralisation at Whaleshark including:

- BIF-hosted, orogenic and/or intrusion related gold (e.g. Homestake, Hemi),
- iron oxide copper-gold (IOCG) (e.g. Ernest Henry, Starra)
- magnetite iron (e.g. Maitland River, Miaree)

Exploration work planned for 2024 includes:

- passive seismic survey to map basement depths - completed
- initial drill testing of Blackfish magnetite targets followed by Davis Tube Recovery (DTR) testing
- further aircore drilling of shallow geochemical and/or structural targets

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

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

About Hematite (DSO) and Magnetite Iron Ore

Hematite is a non-magnetic iron oxide mineral.

Pure hematite contains 69.9% Fe by molecular weight and has been the dominant iron ore mined in Australia since the early 1960s.

Approximately 96% of Australia's iron ore exports are high-grade hematite, the bulk of which has been mined from deposits in the Hamersley province of Western Australia.

High-grade hematite ore is referred to as direct shipping ore (DSO) as, once mined, the ore goes through a simple crushing and screening process before being exported for steel making.

Australia's hematite DSO from the Hamersley province averages from **56% to 62% Fe**.

Magnetite is a highly magnetic iron oxide mineral that contains 72.4% Fe by molecular weight, which is higher than hematite.

Magnetite ore generally has a lower grade than hematite ore, at **20-30% Fe**, but usually undergoes a processing stage using the magnetic properties of the ore to produce a higher-grade concentrate containing **65% to 70% Fe** which can be used in blast furnaces or in direct reduction (DRI) steel-making plants.

Magnetite concentrates therefore have a higher grade than hematite DSO currently being exported from the Hamersley province and can also contain lower levels of impurities, such as phosphorous, sulphur and aluminium.

Magnetite pellets are a premium product and attract higher prices from steel makers which can offset the lower initial ore grades and higher costs of production.

Magnetite is also recognised as a critical mineral to enable the decarbonisation of steel industries.

So-called “Green Iron” is made in a Direct Reduction Iron (DRI) furnace using renewable energy sources.

Magnetite can be processed to a high grade, DRI-quality product that can feed an electric arc furnace powered by gas, and eventually hydrogen, removing the need for coal.

Large magnetite iron deposits occur across Australia including:

- the Pilbara region of Western Australia,
- Karara in Western Australia's mid-west, and
- Savage River in Tasmania.

About the Whaleshark Project

Miramar's 100%-owned Whaleshark Project is located in the Ashburton region of WA, approximately 40km east of the town of Onslow.

The Project is characterised by a large Proterozoic banded iron formation and granitoid intrusion beneath approximately 100m of Cretaceous marine sediments of the Northern Carnarvon Basin.

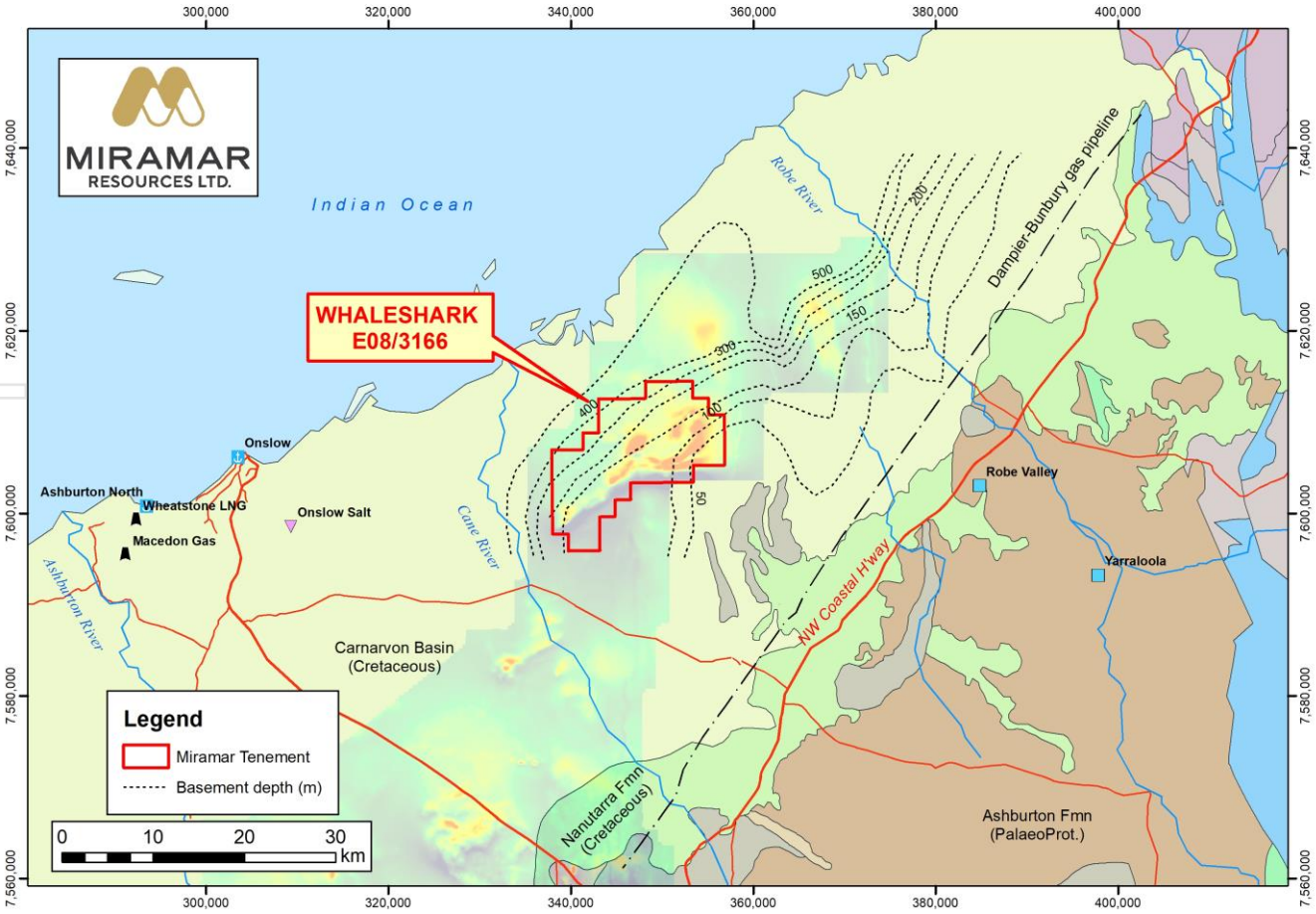
Historical exploration for IOCG mineralisation in the mid 1990's included diamond drilling which intersected gold mineralisation in one of the banded iron formation units.

In mid-2022, Miramar identified strongly anomalous IOCG pathfinders in shallow aircore drilling beneath Mobile Metal Ion surface geochemical anomalism, whilst EIS co-funded diamond drilling completed in 2023 intersected primary copper sulphide mineralisation within the Whaleshark granodiorite.

The Project has potential for discovery of significant copper and/or gold mineralisation beneath relatively shallow cover and contains a significant amount of magnetite-rich banded iron formation.

The Whaleshark Project is surrounded by significant infrastructure including:

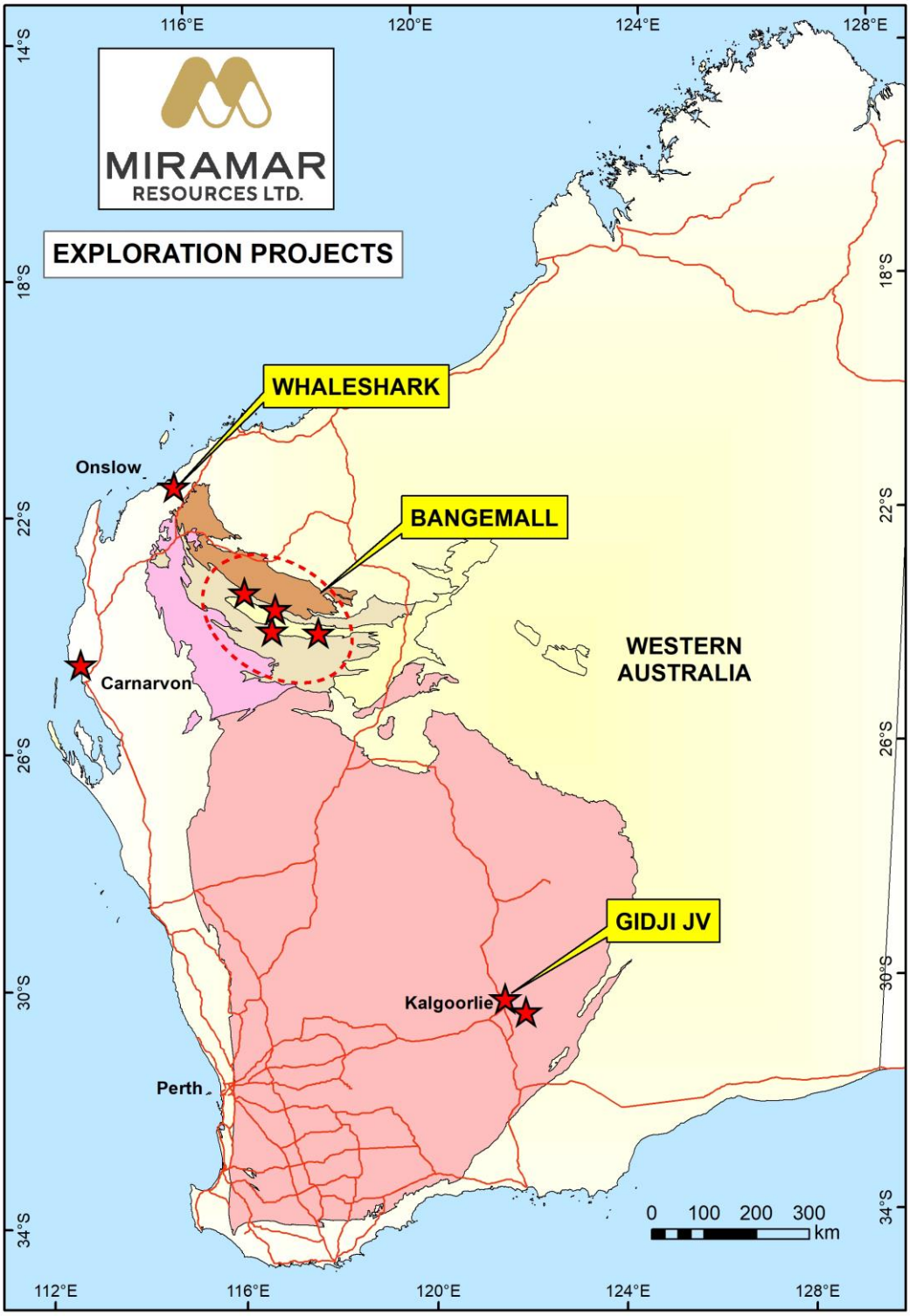
- the North West Coastal Highway,
- the Dampier-Bunbury Natural Gas Pipeline,
- port facilities at Onslow, Mardie and Cape Preston,
- operating DSO and magnetite iron mining and processing operations
- proposed green energy projects



About Miramar Resources Limited

Miramar Resources Limited is an active, WA-focused mineral exploration company exploring for gold, copper 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.



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:

- 19 December 2023 - *Large Scale Magnetite Iron Opportunities at Whaleshark*
- 20 October 2023 - *Whaleshark IOCG Exploration Update*
- 4 September 2023 - *Copper Mineralisation Confirmed at Whaleshark*
- 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*

All material information related to historic and recent drilling, including collar information, geology and assay results for all holes included in this Announcement, along with JORC Table 1 and 2 information, has been previously released to the market.

JORC 2012 Table 1 – Whaleshark Passive Seismic Survey

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 (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.*	• No new drilling results reported • Passive seismic data collected with TROMINO seismometers using 20 minute collection time
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).*	• No new drilling results reported
Drill sample recovery	• *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.*	• No new drilling results reported
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*	• No new drilling results reported

Criteria	JORC Code explanation	Commentary
	relevant intersections logged.	
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 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.*	• No new drilling results reported
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.*	• No new drilling results reported
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 adjustment to assay data.*	• Passive seismic data was compared with drill data to refine depth to basement
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.*	• Hole collar locations were recorded with a handheld GPS in MGA Zone 50
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*	• The station spacing is appropriate for the stage of exploration

Criteria	JORC Code explanation	Commentary
	applied.	
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.*	• Passive seismic lines were oriented at right angles to the main geology and increasing basement depth
Sample security	• *The measures taken to ensure sample security.*	• No new drilling results reported
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• 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	• *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 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	• *Acknowledgment and appraisal of exploration by other parties.*	• 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	• *Deposit type, geological setting and style of mineralisation.*	• The target is IOCG mineralisation, BIF-hosted gold mineralisation and magnetite iron

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*
		• No new drilling results reported
		• WMC drill holes were previously released as part of the Independent Geologists Report in Miramar IPO Prospectus
		• Aircore drill hole information previously released in 2022
		• Figure 5 shows all passive seismic stations

Criteria	JORC Code explanation	Commentary
	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.* • *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 stated.*	• No new drilling results reported
Relationship between mineralisation widths and intercept lengths	• *These relationships are 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').*	• No new drilling results reported
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.*	• See attached Figures which show all drilling to date and passive seismic survey stations and interpreted depth to basement
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.*	• All drill hole locations and passive seismic survey stations shown in Figure 5
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 relevant data
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 aircore, RC and diamond drilling planned