

Bulk Elutriation Testwork Confirms Hawsons' Premium 69%+ Fe Concentrate Potential

Highlights

- Bulk-scale elutriation testwork produced a high-grade magnetite concentrate grading.
- The upgraded product also maintained very low levels of phosphorus and other impurities, reinforcing the premium characteristics of Hawsons product and the ability to readily materially improve the Project's revenue stream.
- Post elutriation grade of 69.3% Fe, compared with a feed grade of 67.8% Fe.
- Silica reduced by approximately 39%, from 4.04% SiO_2 to 2.48% SiO_2 .
- Alumina reduced by approximately 28%, from 0.40% Al_2O_3 to 0.29% Al_2O_3 .
- Results confirm earlier testwork supporting the inclusion of elutriation within the Pre-Feasibility Study process flowsheet.
- Further refinement of elutriation operating conditions will be undertaken as part of the Hawsons Iron Project final Feasibility Study.



Figure 1 Elutriation Column - ALS (Perth)

Hawsons Iron Limited (ASX: HIO) ("**Hawsons**" or the "**Company**") is pleased to announce highly encouraging results from bulk-scale elutriation testwork undertaken on magnetite concentrate from the Hawsons Iron Project.

The testwork successfully upgraded the Hawsons concentrate sample from 67.8% Fe to 69.3% Fe, while significantly reducing key gangue components, including silica (SiO_2) and alumina (Al_2O_3).

Importantly, the results confirm earlier testwork¹ underpinning the inclusion of elutriation in the Company's updated Pre-Feasibility Study ("**PFS**") flowsheet and further demonstrate the potential for Hawsons to produce a premium, very-high-grade magnetite concentrate / product with low levels of impurities.

The increase in concentrate grade from approximately 68% Fe to approaching 70% Fe has the potential to deliver a meaningful improvement in the value of the Hawsons product. Premium iron ore products with very high Fe grades and low impurity levels are expected to become increasingly important to steelmakers seeking to improve productivity, reduce energy consumption and lower emissions intensity. For Hawsons, achieving a higher Fe grade potentially increases the value of every tonne of concentrate sold through access to higher product premiums, while further differentiating Hawsons from the majority of globally traded iron ore products.

¹ Refer [ASX Announcement](#) dated 14 October 2015



Importantly, as the additional upgrading occurs at the final stage of the process, the potential increase in product value could translate into higher revenue and improved operating margins without requiring a corresponding increase in mine production. Subject to large scale / orebody variability testwork and further economic assessment, this represents potential project upside.

	Hawsons Target Magnetite Product	Typical Hematite
Impurity levels	Very low	Moderate to high
DRI productivity	High	Lower
Energy required (DRI/EAF)	Lower	Higher
Hydrogen DRI suitability	Excellent	Limited
Embedded CO ₂ intensity	Lower	Higher
EU CBAM exposure	Reduced	Elevated
Green steel certification	Strong	Weaker
Strategic value	Enables export competitiveness	Increasingly disadvantaged

Hawsons Managing Director Tom Revy said:

“These results are another important validation of the exceptional quality characteristics of the Hawsons orebody and our ability to produce the type of premium iron ore concentrate increasingly sought by the global steel industry.

Importantly, we have demonstrated on a bulk concentrate sample that a relatively straightforward physical separation process can increase the iron grade from 67.8% Fe to 69.3% Fe, while substantially reducing silica and alumina.

As the steel industry focuses increasingly on productivity, energy efficiency and reducing emissions, we believe the quality of the iron units entering the steelmaking process will become increasingly important. Producing a concentrate approaching 70% Fe, with very low levels of deleterious elements, further strengthens Hawsons’ potential positioning as a long-life supplier of premium magnetite concentrate into a changing global steel industry.

Grades at this level add zero to our operating costs while attracting a materially higher revenue stream = improved Project economics.

The results also provide further confidence in the process flowsheet adopted for the PFS and give us a strong platform for further optimisation during the Feasibility Study.”



Elutriation Testwork

Elutriation is a physical separation process that uses the difference in specific gravity between magnetite and gangue minerals to further upgrade magnetite concentrate.

The Hawsons concentrate sample consists predominantly of discrete grains of magnetite, with limited composite grains and gangue material. The remaining gangue principally comprises silicates, aluminosilicates and carbonates that remain in the concentrate following the final magnetic separation stage, primarily through entrainment.

Prior to elutriation, the concentrate typically grades approximately 68% Fe, with approximately 3–5% combined SiO_2 and Al_2O_3 .

The use of elutriation was incorporated into the PFS process flowsheet based on earlier testwork. The latest bulk-scale program, which optimised variable water flow rates, provides further confirmation of its effectiveness in upgrading Hawsons concentrate.

Bulk Sample Results

The program utilised bulk magnetite concentrate produced from Hawsons drill core during metallurgical testwork undertaken at ALS in Perth during 2025.

A portion of this bulk concentrate sample has now been subjected to elutriation at ALS Perth, producing the following results:

	Fe Grade (%)	SiO_2 Grade (%)	Al_2O_3 Grade (%)	P Grade (%)	Mn Grade (%)	CaO Grade (%)	MgO Grade (%)	TiO_2 Grade (%)
Feed	67.8	4.04	0.40	0.008	0.02	0.19	0.26	0.07
Product	69.3	2.48	0.29	0.006	0.02	0.12	0.18	0.06

The results demonstrate a 1.5 percentage point increase in Fe grade, accompanied by substantial reductions in the principal gangue constituents.

Of particular importance, SiO_2 was reduced from 4.04% to 2.48%, while Al_2O_3 was reduced from 0.40% to 0.29%. Phosphorus remained exceptionally low at 0.006% in the final product.

These results further demonstrate the potential of the Hawsons orebody to produce a very-high-grade, low-impurity magnetite concentrate suitable for premium iron ore markets.



HOW ELUTRIATION WORKS

UPGRADING MAGNETITE CONCENTRATE

Elutriation is a physical separation process that uses the difference in specific gravity (SG) between dense magnetite particles and lighter gangue minerals.

A controlled upward flow of water carries lighter gangue particles out of the vessel, while the dense magnetite settles and is collected.

1. FEED – MAGNETIC CONCENTRATE

After magnetic separation

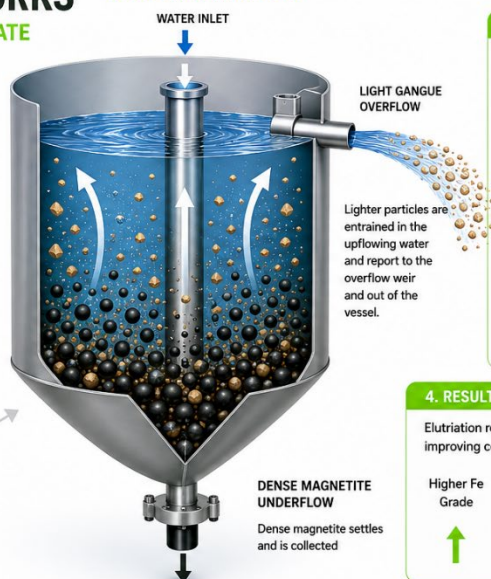


Typical concentrate:
~68% Fe, 3–5% SiO₂ + Al₂O₃

Magnetite
(SG ~ 4.9–5.2)
High Density

Gangue
(Silicates,
Carbonates etc.)
(SG ~ 2.6–3.0)
Low Density

2. ELUTRIATION PROCESS



DENSE MAGNETITE
UNDERFLOW
Dense magnetite settles
and is collected

3. HOW IT WORKS

UPFLOW VELOCITY

Water is introduced at a controlled rate to create an upward flow.



Light gangue particles are lifted by the water and flow upward.

DENSITY DIFFERENCE



Dense magnetite particles are not lifted and settle to the bottom.

4. RESULTS – UPGRADED CONCENTRATE

Elutriation removes low density gangue, improving concentrate quality.

Higher Fe Grade Lower SiO₂ + Al₂O₃ Lower Impurities (P, Al, CaO etc.) Higher Revenue

TYPICAL RESULTS (EXAMPLE)	FEED (PRE-ELUTRIATION)					ELUTRIATED CONCENTRATE (POST-ELUTRIATION)					IMPROVEMENT	
	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	LOI (%)	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	LOI (%)	Fe Increase	Impurity Reduction
	68.0	3.5	1.5	0.08	1.0	69.5+	2.0	0.8	0.04	0.7	+1.5% Fe	20–50%



A PHYSICAL PROCESS – NO CHEMICALS

Improves concentrate quality using density difference – producing a premium, DRI-ready magnetite concentrate.

Next Steps

Fine tuning of elutriation conditions will be undertaken during the Feasibility Study, including assessment of operating parameters aimed at maximising product quality, recovery and overall project economics.

The Company will incorporate the results of this work, together with other ongoing process optimisation programs, into the continued development and refinement of the Hawsons Iron Project flowsheet.



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

ALS Sample

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.

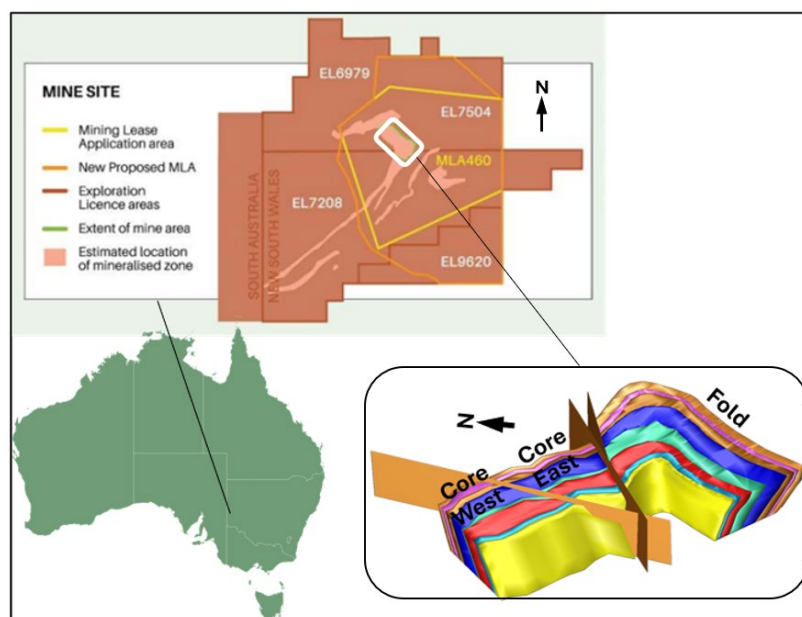


Figure 2: Hawsons Iron location plan and schematic structural diagram (red band = Unit 3, blue band = Unit 2 and pink band = Unit 1)

Sample Constituents

Samples that formed the basis of the analysis consisted of material from Units 2 and 3:

- 15 drums of core samples from drillholes RDCW21005, RDCW21006 and GFCW22020 (**Figure 4**)
- 8C (8inch = 200mm diameter) core hole LDCW21004 cored from 59.00m – 92.70m (= 33.70m total core length). This core was packed into 12 x 200L drums (**Figure 3**)
- While digging the sump for drillhole RCFO23015 high grade material was intersected in the near surface. This material was sampled into 4 intermediate bulk containers (IBCs) (**Figure 5**)



Figure 3: Drums 1-4 on pallet #1 (out of a total of 12 drums of 8C core from drillhole LDCW21004)



Figure 4: Pallets of trays of $\frac{3}{4}$ HQ3 diamond drill core to be used for testing at ALS Perth

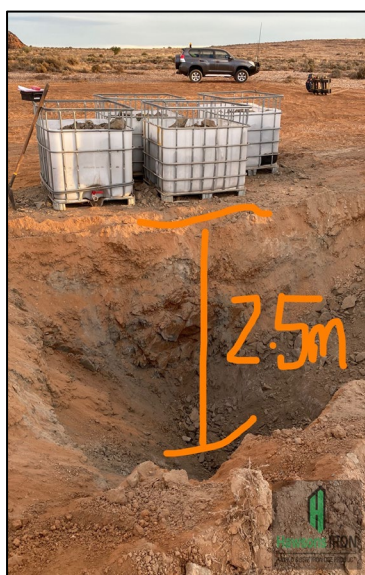


Figure 5: RCFO23015 drillhole sump and an example of the sample recovered

The following is a summary of the sample masses of feedstock for the ALS samples:

Sump sample IBCs:	5,306kg
HQ3 drill core:	8,214kg
8C core:	3,229kg

The sample feedstock (HQ3 core, 8C core, and the sump sample) was used in testwork programs at ALS, Perth. This testwork consisted of comminution (crushing and grinding) and magnetic separation to produce the non-mags sample sent for analysis.

The list of core and sump samples used is shown in Table 1.



Table 1: Record of samples used in the process of producing the test sub-samples

ALS Project No.	Hole ID	East GDA2020	North GDA2020	RL (AHD)	Tot Depth (m)	Azi (°)	Dip (°)	Hole Purpose	Sample Type	Depth From (m)	Depth To (m)	Length (m)	Comments
A23297	RDCW21005	511965.48	6412719.73	187.25	590.43	040	-55	Resource Definition	1/2 Core in Drums	325.00	582.90	257.90	Entire core length provided (no missing intervals). 6 Drums of core.
	RDCW21006	511852.15	6412819.31	187.26	561.20	040	-55	Resource Definition	1/2 Core in Drums	165.50	560.20	394.70	Entire core length provided (no missing intervals). 4 Drums of core.
	GFCW22020	512291.28	6413434.15	195.66	475.03	040	-65	Geotechnical Assessment	Full Core in Drums	70.00	83.45	13.45	Missing intervals (ranging between 19-28cm) sampled for geotechnical testing.
									Full Core in Drums	83.73	151.21	67.48	
									Full Core in Drums	151.46	270.36	118.90	
									Full Core in Drums	270.57	330.32	59.75	
									Full Core in Drums	330.57	335.00	4.43	
A24666	RDCE22031	513068.21	6411981.25	195.18	400.00	040	-55	Resource Definition	3/4 Core in Trays	248.70	400.30	151.60	Entire core length provided (no missing intervals).
	GFCW22030	512485.90	6413170.68	193.30	450.81	040	-65	Geotechnical Assessment	3/4 Core in Trays	2.50	6.08	3.58	Missing intervals (ranging between 10-40cm) sampled for geotechnical testing.
									3/4 Core in Trays	6.28	13.16	6.88	
									3/4 Core in Trays	13.54	18.81	5.27	
									3/4 Core in Trays	19.10	22.70	3.60	
									3/4 Core in Trays	22.97	26.30	3.33	
									3/4 Core in Trays	26.50	31.93	5.43	
									3/4 Core in Trays	32.14	34.63	2.49	
									3/4 Core in Trays	34.89	57.90	23.01	
									3/4 Core in Trays	58.30	61.10	2.80	
									3/4 Core in Trays	61.35	82.17	20.82	
									3/4 Core in Trays	82.57	106.58	24.01	
									3/4 Core in Trays	106.86	139.60	32.74	
									3/4 Core in Trays	139.90	145.16	5.26	
									3/4 Core in Trays	145.40	188.34	42.94	
									3/4 Core in Trays	188.60	245.80	57.20	
									3/4 Core in Trays	245.99	333.22	87.23	
									3/4 Core in Trays	333.72	339.90	6.18	
									3/4 Core in Trays	340.17	438.70	98.53	
									3/4 Core in Trays	438.80	444.57	5.77	
									3/4 Core in Trays	444.85	450.81	5.96	
	GPCE22028	513180.20	6412114.17	195.48	250.80	220	-70	Geotechnical Assessment	3/4 Core in Trays	95.70	151.65	55.95	Missing intervals (ranging between 19-26cm) sampled for geotechnical testing.
									3/4 Core in Trays	151.91	219.91	68.00	
									3/4 Core in Trays	220.10	231.80	11.70	
									3/4 Core in Trays	232.05	241.70	9.65	
	GPCW22037	512402.87	6412748.89	188.71	400.00	220	-70	Geotechnical Assessment	3/4 Core in Trays	90.00	152.60	62.60	Missing intervals (ranging between 25-30cm) sampled for geotechnical testing.
									3/4 Core in Trays	152.86	273.70	120.84	
									3/4 Core in Trays	273.95	328.60	54.65	
									3/4 Core in Trays	328.90	399.84	70.94	
	RDCE22026	513298.48	6412255.92	196.49	450.40	040	-55	Resource Definition	3/4 Core in Trays	339.50	450.40	110.90	Entire core length provided (no missing intervals).
	RDCW21009	512091.43	6413091.81	192.63	540.40	040	-55	Resource Definition	3/4 Core in Trays	387.30	540.40	153.10	Entire core length provided (no missing intervals).
	RDCW22048	512294.53	6413222.39	194.06	402.20	040	-55	Resource Definition	3/4 Core in Trays	347.50	402.20	54.70	Entire core length provided (no missing intervals).
	LDCW21004	512671.51	6413384.05	194.07	92.70	000	-90	Metallurgical Testing	Full Core in Drums	59.00	92.70	33.70	Entire core length provided (no missing intervals).
	RCFO23015	514556.13	6412044.34	197.09	2.50	000	-90	Drillhole Sump Sample	Lump Sample in IBCs	0.70	2.50	1.80	Surficial ore recovered during excavation of a drillhole sump. Loaded into 4 x IBCs.

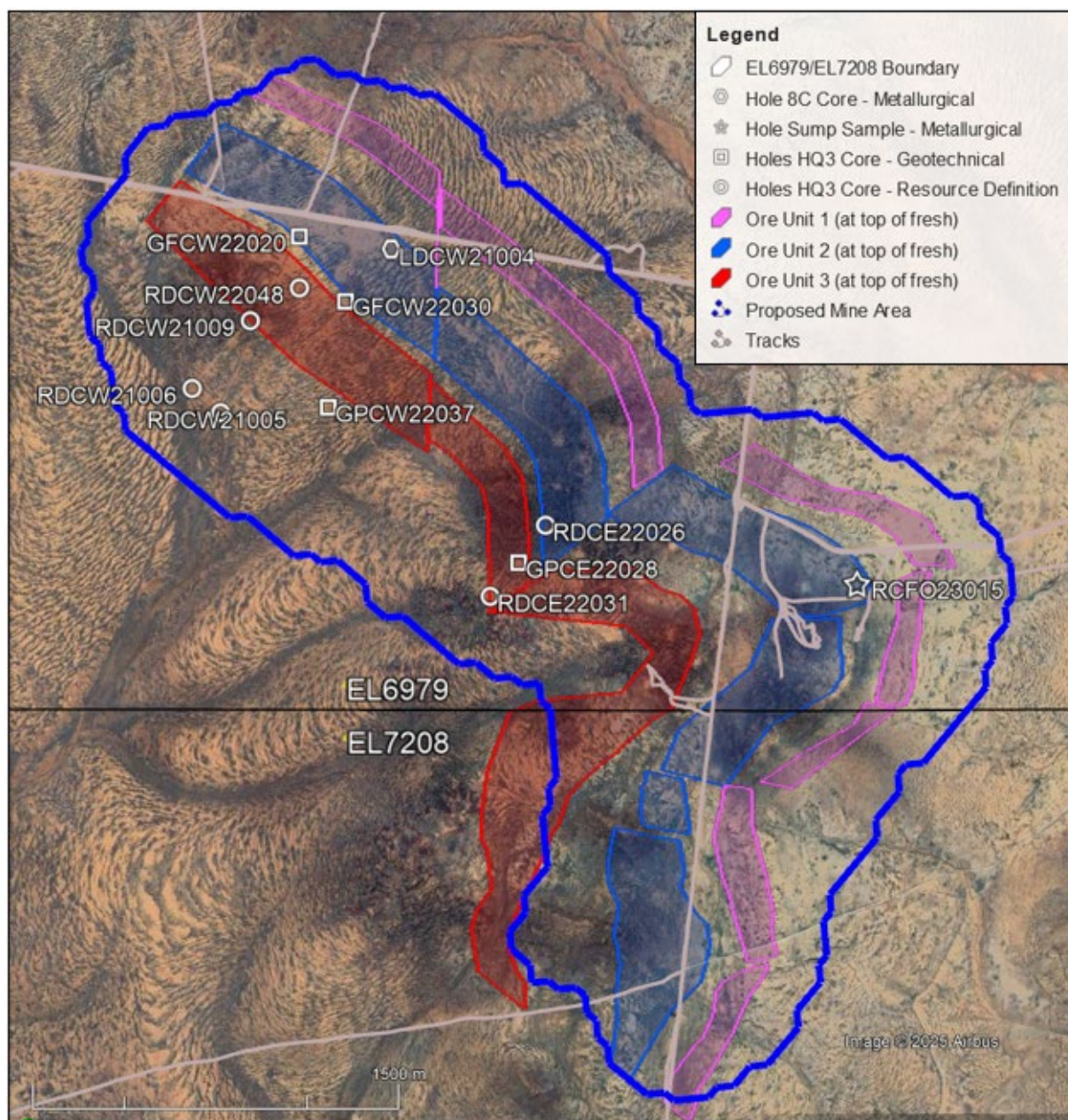


Figure 6: Locations of source sample sites used for samples.



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 was 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.



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.