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ASX / MEDIA ANNOUNCEMENT **01 August 2016**

Shepherds Gully tailings dam delivers third major Resource upgrade at the Mount Morgan Gold-Copper Project

Three of four Resource upgrades completed, taking combined Indicated Resources to 9.35Mt @ 1.12g/t gold

Highlights

- **The Indicated Mineral Resource for Shepherds Gully at the Mount Morgan Gold-Copper Project in Queensland is 4.83Mt at 0.84g/t gold for 131,000oz**
- **The updated Indicated Mineral Resource for Shepherds Gully is 24% higher (25,000 ounces) than the previous Inferred Mineral Resource estimate completed in 2009**
- **100% of the Shepherds Gully Mineral Resource is now in the Indicated Resource Category, highlighting its potential to underpin a significant portion of the project mine life currently being assessed in the Definitive Feasibility Study**
- **The Shepherds Gully tailings dam also contains an estimated:**
  - **1.1Mt of pyrite (pyrite equivalent based on sulphur and iron)**
  - **8,200t of copper metal**
  - **6,900kg of silver metal**
- **The three completed Mineral Resource upgrades for Shepherds Gully, Mundic Gully and No2 Mill tailings dumps now have a combined Indicated Mineral Resource of 9.35Mt @ 1.12g/t gold for 335,000oz**
- **Work on the Red Oxide Resource upgrade continues**
- **DFS set for completion this quarter**

Carbine Resources Limited (ASX:CRB) is pleased to advise that it is now in the final stages of the Definitive Feasibility Study on its Mount Morgan Gold-Copper Project in Queensland (Figure 1), with the completion of the third of four Mineral Resource estimates.

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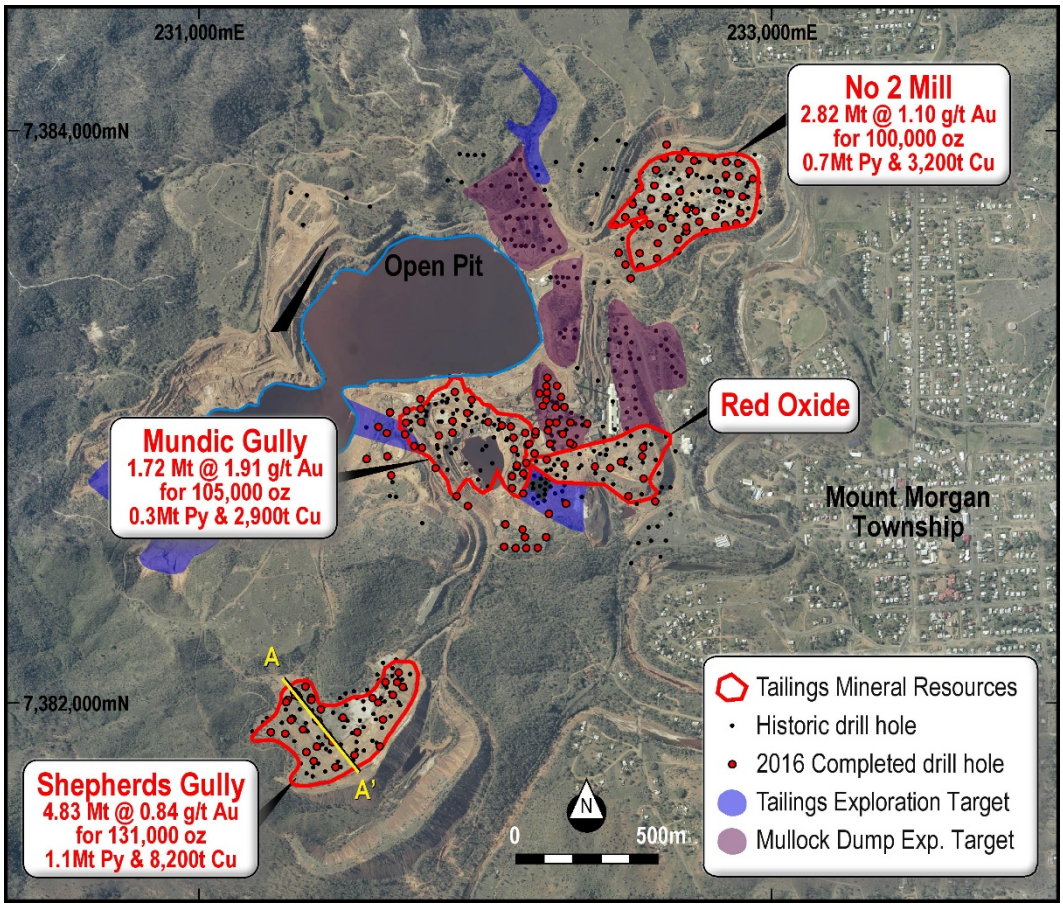

Figure 1. Plan view of the new JORC 2012 Shepherds Gully tailings dump Mineral Resource. Location of the Figure 2 cross section shown as A-A'.

The JORC 2012 Indicated Mineral Resource at Mount Morgan's Shepherds Gully tailings dump is 4.83Mt at 0.84 g/t Au for 131,000 ounces of gold (above a 0.00 g/t gold cut-off grade). This represents a significant increase in both the confidence and size of the Shepherds Gully Mineral Resource from the previously reported Inferred Mineral Resource of 3.9Mt at 0.86g/t for 106,000 ounces (Norton Goldfields Limited ASX announcement 28 October, 2009).

This announcement for the Shepherds Gully tailings dump represents the third of four resource updates on the tailings dumps at Mount Morgan. The previous resource updates for the No 2 Mill and Mundic Gully tailings dumps were announced previously (ASX: 18 July 2016, 27 July 2016). These updates include the results from the recently completed drilling program in May 2016 (ASX: 1 June 2016).

Importantly, the total Indicated Resource for the Mount Morgan Project has grown to 9.35Mt @ 1.12g/t gold for 335,000oz. These updated Mineral Resources (and Red Oxide resource upgrade in progress) will be incorporated in the Definitive Feasibility Study (DFS) due for completion this quarter.

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LIMITED

A total of 37 drill holes were completed at the Shepherds Gully tailings dump in 2016 to both convert the Inferred Resources to Indicated Resources and to increase the overall resource by testing for potential extensions to the known resource.

At that time, the Shepherds Gully tailings dump had an Inferred Mineral Resource of 3.9Mt at 0.86g/t gold for 106,000 ounces (Norton Gold Fields Limited ASX announcement 28 October, 2009).

The new total Inferred and Indicated Mineral Resource for Shepherds Gully is 4.83Mt at 0.84g/t gold for 131,000 ounces (Table 1). This new Mineral Resource represents a 24% increase (25,000 ounces) compared with the previous Mineral Resource in 2009.

In addition, the Indicated Resource contains an estimate of 1,100,000 tonnes of pyrite, 8,200 tonnes of copper, and 6,900 kilograms of silver.

Table 1. Carbine Resources JORC 2012 Mineral Resource Table (reported at a 0.00g/t cut-off).

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	3,180	1.14	3,080	13.7	25.6
	Oxide	Indicated	0.12	0.80	3	0.05	60	1.80	210	4.0	
Mundic Gully	Sulphide	Indicated	1.70	1.91	104	0.17	2,820	0.90	1,530	10.5	19.6
	Sulphide	Inferred	0.02	1.86	1	0.24	40	1.24	20	10.6	19.9
Shepherds Gully	Sulphide	Indicated	4.83	0.84	131	0.17	8,190	1.42	6,890	12.4	23.2
Total		**Indicated**	**9.35**	**1.12**	**335**	**0.15**	**14,250**	**1.25**	**11,710**	**12.3**	
Total		**Inferred**	**0.02**	**1.86**	**1**	**0.24**	**40**	**1.21**	**20**	**10.6**	

(No 2 Mill and Mundic Gully– Carbine Resources Limited ASX announcements 18 July, 2016 and 27 July, 2016. Rounding errors may occur.)

In addition to the above resources, Carbine has the Red Oxide Mineral Resources currently reported under JORC 2004 guidelines, but will be updated to JORC 2012 in the September quarter.

Table 2: Mount Morgan Tailings JORC 2004 Resource Table

DEPOSIT	CATEGORY	TONNES (kt)	GRADE (g/t)	OUNCES (koz)
Red Oxide	Indicated	390	2.23	28
	Inferred	445	2.15	31

(Norton Gold Fields Limited ASX announcement 28 October, 2009)

Resource Summary

The tailings at the Shepherds Gully tailings dump have been built during the historical mining and processing of the 10 million ounce Mount Morgan primary gold-copper orebody. Historical records defined approximately 6.2Mt at 0.79g/t of tailings that was deposited in the Shepherds Gullly tailings

dump from the late 1950's to open cut closure in 1981. The Shepherds Gully tailings dump was the first dump to be reclaimed (via dredging) from October 1982 to October 1983. A total of 1.0Mt at 0.88g/t of reclaimed production was reported.

Sulphide tailings consist dominantly of quartz and pyrite, with minor amounts (<10%) of sericite, chlorite, feldspar, chalcopyrite and sphalerite. Tailings are deposited as horizontal layers. Thin waste material overlies the tailings dump, and thus most of the gold mineralisation (tailings) starts from a depth of one to two metres.

The new Resource estimate is based upon 116 drillholes, 35 RC and aircore drillholes from Carbine Resources drilled in 2016. and 81 historic RC and aircore drill holes completed by previous owners. Sample intervals were commonly one metre in length (mean length is 1.1m).

Carbine Resources collected the entire sample from the RC drill rig cyclone (approximately 15 kg) and transferred it to the sample preparation lab where it was dried, crushed to 2mm and sub-sampled to 3 kg using a rotary splitter. This 3kg sample was then pulverised to 74 microns and assayed by collecting 50g aliquots using fire-assay (AAS finish) for gold and for silver, copper, iron and sulphur using ICP-AES. Sample duplicates show excellent repeatability of gold assays (99% correlation). Historic holes have been validated by drilling of twin holes by Carbine Resources.

The detailed topographic surface has been obtained by a 2016 LIDAR airborne survey. The upper contact of the Shepherds Gully tailings was created by Ordinary Kriging of the thickness of the overlying waste and the lower contact by wireframing the bedrock contact from geological logging.

Dry bulk density was measured using the sand replacement method from trenches covering both sulphidic and oxide tailings. A bulk density of 1.76 t/m^3 was assumed for sulphidic tailings and 1.42 t/m^3 for Oxide tailings.

The Resource of the Shepherds tailings was estimated as a 3D block model for all five elements, Au, Ag, Cu, Fe and S. Gold exhibits good spatial continuity confirmed by robust 3D directional variogram and was estimated using Ordinary Kriging. Other elements were estimated using Simple Kriging with a global mean.

Pyrite 'pyrite equivalent' was estimated using the stoichiometric chemical composition of pyrite from the sulphur and iron resource estimation. Good correlation between sulphur and iron (rho=0.95) and consistency of the ratio between these elements in the samples and the estimates, confirms the validity of the given methodology of the pyrite resource estimation.

The Resource was estimated as blocks of dimension 20 x 20 x 2m. Estimation was made using a narrow horizontally oriented search ellipse:

- First pass 100 x 100 x 4m, using 16 horizontal angular sectors, optimally with 3 samples per sector, minimum 8 samples (4739 blocks estimated);
- Second pass 200 x 200 x 8m, using 16 horizontal angular sectors, optimally with 3 samples per sector, minimum 8 samples (48 blocks estimated).

The chosen search neighbourhood allowed the accurate reproduction of the horizontally layered structure to the gold mineralisation (Figure 2).

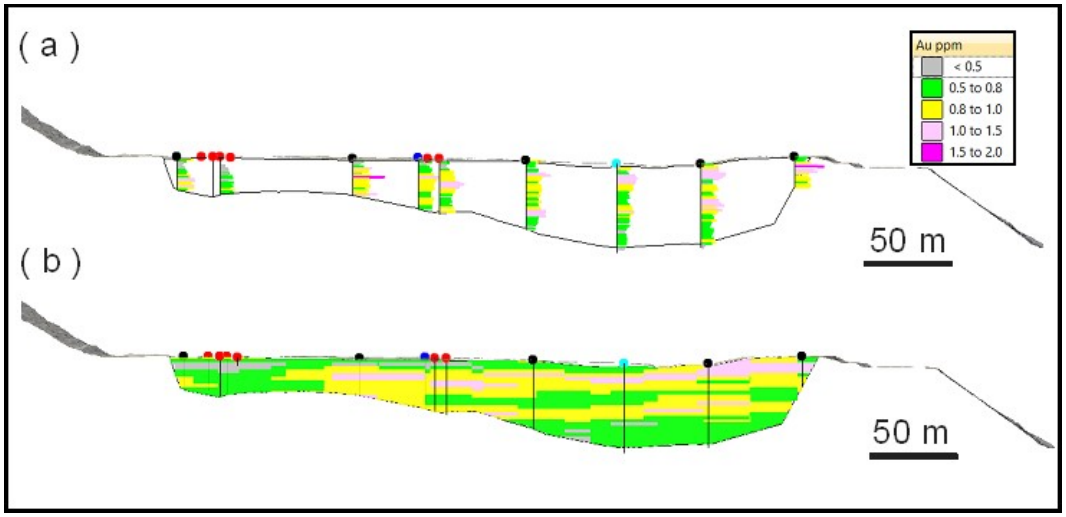

Figure 2. Oblique cross-section through the tailings showing comparison between drill hole grade (a) and block model grade (b). Location of the cross-section is shown in Figure 1.

The estimated Resource is reported at a zero cut-off (0.00 g/t Au) to reflect the planned mining and processing of 100% of the tailings. Reporting at a cut-off grade of 0.50g/t results is only 0.8% reduction in gold metal. Classification is based on geostatistically estimated uncertainty using the Sequential Gaussian Conditional Simulation method of the gold grade.

Full details of the JORC Code 2012 reporting criteria and input parameters used to estimate the Resource are provided in Appendix 1.

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Competent Person Statements

The information in this report that relates to the JORC 2012 Shepherds Gully, Mundic Gully and No 2 Mill Mineral Resources 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. Dr M. Abzalov consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. The information for No 2 Mill and Mundic Gully was prepared and first disclosed under the JORC Code 2012 in the ASX announcements 18 July, 2016 and 27 July, 2016. All material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed since it was last reported.

The information in this report that relates to the JORC2004 Red Oxide Mineral Resources of the Mount Morgan Mine project was prepared in accordance with the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC Code") by Troy Lowien, Resource Geologist, of consultants Coffey Mining Pty Ltd, who is a Member of The Australasian Institute of Mining and Metallurgy ("AusIMM") and has a minimum of five years of experience in the estimation, assessment and evaluation of Mineral Resources of this style and is the Competent Person as defined in the JORC Code. Troy Lowien conducted the geological modelling, statistical analysis, variography, grade estimation, and report preparation. This report accurately summarises and fairly reports his estimations and he has consented to the resource report in the form and context in which it appears. This information was prepared and first disclosed under the JORC Code 2004 on 28 October 2009. It has not been updated since to comply with the JORC Code 2012 on the basis that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed since it was last reported.

The information in this report that relates to the Exploration Results is based upon information compiled by Mr Chris Newman, who is a fulltime employee of the Company and is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Newman has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and the activity in which he is undertaking to qualify as a Competent Person under 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Newman consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. Results initially reported to the ASX on 9 May 2016, 1 June 2016, 29 June 2016, 11 July 2016 and 25 July 2016 have not materially changed.

CARBINE RESOURCES
LIMITED

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

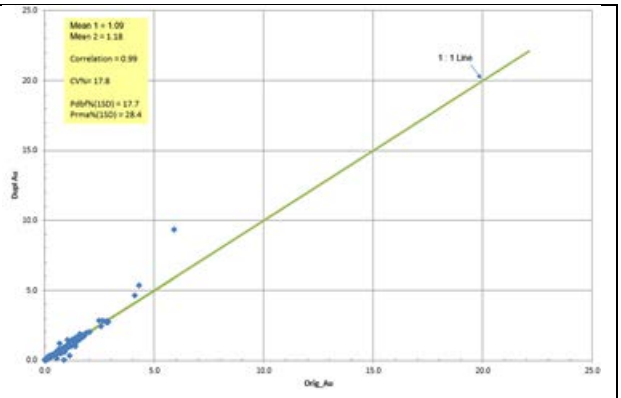
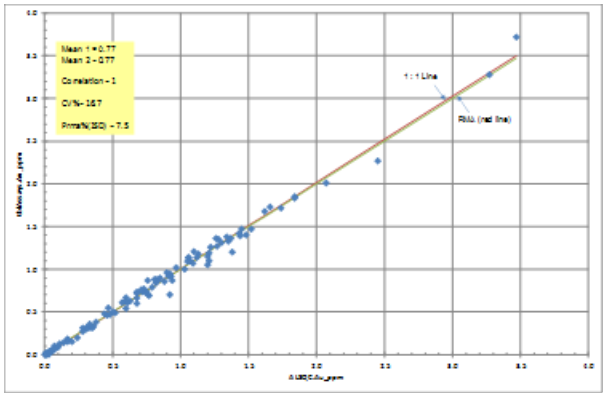
(Sampling techniques and data)

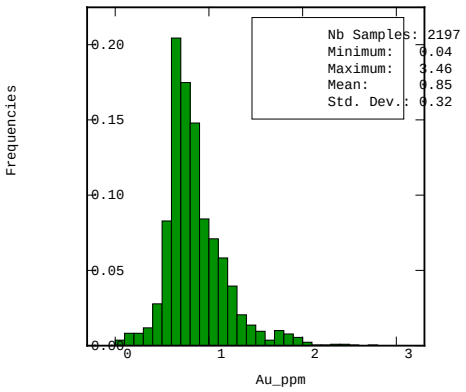
Criteria of JORC Code 2012	Explanation given in the JORC Code 2012	Comments / Findings
(1.1.) Sampling techniques	☐*Nature and quality of sampling (eg cut channels, random chips, or specific specialized industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	The main data used for the resource estimation of tailings were RC and aircore samples. The resource database contains 116 drill holes with 1975 samples obtained from them. 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. Historical holes were mostly RC, with some aircore drilling.
	☐*Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	All drilling is vertical, which is optimal for flat lying tailings, dump, and slag mineralization. 1m samples are well suited for estimation of resources for the mineralised tailings
	☐ *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	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. 50g aliquots were collected for fire-assay (with AAS finish) for gold. Samples also analysed for Ag, Cu, Fe and S using ICP-AES method.

		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.
Drilling techniques (1.2.)	☐ *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Universal RC/diamond drill rig. UDR650 model, Mounted on 6X6 Truck. Hole diameter 4.75 inch for RC and PQTT triple tube for core holes. Coring was preferred where tailings were unconsolidated and overly soft for effective collection by RC technique. The majority of historical holes are RC with minor aircore drilling
Drill sample recovery (1.3.)	☐*Method of recording and assessing core and chip sample recoveries and results assessed.*	Obtained samples were weighed in the preparation laboratory in Rockhampton which was used as a non-direct control for possible sample loss.
	☐*Measures taken to maximise sample recovery and ensure representative nature of the samples.*	This was based on adjusting the drilling parameters to obtain the best recovery by collection and processing of the entire sample. Coring was preferred where tailings were unconsolidated and overly soft for effective collection by RC technique. Only three of the nine core holes were used where better recovery was observed against RC drilling.
	☐ *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	No bias is expected as tails mineralization is relatively uniform in grainsize and nature.
Logging (1.4.)	☐ *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	The drill hole samples have been geologically logged to a level of detail to support appropriate Mineral Resource estimation. 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, weathering, and moisture.
	☐ *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	Qualitative logging, primarily focused on the diagnostic of tailing materials. Core samples were photographed.
	☐ *The total length and percentage of the relevant intersections logged.*	100% of intersections were logged
Sub-sampling techniques and sample preparation (1.5.)	☐ *If core, whether cut or sawn and whether quarter, half or all core taken*	Where applicable, Full PQ core samples were collected, after being photographed after extraction.
	☐ *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	RC samples were collected in entirety to be subsequently dried, then crushed and split by rotary splitting into 3kg sub-samples for assay.
	☐ *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	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 mineralisation
	☐*Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	For all subsampling stages, duplicate samples are collected and analysed. Namely, these coarse field duplicates (5-7%) after first splitting make 2mm size fraction, and pulp duplicates (>3%) after entire collected subsample is pulverized. QA/QC procedures also include using standard samples and blanks.

	☐ *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*	Field duplicates and twin holes have been incorporated into the entire drill program.
	☐ *Whether sample sizes are appropriate to the grain size of the material being sampled.*	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.
Quality of assay data and laboratory tests (1.6.)	☐ *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Samples were assayed at the ALS laboratory. 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 drilling, an additional 31 elements were analysed by method ME-ICP41 to investigate any potential contaminates from non - Mount Morgan Tailings (Mt Chalmers).
	☐ *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*	Not applicable
	☐ *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack*	Quality control procedures include: • Twin holes

	of bias) and precision have been established.	 • Field duplicate samples. Correlation (rho) 0.98  • Pulp (lab) duplicates. Correlation (rho) 1.00 Duplicate samples analysis has shown an excellent repeatability of the gold assays. Correlation coefficients are 0.98 for field (coarse) duplicates and 1.0 for lab (pulp) duplicates. Coefficients of variations (CV) of the data pairs are 17.8% and 18.7%. These results are excellent for the gold mineralisation. Standards and blanks are incorporated into batches at greater than one standard or blank per 10 samples. No significant issues were identified.
Verification of sampling	☐ *The verification of significant intersections by either independent or alternative company personnel.*	Verification of all results was undertaken after a site visit by the Geology Manager – Carbine.

and assaying (1.7.)		 Gold grade of the Shepherds Gully tailings is relatively uniform therefore the concept of significant intersections is not applicable.
	☐*The use of twinned holes.*	Several twin holes were drilled to confirm the validity of the historic data. Good repeatability is observed.
	☐ *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	Assays are obtained from the ALS laboratory in electronic form and stored in a special folder created on the Carbine Resources Server.
	☐ *Discuss any adjustment to assay data.*	No adjustments were needed. Assay results are reported as obtained from the lab.
Location of data points (1.8.)	☐ *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Hole collars were surveyed in MGA94 Zone 56 grid by certified surveyors using differential GPS. Historical holes were identified to be out by a small set distance in both northing and easting at Shepherds Gully 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.
	☐ *Specification of the grid system used.*	All coordinates are recorded as MGA (GDA94) zone 56 (south).
	☐ *Quality and adequacy of topographic control.*	Pre-mining topographic surface prepared from detailed ground and mine surveys completed historically. Current topographic surface prepared from 2016 airborne LIDAR survey.
Data spacing and	☐ *Data spacing for reporting of Exploration Results.*	Not applicable

distribution (1.9.)	☐ *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*	Drill holes are distributed as approximately 40x40m grid. The purpose of this drilling is to convert Inferred to Indicated Resources and add additional Mineral Resources through near-mine extensions.
	☐ *Whether sample compositing has been applied.*	No sample compositing has been applied. All samples assayed by 1m intervals.
Orientation of data in relation to geological structure (1.10.)	☐*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	All drill holes were drilled vertically which provides the best possible intersection to the flat lying mineralised tailings.
	☐ *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Not applicable. Drill hole intersects the tailings at 90 degrees.
Sample security (1.11.)	☐ *The measures taken to ensure 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.
Audits or reviews (1.12.)	☐*The results of any audits or reviews of sampling techniques and data.*	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. No significant issues were identified.

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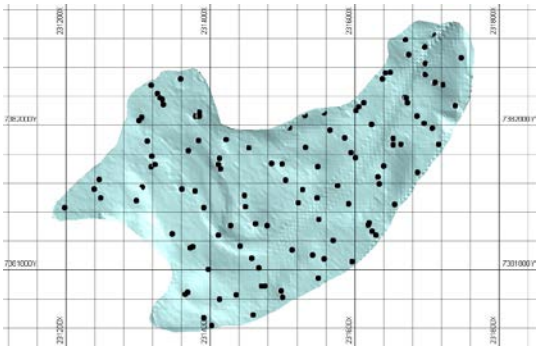
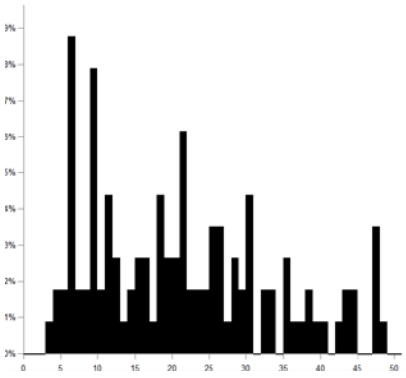
Reporting criteria presented in the Section 2 of the JORC Table 1

(Reporting of Exploration Results)

Criteria of JORC Code 2012	Explanation given in the JORC Code 2012	Comments / Findings
Mineral tenement and land tenure status (2.1)	☐*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	The *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 the* 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.
	☐ *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	*All MLs expire on the 31/08/2025*
Exploration done by other parties (2.2)	☐ *Acknowledgment and appraisal of exploration 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.
Geology (2.3)	☐*Deposit type, geological setting and style of mineralisation.*	The historic tailings from the processing of primary and oxide gold-copper-pyrite ores from the Mount Morgan mine and Mt Chalmers. Shape of the tailings dams represents the actual contacts of the mineralisation.
Drill hole Information (2.4)	☐ *A summary of all information material to the understanding of the exploration results including a tabulation of the following*	

	information for all Material drill holes:	Not applicable. Mineralised tailings are estimated and reported as Mineral Resources. In total, 116 drillholes are used for estimation, distributed as approximately 40 x 40m random-stratified grid (Figure). 
	☐*Easting and Northing of the drill hole collar.*	
	☐*Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar.*	Average RL = 294.4 m
	☐dip and azimuth of the hole.	All holes drilled vertically down (Dip -90 degrees)
	☐ *down hole length and interception depth*	Interception length is matching to the tailings thickness, in average approximately 20.2 m.
	☐*hole length.*	Average length of the drillholes 20 m. 
	☐ *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person*	Not applicable.

	should clearly explain why this is the case.	
Data aggregation methods (2.5)	☐*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	Not applicable
	☐ *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.*	Not applicable
	☐ *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Not applicable
Relationship between mineralisation widths and intercept lengths (2.6)	☐ *These relationships are particularly important in the reporting of Exploration Results.* ☐ *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	Not applicable. There is no relationships between tailings depth and mineralisation grade. Mineralisation is distributed as a flat lying bed in the tailings dam. All drill holes are vertical and intersect the mineralisation approximately orthogonally providing the good estimate of the true thickness of mineralisation
	☐*If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	Not applicable
Diagrams (2.7)	☐*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	See Figures within the ASX announcement.

Balanced reporting (2.8)	☐ *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Mineralisation distributed at the "Shepherds Gully" tailing is estimated and reported as a Mineral Resource.
Other substantive exploration data (2.9)	☐ *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Metallurgical recovery of the tailings has been extensively carried out by Carbine over several phases from 2014 to 2015. The phase 3 testwork for the pre-feasibility study provided the generation of three products – gold bullion, copper sulphate and a premium grade pyrite concentrate. 76% gold recovery, 90% pyrite recovery and 68% copper recovery (ASX: 23rd July, 2015). Deleterious elements are considered very low in the Mount Morgan deposit. Analyses of Shepherds Gully tailings has not identified any additional concerns with Mt Chalmers ore. Mining and processing of the sulphidic tailings will improve the environmental legacy held by the Queensland Government for the Mount Morgan site
Further work (2.10)	☐ *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	No additional drilling is immediately required. This data will be a basis for the project's definitive feasibility study.
	☐ *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Figure 1 highlights the key exploration target areas for both mineralized tailings and historic mineralized waste dumps. No significant changes to the current resource model of the tailings is envisaged. The confidence in interpretation of the tailing's volume is based on the following data: • Mineralisation is constrained by the tailings dam walls, • Margins and the base of the tailings are defined by drilling, assuring that drillholes are intersecting the tailings.

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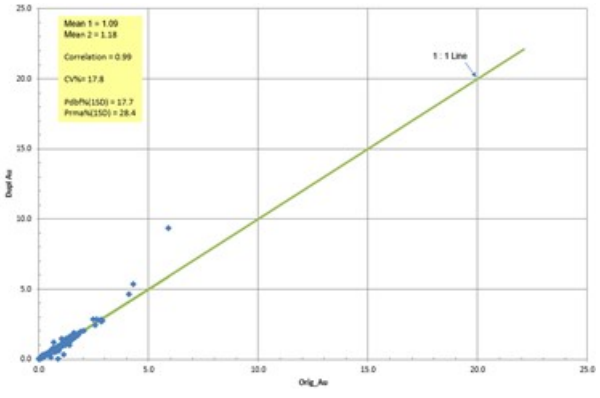
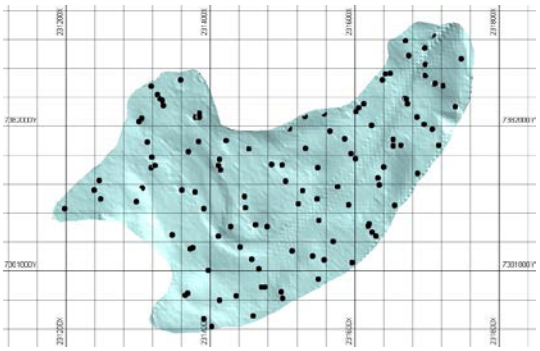
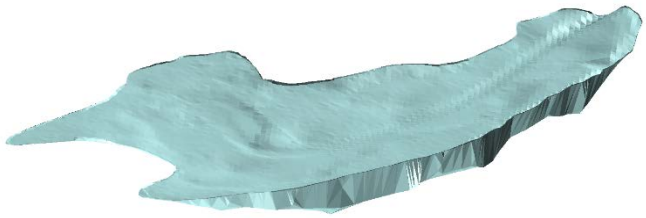
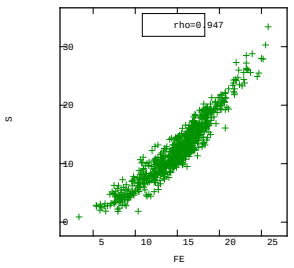
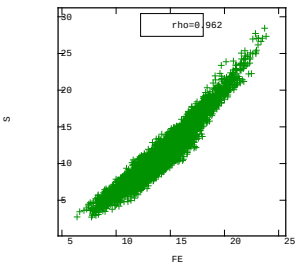
Reporting criteria presented in the Section 3 of the JORC Table 1 (Estimation and Reporting of Mineral Resources)

Criteria of JORC Code 2012	Explanation given in the JORC Code 2012	Reference to the Current Report Comments / Findings
Database integrity (3.1)	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*	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.
	• *Data validation procedures used.*	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  Correlation of the gold grades between the field duplicates is rho=0.98, which is excellent for gold mineralization.

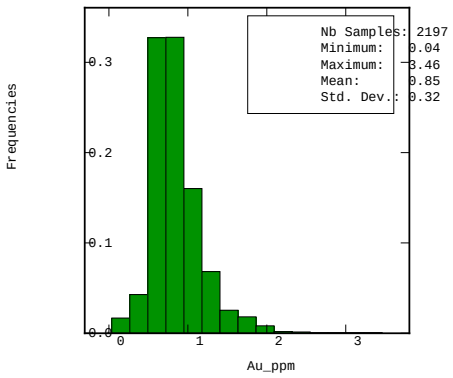
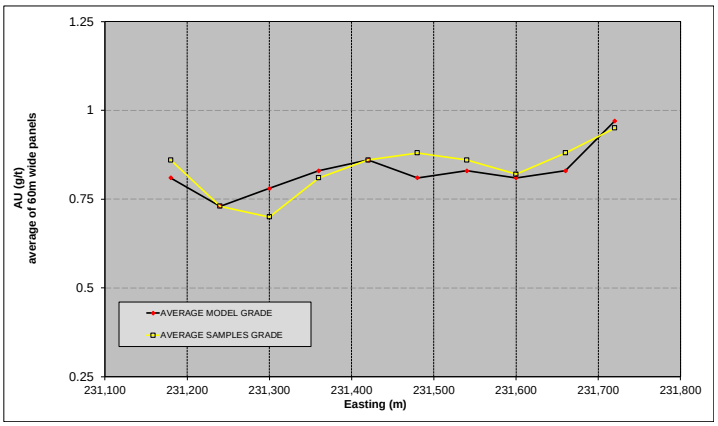
Site visits (3.2)	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	Dr. M. Abzalov (CP of the project) visited the project site in December, 2015 and in April, 2016. He assisted in setting the sampling and logging procedures, safe storage of samples and the shipment procedures to the lab. The procedures of data transfer between sites has been arranged and checked throughout the course of the project.
	• *If no site visits have been undertaken indicate why this is the case.*	Not applicable
Geological interpretation (3.3)	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	The current interpretation is based on 116 drillholes distributed as a random-stratified grid of 40 x 40 m.  Figure: Grid overlaying the Shepherd's tailings is 40x40m, black dots denote the drill holes All drillholes were sampled at 1m intervals and geologically logged. The available information, together with the detailed surface topography and the surface mapping of the tailing contacts have provided a sound base for the current geological interpretation.
	• *Nature of the data used and of any assumptions made.*	1,975 samples from the 116 drill holes
	• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*	There appears to be a limited scope for alternative interpretations, so their potential impact on the Shepherds Gully Tailing's Resource estimate is considered to be minimal
	• *The use of geology in guiding and controlling Mineral Resource estimation.*	Understanding of the tailings deposition procedures has suggested the following interpretations, which were incorporated into the estimation procedures: • Tailings were infilled evenly creating horizontal layering to the mineralization. Therefore narrow and horizontally

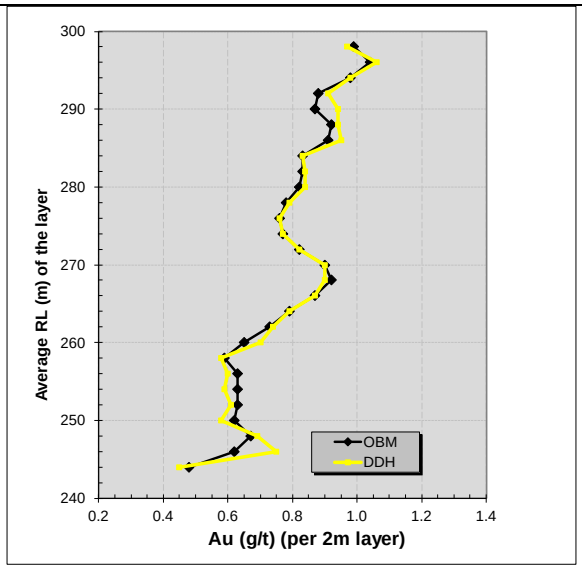
		oriented search ellipses were used in estimating the block model grades
	• *The factors affecting continuity both of grade and geology.*	The horizontal layered nature of the mineralisation is created by the tailing infilling procedures. The grade continuities have been quantified by estimating the variograms of the main metals (Au, S, Fe, Ag, Cu)
Dimensions (3.4)	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	Shepherds Gully tailings dump is approximately 600m long, 350m wide and 20m deep. 
Estimation and modelling techniques (3.5)	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	• Surface topography was created by wireframing the LIDAR survey data; • 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. • Wireframes were created using Micromine© • Mineralisation grades (Au, Ag, Cu, Fe, S) were estimated into 3D block model constraining by the closed wireframe (3D solid). Gold was estimated by Ordinary Kriging. Ag, Cu, Fe, S 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 - FeS_2 ➢ 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

		 (a)  (b) • S vs Fe (drillhole samples). Correlation (rho) = 0.95 • S vs Fe (block model). Correlation (rho) = 0.96
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	The previous estimate was made by SMG Consulting in 2009 (Norton Gold Fields Limited ASX announcement 28 October, 2009). The previous resource report included gold only. The results are compared in the table. Historical production records defined 6.2Mt at 0.79g/t of tailings was deposited in the Shepherds Gullly tailings dump from the late 1950's to open cut closure in 1981. The Shepherds tailings dump was the first dump to be reclaimed (via dredging) from October 1982 to October 1983. A total of 1.0Mt tonnes at 0.88g/t of production was reported. The new resource figure is in close agreement (7% lower tonnes, 6% higher grade) than that predicted by these historical records.
	• *The assumptions made regarding recovery of by-products.*	Three products – gold bullion, copper sulphate and a premium grade pyrite concentrate are generated. 76% gold recovery, 90% pyrite recovery and 68% copper recovery (ASX: 23rd July, 2015). Silver is also a minor by-product with gold bullion.
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*	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 Mount Morgan deposit. These elements were systematically assayed in the Carbine 2016 Shepherds Gully tailings drilling. No significant issues were identified.

	Tonnes (Mt)	Grade (Au, g/t)	Au Metal (koz)
Total	**4.83**	**0.84**	**131**
Previous	3.96	0.86	106

		All sulphidic tailings are being mined and processed. A pyrite concentrate is produced and then taken to the Port of Gladstone hence removing the current environmental liability.
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	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 geostatistical methods of the Kriging group
	• *Any assumptions behind modelling of selective mining units.*	It is assumed that tailings will be mined by 4m benches, which locally can be slit onto 2m flitches. Thus, the mining selectivity is likely to be in the range of 10x10x2m to 20 x 20 x 4m. The block model parameters used in the current estimate are in a good accordance with the envisaged mining selectivity. It is also noted that previous estimates made by SMG in 2009 used a parent block size of 50x50x5m.
	• *Any assumptions about correlation between variables.*	Sulphur and Iron exhibit excellent correlation (rho = 95%). Copper correlates with Ag (0.58) and Au (0.55). Correlation between other elements is commonly lacking
	• *Description of how the geological interpretation was used to control the resource estimates.*	Understanding of the tailing geology and infilling procedures has been incorporated into the estimation procedures: Tailings were infilled evenly creating horizontal layering of the mineralisation, therefore narrow and horizontally oriented search ellipses were used in estimating the block model grades
	• *Discussion of basis for using or not using grade cutting or capping.*	High grade cut-off was not used. Gold grade (and the grades of other studied metals) is distributed quasi-normally forming approximately a bell shaped histogram. Outliers or extremely high grade values are lacking.

		
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	Block grades were compared with the drill holes. All data were grouped into 60m wide panels drawn across the entire tailings. The average grades of the panes in the panel were estimated from blocks within the panel and plotted vs. coordinates of the corresponding panel. This was compared with average grade of the samples located in the same panel.  The same procedure was repeated in the vertical direction when block and sample grades were grouped by 2m horizontal layers (benches) drawn across the entire tailings.

		 Results presented on the diagrams show that average grades of the block model in the panels (and/or benches) are similar to the average grade of the samples in the corresponding panels/benches. The tests convincingly validates the current estimate confirming its level of accuracy.
		No alternative estimates were made in this study
Moisture (3.6)	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	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 (fresh) - 4 measurements • Shepherd's (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

<table>
<tr><td></td><td></td><td>

- Oxide tailings – 1.42 t/m3

Moisture is determined as the difference between the wet and dry measurements
</td></tr>
<tr><td>Cut-off parameters (3.7)</td><td>

- The basis of the adopted cut-off grade(s) or quality parameters applied.
</td><td>

The upper contact (hanging wall) of the mineralised tailings was determined by logging the drillhole cuttings. This was checked and if necessary corrected after obtaining the assay data because overburden is commonly lacking in both sulphur and gold grade.

The same approach was used for definition of the tailings bottom (footwall contact).

Resources were reported at zero gold cut-off grade, because the production plan requires extraction and processing of all tailings material for final environmental reclamation. Reporting at a cut-off grade of 0.50g/t results is only a 0.8% reduction in gold metal.

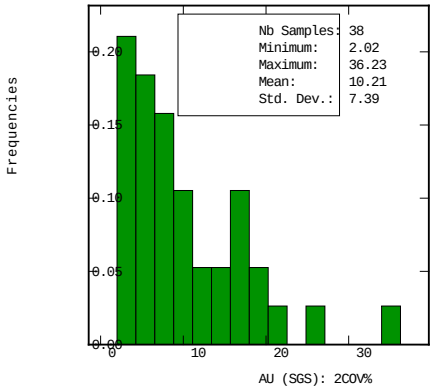
Table: Grade – Tonnage characteristics of the Shepherds Gully Mineral Resource

cut-off	Tonnage (Mt)	Grade (Au, g/t)	Au Metal (kg)	Au Metal (Koz)
0.00	**4.83**	**0.84**	**4,080**	**131**
0.25	**4.83**	**0.84**	**4,079**	**131**
0.50	**4.73**	**0.85**	**4,038**	**130**
0.75	**2.99**	**0.96**	**2,882**	**93**
1.00	**1.00**	**1.19**	**1,190**	**38**
</td></tr>
</table>

Mining factors or assumptions (3.8)	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	Tailings have been partially mined in the past, therefore their amenability to open pit mining is well understood and confirmed by past production.
Metallurgical factors or assumptions (3.9)	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	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 2015. The phase 3 testwork for the pre-feasibility study provided the generation of three products – gold bullion, copper sulphate and a premium grade pyrite concentrate. 76% gold recovery, 90% pyrite recovery and 68% copper recovery (ASX: 23rd July, 2015).

Environmental factors or assumptions (3.10)	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	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 that may be mined from within the dam wall is assumed to be encapsulated in benign reprocessed tailings.
Bulk density (3.11)	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	Dry bulk density was measured using the sand replacement method. The method is certified in Australia (Australian standards - AS1289.5.3.1) for measuring densities of the soft materials. It was applied to the tailings which were exposed in the specially excavated trenches. In total, 18 measurements have been made, including 14 of the pyritic tailings and 4 oxide tailings • Mundic (fresh) - 4 measurements • Shepherd's (fresh) - 6 measurements • No 2 (fresh) - 4 measurements • No 2 (oxide) - 2 measurements • Red Oxide (oxide) - 2 measurements Based on these study the DBD values used for estimating resources were as follows:

		• Pyritic tailings – 1.76 t/m3 • Oxide tailings – 1.42 t/m3
	• *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.*	Sand replacement method was applied rigorously following the procedures described in the Australian standards manual (AS1289.5.3.1)
	• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	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.
Classification (3.12)	• *The basis for the classification of the Mineral Resources into varying confidence categories.*	Classification is based on geostatistically estimated uncertainty of the gold grade. The uncertainty was estimated using Sequential Gaussian Conditional Simulation method applied to the Shepherd's tailings. Results shows that using a drilling grid of 40 x 40m will allow estimation of grade for large blocks (350 x 350 x 5m) with an error less than +/-15% (at 0.95 confidence limits). The chosen block size is matching the annual production volumes proposed for the tailings.

		 Figure: Histogram of the annual production block (350x350x5m) grade uncertainties (at 0.95 confidence limit) 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.
	• *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*	All relevant factors have been reviewed and reported
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.*	Dr. M.Abzalov (the project's CP) is fully satisfied with the results of the estimation, including geometry/volume of the mineralised tailings, density and grade.
Audits or reviews (3.13)	• *The results of any audits or reviews of Mineral Resource estimates.*	Review by the Carbine Resources' Geology Manager has approved the evaluation methodology used by Dr.M.Abzalov and concords with the results.

Discussion of relative accuracy/ confidence (3.14)	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	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.
	• *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.*	Gold grade uncertainty was estimated using Conditional Simulation (Sequential Gaussian Simulation) method for the blocks, corresponding to annual (12 months) production volumes.
	• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Comparisons between historical records of production into and reclamation out of the Shepherds Gully tailings and the tonnage and grade of the resource are in line with expectations.