



Hawsons Iron Project Update

Project Report findings support Dry Processing Circuit

Hawsons Iron Ltd (**Hawsons** or the **Company**) is pleased to provide an update in relation to its dry comminution test work program and Mineral Resource variability study on the 100% owned Hawsons Iron Project (**Project**), located in the Braemar region of New South Wales, including a summary of the report prepared by Stantec Australia Pty Ltd (**Stantec**) in relation to these programs (**Project Report**).

Highlights

- Hawsons has now completed its current dry comminution test work program and the Mineral Resource variability study¹ and engaged Stantec, acting as independent engineering consultants, to prepare the Project Report.
 - The findings in the Project Report support the use of 100% dry processing circuit, a significant Project enhancement whilst also incorporating safety, environmental, operational and maintenance aspects.
 - The Project Report provides confidence for further investigation into potential secondary products (e.g. hematite, silica sands) and flow on optimisation of mine design, processing & logistics.
 - Detailed analytical work completed recently demonstrates a high level of geochemical and physical material consistency, throughout the current Mineral Resource, particularly within the early phase of operations, which significantly contributes towards de-risking the Project during its early years of operation.
 - The Company aims to co-dispose mine waste with dry processing waste as part of a sustainable Project waste management program.
 - Other aspects of the Project have been updated to reflect the Company's proposed dry comminution flow sheet, as well as advancements made in other areas.
 - The Company is currently collating engineering and cost data with the aim of releasing an updated Prefeasibility Study (**PFS**), together with Maiden Ore Reserves for the Project.
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Hawsons CEO, Tom Revy, commented: *"The findings of this Project Report provide an exciting insight into what this Project could actually deliver to shareholders. The results are crucial for cost optimisation and smarter decision making as we head towards finalising the Hawsons process flow sheet by the end of the year. The last 6 months has been all about more thoroughly testing and understanding the technical properties (de-risking) of the Hawsons deposit and testing the viability of a 100% dry processing circuit. The result is a simplified, lower-cost and environmentally cleaner alternative to a traditional hydrometallurgical route."*

In November 2024, the Company set itself goals to complete the variability and optimisation programs, which have been completed on time and on budget.

The next phase of detailed work will involve piloting of the material through GEBR Pfeiffer's test facility in Germany which will result in defining the Project's final process design criteria. This is a critical component towards completing a Definitive Feasibility Study."

¹ [As per ASX announcement 'Hawsons Iron Optimisation Works Update' dated 18 February 2025](#)



Compliance Statements

The information in this announcement relating to the Mineral Resource estimate and the Exploration Results for the Project, other than those referred to in section 2.3, is extracted from the Company's announcement '[Hawsons Drilling Program and Resource Update Completed](#)' dated 24 June 2024.. The Competent Person (as that term is defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (**JORC Code**)) responsible for this report was Mr Simon Tear who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in respect of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this announcement relating to Exploration Results for the metallurgical test work and XRD program is based on, and fairly represents, information and supporting documentation compiled by Mike Daniel, a Competent Person who is a Member of The Australian Institute of Mining and Metallurgy. Mike Daniel is a consultant to the Company and is the Principal and Managing Director of CMD Consulting Proprietary Limited.

Mike Daniel 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 JORC Code. Mike Daniel consents to the inclusion in the announcement of the matters based on his information in the form and context it appears.

Forward Looking Statements

This announcement contains certain "forward-looking statements" and comments about future matters. Forward-looking statements can generally be identified by the use of forward-looking words such as, "expect", "anticipate", "likely", "intend", "should", "could", "may", "predict", "plan", "propose", "will", "believe", "forecast", "estimate", "target", "outlook", "guidance" and other similar expressions within the meaning of securities laws of applicable jurisdictions. Forward-looking statements include, but are not limited to, statements about the future performance of HIO, statements about HIO's plans, future developments and strategy and statements about the outcome and effects of HIO's capital raise and the use of proceeds. Indications of, and guidance or outlook on, production estimates and targets, future earnings or financial position or performance are also forward-looking statements. You are cautioned not to place undue reliance on forward-looking statements. Any such statements, opinions and estimates in this announcement speak only as of the date hereof and are based on assumptions and contingencies subject to change without notice, as are statements about market and industry trends, projections, guidance and estimates. Forward-looking statements are provided as a general guide only. The forward-looking statements contained in this announcement are not indications, guarantees or predictions of future performance and involve known and unknown risks and uncertainties and other factors, many of which are beyond the control of HIO, and may involve significant elements of subjective judgement and assumptions as to future events which may or may not be correct. There can be no assurance that actual outcomes will not differ materially from these forward-looking statements. A number of important factors could cause actual results or performance to differ materially from the forward-looking statements, including the risk factors set out in this announcement. Investors should consider the forward-looking statements contained in this announcement in light of those risks and disclosures. The forward-looking statements are based on information available to HIO as at the date of this announcement. Except as required by law or regulation (including the ASX Listing Rules), HIO undertakes no obligation to supplement, revise or update forward-looking statements or to publish prospective financial information in the future, regardless of whether new information, future events or results or other factors affect the information contained in this announcement.



1. Introduction

Following completion of the dry grinding test work program and the Mineral Resource variability study, Hawsons engaged Stantec to prepare the Project Report to:

- collate the results of the dry comminution test work program and the Mineral Resource variability study and provide comments on the technical viability of the Project;
- evaluate the viability of a dry grinding circuit and its impact on processing efficiency and costs;
- validate prospective economies of scale and identify key drivers of cost and value; and
- identify key opportunities for subsequent optimisation and growth.

The Project Report has been prepared in relation to the above matters and will be used by the Company as the basis for defining a Maiden Ore Reserve and delivering an updated PFS.

2. Overview

2.1. Project Location

The Project is located in the Braemar Formation metasediments that stretch along a south-west to north-east trend from mid-South Australia to just across the border into New South Wales near Broken Hill. This Formation has a recognised presence of significant iron ore deposits along its length.

The Project is planned as an open cut iron ore mine² located approximately 60 km southwest of Broken Hill, primarily producing magnetite concentrate from metasiltstone-hosted iron-oxide ore. Magnetite concentrate is sought after by the global iron and steel industry and a key ingredient in the move to the manufacture of Green Steel.

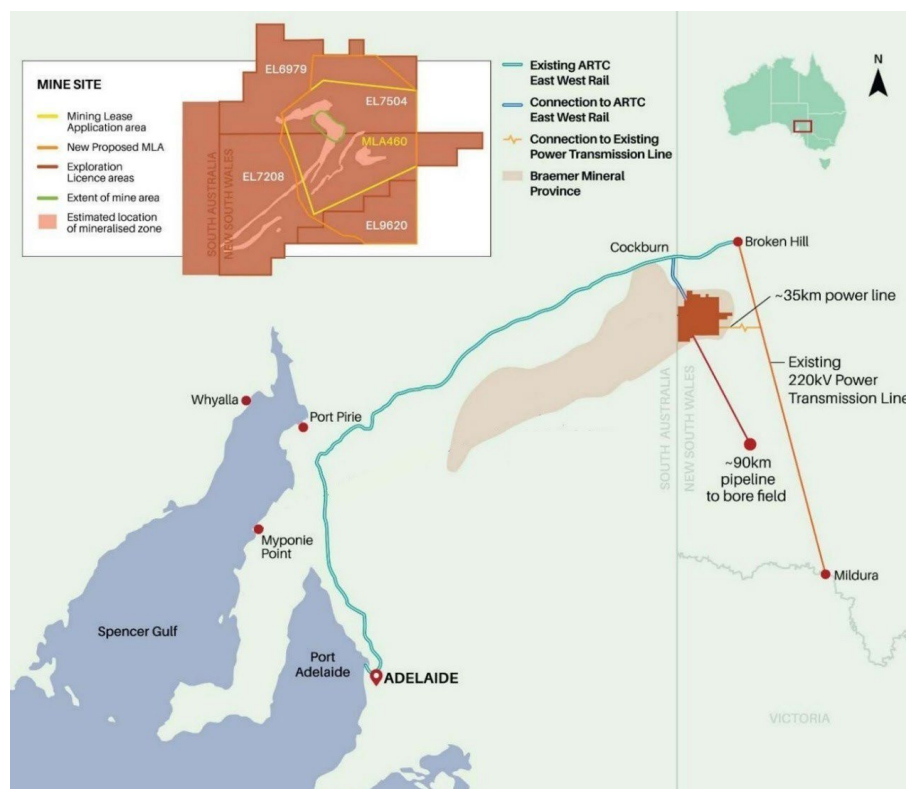


Figure 1: Location of the project

² As per ASX announcement 'Hawsons a global leader after successful prefeasibility study' dated 28 July 2017.



2.2. Geology and Mineral Resource Estimate

The Hawsons deposit area lies within sparsely outcropping Neoproterozoic sediments of the Nackara Arc of the Adelaide Fold Belt, which contains magnetite-bearing metasediments of the Braemar Formation. The Hawsons deposit is reflected in regional aeromagnetic data by a large, pronounced, curvilinear, high amplitude, magnetic anomaly, representing a regional scale fold of magnetite-rich Braemar Iron Formation.

The Hawsons mine envelope (approximately 4 km long and 1.5 km wide) is covered by four Exploration Licences (EL6979, EL7208, EL7504 and EL9620) and a Mining Lease Application (MLA641). It is situated on the margin in the horseshoe-shaped, structurally controlled synclinal basin that subcrops/outcrops at the north-eastern extent of the Braemar Formation, approximately 12.5 km on the New South Wales side of the New South Wales/South Australia border.

Exploration at the Hawsons deposit commenced when shallow pits and shafts were dug in the late 1800s. Exploration then consisted variously of ground mapping, shallow auger holes, airborne and ground-borne geophysics and reverse circulation (RC) and diamond core drilling (DD). Exploration activities have been focussed in the areas of high amplitude magnetic response in the government airborne geophysical surveys that were conducted in the 1990s. Exploration efforts ramped up in the 2000s with a series of focussed exploration activities in 2009, 2010, and 2016, and then most recently in 2021-2022 and 2023-2024.

H&S Consultants Pty Ltd (**H&SC**) have completed geology modelling and mineral resource estimates for the Project in western New South Wales since 2010 using Access database and Surpac modelling software.

A total of 210 holes have been drilled into the Hawsons deposit with the majority of these holes being completed between 2010 and 2023.

The recent round of drilling completed in the second half of 2023 and first quarter of 2024 has confirmed the existence of targeted intersections of near surface (0-150m) mineralisation with appropriate grade ($\geq 9\%$ Davis Tube Recovery (**DTR**)) in the Fold area of the Hawsons deposit.

A total of 210 drillholes worth of data are contained within the geology database. Of these, along with geophysically interpreted data, 188 are used to develop the Hawsons geology model. Of these, 188 holes (41,594 metres of drilling) have been included in the Hawsons database.

The Mineral Resource estimates for the Project is reported at a 4% DTR cut-off grade, constrained by the latest pit shell (the Revenue Factor 1 shell from pit optimisation, i.e., the highest value, undiscounted).

This pit shell went to a maximum depth of -360 mRL, approximately 550 metres below surface.

On 24 June 2024, the Company announced the following Mineral Resource estimate in relation to the Project.

Mineral Resource estimate for the Hawsons Iron Project (June 2024)³

Category	Mt	DTR %	DTR Mt	Density t/m
Measured	528	12.9	68	3.04
Indicated	1,882	11.2	210	2.94
Inferred	2,005	11.3	226	2.89
Total	4,415	11.4	504	2.93

³ Mineral Resource estimate for the Project extracted from announcement titled 'Hawsons Drilling Program and Resource Update Completed' dated 24 June 2024



Category	Fe % (conc)	Al ₂ O ₃ %	P ppm	S ppm	SiO ₂ %	LOI %
Measured	69.0	0.26	73	42	3.36	-2.81
Indicated	68.6	0.30	83	54	3.62	-2.60
Inferred	68.2	0.32	84	60	4.18	-2.67
Averages	68.4	0.30	82	56	3.85	-2.66

2.3. Metallurgy

Three pallets, weighing more than 1 tonne of ¾ Hawsons drill core were submitted by the Company late last year for the completion of comminution test work. The core selected has the full suite of rock types from ground surface to ~150m depth, which is close to the target depth for mining in the first 10 years of production. The core was selected from Core West, Core East and Fold Core, as depicted in Figure 2a. The fully cored hole FCFO23023 was provided for sample selection. Because it is sub-level vertical to 150m and from the Fold, it's the closest sample representative of a mining horizon and it's in an area where Hawsons plans to start mining.

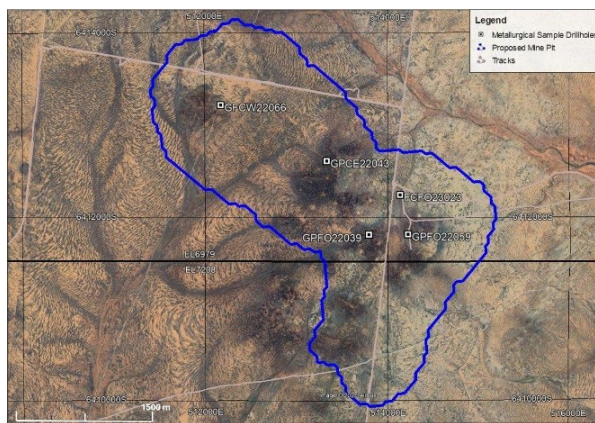


Figure 2a: Location map of drill holes used for metallurgical sample selection.

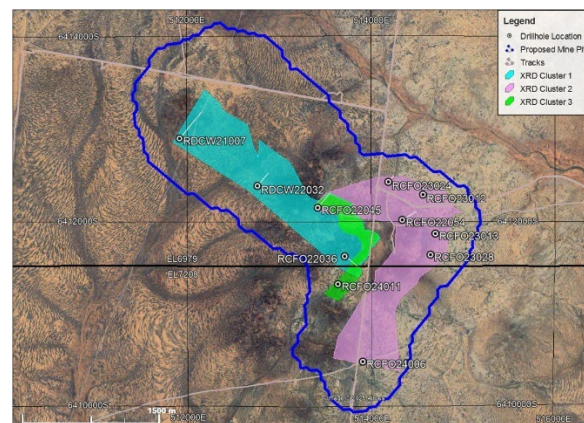


Figure 2b: Location map of drill holes used for XRD sample selection.

In January 2025, both conventional SMC Test® and Bond ball ore comminution characterisation tests were completed by the University of Queensland's JKTech. In addition, Geopyörä ore characterisation tests were completed by Core Resources. Results indicated that:

- the specific energy of an 8 ft diameter wet overflow ball mill for Hawsons' ore would then be around 7.26 kWh/t or 8.75 kWh/t on average to achieve a P80 of 100 µm depending on which BWi average is used.
- Hawsons' ore compares with the softest ores within the database.
- the uniqueness of Hawsons ore -particles size distribution (PSD) analysis of Bond ball feed & products has confirmed an elevated level of natural fines generation, contributing to the very low BWi values observed.

In February 2025, products from the ore comminution characterisation test work were prepared for processing via JKTech's laboratory High-Pressure-Grinding-Roll (HPGR) unit under low operating pressures and dry screening (@180µm). The HPGR test work confirmed low HPGR energy requirements for comminution. Preliminary results indicate total circuit specific energy from F80 of ~150mm to P80 of 180µm is ~4.9 kWh/t (1.2+3.7). This is ~17 % less than the total circuit specific energy from the Wet grinding pilot campaign, offering potential energy savings.



To explore the potential for multiple product streams derived from the Hawsons deposit, a test work campaign at Australian Laboratory Services (ALS), in Western Australia, was initiated. The test work took place over the months November/December of 2024. The results from the physical separation test work – Wilfley Tabling, Spiral Tower, WHIMS – indicate that there is potential to produce both a non-magnetic iron concentrate and a ‘silicate sands’ concentrate using physical separation techniques on Hawson’s dry tailings.

At a high-level, all three physical separation test methods clearly demonstrated the possibility of both a non-magnetic iron concentrate as well as a silicate sands concentrate, which may become saleable products into the steel making and construction sands industries.

Recent physical separation test work completed on tailings existing from pilot plant test work has identified a significant presence of recoverable non-magnetic iron. Following these results, it was considered prudent to complete an XRF/XRD test work campaign. As such, 28 composite samples collected from Core West and Fold Core drill holes underwent this analysis (refer Figure 2b). Results of this test work showed average magnetite grade of the 28 composites being ~ 7%, with some composites exceeding 20% magnetite grade. Similarly, the average hematite grade of the 28 composites being ~10%, with some composites also exceeding 20% hematite. Mica has been found to have a significant presence within the Hawsons composite samples – average being 16%. Quartz (SiO₂) makes up the largest gangue component of Hawsons composites – 30% on average.

Future plans include further byproduct works to determine the economic viability of hematite and Si-sands extraction as part of the overall final process flow sheet.

2.4. Plant Infrastructure and Logistics

The plant and infrastructure will comprise:

- Process plant including complimentary equipment, office and plant buildings;
- Zoned Co-Disposal Facility (**CDF**) for storage of the tailings within a waste rock upper and outer capping;
- Water supply and water catchment areas;
- A rail spur line and balloon loop at site to ARTC network at Cockburn;
- HV power supply line to the Project site;
- Accommodation village;
- Access road to the Project site;
- Access roads within the plant and the Project site.

The concept process flowsheet for the Project, which uses Vertical Roller Mills (VRM) technology in two stages to achieve a final P80 of around 32 µm. The flowsheet incorporates air classification stages to remove fine gangue materials like SiO₂ and mica, while concentrating the coarse iron-rich particles for further processing.



Additionally, dry magnetic separation units (LCG-F) are included to produce a product average DTR-grade magnetite concentrate with approximately 68.4% Fe⁴.

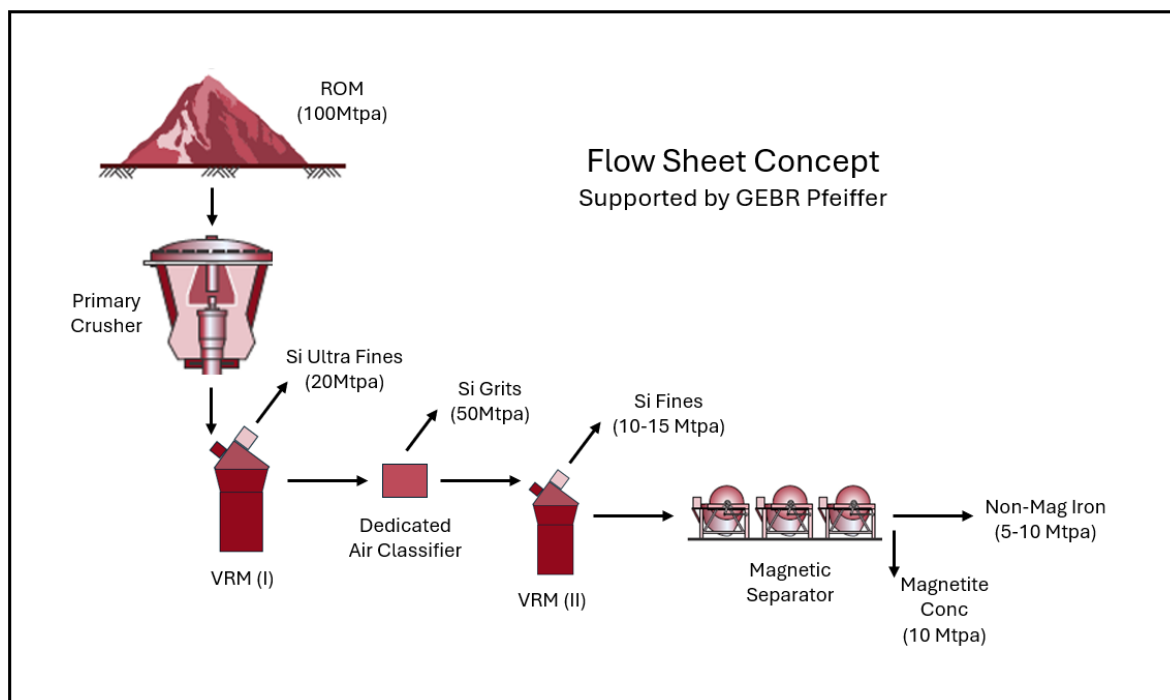


Figure 3: High-level schematic of Hawsons current process flowsheet.

The zoned Co-Disposal Facility (**CDF**) will store both the waste rock and the tailings streams, including the non-magnetic iron. The CDF will be zoned to encapsulate the tailings within a waste rock outer and upper capping. Non-magnetic iron will have a designated area within the CDF. The zoned CDF will be entirely above ground as no pit storage is available during the life of operations. This negates the need for a traditional wet tailings storage facility.

Transport of the magnetite concentrate is proposed to be by rail, from the train-load-out (TLO) at the Project site to Port Adelaide for export.

Raw water is proposed to be from the borefield, 90 km south of the Project site. With significantly reduced water consumption, the team is also exploring alternative water sources closer to the Project site to lower pipeline costs and improve water quality. The primary use of water will be dust suppression.

Power supply for the mine site will be accessed from a 220kV high voltage power line that runs in close proximity to the Silver City Highway from Wentworth to Broken Hill. A substation from the main powerline will be constructed at approximately 48 kilometres from Broken Hill. From there, 40 kilometres of high voltage powerline will need to be constructed West from the Silver City Highway to the mine site.

The primary access road to the site will be south of Broken Hill via the Silver City Highway (B79) for approximately 45kms before turning off to the west and travelling along the mine access road for approximately 35kms.

The mine access road from the Silver City Highway will be designed and constructed as a dual carriageway with turn-outs at regular intervals to cater for heavy vehicle movement such as that needed to supply the mine with construction material, operational plant equipment, as well as to ensure the supply of operational consumables.

⁴ [Mineral Resource estimate for the Project extracted from announcement titled 'Hawsons Drilling Program and Resource Update Completed' dated 24 June 2024](#)



2.5. Environmental, Social and Community

2.5.1. Environment

Land uses, as defined by the New South Wales Land Use and Management database within and surrounding the proposed mine are grazing, native vegetation, with no pasture modification and widely spaced rural residences and homesteads.

The site has been mapped as Land and Soil Capability Class 6 which indicates that the land has very severe limitations. This indicates that the land is not capable of sustaining high impact land uses, with limitations more easily managed for lower impact land uses such as grazing.

There is no defined presence of acid sulfate soils and unlikely potential for the presence of acid sulfate soils.

The area surrounding the Project contains limited trees and is dominated by native chenopod shrublands in good condition. Plant community types found include mitchell grass, prickly wattle open shrubland, copperburr grassland, with pearl blushbush low open shrubland, and bluebrush shrubland associated threatened ecological community's acacia loderi shrublands. The limited vegetation found onsite is native vegetation.

The majority of the Project area provides habitat for native biota, including threatened species. However, there remain large amounts of alternative habitat in equivalent vegetation types outside the project area. The site surveys revealed a moderate diversity of native plants and a high diversity of native fauna, including four species of fauna that are listed as vulnerable under the Biodiversity Conservation Act 2016 (NSW), these being the western blue-tongue lizard, stripe-faced dunnart, rufous fieldwren and spotted harrier.

River red gum woodland is present along Harry Harry Creek and is scarce at the local and regional scale. This area provides habitat for the spotted harrier and other native biota and is likely to comprise a regionally significant fauna movement corridor. The indicative mine site layout indicates that the project would not directly disturb any areas of river red gum woodland.

The two closest watercourses are Harry Harry Creek and New Well Creek. There are no identified perennial watercourses within the footprint of the proposed drill hole locations. There are several ephemeral drainage lines in proximity to or intersecting with the proposed mine footprint, pre-existing access tracks and new access tracks. The area surrounding the proposed mine is characterised by exposed soils with sparse vegetation, and the main forms of erosion are water sheeting and localised gullying.

There are no identified large groundwater dependent ecosystems located within the vicinity of the proposed site.

There have been several due diligence studies and field studies conducted on the proposed site during the exploration phase of the Project. A significance assessment taking into context the landscape feature and Aboriginal heritage assessment conducted to date will form part of the environmental impact statement (EIS).

Due to the arid climate with an annual average rainfall of less than 200mm per annum, it is expected that a large amount of dust will be generated as a result of mining and other associated activities. To combat dust from these activities, several dust suppression methodologies will be employed to mitigate or limit dust generation. Long term stabilisation methods will be employed on waste material areas, tailings and topsoil repositories to not only prevent dust but also to prevent erosion.



2.5.2. Landowners

The Project is contained within the three pastoral grazing properties, of which some or all of the land will need to be acquired prior to commencing of mining activities. The below table summarises the current arrangements in place:

Property Name	Area (acres)	Ownership Issues and Land Requirements
Oakdale	11,000	Access agreement in place with no fixed terms. This agreement can be terminated any time by either party. Estimate subdivision to accommodate tailings dam. Possible powerline easement not included in land area.
Burta	107,567	Access agreement in place with no fixed terms. This agreement can be terminated any time by either party. Option agreement to be discussed.
Wonga	97,827	Access and option agreement signed through to December 2029.
Buckalow (part of Wonga Station)	37,245	Access and option agreement signed through to December 2029.

2.5.3. Community

Hawsons are committed to ensuring the health and safety of all persons and the community at large from activities carried out in the development of the project through to, and beyond, construction and throughout ongoing production.

Hawsons will commence implementing an extensive Mine Safety Management System including a comprehensive Risk Management and Gap Analysis process to be used to continually assess, update, and monitor all the company's activities to ensure that such activities do not adversely impact on the community or other stakeholders' health and safety. Identified risks and solutions identified through the risk management process will be rectified, so far as is reasonably practicable, and continually monitored and assessed for effectiveness and further improvement opportunities.

The community and other stakeholders will be consulted at regular intervals to address any concerns they may have with regards to health and safety. Hawsons will report any issues and subsequent actions implemented to address all identified issues.

2.5.4. Heritage and Traditional Owners

The land surrounding the project, for 50 kilometres in diameter, has primarily been used for pastoral grazing since European settlement began in the area in the early 19th Century. The area has been sparsely populated since this time and evidence of early European settlement of significance has not been identified in any areas associated with the project. There are currently no Native Title claims over the Project area.

All artifact sites have been mapped and the Aboriginal Heritage Information Management Systems. Hawsons consults with both archaeologists and registered aboriginal parties before conducting any exploration activities on the project. Identified areas of cultural occupation are precluded from any activity. Where project activities necessitate the need to enter such areas, an Aboriginal Cultural Heritage Assessment Report (ACHAR) must be carried out and no activity is to be undertaken until an Aboriginal Heritage Impact Permit (AHIP) is granted.

Prior to the granting of a Mining License, an ACHAR and AHIP will need to be completed for the Mining Lease Application area.



3. Planned Forward Program (6-12 months)

The Company is currently collating engineering and cost data with an aim of releasing an updated PFS, together with Maiden Ore Reserves for the Project. The Company expects to be in a position to release further information in relation to project economics, in accordance with regulatory guidelines, following completion of the PFS.

In addition to this, Hawsons remains focused on advancing its Project in line with the key development milestones outlined in last year's AGM presentation, dated 28 November 2024. The activities include:

- commence further drilling to expand and upgrade portions of the Mineral Resource to the Measured and Indicated categories;
- complete large representative sample collection (via an 8-inch drill hole program) suitable for pilot work to be completed in Germany;
- finalise current dry comminution and byproduct testing to a definitive level and finalise process flow sheet with vendor guarantees where applicable;
- optimisation studies to refine mining and process waste co-disposal efficiencies;
- scheduling studies to ensure balanced ore feed to the plant in order to maximise Project value;
- environmental and permitting advancements to align with development timelines; this includes the current ML Application over the Project area; and
- further assess infrastructure options in line with final product(s) specifications.

Hawsons looks forward to developing and operating this important large scale mining project in compliance with best-practise guidelines as aligned with IFC Performance Standards on environmental and social sustainability.

The Company has made significant gains over the last 6-8 months. The Project is mineralogically unique in its chemical and physical properties resulting in a soft and consistent material capable of being processed without water. This approach is expected to result in significant economic and environmental benefits and result in the Project becoming a material contributor to the global green steel supply chain.

Located near Broken Hill, infrastructure is readily available for the Company's development and operational needs. Local stakeholders have demonstrated significant support for the Project realising the potential benefits of having another large-scale, long-term mining operation in the region.

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This announcement is authorised by the Board.

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JORC Code, 2012 Edition – Table 1 Hawsons Magnetite Project

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"> <i>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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where ‘industry standard’ work has been done this would be relatively simple (e.g., ‘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 (e.g., submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> Sampling consisted of drillholes with a mixture of reverse circulation (RC) from surface, diamond tails to RC precollars (RC_DD) and diamond core from surface (DD). A total of 72 drillholes for 21,605.8m, were drilled by CAP in two main phases i.e. 2010 (RC & DD) and 2016 (RC). A total of 111 drillholes for 32,07.9m were drilled by HIO in three main phases i.e. 2021-2022 (RC & RC_DD), 2023 (RC) and 2023-2024 (RC & DD). CRAE completed 5 drillholes for 734.6m (percussion and DD) in 1988/9 which were peripheral to the main body of mineralisation. RC drillholes were drilled to obtain 1m bulk samples with sample compositing a] in the field (various lengths under geological control) via spear sampling applied in order to obtain manageable sample sizes for laboratory sample preparation and assaying by CAP & HIO 2021-2 or b] by the laboratory in the lab (HIO 2023-24). For the 2010 RC drilling, sampling comprised 2m to 10m 3kg composite samples. The 2016 sampling comprised 5m composites generating 6kg of sample. All samples were pulverized to produce 150g aliquot for X-Ray Fluorescence (XRF) and Davis Tube Recovery (DTR) analysis. The 2021-2024 HIO drilling produced 5m composites. All samples were pulverized to produce 150g aliquot for X-Ray Fluorescence (XRF) and Davis Tube Recovery (DTR) analysis. Diamond core sampling involved sawing half core samples to produce an 8m composite sample (predominantly NQ core) for CAP and 5m composites for NQ/HQ3 core (HIO). Samples were pulverized to produce a 150g aliquot for XRF and DTR analysis. Geophysical logging was completed for a majority of holes and consisted of natural gamma, magnetic susceptibility, density and calliper readings. Mineralisation comprises bands of variable thickness of disseminated, idiomorphic magnetite in low metamorphic grade fine grained siliciclastics and diamictites.



Criteria	JORC Code explanation	Commentary
		<p>Siliciclastic grain size and porosity tends to provide a strong control to mineralisation. Substantial regional deformation has occurred but locally the main mineral units are relatively straightforward moderately dipping units albeit with a 90o fold rotation in the middle of the deposit.</p> <ul style="list-style-type: none"> Consistency of sampling method varied but the QAQC work indicated no bias with the sampling. The sampling techniques are considered appropriate for the deposit type with all sampling to industry standard practices. <p>XRD Test Sample Selection & Preparation</p> <ul style="list-style-type: none"> In November/December 2024, 28 RC samples from 11 drillholes were prepared for XRD analysis to help determine the mineralogical variation across the project area. The top and base for the sample intervals were determined from the location of the modelled Ore Units (#1, #2 and #3) along the length of each drillhole. The matching 1m library samples preserved from previous drilling programs were then retrieved from storage and composited for each Ore Unit interval to give an approximate 20kg mass for the composite sample. 20kg was the nominated mass required by the laboratories to perform the XRD and metallurgical testing. Each of the 1m samples (~12-15kg) covering a particular Ore Unit interval were split the same number of times through a three-tiered splitter (12.5%, 12.5%, 75%) and a single-tiered splitter (50%, 50%) to achieve the nominated ~20kg sample mass. The samples were placed into an IBC container and transported to Intertek laboratory Perth using their chain of custody documentation and labelling system. A list of samples is included in Section 2 <p>Metallurgical Test Sample Selection & Preparation</p> <ul style="list-style-type: none"> In November/December 2024, ¾ core from 5 drillholes was transported to JKTech in Brisbane for metallurgical testing. ¼ core from drillhole FCFO23023 was retained for further testing. The entire ¾



Criteria	JORC Code explanation	Commentary
		<p>core for the other 4 drillholes was used for this round of testing.</p> <ul style="list-style-type: none"> Sample intervals were nominated by CMD Consulting and actual intervals were selected based on how close they matched the available core (stored in core trays). The core trays containing the nominated core intervals were covered with plastic pallet wrap and secured to the pallets with steel strapping. A list of samples is included in Section 2.
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g., 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.). 	<p>CAP</p> <ul style="list-style-type: none"> The RC drilling for 2010 was carried out using a truck mounted Schramm and truck mounted KWL 1600H. Both rigs used 4.5" rods and 5.5" face bits. PD and DD drilling was carried out using a truck mounted UDR650 using NQ2 and standard HQ diameters. Core orientation used the Ace Core orientation tool. For the 2016 drilling (all RC drilling) truck-mounted Sandvik DE 840 (UDR1200), UDR1000 and Metzke rigs were used. All rigs used 4.5" rods with 5.5" face bits. The RC drilling for 2021-2022 was carried out using the following truck mounted drill rigs: Sandvik UDR 1200HC Sandvik UDR 1000 Both rigs used 4.5" rods and 5-5/8" face bits. The DD drilling was carried out using a range of truck-mounted drill rigs, including: <ul style="list-style-type: none"> Two x Sandvik UDR 1000 Sandvik UDR 1200 Bournedrill L1000THD Boart Longyear KWL 1600. <p>HIO</p> <ul style="list-style-type: none"> The RC drilling for 2021-2022 was carried out using the following truck mounted drill rigs:



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		<ul style="list-style-type: none"> ○ Sandvik UDR 1200HC ○ Sandvik UDR 1000 ○ Both rigs used 4.5" rods and 5-5/8" face bits. • The DD drilling was carried out using a range of truck-mounted drill rigs, including: <ul style="list-style-type: none"> ○ Two x Sandvik UDR 1000 ○ Sandvik UDR 1200 ○ Bournedrill L1000THD ○ Boart Longyear KWL 1600. • All core drilled was HQ3 diameter. A range of core orientation tools were used on geotechnical core, they include: <ul style="list-style-type: none"> ○ Reflex Act III ○ Boart Longyear TruCore ○ Boart Longyear TruShot • The 2023-4 drilling used a truck-mounted McCulloch DR950 rig with 4.5" rods with stabiliser subs and 5-5/8" face bits.
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>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.</i> 	<p>CAP</p> <ul style="list-style-type: none"> • The 2010 RC sampling was on 1m intervals into green plastic bags. Sample recoveries for RC were visually estimated by the geologist at the time of drilling and recorded qualitatively as high, medium and low. • Because no numerical RC chip recovery data existed it was not possible to conclude if there was a relationship between sample recovery and mineral grade • The 2016 RC drilling recorded sample weights for 272 1m samples with recoveries of 80-90% for dry samples and 40 to 50% for wet samples. Plotting of recoveries versus DTR grade indicated no obvious sampling bias. • Core recoveries were recorded by measuring the length of core recovered in each drill run divided by the drilled length of the individual core runs; average recovery is >97%.



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		<ul style="list-style-type: none"> A handheld XRF orientation study by CAP for the 2010 RC drilling concluded that there was no sample bias with loss or gain of fine/coarse material with the RC drilling. A very modest number of wet samples were recorded in the 2010 RC drilling and for the 2016 drilling, <5% of samples were logged as wet. A study by Keith Hannan of Geochem Pacific Pty Ltd, an independent geochemist/consultant determined, "the magnetite recoveries for the composited intervals of individual samples are not systematically influenced (biased) by method of drilling and type of recovered sample". <p>HIO</p> <ul style="list-style-type: none"> The 2021-2 RC drilling indicated no sampling bias of significance for DTR vs sample recovery. Triple tube HQ core had core recoveries recorded by measuring the length of core recovered in each drill run divided by the drilled length supplied but visual indications were that recovery was very good. For the 2023-4 drilling RC recoveries were recorded by measuring the mass of the primary, library/duplicate and bulk reject samples of each 1m drilled. This data was then used to calculate a recovery percentage based on a theoretical mass calculated using downhole short-spaced density (SSD) data and the nominal drillhole diameter (143mm). An average qualitative value of 78% was achieved. No bias was noted in any of the HIO datasets Triple tube HQ core was used resulting in diamond core recoveries for the 2023-4 period being very good. Lower than normal core recoveries in both campaigns were recorded for top of hole cover and oxidised zones and the occasional but rare rubble/clay gouge fault material.
Logging	<ul style="list-style-type: none"> <i>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.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or</i> 	<ul style="list-style-type: none"> Every RC, percussion and diamond drillhole was logged by a geologist & entered into Excel spreadsheets recording; Recovery, Moisture content, Magnetic susceptibility, Oxidation state, Colour, % of Magnetite, Gangue Min, Sulphide Min, Veins and Structure. Data was uploaded to a customised Access database. Handheld magnetic susceptibility measurements and geological logging was



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	<p><i>costean, channel, etc.) photography.</i></p> <ul style="list-style-type: none"> <i>The total length and percentage of the relevant intersections logged.</i> 	<p>completed for every metre of every drillhole.</p> <ul style="list-style-type: none"> Logging used a mixture of qualitative and quantitative codes. All RC samples were sub-sampled, sieved, washed and stored in a labelled plastic chip tray. All remaining drill core after sampling was stored in labelled plastic core trays and subsequently stored at the company's offices in Broken Hill. Processing of drillcore included core orientation, metre marking, magnetic susceptibility measurements (every 0.5m), core recoveries, rock quality designation (RQD). All drill core was photographed wet and dry after logging and before cutting. All relevant intersections were logged. Geological logging was of sufficient detail to assist in the creation of a geological model.
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> 	<p>CAP</p> <ul style="list-style-type: none"> The 2010 RC samples were composited in the field using geological control via the spear sampling method of the 1m bulk sample bags. The spear method was concluded by CAP to be adequate based on the results of a handheld XRF orientation exercise. The green plastic bags were speared from a range of angles to the bottom of the bag to ensure a representative sample. The compositing produced a 2m to 10m 3kg sample for laboratory analysis at ALS Labs in Perth. The 2016 RC samples were split using a riffle splitter (no details of type used) that produced a 1/16th split taken from the rig every metre and then composited to 5m intervals by splitting again using a 50/50 splitter to give a 6-7kg sample. DD core was cut into half core using a brick saw and diamond blade. The core was cut using the orientation line or perpendicular to bedding. to produce an 8m composite sample (predominantly NQ core). Half core was sent to ALS Perth for analysis, whilst the remaining half core was retained for reference. Sample Preparation was completed at ALS Laboratories Perth <ul style="list-style-type: none"> Crush the sample to 100% below 3.35 mm. A 150 g sub-sample for pulverizing in a C125 ring pulveriser (record weight) – DTR SAMPLE.



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		<ul style="list-style-type: none"> ○ Initially pulverize the 150 g sample for nominal 30 seconds – the sample is unusually soft for a ferro-silicate rock. ○ Wet screen the DTR sample at 38 micron pressure filter and dry, screen at 1 mm to de-clump and re-homogenize. ○ Report the times and weights for each grind pass phase. ○ Combine and homogenize all retained -38 micron aliquots and <5 g oversize –final pulverized product. Sub-sample the final pulverized product to give a 20 g feed sample for DTR work and a ~10 g sample for HEAD analysis via XRF fusion. • The 2010 work employed field duplicates (23 5m samples) using the spear sampling technique which on analysis produced acceptable results. • The 2016 work had a much more comprehensive QAQC programme which included 87 'field pairs' (not actual duplicates) at an insertion rate of 1 in 10, 111 lab duplicates and 39 blanks (river sand) at an insertion rate of 1 in 20, 58 2nd lab checks (Intertek Labs in Perth), pulp duplicates for XRF analysis and sample preparation checks. • For the 2016 work the field pair results produced a slightly sub-optimal outcome but were still acceptable for the current resource classification and seemed to be less precise than the spear sampling produced good results indicating acceptable sample preparation procedures. The 2nd lab checks on 150g sub-samples produced results indistinguishable from the original lab results. Pulp duplicates demonstrated chemical homogeneity with the XRF analysis. • 30 primary crush and sub-sample checks were completed by Aussam Geotechnical Services (Broken Hill) which concluded that no evidence of bias with the oversize mineralogy. • Blank samples comprising river sand produced results that indicated no contamination of the samples during the sample preparation process. • An additional check on the field sub-sampling and compositing procedure used a Jones 3 tier riffle splitter (1/8) and a free-standing 1:1 splitter to match the 1/16 rig splitter. A total of 30 5m composite intervals were utilised. Noting that all samples were dry, slightly better results were achieved than the original 'field pair' process. However under full field conditions it was thought that there was likely to be no difference between the riffle splitting and spear sub-sampling



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		<p>methods. Both are at risk to human errors, which perhaps can be better managed with the riffle splitting.</p> <p>HIO</p> <ul style="list-style-type: none"> The 2021/2022 RC samples were split using a 1/8th-7/8th riffle splitter placed under the rig cyclone. Samples were taken every metre and then composited in 5m intervals using the spear sampling method. Samples were then sent to a commercial laboratory, Bureau Veritas in Adelaide. DD core was cut perpendicular at start and end of sample interval and cut longitudinally in quarter for geochemical sampling. The 2023-4 RC samples were sub-sampled using a Metzke Fixed Cyclone/Cone Splitter combination. Every metre was separated into a 12% primary, a 12% library/secondary sample and a 76% bulk reject sample. Samples were sent to a commercial laboratory Bureau Veritas ("BV") in Adelaide for sample preparation and analysis. Each 1m primary sample and selected 1m secondary samples (used to form 5 metre duplicate composites) were sub-divided by a ¼ rotary splitter, then composited into 5m samples for DTR & XRF preparation. The HQ3 DD core from the calibration hole was cut into 1m intervals. Each 1m interval was then cut longitudinally to produce ¼ core samples for geochemical sampling. Sample preparation was as for CAP with drying, crushing and pulverising to give a 150g pulp sample. 20g feed for DTR and 10g feed for head XRF assays. QAQC consisted of both field and laboratory duplicates for DTR and XRF analyses (both DTR concentrate and head assays). No issues were reported. QAQC also included coarse reject samples again with no issues noted. All exploration sampling methods and samples sizes are deemed appropriate. <p>XRD Analysis (Intertek Laboratory, Perth)</p> <ul style="list-style-type: none"> Samples were coned and quartered, then grab samples were taken. Samples were prepared according to procedure XRD16 (dry 50C, mill < 60um,



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		<p>micronised).</p> <ul style="list-style-type: none"> The XRD method used was XRDQU.ANT01 - Quantitative analysis, crystalline and amorphous content. Amorphous content was determined via an internal standard single scan. An Internal standard ZnO (zincite) was used. The instrument used was a PANalytical Cubix3 XRD using Cobalt radiation (operating at 40 kV and 40 mA) and a BBHD monochromator (incident beam). Qualitative analysis was performed using Bruker Diffac.EVA 6.0 Search/Match software and and ICDD PDF-2 (2023) database Quantitative analysis was done using SIROQUANT Version 4 with an ICSD (2023) database. <p>Metallurgical Test Work</p> <ul style="list-style-type: none"> The 12 Hawsons drill core samples mentioned above were submitted by the company to JKTech Brisbane in late 2024 for comminution test work that included conventional SMC Test® and Bond ball ore comminution characterisation testing. In addition, Geopyörä ore characterisation tests were completed by Core Resources on the same 12 samples. Geopyora test results have been suggested in recent publications as being more suitable for VRM machine process assessment and sizing. The products from the 12 ore comminution characterisation test work were prepared (P80 of -9.5 mm)for processing via JKTech's laboratory High-Pressure-Grinding-Roll (HPGR) unit under low operating pressures and dry screening (@180 µm) to simulate the effect of the dry air classification in the VRM. The HPGR comminution testwork completed on the samples yielded both a coarse/grits (+180 µm) product and a fines (-180 µm) product. On average the HPGR tests produced ~60% passing -180 µm product. JKTech conducts regular quality assurance and quality control testing of laboratories licensed to perform various tests, including the JK Drop Weight Test, SMC Test® and the JK Bond Ball Mill Test. HPGR crushed products were shipped to China (Longi Magnet) to undergo dry



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		<p>magnetic separation using industry leading technology to assess magnetite recoveries for both size fractions.</p> <ul style="list-style-type: none"> The JKMRC laboratory scale HPGR unit is a Krupp Polysius machine. The roll diameter is 300mm, the roll width is 70mm, the available roll speeds are 0.33m/s and 0.67m/s, the rolls surface liner type are studded, and the moveable roll is controlled by nitrogen gas and oil cylinders to control specific press forces. Prior to processing the samples, the HPGR unit was set to a roll speed of 0.33 m/s, initial operating gap of 8mm, and operating pressures were set to 30 Bar nitrogen and 60 Bar oil. Under these conditions the specific press forces were low, simulating a similar breakage environment to vertical roller mill (VRM) technology. The HPGR testwork confirmed low HPGR energy requirements for comminution. For the 12 samples tested, the average calculated HPGR specific energy was approximately 2.7 kWh/t in open circuit, and 3.7 kWh/t in closed circuit assuming oversize (+180 µm) has the same characteristics of the feed. Therefore, preliminary results indicate total circuit specific energy from F80 of 150mm to P80 of less than 150um is approximately 4.9 kWh/t. This includes the energy to crush the ore from 150 mm to 9.5 mm (the feed size to the samples that were tested in the HPGR). <p>Test Procedures</p> <p>SMC</p> <ul style="list-style-type: none"> In the SMC Test®, five sets of 20 particles were broken, each set at a different specific energy level, using a JK Drop-Weight tester. The breakage products were screened at a sieve size selected to provide a direct measurement of the t10 value. The test calls for a prescribed target average volume for the particles, with the target being chosen to be equivalent to the mean volume of particles in one of the standard JK Drop-Weight test size fractions. The rest height of the drop-head (gap) was recorded after breakage of each particle to allow for a correction to the drop energy. After breaking all 20 particles in a set, the broken product was sieved at an aperture size, one tenth of the original particle size. Thus, the percent passing mass gave a direct reading of



Criteria	JORC Code explanation	Commentary
		<p>the t10 value for breakage at that energy level.</p> <ul style="list-style-type: none"> The particle selection method was used in this test procedure. <p>Geopyöra</p> <ul style="list-style-type: none"> The Geopyöra breakage test concept is to use counter-rotating wheels to nip and crush a rock with a tightly controlled reduction ratio from the feed to a defined gap between rollers,. This allows the automated feeding of rocks one at a time through the spinning wheels, with no requirement of stopping, resetting and sweeping away broken fragments between each rock breakage. It also allows to measure the force applied and energy consumed in each breakage event. The following standard test procedure was applied to all samples: <ul style="list-style-type: none"> <u>Sample preparation</u> <ul style="list-style-type: none"> Break core with hammer and chisel (not needed for bulk ore samples) Crush the sample using a jaw crusher with CSS at 20 mm Sieve the sample using the following screen apertures: 31.5, 26.5, 22.4, 19, 16, 13.2 mm Choose the largest size fraction with more than 30 particles for testing Discard flaky particles Divide the particles into 2 batches (for high and low energy tests) Breakage test using the Geopyöra device Run the calibration procedure Set the gap and speed for high and low energy tests Weigh and feed one particle at a time The scale is integrated to the Geopyöra Collect the product for particle size analysis <u>Product size analysis</u> <ul style="list-style-type: none"> Prepare a deck with the following sieves Pan, Bond sieve, 2 sieves above, t10 size, 2 sieves above (6 sieves in total)



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		<ul style="list-style-type: none"> ○ Sieve for 5 minutes using a RoTap ○ Record the following: Total mass; Mass above t10 sieve; Mass below Bond sieve; Density measurements ○ Select all particles above 16 mm that have not been tested ○ Weigh each particle, suspended initially in air and then in water <p><u>Bond Ball Mill Work Index (BWI)</u></p> <ul style="list-style-type: none"> • The BWI is measured by conducting a standard locked cycle grinding laboratory test. It starts with an ore feed sample prepared to 100% passing 3.36 mm to generate a final product size in the range of 45-150 µm. For the 12 samples, a closing screen of 150 µm was selected to achieve a target grind size of approximately 106 µm.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • 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. 	<p>CAP</p> <p><u>Davis Tube Recovery (DTR) Analysis</u></p> <ul style="list-style-type: none"> • Pulveriser bowl 150 ml • Stroke Frequency - 60/minute • Stroke length – 38mm • Magnetic field strength – 3000 gauss • Tube Angle – 45 degrees • Tube Diameter – 40mm • Water flow rate – 540-590 ml/min • Washing time 20 minutes • Collect the concentrate in small collector (magnetic fraction) and discard tails. • Dry the DTR concentrate and report the weight of the concentrate as a percentage of measured feed and report – DTR Mass Recovery. • X-Ray Fluorescence (XRF) Assaying • Using the Head Sample, analyse by XRF fusion method for the following attributes: Al₂O₃%, As%, Ba%, CaO%, Cl%, Co%, Cr%, Cu%, Fe%, K₂O%,



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		<p>MgO%, Mn% Na2O%, Ni%, P%, Pb%, S %, SiO2%, Sn%, Sr%, TiO2%, V%, Zn%, Zr% & LOI.</p> <ul style="list-style-type: none"> Using the DTR concentrate sample analyse by XRF fusion method for the following grades: Al2O3%, As%, Ba%, CaO%, Cl%, Co%, Cr%, Cu%, Fe%, K2O%, MgO%, Mn% Na2O%, Ni%, P%, Pb%, S %, SiO2%, Sn%, Sr%, TiO2%, V%, Zn%, Zr% & LOI JH8 and KT5 magnetic susceptibility meters were used to record magnetic susceptibility. A laboratory standard was used each day to calibrate each metre. A Niton XL3T Gold handheld XRF machine was used. A laboratory analysed sample was used to calibrate for Fe. QAQC procedures consisted of the use of 3 certified reference materials for DTR (head and high grades) and XRF analysis at a frequency of 1 per 15 for the 2016 drilling. The reported results for the standards meet industry accepted criteria for accuracy, both for DTR magnetite recoveries and XRF analyses of the critical elements (Fe, Si, Al, and P). It is uncertain if certified reference materials were used for the 2010 drilling. In CAP's documented drilling procedures it was indicated that a standard insertion rate of 1 in 30 should be used. In a QAQC review of procedures Keith Hannan noted that CAP utilises a 'monitor' standard consisting of crushed magnetite-rich rock derived from local outcrops but without commenting on any results. Keith Hannan of Geochem Pacific Pty Ltd, an independent geochemist/consultant reviewed the QAQC results for both the 2010 and 2016 drilling and expressed satisfaction with precision, accuracy and any lack of bias in the data, making it fit for purpose for resource estimation. The CAP SSD (density) data was collected using a FDS50 down hole tool containing a 3500CO radioactive source. No other information is available particularly for calibration. All assay methods are deemed appropriate by HSC. <p>HIO</p> <ul style="list-style-type: none"> Analysis for the 2021-2 and 2023-4 drilling was the same as for the CAP drilling. This included recovered magnetic fraction using a Davis Tube with XRF analysis of the DTR concentrate and the original composited sample (head assays).



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		<ul style="list-style-type: none"> The 2021-22 and 2023-24 drilling used Certified Reference Materials, blank samples and second cross-lab checks (ALS in Perth). QAQC procedures consisted of the use of 3 certified reference materials for DTR (head and high grades) and XRF analysis at a frequency of 1 per 15. The reported results for the standards meet industry accepted criteria for accuracy, both for DTR magnetite recoveries and XRF analyses of the critical elements (Fe, Si, Al, and P). <p><u>Geophysical Logging (HIO)</u></p> <ul style="list-style-type: none"> Geolog Pty Ltd logged each hole with three downhole logging tools: <ul style="list-style-type: none"> Robertson Geoscience compensated dual density, natural gamma, caliper and temperature probe (Density Combination Probe); Robertson Geoscience magnetic susceptibility probe (Magsus); and Reflex Gyro downhole survey instrument (Gyro). QAQC measures/checks applied to these probes included: <ul style="list-style-type: none"> Calibrated in aluminium block and water prior to departure to Hawsons site. Calibrated in Robertson Geoscience calibration sleeve prior to departure to Hawsons site. The gyro utilises a digital surface-referenced MEMS-gyro system for accuracy of calibration and is tested against the driller's Axis rod-string gyro tool. On site calibration uses HQ cored hole FCFO23023. This hole is now logged with all tools each time the logger comes to site, before logging of newly drilled holes commences, and at other nominated times during the logging campaign. All assay methods are deemed appropriate.
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<p>CAP</p> <ul style="list-style-type: none"> Data was stored in a customised Access database. Database checks were completed by S. Tear of HSC on 5 randomly selected drillholes. Checks included comparing database values with original collar survey reports, downhole survey reports and assay certificates. No issues were noted. Two DD holes were used as twin holes to verify the results for 2 pairs of RC holes



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		<p>and the DTR performance.</p> <ul style="list-style-type: none"> The results are reasonable but there is some potential ambiguity mainly due to a fundamental lack of assay data (mainly with the diamond drilling) and the separation distance of the relative mineral intercepts. It was concluded by Keith Hannan that “the ‘twin hole’ site data that, although there is demonstrable variation in average magnetite grades within several metres along-strike, there is no evidence of a consistent positive bias in the magnetite levels determined for RC samples”. No details are available for any documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. CAP used a suite of documented procedures for the 2016 drilling-related activities drawn as a flowsheet. No adjustments were made to raw assay data except for the resource estimation where below detection results were recorded as half below detection value. Density data from the downhole geophysics was adjusted upwards by 5.2% based on check density measurements using drillcore and an immersion in water technique and the weight in air/weight in water (Archimedes) method. <p>HIO</p> <ul style="list-style-type: none"> Wes Nichols, Competent Person for the HIO Exploration Results, has visited the site several times in the 2021-4 time period. One diamond twin of an RC hole has been completed by HIO for the 2023-4 drilling. This diamond hole is used for the geophysical calibration and provided information on the density and the need for any corrections to the downhole geophysical data. A file-based database system was used “DataStore” which utilised import and export tools that also validated and formatted the data. Data inputs for lithology, geochemistry and geophysics were utilised. Heading checks on each file were enacted via the software and once flagged corrections made in the input forms to ensure correct allocation of outcomes. Data was verified maximum / minimum value checks, sample advice to report reconciliation, dictionary checks and text value checks. Clean validated files once available were automatically uploaded to the database All assay data is validated through a proprietary MS Excel-based software (Lab-



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		In for Geochem) program which has error-trapping and validation dictionary routines. Error reports are produced and provided back to the data provider for rectification and resubmission of corrected data.
Location of data points	<ul style="list-style-type: none"> • 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. 	<p>CAP</p> <ul style="list-style-type: none"> • Drillhole collars were located by a local surveyor using a Differential GPS with accuracy to less than one metre. • Coordinates were supplied in GDA 94 – MGA Zone 54. HSC used a local grid conversion which involved rotating the drilling data 320o in a clockwise direction to give an orthogonal E-W strike to the mineralisation. • Down hole surveys for the 2010 drilling were initially recorded as single shot digital displays and were then recorded using a gyroscope due to the highly magnetic nature of the deposit. All the 2016 drillholes had downhole surveys measured using a gyroscope. • It is noted that the downhole surveys in the database for the 2010 drilling consisted of 30 to 60m spaced single shot camera surveys and not the gyro data due to limitations with the gyro data as result of hole collapse and reluctance of the contractor to send the probe to the full hole depths. A 3D check plot of five holes indicated minimal deviation for the common downhole lengths between the single shot and gyro data. Hole deviation appeared to increase to significant distances but is associated with a ‘run over’ projection of the gyro data and therefore not necessarily accurate. • Topographic control was collected using a high-resolution Differential Global Positioning System by a local surveyor. • Location methods used to determine accuracy of drillhole collars are considered appropriate. <p>HIO</p> <ul style="list-style-type: none"> • For the 2021-22 and 2023-4 exploration programs, drillhole collars were surveyed by a local accredited surveyor using ALTUS APS-3 RTK (Real Time Kinematic) GPDS units in differential mode, which provided an accuracy of 2 to 3 centimetres in horizontal and vertical measurements. • Current GDA94 coordinates of an existing permanent control point HK1 at the exploration site were utilised as a basis for the surveys.



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		<ul style="list-style-type: none"> Coordinates were supplied in both GDA94 – MGA Zone 54 and GDA2020 – MGA Zone 54. HIO is now operating in GDA2020 – MGA Zone 54 and is using this as standard. Due to the highly magnetic nature of the mineralisation, down hole surveys for the 2021-22 drilling were measured using a gyroscope where possible. Difficulty with getting the tool down the hole because of hole cave meant that some holes could not be logged along their entire length and where possible a multi shot downhole camera survey was utilized. Downhole surveys for the 2023-4 drilling were measured using both Geolog's downhole Reflex gyro and an Axis Champ Navigator Gyroscope at 10m intervals down the length of the holes and to within 10m of final hole depth. Topographic control was maintained using data control points set out by an accredited local surveyor. In 2021, a LiDAR survey was conducted to better constrain the local topography.
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 applied.</i> 	<p>CAP</p> <ul style="list-style-type: none"> The deposit is drilled at a nominal spacing of 150m to 200m in section and plan extending to 400m on the periphery of the deposit. Downhole RC and DD sample spacing was 1m. The drill spacing was deemed adequate for the interpretation of geological and grade continuity noting the along strike stratigraphic homogeneity associated with the style of mineralisation. A majority of holes had downhole geophysics completed except where hole collapse prevented progress of the probe. Downhole sampling was at 1cm intervals which were averaged over 10cm intervals to aid modelling. The 2010 drill samples were composited in the field under geological control with an interval range of 2 to 10m with an average length of 8m. The 2016 RC drill samples were composited to 5m. <p>HIO</p> <ul style="list-style-type: none"> In 2021-22, closer spaced drilling on approximately 100m centres was completed within the Core West area and the drill spacing was deemed adequate for the interpretation of geological and grade continuity for the stratigraphic homogeneity associated with the style of mineralization along



Criteria	JORC Code explanation	Commentary
		<p>strike.</p> <ul style="list-style-type: none"> The data spacing is deemed appropriate for Mineral Resources and their classifications. The 2021-2 and 2023-4 RC and DD samples were composited into 5m intervals along the hole length.
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"> Drilling was generally angled at -55° to -60° dip, and at right angles to geological strike to ensure sub-perpendicularity to the bedding, which is the primary control to the magnetite mineralisation. Different azimuths were used to reflect the changing strike of the beds associated with folding of the sediments and were designed to maintain the steep angle to the bedding. Locally holes suffered significant deviation to the right (east) with depth. This affected the lower Unit 2 more than the upper Unit 3. Drilling orientations are considered appropriate with no bias. The drilling orientation made it very difficult to intersect the cross-cutting fault structures as the drilling was often sub-parallel to these features. Therefore, information on the nature and impact on metal grade of the structures, particularly with any potentially associated penetrative oxidation, is relatively unknown.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<p>CAP</p> <ul style="list-style-type: none"> All samples were stored on site under CAP personnel supervision until transporting to the CAP Broken Hill office. No details are available on the transportation of samples to the laboratory. <p>HIO</p> <ul style="list-style-type: none"> All primary & secondary samples were bagged using industry standard calico sample bags and stored on site under the supervision of an HIO representative. Primary sample bags are pre-numbered to ensure that samples are not missed. Primary and secondary samples were separately packed into IBC containers, a lid was secured with tek screws and strapped to the container to ensure there



Criteria	JORC Code explanation	Commentary
		<p>was no loss of sample during transport.</p> <ul style="list-style-type: none"> • Samples were dispatched on a regular basis via a trusted logistics company and were accompanied by a manifest. Photos were taken of each IBC at its send point before despatch • The HIO assay results are emailed by the laboratory to multi company personnel where validation checks are completed, any errors are communicated back to the laboratory which fixes any issues and re-reports the assay results.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<p>CAP</p> <ul style="list-style-type: none"> • Sample procedures and results were systematically reviewed by CAP personnel. • The QAQC data was reviewed by CAP staff • The 2010 QAQC data was also reviewed by Keith Hannan of Geochem Pacific Pty Ltd, an independent Geochemist/consultant who concluded: • The duplication procedure for composite RC samples, by careful spearing, is demonstrably effective. • An absence of mismatches between duplicates and the consistency of analytical results for CAP blanks and the CAP certified standards indicate that sample handling procedures in the field for this complex program are well executed. • Based on the laboratory chemical analyses and derived parameters such as magnetite content, the CAP monitor standard is chemically and mineralogically uniform and therefore 'fit-for-purpose'. • The high degree of correlation between the averaged field portable (FP) XRF readings for Fe on primary bags of RC spoil and the laboratory analyses of Fe on the much smaller composite samples derived thereof, indicates that downhole Fe distributions are successfully mapped by FP XRF and that the compositing procedure is effective. • Keith Hannan completed an exhaustive review of the sampling and assaying for the 2016 drilling which concluded "The investigation of multiple sources of QAQC data finds the magnetite recoveries and chemical analyses obtained for



Criteria	JORC Code explanation	Commentary
		<p>the sample composites of the Hawsons Iron Project 2016 RC Infill Drilling Programme to be fit for the intended purpose of ore resource estimation and planning. Sampling and laboratory preparation and analytical errors are well within industry standard tolerances, and without demonstrable bias”.</p> <p>HIO</p> <ul style="list-style-type: none"> • An audit on sample tracking/arrival, sample preparation and analysis procedures were conducted by Wes Nichols on 01/12/2021 at the Bureau Veritas Laboratory at Wingfield in Adelaide. An additional audit at Bureau Veritas in Adelaide was conducted by Wes Nichols & Dean Roberts of Hawsons Iron Ltd on 28/11/2023. While the equipment and procedures were observed for XRF analysis during this audit visit, no samples were ready to be analysed via XRF on those dates. • McMahon Resources completed reviews of the sampling and assaying for the 2021-22 and 2023-24 drilling program data. No issues were noted.



Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <i>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.</i> <i>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.</i> 	<ul style="list-style-type: none"> The Hawsons Magnetite project is located in Western NSW, 60 km southwest of Broken Hill. The deposit is 30km from the Adelaide-Sydney railway line, a main highway and a power supply. The project is wholly owned by HIO who currently manage the project. In December 2023, Hawsons acquired a new tenement (EL9620) that adjoins the southern boundary of EL7208. The project area is entirely within Exploration Licences (ELs) 6979, 7208, 7504 & 9620. Hawsons is the sole tenure holder of these ELs. Licence conditions for all ELs have been met and are in good standing. An application for a Mining Lease (ML) was lodged with the NSW Trade & Investment Department in October 2013 and MLA621 was granted in December 2023. MLA621 covers more area than the previous MLA460 which was relinquished on the granting of the new MLA.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> In 1960 Enterprise Exploration Company (the exploration arm of Consolidated Zinc) outlined a number of track-like exposures of Neoproterozoic magnetite ironstone (+/- hematite) which returned a maximum result of 6m at 49.1% Fe from a cross-strike channel sample. No drilling was undertaken by Enterprise. CRAE completed in 1984, five holes within EL 6979 seeking gold mineralisation in a second-order linear magnetic low interpreted to be a concealed faulted iron formation within the hinge of the curvilinear Hawsons' aeromagnetic anomaly. CRAE's program failed to locate significant gold or base metal mineralisation but the drilling intersected concealed broad magnetite ironstone units interbedded with diamictite adjacent to the then untested peak of the highest amplitude segment of the Hawsons aeromagnetic anomaly.
<i>Geology</i>	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The Hawsons Magnetite Project is situated within folded, upper greenschist facies Neoproterozoic rocks of the Adelaide Fold Belt. The Braemar Iron Formation is the host stratigraphy and comprises a series of strike extensive magnetite-bearing siltstones generally with a moderate dip (circa -55°), primarily to the southwest. The airborne magnetic data clearly indicates the magnetite siltstones as a series of parallel, high amplitude magnetic anomalies. Large



Criteria	JORC Code explanation	Commentary
		<p>areas of the Hawsons prospective stratigraphy are concealed by transported ferricrete and other younger cover. The base of oxidation due to weathering over the prospective horizons is estimated to average 80m from surface.</p> <ul style="list-style-type: none"> The Hawsons project comprises a number of prospects including the Core, Fold, T-Limb, South Limb and Wonga deposits. Mineral Resources have been generated for the Core and Fold areas, which are contiguous. The depositional environment for the Braemar Iron Formation is believed to be in a subsiding basin, with initial rapid subsidence related to rifting possibly in a graben setting as indicated by the occurrence of diamictites in the lower part of the sequence (Unit 2). A possible sag phase of cyclical subsidence followed with deposition of finer grained sediments with more consistent bed thicknesses, style and clast composition (Unit 3), as compared to the diamictite units. The transition from high (Unit 2) to lower (Unit 3) energy sediment deposition is marked by top of the Interbed Unit. The distribution of disseminated, inclusion-free magnetite in the Braemar Iron Formation at Hawsons is related to the composition and nature of the sedimentary beds. The idioblastic nature of the magnetite is believed due to one or more of a range of possible processes including in situ recrystallisation of primary detrital grains, chemical precipitation from seawater, or permeation of iron-rich metamorphic fluids associated with regional greenschist metamorphism. Grain size generally ranges from 10microns to 0.2mm but tends to average around the 40microns. The sediment composition and grain size appear to provide the main control on the mineralisation. There is no evidence for structural control in the form of veins or veinlets coupled with the lack of a strong structural fabric In the majority of the Core and Fold deposits the units strike southeast and dip between 45 and 65° to the south west. The eastern part of the Fold deposit comprises a relatively tight synclinal fold structure resulting in a 90° strike rotation.
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) 	<ul style="list-style-type: none"> Exploration results not being reported. Samples composited for XRD and metallurgical analysis are listed below.



Criteria	JORC Code explanation	Commentary
	<p><i>in metres) of the drill hole collar</i></p> <ul style="list-style-type: none"> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> <ul style="list-style-type: none"> • <i>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.</i> 	



Criteria		JORC Code explanation							Commentary						
XRD Sample List (see Attachment 1 for Analysis Cluster Derivation)															Mass (kg)
Drillhole	East MGA2020	North MGA2020	RL	TD	Year Drilled	Sample No.	Area	Ore Unit	Sample Interval (Depths)	Thickness (m)	Ave Mags %	Ave Head Fe%	Comment	Intertek	
RDCW21007	511925.60	6412907.83	188.64	399.00	2021	RDCW21007-Comp1	Core West	?	0-75	75	1.26	8.76	Unmapped full ox	19.95	
						RDCW21007-Comp2	Core West	?	75-140	65	7.50	17.75	Unmapped partial ox	19.65	
						RDCW21007-Comp3	Core West	3	140-278	138	9.76	23.93	Unoxidised	19.20	
RDCW22032	512771.34	6412394.39	189.77	671.10	2022	RDCW22032-Comp1	Core West	3	81-225	144	6.89	19.58	Unoxidised	24.05	
						RDCW22032-Comp2	Core West	3	225-306	81	14.88	18.78	Unoxidised	19.00	
RCFO22036	513717.14	6411634.60	202.61	300.00	2022	RCFO22036-Comp1	Fold	3	44-75	31	3.06	23.91	Oxidised	22.40	
						RCFO22036-Comp2	Fold	3	75-112	37	7.37	20.05	Oxidised	22.50	
						RCFO22036-Comp3	Fold	3	112-138	26	5.08	25.60	Oxidised	16.35	
RCFO22045	513426.12	6412157.30	199.12	348.00	2022	RCFO22045-Comp1	Fold	3	0-65	65	2.85	20.80	Low DTR Oxidised	18.15	
						RCFO22045-Comp2	Fold	3	65-142	77	10.32	18.20	Low DTR Oxidised	19.65	
						RCFO22045-Comp3	Fold	3	142-265	123	11.23	12.98	Unoxidised	24.80	
						RCFO22045-Comp4	Fold	3	265-295	30	9.71	10.87	Unoxidised	22.20	
RCFO22054	514341.26	6412025.75	196.33	303.00	2022	RCFO22054-Comp1	Fold	2	44-220	176	12.30	18.53	Unoxidised	21.70	
RCFO23012	514566.24	6412298.05	193.52	149.00	2023	RCFO23012-Comp1	Fold	1	0-39	39	6.34	12.24	Oxidised	20.40	
						RCFO23012-Comp2	Fold	1	39-56	17	7.50	11.28	Interbed IBD1	23.80	
						RCFO23012-Comp3	Fold	1	56-120	64	14.24	15.48	Unoxidised	19.05	
						RCFO23012-Comp4	Fold	1	120-149	29	11.52	16.37	Footwall Unoxidised	20.05	
RCFO23013	514701.38	6411877.88	195.67	155.00	2023	RCFO23013-Comp1	Fold	1	75-155	80	13.99	15.78	Unoxidised	21.80	
RCFO23024	514191.74	6412435.79	187.04	151.00	2023	RCFO23024-Comp1	Fold	1	5-76	71	6.28	11.99	Oxidised	18.10	
						RCFO23024-Comp2	Fold	1	135-151	16	8.80	19.84	Interbed IBD1	18.55	
RCFO23028	514645.36	6411650.38	197.67	151.00	2023	RCFO23028-Comp1	Fold	1	2-53	51	10.23	10.54	Oxidised	23.75	
						RCFO23028-Comp2	Fold	1	53-103	50	10.30	19.99	Unoxidised	24.35	
						RCFO23028-Comp3	Fold	1	103-151	48	9.85	18.60	Footwall Unox	21.40	
RCFO24006	513912.17	6410493.69	186.92	151.00	2024	RCFO24006-Comp1	Fold	2	3-48	45	2.69	13.04	Oxidised	24.20	
						RCFO24006-Comp2	Fold	2	48-151	103	6.05	13.18	Unoxidised	19.70	
RCF024011	513644.39	6411335.35	198.79	151.00	2024	RCF024011-Comp1	Fold	3	0-26	26	2.68	20.85	Hangingwall Oxidised	25.15	
						RCF024011-Comp2	Fold	3	26-89	63	4.05	20.05	Oxidised	23.50	
						RCF024011-Comp3	Fold	3	89-151	62	15.24	19.31	Unoxidised	23.75	
No. Comps						28		Total (m)		1,832		Total Mass (kg)		597.15	



Criteria		JORC Code explanation					Commentary		
Metallurgical Test Sample List									
					Interval				
HoleID/Core Interval	East MGA2020	North MGA2020	RL	TD	Core From	Core To	Length	No. Trays	Est. Mass
FCFO23023 0.00-149.80m	514153.84	6412246.11	188.89	149.80	0.00	149.80	149.80	42	988.68
GPFO22039 80.50-200.90m	513798.35	6411810.83	196.73	200.90	112.85	119.90	7.05	2	46.53
GPFO22059 149.6-400.20m	514231.65	6411823.31	200.02	400.20	160.00	166.94	6.94	2	45.80
					252.40	259.40	7.00	2	46.20
					309.10	316.70	7.60	2	50.16
GPCE22043 150.00-275.65m	513340.71	6412611.50	195.19	275.65	159.77	166.60	6.83	2	45.08
					202.95	209.10	6.15	2	40.59
GFCW22066 0.00-549.00m	512179.35	6413234.22	194.24	549.00	43.10	50.30	7.20	2	47.52
					129.60	136.50	6.90	2	45.54
					235.20	242.28	7.08	2	46.73
					Totals	212.55	60	1402.83	
Data aggregation methods	<ul style="list-style-type: none">In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.The assumptions used for any reporting of metal equivalent values should be clearly stated.					<ul style="list-style-type: none">Exploration results not being reported			
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none">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,					<ul style="list-style-type: none">Drilling has tended to be at a steep angle to the dip angle of the sedimentary beds.			



Criteria	JORC Code explanation	Commentary
	<i>there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	
<i>Diagrams</i>	<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"> Exploration results not being reported
<i>Balanced reporting</i>	<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"> Exploration results not being reported
<i>Other substantive exploration data</i>	<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"> A substantial amount of polished and thin section work has been completed on both RC chips and diamond core. This work has confirmed the nature and style of both the original sediment and the iron minerals including magnetite, hematite, chlorite and ferroan dolomite. Downhole geophysics comprises magnetic susceptibility, gamma and density and has been completed for a majority of the holes. This has resulted in the definition of a magnetic (and density- related) stratigraphy that is coincident with a chronostratigraphic interpretation. A geotechnical report was furnished by Gutteridge Haskins and Davey (GHD) in 2019 titled "Carpentaria-Hawsons Iron Ore project 2017 Prefeasibility Study Geotechnical Assessment." This study was completed via a staged approach to progressively improve the level of Geotechnical understanding for the PFS and to identify gaps that needed to be addressed. For the 2021-2022 exploration program, Pells, Sullivan & Meynink (PSM) completed a geotechnical design study for pit wall stability and to fill the gaps outlined in the GHD report. This report was completed in October 2022 TSIM VLF-EM ground-borne geophysical surveys have been conducted by HIO to help ascertain the north westerly and southeasterly extensions of newly discovered near-surface and exposed mineralisation in the Fold Zone and to assist with drillhole targeting.
<i>Further work</i>	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> 	<ul style="list-style-type: none"> Infill drilling is planned to upgrade the current Mineral Resources to Measured and Indicated, upgrade a portion of the Exploration Target to Inferred.



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"><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>	



Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> Independently customised 2016 MSAccess database by GR-FX Pty Ltd for CAP supplied to H&S Consultants (HSC). Validation of CAP database undertaken by Keith Hannan of Geochem Pacific Pty Ltd, an independent consultant. Additional validation completed by HSC in 2017. The new HIO database was compiled by independent database manager Chris McMahon of McMahon Resources. Assay results are reported to multi company personnel and passes through a series of validation checks involving those personnel. New drilling data is supplied by HIO to HSC as a series of CSV files which are then appended to the HSC 'resource database'. HSC completed some independent validation of the new data to ensure the drill hole database is internally consistent. Validation included checking that no assays, density measurements or geological logs occur beyond the end of hole and that all drilled intervals have been geologically logged. The minimum and maximum values of assays and density measurements were checked to ensure values are within expected ranges (some density and magnetic susceptibility data was suspect). Further checks include testing for duplicate samples and overlapping sampling or logging intervals. It was noticed that some of the downhole geophysics' calibrations for magnetic susceptibility and density looked at odds with the data from surrounding holes. Levelling by HSC was required to make the data fit for purpose, although the amount of downhole magnetic susceptibility data required to generate DTR values for grade interpolation has been significantly reduced since July 2022. HSC takes responsibility for the accuracy and reliability of the CAP data used in the Mineral Resource estimates. HIO takes responsibility for the accuracy and reliability of the HIO data used in the Mineral Resource estimates. HSC created a local E-W orthogonal grid for all interpretation and modelling work.



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> There are accuracy issues with some of the data, mainly the downhole geophysics for magnetic susceptibility and density, which following appropriate processing have a very modest impact on the composite generation for grade interpolation.
Site visits	<ul style="list-style-type: none"> <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> <i>If no site visits have been undertaken indicate why this is the case.</i> 	<ul style="list-style-type: none"> Regular site visits were completed by HIO's Competent Person for Exploration Results throughout the 2021-2024 exploration programs. Regular site visits were completed by CAP's Competent Person for Exploration Results for the period 2009 to 2017. A site visit was undertaken in 2012 by Simon Tear of HSC, Competent Person for the CAP Exploration Results and the reporting of the new Mineral Resources. The visit included geological logging of diamond drillhole DD10BRP023 covering over 500m of stratigraphy and an inspection of drill sites and outcropping mineralisation.
Geological interpretation	<ul style="list-style-type: none"> <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i> <i>Nature of the data used and of any assumptions made.</i> <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i> <i>The use of geology in guiding and controlling Mineral Resource estimation.</i> <i>The factors affecting continuity both of grade and geology.</i> 	<ul style="list-style-type: none"> The broad geological interpretation of the Hawsons deposit is relatively straightforward and reasonably well constrained by drilling and the high amplitude airborne and ground magnetic anomalies. The mineralisation is stratabound as disseminated grains of magnetite associated with variable interstitial porosity of the clastic sediments with no obvious structural remobilisation or overprint. Mineralisation exhibits relatively poor downhole continuity with zones of variable magnetite grade (a function of the clastic grain size and composition) but in most instances the contacts between higher and lower grade mineralisation are gradational and precludes the use of hard boundaries as stratigraphic controls to mineral grade interpolation. The downhole geophysical data, gamma and magnetic susceptibility, has been used in conjunction with DTR recovered magnetic fraction grades to produce a detailed geological interpretation and to the generation of a set of 3D wireframes representing variously mineralised units that provide the stratigraphic framework to the deposit. The consistency of the geophysical patterns for the sediments provides for a high level of confidence in the stratigraphic interpretation. The stratigraphic orientation controls the rotations of the grade interpolation search ellipses. Two main cross faults, possibly a conjugate pair, have been interpreted



Criteria	JORC Code explanation	Commentary
		<p>and are believed to have caused small offsets in the mineral-bearing stratigraphy. The faults have been used to delineate three structural domains that act as hard boundaries for composite selection and grade interpolation. The exact orientation of the faults is unknown with the interpretation based on magnetic anomaly discontinuities.</p> <ul style="list-style-type: none"> HSC used the geological logs of the drill holes and the multi-element head assay data to create a wireframe surface representing the base of colluvium. HSC also used the geological logs of the drill holes and the multi-element head assay data to create wireframe surfaces representing the base of complete oxidation ("BOCO") and the top of fresh rock ("TOFR"). The recent HIO drilling has indicated that magnetite mineralisation can extend up into the oxide/transition zones as remnant mineralisation. As a result the BOCO and TOFR surfaces were not treated as hard boundaries in the grade interpolation. Any additional faulting in the deposit is assumed to be insignificant relative to the resource estimation at this stage. HSC is aware that alternative interpretations of the mineralised zones and faults are possible but consider its approach to adequately approximate the locations of the mineralised zones. Alternative interpretations may have a limited impact on the resource estimates.
Dimensions	<ul style="list-style-type: none"> The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	<ul style="list-style-type: none"> The Mineral Resources have a strike length of around 3.3km in a south easterly direction. The plan width of the resource varies from 700m to 1.9km with an average of around 1.1km (noting the relatively moderate dip angle of the beds). The upper limit of the mineralisation is exposed in the SE of the deposit with the fresh rock generally occurring between 25 and 80m below surface (average 65m) and the lower limit of the Mineral Resource extends to an approximate depth of 550m below surface (-360mRL). The lower limit to the Mineral Resource is a direct function of the depth limitations to the drilling in conjunction with the search parameters. The mineralisation is open at depth and to the south beyond the Fold area (i.e. the South Limb).



Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	<ul style="list-style-type: none"> <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i> <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i> <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> <i>Any assumptions behind modelling of selective mining units.</i> <i>Any assumptions about correlation between variables.</i> <i>Description of how the geological interpretation was used to control the resource estimates.</i> <i>Discussion of basis for using or not using grade cutting or capping.</i> <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i> 	<ul style="list-style-type: none"> Ordinary Kriging ("OK") with multiple search domains was used to complete the estimation using FSSI's GS3M modelling software. The geological interpretation and block model creation and validation was completed using the Surpac mining software. HSC considers OK to be an appropriate estimation technique for the type of mineralisation and extent of data available from the Core and Fold prospects. All data attributes have low coefficients of variation, generally <1. Two main cross faults have been interpreted to have caused small offsets in the mineral-bearing stratigraphy. These faults were treated as hard boundaries during estimation allowing for the creation of three structural domains so that data from within a particular fault block were only used to estimate blocks in that fault block. Regression equations based on downhole surveyed magnetic susceptibility data were used to estimate missing DTR values for the different structural domains, company drilling campaigns and levels of oxidation. Regression equations based on the handheld magnetic susceptibility data was used to estimate the DTR values where wireline magnetic susceptibility data was not available. Missing Fe concentrate grades were calculated using regression equations based on the DTR grades for the structural domains, different companies and oxidation levels and the remaining concentrate elements were calculated using simple linear regressions based on the iron concentrate grade. The use of regression equations has been historically a small part of the Hawsons project and while not ideal the subsequent drilling has indicated no immediate issue with the use of generated estimated values for DTR and DTR concentrates in the Mineral Resources. A total of 10,419 5m composites, including residuals, were generated from the drillhole database with no wireframe constraints and modelled for DTR, and the DTR concentrate grades of Fe, Al₂O₃, P, S, SiO₂, and LOI. Head Fe data had lower sample numbers but was still modelled together with the other data. Grade interpolation was unconstrained, except by the search parameters and the variography, in acknowledgement of the gradational nature to changes in sediment composition, porosity and grain size of the host sediments. Comparison of block grades with the interpretation of stratigraphic sub-units showed a good match with the block grades except



Criteria	JORC Code explanation	Commentary
		<p>in the basal stratigraphy where there was a notable lack of drilling control ie around mineralised Unit 1.</p> <ul style="list-style-type: none"> • In prior estimates, the TOFR surface was found to coincide with a marked difference in density and DTR but the hardness of the boundary has softened with the new drilling (and substantially more oxide/transition data) such that the surface was not treated as a hard boundary for density or DTR grade interpolation. • The cover data was used in the grade interpolation to act as a buffer to the oxide/transition data. No estimated grades were included into the cover zone in the block model. • No recovery of any by-products has been considered in the resource estimates as no products beyond iron are considered to exist in economic concentrations. • No top-cutting was applied as extreme values were not present and top-cutting was considered by HSC to be unnecessary. • No check estimate was carried out though the new estimates are in line with previous estimates. Hellman & Schofield, the predecessor to HSC, and HSC itself have completed six resource estimations between 2010 and 2022. There has been a sensible increase in size of the resource, a decrease in DTR grade and improvement in the resource classification based on the drilling completed and the cut off grades employed to report the MRE. • Block dimensions are 50m x 25m x 10m (Local E, N, RL respectively) with no sub-blocking. The east dimension was chosen as it is around half to a third of the nominal drillhole distances in the detailed drilled area of structural Domain 1. The north dimension was chosen partly on the drillhole spacing but also taking into account the geometry of the mineralisation with its moderately south-dipping stratigraphy. The vertical dimension was chosen to reflect the sample spacing and possible mining bench heights and to allow for flexibility in potential mining scenarios. • All grades were estimated as a combined dataset for each structural domain as each had the same number of composites, except for head Fe, for that domain and all values were inter-related. Six search passes were employed with progressively larger radii or decreasing data point criteria.



Criteria	JORC Code explanation	Commentary
		<p>The Pass 1 used radii of 150x150x25m, Passes 2 and 3 used 300x300x50m, the fourth pass used 400x400x75m (along strike, down dip and across mineralisation respectively). The first and second passes required a maximum of 24 data and a minimum of 12 data points from 4 octants whereas the third and fourth passes required a minimum of 6 data points from at least 2 octants. A fifth and sixth search pass (for exploration potential) used search dimensions of 600m by 600m by 112.5m with 6 and 3 minimum data respectively and 2 octants.</p> <ul style="list-style-type: none"> The maximum extrapolation distance for the Mineral Resources was in the order of 300m down dip and 400m along strike to the SW and 100m along strike to the NW, the latter due to a perceived fault termination. The rollover zone in the NW of the deposit was limited to 400m of extrapolation. The across strike and dip extent was 75m. The new block model was reviewed visually by HSC and it was concluded that the block model fairly represents the grades observed in the drill holes. HSC also validated the block model using a variety of summary statistics and statistical plots. No issues were noted
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> Tonnages of the Mineral Resources are estimated on a dry weight basis.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> The resources are reported at a cut-off of 4% DTR based on the outcome of a recently completed pit optimisation study by independent consultants AMDAD of Brisbane. All oxidation levels contained Mineral Resources except the Cover sequence. The cut-off grade at which the resource is quoted reflects the intended bulk-mining approach.
Mining factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	<ul style="list-style-type: none"> The Mineral Resources were estimated on the assumption that the material is to be mined by open pit using a bulk mining method. Minimum mining dimensions are envisioned to be around 25m x 10m x 10m (strike, across strike, vertical respectively). The block size is significantly larger than the likely minimum mining dimensions. The resource estimation includes internal mining dilution, but no allowance for external dilution or mining losses.



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> The proposed mining method is a conventional truck and shovel operation with transport to a processing plant adjacent to the planned pit. Mine design and production is targeting a 68-71% iron product at 12Mtpa.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i> 	<ul style="list-style-type: none"> The idiomorphic nature of the magnetite lends itself to relatively easy liberation. The ROM material is considered relatively soft for a magnetite deposit with a bond work index much lower than typical Banded Iron Formation deposits. Liberation of the magnetite grains is a function of grinding to fine size. Tests have been conducted that show grinding the ore to -38 microns gives a P80 of 25 microns. XRF analysis from metallurgical test work on the recovered magnetic fraction shows that a 68-71% iron product is feasible.
Environmental factors or assumptions	<ul style="list-style-type: none"> <i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i> 	<ul style="list-style-type: none"> The deposit lies within flat, open country typical of Western NSW. Predominantly scrub vegetation that allows for sheep grazing. There are large flat areas for waste and tailings disposal. Small number of creeks with only seasonal flows. The host sediments have low sulphur contents. Continuous data loggers have been installed on 9 water monitoring bores in the vicinity of the main pit design area to collect ground water data that will be used to update the current hydrogeology model covering the site. Additional water monitoring bores and pump testing bores are being planned to test the effect that mining will have on aquifers in the vicinity of the proposed mining area. It is currently assumed that all process residue and waste rock disposal will take place on site in purpose built and licensed facilities. All waste rock and process residue disposal will be done in a responsible manner and in accordance with any mining license conditions.
Bulk density	<ul style="list-style-type: none"> <i>Whether assumed or determined. If assumed, the basis for the</i> 	<ul style="list-style-type: none"> The short-spaced density ("SSD") data from the downhole geophysics



Criteria	JORC Code explanation	Commentary
	<p><i>assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></p> <ul style="list-style-type: none"> <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i> <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<p>was used to estimate the density of the Mineral Resources. Data consisted of 1cm data points averaged to 10cm intervals.</p> <ul style="list-style-type: none"> The CAP SSD data was collected using a FDS50 down hole tool containing a 3500CO radioactive source. The HIO SSD data was collected using a Robertson Geo Sidewall Density with BRD and Temperature, (Part No I002016) down hole tool containing a iOS Cs137 125 milli-curie radioactive source. The CAP data had a correction factor of +5.2% applied based on comparative test work completed on 194 10-15cm NQ core samples using an immersion-in-water technique i.e. weight in air / (weight in air - weight in water) – the Archimedes Principle. The HIO data had a correction factor of +4.94% applied based on test work completed on 166 10-15cm HQ core samples using the same immersion-in-water technique. The 2023/4 core drilling produced results that required no correction factor to the downhole geophysical density data. No moisture determinations were made. The siltstones show no vughs, and porosity is occluded, as observed from polished and thin section work. There is no characteristic alteration associated with the mineralisation. The density data was composited to 5m intervals prior to modelling. This resulted in 8,338 data points. The data was derived exclusively from the downhole geophysics with the company correction factors applied. Processing of this data included levelling inconsistent data for 4 holes (15-30% overstatement of density in comparison with surrounding holes). Default average density values were generated for 5m downhole intervals down to 100m downhole. These values were applied to holes where density data for those near surface intervals were not available. Regression equations using the head iron assay were used to generate missing values in the Fold area The density at Hawsons was estimated using Ordinary Kriging using similar methodology to the DTR grade interpolation ie structural domains, same search ellipses and data point requirements.



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		<ul style="list-style-type: none"> Blocks with no values from the density estimation were allocated average default values. These additions generally occurred on the periphery of the deposit.
Classification	<ul style="list-style-type: none"> <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i> <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> The classification of the resource estimates is nominally based on the data point distribution which is a function of the drillhole spacing. A pit shell created by AMDAD was used to constrain the resource estimates; no other wireframe constraint was used. This pit had a base at -360mRL. The 100m spaced infill drilling in Domain 1 has indicated much improved grade continuity as demonstrated by the variogram maps; 60-70% of the variance between samples occurs within a 100-120m range. This forms the basis for the Measured Resources. Other aspects have been considered qualitatively in the classification including, the style of mineralisation, the geological model, sampling method and recovery, missing data and estimated grades, coherency of the downhole geophysics including density, the QAQC programme and results and comparison with previous resource estimates. The initial pass categories were reviewed and in five specific areas of Core West and Core East, Pass 1 blocks occurred in clusters, due to closer spaced drilling (circa 100m), that were delineated using Defined Shapes to retain the Pass 1 category as Measured Resource. Elsewhere more isolated Pass 1 blocks and Pass 2 blocks were classed as Indicated Resource (removal of the 'spotted dog' effect) and Passes 3 and 4 were classed as Inferred Resources. A 2017 detailed sedimentological review using gamma and magnetic susceptibility downhole data had demonstrated strong stratigraphic continuity of the DTR grades within the sediment packages. This was updated in December 2022 and resulted in the additional conversion of Inferred Resource to Indicated. HSC believes the confidence in tonnage and grade estimates, the continuity of geology and grade, and the distribution of the data reflect Measured, Indicated and Inferred categorisation. The estimates appropriately reflect the Competent Person's view of the deposit. HSC has assessed the reliability of the input data and takes responsibility for



Criteria	JORC Code explanation	Commentary
		the accuracy and reliability of the CAP data used to estimate the Mineral Resources. HIO takes responsibility for the recent 2021/2022/2023 drilling data used to estimate the Mineral Resources.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> The estimation procedure was reviewed as part of an internal HSC peer review. Mining Associates Limited ("MAL") completed a technical review in 2016 on the 2014 Indicated and Inferred Resources. MAL concluded that the model is a good global representation of the magnetite resource and considers Ordinary Kriging to be an appropriate estimating technique for the type of mineralisation with very low coefficients of variation. In a follow up report in 2020 MAL concluded that for the 2017 Mineral Resources: "Following [a] review of the geology, MRE and Reserve, MAL does not consider the current approach to the geology model and MRE suitable. A much higher level of detail needs to be incorporated into the Geological Model and MRE" and strongly proposed its own methodology of using implicit modelling "with much smaller blocks" incorporating upwards of 20+ stratigraphic boundaries, as being more suitable. Behre Dolbear Australia ("BDA") completed a technical review for CAP in 2010 based on a GHD study. BDA considered that the broad geology and geological controls on mineralisation, the sampling methodology and the geological database were generally adequately defined for estimation of Inferred [2010] Resources
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i> <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i> 	<ul style="list-style-type: none"> No statistical or geostatistical procedures were used to quantify the relative accuracy of the resource. The global Mineral Resource estimates of the Hawsons deposit are moderately sensitive to higher cut-off grades but does not vary significantly at lower cut-offs. The relative accuracy and confidence level in the Mineral Resource estimates are considered to be in line with the generally accepted accuracy and confidence of the nominated Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the Competent Person's experience with similar deposits and geology The Mineral Resource estimates are considered to be accurate globally, but there is some uncertainty in the local estimates due to the current



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	<ul style="list-style-type: none"><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	<p>drillhole spacing, a lack of geological definition in certain places eg fault zones, and some ambiguity with the absence of assay data and the QAQC procedures and outcomes.</p> <ul style="list-style-type: none">No mining of the deposit has taken place, so no production data is available for comparison.



Attachment 1 – XRD Cluster Derivation Data

Phase name							Amorphous Content*	12 Clay**	Anatase	Apatite	Calcite	Chlorite**	Diaspore	Dolomite
Formula								(K,Fe,Mg)8(Si,Al)12(O,OH)27.n(H2O)	TiO2	(Ca,Mn,Ba,Pb,REE)5(PO4)3(OH,F,Cl)	CaCO3	(Fe,Al,Mg,Li,Ni)6(Si,Al)4O10(OH)8	AlO(OH)	CaMg(CO3)2
Sample ID / Units - MD Zone Colours	Ore Unit	Depths	XRD Variability Zone	Area	Ave Mags %	Ave Head Fe%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%
RDCW21007-Comp1	?	0-75	1	Core West	1	9	15			<0.5	<0.5	2	<0.5	1
RDCW21007-Comp2	?	75-140	1	Core West	8	18	13			3	<0.5	4	<0.5	6
RDCW21007-Comp3	3	140-278	1	Core West	10	24	13			3	<0.5	6	<0.5	3
RDCW22032-Comp1	3	81-225	1	Core West	7	20	12			3	<0.5	6	<0.5	4
RDCW22032-Comp2	3	225-306	1	Core West	15	19	12			2	<0.5	7	<0.5	9
RCFO22036-Comp1	3	44-75	1	Fold	3	24	14			3	<0.5	4	<0.5	1
RCFO22036-Comp2	3	75-112	1	Fold	7	20	12			2	<0.5	7	1	4
RCFO22036-Comp3	3	112-138	1	Fold	5	26	13			2	<0.5	5	<0.5	3
RCFO22045-Comp1	3	0-65	3	Fold	3	21	15		<0.5	<0.5		<0.5		
RCFO22045-Comp2	3	65-142	3	Fold	10	18	14			1	<0.5	7	<0.5	3
RCFO22045-Comp3	3	142-265	2	Fold	11	13	13			<0.5	<0.5	7		9
RCFO22045-Comp4	3	265-295	2	Fold	10	11	14			<0.5		10	<0.5	9
RCFO22054-Comp1	2	44-220	2	Fold	12	19	14			<0.5	1	7	<0.5	8
RCFO23012-Comp1	1	0-39	2	Fold	6	12	12			<0.5	1	8	<0.5	6
RCFO23012-Comp2	1	39-56	2	Fold	8	11	13			<0.5	1	9	<0.5	8
RCFO23012-Comp3	1	56-120	2	Fold	14	15	13			<0.5	1	5	<0.5	11
RCFO23012-Comp4	1	120-149	2	Fold	12	16	13			1	1	5		11
RCFO23013-Comp1	1	75-155	2	Fold	14	16	14			<0.5	2	7	<0.5	10
RCFO23024-Comp1	1	5-76	2	Fold	6	12	12			<0.5	<0.5	7		9
RCFO23024-Comp2	1	135-151	2	Fold	9	20	12			1		4	<0.5	13
RCFO23028-Comp1	1	2-53	2	Fold	10	11	12			<0.5	1	9	<0.5	13
RCFO23028-Comp2	1	53-103	2	Fold	10	20	12			<0.5	1	9	<0.5	10
RCFO23028-Comp3	1	103-151	2	Fold	10	19	12			<0.5	1	6	<0.5	14
RCFO24006-Comp1	2	3-48	2	Fold	3	13	13			<0.5	<0.5	5	<0.5	6
RCFO24006-Comp2	2	48-151	2	Fold	6	13	13			<0.5	<0.5	7	<0.5	8
RCFO24011-Comp1	3	0-26	3	Fold	3	21	16	<0.5	<0.5	2		<0.5		
RCFO24011-Comp2	3	26-89	3	Fold	4	20	12			2	<0.5	5	1	3
RCFO24011-Comp3	3	89-151	3	Fold	15	19	13			<0.5	<0.5	8	<0.5	7



Phase name				Epidote	Goethite	Gypsum	Hematite	Jarosite	Kaolin**	Magnesite	Magnetite	Mica**	Opaline Silica	Potassium Feldspar	Pyrite	Quartz	Rutile	Serpentine	Sodium Plagioclase	Total
Formula				(Ca,Al)2(Al,Fe)3Si3O12OH	FeO(OH)	CaSO4.2H2O	Fe2O3	KFe3(SO4)2(OH)6	Al2Si2O5(OH)4	MgCO3	Fe3O4	(K,Ca,Na,Li)(Al,Mg,Fe)2(Si,Al)4O10(OH)2	SiO2	KAlSi3O8	FeS2	SiO2	TiO2	Mg3Si2O5(OH)4	NaAlSi3O8	
Sample ID / Units - MD Zone Colours	Ore Unit	Depths	XRD Variability Zone	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%
RDCW21007-Comp1	?	0-75	1	1	2	<0.5	4	<0.5	5		2	22	3	2		36	1	1	3	101
RDCW21007-Comp2	?	75-140	1	1	1		13	<0.5	1		6	14				31	<0.5	<0.5	7	101
RDCW21007-Comp3	3	140-278	1	1	<0.5		19	<0.5	1		8	11				29		<0.5	5	103
RDCW22032-Comp1	3	81-225	1	1	1		15	<0.5	1		5	13				31	<0.5	1	6	103
RDCW22032-Comp2	3	225-306	1	1	<0.5		7	<0.5	1		12	15				27	<0.5	1	5	103
RCFO22036-Comp1	3	44-75	1	1	1		23	<0.5	1		1	12	3			32	<0.5	1	2	103
RCFO22036-Comp2	3	75-112	1	1	1		18	<0.5	1		3	14				28	<0.5	1	7	104
RCFO22036-Comp3	3	112-138	1	1	<0.5		25	<0.5	1		3	11				30	<0.5	1	4	103
RCFO22045-Comp1	3	0-65	3	<0.5	5	1	21		11		1	12				32	<0.5	1	1	106
RCFO22045-Comp2	3	65-142	3	1	2		15	<0.5	2		3	17		1		29	<0.5	1	3	105
RCFO22045-Comp3	3	142-265	2	1	<0.5		3	<0.5			10	17				30	1	1	7	104
RCFO22045-Comp4	3	265-295	2	1	<0.5		<0.5				9	17			<0.5	30	1	1	7	104
RCFO22054-Comp1	2	44-220	2	1	<0.5		9				10	16				28	1	1	4	104
RCFO23012-Comp1	1	0-39	2	1	1	<0.5	7				3	20				32	1	1	7	103
RCFO23012-Comp2	1	39-56	2	1	1		2			<0.5	7	19				31	1	1	6	103
RCFO23012-Comp3	1	56-120	2	1	<0.5		2			<0.5	14	17				28	<0.5	1	7	103
RCFO23012-Comp4	1	120-149	2	1	<0.5		7				11	16				26	1	1	6	103
RCFO23013-Comp1	1	75-155	2	1			3				12	17				28	1	<0.5	5	103
RCFO23024-Comp1	1	5-76	2	1	1		5		<0.5	<0.5	4	21				31	1	1	7	103
RCFO23024-Comp2	1	135-151	2	1			3				21	12				23	<0.5	<0.5	9	102
RCFO23028-Comp1	1	2-53	2	1	1		4				2	17				31	1	1	6	102
RCFO23028-Comp2	1	53-103	2	1			3			<0.5	7	20				30	<0.5	1	6	103
RCFO23028-Comp3	1	103-151	2				3				7	18				29	<0.5	1	9	103
RCFO24006-Comp1	2	3-48	2	1	2		8		1		4	21				32	1	1	5	104
RCFO24006-Comp2	2	48-151	2	1	1		4			<0.5	10	18				30	1	1	6	104
RCFO24011-Comp1	3	0-26	3	1	2	1	19		5		2	15	3			31		1	2	106
RCFO24011-Comp2	3	26-89	3	1	1		18	<0.5	1		2	14	1			30	<0.5	1	7	105
RCFO24011-Comp3	3	89-151	3	1	1		10	<0.5			10	17				26	<0.5	1	5	105

- Cluster 1
- Cluster 2
- Cluster 3