

# FENIX TO ACQUIRE MOUNT GIBSON'S MID-WEST IRON ORE AND PORT ASSETS

# **HIGHLIGHTS**

- Acquisition of the Shine Iron Ore Mine, two storage sheds at Geraldton Port, two Mid-West rail sidings and assets at the Extension Hill Iron Ore Mine
- Expansion of mine-to-port business positions Fenix as a fully integrated Mid-West bulk commodity logistics and supply chain operator
- 15 Million Tonne increase in iron ore resource base to underpin production growth
- 400% increase in Fenix's Geraldton Port capacity
- C1 Costs Savings of \$5 per tonne targeted on Iron Ridge production
- Diversification of revenue base via opportunity to provide third-party logistics
- Transaction structure aligns parties with Mount Gibson to become a significant Fenix shareholder
- Fenix will host an investor briefing today at 10:00am AWST / 12:00pm AEST. Register here: <u>https://bit.ly/3PrZwD5</u>

Fenix Resources Limited (ASX: FEX) (Fenix or the Company) is pleased to announce the Company has entered into a binding agreement with Mount Gibson Iron Ltd (ASX:MGX) (Mount Gibson) to acquire Mount Gibson's Mid-West iron ore and port assets (Transaction).

The assets that Fenix is acquiring are:

- Shine Iron Ore Mine Operational iron ore mine currently on care and maintenance with a Mineral Resource Estimate of 15 million tonnes at 58% Fe.
- Two Storage Sheds at Geraldton Port Excellent on-wharf infrastructure consisting of Shed 4 with storage capacity of 120,000 tonnes and Shed 5 with storage capacity of 240,000 tonnes both with in-loading access via truck or rail.
- Two Mid-West rail sidings Ruvidini and Perenjori rail sidings providing access to the main Mid-West rail network connecting to Geraldton Port and assembly locations for product storage and blending activities.
- Assets at the Extension Hill Iron Ore Mine Large scale operational crushing and screening plant, associated equipment, and interests in an operational 138 bed mining camp, all currently on care and maintenance.

The consideration payable to Mount Gibson consists of \$10 million cash and 60 million ordinary shares in Fenix upon completion. Mount Gibson will also receive 12.5 million 5-year options exercisable at \$0.25 per share and 12.5 million 5-year options exercisable at \$0.30 per share, subject to the satisfaction of certain transaction-related conditions (which are expected to be satisfied within 6 months from issue).

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#### Chairman of Fenix, Mr John Welborn, said:

"Acquiring Mount Gibson's Mid-West iron ore and port assets is a game changer for Fenix. Since 2003, Mount Gibson has mined and shipped more than 50 million tonnes of iron ore in the Mid-West using robust rail and port infrastructure. We are delighted to continue this successful regional legacy and to have Mount Gibson as a significant shareholder as we work to create exceptional future value.

"The investment by Fenix will be immediately cashflow accretive to our existing business, allowing for cost savings in port and haulage costs for Iron Ridge operations of approximately \$5 per tonne.

"The Shine Iron Ore Mine is a shovel-ready mining project. We are excited by the potential to recommence mining and investigate the potential to market high quality blended iron ore products.

"The substantial port and rail assets we are acquiring have an assessed replacement cost of more than \$80 million. The assets provide Fenix with valuable Mid-West rail transportation and Geraldton Port unloading, storage and ship loading facilities which are required by regional bulk commodity producers and exporters, allowing Fenix to diversify our revenue base by becoming a third-party logistics provider.

"These acquisitions are a transformational event for Fenix and will drive material economies of scale, provide flexibility to expand iron ore production and operate new projects concurrently. In expanding a mine-to-port logistics solution for ourselves and other producers in the Mid-West, we also create employment opportunities which will strongly support regional economic growth."

#### Mr. Peter Kerr, CEO of Mount Gibson, said:

"Mount Gibson is pleased to have found a logical buyer who can make best use of the significant infrastructure position we have established over 20 years of operations in the Mid-West. Fenix is a successful miner and logistics provider in the Mid-West and we look forward to supporting Fenix as a large shareholder and continuing to participate in the successful development and operation of its integrated mining and logistics bulk commodity business."

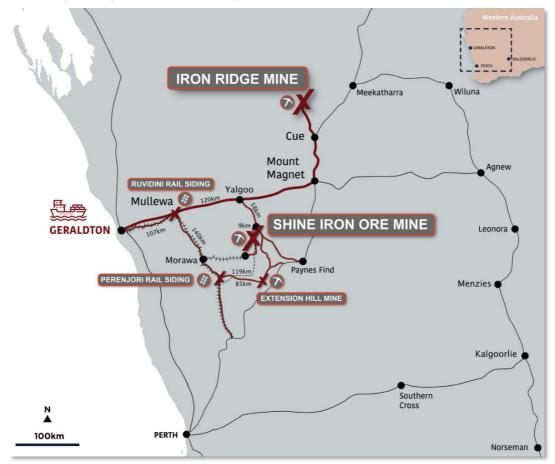


Image 1: Fenix's Assets in Western Australia's Mid-West



# TRANSACTION RATIONALE AND FENIX GROWTH STRATEGY

The acquisition of Mount Gibson's Mid-West iron ore and port assets provides Fenix opportunity to:

- 1. Reduce the cost of the Company's existing Iron Ridge production;
- 2. Expand production from Iron Ridge;
- 3. Re-commission the Shine Iron Ore Mine (Shine) as a second production asset;
- 4. Create a substantial new revenue generating business from the provision of logistics
- solutions to existing and future Mid-West bulk commodity producers; and
- 5. Benefit from the expected growth in bulk commodity production and export in the Mid-West.

Shine is an open pit iron ore mine located 230km east of Geraldton with a total Mineral Resource Estimate of 15.1Mt at 58.2% Fe. The project has similar mining scale and operational characteristics to Iron Ridge and provides an excellent opportunity for Fenix to leverage the Company's low-cost haulage and logistics capabilities. The ore body and expected product grades provide an ideal blending product, reinforced by the high iron grades available at Iron Ridge and the low alumina content from Shine.

The Geraldton Port storage assets are substantial with an insurance valuation replacement cost of more than \$80 million and consisting of two large storage sheds, Shed 4 and Shed 5, which are in excellent condition with both rail and truck in-loading capability. As part of the acquisition, Fenix will assume existing commercial agreements with current third-party users of the facilities. Given the significant storage capacity of the sheds, Fenix is confident the potential exists to significantly expand both Fenix's own production as well as increase significantly third-party tonnages of bulk commodities.

As part of the Transaction, Fenix has negotiated new arrangements with the Mid-West Port Authority (**MWPA**) which, when executed, will combine Fenix's existing facilities, consisting of Shed 13 and related truck and rail in-loading infrastructure, together with Shed 4 and Shed 5 to enable Fenix to operate a combined and integrated port business covered by one set of arrangements that provide incentive for Fenix to grow production tonnages. These new arrangements are consistent with the MWPA's growth and expansion objectives which aims to grow export volumes through Geraldton Port by more than 10 million tonnes per annum over the next few years<sup>1</sup>.

The operation of Sheds 4, 5 and 13 will allow Fenix to expand the Company's own volumes at lower cost and also offer new customers a highly competitive unique integrated port and haulage logistics solution. Combining all three sheds under the same ownership provides Fenix the additional potential to blend iron ore products at the port as well as segregate iron ore products from other products such as base metal concentrates, potash, urea, silica sands and spodumene (lithium) concentrates.



Image 2: The Shine Iron Ore Mine – Infrastructure and Crushing Area July 2021

<sup>&</sup>lt;sup>1</sup> https://www.midwestports.com.au/development/projects/geraldton-port-maximisation-project-pmaxp.aspx



# **KEY COMMERCIAL TERMS**

#### **Transaction Consideration**

The Transaction consideration comprises:

- Upfront payment of A\$10 million in cash, subject to customary completion adjustments;
- Upfront consideration of 60 million ordinary shares in Fenix; and
- 25 million options on Fenix shares, expiring 60 months from completion:
  - 12.5 million options with an exercise price of A\$0.25/share expiring 5 years from date of issue; and
  - 12.5 million options with an exercise price of A\$0.30/share expiring 5 years from date of issue.

The issue of the shares and options will be made utilising Fenix's available placement capacity under Listing Rule 7.1.

#### **Board Appointment**

From completion of the Transaction, Mount Gibson will be entitled to appoint a nominee director to the Fenix Board while it holds at least a 10% shareholding in Fenix.

#### **Conditions Precedent to Completion**

Completion of the Transaction is subject to various conditions precedent, including:

- the execution of new port services and lease agreements between Mid West Ports Authority (MWPA) and Fenix (Ports Agreements) and the receipt of any necessary Western Australian Government Ministerial approvals that may be required in respect of the Ports Agreements; and
- the receipt of waivers and/or consents from various parties and banking institutions relating to the tenure and contractual rights for certain of the asset groups.

#### Warranties and Assumptions

The asset sale agreement between Fenix and Mount Gibson contains warranties given by the parties to each other typical for a transaction of this nature.

#### **Ports Agreements**

Fenix has negotiated a new Port Access and Services Agreement as well as a new Port Lease with the MWPA that will commence on Completion of the transaction between Fenix and Mount Gibson. The parties have agreed to the commercial terms of these new Port Agreements including:

- Multi-year renewable lease agreements for Sheds 4, 5 and 13 out to 30 June 2044;
- The opportunity for Fenix to establish new, and upgrade existing, plant and facilities;
- Minimum throughput conditions over rolling three-year periods, subject to demand from thirdparties; and
- Limited take or pay obligations for port throughput proportional to reserved preferential capacity.

#### Advisors

Poynton Stavrianou acted as financial advisor and Hamilton Locke acted as legal counsel to Fenix in relation to the Transaction.



## SHINE IRON ORE MINE

The Shine Iron Ore Mine (**Shine**) represents an attractive growth opportunity for Fenix with similar mining scale and operational characteristics to Iron Ridge and the potential to leverage the Company's haulage and logistics capabilities. The ore body and expected product grades may provide an ideal blending product, reinforced by the high iron grades available at Iron Ridge and the low alumina content from Shine.

#### **Project History**

Shine is an open pit iron ore mine located 230km east of Geraldton with a total Mineral Resource Estimate of 15.1 million tonnes (**Mt**) at 58.2% Fe. The Shine project area covers approximately 6.5km<sup>2</sup>, situated on three mining leases held by a third party (now Warriedar Resources Limited).

Mount Gibson acquired the iron ore mining and development rights associated with Shine from Gindalbie Metals Ltd (**Gindalbie**) in March 2014 for upfront consideration of \$12 million plus a further \$3 million payment on first production and a price participation royalty.

Mount Gibson successfully expanded the resource base with further drilling campaigns and completed technical and economic studies which supported a targeted direct shipping ore (**DSO**) mining operation, with production to be staged to ensure the project can be aligned with potential changes in market conditions.

In early 2020 Mount Gibson conducted a technical review to reassess viability based on optimised mine planning and available transport options. Following the receipt of requisite approvals, mining commenced in April 2021 and first shipment was completed in August 2021.

Following a rapid deterioration of iron ore prices, and the negative impact of significantly increased haulage and shipping transportation charges, Mount Gibson suspended operations at Shine in October 2021. During the period from commencement of mining in April 2021 until final sales in December 2021, Mount Gibson produced ~300,000 wet metric tonnes of lump and fines products from Shine.

#### Geology

The Shine Hematite and Magnetite deposit is located within the Warriedar Fold Belt which is part of the Archaean Yalgoo-Singleton greenstone belt. The deposit is located along a north-northwest trending sub-vertical 50-120m wide banded iron formation (**BIF**) of the Windanning Formation which is part of the Luke Creek Group.

The BIF forms a prominent ridge which is approximately 50m to 90m wide in the Shine area. A sequence of mafic, ultramafic and pelitic sediments bounds the BIF to the east while a talc-rich ultramafic schist dominates west of the BIF. Where the BIF does not outcrop, it is covered by lateritic or colluvial material. The iron mineralisation (goethite, hematite and magnetite) is strata bound occurring only within the BIF unit.

The iron mineralisation has been interpreted based on a mixture of Fe threshold grades and the geological and geophysical logging. Iron mineralisation occurs as hematite-goethite in the upper portions of the BIF, with magnetite occurring at depth below the base of oxidation which is approximately 100m below surface.

The boundary between the hematite and magnetite is interpreted to occur over a relatively narrow zone (a few metres) and as such no transitional zone was modelled. An east-west striking, shallow dipping, narrow dolerite dyke is interpreted which stopes out the mineralisation. The northern and southern areas of the BIF and associated iron mineralisation are covered by a siliceous capping (a product of near-surface weathering processes), which thickens to the north and south (i.e. this zone is thinnest in the central parts of the deposit).

Outcrops of the iron mineralisation and various lithologies, confirms the validity of the geological interpretation based on the drilling. Alternative interpretations of the mineralisation are unlikely to significantly change the overall volume of the Fe mineralised envelopes in terms of the reported classified resources at a 50% Fe cut-off.



### **Mineral Resources**

The Shine Mineral Resources as at 30 June 2022 total 15.1Mt at 58.2% Fe as outlined in Table 1.

Shine Mineral Resources as at 30 June 2022					
	Tonnes (millions)	Fe %	SiO2 %	AI2O3 %	Р%
Mineral Resources, above 50% Fe					
Measured	5.1	59.2	8.98	1.60	0.078
Indicated	6.3	58.1	9.97	1.27	0.070
Inferred	3.6	26.9	9.58	1.18	0.063
Total at 30 June 2022	15.1	58.2	9.54	1.36	0.071

Table 1: Total Shine Mineral Resource Estimate

Shine Hematite					
	Tonnes (millions)	Fe %	SiO2 %	AI2O3 %	Р%
Mineral Resources, above 50%	<sup>-</sup> e				
Measured	4.3	59.3	9.06	1.73	0.083
Indicated	5.1	58	10.51	1.35	0.072
Inferred	0.5	56.4	12.6	1.61	0.085
Total at 30 June 2022	9.9	58.5	9.98	1.53	0.077
Shine Magnetite					
Mineral Resources, above 50% I	<sup>-</sup> e				
Measured	0.8	58.6	8.55	0.89	0.05
Indicated	1.2	58.8	7.71	0.91	0.061
Inferred	3.1	56.9	<mark>9.1</mark>	1.11	0.06
Total at 30 June 2022	5.1	57.6	8.68	1.03	0.058

Table 2 Shine Hematite and Magnetite Mineral Resource Estimates



Image 3: Shine Open Pit August 2021



The reporting of the Shine Mineral Resource is in compliance with the JORC Code, 2012 Edition and the current version of the ASX Listing Rules. A summary of the JORC Code, 2012 Edition Table 1 for Shine is provided later in this Announcement. Discrepancies may appear due to rounding. All tonnages have been estimated as dry tonnages.

#### Mining

Mount Gibson's most recent mine study assumed conventional open pit mining with drill and blast, and load and haul similar to Fenix's operations at Iron Ridge.

#### Processing

The mine plan includes crushing and screening on site, designed to allow for in-pit grade control, postcrushing sampling and stockpile management to be used to achieve products with grades and deleterious elements within specification.

#### Haulage

Iron ore products from Shine were trucked from Shine to Geraldton Port via the Geraldton-Mount Magnet Road using a third-party contractor. Fenix expects to realise significant cost savings through the utilisation of its own haulage fleet.



Image 4: Shine Mine Infrastructure, Staging Area, and Ore Stockpiles

#### Approvals

Mount Gibson secured all required approvals to commence their Stage 1 Mine Plan in early 2021. The Stage 1 Mine Plan implemented by Mount Gibson remains in effect with the clearing permit remaining active until December 2026. This permit, and other approvals, are transferrable to Fenix upon completion. State environmental approval is in place, with other regulatory permits and approvals in the process of being finalised.



Based on preliminary environmental due diligence findings, Fenix expects that should the Company pursue preparation of Stage 2 and Stage 3 proposals, the timeline estimate for approval is expected to be achievable within 12 months of undertaking.

#### Royalty

Fenix will assume Mount Gibson's existing royalty obligations in respect of the Shine iron ore rights. The price participation royalty is payable on ore mined and sold when the monthly average of the daily midpoint Platts 62% Fe CFR index price (converted to Australian dollars) exceeds \$115 per dry metric tonne - for every dollar that the Platts 62% Fe index price trades above this level, Fenix must pay Gindalbie \$0.20/tonne.

#### Blending

Fenix intends to investigate the potential to blend Shine ore with ultra-high grade, low impurity ore from Iron Ridge, subject to ongoing offtake discussions.

# **GERALDTON PORT FACILITIES**

#### Storage Shed 4 and Storage Shed 5

Storage facilities such as Sheds 4 and 5 at Geraldton Port are essential assets for any bulk commodity producer seeking to efficiently export material via Geraldton. Shed 4 has a storage capacity of up to 120,000 tonnes and Shed 5 has a capacity of up to 240,000 tonnes. Fenix's existing Shed 13 has a capacity of up to 80,000 tonnes.



Image 5: Geraldton Port showing Storage Sheds and Road and Rail access

Shed 4 and Shed 5 can be in-loaded by either rail or by truck, with out-loading capacity via existing conveyors which transfer product to Berth 5 for ship loading and export. At peak capacity, Mount Gibson was able to export approximately 6Mtpa through Sheds 4 and 5 when in-loading by rail.

The additional port capacity will afford Fenix crucial operational flexibility through the ability to store additional product stockpiles at the port, protecting against any delays loading shipments and the costs thereof, as well as the option to ramp up production at Iron Ridge beyond 1.3 Mtpa.

Mount Gibson has invested significant capital in the construction and improvement of its Geraldton Port facilities, through which it has exported over 50Mt of iron products since 2003, and Fenix expects to invest further in maximising the efficiency of the combined port assets. Fenix has been engaging with the MWPA on initiatives such as a new truck unloader and connecting Fenix's existing truck unloader



and conveyor system to Shed 4, which will drive material cost efficiencies when in-loading to Shed 4 via road trains.

#### **Cost Savings on Existing Operations**

Access to additional storage capacity will provide immediate operational efficiencies for Fenix's existing Iron Ridge production. In addition to lowering per unit port costs, the efficiency gains will be generated within the Fenix-Newhaul operations via a reduction in standby time and improvement in cycle times. Fenix is targeting C1 cost reductions for Iron Ridge in the order of \$5/t. As a result, the Transaction is expected to be immediately cashflow accretive to Fenix's existing operations, and will generate substantial cost savings for Iron Ridge, in addition to providing Fenix a platform to develop a substantially larger third-party business and drive additional revenues and increased profitability.

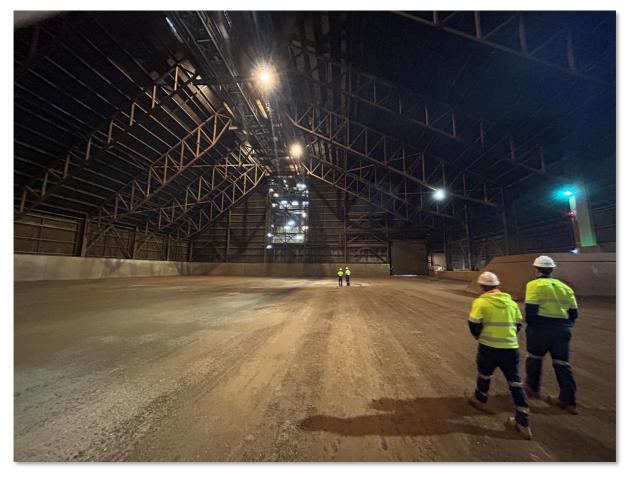


Image 6: Geraldton Port Shed 5 – 240,000 tonnes of storage capacity

# THIRD PARTY LOGISTICS PROVIDER

Following the completion of the Tallering Peak and Extension Hill projects, Mount Gibson have, from time to time, entered into licensing agreements with third-parties to store and outload iron ore and other bulk commodity products through Shed 4 and/or Shed 5. Fenix intends to continue to facilitate these existing customers and to expand this business line in conjunction with the Fenix-Newhaul road haulage business.



# PERENJORI AND RUVIDINI RAIL SIDINGS

The two rail sidings provide an opportunity for higher volumes, and flexibility for increased accessibility and efficiency of haulage to the Geraldton Port. Both sites have historically been utilised as a cost-effective location for product assembly, including blending. The sidings may be used for Fenix-owned and third-party iron ore and bulk materials.



Image 7: Perenjori Rail Siding

# **EXTENSION HILL ASSETS**

As part of the Transaction, Fenix will acquire Mount Gibson's assets relating to the Extension Hill Project and assume all residual rights and obligations of the historical arrangements. The Extension Hill assets include a crushing and screening plant, sundry plant & equipment, as well as interests in a 138 bed mining camp and accommodation facilities.



Image 8: Extension Hill crushing and screening plant





Image 9: Extension Hill Camp Infrastructure

Authorised by the Board of Fenix Resources Limited.

For further information, contact:

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# **INFORMATION REQUIRED BY LISTING RULE 5.8.1**

#### **Geology and Geological Interpretation**

The Shine Hematite deposit is located within the Warriedar Fold Belt which is part of the Archaean Yalgoo-Singleton greenstone belt. The deposit is located along a north-northwest trending sub-vertical 50-120 m wide banded iron formation (BIF) of the Windanning Formation which is part of the Luke Creek Group.

The BIF forms a prominent ridge which is approximately 50 m to 90 m wide in the Shine area. A sequence of mafic, ultramafic and pelitic sediments bounds the BIF to the east while a talc-rich ultramafic schist dominates west of the BIF. Where the BIF does not outcrop it is covered by lateritic or colluvial material. The iron mineralisation (goethite, hematite and magnetite) is strata bound occurring only within the BIF unit.

The iron mineralisation has been interpreted based on a mixture of Fe threshold grades and the geological and geophysical logging. Iron mineralisation occurs as hematite-goethite in the upper portions of the BIF, with magnetite occurring at depth below the base of oxidation which is approximately 100 m below surface.

The boundary between the hematite and magnetite is interpreted to occur over a relatively narrow zone (a few metres) and as such no transitional zone was modelled. An east-west striking, shallow dipping, narrow dolerite dyke is interpreted which stopes out the mineralisation. The northern and southern areas of the BIF and associated iron mineralisation are covered by a siliceous capping (a product of near-surface weathering processes), which thickens to the north and south (i.e. this zone is thinnest in the central parts of the deposit).

Outcrops of the iron mineralisation and various lithologies, confirms the validity of the geological interpretation based on the drilling. Alternative interpretations of the mineralisation are unlikely to significantly change the overall volume of the Fe mineralised envelopes in terms of the reported classified resources at a 50% Fe cut-off.

#### Sampling and Sub-Sampling Techniques and Sample Analysis Methodology

RC sampling (wet and dry) has been predominately undertaken using a cone splitter. Two samples are collected in calico bags for each 1 m interval, along with a single bag for the reject material, which are stored in green plastic bags. Diamond drill core is sampled and assayed using either quarter, half or full core.

The sample preparation involves oven drying, followed by crushing to a nominal particle size of 3 mm and pulverising the sample to a nominal 90% passing 105µm. A 0.66 g sub-sample is collected from the pulp and fused with flux to form a glass bead and analysed for Fe, SiO2, Al2O3, P, CaO, K2O, MgO, MnO, S, Na20 and TiO2 using X-Ray fluorescence (XRF). Loss on ignition (LOI) analysis is undertaken by thermogravimetric analysis (TGA) at 1,000°C using a separate pre-dried portion (2 to 3 g) of the sample pulp.

A total of 151,036 measurements of density from downhole geophysical measurements were collected at approximately 10 cm intervals.

#### **Drilling Techniques**

Geological and assay information for the Shine deposit has been obtained by reverse circulation (**RC**) and diamond drilling. Gindalbie Metals Ltd (**Gindalbie**) drilled 177 holes prior to the Shine projects acquisition by Mount Gibson, which then drilled and sampled an additional 84 holes. Gindalbie drilled 177 holes between 2007 and 2012. This consisted of 154 RC holes for 15,864 m and 23 Diamond holes for 4,916.1 m. Mount Gibson drilled 84 holes in 2014 consisting of 78 RC holes for 8,335 m and 6 Diamond holes for 980 m.

The deposit has been drilled largely on a nominal drill hole spacing of 50 mN by 25 mE with holes drilled at an inclination of approximately 60° towards the west.

#### **Criteria Used for Classification**

The classification applied to the Shine estimate is based on an assessment of several factors including the nature of data and data quality including QAQC, data spacing, the confidence in the geological



interpretation and mineralisation interpretation, the demonstrated continuity of geology and mineralisation through infill drilling and the reliability of estimated variables. The data quality underpinning the estimate is considered to be excellent.

#### **Estimation Methodology**

The central part of the Shine deposit exhibits good continuity in geological and grade continuity within the mineralisation across the BIF host zone. Mineralisation in this region has been classified as Measured. The western mineralised lode exhibits more variability along strike and has been classified as Measured for a shorter extent along the strike of the mineralisation. Where the mineralisation was difficult to interpret and short in extent the material remained unclassified. The iron mineralisation at the Shine deposit is interpreted to occur as secondary hematite-goethite in the upper portions of a host BIF, with magnetite occurring at depth below the base of oxidation which is approximately 100 m below surface. The mineralisation is sub-parallel to the bedding and occurs along strike for 1.7 km of the BIF in sub-parallel zones which are up to 30 m wide in places. Of the two main mineralised zones, the eastern zone is more continuous and typically thicker, averaging approximately 25 m in thickness, than the western zone, which is around 10 m to 15 m thick.

The interpreted geological and mineralisation units supplied by Mount Gibson were imported into CAE Studio and validated against the drill hole data and reviewed for consistency with the conceptual geological and mineralisation interpretation. Minor modifications were applied to the interpretations and each wireframe was re-named for simplicity. Additional mineralisation which had not been captured by the Mt Gibson wireframes were added.

The hematite mineralisation was interpreted based on a nominal 50% Fe cut-off, along with the geological and geophysical logging.

The base of complete oxidation represents the boundary between the magnetite and hematite mineralisation. This boundary was interpreted by Mount Gibson based on the geological and geophysical (magnetic susceptibility) logging, along with consideration of the geochemistry. Mount Gibson has concluded that the transition from completely oxidised material to fresh material, within the BIF, occurs over a relatively narrow zone, and as such no transitional zone was modelled.

The suite of iron ore variables: Fe, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, P, LOI, CaO, K<sub>2</sub>O, MgO, MnO, S and TiO<sub>2</sub> as well as Magnasat and density values were estimated using ordinary kriging in CAE Studio software. Kriging accounts for the spatial distribution and grade continuity of the input data. Kriging is also able to account for the clustering of samples caused by variation in drilling density throughout the deposit.

Mineralisation has been estimated separately from waste, with the domains created to group like materials. Thus, the boundaries between mineralised and un-mineralised material were hard, while the boundaries between oxidation state and geology were soft.

The composite data was top-cut prior to estimation.

For the estimation of mineralised material, composites were selected from within a search ellipse of radius 200 m in the principal direction along strike, 100 m in the down dip direction and 20 m across the plane of mineralisation. The search ellipse was orientated in the direction determined from dynamic anisotropy.

For the estimation of mineralised material, a minimum of eight composites and a maximum of 20 composites were used for grade estimation in the first pass. A second pass was employed where the search ellipse was twice the distance of the first pass with the minimum set to four and maximum composites the same as the first pass. There was a restriction of a maximum of 15 composites from each drill hole. No octant based search strategy was used. Parent cell estimation was used for 5 mE by 10 mN by 10 mRL cells.

For the estimation of un-mineralised material, the ROCK code was used as a hard boundary. No variogram models were compiled for the host rock domains. The variogram models generated for the mineralisation were applied to the un-mineralised material. Composites were selected from within a search ellipse of radius 100 m in the principal direction along strike, 50 m in the down dip direction and 20m across the plane of mineralisation. The search ellipse was orientated in the direction determined from dynamic anisotropy.



For the estimation of un-mineralised material, a minimum of eight composites and a maximum of 20 composites were used for grade estimation in the first pass. No other search passes were used. There was a restriction of a maximum of 15 composites from each drill hole. No octant based search strategy was used. Parent cell estimation was used for 10 mE by 25 mN by 20 mRL cells.

#### **Cut-off Grades**

The iron mineralisation was reported above a 50% Fe cut-off grade. 50% Fe is provided by Mount Gibson in line with its initial assessment of products which could be produced at Shine. Haren believes that the cut-off grade is reasonable.

# Mining and Metallurgical Methods and Parameters, and Other Modifying Factors Considered to Date

Mount Gibson's most recent mine study assumed conventional open pit mining with drill and blast, and load and haul similar to Fenix's operations at Iron Ridge.

The mine plan includes crushing and screening on site, designed to allow for in-pit grade control, postcrushing sampling and stockpile management to be used to achieve products with grades and deleterious elements within specification.

Iron ore products from Shine were trucked from Shine to Geraldton Port via the Geraldton-Mount Magnet Road using a third-party contractor. Fenix expects to realise significant cost savings through the utilisation of its own haulage fleet.

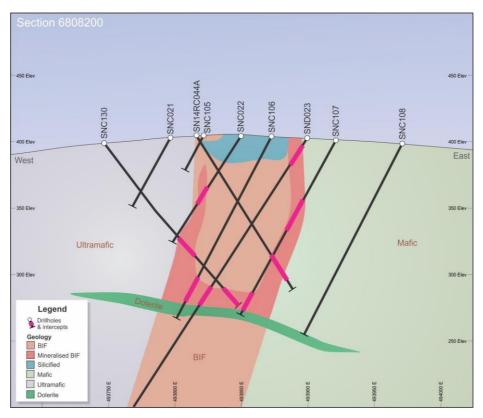


Image 10: East-west cross-section 6808200N illustrating the lithology and mineralisation domains & significant intercepts.



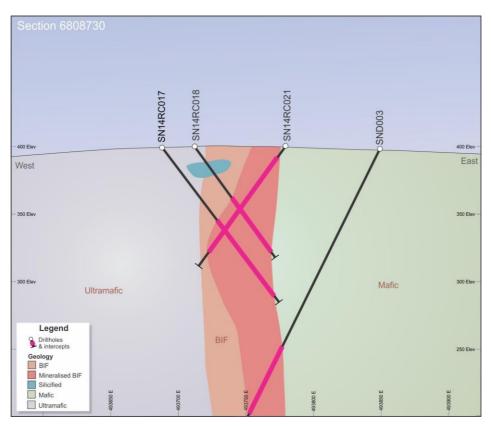


Image 11: East-west cross-section 6808730N illustrating the lithology and mineralisation domains & significant intercepts.

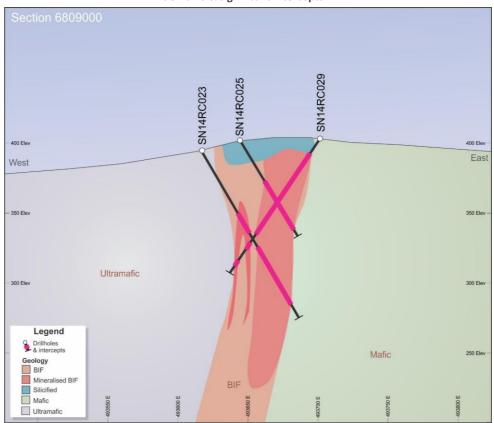
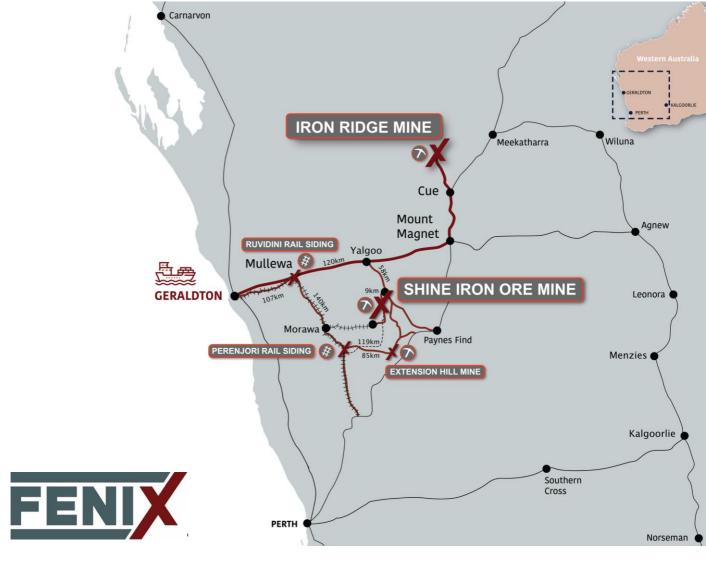


Image 12: East-west cross-section 6809000N illustrating the lithology and mineralisation domains & significant intercepts.



Fenix Resources (ASX: FEX) is a high grade, high margin iron ore producer with assets in the Mid-West mining region of Western Australia.

The Company's 100% owned, flagship Iron Ridge Iron Ore Mine is a premium direct shipping ore deposit located approximately 360km north east of Geraldton that hosts some of the highest grade iron ore in Western Australia.

Production commenced at Iron Ridge in December 2020 and is operating at the planned production run rate of 1.3 million tonnes per annum. Fenix has produced and exported more than 3 million tonnes of premium iron ore, generating excellent cash flow and profitability since commencement of production.

The Shine Iron Ore Mine is an open pit iron ore mine currently on care and maintenance located 230km east of Geraldton with a total Mineral Resource of 15.1Mt at 58.2% Fe.

Fenix operates a unique fully integrated mining and logistics business. High quality iron ore products are transported by road to Geraldton using the Company's 100% owned Fenix-Newhaul haulage and logistics business. The Company operates its own loading and storage facilities at the Geraldton Port with storage capacity of up to 400,000 tonnes and loading capacity of more than 5Mt per annum.

Fenix has a generous dividend policy to distribute between 50% and 80% of after-tax profits as fully franked dividends. For the year ended 30 June 2022, Fenix declared a final fully franked dividend of 5.25 cents per share.

The Company is led by a proven team with deep mining experience and benefits from strategic alliances and agreements with key stakeholders, including the Wajarri Yamatji people who are the Traditional Custodians of the land on which the Iron Ridge Iron Ore Mine is located.

Fenix is focused on promoting opportunities for local businesses and the community. The Company has generated more than 200 local jobs. Fenix is proud to have a strong indigenous representation in the Company's workforce and to be in partnership with leading contract service providers including MACA Ltd, Alpha 1 WA Pty Ltd, Champion Bay Electrical Ltd, the Schwarze Brothers Pty Ltd, and other leading local and national service providers.



# **Competent Persons Statement**

The information in this market announcement relating to Sampling Techniques and Data, Reporting of Exploration Results and Estimation and Reporting of Mineral Resources is based on information compiled by Ms Elizabeth Haren, a Competent Person who is a member and Chartered Professional of the Australasian Institute of Mining and Metallurgy and member of the Australian Institute of Geoscientists. Ms Haren is a consultant to Fenix Resources Limited. Ms Haren has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Ms Haren consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.

# Appendix A – JORC Table

## Section 1 - Sampling Techniques and Data

Item	Commentary
Sampling techniques	The bulk of the data used for Mineral Resource estimation is based on the logging and sampling of RC drilling conducted by Gindalbie Metals Ltd (Gindalbie) prior to acquisition of the Shine Project by Mount Gibson Iron (Mount Gibson) as well as the drill results from additional drilling conducted by Mount Gibson between 11 April 2014 and 9 June 2014.
	The Gindalbie RC samples (wet and dry) were collected at 1 m intervals using a cone splitter. Within the hematite mineralisation, 33 % of the samples are recorded as either wet or damp.
	The Gindalbie diamond core samples were half-core or quarter-core sampled using the same nominal sample interval.
	The additional Mount Gibson drilling totalled 6,243 samples consisting of 5,558 primary samples and 685 secondary samples which were collected and submitted to the Extension Hill laboratory for assaying. Primary samples were 1 m samples collected off a static cone splitter mounted to the RC rig and were used in the resource estimation. Secondary samples were collected as $2 - 4$ m composites using the spear method of sample collection, and these are not considered in the Mineral Resource estimation. Average sample weight was about 3 kg but sample weights ranged from 0.5 kg to 4 kg depending on sample recovery.
	Quality control measures during sampling were implemented to prevent sample contamination which in turn ensures integrity of the samples and ultimately the integrity of the assays.
Drilling techniques	Gindalbie completed 154 RC holes using a 140 mm face sampling hammer. Gindalbie also drilled 23 diamond drill holes of HQ and PQ diameter.
	In 2014 Mount Gibson completed an additional 78 RC holes using either a 138 mm or 140 mm face sampling hammer and 6 diamond holes of PQ diameter. The RC drilling was conducted by VM Drilling using a track mounted HYDCO 800 RC drill rig. The rig utilised a mounted compressor with a capacity to produce 1150cfm @ 500psi and a separate auxiliary booster with a capacity to produce 2400cfm @ 1000psi.
	The total air pressure utilised to lift the sample into the cyclone affects the quality of the sample, sample recoveries and how representative the final primary sample is to the material generated from the face hammer per meter interval. The drilling was conducted by experienced drillers with a rig with sufficient air pressure to ensure excellent sample recoveries.
Drill sample recovery	Sample recovery information for the 2014 Mount Gibson samples from the RC drilling is based on visual judgement and is indicative. The data indicates 81 % of the samples to have been judged as attained high sample recovery, with 12 % having moderate sample recovery and 7 % having poor sample recovery. The majority of the samples with poor sample recovery were determined to come from the first 6 m of each drill hole and were generated whilst the RC drill hole was being collared.
	The information from the Gindalbie RC drill hole data regarding sample recovery is indicative only and suggests the majority of samples have achieve moderate to high sample recovery.
	No relationship between sample recovery and grade has been ascertained due to the subjective nature of sample recovery information.
Logging	Logging data from previous drilling was provided to Mount Gibson by Gindalbie Metals. Lithological units were determined by Gindalbie based on geological logging and geochemistry.



Item	Commentary
	Mount Gibson conducted qualitative logging utilising LogChief to capture the logging data. LogChief is logging software with inbuilt data validation commands. In addition to LogChief internal validations, the logging data was validated visually by geologists and also post-validated against geochemistry.
	Logging, geochemistry (assays) and cross section interpretations conducted during and after Mount Gibson drilling confirms the geological continuity at depth, of mapped outcrops of the hosting banded iron formation and associated outcropping iron mineralisation.
	An independent consultant, Haren Consulting, sighted diamond core from the Shine Mount Gibson 2014 diamond drilling to confirm the continuity of the mineralised intercepts.
	Mount Gibson logging of RC chips captured information about lithological variations, textures, alteration, mineralisation, level of oxidation and weathering, sample condition and sample recoveries. Geotechnical logging was also conducted on diamond core in addition to the above.
	Downhole geophysical logging data include Gyroscopic orientation data, density, resistivity and magnetic susceptibility.
	It is concluded that logging of drill hole samples was done with sufficient detail to meet the requirements of Mineral Resource estimation and Ore Reserve feasibility studies.
Sub-sampling techniques and sample preparation	RC drill samples were collected using a cone splitter. Diamond core was generally half-core or quarter-core sampled.
	For Gindalbie samples three analytical laboratories were used for sample preparation and subsequent XRF analysis – Amdel Ltd in Perth and Adelaide, along with Ultra Trace Pty Ltd in Perth.
	Gindalbie sample preparation comprises oven drying and crushing to approximately 3 mm, followed by pulverising to 90 % passing 105 $\mu$ m.
	Mount Gibson in 2014 used Extension Hill (EH) Spectrolab as the primary assaying laboratory for the Shine RC samples. Upon receiving samples from Shine, the EH Spectrolab sorted and registered the samples on to the lab tracking & processing system.
	Each sample was reduced by riffle splitting to approximately a 400 g sub-sample. The sub-sample was re-bagged, and the residue returned to the original calico bag. The sub-sample was oven dried for 4 hours at temperatures between 100°C and 110°C before being pulverized to 90 % passing 106 $\mu$ m fraction.
	The splitting of the samples into sub-samples and the sample sizes were considered to be appropriate to correctly represent the mineralisation, based on the style of mineralisation (massive hematite), the thickness and consistency of intersections and the drilling methodology.
	No samples from the 2014 Mount Gibson PQ diamond program have been used in the Mineral Resource estimation.
Quality of assay data and laboratory tests	Samples were assayed using the XRF method for a preferred iron ore suite of elements and compounds by Gindalbie and Mount Gibson. Loss on Ignition (LOI) was determined by Thermo-gravimetric analyser at 1000°C.
	In-house standards and field duplicates were inserted by Gindalbie Metals into the sample batches (nominal rate of 1:50 for standards and 1:25 for field duplicates) to monitor sampling and assaying quality.
	Snowden's analysis of the Gindalbie QAQC data for the Shine deposit did not identify any significant issues with the assay data which could be material to the resource estimate.
	Mount Gibson implemented quality control (QC) measures to qualify the assay data and laboratory tests. Approximately 4 % duplicate samples were collected and inserted in the sampling stream and approximately 5 % commercially available Certified Reference Material (CRM) were incorporated in the sampling stream submitted to Spectrolab for XRF analysis.
	Analysis of QC duplicates results suggests that the bulk of the sample material in the sample splitting system (static cyclone) was evenly split with geochemical variability between parent sample and duplicate sample within acceptable ranges. There were very few outliers, and these are considered not material to the Mineral Resource.
	Results of the CRM data demonstrates that in general, that Spectolab consistently reproduced assay results within the required limits for the particular CRM types used, indicating lab accuracy was good. On 3 occasions an assay batch failed a Fe standard. In each case the entire assay batch was re-analysed and returned Fe CRM results within the acceptable range.
	Mount Gibson implemented quality assurance (QA) measures to verify the sampling and assaying process. Approximately 10 % of the total primary samples were submitted to a secondary lab with half of these being pulps and the other half coarse rejects. QA plots indicate no bias and good relative precision for the majority of



Item	Commentary
	analytes except for $Al_2O_3$ which showed minor variation between Spectrolab and the secondary lab. This is not considered to be material to the Mineral Resource.
Verification of sampling and assaying	Snowden or Haren Consulting has not conducted any independent verification of the assay data from either Gindalbie or Mount Gibson.
	All data from Gindalbie was collected electronically and stored in a SQL database with appropriate validation procedures.
	Mount Gibson used Logchief as a data capturing software and the data was stored in Datashed (a database software).
	No adjustments or calibrations were made to any assay data used in the estimate, apart from resetting below detection limit values to half positive detection so as to not have negative assay values within the resource estimation.
	No twinned diamond core holes have been completed to validate the RC drilling assay results by either Gindalbie or Mount Gibson.
Location of data points	The grid is based on the MGA 94 Zone 50 grid datum. Collar locations for both Gindalbie and Mount Gibson drill holes were surveyed routinely by surveyors using RTK DGPS with mm accuracy in X, Y and Z.
	Downhole surveys were collected for the majority of drill holes using gyroscopic survey techniques for both Gindalbie and Mount Gibson. Gyroscopic surveys are not affected by the magnetism of the BIF host rock. The data was presented at 5 m or 10 m intervals. Where gyroscopic surveys could not be completed to end of hole the last gyroscopic survey azimuth taken down the hole was inferred to end of hole and dip measurements taken from drillers' magnetic tool were used to end of hole. The banded iron formation magnetism does not affect the drillers dip measurements, however the driller's azimuth measurements are not accurate and have not been used for data location purposes.
	The topography wireframe was based on 2m contours.
Data spacing and distribution	The drilling for both Gindalbie and Mount Gibson was completed along a set of east- west trending sections. The section spacing varies between 25 m and 50 m apart, with drill holes spaced 25 m apart on section.
	The section spacing achieved through drilling is sufficient to establish the degree of geological and grade continuity necessary to support the Mineral Resource classifications that were applied.
	The drilling was composited downhole using 1 m intervals.
Orientation of data in relation to geological structure	The host Banded Iron Formation of the Shine iron mineralisation is sub-vertical and dips to the west at approximately -85°. Holes are predominately drilled at an inclination of -55° and -60° towards both west and east due to the sub-vertical nature of the hosting unit. Interpretation of the mineralised intercepts indicates that the mineralisation mimics the general sub-vertical orientation of the BIF. However, a horizontal orientation of the mineralisation is evident at the contact with an intervening flat lying dolerite dyke at depth. The location and orientation of the Shine drilling is appropriate given the strike, dip and morphology of the iron mineralisation.
Sample security	Snowden does not believe that sample security poses a material risk to the integrity of the assay data used in the Mineral Resource estimate from the Gindalbie Metals drill results.
	All samples generated at Shine from the Mount Gibson 2014 drilling were handled, packaged and dispatched by Mount Gibson personnel to Spectrolab at the Mount Gibson Extension Hill Mine. There were no sample security issues during this process. No sample losses occurred between sampling and lab analysis with all samples were accounted for through field and lab tracking systems.
Audits and reviews	Haren are not aware of any audits or reviews for the Shine deposits, other than the due diligence conducted by Mount Gibson during the acquisition of Shine.
	Haren Consulting audited and reviewed the data capturing processes and the QAQC systems that Mount Gibson have in place and deemed them to be industry standard.

# Section 2 - Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	Gindalbie are the vendors of the project to Mount Gibson. The Shine Project area is defined by an area previously agreed between the tenement holder "Minjar Gold" and the vendors Gindalbie who have iron mineral rights over the tenure. The Shine Project Area is over parts of 3 mining leases M59/406, M59/421 and M59/731.
Exploration done by other parties	Exploration for Iron at the Shine Project Area has been conducted by Gindalbie Mount Gibson RC and Diamond drill programs. Prior to 2014, Gindalbie completed 154 RC holes using a 140 mm face sampling hammer and also drilled 23 diamond drill holes of HQ and PQ diameter.



Criteria	Commentary
	In 2014 Mount Gibson completed 78 RC holes using either a 138 mm or 140 mm face sampling hammer and 6 diamond holes of PQ diameter.
Geology	The Shine Hematite deposit is located within the Warriedar Fold Belt which is part of the Archaean Yalgoo-Singleton greenstone belt. The deposit is located along a north-northwest trending, sub-vertical 50 – 120 m wide banded iron formation (BIF) of the Windanning Formation which is part of the Luke Creek Group. The BIF forms a prominent ridge which is approximately 50 m to 90 m wide in the Shine area. A sequence of mafic, ultramafic and pelitic sediments bounds the BIF to the east while a talc-rich ultramafic schist dominates west of the BIF. Where the BIF does not outcrop it is covered by lateritic or colluvial material. The iron mineralisation (goethite, hematite and magnetite) is strata bound occurring only within the BIF unit.
Drill hole Information	Most of the drilling by Gindalbie was RC drilling with some diamond holes drilled for metallurgical and geotechnical assessment. Specific drill hole information from Gindalbie is not presented here as it has been previously reported by Gindalbie prior to 2012.
	Drill hole information from the drilling conducted by Mount Gibson in 2014 is not presented here as it has been previously reported on the 17 <sup>th</sup> August 2015.
Data aggregation methods	<ul> <li>All samples used in the Mineral Resource Estimation were collected at 1 m intervals downhole.</li> <li>Significant intercepts have been analysed using the following criteria:</li> <li>&gt;50.0 % Fe as the minimum grade cut-off with a minimum width of 2 m and incorporating up to 2 m of consecutive internal dilution &lt;50.0 % Fe. The minimum Fe grade for the commencement and termination of the intercept calculation was ≥50.0 % Fe.</li> </ul>
Relationship between mineralisation widths and intercept lengths	As the mineralisation is near vertical, drilling at 60° or greater does give some intercept lengths up to 1.5 times the actual width of mineralisation.
Diagrams	Figures are supplied throughout the report.
Balanced reporting	Significant exploration results have been previously released by Mount Gibson and Gindalbie.
Other substantive exploration data	Other work conducted and data generated at Shine in 2014 that does not go into the Resource Estimation Reporting include metallurgical test work, geotechnical data derived from logging metallurgical core and downhole geophysics (resistivity and magnetic susceptibility).
Further work	No further exploration drilling will be required at Shine. The drilling conducted so far is sufficient enough to prove the lateral and depth continuity of the iron mineralisation at Shine and provides enough confidence to conduct Mineral Resource estimation prior to mining.

# Section 3 - Estimation and Reporting of Mineral Resources

Item	Commentary
Database integrity	All data collected electronically and stored in a SQL database with appropriate data validation procedures. The database was managed by Gindalbie and has now been transferred to Mt Gibson.
	Haren undertook a basic check of the data for potential errors as a preliminary step to compiling the resource estimate. No significant flaws were identified.
Site visits	No site visit has been conducted by the competent person for Mineral Resources.
Geological interpretation	The iron mineralisation has been interpreted based on a mixture of Fe threshold grades and the geological and geophysical logging.
	Iron mineralisation occurs as hematite-goethite in the upper portions of the BIF, with magnetite occurring at depth below the base of oxidation which is approximately 100 m below surface.
	The boundary between the hematite and magnetite is interpreted to occur over a relatively narrow zone (a few metres) and as such no transitional zone was modelled.
	An east-west striking, shallow dipping, narrow dolerite dyke is interpreted which stopes out the mineralisation.
	The northern and southern areas of the BIF and associated iron mineralisation are covered by a siliceous capping (a product of near-surface weathering processes), which thickens to the north and south (i.e. this zone is thinnest in the central parts of the deposit).
	Outcrops of the iron mineralisation and various lithologies, confirms the validity of the geological interpretation based on the drilling.



Item	Commentary
	Alternative interpretations of the mineralisation are unlikely to significantly change the overall volume of the Fe mineralised envelopes in terms of the reported classified resources at a 55 % Fe cut-off.
Dimensions	The Shine deposit is hosted within a north-south trending BIF. The mineralisation parallels the stratigraphy, trends roughly north-south and is sub-vertical, with a total strike length of about 1.7 km. The mineralisation occurs mainly in two sub-parallel zones which are up to 30 m wide in places.
Estimation and modelling techniques	Estimation of Fe, SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , P, LOI, CaO, K <sub>2</sub> O, MgO, MnO, S, TiO <sub>2</sub> , Magnasat and density using ordinary block kriging for all domains with hard domain boundaries.
	Block model constructed using a parent cell size of 5 mE by 10 mN by 10 mRL for mineralised material. The search ellipse orientation and radius was based on the results of the grade continuity analysis, with the same search neighbourhood parameters used for all elements to maintain the metal balance and correlations between elements. An initial search of 200 m along strike by 100 m down dip by 20 m across the plane of mineralisation was used, with a minimum of eight and maximum of 20 samples.
	Hematite and magnetite mineralisation was modelled, along with the host rock domains. Where insufficient samples were available default values were assigned.
	Block estimates were validated against the input composite data both globally and locally.
	Snowden previously estimated the Shine resource in November 2011 and July 2012.
Moisture	All tonnages have been estimated as dry tonnages.
Cut-off parameters	The iron mineralisation within the hematite was reported above a 50 % Fe cut-off grade. The cut-off grade was provided by Mount Gibson and is based on the assumption that the Shine deposit will be mined by open pit mining methods and that costs will be similar to existing mines operated by Mount Gibson (e.g. Extension Hill and Tallering Peak). Haren believes that the cut-off grade is reasonable for the hematite mineralisation. The iron mineralisation within the magnetite was reported above a 50 % Fe cut-off grade.
Mining factors and assumptions	Mount Gibson's most recent mine study assumed conventional open pit mining with drill and blast, and load and haul similar to Fenix's operations at Iron Ridge. Iron ore products from Shine were trucked from Shine to Geraldton Port via the Geraldton-Mount Magnet Road using a third-party contractor.
Metallurgical factors and assumptions	It is assumed that the hematite ore will be direct shipping with minimal processing required (crushing and screening only). The mine plan includes crushing and screening on site, designed to allow for in-pit grade control, post-crushing sampling and stockpile management to be used to achieve products with grades and deleterious elements within specification. Magnetite mineralisation will likely require beneficiation to produce a concentrate.
Environmental factors and assumptions	It is assumed that no environmental factors exist that could prohibit any potential mining development at the Shine deposit.
Density	The bulk density was estimated into the model blocks using ordinary kriging based on downhole geophysical logging.
	The average bulk density value (2.72 t/m <sup>3</sup> ) is reasonable for hematite mineralisation.
Classification	The Mineral Resource has been classified based on the continuity of both the geology and the Fe grades, along with the drill hole spacing and data quality.
	The Mineral Resource has been classified as a combination of Measured, Indicated and Inferred.
	The mineralisation was classified as a Measured Resource where the drilling density was 25 mE by 50 mE (or less) and the hematite mineralisation shows good geological continuity.
	The mineralisation was classified as an Indicated Resource where the drilling density was greater than 25 mE by 50 mN but less than 25 mE by 100 mN and the hematite mineralisation shows reasonable geological continuity.
	The remainder of the mineralisation was classified as an Inferred Resource due to structural complexity and the narrow, discontinuous geometry of the mineralisation. Poorly understood areas of mineralisation were not classified.
Audits and reviews	No external reviews or audits have been completed.
Discussion of relative accuracy / confidence	The Competent Person considers the information provided by Gindalbie and Mt Gibson to high quality and suitable for generation of the Mineral Resource estimate. The block model grade estimates were validated against the drill hole composites to ensure that the model reflects the local input data.