



4 November 2019

ASX Announcement

Feasibility Study shows Iron Ridge will generate outstanding cashflow and financial returns

Initial Capex of less than \$12m; Average annual EBITDA of more than \$16m

- Feasibility Study confirms the technical and financial viability of Iron Ridge
- Forecast production of 1.25Mtpa for 6.5 years
- Ore Reserves of 7.76Mt @ 63.9% Fe underpin 96.5% of the LOM production with the rest in Inferred Resources
- Initial capital cost of just \$11.9m, with 56% of this payable on a pre-production basis and the rest expected to be payable after the first shipment
- C1 Cash Operating Costs of \$76.86 per dry metric tonne* (life of mine average)
- FS based on the 62% Fe index price of \$111.43 per dry metric tonne (US\$78/t and AUD:USD of US\$0.70) compared with current price of \$123.33 per dry metric tonne (US\$85.10/t and AUD:USD of US\$0.69)***
- Estimated pre-tax Internal Rate of Return of 58.9% and Net Present Value of \$54.3 million**
- Average annual EBITDA of \$16.4 million
- Offtake and funding discussions are well advanced
- Port access arrangements and mining, road transport and port services contracts almost finalised
- Anticipated period from project approval to first sales is four months

All figures expressed in Australian dollars unless stated otherwise

* C1 Cash operating costs are reported FOB

** Based on a real pre-tax discount rate of 10% on an ungeared basis

*** Current prices as at 31 October 2019

Fenix Resources Limited (ASX: FEX, “Fenix” or the “Company”) is pleased to announce the findings of the Feasibility Study (“FS”) relating to the Iron Ridge Project (“Project”). The FS reveals a high-grade and high-quality Project that provides strong returns over its life of mine (“LOM”).

The FS estimates that Iron Ridge will have modest initial capital cost of just \$11.9 million, 44% of which will not have to be paid until after the expected first shipment is dispatched.

The FS includes a maiden Ore Reserve of 7.76Mt at 63.9% Fe. This underpins forecast annual production of 1.25 million tonnes.

The forecast annual EBITDA is \$16.4 million based on C1 cash operating costs of \$76.86 a tonne and an assumed 62% Fe index price of \$111.43 per dry metric tonne (dmt) (US\$78/t at a foreign exchange rate of US\$0.70 per A\$). This compares with the current benchmark price of \$123.33/t.

Iron Ridge, which is located 490km from the Port of Geraldton, is based on a Direct Shipping Ore (“DSO”) operation. Ore will be crushed and screened on site and separated into lump and fines product before being trucked to port.

Company Comment

Fenix Managing Director Rob Brierley said: *“The Feasibility Study demonstrates that Iron Ridge is an outstanding high-grade project which will generate strong financial returns.*

“The study shows the project economics will benefit significantly from a combination of the high-grade of the ore, the low capital costs and relatively low initial investment in infrastructure due to the proximity of an existing port and sealed roads.

“It has been less than 12 months since Fenix acquired the project and an FS has already been completed. This highlights the quality and simplicity of the project.

“We are now in advanced discussions with potential offtake and funding partners and we believe contracts for port access, mining, road transport and port services are close to being finalised.

“It is an exceptional niche asset and the FS confirms our view that it will generate strong returns for Fenix shareholders.”

CAUTIONARY STATEMENT

As the Feasibility Study for the Project utilises a portion of Inferred Resources, the ASX Listing Rules require a cautionary statement be included in this announcement.

The FS referred to in this announcement is based upon a JORC Compliant Mineral Resource Estimate (see ASX announcement 21 August 2019), inclusive of the maiden Probable Ore Reserve set out in this announcement.

The Company advises that the Probable Ore Reserve is based on Indicated material only, which makes up 96.5% of the total mined tonnage (3.5% Inferred material).

There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the conversion of Inferred Mineral Resources to Indicated or Measured Mineral Resources or that the production targets or forecast financial information reported in this announcement will be realised.

The Probable Ore Reserve that underpins the FS has been prepared by a Competent Person, with a Competent Person’s Statement included in this announcement.

The Company has concluded that it has a reasonable basis for providing the forward-looking statements included in this announcement. The detailed reasons for this conclusion are outlined throughout this announcement.

The FS confirms the following key attributes of Iron Ridge:

- High-grade nature of the deposit;
- Existing infrastructure that is currently under-utilised (bitumen roads, surplus port storage capacity, surplus ship loading capacity);
- Granted Mining Lease which contains all the Mineral Resource;
- Rapid Delivery Time with the ability to mine ore from month one of operations; and
- Meaningful production at a simple single-excavator scale able to maintain a steady state production profile of 1.25Mtpa.

Operating Metrics	Unit	Feasibility Study Outcome
Processing Capacity	Mtpa	1.25
Average Strip Ratio	Waste:ore	2.86:1
Total Mineral Inventory	Mt	8.0
Initial Mine Life	Months	77
Average C1 Cash costs	A\$/dmt	76.86

Financial Metrics*	Unit	Feasibility Study Outcome
Project Life of Mine Revenue	A\$m	802.9
Project net cash flow	A\$m	110.4
Estimated C1 cash operating cost	A\$/dmt	76.86
Pre-Production Capex	A\$m	11.4
Pre-Production Capex Contingency	A\$m	0.5
NPV ₁₀	\$m	54.3
IRR*	%	58.9
Annual Average EBITSA	\$m	16.4

These forecasts use a flat forecast 62% Fe index price of US\$78/dmt for the LOM and a flat forecast exchange rate A\$/US\$ of 0.70 for the LOM.

Project Management

The FS was executed by Fenix management with the support of experienced consultants including Mining Plus, CSA Global and HFC Mining, as follows:

Table 1: Project Management Consultants

Component	Consultant
Marketing & Shipping	M2A Partners / Thurstone Shipping
Resource Estimation	CSA Global
Mine Design and Schedules	Mining Plus
Geotechnical Assessment	Peter O'Bryan & Associates

Hydrological Assessment & Modelling	Rockwater
Metallurgical Testwork	ALS / Nagrom / CSIRO
Marketing & Shipping	M2A Partners / Thurstone Shipping
Metallurgical Assessment	METS Engineering
Engineering	HFC Mining
Road Transport Logistics	Fenix Newhaul Pty Ltd
Mining Operations	MACA Limited

The vast majority of inputs into the FS are derived from commercial proposals/quotations from experienced and highly capable service providers meaning that there is strong confidence in both the operating and capital cost estimates.

Mineral Resources and Ore Reserves

The FS was based on the independently modelled Mineral Resource by CSA Global using a 58% Fe cut-off grade. The resulting Indicated and Inferred Resource is 10.5Mt at 64.2% Fe (Refer ASX release dated 21 August 2019 “Significant Increase in Iron Ridge Mineral Resource”) outlined below:

Table 2: Iron Ridge Project – Mineral Resource estimate¹

Classification	Tonnes Mt	Fe %	Al ₂ O ₃ %	LOI %	P %	SiO ₂ %	TiO ₂ %
Indicated	10.0	64.3	2.56	1.90	0.046	3.21	0.09
Inferred	0.5	62.5	2.80	3.13	0.046	4.41	0.12
Total	10.5	64.2	2.57	1.96	0.046	3.26	0.09

¹ Refer to the Company's Announcement dated 21 August 2019 for Listing Rule 5.8 information

Based on the current Mineral Resource, Mining Plus conducted a series of pit optimisations and mine designs with input from our geotechnical, hydrological and mining consultants. Detailed mine design and mine scheduling was then conducted before Fenix conducted a detailed Request for Proposals (RFP) from several mining services proponents.

Ore Reserves were then declared by Mining Plus based on a combined fines and lump production rate of 1.25Mtpa with a life of mine waste to ore stripping ratio of 2.86:1.

Table 3: Iron Ridge Project – Ore Reserve

Classification	Tonnes Mt	Fe %	Al ₂ O ₃ %	LOI %	P %	SiO ₂ %	TiO ₂ %
Probable	7.76	63.9	2.79	2.00	0.05	3.46	0.09
Total Ore Reserves	7.76	63.9	2.79	2.00	0.05	3.46	0.09

Ore Reserves are derived from Indicated Resources and the Mineral Resources outlined above in Table 2 are inclusive of the Ore Reserves.

SUMMARY OF ORE RESERVE ESTIMATE AND REPORTING CRITERIA

The following is a summary of the relevant information used in the estimation of the Ore Reserves with full details provided in JORC Table 1, Checklist of Assessment and Reporting Criteria for the Iron Ridge Project, and in Appendix 1 – Material Assumptions. This announcement has been prepared in compliance with the JORC Code (2012) and the ASX Listing Rules, in particular listing rule 5.9.

Material Assumptions

The material assumptions which support the Ore Reserve Estimate are based on the FS results which are presented in this announcement titled 'Feasibility Study shows Iron Ridge will generate outstanding cashflow and financial returns' dated 30 October 2019. The assumptions specific to the Ore Reserve estimation are summarised below and are further disclosed within the JORC Table 1 and in Appendix 1 included in this announcement.

Criteria Used for the Classification of Ore Reserve

Ore Reserves were estimated only on the Indicated portion of the Mineral Resource Estimate. The cut-off grade applied was 58% Fe. The Ore Reserve was achieved by creating a mining block model from the resource model and then generating a detailed mine design and mining schedule. The mining schedule includes no mining loss and/or mine dilution. The Ore Reserves have been classified as Probable based on guidelines specified in JORC Code (2012).

Mining Method and Assumptions

The mine will consist of a single open pit operation using conventional excavator-truck mining fleet, adopting 10m benches and mining these benches in 3 flitches. Ore and waste will be hauled to the ROM pad and waste dump respectively by a fleet of 100 tonne haul trucks. Drill and blast will be conducted using a top hammer drill rig and ANFO or heavy ANFO explosives. Mining costs were based on a detailed commercial proposal submitted by Perth based mining contractor MACA Limited ("MACA"), in the form of Schedule of Rates for drill and blast, load and haul, and crush and screen, as well as all ancillary services.

Processing Method and Assumptions

The Company undertook confirmatory comminution and lump to fines testwork on several composite samples of core collected from the diamond drill program completed in 2018 that were chosen to be representative of ore over the life of mine. The results were relatively consistent and showed that the ore was DSO grade and only required crushing and screening to separate products into sizing groups known as fines (-6.3mm) and lump (+6.3mm -40mm). A lump to fines ratio of 25% has been assumed which is at the low end of metallurgical testwork results of 25-30% (Refer Company's announcement dated 24 May 2019 titled 'Excellent Preliminary Metallurgical Results Validate High Quality Mining Opportunity at Iron Ridge').

The flowsheet developed for the process consists of the following stages:

- Two stage crushing of ROM
- Multi-deck screening to separate lump and fines product
- Product loading into road trains with a triple trailer configuration for road transport to the port of Geraldton

The plant has been sized to process at least 1.25 million tonnes per annum of ore, and is configured in a mobile and modular way.

Cut-off Grades

A simple cut-off grade of 58% Fe was applied to the Mineral Resources for the Ore Reserve estimate. An open pit optimization was then run using Geovia Whittle software which applied the mining schedule of rates as per the MACA proposal, the road transport costs generated by the Fenix Newhaul Pty Ltd (“Newhaul”) trucking model and port storage and ship loading costs supplied by Mid West Ports Authority.

Estimation Methodology

Detailed mine designs were undertaken using Maptek Vulcan mining software, incorporating all available geotechnical and practical considerations.

Open pit mining using conventional drilling and blasting, followed by loading and hauling by excavators and trucks, as is very commonly applied in similar operations worldwide, was selected as the preferred mining method.

The detailed mine design is based on pit shells generated by pit optimization using Whittle software. A two-stage pit approach was taken, with an initial Stage 1 or “starter” pit to reduce strip ratio and maximise cashflow in the early part of the mine life; followed by a pushback of the Western side of the pit, extending to the final pit limits.

The detailed pit design surfaces were then loaded back into Whittle software where mine inventories, consisting of ore and low grade volumes, tonnages and grades and waste volumes and tonnages, were then calculated. Mine production scheduling was then completed using Whittle’s scheduling capabilities. The mine was scheduled in periods of one month duration for the first twelve months; followed by periods of three months (quarters) thereafter.

The Probable Ore Reserves estimate is the tonnage and grade of the Indicated Mineral Resource that is scheduled to be mined, within the final pit design and above the nominated 58% Fe cut-off grade.

Other Material Modifying Factors

Metallurgical factors or assumptions

Because of the DSO grade of the ore, it is assumed that the processing recovery factor will be 100%, as is standard with simple DSO operations. All metallurgical testwork conducted to date on representative composite samples of diamond drill core support this assumption.

A simple cut-off grade of 58% Fe was applied to the Mineral Resource estimate. An open pit optimization was then run using Whittle which applied the mining rates as per the MACA proposal, the road transport costs generated by the Newhaul trucking model and port storage and ship loading costs supplied by Mid West Ports Authority.

Environmental

Fenix has engaged environmental consultancy Ecotec (WA) Pty Ltd to coordinate the environmental approvals process for the project. Production of the Mining Proposal and Mine Closure Plan is underway. A Native Vegetation Clearing Permit application will be submitted when the project layout and disturbance area has been finalised, and tenure has been granted.

Hydrogeological consultants Rockwater Pty Ltd were engaged to undertake a detailed hydrology study to support the environmental approvals. The final report showed that the water was of Western Australian drinking quality standard and that there was sufficient volume to satisfy the anticipated 12 litres per second consumption rate of the operation, with little to no surplus.

Biological specialists Ecologia Environment Pty Ltd undertook a flora and fauna survey of the project area in September 2019. The survey has identified a number of Priority-listed flora and fauna species within the project area. Information from other surveys in the surrounding area is currently being reviewed and is expected to demonstrate that the flora and fauna species of significance are widespread and well represented. Impact to these species as a result of the project is expected to be minimal. The final survey report is expected in early to mid-November.

The project will require a Works Approval prior to commencing construction of prescribed activities as defined by Schedule 1 of the Environmental Protection Regulations 1987. The application will be compiled when details of the accommodation facility, dewatering requirements, power generation and waste water treatment are finalised.

Infrastructure

The Company, HFC Mining and MACA have reviewed the infrastructure on site. The Iron Ridge Project has good quality public roads that provide access to within 2km of site with an existing private road providing site access. It is planned and costed into the FS metrics, to build a new 82-person camp and to establish site communications for internet, mobile phone coverage and access to Smart TV at camp. As part of the mining contract, the contractor will establish all other site infrastructure including offices, ROM pads, crushing and screening facilities, power generation capacity and water storage facilities.

Capital costs

The capital estimate is considered to have an accuracy of -10/+10%. A ~5% contingency has been added to the total of the direct and indirect costs for the estimate summary to account for any potential shortcoming in the data and information that was collected during the execution of this study. The vast majority of costs were estimated from commercial proposals and quotations that are valid until 31 December 2019.

All major equipment has been assumed to be supplied by the contractors as per their scope of work.

Operating costs

Operating costs include all costs associated with mining, processing, general site administration, road transport and port storage and loading of ore. These costs were calculated from first principles and where applicable referenced against similar size and types operations as a check. Mining and processing costs were estimated at \$20.87/t of ore, road transport costs of \$43.27/t, port storage and ship loading costs of \$9.27/t, and G&A costs at \$4.35/t. Vendor and heritage royalties of \$1.75/t were also factored in, additional to the standard 7.5% WA State Government royalty.

Revenue factors

Revenue used a flat 62% Fe index price of US\$78/dmt CFR, an assumed shipping cost from Geraldton to North China of US\$13.5/wmt, and an exchange rate of US\$0.70 per A\$. A 1% marketing fee was assumed, based on several preliminary proposals received by potential product offtake parties.

The iron ore price assumption was based on the mean price forecast from five reputable global banks with in-house commodity forecasting teams for the December quarter of 2020, rounded down to the nearest US\$.

Global Bank A	85.0
Global Bank B	82.0
Global Bank C	75.0
Global Bank D	75.0
Global Bank E	75.0
Consensus (Mean)	78.4
High	85.0
Low	75.0
Standard Deviation	4.8
Number of Forecasts	5.0

The shipping cost was supplied by Thurlestone Shipping and the exchange rate was rounded up to US\$0.70 after noting consensus forecasts for 2020 calendar year are currently at US\$0.684 (consensus survey date 14 October 2019).

Schedule and Project timing

The next stage of the project is the grant of the necessary miscellaneous and general leases that are required for the infrastructure and the ~2km private road haulage route which have been applied for but are currently the subject of objections under the Mining Act. Once leases are granted, a Mining proposal will be submitted and pending approval of this proposal and subject to the decision to mine, the project moves into the construction phase which is planned to commence in Q1 2020, with first ore occurring in Q2 2020. Full production is estimated to be achieved straight away in Q2 2020 following due to the accessibility to ore at surface.

Market assessment

The iron ore price has performed strongly during 2019 as supply disruption in Brazil due to a tailing dam wall collapse saw the market transform to supply deficit. Of the 90Mtpa of production immediately curtailed post the dam wall collapse, roughly one third has now come back online, a further third is due to be reactivated in 2020 with the remaining capacity forecast to recommence in 2021.

The World Steel Association expects steel demand in China to increase 7.8% in 2019 and 1% in 2020. More conservatively, other emerging economies are expected to increase 0.4% in 2019, however, in 2020 growth is expected to rebound to 4.1% mainly due to infrastructure investment pick-ups, mainly in Asia. The World Steel Association expects steel demand in developed economies to decrease 0.1% in 2019 and increase 0.6% in 2020. These forecasts are likely to be supportive of demand growth for iron ore in 2020.

Underlying iron ore prices reflect the supply and demand conditions and the market sentiment. Fenix has used consensus price forecasts for 2020 when estimating all future revenue generated by the Iron Ridge Project.

Funding

To achieve the range of outcomes indicated in the FS, funding in the order of \$12-15 million will likely be required for capital works, pre-production capital costs, contingency and working capital. It is anticipated that project finance will be sourced from a combination of equity and debt instruments from existing shareholders, new equity investment, product offtake parties and debt providers from Australia and overseas.

The Board believes that there is a reasonable basis to assume that funding will be available to finance the pre-production activities necessary to commence production on the following basis:

- the Board and executive team have a solid financing track record in developing resource projects;
- the Company believes that the FS demonstrates the Iron Ridge Project's strong potential to deliver a favourable economic return;
- the positive financial metrics of the Iron Ridge Project and the underlying demand growth for iron ore; and
- the relatively modest capital investment required (initial capital intensity of less than \$10/t of annualised output) and the rapid start-up time, estimated to be 4 months from project go-ahead to first sales.

Economic parameters

The FS has been completed with a -10%/+10% accuracy. A discount rate of 10% has been used for financial modelling. This number was selected as a generic cost of capital and is considered as a prudent and suitable discount rate for project funding and economic forecasts in Australia. The model has been run as a life of mine model and includes all project level operating costs as well as sustaining capital costs (which have been included in corporate and administration costs), which are part of operating costs. The Study outcome was tested for key financial inputs including: price, currency, operating costs, capital costs and grade. All these inputs were tested for variations of +/- 5%.

Exchange rate

Estimates in this announcement are presented in Australian dollars (A\$) unless otherwise stated. When considering revenue factors and freight costs (which are published prices quoted in USD), we have applied an exchange rate of US\$0.70 per A\$.

Community and Social Responsibility

In Western Australia several approvals are required prior to commencement of a mining operation. There are two regulatory departments responsible for assessment and approval of the required submissions. The table below outlines the approvals required for the project and the regulator responsible for assessment.

Regulatory Department	Approval required	Purpose
Department of Mines, Industry Regulation and Safety – Environment Branch	Mining Proposal with Mine Closure Plan	Provides details of the project, the recognised environmental risks and proposed management actions.
	Native Vegetation Clearing Permit	Required prior to commencing clearing of vegetation (>10 ha) for the activities associated with the project.
Department of Mines, Industry Regulation and Safety – Safety Branch	Project Management Plan	Provides details of the project, the safety risks and the management actions that will be in place to minimise the risks.
Department of Water and Environment Regulation	Groundwater Licence and Operating Strategy	Required for abstraction of groundwater for dewatering the open pit.

	Works Approval / Operating Licence	Provides details of potentially polluting activities prescribed under Part V of the EP Act 1986. For this project these activities are crushing of ore and waste water treatment.
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There are no recognised significant environmental risks associated with the project. It is therefore expected that environmental approvals will be granted without the project requiring referral to the Environmental Protection Authority (EPA).

Approvals cannot be granted until all tenure associated with the project has been granted.

Applications have been submitted for a number of tenements surrounding M20/118 (granted).

Other

Other risks to the project relate to iron ore prices, social license, and other similar risks of resource projects.

FEASIBILITY STUDY KEY DETAILS

Capital Costs

Capital cost estimates were prepared based on site establishment and mobilisation estimates from the RFP process, quotations from Cue Shire on road upgrade requirements, tenders for the mining camp and other associated project infrastructure, estimates of pre-production owner's costs from HFC Mining and initial contribution requirements to the road transport JV derived from the road transport model.

Initial capital costs to establish the operation are estimated at \$11.9 million, which includes \$520,000 in contingencies and \$1.25 million of total contributions to the Fenix Newhaul road transport joint venture. More than 80% of the capital cost estimate was derived from recent commercial proposals from reputable service providers. Approximately 44% of the estimated capital costs are not payable until commercial production has been achieved, meaning there is a high likelihood that these costs will be funded from the proceeds of the first shipment.

Table 4: Initial Capital Cost estimates

Item	Pre Start-up Capital Cost (A\$m)	At Commercial Production Cost (A\$m)	TOTAL CAPEX (A\$m)
Roads	2.76	0.00	2.76
Infrastructure Pads	0.33	0.00	0.33
Contractor Mobilisations	0.00	0.99	0.99
Mine Site Infrastructure	1.20	3.88	5.08
Owners Site Costs	0.79	0.21	1.00
Contingency	0.39	0.13	0.52
Total Project Development Capex	5.46	5.20	10.67
Haulage JV Contribution	1.25	0.00	1.25
Total Capex	6.71	5.20	11.92

There is a further \$3 million of capital to be spent in year one of the project, with more than 90% of that amount likely to occur in quarter four.

Table 5: Capex to be Incurred in Year 1

Item	Year 1 Capital Cost (A\$m)
Roads	1.89
Infrastructure Pads	0.00
Contractor Mobilisations	0.50
Mine Site Infrastructure	0.00
Owners Site Costs	0.43
Contingency	0.18
Total Project Development Capex	3.00
Haulage JV Contribution	0.00
Total Capex	3.00

Operating Costs

Mining schedules were prepared by Mining Plus in consultation with Fenix management. Operating cost estimates were compiled from the results of the RFP process for the mining and processing component, the detailed road transport model prepared by Newhaul, published tariffs and a leasing cost estimate of port infrastructure from Mid West Ports Authority, and owner's costs estimated by HFC Mining.

C1 Cash Operating Costs are forecast at \$76.86 per dry metric tonne FOB over the life of the mine, with 56.3% attributable to road transport costs, 27.1% to mine and processing, 12.1% to port costs and 4.5% to corporate and administration. Including royalties, cash costs are estimated at \$86.10/dmt FOB (US\$60.27/dmt).

Table 6: Operating Cost estimates

Item	Life of Mine Cost (A\$/dmt)	Life of Mine Cost (US\$/dmt)
Mining & Processing	20.87	14.61
Road Haulage	43.27	30.29
Port storage, handling & ship loading	9.27	6.49
Corporate & administration	3.45	2.41
C1 Operating Cash Costs (FOB)	76.86	53.80
Royalties	9.24	6.47
Cash Costs (FOB)	86.10	60.27

Production Profile

The FS is based on single open pit operation using conventional mining techniques providing 1.25Mtpa of high-grade iron ore to the crushing and screening plant for a mine-life of 6.5 years. The production schedule targeted the Indicated Resources, which were used for the Ore Reserve determination, with Inferred Resources added as additional tonnes where it was mined as part of the extraction process for the Indicated Resources. Over the modelled 6.5 years, the Iron Ridge Project utilises 7.76Mt of Indicated Resources (96.5%) and 0.28Mt of Inferred Resources (3.5%).

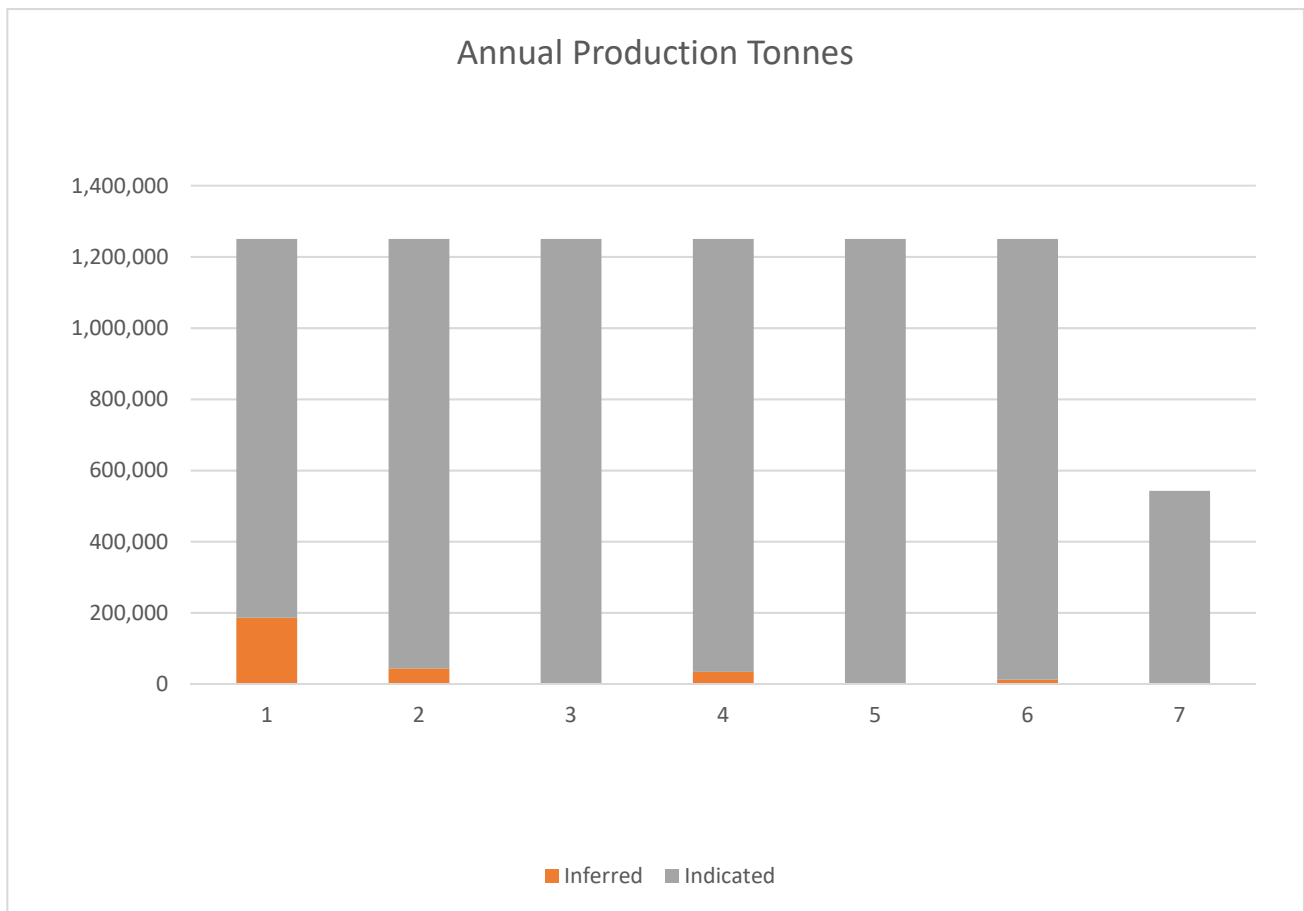


Figure 1: Annual Production Tonnes by Resource Category

Mining

The FS determined that approximately 8 million tonnes of high-grade hematite grading approximately 64% Fe over a mine life of 6.5 years could be extracted and sold based on declared Ore Reserves at the Project of 7.7Mt grading 63.9% Fe with a low level of impurities.

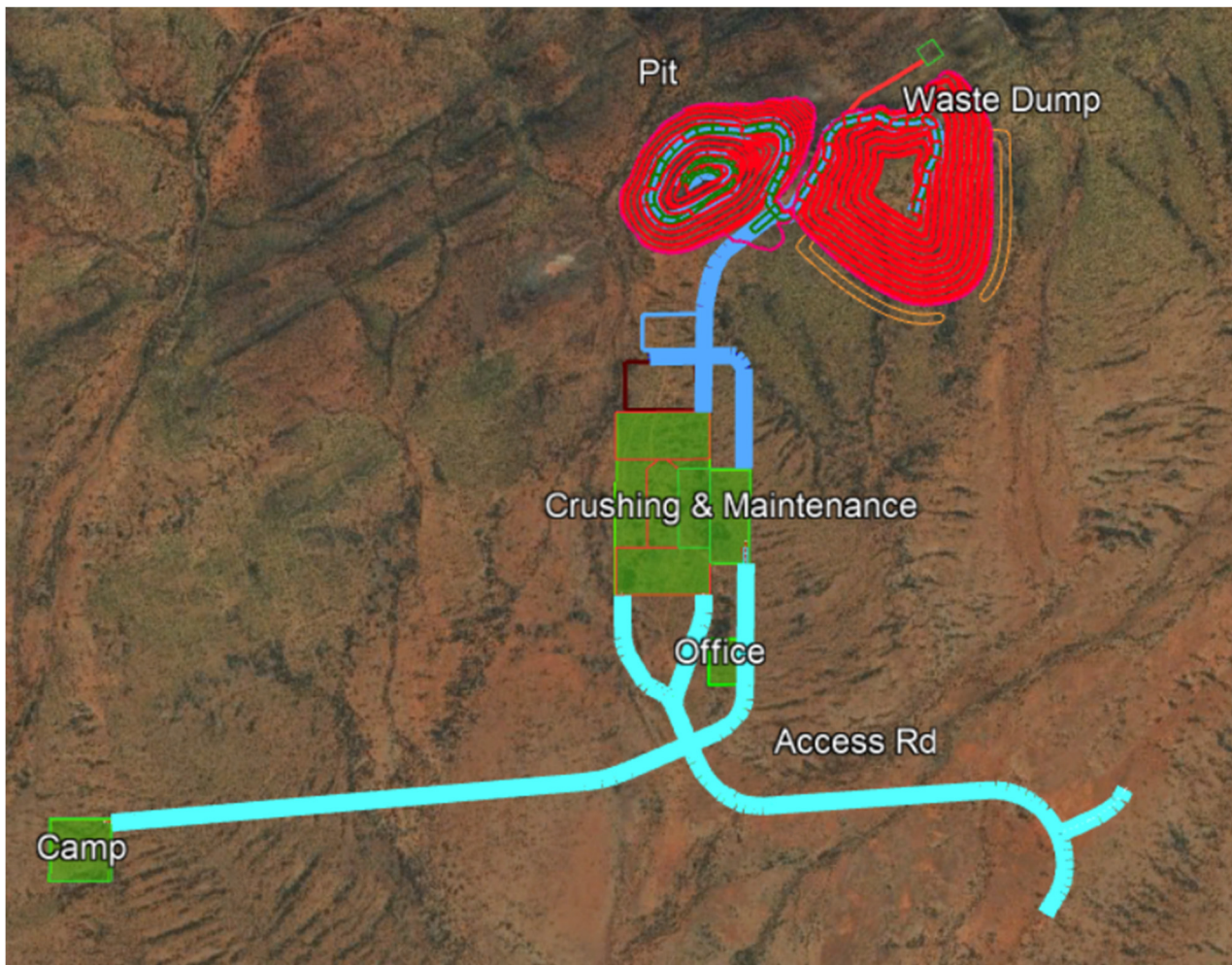


Figure 2: Iron Ridge Project Site Layout

Processing

The processing of ore is a simple task given its high Fe and low impurity in-situ values. No beneficiation is required and there is no waste stream generated during the process.

The designed processing plant is mobile and modular and consists of a two-stage crushing circuit (primary and secondary crushing) and a multi-deck screen to separate the lump and fines product into distinct stockpiles for road transport to the port of Geraldton. The Process Flow Diagram (PFD) below depicts the simple process from the mine to the port:

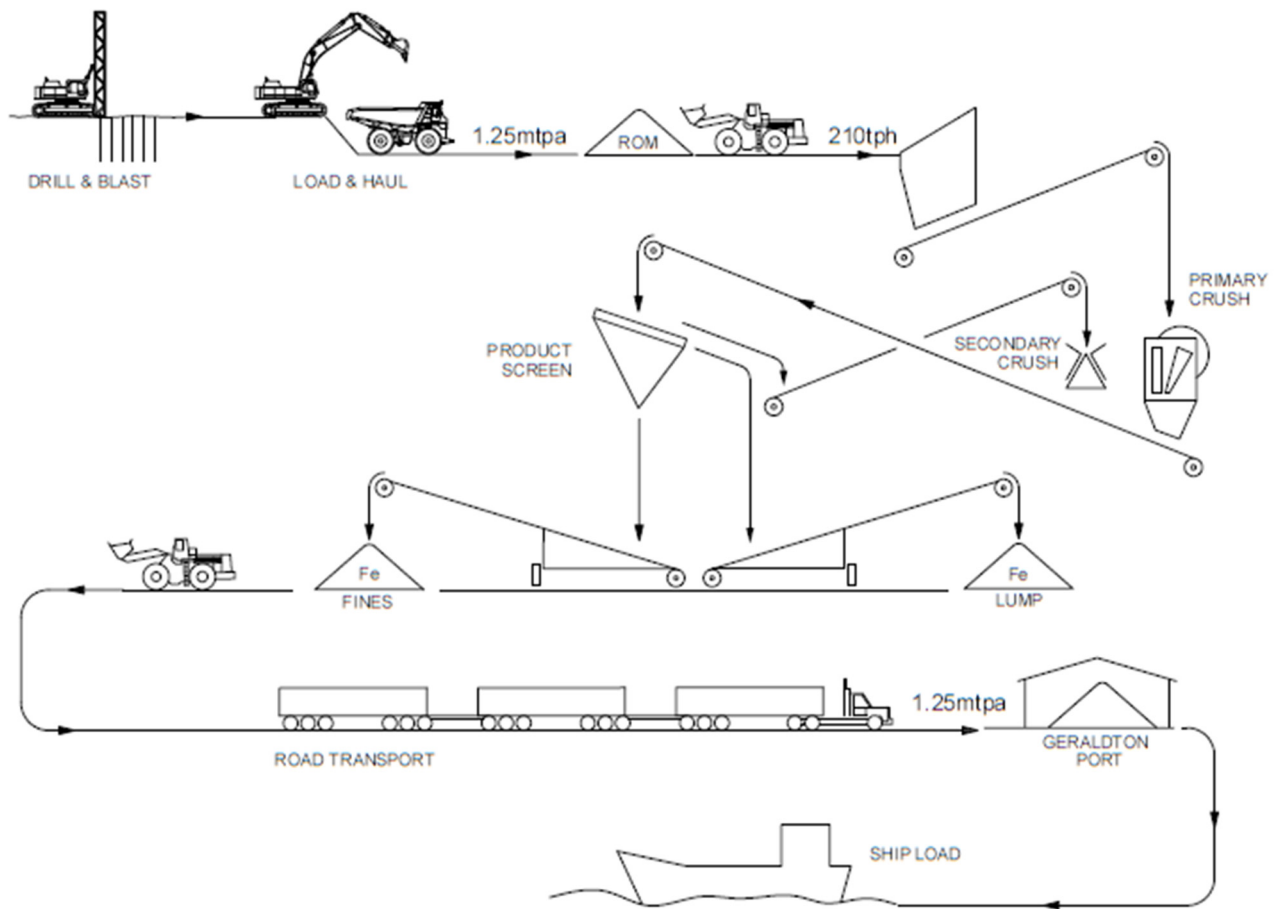


Figure 3: Iron Ridge Project – Process Flow Diagram

Logistics

In May 2019, Fenix entered into a road transport joint venture agreement with Newhaul Pty Ltd, a private company owned by Mr Craig Mitchell, an experienced transport and logistics operator. Since then, the JV has developed a detailed road transport model that provides a competitive cost of transporting iron ore product from Iron Ridge to a storage shed at Geraldton port. Terms have essentially been agreed and the contract awaits signing once the Final Investment Decision is made.

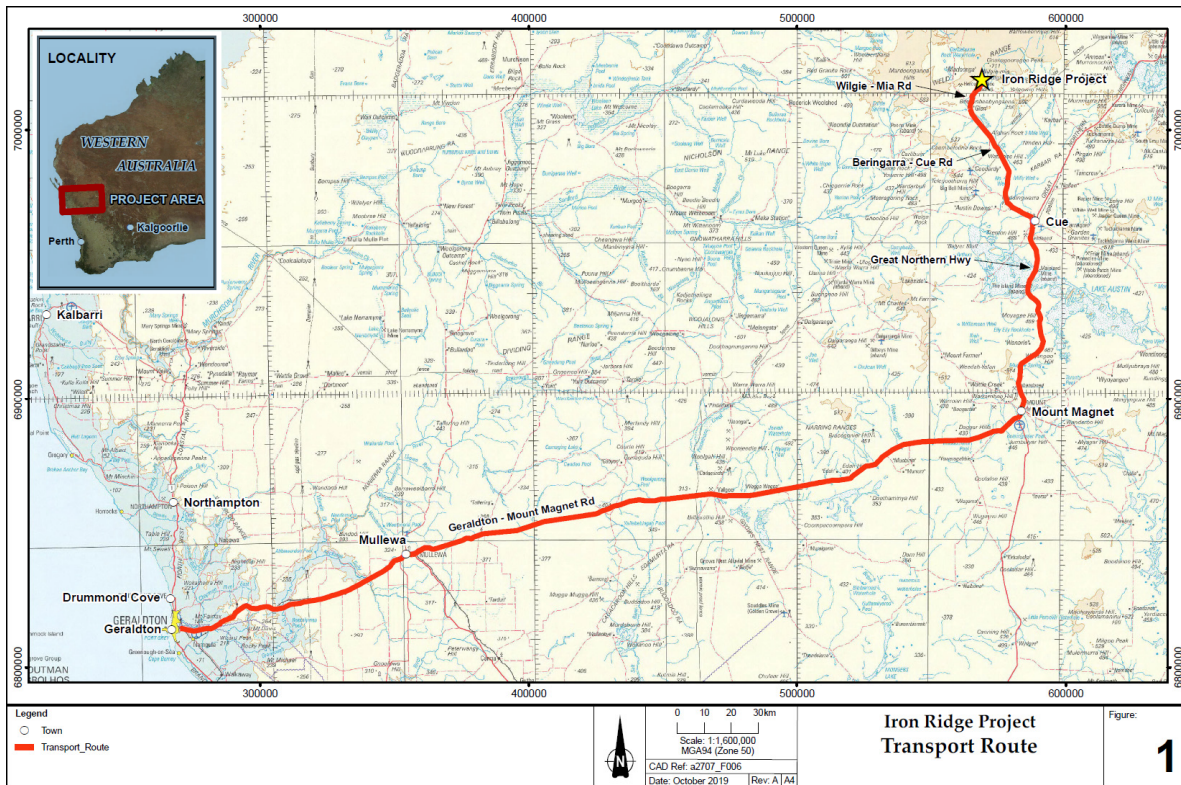


Figure 4: Iron Ridge Project – Road Transport Route

Financial Metrics

Using a constant LOM Platts 62% Fe index price of US\$78/dmt CFR and an USD:AUD exchange rate of 0.70, Fenix estimates that the Iron Ridge project has a Net Present Value of \$54.3 million and will generate a pre-tax Internal Rate of Return of 58.9%.

Average annual EBITDA is estimated at \$16.4 million.

The financial metrics of the Iron Ridge Project, based on the capital and operating costs outlined above, are depicted in Table 7 below, assuming an USD:AUD exchange rate of 0.70 and a Platts 62% Fe iron ore price of US\$78/dmt CFR:

Table 7: Feasibility Study Financial Metrics

Item	Unit	FS Outcome
Project NPV ₁₀ (real, pre-tax, ungeared)	A\$m	54.3
IRR (pre-tax, ungeared)	%	58.9
Total Development Capital	A\$m	14.9
Initial Development Capital	A\$m	11.9
EBITDA per annum (average)	A\$m	16.4
Life of Mine Revenue after marketing fee	A\$m	802.9
Life of Mine WA State Royalty payments	A\$m	60.2
Life of Mine	Months	77.0

Given the premium quality of the Iron Ridge product with an average grade of approximately 64% Fe over the life of mine, a significant premium to the Platts 62% Fe index price is expected, particularly in the last five years of operations. Fenix also estimates that 25% of the delivered product will be lump, which attracts a further premium.

Accounting for the expected premium for Iron Ridge product, the Project is expected to be cash flow neutral at a Platts 62% Fe price of US\$68/dmt CFR, assuming an average sea freight cost of US\$13.5/wmt and an average final product moisture content of 5%.

Sensitivity Analysis

The NPV of the Project is highly sensitive to iron ore price and the foreign exchange rate.

Modelling indicates that every US\$1/dmt move in the Platts 62% Fe index price impacts the NPV by approximately \$8 million and the average annual EBITDA by approximately \$1.6 million.

Similarly, every US\$0.01 movement in the AUD:USD exchange rate impacts NPV by approximately \$7 million and average annual EBITDA by approximately \$1.5 million.

Analysis of 5% movements to index price, currency, operating costs, capital costs and grade are illustrated in the Figure 5 below:

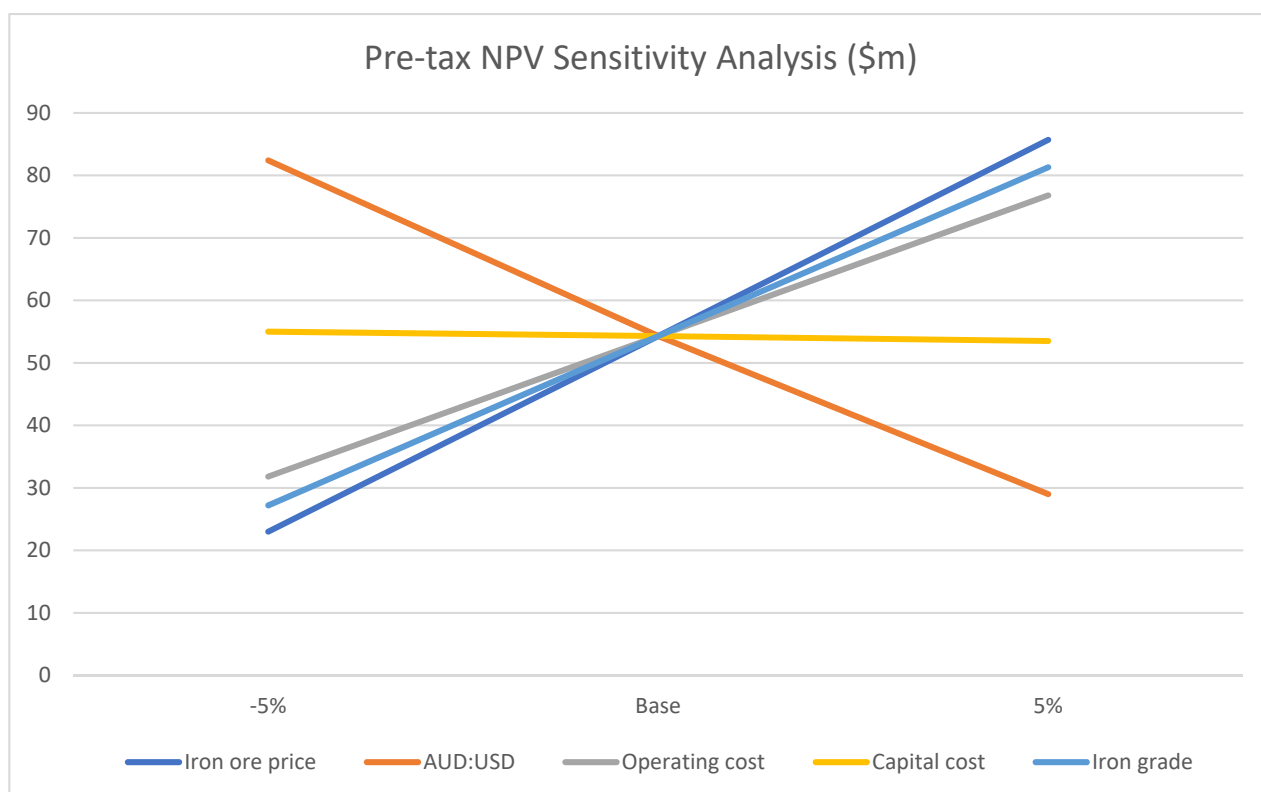


Figure 5: Iron Ridge Project Pre-tax NPV Sensitivity Analysis

Approvals & Permitting

The Company has applied for the necessary miscellaneous and general leases required for project start-up. As is common during the lease application stage, there have been some objections to the granting of these leases. Fenix is engaged in productive discussions with the objecting parties and are hopeful of reaching access agreements during the December 2019 quarter. This will allow the submission of a Mining Proposal to the Department of Mines, Industry Regulation and Safety for statutory approval. Confirmation of this approval will allow the project to proceed to Final Investment Decision soon thereafter.

Value Enhancement Opportunities

The Company is studying further opportunities to enhance the value of the project including entering into project partnering arrangements, seeking grants and concessions to reduce capital expenditure and ways to reduce operating costs. Fenix is also studying additional project opportunities in the vicinity of Iron Ridge and along the road haulage route.

Next Steps

Fenix is focussed on obtaining all the necessary approvals to allow the project to proceed to development and rapidly thereafter into commercial production. It is also engaged with potential offtake and financing partners. Subject to ongoing review and the determination by the Board that it is in the best interest of shareholders, Fenix has established a strategy to leverage the offtake of its planned high-grade iron ore products to obtain a financing solution for initial project capital expenditure and product inventory build.

The Company is looking to finalise port access arrangements with the Mid West Ports Authority, as well as entering into contracts with mining, road transport and port services contractors.

On Behalf of Fenix Resources Limited:



Robert Brierley
Managing Director
Fenix Resources Limited

About Fenix Resources

Fenix Resources is an ASX-listed, WA-based minerals explorer transitioning to miner.

The company's 100% owned, flagship Iron Ridge Iron Ore Project is a premium DSO deposit which hosts a JORC 2012 compliant resource located around 490 km by road from Geraldton port.

High grade iron ore attracts a premium price on the seaborne market as Chinese steel works increasingly demand more pure inputs with lower emissions due to increasingly strict government regulations.

Only requiring crushing and screening, 1.25 million ton per annum of ore is proposed to be trucked to the port by a JV signed off in May 2019, with trucking specialist Newhaul Pty Ltd headed by respected logistics expert Craig Mitchell who was the founder and owner of Mitchell Corp before selling to Toll Group.

Negotiations are well advanced with Mid-West Ports Authority at Geraldton where export capacity is available.

Mining and environmental approvals are currently being undertaken and contract documentation with key service providers is advanced.

A total of three hundred and fifty (350) Full Time Equivalent (FTE) direct and indirect jobs throughout the supply chain will be created including seventy (70) FTEs on site at the Iron Ridge mine if project approvals are granted.

Geraldton is set to be a winner with one hundred (100) FTEs created including seventy (70) roadtrain drivers and a fleet maintenance depot established with an additional thirty (30) jobs. More jobs will be created at the Port and at local businesses and contractors that service the project.

The Project's Mineral Resource, announced on 21 August 2019, is categorised into Indicated and Inferred Mineral Resources as shown in Table 1.

Classification	Tonnes Mt	Fe %	Al ₂ O ₃ %	LOI %	P %	SiO ₂ %	TiO ₂ %
Indicated	10.0	64.3	2.56	1.90	0.046	3.21	0.09
Inferred	0.5	62.5	2.80	3.13	0.046	4.41	0.12
Total	10.5	64.2	2.57	1.96	0.046	3.26	0.09

Table 1: Iron Ridge Mineral Resource Estimate reported above a 58% Fe cut-off grade.

www.fenixresources.com.au

Competent Persons Statement

The information in this report that relates to Mineral Resources is based on information compiled by Mr Alex Whishaw, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and is employee by CSA Global Pty Ltd. Mr Whishaw has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr Whishaw consents to the disclosure of information in this report in the form and context in which it appears.

The information in this report that relates to the Processing and Metallurgy for the Iron Ridge Project is based on and fairly represents, information and supporting documentation compiled by Damian Connelly who is a Fellow of The Australasian Institute of Mining and Metallurgy and a full time employee of METS Engineering Group. Damian Connelly 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'. Damian Connelly consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Ore Reserves is based on information compiled by Mr John Battista, a Competent Person who is a Member and Chartered Professional (Mining) of the Australasian Institute of Mining and Metallurgy and is currently employed by Mining Plus (UK) Ltd. Mr Battista has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr Battista consents to the disclosure of information in this report in the form and context in which it appears.

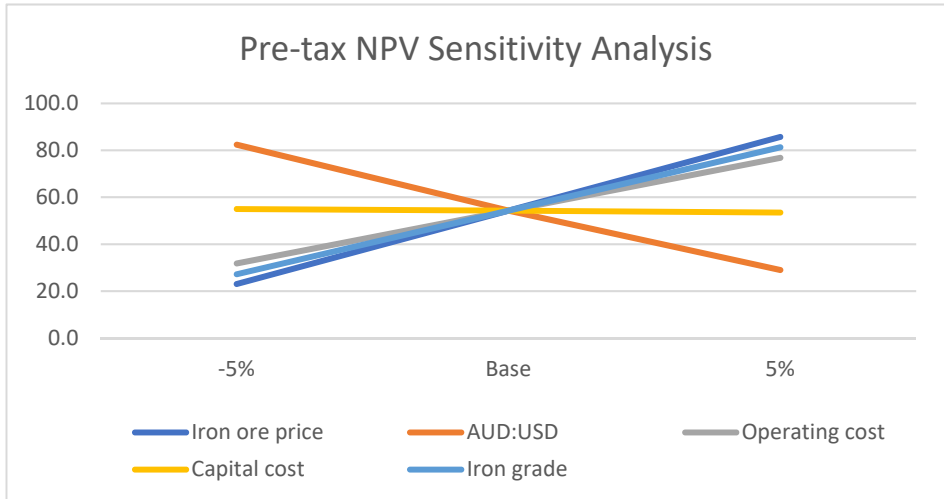
Appendix 1 – Material Assumptions

Material assumptions used in estimation of the production target and associated financial information are set out in the following table.

Assumption	Comment
Study Status	The Feasibility Study referred to in this announcement is based on Probable Ore Reserve and minor amounts of Inferred Resources. The Probable Ore Reserve is based on Indicated material only, which makes up 96.5% of the total milled tonnage (3.5% Inferred material). There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the conversion of Inferred Mineral Resources to Indicated or Measured Mineral Resources or that the production targets reported in this announcement will be realised. The Study has been prepared with accuracy of +/- 10%. There is no certainty that the conclusions of the Study will be realised.
Ore Reserves and Mineral Resources underpinning the study	The Ore Reserve estimate that underpins the Study is released to ASX within this announcement dated 30 October 2019 and was prepared by a competent person in accordance with the JORC Code 2012. The Mineral Resource estimate that underpins the Study was released to ASX on 21 August 2019 and was prepared by a competent person in accordance with the JORC Code 2012.
Mining factors or assumptions	The mine will consist of a single open pit operation using conventional excavator-truck mining fleet, adopting 10m benches and mining these benches in 3 flitches. Ore and waste will be hauled to the ROM pad and waste dump respectively by a fleet of 100 tonne haul trucks. Drill and blast will be done using a top hammer drill rig and ANFO or heavy ANFO explosives. Mining costs were based on a detailed commercial proposal submitted by Perth based mining contractor MACA Limited, in the form of Schedule of Rates for drill and blast, load and haul, and crush and screen, as well as all ancillary services.

Metallurgical factors or assumptions	The Company undertook confirmatory comminution and lump to fines testwork on several composite samples of core collected from the diamond drill program completed in 2018 that were chosen to be representative of ore over the life of mine. The results were relatively consistent and showed that the ore was direct shipping ore (DSO) grade and only required crushing and screening to separate products into sizing groups known as fines (-6.3mm) and lump (+6.3mm -40mm). A lump to fines ratio of 25% has been assumed which is at the low end of testwork results of 25-30%. The flowsheet developed for the process consists of the following stages: • Two stage crushing of ROM • Multi-deck screening to separate lump and fines product • Product loading into road trains with a triple trailer configuration for road transport to the port of Geraldton The plant has been sized to process at least 1,250,000tpa of ore, and is configured in a mobile and modular way.
Environmental	Fenix has engaged environmental consultancy Ecotec (WA) Pty Ltd to coordinate the environmental approvals process for the project. Production of the Mining Proposal and Mine Closure Plan is underway. A Native Vegetation Clearing Permit application will be submitted when the project layout and disturbance area has been finalised, and tenure has been granted. Hydrogeological consultants Rockwater Pty Ltd have been engaged to undertake a detailed hydrology study to support the environmental approvals. The final report showed that the water was of Western Australian drinking quality standard and that there was sufficient volume to satisfy the anticipated 10 litres per second consumption rate of the operation, with little to no surplus. Biological specialists Ecologia Environment Pty Ltd undertook a flora and fauna survey of the project area in September 2019. The survey has identified a number of Priority-listed flora and fauna species within the project
Infrastructure	The Company, HFC Mining and MACA have reviewed the infrastructure on site. The Iron Ridge Project has good quality public roads that provide access to within 2km of site with an existing private road providing site access. It is planned and costed into the FS metrics, to build a new 82-person camp and to establish site communications for internet, mobile phone coverage and access to Smart TV at camp. As part of the mining contract, the contractor will establish all other site infrastructure including offices, ROM pads, crushing and screening facilities, power generation capacity and water storage facilities.
Capital Costs	The capital estimate is considered to have an accuracy of -10/+10%. A ~5% contingency has been added to the total of the direct and indirect costs for the estimate summary to account for any potential shortcoming in the data and information that was collected during the execution of this study. The vast majority of costs were estimated from commercial proposals and quotations that are valid until 31 December 2019. All major equipment has been assumed to be supplied by the contractors as per their scope of work.
Operating Costs	Operating costs include all costs associated with mining, processing, general site administration, road transport and port storage and loading of ore. These costs were calculated from first principles and where applicable referenced against similar size and types operations as a check. Mining and processing costs were estimated at \$20.87/t of ore, road transport costs of \$43.27/t, port storage and ship loading costs of \$9.27/t, and G&A costs at \$4.35/t. Vendor and heritage royalties of \$1.75/t were also factored in, additional to the standard 7.5% WA State Government royalty.

Revenue Factors	Revenue used a flat 62% Fe index price of US\$78/dmt CFR, an assumed shipping cost from Geraldton to North China of US\$13.5/wmt, and an exchange rate of US\$0.70 per A\$. A 1% marketing fee was assumed, based on several preliminary proposals received by potential product offtake parties. The iron ore price assumption was based on the mean price forecast from five reputable global banks with in-house commodity forecasting teams for the December quarter of 2020, rounded down to the nearest US\$.
Schedule and Project Timing	The next stage of the project is the grant of the necessary miscellaneous and general leases that are required for the infrastructure and the ~2km private road haulage route which have been applied for but are currently the subject of objections under the Mining Act. Once leases are granted, a Mining proposal will be submitted and pending approval of this proposal and subject to the decision to mine, the project moves into the construction phase which is planned to commence in Q1 2020, with first ore occurring in Q2 2020. Full production is estimated to be achieved straight away in Q2 2020 following due to the accessibility to ore at surface.
Market Assessment	The iron ore price has performed strongly during 2019 as supply disruption in Brazil due to a tailing dam wall collapse saw the market transform to supply deficit. Of the 90Mtpa of production immediately curtailed post the dam wall collapse, roughly one third has now come back online, a further third is due to be reactivated in 2020 with the remaining capacity forecast to recommence in 2021. The World Steel Association expects steel demand in China to increase 7.8% in 2019 and 1% in 2020. More conservatively, other emerging economies are expected to increase 0.4% in 2019, however, in 2020 growth is expected to rebound to 4.1% mainly due to infrastructure investment pick-ups, mainly in Asia. The World Steel Association expects steel demand in developed economies to decrease 0.1% in 2019 and increase 0.6% in 2020. These forecasts are likely to be supportive of demand growth for iron ore in 2020. Underlying iron ore prices reflect the supply and demand conditions and the market sentiment. Fenix has used consensus price forecasts for 2020 when estimating all future revenue generated by the Iron Ridge Project.
Funding	To achieve the range of outcomes indicated in the FS, funding in the order of \$12-15 million will likely be required for capital works, pre-production capital costs, contingency and working capital. It is anticipated that project finance will be sourced from a combination of equity and debt instruments from existing shareholders, new equity investment, product offtake parties and debt providers from Australia and overseas. The Board believes that there is a reasonable basis to assume that funding will be available to finance the pre-production activities necessary to commence production on the following basis: ▪ the Board and executive team have a solid financing track record in developing resource projects; ▪ the Company believes that the FS demonstrates the Iron Ridge Project's strong potential to deliver a favourable economic return; ▪ the positive financial metrics of the Iron Ridge Project and the underlying demand growth for iron ore; and ▪ the relatively modest capital investment required (initial capital intensity of less than \$10/t of annualised output) and the rapid start-up time, estimated to be 4 months from project go-ahead to first sales.

Economic Parameters	The FS has been completed with a -10%/+10% accuracy. A discount rate of 10% has been used for financial modelling. This number was selected as a generic cost of capital and is considered as a prudent and suitable discount rate for project funding and economic forecasts in Australia. The model has been run as a life of mine model and includes all project level operating costs as well as sustaining capital costs (which have been included in corporate and administration costs), which are part of operating costs. The Study outcome was tested for key financial inputs including: price, currency, operating costs, capital costs and grade. All these inputs were tested for variations of +/- 5%. Pre-tax NPV Sensitivity Analysis <table border="1"><caption>Approximate NPV values from the sensitivity analysis chart</caption><thead><tr><th>Input</th><th>-5%</th><th>Base</th><th>5%</th></tr></thead><tbody><tr><td>Iron ore price</td><td>25.0</td><td>55.0</td><td>85.0</td></tr><tr><td>AUD:USD</td><td>80.0</td><td>55.0</td><td>25.0</td></tr><tr><td>Operating cost</td><td>30.0</td><td>55.0</td><td>75.0</td></tr><tr><td>Capital cost</td><td>55.0</td><td>55.0</td><td>55.0</td></tr><tr><td>Iron grade</td><td>20.0</td><td>55.0</td><td>80.0</td></tr></tbody></table>	Input	-5%	Base	5%	Iron ore price	25.0	55.0	85.0	AUD:USD	80.0	55.0	25.0	Operating cost	30.0	55.0	75.0	Capital cost	55.0	55.0	55.0	Iron grade	20.0	55.0	80.0
Input	-5%	Base	5%																						
Iron ore price	25.0	55.0	85.0																						
AUD:USD	80.0	55.0	25.0																						
Operating cost	30.0	55.0	75.0																						
Capital cost	55.0	55.0	55.0																						
Iron grade	20.0	55.0	80.0																						
Exchange Rate	Estimates in this announcement are presented in Australian dollars (A\$) unless otherwise stated. When considering revenue factors and freight costs (which are published prices quoted in USD), we have applied an exchange rate of US\$0.70 per A\$.																								
Community & Social Responsibility	In Western Australia several approvals are required prior to commencement of a mining operation. There are two regulatory departments responsible for assessment and approval of the required submissions. The table below outlines the approvals required for the project and the regulator responsible for assessment. <table><tr><th>Regulatory Department</th><th>Approval required</th><th>Purpose</th></tr><tr><td rowspan="2">Department of Mines, Industry Regulation and Safety – Environment Branch</td><td>Mining Proposal with Mine Closure Plan</td><td>Provides details of the project, the recognised environmental risks and proposed management actions.</td></tr><tr><td>Native Vegetation Clearing Permit</td><td>Required prior to commencing clearing of vegetation (>10 ha) for the activities associated with the project.</td></tr><tr><td>Department of Mines, Industry Regulation and Safety – Safety Branch</td><td>Project Management Plan</td><td>Provides details of the project, the safety risks and the management actions that will be in place to minimise the risks.</td></tr><tr><td rowspan="2">Department of Water and Environment Regulation</td><td>Groundwater Licence and Operating Strategy</td><td>Required for abstraction of groundwater for dewatering the open pit.</td></tr><tr><td>Works Approval / Operating Licence</td><td>Provides details of potentially polluting activities prescribed under Part V of the EP Act 1986. For this project these activities are crushing of ore and waste</td></tr></table>	Regulatory Department	Approval required	Purpose	Department of Mines, Industry Regulation and Safety – Environment Branch	Mining Proposal with Mine Closure Plan	Provides details of the project, the recognised environmental risks and proposed management actions.	Native Vegetation Clearing Permit	Required prior to commencing clearing of vegetation (>10 ha) for the activities associated with the project.	Department of Mines, Industry Regulation and Safety – Safety Branch	Project Management Plan	Provides details of the project, the safety risks and the management actions that will be in place to minimise the risks.	Department of Water and Environment Regulation	Groundwater Licence and Operating Strategy	Required for abstraction of groundwater for dewatering the open pit.	Works Approval / Operating Licence	Provides details of potentially polluting activities prescribed under Part V of the EP Act 1986. For this project these activities are crushing of ore and waste								
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Other	Other risks to the Project relate to metal prices, social licence, and other similar risks of resource projects.
Audit & Reviews	The studies were internally reviewed by Fenix with no material issues identified.

Appendix 2: JORC Table 1

Section 1 – Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	Samples used in the estimation of grade in the Mineral Resource were collected by Commercial Minerals Ltd (Com Min) using reverse circulation percussion (RC) in 1997 (WRR series), Atlas Iron Ltd (Atlas) in 2008 using RC (WRR series) and Fenix Resources Ltd (Fenix) in 2018 (IR series). Some samples were also collected from RC (1995), vacuum (1973) and diamond drilling (1962) techniques, although these were used in validating the mineralisation envelope only and not in the Mineral Resource Estimation. Com Min samples varied in length from 3 – 5 m in mineralisation, representing 329 m or 5.3% of the assay length. Atlas samples were taken on 1 and 2 m lengths for 1,131 m or 18.4% of the samples. RC and diamond drilling methods were used to assay 2,809 primary samples in the Fenix Resources Ltd 2018 and 2019 programs. All the Fenix 2018 and 2019 RC samples were two metre composites, except where the drill holes terminated on an odd meter interval. Fenix 2018 and 2019 Diamond (DDH) sampling was completed to geological contacts with the maximum length being 2m. Occasional short (<0.5m) lengths were taken. The sample intervals were measured and marked up in the field and transported in its entirety to Perth for cutting by ALS Minerals and Chemistry in Wangara, Perth, which was inspected by the Competent Person in Perth. The core was considered in a good physical state when it arrived in Perth with little degradation, except for two trays which were re-assembled with the assistance of photography. The Fenix 2019 RC water monitoring bore samples RC samples were done on regular 2m sampling intervals except at the end of hole where the sample length may be down to 0.5m. The samples were collected from the outside return between the rods and the hole which is likely to result in contamination. A 1-2kg sample was collected in a calico bag. The Competent Person (CP) considers the diamond sampling techniques acceptable for the purposes of reporting Exploration Results. The RC water bore samples are of a lower confidence when compared to the diamond drilling, and should be taken to be indicative of mineralisation tenor only.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	2008 Atlas samples were taken from shallow RC holes that remained dry and did not encounter any significant water. All samples were cone split and dry. In the event where the sample exceeded 3 kg, it was then split down to a smaller sample. 2018 RC samples were typically collected via a cone splitter or if the splitter clogged up a representative sample has been taken by hand (scoop). While scoop samples are not ideal it is not considered material for this style of mineralisation and analysis of sample recovery showed no correlation with grades. 55 RC field duplicates were taken on selected intervals within the interpreted mineralised horizons. RC samples were reported to weigh between 2 and 4kg which is appropriate. Where the primary sample exceeded 3kg it was then split down to a smaller sample. The Competent person considers the sampling process to be appropriate and representative of the mineralisation style present.

Criteria	JORC Code explanation	Commentary
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information</i>	All RC samples were cone split except in some occasions where the material blocked up the splitter and had to be manually collected. Crushed core and RC samples were dried, pulverised to 85% passing 75 micron and riffle split to a maximum of 3 kg. Samples up to 3 kg were pulverised in their entirety to nominal 85% passing 75 µm. Samples which exceed 3 kg first were riffle split 50:50 using a standard benchtop laboratory riffle splitter. Once the sample was pulverised, a pulp subsample of approximately 300 g was taken from the pulveriser bowl. From that master pulp, the ~0.7 g aliquot was taken for XRF analysis. The laboratories procedures have been reviewed and are considered by the Competent Persons (James Potter) to be industry standard and acceptable for the style of mineralisation.
Drilling techniques	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other</i>	The mineral resource modelling database contained 80 collar records for 9,187.7 m and 3,478 assay records, a total of 15 more collars for 2,040.3 m and 726 more assay records than the previous MRE. This new drilling included seven resource diamond holes, three unassayed geotechnical diamond holes and five assayed water monitoring RC holes. Of this new drilling, BIF 1 and BIF 2 were intercepted by nine and three holes for 655.75 m and 159.32 m respectively. All diamond holes except one were core from surface using triple tube techniques to improve core recovery. The core was orientated however many orientations failed due to the friable nature of the core. The Competent Person does not consider the inability to orientate the core a material risk to the MRE. The 2018 Fenix RC drill holes utilised 5 ¾ inch face sampling drill bit by Frontline Drilling.

Criteria	JORC Code explanation	Commentary
	<i>type, whether core is oriented and if so, by what method, etc.).</i>	The water-bore RC holes were drilled with open hole hammer using a 4 ¼ inch drill bit. Downhole surveys included 11 holes by gyro and 18 holes by geophysics (gamma, density, resistivity). Geophysical logging of all 2018-2019 holes was conducted for varying depths to blockage or end of hole. The drilling technique is considered appropriated for the style of style mineralisation present and the Competent Person does not consider the inability to orientate the core a material risk to the Mineral Resource estimate. Downhole surveys included 17 holes by gyro and 25 holes by geophysics (gamma, density, resistivity). Geophysical logging of all 2018 holes was conducted for varying depths to blockage or end of hole.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	The 2018 RC sample recoveries were estimated subjectively as poor, fair, good or large. These were recorded for all samples typically with deeper, wet holes having poor to fair sample recovery. Recovery for dry samples was typically good. The 2008 drilling by Atlas was dry and while no record of recovery was available no issues were noted. The diamond recovery was generally good with the average being above 95%, however recovery in areas of soft clay or zones of high porosity did reduce to below 80%. Sample return for the RC water-bore drilling is considered very poor (<10%) Sample moisture content was variable. Typically, deeper holes returned moist or wet samples and shallow holes (<100m) largely returned dry samples. The Competent Person (CP) considers the sub-sampling appropriate for the reporting of an Exploration Result
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Diamond drilling was completed to assist in validating the results from the RC samples and no identifiable bias was observed. Analysis of sample recovery showed no relationship with grades, including the water bore samples. Twin hole analysis showed good correlation between DDH and RC holes analysed.
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	Analysis of sample recovery measurements on diamond core and RC sample weights showed no relationship to grades.
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged</i>	All RC and diamond drill holes were geologically logged to an industry standard appropriate for the mineralisation present of the project. Diamond core was photographed, and a selection of RC chips were retained for future reference.

Criteria	JORC Code explanation	Commentary
	<i>to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	The CP considers that the level of detail is sufficient for the reporting of Exploration Results and for future Mineral Resource estimation.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Lithological logging is qualitative in nature. Logged intervals were compared to the quantitative geochemical analyses and geophysical logging to validate the logging. Quantitative logging was provided by downhole geophysical surveys were completed on 36 holes for long and short sign gamma density, resistivity and calliper in January to February 2019 and July 2019 by independent contractor MPC Kinetic in open holes drilled by Fenix Resources Ltd in November and December 2018 and June and July 2019. The geophysical probe penetrated > 85% of the final hole depth for the majority of the holes. The Competent Person considers that the availability of qualitative and quantitative logging has appropriately informed the geological modelling, including weathering and oxidation, water table level and rock type.
	<i>The total length and percentage of the relevant intersections logged.</i>	The total length of all drilling was logged.
Subsampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	For the Fenix 2018 – 2019 DD samples, the diamond core samples were measured and marked for sampling in the field at site and transported in their entirety to Perth (~750 km by sealed roads) by ALS Minerals and Geochemistry, which was inspected and found to be in good physical state on arrival by the Competent Person. If the core was competent, the sample was cut by ALS using a purpose build automatic saw with diamond tipped blade, then half the core was sampled. For fragmented core sections, the best effort was made to separate half the sample for processing. Typically, the fragmented sections were within the clay rich areas and not in the mineralisation. ALS then crushed the sample to 6 mm.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	Atlas and Com Mins samples were dry and collected via cone splitter. All RC samples were cone split to approximately a 12.5% split except damp to saturated Fenix samples that caused the cone splitter to block. In this case, the sample had to be manually collected by scoop. Most raw sample intervals within mineralisation and all Fenix samples are 2 m in length. RC water-bore hole samples were collected every 2 m in their entirety by the drilling offsidiers into plastic bags due to their poor sample return. Samples were then transferred into a calico bag by the field assistant. Com Mins samples were submitted to Analabs in Perth for x-ray fluorescence (XRF) analysis for a basic iron oxide suite of elements (OX408). Commercial laboratories crushed and pulverised the sample for further subsampling for XRF analysis.

Criteria	JORC Code explanation	Commentary
		The focus of Com Mins for the Iron Ridge area was the extraction of iron oxide material for use as a pigment. Samples were also analysed for colour testing at Com Mins' Technical Services Division in Footscray, Victoria. For the Fenix 2018 – 2019 drilling, crushed core and RC samples were dried, pulverised to 85% passing 75 micron and riffle split to a maximum of 3 kg. Samples up to 3 kg were pulverised in their entirety to nominal 85% passing 75 µm. Samples which exceed 3 kg first were riffle split 50:50 using a standard benchtop laboratory riffle splitter. Once the sample was pulverised, a pulp subsample of approximately 300 g was taken from the pulveriser bowl. From that master pulp, the ~0.7 g aliquot was taken for method.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	All RC samples were cone split to approximately a 12.5% split with the exception of some of the Fenix samples where water was encountered, and the cone splitter clogged up. Commercial Minerals samples were submitted to Analabs in Perth for XRF analysis for a basic iron oxide suite of elements (OX408). Commercial laboratories crushed and pulverised the sample for further subsampling for XRF analysis. The focus of Commercial Minerals for the Iron Ridge area was the extraction of iron oxide material for use as a pigment. Samples were also analysed for colour testing at Commercial Minerals Ltd's Technical Services Division in Footscray, Victoria. 2007 Atlas RC samples were submitted to Ultratrace Laboratories in Perth for silicon fusion disk XRF analysis (XRF202) for the standard iron ore suite of 10 elements. Sample preparation consisted of pulverizing using robotic preparation. For the Fenix 2018 drilling, crushed core and RC samples were dried, pulverized to 85% passing 75 micron and riffle split to a maximum of 3 kg. 0.7 g samples were then analysed using technique ME-XRF21u with lithium bornite fusion and XRF finish (fused disk), yielding the standard iron ore analysis of 24 unnormalised elements. Loss on ignition (LOI) was determined on a 1 g pulp sample by thermogravimetric analysis. The Competent Person considers these methods appropriate for this style of mineralisation.
	<i>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</i>	No quality control (QC) samples were available for the Com Mins drilling. For Atlas 2008 drilling, field duplicates were taken every 25th and 75th sample. Results were reported by Atlas to indicate good correlation between original and duplicate assays, indicating good accuracy with sample procedure. The Fenix 2018 – 2019 drilling included certified reference materials (CRMs) from a commercial supplier inserted at a rate of 3 in 100, blanks inserted 1 in 100, and field and pulp duplicates.
	<i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance</i>	The recent Fenix drilling included field duplicate sampling to support this Mineral Resource estimate. The Atlas drilling also included Field duplicates. No quarter core duplicate samples have been taken.

Criteria	JORC Code explanation	Commentary								
	<i>results for field duplicate/second-half sampling.</i>									
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample sizes are considered to be appropriate to the grain size of the material being sampled.								
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	The 2007 Atlas RC samples were submitted to Ultratrace Laboratories in Perth for silicon fusion disk XRF analysis (XRF202) for the standard iron ore suite of 10 elements. Sample preparation consisted of pulverising using robotic preparation. For the 2018 - 2019 Fenix drilling, the assaying and laboratory procedures used were consistent with industry good practice. All RC and diamond core samples were sent to ALS Minerals and Geochemistry in Wangara Perth for XRF analysis. Whole core trays were delivered to ALS Perth. Laboratory procedures adopted are sufficient for the reporting of Mineral Resources. ALS is a NATA accredited organisation. XRF is a total rock geochemical analysis method and a standard technique adopted by the iron ore industry.								
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	Downhole gamma-density was logged in counts-per-second (cps) by MPC Kenetic at 10 cm spacing downhole. These were then converted to physical property values using calibrations determined specifically for each physical property parameter. The internal consistency of the downhole gamma-density data was demonstrated by repeat logging of against a calibration hole data from an iron ore deposit calibration holes in the Pilbara. The final data were supplied in a Logging ASCII Standard (LAS) file format. The type of instrument used was a 9239 Dual Density Instrument (serial number 2544). The instrument was calibrated on 27 July 2019, source serial number 2544, with results shown in the table below. <table border="1"> <thead> <tr> <th></th><th>Long space response (cps)</th><th>Short space response (cps)</th></tr> </thead> <tbody> <tr> <td>High-Point Standard (LS-2.645g/cc)(SS-2.653g/cc)</td><td>3739</td><td>30771</td></tr> <tr> <td>Low-Point Standard (LS-1.643g/cc)(SS-1.661g/cc)</td><td>15183</td><td>47507</td></tr> </tbody> </table> An in-hole calliper was used to identify areas where blowouts and significant aberrations in the hole rugosity were encountered; any deviations from within 20% of the nominal hole diameter (960 mm for HQ and 1,460 mm for RC) were removed. Calliper-corrected gamma density readings were calibrated against dry water immersion/Archimedes method core density samples from the diamond drill core (239 samples). A final check was completed against other known deposits in the Weld Range from publicly available MREs.		Long space response (cps)	Short space response (cps)	High-Point Standard (LS-2.645g/cc)(SS-2.653g/cc)	3739	30771	Low-Point Standard (LS-1.643g/cc)(SS-1.661g/cc)	15183
	Long space response (cps)	Short space response (cps)								
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Criteria	JORC Code explanation	Commentary
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	The Fenix drilling program quality control (QC) samples included blanks, CRMs, field duplicate and pulp duplicates. The CRMs used were two iron ore standards from GeoStats Pty Ltd and were inserted at a rate of three samples every 100. Blanks were inserted every 100 samples. The CRMs performed well within nominated tolerance limits. Atlas utilised field duplicates and standards. Data was not available for review; however, Atlas did not report any identified issues. ALS also completed their own internal QAQC with standards blanks and duplicates. The raw QAQC standard results were reviewed by the competent persons. For the blanks, although the iron results could be interpreted as showing that poor hygiene has impacted some samples, given the uncertainty of the material quality, it is impossible to draw any conclusions. The alumina duplicates do not display a high level of precision overall. These are principally below the water table and relate to the lower-grade alumina values. It is likely that both the clogging of the cone splitter by water and the biased sampling by scoop have impacted precision. The data collected by Atlas and most of the Com Mins data derives from above the water table and is unlikely to show the same level of smearing of grades, although QC data was not available for review by the Competent Persons. The Competent Persons consider that assaying poses an acceptable level of risk to the overall confidence level of the MRE and would not preclude the estimation of Mineral Resources.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	All mineralisation intersections, both significant and anomalous were verified by CSA Global during the drill hole validation process.
	<i>The use of twinned holes.</i>	Diamond holes were drilled to infill areas of RC holes, and although not proximal twins, DD sample results showed strong correlation to the nearest RC sample results.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	The data entry, storage and documentation of primary data was completed on Excel spread sheets and local hard drives, then imported into a central database managed by CSA Global. The competent person has reviewed the database and completed validation and considers the data management process acceptable for the use in Mineral Resource Estimation.
	<i>Discuss any adjustment to assay data.</i>	No adjustments were made to the analytical data, other than replacing a single TiO ₂ % below detection results with a negative value in the database, which was then set as null (absent data). Phosphorous was heterotopically sampled, therefore, the data were treated as absent rather than below detection limit or zeros. Downhole density was calibrated and adjusted using moisture and hydrostatically obtained measurements.

Criteria	JORC Code explanation	Commentary																		
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	All collar positions were recorded in GDA 94 MGA Zone 50 coordinate system and then uploaded into the database as the final collar positions. MHR Surveyors measured the 2018 and 2019 locations by DGPS and 14 historic collars. The water bore holes were measured using a Garmin handheld GPS and elevation values draped to measured DTM topography Downhole surveys were completed using a Gyro tool by the drilling contractor with readings taken approximately every 30 metres. Check north seeking gyro and collar surveys by registered surveyors MHR Surveyors were undertaken. Generally, the holes remained straight with less than 2 degrees (both dip and azimuth) variation over a 100 m length recorded. Downhole surveys on the Fenix drilling included 18 holes by gyro and 26 holes by Reflex EZ-Trac, Geophysical logging of all holes was conducted for varying depths to blockage or end of hole. Down-hole surveys were not conducted on historic drilling. The Competent Person is satisfied that the location of data points is sufficiently accurate for the purpose of Mineral Resource estimation.																		
	Specification of the grid system used.	Drill hole data were transformed from the original grid system, GDA94 MGA Zone 50, to a local grid by a two-point transformation shift using the following parameters: MGA Zone 50 <table><tr><th>Point</th><th>Direction</th><th>MGA Zone 50 (m)</th><th>Local Coordinate (m)</th></tr><tr><td rowspan="2">1</td><td>X</td><td>566911</td><td>0</td></tr><tr><td>Y</td><td>7018548</td><td>0</td></tr><tr><td rowspan="2">2</td><td>X</td><td>569076.064</td><td>2500</td></tr><tr><td>Y</td><td>7019798</td><td>0</td></tr></table>	Point	Direction	MGA Zone 50 (m)	Local Coordinate (m)	1	X	566911	0	Y	7018548	0	2	X	569076.064	2500	Y	7019798	0
	Point	Direction	MGA Zone 50 (m)	Local Coordinate (m)																
1	X	566911	0																	
	Y	7018548	0																	
2	X	569076.064	2500																	
	Y	7019798	0																	
Quality and adequacy of topographic control.	In 2007, MHR Surveyors defined an RTK GPS base station for Atlas on an existing MHR control point PCP02 at coordinates: X = 567525.519 mE; Y = 7018600.545 mE; Z = 492.662 mRL. The absolute accuracy of PCP02 was checked by logging ~4 hours of static data and submitted to the Geoscience AUSPOS. The result indicating that the current values for PCP02 have an absolute accuracy of sub 0.1 m. Using this topographic control, Atlas a produced a georeferenced aerial survey, extracting 0.5 m contours. Significant earthworks were required for the Fenix drilling; therefore, many recent collars are below the surface (up to ~3 m). Check traverses confirmed the accuracy of the topographic surface in relation to the Atlas and newer Fenix differential GPS collars. The contours and the collar coordinates were meshed by Datamine to form a coherent surface and imported into Surpac for coding the Mineral Resource block model. The topographic surface shows strong visual correlation to the differential GPS collar surveys at the resolution required for this MRE.																			

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	The drill spacing is on a reasonably regular grid of approximately 40 m x 40 m along strike and down dip, with a few drill sections spaced out to 100 m x 100 m at the southwest and northeast extents of the deposit.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	The Competent Person believes the mineralised lenses have sufficient geological and grade continuity to support the classification applied to the Mineral Resources given the current drill pattern.
	<i>Whether sample compositing has been applied.</i>	Sample lengths of the Com Min drilling was carried out on 3 to 5 m lengths, so it is assumed these were composites. However, these represent a small portion of the total dataset, and only 75 of these samples of 918 were within mineralisation wireframes. No compositing was completed on the Atlas or Fenix drilling (typically 2m sample intervals).
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	The drill holes were angled appropriately to intersect the hematite mineralisation perpendicular to strike and at a high angle No major structures were reported in the drilling or noted during the field reconnaissance which could negatively impact the Exploration Results by introducing sampling bias.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	An effort has been made to drill holes as close as possible to orthogonal to the lodes. The Competent Person considers that the orientation of the sampling is unlikely to have caused biased sampling.

Criteria	JORC Code explanation	Commentary
Sample security	<i>The measures taken to ensure sample security.</i>	RC samples were bagged, and cable tied upon collection. Diamond core samples were strapped using metal straps with a secure lid on the top tray to prevent damage to the core and improve security. Sample security was maintained through short (<1 day) collection and delivery and the use of secured transport yards. The remote site within a low risk jurisdiction mitigated the risk of sample security being compromised
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	No external audit of sampling techniques and data has been undertaken.

JORC 2012 Table 1 Section 2 – Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	The Project is located in the Mid-West region of Western Australia and comprises one granted Mining Lease (M20/118) situated approximately 380 km north east of Geraldton and some 50km north north-west of the township of Cue, Western Australia. The Mining Lease is held 100% by Prometheus Mining Pty Ltd, a wholly owned subsidiary of Fenix Resources Ltd. Heritage surveys completed in 2018 identified a site immediately to the west of the current resource. Development of the mineral resource may encroach on this site potentially reducing the size of the project.
	<i>The security of the tenure held at the time of reporting along with any known impediments to</i>	The tenement is securely held by Fenix and there are no impediments preventing the operation of the Mining Lease.

Criteria	JORC Code explanation	Commentary
	<i>obtaining a licence to operate in the area.</i>	
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	The quality of the exploration by previous parties varies however, is of sufficient quality and quantity to support the Exploration Target and an Inferred Mineral Resource as previously reported. The previous results are also consistent with the 2018 results. The Competent Person considers the previous work to be useful for the ongoing assessment of the Mineral Resource. The relevant historical work covering M20/118 is summarised: 1959 – 1962: Geological Society of Western Australia Government of Western Australia made a proposal to diamond drill six then known lenses of hematite in the Iron Ridge Mapping on 1" to 50 chains scale by Jones and Gemuts. Lenses W1 to W6 were mapped on contour plans at 100 feet to 1". Lenses W3 and W4 lie within the current Mining Lease. Five diamond drill holes for 883m were completed by the Western Australian Government in the Wilgie Mia lease, what is now M20/118. Drill holes were inclined -40 / -50 degrees. 1973: Universal Milling Company Pty Ltd Five holes were drilled and intersected mineralisation grades similar to those in the Inferred Mineral Resource, close to surface. 1992 – 2000, Commercial Minerals Limited (CML) 1992 – 1993: Completed reconnaissance mapping and historic data compilation. Reconnaissance mapping at 1:8000 scale using 1980 aerial photography. Mapping of the iron oxide quarry at 1:250 using a tape measure. 1995 – 1996: Mining of 8,000 t from a 4.5m cut in the existing quarry. 6000 t crushed on site over a 3-day period. 1000 t transported to Perth for storage. Mining described the increase of specular hematite with depth. Described as metallic grey with a characteristic red streak. Sample analysis by CML's Technical Service division in Footscray Victoria 1996 – 1997: Six RC drill holes (WRR01-06) totalling 329m drilled with an Edson 600 drill rig in and adjacent to the iron oxide quarry. Purpose was to test the strike extent of the ore zone. Results confirmed an ore zone with dimensions of 50m laterally / strike, 25m width and at least 50m depth. Further to the east and west the ore pinches out with a maximum strike length of 100m. 78 composited samples sent to Analabs in Perth for XRF analysis. MinCorp Consultants Pty Ltd, 2007 Engaged by Atlas Iron to research and compile the historic exploration data on Wilgie Mia and design a drill program. Atlas Iron Limited, 2007 to 2011 2007: 14 rock chip samples (ARK00547 to ARK00560. Grading from 55% to 67% Fe, variable silica, alumina and phosphorous. Risks were identified: Poor grade continuity, internal waste with dolerite / shales, mineralisation pinching out at depth, moderate to high P levels

Criteria	JORC Code explanation	Commentary																														
		2008: 1:1,000 scale mapping of the Iron Ridge Project in conjunction with rock chip traverse sampling. A total of <u>14 RC drill holes for 1,131m</u> were completed focused on testing the grade and mineralisation continuity along 300m of the identified 500m of prospective strike. It was this drilling campaign and only these drill holes <u>support the 2009 Mineral Resource</u>. Drill spacing was on a variable 50 – 100 m x 10 – 25 m grid. 2009: Atlas estimated an Inferred Mineral Resource in December 2009, its classification due to limited drilling with no diamond core to gauge properties. In CSA Global’s opinion this is an important fact. Without diamond core or extremely high quality and detailed RC logging, there is no confidence in concluding that Iron Ridge can produce a premium lump product, particularly if the mineralisation comprises significant amounts of specularite. The M20/118 Inferred Mineral Resource estimation is tabulated below <table><tr><th>Tonnes (Mt)</th><th>Fe %</th><th>SiO₂%</th><th>Al₂O₃%</th><th>P %</th><th>S %</th><th>LOI%</th></tr><tr><td>5.0</td><td>64.1</td><td>3.3</td><td>2.7</td><td>0.05</td><td>0.06</td><td>1.58</td></tr></table> 2011: Review of the Atlas Mid-West Tenements The enriched zone at Wilgie Mia is described as 550m x 40m wide and at Little Wilgie Mia 370m x 45m width. It dips 80 degrees to the south and has been interpreted in excess of 80m depth The area between the Wilgie Mia and Little Wilgie Mia mineralised lenses is approximately 260m length. Atlas reported it as concealed by a thin alluvial cover with mineralisation potentially continuing beneath. Emergent Resources Limited (renamed to Fenix Resources Limited) 2018: Independent technical assessment of the Iron Ridge Project by CSA Global Pty Ltd. Atlas 2009 Mineral Resource estimate reported in accordance with the JORC Code, 2012 Ed., by CSA Global Pty Ltd. Exploration Target reporting in accordance to JORC 2012 by CSA Global Pty Ltd. The results are tabulated below: An infill and step out drilling programme comprised of 20 RC holes for 3,370 m, eight DD holes for 1,123.7 m and one RC hole with a diamond tail for 255.7 m. <table><tr><th>BIF unit</th><th>Mineralisation</th><th>Tonnage (Mt)</th><th>Grade (% Fe)</th></tr><tr><td>Main BIF</td><td>Hematite</td><td>0.6–7.1</td><td>64.1–65.3</td></tr><tr><td>Little BIF 1/2</td><td>Goethite</td><td>0.1–5.5</td><td>58.0–59.5</td></tr><tr><td>Total</td><td></td><td>0.7–12.7*</td><td>58.0–65.3</td></tr></table> <i>*Totals may not sum correctly due to rounding.</i> Fenix 2019	Tonnes (Mt)	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %	S %	LOI%	5.0	64.1	3.3	2.7	0.05	0.06	1.58	BIF unit	Mineralisation	Tonnage (Mt)	Grade (% Fe)	Main BIF	Hematite	0.6–7.1	64.1–65.3	Little BIF 1/2	Goethite	0.1–5.5	58.0–59.5	Total		0.7–12.7*	58.0–65.3
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Criteria	JORC Code explanation	Commentary																																
		Following the drilling completed in late 2018 a Mineral Resource estimate reported in accordance with the JORC Code by CSA Global, which are tabulated below above a cut-off of 58% Fe. <table><tr><th>Class</th><th>Tonnes Mt</th><th>Fe %</th><th>Al2O3 %</th><th>LOI %</th><th>P %</th><th>SiO2 %</th><th>TiO2 %</th></tr><tr><td>Indicated</td><td>6.6</td><td>64.5</td><td>2.5</td><td>1.7</td><td>0.042</td><td>3.1</td><td>0.1</td></tr><tr><td>Inferred</td><td>2.6</td><td>63.2</td><td>3</td><td>2.1</td><td>0.1</td><td>3.9</td><td>0.1</td></tr><tr><td>TOTAL</td><td>9.2</td><td>64.1</td><td>2.7</td><td>1.8</td><td>0.045</td><td>3.4</td><td>0.1</td></tr></table>	Class	Tonnes Mt	Fe %	Al2O3 %	LOI %	P %	SiO2 %	TiO2 %	Indicated	6.6	64.5	2.5	1.7	0.042	3.1	0.1	Inferred	2.6	63.2	3	2.1	0.1	3.9	0.1	TOTAL	9.2	64.1	2.7	1.8	0.045	3.4	0.1
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TOTAL	9.2	64.1	2.7	1.8	0.045	3.4	0.1																											
Geology	Deposit type, geological setting and style of mineralisation.	The Iron Ridge is a northwest trending Archaean aged granite greenstone terrain of the Yilgarn Craton. It is a marked physiographic feature, 3-5km wide, 40km long, within which there is good exposure of metabasalts showing mainly doleritic and minor basaltic and gabbroic textures. Such exposures occur between ridges defined by weathered, steeply dipping beds of banded iron-formation which form less than 10% of the thickness of the sequence. The Iron Ridge Project contains one main BIF horizon which exhibits significant iron enrichment in two locations (Wilgie Mia and Little Wilgie Mia). The mineralisation comprises a mixture of banded hematite (specular and earthy, goethite and shaly limonite iron ore. It has been documented that the primary ore mineral is martite. The ore lenses have formed by remobilization of iron and replacement of jaspilites (BIF) during deep-seated thermal metamorphism. Subsequent supergene oxidation, leaching and hydration of the iron ore has resulted in the formation of goethite and the concentration of secondary hematite (occasionally in the form of red ochre). Three parallel to sub-parallel ranges of BIF occur on the tenement. The Main BIF (mapped as hematite) is approximately 50m wide, with much thinner (several metres) BIF ridges to the south (designated Little BIF 1 and 2 respectively). Little BIF 1 and 2 are defined by discontinuous goethitic outcrops at a lower elevation than the Main BIF.																																
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: Easting and northing of the drill hole collar	Set out below is a summary of material drilling information undertaken by the Company on the Project: Iron Ridge Project Drill Hole Locations (Coordinates MGA 1994 50S): <table><tr><th>Drill Hole ID</th><th>Hole Type</th><th>Easting</th><th>Northing</th><th>Elevation</th><th>Dip</th><th>Azimuth</th><th>Depth (m)</th></tr><tr><td>IR1901</td><td>Diamond</td><td>567,632</td><td>7,019,363</td><td>526</td><td>-50</td><td>323</td><td>201.8</td></tr><tr><td>IR1902</td><td>Diamond</td><td>567,584</td><td>7,019,282</td><td>512</td><td>-55</td><td>318</td><td>177.8</td></tr><tr><td>IR1903</td><td>Diamond</td><td>567,611</td><td>7,019,376</td><td>526</td><td>-50</td><td>329</td><td>81.7</td></tr></table>	Drill Hole ID	Hole Type	Easting	Northing	Elevation	Dip	Azimuth	Depth (m)	IR1901	Diamond	567,632	7,019,363	526	-50	323	201.8	IR1902	Diamond	567,584	7,019,282	512	-55	318	177.8	IR1903	Diamond	567,611	7,019,376	526	-50	329	81.7
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Criteria	JORC Code explanation	Commentary																																
	<i>Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>Dip and azimuth of the hole</i> <i>Downhole length and interception depth</i> <i>Hole length.</i>		IR1904	Diamond	567,581	7,019,312	515	-50	315	120.6																								
			IR1905	Diamond	567,590	7,019,361	521	-45	266	120.7																								
			IR1906	Diamond	567,591	7,019,364	522	-50	298	105.7																								
			IR1907	Diamond	567,594	7,019,324	518	-50	332	216.2																								
			IR1908	Diamond	567,603	7,019,247	510	-60	324	159.8																								
			IR1909	Diamond	567,851	7,019,392	522	-60	280	216.0																								
			IR1910	Diamond	567,684	7,019,313	517	-70	140	133.5																								
			IRMB-E	Reverse Circulation	567,772	7,019,516	543	-90	180	120.0																								
			IRMB-C	Reverse Circulation	567,803	7,019,438	533	-90	180	120.0																								
			IRMB-D	Reverse Circulation	567,594	7,019,370	523	-90	180	84.0																								
			IRMB-A	Reverse Circulation	568,015	7,019,584	547	-90	180	12.0																								
			IRMB-D2	Reverse Circulation	567,586	7,019,377	522	-90	180	174.0																								
			Details of significant Fe results received (refer ASX announcement 30 July 2019):																															
<table><tr><th>Drill Hole ID</th><th>Tenement</th><th>Hole Type</th><th>Results Status</th><th>Unit</th></tr><tr><td>IR1901</td><td>M20/118</td><td>Diamond</td><td>51m @ 62.7% Fe from 46m</td><td>Main BIF</td></tr><tr><td>IR1902</td><td>M20/118</td><td>Diamond</td><td>28m @ 58.5% Fe from 6m</td><td>Little BIF</td></tr><tr><td>IR1902</td><td>M20/118</td><td>Diamond</td><td>54.5m @ 66.2% Fe from 106m</td><td>Main BIF</td></tr><tr><td>IR1903</td><td>M20/118</td><td>Diamond</td><td>54.4m @ 61.4% Fe from 13m</td><td>Main BIF</td></tr></table>										Drill Hole ID	Tenement	Hole Type	Results Status	Unit	IR1901	M20/118	Diamond	51m @ 62.7% Fe from 46m	Main BIF	IR1902	M20/118	Diamond	28m @ 58.5% Fe from 6m	Little BIF	IR1902	M20/118	Diamond	54.5m @ 66.2% Fe from 106m	Main BIF	IR1903	M20/118	Diamond	54.4m @ 61.4% Fe from 13m	Main BIF
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IR1903	M20/118	Diamond	54.4m @ 61.4% Fe from 13m	Main BIF																														

Criteria	JORC Code explanation	Commentary									
			IR1904	M20/118	Diamond	51.7m @ 64.8% Fe from 52.6m	Main BIF				
			IR1905	M20/118	Diamond	63.45m @ 63.2% Fe from 29.3m	Main BIF				
			IR1906	M20/118	Diamond	61.6m @ 64.9% Fe from 20m	Main BIF				
			IR1907	M20/118	Diamond	40.4m @ 65.5% Fe from 67m	Main BIF				
			IRMB-E	M20/118	Water Bore	90m @ 62.7% Fe from 20m	Main BIF				
			IRMB-C	M20/118	Water Bore	104m @ 61.9% Fe from 6m	Little BIF				
			IRMB-D2	M20/118	Water Bore	166.5m @ 65.4% Fe from 4m	Main BIF				
			Details of significant intersections (refer ASX announcement 30 July 2019):								
			Hole ID	From	To	Width	Fe (%)	Al ₂ O ₃ (%)	P (%)	SiO ₂ (%)	LOI (%)
			IR1901	46	97	51	62.68	3.50	0.085	4.01	2.48
			IR1902	6	34	28	58.52	3.84	0.081	5.62	6.04
			IR1902	106	160.5	54.5	66.14	1.78	0.032	2.25	1.09
			IR1903	13	67.4	54.4	61.38	4.09	0.111	4.55	3.10
			IR1904	52.6	104.3	51.7	64.81	2.45	0.042	2.95	1.49
			IR1905	29.3	92.75	63.45	63.15	3.40	0.076	3.80	2.20
			IR1906	20	81.6	61.6	64.91	2.33	0.047	2.74	1.59
			IR1907	67	107.4	40.4	65.50	2.05	0.041	2.58	1.46
			IRMB-E	20	110	90	62.66	3.52	0.066	4.19	2.16
			IRMB-C	6	110	104	61.85	2.86	0.081	4.21	4.25

Criteria	JORC Code explanation	Commentary																	
		<table><tr><td>IRMB-D2</td><td>4</td><td>170.5</td><td>166.5</td><td>65.44</td><td>2.37</td><td>0.042</td><td>3.04</td><td>1.40</td></tr></table>									IRMB-D2	4	170.5	166.5	65.44	2.37	0.042	3.04	1.40
	IRMB-D2	4	170.5	166.5	65.44	2.37	0.042	3.04	1.40										
<i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	No drill hole information has been excluded.																		
Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	Reported grades for the iron mineralisation are based on the weighted average of raw grades from the assays received. The intercepts have been calculated from a 55% iron lower cut and includes up to 4m of internal dilution. This is appropriate for a Reporting of Exploration Results and a reasonable representation of the Project grade.																	
	<i>Where aggregate intercepts incorporate short lengths of high grade results and longer</i>	Reported grades for the Main BIF are based on the weighted average of raw grades from the assays received. High grade hematite intercepts have been calculated from a 60% iron lower cut and includes up to 2m of internal dilution (samples typically 50-60% Fe). Reported grades for the Little BIF unit and goethite rich portions of the Main BIF based on the weighted average of raw grades from the analysis results which applied a 55% Fe cut. This is appropriate for a Reporting of Exploration Results and a reasonable representation of the Project grade.																	

Criteria	JORC Code explanation	Commentary
	<i>lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i>	
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	Not applicable, no metal equivalents reported.
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	The BIF ridges dip steeply to the northwest and southeast. All drill holes were angled approximately 45-70 degrees with an azimuth (~330 degrees) perpendicular to the BIF strike to provide as near a 'true' intercept thickness as realistically possibly.
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Three parallel to sub-parallel ranges of BIF occur on the tenement. The Main BIF (mapped as hematite) is up to 50m wide, with much thinner (several metres) BIF ridges to the south (designated Little BIF 1 and 2 respectively). Little BIF 1 and 2 are defined by discontinuous goethitic outcrops at a lower elevation than the Main BIF.
	<i>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').</i>	Not applicable as not only downhole lengths reported.
Diagrams	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery</i>	Relevant maps and diagrams are included in the body of the report. The Iron Ridge drill hole location plan and Long Section diagrams are set out below.

Criteria	JORC Code explanation	Commentary
	being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Iron Ridge Project M20/118 0 0.1 0.2 Kilometres FENIX 2019 Drilling ◆ Geotech ◆ Resource ● Water Monitoring Existing Collars ◆ Diamond ✕ RC ▲ RCD ■ MRE Outline (Feb 2019) ■ Lease M20/118

Criteria	JORC Code explanation	Commentary
Balanced reporting	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be</i>	Results have been tabulated above. Where a drill hole did not intersect any significant mineralisation above the reported cut-off, it has been stated.

Criteria	JORC Code explanation	Commentary
	<i>practiced to avoid misleading reporting of Exploration Results.</i>	
Other substantive exploration data	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	Surface geological observations have been incorporated into the geological interpretation and context of the results received and exhibit a correlation considered reasonable for this style of mineralization. Downhole geophysical surveys were completed on 36 holes for long and short sign gamma density, resistivity and calliper in January to February 2019 and July 2019 by independent contractor MPC Kinetic in open holes drilled by Fenix Resources Ltd in 2018 and 2019. The geophysical probe penetrated > 85% of the final hole depth for >50% of the 36 holes. Four holes penetrated between 40–60% of the final depth, one hole penetrated 33% and one 18% of the final depth.
Further work	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	Further work planned for the project is focused on the development of the Mineral Resource to achieve greater proportions of Indicated material, as well as hydrology, metallurgy, and geotechnical studies. Further drilling may be required to the west to test the near surface and down plunge extent.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this</i>	No additional drilling currently planned to test for mineralisation extensions. A long section diagram is set out above.

Criteria	JORC Code explanation	Commentary
	<i>information is not commercially sensitive.</i>	

JORC 2012 Table 1 Section 3 – Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i>	Down-hole geophysical logging was undertaken on site on 29 open holes in less than two months of the drilling date. Core logging is completed in the Perth core yard using project-specific logging codes. Data is then loaded directly into the site database. Assay results are currently received from the laboratory in digital format. Once data is finalised it is transferred to a Microsoft Access database.
	<i>Data validation procedures used.</i>	The Competent Person checked the drill hole files for the following errors prior to Mineral Resource estimation: • Absent collar data • Multiple collar entries • Questionable downhole survey results • Absent survey data • Overlapping intervals • Negative sample lengths. Sample intervals which extended beyond the hole depth defined in the collar table.
Site visits	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	James Potter, Competent Person for sections 1 and 2 of the JORC Table 1, completed several site visits from October 2018 through July 2019 and undertook geological logging and instructed sampling. During the site and laboratory visits, the following was completed: • Geological management of all Fenix drilling • Inspection of the location of historical collars and their relationship to the intersection of mineralisation by the Fenix drilling • Inspection of sample processing facilities Geological procedures were followed on site data and collection systems were found to be consistent with industry good practice. Furthermore, geological controls to the mineralisation were sufficiently understood to enable a Mineral Resource to be reported in accordance with the JORC Code. Laboratory systems were being maintained at a high level and processes were being followed.

Criteria	JORC Code explanation	Commentary
		Alex Whishaw, Competent Person for section 3 of JORC Table 1, MRE, has undertaken several site visits to the project in the last decade, prior to the project's incumbency by Fenix. During these site visits, the high-grade nature of the mineralisation and the geological controls were reviewed as having the potential to host a Mineral Resource as defined by the JORC Code
	<i>If no site visits have been undertaken, indicate why this is the case.</i>	N/A
Geological interpretation	<i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i>	The lithological interpretation is robust, supported by clear visual boundaries in mapped outcrop and drill samples, with high-contrast in colour, texture, sample weight and drill penetration (drill plod comments/logs) on rock-type changes from waste to mineralisation. The geological model is simple in the ore-waste definition. Statistical analysis determined that the logged mineralisation strongly correlates to a population above 47–50% Fe, which was used to assist the interpretation of the mineralisation. Alumina and titania grades and gamma logs also were used to confirm the boundaries of the mineralisation and the domains. The interpretation of the oxidation is less robust, supported by fewer records in the top 20 m of the deposit and at depth. Therefore, an iron-hard cap has not been interpreted. However, goethitic, limonitic and ochreous mineralisation has been noted in logging, but the lack of continuity meant that no substantial weathering and oxidation overprint could be modelled.
	<i>Nature of the data used and of any assumptions made.</i>	No material assumptions have been made which effects the MRE reported herein.
	<i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i>	Alternative interpretations are not likely to materially impact on the global MRE. It is likely that a greater understanding of the southwest-plunging extents of the mineralisation, currently open and limited by drilling information, will be developed over time. Additional drill hole information will further improve the understanding of the high alumina domain within the Main BIF. This may lead to separate domaining and alternative interpretation of this material in the future. Although very small and discontinuous, the most southern BIF unit, BIF 3, has potentially to be interpreted as a separate unit from the waste. However, it is unlikely to be of a suitable size and tenor of mineralisation to alter the MRE.
	<i>The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.</i>	The main controls to the mineralisation are the lithological units of BIF, modelled explicitly as separate domains. The mineralisation has been estimated entirely within the BIF units. BIF 1 was further sub-domained by a high-grade alumina zone, which accounted for the upper 50 – 100 m, extending down-dip and along strike for the length of BIF 1. This formed a co-planar division of the unit into a hanging-wall high alumina sub-domain on the southern side, and a footwall, low-alumina sub-domain, which were treated as hard-boundaries for estimation. The grade and density estimates were constrained by BIF 1 high-alumina, BIF 1 low-alumina and BIF 2 domains, so that only the relevant composites were used to estimate the corresponding blocks for each domain.

Criteria	JORC Code explanation	Commentary
		For density, the water table affected the moisture content. Therefore, the composites and blocks were further constrained to within the relevant domains and above or below the water table.
Dimensions	<i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i>	The Iron Ridge deposit constitutes two major, parallel BIF units, separated by a range of 14–36 m, which outcrop for ~75% of the drilled strike length of 600 m. The interpreted area lies in a minimum bounding rectangle of 7,019,245 mN, 567,498 mE to 7,019,663 mN, 7,019,605 mE in MGA Zone 50 coordinates. The sharp contacts to the dolerite are visible in the outcrop and in drilling, forming lateral widths of 31 m for BIF 1 and 6 m for BIF 2, which are consistent for the interpreted depth. The depth of the north-eastern extent of BIF 1 reaches an RL of 247 m for 280 m vertical depth, while the south-western extent reaches an RL of 247 m for 280 m vertical depth. The depth of the north-eastern extent of BIF 2 reaches an RL of 341 m for 176 m vertical depth, while the south-western extent reaches an RL of 510 m for 44 m vertical depth.
Estimation and modelling techniques	<i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen, include a description of computer software and parameters used</i>	Quantitative kriging neighbourhood analysis (QKNA) was undertaken to assess the effect of changing key kriging neighbourhood parameters on block grade estimates on Fe% in BIF 1 and BIF 2. Kriging efficiency (KE) and slope of regression (SOR) were determined for a range of block sizes, minimum/maximum samples, search dimensions and discretisation grids. A three-pass search ellipse strategy was adopted whereby search ellipses were progressively increased if search criteria could not select sufficient data for the block estimate. The primary, secondary and tertiary search ellipse dimensions represented 67%, 100% and 200% of the variogram range respectively. For a very minor number of blocks, the Sichel mean was assigned for grades that were un-estimated. Ordinary kriging was adopted to interpolate grades into cells. Statistical analysis was completed using Supervisor and Isatis software. All geological modelling and grade estimation were completed using Surpac software.
	<i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i>	In 2009, Atlas reported an Inferred Mineral Resource from BIF 1 only of 5 Mt @ 64.1% Fe%, 2.73% Al₂O₃%, 1.58% LOI, 3.29% SiO₂, 0.05% P. The MRE was interpreted on substantially less drill hole data with no QC sample analysis or density data available. In 2018, CSA Global converted the Atlas MRE to be reported in accordance with the JORC Code (2012 Edition). However, the geological model compares well where the interpretation of the previous was established. Given that significant drilling was completed in 2018, the 2019 MRE is considered to provide a more realistic inventory of the mineralisation.
	<i>The assumptions made regarding recovery of by-products.</i>	No assumptions have been made regarding recovery of by-products.
	<i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i>	Al ₂ O ₃ , LOI, SiO ₂ , P and TiO ₂ were estimated. All other elements and variables were not estimated, as preliminary statistics showed that their means and maxima were considered below a significant threshold for this type of mineralisation.

Criteria	JORC Code explanation	Commentary
	<i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i>	A 20 m(E) x 10 m(N) x 20 m(RL) parent cell size was used with sub-celling to 5 m(E) x 1.25 m(N) x 2.5 m(RL) to honour wireframe boundaries. The drill hole data spacing is highly variable but approximates 25–50 m along strike (north-south) x 25–50 m down dip. The block size represents approximately half of the drill spacing in the more densely drilled areas of the deposit.
	<i>Any assumptions behind modelling of selective mining units.</i>	No assumptions were made regarding selective mining units.
	<i>Any assumptions about correlation between variables</i>	The dataset is compositional; therefore, the proportion of iron in a sample is complementary or inversely correlated to the total of all other major grades, being SiO ₂ %, LOI% and Al ₂ O ₃ %. However, the estimate was optimised for iron, so that all variables used the same variogram model in each domain, which was checked against each variable to ensure there were no significant deviations no methods to estimate by considering the complex compositional nature, or decorrelate the data, were undertaken.
	<i>Description of how the geological interpretation was used to control the resource estimates.</i>	The main controls to the mineralisation are the lithological BIF units of BIF 1 and BIF 2 domains. BIF 1 was further sub-domained by a high-grade alumina zone, which accounted for the upper 50–100 m, extending down dip and along strike for the length of BIF 1. This formed a co-planar division of the unit into a hangingwall high-alumina sub-domain on the southern side, and a footwall, low-alumina sub-domain, which were treated as hard-boundaries for estimation. The grade and density estimates were constrained by BIF 1 high-alumina, BIF 1 low-alumina and BIF 2 domains, so that only the relevant composites were used to estimate the corresponding blocks for each domain. For density, the water table affected the moisture content. Therefore, the composites and blocks were further constrained to within the relevant domains and above or below the water table.
	<i>Discussion of basis for using or not using grade cutting or capping.</i>	The requirement for bottom-cuts for iron and top-cuts for other variables was reviewed given the potential for extreme grades to bias block grade estimation. For each variable in each statistical domain, histograms and log-probability plots were reviewed to determine the point at which the number of samples supporting a high-grade distribution diminishes. Mean-variance plots were then reviewed to determine if potential outliers were significant contributors to the mean and variance, while themselves representing insignificant proportions of the total datasets. A review of outliers at the lower end of the iron distribution found that all sub-50% Fe composites related to samples at the boundary of the mineralisation, where 2 m composite lengths had incorporated mineralisation and some waste. Therefore, bottom-cuts were applied to iron around the 1st percentile. Top-cuts of the major components of the total assay were limited to < 1% of the population prevent unbalanced block total estimates.

Criteria	JORC Code explanation	Commentary
	<i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i>	Drill hole grades were initially visually compared with cell model grades. Domain drill hole and block model statistics were then compared. Swath plots were also created to compare drill hole grades with block model grades for easting, northing and elevation slices throughout the deposit. Estimated block grade totals were checked to ensure low variation from 100%. The block model reflected the tenor of the grades in the drill hole samples both globally and locally.
Moisture	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	Tonnages are estimated on a dry basis.
Cut-off parameters	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	The Mineral Resources have been reported above a cut-off grade of 58% Fe.
Mining factors or assumptions	<i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	In selecting the reporting cut-off grade, the mining method has been considered.
Metallurgical factors or assumptions	<i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider</i>	The very high iron grades are assumed to provide the possibility to produce a lump or fines product, thereby providing reasonable prospects for eventual economic extraction. In February 2019, Fenix submitted the following samples for comminution testwork on mineralisation: • 3 x 200–200 mm full core samples for uniaxial compression strength (UCS) testwork • 20 x -76 +51 mm pieces for bond work

Criteria	JORC Code explanation	Commentary
	<i>potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i>	Three bulk composites for drop tower test, dry scrub and dry screen from diamond holes IR002. The metallurgical results indicate that the mineralisation of the Iron Ridge deposit can produce lump and fines products with high iron and low impurity grades.
Environmental factors or assumptions	<i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered, this should be reported with an explanation of the environmental assumptions made.</i>	It is assumed that there will be no significant environmental impediments to developing the project. This is an early stage project and potential environmental impacts require review.
Bulk density	<i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i>	For mineralisation, long sign, downhole geophysical gamma density was used to estimate density by ordinary kriging using the relevant iron variogram and estimation parameters for each statistical domain. Only samples points that had a calliper measurement of not more than 20% of the nominal hole diameter for each hole type. The gamma density was correlated point-by-point to each overlapping water immersion determination of specific gravity on HQ core, which found a strong correlation. Sample points were composited to 2 m length prior to estimation. The moisture content of BIF 2 was measured as a length-weighted average of 11.15%. The data derived from one hole at the base of the interpreted domain, which was below the water table. Based on visual assessments, the moisture content of BIF 1

Criteria	JORC Code explanation	Commentary
		below the water table was estimated as 5%. Composites below the water table were corrected for the moisture content in the relevant domain. The mineralisation was considered entirely oxidised, therefore, the density was not split by an oxidation profile. A small volume of blocks on the fringes of each domain that did not receive an estimate were assigned the arithmetic mean of the composites. For waste where data were limited, a length-weighted average was calculated of 2.15 g/cm³ and 2.0425 g/cm³ above and below the water table respectively for oxide material, and 2.82 g/cm³ above and 2.679 g/cm³ below the water table respectively for fresh material.
	<i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</i>	The gamma determines a quantitative, in situ measurement of density that accounts for void spaces. The measurements have been calibrated to regular calibration holes in iron ore deposits in the Pilbara. The water immersion method measurements were determined by measuring the weight of part or the entire sample in air and water and then applying the formula bulk density = weight_{air}/(weight_{air}-weight_{water}). Samples of drill core that contain “holes” or “vugs”, are very porous, crumbly and incompetent or clay rich are sealed with a masonry sealant/wax and allowed to dry prior to bulk density determination.
	<i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i>	After considering the results of the above analysis, it was clear that the gamma density data were sufficient in number for all material types, quantitative and unbiased when large calliper deviations from the nominal hole diameter were removed. Calibration was undertaken calibration holes, to other holes and to density measured by water immersion. The approach adopted is considered robust.
Classification	<i>The basis for the classification of the Mineral Resources into varying confidence categories.</i>	The Mineral Resource has been classified following due consideration of all criteria contained in Section 1, Section 2 and Section 3 of JORC 2012 Table 1. After considering data quality and geological continuity, grade estimation quality was assessed. For BIF 1 and BIF 2 separately and then in combination, the block model was coloured for Fe% by the number of samples used to estimate the block, average distance to informing samples, estimation pass and SOR. Drill hole composites were then loaded to gain an understanding of how these measures related to drill hole spacing. Number of samples >8 and nearing the optimum of 18, average distance of <20 m, estimation pass 1 and SOR values of >0.5 were found to relate to a drill hole spacing of denser than approximately 40 m(E) x 40 m(RL). The Competent Person classified areas as Indicated where the drill hole spacing was denser than 40 m by 40 m. All other modelled areas were classified as Inferred. The drill hole spacing in these areas is 60 – 80 m. Only continuous areas were classified to avoid the “spotted dog effect”.
	<i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade</i>	Appropriate account has been taken of all relevant criteria including data integrity, data quantity, geological continuity, and grade continuity.

Criteria	JORC Code explanation	Commentary
	<i>estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i>	
	<i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i>	Appropriate account has been taken of all relevant criteria including data integrity, data quantity, geological continuity, and grade continuity.
Audits or reviews	<i>The results of any audits or reviews of Mineral Resource estimates.</i>	The current model has not been audited by an independent third party but has been subject to CSA Global's internal peer review processes.
Discussion of relative accuracy/ confidence	<i>Where appropriate, a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i>	The Mineral Resource accuracy is communicated through the classification assigned to this Mineral Resource. The MRE has been classified in accordance with the JORC Code (2012 Edition) using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this table.
	<i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i>	The Mineral Resource statement relates to a global tonnage and grade estimate. Grade estimates have been made for each block in the block model.
	<i>These statements of relative accuracy and confidence of the estimate should</i>	No production data is available.

Criteria	JORC Code explanation	Commentary
	<i>be compared with production data, where available.</i>	

JORC 2012 Table 1 Section 4 – Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource Estimate for conversion to Ore Reserves	<i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statements as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i>	The Measured and Indicated Resources from Section 3 for the Iron Ridge deposit was used as the basis for Ore Reserves. The Mineral Resources are reported inclusive of the Ore Reserves.
	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	A site visit to Iron Ridge was undertaken on 12-13 March 2019 by John Battista (Principal Mining Consultant with Mining Plus and Competent Person (CP) for Mining and Ore Reserves). All relevant areas of the Project site were visited. Site visits by representatives from others who were contributors to the studies, such as geotechnical, hydrogeological and site infrastructure consultants, were also undertaken at various times.
	<i>If no site visits have been undertaken indicate why this is the case.</i>	See above.
Study Status	<i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i>	The Ore Reserves estimate results from a Feasibility Study that was completed by Fenix Resources, with contributions from a team of experienced and reputable consultants, in October 2019.

Criteria	JORC Code explanation	Commentary
	<i>The code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resource to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material modifying factors have been considered.</i>	The study on the Iron Ridge project is considered to be at a minimum Pre-Feasibility Study standard in all aspects, and at a higher Feasibility Study standard in most aspects. A life-of-mine plan that is technically achievable and economically viable was identified. All material modifying factors are considered by the CP to have been accounted for in this Ore Reserves estimate.
Cut-off parameters	<i>The basis of the cut-off grade(s) or quality parameters applied.</i>	Ore Reserves are reported above a cut-off grade of 58% Fe. This is the cut-off grade that is considered by the CP to be appropriate for the iron ore product to be sold.
Mining factors or assumptions	<i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i>	The Resource model which formed the basis for estimation of the Ore Reserve was used in an open pit optimisation process using industry-standard Whittle software to produce a range of pit shells using operating costs and other inputs derived from all the mentioned studies. Mining and processing costs input to the pit optimisation were built up using commercial quotations received from experienced contractors. The resultant optimal pit shells were then used as a basis for detailed pit and stage designs. The Ore Reserves are the Indicated resources above the nominated Fe cut-off grade and within the final pit design.
	<i>The choice, nature and appropriateness of the selected mining method (s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i>	The mining method selected is open cut with conventional drilling and blasting and commonly used excavator and truck fleets. The open pit mine will be developed using a two-stage pit design, which was completed to a Feasibility study standard. Ramps are designed at 1 in 9 gradient, 24m wide except for lower pit levels where the ramps are designed at 12m wide. The CP considers the proposed mining method to be appropriate, given the nature of the deposit's mineralisation and the scale of the proposed operations.
	<i>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling. The major assumptions made, and the Mineral Resource model used for pit and stope optimisation (if appropriate).</i>	Preliminary (PFS-level) geotechnical studies were completed by Peter O'Bryan and Associates. The resultant recommended pit design parameters were used to determine the overall pit slope angle in the pit optimisations and the wall angles in the pit designs. Dewatering of the orebody ahead of mining will be required, and appropriate allowances for dewatering bores and associated infrastructure are included in the project capital and operating costs. Grade control will be based on additional RC drilling and pit mapping and grade control is allowed for in the pit optimisation input costs and financial modelling.

Criteria	JORC Code explanation	Commentary
	<i>The mining dilution factors used The mining recovery factors used Any mining widths used.</i>	The geological block model used as a basis for Ore Reserves is an Ordinary Kriged resource model (refer Sections 2 and 3 of this Table). The minimum block size used in the block model is 5 metres in the east-west (along strike) direction, by 2.5 metres north-south (across strike), by 5 metres in the Z (vertical) direction. This results in a minimum Selective Mining Unit (SMU) size of 62.5m³, or approximately 200 tonnes at the average ore dry density (3.2t/m³). The orebody is structurally well-defined and the physical properties of the ore (colour, density, hardness, etc) are very different from those of the dolerite host rock, so that visual identification of the ore-waste boundary is expected to be relatively easy. Appropriate grade control and ore markout and excavation control procedures will be used and have been allowed for in the project mining costs. Given the above, and having regard to the type and size of mining equipment envisaged, the CP considers that the minimum block size of 5m x 2.5m x 5m inherently incorporates sufficient allowance for mining dilution and recovery factors. A minimum mining width of approximately 40metres was used.
	<i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i>	Inferred Resources comprise less than 3% of the total Mineral Resources contained within the final pit design. Inferred Resources are excluded from Ore Reserves estimates. The project does not rely on Inferred resources to produce a positive economic outcome.
	<i>The infrastructure requirements of the selected mining methods.</i>	The proposed minesite infrastructure will include low-grade and waste rock dumps, ROM pads, surface haul roads to processing plant, pumping infrastructure, workshops and fuel storage/supply facilities, technical and administration facilities, power station, mine accommodation camp facility, explosives storage facilities and associated mine infrastructure.
Metallurgical factors or assumptions	<i>The metallurgical process proposed and the appropriateness of that process to the style of the mineralisation.</i>	After drilling and blasting, the ore will be processed through a simple crushing and screening circuit. Screening will be undertaken to separate the crushed ROM ore into industry-standard Lump and Fines size fractions. Lump and Fines products will be hauled using high-capacity road trains from the mine to the port of Geraldton, where the ore will be stockpiled in an existing iron ore handling facility, before being loaded via an existing ship loader into ocean-going vessels for delivery to the customers - mainly Asian steelmakers. Lump ore is suitable for direct feed into steelmakers' blast furnaces, whilst Fines typically requires sintering, at extra cost, before it can be fed into a blast furnace. Lump ore therefore typically attracts a premium in price compared to Fines. Based on comminution testwork (Drop Tests) completed to date, it is assumed that 25% of the total product will be sold as Lump product, with no difference in grades between the ROM ore and the Lump or Fines products. The 25% Lump product ratio with no grade difference between Lump and Fines is considered by the Competent Person to be an appropriate assumption.

Criteria	JORC Code explanation	Commentary
	<i>Whether the metallurgical process is well-tested technology or novel in nature.</i>	Ore processing consists of a simple crushing and screening facility, which is commonly used and is typical of Western Australian direct-shipped iron ore operations.
	<i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i>	In February 2019, Fenix submitted the following samples to Nagrom for comminution testwork on mineralisation: • 3 x 200–200 mm full core samples for uniaxial compression strength (UCS) testwork • 20 x -76 +51 mm pieces for bond work • Three bulk composites for drop tower test, dry scrub and dry screen from diamond holes IR002. Metallurgical recovery factors are not required for this simple direct-ship ore processing methodology and have therefore not been applied.
	<i>Any assumptions or allowances made for deleterious elements.</i>	The main deleterious element considered for Iron Ridge is Alumina (Al_2O_3). LOI, P, SiO_2 and TiO_2 grades are also estimated and reported in the Ore Reserves but these grades are all generally below levels that would incur penalties in a marketable iron ore product. Appropriate allowance is made for expected deleterious elements in the product. See below for further comment.
	<i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i>	No bulk sampling has occurred at the Iron Ridge deposit to date. Significant metallurgical testwork has been completed by Nagrom on composite ore samples that were prepared from diamond drill core at the project; these are considered representative of the orebody as a whole. Further testwork is planned prior to commencement of mining. Historically, the surface outcrop region of the Iron Ridge orebody has been mined, with relatively small quantities of micaceous iron oxide ore having been produced by for use in anti-corrosive paint manufacturing. No product tonnage or grade related data was available for this historically mined material.
	<i>For minerals that are defined by the specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i>	The Ore Reserve estimate is based entirely on BIF-hosted hematite mineralisation, with appropriate product specification assumptions having been applied.

Criteria	JORC Code explanation	Commentary
Environmental	<i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i>	Environmental approval and permitting for the project is well advanced, with permitting process expected to be completed prior to commencement of project construction. The Iron Ridge deposit is a high-grade hematite dominated iron ore deposit formed through the enrichment of a Banded Iron Formation (BIF), contained within predominantly weathered dolerite host rocks. The waste rock consists of predominantly weathered dolerite with some minor surficial colluvium and minor fresh / transitional dolerite. The dolerite is metamorphosed to lower greenschist and is typically high in magnesium (high magnesium basalt). Sulphides were not visually identified during the drilling and analysis of the fresh rock samples has not identified any areas with a high (>1%) sulphide content. Given the majority of the waste rock is highly oxidised and the unoxidized rock does not contain sulphide minerals it is very unlikely (low potential) there will be the Potential Acid Forming minerals within the waste rock.
Infrastructure	<i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.</i>	The proposed infrastructure to be built includes low-grade and waste rock dumps, ROM pads, surface haul roads to processing plant, pumping infrastructure, workshops and fuel storage/supply facilities, technical and administration facilities, power station, mine accommodation camp facility, explosives storage facilities and associated mine infrastructure. The ore haulage route to Geraldton, approximately 490km from the minesite, is mostly along an existing sealed highway that has been used extensively for iron ore transport in the past by a nearby (not currently operating) iron ore mine. A small portion of the haul route, immediately adjacent to the mine, will require significant upgrading prior to commencement of operations and appropriate allowance for this has been made in the project establishment costs. The ore haulage fleet will consist of high-capacity road trains, and the road train haulage contractor plans to establish an appropriate maintenance facility for trucks in Geraldton prior to commencement of operations. An existing iron ore storage, handling and ship loading facility is available at the port of Geraldton. The facility is currently not in use but is under appropriate “care and maintenance”. Negotiations with the Mid West Port Authority at Geraldton and previous operators of the facility are well advanced and it is expected that access to the facility will be available to Fenix prior to commencement of operations. All facility and port charges have been appropriately allowed for in the project financial model. The workforce will be made up of a combination of local residents and fly-in fly-out (FIFO) employees, contractors and management staff. An appropriate camp facility will be constructed on site to provide accommodation, meals and recreation facilities for FIFO workers. Flights to Cue are expected to be scheduled commercial charter flights.

Criteria	JORC Code explanation	Commentary
Costs	<i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i>	Capital cost estimates were derived from site establishment and mobilisation estimates received as part of a “Request For Proposal” process, quotations from Cue Shire on road upgrade requirements, tenders for the mining camp and other associated project infrastructure, estimates on pre-production owners’ costs from HFC Mining, and initial contribution requirements to the road transport JV derived from the road transport model. All capital costs are considered by the CP to have been estimated to a level of confidence consistent with a Feasibility Study.
	<i>The methodology used to estimate operating costs.</i>	Mining operating costs (drilling, blasting, loading, hauling and ore processing to mine product stockpile) were prepared based on quotations (tenders) received from suitably qualified and experienced mining contractors. Ore haulage costs to the port at Geraldton were based on firm pricing from a detailed haulage model prepared by the road transport JV operator, which is led by a respected logistics expert with experience in hauling bulk minerals using road trains. All mining and process operating costs are considered by the CP to have been estimated to a level of confidence consistent with a Feasibility Study.
	<i>Allowances made for the content of deleterious elements.</i>	The main deleterious element to be considered for Iron Ridge is Alumina (Al_2O_3). A product price penalty of 4% of the base product price for every percentage point that the Alumina grade exceeds 2.5% in any mine schedule period, was applied in the financial modelling. Mine schedule periods are one month in duration for the first year and three months thereafter.
	<i>The source of exchange rates used in the study.</i>	A USD:AUD exchange rate of 0.70 has been derived from corporate guidance and independent advice from reputable financial institutions.
	<i>Derivation of transport charges.</i>	Ore haulage costs to the port at Geraldton were based on firm pricing from a detailed haulage model prepared by the road transport JV operator, which is led by a respected logistics expert with experience in hauling bulk minerals using road trains. Ore storage, handling and shiploading facility lease and operating charges are based on price data obtained from the Mid West Port Authority.
	<i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i>	Price premia for lump product (over the standard Fines price) and for final product Fe grade above the standard 62% grade specification have been assumed. A penalty for product Al_2O_3 grade over 2.5% in any mine schedule period has also been applied.

Criteria	JORC Code explanation	Commentary																			
	<i>The allowances made for royalties payable, both Government and private.</i>	The following Royalties have been applied: 1. WA Govt standard royalty - 7.5% of gross revenue 2. Vendor and Heritage Royalties totaling \$1.75/tonne ore sent to port																			
Revenue Factors	<i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns etc.</i>	Production for revenue calculations was based on detailed mine schedules, mining factors and cost estimates.																			
	<i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i>	A flat Platts 62% Fe index price of US\$78/dmt CFR Qingdao has been used as a basis for economic modelling the Ore Reserves. This price is some 10% lower than the current (25 October 2019) prevailing spot price. Freight charges assuming an average sea freight cost of US\$13.5/wmt and a final shipped product moisture content of 5% have been assumed. Revenue used a flat 62% Fe index price of US\$78/dmt CFR, an assumed shipping cost from Geraldton to North China of US\$13.5/wmt, and an exchange rate of US\$0.70 per A\$. A 1% marketing fee was assumed, based on several preliminary proposals received by potential product offtake parties. The iron ore price assumption was based on the mean price forecast from five reputable global banks with in-house commodity forecasting teams for the December quarter of 2020, rounded down to the nearest US\$. <table><tr><td>Global Bank A</td><td>85.0</td></tr><tr><td>Global Bank B</td><td>82.0</td></tr><tr><td>Global Bank C</td><td>75.0</td></tr><tr><td>Global Bank D</td><td>75.0</td></tr><tr><td>Global Bank E</td><td>75.0</td></tr><tr><td>Consensus (Mean)</td><td>78.4</td></tr><tr><td>High</td><td>85.0</td></tr><tr><td>Low</td><td>75.0</td></tr><tr><td>Standard Deviation</td><td>4.8</td></tr><tr><td>Number of Forecasts</td><td>5.0</td></tr></table>	Global Bank A	85.0	Global Bank B	82.0	Global Bank C	75.0	Global Bank D	75.0	Global Bank E	75.0	Consensus (Mean)	78.4	High	85.0	Low	75.0	Standard Deviation	4.8	Number of Forecasts
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		The shipping cost was supplied by Thurlstone Shipping and the exchange rate was that rounded up to US\$0.70 after noting consensus forecasts for 2020 calendar year are currently at US\$0.684.
Market Assessment	<i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i>	There is a transparent quoted and strongly traded market for the sale of iron ore. The market for Western Australian iron ore is well established and liquid and the price (Platts 62% Fe fines price) has varied in the past six months from a monthly average high of around US\$120/tonne in July 2019 to a low around US\$93/tonne in August 2019. The average spot price of 62% iron ore has been around US\$/tonne in 2019 through to 30 September. The iron ore price has performed strongly during 2019 as supply disruption in Brazil due to a tailing dam wall collapse saw the market transform to supply deficit. Of the 90Mtpa of production immediately curtailed post the dam wall collapse, roughly one third has now come back online, a further third is due to be reactivated in 2020 with the remaining capacity forecast to recommence in 2021. The World Steel Association expects steel demand in China to increase 7.8% in 2019 and 1% in 2020. More conservatively, other emerging economies are expected to increase 0.4% in 2019, however, in 2020 growth is expected to rebound to 4.1% mainly due to infrastructure investment pick-ups, mainly in Asia. The World Steel Association expects steel demand in developed economies to decrease 0.1% in 2019 and increase 0.6% in 2020. These forecasts are likely to be supportive of demand growth for iron ore in 2020. Underlying iron ore prices reflect the supply and demand conditions and the market sentiment. Fenix has used consensus price forecasts for 2020 when estimating all future revenue generated by the Iron Ridge Project.
	<i>A customer and competitor analysis along with the identification of likely market windows for the product.</i>	High grade iron ore is becoming a scarcer product as global ore reserves are depleted and more 58% Fe deposits are exploited. There is a reasonable expectation that the Iron Ridge product will be well sought after as high-grade iron product with relatively low levels of impurities increases blast furnace productivity and reduces emissions.
	<i>Price and volume forecasts and the basis for these forecasts.</i>	We have assumed a flat iron ore price which is around 10% lower than the current (25 October 2019) prevailing spot price. There is a general consensus that the iron ore price will weaken over the next few years as curtailed operations in Brazil are brought back online by 2021. The tonnage of ore sold is derived from the detailed mine plan and schedule and assumes when sufficient product is trucked to Geraldton to load a ship (circa 60kt), that product is sold.

Criteria	JORC Code explanation	Commentary
	<i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i>	Not applicable.
Economic	<i>The inputs to the economic analysis to produce the net present value (NPV), the source and confidence of these economic inputs estimated inflation, discount rate, etc.</i>	The initial Ore Reserve estimate is based on a FS level of accuracy with inputs for mining, processing, sustaining capital and contingencies scheduled and costed to generate the initial Ore Reserve cost model. A discount rate of 10% was used for NPV calculation in the pit optimisation, scheduling and economic modelling processes.
	<i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i>	Financial analysis based on this initial Ore Reserve shows that the Project returns a strongly positive NPV based on assumed commodity price and the Competent Person is satisfied that the project economics that make up the initial Ore Reserve retains a suitable profit margin against reasonable future commodity price movements. Accounting for the expected premia for Iron Ridge product, and for all operating costs and sea freight charges, the Project is expected to be cashflow neutral at a Platts 62% Fe price of US\$68/dmt CFR.
Social	<i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i>	Negotiations with Traditional Owner groups are well advanced and agreement is expected to be reached prior to commencement of mining.
Other	<i>To the extent relevant, the impacts of the following on the project and/or on the estimation and classification of the Ore reserves: Any identified material naturally occurring risks.</i>	No material naturally occurring risks have been identified, other than those which are typically encountered in mining operations in this region of Western Australia. The area is subject to occasional significant rainfall events, particularly in summer months when the remains of cyclones can cross the area. Appropriate measures to manage stormwater during and immediately after these events are planned to be in place prior to commencement of mining operations.
	<i>The status of material legal agreements and marketing arrangements.</i>	No material contracts for sale of product are in place at this point in time. A signed Joint Co-Operation Agreement with the Mid West Port Authority is in effect. A formal Joint Venture arrangement is in place between Fenix and Fenix Newhaul Pty Ltd, relating to road haulage of ore from the minesite to Geraldton Port. A product marketing agreement with M2A Partners Pte Ltd has been signed.

Criteria	JORC Code explanation	Commentary
	<i>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary government regulations will be received within the timeframe anticipated in the Pre-feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i>	The Iron Ridge deposit is located entirely within a granted and current Western Australian mining lease (M20-118), over which Fenix has secure tenure. A combination of Miscellaneous and General Purpose leases immediately adjacent to the Mining Lease are required for the waste rock and low-grade dumps and associated processing and general mine infrastructure. Applications for all of these leases have been submitted, and the leases have either been granted, or are expected to be granted prior to commencement of mining operations. These lease areas are subject to negotiation with Traditional Owners under relevant Native Title legislation. These negotiations are well advanced and are expected to reach successful conclusion and agreement before the lease areas are required for mining operations to proceed. There is one Miscellaneous Lease, the area of which is required for the waste rock facility, which remains subject to commercial negotiations between Fenix and the current Exploration leaseholder. These negotiations are well advanced and it is expected that an agreement will be reached before this area is required for waste rock storage. There is sufficient room for approximately one year's waste mining (according to the mine schedule) inside the planned waste dump footprint and within the current mining lease M20-118. Further waste dump footprint can be made available within the mining lease area to facilitate storage of waste rock, should these commercial negotiations not be concluded in a timely manner. There are reasonable grounds to expect that future Government approvals will be granted and maintained within the necessary time frames for successful implementation of the project.
Classification	<i>The basis for the classification of the Ore Reserves into varying confidence categories.</i>	It is the opinion of the Competent Persons for Ore Reserves that the results are an appropriate reflection of the deposit.
	<i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i>	There are no Measured Mineral Resources to be converted to Ore Reserves.
	<i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i>	Indicated Mineral Resources within the final pit design (which has been derived by applying appropriate Modifying Factors as described above) and which are above the nominated cut-off grade, have been classified as Probable Ore Reserves.
Audits or reviews	<i>The results of any audits or reviews of Ore Reserve estimates.</i>	No audits or reviews of the Ore Reserves estimate have been conducted to date.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy / confidence	<i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using and approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i>	The Ore Reserve is based on the following key elements: • A current Mineral Resource estimate with approximately 96.5% of the Mineral Resources tonnage inside the final pit design being in the Indicated category; this is considered sufficient to support a FS. • There are no known additional modifying factors at the time of this statement that will have any material impact on the Ore Reserve estimate. • Geotechnical assessment is considered sufficient for a PFS level, and supports this Ore Reserve estimate. • The mine planning and scheduling assumptions are consistent with current industry practice, and are considered appropriate for this level of study. • The cost estimates and financial evaluation have been estimated by the project team with specialist consultants and team members, and are considered sufficient to support this level of study. • Further work to finalise and formalise project construction, mining, ore haulage and port storage/handling/shiploading contracts will be completed before the commencement of mining. • Further ore testwork to gain a better understanding of the physical properties of the ore as it moves through the supply chain from mine to ship will be completed. In particular, a more comprehensive assessment of Lump:Fines ratio and of any differences in grade between Lump and Fines products is expected to either confirm or further enhance the project's economics. There is no production data available for comparison with estimates at this stage.
	<i>The statement should specify whether it relates to global or local estimates, and if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i>	
	<i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i>	

Criteria	JORC Code explanation	Commentary
	<i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	