

## ASX Announcement

2 March 2020

# New exploration targeting at Malmsbury

- A recent management field review of GBM Resources' (ASX:GBM) (**GBM** or the **Company**) 100% owned Malmsbury Gold Project, located in the prolific Bendigo Zone of the Victorian Goldfields, has confirmed the underexplored and highly prospective character of the goldfield for discovery of further significant gold mineralisation.
- GBM has reinitiated exploration at the project after a seven year hiatus, engaging Global Ore Discovery consultants to undertake a hyperspectral alteration vectoring study from existing drill core and integrated analysis of the all historic data. This is set to facilitate design of an exploration program and prioritisation of targets for the planned field work.
- Initial observations of drill core and of vein and wall rock on historic mine dumps has:
  - Confirmed the presence of an early wall rock hosted disseminated and veinlet style gold-arsenopyrite mineralisation, and later vein hosted gold-antimony mineralisation, consistent with mineralisation styles developed at the Fosterville Mine, located 55 km north of the Malmsbury Project.
  - Identified vein textures and alteration styles consistent with the high-level epizonal orogenic gold deposit class that can produce high grade gold mineralisation, as seen at Kirkland Lake Gold's (TSX:KL) Fosterville Mine, and in recent drill results reported from the Kalamazoo Resources (ASX:KZR) Castlemaine Gold Project, which adjoins the Malmsbury Project.<sup>1</sup>
- Reviewing the Leven Star Reef prospect drill results at lower cut off grades (0.25 g/t, versus the 2.5 g/t Au used for the prior Leven Star resource) has highlighted the presence of broader gold halos to the known mineralised trends, and previously unreported parallel zones of near surface gold mineralisation in the wall rock (refer GBZ ASX release dated 4 July 2019 for drill hole details).
- These results include (downhole intersections):

0.25 g/t Au cut off					
Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Au Gram Metres
LSDDH6	27.70	35.40	7.7	3.11	23.9
LSRC16/D14	60.80	63.80	3	3.71	11.1
LSRC16/D14	68.60	72.80	4.2	2.92	12.2
LSRC16/D14	88.75	101.10	12.35	2.38	29.4

2.5 g/t Au cut off					
Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Au Gram Metres
LSDDH6	28.70	31.70	3	3.76	11.3
LSRC16/D14	62.00	63.80	1.8	6.00	10.8

- GBM has been informed by the Department of Economic Development, Jobs, Transport and Resources (DEDJTR) that the Company has provided all information required to proceed the final stage of processing of the Malmsbury retention licence application. GBM is anticipating grant of the retention licence during the second quarter of calendar 2020. Once granted, GBM plans to initiate an aggressive exploration program at the Malmsbury Project, subject to available funding.

**Stephen Nano, GBM's Senior Advisor (Technical and Business Development), commented:**

*"Malmsbury displays many of the characteristics of the epizonal orogenic gold deposit class that includes Kirkland Lake's Fosterville Mine. The cumulative 8.5 km strike extent of historic pits and mines, and evidence of high-grade gold mineralisation, are indicators of a large, fertile mineral system. The 1 km long Leven Star Trend, where GBM has outlined a 104,000 ounce Inferred gold resource<sup>2</sup>, has only been drill tested to relatively shallow depths, with very limited modern exploration across the remainder of the goldfield. This highlights Malmsbury as an underexplored, high calibre project that is a priority for renewed exploration by GBM."*

**Leven Star Resource and Recalculation of Gold Grades at 0.25 g/t Cut Off**

In July 2019, GBM announced a JORC 2012 compliant Inferred resource of 820 kt at 4.0 g/t Au (at 2.5 g/t cut off) for total contained gold of 104,000 oz (refer ASX announcement 4 July 2019).<sup>2</sup> The resource was based on 36 drill holes that tested the Leven Star structure to a maximum depth of 365 m, with the majority of holes (~85%) intersecting the structure at depths less than 100 m below surface. The resource "daylights" in the area of the historic Leven Star workings with mineralised drill intersections within a few tens of metres of surface. The resource and the mineralised trend are open below the depth of drilling and potentially along strike.

For comparison, the gold system at Fosterville daylighted where it was historically mined via hand dug open pits the 1900's. The modern underground Fosterville resource has to date been drill tested to depths in excess of 1600 m below surface and remains open below that depth.<sup>3</sup>

The drill intersections from the Malmsbury Leven Star Reef Prospect were recently recalculated at a 0.25 g/t Au cut off (Table 1). This has highlighted a number of zones where the gram x metre product (gold grade in g/t x width in metre) has increased by between 20 to 112%, and new zones of previously unreported gold mineralisation have been identified with down hole widths in excess of 10 m and grades in excess of 2 g/t Au.

**Table 1: Length Weighted Average Downhole Gold Intersections – Leven Star Reef Drilling**

Downhole intersections at 0.25 g/t Au cut off <sup>1</sup> and greater than 10 Au gram metres						Downhole intersections at 2.5 g/t Au cut off <sup>1</sup> and greater than 10 Au gram metres						% Change <sup>3</sup> Au gm (2.5 to 0.25)	Intersection Constrained by Sample Interval <sup>4</sup>
Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Au gm <sup>2</sup>	Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Au gm <sup>2</sup>		
LSDDH1	84.35	92.00	7.65	7.14	54.6	LSDDH1	84.35	87.20	2.85	17.90	51.0	7	No
LSDDH6	27.70	35.40	7.7	3.11	23.9	LSDDH6	28.70	31.70	3	3.76	11.3	112	No
LSDDH8	66.30	70.40	4.1	13.10	53.7	LSDDH8	66.30	70.40	4.1	13.10	53.7	0	No
LSDDH9	186.10	194.70	8.6	5.38	46.3	LSDDH9	190.10	193.10	3	11.43	34.3	35	Yes
LSRC10	24.00	28.00	4	3.84	15.4	LSRC10	24.00	27.00	3	4.75	14.2	8	No
LSRC11	50.00	60.00	10	5.26	52.6	LSRC11	50.00	56.00	6	6.17	37.0	0.03	No
						LSRC11	58.00	60.00	2	6.98	14.0		No
LSRC13	81.00	89.00	8	2.82	22.6	LSRC13	81.00	83.00	2	9.43	18.9	20	No
LSRC14	51.00	61.00	10	3.57	35.7	LSRC14	54.00	57.00	3	9.38	28.1	27	No
LSRC15	66.00	73.00	7	5.44	38.1	LSRC15	67.00	69.00	2	15.95	31.9	19	No
LSRC16/D14	60.80	63.80	3	3.71	11.1	LSRC16/D14	62.00	63.80	1.8	6.00	10.8	3	No
LSRC16/D14	68.60	72.80	4.2	2.92	12.2							>100	No
LSRC16/D14	88.75	101.10	12.35	2.38	29.4							>100	Yes
LSRC17/D15	49.40	55.05	5.65	4.29	24.3	LSRC17/D15	50.70	55.05	4.35	4.96	21.6	13	No
LSRC17/D15	67.05	73.40	6.35	5.04	32.0	LSRC17/D15	71.00	73.40	2.4	8.06	19.3	66	No
LSRC5	80.00	93.00	13	2.99	38.9	LSRC5	82.00	87.00	5	5.12	25.6	52	No
LSRC6	17.00	33.00	16	2.62	42.0	LSRC6	27.00	32.00	5	5.29	26.5	59	No
LSRC7	47.00	53.00	6	8.93	53.6	LSRC7	47.00	51.00	4	12.85	51.4	4	No
LSRC8	93.00	106.00	13	2.44	31.8	LSRC8	93.00	94.00	1	12.10	12.1	0.12	Yes
						LSRC8	102.00	106.00	4	4.05	16.2		No
LSRC9	26.00	31.00	5	5.23	26.1	LSRC9	26.00	30.00	4	6.46	25.8	1	No
MD01	262.00	267.95	5.95	6.48	38.6	MD01	264.00	266.91	2.91	12.02	35.0	10	No

**NOTES**

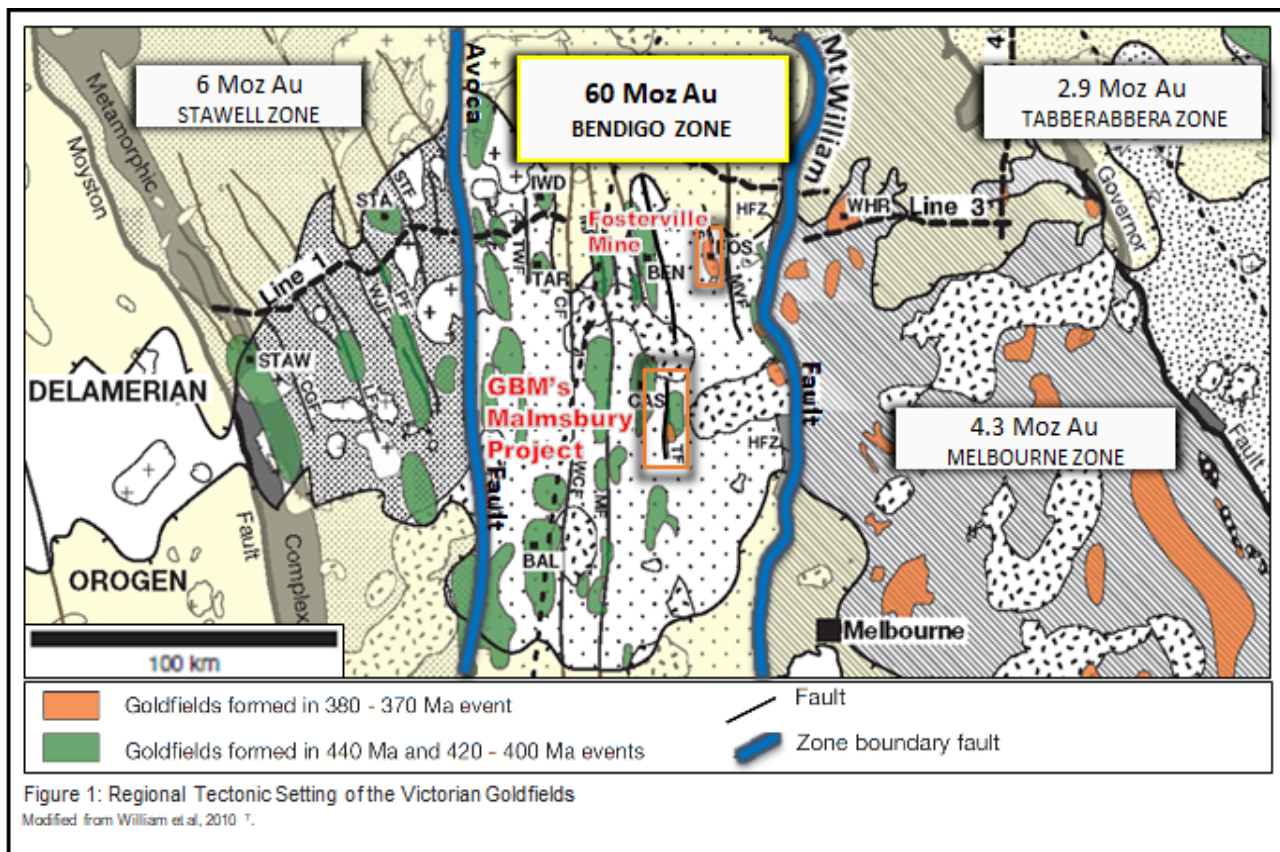
- 0.25 g/t Au and 2.5 g/t Au cut offs calculated with internal dilution of 1 m @ 0.1 g/t Au. All assays below detection limit are multiplied by -0.5
- 'gm' = Gram Metre and is calculated using Au (g/t) x Downhole Interval (m)
- % Change Au gm between Au gm 2.5 g/t Au cut off and Au gm 0.25 g/t Au cut off
- Intersection is constrained by historic sampling interval
- Hole ID nomenclature – DDH = Diamond Drill Hole, RC = Reverse Circulation and LSRCx/Dx = RC top with Diamond tail
- For holes LSRC16/D14 and LSRC17/D15, calculated intersections occur within the DDH component of hole

In some cases, these wider lower grade gold intervals are constrained by the limit of current assay sampling in the core. Unsampled zones of alteration, veining and sulphide mineralisation were noted in historic drill core. Relogging of the historic core and sampling of these potentially mineralised intervals will be one of the objectives of the renewed exploration program at Malmsbury.

## Technical Summary of the Malmsbury Project

The Malmsbury Project is located within the prolifically mineralised Bendigo Zone (**BZ**), that has total historic and current alluvial and hard rock gold production in excess of 60 Moz of gold. The BZ also hosts the world class Fosterville Mine (owned by Kirkland Lake) with historic production and current reserves of 8.8 Moz Au <sup>4,5</sup> (Figure 1).

Figure 1: Regional Tectonic Setting of the Victorian Goldfields



The Malsbury Project is located 55 km south of the Fosterville Mine and adjoins the Castlemaine Gold Project, where Kalamazoo Resources has recently reported bonanza grade drill results from narrow intersections of orogenic style gold mineralisation<sup>1</sup>, with geological characteristics similar to the high grade Lower Phoenix and Swan zones at the Fosterville Mine (Figure 2).

Figure 2: Location of Malmsbury Project

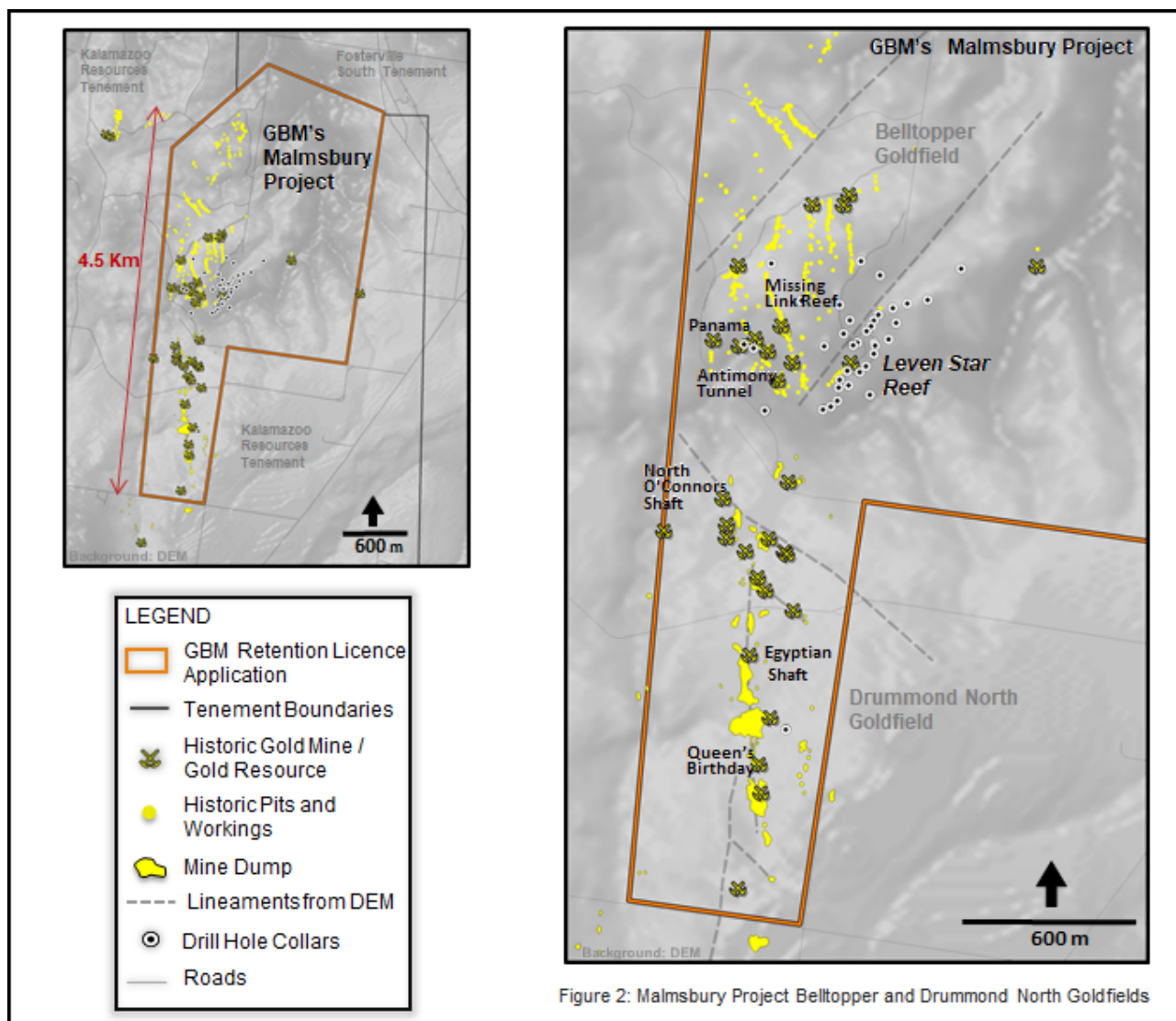


Figure 2: Malmsbury Project Belltopper and Drummond North Goldfields

GBM's geologist, and a number of researchers, have drawn analogies between the Fosterville gold district and Malmsbury Project (Table 2).



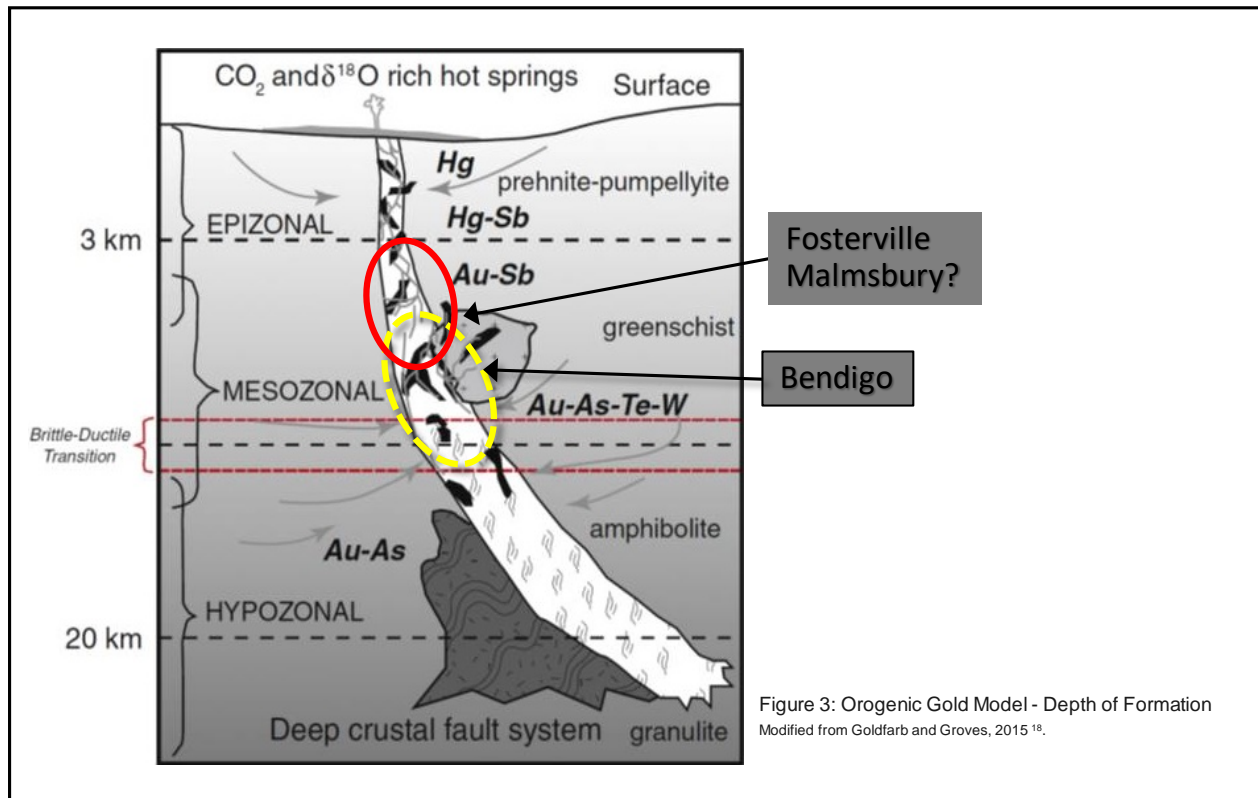
**Table 2: High-Level Comparative of Bendigo, Fosterville and Malmsbury Projects within the Bendigo Zone**

	Bendigo (B)	Fosterville (F)	Malmsbury (M)	Notes
<b>Tectonic Setting</b>	Bendigo (B), Fosterville (F) and Malmsbury (M) occur within the Bendigo Zone (60 Moz Au) the most fertile structural zone of the Victoria Goldfields (Stawell Zone - 6 Moz Au, Melbourne Zone - 4.3 Moz, Tabberabbera Zone 2.9 Moz). The difference in endowment in the Bendigo Zone compared to other zones is interpreted to be the result of it having a basement with >25 km thickness of mafic igneous lithologies with a thin Precambrian lithosphere. Mineralisation is spatially associated with deep penetrating listric shaped north south faults where regional fold culminations have controlled fluid flow <sup>7</sup> .			
<b>Production, Reserves and Resources</b>	22 Moz Au (hard rock and alluvial) <sup>8</sup>	~2Moz (historic production prior to Lower Phoenix etc.). Total Resource including lower Phoenix 6.8 Moz Au <sup>4</sup>	Historic production totalled ~98 kt @ 29 g/t for 91 koz Au. Average grades from Panama and Belltopper tunnel were 87.5 g/t Au and 64.8 g/t Au respectively. JORC 2012 GBM resource of 820 kt @ 4 g/t Au for 104 koz Au <sup>2</sup>	Historic production records suggest potential for very high-grade mineralisation at M associated with antimony veins (supergene influence on grade unknown). Historic and current resources of ~200 koz Au at M indicates it is significantly underexplored and the potential of the field remains undefined.
<b>Strike Length of Field</b>	~12km	~7km	~4.5km	
<b>Peak Metamorphic Grade</b>	Greenschist Facies <sup>9</sup>	Sub-Greenschist facies <sup>3</sup>	Sub-Greenschist facies <sup>10</sup>	Peak metamorphic grades are lower at F and M suggesting formation at shallow crustal levels i.e. Epizonal
<b>Temperature of Mineralising Fluids</b>	Moderate to high temperature hydrothermal fluids 325-375°C <sup>11</sup>	Low-moderate temperature hydrothermal fluids 180-270°C <sup>12</sup>	Low-moderate temperature hydrothermal fluids 180-220°C <sup>10</sup>	F and M mineralisation is formed at a similar temperature range and approximately 125°C lower than B consistent with F and M forming at a shallow Epizonal crustal level.
<b>Depth of Formation</b>	Deep 8 -12km <sup>11</sup> (Mesozonal)	Shallow 2.6-5.7km <sup>12</sup> (Epizonal)	Shallow 1-2.5km <sup>10</sup> (Epizonal)	F and M systems developed at shallower crustal levels than B
<b>Age of Mineralisation</b>	~440 Ma <sup>8</sup>	~380 Ma <sup>13</sup>	~370 Ma <sup>10</sup>	F and M systems are a similar age and 60-70 million years younger than the B system and the age of F and M mineralisation overlaps with emplacement of late Devonian granite to granodiorite.
<b>Lithology</b>	Metasandstone and shales	Metasandstone and shales	Metasandstone and shales	B, F and M have similar host rock type
<b>Mineralisation Style 1</b>	Nuggety gold in quartz veins with pyrite, arsenopyrite, galena, sphalerite, chalcopryite, tetrahedrite, bournonite and pyrrhotite with occasional Ni Cu sulphides <sup>11,14</sup>	Disseminated gold and arsenopyrite in wall rocks.	Disseminated gold and arsenopyrite in wall rocks.	F has an early refractory gold-arsenopyrite wall rock hosted mineralisation with later high grade fine dusty visible gold +/- stibnite in quartz carbonate veins that forms the Lower Phoenix style mineralisation. B has nuggety gold-arsenopyrite in crystalline quartz.
<b>Mineralisation Style 2 and 3</b>		Visible gold in quartz veins with +/- stibnite, arsenopyrite, Fe-poor sphalerite, galena, tetrahedrite, chalcopryite, breithauptite, tennantite and bournonite <sup>3</sup>	Visible gold in quartz veins with +/- stibnite, arsenopyrite, sphalerite, galena, tetrahedrite, chalcopryite, breithauptite, Bi-Te phases <sup>10,15</sup>	
<b>Gold Pathfinder Association</b>	Au-As +/- Pb, Zn, Sb, Cu, Ni	Au-As-Sb +/- Zn, Pb, Cu, Ni	Au-As-Sb +/- Zn, Pb, Cu, Ni, Bi, Te	F and M system later bonanza grade free gold is associated with antimony sulphide minerals (e.g. Stibnite) this is not observed at B
<b>Alteration Associated with Mineralisation</b>	K-White Mica +/- carbonate <sup>16</sup>	K-white mica + carbonate associated proximal to gold bearing veins <sup>16</sup> . Shallow illite and kaolinite alteration <sup>17</sup>	Hylogger hyperspectral scans on MD12 and MD08a mapped K-white mica + carbonate with veining and localised kaolinite + dickite +/- ammonium alunite <sup>15</sup>	F and M have evidence of low-moderate temperature weakly to moderately acid hydrothermal fluids that may have resulted from H <sub>2</sub> S phase separation or boiling. Alteration at B does not contain minerals that indicate low-moderate temperature acid fluids
<b>Orogenic Gold Type<sup>18</sup></b>	Mesozonal	Epizonal	Epizonal	F and M both display characteristics of shallow orogenic Epizonal style of mineralisation while B has characteristics of deeper Mesozonal style orogenic gold mineralisation

At the terrain scale, the similarities include the setting within the BZ and the association with the late Devonian age (360 to 370 Ma) cycle of mineralisation and intrusives, that post-date the main BZ mineralisation (including the giant Bendigo mining camp) by 60 to 70 Ma. The fault and fold geometries, and relationships to large north-south trending and west dipping faults (shown in deep seismic transects to tap the lower crust) are also seen at both mining districts.<sup>6</sup> At the deposit scale, vein textures, mineralisation styles and geochemical signatures of early gold-arsenopyrite with later higher-grade gold-antimony are seen at the Fosterville and Malmsbury districts.

The gold mineralisation in the central Victorian Goldfields is considered to belong to the globally significant orogenic gold deposit class (Figure 3). Deposit characteristics indicate that Fosterville and Malmsbury belong to a sub-type of this deposit class, epizonal orogenic gold that is formed at relatively shallow crustal levels (2-3 km) and has recently been recognised as a priority target type for large-scale high-grade gold deposits. In the BZ, the temporal association of this cycle of mineralisation to the late Devonian intrusive event may also suggest an additional contribution of metal and heat from these intrusives to these gold deposits.

**Figure 3: Orogenic Gold Model – Depth of Formation**



The 6.7 square km Malmsbury Retention Licence application covers the historic Belltopper and Drummond North goldfields, that combined have a known north-south strike extent of over 4.5 km (Figure 2). Previous exploration by GBM has outlined multiple trends of historic mines and pits within the field that have a cumulative strike extent of over 8.5 km.

Nineteenth century gold production records were not well documented in Australia, however available records from the Victorian Geological Survey database show approximately 100,000 oz of high-grade hard rock production from the field, with approximately 76,000 ounces at +18 g/t Au produced from O'Connor's and Queens Birthday mines in the Drummond field. Incomplete records show smaller scale but very high-grade gold production from the Belltopper goldfield with average production grades of 87.5 g/t Au and 64.8 g/t Au for the Panama and Belltopper Tunnel mines, respectively. The longest line of workings in the Belltopper field is the 450 m long Missing Link line. There are few production records from these workings, however a record of early batches of production of near surface ore average approximately 180 g/t Au, confirming the presence of multi-ounce ore near surface in at least part of this trend. The Missing Link Line has only been tested by one drill hole to date.

Significant antimony was recorded to accompany the high-grade gold production in the Belltopper field at the Panama and Belltopper Tunnel mines. This suggests that some of the historic high gold grades were in part hypogene (primary-sulphide bearing), as opposed to near surface supergene enrichment. The presence and economic significance of this mineralisation style at Malmsbury will need to be confirmed with exploration drilling.

An initial review of select mineralised intersections of core from the Leven Star Reef Prospect has highlighted the presence of metasandstone and shale hosted disseminated and veinlet gold-arsenopyrite mineralisation as halos to veins or as separate zones of mineralisation (Figures 4 and 5).

**Figure 4: Leven Star Reef Drill Holes MD01 – Core Photos**

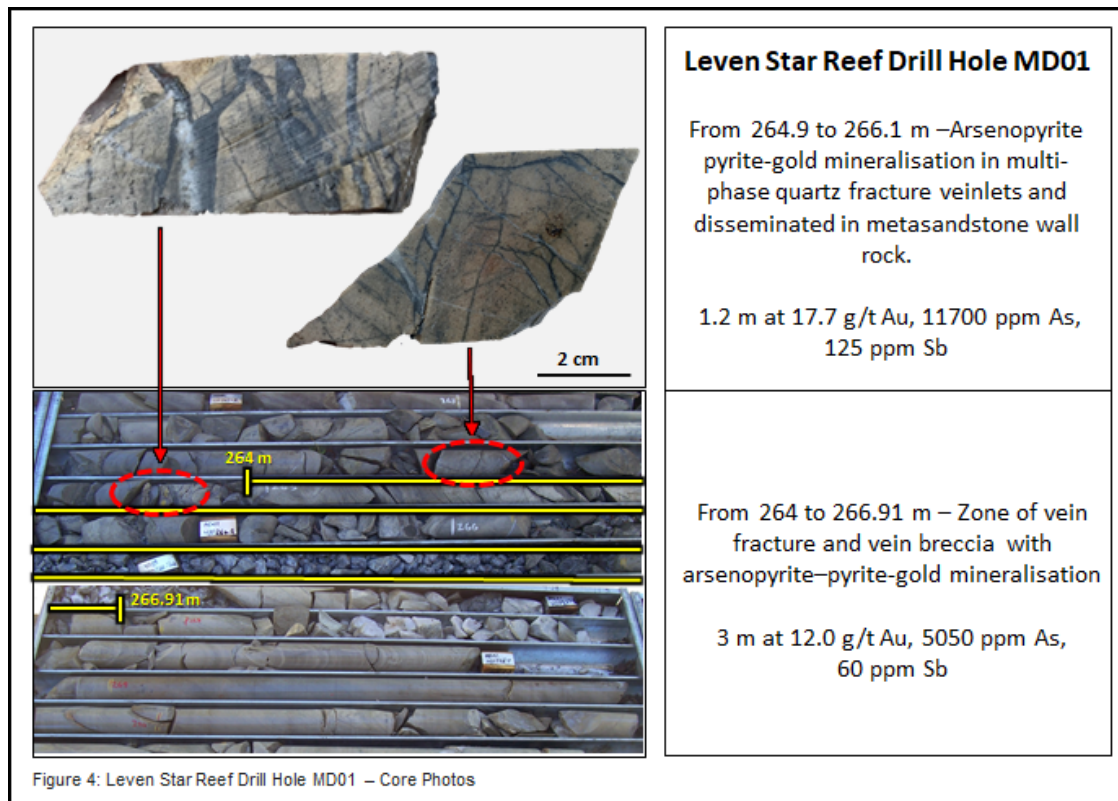


Figure 4: Leven Star Reef Drill Hole MD01 – Core Photos

**Figure 5: Leven Star Reef Drill Hole LSDDH8 – Core Photos**

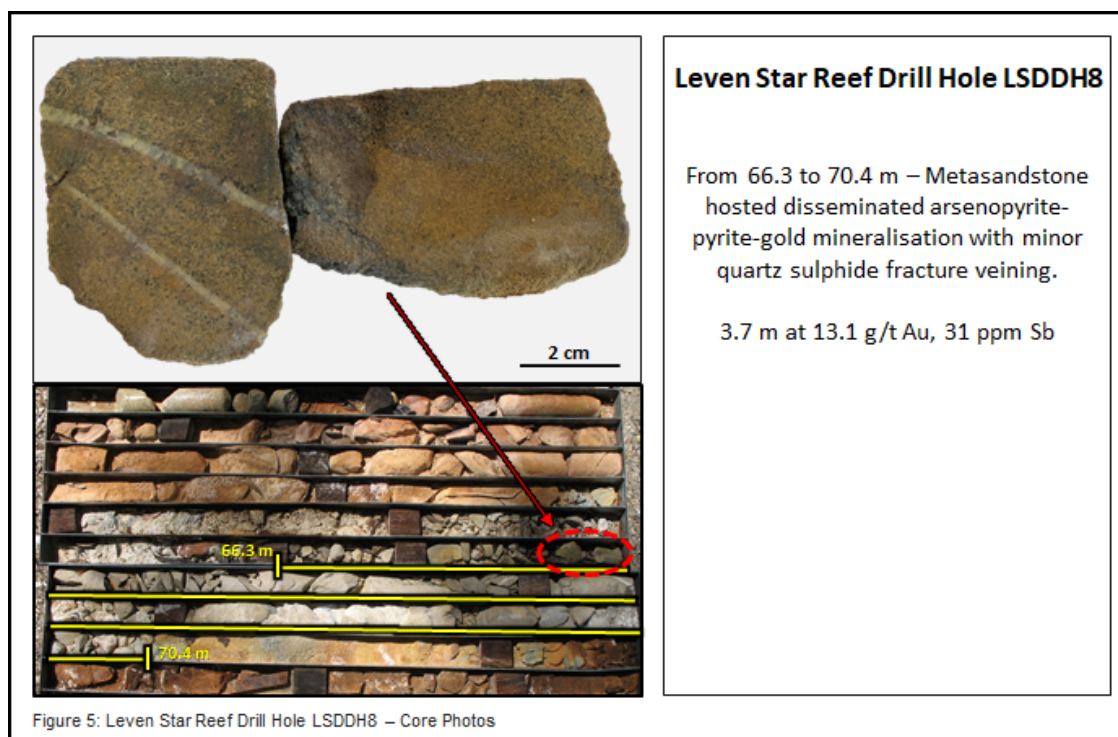
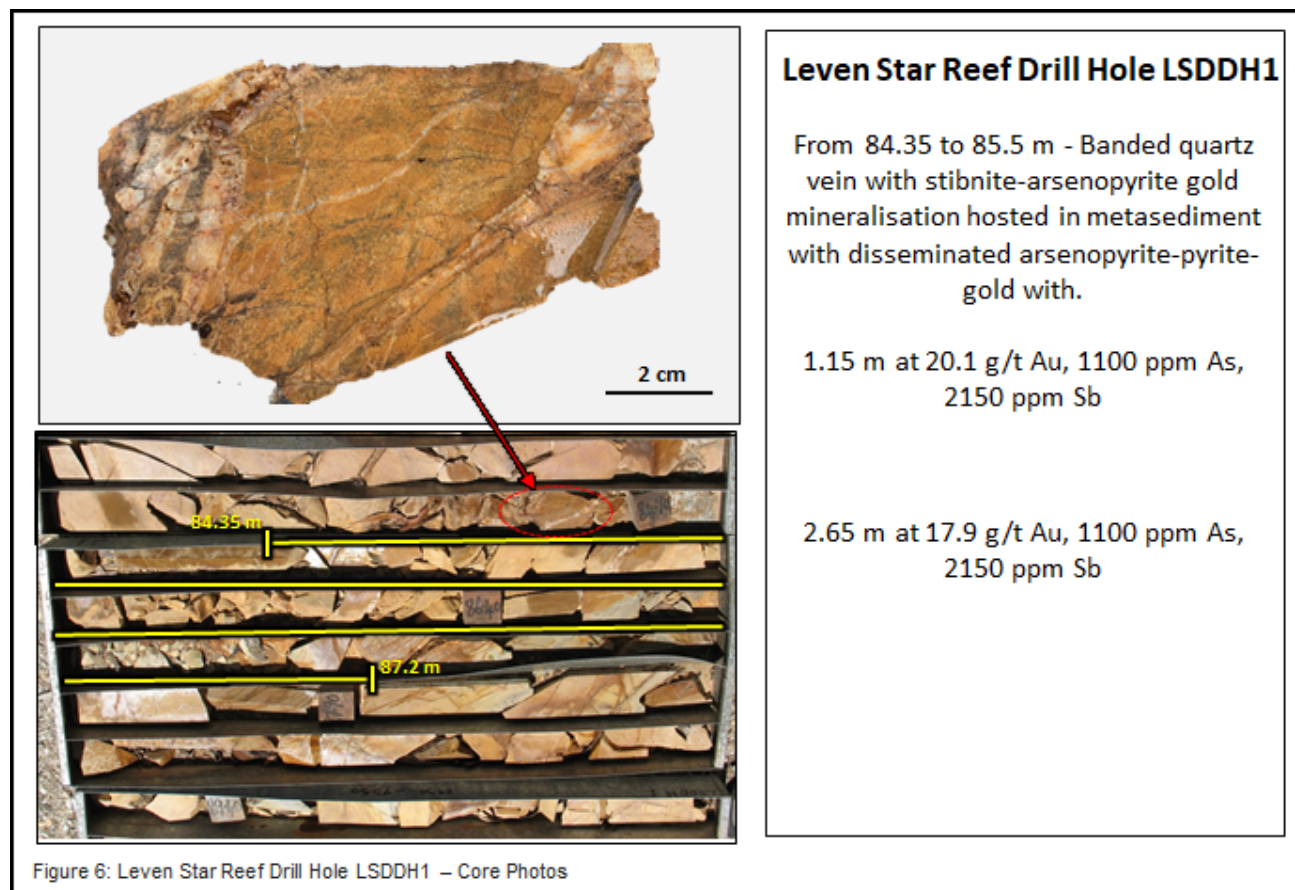


Figure 5: Leven Star Reef Drill Hole LSDDH8 – Core Photos



There is also evidence in the core of banded crustiform veinlets that are associated with assays of up to 20.1 g/t Au, 1100 ppm As (arsenic) and 2150 ppm Sb (antimony), confirming the presence of both the gold-arsenic and gold-antimony phases of mineralisation (Figure 6).

**Figure 6: Leven Star Reef Drill Hole LSDDH1 – Core Photos**



A review of the quartz vein textures, sulphide mineralogy and wall rock from historic mine dumps in the Belltopper section of the field, identified laminated quartz-sulphide, altered wall rock breccia clast in veins, crystal lined vugs, and veins with trails of disseminated arsenopyrite-pyrite-fine antimony and needle-like arsenopyrite (Figure 7).

1. Kalamazoo Resources Ltd. Assays confirm exceptional high-grade gold drill Hole intersection at the Castlemaine gold project. Press Release December 23, 2019.
2. GBM Resources Ltd. Malmsbury Resource Updated to JORC 2012. ASX Press Release July 4, 2019.
3. Verity, B., Fuller, T., Hitchman, S., Edgar, W., Jackson, A., ...& Pittaway, N. (2019). Fosterville - A discovery story of perseverance. In NewGenGold Conference Proceedings 2019, 47-61.
4. Fuller, T., & Hann, I. Updated NI 43-101 Technical Report Fosterville Gold Mine, in the State of Victoria, Australia. Prepared for Kirkland Lake Gold Ltd. Published on www.sedar.com (2019)
5. Kirkland Lake Gold Ltd. Kirkland Lake Gold Increases 2019 Production Guidance to 920,000 – 1,000,000 Ounces, Fosterville Mineral Reserves Increase 60% to 2.7 Million Ounces at 31.0 g/t. ASX Press Release February 21, 2019.
6. Goldfields Tender Briefing – Geodynamics and implications for gold prospectivity. Victorian State Government Department of Job, Precincts and Regions. <https://youtu.be/jxNE8WPU-BQ>

**Figure 7: Examples of Mineralisation Textures from Historic Mine Dumps in the Belltopper Section of the Goldfield**



- A – Laminated quartz with fine grained arsenopyrite-pyrite bands – Belltopper Hill
- B – Quartz sulphide vein with trails of arsenopyrite-pyrite and fine-grained needles of stibnite/arsenopyrite – Belltopper Hill
- C – Banded quartz vein with iron oxide (after sulphides) and central zone of vein breccia with wall rock clasts – Belltopper Hill
- D – Stamper Battery footings - Belltopper Hill

Figure 7: Examples of mineralisation textures from historic mine dumps in the Belltopper section of the field, characteristic of the high level epizonal orogenic gold deposit class, such as the high-grade Fosterville Mine.



These vein textures and sulphide species are characteristic of the high-level epizonal orogenic gold deposit class, that includes the high-grade Fosterville Mine. While there has not been modern systematic assay sampling of the dump material to determine gold content at Belltopper, the extent and continuity of mine workings and the presence of foundations for historic stamper batteries with associated areas of tailings, attest to the high grade nature of the ore historically mined in this area. These observations confirm the prospectivity of the Malmsbury Project for the discovery of further significant gold resources.

GBM is evaluating a range of business development options for funding to accelerate exploration and development of the high-calibre Malmsbury Project, including potential joint venture and farm-in agreements with well-funded gold explorers and producers.

**The Company confirms that the form and context in which the Competent Persons findings are presented have not been materially modified from the original market announcements.**

**The Company confirms that it is not aware of any new information or data that materially affects the information included in the respective announcements and all material assumptions and technical parameters underpinning the resource estimate with those announcements continue to apply and have not materially changed.**

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Peter Mullens, who is a Fellow of The Australasian Institute of Mining and Metallurgy. Peter Mullens is an employee of the company and is a holder of shares and options in the company. Mr Mullens has sufficient experience which is relevant to the style of mineralization 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 Mullens consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**This ASX announcement was approved and authorised for release by:**

Peter Rohner, Managing Director

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**About GBM Resources**

GBM Resources Limited is a mineral exploration and development company focused on the discovery of world-class gold and copper deposits in Eastern Australia. The company has a high calibre project portfolio, hosting district scale mineral systems, located in a number of premier metallogenic terrains including the Drummond Basin, Mt Morgan district and the Mt Isa Inlier in Queensland, and the Malmsbury Project in the prolific Victorian Goldfields.