ASX RELEASE - VRM
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ASX Limited
Melbourne

AMMAROO PHOSPHATE FEASIBILITY STUDY COMPLETED

EXECUTIVE SUMMARY

- Feasibility Study (FS) finds that Verdant Minerals' 100% owned Ammaroo Phosphate Project in the Northern Territory is technically feasible and will deliver positive economic benefits, if developed in accordance with the prescribed design criteria

- Business case established around an initial project (Stage 1) to produce 1 million tonnes per annum of phosphate rock concentrate followed by a replication of the Stage 1 processing and site infrastructure during year 5 to produce 2 million tonnes per annum of rock concentrate from year 6 for a 20 year mine life (Stage 2)

- Enabling infrastructure including a rail spur, gas pipeline and water supply infrastructure for the whole mine life and beyond would be constructed during Stage 1

- Business case has been built on the export of phosphate rock concentrate to regional markets, including India, Indonesia, south east Asia, north east Asia as well as Australia and New Zealand

- The project also presents a compelling opportunity for large scale global participants in the fertiliser industry to build downstream phosphoric acid and fertiliser production capacity in northern Australia, utilising Ammaroo Phosphate Rock

Key findings of the feasibility study include:

- Stage 1 total installed cost of A$368m (US$276m), including enabling infrastructure, mine site and processing infrastructure, engineering, procurement and construction management costs and contingency

- Stage 2 total installed cost of A$200m (US$150m) to increase production to 2 million tonnes per annum after year 5 or production

- Detailed capital and operating costs defined to a Class 3 estimate (+/- 15%) based on the prescribed basis of processing plant design

- 15 month construction timeframe for Stage 1

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FEASIBILITY STUDY - AMMAROO PHOSPHATE PROJECT

- Initial 20 year mine life which represents utilisation of approximately 8% of the known Ammaroo JORC 2012 Mineral Resource and does not include the inferred resource at Ammaroo South or the exploration potential of the Rockhole prospect

- Production based on conventional truck and shovel open pit mining and a screening, crushing, grinding and flotation circuit to produce a low cadmium, high quality rock concentrate at approximately 33% P_2O_5

- Establishment of early stage processing at Ammaroo has the potential to be the precursor to the development of a significant new global phosphate province, given the size and quality of the resource base, relative economic stability of the country and proximity to key markets

Table 1 Key Financial Parameters

Parameter		Base Case
Life of Mine net cash flows	A$m	1,973
Average EBITDA Stage 1 yrs 1-5	A$m	74
Average EBITDA Stage 2 yrs 5-10	A$m	166
Project NPV @10% nominal ungeared, post tax	A$m	344
Project IRR, ungeared, post tax	%	18.1
Equity NPV @15% nominal geared, post tax	A$m	169
Equity IRR, geared, post tax	%	24.9

- Ore Reserve for the first 9.5 years of production of 32.5 Mt at 18.2% P_2O_5 at a cut-off grade of 10% P_2O_5 which has converted approximately 10.8% of the current Measured and Indicated Mineral Resource to Ore Reserve

- Verdant Minerals expects the FS to underpin the next phase of work that includes selection and engagement of construction partners to optimise scope and capital costs, convert commercial proposals into binding commercial terms for rail, port and energy and offtake agreements for product

- Subject to all approvals and permitting, granting of minerals leases and securing of project financing, a final investment decision is targeted for the end of Q4 2018 and construction is planned to start in early 2019

Verdant Minerals Ltd (ASX: VRM, Verdant Minerals or the Company) is pleased to advise that the feasibility study has been concluded for its 100% owned Ammaroo Phosphate Project in the Northern Territory and has delivered results outlining the technical feasibility of the project and sound economics generating positive returns to shareholders over the initial 20 year life of the project. Moreover, the project has the potential to operate for many decades beyond the initial 20 year mine plan, noting the scale of the existing Ammaroo resource and the potential of the region to become a major phosphate province with further exploration.

The finalisation of the feasibility study represents a key milestone in the evolution of the Ammaroo Project. This study, along with the pending finalisation of the environmental approvals process and finalisation of a Native Title Agreement, which will facilitate the granting of the requisite Minerals

Leases, will enable the company to start formally engaging with banks, a number of which have already registered an interest and the Federal Government's Northern Australia Infrastructure Fund (NAIF), which has cleared the project for due diligence.

Recently announced changes to the NAIF's lending rules also have provided a potential boost for the project. The NAIF can now loan up to 100% of the funding required for the infrastructure components of the project, up from 50%. Elements of this project that should fit the infrastructure definition include the rail spur, the gas pipeline, the camps and potentially a power station. This represents an opportunity to secure long term low cost debt for a significant portion of the project's debt funding.

Although there is a relatively high level of detail in the basis of design and accuracy associated with the capital and operating cost estimates in the FS, there remain a number of key activities to be completed and milestones to be achieved before the project can be considered fully bankable and ready for a final investment decision.

- Completion of the EIS and environmental approvals process. At this point there is no certainty over conditions to be placed on the project by the NT Government, although the Company believes it has made reasonable assumptions regarding this in the estimate

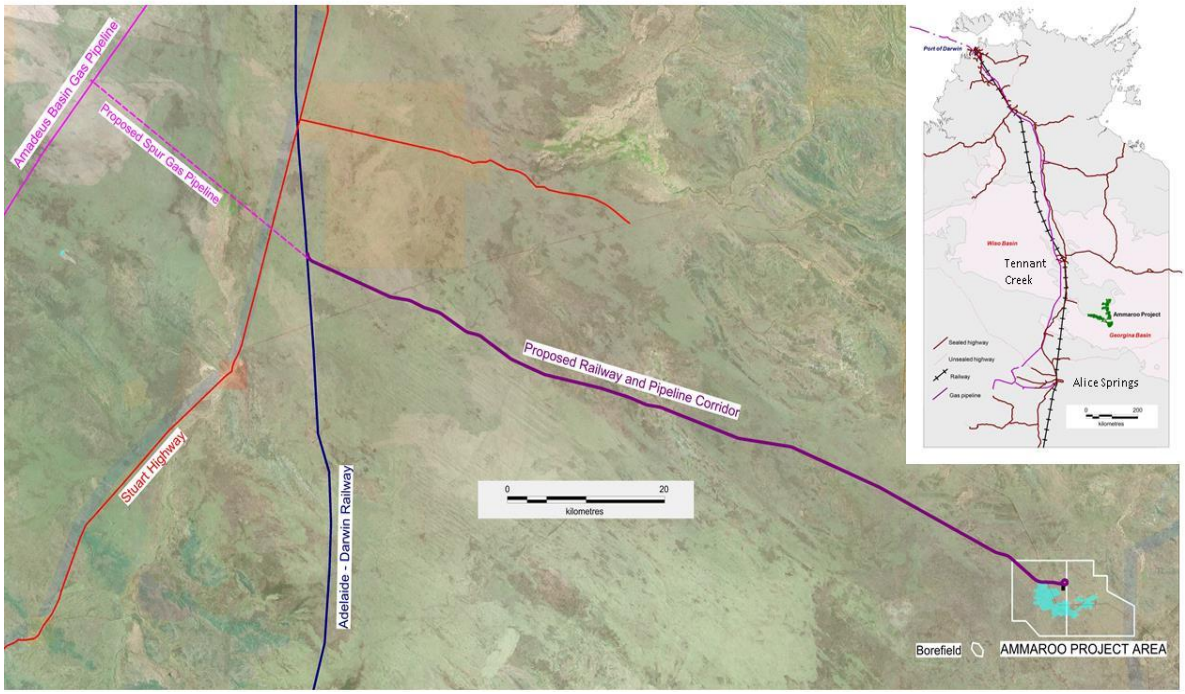
- Finalisation of Native Title compensation, but the Company believes it has modelled an outcome that is the basis of its negotiating position

- Agreement to binding commercial terms with suppliers, such as Genesee Wyoming, which are currently non-binding proposals. This will become more achievable as the project moves towards a financing solution

- The process plant design requires confirmation from additional processing test work as the results of the pilot test work did not meet the same recovery outcomes as those achieved in the Prefeasibility Study (PFS), although a similar high quality product was produced. The FS sampling programme used surface costeans and that the upper layers of the sample were oxidised and below the targeted cut-off grade of 10% P_2O_5. This resulted in samples which included phosphate needle structures and a soft ore which produced excessive fines during beneficiation. These fines are discarded as waste product thus reducing the P_2O_5 recovery compared to the PFS test results that utilised drill core material at an average P_2O_5 grade of 15%-17%. The flowsheet in this FS report is based on a hybrid of PFS metallurgical test work data and FS data and the mining schedule has been developed to exclude this lower grade, oxidised material from the run of mine ore and provide material more reflective of the material used in the PFS test work. The recommended additional test work is required to confirm the current proposed flowsheet and associated capital cost estimate. WorleyParsons has a high degree of confidence in the capital cost estimate to construct a project based on the processing plant designed in the FS

- Conversion of offtake MOU's and continuing engagement with regional buyers to binding offtake agreements and/or Joint Ventures with credible counterparties

Figure 1 **Project Location**



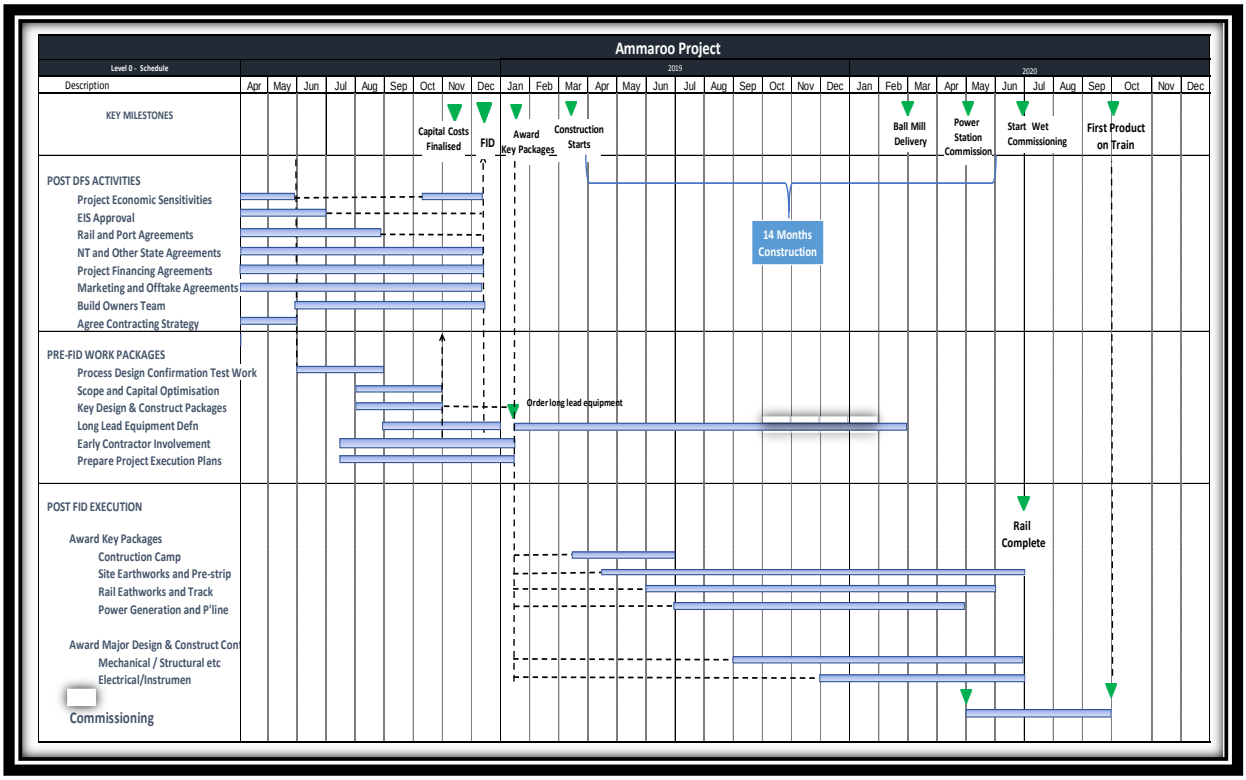
Development Schedule

Verdant Minerals expects the FS to underpin the next phase of work over a period of 6 months. This includes selection and engagement of construction partners to optimise scope and potentially reduce capital and operating costs, confirmatory and optimisation test work on the selected process flowsheet as per above, that will also produce additional product for marketing purposes, convert commercial proposals into binding contracts for rail, port, energy supply and product offtake agreements.

Subject to completion of the abovementioned next phase of work and receiving all approvals, permitting, attainment of minerals leases through the conclusion of a Native Title Agreement and securing of project finance, a final investment decision is targeted for end Q4 2018 and commencement of construction in early 2019.

The chart below outlines the core activities and tasks required to move beyond a feasibility study to a position where a final investment decision can be made. These activities can be categorised as post FS activities, pre-final investment decision work packages and post final investment decision execution.

Figure 2 **Project Development Schedule**



Feasibility Study Team

Verdant Minerals has engaged a team of well credentialed engineering, metallurgical, mining, marketing and supply chain logistics groups in the conduct of the feasibility study and the associated Environmental Impact Statement (EIS).

The FS was led and managed by WorleyParsons, through its Melbourne based Phosphate Centre of Excellence. WorleyParsons have been associated with the project since late 2013 having overseen a preliminary feasibility study.

Verdant Minerals would also like to acknowledge the significant input of the following partners:

Mine Planning	-	Mining Plus
Metallurgical Testwork	-	Corem
Engineering, Plant and Infrastructure Design	-	WorleyParsons
Product Market and Pricing analysis	-	CRU
Rail and Port Infrastructure and Logistics	-	Balance Advisory
Environmental and EIS	-	GHD
Hydrogeology and Ground Water	-	Ground Water Science
Financial Modelling and Debt Advisory	-	Magma Capital

Financial Metrics

Table 2 below highlights the key financial metrics.

Parameter		Base Case
Stage 1 Total Installed Capital Costs	A$m	368
Stage 2 Total Installed Capital Costs	A$m	200
Total Revenue	A$m	8,625
Total Operating Costs	A$m	4,338
Total Royalties paid to NT Government	A$m	645
Total Corporate Taxes paid	A$m	722
Life of Mine nett cash flows	A$m	1,973
Average EBITDA Stage 1 yrs 1-5	A$m	74
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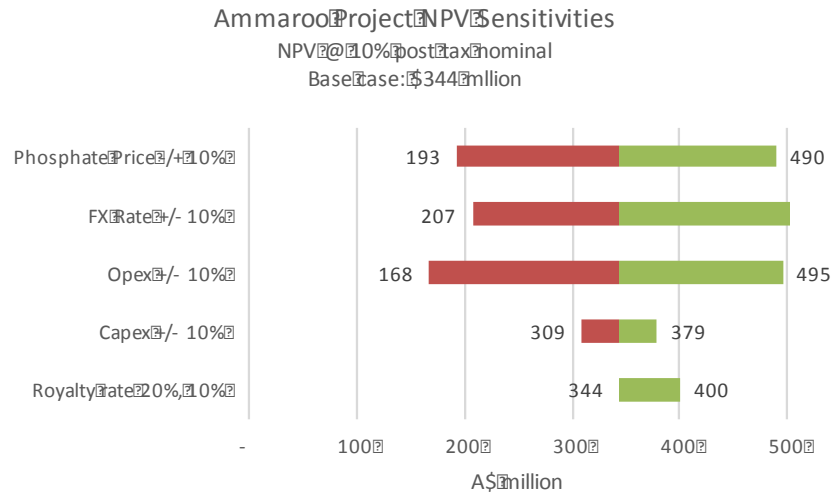


Mineral Resource

The Ammaroo Mineral Resource estimate (JORC 2012) was released in an ASX announcement dated 15 March 2017. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original ASX announcement. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original market announcement.

Table 3 Ammaroo Phosphate Mineral Resource Estimate

Ammaroo JORC Resource			
Cut Off P_2O_5 %	**Category**	**Mt**	**P_2O_5 %**
10	Meas.	136	15.4
	Ind.	165	15.5
	Inf.	840	13.0
	Total	**1,141**	**14.0**
15	Meas.	61	18.5
	Ind.	72	19.0
	Inf.	200	17.0
	Total	**333**	**18.0**

Ore Reserve

A Proven and Probable Ore Reserve has been estimated as part of the FS and provides production for the first 9.5 years of mine life. The Mineral Resources reported above are inclusive of Mineral Reserves. The JORC (2012) Ore Reserve is outlined in Table 4 and constitutes approximately 10.8% of the current Measured and Indicated Mineral Resource and 2.8% of the total Measured, Indicated and Inferred Mineral Resource. It is considered likely that significantly more of the resource will be upgraded and ultimately converted to Ore Reserve in due course, underpinning the potential long life of the project.

Table 4 Ammaroo Proven and Probable Ore Reserve Estimate

Category	Resource Classification	Tonnage (million tonnes)	P_2O_5 (%)
Proved	**Measured**	11.8	18.91
Probable	**Measured**	4.1	18.92
	Indicated	16.4	17.51
Proved	**TOTAL**	**11.8**	**18.91**
Probable	**TOTAL**	**20.6**	**17.79**
Grand Total		**32.4**	**18.20**

The total pit tonnage is 101.3Mt including 68.9Mt of waste rock material. In addition, the pit design's strip ratio is 2.1:1.

The Ore Reserve includes allowances for mining dilution and ore losses. Appropriate assessments and studies have been carried out and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

Mining costs are based on a conventional truck and shovel operation and validated with mining costs supplied by mining contractors' submissions based on the current mine design and schedule.

Beneficiation Process Description

Ore delivered by mine haul trucks from the mining area to the beneficiation plant will be crushed and screened to produce the correct mill feeds. The crusher plant is a mobile system designed to produce a mill feed of 100% passing 20mm.

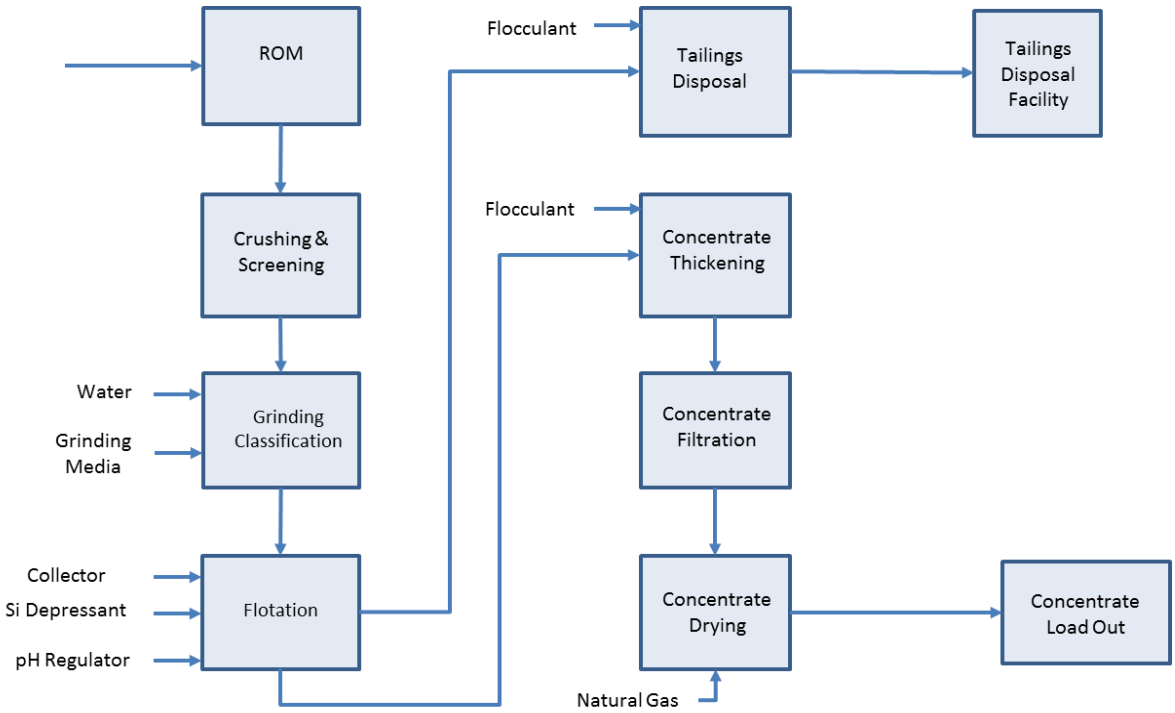
The mill feed is delivered to a mill feed screen where the material is wet screened at 3.5mm with the minus 3.5mm material being pumped to the cross flow separator classifiers together with the ball mill discharge. The ball mill will be fed +3.5mm scrubber screen oversize material and the cross flow separator underflow discharge (-3.5mm+212 µm).

The dewatering cyclones remove process water and produce high density slurry for reagent conditioning. The primary purpose of reagent conditioning is to mix the slurry with the reagents required to float the P_2O_5 in the downstream flotation circuit.

Concentrate from the third cleaner flotation circuit is pumped to the concentrate thickener and flocculant is added to assist in settling the solids. The concentrate slurry is filtered using pressure plate and frame filters. The filter cake is transferred via belt conveyors to the gas fired rotary dryer unit. The filter cake moisture is approximately <20% and is reduced to less than 7% moisture at the final dryer discharge.

The dried phosphate concentrate is discharged from the rotary dryer onto a belt conveyor that delivers the material into a covered storage shed. The proposed method of loading a train is via front end loaders into a feed hopper and then by conveyer and deposited into the top of the rail wagons at a rate of circa 1,200tph.

Figure3: ***Schematic representation of the major processing section of the beneficiation plant flow sheet***



Other Infrastructure and Logistics

Power for the project site will be generated from an on-site gas fired power station provided by a specialist power generation contractor under a build own operate (BOOT) methodology. The option remains to incorporate the capital associated with the power station into the project and thus reduce operating costs by approximately $2.50 per tonne. Gas is expected to be sourced from the Amadeus Gas pipeline via a 130 kilometre carbon fibre 5 inch buried pipeline, constructed during Stage 1.

A 105 km rail spur will be constructed during stage 1 to provide an outlet for the bulk haulage of product by train but to also enable the supply of diesel and reagents by inbound trains. Product will be loaded at site through a purpose built bulk loading facility to be hauled approximately 1,100 km to the port of Darwin in bulk train wagons to the existing bottom dump unloader at the port of Darwin before being conveyed to a new storage shed to be constructed at the port. Product can then be loaded from the shed to the exiting bulk commodity ship loader at the Port of Darwin for export.

A 350 person temporary construction village will be built and descaled and modified to a 120 person operations accommodation village for Stage 1 of operations then expanded for the Stage 2 operations. The capital model assumes new camps are constructed as new but there is significant potential to acquire second hand camps which could lead to a substantial reduction in capital.

It is envisaged that a portion of workforce will be fly in fly out, with a preference for the workforce to be based in Alice Springs or Darwin. Provision has been made in the capital to either construct a new airstrip at site or potentially extend and utilise the existing airstrip at the community of Ampilatawtaja, approximately 25 km from the project site.

Product Specifications

Processing test work in both the PFS and the FS has produced a high quality phosphate rock concentrate of around 33% P_2O_5. The rock concentrate is ideally suited to phosphoric acid production, which is the basis for all ammonium phosphate and NPK fertilisers globally. Additionally, the product could be utilised in a blend for the production of Single Super Phosphate.

The Ammaroo rock concentrate is very low in cadmium which may provide a competitive advantage compared to North African production which is has significantly higher levels of cadmium. The rock concentrate is also lower in calcium carbonates than other rock supplies, which has the benefit of reducing sulphuric acid consumption in the process for producing phosphoric acid.

Although the rock has higher than normal levels of lead, it has been proven through phosphoric acid production test work that the lead is insoluble and reverts to the waste stream, it therefore does not end up in the fertiliser product.

The following table outlines the key chemical specifications and targeted ranges of Ammaroo product based on recent and historical beneficiation trials.

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Table 5 Ammaroo Rock Specifications

P_20_5	%	32.5 - 33.8
CaO	%	45 – 48
F	%	1.5 - 3.4
Al_20_3	%	1.1 1.3
SiO_2 total	%	7.2 – 12.2 (approx. 30% reactive silica)
Cd	ppm	3-4
Cl	ppm	<50
Fe_2O_3	%	1.1 – 1.2
MgO	%	0.2 – 0.25
As	ppm	7 – 11
Pb	ppm	<250
U_3O_8	ppm	<22
Ratio CaO/P_2O_5		**1.34 - 1.47**
MER = $(Al_2O_3+Fe_2O_3+MgO)/P_20_5$		**0.07 – 0.085**

Phosphate Rock Concentrate Pricing

CRU Consulting of London, a highly regarded commodities consulting company, with specific expertise and knowledge in the fertiliser commodity space, was engaged to conduct a market study and provide a long term nominal price forecast for Ammaroo Phosphate Rock Concentrate. The price analysis comprised a price forecast from 2021 to 2040 (the life of the mine) and accounted for the value in use of Ammaroo Rock and freight differentials with the 30%-32% P_2O_5 Moroccan K10 benchmark standard as the baseline, noting this represents the dominant supply into the region.

Specific Free on Board (FOB) prices for Ammaroo rock over the period have been calculated for a number of potential markets, specifically, India, Indonesia, Malaysia, China and South Korea. The methodology applied the following formula:

Standard Price in Market (Moroccan FOB plus freight) + P_2O_5 premium + CaO/P_2O_5 Premium +/- MER premium = Forecast CFR (delivered price in market of Ammaroo Rock)

CFR – Freight = FOB Darwin

By way of example the 2019 forecast price for Moroccan benchmark delivered to East Coast India is US$120 which assumes an FOB price of US$84 and US$36 in freight. After applying the value in use methodology and the freight differential, the forecast price for 2019 FOB Darwin is US$113. It should be noted that the last published spot price for the Moroccan standard in April 2018 was US$86.

This methodology has been applied to the price forecast for Ammaroo Rock to calculate an FOB price for each potential market for each year going forward. The Company has taken the decision to discount the price forecasts for each market by a further 10% in its financial modelling. The Company has assumed a market split of 45% India, 35% Indonesia and other South East Asia, 10% North East Asia and China and 10% Australia and New Zealand.

Noting the Company is currently engaged in discussions with potential customers, the preference is to keep specific price assumptions as commercial-in-confidence.

Capital Expenditure

The FS assumes and overall total installed cost of A$368m (US$276m) for Stage 1 which is for 1 million tonnes per annum of production, This includes a design growth allowance, EPCM costs, contingency and the construction of enabling infrastructure such as the rail spur, gas pipeline and water supply infrastructure that is required for a Stage 2 expansion to 2 million tonnes per annum. The expansion to 2 million tonnes by the end of year 5 of production is estimated to cost an additional A$200m.

Table 6 Capital Cost Summary for Stage 1

Package/Area	Capital Estimate A$M	EPCM A$M	Contingency A$M	Total Installed Cost A$M
Process Plant, Mine Site Infrastructure and Utilities	177.7	22.2	16	215.9
Camp Package	13.5	0.35	1.1	14.95
Pre-Strip	12	0.4	0.6	13
Total Mine Site	**203.2**	**22.95**	**17.7**	**243.85**
Rail Spur	79.3	4.2	6.5	90
Gas Pipeline	24.5	0.73	2	27.23
Road Diversion	2.2	0.1	0.18	2.5
Airstrip	4	0.12	0.33	4.5
Total Off-Site Infrastructure	**110**	**5.15**	**9**	**124.15**
Total	**313.2**	**28.1**	**26.7**	**368**

Note – Power Generation Plant is third party build own operate and Mining Fleet is leased

Operating Costs

Total free on-board operating costs include site production costs, drying and loading, transport and logistics costs to port, ship loading and forecast compensation for Native Title Holders. The total aggregate FOB operating costs in nominal terms expensed over the 20 year mine life is A$4.358bn.

As the company is currently discussing off take arrangements that will involve setting price terms and the preference of logistics providers is to keep price proposals commercial-in-confidence, the company's preference is to keep specifics about operating costs per tonne of product confidential other than to state the operating costs in Australian dollar terms, at 2 million tonnes per annum are in line with those determined during the PFS in 2014.

Exchange Rate

A long run USD/AUD exchange rate of 0.75 cents has been used in the economic analysis of the project. This exchange rate aligns with the current exchange rate and bank long run forecasts.

Product Off-Take

In order to secure debt financing to enable a final investment decision, it is envisaged that at least 600,000 tonnes of stage 1 production will need to be underwritten by binding offtake agreements. An MOU for up to 350,000 tonnes per annum has been signed with Wilson International Trading, the buyer for India's Greenstar Fertilisers. A number of other regional buyers have tested or are in the process of testing Ammaroo's product and a number of discussions are underway regarding offtake.

Risks and Opportunities

Like any greenfield minerals project shareholders should be aware that there are risks associated with pricing, foreign exchange, financing, contracting, commercial, operational and product specifications and the actions of Government.

However, there are a number of key opportunities that could create value upside:

- Continued geopolitical instability in the Middle East and Northern Africa creating impetus for phosphate price increases or investment in less risky jurisdictions, such as Australia. Unlike other supply jurisdictions there are no restrictions on foreign investors investing in the rock projects as well as downstream projects
- Changes to tolerances in cadmium levels in phosphate rock could increase the attractiveness of low cadmium rock, such as that in the Georgina Basin of Australia
- The potential to attract industry majors to invest in downstream fertiliser manufacturing in the Northern Territory, now that the moratorium on onshore gas has been lifted
- Potential for cost reductions through early contractor involvement in project scope optimisation and further test work to reduce the amount of site water that needs to be treated
- Leveraging Australia's leading position in mining and processing automation and remote operations control as a significant lever in increasing productivity and lowering operating costs beyond what has currently been considered in the FS
- Opportunities that might exist to procure second hand capital equipment including camps and mining equipment

Chris Tziolis
Managing Director **Phone: +61 8 8942 0385**

Competent Person's Statement

The information in this report that relates to Ammaroo Mineral Reserves is based on information compiled and reviewed by Ms Kellie Gill, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy (AusIMM) and a full-time employee of Mining Plus Pty Ltd.

Ms Gill has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the JORC Code 2012.

Ms Gill has no economic, financial or pecuniary interest in the company and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Kellie Gill
Principal Mining Consultant
Mining Plus Pty Ltd

About Verdant Minerals

Verdant Minerals Ltd's (ASX: VRM) strategic intent is to create shareholder value through the discovery, development and operation of fertiliser and industrial mineral projects, located in close proximity to existing transport infrastructure, focused on the Northern Territory of Australia.

The Company is currently developing its 100% owned world class Ammaroo Phosphate Project which has commenced a bankable feasibility study and environmental approvals processes. In addition the Company is the proponent of sulphate of potash projects in the Northern Territory and South Australia and the Dingo Hole Silica project, located in the Northern Territory, which has the potential to produce a high purity quartz product.

Forward Looking Statements

This announcement has been prepared by Verdant Minerals Ltd. It is not intended to be and does not constitute an offer to sell, or a solicitation of an offer to buy or sell, Verdant Minerals' securities.

This announcement does not constitute a recommendation to invest in Verdant Minerals' assets, nor investment, accounting, financial, legal, tax or other advice and does not take into consideration the investment objectives, financial situation or particular needs of any recipient of the announcement (Recipient). Before making an investment decision, Recipients should (a) conduct their own independent investigations and analysis of Verdant Minerals and the information set out in the announcement, (b) rely entirely on such investigations and analysis and not on this announcement in relation to their assessment of Verdant Minerals and (c) form their own opinion as to whether or not to invest in Verdant Minerals' securities.

The announcement contains information on Verdant Minerals and its activities which are current as at the date of this announcement. The information in this announcement is general in nature and does not purpose to be complete nor does it purport to contain all of the information that a prospective investor may require in evaluating a possible investment in Verdant Minerals or that would be required in a prospectus or a product disclosure statement prepared in accordance with the Corporations Act. To the maximum extent permitted by law, none of Verdant Minerals and its related bodies corporate, and each of those parties' officers, employees, agents, advisers and associates (each a Relevant Person) is, or may be taken to be, under any obligation to correct, update or revise the announcement.

Any forward looking statements (including forecasts) included in this announcement are not representations as to future matters and should not be relied upon by Recipients. The statements are based on a large number of assumptions about future events and are subject to significant uncertainties and contingencies, many of which are outside the control of Verdant Minerals. No representation is made that any forecast or future event will be achieved. Actual results may vary significantly from the forecasts. Each Recipient should make its own enquiries and investigations regarding the assumptions, uncertainties and contingencies which may affect Verdant Minerals' assets.

To the maximum extent permitted by law, each Relevant Person makes no representation or warranty (express or implied) as to the currency, accuracy, reasonableness or completeness of the information, statements and opinions expressed in this announcement (Information). To the maximum extent permitted by law, all liability in respect of the Information is expressly excluded, including without limitation any liability arising from fault or negligence, for any direct, indirect or consequential loss or damage arising from the use of the Information or otherwise. No responsibility is accepted by any Relevant Person, for any of the Information, any omission from this announcement or for any action taken by the Recipient or any other person on the basis of the Information.

JORC Code, 2012 Edition

Section 4 Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *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.*	• The Ore Reserve Estimate is based on the Mineral Resource Estimate for the Ammaroo deposits completed by Verdant Mineral as per the ASX announcement from 15th March 2017. • The mineral resource estimate provided was in csv format, file titled: 20170407 Model A.csv, supplied by Verdant Minerals. This block model contains parent cell sizes of 25 m in the X direction, 25 m in the Y direction and 1 m in the Z direction. • The Minerals Resources are reported inclusive of the Ore Reserves.
Site visits	• *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.*	• Kellie Gill visited the site between the 13th June 2017 and the 16th June 2017. During this inspection the Ammaroo project area was visited, along with the already mined costeans, which remain open to this date. The drill core, plus overburden material were all viewed and examined from a mining perspective. The general area of the deposits is fairly flat which should not cause any impediment to mining, and there are no surrounding features that should limit the development of the project.
Study status	• *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.*	• Mining Plus have been involved in the mining study that encompass a Feasibility Study (FS) which is planned for release in 2018, of which the Ore Reserve forms an integral part. Prices included within the financial modelling have been obtained from contractor quotes to a requested +/-10% accuracy. The study level of work is sufficient to allow the conversion of the Mineral Resource to an Ore Reserve. • The mining designs and schedules, by Mining Plus, have been undertaken with the goal being that they are of sufficient detail and accuracy that they could be used in the execution phase with little or no re-work. The schedules include not only the extraction of overburden and ore but also the rehandle of stockpiled ore and the return of overburden to both ex-pit and in-pit dumps, as well as the placement of processing tailings within the pits. Haul road, stockpiles and ex-pit dumps have been designed, is sufficiently undertaken for the FS and Ore Reserve purposes.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• A cut-off grade of $P_2O_5 \geq 10\%$ and $Fe_2O_3 \leq 5\%$ was applied to all deposits with the project area. The competent person has deemed this suitable for the current mining study work and the Ore Reserve based on analysis completed during the FS by Mining Plus.

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	• *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.*	• The general methodology used to convert Mineral Resources to Ore Reserves was as follows: 1. Prepare mining block model, incorporating appropriate dilution and ore loss factors, from the block model that underpins the Mineral Resource estimate 2. Prepare mining and processing cost inputs, geotechnical slope information, expected processing recoveries and other inputs (phosphate price, royalties) for input to Whittle optimisation software 3. Run Whittle pit optimisations at a range of revenue factors to produce a series of nested pit shells. All Inferred material was treated as waste for the purposes of this pit optimisation, such that the pit design is not driven by inclusion of Inferred material. 4. Select pit shell to use as a basis for pit design and design final pit and pit stages. • Mining is proposed to be via an open cut operation utilising hydraulic excavators and rigid dump trucks. The method selected is conventional with no obvious aspects that increase the risk associated with equipment selection or practices to be employed. The equipment selection process was completed in conjunction with a hybrid contractor cost estimate prepared by Mining Plus with the input from NRW, Watpac and Exact mining contractors. The equipment selected for the study is conservative and includes sufficient allowances for non-operational time and unforeseen circumstances. • The geotechnical parameters used for the optimisations and mine design were provided by Coffey Consulting in a report (AMC Consultants Pty Ltd, 2014) completed in 2014. The recommended slope angle is 60° batter angles with an 8.5m berm every 20m. • Ore loss and dilution were included in the Ore Reserve estimation through the regularisation processes. Each deposit model was regularised by Mining Plus and the estimate on ore loss and dilution calculated. The outcome of this exercise was an ore loss around 5% with dilution at 12%. These levels are not unexpected considering the large lateral extents of the ore body and are within acceptable ranges for the Ore Reserve estimate. • No value was attributed to Inferred Mineral Resources during the pit shell generation process. • The Ore Reserve estimation process has taken into account the use of surface and in-pit waste dumps, and surface and in-pit tailings storage facilities. The backfilling of the pits and all surface infrastructure has been designed so that it will not impact the Ore Reserve.

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Metallurgical factors or assumptions	• *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?*	• A single stage primary crush, Semi Autogenous Grinding and Ball Milling with Pebble Crushing (SABC) comminution circuit followed by a conventional carbon in leach (CIL) process is proposed. This process is considered appropriate for the Mt Carrington ore, which is classified as free-milling. • Alternatives evaluated included concentrate sales and concentrate leach in light of the presence of cyanide-consuming base metal sulfides however CIL was selected on the basis of maximising recovery at acceptable CN usage. • The proposed metallurgical process is commonly used in the Australian and international phosphate mining industry and is considered to be well-tested technology. • . The overall Ore Reserve recovery of 70% was provided by Verdant Minerals, which was recommended by test-work that has been completed for the process plant. • Allowance has been made for pre-aeration to improve recovery and reduce CN usage due to impact of sulphides. • There has been no bulk sampling or pilot-plant testing to date.
Environment	• *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.*	• The Environmental Impact Statement (EIS) assessment process is in the final stages of completion with the Northern Territory(NT) EPA. The necessary baseline geochem, water and ecological studies were conducted during 2016 and 2017, engineering and mining designs based on initial FS work and a draft EIS was submitted to the NTEPA in October 2017. After an initial assessment comments were received by the Company in late December 2017 and subsequently a supplementary EIS has been drafted and is currently with the NTEPA undergoing an adequacy review. It is expected that the supplementary will be formally submitted in early May and approved by the Minister during June 18.
Infrastructure	• *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.*	• Consideration was given to the location of the infrastructure and ex-pit dumps such that mineralisation within the Revenue Factor of US$105/tonne was not sterilised. Waste dump design parameters are reasonable and practical for the equipment selected. • A swell factor of 20% has been applied to the waste volume to determine the ex-pit dump sizes and each deposit has sufficiently sized dumps. • The processing plant, haul roads, stockpiles, workshops and accommodation facilities have all been laid out within the project area and can be seen to not impact on the mining area and therefore should not impact on the Ore Reserve. The majority of the infrastructure has been placed on the northern side of the deposits including the access road and therefore this also should not impact on the Ore Reserve.

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Costs	• *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 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.* • *The allowances made for royalties payable, both Government and private.*	• A hybrid cost estimate was generated by Mining Plus in order to calculate capital and operating costs for the final study schedules. This cost model was selected with three mining contractors as it represented the lowest cost method but remained within a practical and realistic range from the contractors. • The mining costs for the optimisations was summarised to a cost per tonne for ore and for waste, with no incremental adjustment for depth as the pits are all generally shallow, or for horizontal distance as the overburden will be predominantly backfilled and the ore will be hauled to a number of incrementally placed stockpiles or Beneficiation plants. • Costs of transport are included in the site General and Administration costs. • All operating costs are considered to be at FS level of accuracy i.e. +/-10%. • The primary exchange rate of relevance to the valuation of the Verdant project is the AUD: USD rate. Verdant has selected AUD: USD 0.75 for capital cost, operating cost and valuation purposes. • Based on initial proposals for commercial terms from Genesee Wyoming in terms of rail and Landbridge the owner of the Port of Darwin. Infrastructure capex for the port was derived from local quotes for additional conveyor and storage infrastructure • It is believed the available ore and the process plant can attain specification • The Northern Territory has a profit based royalty regime. The impact of which is modelled in the projects financial model. As the profit based model enables up to approximately 140% of the capital to be deducted from the revenues less the expenditure, it is not expected that significant royalties will be paid in the first 10 years of the project's life.
Revenue factors	• *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.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• Selling costs were included in the optimisations which included the transportation of final product to the port. Pricing forecasts are based on CRU's Market Analysis and Pricing forecast for the project and a long run US dollar exchange rate of $0.75 applied. • A revenue price of USD$ 105 / tonne P2O5 concentrate was used in the optimisation.
Market assessment	• *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.*	• Based on CRU marketing report the Global production of phosphate rock concentrate in 2016 was approximately 230 million tonnes and growing at a capitalised annual growth rate of approximately 1.8%. Stage 1 of this project represents 0.4% of current global production. • Before the project can be financed it will be necessary to obtain at least 600ktpa of binding off take agreements. Key markets for phosphate rock concentrate are India, Indonesia, Sth Korea, Australia, New Zealand and potentially China. Another potential scenario is the production of phosphoric acid in Australia using Ammaroo Rock. • Weighted average FOB price forecasts for markets according to CRU value in use and freight netback analysis approximately US$125 per tonne in 2021. • Verdant Minerals has samples from its pilot program in the market being tested by potential customers

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Economic	• *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.*	• Discounted cash flow modelling and sensitivity analysis has been completed to evaluate the economic performance of the project. Key value driver inputs into the financial model include; P205 concentrate price of USD$ 105 / tonne (in 2017 terms) based on long-term forecasts, Discount rate of 10% as determined by the Board of Directors of Verdant Minerals, and excluding project financing. The project returns a positive NPV under the assumptions used. • The project financial model was provided by Verdant Minerals with the FS mining schedule included. The model indicates a positive Net Present Value (NPV), utilising the parameters and assumptions listed in the summary sheets. • The financial model does show that the Ore Reserve will return a positive NPV, under the reported assumptions and modifying factors.
Social	• *The status of agreements with key stakeholders and matters leading to social license to operate.*	• Project development Agreement with NT Government under negotiation. Native Title Mining Agreement under negotiation and expected to be in place by June 2018. See earlier comments on Environmental approvals.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *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.*	• Phosphate production is benign and process water from the flotation plant of very high quality. Area is semi-arid country in the Georgina Basin and there are no permanent water systems near the project area. Ground water resource is significant as the Georgina Basin is a large aquifer system (not Great Artesian Basin). • No material contracts or marketing arrangements are in place. • The project is contained within two Mineral Lease Applications which will be granted once the Native Title Agreement is in place. Without the leases granted there will be no mining.
Classification	• *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.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• The Ore Reserve is quoted as including both Proved and Probable. The Proved category has been utilised for the Measured Resource. To categorise material as Proved the level of confidence must be high that all the modifying factors are reasonable, practical and expected to be implemented. One of these factors which is often outside the control of the company is the metal price, in this case a long term contract reduces this risk however also, the majority of the Proved material falls within the US$105/tonne pit shell and can be shown to be cash positive at current spot prices. Therefore there is sufficient confidence to allow a Proved category to be included.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• No audits or reviews of the Ore Reserves estimate have been conducted to date.

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Discussion of relative accuracy/ confidence	• *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.*	• The Ore Reserve is reported within the context of the FS report; this indicates that the accuracy of the modifying factors is at least +/- 10% for any data drawn from the FS. • Test pits were excavated at Ammaroo in Q2 2017. Ore samples extracted from the test pits increases the overall level of confidence in both the Mineral Resource estimate and the modifying factors applied to arrive at an Ore Reserve estimate, especially the geotechnical parameters and metallurgical factors from subsequent work completed as part of the FS.