Hematite Recovery Testwork Program Update

Highlights

- Testwork has identified a technically credible pathway to recover additional iron, principally hematite, from the current non-magnetic stream generated by the proposed Hawsons processing circuit.
- The program recovered 75.0% of the iron from the waste stream while rejecting 59.6% of silica and 67.5% of alumina, demonstrating selective separation of iron-bearing minerals from major gangue components.
- Reverse flotation demonstrated that the material responds to beneficiation. Future work will focus on achieving the target of a 55-60% Fe hematite concentrate. This potential hematite concentrate is separate from, and in addition to, the planned 10Mtpa of high grade (target 69%+ Fe) magnetite concentrate.
- A follow-up program is planned to optimise magnetic separation operating conditions and flotation reagents, and to compare alternative circuit configurations prior to undertaking a full commercial study. This program will run concurrently with the planned Feasibility Study and will not have any impact on timing for the Feasibility Study.

Hawsons Iron Limited (ASX: HIO) ("**Hawsons**" or the "**Company**") is pleased to report results from byproduct recovery testwork undertaken on the wet low intensity magnetic separator (**WLIMS**) non-magnetic stream associated with the Hawsons Iron Project near Broken Hill, New South Wales.

The work investigated whether iron not recovered into the Project's primary premium magnetite concentrate could be recovered through a secondary beneficiation circuit. The results have established a credible technical basis for the next phase of work which is expected to take several months.

The testwork successfully provided a pathway to recovering additional iron units that are not recovered in the current magnetite concentrate.

Hawsons Managing Director Tom Revy said:

*"These results at this interim stage are encouraging because they show that a substantial proportion of the iron in this stream is present as recoverable iron oxide minerals, principally hematite, rather than being structurally locked within gangue. The bench-scale wet high intensity magnetic separator (**WHIMS**) result recovered 75% of the iron while rejecting a significant proportion of the silica and alumina, which is a strong pre-concentration outcome.*

Our plan for the next phase of work will focus on improving the grade-recovery balance and establishing whether the opportunity can support a technically and commercially viable flowsheet.

Importantly, the recovery of a potentially saleable hematite-rich product from this secondary process stream, alongside the production of our premium magnetite concentrate, would represent an innovative flowsheet application that we believe could be a world first at the scale contemplated for the Hawsons Project."

Testwork Sample

The sample utilised for this preliminary program utilised material generated in the Loesche VRM testwork.[1]

Sample feed grade to the Loesche VRM and Dry Cobbing results

	Grade (%)					
	Fe	SiO_2	Al_2O_3	CaO	MgO	Magnetite
VRM Feed	16.55	49.31	8.83	3.65	4.27	12.85
Dry Cobbing Magnetic						
Test 1	50.97	19.41	3.16	1.21	1.60	58.72
Test 2	53.46	17.33	2.91	1.05	1.36	62.90

The product of the Loesche VRM was processed in line with the Hawsons flowsheet with initial dry cobbing, in 2 batches. The dry cobbing magnetic intermediate concentrate was subject to grinding and WLIMS, to recovery magnetite with the non-magnetic material for byproduct testing.

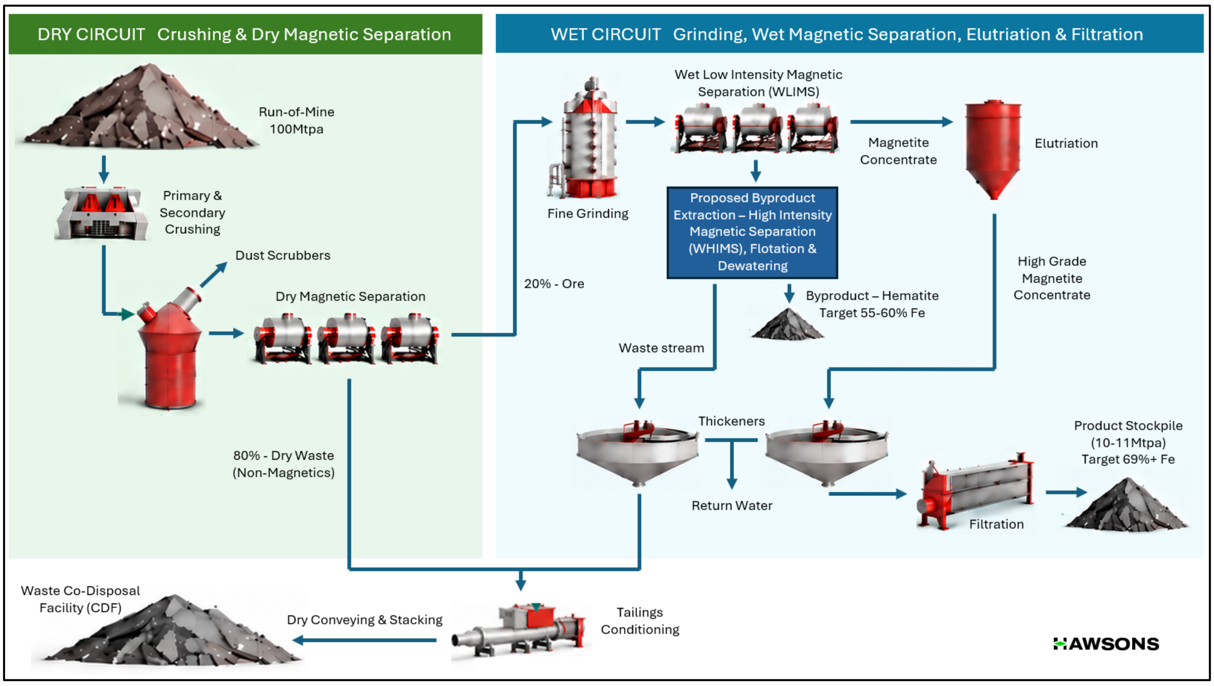

Image 1: Proposed Flowsheet Highlighting Area for Byproduct Recovery

WLIMS Feed to Byproduct Tests

	WLIMS Non-magnetic Grade (%)					
	Fe	SiO2	Al2O3	CaO	MgO	Magnetite
Test 1	12.08	50.66	11.32	3.69	4.99	6.14
Test 2	9.98	52.14	11.76	3.88	4.98	4.88

[1] Refer ASX announcement "*Dry Grinding Test Work Update*"

Testwork Outcomes

Initial investigations identified that the fine gangue component of the WLIMS non-magnetics was impacting on the flotation separation performance. It was then necessary to minimise the low Fe high silica (SiO_2) and alumina (Al_20_3) fines. Investigations identified WHIMS as the preferred method in maximising Fe recovery whilst rejecting the fine gangue.

The WLIMS non-magnetic stream tested had a head grade of approximately 11.0% Fe. WHIMS was assessed as a pre-concentration step to recover weakly magnetic iron-bearing minerals before downstream upgrading.

The LGS100 bench-scale result demonstrated the strongest iron recovery. The larger LGS500 unit produced a comparable concentrate grade with lower iron recovery, while rejecting a greater proportion of silica and alumina. These results indicate that the larger unit was more selective under the conditions tested and requires optimisation of variables including magnetic field strength, matrix aperture, pulp density, feed rate, pulsation and carousel speed.

X-ray diffraction analysis of the WHIMS concentrate identified iron oxide minerals of hematite, magnetite and goethite, with an estimated distribution of contained iron of:

- 59.6% in hematite;
- 24.7% in magnetite,
- 3.6% in goethite; and
- approximately 12% structurally hosted in gangue minerals.

On this basis, approximately 87.8% of the contained iron was estimated to occur in potentially recoverable iron oxide minerals. This result supports continued investigation of downstream beneficiation options.

Reverse cationic flotation tests demonstrated that the pre-concentrated material responds to flotation but did not achieve the program target of producing a 55-60% Fe concentrate.

The flotation testwork also identified variables requiring controlled optimisation, including reagent freshness and selection and dosage, grinding and desliming.

Next Steps

The next phase of the testwork program will focus on achieving the target 55-60% Fe concentrate by comparing the following routes:

- WLIMS non-magnetic stream followed by WHIMS and flotation; and
- WLIMS non-magnetic stream followed by WHIMS, regrinding and flotation.

The program will also assess alternative WHIMS configurations and optimise flotation reagent regimes under controlled conditions. Regrinding will be assessed cautiously because it may add capital cost, operating cost and process complexity.

Subject to successful metallurgical results, subsequent work would quantify the effect on total Project iron recovery and potential additional saleable tonnes, followed by capital and operating cost analysis. No estimate of additional production, revenue or economic value can be made until this work is completed.

This announcement is authorised by the Board.

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JORC Code, 2012 Edition – Tables 1 & 3 Hawsons Magnetite Project

Hawsons Iron Ore – Hematite Recovery Testwork Program

Location and Geology

Hawsons Iron Magnetite Ore Deposit is situated 65km south-west of Broken Hill about 10km on the NSW side of the NSW/SA border. It can be described as a Rapitan-style stratified turbidite sequence that dips approximately 45° down to the SW in the Core West and Core East areas and up to 70° down to the NW in the Fold Area. The sequence consists of magnetite rich siltstones, sandstones and diamictites. The DTR% grade of the magnetite product is up to 70% iron and the ore is comparatively soft where the crystalline magnetite liberates readily from the ore.

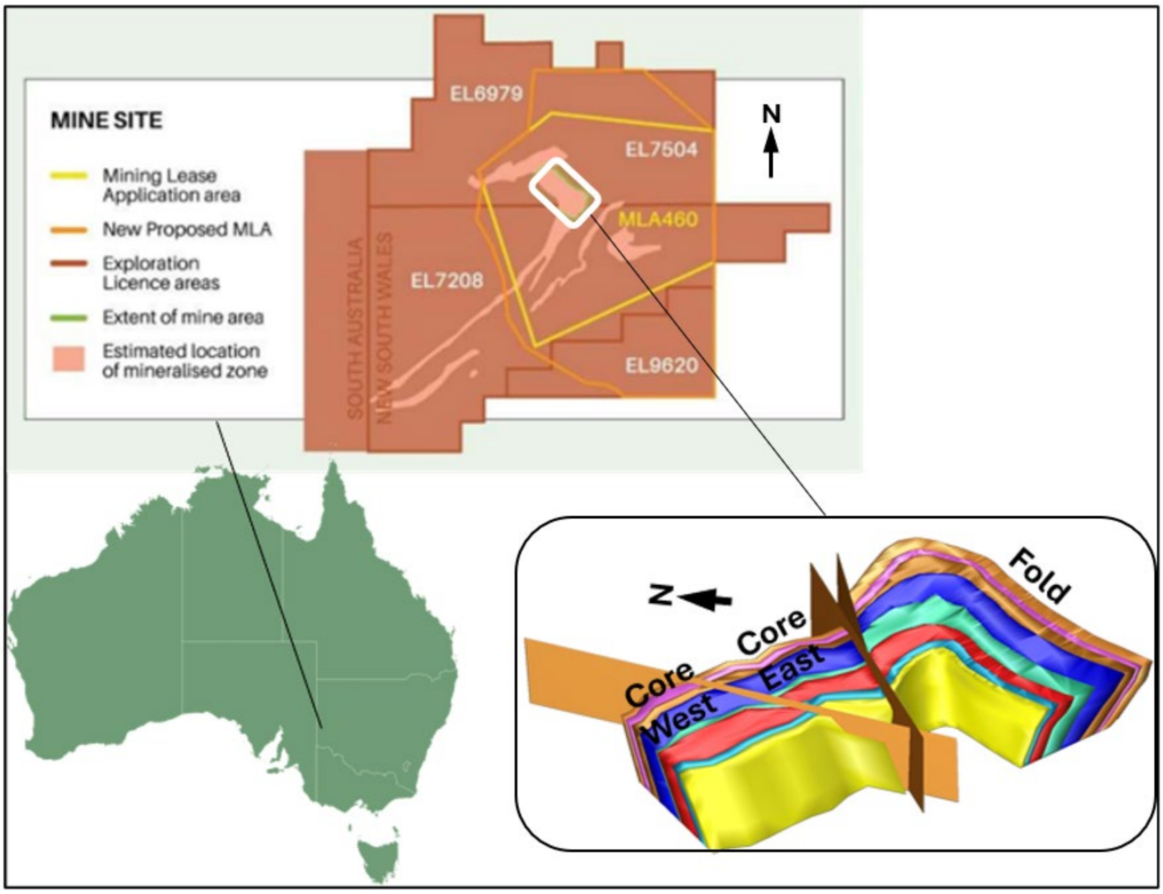

Figure 1*: Hawsons Iron location plan and schematic structural diagram (red band = Unit 3, blue band = Unit 2 and pink band = Unit 1).*

Drillhole Samples

Samples of the core from drillhole FCFO23023 (Figure 2 and Table 1A), located within the Fold area at the Hawsons project (Figure 2), were combined to provide the bulk sample for the previous Gebr Pfeiffer grinding tests. Of the 42 trays of core, the remaining ¼ core from the odd numbered trays (21 in total) were selected and the remaining ½ core (29 trays in total) down the length of the drillhole were selected (Table B).

5 drillholes (listed in Table 1C and shown in Figure 2) from across the Fold area at the Hawsons project were selected for testing were combined for similar grinding tests undertaken by Loesche. The 1m reserve samples for each drillhole were kept in separate IBCs, 1 for each drillhole. The IBCs were then shipped to Bureau Veritas (BV) in Adelaide where the Loesche testing took place.

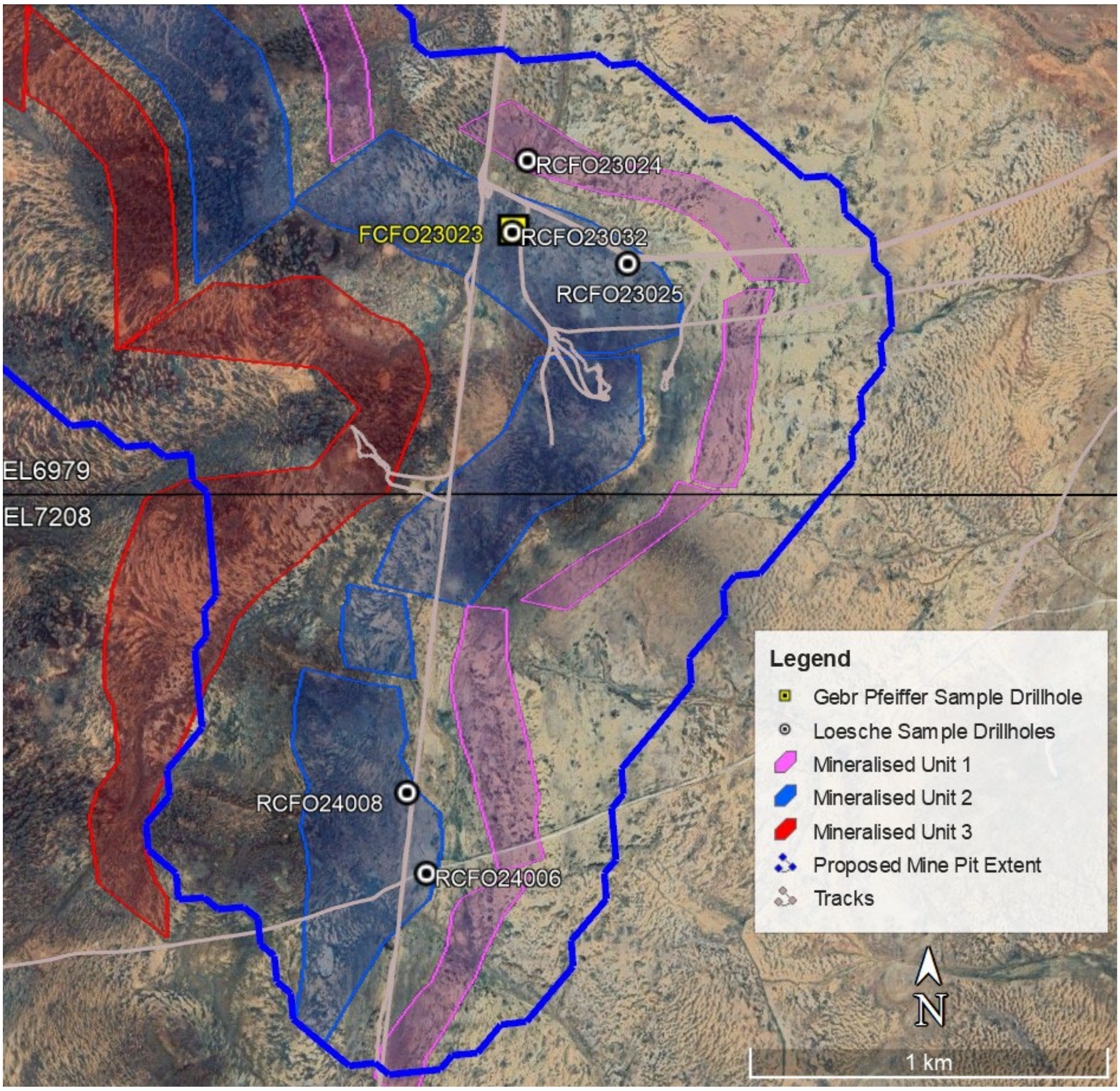

***Figure 2:** Drillhole locations for Gebr-Pfeiffer and Loesche samples.*

The final products resulting from the Gebr Pfeiffer & Loesche VRM programs (Refer ASX announcement "*Dry Grinding Test Work Update*") were combined for use in the upgrade / flotation test work program undertaken for potential hematite recovery testwork.

Table 1 (A): Gebr Pfeiffer sample drillhole FCFO23023 location information

Hole ID	Easting GDA2020	Northing GDA2020	RL (AHD)	Total Depth (m)	Azimuth (°)	Dip (°)
FCFO23023	514153.84	6412246.11	188.89	149.80	040	-85

Table 1 (B): Drillhole FCFO23023 Gebr-Pfeiffer sample information.

Tray #	Start depth(m)	End depth (m)	Thickness (m)	1/4 Core Mass (kg)*	1/2 Core Mass (kg)*
1	0.00	3.66	3.66	7.0	13.0
2	3.66	7.20	3.54	NS	13.0
3	7.20	11.06	3.86	12.0	11.5
4	11.06	14.69	3.63	NS	NS
5	14.69	18.39	3.70	8.5	NS
6	18.39	21.87	3.48	NS	NS
7	21.87	25.59	3.72	9.5	12.0
8	25.59	29.20	3.61	NS	12.5
9	29.20	33.00	3.80	10.5	10.5
10	33.00	36.54	3.54	NS	14.0
11	36.54	40.27	3.73	6.5	14.0
12	40.27	43.90	3.63	NS	11.5
13	43.90	47.54	3.64	9.0	NS
14	47.54	51.00	3.46	NS	NS
15	51.00	54.77	3.77	9.0	NS
16	54.77	58.20	3.43	NS	12.0
17	58.20	61.78	3.58	7.5	19.0
18	61.78	65.58	3.80	NS	12.0
19	65.58	69.23	3.65	7.0	16.5
20	69.23	72.85	3.62	NS	13.0
21	72.85	76.30	3.45	8.5	NS
22	76.30	79.78	3.48	NS	NS
23	79.78	83.13	3.35	8.0	NS
24	83.13	86.64	3.51	NS	11.0
25	86.64	90.10	3.46	17.0	9.5
26	90.10	94.52	4.42	NS	2.5
27	94.52	98.03	3.51	14.5	NS
28	98.03	101.67	3.64	NS	15.0
29	101.67	105.20	3.53	8.0	14.5
30	105.20	108.84	3.64	NS	17.0
31	108.84	112.41	3.57	7.0	15.0
32	112.41	115.90	3.49	NS	15.5
33	115.90	119.57	3.67	11.5	10.0
34	119.57	123.30	3.73	NS	12.5
35	123.30	126.55	3.25	8.0	NS
36	126.55	130.28	3.73	NS	NS
37	130.28	133.80	3.52	9.5	NS
38	133.80	137.45	3.65	NS	11.5
39	137.45	141.07	3.62	6.5	13.5
40	141.07	144.53	3.46	NS	12.0
41	144.53	148.12	3.59	11.5	11.5
42	148.12	149.80	1.68	NS	7.5
		Totals	**149.80**	**196.5**	**363.0**
			Grand Total (kg)	**559.5**	

Table 1 (C): List of drillholes and samples for Loesche sample.

Hole_ID	Easting GDA2020	Northing GDA2020	RL AHD	Total Depth (m)	Azi (°)	Dip (°)	Sample Interval		No. 1m Samples Combined	Est. Ave DTR (%)	Total Mass (kg)*	Est. Ave Mass Per 1m Bag (kg)
							From (m)	To (m)				
RCFO23024	514191.74	6412435.79	187.04	151.00	040	-55	0.00	151.00	151	10.98	536	3.55
RCFO23025	514462.40	6412150.34	194.78	150.00	040	-55	0.00	150.00	150	11.40	517	3.45
RCFO23032	514150.31	6412240.46	189.01	163.00	040	-85	0.00	163.00	163	11.07	628	3.85
RCFO24006	513912.17	6410493.69	186.92	151.00	100	-55	0.00	151.00	151	11.31	518	3.43
RCFO24008	513856.20	6410718.87	191.57	193.00	090	-55	0.00	193.00	193	13.18	653	3.38
								Totals	**808**	**11.64**	**2,852**	**3.53**

IBC masses weighed via load cell (+/- 1kg).

JORC Table 1
Section 1: Sampling Techniques and Data

Table 3: Compliance statement for Hawsons samples and data

Criteria	Commentary
Sampling techniques	The feedstock samples tested at ALS Metallurgy & Mineral Processing were derived from selected intervals of HQ3 (61.1mm) diamond core from 10 drillholes and 1 large diameter 8C (200mm diameter) and 1 cored hole drilled within the overall pit shell of the Hawsons project area. An additional 4 x IBC grab sample from the mineralised subcrop in the RCFO23015 drill sump was included. The selection criteria were completed to ensure representative lateral cover existed across the project area and representative vertical cover existed across the prospective mineralised units. All crushing, sampling and assay for individual samples used in the comminution testing was performed to industry standards at ALS Perth.
Drilling techniques	No new drill results are reported in this announcement. The drilling results for this exercise have previously been reported.
Drill sample recovery	No new drill results are reported in this announcement.
Logging	All core sample was logged geologically to a level of detail appropriate to support metallurgical sampling.
Sub-sampling techniques and sample preparation	Subsampling techniques and sample preparation were conducted to industry standards at ALS Metallurgy & Mineral Processing, Perth.
Quality of assay data and laboratory tests	All analysis was completed at a third-party laboratory (ALS Perth). The magnetic mineral (magnetite) content (%) was determined by Davis Tube Recovery (DTR). Assay was conducted by XRF to produce a 14-element suite (oxides) and LOI was determined by gravimetric method both on the head samples and the DTR samples. Laboratory procedures are in line with industry standards and are appropriate for magnetite iron ore. The third-party laboratory inserts their own standards at set frequencies and monitors the precision of the XRF analysis.
Verification of sampling and assaying	Apart from data and samples resubmitted to the third party for review / re-analysis following Lab-In QAQC error-trapping, no adjustments were made to the assay data.
Location of data points	All geolocation x, y, z data is referenced to GDA2020 datum with a Differential GPS. Height datum is AHD. Downhole geolocation survey is conducted using both industry standard logging tools along the drill string and by gyroscopic downhole geophysical logging tools.
Data spacing and distribution	Based on the geological understanding of the deposit the composite sample locations are considered adequate to establish the degree of geological and grade continuity appropriate for the samples.
Orientation of data in relation to geological structure	The orientation of the mineralisation and the deposit structure is well understood, and sample locations were selected to sample the mineralisation appropriately.
Sample security	All samples are placed in containers appropriate for the nominated analyses and then a chain of custody process is followed to track sample security.
Audits or reviews	No external audit or reviews have been undertaken specifically in relation to these exploration results.

Section 2: Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	• 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 Hawsons Iron Limited 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.
Exploration done by other parties	• 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. • In 1984, CRAE completed, 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. • These exploration results have been reported to the ASX.
Geology	• 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 -55o), primarily to the southwest. The airborne magnetic data clearly indicates the magnetite siltstones as a series of parallel, high amplitude magnetic anomalies. Large 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. • The Hawsons project comprises a number of prospects including the Core West, Core East, 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 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.

Criteria	Commentary
	• 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	• Exploration results are not being reported. No additional exploration has been completed since 2024-H1. Tables 1B & 1C give the data for the sample intervals from drillholes that were used in this work.
Data aggregation methods	• No new drillhole results are being reported in this announcement.
Relationship between mineralisation widths and intercept lengths	• No new drillhole results are being reported in this announcement. • Drilling has tended to be at a steep angle to the dip angle of the sedimentary beds.
Diagrams	• Exploration results are not being reported. • A map showing the locations of past drillholes that were used in this work is shown in Figure 2 of this announcement.
Balanced reporting	• No new drillhole results are being reported in this announcement.
Other substantive exploration data	• 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 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 Hawsons 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. • Reinterpretation of the 2010 ground-borne geophysical survey data was completed in 2023-2024 which aided in the modelling of the resource.
Further work	• Infill drilling is planned to upgrade the current Mineral Resources to Measured and Indicated and to upgrade a portion of the Exploration Target to Inferred. • Additional drilling to obtain core for further metallurgical tests is planned.

Competent Persons Statement

The data in this announcement that relates to results for the Hawsons Magnetite Project is based on, and fairly represents, information and supporting documentation prepared by Mr. Michael Ryan, who is a Member of the Australian Institute of Mining and Metallurgy and 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 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code"). Mr. Ryan is a consultant to Hawsons Iron Limited, and he consents to the inclusion in this announcement of the results in the form and context in which they appear.