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ASX Announcement **8 December 2016**

Mount Morgan Feasibility Study Delivers 2 Year Payback and AISC of A$549/oz

Declaration of maiden Ore Reserve underpins Project's long life and economics

Carbine Resources Limited (Carbine) (ASX: CRB) is pleased to advise that a Feasibility Study (**FS**) has found its Mount Morgan Gold-Copper Project in central Queensland, Australia will enjoy low operating costs, a rapid payback period and a long mine life.

The estimated preproduction capital cost would be A$85 million and the all-in sustaining costs after by-product credits would be A$549/oz. The Project's economics enable a forecast payback period of just two years.

The Feasibility Study Base Case (**FS Base Case**) was based on a 1.1mtpa throughput rate achieving a 9.5 year mine life. The estimated Ore Reserve is associated with just four of the historical tailings dumps at Mount Morgan delivering gold, copper sulphate and premium unroasted iron pyrite concentrate to market.

Carbine and GR Engineering Services (**GRES**) entered into a strategic partnership in relation to the Mount Morgan Project (ASX: 23 December 2015) and GRES were awarded the work associated with the FS. GRES have successfully completed the FS including the study management, process design, and process layout and infrastructure design.

In light of the study's strong technical and financial outcomes, the Board has decided to advance the project finance options, optimize offtake arrangements for the premium unroasted iron pyrite market, continue with the Project's regulatory approval process and consolidate project ownership.

Table 1: Key results of FS Base Case

	Description	FS Base Case
Mining	**Ore Reserve (Mt)**	9.9
	Gold Grade (g/t)	1.19
	Contained Gold (ozs)	380,000
	Copper Grade (%)	0.16
	Contained Copper (t)	16,000
	Pyrite Grade (Wt %)[4]	21
	Contained Pyrite (t)	2,300,000
Processing	**Ore Processed (Mt)**	9.5
	Polymetallic AuEq (g/t)[1]	1.8
	Gold Grade (g/t)	1.23
	Copper Grade (%)	0.17
	Pyrite Grade (Wt %)	22
	Average Annual Gold Production (ozpa)	30,000
	Average Annual Copper Sulphate Production (tpa)	3,800
	Average Annual Pyrite Concentrate Production (tpa)	214,000
Project Economics	**Mine life (years)**	9.5
	Payback (years)[3]	2
	C1 (A$/Au oz)[4]	395
	AISC (A$/Au oz)[5]	549
	Pre-production Capital (A$M)	85.1

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Table Notes:

1. *AuEq ozs have been determined using the AuEq grade as outlined in Table 1 above. The AuEq calculation has been done with respect to the commodity prices shown in point 3 below and suitable metal recovery factors. Please refer to Section 1.6 for detailed description of calculation of Metal Equivalents used in this announcement.*
2. *Project economics shown above includes the capital payment of A$2 million to Norton Gold Fields Limited at the commencement of the project to obtain ownership rights and includes deferred payment of A$13 million from future profits.*
3. *Payback was determined using a AUD/USD FX 0.75, and with commodity prices of US$1,200/oz gold, US$60/t unroasted iron pyrite for years 1 & 2 then US$80/t for the remaining years, US$5,800/t copper. Copper sulphate revenue is based on copper LME price for approximately 25% copper grade plus A$500/t premium for copper sulphate.*
4. *C1 is defined as the direct cash operating costs produced, net of by-product credits, divided by the amount of payable gold produced. Direct cash costs include all mining and processing costs, general and administration costs, and transport and port costs net of revenue credits from the sale of by-products (pyrite and copper sulphate).*
5. *AISC is the "All in sustaining cost" includes C1 costs, plus royalties and sustaining capital and are presented net of by-product credits, divided by the amount of payable gold produced.*

Carbine Resources Managing Director, Mr Tony James, said:

"The feasibility study delivers a strong base case for the development of a long-life project at Mount Morgan. The Project also has the potential to deliver a new generation of thinking towards environmental cleanup, heritage sustainability and community interaction.

From a Carbine perspective, after a short payback period, the Project can provide a steady cash flow for many years enabling a strong growth platform for the Company.

From an environmental perspective, the Project has the potential to make some significant in-roads into the environmental legacy associated with acid mine drainage at Mount Morgan with the processing and removal of pyrite from the dumps.

From a community perspective, the Project delivers a new project into central Queensland with a significant mine life. The community of Mount Morgan can become an active mining centre once again."

Mr James extended his thanks and congratulations to the Carbine team including the many consultants and contractors for doing an excellent job completing the FS and taking the Project to a new level of understanding and opportunity. He also acknowledged the contribution and ongoing support of the Department of Natural Resources and Mines (DNMR) and the Rockhampton Regional Council (RRC).

As an extension to the FS, Carbine has also completed an assessment of a 20 year mine life case (**Expanded Case**) which is an expansion of the FS Base Case at the same production rate. Significant historical production data and reconciliation of that data enables the Company to consider this case with reasonable confidence. However, the Company cautions that the Expanded Case study is currently partly based on low-level technical and preliminary economic assessments, and is insufficient to support the estimation of additional Ore Reserves. Further evaluation work and appropriate studies are required before the Company will be in a position to estimate any additional Ore Reserves, or provide certainty that the results from the Expanded Case will be realized (See section 15 for the full details of the Expanded Case).

Cautionary Statements

Carbine believes that the production target, forecast financial information derived from that target and other forward looking statements included in this announcement are based on reasonable grounds. The detailed reasons for this are outlined in Section 15 and Appendix 1 in this announcement. However, neither Carbine nor any other person makes or gives any representation, assurance or guarantee that the production target or expected outcomes reflected in this announcement in relation to the expanded case will ultimately be achieved.

Investors should note that Carbine believes the commodity prices, AUD:USD exchange rate and other variables that have been assumed in the expanded case to estimate the potential revenues, cash flows and other financial information for the Mount Morgan Project are based on reasonable grounds as at the date of this announcement. However, actual commodity prices, exchange rates and other variables may differ materially over the contemplated initial mine life and, accordingly, the potential revenue, cash flow figures and other financial information provided in discussions outlining the Expanded Case and set out in this announcement should be considered as an estimate only that may differ materially from actual results.

Accordingly, Carbine cautions investors from relying on the forecast information in this announcement and investors should not make any investment decisions based solely on the results for the Expanded Case.

A number of key steps need to be completed in order to bring the Mount Morgan Project into production. Many of those steps are referred to in this announcement. Investors should note that if there are any delays associated with completing those steps of the completion of the steps does not yield the expected results, the estimated revenue and cash flow figures may differ materially from actual results.

To achieve the range of outcomes indicated in the initial Base Case leading into the Expanded Case, funding in the order of A$90 million will likely be required. Investors should note there is no certainty that the Company will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares.

It is possible that Carbine could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the Project. If it does, this could materially reduce Carbine's proportionate ownership of the Project.

1.0 Key Outcomes

1.1 Attractive Project Fundamentals

- Feasibility Study completed on first 9.5 years of mine life based on tailings retreatment of Probable Ore Reserves (**Base Case**) and potential for an expanded mine life is being developed based on additional Inferred Mineral Resources and Exploration Target (**Expanded Case**).
  - Base Case steady state annual production target over the first 4 years of 38,000 ounces gold, 4,000 tonnes copper sulphate and 218,000 tonnes premium pyrite concentrate. Steady state annual production from years 5 to 9 is 23,000 ounces gold, 4,000 tonnes copper sulphate and 200,000 tonnes premium pyrite concentrate.
- Base case processing throughput rate of 1.1Mtpa post scrubbing from four separate dumps in Mundic Gully, Red Oxide, No 2 Mill and Shepherds.
- Strong local community and government support and utilisation of local and regional existing infrastructure and resources.
- Shipment of premium unroasted iron pyrite concentrate out of the Port of Gladstone to market.
- Detailed risk management plan associated with water usage and control associated with existing acid mine drainage issues associated with the historical mine site and the proximity of the Dee River.
- Reprocessed tailings will be deposited into a new tailings storage facility (**TSF**) to be located in the historical TSF site in Sandstone Gully.
- Feasibility Study Base Case underpins a strong Expanded Case which includes Inferred Mineral Resources and Exploration Target (low range) in the later years of the Project. The Expanded Case demonstrates reasonable likelihood to extend mine life to 20 years and potentially beyond. (See section 15 for the full details of the Expanded Case.)

1.2 Mineral Resources & Ore Reserve

The first 9.5 years mine life (Base Case) is comprised of 100% Probable Ore Reserves. A conservative approach was taken with the FS as it only includes the Ore Reserve estimation.

The Ore Reserve surface mining plan is based on mining tailings associated with four separate production sources being Mundic Gully, Red Oxide, No 2 Mill and Shepherds tailings dumps.

The processing flow sheet designed as part of the FS and Ore Reserve estimate will produce three separate products in copper sulphate, premium unroasted iron pyrite concentrate and gold. The establishment of the new processing facility and

associated infrastructure underpins the Expanded Case. The processing plant will be suitable for the material mined in the Expanded Case with the inclusion of a small crushing circuit for any non-tailings material that will be processed.

The Expanded Case is considered based on the inclusion (based on reasonable grounds) of some Inferred Mineral Resources and Exploration Target material. The Inferred Mineral Resources material included in the Expanded Case relates specifically to the remnant tailings seen in Sandstone Gully (required to be removed prior to TSF construction) and the Mount Morgan Open Pit (which is currently under approximately 30m of water and will be exposed by the use of that water for processing as the Base case is mined). Additional material included in the Expanded Case includes material derived from the low range of the Exploration Target which relates to the remnant surface dumps located at Mount Morgan. Significant historical production data and reconciliation of that data enables the Company to consider this case with reasonable confidence. The Company will continue to upgrade the confidence levels of the material in the Expanded Case as the Project progresses.

1.3 Economics

The initial 9.5 years FS Base Case delivers an economic project based completely on Ore Reserve. The Base Case C1 costs are A$395/oz and AISC of A$549/oz. All operating costs quoted include by-product credits associated with premium unroasted iron pyrite concentrate and copper sulphate.

Pre-production capital of A$85.1M is required for both the Base Case and Expanded Case. Overall capital required for the Base Case LOM is A$94.4M.

1.4 Financing pathway and ongoing work

The Company has commenced discussions with potential financiers who have expressed an interest in financing the Project. The next step for the financiers is to review the feasibility study results and undertake due diligence. In order to advance the financing, the Company, amongst other things, needs to enter into acceptable offtake arrangements, obtain all project approvals and consolidate project ownership.

The Company has agreed in principle to an extension of the Talana offtake agreement for unroasted iron pyrite. In addition, the Company is considering the provision of further bulk samples to the end users in order to lock in longer term arrangements. The agreement and working relationship with Talana will also incorporate the opportunity for the Company to achieve lower reagent costs utilizing their international buying power and provide additional capacity for copper sulphate sales in the international market if required.

In order to optimise returns to Carbine shareholders, the Company is looking to move to 100% project ownership on acceptable terms and potentially renegotiate the existing agreement with Norton Gold Fields Limited (**Norton**).

- The completion of the FS has resulted in Carbine earning a 75% interest in the Project and triggers a 30 day option agreement with Raging Bull Metals Pty Ltd (**Raging Bull Metals**) to acquire the remaining 25%. No provision has been made in the FS economic assessment for acquisition of the 25% from Raging Bull Metals on the basis that any further payment will be by an issue of Carbine shares.
- Under the terms of the sale agreement between Norton and Raging Bull Metals, legal title to the Project will transfer to Carbine once they have paid A$2 million to Norton. The project economics includes this payment at the commencement of the Project, as well as a deferred purchase consideration of A$13 million payable to Norton out of project profits. It has been assumed that these deferred payments will not commence until project debt has been repaid.

The Company will continue to work on other recognised opportunities to improve the project economics. This includes continuing discussions with the Queensland government and other stakeholders in relation to infrastructure support and project expectations.

1.5 Expanded Case

A substantial Inferred Mineral Resource exists primarily comprising the remnant tailings in Sandstone Gully and the Mount Morgan Open Pit. The Expanded Case represents a LOM of up to 20 years. This case has been presented as the Company believes it has reasonable grounds through the detailed review of historical production data and exploration data to justify

a case of this magnitude. This case has been presented in Section 15 of this report under the title "Opportunities to Improve FS".

Key highlights of the Expanded Case are:

- Expanded Case steady state production after the Base Case from years 10 to 20 of 18,000 ounces gold, 2,000 tonnes copper sulphate and 200,000 tonnes premium pyrite concentrate.
- Expanded Case throughput rate of 1.1Mtpa post scrubbing with additional feed after year 9 from Sandstone Gully, Mount Morgan Open Pit and various other identified oxide, sulphide, tailings and slag dumps.
- The Expanded Case C1 costs are A$384/oz and AISC of A$576/oz. All operating costs quoted include by-product credits associated with premium unroasted iron pyrite concentrate and copper sulphate.
- Pre-production capital of A$85.1M is required for both the Base Case and Expanded Case. Overall capital required for the Base Case LOM is A$94.4M. Overall capital required for the Expanded Case LOM is A$116.1M.

Table 2: Key results of Expanded Case in comparison to FS Base Case

Description	FS Base Case	Expanded Case
Mining		
Ore Reserve (Mt)	9.9	9.9
Additional Material – Expanded Case (Mt)	0	12.5
Ore Reserve + Additional Material (Mt)	9.9	22.4
Gold Grade (g/t)	1.19	0.9
Contained Gold (ozs)	380,000	660,000
Copper Grade (%)	0.16	0.12
Contained Copper (t)	16,000	27,000
Pyrite Grade (Wt %)[4]	21	21
Contained Pyrite (t)	2,300,000	5,100,000
Processing		
Ore Processed (Mt)	9.5	22
Polymetallic AuEq (g/t)[1]	1.8	1.6
Gold Grade (g/t)	1.23	0.9
Copper Grade (%)	0.17	0.12
Pyrite Grade (Wt %)	22	21
Average Annual Gold Production (ozpa)	30,000	23,000
Average Annual Copper Sulphate Production (tpa)	3,800	2,700
Average Annual Pyrite Concentrate Production (tpa)	214,000	200,000
Project Economics[2]		
Mine life (years)	9.5	20
Payback (years)[3]	2	2
C1 (A$/Au oz)[4]	395	384
AISC (A$/Au oz)[5]	549	576
Pre-production Capital (A$M)	85.1	85.1

Table Notes:

1. *AuEq ozs have been determined using the AuEq grade for each case as outlined in Table 2 above. The AuEq calculation has been done with respect to the commodity prices shown in point 3 below and suitable metal recovery factors. Please refer to Section 1.6 for detailed description of calculation of Metal Equivalents used in this announcement.*

2. *Project economics shown above includes the capital payment of A$2 million to Norton Gold Fields Limited at the commencement of the project to obtain ownership rights and includes deferred payment of A$13 million from future profits.*
3. *Payback was determined using a AUD/USD FX 0.75, and with commodity prices of US$1,200/oz gold, US$60/t unroasted iron pyrite for years 1 & 2 then US$80/t for the remaining years, US$5,800/t copper. Copper sulphate revenue is based on copper LME price for approximately 25% copper grade plus A$500/t premium for copper sulphate.*
4. *C1 is defined as the direct cash operating costs produced, net of by-product credits, divided by the amount of payable gold produced. Direct cash costs include all mining and processing costs, general and administration costs, and transport and port costs net of revenue credits from the sale of by-products (pyrite and copper sulphate).*
5. *AISC is the "All in sustaining cost" includes C1 costs, plus royalties and sustaining capital and are presented net of by-product credits, divided by the amount of payable gold produced.*

Table 3: Ore Reserves Included in FS Base Case

Case	Description	Ore Reserve	Inferred Mineral Resources	Exploration Target (Low Range)
FS Base Case (First 9 Years in Expanded Case)	Based 100% on Probable Ore Reserve	100%	0%	0%

Table 4: Ore Reserves, Mineral Resources and Exploration Target Included in Expanded Case, for comparison[4]

Case	Description	Ore Reserve	Inferred Mineral Resources	Exploration Target (Low Range)
Expanded Case (20 year case)	Material by tonnes	43%	48%	9%
	Material by AuEq ozs[1]	52%	38%	10%
	Percentage of total Indicated Mineral Resources included (AuEq ozs)[2]	100%		
	Percentage of total Inferred Mineral Resources included (AuEq ozs)[2]		47%	
	Percentage of total Exploration Target included – low range (AuEq ozs)[3]			100%
	Percentage of Exploration Target low range compared to high range (AuEq ozs)[3]			37%

Tables 3 and 4 Notes:

1. *AuEq ozs have been determined using the AuEq grade for each case as outlined in Table 2 above. Please refer to Section 1.6 for detailed description of calculation of Metal Equivalents used in this announcement.*
2. *Reference Mount Morgan Mineral Resource Section 3 & Appendix 2 (ASX: 30 August 2016).*
3. *Reference Mount Morgan Exploration Target Range Section 3 & Appendix 2 (ASX: 30 August 2016).*
4. *In the Expanded Case the overall proportion of Inferred Mineral Resources and Exploration Target are not the determining factor for the Project's viability because the Project is already economic on the Base Case.*

The Expanded Case referred to in this announcement has been undertaken to show the logical extension of the Project from the FS Base Case 9.5 years mine life through to a possible 20 year mine life. It is a preliminary technical and economic study of the potential viability of the Mount Morgan Project over that expanded time frame. Whilst part of the study is based on the Mount Morgan Probable Ore Reserve, the study is also partly based on low-level technical and preliminary economic assessments, and is insufficient to support the estimation of additional Ore Reserves. Further evaluation work and appropriate studies are required before the Company will be in a position to estimate any additional Ore Reserves, or provide certainty that the results from the Expanded Case will be realised.

The Expanded Case is based on material assumptions described in Section 15 and Appendix 1 of this announcement. These include assumptions about the availability of funding. While Carbine considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Expanded Case will be achieved.

To achieve the range of outcomes indicated in the initial Base Case leading into the Expanded Case, funding in the order of A$85 million will likely be required. Investors should note there is no certainty that the Company will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares.

The mineralisation that forms the basis for the Expanded Case includes Mineral Resources in the Inferred category and the low range of the Exploration Target. The Company has, however, evaluated detailed historical data in the assessment of the Inferred Mineral Resources, including historical production and exploration information to establish the reasonable

grounds and the basis for the inclusion of this material in the Expanded Case. Accordingly, Carbine advises that the Expanded Case results set out in this announcement are still preliminary in nature.

1.6 Metal Equivalents

Both AuEq (g/t) and PyriteEq (wt%) have been used in this announcement.

AuEq was calculated for each ore source based on the different metallurgical recoveries associated with those ore sources established from detailed metallurgical test work (refer to Section 6 for further details). A combined total AuEq was also determined for representation of the combined effect of the four different ore sources. The following formulas show the various calculations for the AuEq values seen in this announcement. The AuEq value is determined by multiplying the recovered metal by the metal prices and dividing by the gold price to determine the equivalent gold grade. Consideration is also given to the fact that the end product for copper is copper sulphate and for pyrite is pyrite concentrate. The total AuEq is determined by taking a weighted average of the four separate AuEq grades.

Mundic Gully AuEq = Au (g/t) + Cu (%)*172.11 + PyriteEq (wt%)*1.30

No 2 Mill AuEq = Au (g/t) + Cu (%)*172.76 + PyriteEq (wt%)*1.73

Red Oxide AuEq = Au (g/t) + Cu (%)*122.83

Shepherds AuEq = Au (g/t) + Cu (%)*138.83 + PyriteEq (wt%)*1.79

Metal prices used in this calculation are US$1,200/oz gold, US$60/t unroasted iron pyrite for years 1 and 2 and US$80/t thereafter, A$5,800/t copper. Copper sulphate revenue is based on copper LME price for approximately 25% copper grade plus A$500/t premium for copper sulphate. Metal recoveries are provided in Section 6. It is Carbine's view that all the metals included within this formula are expected to be recovered and sold.

Pyrite (wt%) – Sulphur (S,wt%) grade has been converted into "pyrite equivalent" (wt%) using stoichiometry of the pyrite

Formula: FeS_2

Chemical composition: Fe – 46.6%, S – 53.4% (this corresponds to 100wt% of pyrite in a sample)

2.0 Project Overview

The Mount Morgan Gold-Copper Project is part of the historical Mount Morgan Mine located in central Queensland, approximately 40km south-west of the regional city of Rockhampton (see Figure 1).

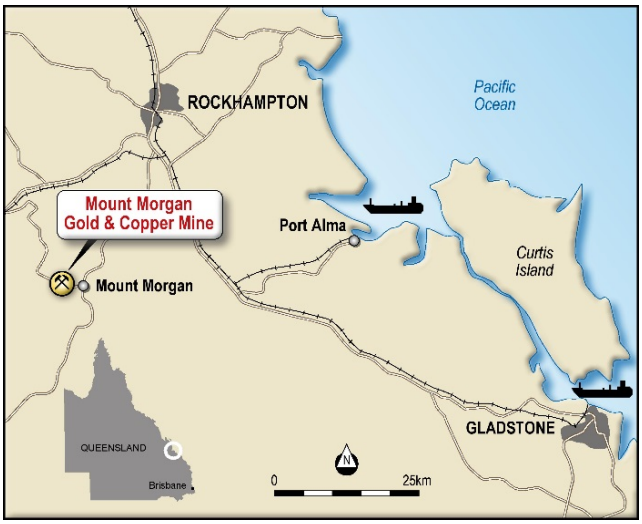

Figure 1: Location Map of the Mount Morgan Project, Central Queensland

Geologically, the ore body at Mount Morgan is a pyrite hosted ore system. Age dating shows that the original pyrite orebody was formed in the Middle Devonian period. The ore body was exposed during the Jurassic period and since that time erosion and oxidization has occurred and is evident by the top 100m of Mount Morgan ore body being oxidized (sulphur depleted). This evidence suggests acid forming processes have been in existence well before human habitation.

Following mining from 1882 to 1992, considerable quantities of material in the form of either tailings or other historical mineralised dumps remain on site. The pyrite remaining in these dumps is acid-forming with the addition of water and oxygen. Acid mine drainage (**AMD**) at Mount Morgan has generated a significant environmental legacy which remains today. The comparison of this to what the area was like pre-mining is unknown due to no baseline data being available due to the age of the Project.

The environmental legacy associated with the mine site has become the responsibility of the State of Queensland (1993) and is managed by the Department of Natural Resources and Mining (**DNRM**), Abandoned Mines Division.

A portion of the Mount Morgan mine site was also registered as a Heritage Listed site in 1993. The Heritage legacy is also managed by the DNRM's Abandoned Mines Division. Over time, the deterioration of the Mount Morgan site has created many safety and health risks that are being managed on a daily basis by the DNRM.

Over the last 20 years, several mining companies have considered the reprocessing of the tailings and dumps for economic extraction of the minerals remaining. This has proven difficult as the standard processing technology forced low recoveries due to the acidic nature of the ore, the presence of cyanide consuming copper and non-removal of acid-forming pyrite.

Carbine has developed a process flow sheet to economically recover the minerals remaining in the tailings and subsequently completed this Feasibility Study (**FS**) following the successful completion of the Pre-Feasibility Study (**PFS**) in 2015. The Carbine flow sheet removes copper in the form of copper sulphate, pyrite in the form of unroasted iron pyrite concentrate and gold as bullion. The significant part of the process flow sheet logic is based on the production of premium quality (50% sulphur) unroasted iron pyrite concentrate which enables the commencement of the reduction of acid-forming material at Mount Morgan.

As part of the FS work completed in 2016, Carbine has upgraded and completed the Mineral Resource and Ore Reserve estimate associated with the Mount Morgan Project. As a direct result of this FS, the Mineral Resources and Ore Reserve are now reported in a JORC (2012) compliant format which supersede all previous Mineral Resources and Ore Reserve estimates completed by others. Specifically, four separate Mineral Resources have been completed containing Indicated Mineral Resources and these have been used in the development of Ore Reserves used in the FS Base Case. These resources, shown in Figure 2, are the No 2 Mill, Mundic, Red Oxide and Shepherds tailings dumps.

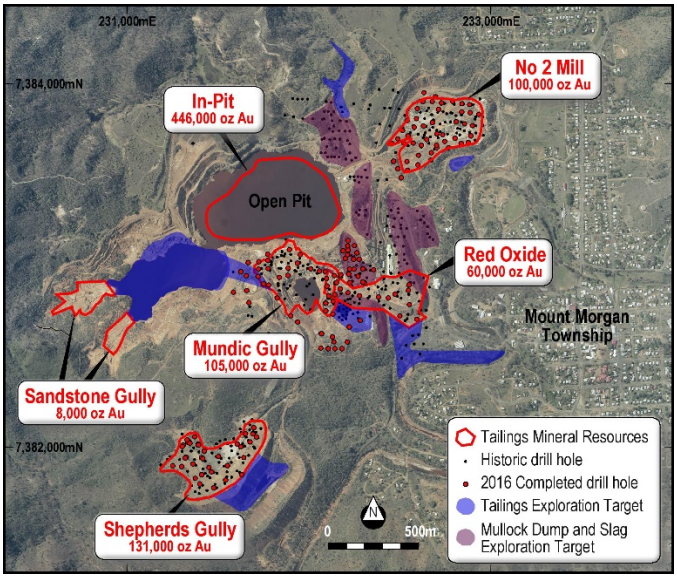

Figure 2: Location of Mineral Resources and Exploration Targets at Mount Morgan

2.1 Mine History

The Mount Morgan Mine was in operation for over one hundred years with mining first commencing in 1882. From 1882 through to 1981 over 8.4 million ounces of gold, 400,000 tonnes of copper and 1.2 million ounces of silver has been recovered from 50 million tonnes of ore mined. As a result of the processing of the ore, over 40 million tonnes of tailings were produced from many different processing routes used at the mine during its life.

Between 1981 and 1990, Peko reprocessed approximately 26 million tonnes of tailings at Mount Morgan and placed the retreated tailings in the Mount Morgan Open Pit. Today those tailings are still located in the Mount Morgan Open Pit approximately 30m below the current water level. The tailings reprocessed and placed in the Mount Morgan Open Pit were primarily from the historical Sandstone Gully Tailings Storage Facility (TSF) with smaller quantities from Mundic, No 2 Mill and Shepherds. The final monthly report for the tailings retreatment plant (November 1990) recorded a total of 26,673,625 tonnes of reclaimed tailings that were deposited into the Open Pit at a grade of 0.52g/t gold, 1.38g/t silver, 0.07% copper and 11.3% sulphur.

With over 26 million tonnes of tailings being reprocessed, approximately 15 million tonnes of tailings remain. To date, Carbine has identified 10 million tonnes of those tailings through detailed research, mapping and resource drilling with approximately 5 million tonnes still to be accounted for. It is likely that some of those tailings have already been reprocessed or transported away from the site in the Dee River running past the mine site.

2.2 Carbine, Raging Bull Metals, Norton and the Queensland Government

A series of contractual arrangements exist which will ultimately transfer full legal and economic ownership of the Mount Morgan tenements to Carbine, provided certain milestones are met and transactions are completed.

- The State of Queensland has environmental and heritage legacy responsibility of the Mount Morgan Mine Site (1993) and is managed by the Department of Natural Resources and Mining (**DNRM**), Abandoned Mines Division.
- Norton acquired the Mount Morgan Project in 2007 and remains the registered legal owner of the Mount Morgan Tenements.
- There is a mining rights agreement in place between the Queensland Government and Norton enabling reprocessing of tailings and other dumps (**Phase 2 Agreement**).
- Raging Bull Metals has entered into an agreement with Norton (**Mining Property Sale Agreement**) under which Raging Bull Metals will assume legal title to the Mount Morgan tenements following (i) a decision to mine the project and (ii) completion of a capital raising to finance the development of the project. Consideration is to take the form of an initial payment at the time of decision to mine of A$2m and deferred payment of A$13m to be satisfied by payment of 20% of annual project EBITDA.
- A second agreement (**Shareholder and Project Funding Agreement**) exists between Carbine, Raging Bull Mining and Raging Bull Metals that provides for the following:
    - at the date of signing the agreement (April 2014), Carbine acquired 75% of Raging Bull Metals and an option to acquire the remaining 25% on completion of the FS at a purchase price to be agreed between the parties; and
    - the consideration for the initial 75% interest in Raging Bull Metals includes two milestone payments in the form of an issues of new shares in Carbine, each parcel being 25 million Carbine shares. The first parcel will be issued when 10,000 ounces of gold has been produced, and the second parcel when 5,000 tonnes of copper has been produced.

Carbine is currently in discussions with both Norton and Raging Bull Mining to renegotiate the terms of these agreements to achieve an outcome which is satisfactory for all parties.

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3.0 Mineral Resources

Updated resource estimates have been prepared for the No 2 Mill, Mundic Gully, Red Oxide, Shepherds, Mount Morgan Open Pit and Sandstone Gully tailings dumps (ASX: 18 July 2016, 27 July 2016,1 August 2016, 9 August 2016 and 30 August 2016).

The Mineral Resources shown below are inclusive of Ore Reserves.

The total JORC 2012 Mineral Resource for Mount Morgan now stands at 37.2 million tonnes at 0.71 g/t for 850,000 ounces of gold, comprised of an Indicated Mineral Resource of 10.2 million tonnes at 1.20 g/t for 394,000 ounces of gold and an Inferred Mineral Resource of 27.0 million tonnes at 0.53 g/t for 456,000 ounces of gold, using a 0.00 g/t gold cut-off grade (Table 1). This comprises six tailings dumps which make up the Project. This new Mineral Resource also includes a total of 7.9 million tonnes of pyrite, 36 thousand tonnes of copper and 49 tonnes of silver.

Table 5: Mount Morgan Tailings JORC 2012 Mineral Resource Summary

Area	Type	Category	Tonnage (Mt)	Gold (g/t)	Gold (Koz)	Copper (%)	Copper Metal (t)	Silver (g/t)	Silver Metal (kg)	Sulphur (%)	Pyrite Equiv. (wt %)
No 2 Mill	Sulphide	Indicated	2.71	1.11	97	0.12	3,184	1.14	3,078	13.7	25.6
	Oxide	Indicated	0.12	0.80	3	0.05	55	1.80	207	4.0	
Mundic Gully	Sulphide	Indicated	1.70	1.91	104	0.17	2,822	0.90	1,533	10.5	19.6
	Sulphide	Inferred	0.02	1.86	1	0.24	40	1.24	21	10.6	19.9
Shepherds	Sulphide	Indicated	4.83	0.84	131	0.17	8,195	1.42	6,889	12.4	23.2
Red Oxide	Oxide	Indicated	0.83	2.17	58	0.30	2,495	0.60	499	0.6	
	Oxide	Inferred	0.03	2.05	2	0.29	85	0.58	17	0.5	
Sandstone Gully	Sulphide	Inferred	0.25	0.85	7	0.07	175	1.20	301	12.0	22.4
	Oxide	Inferred	0.02	0.85	1	0.07	14	1.20	24	2.0	
In-Pit Tails	Sulphide	Inferred	26.67	0.52	446	0.07	18,672	1.38	36,884	11.3	21.1
Total Indicated	**Total Indicated**	**Indicated**	**10.19**	**1.20**	**394**	**0.16**	**16,750**	**1.20**	**12,207**	**11.4**	
	Sulphide	*Indicated*	*9.24*	*1.12*	*333*	*0.15*	*14,200*	*1.24*	*11,500*	*12.4*	*23.2*
	Oxide	*Indicated*	*0.95*	*2.00*	*61*	*0.27*	*2,550*	*0.74*	*706*	*1.0*	
Total Inferred	**Total Inferred**	**Inferred**	**26.99**	**0.53**	**456**	**0.07**	**18,986**	**1.38**	**37,246**	**11.3**	
	Sulphide	*Inferred*	*26.94*	*0.52*	*454*	*0.07*	*18,887*	*1.38*	*37,205*	*11.3*	*21.1*
	Oxide	*Inferred*	*0.05*	*1.56*	*2*	*0.2*	*99*	*0.84*	*41*	*1.1*	

Table Notes:

1. *Carbine Resources Limited ASX announcements 18 July 2016, 27 July 2016, 1 August 2016, 9 August 2016, 16 August 2016 and 30 August 2016.*
2. *Rounding errors can occur.*
3. *The Mineral Resources listed in this table are inclusive of Ore Reserves.*

An update to the Mount Morgan Exploration Target has also been completed in conjunction with this 2016 Carbine Resource Estimate Update (ASX: 30 August 2016). This update involved a detailed review of previous studies, the existing and new Mineral Resource estimates, all known historical drill and trench data, historical reports, plans and site photos, and visual site inspection of all visible mine dumps.

The Exploration Target incorporating all near-surface tailings, dumps and metallurgical slag mineralization is 1.9Mt-4.9Mt at 1.2 g/t for 70,000 -190,000 ounces of gold (Table 6). The potential quality and grade of the Exploration Target is

conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of the Mineral Resource.

Table 6: Carbine 2016 Exploration Target Summary

Category	Drillhole Number	Low Range					High Range				
		Tonnes (kt)	Au Grade (g/t)	Au (koz)	Copper %	Sulphur %	Tonnes (kt)	Au Grade (g/t)	Au (koz)	Copper %	Sulphur %
Oxide Waste Dumps	54	285	1.8	16	0.1	2	555	2.3	40	0.1	2
Oxide Slag Dumps	5	280	1.0	9	0.4	1	1,000	0.8	26	0.6	1
Oxide Tailings Dumps	34	215	1.0	7	0.1	3	715	0.9	22	0.1	3
Total Oxide	***93***	***780***	***1.3***	***32***	***0.2***	***2***	***2,270***	***1.2***	***88***	***0.3***	***2***
Sulphide Waste Dumps	34	430	1.2	17	0.1	12	635	1.4	30	0.1	13
Sulphide Tailings Dumps	12	660	1.0	22	0.1	9	2,000	1.2	77	0.1	12
Total Sulphide	***46***	***1,090***	***1.1***	***39***	***0.1***	***10***	***2,635***	***1.3***	***106***	***0.1***	***12***
Total Sulphide and Oxide	**139**	**1,870**	**1.2**	**71**	**0.2**	**6.7**	**4,905**	**1.2**	**194**	**0.2**	**7.5**

Table Notes:

1. *The potential quality and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resources and it is uncertain if further exploration will result in the estimation of the Mineral Resource.*
2. *Rounding errors will occur.*

4.0 Ore Reserve

Ore Reserves have been estimated for all four historical tailings dumps in Mundic Gully, Red Oxide, No 2 Mill and Shepherds. The conversion of Indicated Mineral Resources to Ore Reserve (Table 7 below) has involved the detailed design and mine planning associated with each deposit.

Table 7: Mount Morgan Project Ore Reserve Estimate 2016[1]

Location	Reserve Category	Quantity (Mt)	AuEq (g/t)[2]	AuEq (koz)[2]	Au (g/t)	Cu (%)	S (%)	Pyrite (wt%)[3]
Mundic	Proven							
	Probable	1.52	2.57	126	2.04	0.17	10.1	18.9
Red Oxide	Proven							
	Probable	0.73	2.48	58	2.11	0.30	0.4	-
No 2 Mill	Proven							
	Probable	2.82	1.73	156	1.10	0.11	13.1	24.4
Shepherds	Proven							
	Probable	4.83	1.49	232	0.84	0.17	12.4	23.1
Total	**Proven**							
	Probable	**9.90**	**1.80**	**573**	**1.19**	**0.16**	**11.3**	**21.1**

Table Notes:

1. *Please refer to Appendix 2 for Competent Persons statements; this estimate has been prepared in accordance with JORC Code (2012) guidelines. Further details for the estimate can be found in Appendix 2 and the JORC code table 1 located at the back of this report.*
2. *AuEq (g/t) refers to the calculated Au equivalent grade formula for which is stated in Section 1.6.*
3. *PyriteEq (wt %) refers to the calculated pyrite equivalent grade formula for sulphide ore, which is stated in Section 1.6.*
4. *Some discrepancies in total may occur due to the rounding of numbers.*

The Mineral Resources were converted to 20m x 20m x 4m mining blocks for design and scheduling purposes. The conversion of the Indicated Mineral Resources to Probable Reserves has also involved the inclusion of the following modifying factors for dilution and ore loss:

Scrubber rejects: All the material that is mined is passed through a mineral sizer and wet scrubber prior to processing. Metallurgical testing has determined the quantity and relative grades of the material that is rejected from the scrubbing process and not processed. This material is greater than 425µm. The scrubber reject material is removed as waste. Scrubber reject was determined for each of the four dumps in the FS Base Case.

Side wall dilution: An additional 100mm at zero grade of side wall material was mined on the dump side walls adjacent to the tailings.

Internal ore loss due to foreign matter: Additional to that taken into account for the Mineral Resource estimation an allowance has been made for potential ore loss in the tailings due to existence of foreign matter. The ore loss is included as additional to that material that is included in the scrubber rejects. The estimate of foreign matter for each dump was based on the age of the dump.

Table 8: Ore Reserve dilution and ore loss modifying factors

Location	Scrubber Reject	Side Wall Dilution	Internal Ore Loss due to Foreign Matter
Mundic	10.0%	100mm	1.0%
Red Oxide	0.0%	100mm	1.0%
No 2 Mill	3.9%	100mm	0.5%
Shepherds	2.9%	100mm	0.3%

5.0 Mining

A detailed mining study has been completed as part of the FS Base Case on the reclaim mining process for the four separate dumps included in the Ore Reserve estimate. The throughput process associated with the processing plant was determined by economic considerations including the logistical evaluation associated with the production and transportation of unroasted iron pyrite. The mining process was evaluated and reconciled to deliver the ore to the run of mine (**ROM**) pad required for the processing throughput rate taking into account the rejects associated with the scrubbing process.

Mining of each of the four tailings dumps will be by conventional open pit mining methods. The ore (tailings) is free digging and the mine plan has taken into account the various waste walls and overburden required to be mined in conjunction with the tailings to ensure the tailings are able to be successfully mined and transported to the processing plant. Drilling has identified small zones of wet tailings within each of the dumps and in pit pumping has been allowed for during the mining of those dumps. Provision has also been made for re-handling of wet tailings to allow drying prior to hauling to the processing facility.

Ore has been classified as either sulphide or oxide. The sulphide material has high level of sulphur and is the primary source of the pyrite. The oxide material has limited sulphur due to its original source location in the upper parts of the historical Mount Morgan ore body (**Oxide Zone**).

The mining associated with the Base Case is built around the requirements of the mining right agreement established between Norton and the DNRM in 2003 (**Mount Morgan Phase 2 Agreement**) which outlines the requirements for the mining and reprocessing of the tailings at the Mount Morgan Project. The aim of the mining exercise is to remove (clean up) as much of the tailings in each location as considered economically possible. The waste associated with each of the dumps is classified as either Non-Potential Acid Generating (**NPAG**) or Potential Acid Generating (**PAG**). NPAG material has been classified as the material historically placed on the top of No 2 Mill and Shepherds as part of the original rehabilitation process. Any NPAG material mined is either stockpiled in a central location adjacent to Sandstone Gully or within the No 2 Mill or Shepherds location for later use in the final rehabilitation process. The PAG waste mined at each location that is required to be mined to allow access to tailings will be moved to Sandstone Gully to be placed adjacent to the new TSF. The overall stripping ratio (**SR**) associated with the Project is 0.9 tonnes of waste to be mined for every 1.0 tonne of ore mined. The lowest SR of the four dumps is 0.2 at Shepherds and the highest is 5.0 at Red Oxide due to the Red Oxide material being located under the slag.

Opportunity 1 – Consideration needs to be given to leaving the wall PAG material at the original dump locations following mining to increase the volume available in Sandstone Gully for the TSF and to reduce mining costs associated with mining and transporting waste.

Mining associated with the Red Oxide dump has specific scheduling requirements due to its low sulphur content, the nature of the material and its location. The Red Oxide mineralisation sits predominantly below slag dumps in the lower sections of Mundic Gully. Provision has been made in the mining costs for limited blasting of that material. In relation to the scheduling of ore for the processing facility, Red Oxide has been spread over the life of the Base Case.

Opportunity 2 – Technical evaluation needs to be completed to see if the slag material can be mined without minor drilling and blasting. Costs included in the FS assumes all the slag will require minor drilling and blasting which has significant impact on the mining costs. Detailed analysis of the slag is also required to determine the quantity of slag that is potential ore feed (reference Exploration Target) and whether the remaining product is suitable as a cement clinker or external road base. Ongoing technical evaluation and mining trials will occur prior to commencement of the mining of slag.

Table 9 below outlines the summary Ore and Waste mining physical estimates associated with the Base Case for the Project and each dump location.

Table 9: Mount Morgan FS Mining Physicals

Mining Location	Units	Pre-production	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Total ALL	Ore (kt)	47	919	1,172	1,146	1,140	1,140	1,131	1,140	1,132	937	9,904
	AuEq (g/t)	1.18	2.22	2.21	2.01	1.98	1.44	1.58	1.61	1.61	1.55	1.79
	Au (g/t)	0.76	1.75	1.75	1.32	1.27	0.91	0.96	0.94	0.93	0.96	1.19
	Cu (%)	0.09%	0.15%	0.16%	0.15%	0.13%	0.18%	0.19%	0.19%	0.16%	0.16%	0.16%
	PyriteEq (wt%)	17.36%	19.33%	17.91%	23.87%	25.00%	15.60%	20.46%	23.39%	25.36%	20.95%	21.34%
	Waste (kt)	536	1,517	1,194	1,058	823	554	596	683	852	1,035	8,847
	SR	11.3	1.7	1.0	0.9	0.7	0.5	0.5	0.6	0.8	1.1	0.9
Mundic	Ore (kt)		640	622	202	58						1,523
	AuEq (g/t)		2.54	2.79	2.39	1.90						2.59
	Au (g/t)		1.97	2.25	1.80	1.45						2.04
	Cu (%)		0.17%	0.19%	0.16%	0.10%						0.17%
	PyriteEq (wt%)		20.97%	15.49%	23.84%	21.94%						19.15%
	Waste (kt)	245	1,336	829	404	8						2,822
	SR		2.1	1.3	2.0	0.1						1.9
Red Oxide	Ore (kt)		57	63	113	86	90	99	86	78	60	731
	AuEq (g/t)		2.62	2.62	2.36	2.20	2.45	2.39	2.45	2.78	2.38	2.46
	Au (g/t)		2.30	2.27	2.03	2.04	2.06	1.98	2.04	2.34	2.10	2.11
	Cu (%)		0.26%	0.28%	0.27%	0.13%	0.32%	0.33%	0.33%	0.35%	0.23%	0.28%
	PyriteEq (wt%)		1.09%	0.68%	0.60%	0.19%	0.43%	0.51%	0.63%	0.75%	1.17%	0.63%
	Waste (kt)		53	51	416	613	279	486	500	536	698	3,632
	SR		0.9	0.8	3.7	7.1	3.1	4.9	5.8	6.9	11.6	5.0
No 2 Mill	Ore (kt)	47	222	488	831	994	108				129	2,818
	AuEq (g/t)	1.18	1.50	1.68	2.08	2.18	1.99				1.15	1.94
	Au (g/t)	0.76	0.97	1.03	1.11	1.20	1.10				0.83	1.10
	Cu (%)	0.09%	0.07%	0.10%	0.13%	0.13%	0.12%				0.05%	0.11%
	PyriteEq (wt%)	17.36%	19.29%	23.21%	27.04%	27.33%	24.38%				8.56%	24.76%
	Waste (kt)	291	128	314	237	200	112				107	1,389
	SR	6.2	0.6	0.6	0.3	0.2	1.0				0.8	0.5
Shepherds	Ore (kt)					1	943	1,032	1,054	1,054	748	4,832
	AuEq (g/t)					1.51	1.31	1.51	1.55	1.52	1.57	1.49
	Au (g/t)					1.01	0.78	0.87	0.85	0.83	0.89	0.84
	Cu (%)					0.15%	0.17%	0.17%	0.18%	0.15%	0.17%	0.17%
	PyriteEq (wt%)					16.01%	16.03%	22.37%	25.25%	27.18%	24.67%	23.17%
	Waste (kt)					1	163	110	183	316	231	1,004
	SR					0.5	0.2	0.1	0.2	0.3	0.3	0.2

6.0 Processing

Following the cessation of the mining and reprocessing of tailings at Mount Morgan in 1990 by Peko, several companies have considered and assessed different metallurgical flowsheets to restart the operations and process the remaining tailings and dumps to unlock the potential value associated with that material. The historical metallurgical issue with the reprocessing of tailings at Mount Morgan was the high cyanide consumption primarily caused by the presence of excess

soluble copper within the ore. Previous investigations have attempted to suppress the liberation of copper to offset the high reagent costs and recovery issues associated with the copper presence. Limited consideration was also given to the opportunity of producing both copper and unroasted iron pyrite in the process to offset the gold recovery and operating cost issues.

The proposed process flowsheet developed by Carbine for the Mount Morgan Project has been based on some of the key learnings from the previous operators. The flowsheet takes advantage of the acidic nature of the ore/process water to remove the copper initially prior to producing an unroasted iron pyrite concentrate by flotation prior to finally extracting gold. The flow sheet facilitates the reduction of soluble copper in the feed prior to pyrite and gold extraction. The flow sheet results in the removal of pyrite and the production of a tailings that is beneficial from an AMD perspective in a newly constructed TSF.

The Mount Morgan tailings are made up of a combination of silicates (70%) and sulphides (30%). Quartz is the dominant form of the silicate, while the sulphides are predominantly pyrite and trace chalcopyrite. The tailings are already finely ground with a p80 of 150µm. The valuable gold and copper minerals are preferentially distributed in the fines fraction of the tailings (<40µm). The relatively fine nature of the remaining gold has eliminated the use of gravity recovery. The gold within the tailings reports to both the silicates (50%) and the sulphides (50%). Historical work and leaching test work shows that the remaining silicate gold is amenable to cyanidation, with recovery and kinetics sensitive to both grind size and cyanide strength. The sulphide gold is less amenable to recovery by cyanidation due to its association with pyrite. The copper within the tailings is predominantly associated with the trace chalcopyrite associated with the sulphide mineralisation. The copper has been shown to be partly amenable to acid leaching (40%) and partly cyanide soluble (30%) and the remainder insoluble.

6.1 Metallurgical Test Work

To support the flowsheet design, six separate phases of metallurgical test work have been completed. All the test work has been completed by ALS Metallurgical Laboratory in Balcatta, Perth, Western Australia, under the direction of Carbine with input from GRES (design engineers and FS provider).

Phase 1: Completed as part of the Scoping Study (ASX: 19 November 2014), it utilised a composite sample from drilling of the Mundic Gully tailings to test the material for copper leaching and cyanide leaching. The test work results validated the idea that cyanide consumption related operating costs could be reduced by up to 81% by selective removal of copper prior to gold cyanidation. This test work also indicated that initial gold recoveries would be higher than historical operations. Preliminary flotation test work in phase 1 achieved 91% pyrite recovery of a premium grade unroasted iron pyrite concentrate containing 50% S.

Phase 2: Also completed as part of the Scoping Study, this test work was a similar investigation to phase 1 and was completed with new composite samples of Mundic Gully, Red Oxide and No 2 Mill tailings. This test work established several key aspects for the development of the flow sheet so that all the ore types at Mount Morgan could be successfully processed.

Phase 3: This test work commenced after the completion of the Scoping Study and was designed to further optimise the flow sheet by testing fresh tailings material from all potential resources with the view to potentially reduce operating and capital costs identified in the Scoping Study. The test work was done prior to the completion of the PFS. The primary focus of this work was to split the sulphide and silicate components into separate streams for analysis and consider removing poorly mineralised size fractions from the feed by utilising a washing or scrubbing process. This test work also considered placing the flotation circuit prior to the gold circuit to limit both the pH fluctuations required in the overall circuit layout and remove any chance of cyanide affecting flotation. Work was also done on cyanide detoxification/recovery system and by product value analysis in relation to copper cathode or copper sulphate. The test work indicated that +425µm material should be rejected by a scrubbing process prior to processing. Copper extraction kinetics were extremely fast with repulped tailings extracting 50% of copper into solution in less than 4 hours. The copper in solution can be loaded onto resins and recovered from the resin which effectively removes this copper from the circuit prior to the pulp interaction with the gold circuit. When the tailings is mixed with raw open pit water (historical Mount Morgan Open Pit) the natural pH is pH2.5. When an iminodiacetic acid (IDA) is added to the slurry, the resin captures the soluble copper. Test work at this stage also

showed that after gold removal with carbon, resin in pulp (**RIP**) treatment would remove copper and cyanide from the residue.

Phase 4: Test work in this phase was undertaken to produce parameters specifically for engineering design after the completion of the PFS. This work was related to general flow sheet test work, Levin grinding tests, RIP loading tests, carbon gold and copper loading kinetics, filter capacity tests, thickener design tests and flotation tail leach tests.

Phase 5: This test work specifically related to providing data for environmental assessment and included the production of each of the products and the final residue from carbon-in-leach (**CIL**) so that AMD analysis, reactive sulphide testing and toxicity characteristic leaching procedure (**TCLP**) testing could be applied to the residue. The AMD and the TCLP test work relates specifically to tailings storage.

Phase 6: Specifically undertaken for the provision of data for the detailed design of cyanide management and cyanide recovery options within the plant.

The overall test work results have demonstrated recoveries and process control far better than historical operational performance and reflect the advances made in several areas of processing including RIP, flotation and cyanide recovery.

6.2 Process Design

GRES completed the process design associated with the FS as an update of the design delivered in the PFS. The design allows for the plant to process 1.1Mtpa ore “post scrubber”. The process design has been finalised with the following basic descriptions of the various sections associated with the plant:

Ore sizing and scrubbing: Ore is taken from ROM pad and fed through a mineral sizer prior to scrubbing and re-pulping. Material above 425µm is rejected by the scrubbing process. The mineral sizer is an additional item included post PFS to assist in the materials handling process by breaking up the tailings prior to scrubbing and re-pulping.

Copper Recovery: Slurry enters an RIP copper circuit to extract soluble copper. The slurry passes through a RIP feed thickener prior to entering the leach circuit before passing into an additional RIP discharge thickener. The RIP discharge thickener is additional to the PFS process design to recover low pH water to reduce the overall lime consumption. A copper stripping circuit removes the copper from the resin and the copper solution reports to a copper crystallizer for the production of copper sulphate. The overall copper recovery circuit has increased in size compared to the PFS as bigger columns are required following additional metallurgical test work.

Regrind and Classification: After the copper circuit, the material passes through a regrind mill (ball mill) and classification circuit (cyclones) prior to entering the sulphide flotation circuit.

Flotation: The flotation circuit separates the sulphides and the silicates. Following thickening, the silicates are taken directly to the gold leach circuit. The sulphides go through a concentrate leaching process prior to filtration of the unroasted iron pyrite concentrate. The concentrate leach product then progresses to the gold leach circuit after filtration of the pyrite concentrate. Test work showed that the volume required for concentrate leaching had significantly increased compared to the PFS and the FS design includes an enclosed pyrite concentrate storage facility at the plant which was previously open in the PFS.

Gold Leach and Adsorption: The sulphide leach stream and the silicates stream report to a standard gold CIL circuit for the gold leaching process. Standard gold elution techniques are applied prior to gold bullion production.

Copper and Cyanide Recovery: Tailings report to a copper and cyanide recovery process prior to tailings disposal. The size of the copper and cyanide recovery circuit has increased compared to the PFS following further cyanide recovery test work completed after the PFS.

Tailings Storage Facility (TSF): Tailings will be deposited in a new TSF that will be located in one of the original Mount Morgan TSF locations (Sandstone Gully). Remnant tailings in this location will be cleaned out in advance of the new TSF construction. Designed by Golder Associates, the TSF will be developed in two stages. Stage 1 will

occupy a footprint of 120,000m^2 and the stage 2 footprint will be approximately 320,000m^2. Tailings will be deposited into the TSF through multiple hydro-cyclones located along the embankment crest.

Figure 3 below shows the flowsheet design for the processing plant.

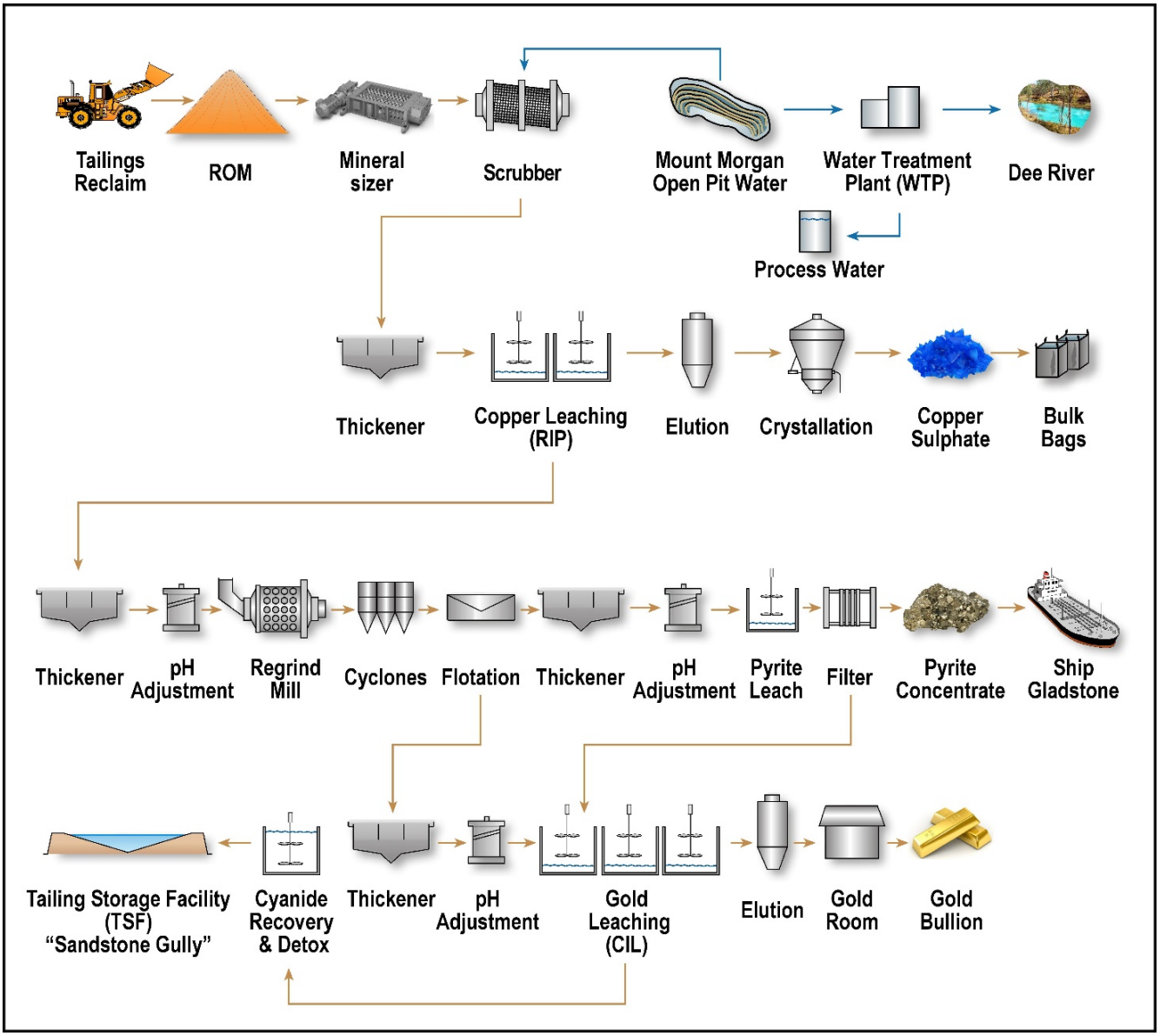
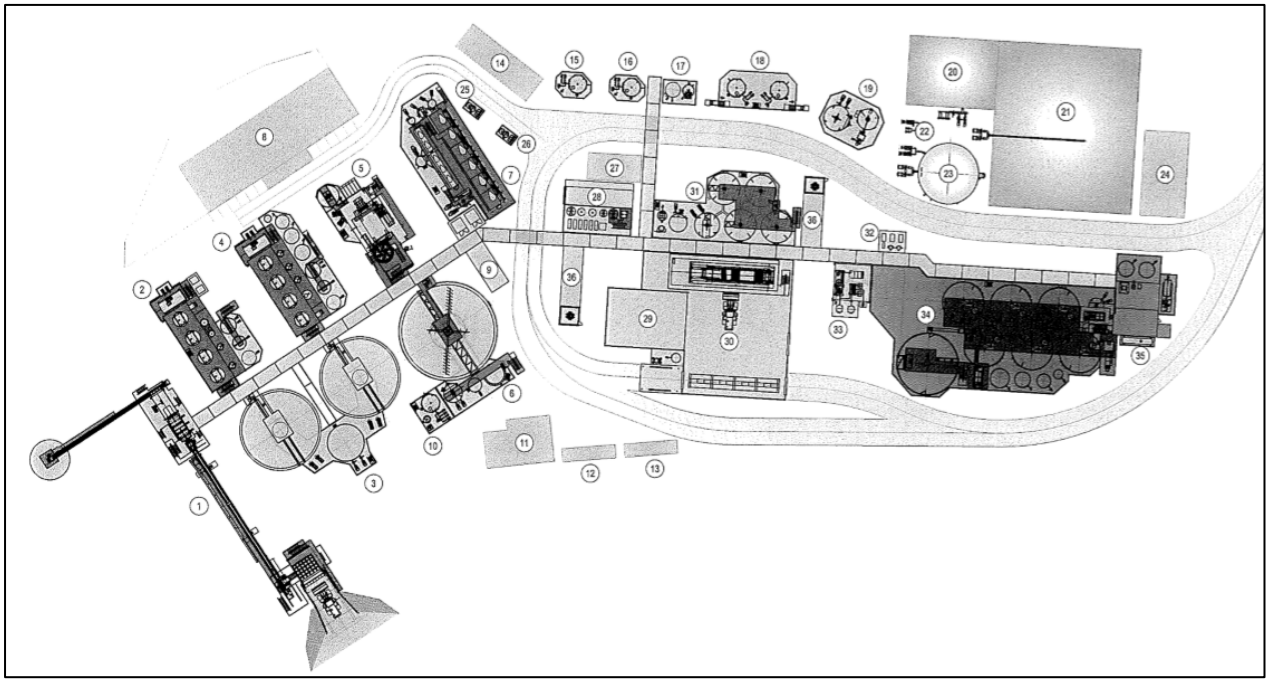


Figure 3: Mount Morgan FS Process Design

Figure 4 below shows the layout of the processing facility designed for the Mount Morgan project.



Item	Description	Item	Description	Item	Description
1	Ore Feed and Screening	13	Ablutions	25	SIBX (Xanthate)
2	Copper Recovery	14	Reagents Storage	26	Frother
3	Copper Recovery Thickeners	15	Peroxide Storage	27	Plant Control Room
4	Cyanide recovery	16	Sulphuric Acid Storage	28	Copper Crystallisation
5	Regrind and Classification	17	Salt Storage	29	Pyrite Concentrate Storage Shed
6	Flotation Tails Thickener	18	Sodium Cyanide and Caustic Storage	30	FEL
7	Flotation	19	Quicklime Storage	31	Concentrate Filtering/Washing
8	Workshop, Stores and Office	20	Raw Water Pond	32	Air Services (part)
9	HV Switchroom	21	Process Water pond	33	Oxygen Plant
10	Flocculant Plant	22	Plant Potable Water Tank	34	Leaching and Adsorption
11	Laboratory	23	Fresh Water Tank	35	LPG Storage
12	CRIB room	24	Site Admin Office	36	Transformer/Switchroom

Figure 4: Mount Morgan FS Processing Plant Preliminary Plan layout

Figure 5: Mount Morgan FS Processing Plant Preliminary 3D View

6.3 Processing Physicals

The processing plant estimated physicals and recoveries from the different ore sources are summarised in the following table:

Table 10: Mount Morgan FS Processing Physicals

Processing	Units	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Total ALL	Ore (kt)	894	1,098	1,094	1,095	1,108	1,101	1,110	1,101	914	9,515
	AuEq (g/t)	2.30	2.33	2.07	2.02	1.46	1.60	1.64	1.63	1.57	1.85
	Au (g/t)	1.81	1.84	1.37	1.30	0.93	0.98	0.95	0.95	0.97	1.23
	Cu (%)	0.15%	0.16%	0.15%	0.14%	0.18%	0.19%	0.19%	0.17%	0.16%	0.17%
	PyriteEq (wt%)	20.10%	18.77%	24.72%	25.82%	15.90%	20.83%	23.82%	25.83%	21.29%	21.94%
	Au Recovery (%)	72%	72%	71%	71%	70%	70%	70%	70%	70%	71%
	Au Produced (kozs)	38	47	34	33	23	24	24	24	20	266
	Cu Recovery (%)	64%	64%	62%	62%	52%	51%	51%	51%	52%	56%
	Cu Sulphate (kt)	3	4	4	4	4	4	4	4	3	34
	PyriteEq Recovery (%)	92%	93%	93%	93%	88%	87%	87%	87%	87%	90%
	Pyrite concentrate (kt)	166	191	251	263	155	200	230	248	170	1,874
Mundic	Ore (kt)	578	566	182	53						1,378
	AuEq (g/t)	2.90	3.11	2.94	2.39						2.97
	Au (g/t)	2.15	2.45	1.97	1.59						2.23
	Cu (%)	0.18%	0.20%	0.16%	0.10%						0.18%
	PyriteEq (wt%)	22.48%	16.47%	25.62%	23.58%						20.46%
	Au Recovery (%)	72%	72%	72%	72%						72%
	Cu Recovery (%)	66%	66%	66%	66%						66%
	PyriteEq Recovery (%)	95%	95%	95%	95%						95%
Red Oxide	Ore (kt)	57	63	113	86	90	99	86	78	60	731
	AuEq (g/t)	2.62	2.62	2.39	2.41	2.45	2.39	2.45	2.78	2.38	2.48
	Au (g/t)	2.30	2.27	2.03	2.04	2.06	1.98	2.04	2.34	2.10	2.11
	Cu (%)	0.26%	0.28%	0.29%	0.30%	0.32%	0.33%	0.33%	0.35%	0.23%	0.30%
	PyriteEq (wt%)	1.09%	0.68%	0.60%	0.48%	0.43%	0.51%	0.63%	0.75%	1.17%	0.66%
	Au Recovery (%)	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%
	Cu Recovery (%)	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%
	PyriteEq Recovery (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
No 2 Mill	Ore (kt)	259	469	799	955	103				128	2,713
	AuEq (g/t)	1.47	1.71	2.12	2.23	2.03				1.16	1.98
	Au (g/t)	0.95	1.05	1.13	1.22	1.12				0.83	1.12
	Cu (%)	0.07%	0.10%	0.13%	0.13%	0.13%				0.05%	0.12%
	PyriteEq (wt%)	18.98%	23.98%	27.94%	28.24%	25.19%				8.60%	25.49%
	Au Recovery (%)	71%	71%	71%	71%	71%				71%	71%
	Cu Recovery (%)	65%	65%	65%	65%	65%				65%	65%
	PyriteEq Recovery (%)	93%	93%	93%	93%	93%				93%	93%
Shepherds	Ore (kt)				1	916	1,002	1,023	1,023	727	4,692
	AuEq (g/t)				1.53	1.33	1.53	1.57	1.55	1.59	1.51
	Au (g/t)				1.02	0.80	0.88	0.86	0.84	0.90	0.85
	Cu (%)				0.15%	0.17%	0.17%	0.18%	0.15%	0.17%	0.17%
	PyriteEq (wt%)				16.34%	16.36%	22.83%	25.77%	27.74%	25.17%	23.64%
	Au Recovery (%)				70%	70%	70%	70%	70%	70%	70%
	Cu Recovery (%)				51%	51%	51%	51%	51%	51%	51%
	PyriteEq Recovery (%)				87%	87%	87%	87%	87%	87%	87%

7.0 Power

The Mount Morgan mine site power is supplied via grid connection to the site. A power on-supply agreement is being finalised between Carbine and the DNRM for the provision of power to the Project. The main supply feed onto the mine site reaches the switch yard adjacent to the main office on the old workshop level. From here the main power feed will traverse the southern side of Mundic Gully to the transformer near the old thickener. Power line infrastructure for the new processing facility will be installed from the transformer to the plant site location.

8.0 Water

The water required for the processing plant will be generated from the Mount Morgan Open Pit. The water balance shows that the water within the current open pit plus water recycled from the TSF less the water discharged into the Dee River following treatment through the existing water treatment plant will be sufficient for the term of the FS. Water taken directly from the open pit will be used for the repulping of the tailings prior to the scrubbing. Process water, raw water and fresh

water will be taken from the different product streams associated with the Water Treatment Plant (WTP). The WTP also has the capacity to discharge pH modified water into the Dee River to ensure discharge targets are met and the water level in the open pit lowers at the required rate. Carbine requires the water level in the open pit to lower at a suitable rate to achieve three specific goals. Firstly, in dewatering the Sandstone Gully remnant tailings so they can be removed prior to the building of stage 2 of the TSF. Secondly to reduce the risk profile associated with the mining of the Upper Mundic Gully open pit abutment to allow tailings to be removed and a suitable wall reinstated; and, thirdly to provide access to the tailings within the open pit that is included in the Expanded Case.

The water balance process associated with the Project also considers a detailed catchment and drainage program as part of the ongoing management process with the AMD. Several pump back locations currently exist that pump water back into the open pit from below the various gullies located on the site. A detailed design review has been completed as part of the FS to ensure that mining and the final state of the area continues to limit the AMD inputs into the Dee River.

Carbine has an existing agreement for the management of the WTP (ASX: 29 October 2015). The WTP is a critical piece of infrastructure required for the success of this Project moving forward.

9.0 Access

Access to the Mount Morgan mine site is via the Mount Morgan town. The mine site is located immediately adjacent to and west of the town across the Dee River. An additional access road will be constructed for concentrate haulage purposes from Gordon Lane exiting the mining leases to the north of the town. This access will avoid the need to cross the Dee River and to transit through the town. Sealed road access is available to Mount Morgan from the regional city of Rockhampton and surrounding areas. The Bruce Highway is the major north-south arterial road in Queensland which runs adjacent to Rockhampton.

The closest major, deep water port used for imports/exports is the Port of Gladstone which is 128km from Mount Morgan by road. The pyrite concentrate will be shipped from this port.

The closest regional airport is the Rockhampton airport which is approximately 40km from Mount Morgan by road.

10.0 Personnel

The majority of the operational and project development labour will be secured from the surrounding population areas. Rockhampton lies approximately 40km to the north east of Mount Morgan. The Rockhampton Regional Council District has a population of about 86,500 people including the population of the Mount Morgan District with approximately 3,100 people. The Mount Morgan community is traditionally a mining community associated with the historical mine site. The operation will be established as a traditional residential operation and is expected to have significant advantages in attracting skilled personnel due to its location and the planned duration of Project.

The proposed site organisational structure will be based on a typical Australian mining operation. The site management, administration, technical functions, processing, and surface plant maintenance functions will be directly employed by the operation. Contractors will be utilised for mining, concentrate haulage and other specialty roles and functions.

Total site personnel numbers are expected to reach approximately 110 during construction and 68 at full production comprising 47 management/supervision/technical staff/processing plant and 21 mining contractors.

11.0 Mineral Commodities

The operation will produce gold doré, copper sulphate and premium unroasted iron pyrite. Copper sulphate will be produced in bulka bags or containers and will be transported to market by others. It is proposed that due to the relatively small volumes of copper sulphate production, the product will be consumed in the local agriculture business primarily in Queensland.

11.1 Offsite unroasted iron pyrite concentrate logistics

The operation will have dedicated truck haulage for premium unroasted iron pyrite to the Port of Gladstone. Over 200,000t of concentrate will be transported to Gladstone on an annual basis for shipping. Storage and ship loading at Gladstone will be managed by the Gladstone Port Authority. It is expected that up to 50,000t shipments will be made from Gladstone depending on the shipping arrangements made prior to the time of shipping. Carbine will investigate the possibility of shipping smaller volumes in containers to specific customers requiring smaller volumes.

11.2 Concentrate specification

The unroasted iron pyrite concentrate produced at Mount Morgan is expected to have the following mineral element levels and size distribution:

Table 11: Mount Morgan FS unroasted Iron Pyrite element analysis

Mineral	Unit	Grade
Sulphur (S)	%	50
Iron (Fe)	%	43
Silica (SiO_2)	%	2.4
Gold (Au)	ppm	1.9
Aluminium (Al)	ppm	2,420
Copper (Cu)	ppm	1,006
Calcium (Ca)	ppm	750
Magnesium (Mg)	ppm	400
Sodium (Na)	ppm	320
Arsenic (As)	ppm	230
Potassium (K)	ppm	200
Cobalt (Co)	ppm	195
Zinc (Zn)	ppm	182
Titanium (Ti)	ppm	<200
Phosphorous (P)	ppm	<100
Lead (Pb)	ppm	40
Nickel (Ni)	ppm	<5
Cadmium (Cd)	ppm	<5
Antimony (Sb)	ppm	1.6
Mercury (Hg)	ppm	0.1

Table 12: Mount Morgan FS unroasted Iron Pyrite size distribution

Size (µm)	% Passing
75	6.37
45	33.9
25	22.0
-25	37.8
Total	**100.0**

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12.0 Project Development and Production Schedule

12.1 Project Development

The Mount Morgan Project development schedule has been developed by GRES with a duration of 12 months from the commencement of construction through to the end of commissioning. The work completed for the FS in regards to the plant construction was based on a "Fixed Price" contract logic. The major milestones in the construction period for the Project are shown in the following timeline:

Timeline	Months															
Description	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Regulatory Approvals																
Plant Construction Award & Engineering																
Plant Access Establishment																
Commence Construction Sandstone Gully TSF																
Plant Construction																
Plant Commissioning																
First Ore Processed																
Mining																
First Gold Production																

Figure 6: Mount Morgan Project Development Timeline

12.2 Production Schedule

The FS Base Case has a mine life of 9.5 years. This Ore Reserves only case is illustrated in Figure 7 showing the various feed sources for the project over this period.

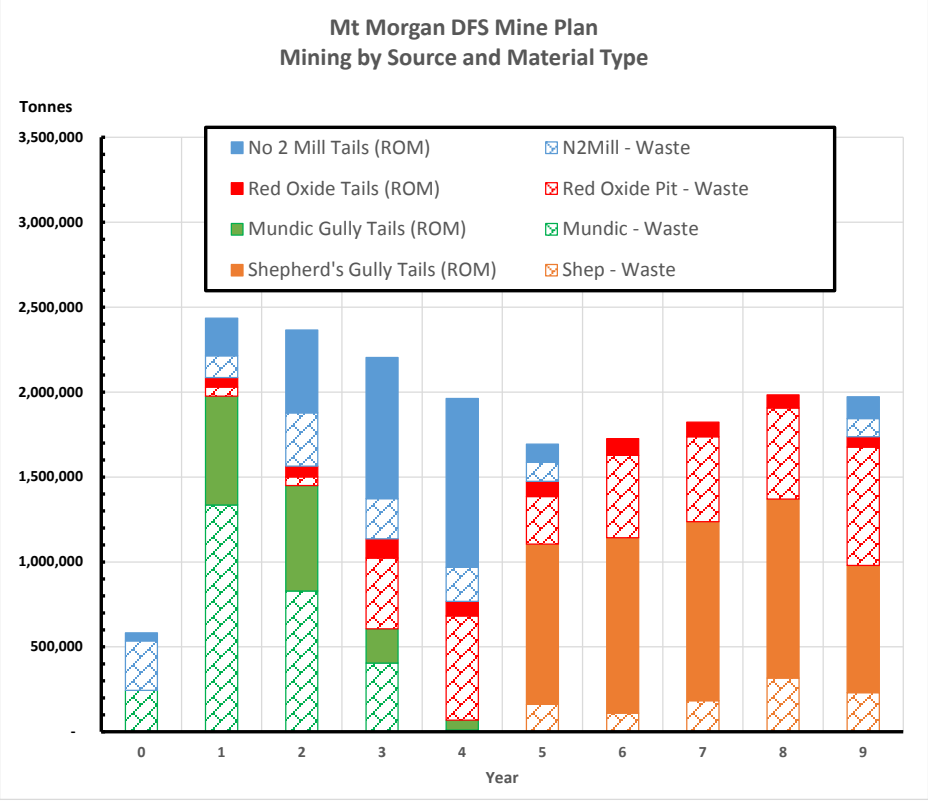

Figure 7: Mount Morgan mining by source and material type

13.0 Financial Analysis

13.1 Capital Cost

Capital costs have been estimated to a +/- 15% level of accuracy. Pre-production capital costs are A$85.1M. Pre-production capital also includes any mining activities that occur prior to first metal production.

The capital costs used in the FS do not include the following items on the grounds that the necessity and payment for these works are still to be negotiated with relevant authorities regarding requirements, value and responsibility.

Road improvements/modifications between Mount Morgan and Gladstone: widening the razorback section of Razorback Road and modifying entry and exit corners on Poison Creek Road where the road intersects Razorback Road and the Burnett Highway.

Gully cuts: the cost estimate to establish a gully cut in the Shepherds dump wall. The cost of the gully cut associated with No 2 Mill has been included but the cost of the gully cut associated with Shepherds has not been included as its final requirement has not been established.

From a mining and environmental perspective certain activities have been included in the capital cost estimate as follows:

Overburden: removal of NPAG waste overburden from the top of No 2 Mill and Shepherds and stockpiling that material for later rehabilitation work.

Removal of contaminated subsurface material: the Phase 2 Agreement stipulates that following the removal of tailings and the establishment of the original ground surface, any contaminated sub surface down to 0.6m is to be removed.

Batter final walls and ordinal surface: the cost associated with re-shaping the final walls and ground surface.

Replacement and spreading of NPAG material on final walls and ground surface: the original overburden NPAG material at Shepherds will be placed back into Shepherds on completion. The original material associated with No 2 Mill will be placed in No 2 Mill, Mundic and Red Oxide. The No 2 Mill NPAG material will be used at Mundic and Red Oxide due to no NPAG waste being apparent in those locations. Cost estimates have been completed for this work and further detailed assessment on these requirements will be made during exposure of the original ground surface.

The mining capital costs include a detailed geotechnical evaluation in year 1 of production to further examine the mining strategy/design of the area known as Upper Mundic Gully. In this area the tailings from Mundic Gully reach the Mount Morgan Open Pit at approximately 260mRL. The geotechnical work to be done will evaluate the engineering solution for removing those tailings and/or building a suitable engineered wall to improve stability of this area.

Table 13: Mount Morgan Project capital cost

Description	Pre-Production (A$M)[1]	Total Project (A$M)[1]
Processing Plant	75.6	75.6
Plant First Fill and Spares	3.2	3.2
Tailings Storage Facility	2.4	4.5
On-Site Infrastructure	0.6	1.7
Heritage	0.4	1.0
Pre-production Mining	2.8	
Mining and Rehabilitation		9.8
Sustaining Capital		3.5
Salvage		(5.0)
Total	**85.1**	**94.4**

Table Notes:

1. *Rounding errors can occur.*

13.2 Operating Cost

Operating costs have been determined by Carbine for the various parts of the Project. The operating cost model was developed by GRES and Carbine. The mining volumes and mine plan was generated by GHD and the mining unit rates were obtained by an indicative rates process with recognised mining contractors.

Opportunity 3 – Carbine has determined through preliminary test work that further reductions in cyanide consumption are possible due the cyanide regeneration process that is included in the process design. Further test work is required to evaluate this opportunity and the Company will complete this work prior to commencing the Project.

Opportunity 4 – Further detailed work is required by Carbine and Gladstone Port Authority to evaluate and optimise the unroasted iron pyrite haulage and port handling costs.

Table 14: Mount Morgan operating cost

Area	A$/t Ore Mined
Mining	7.26
Processing	22.99
General and Administration	1.93
Concentrate Haulage and Port Charges	6.29
Royalties	2.95
Total	**41.42**

13.3 Off-site and Offtake

The detailed commercial terms provided by third parties for potential off-take of copper sulphate and unroasted iron pyrite remain confidential.

Carbine has completed a detailed review of the unroasted iron pyrite market in establishing the pyrite price used in the FS. The Company has determined that three specific export markets exist for unroasted iron pyrite, being:

1. Sulphuric Acid: Bulk supply of premium concentrate to China;
2. Sulphuric Acid: Bulk supply of premium product to Europe; and
3. Industrial Components: Specific small volume distribution to specific customers primarily in Asia.

The FS used a US$60/t concentrate FOB Gladstone price for the first 2 years of production. The remaining years will use a US$80/t concentrate FOB Gladstone.

World trade figures show that the imports and exports of pyrite concentrate have been dominated on the supply side by the Pyhäsalmi Mine in Finland (First Quantum) and on the demand side by sulphuric acid manufacturing roasters in China. In 2015 China imported 859 thousand tonnes of unroasted iron pyrite. Of this material, 72% (616 thousand tonnes) came from the Pyhäsalmi Mine.

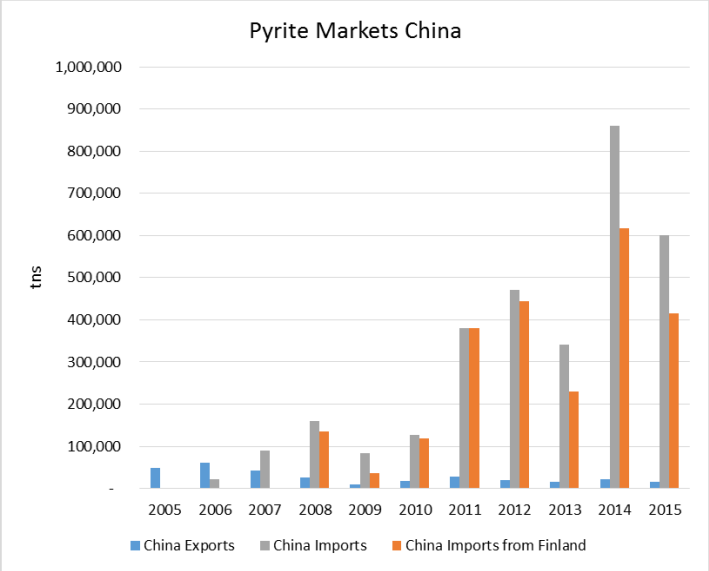

Figure 8: China Imports Pyrite Concentrate (t), 2005 - 2015

The Pyhäsalmi Mine is a deep (1,400m) underground mine that produces copper, zinc and pyrite concentrate. The concentrate produced is very similar to the concentrate that will be produced from Mount Morgan. The Pyhäsalmi Mine is expected to commence closure in 2019 due to the lack of reserves.

Carbine currently has in place a pyrite offtake agreement with Talana Limited (ASX: 26 October 2015) which is in the process of being renegotiated.

Some investigation has also taken place in the industrial component sector with Jainson Labs (India) (ASX: 9 March 2015) which also presents opportunities in the higher price, small volume premium market. For this area to be considered, concentrate would need to be exported in containers.

Opportunity 5 –The potential void created by Pyhälsami closing in 2019 may result in further increased pricing due to increased demand or an opportunity for Carbine to increase the plant output at Mount Morgan to supply to that market.

The information in Figures 8 to 10 has been taken from Business Analytical Center (BAC) report on "China Trade of Unroasted Iron Pyrites, Export, Import, and Market Prospects":

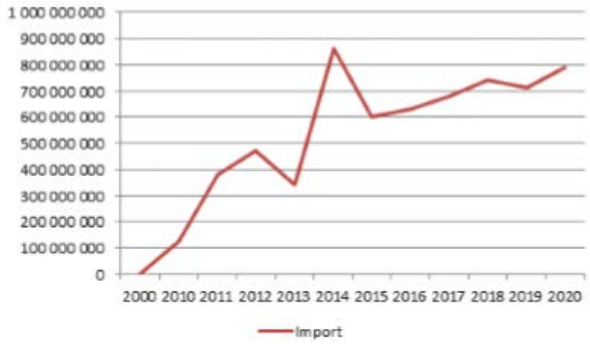

Figure 9: Forecast China Imports for Pyrite (kg)

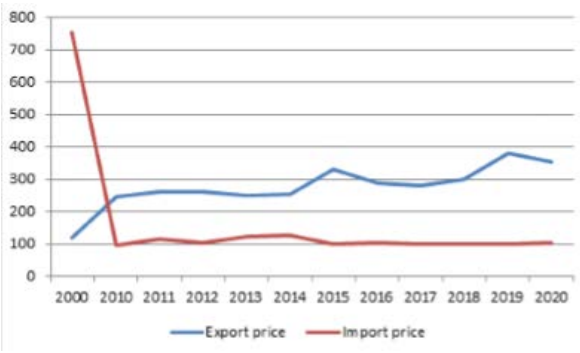

Figure 10: Forecast Average Pyrite Import Price (US$/t)

13.4 Project Payback and Costs

The Mount Morgan Project economics shows a short term project payback of 2 years and C1 Cash Costs of A$395/Au oz and AISC of A$549/Au oz. The processed ore has recovery factors applied to the three separate products. Shipping and logistics, product payability and State royalties are all included.

The Project is highly leveraged to commodity prices. In particular, the gold price makes up approximately 67% of expected payable metal value. Unroasted iron pyrite makes up approximately 20% and copper sulphate 13%.

Table 15: Mount Morgan FS ("Base Case") Payback Period and Costs

Description	FS Base Case
Pre-Production Capital	A$85.1M
Payback Period[1]	2 years
C1 Cash Cost[2]	A$395/Au oz
AISC Cash Cost[3]	A$549/Au oz
Plant Processing Rate	1.1Mtpa
Total Ore Feed	9.9Mt
Base Case Mine Life	9.5 years

Table Notes:

1. *Payback was determined using a AUD/USD FX 0.75, and with commodity prices of US$1,200/oz gold, US$60/t unroasted iron pyrite for years 1 & 2 then US$80/t for the remaining years, US$5,800/t copper. Copper sulphate revenue is based on copper LME price for approximately 25% copper grade plus A$500/t premium for copper sulphate.*
2. *C1 is defined as the direct cash operating costs produced, net of by-product credits, divided by the amount of payable gold produced. Direct cash costs include all mining and processing costs, general and administration costs, and transport and port costs net of revenue credits from the sale of by-products (pyrite and copper sulphate).*
3. *AISC is the "All in sustaining cost" includes C1 costs, plus depreciation charges, royalties and sustaining capital and are presented net of by-product credits, divided by the amount of payable gold produced. AISC cost does not include payment to Norton to for acquisition.*

Whilst the FS Base Case presents a positive economic case, there is potential for the Project to deliver significantly greater production and mine life and stronger economics when considering the opportunity associated with the Expanded Case outlined in Section 15 of this announcement.

13.5 Project Sensitivities

The sensitivity of the Project Operating Margin to percentage changes in key inputs are summarised below for movements in a number of key drivers as labelled. Project "Operating Margin" in the context of these sensitivity analyses is the difference between $A/Au oz revenue and the A$/Au oz AISC.

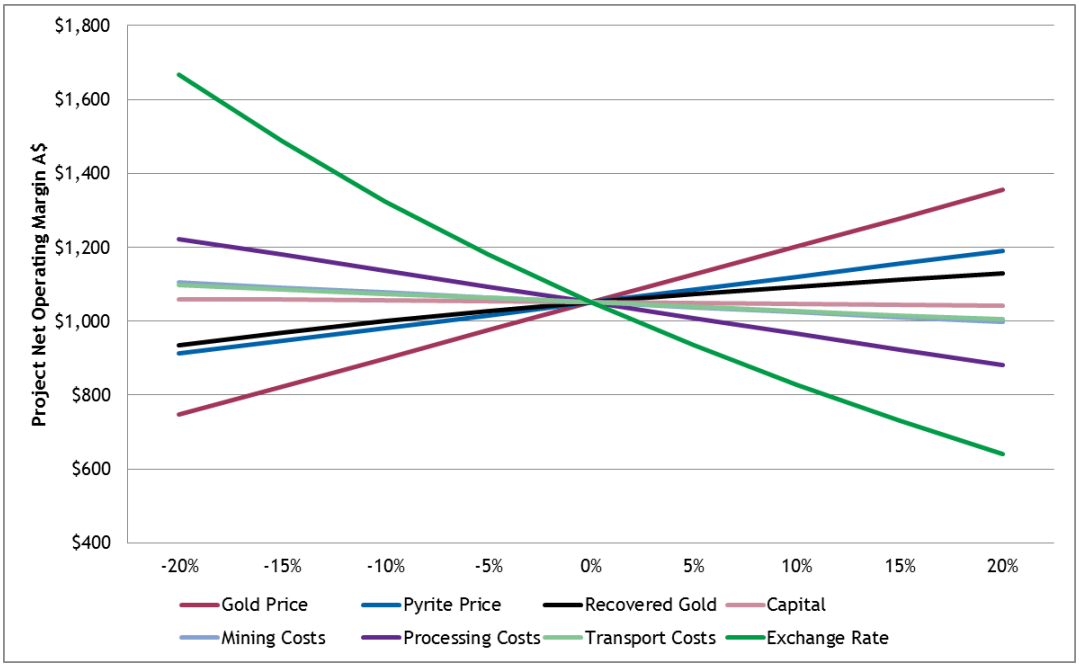

Figure 11: Base Case Sensitivity to Key Drivers

14.0 Approvals, Environment and Stakeholders

14.1 Regulatory Approvals and Licenses

The FS requires that the Company has reasonable grounds for the Project to proceed following receipt of the required regulatory approvals. The Project has approved Mining Leases currently held by Norton and an approved Environmental Authority. The remaining three approvals associated with the Project are the Heritage Development Application under the Queensland Heritage Act 1992, Environmental Authority Amendment under the Environmental Protection Act 1994 and Resource Development Application in a Priority Living Area under the Regional Planning Interests Act 2014.

The Company will be required to lodge a Financial Assurance in relation to the Project prior to the commencement of any on ground activity.

14.2 Environment

Environmental Authority MIN100708908 was previously approved for the Project in 2010. The Environmental Authority Amendment application is required due to variations in the plan including relocation of the processing facility.

14.3 Heritage

The Development by the State Application under section 71 of the Queensland Heritage Act 1992 has commenced and is being led by the DNRM. The formal development application is currently being lodged by the DNRM. The outcome of the application is not expected to be known until early 2017. Carbine is of the current view that the Heritage application will be granted although certain conditions may apply. The granting of the application is subject to approval by the Minister of the Department of Environment and Heritage Protection (DEHP).

Carbine has given several commitments to the ongoing preservation of the site heritage. The understanding of the value and timing of these commitments will be determined with the DNRM as part of the development application process. No financial provision has been included in the economics of the Project at this stage due to its unknown intent and responsibility.

14.4 Regional Planning

The Resource Development Application in a Priority Living Area (PLA) approval under the Regional Planning Interests Act 2014 has commenced. When the Act was passed in 2014 the Mount Morgan Mine site was designated as a Priority Living Area in the 2013 Central Queensland Regional Plan. The application is subject to approval by the Department of Infrastructure and Local Government Planning (DILGP). Based on discussions with the Rockhampton Regional Council and DILGP, the Company is of the view that approval will be achieved.

14.5 Local Community

The Company will play an active part in the Mount Morgan community. It is envisaged that a community relations consultation committee will be established with representation from the local community and the Rockhampton Regional Council. The committee will meet on a regular basis with the aim of covering items of interest for the local community whilst providing a platform to inform the stakeholders of progress being made to bring the Mount Morgan Project into production.

15.0 Opportunities to Improve FS

The Ore Reserves presented in the FS are considered the Base Case with the aim of the FS being to justify the development of the Project. Beyond the defined Ore Reserves there are many open opportunities within the Project that are expected to provide significant mineralisation extensions that will result in further optimisation and additions to the current mine schedule. These extensions are likely to come both from upgrading Inferred Mineral Resources to Reserves and from drilling the many Exploration Target opportunities. In the work done to date, the Company has restricted its activities to tailings and dump retreatment options and, in time, other near-mine and regional opportunities will be considered.

One of the primary objectives of this Project is to commence the pathway to reducing the environmental liability associated with this Project caused by AMD. Carbine believes that reprocessing economically viable tailings and dumps will make a significant contribution to this objective through the removal of pyrite. The commencement of this Project provides a great opportunity for other site improvements to be considered through research and development and technical evaluation of various environmental issues.

The Company notes that there is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realized. Likewise, the potential quantity and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources or that the production target itself will be realised.

15.1 Mine Life Expansion (Expanded Case)

A logical expansion case exists that can be justified as an Expanded Case that increases the mine life at the FS production rate to 20 years. This has been modelled and a preliminary economic assessment has been completed based on the FS work being the first 9.5 years of that Project.

The Expanded Case includes Inferred Mineral Resources specifically associated with the remnant tailings in Sandstone Gully and the reprocessed tailings in the Mount Morgan Open Pit. The remnant tailings in Sandstone Gully will be mined and removed from Sandstone Gully as the FS case progresses as this is the site for the new TSF. From 1982 to 1990, Peko reprocessed tailings predominantly from Sandstone Gully and placed those tailings in the Mount Morgan Open Pit. Production records show that 26.6Mt at 0.52g/t Au, 1.38g/t Ag, 0.07% Cu, and 11.3% S were placed in the Open Pit. In the Expanded Case it is assumed that the top 10Mt are processed to take the mine life out to 20 years. The top 10Mt equates to the last 3.4 years of Peko's work time frame and the average grade for that period of the tailings being deposited was 0.63g/t Au. The tailings sitting in the top of the Mount Morgan Open Pit come from the tailings deposited in the lower sections of the historical Sandstone Gully TSF. The grade profile of the material located in the Sandstone Gully TSF and now the Mount Morgan Open Pit reflect the timing of the original tailings deposition.

The Expanded Case also includes the low end of the range of the Exploration Targets presented in the Exploration Target table (refer to Table 6, Section 3) for other dump material identified at Mount Morgan. The following table shows the preliminary processing schedule relating to the Expanded Case.

Appendix 1 contains additional information regarding the reasonable assumptions used in the evaluation of the Expanded Case.

The preliminary cash cost assessment of the Expanded Case shows that the Project can maintain a C1 cash cost of A$384/Au oz and AISC of A$576/Au oz over the 20 year project life.

An option does exist for the expansion of the project size by increasing the throughput rate. Further work would have to be done on this as the rate determining step for the Project is the unroasted iron pyrite transport and sales market. Any potential increase in the throughput rate will be driven by the Project's capacity to transport and sell unroasted iron pyrite.

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Table 16: Mount Morgan Expanded Case Processing Physicals and split by resource category

Description	Units	FS Totals	Year 9 Additional	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Total ALL	Ore (kt)	9,515	225	1,150	1,150	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,060	21,900
	AuEq(g/t)	1.85	1.21	1.22	1.22	1.25	1.25	1.14	1.17	1.18	1.18	1.18	1.18	1.15	1.57
	Au Produced (kozs)	266	4	19	19	19	19	16	17	17	17	17	17	16	464
	Cu Sulphate (kt)	0	0	2	2	2	2	2	2	2	2	2	2	2	20
	Pyrite concentrate (kt)	1,874	45	199	199	205	205	201	196	193	193	193	193	191	4,084
FS Base Case Ore Reserve	Ore (kt)	9,515													9,515
	AuEq(g/t)	1.85													1.85
	Au Produced (kozs)	266													266
	Cu Sulphate (kt)	0													0
	Pyrite concentrate (kt)	1,874													1,874
Inferred resources	Ore (kt)		225	770	770	835	835	1,050	1,020	1,000	1,000	1,000	1,000	1,000	10,505
	AuEq(g/t)		1.21	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.97
	Au Produced (kozs)		4	11	11	12	12	15	14	14	14	14	14	14	149
	Cu Sulphate (kt)		0	1	1	1	1	1	1	1	1	1	1	1	15
	Pyrite concentrate (kt)		45	146	146	159	159	199	194	190	190	190	190	190	1,998
Exploration Target	Ore (Mt)			380	380	265	265	50	80	100	100	100	100	60	1,880
	AuEq(g/t)			1.32	1.32	1.32	1.32	1.14	1.22	1.27	1.27	1.27	1.27	1.45	1.30
	Au Produced (kozs)			8	8	7	7	2	3	3	3	3	3	2	49
	Cu Sulphate (kt)			1	1	1	1	0	0	0	0	0	0	0	5
	Pyrite concentrate (kt)			52	52	46	46	2	2	3	3	3	3	1	212
Category % by Value	Indicated	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	52%
	Inferred	0%	100%	61%	61%	68%	68%	93%	88%	86%	86%	86%	86%	92%	38%
	Exploration Target	0%	0%	39%	39%	32%	32%	7%	12%	14%	14%	14%	14%	8%	10%
	Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 17: Mount Morgan Expanded Case Cash Costs and Mine Life

Description	Expanded Case
Pre-Production Capital	A$85.1M
Payback Period[1]	2 years
C1 Cash Cost[2]	A$384/Au oz
AISC Cash Cost[3]	A$576/Au oz
Plant Processing Rate	1.1Mtpa
Total Ore Feed	22.4Mt
Mine Life	20 years

Table Notes:

1. *Payback was determined using a AUD/USD FX 0.75, and with commodity prices of US$1,200/oz gold, US$60/t unroasted iron pyrite for years 1 & 2 then US$80/t for the remaining years, US$5,800/t copper. Copper sulphate revenue is based on copper LME price for approximately 25% copper grade plus A$500/t premium for copper sulphate.*
2. *C1 is defined as the direct cash operating costs produced, net of by-product credits, divided by the amount of payable gold produced. Direct cash costs include all mining and processing costs, general and administration costs, and transport and port costs net of revenue credits from the sale of by-products (pyrite and copper sulphate).*
3. *AISC is the "All in sustaining cost" includes C1 costs, plus depreciation charges, royalties and sustaining capital and are presented net of by-product credits, divided by the amount of payable gold produced. AISC cost does not include payment to Norton to for acquisition.*

15.2 Capital Cost Reduction

The capital costs included in the FS are all new equipment pricing. Carbine is aware of second hand equipment that is available near Mount Morgan that will likely reduce the plant capital required for the Project. This equipment may also significantly reduce the lead time of some of the more significant pieces of equipment.

The Company also intends to carry out further investigation work on the requirement of the regrind mill. It may be possible to not include the mill and achieve similar metal recovery and cost profiles. Further test work will be considered prior to making any decisions to remove the mill.

Capital associated with mining relates to original ground surface work once the tailings are removed and includes removal of potential contaminated material and forming and re-spreading of NPAG waste prior to rehabilitation. It may be possible that when the original ground surface is exposed, minimal work may be required to establish a rehabilitated surface floor. This work will be done when the surface is exposed following mining.

15.3 Operating Cost Reduction

Several operating cost improvements exist with the Project and will form a significant part of the ongoing cost optimisation process moving forward. Opportunities have been included and highlighted in the various sections of this announcement to illustrate what they are.

Mining: several initiatives are being investigated, including:

- Reduction of waste mining associated with the walls of the dumps.
- Reduction of slag mining costs.
- Introduction of slag as a credit from sales as a cement clinker, road base or other benign building or civil product.
- Consideration of using larger mining equipment to reduce mining costs.
- Mining on a continual 24 hour shift basis (current mining costs are based on a 6 day week, day shift only operation).
- Ongoing discussions with DNRM about other mining work to assist with improving the environmental legacy associated with the Project.

Processing: reduction in reagent consumption specifically cyanide. Further work is required to examine the cyanide regeneration capacity of the plant and the technical capacity of that regeneration. Ongoing negotiations relating to power costs may lead to reduced power charges or alternate power options being considered.

15.4 Regional Expansion

Following the establishment of the tailings retreatment project at Mount Morgan, consideration will be given to expansion through both mine corridor and regional exploration. Limited work has been done in this area in recent times and few modern exploration techniques have been applied to the area. The Mount Morgan Mine Site currently has an exclusion zone surrounding the current mining leases. This area may be reconsidered for exploration if the Company can show it can successfully mine without generating new environmental issues.

16.0 Cautionary Notes and Forward Looking Information

Mineral Resources that are not Ore Reserve do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental permitting, legal, off take agreements or other relevant issues. The Mineral Resources disclosed in this release are estimated in line with JORC (2012) code. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. The stated production target associated with the Expanded Case is based on the Company's current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.

Certain statements contained in this report constitute forward looking statements. Forward looking information often relate to statements concerning Carbine's future outlook and anticipated events or results and, in some cases can be identified by terminology such as "may", "will", "could", "should", "expect", "plan", "anticipate", "believe", "intend", "estimate", ""projects", "predict", "potential", "continue" or other similar expressions concerning matters that are not historical facts. Statements of historical fact are not considered forward looking information.

Forward looking statements are based on a number of material factors and assumptions, including, but not limited in any manner to, those disclosed in results; the ability to explore; communications with local stakeholders and community and government relations; status of negotiations of joint ventures; weather conditions; Ore Reserves; Mineral Resources; the development approach and schedule; the receipt of required approvals, titles, licenses and permits; sufficient working capital to develop and operate the mines and implement development plans; access to adequate services and supplies; foreign currency exchange rates; access to capital markets; availability of qualified work force; ability to negotiate, finalise and execute relevant agreements; lack of social opposition to mines or facilities; lack of legal challenges with respect to the Mount Morgan property; the timing and amount of future production and ability to meet production, operating and capital cost expenditure targets; timing and ability to produce studies and analysis; execution of the credit facility; ability to draw under the credit facility and satisfy conditions precedent including execution of security and construction documents; economic conditions; availability of sufficient funding; the ultimate ability to mine, process and sell the mineral products produced; the timing, exploration, development, operational, financial, budgetary, economic, legal, social and political factors that may influence future events or operating conditions. Forward looking statement are only predictions based on Carbine's current expectations and projections of future events. Actual results may vary from such forward looking information for a variety of reasons.

Forecast financial information provided in this announcement based on the Feasibility Study Base Case and Expanded Case. The Company is of the view it has reasonable grounds for providing the forward looking statements included in this announcement. The detailed reasons for this conclusion are outlined throughout the announcement and appendices. However, the Company cautions that there is no certainty that the forecast financial information derived from the production targets will be realised.

Other than required by law, Carbine assumes no obligation to update any forward looking information to reflect, among other things, new information or future events.

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Appendix 1 – Disclosure of Additional Information & Assumptions associated with the Expanded Case

In the Expanded Case, several additional assumptions have been made in order to complete the preliminary economic assessment in relation to that case. The following information summarises those assumptions. Predominantly, the information used in the Base Case has been used in the Expanded Case.

Mine Life: The Expanded Case simply continues the mine life beyond the Base Case (9.5 years) out to 20 years by mining and processing additional material that is currently identified as Inferred Mineral Resources and Exploration Target.

Additional Material for Processing: In the Expanded Case, material has been included for mining and processing based on reasonable grounds supported by detailed evaluation and historical production data. The Expanded Case includes 10.5Mt at 0.63 g/t Au out of the Mount Morgan Inferred Mineral Resource estimate of 27.0Mt @ 0.53 g/t Au (47% of total Mount Morgan Mineral Resources as shown in Tables 18 and 19 below) and 1.9Mt at 1.2 g/t Au out of the Mount Morgan Exploration Target range of 1.9Mt to 4.9Mt at 1.2 g/t (the low range Exploration Target is 37% as a percentage when compared to the high range). The following table summarizes the split by percentage of the various material types included in the Expanded Case in addition to the Base Case (first 9.5 years).

Table 18: Ore Reserves Included in FS Base Case

Case	Description	Ore Reserve	Inferred Mineral Resources	Exploration Target (Low Range)
FS Base Case (First 9 Years in Expanded Case)	Based 100% on Probable Ore Reserve	100%	0%	0%

Table 19: Ore Reserves, Mineral Resources and Exploration Target Included in FS Base Case and Expanded Case, for comparison[4]

Expanded Case (20 year case)	Material by tonnes	43%	48%	9%
	Material by AuEq ozs[1]	52%	38%	10%
	Percentage of total Indicated Mineral Resources included (AuEq ozs)[2]	100%		
	Percentage of total Inferred Mineral Resources included (AuEq ozs)[2]		47%	
	Percentage of total Exploration Target included – low range (AuEq ozs)[3]			100%
	Percentage of Exploration Target low range compared to high range (AuEq ozs)[3]			37%

Tables 18 and 19 Notes:

1. *AuEq ozs have been determined using the AuEq grade for each case as outlined in Table 2 above. Please refer to Section 1.6 for detailed description of calculation of Metal Equivalents used in this announcement.*
2. *Reference Mount Morgan Mineral Resource Section 3 & Appendix 2 (ASX: 30 August 2016)*
3. *Reference Mount Morgan Exploration Target Range Section 3 & Appendix 2 (ASX: 30 August 2016)*
4. *In the Expanded Case the overall proportion of Inferred Mineral Resources and Exploration Target are not the determining factor for the Project's viability.*

Inclusion of Inferred Mineral Resources in Expanded Case

The Inferred Mineral Resource included from years 10 to 20 comes from the remnant tailings located in the Sandstone Gully area (0.25Mt at 0.85 g/t Au) and the reprocessed tailings located in the historical Mount Morgan Open Pit (10.3Mt at 0.63 g/t Au). In total 10.5Mt at 0.63 g/t Au has been included in the Expanded Case, which is 47% of the total Inferred Mineral Resource at the Mount Morgan Project. The Company notes that in respect of the Expanded Case, the potential mining and treatment of the Inferred Mineral Resource does not feature in the early mining and treatment plan (first 9.5 years).

In the Sandstone Gully area, visible sulphidic tailings exist above the current water level in both the northern and southern upper reaches of Sandstone Gully. The northern Gully has approximately 250m x 100m of tailings with variable depths from 0 – 7m. The southern Gully has 200m x 8m with depths greater than 7m. In 2016, Carbine excavated 14 test pits to evaluate the depth of the remnant tailings in these areas. In addition, Carbine carried out independent volume calculations by

comparing the original surface topography survey against the current 2016 Lidar survey. This work validated the visual estimates of the material seen above the water level in the upper reaches of Sandstone Gully.

The historical reclaimed grade of the Sandstone Gully tailings dump was a relatively consistent grade of 0.8 g/t to 1.1 g/t gold in the later years of processing. Review of nearest drilling to the upper reaches of Sandstone Gully (6 holes) gives an estimated grade of 0.85 g/t Au. Remnant Sandstone Gully tailings were assigned an average gold grade from these nearest six historical drill holes. This grade is considered an acceptable conservative estimate as it is lower than the overall average grade of retreated tailings from Sandstone Gully from the historical production figures.

With the construction of the new TSF in the FS in Sandstone Gully, all the remnant tailings need to be removed prior to any new tailings being stored in that location as part of the final environmental clean-up requirements (removal of all remnant acid forming material).

In the Expanded Case, the Sandstone Gully remnant tailings above the current water level have been included in the production profile in year 9 immediately following the completion of the Base Case mining schedule. No provision for dilution or ore loss has been included for this material due to the conservative nature of the estimate.

The tailings currently in the Mount Morgan Open Pit have been produced from the retreatment of tailings principally from the Sandstone Gully TSF (1983 to 1990), but included small components from Shepherds (~1Mt, 1982 to 1983), Mundic Gully (~2Mt, 1986 to 1990) and No 2 Mill (~2Mt, 1989 to 1990) tailings dumps. Detailed production records show a total 26,673,625 tonnes of reclaimed tailings were deposited into the Open Pit from October 1982 to November 1990 at a grade of 0.52 g/t Au. The detailed production profile shows that the top 10.7Mt placed in the Open Pit after June 1987 had a higher head grade of 0.63 g/t.

The tailings in the Mount Morgan Open Pit filled a pre-existing open pit void with dimensions approximately of 700m x 400m x 140m. The final open pit survey pickup in combination with a detailed bathometric survey completed in 2001 was used to reconcile the tailings volume against the detailed production records. The volume determined reconciles within expectation using historical bulk densities.

In the Expanded Case, 10.3Mt at 0.63 g/t Au of tailings (top section) in the Mount Morgan Open Pit are included in the production profile from years 10 to 20. Production throughput of this material commences at 770ktpa and reaches 1Mtpa by year 14 where it remains consistent through to the end of the mine life. This material will be mined by dredging techniques not dissimilar to the original Peko operations in 1982. No provision has been made for dilution of this material due to the dredging and screening process in the front end of the plant. It is likely this material will bypass the copper circuit and regrinding circuit due to the low levels of copper remaining following the initial retreatment process and the fact the material had previously been ground.

Inclusion of Exploration Target in Expanded Case

The low range of the Exploration Target has been included in the Expanded Case. The Exploration Target material is spread over years 10 to 20 and comes from dumps recognized as a combination of oxide waste, oxide slag, oxide tailings, sulphide waste and sulphide tailings dumps. The Exploration Target material included in the Expanded Case from years 10 to 20 represents 9% of the total Expanded Case material and 11% of the AuEq ounces. The low range is equivalent to 37% of the high range of the Exploration Target.

Sulphide Tailings

In excess of 40Mt of sulphidic tailings were produced at Mount Morgan since 1932. Carbine's Mineral Resource estimate accounts for 36.2Mt. The remaining material may have been reprocessed, placed in or eroded away by the Dee River, or still remain on site. The Company has identified several key areas where the remaining material may be present on site, and this material has been included in the Exploration Target with a range of 0.9Mt and 2.7Mt at 1.0 to 1.1 g/t Au.

Remnant tailings in Sandstone Gully located beneath the current water level (approximately 5 m) is one of these areas. The low range of the Exploration Target of 0.5Mt at 1.0 g/t Au has been included from Sandstone Gully in the Expanded Case. These Sandstone Gully tailings below the current water level will undergo drilling and resource conversion after dewatering during the initial ore processing of the Project in preparation for the construction of the new TSF.

In the Expanded Case, the total low range of mineralised tailings (660,000t at 1.0 g/t Au) has been included in the production profile in years 10 and 11. No provision for dilution or ore loss has been included in the expanded case for this material due to the conservative nature of the low range of Exploration Target used in this analysis.

Mineralised Waste Dumps

Several generations of waste rock dumps have been identified at Mount Morgan. In excess of 93Mt of waste rock was produced during the Mine's history. Prior to 1927, 4.4Mt of waste production has been reported. No production records of the grade of this dump material exists, except for a 1908 plan showing the cut-off grade at 4.5 g/t, with waste estimated at a grade of 1.5 g/t to 2.5 g/t. Some waste dump material was processed between 1932 and 1941 and the quantity of the material is unknown. The majority of the waste dumps constructed after 1940 are expected to be uneconomic. Each of the waste dumps have been reviewed in plan and sectional view with all the available data. Based on the information available, the dumps were classified into oxide or sulphide waste dumps. The information associated with the waste dumps was generated from 93 drill holes containing 633 assay results, and 730 grab samples.

The sulphide dump material (0.43Mt at 1.2 g/t Au) was included in the Expanded Case production profile between years 9 to 13, which is likely to occur as a natural extension to the mining of similar material in the Base Case. Oxide waste dump material (0.29Mt at 1.8 g/t Au) has been included in the Expanded Case spread over the 10 to 20 year time frame in a blended capacity, similar to the treatment of Red Oxide mineralization in the first 9 years of the Project.

Also included in the mineralised waste dumps is metallurgical slag which was produced throughout the life of Mount Morgan. Reverberatory furnaces operated from 1939 through to 1956. Several historical reports show slag assays ranging from 0.6 g/t Au to 1.0 g/t Au. Some gold assays in slag were as high as 1.6 g/t Au. Initial metallurgical test work shows that gold can be recovered from slag and consequently the low range of the slag Exploration Target has been included in the Expanded Case (0.28Mt at 1.0 g/t Au).

No provision has been made in the Expanded Case for dilution or ore loss due for the mineralised waste dumps due to the conservative nature of the low range of Exploration Target used in the analysis.

Processing

Production Rate: It is assumed that the processing plant will continue at the same post-scrubber throughput rate for the entire project at 1.1Mtpa and the mining rates will match the processing rate. This assumption is based on the production levels associated with unroasted iron pyrite concentrate being optimal at around 200ktpa. If market conditions allow an increase in this production, then the processing plant throughput could easily be modified to match that market demand. Any opportunities to increase throughput at Mount Morgan would enhance the Project's overall economics.

Recovery: It is assumed that the recovery of the different dump material is the same as recoveries determined for the Base Case on the grounds the material is similar in nature to the material processed in the Base Case. For the Mount Morgan Open Pit material the recovery associated with the Shepherds dump has been used following a review of the metallurgical characteristics.

Mining

It is assumed that material mined from the Mount Morgan Open Pit will be by a dredging operation similar to the dredging carried out by Peko in the 1980s. All the other mining will be the same as the Base Case and will involve conventional dig, load and haul mining methods as describe in the Base Case.

Operating Costs

Mining Operating Costs: The following mining operating costs have been included for the various dumps to be mined in the Expanded Case in the final 10 years of the Project. Mining costs have been taken from similar dump locations, style and stripping ratios associated with dumps mined in the Base Case.

Table 20: Mount Morgan Expanded Case Mining Operating Cost Assumptions

Location	Operating Cost (A$/t)	Cost Assumption
Oxide Waste Dumps	4.02	No 2 Mill mining costs and SR 0.5:1
Oxide Slag Dumps	1.50	Rehandle cost as material previously mined as waste at Red Oxide
Oxide Tailings Dumps	4.41	50% Mundic Gully cost due to estimated 50% of Mundic Gully SR
Sulphide Waste Dumps	4.02	Assume No 2 Mill costs
Sulphide Tailings Dumps	2.48	Sandstone Gully mining cost

Mount Morgan Open Pit tailings, mining and processing costs: It is assumed that this material in the Mount Morgan Open Pit will be mined by dredging techniques and that the operating cost for this will be A$2.00/t mined. Reviewing the dredging operating costs achieved by Peko in operations in the monthly report dated December 1983, a dredging cost of A$0.44/t was achieved. The YTD operating cost for dredging in the same report was A$0.60/t. It is also assumed that when this material is processed it will bypass the front end of the circuit being the copper and grinding circuits. This is based on the tailings being previously reprocessed and a subsequent low level of copper remaining after that processing. It is assumed that this circuit bypass will deliver an A$5/t processing cost saving.

General and administration operating costs: It is assumed that all G&A operating costs and all other royalty and mine owner costs are the same as the Base Case.

Capital Costs

The capital cost associated with the Expanded Case has been summarised in Table 21.

Table 21: Mount Morgan Expanded Case Capital Expenditure

Description	Pre-Production (A$M)[1]	Total Project (A$M)[1]
Processing Plant	75.6	75.6
Plant First Fill and Spares	3.2	3.2
Tailings Storage Facility	2.4	9.5
On-Site Infrastructure	0.6	5.7
Heritage	0.4	1.0
Pre-production Mining	2.8	
Mining and Rehabilitation		17.5
Sustaining Capital		8.6
Salvage		(5.0)
Total	**85.1**	**116.1**

Table Notes:

1. *Rounding errors can occur.*

Dredging operations: A capital cost provision for establishing the dredging operation has been included in year 10 for A$2M.

Water: A capital cost provision for A$2M has been included in year 10 to set up an alternative water supply when dredging commences from the Mount Morgan Open Pit. The provision for water capital is required as it is unknown at this stage what the water balance will be in years 9 through 20, and additional external water supply may be required. It is assumed that this water is available at the same costs as processing the water through the water treatment plant in the first 10 years of the project.

Mining Capital: It is assumed that the capital cost for mining the other dumps included in the last 10 years is the same as the average A$/t cost for the dumps mined in the first 10 years. This equates to A$0.68/t mined and this has been applied to the Expanded Case.

Sustaining Capital: The sustaining capital cost used in the FS for the initial 10 years has been projected into the second 10 year time frame.

Tailings Storage Facility (TSF): It is assumed that the new Sandstone Gully TSF will have capacity to hold tailings associated with 20 years of the Project. Two additional A$2.5M capital costs have been included in years 10 and 15 for the TSF expansions.

Modifying Factors

It is assumed that the material considered for processing is of the same technical make-up as the ore in the FS. The metallurgical recovery factors have been based on the recovery test work associated with the Shepherds tailings dump. No additional mining related modifying factors have been applied in relation to dilution or ore loss due to the conservative approach taken on the material and grade to be included. Mining costs and stripping ratios have been applied to each dump based on the FS cost estimates and mining methods.

Timeframe for Development and Production

The Expanded Case is at the same production rate as the FS, and simply extends the Project for another 10 years. The Expanded Case relies on the Project described in the Base Case being developed and reaching the expected production profile over the initial 9 years of the Project.

Availability of Funding

It is anticipated that no additional financing other than that required for the Base Case is required to achieve the Expanded Cased described in this announcement.

Sequencing of Various Categories of Material in the Production Schedule

Table 16 in Section 15 and Table 18 in Appendix 1 outline the timing associated with the various category types of material in the Expanded Case. The first 9.5 years of production are Ore Reserves.

Permitting

It is anticipated that no further material permitting will be required for the Expanded Case.

Study Status and Level of Accuracy

The work completed as part of the Expanded Case is considered to be at an accuracy level of +/- 30%. However, considering it is a natural extension of the Base Case, the level of accuracy for the parts completed in the FS (e.g. processing plant capital estimate and infrastructure) are considered far better than a typical Greenfields style project.

Project Sensitivity

The sensitivity of the Expanded Case “Operating Margin” to percentage changes in key inputs are summarised below for movements in a number of key drivers as labelled. Project “Operating Margin” in the context of these sensitivity analyses is the difference between $A/Au oz revenue and the A$/Au oz AISC.

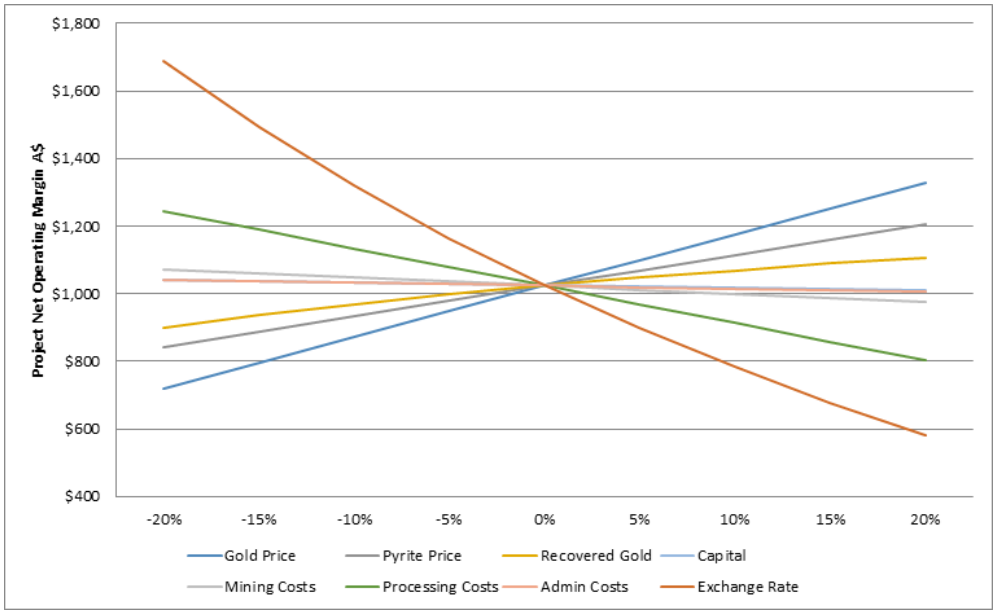

Figure 12: Expanded Case Operating Margin Sensitivity to Key Drivers

Next Steps

Infill drilling associated with the various dumps will occur during the Base Case time frame at the appropriate time. Drilling will also be required in Sandstone Gully and the Mount Morgan Open Pit. The drilling in the Mount Morgan Open Pit will be required to be drilled from a floating barge arrangement. Once the Inferred Mineral Resources and Exploration Targets have been infilled to a drill density suitable for the resources to be upgraded to Indicated Mineral Resource classification, Carbine will complete the requisite detailed mine design studies to re-estimate Ore Reserves. The timing associated with this work will be dependent on the progress of the Base Case.

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Appendix 2: Competent Person Statements and JORC Code (2012) Tables.

Competent Person Statement

Exploration Targets, Exploration Results, Mineral Resources

The information in this report that relates to Exploration Targets, Exploration Results and the Inferred Mineral Resources for Mount Morgan In-Pit and Sandstone Gully is based on, and fairly represents, information and supporting documentation prepared by Mr. C Newman, who is a Competent Person according to the JORC 2012 Code. Mr. C Newman is a fulltime employee of Carbine Resources and a Fellow of the Australasian Institute of Mining and Metallurgy. He has sufficient experience that is relevant to the style of mineralization and the type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves'. The information in this report is extracted from previous company releases 'ASX: 16 August 2016 and 30 August 2016', and is available to view on the Carbine Resources website. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this report that relates to the Mineral Resources for Mundic Gully, Shepherds Gully, No 2 Mill and Red Oxide is based on information compiled by Dr M. Abzalov, who is a Competent Person according to the JORC 2012 Code. Dr M. Abzalov is a Fellow of the Australasian Institute of Mining and Metallurgy. He has sufficient experience in estimation of resources of gold mineralisation, and has a strong expertise in the all aspects of the data collection, interpretation and geostatistical analysis to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves'. Dr M. Abzalov is independent consultant, contracted to Carbine Resources for providing the technical guidelines for resource definition drilling at the Mount Morgan tailings project and in estimating the Mineral Resources. The information in this report is extracted from previous company releases 'ASX: 18 July 2016, 27 July 2016, 1 August 2016 and 9 August 2016, and is available to view on the Carbine Resources website. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Ore Reserves

The information in this report that relates to Mineral Reserves for Mount Morgan is based on, and fairly represents, information and supporting documentation prepared by Mr. A James, who is a Competent Person according to the JORC 2012 Code. Mr. A James is a fulltime employee of Carbine Resources as the Managing Director of the Company and he holds shares in the Company. He is a Fellow of the Australasian Institute of Mining and Metallurgy. He has sufficient experience that is relevant to the style of mineralization and the type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves'. Mr. A James consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

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Reporting criteria presented in the Section 1 of the JORC Table 1

(Sampling techniques and data)

	Criteria	Explanation
1.1	**Sampling Techniques**	The main data used for the resource estimation of tailings were RC samples. The resource database contains: • Mundic Gully - 79 drill holes with 796 samples • Red Oxide – 65 drill holes with 450 samples • No 2 Mill – 102 drill holes with 1286 samples • Shepherds Gully – 116 drill holes with 1975 samples • Sandstone Gully – 6 aircore drill holes and historical production data • In Pit Tailings – historical production data Carbine drilling was completed by a Universal RC/Diamond drill rig (UDR650) equipped to collect the full sample through the cyclone or alternatively by PQ triple tube coring. Hole diameter 4.75 inches in the case of RC and PQTT (83mm). Samples are collected regularly, at 1m intervals. 1m samples are well suited for estimation of resources for the mineralised tailings. Drilling completed over the bulk of Red Oxide utilised a custom built J&S Drilling rig with capacity to drill overburden and precollar with TUBEX or ROBIT gear of varying diameter bit/casing configuration to allow telescoping down (TUBEX 190mm comprising pilot bit at 190mm and excentric reamer to 237mm then TUBEX-115mm or TUBEX 190MM/ROBIT 168.3mm gear with casing shoe to 127.5mm) with capacity to continue sampling tailings with this gear or with aircore at <115mm bit diameter. Historical holes were mostly RC, with some aircore drilling. All drilling is vertical, which is optimal for flat lying tailings, dump, and slag mineralization. Carbine drilling and sampling procedures were performed using above industry standard techniques and equipment. 1m samples were collected in total with average sample size around 15-20kg and transported in its entirety to Preplab at Rockhampton. The split of the sample was obtained in the initial sample preparation stage following drying of entire sample, crushing to 2mm and rotary splitting to 2 x 3kg splits and duplicate. Entire subsample (3kg) is pulverised to 74 microns using LM5 pulveriser requiring manual feeding. Sampling protocol is based on sampling nomogram constructed using theoretically deduced fundamental sampling error. Previous historical holes back to 2008 were re-assayed using the same process. Sampling protocol prior to this timeframe is unknown. For the Mount Morgan In-Pit tailings resource, data relied heavily on detailed monthly production records during the tailings retreatment from October 1982 through to November 1990. Tonnes were recorded by daily weightometer readings and discharged tails grade analyses of Au, Ag, Cu and S. Several core samples were taken to a depth of 0.8m at the top of the tailings within the open pit in the mid 1990's. These samples averaged 1.1g/t. These are not considered as representative of the entire tailings. They are considered to report higher than the production grades due to potentially coarser pyritic material preferentially occurring close to the discharge point and/or possible gold precipitation from the highly acidic open pit water. For Sandstone Gully, grade determinations relied on historical production records and on historical drilling prior to reclamation. Review of nearest drilling (6 aircore holes) gives a conservative grade compared to the historical mined grade.
1.2	**Drilling techniques**	Carbine drilling was completed by a Universal RC/Diamond drill rig (UDR650) equipped to collect the full sample through the cyclone or alternatively by PQ triple tube coring. Hole diameter 4.75 inches in the case of RC and PQTT (83mm). Samples are collected regularly, at 1m intervals. Drilling completed over the bulk of Red Oxide utilised a custom built J&S Drilling rig with capacity to drill overburden and precollar with TUBEX or ROBIT gear of varying diameter bit/casing configuration to allow telescoping down (TUBEX 190mm comprising pilot bit at 190mm and excentric reamer to 237mm then TUBEX-115mm or TUBEX 190MM/ROBIT 168.3mm gear with casing shoe to 127.5mm) with capacity to continue sampling tailings with this gear or with aircore at <115mm bit diameter. The majority of historical holes are RC with minor aircore, Odex, Tubex and diamond core.
1.3	**Drill Sample Recovery**	Obtained samples by Carbine resources were weighed in the preparation laboratory in Rockhampton which was used as a non-direct control for possible sample loss.

		Maximum sample recovery was based on adjusting the drilling parameters to obtain the best recovery by collection and processing of the entire sample. Where poor recovery in wet tailings was met, drilling switched to aircore which improved recovery. No bias is expected between sample recovery and grade as tails mineralization is relatively uniform in grainsize and nature. Records of sample recovery for 1990's drilling included the recorded visual recovery in geological logs.
1.4	**Logging**	The drill hole samples and Sandstone Gully test pits have been geologically logged to a level of detail to support appropriate Mineral Resource estimation. Qualitative geological logging concentrated on the diagnostic of tailing materials. Tails had to be logged separate from the surficial material, which was classified as either 'mixed', mullock waste rock, subsurface gravels, metallurgical slag or basement rocks. Oxidised or sulphidised tailings were identified separately. Documentation also includes description of mineralogy, moisture and weathering. 100% of intersections were logged for drilling after 1990. All fourteen test pits at Sandstone Gully were 100% logged.
1.5	**Sub-sampling techniques and sample preparation**	Where applicable, Full PQ core samples were collected, after being photographed after extraction. All samples were collected in entirety to be subsequently dried in the Lab, then crushed and split by rotary splitting into 3kg sub-samples for assay. Sampling and sample preparation protocols were optimised by construction of the sampling nomogram minimising the Fundamental Sampling Error. Initial sample preparation involving drying, crushing and rotary splitting was undertaken by Preplab of Rockhampton. 3kg splits were freighted to ALS Townsville for remaining preparation following the standard post-crushing preparation technique. Samples (3kg) are pulverised using LM5 pulveriser requiring manual feeding. Aliquots are dissolved using 4 acid digest (near complete dissolution) and peroxide fusion (complete dissolution). Results are compared one digest against the other. The preparation approach, is standard and commonly used for medium grade gold mineralization For all subsampling stages, duplicate samples are collected and analysed. Namely, these coarse field duplicates (5-7%) after first splitting make a 2mm size fraction, and pulp duplicates (>3%) after entire collected subsample is pulverized. QA/QC procedures also include using standard samples and blanks incorporated into batches at greater than one standard or blank per 10 samples. Sample size is 15-20kg. Further subsampling is made strictly following optimal sampling protocols. According to estimates, this will achieve precision error less than 10% which is considered excellent for gold mineralisation. Historical drilling (pre-2008) does not report sample size.
1.6	**Quality of assay data and laboratory tests**	Samples were assayed at the ALS laboratory in Townsville. Gold was assayed using conventional fire-assay method with AAS finish. Reported detection limit is 0.01 g/t Au. Cu, Ag, Fe and S have been analysed by ICP-AES by ALS Townsville by method ME-ICP41 (post aqua regia digestion) to determine levels of chalcopyrite and pyrite. Detection limits are Ag-0.2ppm; Cu-1ppm; Fe- 0.01% and S- 0.01%. Sulphur results >10%S have lower accuracy and precision. Total sulphur and sulphide-sulphur by LECO analysis was conducted on several holes to validate the ICP sulphur results. For all Shepherds Gully drilling, an additional 31 elements were analysed by method ME-ICP41 to investigate any potential contaminates from non - Mount Morgan Tailings (e.g. Mt Chalmers). No significant issues were identified from standards and blanks. Strong correlation between field duplicates was observed. Historical drilling records show application of similar duplicates, blanks and standards. Detailed review of this data has not been undertaken.
1.7	**Verification of sampling and assaying**	Verification of all results was undertaken after a site visit by the Geology Manager – Carbine. Verification of historical databases against historical paper records was also undertaken. Several twin holes were drilled to confirm the validity of the historic data. Acceptable repeatability is observed.
1.8	**Location of data points**	Hole collars were surveyed in MGA94 Zone 56 grid by certified surveyors using differential GPS. Historical holes (pre-2008) were identified to be out by a small set distance in northing (<10m) due to a historical mine grid transformation issue. These holes were corrected after historical hole collar locations were validated by certified surveyors using differential GPS.

		Pre-mining topographic surface was prepared from detailed ground and mine surveys completed historically. Current topographic surface was prepared from 2016 airborne LIDAR survey. The final open pit survey pickup was re-digitised to provide a solid shape to the floor of the tailings within the open pit. Sandstone Gully original topography prior to dam construction was reconstructed by Vision Survey Contractors based from original mine surveys.
1.9	**Data spacing and distribution**	Drill holes are distributed as approximately 40x40m grid at Mundic Gully, Red Oxide, No 2 Mill and Shepherds Gully, considered adequate for Indicated Resource classification. In-Pit Mineral Resources are based on detailed monthly production records. Sandstone Gully resources are based on historical production figures, test pits and six wide spaced aircore holes (100m x 100m). Both are reported as Inferred Resources and require additional drilling to increase this resource classification. No physical compositing of the samples has been applied in the field. Most of the samples represent 1m down-the-hole intervals. To assure the statistical representivity of the resource estimation data, the original samples were composited to 1m composites in the resource estimate.
1.10	**Orientation of data in relation to geological structure**	All drill holes were drilled vertically which provides the best possible intersection to the flat lying mineralised tailings, dumps and slag at right angles.
1.11	**Sample security**	Sample bags were collected by the Carbine Resources representative and delivered to the lab. The samples were not left unattended on site. The pulps are kept in a secure place in the laboratories as per internal security procedures of the ALS.
1.12	**Audits or reviews**	The historic data were reviewed in 2008 by Coffey Mining specialists who found them acceptable for resource estimation. Site visits and review were undertaken by Carbine personnel at both the Rockhampton sample preparation lab and Townsville ALS laboratory and deemed acceptable.

CARBINE RESOURCES
LIMITED

Reporting criteria presented in the Section 2 of the JORC Table 1

(Reporting of Exploration Results)

	Criteria	Explanation
2.1	**Mineral tenement and land tenure status**	The Mount Morgan project has been secured by Mining Leases: ML 5589, ML 5602, ML 5608 – ML 5069, ML 5612 – ML 5628, ML 5633 – ML 5635, ML 5648, ML 5649, ML 5658 – ML 5660, ML 6692 issued to Norton Gold Fields Limited. Carbine Resources entered an initial JV agreement with Norton Gold Fields Limited. There is no known native title related restrictions nor known environmental or social obstructions. Some areas of the site are currently listed on the Queensland Heritage Register. All MLs expire on the 31/08/2025 12% of the total Red Oxide Mineral Resource and 10% of the Red Oxide Indicated Mineral Resource lies outside the current mining lease boundary. This material will be incorporated into mine planning studies, as it is assumed that full environmental reclamation of this material is required on behalf of the Queensland Government environmental clean-up.
2.2	**Exploration done by other parties**	The tailings have been deposited from over a hundred years of mining and processing. In-pit tailings have been historically processed in the 1980's. Several parties have explored and tested the remaining untreated tails over the last twenty years. Most recently (2009) Norton Gold Fields Limited completed preliminary due diligence of treating the tails mineralization, however the tailings were only partially drill tested and the economic significance was not fully assessed.
2.3	**Geology**	The historic tailings from the processing of primary and oxide gold-copper-pyrite ores from the Mount Morgan mine. The tailings consist of quartz and pyrite, with minor amounts (<10%) of sericite, chlorite, feldspar and chalcopyrite. Shape of the tailings dams represents the actual contacts of the mineralisation. The In-Pit tailings reflect reprocessed tailings from these original tailings dumps. Sandstone Gully sulphidic tailings have been oxidized to a depth varying from 10cm to 90cm.
2.4	**Drill hole Information**	A total of 352 drillholes are used for estimation, distributed as approximately 40 x 40m random-stratified grid. (Mundic Gully 79, Red Oxide 65, No 2 Mill 102, Shepherds Gully 116) Due to the size of the database it is not practical to list every individual drill hole. All Recent drilling results have been released to the market prior to the calculation of the Mineral Resource estimate.
2.5	**Data aggregation methods**	Not applicable for tailings mineralisation. All tailings are reported regardless of grade with no cutting of higher grades.
2.6	**Relationship between mineralisation widths and intercept lengths**	Not applicable. There is no relationships between tailings or waste depth, and mineralisation grade. Mineralisation is distributed as a flat lying bed in the tailings dam or on a flat dipping rill in the case of waste rock. All drill holes are vertical and intersect the mineralisation approximately orthogonally providing the good estimate of the true thickness of mineralization.
2.7	**Diagrams**	Refer to previous ASX announcements: 18 July 2016, 27 July 2016, 1 August 2016, 9 August 2016, 16 August 2016 and 30 August 2016.
2.8	**Balanced reporting**	No exploration results in addition to those already published are included in the Mineral Resource estimate
2.9	**Other substantive exploration data**	No exploration results in addition to those already published are included in the Mineral Resource estimate.
2.10	**Further work**	Potential extensions to the Mineral Resources are identified as 'exploration targets' in Carbine Resources Announcement ASX: 30 August 2016. Future drilling will focus on converting the Exploration Targets into Mineral Resources. Further exploration work will also involve evaluation of the deep (+300m deep) primary potential of the Mt Morgan gold-copper deposit.

CARBINE RESOURCES
LIMITED

Reporting criteria presented in the Section 3 of the JORC Table 1

(Estimation and Reporting of Mineral Resources)

	Criteria	Explanation
3.1	**Database integrity**	Drill hole samples was collected by experienced personnel. Sample numbers have been recorded on the sample bags and sample tickets. The Supervising Geologist undertook cross-checking of the list of samples and the sample numbers and based on these, the list of the samples in the batch was prepared to accompany the samples. Lab personnel, after receiving the samples, have checked the sample numbers versus the list of the samples reported in the assay request form. All further transfers of the assay results were made electronically and supported by the paper copies for ensuring that data has not been corrupted by electronic data transfer. Obtained assays are reviewed and authorised by the Geology Manager before transfer to the database. After the data is entered into the database, it gets subsequently reviewed by the database administrator. The database is located on the company server which is regularly (daily) backed up. Individual data was verified by comparing field duplicates. For In-pit Mineral Resources a detailed project review of the historical production history was undertaken. Monthly report data was cross checked over various months against the total reported production. Several small transcription errors were identified, but were within the tolerance of acceptable error and significant figures (<1%). Historical tonnage records were validated against expected volume calculations and bulk density. All balance within acceptable tolerances. The historical database was compared against paper logging sheets and showed strong comparison.
3.2	**Site visits**	Dr M. Abzalov visited the project site in December, 2015 and in April, 2016. He assisted in setting the sampling and logging procedures, safe storage of samples and the shipment procedures to the lab. The procedures of data transfer between sites has been arranged and checked throughout the course of the project. Mr C. Newman visited the project site on multiple occasions in 2016. No physical in-pit resource can be visual observed as the resource sits completely under water. Site historical records including detailed monthly reports were examined and these cross referenced to the reported production totals for validation. The exposed tailings and test pits within Sandstone Gully were reviewed and inspected above the current water line. Oxidation of sulphidic tailings was confirmed to be typically narrow (<40cm) and confined to exposed tailings to air.
3.3	**Geological interpretation**	Understanding of the tailings deposition procedures has suggested the following interpretations, which were incorporated into the estimation procedures: • Two types of the tailings materials, red oxide and sulphidic tailings are present in the tailings. They have been offloaded to the tailings dam at different times in the history of the project. Therefore they are not intercalated in the tailings, but rather are distributed as separate domains. • Tailings were infilled evenly creating horizontal layering to the mineralization. Therefore narrow and horizontally oriented search ellipses were used in estimating the block model grades The horizontal layered nature of the mineralisation is created by the tailing infilling procedures. The detailed surface topography and the surface mapping of the tailing contacts have provided a sound base for the current geological interpretation. The grade continuities have been quantified by estimating the variograms of the main metals (Au, S, Fe, Ag, Cu). For In-Pit tailings, the final open pit survey pickup was re-digitised to provide a solid shape to the floor of the tailings within the open pit. A detailed Submerged Pit Topography survey was completed in 2001 to determine the depth of water from surface. This was re-digitised to provide a solid shape to the top of the tailings. Grade within the open pit is assumed from historical monthly production records of tailings discharged and provides a good global estimate of grade. The tailings are deposited into the pit in horizontal layering extending upwards vertically over the nine years of production. Hence, monthly production grades provide an estimate of grade from the base to the top of the tailings profile over time. For Sandstone Gully, visible tailings exist above the current water line in both the north and south upper gullies of Sandstone Gully. In April 2016, fourteen test pits were dug to obtain basic geotechnical information regarding Sandstone Gully with nine of the test pits intersected remnant tailings with five intersecting greater than a 6m thickness of tailings. Estimated remnant tailings volume was reported by comparing the original topography

		prior to Sandstone Dam construction completed by Contract Surveyors, the 2016 current topography (Lidar) survey and visual inspections incorporating the 14 geotechnical test pits.
3.4	**Dimensions**	Mundic Gully tailings dump has a shape of an irregular ellipsoid, with dimensions approximately 500m x 275m. Tailings are deposited as horizontal layers into the pre-existing topography and varies in thickness from 1m to 31.5m (average 12.3m). Up to 40m of waste material overlies the Mundic Gully tailings dump to the west, with most of the gold mineralisation (tailings) starting from an average depth of ten metres. The Red Oxide tailings dump is elongated in the East-West direction with an approximate dimension of 550m by 200m. The average width is 8m with overlying waste between 10 and 20m. No2 Mill tailings dump has a shape of an ellipsoid, with dimensions approximately 540m x 310m with thickness varying from 1m to 25m (average 16m). Up to 12m of waste overlies the tailings, but is generally less than 4m. Shepherds Gully tailings dump is approximately 600m long, 350m wide and 20m deep. Generally 1m of waste overlies the tailings. The In-Pit tailings dump fills a pre-existing open pit void with dimensions approximately 700m x 400m x 140m. The top of the tailings averages 35m depth below the water level, varying from 10m depth at the discharge point to 43m at the western end of the pit. The deepest level of tailings is at the base of the pit at approximately 150m depth. Sandstone Gully tailings are exposed on surface and within existing trenches in both the northern and southern upper reaches of the Sandstone Gully. The Northern Gully is approximately 250m x 100m to a depth of 0 to 7m. The Southern Gully is smaller, 200m x 80m to a depth exceeding 7m. The surface of the tailings exposed at surface have been oxidized. Oxidation varies from 0.1m to 0.9m in thickness and averages 0.44m in the north gully and 0.33m in the south gully.
3.5	**Estimation and modelling techniques**	Surface topography was created by wireframing the LIDAR survey data. Mundic Gully and Red Oxide mineralisation was constrained as a 3D closed wireframe (solid). All wireframing was made using Micromine©. Geometry of mineralized tailing at Mundic Gully was modified by an applied top-flattening unfolding algorithm. At No 2 Mill and Shepherds Gully, the upper contact of the tailings was created by Ordinary Kriging the thickness of the waste cover overlaying the mineralised tailings (overburden). The coordinates of the upper contact was estimated by subtracting the thickness from the corresponding point on the Lidar wireframe. Mineralisation grades (Au, Ag, Cu, Fe, S) were estimated using ordinary kriging technique with the exception of Shepherds Gully where Ag, Cu, Fe, S were estimated by simple kriging with a global mean. All geostatistical studies were made using Isatis© Sulphur (S, wt%) grade was converted into the 'pyrite-equivalent' (wt%) using stoichiometry of the pyrite: • formula - FeS2 • chemical composition Fe – 46.6%, S – 53.4% (this corresponds to 100wt% of pyrite in a sample) Validity of this approach is based on a good correlation between S% and Fe% in the drillhole samples and estimated block model grades. Pyrite has been partially and variably oxidized, therefore Pyrite Equivalent is estimated from the sulphur content The new resource figures for sulphidic tailings are in close agreement to that predicted by historical records. No production figures for oxide tailings have been located. All samples have been assayed for Au, Ag, Cu, Fe and S. Contents of other potentially deleterious components (arsenic, antimony) is negligible in the primary Mt Morgan deposit and were not systematically assayed in the 2016 tailings drilling program (exception Shepherds Gully). Drillholes are distributed approximately as 40 x 40m grid and they were sampled at 1m intervals. Blocks (parent cells) are 20 x 20 x 2m, which is sufficient to obtained accurate estimate using Ordinary Kriging technique applied to the data distributed as 40 x 40m grid. High grade cut-off was applied to composited gold samples where applicable (Mundic Gully 4.5 g/t Au, Red Oxide 5.5g/t). No high-grade cutting was required on other metals (Ag, Cu, Fe) and Sulphur. Block grades were compared with the drill holes in both north-south and RL panels. Results validate the current estimate confirming its level of accuracy. For In-Pit and Sandstone Gully Inferred Resources no computer assisted estimation method was used. Wireframes of the open pit shell and the top of the tailings (from submerged topographic survey) were used to constrain the open pit tailings. Original topography surveys and the 2016 LIDAR topography survey were used to constrain the Sandstone Gully tailings. Mineralisation grades (Au, Ag, Cu, S) for the open pit were estimated

		from detailed monthly production records covering October 1982 to November 1990. The assigned grade to the Sandstone Gully resource was based on the nearest 6 drillholes. Silver, copper, and sulphur grades were assumed to be equivalent to average historical production grades were minimal monthly variability was observed.
3.6	**Moisture**	Moisture is determined as the difference between the wet and dry measurements
3.7	**Cut-off parameters**	The contacts of the Mundic tailings were determined by logging the drillhole cuttings. This was checked, and if necessary corrected after obtaining the assay data as overburden and basement rocks are commonly lacking in both sulphur and gold grade. Resources were reported at a zero gold cut-off grade, because the production plan requires extraction and processing of all tailings material for final environmental reclamation.
3.8	**Mining factors or assumptions**	Tailings have been partially mined in the past, therefore their amenability to both open pit mining and/or dredging is well understood and confirmed by past production.
3.9	***Metallurgical factors or assumptions***	The project flowsheet incorporates the upfront extraction of copper via resin-in-leach, followed by pyrite flotation to a saleable concentrate, and finally gold extraction by carbon-in-leach. Metallurgical recovery of the tailings has been extensively carried out by Carbine over several phases from 2014 to 2016. The test work assumes the generation of three products – gold bullion, copper sulphate and a premium grade pyrite concentrate. No metallurgical sampling has been undertaken on the reprocessed tailings within the open pit due to it being submerged under water. Lower metallurgical recovery is assumed with further metallurgical testwork required to improve the resource classification of this material.
3.10	**Environmental factors or assumptions**	Mining license includes all necessary environmental permits for mining and processing of the tailings. A special requirement is the extraction of all tailings material disturbed to eliminate the acid-waste drainage from these tailings. This condition has imposed the necessity to report resources at the zero grade cut-off. Sulphidic waste overburden is assumed to be encapsulated in benign reprocessed tailings.
3.11	**Bulk density**	Dry bulk density was measured using the sand replacement method, which was applied to the tailings exposed in the specially excavated trenches. In total, 18 measurements were taken, including 14 of the sulphidic tailings and 4 oxide tailings • Mundic Gully (fresh) - 4 measurements • Shepherds Gully (fresh) - 6 measurements • No 2 Mill (fresh) - 4 measurements • No 2 Mill (oxide) - 2 measurements • Red Oxide (oxide) - 2 measurements Based on this study the DBD values used for estimating resources were as follows: • Pyritic tailings – 1.76 t/m3 • Oxide tailings – 1.42 t/m3 Sand replacement method was applied rigorously following the procedures described in the Australian standards manual (AS1289.5.3.1) Average density values have been used in the resource estimation, despite the variations of the measured results. Use of the average values was necessary because the number of measurements was insufficient for estimating the local density. The current density estimate is likely to be conservative due to the more pyrite-rich tailings being located in the middle and lower parts of the tailings and the density of that material is likely to be higher. The In Pit tailings is identical in character to these other tailings (approximately 70% silica, 25% pyrite with <5% sericite, chlorite) and hence a similar dry density is assumed. A conservative bulk density of 1.3t/m3 for oxide and 1.5t/m3 for sulphide was assumed for Sandstone Gully, to reflect higher fines and moisture observed compared to other tailings.
3.12	**Classification**	Classification is based on geostatistically estimated uncertainty of the gold grade. The uncertainty was estimated using Sequential Gaussian Conditional Simulation method applied to the Shepherds Gully tailings. This level of uncertainty, applied to the blocks representing the annual production from the tailings is in good accordance with the industry practices for classification endowment as Indicated Resource. Limitation of this approach is that it was applied to the 'Shepherd's' tailings dump and these results were extrapolated to 'No2 Mill', 'Mundic' and

		'Red Oxide' tailings. A 40x40m drill pattern is deemed appropriate for reporting of Indicated Resource for this tailings mineralisation. Inferred Resource Classification on the In-Pit tailings is based on the reliance on historical production records, lack of drilling and knowledge of detailed local estimates. Further drilling is required to increase this classification. Sandstone Gully has been reported as an Inferred Resource due to a lack of recent drilling and confidence in the original topographic survey.
3.13	**Audits or reviews**	Review by the Carbine Resources' Geology Manager has approved the evaluation methodology used by Dr M. Abzalov and concords with the results.
3.14	**Discussion of relative accuracy/ confidence**	A Conditional Simulation study undertaken in 2015 using the data from the Shepherd's tailings has shown that using a drilling grid of 40 x 40m will allow estimation of grade of the large blocks (350 x 350 x 5m) with an error less than +/-15% (at 0.95 confidence limits). A drill density of 40m x 40m is deemed appropriate given the nature of the tailings mineralisation. Comparisons between historical records of production into and reclamation out of the various tailings dumps, and the tonnage and grade of the resource are in line with expectations. The In-Pit Mineral Resource estimate is based on detailed monthly production data during the tailings retreatment from October 1982 through to November 1990. The tailings are reported as an Inferred Resource well constrained by geological boundaries and monthly production records, but as a global estimate. The Sandstone Gully estimate is considered conservative in both tonnes and grade compared to historical mine records. The tailings are reported as an Inferred Resource as a global estimate.

CARBINE RESOURCES
LIMITED

Reporting criteria presented in the Section 4 of the JORC Table 1

(Ore Reserves)

	Criteria	Explanation
1	**Mineral Resource estimate for conversion to Ore Reserves**	**Description of Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.** For the purposes of the Definitive Feasibility Study (DFS) the latest Mineral Resources estimation associated with the Mount Morgan Gold-Copper project prepared by Carbine Resources have been used. Six separate Mineral resource estimates have been completed as part of the Feasibility work including No2 Mill, Mundic Gully, Red Oxide, Shepherds, In-Pit and Sandstone Gully. The Mineral Resource estimates completed at a cut-off grade of 0.0g/t gold are detailed in this report above. **Mount Morgan Mineral Resources (ASX 30 August 2016)** – Total Indicated Mineral Resources of 10.19Mt @ 1.20g/t gold, 0.16% copper, 1.20g/t silver. Total Inferred Mineral Resources 26.99Mt @ 0.53g/t gold, 0.07% copper, 1.38g/t silver. **Clear statement as to whether the Mineral resources are reported additional to, or inclusive of, the Ore Reserves.** The Mineral Resources are reported inclusive of the Ore Reserves associated with this Feasibility Study.
2	Site visits	**Comment on any site visits undertaken by the various Competent Persons and the outcome of those visits.** The following people are the competent people whom have contributed to the various sections of the Mineral Reserve estimation as part of the Mount Morgan feasibility study (FS), **Mr Anthony (Tony) James (Carbine Resources)** – Mr James has visited the site and understands the detail associated with the site. Mr James is responsible for the mine design and mine scheduling associated with the project and is the Competent person for the Mineral Reserve estimate and is responsible for the compilation of the FS. Mr James is a qualified mining engineer and he is the Managing Director of Carbine Resources. **Mr Christopher Newman (Carbine Resources)** – Mr Newman has visited the site and understands the detail associated with the site. Mr Newman is the Geology Manager for Carbine Resources and is responsible for Mineral Resource estimation process. **Mr Terry Moylan (Carbine Resources) –** Mr Moylan has visited the site on numerous occasions and understands the detail associated with the site. Mr Moylan is the COO for Carbine Resources and was previously involved with the project through his previous employment with Norton Goldfields. Mr Moylan was the project manager for the feasibility study on Carbine Resources behalf. **Mr Rod Smith (Eureka Metallurgy) –** Mr Smith has visited the site and understands the detail associated with the site. Mr Smith is an independent Metallurgical consultant who was engaged by Carbine Resources for the management of the Metallurgical assessment part of the Feasibility Study. **Mr Ryan Kriedemann (GR Engineering Services)** – Mr Kriedemann is a senior project Engineer with GR Engineering Services and was the project manager for the feasibility study for the Mount Morgan Project on GRES behalf. GRES was responsible for the process flow sheet design and capital infrastructure associated with the project. Mr Kriedemann has visited the site and understands the detail associated with the site. **Ms Katina Law (Fitzroy Consulting Services)** – Ms Law is a qualified accountant with an MBA in finance who has considerable experience in financial modelling and economic analysis of mineral projects. Ms Law was engaged by Carbine Resources to complete the financial and economic modelling associated with the Mount Morgan Mineral Reserve associated with the Feasibility Study. Ms Law has not visited the site.
3	Study status	**The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.** The study completed in association with the Ore reserve estimation is a Feasibility Study which is considered a comprehensive technical and economic study. The study includes a mine plan that is considered both technically achievable and economically viable. Material modifying factors have also been considered. The inputs into the Ore Reserve are based on the work completed in the feasibility Study.
4	Cut-off parameters	**The basis of the cut-off grades(s) or quality parameters applied.** The tailings retreatment cut-off grade is 0.0g/t Au. The cut-off grade is based on the clear understanding of the tailings/waste boundary and the requirement to locate, mine and re process as much historical tailings as economically possible.
5	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).**

		Detailed mine design of 4 different tailings dumps have been completed. Based on the guidelines outlined in the Mount Morgan Phase 2 Agreement (Mining rights agreement between Queensland Department of natural Resources and Mines (DNRM) and Norton Goldfields). Every attempt has been made to remove the majority of tailings to maximise the environmental benefit associated with removal of tailings from existing locations. Due to economic reasons, some tailings have not been included in the following locations; Mundic Gully – tailings on the far southern side below airfield dump/electrical transformer and tailings adjacent to Sandstone Gully have not been included as considered uneconomic due to overlying waste and proximity to infrastructure including Sandstone Gully. High level optimisation work supports this design. Red Oxide – tailings on the northern side adjacent to the workshop have not been included due to the proximity to the historical workshop. **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 historical tailings associated with the Mount Morgan Project will be mined by standard open pit mining techniques utilising industry typical dig, load and haul techniques. The majority of the tailings are considered dry and additional modelling of wet tailings has been included for appropriate drying and re-handling provisions. In mining the tailings, waste will also be mined in the form of Non-potential acid generating (NPAG) waste and Potential acid generating (PAG) waste. Each waste type will require different stockpiling arrangements and rehabilitation use which has been included in the mining plan associated with the feasibility study. The removal of cover (NPAG) waste which currently sits on top of both the No2 mill tailings and the Shepherds Gully tailings dumps is classified as Pre-strip mining. In both cases the NPAG waste is stockpiled for later use in the rehabilitation process once mining is completed. Mining of historical dam wall material (PAG) will occur to adequately allow access to all the tailings within the dump area. Removal of this material to an appropriate dump location has been included in the mine design. Standard haul road access and designs have been used for mining access to each of the tailings dumps. **The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling** Where the original land surface is not exposed a pit slope of 35 degrees has been used. This angle was determined by the measurement of the current dump rill angles in place at the Mount Morgan site. A grade control program will also be required during the mining process to provide suitable technical information for adequate short to medium term mine planning practices in line with the required processing plant feed requirements. **The major assumptions made and Mineral resource model used for the pit and stope optimisation (if appropriate)** It is assumed that with the exception of a few locations discussed above, that all the tailings from the four dumps will be mined and re-processed. **The mining dilution and recovery factors used**. Several dilution and recovery factors have been included in the Ore reserve estimation process. **Scrubber Rejects** – The process flow sheet design for the project includes a Scrubber which re pulps the tailings prior to milling. The Scrubber is designed to reject any material greater than 4mm. Metallurgical test work associated with the tailings has determined the quantity and grade of material from each dump that will be rejected from the scrubbing process. Separate representative samples of each dump were evaluated. The resulting material rejected from this process was No 2 Mill (3.9%), Mundic Gully (10%), Shepherds Gully (2.9%) and Red Oxide (0%). This material was removed from the processing and the material passing grade adjusted accordingly. **Side wall ore loss and dilution** – Through the mining process it is assumed that all the tailings are mined and in order to do this the side walls will be over-mined by an average of 0.1m. This implies that each mining block touching a side wall will mine an extra 13.94m^3 of waste at zero grade to be included as ore. **Overburden and floor ore loss and dilution** – Due to the vertical drilling nature of the Mineral Resources and the shape of the tailings dumps, all the ore shapes have been determined to the 1m sample interval. If the grade of the sample was over 0.5g/t Au then the full distance was included in the shape. This implies that an estimated average 0.2 – 0.4m of internal dilution exists within the Mineral Resource Estimate. This also implies that all the ore is mined. Based on this process it is assumed that 0% ore loss and 0% dilution is assumed for the overburden and floor contacts as included in the Mineral resource estimate. It should also be noted that the phase 2 mining agreement requires that 0.6m of floor is to be mined if the floor is considered to be contaminated material. Provision has been made for this in the waste mining quantities. **Internal ore loss due to foreign matter** – Internal ore loss (qty) is difficult to estimate. Ore loss potential does exist in the tailings dumps if any foreign matter was placed in the dumps during the time of tailings deposition. It is likely that the quantity of foreign matter in the dumps will increase with respect to the age of the dump. It has been assumed that the following internal ore losses will occur for each dump being No 2 Mill (0.5%), Mundic (1.0%), Shepherds (0.3%) and Red Oxide (1.0%). It is also assumed that these global internal ore losses will have the same grade as the tailings and that these losses are additional to those rejected in the scrubbing process above. Drilling has not indicated that ore loss due to foreign matter will be an issue. **Internal ore dilution due to foreign matter** – It has been assumed that no internal dilution will occur as a result of any foreign matter included in the dumps. This is based on the grounds that all material greater than 4mm will be rejected in the scrubbing process described above.

		Any minimum mining widths used. For the mining model blocks 20m (length) x 20m (width) x 4m (depth) were established. The 4m depth was established as the maximum bench height for mining purposes. **The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.** No Inferred Mineral Resources have been included in the project economics associated with the project Ore Reserve. **The infrastructure requirements of the selected mining methods.** Suitable mining infrastructure has been included in the mine planning process including offices, workshops, buildings and access roads. The site has been established as a residential site based on the locality of the nearby town of Mount Morgan and central Queensland city of Rockhampton.
6	Metallurgical factors and assumptions	**The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.** The process recovery is based on continual processing of historical tailings. Processing will comprise classification to >425um, followed by a three stage process to extract copper, pyrite concentrate and gold. Copper will be initially recovered via a resin-in-pulp (RIP) circuit following the re-pulping of the tailings in acidic water from the historic Mount Morgan open pit. Premium grade unroasted iron pyrite concentrate is then produced by conventional flotation techniques. Gold is extracted both from the pyrite concentrate and flotation tailings via a conventional leaching and carbon-in-leach circuit (CIL). The metallurgical process is considered appropriate for the operating environment and minerals being recovered. **Whether the metallurgical process is well-tested technology or novel in nature** Each separate part of the process (stream) is considered as well tested. The combination of the three streams in the one process flowsheet is not that common in the industry. Adequate metallurgical test work has been completed prior to and during the feasibility study to support the overall process flow sheet design. **The nature, amount and representatives of the metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.** Six separate phases of Metallurgical test work has been undertaken and completed. Test work looked at both the domaining within each of the four dumps and the domaining across all four dumps. Corresponding metallurgical recovery factors have been applied separately to each dump in the financial model/analysis. **Any assumptions or allowances made for the deleterious elements.** No allowances have been 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.** No bulk sample or pilot test scale test work has been completed. The samples used for the metallurgical test work 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 specification?** The Ore Reserve estimation has been based on the specific minerals associated with the ore body and the specification required for suitable sale of those products.
7	Environmental	**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 the process residue storage and waste dumps should be reported.** The Mount Morgan project (Norton) received Environmental Authority (EA) to proceed in 2012. Carbine is in the process of submitting a minor EA amendment for the project. The EA process includes details of waste rock characterisation, tailings storage options and waste dump designs. The tailings storage facility will be located in the original Sandstone Gully TSF location and waste rock will also be stockpiled within the same Sandstone Gully TSF footprint.
8	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.** The Mount Morgan project sits adjacent to the Mount Morgan town site in Central Queensland. The project is located on the historical Mount Morgan site and its existing mining tenements. The proposed project location sits entirely on the historical site and mining leases and through its proximity to the town site it has access to water, power, transportation, accommodation and other local infrastructure. The project includes the full integration of this local infrastructure into the project requirements and logistics. New site buildings including processing plant, offices and storage facilities will need to be constructed.

		Power will be supplied from the local grid which has sufficient capacity. Some power lines will be effected by mining within Mundic Gully and this infrastructure will require relocation and re alignment. Water will be sourced from the historic Mount Morgan open pit and the adjacent water treatment plant which will be owned by DNRM and operated by Carbine.
9	Costs	**The derivation of, or assumptions made, regarding the projected capital costs in the study.** There is significant capital expenditure required for the project for the construction of the processing facility. The processing plant capital cost estimate was derived from work completed by GR Engineering Services (GRES) as part of the feasibility study. The initial capital cost estimate provided by GRES was derived by a GMP (Guaranteed maximum price) or EPC (Engineering, procurement, construction) contract style logic. The capital costs associated with mining have been derived by an indicative pricing estimation process from the selected Mining Contractor following an indicative tender with selected mining contractors. The quantities provided for the cost estimation came from a detailed mine design and mine plan (work completed by GHD and Carbine). Mining capital costs include capital pre stripping associated with removal of the NPAG waste from above the dumps and the removal of contaminated sub ground and rehabilitation of the original ground surface. The capital costs associated with infrastructure came from selected third party service providers for those specific areas of infrastructure expertise. **The methodology used to estimate operating costs.** Processing plant operating costs were derived from a ground up evaluation following completion of the plant design and detailed metallurgical analysis and process flow sheet design. Cost derivation for the plant operating cost associated with plant consumables has been determined from third party suppliers providing budget pricing. The operating costs associated with the mining have been derived by indicative pricing estimation process provided by the selected mining contractor. The quantities were determined by detailed mine plan (work completed by GHD and Carbine). **Allowances made for the content of the deleterious elements.** Please refer point 6 above. **The derivation of assumptions made of the metal or commodity prices (s), for the principle minerals and co-products.** For the purposes of the feasibility study commodity forecast consensus pricing and current market pricing has been considered for both Gold (principle mineral) and Copper (bi-product). Constant pricing has been used for the term of the project. The commodity prices used for the feasibility study are Gold US$1,200/oz and Copper US$5,800/tonne. Carbine has a primary offtake agreement with Talana Limited for Pyrite concentrate (by-product). (ASX: 26 October 2015). The agreement is based on a maximum of 225,000 DMT per annum. The agreement allows for annual price negotiations based on product demand commencing prior to the first shipment. Carbine and Talana are currently reviewing potential extensions to this agreement. Based on a detailed market review and ongoing discussions with Talana and other pyrite end users, a forecast pyrite concentrate price of US$60/t has been used for the first 2 years of the project and then US$ 80/t thereafter. **The source of exchange rates used in the study** Exchange rates have been considered for the feasibility study for AUD: USD. A constant exchange rate of 0.75 has been used for the term of the project. This exchange rate has been used for the determination of revenue associated with the project. All cost calculations have been undertaken in Australian dollars. **Derivation of transportation charges** Transportation costs have been provided by third party service providers for the transport of Pyrite concentrate to the Port of Gladstone. **The basis for forecasting or source of refining changes, penalties for failure to meet specification, etc** Refining charges have been included for gold bullion production. No allowances have been made for failure to meet specification for the copper sulphate or pyrite concentrate production. **The allowances made for royalties payable, both government and private.** Royalties that are applied by the Queensland government have been taken into account.
10	Revenue factors	**The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity prices(s) exchange rates, transport and treatment charges, penalties, net smelter returns, etc.** Metal recovery for the primary commodity and by-products have been determined by extensive metallurgical test work. Commodity prices and exchange rate has been set for the term of the project based on current market prices taking into consideration forecast consensus pricing. **The derivation of assumptions made of metal or commodity prices(s), for the principal metals, minerals and co-products.** Refer commodity prices in section 9 above.

11	Market assessment	**The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand in the future.** Carbine has commercial agreements in place for the sale of unroasted iron pyrite with Talana Minerals and Copper Sulphate with Swancorp. Pricing under these agreements is subject to review and will be negotiated further in the months leading up to first production. Gold will be sold through normal gold sales process in Australia gold mining industry. Unroasted iron pyrite will be exported out of Gladstone to potential overseas customers. Carbine has identified that unroasted iron pyrite will has 2 distinct markets. The first market is considered a bulk market and the material is used for roasting to manufacture Sulphuric Acid. These roasters are already established and are looking to secure long term pyrite supplies for the future manufacture of Sulphuric acid. The second market is for specific iron pyrite products like hot and cold pressed grinding wheels, sulphur rods, steel additives, brake pads and liners and jewellery. **A customer and competitor analysis along with the identification of likely market windows for the product.** Demand for bulk unroasted Iron Pyrite has been relatively consistent in recent years reflecting its primary use as a sulphuric acid feedstock for specific "Pyrite roaster acid plants". The overall market for bulk product may be effected in 2018/2019 by the predicted closure of the Pyhasalmi mine in Finland (First Quantum Minerals). The Pyhasalmi mine is the dominant supplier of premium unroasted iron pyrite in the world. Demand also exists for premium unroasted iron pyrite for specific manufacturing requirements associated with items like hot and cold pressed grinding wheels, sulphur rods, lithium batteries, jewellery, brake pads and brake liners. The premium unroasted iron pyrite market is an active market and the Mount Morgan concentrate specification will fit into this market. Different packaging will be required for this market due to its lower quantities. Historically Australia has also imported premium grade unroasted iron pyrite. Copper Sulphate will be distributed and sold in the Australian domestic market for agriculture purposes and zinc flotation. **Price and volume forecasts and the basis for these forecasts.** Gold pricing forecasts are based on typical gold metrics. Copper Sulphate pricing is based on Copper metal content (typically 25%) and a premium product fee ($500/t). Australia is a net importer of copper sulphate and the low levels of copper sulphate production associated with Mount Morgan are expected to be consumed in the domestic market. Unroasted iron pyrite market has 2 distinct markets apparent for premium grade concentrate. A bulk market exists for the manufacture of Sulphuric acid and the volumes and prices associated with this market are dependent on the roaster requirements of the end user. Sulphur prices can affect the Pyrite prices in those roasters who have the capacity to change feeds. Not all roasters have that capacity. The small premium grade pyrite market is relatively consistent and is subject to the demand associated with end products utilising pyrite in its makeup. **For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.** Preliminary samples of unroasted iron pyrite have been provided for testing with various end users through Talana or directly with potential customers. End users have indicated that the pyrite concentrate produced by Carbine is premium quality and suitable for use in both the bulk and premium markets. Different packaging requirements may be required for this market.
12	Economic	**The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and the confidence of these economic inputs including estimated inflation, discount rates, etc.** The inputs into the economic analysis of the project are based on all the revenue and costs associated with the project. Significant technical detail and evaluation has been completed to adequate examine the metal recovery factors to apply commodity pricing to determine the project revenue. Detailed cost evaluation and project timing has also been included to offset the revenue expectations. Current commodity pricing has been used and this has been offset by no inflation in the model. The initial Ore Reserve returns a positive NPV based on the assumed commodity prices and the Competent Person is satisfied that the project economics that make up the Ore Reserve retains a suitable profit margin against reasonable future commodity price movements. **NPV ranges and sensitivity to variations in the significant assumptions and inputs.** The Mount Morgan Project is economically sensitive to metallurgical recoveries, commodity prices and exchange rate. A series of sensitivities have been examined as part of the Ore Reserve work.
13	Social	**The status of agreements with key stakeholders and matters leading to social licence to operate** The historical Mount Morgan project has significant environmental and heritage legacy issues. The site is managed by the DNRM and various approvals are required prior to the project proceeding. The three significant approvals associated with the Mount Morgan Project are (i) the Development by the State Application under section 71 of the Queensland Heritage Act 1992; (ii) Environmental Authority Amendment; and (iii) Resource Development Application in a Priority Living Area. The Development by the State Application under section 71 of the Queensland Heritage Act 1992 has commenced and is being led by the Department of Natural Resources and Mines (DNRM). The formal development application is currently being lodged by the DNRM. The outcome of the application is not expected

		to be known until early 2017. The granting of the Heritage application is subject to approval by the Minister of the Department of Environment and Heritage Protection (DEHP). Carbine is of the current view that the Heritage application will be granted although certain conditions may apply. The Environmental Authority Amendment application will proceed following the completion of the project planning associated with DFS. Environmental Authority was previously approved for the project in 2010. The Resource Development Application in a Priority Living Area (PLA) approval under the Regional Planning Interests Act 2014 has commenced. When the Act was passed in 2014 the Mount Morgan Mine site was designated as a priority living area in the Central Queensland regional plan in 2013. The Company is of the view that the PLA approval will be achieved subsequent to the Heritage and Environmental Authority Amendment Approval. In liaison with the DNRM and the RRC the company is in continual consultation to achieve social licence to operate the project.
14	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.** Material naturally occurring risks exist with the project and these have been evaluated as part of the risk review. A risk assessment of the project has been completed. The project has a unique set of risks due to the nature of the project and its existing environmental and heritage legacies. The most significant of these is the environmental legacy that exists due to AMD (acid mine drainage) associated with the high pyrite content of the mineralisation and existing dumps/tailings. The project may be subject to significant rainfall which may cause an overflow event for the Mount Morgan open pit which will affect the operation. If this occurs the timing associated with the project execution may be effected. The Ore reserve estimate has included provision to continue to manage the water on site to at least the existing level of management and control. No additional risk is expected to occur with AMD and the Dee river. **The status of material legal agreements and marketing arrangements.** A material legal offtake agreement exists with Talana Limited for the sale of pyrite concentrate. The agreement is considered material and is set to expire in June 2017 prior to the likely commencement of any concentrate production. Ongoing discussions are in place between Carbine and Talana to consider extension or renewal to that agreement. **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.** Approval associated with the three outstanding government approvals list above are still required for the project. Failure to secure approval of any of those approval is material as it's likely the project would not proceed. It is considered reasonable that the project approvals will be achieved as the environmental benefit to the project is significant and that consultation across the various government departments is likely to agree the greater benefit. The environmental legacy issues clearly outweigh the other issues associated with this historical site and any work that will be beneficial to those legacies is likely to proceed considering the cost and risk associated with no work proceeding.
15	Classification	**The basis for the classification of the Ore reserves into varying confidence categories.** The Ore Reserve was classified in accordance with the JORC Code (2012). Standard modifying factors and conversions were applied as described above. The ore reserve is considered a 'Probable Ore Reserve" as it's the economically viable part of the Indicated Mineral Resource. **Whether the result appropriately reflects the Competent Persons view on the deposit.** The methods used are considered by the competent person to be appropriate for the style and nature of the ore deposit and project. **The proportion of probable Ore Reserves that have been derived from the Measured Mineral Resources (if any)** No Ore Reserves have been determined from Measured Mineral Resources.
16	Audits or reviews	**The results of any audits or reviews of ore Reserve estimates.** No external audits or reviews have been completed on the Ore reserve estimate.
17	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 the stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which would affect the relative accuracy and confidence of the estimate.**

		The competent person is of the view that the Mineral Reserves for the Mount Morgan project, which have been estimated using drilling information and confirmed by historical production information and appropriate modifying factors have been estimated using industry standard practices. **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.** Local estimates were used for the four separate dumps included in the estimate. Suitable technical and economic evaluation was completed for each feed source. Global estimates were considered when the individual technical properties of the various feed sources did not influence the overall outcome or they were considered the same for each location. **Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on the Ore reserve viability, or which there are remaining areas of uncertainty at the current study stage.** Suitable modifying factors have been applied to the various methods and processes involved with mining and mineral extraction associated with the project. **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 outcome of the work associated with the Ore Reserve estimate is consistent with previous production records associated with the historical Mount Morgan project. Several opportunities exist to enhance the project and these have been clearly itemised in the FS documentation. Ongoing technical work will be done to help realise some of these opportunities. It is the opinion of the Competent Persons that it is reasonable to assume that all relevant legal, environmental and social approvals to operate will be granted within the project timeframe