

12 September 2017

## **Field Program - Mt Usher Gold Prospect** **Part of the Mount Morgan Copper-Gold Project, Qld.**

- **Historical (1900) Mt Usher Gold Prospect produced over 150,000 ounces from alluvial and hard-rock mining, hard-rock production averaged in excess of 1 ounce per ton.**
- **Field activities and mapping has identified:**
  - **Results from rock chip samples confirm high grade gold is present.**
  - **Potential new gold discovery with multiple lodes, strike length > 5km and 500m wide.**
  - **Very high grade epithermal-type gold system – similar metal suite and alteration style to Mt Morgan Gold Mine.**
  - **Two viable exploration models – high-grade epithermal fissure vein and high-grade bulk tonnage Mt Morgan Mine style VHMS/Intrusive-Related composite.**
- **No drilling and only minimal modern exploration.**
- **Extensive sampling and mapping over the >5 Km strike length in progress.**

Australian resources company **GBM Resources Limited** (ASX: **GBZ**) (“**GBM**” or “**the Company**”), is pleased to announce initial results from sampling, mapping and data review at the historical Mt Usher gold field, located near the Mt Morgan mine in Central Queensland, Australia.

The Mt Usher area has historically produced more than 150,000 ounces of gold from rich alluvial deposits and from underground mining of very high grade epithermal-type quartz vein hosted gold mineralisation. The main workings at Mt Usher are hosted by Mt Warner Volcanics, the same rock suite that hosts Mt Morgan located 12 km to the south-west. A major north-east trending lineament links the two deposits. The Mt Morgan Lineament is defined by mapped faults, magnetics and gold occurrences and is orientated parallel with Mt Morgan mine faults.

ASX Code: **GBZ**

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Recent work by GBM has noted strong similarities between the two deposits, most notably; similar primary and secondary metal suite, presence of intense silica-pyrite mineralisation within the ore zones and proximal chlorite-sericite-epidote-jasper alteration, fault geometry relationships, and proximity to large felsic-intermediate intrusive bodies.

The acquisition in 2015 of EPM25678 was justified by Mt Usher's status as the second largest gold producer in the field after Mt Morgan, the prospective structural and host rock setting and limited historical exploration including no record of any prior drill testing.

During July and August this year, GBM undertook an initial program of surface mapping, rock-chip sampling and airborne drone topographic-imagery surveying. A review of historical mine references and modern exploration was also completed. **Mapping has defined for the first time a continuous fault, sulphide alteration and lode quartz corridor of at least 5 km in strike length and 500 m wide enclosing the Mt Usher mine and numerous lesser production centres including the Anglo Saxon, Caledonian and Victor mines.** This fault zone is hosted by mixed Devonian volcanic and sedimentary rocks at the eastern and western ends and by magnetic diorite or tonalite in the central zone. Gold mineralisation has developed in all rock types within the corridor.

Results for the first 19 rock-chip sample assays received from ALS Laboratories confirm high-grade gold is present in pyritic/limonitic quartz veins within the volcanic package at Mt Usher mine and the diorite at the Caledonian mine along strike to the west (peak 14.4 g/t Au). Anomalous Ag, Cu, Pb and Zn is also present, confirming the old miners' reports of 'blackjack(sphalerite), galena and carbonates of copper' with pyrite in the ore zone. Highly anomalous Te (peak 10.1 ppm) shows a strong association with gold and silver in conjunction with Mo, Bi, Sb and As. This metal assemblage is similar to that reported from the ore system at Mt Morgan (Lawrence, 1974), with the addition of silver from galena, and is characteristic of higher-temperature epithermal and/or intrusive-related gold systems.

Sample_ID	MGA_N	MGA_E	Sample_Description	Assay_Results										
					Au	Ag	As	Bi	Cu	Mo	Pb	Sb	Te	Zn
				Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
				Detection Limit	0.01	0.01	0.2	0.01	0.2	0.05	0.5	0.05	0.05	2
MUR001	7387978	242153	Qtz vein		13.55	15.8	98	3.15	79.8	0.38	19	3.48	8.84	2050
MUR002	7387965	242155	Mullock		0.83	0.79	91.8	1.1	15.2	0.9	13.5	5.47	0.61	143
MUR003	7387876	242435	Mullock		0.46	0.43	31.9	0.56	27.3	30.3	16.8	2.06	0.27	833
MUR004	7387975	242562	Fault/qtz vein		0.15	0.62	22.2	0.19	8.9	1.12	22	2.78	0.31	226
MUR005	7387928	242605	Qtz vein in adit		0.03	0.22	21.9	0.12	11.2	1.77	9.9	7.78	<0.05	360
MUR006	7387928	242605	Qtz vein in adit		0.05	0.06	9.4	0.03	4.4	0.43	3.7	1.29	<0.05	139
MUR007	7387920	242590	Qtz vein at adit		0.19	0.57	18.6	0.08	107.5	0.31	4.8	7.46	0.23	1320
MUR008	7387929	242603	Qtz vein at adit		1.16	4.35	93.4	1.45	1160	2.18	479	7.6	1.34	2230
MUR009	7387887	242712	Qtz vein		14.35	17.05	104.5	1.04	341	2.48	19.4	19.15	10.05	1140
MUR010	7387957	242820	Qtz vein/fault		<0.01	0.05	6.7	0.22	12.9	0.67	3.5	0.54	<0.05	29
MUR011	7387882	241771	Fault in adit		0.06	0.29	12.6	0.29	47.6	1.4	618	1.8	0.11	500
MUR012	7387888	242750	Fault in adit		0.1	0.93	22.4	0.4	160	1.43	357	2.37	0.08	977
MUR013	7388122	241871	Open pit sample		0.01	0.34	3.4	0.43	25.2	0.46	5.2	0.88	0.07	19
MUR014	7387880	242768	Altered volcanic rock		0.01	1.11	13.6	0.37	21.9	0.4	19.8	1.99	0.05	1440
MUR015	7387870	242760	Altered volcanic rock		<0.01	0.05	2.4	0.19	7.4	0.23	5.4	0.63	0.05	20
MUR016	7387882	242747	CuOx in shear		0.06	5.89	13	0.71	1030	5.31	1875	1.8	0.15	329
MUR017	7387889	242700	Qtz-Lim vein		2.66	3.74	81.6	1.27	56.3	2.75	51.3	10.7	1.14	132
MUR018	7387927	242587	Shear zone		0.08	0.32	37.4	0.19	6.2	2.05	26.2	11.25	<0.05	62
MUR019	7387927	242587	Qtz vein float		3.82	4	57.5	0.25	4420	0.52	15	19.2	0.12	8540

**Table 1:** IAssay results received to date for Mt Usher rock-chip samples (ALS Laboratories, Brisbane).

Modern analysis indicates that the overprinting of pre-existing volcanic massive sulphide mineralisation (VHMS) by later intrusive-related Au-Cu bearing fluids from the adjacent tonalite unit was responsible for ore genesis at Mt Morgan. The fluid signature and the metal assemblage are indicative of an epithermal setting for the main mineralizing event (Ulrich, 2002), a theory supported by recent work by Corbett for GBM (Internal report, 2015). GBM will investigate the possibility that the Mt Usher epithermal-style fissure vein mineralisation may be associated with a large, blind Mt Morgan analogue.

## **Next Steps**

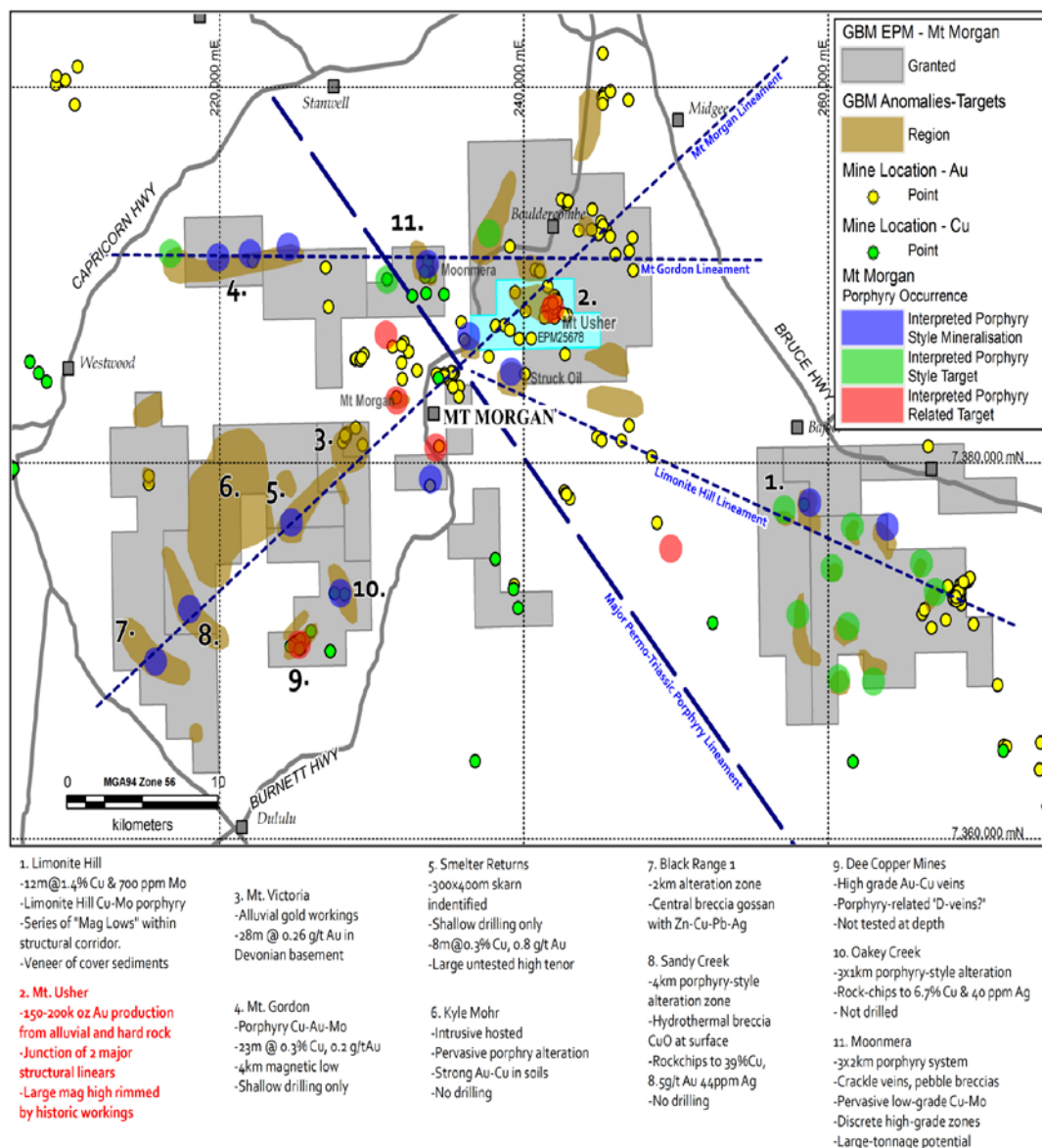
GBM believes the Mt Usher fault corridor is highly prospective for near surface, high-grade vein-hosted, epithermal gold-silver mineralisation and that evidence is mounting for the existence of a deeper, large tonnage, high-grade Mt Morgan analogue within the prospect area. It seems remarkable given the extensive modern exploration effort to find another Mt Morgan that such limited attention has been paid to the second biggest producer, Mt Usher.

Further work at Mt Usher will include continued mapping and comprehensive rock-chip and soil sampling across the entire fault zone. Due to the steep topography and multiple parallel lodes, 3D modelling using GBM generated data and historical mine data will be critical for drill planning. A small diamond drilling program of three to four circa 300m holes in the vicinity of the main workings is scheduled late in 2017. Electrical geophysical methods will be considered to test for large, blind, massive-sulphide Mt Morgan style mineralisation.

## **For Further information please contact:**

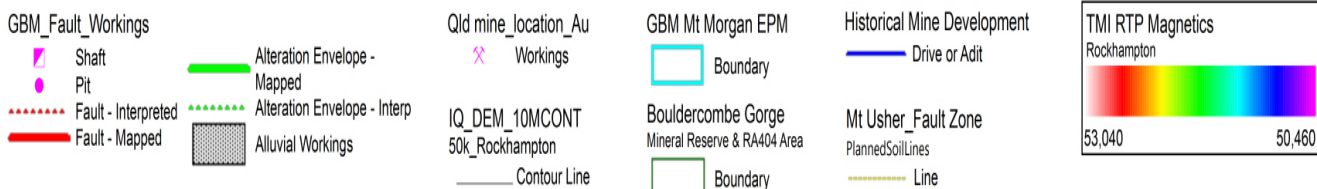
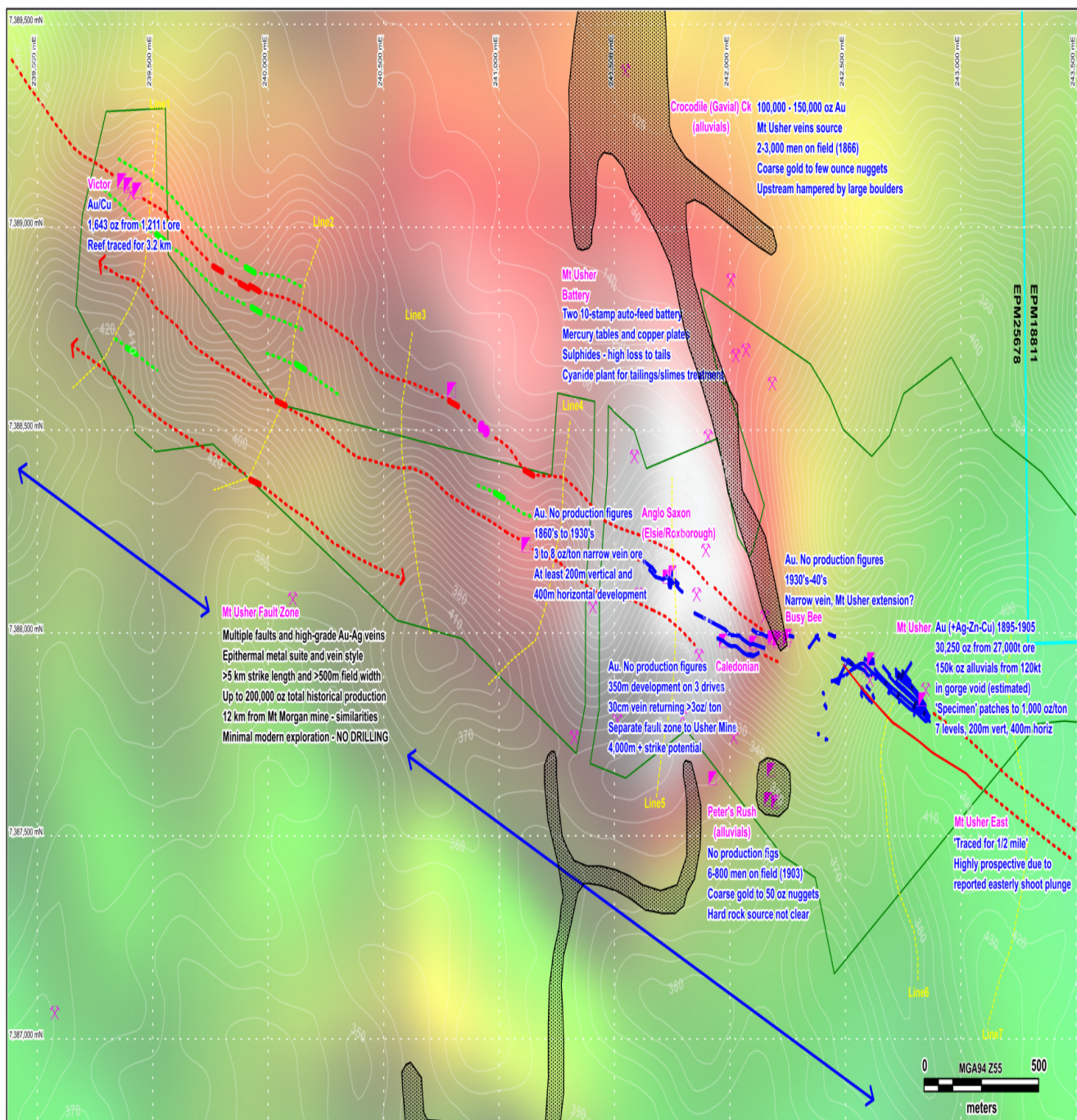
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**Figure 1-1:** GBM tenements and prospect areas. Mt Usher project and tenement (EPM25678) shown in blue.





**Figure 1- 2: Mt usher fault zone preliminary mapped extent with location of historical mine development.**

## About the Mt Usher Prospect

### Early History

Alluvial gold was discovered in Crocodile Ck (now Gavial Ck) in 1865 and by 1866 activity had peaked with 3-5,000 mostly Chinese miners on the field. This period was before compulsory reporting of gold production figures in Queensland and as a result production estimates vary between 100,000 to 150,000 ounces of alluvial gold recovered (Morwood, 2003, Brisbane Truth, 1903). At least three further periods of alluvial mining by dredge took place into the 1940's. The presence of very large boulders in the upper reaches of the valley prevented extraction from the main drainage channel and most mining therefore occurred in overbank deposits at the base of the valley walls. It is likely that a significant amount of alluvial gold derived from the Mt Usher lode system still remains in the central channel.

In the early 1890's, an English immigrant by the name of William Usher discovered that the source of the alluvial gold in Gavial Creek was a series of lode quartz veins cropping out in the southern valley wall, one kilometre upstream from the alluvial workings. By 1895, systematic development of the upper Mt Usher mine levels had begun.

The plant at Mt Usher was by 1901 the most sophisticated in the district, employing two ten-stamper batteries with automatic feed and a very early cyanide plant to recover the reported half-ounce per tonne gold lost across the tables due to the high-sulphide ore.

Production peaked in 1901 at about 1,000 oz/month at an average grade of greater than 1 oz/ton. Official figures indicate a total hard rock production from the Mt Usher mine of 30,250 oz from approximately 27,000 ore tonnes (Morwood, 2003). This figure may not include all gold later recovered from tailings and slimes and will not account for the reported loss by theft of bonanza grade specimen gold throughout the mining life.

### Geology and Mineralisation

The dominant producer within the Mt Usher fault zone was the Mt Usher mine. Development here extended at least 300m laterally with approximately 200m vertical extent from the hill top to the valley base. GBM estimates that the possible volume of auriferous rock eroded from the wedge in the valley gives between 100-150,000 tonnes, supporting alluvial production estimates at the reported hard-rock mined grades. Therefore, total endowment from the Mt. Usher lode system from surface to gorge base was likely to exceed 200,000 ounces.

Newspaper reports provide a good description of production at the Mt Usher mine which was centred on a distinctive shear zone with well-defined, planar footwall and hangingwall margins. At each of the margins a gold-bearing quartz vein lies close to or in contact with the country rock, forming a 'double-lode', with 'barren country rock' or 'mullock' reported in between. Development was advanced separately on each lode, linked by cross-cuts. Quartz vein width averaged 25-30cm throughout the mine, locally thickening to almost one metre. The hangingwall reef was considered the better of the two according to width and grade. Investigation of the mullock zone between lodes is required as the old miners would have applied a high cut-off grade.

GBM has observed intense alteration, disseminated sulphide and narrow quartz-sulphide stringer veins in this zone.

Although details are not clear, it appears a narrow shear or breccia zone (up to 1m wide?) occurs with each quartz lode at the hanging and footwalls, often containing 'much mundic, galena and blackjack' (pyrite, galena and sphalerite). These shear zones were mined and processed so can be inferred to have carried significant grade. They were referred to as 'gold-bearing mineral' and were considered a good indicator especially if 'weeping water'.

GBM has observed stopes in Level 5 of 2-3m in width, suggesting these 'payable' shear zones may be of sufficient width to support modern underground narrow vein style mining methods.

Best grades were returned from the quartz veins and visible coarse gold was common. Written anecdotes indicate these veins were often of very high grade; 'quartz shot through with gold', 'some stone so rich easier to knock gold from the rock than stone from the metal' and '1,000 ounce patches of specimen gold'. Theft was a major issue throughout the mine life. Each level drive had a 'gold bank', where an embayment cut in the side of the drive was installed with gates and at each stope firing, any specimen-quality ore liberated was hand-picked by the shift manager and deposited in the bank in an attempt to minimize thievery. Banked ore was then mixed to keep mill feed grade consistent.

Other discrete fault/quartz lode zones exist in parallel to the Mt Usher shear zone. The New Golden Cave workings, first mentioned in 1927 and located about 50m south of the Mt Usher mine, appear to exploit a similar fault breccia and narrow quartz vein. Mention was also made of two further parallel lodes apparently located between New Golden Cave and Mt Usher, the Egan Reef being one. Information on these developments is scarce.

Preliminary mapping by GBM indicates host rocks at Mt Usher mine consist of a sequence of andesitic tuffs, cherts and volcanoclastic sandstones located within a complex structural setting. The old miners referred to a dark-coloured feldspathic dyke (andesite) on the footwall and a pale-coloured metamorphic rock (possibly altered volcanoclastic) at the hangingwall. Further along strike to the west, the Devonian volcanic package includes mineralized jasper horizons and intense chlorite-epidote-sulphide alteration associated with linear shear zones. The volcanics are intruded by a medium grained igneous unit of dioritic or tonalitic composition. Further work is required to understand the lithological/structural controls on mineralisation and age/stratigraphic links to the Mt Morgan orebody.

#### Previous Exploration

Mention of a separate low-angle cross-cutting vein set by the old-miners may partly explain the paucity of modern exploration at Mt Usher. Geopeko/Goldfields mapped and channel sampled the walls of Levels 2 and 5 in the 1980's. This work appears to have focused on narrow veins orientated at a low angle to development drives. Assay results were conspicuously low in gold. Old records indicate these mapped levels produced excellent returns for MUGM so sampling of backs and faces instead of drive walls may have proved more fruitful for Geopeko. Later workers in the area (Hunter, Poseidon, Newcrest) may have been influenced by these findings as the Mt Usher field was largely ignored.

#### Other Mines within the Mt Usher Fault Zone

Information is scarce on other production centres within the field. The Anglo Saxon and Victor mines may have exploited the westerly continuation of the Mt Usher double-lode and the Caledonian mine the continuation of the New Golden Cave lode. At the Anglo Saxon, a series of shafts (Elsie and Roxborough shafts) and adits accessed significant underground development to at least 200m vertical depth in the dioritic unit. Grades of 5-8 ounces per tonne from a reef almost a metre wide in the upper levels were reported. At Victor, the lode was said to show a similar footwall-hangingwall geometry to Mt Usher mine. Victor production records are approximately 1,600 ounces gold from 1,211 tonnes ore, indicating similar ore grade to Mt Usher (Morwood, 2003).

#### **Notes**

*The information in this report that relates to Exploration Results is based on information compiled by Neil Norris, who is a Member of The Australasian Institute of Mining and Metallurgy and The Australasian Institute of Geoscientists. Mr Norris is a full-time employee of the company, and is a holder of shares and options in the company. Mr Norris has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Norris consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

## References

JACK, R. L., 1898: *Mount Morgan and Other Mines in the Crocodile Goldfield*. Geological Survey of Queensland Publication 132, Brisbane.

LAWRENCE, L.J., 1974: *The nature and origin of the ore minerals of Mount Morgan*. In *Southern & Central Queensland Conference 1974*. Australasian Institute of Mining and Metallurgy, p417-424.

MORWOOD, D. A., 2003: *Mineral occurrences – Mt Morgan 1:100,000 sheet area*. Queensland Geological Record 2002/3, Queensland Government Natural Resources and Mines.

ULRICH, T. (et al), 2003: *Different mineralization styles in a volcanic-hosted ore deposit: the fluid and isotopic signatures of the Mt Morgan Au-Cu deposit, Australia*. *Ore Geology Reviews*, 22 1-2: 61-90.

## Newspaper Articles

*The Mount Usher Gold Mines Ltd – Prospectus: Rockhampton Capricornian, Saturday 25 July 1896, page 27.*

*The Mount Usher Mine: The Capricornian Rockhampton, Saturday 27 February 1897, page 26.*

*A Visit to Mount Usher: The Capricornian Rockhampton, Saturday 3 July 1897, page 26.*

*The Mount Usher Gold Mines: Rockhampton Morning Bulletin, Monday 19 July 1897, page 6.*

*The Crocodile Goldfield, A Visit to Mount Usher: Rockhampton Morning Bulletin, Monday 26 September 1898, page 6.*

*The Mount Usher Gold Mines, General Meeting: Rockhampton Morning Bulletin, Tuesday 29 January 1901, page 7.*

*Mount Usher Gold Mines – Scheme of Reconstruction: The Capricornian Rockhampton, Saturday 25 October 1902, page 29.*

*Rockhampton Records – “Peter’s Rush” Mt Usher: Truth Brisbane, Sunday 13 September 1903, page 3.*



# JORC Code, 2012 Edition – Table 1 Mt Usher Gold Field, Mt Morgan Project

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Rock-chip Sampling: surface outcrop grab-sampling of random chips using hand-held hammer.</li> <li>Sample sites were selected based on lithological representivity and the same sampling technique employed at each site where possible.</li> <li>Samples were chipped from outcrop or subcrop using a geological hammer, bagged into labelled calico bags, dispatched to ALS Laboratories which prepared the samples using industry standard procedures</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li><i>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).</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, no drillhole information quoted.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, no drillhole information quoted .</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate</i></li> </ul>	<ul style="list-style-type: none"> <li>Rock-chip samples were logged for lithology, alteration, minerals, oxidation, structural setting.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>A representative rock-chip grab sample from each sample site.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>ALS Laboratories Au-AA25 and Au-AA30: A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead. The bead is digested in 0.5 mL dilute nitric acid in the microwave oven. 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 10 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.</li> <li>ALS Laboratories ME-MS61: a 0.5g sample is subjected to near-total digestion by a four-acid mixture and finished with a combination of ICP Mass Spectrometry (MS) and Atomic Emission Spectroscopy (AES).</li> <li>Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in house ALS procedures.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>No handheld tools were used with all assays performed at external laboratories</li> <li>Quality control procedures were not employed for rock-chip sampling.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Samples returning significant results were inspected by other senior geological staff geologists to confirm the nature of mineralization.</li> <li>Not applicable No drilling completed.</li> <li>Primary data records have been included in GBM's digital data base and checked by senior geological staff. The Data base is subject to GBM's database SOP.</li> <li>There are no adjustments to assay data.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>All sample point locations were surveyed by GBM personnel using handheld GPS units.</li> <li>All results quoted in MGA84</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable no drillhole information quoted.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, no drillhole information quoted.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>All samples were transported to a commercial courier by Company personnel where they were on-shipped directly to ALS Laboratories in Brisbane.</li> <li>Core, coarse chip rejects and pulps are stored at the GBM core facility.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No audits of either the data or the methods used in this program have been undertaken to date.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mt Usher prospect is located within EPM25678, adjacent to Gavial Ck, approximately 10 km NE of the Mt Morgan township and 2 km S of the Bouldercombe township.</li> <li>The EPM is 100% owned GBM Resources Ltd. EPM25678 expires on 08/4/2018.</li> <li>Part of the licence area is subject to a RA404 which will require GBM to complete a number of actions including application for a higher form of tenement and demonstration that a significant mineral system exists for the area remain available for mineral exploration and mining. For further details see Queensland Department of Natural Resources and Mines Operational Policy number 8/2014. GBM is not aware of any material issues with third parties which may impede current or future operations at Mt Usher.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Geopeko/Goldfields JV (1982-1990):</i> Geopeko explored the lease area for massive sulphide Mt Morgan repeats focusing on the old Mt Usher goldfield, Bouldercombe (Block and Pillar) and Belgamba prospects. At Mt Usher, the JV completed mapping and sampling of accessible mine levels and reconnaissance mapping along the mine fault strike. During their tenure, Goldfields developed the Caldera model for the Mt Morgan area. The model suggests Au-Te mineralisation at Mt Morgan and Mt Usher is centered on ring faults cross-cutting an interpreted caldera margin, and that both deposits are located on anticlinal domes near vents on opposing walls of the caldera. Comparisons with western USA caldera systems were suggested and the potential for epithermal mineralisation in structurally prepared sites in the Mt Usher area noted.</li> <li><i>Hunter in JV with Poseidon/Newcrest/Eagle (1991-1998):</i> This multi-company JV covered a similar tenement area to GBM's Mountain Maid lease. Poseidon's exploration focus was large replacement/breccia bodies with secondary attention to porphyry/fissure vein/VMS/ skarn deposits. Newcrest focus was for</li> </ul>

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		<p>+5M oz gold deposits of near surface bulk tonnage replacement/breccia/stockwork style. Over the tenure period, the entire lease was mapped at 1:5,000 scale (best mapping at Mt Usher to date), stream sediment sampled and much of it covered with ridge and spur soil sampling. Numerous old mine workings were given closer attention, however Mt Usher and the lesser mines along the Mt Usher fault were never a priority. Relevant findings from this period were:</p> <ul style="list-style-type: none"> <li>○ Rock chip sampling from mullock dumps at Mt Usher mine returned an Au-Zn-Cu-As-Te-Mo association. Nearby sampling of jasperoids showed similar metal anomalism.</li> <li>○ Mapping just upstream from Mt Usher mine indicated the presence of silica-py clasts (50% py) from lapilli-scale to over 20cm in size from an epiclastic bed within andesites. The clasts returned anomalous Au-Te-Se-Zn-Mo-Cu. Similarities in appearance and chemistry were noted between these clasts and Mt Morgan ore. Proximity to a nearby vent was postulated.</li> <li>○ Sericite-silica-pyrite alteration around the diorite at Gavial (Crocodile) Ck, downstream from Mt Usher.</li> <li>○ Regional propylisation best developed in andesites as chlorite-epidote-carbonate.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Mt Usher prospect area lies within the Calliope terrane, a package of lower to Middle Devonian volcanic sequences and related plutonic rocks. The area is known as the Moongan Corridor which is separated from the Mine Corridor - the host to the Mount Morgan deposit - by a narrow zone of Mount Morgan Tonalite. The Mine Corridor contains units of the Capella Creek Group, comprising an upper dacitic division and a lower, low potassium rhyolitic division, all of which is cut by a series of latite dykes and irregular shaped intrusions, ranging from basalt to rhyolite in composition. Deposition of the group in a marine basin at shallow to moderate water depth is indicated by limestones and jasperoids.</li> <li>• The geology of the Moongan Corridor was re-compiled by Hunter from work by Newcrest and earlier mapping by Consolidated Zinc. Newcrest mapped quartz feldspar porphyries within undifferentiated Devonian volcanics. However, previous mapping by Consolidated Zinc differentiated areas of predominantly acid volcanics and fragmentals and intermediate varieties, with coarse intermediate</li> </ul>



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		<p>fragmentals being further differentiated. These latter varieties were interpreted, by previous Geopeko workers, to be equivalent of the Dee Volcanics, although this has not been confirmed and here they are interpreted to be more likely equivalents of the Upper Mine Sequence. The predominantly acid volcanics lie in the western half of the EPM and in the Belgamba area and have been variously known as the Moongan Rhyolites and equivalents of the Mount Warner Volcanics. Quartz feldspar porphyries mapped by Newcrest generally are associated with the Moongan Rhyolite or the surrounding intermediate pyroclastics.</p> <p>The Capella Creek Group was intruded by a protracted series of contiguous stocks known as the Mount Morgan Tonalite soon after deposition. The intrusives are dominated by trondhjemite with lesser tonalite and quartz diorite and quartz gabbro stocks. Together the Capella Creek Group and the Mount Morgan Tonalite form a co-genetic volcano-plutonic suite.</p>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, no drillhole information quoted.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable no drillhole information quoted.</li> </ul>

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	<ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable no drillhole information quoted.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable no drillhole information quoted.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable no drillhole information quoted.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, no other data reported.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable no drillhole information quoted or planned at this time.</li> </ul>