

Venture commits to recommencing Riley Iron Ore Mine

- **Completed Riley Iron Ore Mining Study update delivers strong returns with the pre-feasibility containing the following highlights¹;**
 - **Post-Tax Cash generation of A\$31M,**
 - **Pre-Production Capital Estimate of A\$3.6M (fully funded),**
 - **IRR of 303%,**
 - **Post-Tax NPV₈ A\$27M based on two years of production,**
 - **Operating Cost of A\$56/t fob.**
- **Board commits to decision to recommence mining;**
- **Work in progress on more economical ore transport solutions;**
- **Experienced General Manager of Operations Appointed;**
- **First ore shipment targeted for next quarter;**
- **Full off-take Agreement now executed.**

Venture Minerals Limited (**ASX:VMS**) (“Venture” or the “Company”) is pleased to announce the completion of the updated Riley Iron Ore Mining Study with the pre-feasibility study (PFS) delivering strong returns from a low capex two year project, that is well positioned to capture the current higher iron ore price environment. With this outcome the Board has made the decision to recommence mining at the Riley Iron Ore Project (see Figure 1).

In addition to completing the study the Company, having previously signed a Binding Terms Sheet for the Riley Iron Ore Mine off-take with Prosperity Steel (refer to ASX announcement 2 May 2019), has now signed a full off-take agreement for the Riley product for 100% of the first two years of iron ore production. Venture also secured the services of Peter Adamson, a highly experienced and competent leader with 30 years of management and consultancy experience with companies such as BHP Billiton and Rio Tinto, to fill the key senior role of General Manager of Operations, as it transitions through development into production.

First shipment of ore from the Riley Mine is currently planned for the fourth quarter of 2019. The Company continues to work on additional strategies identified to further reduce operating costs on the project before the first ore shipment. These cost optimisation programs will focus on enhancing ore transport solutions.

Commenting on the updated Riley Iron Ore Mining Study outcomes, Venture Minerals’ Managing Director Andrew Radonjic, said:

“This is an exciting phase for the Company as it moves from explorer to producer. The Riley Iron Ore Mining Study demonstrates the delivery of an exceptional Internal Rate of Return in excess of 300% is possible by leveraging the relatively small capex required to commence production. Venture has brought together an experienced team with a blend of local knowledge that has built, managed and operated iron ore and other similar sized projects, thereby de-risking the execution phase of the Riley project. The Riley Iron Ore Mine will create 80 to 100 jobs and will be a boost for the economy of the West Coast of Tasmania. We look forward to commencing production shortly.”

1. Financial outcomes based upon an iron ore price of US\$90.35 per tonne and exchange rate of \$0.68 as at 15 August 2019.

Venture Fast Facts

ASX Code: VMS and VMSOB
Shares on Issue: 806.9 million
Listed Options: 143.2 million
Market Cap: \$18.6 million
Cash: ~\$5.45 million at 30 June (including retail offer settled on 1 July 2019)

Board & Management

Non- Executive Chairman
Mel Ashton

Managing Director
Andrew Radonjic

Non-Executive Directors
Hamish Halliday
John Jetter

Company Secretary
Jamie Byrde

Recent Announcements

Preferred Tenderer Status awarded for Riley Iron Ore Mine (31/07/2019)

Quarterly Cashflow and Activities Report June 2019 (23/07/2019)

Gold Coast Investment Showcase Presentation - June 2019 (25/06/2019)

Riley Resource Statement updated amid ongoing Mining Study (19/06/2019)

Venture Welcomes International Investor to the Company (18/06/2019)

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Figure 1: Previous mining activity at the Riley Iron Ore Project.

The Riley Iron Ore Project 2019 Pre-Feasibility Study (PFS)

1. Background

Venture Minerals had previously completed all necessary preparations to commence mining at the Riley Iron Ore Project in 2014 and began mining on the 28th May, but due to declining iron ore prices the mine was placed on care and maintenance after suspending operations in August 2014.

Since last December, the 62% Fe price has risen by almost 40% (*see 15 August 2019 price in Section 9*) in USD terms and with the events of early 2019 at Vales' mines in Brazil the current price levels could be sustained for at least the near term. In February this year, the Company began a review of the Riley project to look at recommencing mining, having already completed extensive pre-production work which included a granted mining lease and about 90% of the previously purchased processing plant equipment still on hand.

Venture then achieved its first major milestone towards recommencing the Riley Iron Ore Mine when it secured an off-take agreement with one of the largest iron ore traders (*refer to ASX Announcement, 2 May 2019*) in the world. The company also assembled a team of highly experienced mining professionals to work on updating the previous mining study so that a decision to recommence mining could be made at the earliest opportunity.

2. PFS Team

Venture has used Rock Team (who prepared the previously stated Ore Reserves for the Riley DSO Project on the 26th July 2012) to prepare the upgraded Ore Reserves to meet the guidelines of the JORC Code 2012 that have been used in this study. Rock Team was previously the Mining Engineering arm of Rapallo but now operates under Rapallo.

Rapallo, a highly experienced engineering group, worked with the Company in preparing this updated study.

The PFS is an update of the previously completed mining studies that resulted in the initial start-up of mining operations at the Riley Project in 2014. The same mine plan (generated by Rock Team) used to commence mining previously is being used again but with costs updated using current prices.

3. Project Location and Tenure

The 100% owned Riley DSO Project is located 10 km from the Mount Lindsay Deposit in Northwest Tasmania (*see Figure 2*) and sits within granted Mining Lease 5M/2012 (*see Figure 3*). The iron ore deposit is all at surface, located less than 2 km from a sealed road that accesses existing rail and port facilities. The total road distance to the Port of Burnie is 120 kilometres.

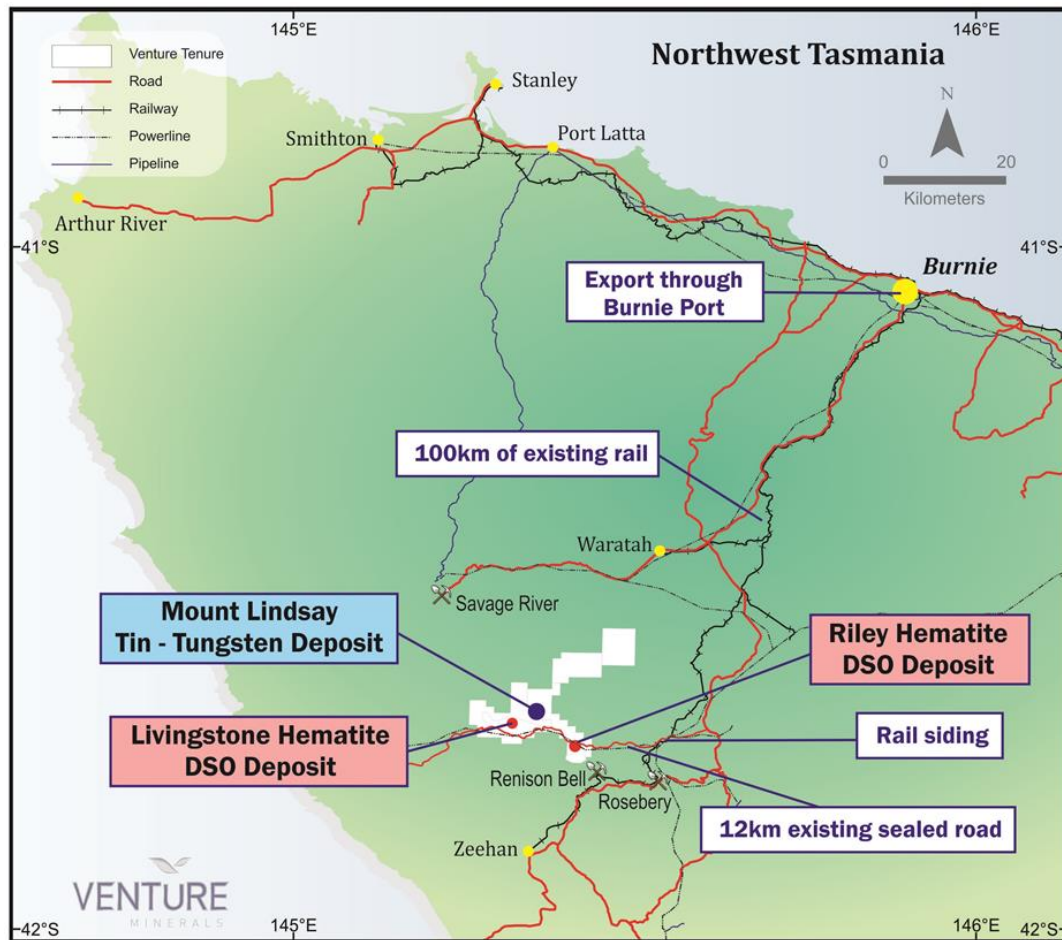


Figure 2: Location Map for Mount Lindsay Tin-Tungsten Deposit/Riley DSO Deposit/Livingstone DSO Deposit

4. Deposit Geology and Resources

The Riley deposit is a ferruginous laterite derived from weathering of the underlying Wilson River Ultramafic Complex of western Tasmania. The deposits are sedimentary in nature, most likely derived by the erosion of a once thicker veneer of ferruginous laterite covering Serpentine Ridge. There are three significant iron laterite deposits at Riley Creek, namely Areas A, C and D, covering a combined area of approximately 3km² (see Figure 3).

The deposits consist of unconsolidated ferruginous lateritic gravel (pisolites) and cemented laterite. The ore is comprised of a combination of hematite and maghemite. The deposit has an average combined thickness of 1.5m, with some areas reaching up to 4m. The laterite deposits are thickest on the ridges, with Areas A and C the most significant of the three deposits. The resource is estimated to be 2.0M tonnes at an average density of 2.5 t/m³ (refer to ASX announcement 19 June 2019).

The in-situ iron grade of the lateritic gravel ranges from 36% to 64% Fe, and the cemented laterite 46% to 61% Fe. Beneficiation of the ore is via a crushing and screening process removing the sub 1mm fraction, which consists of mainly silica and clay.

A maiden resource statement of 2.0mt @ 57% Fe was defined in July 2012 under the JORC Code 2004. This statement was upgraded on the 19th June 2019 to meet the guidelines of the JORC Code 2012 (see Table 1).

In estimating the resources, wireframing restricted the model to >50% Fe beneficiated grade, and a lower cut-off of 53% Fe was selected to obtain what is currently a marketable 57% Fe DSO product.

Table 1: Resource Statement – Riley Project

Resource	Tonnes	Fe (%)	Fe (%) Calcined	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	S (%)	LOI (%)
Indicated	2.0mt	57	62	3.3	2.7	0.03	0.08	7.9

The extent of the resource can be seen in Figure 4, showing resource data by type.

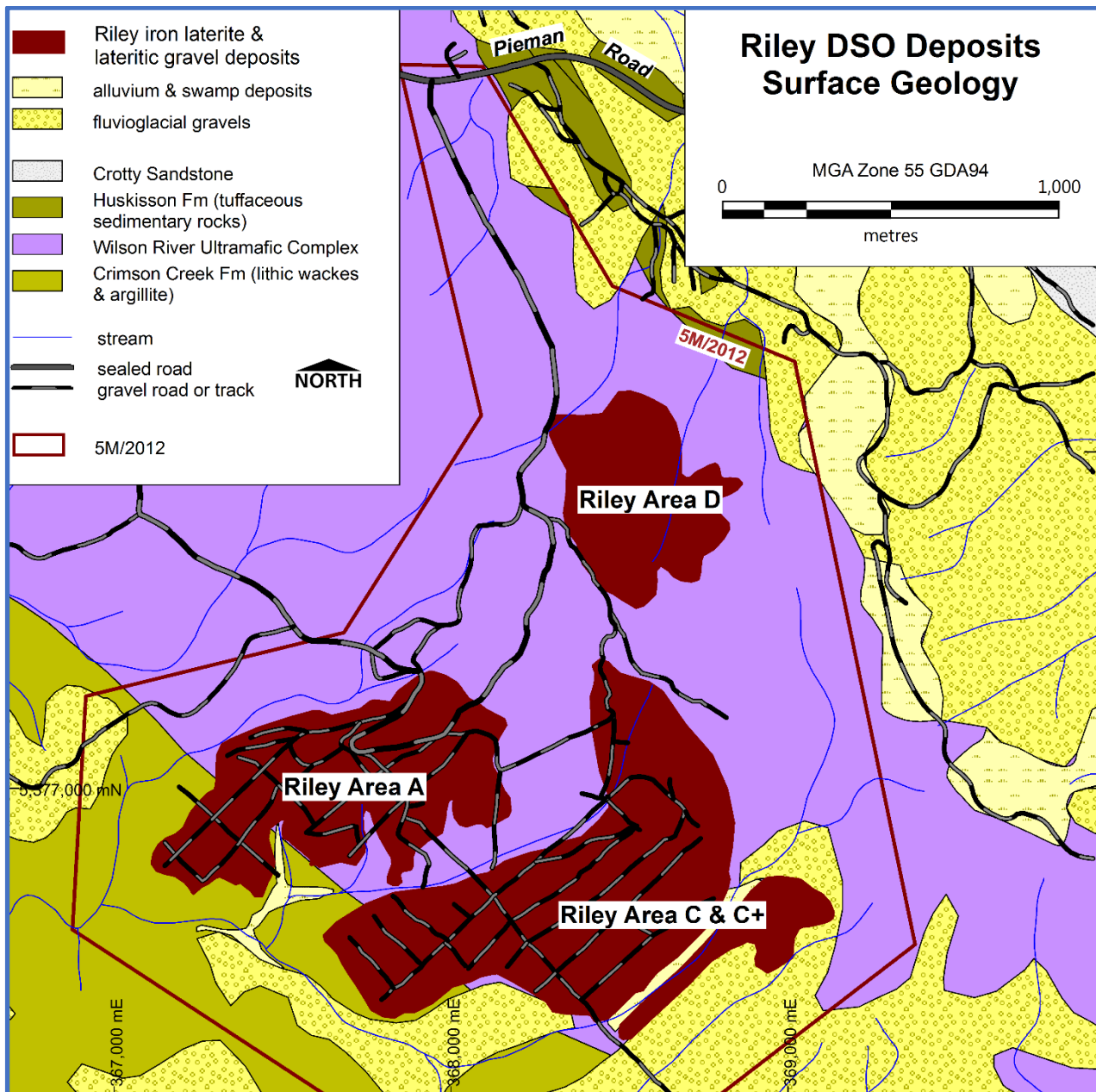


Figure 3: Riley DSO Deposits Geological Map

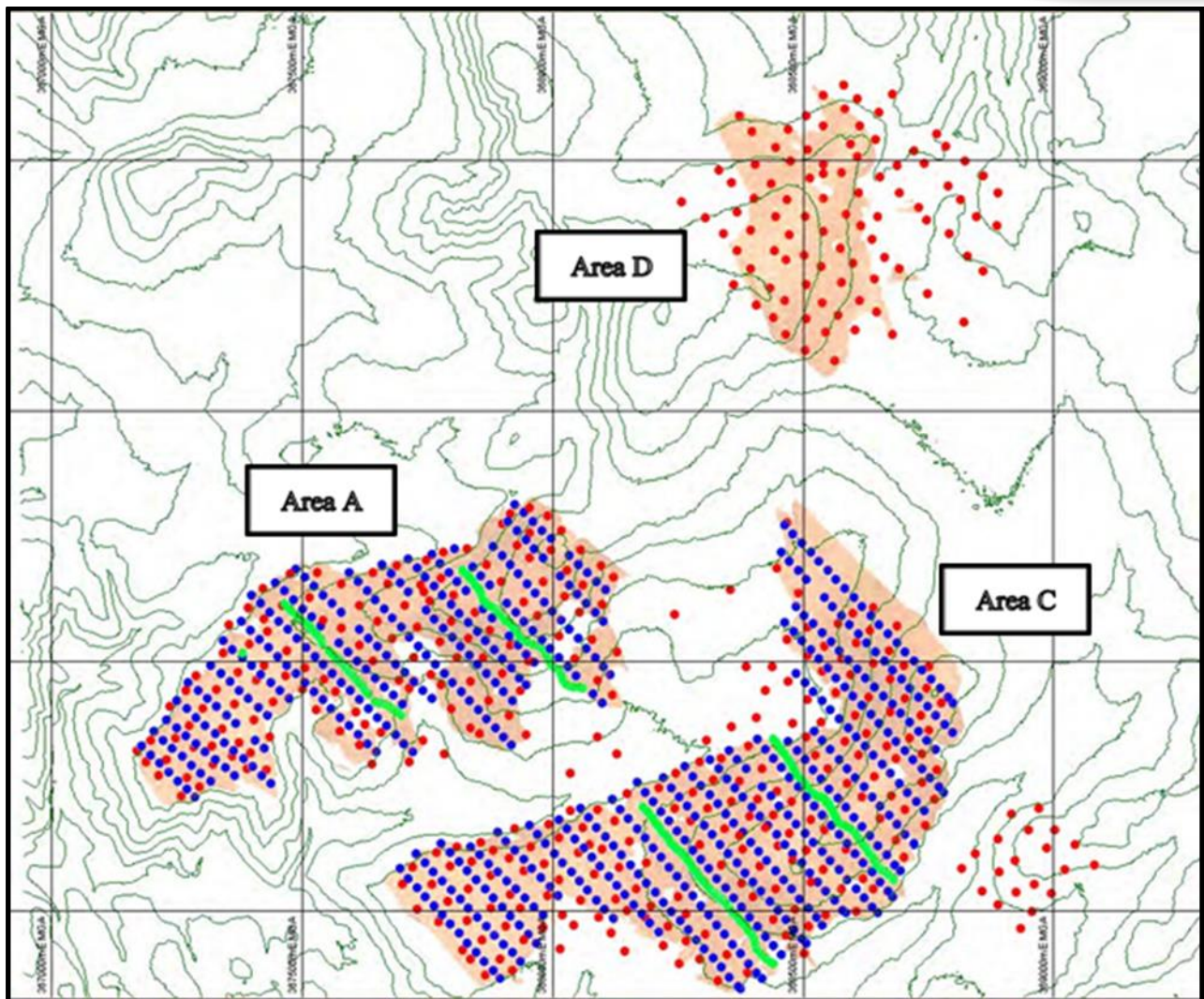


Figure 4: Riley Resource Extent Map. Red = pits, green = trenches, blue = power auger. Current resource outline shaded in orange. Ten metre topographic contours shown as green lines.

5. Ore Reserves and Mining Method

Following completion of the July 2012 resource, Venture engaged independent mining engineers, Rock Team, to complete mining studies on the deposit and produce a reserve statement. With all the hematite resources at Riley located at or near surface, the study delivered a 90% conversion rate of resource to reserve under the JORC Code 2004, this has now been upgraded to meet the guidelines of the JORC Code 2012 as part of this ASX announcement (see Table 2). The upgraded reserve figure focused on the same areas as per the mine plan for when mining commenced in 2014, resulting in an 80% conversion rate of resource to reserve.

Table 2: Reserve Statement – Riley Project

Reserve	Tonnes	Fe (%)	Fe (%) Calcined	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	S (%)	LOI (%)
Probable	1.6mt	57	61	3.9	2.8	0.03	0.07	7.1

Post the original Reserves reported on the 26 July 2012, Venture provided Rock Team with resource block models in CSV format. The models were imported into Mine2-4d for interrogation purposes and optimised using the following input parameters that formed the basis of the 2013 PFS done by Rock Team;

- Clearing Cost A\$4,410/hectare,
- Mining Cost A\$2.20/t,
- Crushing and Screening Cost A\$8.00/t,
- Transport Cost A\$22/t,
- Administration Cost A\$4/t,
- Government Royalty 5.35%,
- Iron Ore Price A\$100/t fob.

The 2013 PFS was assumed Venture personnel would maintain responsibility for supervision and the technical aspects of the project, whilst using a contractor for all mining and processing activities on site. A mining schedule was generated with the aim of the achieving an annual shipped product rate of 1 million tonnes at a monthly grade of over 56% Fe.

Prior to the commencement of mining in 2014, the mining schedule was revised using an updated resource block model to look at shipping a marketable 57% Fe DSO product and to factor in the use of a dry screening plant initially, hence forming the basis of the updated reserve figures (*see Table 2*).

The ore at the Riley deposit is at surface and hence there is no strip ratio. The ore is free dig and will be extracted by excavator in a series of sequential mining panels. Each mining panel will be 25m wide, stretching the length of the resource. Mined ore will be hauled to the Run of Mine (ROM) stockpile for crushing and screening.

Post completion of forestry activities, the land will be cleared of any remaining trees and debris. An initial mining panel will be cleared with all vegetation windrowed at the base of the cleared area. As mining progresses, the next parallel 25m wide panel will be cleared ready for mining.

The vegetation cleared from the next adjacent mining panel will then be pushed into the previously mined area allowing rehabilitation to commence. *Figure 5* illustrates the sequence of the panel mining method. Material rejected from the screening plant will be placed back into the previously mined panels negating the need for a rock storage facility.

The depth of excavation is expected to average 1.5 metres, with some pockets up to 4m, so a conventional open pit design is not required.

6. Ore Processing Methodology

The in-situ ore body contains varying levels of clay and detrital sediments resulting in elevated levels of alumina and silica that are too high for a direct shipping product. Extensive test work established that eliminating the sub 1mm fraction reduced these deleterious elements sufficiently to produce a marketable product.

The clay was the most difficult material to separate at the 1mm fraction and was not amenable to removal by dry screening. Wet screen testing was conducted which successfully removed the clay, along with additional detritus. The result was an increase in the iron grade, and a reduction in alumina and silica values.

The ore also contains a large amount of organic material due to the fact it outcrops at surface. This material also needs to be separated from the ore.

These two factors meant that wet screening with an organic bath and mechanical scrubber was required;

the bath, to float off the bulk of the fine organics, and paddles to agitate the clay particles off and out of the gravel and into solution. A log washer was engineered into the processing circuit.

Venture Minerals has committed to not having a tailings storage dam for the Riley site, with processing water stored in removeable tanks. Removal of the suspended clay fines from the recirculated process water was designed to be done with a Bucket Wheel De-waterer (BWD) and a thickener for the slime. A bulk sample of crushed ore from the Riley deposit was processed at a small wet screening plant with a BWD. This trial was successful in removing the fines.

Once the strategy on wet screening had been settled on, a washed representative sample was sent to China for sintering tests at the China Iron and Steel Research Institute Group (CISRI) and performed well.

Based on the research and output requirements, a process plant design was completed by Venture Minerals and GR Engineering Services (*see Figure 6 and Figure 7*).

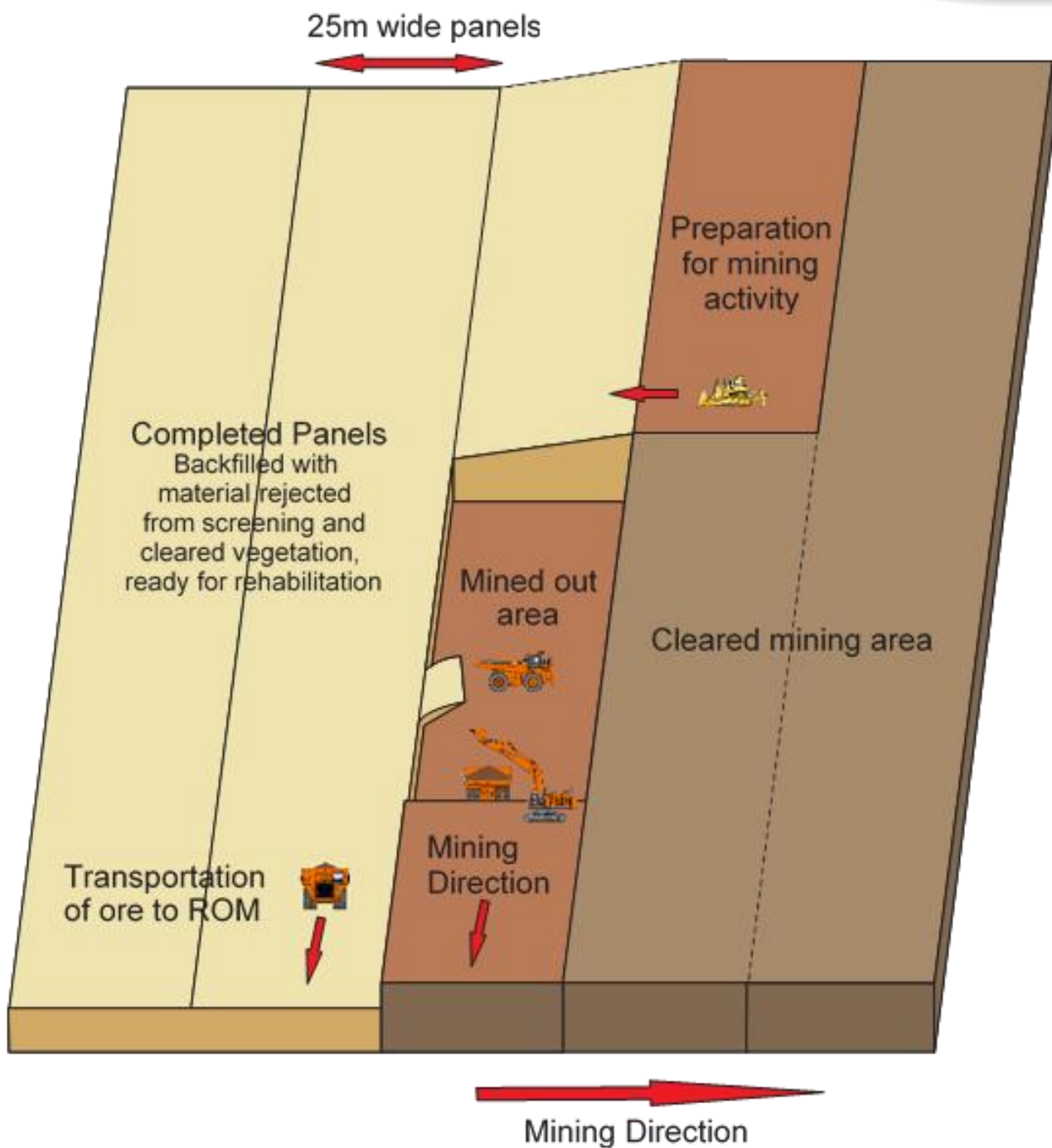


Figure 5: Sequential Panel Mining Method

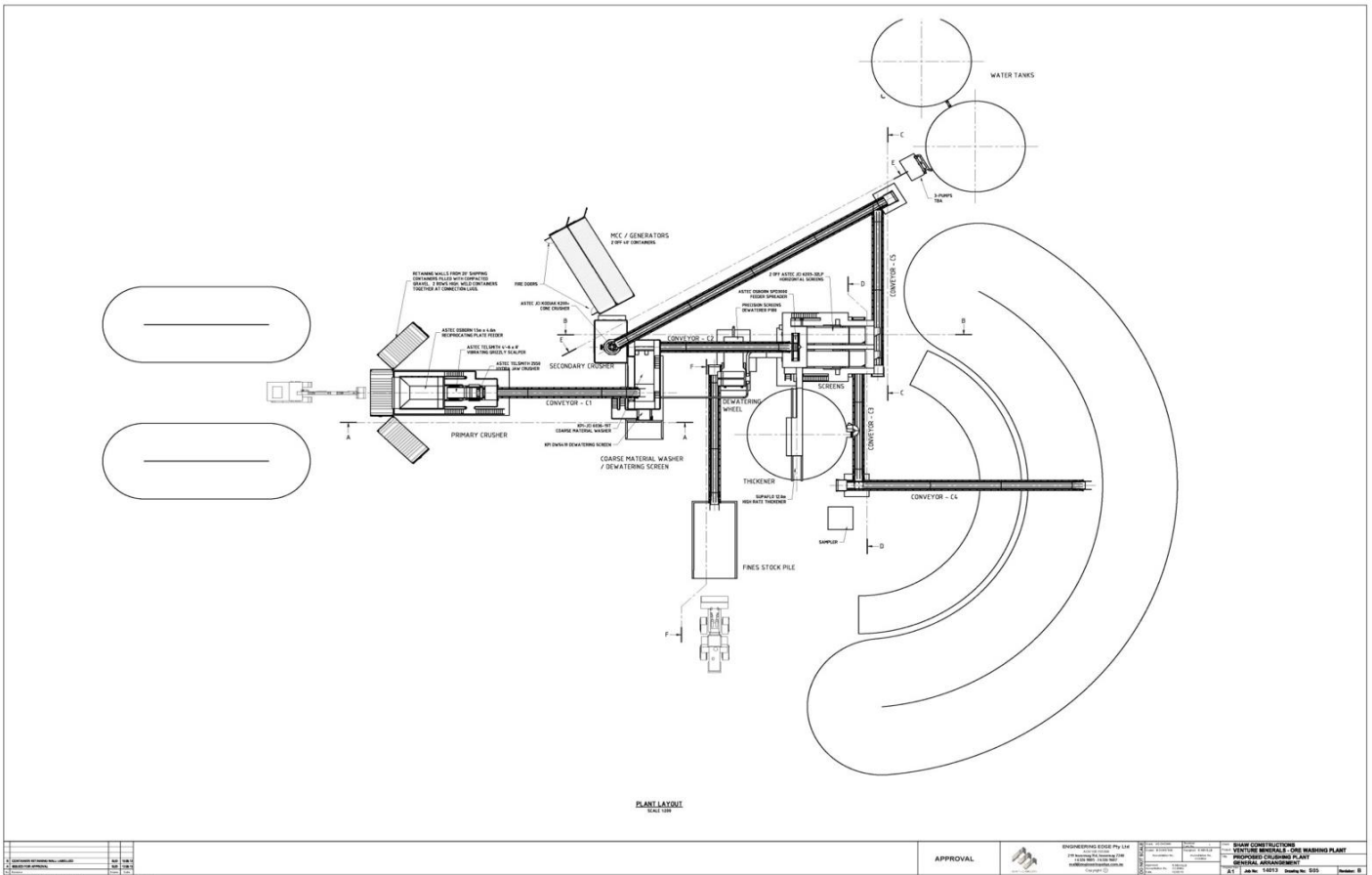


Figure 6: Plant Design Layout-Plan View

7. Mining and Infrastructure Site Layout

All mining infrastructure is to be contained within the mine lease boundary. Infrastructure for the Riley Project will consist of, but is not limited to:

- Surface Mine,
- Crushing and Screening plant,
- Stockpile areas (vegetation/topsoil, ROM),
- Lay down yard, workshops and offices,
- Road network access (existing).

See *Figure 8* below for mining and infrastructure layout.

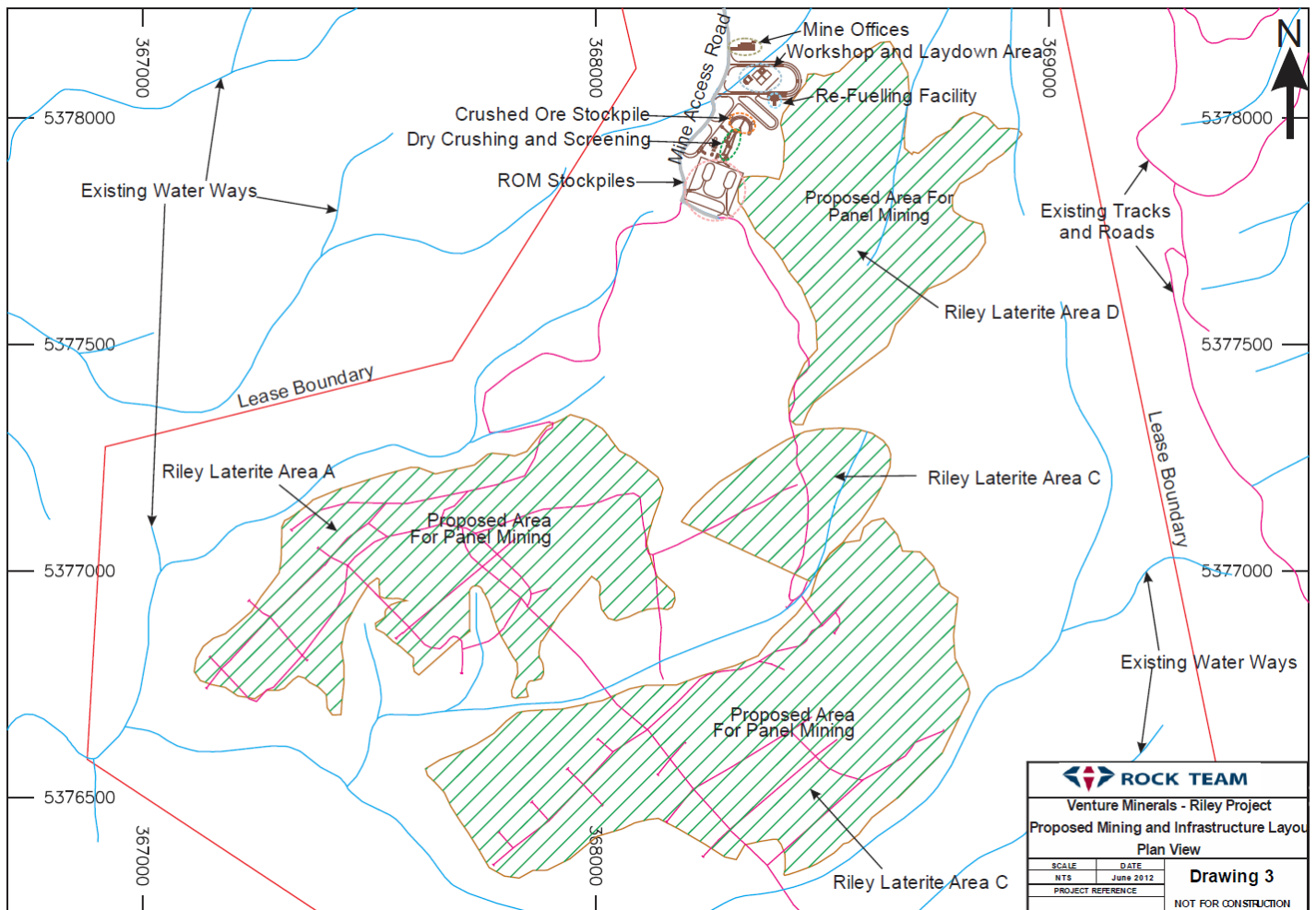


Figure 8: Mining and Infrastructure Layout

8. Environmental Licensing

Both the local council planning permit (DA2012/00068) and the EPBC approval (2012/6339) are currently valid.

9. Revenue and Iron Ore Pricing Assumptions

The Iron-Ore pricing assumptions included in the financial model are based on spot pricing of US\$90.35 per tonne as at 15 August 2019 referenced to the CFR 62% Fe Platts benchmark pricing index, with a discount applied under the offtake agreement (*as per ASX announcement 2 May 2019*) for grade and content. The company notes the recent price volatility and the impacting on assumed project revenues since first announcing the re-commencement of the updated study on 16 May 2019. During this time prices have fluctuated from the price of US\$94.60 to a high of US\$126.20 on 2 July 2019 followed by a recent trend downwards towards the current spot price of US\$90.35 on 15 August 2019 used in the financial model. The offtake partner Prosperity Steel has agreed to take 100% of the first two years of iron ore production, based on reserves of 1.6Mt @ 57% Fe (*see Table 2*).

Sales revenue is recognised on a cost-plus freight (CFR) basis, whereby Venture will be responsible for arranging shipment under the offtake agreement.

The Company has used an assumed exchange rate of A\$1 to US\$0.68 in the study.

No hedging arrangements are in place, however the company is in talks with major financial institutions regarding a proposed hedging strategy. The PFS assumes no hedging in the financial model.

10. Product Logistics

Road Transport

- The Riley Mine site is accessed by modern bitumen roads;
- Transport from ROM to the Port of Burnie are by truck and trailer combinations hauling up to 37 tonne payloads.

Port Storage & Ship Loading

- Trucks will unload at port or at an off-wharf storage facility during daylight hours only;
- Ship loading rate: 900tph;
- Low tide draft: 11.0m;
- Length of berth: 213m (250m MAX LOAD);
- Suitable Handymax/Supramax ships, 45,000 tonnes capacity.

11. Capital Costs

The major capital cost components for the project is the wet screening plant and site establishment costs. The costs were based on tender submissions and/or price quotations from suppliers including Shaw Contracting and Project Managers Rapallo.

Table 3: Riley Project Capital Cost Schedule

Pre-Development Capital Costs	AUD\$M
Other Capital Items	0.02
Mining Civil Works for Plant Area	0.10
Communications	0.10
Plant & Office Site	0.35
Contract Engineering	0.53
Road Upgrades	0.82
Site Establishment	1.70
Total Pre-Production Capital	3.62*
Processing Plant	
Wet Processing Plant	3.08
Total Capital Expenditure	6.70

* Dry screening plant for early stage production is included in the operating costs.

There are multiple scenarios being investigated by the Company and its project managers to reduce its upfront capital cost requirements including delaying the construction of the wet screening plant and instead, using a dry screening plant for appropriate ore types to commence production initially, hence reducing its start-up costs in the near term.

12. Operating Costs

The average operating costs over the life of the project on a 'cost plus freight' basis (CFR) are A\$85.1/t which includes a Royalties and Marketing costs of A\$2.91/t. Tasmanian State Government Royalties are calculated on a tiered basis but are capped at 5.35% of net sales. Operational costs are calculated on a 24 hours per day, 7 days per week roster, however road haulage is restricted to daylight hours under the current environmental permit conditions of the mine.

A breakdown of the operating costs is set out below in *Table 4*.

Table 4: Riley Project Life of Mine Operating Costs

Operating Costs	AUD\$ per Tonne DMT
Site Administration	2.48
Mining	6.83
Crushing	9.44
Power and Water	3.80
Road Haulage	21.91
Transshipment	8.72
Royalties and Marketing	2.91
Operating Cash Costs - FOB	56.09
Shipping	29.03
Operating Cash Costs - CFR	85.12

13. Financial Analysis and Key Assumptions

The PFS is based on a Probable Ore Reserve at Riley of 1.6 Mt grading at 57% Fe (representing an 80% conversion of the total Indicated Resource base) and producing approximately 1Mtpa of final product grade of 57% Fe over a 2-year mine life, using a contractor for all mining and processing activities on site.

The key assumptions used in the PFS are set out in *Table 5* below with key financial outcomes in *Table 6*:

Table 5: Key PFS Assumptions

Key PFS Assumptions	
Tonnes Mined (wet)	2.3 Mt
Tonnes recovered (wet)	1.7 Mt
Grade Fe%	57%
Tonnes sold (dry)	1.6 Mt
Production Rate	1 Mtpa
USD to AUD Exchange Rate	\$0.68
State Royalty - % of net sales	5.35%

Table 6: Key Financial Outcomes

Key Project Financial Outcomes	Total A\$
Total Revenue	172.82 Million
EBITDA	37.64 Million
Total Cash Surplus - Post Tax (LOM)	30.67 Million
Capital Costs - Pre-Development Costs	3.62 Million
Capital Costs - Mining	3.08 Million
Operating Costs - (per tonne)	56.09/dmt
Shipping Costs - (per tonne)	29.03/dmt
NPV ₈ Post tax	27.24 Million
Post-Tax IRR	303%

14. Sensitivity Analysis

Sensitivity analysis indicates that the Project is most sensitive to fluctuations in exchange rates (USD to AUD), followed by iron ore prices, operating costs and discount rates. The degree of sensitivity is represented in the table below. The outputs of the sensitivity analysis are as follows:

Table 7: NPV Sensitivity Analysis Graph +/- 10 and 20%

Variable	Key Inputs					NPV				
	-20%	-10%	Base Case	10%	20%	-20%	-10%	Base Case	10%	20%
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Iron Ore Price US\$/DMT	\$ 72	\$ 81	\$ 90	\$ 99	\$ 108	-\$1.9	\$12.4	\$27.2	\$41.0	\$51.6
Forex AUD\$/USD\$	\$ 0.54	\$ 0.61	\$ 0.68	\$ 0.75	\$ 0.82	\$51.6	\$39.7	\$27.2	\$17.1	\$8.7
Operating Costs	\$108.1	\$121.7	\$135.2	\$148.7	\$162.2	\$46.9	\$38.3	\$27.2	\$16.1	\$5.0
Discount Rate	6%	7%	8%	9%	10%	\$28.1	\$27.6	\$27.2	\$26.8	\$26.4

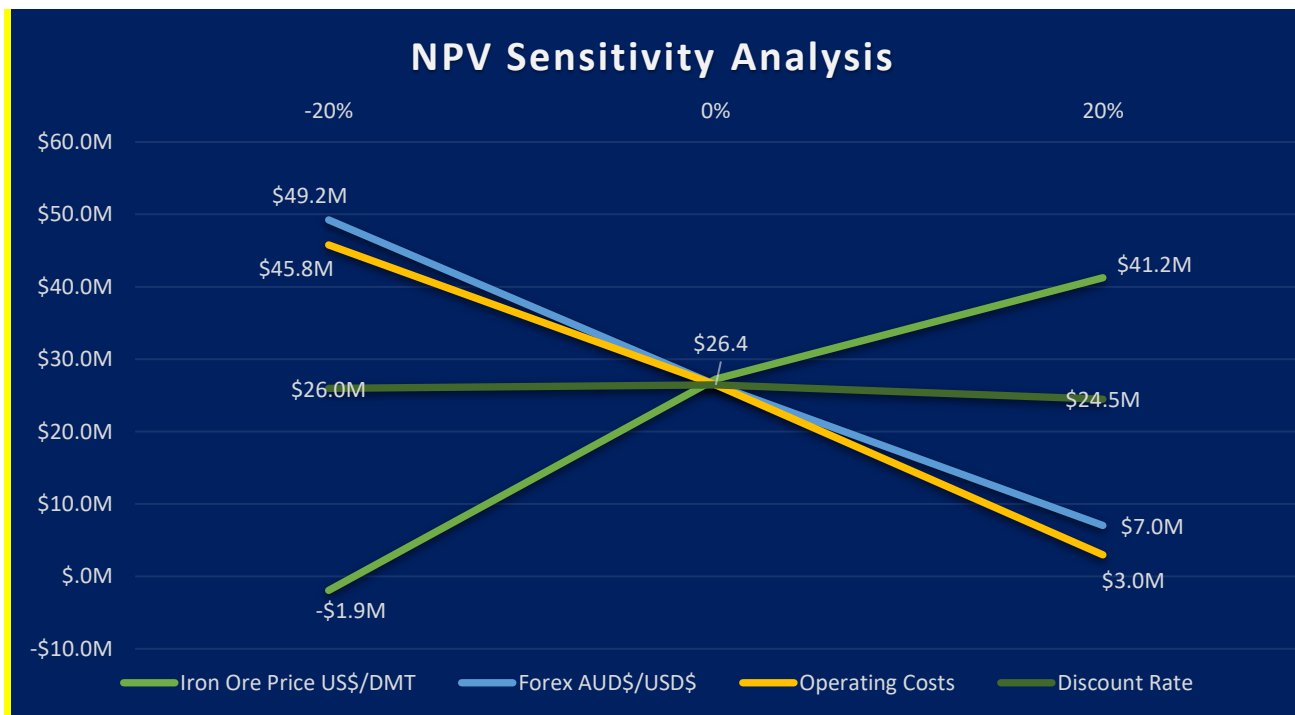


Figure 9: NPV Sensitivity Analysis Graph +/-20%

15. Project and Mine Life Upside

Any upside to the mine life of the Riley Project is dependent on the performance of the wet screening plant and that will determine if lower grade resources can be upgraded sufficiently to be mined economically.

16. Project Financing

The company recently completed a \$5.7m placement and accelerated entitlement offer in July 2019, with the purpose of funding the pre-production costs and working capital of the company. Following the first announcement on 16 May 2019, at which time the iron ore price was US\$94.60 and subsequently reached a high of US\$126.20 on 2 July 2019, the price has trended downwards towards the current spot price of US\$90.35 on 15 August 2019 of which the PFS has been completed on.

The company is currently optimising the mining schedule, reviewing the ore processing methods and working with suppliers to reduce the overall costs of the mine including a focus on enhancing ore transport solutions.

The purpose of the optimisation and cost reduction reviews is to limit the impact on its near-term cash flow and working capital requirements as the business progresses towards mining. There are multiple scenarios being investigated by the Company including delaying the construction of the wet screening plant and instead, using a dry screening plant for appropriate ore types to commence production initially, hence reducing its start-up costs in the near term.

Yours sincerely



Andrew Radonjic
Managing Director

The information in this report that relates to Exploration Results, Exploration Targets and Minerals Resources is based on information compiled by Mr Andrew Radonjic, a fulltime employee of the company and who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Andrew Radonjic has sufficient experience which is relevant to the style of mineralisation and type of deposits 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'. Mr Andrew Radonjic 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 Peter George, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr George is an independent consultant. Mr George has sufficient experience which is relevant to the style of mineralisation and type of deposits 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'. Mr George consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Notes: All material assumptions and technical parameters underpinning the Minerals Resource estimate referred to within previous ASX announcements continue to apply and have not materially changed list last reported. The company is not aware of any new information or data that materially affects the information included in the said announcement.

APPENDIX ONE

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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 down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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. 	<ul style="list-style-type: none"> The Riley Direct Shipping Ore ("DSO") deposits are surficial lateritic iron deposits and highly amenable to evaluation through the use of test pitting and trenching. Lateritic gravel and clays were free dig, and the cemented laterite zone was usually broken up with a ripper after excavation of the lateritic gravel zone. Some 540 test pits of c. 2 m by 2 m dimension were excavated by 20 t excavator to an average depth of c. 2.4 m, and four trenches for a combined length of 1,491 m were excavated across the Riley DSO deposits. The pits and trenches were excavated through the laterite profile to end in smooth clays or basement serpentinite and metasedimentary rocks. Test pitting and trenching are in this situation considered superior to drilling because they allow the geologist to make a better assessment of lithology and there was no observed loss of fines. To assist with geological modelling of the thin laterite profile in areas A and C some 585 power auger holes were drilled on 25 m spacings between the test pits and trenches to the base of the upper lateritic gravel zone. Lithological representative samples of c. 10 kg each were collected from vertical channels and/or spoils from the test pits and trenches by suitably qualified Venture Minerals geologist and field technicians and submitted to commercial assay laboratories for preparation, screening and assay. Spoils of lateritic gravel from some 80 auger holes in areas where the test pitting indicated significant iron grade variation were also assayed.
Drilling techniques	<ul style="list-style-type: none"> 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 type, whether core is oriented and if so, by what method, etc..). 	<ul style="list-style-type: none"> Pitting and trenching was conducted by 20 t mechanical excavator. A ripper was used where necessary for indurated materials. Auger drilling of the unconsolidated gravel layer was conducted with a Stihl Model BT121 100 mm man-portable power auger with extension bar.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	<ul style="list-style-type: none"> The test pits and trenches were dry, and recovery was complete.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> All test pits and trench profiles were qualitatively geologically logged and photographed by a suitably qualified Venture Minerals geologist, then marked up into discrete lithological units for assay sampling on a lithological basis. The lithological boundaries marked up along the trench faces were picked up by surveyor every 2.5 m. A total of 540 test pits of average depth 2.4 m and 1,491 m of trenches were geologically logged and sampled for assay. Some 585 power auger holes were logged and lateritic gravel spoils from 80 submitted for assay.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	<ul style="list-style-type: none"> The pits and trenches were geologically mapped and marked up for sampling. Approx. 10 kg of each lithology was sampled in a continuous vertical channel from each pit and 10 m spacings from the trenches using a pick or pneumatic hammer according to induration. If the pit or trench was unsafe to enter the sample was collected from the appropriate spoil piles (different lithologies were stockpiled separately) by using a clean trowel in a series of small scoops.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Sampling intervals were lithological and ranged from 0.1 to 5.6 m (average 0.69 m) thickness and the samples were collected into calico bags for submission to commercial assay laboratory. The test pit/trench channel and spoil samples and auger spoil samples were submitted in their entirety to the commercial assay laboratory. Duplicate channel or spoil samples were collected on an average of one per 25 pit/trench samples to evaluate sampling bias (discussed further below). Auger sampling was limited to the surficial gravel layer.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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. 	<ul style="list-style-type: none"> All samples from areas A and C were submitted to Bureau Veritas, Perth for preparation and assay procedure, and all pitting samples from areas D and power auger samples from Areas A and C were submitted to ALS in Burnie for the preparation procedure and then transferred to ALS in Perth for assay. The preparation procedure for all samples comprised drying at 105 °C, then crush to 100 % passing 10 mm, then dry screened at 1 mm to produce >1mm and <1mm fractions. Weight proportions of the two fractions were determined (Mass Recovery) and both >1mm and <1mm fractions were assayed by XRF on fused glass beads using a lithium metaborate flux for Fe, Si, Al, K, Na, Mg, Ca, Ti, P, S, Ni, Cr, LOI and a broad suite of trace elements. The head grade of the sample was back calculated from the grade of the >1 mm and <1 mm size fraction and the mass percentages (i.e.: calculated head = mass weighted average of >1mm and <1mm fractions). Commercial assay standards produced by Geostats Pty Ltd, Perth were inserted at a rate of 1 per 10 assay samples. Results for key elements Fe, Si, Al, P and Cr were within 10% and generally 5% of the reference values. At low levels (<0.03%) S tended to report with poorer precision and slightly high (positive) bias. Field duplicates comprised a second sample taken using the method as the primary sample. An average of one field duplicate per 25 primary samples were collected and submitted for assay. The duplicate sample was submitted in the same batch as the primary sample. The field duplicates indicate low sampling variance for Fe, Al₂O₃, P, Cr and mass recovery. SiO₂ shows a slightly higher variability, most likely due to the somewhat patchy occurrence of quartz silt within the Riley laterite. Blanks were not used. Six laboratory duplicates were also assayed at ALS. The duplicate was made at the preparation laboratory by taking a 1 kg riffle split off the original 10 to 15 kg sample before the dry, crush and screen procedure. These laboratory duplicates allow evaluation of preparation error and indicate low sampling variance for Fe, SiO₂, Al₂O₃, P, Cr and mass recovery.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Results of test pits conducted in separate campaigns are compatible. Duplicate channel sampling was conducted in an average of one out of 25 test pits as described above. Twinned test pits and trenches were not considered necessary. Data was collected, received and stored in industry standard ways. There was no adjustment to the assay data supplied by the laboratories.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> 98% of test pits, all trenches and all power auger holes used in the resource estimate were surveyed in MGA Zone 55 GDA94 by licensed surveyors using a combination of differential GPS and total station survey systems. The remaining 2% of pits were surveyed by Venture personnel with handheld GPS units and are considered accurate within 3-5 m (1-2x the plan dimensions of the test pits).
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral 	<ul style="list-style-type: none"> Some 540 test pits were excavated on a 50 m by 50 m grid over Riley laterite areas A, C and D to an average depth of 2.4 m. Four trenches approx. 400 m apart for a combined length of 1,491 m were excavated across the entire widths of Riley laterite Areas A and C. The trenches were vertically channel sampled with an

Criteria	JORC Code explanation	Commentary
	<p>Resource and Ore Reserve estimation procedure(s) and classifications applied.</p> <ul style="list-style-type: none"> Whether sample compositing has been applied. 	<p>average 10 m spacing between channels (for a total of 173 channels).</p> <ul style="list-style-type: none"> Some 585 power auger holes were drilled to the base of the upper lateritic gravel zone on 25 m spacings between the test pits and the trench section lines across Riley DSO Areas A and C to better define the depth end geometry of the gravel layer. The main purpose of the auger drilling was to better define the thickness and geometry of the topmost lateritic gravel zone, but some 80 of the auger hole spoils were also assayed in areas where the broader spaced test pitting indicated significant iron grade variation. The data spacing and distribution is considered sufficient to allow estimation of surficial lateritic DSO resources as summarised below.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	<ul style="list-style-type: none"> The Riley lateritic iron deposits consist of a thin (average 2.4 m, locally up to c. 6 m) surficial veneer on SW trending ridges flanking the Wilson River Ultramafic Complex. The laterite is thickest on the ridge crests and largely eroded from the intervening valleys. Test pitting was conducted on a regular grid perpendicular to the trend of the ridges, and trenching was conducted perpendicular to the trend of ridges to maximise control on laterite profile geometry and therefore volume and potentially grade.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Sample collection, storage and dispatch to the assay laboratories was conducted by Venture Minerals personnel. Sample numbers were unique and did not include any locational information useful to non-Venture personnel. The level of security is considered appropriate for this style of deposit.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> The results agree with the observed materials, bulk sampling and metallurgical test work subsequently conducted by Venture Minerals.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Riley DSO deposits are entirely located within granted Mining Lease 5M/2012 held by Venture Iron Pty Ltd a wholly owned subsidiary of Venture Minerals Ltd. The Mining Lease remains in good standing. Mining operations commenced on the 28th May 2014 and then where suspended shortly thereafter with the Mine put on Care & Maintenance due to falling commodity prices. Venture Minerals is in the process of reviewing the potential restart of the mining operations and is positioned to recommence operations within a very short period of time.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The Riley laterite deposits were first investigated and locally mined for detrital osmiridium (an alloy of Os and Ir) in the first half of the 20th Century. Area B was the extensively mined for osmiridium. Lateritic Ni and Co mineralisation was identified in the Riley Creek area by the Aberfoyle Tin Development Partnership in the late 1960s, then in the 1985-1990 period Callina NL identified and established a small detrital chromite resource within the laterites at Riley Creek.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Early Cambrian Wilson River Ultramafic Complex of western Tasmania is extensively covered with a veneer of residual and colluvial lateritic soil and gravel, and in a few areas such as Riley Creek on the south western flank of Serpentine Ridge, the ferruginous laterite deposits reach a few metres thickness and iron grade is sufficient to produce a DSO product. Four significant iron laterite deposits are recognized at Riley Creek, namely Areas A, B, C and D, covering a combined area of c. 3 km². The cemented laterite and lateritic gravel reach up to 4 m combined thickness, and average thickness of the modelled deposits is c. 1.5 m. The laterite deposits are thickest on the ridges, and Areas A and C are the most significant of the four identified deposits. The clay dominated Area B covering the flanks of Riley Creek between Areas A and C does not have enough laterite to include in this resource estimate. A complete section through the laterite deposits consists of a surficial layer of lateritic gravel (RLG), underlain by a zone of cemented lateritic gravel (RLC), then ferruginous clay (RCLY) with a variable amount of dispersed ferruginous gravel, minor lenses of lateritic gravel and locally lenses of quartz-rich sand, then greenish and cream clays and finally serpentinite basement. In some locations ferruginous gravel directly overlies clay or, around the margins of the deposits, serpentinite and metasedimentary basement. Sedimentary structures indicate the laterites are essentially colluvial and alluvial deposits most likely derived by the erosion of a once thicker veneer of laterite covering Serpentine Ridge.
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	<ul style="list-style-type: none"> Relevant test pit locations and assays are given in Table Three (refer to ASX announcement 19 June 2019) and shown on Figure Four.

Criteria	Explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> 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. Where aggregate intercepts incorporate short lengths of high-grade results and longer 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> The results given in Table Three (refer to ASX announcement 19 June 2019) have not been aggregated. High grades have not been cut.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> Channel sampling of the pits and trenches and the auger sampling was perpendicular to the laterite profile and the thicknesses given in Table Three (refer to ASX announcement 19 June 2019) are essentially true.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Appropriate maps are included in the body of this report.
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practised, to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> The resource estimation takes into account all available pit, trench and auger assay data for the Riley laterite deposits.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> AAM was engaged by Venture Minerals to conduct a LiDAR survey over the Riley area in 2011 to produce a DTM with vertical accuracy of better than 30 cm suitable for resource estimation work. Bulk sampling for metallurgical test work has been conducted (see section 3) Hydrological drilling and modelling was conducted. Geological logging of the pits, trenches and auger drilling has been used to construct a 3D geological model in Micromine suitable to constrain resource modelling.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> The Riley DSO deposits have been delineated to a stage where, subject to prevailing iron ore pricing, it is considered that mining can proceed. An appropriate map (Figure Four) of the deposits is included in the body of this report. No further exploration is planned at this stage.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in the preceding sections also apply to this section)

Criteria	Explanation	Commentary
Database integrity	<ul style="list-style-type: none"> 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. Data validation procedures used. 	<ul style="list-style-type: none"> Geological, survey and assay data were collected digitally in industry standard ways, stored in an MS Access database and validated using Micromine mining software.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> The Competent Persons have been to site and confirm the sampling methods used and geological logging were appropriate, and the resource modelling is compatible with the observed geology.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> Test pit, trench and auger logging, surface geological mapping, assaying, and a DTM generated from the LiDAR spot height data were used to create a 3D geological model for resource estimation in Micromine. Wireframes to constrain the block modelling were created for Areas A, C and D by digitising strings onto the c. 50 m spaced pit and trench sections. The wireframes were restricted to laterite with better than 50 % Fe in the +1 mm size fraction and divided into high grade surficial gravel RLG and lower grade cemented laterite RLC zones. Peripheral ferruginous gravelly clay zones with +1 mm mass recovery of >75% and +1 mm size fraction >50% Fe were included in the adjacent RLG and RLC wireframes for Areas A and C, and gravelly clay zones with +1 mm mass recovery of >63% and +1 mm size fraction >50% Fe were included in the RLG wireframe for Area D. The 25 m spaced auger drilling was used to better constrain the boundary between RLG and RLC wireframes.
Dimensions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The resource wireframes for Areas A and C cover a combined area of c. 1100 m by 1200 m (130 ha), and the wireframes for Area D cover c. 300 m by 600 m (18 ha). An appropriate map is included in the body of this report. Maximum combined thickness (= depth from ground surface) of the RLG and RLC zones is 4 m, and average combined thickness within the resource area is c. 1.5 m. The ferruginous clay zone RCLY is up to 15 m thick (= depth from ground surface), although very little RCLY was included in the wireframes because it generally failed to meet the recoverable +1 mm size fraction criteria (see above).
Estimation and modelling techniques	<ul style="list-style-type: none"> 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. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. 	<ul style="list-style-type: none"> There have been no previous iron ore resource estimates for the Riley laterite deposits, and no previous iron ore production. Wireframing, statistical evaluation and geostatistical modelling and 3D block modelling have been carried out by Venture personnel using Micromine software. Summary statistics and grade distribution histograms were examined for all estimated elements according to rock type, and correlations between Fe, Al, Si, S, P and Cr. Generally, the RLG is higher in Fe and lower in contaminants than the RLC and RCLY lithologies. Some 128 samples (60 RLG, 60 RLC and 8 RCLY) were re-screened wet and the resulting >1 mm and <1 mm fraction assayed. Wet screening resulted in a slight reduction in Mass Recovery (MR) for the >1mm fraction and improved Fe grade mainly through reduction of Si and Cr. Al, S, P and LOI show no marked difference between dry and wet screening. Regression formulae were calculated in MS Excel for Fe, Al, Si, S, P, Cr, MR and LOI and applied to convert the dry screened assay dataset to a wet screened basis (as for the proposed beneficiation plant) for the resource estimation. Assay sample lengths ranged from 0.1 m and 5.6 m according to lithology (median 0.5 m) and the assays were composited 0.3 m intervals for the resource estimation using the Micromine weighted average compositing function. Composites were flagged according to lithological domain.

Criteria	Explanation	Commentary
	<ul style="list-style-type: none"> Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	<ul style="list-style-type: none"> Variography was conducted according to lithology and omnidirectional variograms have consistent ranges of 150 m to 175 m for areas A and C. The variograms for Area D, which is smaller and contains less data points, are slightly less consistent but show long ranges. Similar ranges were obtained from directional variograms and are higher than the average sample spacing for the Riley deposit by a factor of 3 to 4. Please refer to this as a justification for Indicated status in the resource classification section. The directional variograms generally showed too few data points for a meaningful interpretation and consequently the Inverse Distance Weighting to the power of two (ID2) was selected over Kriging for the current data set. A block model for was created with blocks of 25m x 25m x 1m and trimmed to the RLG and RLC lithological wireframes using 5 x 5 x 0.25m sub blocking. Lithological domains were assigned to the blocks from the RLG and RLC wireframes. The +1mm size fraction (beneficiated) Fe, Al, Si, S, P, Cr, MR and LOI and in situ Fe, Al, Si, S, P, Cr and LOI were estimated to the blocks by ID2. Dips, strikes and ranges for the initial search ellipses were determined from geological features and the search ellipse oriented parallel to the strike of the laterite bodies. Seven progressively more relaxed searches were performed until all blocks were assigned a grade. Four sectors were used in each search ellipse, with a maximum of ten points per sector. Boundaries between the six domains were hard. To account for the strong influence of the topography on this thin surficial laterite deposit, a flattening function relative to the ground surface was applied in Micromine for the estimation. Upper cuts were not considered necessary and not applied to the grade estimations. Density, as determined from 7 test pits, was assigned to the block model according to lithological domain (2.48 t/m³ for RLG and 2.56 t/m³ for RLC). The resource presented here represents material recoverable through a wash and wet screen beneficiation process at c. 1 mm. Mass Recovery is the weight % of the in-situ material retained after beneficiation and a block factor of % mass recovery >1 mm/100 was applied to each block for the reporting process. No by-products have been estimated or assumed.
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> Tonnages were estimated on a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> Wireframing restricted the model to +50% Fe beneficiated grade, and a lower cut-off of 53% Fe has been selected to obtain what is currently considered a marketable 57% Fe DSO product.
Mining factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Venture Minerals proposes to extract DSO in the form of hematite and maghemite from the Riley laterite deposits. It is proposed that the near surface lateritic ore will be extracted by free dig mining in panels, crushed and wet screened on site, then screened ore will be trucked or trucked and railed to the port of Burnie for export at a rate of c. 1 Mt per annum.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> 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 potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. 	<ul style="list-style-type: none"> The proposed wet screening is an industry standard process as used in commercial gravel washing plants. The process consists of the following unit steps: Run of Mine (ROM) loading; Primary jaw crushing; Primary washing step; Secondary crushing; Wet screening to produce final product and <1mm fines; Dewatering of <1mm fines; Water recovery storage and distribution; Dewatered fines transported for rehabilitation.

Criteria	Explanation	Commentary
	Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul style="list-style-type: none"> Beneficiated (recoverable by the above process) resources are presented in this report.
Environmental factors or assumptions	<ul style="list-style-type: none"> 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 greenfield 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. 	<ul style="list-style-type: none"> The Riley DSO deposits are within granted Mining Lease 5M/2012. Mining permits have been obtained. Environmental permitting for the proposed lateritic DSO mining operation has been obtained.
Bulk density	<ul style="list-style-type: none"> 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. 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. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	<ul style="list-style-type: none"> Seven test pits were excavated within the resource area to determine dry density (by volume and weight) of the lateritic materials and an average dry density of 2.48 t/m³ has been assigned to the gravels and 2.56 t/m³ to the cemented laterite part of the resource block model.
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	<ul style="list-style-type: none"> The Riley DSO resource is classified as Indicated in accordance with the Australasian Code for the Reporting of Identified Mineral Resources and Reserves (JORC Code 2012). The classification is based the surficial nature and well-established geological model, availability of high-quality test pit and trenching information through the entire extent and depth of the resource, sample spacing and number of estimation runs. Some 99.9% of the blocks in the models were estimated within the first 4 estimation runs, effectively resulting in a search ellipse with a 100 x 100 x 2m search radius.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> The modelling and resource estimation were reviewed by appropriate Venture personnel
Discussion of relative accuracy / confidence	<ul style="list-style-type: none"> 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. 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. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> Riley DSO is a pre-mining resource, there is no production data. Block model grades and grade contours were plotted and compared with sample point data and contour plans created from the sample point data to verify the distribution and variability of Fe grades and contaminants. Venture conducted trial grade control of 52 RLG blocks. The sampling was conducted by man portable power auger to blade refusal on a 10m x 10m grid. Maximum end of auger hole depth was 1 m, and the average was c. 0.5 m. One sample of the RLG was collected from each hole representing the entire auger depth. Some 283 samples were collected and submitted to commercial assay laboratory SGS Renison for XRF assay on fused glass beads (SGS method XRF785). The samples were not beneficiated as, for ease and speed of sample preparation and assaying, it was only intended to verify the in-situ mining schedule grades. Comparison with the In-situ block model grades suggests slight positive reconciliation from the auger grade control exercise (c. +1.8% Fe, or c. 3% upgrade from the schedule block grade).

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	Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. 	<ul style="list-style-type: none"> The mineral resource estimate was conducted by Sandra Pfeifenberger, Senior Geologist and Stuart Owen, Exploration Manager for Venture Minerals. The Riley DSO resource is entirely classified as Indicated in accordance with the Australasian Code for the Reporting of Identified Mineral Resources and Reserves (JORC Code 2012). The Ore Reserves reported here are part of the Mineral Resource.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> Mr Peter George (MAusIMM) is the Competent Person for the Riley operation. No site visits have been conducted to date. Mr George has relied on observations made from numerous site visits by Mr Andrew Radonjic (Venture Minerals) and Dr Stuart Owen (Venture Minerals) and Mr Andrew George (Rapallo – Engineering Consultant).
Study status	<ul style="list-style-type: none"> The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources 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. 	<ul style="list-style-type: none"> The ore reserve estimation modifying factors were derived as part of the previous Pre-Feasibility study conducted by Rock Team in January 2013.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> +50% Fe beneficiated grade, and a lower cut-off of 53% Fe has been selected to obtain what is currently considered a marketable 57% Fe DSO product.
Mining factors or assumptions	<ul style="list-style-type: none"> 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). 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. The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used. The mining recovery factors used. Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. The infrastructure requirements of the selected mining methods. 	<ul style="list-style-type: none"> The ore is free dig from surface and will be extracted by excavator in a series of sequential mining panels. Each mining panel will be 25m wide, stretching the length of the resource. Mined ore will be hauled by truck to the Run of Mine (ROM) stockpile The proposed mining method is simple and appropriate for the orebody. An initial mining panel will be cleared with all vegetation windrowed at the base of the cleared area. As mining progresses, the next parallel 25m wide panel will be cleared ready for mining. The vegetation cleared from the next adjacent mining panel will then be pushed into the previously mined area allowing rehabilitation to commence. Material rejected from the screening plant will be placed back into the previously mined panels negating the need for a rock storage facility. The orebody averages 1.5m in thickness from surface and is not classified as open cut mining – a pit design is not required. The orebody lies on gently to moderately undulating slopes that do not pose a geotechnical risk. The deposit is free dig from surface and drill and blast is not required as 540 pits were dug by an excavator to date. A significant pitting program has previously been conducted to define the resource. The ore will be washed with a mechanical scrubber and therefore removing contaminants and upgrading the ore, therefore no dilution has been applied to the reserve. The ore contacts are visual and the smaller mining equipment will allow for selective mining. The ore is free dig from surface with no physical boundary constraints, and therefore a recovery of 100% has been applied. The configuration of the orebody and selective mining equipment will facilitate recovery. The minimum mining width is defined by the maximum panel width of 25m An inferred mineral resource was not used in the mining study The mining fleet will consist of 1 x 45t production excavator servicing five 40t trucks. The required mine and haul road infrastructure is

Criteria	Explanation	Commentary
		minimal.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. 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. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? 	<ul style="list-style-type: none"> The proposed wet screening is an industry standard process as used in commercial gravel washing plants. The process consists of the following unit steps: Run of Mine (ROM) loading; Primary jaw crushing; Primary washing step; Secondary crushing; Wet screening to produce final product and <1mm fines; Dewatering of <1mm fines; Water recovery storage and distribution; Dewatered fines transported for rehabilitation. Samples were collected from 540 test pits on 50m x 50m grid spanning across all the deposits. The samples were collected according to their lithological domain, namely pisolithic gravels and cemented laterite. These samples were dry screened at 1mm which demonstrated the ability to upgrade the resource by removing the -1mm fraction. Wet screening resulted in a slight reduction in Mass Recovery (MR) for the >1mm fraction and improved Fe grade mainly through reduction of Si and Cr. Deleterious elements include organic material, clay, and detrital fines. An organic bath will float off the organic matter whilst a mechanical scrubber will agitate the clay particles off, and out of, the gravel and into solution. This wet screen process will remove the sub-1mm fines fraction. A total of 128 samples across the ore body were subject to wet screen and the +1mm and -1mm fractions weighed and analysed confirming the ability to upgrade the Fe and reduce Si and Cr levels. A bulk sample of crushed ore from the Riley deposit was processed at a small wet screening plant with a BWD. This trial was successful in dewatering the fines.
Environmental	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The orebody completely outcrops at surface and therefore there is no waste rock overburden. The overlying gravels are all high grade and will be completely mined. Blocks of the underlying cemented laterite that are below cut-off grade will not be mined and left in-situ. As a result, waste dumps will not be required. The dewatered -1mm fines will be back filled into the previously mined areas as part of the site rehabilitation, and therefore no process residue storage is required. Process water for the plant is contained within removeable storage tanks on site and there is no need for tailings storage facilities. Ore haulage from the mine to port is currently restricted to daylight hours only.
Infrastructure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The sites for plant and related mining infrastructure have been identified, with some clearing previously undertaken in 2014. The site is accessible by sealed road located 121km from Burnie, 25km from Tullah, and 41km from Rosebery. The operation itself is located less than 2 km from a sealed access road (Pieman Road). Export will occur at the Port of Burnie located 121km by sealed road. The mine site is located near several towns within the mining district of NW Tasmania. Labour, accommodation and related services are readily accessible.
Costs	<ul style="list-style-type: none"> The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. 	<ul style="list-style-type: none"> Operating costs including Mining and Crushing were developed using the Shaw Contracting (preferred tenderer) quotes received in the submitted tender. The quotes and pricing are still under final negotiations and subject to change. The remainder of the costs including shipping and road haulage have been received from potential suppliers and service providers. A royalty rate of 5.35% on Net Sales has been used payable to the Tasmanian Government. The project assumes, sales are recognised on a cost-plus freight (CFR) basis, whereby Venture will be responsible for arranging shipment under the offtake agreement. Capital expenditure of \$6.7m on the project includes site establishment and a wet processing plant and are based on quotes received and compiled by Project Managers and Engineers Rapallo.

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	<ul style="list-style-type: none"> The allowances made for royalties payable, both Government and private. 	<table border="1"> <thead> <tr> <th>Operating Costs</th> <th>AUD\$ per Tonne DMT</th> </tr> </thead> <tbody> <tr> <td>Site Administration</td> <td>2.48</td> </tr> <tr> <td>Mining</td> <td>6.83</td> </tr> <tr> <td>Crushing</td> <td>9.44</td> </tr> <tr> <td>Power and Water</td> <td>3.80</td> </tr> <tr> <td>Road Haulage</td> <td>21.91</td> </tr> <tr> <td>Transshipment</td> <td>8.72</td> </tr> <tr> <td>Royalties and Marketing</td> <td>2.91</td> </tr> <tr> <td>Operating Cash Costs - FOB</td> <td>56.09</td> </tr> <tr> <td>Shipping</td> <td>29.03</td> </tr> <tr> <td>Operating Cash Costs - CFR</td> <td>85.12</td> </tr> </tbody> </table> <ul style="list-style-type: none"> A USD Foreign Exchange rate of \$0.68 (rounded) indicative of the published Reserve Bank of Australia USD to AUD exchange rate of \$0.6783 on 15 August 2019. 	Operating Costs	AUD\$ per Tonne DMT	Site Administration	2.48	Mining	6.83	Crushing	9.44	Power and Water	3.80	Road Haulage	21.91	Transshipment	8.72	Royalties and Marketing	2.91	Operating Cash Costs - FOB	56.09	Shipping	29.03	Operating Cash Costs - CFR	85.12
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Market assessment	<ul style="list-style-type: none"> The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	<ul style="list-style-type: none"> Venture Minerals have entered into an offtake agreement with Prosperity Steel (PSU) for sale of 100% of the marketable 57% Fe DSO product. The agreement is in place following the first two shipments for a period of two years. The company has modelled the PFS at spot at US\$90.35 Platts 62% Fe price, (at 15 August 2019). No forward projection prices have been utilised, however the company has applied a +/- 10% and 20% sensitivities to the pricing to provide a range of NPV's for the project against iron ore price fluctuations (see Section 14). 																						

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Economic	<ul style="list-style-type: none"> The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	<ul style="list-style-type: none"> The project delivers a post-tax NPV₈ of A\$27.2 million and an IRR of 303% using spot pricing of \$90.35 (15 August 2019) discounted for grade and content based on a CFR 62% Fe Platts benchmark reference price. <table border="1" data-bbox="906 542 1436 862"> <thead> <tr> <th>Key Project Financial Outcomes</th> <th>Total A\$</th> </tr> </thead> <tbody> <tr> <td>Total Revenue</td> <td>172.82 Million</td> </tr> <tr> <td>EBITDA</td> <td>37.64 Million</td> </tr> <tr> <td>Total Cash Surplus - Post Tax (LOM)</td> <td>30.67 Million</td> </tr> <tr> <td>Capital Costs - Pre-Development Costs</td> <td>3.62 Million</td> </tr> <tr> <td>Capital Costs - Mining</td> <td>3.08 Million</td> </tr> <tr> <td>Operating Costs - (per tonne)</td> <td>56.09/dmt</td> </tr> <tr> <td>Shipping Costs - (per tonne)</td> <td>29.03/dmt</td> </tr> <tr> <td>NPV₈ Post tax</td> <td>27.24 Million</td> </tr> <tr> <td>Post-Tax IRR</td> <td>303%</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Sensitivity analysis of +20% and – 20% of key variables were carried out, with NPV ranging from -A\$1.8m to +A\$49.2m. The key factors with the greatest impact on Project economics are Iron Pricing, Foreign Exchange (USD to AUD) and Operating Costs. Inputs to the economic analysis including Modifying Factors as described above. The PFS iron ore price used represents current spot pricing at 15 August 2019. 	Key Project Financial Outcomes	Total A\$	Total Revenue	172.82 Million	EBITDA	37.64 Million	Total Cash Surplus - Post Tax (LOM)	30.67 Million	Capital Costs - Pre-Development Costs	3.62 Million	Capital Costs - Mining	3.08 Million	Operating Costs - (per tonne)	56.09/dmt	Shipping Costs - (per tonne)	29.03/dmt	NPV ₈ Post tax	27.24 Million	Post-Tax IRR	303%
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Social	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate. 	<ul style="list-style-type: none"> Prior to suspending operations in 2014, Venture was actively involved in supporting local initiatives and organisations including “Save the Tasmanian Devil” and supporting the construction of Tasmanian Devil Sanctuary and a scholarship program. In addition, support has been provided to local groups including the Tullah Theatre Group which included Venture staff as participants, and is an active member of the Tullah Progress Association. Venture has awarded preferred tender status for the mining contract to Shaw Contracting Pty Ltd who are a local Tasmanian company, which provides local employment and benefits to the community. Other contracts and tenders are still to be awarded however Venture will seek to prioritise local Tasmanian suppliers to the extent possible. 																				
Other	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: <ul style="list-style-type: none"> Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. 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 approvals will be received within the timeframes 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. 	<ul style="list-style-type: none"> The area has no recorded history of earthquakes or natural disasters. The Riley Project consists of one granted mining licence 5M/2012. Both the local council planning permit (DA2012/00068) and the EPBC approval (2012/6339) are currently valid. 																				
Classification	<ul style="list-style-type: none"> The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person’s view of the deposit. 	<ul style="list-style-type: none"> The Riley DSO resource was entirely classified as Indicated (see Section 3). After the consideration of mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and government factors (Modifying Factors) some 80% Indicated Resources have been converted to Probable Reserves in accordance with the Australasian Code for the Reporting 																				

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	<ul style="list-style-type: none"> The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	<p>of Identified Mineral Resources and Reserves (JORC Code 2012). Mr Peter George (MAusIMM), the Competent Person, considers this conversion appropriate.</p> <ul style="list-style-type: none"> There were no Measure Resources and therefore no Proven Reserves.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Ore Reserve estimates. 	<ul style="list-style-type: none"> Reviews were carried out internally and by the competent person.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 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. 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. 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. 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. 	<ul style="list-style-type: none"> The accuracy and confidence levels of the study are suitable for the reporting of Ore Reserves in a Pre-Feasibility Study as defined in the JORC Code 2012. The statement relates to local estimates. The surficial nature and hence ease of accessibility to the deposit means that most geological factors have had adequate testing to provide a reasonably high level of accuracy to the estimation due to the 50m spaced pitting and trenching program completed. Further work on the performance of the wet processing plant will be required during the commissioning phase to increase control of the recoveries. The Pre-Feasibility study conducted by Rock Team in January 2013 had an estimation accuracy of not better than $\pm 20\%$ but this Pre-Feasibility study is of similar if not better accuracy and confidence limits due to more accurate costings and additional pitting. Further work on mine scheduling and ore transport solutions will be required. There is no previous production data from the project.