

21 August 2024

Mr James Rowe
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Dear Mr Rowe

Hawthorn Resources Limited – ASX General Query Letter

Hawthorn Resources Ltd (“HAW” or “the Company”) refers to your Price Query Letter dated 14 August 2024 and provides the following responses (adopting your numbering):

1. ASX understands that completion of the prefeasibility study resulted in Hancock Magnetite Holdings Pty Ltd’s interest in the joint venture ownership structure increasing from 30% to 51%. Is this correct?

Yes

2. ASX understands that the proportion of mineral resources underpinning the 12mtpa Product Target is approximately 43% indicated resources, 54.5% inferred resources and 2.5% “unclassified” resources. Is this correct? If ASX’s understanding is not correct, please indicate the proportions of mineral resources underpinning the 12mtpa Product Target.

Yes

3. ASX understands that the proportion of mineral resources underpinning the Forecast Financial Information is approximately 43% indicated resources, 54.5% inferred resources and 2.5% “unclassified” resources. Is this correct? If ASX’s understanding is not correct, please indicate the proportions of mineral resources underpinning the Forecast Financial Information.

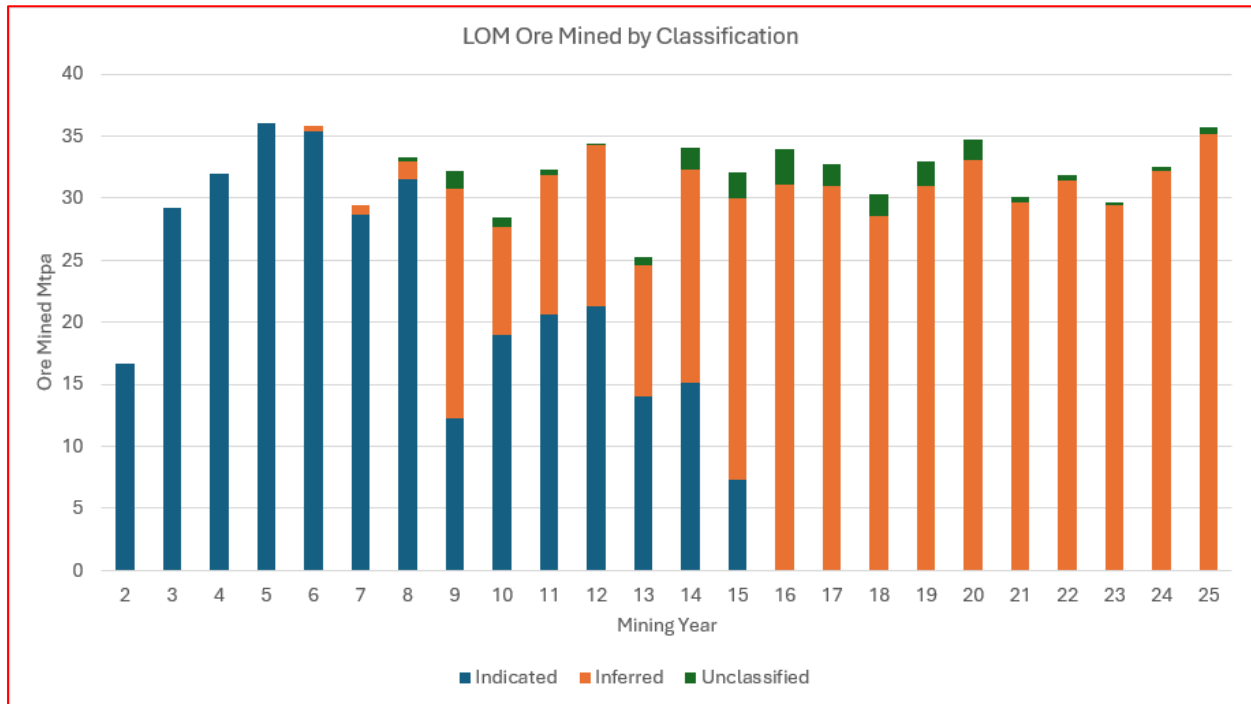
Yes

4. ASX understands that the 25 year mine model preferences the delivery of indicated material in the initial 10 years, is this correct? If ASX’s understanding is not correct, please provide details of the mine model schedule indicating the sequencing of various categories of resources in the production schedule.

Yes

5. ASX understands that the mine model for years 11 to 25 is predominately, if not solely, underpinned by inferred resources and unclassified resources, is this correct? If ASX’s understanding is not correct, please provide details of the mine model schedule indicating the sequencing of various categories of resources in the production schedule.

Yes, the proportion of Indicated, Inferred and “Unclassified” material per year is shown in the chart following.



6. ASX understands that the financial analysis in the PFS Announcement determined that the discounted cash flows from the indicated mineral resource could not offset the capital expenditure and was unable to support the reporting of a JORC compliant ore reserve. Is this correct? If ASX's understanding is not correct, please indicate where the financial analysis based solely on the indicated resources has been disclosed.

Yes

7. ASX understands that the financial analysis is dependent on the assumption that the metallurgical properties of the inferred resources and unclassified resources is the same as the indicated mineral resource, is this correct?

Yes

8. ASX understands that the further metallurgical test work may invalidate the assumption that the metallurgical properties of the inferred resources and unclassified resources is the same as the indicated mineral resource, is this correct?

Yes

9. Please explain what the unclassified resource is, and in particular how disclosure of it complies with Listing Rule 5.6 and Clause 26 of the JORC Code.

The "unclassified resource" are blocks within the mine model that do not have sufficient definition to be classified as a Mineral Resource based on JORC 2012, but exist within the fresh zone and have a DTR of >15% within the mining model.

HAW announced a "Public Report of Mineral Resources" on 1 July 2024 in full compliance with Clause 26 of the JORC Code. The current announcement is not a "Public Report of Mineral Resources" and therefore Clause 26 does not apply in this case.

10. In accordance with Listing Rule 5.16.1 please set out all the material assumptions on which the 12mtpa Product Target is based. In providing this information, please indicate where the material assumptions have been disclosed in the PFS Announcement.

We refer to Section 1 - Project Summary and Section 2.2 and Section 2.3

11. In accordance with Listing Rule 5.17.1 please set out all the material assumptions on which the Forecast Financial Information is based. In providing this information, please indicate where the material assumptions have been disclosed in the PFS Announcement.

We refer Section 2.10 Capital cost, 2.11 Operating cost, 2.12 Marketing, 2.13 Financial analysis

12. Clause 21 of the JORC Code provides that confidence in the estimate of inferred mineral resources is not sufficient to allow the results of the application of technical and economic parameters to be used for detailed planning in Pre-Feasibility (Clause 39) or Feasibility (Clause 40) Studies. For this reason, there is no direct link from an inferred mineral resource to any category of ore reserves. In light of this please explain why HAW has disclosed a 25 year mine plan that is based either predominately or solely on inferred or unclassified resources for years 11 to 25?

As outlined in the Disclaimer, the inferred and unclassified material has not been utilized in the assessment of ore reserves. The Disclaimer further reads "The financial analysis outlined in this ASX Release has considered a range of options and sensitivities, that do not satisfy an Ore Reserve assessment, for the purpose of framing forward works on the project."

13. Given the disclosure in the PFS Announcement that "this analysis determined that the discounted cash flows from the indicated mineral resource could not offset the capital expenditure and hence was unable to support the reporting of a JORC compliant ore reserve", does HAW consider the study constitutes a Preliminary Feasibility Study in accordance with the definition in Clause 39 of the JORC Code? Please provide the basis for HAW's view.

JORC Section 39 States:

"A Preliminary Feasibility Study (Pre-Feasibility Study) is a comprehensive study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions on the Modifying Factors and the evaluation of any other relevant factors which are sufficient for a Competent Person, acting reasonably, to determine if all or part of the Mineral Resources may be converted to an Ore Reserve at the time of reporting. A Pre-Feasibility Study is at a lower confidence level than a Feasibility Study."

HAW considers the study constitutes a Preliminary Feasibility Study as so described. The JORC Code definition does not require that, in order for a study to be a Preliminary Feasibility Study, it must conclude that all or part of the Mineral Resources may be converted to an Ore Reserve at the time of reporting. As per the above definition, the Preliminary Feasibility Study determines if this is the case so may reach a positive or negative conclusion on whether all or part of the Mineral Resource may be converted to Ore Reserves at the time of reporting.

14. Given ASX's understanding that:

- a) An inferred mineral resource has a lower level of confidence than that applying to an indicated mineral resource and must not be converted to an ore reserve (Clause 21 of the JORC Code);
- b) The inferred category is intended to cover situations where a mineral concentration or occurrence has been identified and limited measurements and sampling completed, but where the data are insufficient to allow the geological and grade continuity to be confidently interpreted.
While it would be reasonable to expect that the majority of inferred mineral resources would upgrade to indicated mineral resources with continued exploration, due to the uncertainty of inferred mineral resources, it should not be assumed that such upgrading will always occur (Guidance to Clause 21 of the JORC Code);
- c) Caution should be exercised if inferred mineral resources are used to support technical and economic studies such as Scoping Studies (Guidance to Clause 21 of the JORC Code);

d) Where a mining entity is reporting a production target that is based on a portion of inferred mineral resources and/or an exploration target in addition to ore reserves and/or measured and indicated mineral resources, the reporting entity must be satisfied that the respective proportions of inferred mineral resources and the exploration target are not the determining factors in project viability (Section 8.5 of Guidance Note 31);

e) The proportion of inferred mineral resources and exploration targets that may be added to the end of a mine plan depends on the maturity of the project. For example, a greater proportion may be justified for a producing mine with a history of converting exploration targets and mineral resources into ore reserves, than an exploration entity that has indicated mineral resources as the highest confidence mineral resource (ASX FAQ 24);

f) Under sections 670A(2), 728(2) and 769C of the Corporations Act and section 12BB(1) of the ASIC Act (together the 'legal requirements'), a statement about future matters must be based on reasonable grounds at the date the statement is made or it will be misleading (ASIC IS 214);

g) In all cases, having regard to Figure 1 of the JORC Code, there must have been a sufficient level of exploration and evaluation work done on a mining project, and on each of the JORC Code modifying factors, to provide reasonable grounds for publishing any production target for that project, or forecast financial information or income-based valuation based on a production target for that project (ASIC IS 214);

h) HAW has stated in the PFS Announcement "A financial analysis was completed, based on JORC 2012 Section 39, on the Indicated Mineral Resource (only)...this analysis determined that the discounted cash flows from the Indicated Mineral Resource could not offset the capital expenditure and hence was unable to support the reporting of a JORC compliant Ore Reserve";

i) HAW has stated in the PFS Announcement "The 25 year mine model includes the initial 25 years of mining operations of the Banded Iron Formation within the "fresh" Geozone with DTR >15% regardless of mineral resource classification";

j) HAW has stated in the PFS Announcement " it is an implicit assumption within this assessment that the inferred and unclassified materials will be processed under the same flowsheet and hence capital and operating costs and the same product grades will be achieved";

k) The mine model for years 11 to 25 is predominately, if not solely, underpinned by inferred resources and unclassified resources; and

l) HAW appears to have included the inferred resources which has a lower level of confidence than that applying to an indicated resources to underpin the with 12mtpa Production Target and Forecast Financial Information, does HAW consider that the inclusion of inferred mineral resources in the financial analysis is a determining factor in project viability?

Yes

15. If the answer to question 14 is "no", did the financial analysis demonstrate that the mine model was financially viable based solely on the indicated resources? In answering this question please indicate if and where the financial analysis based solely on the indicated resources has been disclosed.

As the response question 14 was "yes" this question is not applicable

16. Has HAW prepared a mine model excluding the approximately 54.5% inferred resources and 2.5% 'unclassified material' underpinning the 12mtpa Production Target and Forecast Financial Information in order to be satisfied that the respective proportions of inferred resources and 'unclassified material' are not the determining factors in project viability as per section 8.5 of ASX Guidance Note 31 and ASX FAQ 24?

Yes, a mine model was prepared with indicated only material as stated in the Disclaimer "A financial analysis was completed, based on JORC 2012 Section 39, on the Indicated Mineral Resource (only) based on reasonable assumptions of the Modifying Factors for the purpose of determining if all or part of the Mineral Resource may be converted to an Ore Reserve. This analysis determined that the

discounted cash flows from the Indicated Mineral Resource could not offset the capital expenditure and hence was unable to support the reporting of a JORC compliant Ore Reserve.”

As previously stated, the inclusion of inferred and unclassified material are determining factors in project viability

17. If the answer to question 16 is “yes”, please provide details of the mine model demonstrating that the inclusion of the respective proportions of inferred resources and ‘unclassified material’ are not the determining factors in project viability. Please include a summary of the material assumptions supporting HAW’s view that the respective portions of inferred resources and ‘unclassified material’ are not determining factors in the project viability for the project.

As previously stated, the inclusion of inferred and unclassified material are determining factors in project viability

18. If the answer to question 16 is “no”, how is HAW satisfied that it has a reasonable basis disclosing the 12mtpa Production Target and the Forecast Financial Information underpinned by inferred resources and unclassified resources if the viability of the project is reliant on the inferred resources and unclassified resources, which by definition have a lower level of confidence than that applying to an indicated mineral resource?

HAW is satisfied that it has reasonable basis as the Inferred Material utilized in the 25 Year Mine Model only constitutes 44% of the total Inferred Material in the current Mineral Resource Estimate (i.e. 404Mt used of 911Mt available)

19. Given that RG 170.59 provides that investors should be given enough information to enable them to:

- a) assess whether the prospective financial information is relevant and reliable (i.e. to form their own view about how reasonable the grounds are for making the statement); and
- b) identify with certainty the facts and circumstances that support prospective financial information, as well as being able to demonstrate that the information is reasonable, please identify the information in the PFS Announcement investors should assess in order to determine the relevance and reliability of including up to 54.5% inferred resources and 2.5% ‘unclassified material’ in the production target,

The table below shows the various NPV calculations.

NPV Range vs Mine Life and Composition

NPV Range	Life of Mine (Years)			
	10	15	20	25
Low Case [A\$M, real)	-1684	-1284	-960	-740
Mid Case [A\$M, real)	-185	658	1283	1674
High Case [A\$M, real)	1032	2235	3105	3634
Percentage of Indicated/Inferred in Cumulative Ore Mined				
Indicated in Mined Ore	89%	75%	55%	43%
Inferred in Mined Ore	11%	23%	42%	54%
"Unclassified" in Mined Ore	0.9%	1.6%	2.9%	2.5%
Percentage of Indicated/Inferred MRE Utilised				
Total Indicated MRE Utilised	62%	84%	84%	84%
Total Inferred MRE Utilised	3%	11%	27%	44%

20. The PFS Announcement does not appear to contain any disclosure of the factors HAW's directors have considered in order to conclude they have a reasonable basis for the funding assumptions inherent in the PFS (including the estimated \$5,000,000,000 CAPEX cost). Does HAW consider the disclosures regarding funding assumptions contained in the PFS announcement satisfy the requirements of ASIC Information Sheet 214?

Yes

21. If the answer to question 20 is 'yes' please provide the basis for this conclusion, commenting specifically on the \$5,000,000,000 CAPEX cost estimate and HAW's funding assumptions for its share of the cost.

- **HAW has significant shareholder links to the Chinese government**
- **HAW may seek additional shareholder capital to fund the project**
- **The JV agreement provides a number of options for each JV partner which includes –**
 - **Full proportional participation**
 - **Partial participation which would deliver dilution of the JV partner in the project participation**
 - **No further participation which would result in transition to a royalty stream**
 - **Disposal of the JV share to the other JV partners**
 - **Disposal of the JV share to a 3rd party**
 - **Disposal of the royalty stream**

Which of these HAW embarks upon will depend entirely on the state of the economy, the iron ore price, and the consideration offered for any of the above disposals.

22. Please confirm that HAW is in compliance with the Listing Rules and, in particular, Listing Rule 5.45 and Listing Rule 3.1.

Yes, the Company is in compliance with the Listing Rules. The agreement provides for disclosure to the ASX under clause 28.3 of the Joint Venture Agreement.

23. Please confirm that HAW's responses to the above have been authorised and approved in accordance with its published continuous disclosure policy or otherwise by its board or an officer of HAW with delegated authority from the board to respond to ASX on disclosure matters.

Confirmed

This announcement has been released via the Company Secretary on behalf of the Board.

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14 August 2024

Reference: 96805

Mr Tony Amato
Company Secretary
Hawthorn Resources Limited

By email: tony.amato@hawthornresources.com

Dear Mr Amato

Hawthorn Resources Limited ('HAW'): General – Query Letter

ASX refers to the following:

A. HAW's announcement titled 'Mt Bevan Magnetite Joint Venture Completion of Prefeasibility Study' lodged on the ASX Market Announcements Platform ('MAP') and released at 8:21 AM AEST on 16 July 2024, concerning completion of a pre-feasibility study ('PFS') on the Mt Bevan Magnetite Joint Venture ('Project'), which included amongst other things the following disclosure:

- *Financial analysis has determined a mid point NPV of \$A M of 1,674, within a range of (A\$740 M) to A\$3,634 M; this range is highly sensitive to the model's assumptions for long-term iron ore benchmark and premium pricing.*
(*'Forecast Financial Information'*)
- *Capital investment is estimated at AUD \$5B (USD \$3.3B).*
(*'Capex Forecast'*)
- *C1 operating costs of AUD \$99/DMT (USD \$64/DMT) for a 12mtpa operation.*
(*'12mtpa Production Target'*)
- *Study incorporates recently announced Mineral Resource Estimate (MRE) of 1,291 Mt.*
- *A financial analysis was completed, based on JORC 2012 Section 39, on the Indicated Mineral Resource (only)...this analysis determined that the discounted cash flows from the Indicated Mineral Resource could not offset the capital expenditure and hence was unable to support the reporting of a JORC compliant Ore Reserve.* (Emphasis added)
- *The financial analysis outlined in this ASX release has considered a range of options and sensitivities that do not satisfy an Ore Reserve assessment, for the purpose of framing forward works on the project.*
- *This analysis utilises all modifying factors as determined in the PFS for Mining, Metallurgical, Environmental, Infrastructure, Revenue and Cost; with the exception of the inclusion of inferred and unclassified materials within the "25Yr Mine Plan" in order to achieve 25 years of mining operations.*
- *There is a low level of geological confidence associated with inferred and unclassified mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. This financial analysis is also dependent on the assumption that the metallurgical properties of this additional material is the same as the Indicated Mineral Resource. It is an implicit assumption within this assessment that the Inferred and unclassified materials will be processed under the same flowsheet and hence capital and operating costs and the same product grades will be achieved. With further metallurgical testwork this assumption may be found to be invalid.* (Emphasis added)

- the following table, which summarises the Mt Bevan resource estimate which ASX understands forms the basis of the PFS:

Table 1: Mineral Resource Estimate

	Resource Classification	MT	Fe (%)	DTR (%)	Fe_C (%)
Mt Bevan May 2023	Indicated	380	33.9	43.1	67.9
	Inferred	911	33.3	44.2	67.2
	Total	1,291	33.5	43.9	67.4
Mt Bevan Dec 2013	Indicated	322	34.7	44.2	68.0
	Inferred	848	35.0	45.7	67.5
	Total	1,170	34.9	45.3	67.7
Difference	Actual diff	120	-1.4	-1.4	-0.2
	% diff	10.3%	-4.0%	-3.0%	-0.3%

- the following table, summarising the PFS assumptions and outcomes.

1. Project Summary

Item	Description
Mineral Resource	1291Mt (380Mt Indicated + 911Mt Inferred) @ 33.52% Fe
Product	High Grade DR Concentrate Target Grade: >70%Fe, <2.5% SiO ₂ , <0.02% Al ₂ O ₃ , <0.02%P, <0.04% S Grind Size P80 45µm
Material Movements (25 Year Mine Plan*)	TMM 2,069Mt (Ore 757Mt / Waste 1,312Mt) Strip Ratio 1.7
Pre-strip Material	80Mt
Plant ROM Feed (design)	32.9Mtpa(dry)
Nameplate – Concentrate (design)	12Mtpa (dry) 13Mtpa (wet)
Process Flowsheet	Gyratory Crusher – Secondary Crusher – HPGR - Ball Mill – Fine Grinding – S/Si Floats
Plant Mass Recovery (design)	36.4%
Power Supply	Islanded Gas Hybrid System with 63% renewable penetration
Tailings Storage Facility	Wet lined tailings storage.
Water Usage	15 GL/a (initial); 12 GL/a (with TSF Return)
Transport Logistics	New 125km Slurry Pipeline Upgraded Arc Infrastructure Network (Menzies to Esperance) 3 rd Party Haulage
Port of Export	Port of Esperance
CAPEX	AUD5,031M
OPEX	AUD99/dmt of Concentrate
NPV – Real, Post-tax	(A\$740M) to A\$3634M
*The 25 Year Mine Model includes the initial 25 years of mining operations of the Banded Iron Formation within the "Fresh" Geozone with DTR >15% regardless of Mineral Resource Classification. This Mine Model cannot be utilised for assessment of Ore Reserves.	

(together, the 'PFS Announcement')

- B. Listing Rule 3.1, which requires a listed entity to immediately give ASX any information concerning it that a reasonable person would expect to have a material effect on the price or value of the entity's securities.
- C. Listing Rule 5.6 and the note thereto which states the following;

Subject to Rule 5.10, a public report prepared by an entity must be prepared in accordance with Rules 5.7 to 5.24 if applicable and Appendix 5A (JORC Code) if applicable if the report includes a statement relating to any of the following.

- **Exploration targets.*
- **Exploration results.*
- **Mineral resources or *ore reserves.*
- **Production targets.*

Note: The rules in this chapter relate to the reporting of exploration results, mineral resources, ore reserves, historical and foreign estimates and production targets. Appendix 5A (JORC Code) relates to the reporting of exploration targets, exploration results, mineral resources and ore reserves. This rule is not confined to reports under this chapter. It also applies to all public reports, including prospectuses, product disclosure statements, information memoranda, bidder's and target's statements, annual reports, financial statements, technical papers, presentations, website content and information given to ASX for release to the market under other chapters of these rules.

- D. Listing Rule 5.16.3 which states, relevantly, that the following information must be included in a public report containing a production target relating to a material mining project of the entity:

The relevant proportions of:

- *probable ore reserves and proved ore reserves;*
- *inferred mineral resources, indicated mineral resources and measured mineral resources;*
- *an exploration target; and*
- *qualifying foreign estimates,*

underpinning the production target.

- E. Listing Rule 5.45 which states the following:

An entity must not, and must ensure that all its child entities do not, enter into a joint venture agreement to investigate or explore a mining tenement, or a petroleum tenement, unless the agreement provides that if the entity requires it, the operator of the joint venture will give the entity all the information the entity requires to comply with the Listing Rules; and that the information may be given to ASX for release to the market if necessary for the entity to comply with the Listing Rules.

- F. Clause 6 of the JORC Code which states the following:

Public Reports are reports prepared for the purpose of informing investors or potential investors and their advisers on Exploration Results, Mineral Resources or Ore Reserves. They include, but are not limited to, annual and quarterly company reports, press releases, information memoranda, technical papers, website postings and public presentations.

- G. Clause 21 of the JORC Code that includes the following:

An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. (Emphasis added)

H. The Guidance to Clause 21 of the JORC Code that includes the following:

The inferred category is intended to cover situations where a mineral concentration or occurrence has been identified and limited measurements and sampling completed, but where the data are insufficient to allow the geological and grade continuity to be confidently interpreted. While it would be reasonable to expect that the majority of Inferred Mineral Resources would upgrade to indicated mineral resources with continued exploration, due to the uncertainty of inferred mineral resources, it should not be assumed that such upgrading will always occur.

Confidence in the estimate of inferred mineral resources is not sufficient to allow the results of the application of technical and economic parameters to be used for detailed planning in Pre-Feasibility (Clause 39) or Feasibility (Clause 40) Studies. For this reason, there is no direct link from an inferred mineral resource to any category of ore reserves (see Figure 1). (Emphasis added)

Caution should be exercised if inferred mineral resources are used to support technical and economic studies such as Scoping Studies (refer to Clause 38).

I. Clause 26 of the JORC Code which states the following:

Public Reports of Mineral Resources must specify one or more of the categories of 'inferred', 'indicated' and 'measured'. Categories must not be reported in a combined form unless details for the individual categories are also provided. Mineral Resources must not be reported in terms of contained metal or mineral content unless corresponding tonnages and grades are also presented

....

Public Reporting of tonnages and grades outside the categories covered by the Code is not permitted unless the situation is covered by Clause 17, and then only in strict accordance with the requirements of that Clause.

J. The Guidance to Clause 26 of the JORC Code that includes the following:

Estimates of tonnage and grade outside of the categories covered by the Code may be useful for a company in its internal calculations and evaluation processes, but their inclusion in Public Reports is not permitted. (Emphasis added)

K. Clause 29 of the JORC Code that includes the following:

An 'ore reserve' is the economically mineable part of a measured and/or indicated mineral resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

The reference point at which reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different,

such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.

- L. Clause 39 of the JORC Code that defines a Preliminary Feasibility Study as follows:

A Preliminary Feasibility Study (Pre-Feasibility Study) is a comprehensive study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions on the Modifying Factors and the evaluation of any other relevant factors which are sufficient for a Competent Person, acting reasonably, to determine if all or part of the Mineral Resources may be converted to an Ore Reserve at the time of reporting. A Pre-Feasibility Study is at a lower confidence level than a Feasibility Study.

- M. Section 8 of ASX Guidance Note 31 – Reporting on Mining Activities, that includes the following:

Listing Rules 5.15 and 5.17 set out the requirements for reporting certain types of production targets and forecast financial information which is derived from those production targets, respectively.

At the outset, it should be emphasised that production targets, and forecast financial information derived from production targets, are both forward looking statements. As such, they must be based on reasonable grounds or else they will be deemed to be misleading, with all the significant legal consequences that entails. For this reason, an appropriate level of due diligence needs to be applied to the preparation of a production target. The underlying figures and assumptions should be carefully vetted and signed off at a suitably senior level before the production target is released.

- N. Section 8.5 of Guidance Note 31 that includes amongst other things the following:

Listing Rule 5.16.3 requires that the relevant proportions of probable and proved ore reserves, inferred, indicated and measured mineral resources and an exploration target underpinning a production target be disclosed. Where a mining entity is reporting a production target that is based on a portion of inferred mineral resources and/or an exploration target in addition to ore reserves and/or measured and indicated mineral resources, the reporting entity must be satisfied that the respective proportions of inferred mineral resources and the exploration target are not the determining factors in project viability. In addition, the inferred mineral resources and exploration target should not feature as a significant proportion early in the mine plan. (Emphasis added)

- O. ASX Mining Reporting Rules for Mining Entities: Frequently Asked Questions, in particular FAQ 24:

What are reasonable grounds for a Production Target or forecast financial information derived from a Production Target?

It is the responsibility of the entity publishing a production target or forecast financial information derived from a production target to ensure that it has reasonable grounds for it.

Listing Rules 5.15 to 5.19 address the circumstances and disclosure obligations for reporting production targets and forecast financial information, depending on whether they are based on ore reserves, mineral resources, exploration targets and qualifying foreign estimates. These Listing Rules:

- require, among other things, the disclosure of all material assumptions on which the production Target is based, and a statement that the estimated ore reserves and/or mineral resources underpinning the production target have been prepared by a Competent Person or Persons in accordance with the requirements the JORC Code 2012;*
- prohibit the disclosure of a production target that is based solely on an exploration target or solely or partly on historical estimates or foreign estimates (other than qualifying foreign estimates) of mineralisation; and*

- if a proportion of a production target is based partly on an exploration target or solely on inferred mineral resources, require that the entity include a statement of the factors that lead it to believe that it has a reasonable basis for reporting a production target in that context.

Even where disclosure of a production target or forecast financial information derived from a production target is made in accordance with these Listing Rules, for the reasons outlined in the answer to question 2 above, it must still be based on reasonable grounds existing as at the date of the disclosure or else it will be taken to be misleading under the Corporations Act.

Reasonable grounds extend not only to the mineralisation underpinning the production target or forecast financial information but also to any assumptions regarding the 'Modifying Factors' in Table 1 of the JORC Code.

What constitutes 'reasonable grounds' for a production target or forecast financial information derived from a production target must be judged according to the facts and circumstances of each case and the requirements of the Corporations Act. The following general observations may, however, be helpful:

- Probable or proved ore reserves (properly declared) will generally provide a reasonable basis for a production target or forecast financial information derived from a production target, given the level of geological knowledge and confidence and the consideration of the Modifying Factors they involve.
- Indicated or measured mineral resources (properly declared) may provide a reasonable basis for a production target or forecast financial information derived from a production target provided the entity has given sufficient consideration to the Modifying Factors in order to have reasonable grounds and it clearly outlines the material assumptions it has made in this regard.
- Where an entity has ore reserves or indicated or measured mineral resources, it may have reasonable grounds for including some level of inferred mineral resources or an exploration target in a production target or forecast financial information derived from a production target, subject to the following caveat in section 8.5 of ASX Guidance Note 31:

"Where a mining entity is reporting a production target that is based on a portion of inferred mineral resources and/or an exploration target in addition to ore reserves and/or measured and indicated mineral resources, the reporting entity must be satisfied that the respective proportions of inferred mineral resources and the exploration target are not the determining factors in project viability. In addition, the inferred mineral resources and exploration target should not feature as a significant proportion early in the mine plan."

The proportion of inferred mineral resources and exploration targets that may be added to the end of a mine plan depends on the maturity of the project. For example, a greater proportion may be justified for a producing mine with a history of converting exploration targets and mineral resources into ore reserves, than an exploration entity that has indicated mineral resources as the highest confidence mineral resource. (Emphasis added)

- A production target or forecast financial information derived from a production target may only be based on an inferred mineral resource alone if the entity complies with Listing Rule 5.16.6 and section 8.7 of ASX Guidance Note 31.

The general observations above assume, of course, that the relevant ore reserve, mineral resource or Exploration Target is a genuine one that would withstand scrutiny by a Competent Person's peers (see clause 11 of the JORC Code).

The higher the level of geological knowledge and confidence, and the more that all the JORC Code modifying factors have been progressed, the greater the likelihood that you will have reasonable grounds for a forward-looking statement.

In all cases, having regard to Figure 1 of the JORC Code, there must have been a sufficient level of exploration and evaluation work done on a mining project, and on each of the JORC Code modifying factors, to provide reasonable grounds for publishing any production target for that project, or forecast financial information or income-based valuation based on a production target for that project.

...

What can you disclose about a scoping study without reasonable grounds for forward-looking statements?

ASX FAQ 25 states that 'entities develop or engage others to develop scoping studies (or studies of a more preliminary nature) for internal management purposes and, in particular, to help inform a decision on whether to commit the entity to the next stage of exploration or development'.

These preliminary studies sometimes contain forward-looking statements such as production targets, forecast financial information and income-based valuations. This is common and acceptable practice.

However, unless you can establish reasonable grounds for such forward-looking statements, these statements should not be publicly disclosed.

You can, however, still make aspirational statements, announce exploration targets or disclose parts of the study that do not contain production targets, forecast financial information or income-based valuations.

For example, as set out in ASX FAQ 25, you can 'publish a summary of the preliminary study that does not mention the production target or forecast financial information' or you can say, if this is the case, that 'the results of the preliminary study were positive and that the results justify the entity to commit to the next stage of exploration and development'.

For parts of the study that do not contain production targets, forecast financial information or income-based valuations, you should still disclose reliable, relevant information of a technical nature to ensure that the market is properly informed of your company's prospects. This includes information arising from a preliminary study that addresses the information required to be disclosed on an 'if not, why not' basis under sections 3 and 4 of Table 1 of the JORC Code.

Q. ASIC Regulatory Guide 170: Prospective financial information,.

Request for information

Having regard to the above, ASX asks HAW to respond separately to each of the following questions and requests for information:

1. ASX understands that completion of the prefeasibility study resulted in Hancock Magnetite Holdings Pty Ltd's interest in the joint venture ownership structure increasing from 30% to 51%. Is this correct?
2. ASX understands that the proportion of mineral resources underpinning the 12mtpa Product Target is approximately 43% indicated resources, 54.5% inferred resources and 2.5% "unclassified" resources. Is this correct? If ASX's understanding is not correct, please indicate the proportions of mineral resources underpinning the 12mtpa Product Target.
3. ASX understands that the proportion of mineral resources underpinning the Forecast Financial Information is approximately 43% indicated resources, 54.5% inferred resources and 2.5% "unclassified" resources. Is this

correct? If ASX's understanding is not correct, please indicate the proportions of mineral resources underpinning the Forecast Financial Information.

4. ASX understands that the 25 year mine model preferences the delivery of indicated material in the initial 10 years, is this correct? If ASX's understanding is not correct, please provide details of the mine model schedule indicating the sequencing of various categories of resources in the production schedule.
5. ASX understands that the mine model for years 11 to 25 is predominately, if not solely, underpinned by inferred resources and unclassified resources, is this correct? If ASX's understanding is not correct, please provide details of the mine model schedule indicating the sequencing of various categories of resources in the production schedule.
6. ASX understands that the financial analysis in the PFS Announcement determined that the discounted cash flows from the indicated mineral resource could not offset the capital expenditure and was unable to support the reporting of a JORC compliant ore reserve. Is this correct? If ASX's understanding is not correct, please indicate where the financial analysis based solely on the indicated resources has been disclosed.
7. ASX understands that the financial analysis is dependent on the assumption that the metallurgical properties of the inferred resources and unclassified resources is the same as the indicated mineral resource, is this correct?
8. ASX understands that the further metallurgical test work may invalidate the assumption that the metallurgical properties of the inferred resources and unclassified resources is the same as the indicated mineral resource, is this correct?
9. Please explain what the unclassified resource is, and in particular how disclosure of it complies with Listing Rule 5.6 and Clause 26 of the JORC Code.
10. In accordance with Listing Rule 5.16.1 please set out all the material assumptions on which the 12mtpa Product Target is based. In providing this information, please indicate where the material assumptions have been disclosed in the PFS Announcement.
11. In accordance with Listing Rule 5.17.1 please set out all the material assumptions on which the Forecast Financial Information is based. In providing this information, please indicate where the material assumptions have been disclosed in the PFS Announcement.
12. Clause 21 of the JORC Code provides that confidence in the estimate of inferred mineral resources is not sufficient to allow the results of the application of technical and economic parameters to be used for detailed planning in Pre-Feasibility (Clause 39) or Feasibility (Clause 40) Studies. For this reason, there is no direct link from an inferred mineral resource to any category of ore reserves. In light of this please explain why HAW has disclosed a 25 year mine plan that is based either predominately or solely on inferred or unclassified resources for years 11 to 25?
13. Given the disclosure in the PFS Announcement that "this analysis determined that the discounted cash flows from the indicated mineral resource could not offset the capital expenditure and hence was unable to support the reporting of a JORC compliant ore reserve", does HAW consider the study constitutes a Preliminary Feasibility Study in accordance with the definition in Clause 39 of the JORC Code? Please provide the basis for HAW's view.
14. Given ASX's understanding that:
 - a) An inferred mineral resource has a lower level of confidence than that applying to an indicated mineral resource and must not be converted to an ore reserve (Clause 21 of the JORC Code);
 - b) The inferred category is intended to cover situations where a mineral concentration or occurrence has been identified and limited measurements and sampling completed, but where the data are insufficient to allow the geological and grade continuity to be confidently interpreted.

While it would be reasonable to expect that the majority of inferred mineral resources would upgrade to indicated mineral resources with continued exploration, due to the uncertainty of inferred mineral resources, it should not be assumed that such upgrading will always occur (Guidance to Clause 21 of the JORC Code);

- c) Caution should be exercised if inferred mineral resources are used to support technical and economic studies such as Scoping Studies (Guidance to Clause 21 of the JORC Code);
- d) Where a mining entity is reporting a production target that is based on a portion of inferred mineral resources and/or an exploration target in addition to ore reserves and/or measured and indicated mineral resources, the reporting entity must be satisfied that the respective proportions of inferred mineral resources and the exploration target are not the determining factors in project viability (Section 8.5 of Guidance Note 31);
- e) The proportion of inferred mineral resources and exploration targets that may be added to the end of a mine plan depends on the maturity of the project. For example, a greater proportion may be justified for a producing mine with a history of converting exploration targets and mineral resources into ore reserves, than an exploration entity that has indicated mineral resources as the highest confidence mineral resource (ASX FAQ 24);
- f) Under sections 670A(2), 728(2) and 769C of the Corporations Act and section 12BB(1) of the ASIC Act (together the 'legal requirements'), a statement about future matters must be based on reasonable grounds at the date the statement is made or it will be misleading (ASIC IS 214);
- g) In all cases, having regard to Figure 1 of the JORC Code, there must have been a sufficient level of exploration and evaluation work done on a mining project, and on each of the JORC Code modifying factors, to provide reasonable grounds for publishing any production target for that project, or forecast financial information or income-based valuation based on a production target for that project (ASIC IS 214);
- h) HAW has stated in the PFS Announcement "A financial analysis was completed, based on JORC 2012 Section 39, on the Indicated Mineral Resource (only)...this analysis determined that the discounted cash flows from the Indicated Mineral Resource could not offset the capital expenditure and hence was unable to support the reporting of a JORC compliant Ore Reserve";
- i) HAW has stated in the PFS Announcement "The 25 year mine model includes the initial 25 years of mining operations of the Banded Iron Formation within the "fresh" Geozone with DTR >15% regardless of mineral resource classification";
- j) HAW has stated in the PFS Announcement "it is an implicit assumption within this assessment that the inferred and unclassified materials will be processed under the same flowsheet and hence capital and operating costs and the same product grades will be achieved";
- k) The mine model for years 11 to 25 is predominately, if not solely, underpinned by inferred resources and unclassified resources; and
- l) HAW appears to have included the inferred resources which has a lower level of confidence than that applying to an indicated resources to underpin the with 12mtpa Production Target and Forecast Financial Information,

does HAW consider that the inclusion of inferred mineral resources in the financial analysis is a determining factor in project viability?

15. If the answer to question 14 is "no", did the financial analysis demonstrate that the mine model was financially viable based solely on the indicated resources? In answering this question please indicate if and where the financial analysis based solely on the indicated resources has been disclosed.

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16. Has HAW prepared a mine model excluding the approximately 54.5% inferred resources and 2.5% 'unclassified material' underpinning the 12mtpa Production Target and Forecast Financial Information in order to be satisfied that the respective proportions of inferred resources and 'unclassified material' are not the determining factors in project viability as per section 8.5 of ASX Guidance Note 31 and ASX FAQ 24?
17. If the answer to question 16 is "yes", please provide details of the mine model demonstrating that the inclusion of the respective proportions of inferred resources and 'unclassified material' are not the determining factors in project viability. Please include a summary of the material assumptions supporting HAW's view that the respective portions of inferred resources and 'unclassified material' are not determining factors in the project viability for the project.
18. If the answer to question 16 is "no", how is HAW satisfied that it has a reasonable basis disclosing the 12mtpa Production Target and the Forecast Financial Information underpinned by inferred resources and unclassified resources if the viability of the project is reliant on the inferred resources and unclassified resources, which by definition have a lower level of confidence than that applying to an indicated mineral resource?
19. Given that RG 170.59 provides that investors should be given enough information to enable them to:
- a) assess whether the prospective financial information is relevant and reliable (i.e. to form their own view about how reasonable the grounds are for making the statement); and
 - b) identify with certainty the facts and circumstances that support prospective financial information, as well as being able to demonstrate that the information is reasonable,
- please identify the information in the PFS Announcement investors should assess in order to determine the relevance and reliability of including up to 54.5% inferred resources and 2.5% 'unclassified material' in the production target,
20. The PFS Announcement does not appear to contain any disclosure of the factors HAW's directors have considered in order to conclude they have a reasonable basis for the funding assumptions inherent in the PFS (including the estimated \$5,000,000,000 CAPEX cost). Does HAW consider the disclosures regarding funding assumptions contained in the PFS announcement satisfy the requirements of ASIC Information Sheet 214?
21. If the answer to question 20 is 'yes' please provide the basis for this conclusion, commenting specifically on the \$5,000,000,000 CAPEX cost estimate and HAW's funding assumptions for its share of the cost.
22. Please confirm that HAW is in compliance with the Listing Rules and, in particular, Listing Rule 5.45 and Listing Rule 3.1.
23. Please confirm that HAW's responses to the above have been authorised and approved in accordance with its published continuous disclosure policy or otherwise by its board or an officer of HAW with delegated authority from the board to respond to ASX on disclosure matters.

When and where to send your response

This request is made under Listing Rule 18.7. Your response is required as soon as reasonably possible and, in any event, by no later than **10AM AWST Wednesday, 21 August 2024**.

You should note that if the information requested by this letter is information required to be given to ASX under Listing Rule 3.1 and it does not fall within the exceptions mentioned in Listing Rule 3.1A, HAW's obligation is to disclose the information 'immediately'. This may require the information to be disclosed before the deadline set out in the previous paragraph and may require HAW to request a trading halt immediately.

Your response should be sent to me by e-mail at **ListingsCompliancePerth@asx.com.au**. It should not be sent directly to the ASX Market Announcements Office. This is to allow me to review your response to confirm that it

is in a form appropriate for release to the market, before it is published on the ASX Market Announcements Platform.

Listing Rules 3.1 and 3.1A

In responding to this letter, you should have regard to HAW's obligations under Listing Rules 3.1 and 3.1A and also to Guidance Note 8 *Continuous Disclosure*: Listing Rules 3.1 – 3.1B. It should be noted that HAW's obligation to disclose information under Listing Rule 3.1 is not confined to, nor is it necessarily satisfied by, answering the questions set out in this letter.

Suspension

If you are unable to respond to this letter by the time specified above, ASX will likely suspend trading in HAW's securities under Listing Rule 17.3.

Release of correspondence between ASX and entity

We reserve the right to release a copy of this letter, your reply and any other related correspondence between us to the market under listing rule 18.7A. The usual course is for the correspondence to be released to the market so that the market is aware that ASX has made enquiries of the entity about its disclosures and of the entity's response to those enquiries.

Yours sincerely

James Rowe
Head of Listings Compliance (Perth)