

# Large Epithermal Gold Soil Anomaly Defined at Black Range

## Strong and coherent gold anomaly defined at Black Range

- The latest soil sampling results at Sugarbag Hill have mapped:
  - A 3.5km x 1.2km zone of elevated low-sulphidation epithermal Au-Ag pathfinder elements
  - 2.1km long gold trend >20ppb Au (up to 296ppb Au).
- First pass rock chip sampling has returned **gold up to 2.27g/t and silver up to 29.6g/t**.
- Rock chip samples elevated in gold are dominated by chalcedonic quartz replacement textures consistent with low-sulphidation epithermal gold-silver style mineralisation.

#### **Identification of new targets**

Soil sampling has identified multiple new low-sulphidation epithermal-style, gold-silver targets with the mineralising system open in all directions.

## Confidence in epithermal preservation – Silica sinter recognition

• The recently confirmed identification of widespread sinter across the large low temperature silicified zone<sup>i1</sup> indicates we have a preserved epithermal system<sup>ii</sup> at Sugarbag Hill.

### Limited exploration presents discovery opportunity

Newcrest Mining conducted the last on-ground exploration in 1992 at the Sugarbag Hill Prospect<sup>iii</sup>.

### **District scale control**

- Over 30km of underexplored strike between known epithermal gold occurrences, including the high priority targets of Sugarbag Hill Prospect and Mt Mylora Prospect.
- The geological setting of the low-sulphidation epithermal gold-silver mineralisation at Black Range Prospect has similarities to the Round Mountain Mine, USA (20Moz Au)<sup>iv</sup>.



Figure 1: Silica sinter outcrop at the Sugarbag Hill Prospect, Black Range (sample location 7413)<sup>i</sup>.

<sup>1</sup> See page 10, "Endnotes" for references



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Legacy Minerals Holdings Limited (ASX: LGM) ("Legacy Minerals" or "the Company) is pleased to announce results from rock-chip and soil sampling at the Black Range Epithermal Gold Project in the Lachlan Fold Belt, NSW.

#### Management comment - Legacy Minerals CEO & Managing Director, Christopher Byrne said:

"Legacy Minerals is pleased to announce an extensive gold footprint identified in soil sampling at Black Range. Our work has highlighted a multi-kilometre scale gold anomaly in association with lowsulphidation epithermal pathfinder elements.

Building on our recent confirmation of widespread silica-sinter at the prospect, the soil sampling and first pass rock chip sampling add to the growing body of evidence that suggest we have defined a large and underexplored low-sulphidation epithermal gold-silver mineral system.

The implication of these results is amplified by the sheer scale of the Black Range tenement. There is over 30kms of strike between known epithermal occurrences, and many of the defined areas of interest have never had any exploration work conducted on them. Legacy Minerals is excited to be the first Company to unpack many of these target areas".

## Summary of surface geochemical results



Figure 2: Gold results in soil and rock chip samples with mapped sinter related lithology.





Legacy Minerals has commenced reconnaissance rock chip sampling and systematic soil geochemical sampling programs across the Black Range tenement with the first of its high priority prospects having been completed. Assays results confirm low-sulphidation epithermal gold-silver mineralisation at the Sugar Bag Hill Prospect with reconnaissance rock chip samples reporting grades up to 2.27g/t Au, 29.6g/t Ag, 176.5ppm Mo, 40.6ppm Sb and 3,370ppm As. Gold mineralisation is associated with strong quartz-sericite-pyrite alteration that has completely altered or selectively replaced the crystalline groundmass of a matrix supported felsic volcanic breccia unit. The alteration system is hosted by altered epiclastic rocks that include lapilli tuffs, tuffaceous siltstones, and shales, together with felsic volcanic breccias and andesites (Gilbert 1989) of the Mountain Creek Volcanics. The host rock sequence exhibits complex brecciation and alteration which includes pre-brecciation quartz veins, and extensively developed chalcedonic quartz veins.

The Legacy Minerals field team has completed the first pass soil sampling geochemical survey, consisting of 487 samples across a zone of silica-sericite-pyrite altered rocks and wider known silica-sinter related lithology. The soil sampling program was completed across 5km<sup>2</sup> of the Project on a 100m x 100m grid. Most samples are interpreted as representing residual soils and were nominally collected from the B soil horizon at depths between 0.1m and 0.4m. These soil samples were taken systematically to assess the potential for mineralisation around recently identified silica-sinter lithology and to confirm historical surface sampling by Newcrest that indicated high tenor gold anomalism. This work will vector towards potential high-grade gold-silver bearing ore shoots in low sulphidation epithermal-style quartz veins within known mineralised trends for future drill testing, and to assess the broader tenement area for previously unrecognised Au-Ag mineralisation.

Laboratory assays reported from ALS Orange and Brisbane were analysed for 53 elements. Low sulphidation epithermal-style gold-silver deposits typically have distinct geochemical pathfinder element signatures that provide insight to the depth of erosion and preservation level of the system. The soil sampling results have delineated extensive zones of elevated Au and Ag as well as other pathfinder elements including Sb, As, Hg, Mo, Se and Tl. Peak results reported from soil samples assay results include: 296ppb Au, 3.12ppm Ag, 1140ppm As, 99.2ppm Mo and 15ppm Sb. The results returned multiple areas of anomalous Au-Ag and/or pathfinder element associations interpreted to reflect low sulphidation epithermal-style gold-silver mineralised veins and alteration. The anomalous results indicate the epithermal system remains open in all directions.





**Figure 3.** Sample 7437: 2.27g/t Au, 29.6g/t Ag, 2550ppm As and 32.4ppm Sb

**Figure 4.** Sample 7456: 1.56g/t Au, 4.19g/t Ag, 249ppm As, 6.6ppm Sb and 55.5ppm Mo.







**Soil Geochemistry Pathfinder Elements** 

Figure 5: Sugarbag Hill Au soil sample results



Figure 7: Sugarbag Hill Sb soil sample results



Figure 6: Sugarbag Hill Ag soil sample results



Figure 8: Sugarbag Hill Mo soil sample results







Figure 9: Sugarbag Hill As soil sample results

Figure 10: Sugarbag Hill Hg soil sample results

# **Sugarbag Hill Prospect overview**

The Project is located in an underexplored area of the Lachlan Fold Belt, NSW. Mineralisation is hosted within early I-type Devonian felsic rocks of the Mountain Creek Volcanics. Indications of a preserved epithermal sinter were identified during ground reconnaissance of historically mapped "cherts" within the Prospect area, which appeared to have been misidentified. Petrography has now confirmed an extensive silica sinter outcrop at the Prospect. Alteration at the Prospect is moderate to intense silica-sericite +/- pyrite in association with the exposed agglomerate and ignimbrite of the Mountain Creek Volcanics.

Historic exploration on the Prospect was completed by Newcrest Mining who conducted the last onground exploration in 1992<sup>v</sup>. This consisted of geological mapping, soil sampling, geophysical IP surveys and several shallow reverse circulation (RC) drill holes and a single shallow diamond drill hole.

Drilling completed between 1992 and 1993 by Newcrest was interpreted to have intercepted a "silica cap". Newcrest at the time was exploring for a shallow, near-surface bulk-tonnage deposit and therefore conducted mostly shallow vertical drilling. Despite this, the historical drilling at the Sugarbag Hill gave highly encouraging results for a potential nearby feeder structure and demonstrates the potential at depth where the interpreted boiling zone is located. Drill holes were commonly no deeper than 50m with the deepest to 119m. Drill results included:<sup>vi</sup>

- FRC-1: 30m at 0.3g/t Au (from surface)
- FRC-21: 7m at 0.39g/t Au, 97.1ppm Mo and 18.1ppm Bi (from 20m)
- FRC-24: 4m at 0.77g/t Au (from 90m)

These historic results are an indication of the potential for mineralisation within the feeder structures and at depth. The tenement was relinquished in 1992 and no further on ground exploration has been conducted for over 30 years at Sugarbag Hill Prospect.







Figure 11: Model of the Black Range Epithermal Project<sup>i</sup> and interpreted zones of preservation beneath silica sinter horizons vii

# **Further Work Planned**

The Company is currently completing a tenement wide prospectivity assessment of the Black Range Project which will incorporate a review of available ASTER hyperspectral data with the new geochemical data and geological understanding.

Anomalous soil results in locations where no historical work has occurred will be followed up by field reconnaissance, mapping and rock chip sampling. The outcomes of this work will directly inform the Company's strategy for drill testing priority epithermal targets in the future.



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# **About the Black Range Project**

The Black Range Project is in the Central Lachlan Fold Belt, NSW, which hosts world-class copper-gold orebodies including the Cadia-Ridgeway, Northparkes and Cowal Mines. Black Range is a late Devonian, early Silurian volcanic system dominated by acid volcanics. Rhyolite to dacitic volcanism with lavas, breccias and tuffs are widely distributed and associated with epithermal mineralisation. Limited exploration defining a 5.2km2 zone of silica-sericite-pyrite alteration has been mapped with low-sulphidation gold mineralisation intercepted in historical shallow percussion and diamond drilling at the Sugar Bag Hill Prospect giving encouragement to the prospectivity of the wider tenement. The interpreted low temperature quartz and low-iron sphalerite that is associated with gold mineralisation indicates the Project may host a large, preserved epithermal environment.



Figure 12: Regional setting of the Black Range Project<sup>viii, ix, x, xi, xii</sup>





#### Approved by the Board of Legacy Minerals Holdings Limited.

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## DISCLAIMER AND PREVIOUSLY REPORTED INFORMATION

Information in this announcement is extracted from reports lodged as market announcements referred to above and available on the Company's website <u>https://legacyminerals.com.au/</u>. The Company confirms that it is not aware of any new information that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

This announcement contains certain forward-looking statements. Forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside of the control of Legacy Minerals Holdings Limited (LGM). These risks, uncertainties and assumptions include commodity prices, currency fluctuations, economic and financial market conditions, environmental risks and legislative, fiscal or regulatory developments, political risks, project delay, approvals and cost estimates. Actual values, results or events may be materially different to those contained in this announcement. Given these uncertainties, readers are cautioned not to place reliance on forward-looking statements. Any forward-looking statements in this announcement reflect the views of LGM only at the date of this announcement. Subject to any continuing obligations under applicable laws and ASX Listing Rules, LGM does not undertake any obligation to update or revise any information or any of the forward-looking statements in this announcement to reflect changes in events, conditions or circumstances on which any forward-looking statements is based.

## **COMPETENT PERSON'S STATEMENT**

The information in this Report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Thomas Wall, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Wall is the Technical Director and a full-time employee of Legacy Minerals Pty Limited, the Company's wholly-owned subsidiary, and a shareholder of the Company. Mr Wall has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Wall consents to the inclusion of the matters based on his information in the form and context in which it appears in this announcement.

## **About Legacy Minerals**

Legacy Minerals is an ASX listed public company that has been involved in the acquisition and exploration of gold, copper, and base-metal projects in the Lachlan Fold Belt since 2017. The Company has six projects that present significant discovery opportunities for shareholders.





Au-Cu (Pb-Zn) Cobar (EL9511)	Au Harden (EL8809, EL9257)
Undrilled targets next door to the Peak Gold Mines.	Large historical high-grade quartz-vein gold
Several priority geophysical anomalies and gold in	mineralisation. Drilling includes <b>3.6m at 21.7g/t Au</b>
lag up to <b>1.55g/t Au.</b>	116m and <b>2m at 17.17g/t Au</b> from 111m.
Au-Ag Bauloora (EL8994, EL9464) Newmont JV	Au-Cu Fontenoy (EL8995) Earth AI-Alliance
One of NSW's largest low-sulphidation, epithermal	An 8km long zone of Au and Cu anomalism defined
systems with a 27km <sup>2</sup> epithermal vein field and	in soil sampling and drilling. Significant drill
15km <sup>2</sup> gold zone.	intercepts include <b>79m at 0.27% Cu</b> from 1.5m.
Cu-Au Rockley (EL8296)	Au-Ag Black Range (EL9466, EL9589)
Prospective for porphyry Cu-Au and situated in the	Extensive low-sulphidation, epithermal system with
Macquarie Arc Ordovician host rocks with historic	limited historical exploration. Epithermal
high-grade copper mines that graded up to 23% Cu.	preservation across 7km <sup>2</sup> of intense silicification

#### Cu-Au Drake (EL6273, ELA6640)

Large collapsed caldera (~150km<sup>2</sup>) and associated mineralisation bears similar geological characteristics to other major pacific rim settings and deposits.



Figure 13: Regional setting of Legacy Minerals Projects





## ENDNOTES

- <sup>i</sup> LGM ASX 11 October 2023 Widespread Silica Sinter Confirmed at Black Range
- <sup>ii</sup> Sillitoe, Richard H. "Epithermal paleosurfaces." Mineralium Deposita 50.7 (2015): 767-793.
- Wewcrest Mining Limited, Final Report EL3137 December 1992

<sup>iv</sup> USGS, 2019, Round Mountain Gold Min, available at https://mrdata.usgs.gov/mrds/show-mrds.php?dep\_id=10310392. [accessed 30/11/2020]

<sup>v</sup> Newcrest Mining Limited, Final Report EL3137 December 1992

vi 1993 Newcrest (R00001534) License 3137 Goondah

<sup>vii</sup> Buchanan, L. J. (1981) "Precious metal deposits associated with volcanic environments in the southwest,", Arizona Geol. Soc. Digest, 14, pp. 237–261., Klondike Exploration Services, "Textural Zoning in Epithermal Quartz Veins", Townsville: Queensland 1995

<sup>viii</sup> CMOC Northparkes Mining and Technical Information, <u>http://www.northparkes.com/wp-</u> <u>content/uploads/2022/05/northparkes-mining-and-technical-information.pdf</u>

<sup>ix</sup> Alkane Resources Kaiser Resource Estimate of ~4.7M Gold Equivalent 27 February 2023

- <sup>x</sup> Newcrest Mining Annual Mineral Resources and Ore Reserves Statement 17 February 2022
- <sup>xi</sup> Regis Resources Annual Mineral Resource and Ore Reserve Statement 8 June 2022
- <sup>xii</sup> Evolution Mining 2022 Annual Report

 Table 1: Major Mineral Resources of NSW

Project & Company	Mineral Resource	Measured Resource	Indicated Resource	Inferred Resource
Boda-Kaiser, NSW (Alkane Resources Ltd)	7.26Moz Au, 1.38Mt Cu	-	-	7.26Moz Au, 1.38Mt Cu
Tomingley, NSW (Alkane Resources Ltd)	1.75Moz Au	0.13M Au	1.019Moz Au	0.59Moz
McPhillamys, NSW (Regis Resources Ltd)	2.29Moz Au		2.28Moz Au	0.001Moz Au
Cadia-Ridegway, NSW (Newcrest Mining Ltd)	33.31Moz Au, 7.9Mt Cu	0.31Moz Au, 0.041Mt Cu	33Moz Au, 7.3Mt Cu	0.75Moz, 1.1Mt Cu
Cowal, NSW (Evolution Mining Limited)	9.618Moz Au	0.367Moz Au	7.33Moz Au	1.92Moz Au
Nth Parkes, NSW (CMOC Mining Pty Ltd	3.09Moz Au, 2.63Mt Cu	1.64Moz Au, 1.2Mt Cu	1.1Moz Au, 1.1Mt Cu	0.35Moz Au, 0.33Mt Cu



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# **Appendix 1 - Highlight Rock Chip Results**

Sample_ID	Easting	Northing	Au_ppm	Ag_ppm	Sb_ppm	As_ppm	Mo_ppm
7456	658171.1302	6139580.273	1.56	4.19	6.6	249	55.5
7455	658163.3465	6139590.17	0.251	2.38	17.5	210	31.1
7383	658682.9517	6140576.244	0.732	2.6	11.3	219	28.3
7392	658074.2951	6141158.577	0.616	2.37	6.06	43.7	7.85
7437	658488.8405	6141640.014	2.27	29.6	32.4	2550	1.63
7461	658656.0376	6140516.468	0.383	25.7	24.5	3370	5.05
7441	658579.5548	6141343.664	0.147	3.77	5.87	161	176.5
7450	658260.9869	6141293.479	0.074	6.44	40.6	2850	10.65

Table 2: Highlight Rock Chip Results (MGA94/Z55)



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# Appendix 2 – JORC Code, 2021 Edition Table 1

#### Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
	Nature and quality of sampling (e.g., 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.	Rock sampling of a reconnaissance nature was undertaken from the Sugarbag Hill Prospect and was biased towards outcrop. Soil samples were taken systematically across the Sugarbag Hill Prospect area.
Sampling Techniques	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The purpose of the soil samples and rock chip samples was to establish the tenor of any mineralisation visible in outcrop and float. Therefore, the samples are biased towards mineralised samples. This is appropriate for this type of work. Soil samples were done on a grid patterns and representative of the mineralisation.
	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 (e.g. 'reverse circulation drilling was used to obtain 1m 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 (e.g., submarine nodules) may warrant disclosure of detailed information.	Samples weighing up to several kilograms were taken.
Drilling techniques	Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diametre, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	Not Applicable. No drilling conducted.
	Method of recording and assessing core and chip sample recoveries and results assessed.	Not Applicable. No drilling conducted.
Drill sample	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not Applicable. No drilling conducted.
recovery	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.	Not Applicable. No drilling conducted.
Logging	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.	Geological logging is carried out on all rock chips with lithology, alteration, mineralisation, structure and veining recorded.
353	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of rock chips records lithology, mineralogy, mineralisation, structures, weathering, colour and other noticeable features. Rock chips are occasionally photographed for reference.





	The total length and percentage of the relevant intersections logged.	Not Applicable. No drilling conducted.
	If core, whether cut or sawn and whether quarter, half or all core taken.	Not Applicable. No drilling conducted.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not Applicable. No drilling conducted.
Sub-sampling techniques and sample preparation	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples were delivered by Legacy Minerals Holdings personnel to ALS Minerals Laboratory, Orange NSW. Sample preparation will comprise of an industry standard of drying, jaw crushing and pulverising to -75 microns (85% passing) (ALS code PUL-23) and (ALS code PUL-32 for soils). Pulverisers are washed with QAQC tests undertaken (PUL-QC). Samples are dried, crushed and pulverized to produce a homogenous representative sub-sample for analysis.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Laboratory QC procedures for rock and soil sample assays involve the use of internal certified reference material as assay standards, along with blanks and duplicates.
	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.	Not appropriate for this stage of exploration.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The size of samples for the rock and soil samples are appropriate for this stage of exploration.
Quality of	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	All samples were analysed by ALS Global for 53 elements. Samples are crushed to 6mm and then pulverized to 85% passing 75 microns. A 50g pulp sub sample assayed for 53 elements after aqua regia digest and ICP-MS. The lower detection limit for gold is 0.001 ppm, which is believed to be an appropriate detection level. (ALS code: ME-ST44).
assay aata ana laboratory tests	For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Not Applicable. No geophysical tools used.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	In addition to the Company QAQC procedures, the ALS laboratory complete its own QAQC including the use of CRMs, Blanks and duplicates. Acceptable levels of precision and accuracy have been established.
Verification of	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections are verified by the Company's technical staff.
sampling and	The use of twinned holes.	Not Applicable. No drilling conducted.
ussaying	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data is captured onto a laptop through excel and using Datashed software and includes geological logging, sample data and QA/QC







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Location of data pointsAccuracy and quality of surveys used to lacate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.A handheld Garmin GPSmap 65 was used to pick up locations of samples with an averaged accuracy of 1m.Specification of the grid system used.The grid system used is GDA94, MGA Zone 55.Quality and adequacy of topographic control.Using government data topography and 2017 DTM data. A topographic surface has been created using this elevation data. Rock thip spacing is appropriate for this type of early stage prospect assessment work.Data spacing and distributionWhether the data spacing and distribution is sufficient to establish the degree of geological and Resource early early appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.No compositing has been applied to the exploration results.Orientation of geological and classifications applied. Whether sample compositing has been applied.No compositing has been applied to the exploration results.Whether the orientation of sampling achieves unbiased sampling of possible structures and the deposit type.No compositing has been applied to the exploration indicated by altercation in outcrop and float. Rock samples are biased towrk. Soil samples are biased towrk. Soil samples was to establish the early or samples was to establish the early or assible structures and the exploration results.Data spacing and distributionIf the relationship between the drilling orientation and the orientation of key mineralised structures using and classifications applied. <th></th> <td></td> <td>Discuss any adjustment to assay data.</td> <td>No adjustments or calibrations will be made to any primary assay data collected for the purpose of reporting assay grades and mineralised intervals.</td>			Discuss any adjustment to assay data.	No adjustments or calibrations will be made to any primary assay data collected for the purpose of reporting assay grades and mineralised intervals.
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Quality and adequacy of topographic control.         Using government data topography and 2017 DTM data. A topographic surface has been created using this elevation data.           Data spacing and distribution         Data spacing for reporting of Exploration Results.         Brock chip spacing is applicable to the reconnaissance nature of the work. Soil sample spacing is appropriate for this type of early stage prospect assessment work.           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. Whether sample compositing has been applied.         No mineral resource or reserve calculation has been applied.           Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.         No compositing has been applied.         No composition the sufface soil anomalism.           Orientation of data in relation to geological structure         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.         Orientation of sampling is considered appropriate for the wineralised on the orientation of sampling achieves unbiased sampling of possible structures and appropriate for the current geological interpretation to geological structure         Orientation of key structures may be locally variable and any relationship to mineralisation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.         Orienta		data points	Specification of the grid system used.	The grid system used is GDA94, MGA Zone 55.
Data spacing and distributionData spacing for reporting of Exploration Results.Rock chip spacing is applicable to the reconnaissance nature of the work. Soil sample spacing is appropriate for this type of early stage prospect assessment work.Data spacing and distributionWhether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Dre Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.No mineral resource or reserve calculation has been applied.Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.No compositing has been applied.No compositing has been applied to the exploration results.Orientation of data in relation to geological structureIf 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.Orientation of sampling is considered appropriate for the current geological is considered to have introduced a sampling bias, this should be assessed and reported if material.Orientation of sampling is considered appropriate for the current geological interpretation of the mineral style.If the relationship between the drilling orientation is considered to have introduced a sampling bias, this should be assessed and reported if material.Orientation of sampling is considered appropriate for the current geological interpretation of the mineral style.			Quality and adequacy of topographic control.	Using government data topography and 2017 DTM data. A topographic surface has been created using this elevation data.
Data spacing and distributionWhether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral securce and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.No mineral resource or reserve calculation has been applied.Whether sample compositing has been applied.No compositing has been applied.No compositing has been applied to the exploration results.Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.No compositing has been applied to the exploration in outcrop and float. Rock samples and rock chip samples was to establish the tenor of mineralisation indicated by alteration in outcrop and float. Rock samples are biased towards altered samples. This is appropriate for this type of work. Soil samples were done on a grid patterns and representative of the surface soil anomalism.Orientation of data in relation to geological structureIf the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, 			Data spacing for reporting of Exploration Results.	Rock chip spacing is applicable to the reconnaissance nature of the work. Soil sample spacing is appropriate for this type of early stage prospect assessment work.
Whether sample compositing has been applied.No compositing has been applied to the exploration results.Image: Note of the soil samples and rock chip samples was to establish the tenor of mineralisation indicated by alteration in outcrop and float. Rock samples are biased towards altered samples. This is appropriate for this type of work. Soil samples were done on a grid patterns and representative of the surface soil anomalism.Orientation of data in 		Data spacing and distribution	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. Whether sample compositing has been applied.	No mineral resource or reserve calculation has been applied.
Orientation of data in relation to geological structureWhether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.The purpose of the soil samples and rock chip samples was to establish the tenor of mineralisation indicated by alteration in outcrop and float. Rock samples are biased towards altered samples. This is appropriate for this type of work. Soil samples were done on a grid patterns and representative of the surface soil anomalism.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.Orientation of sampling is considered appropriate for the current geological interpretation of the mineral style.No sample bias due to drilling orientation isNo sample bias due to drilling orientation is			Whether sample compositing has been applied.	No compositing has been applied to the exploration results.
StructureIf 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.Orientation of the mineralisation and structural trends is constrained by previous drilling and outcrop.The orientation of sampling is considered appropriate for the current geological interpretation of the mineral style.The orientation of the mineral style.		Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The purpose of the soil samples and rock chip samples was to establish the tenor of mineralisation indicated by alteration in outcrop and float. Rock samples are biased towards altered samples. This is appropriate for this type of work. Soil samples were done on a grid patterns and representative of the surface soil anomalism. The orientation of key structures may be locally variable and any relationship to mineralisation has yet to be identified.
			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.	Orientation of the mineralisation and structural trends is constrained by previous drilling and outcrop. The orientation of sampling is considered appropriate for the current geological interpretation of the mineral style. No sample bias due to drilling orientation is





Sample security	The measures taken to ensure sample security.	All rock samples are bagged into tied calico bags, and soil samples into paper bags, before being grouped into polyweave bags or containers and transported to ALS Minerals Laboratory in Orange by Legacy Minerals personnel. All sample submissions are documented via ALS tracking system with results reported via email. The Company has in place protocols to ensure data security.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sampling techniques and procedures are regularly reviewed internally, as is data. To date, no external audits have been completed on the drilling programme.

#### Section 2 Reporting of Exploration Results

(Criteria in this section apply to all succeeding section)

Criteria	JORC Code Explanation	Commentary
Mineral Tenement and Land Status	Type, name/reference number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Black Range Project is comprised of EL9466 and EL9589. The licenses are owned 100% by Legacy Minerals Pty Ltd (a fully owned subsidiary of Legacy Minerals Holdings Limited). There are no royalties or encumbrances over the tenement areas.
	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.	The land is primarily freehold land. There are no native title interests in the license area.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	Duval Mining Australia – At the Mt Mylora prospect they conducted mapping, rock chip sampling, and RC drilling. Noranda Australia - At the Mt Mylora prospect conducted detailed mapping, soil sampling, EM and ground magnetic geophysical surveys followed by RC drilling. BHP - conducted mapping, IP geophysics, rock chip sampling, stream sediment sampling, soil sampling and RC drilling at Mt Mylora. Newcrest Mining – rock chip sampling, soil sampling, mapping and drilled RC holes and one diamond hole at Sugarbag Hill. Lachlan Metals – completed soil sampling, rock chip sampling, a regional magnetic and radiomentric survey, DD-IP geophysical survey and RC drilling. Aurum Metals – resampled drillcore from Mt Mylora.
Geology	Deposit type, geological setting and style of mineralisation	Known mineralisation at the Black Range project sits within the Devonian Mountain Creek Volcanics. The project is considered prospective for low- sulphidation epithermal style gold-silver and base- metal mineralisation.
Drill hole Information	A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes: • Easting and northing of the drill hole	Not Applicable. No drilling





	<ul> <li>Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>Dip and azimuth of the hole</li> <li>Down hole length and interception depth</li> <li>Hole length</li> </ul>	
	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.	Not Applicable. No drilling.
	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	Not applicable. No aggregation.
Data aggregation methods	Where aggregated 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. No aggregation.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable. No aggregation.
Relationship between mineralisation widths and intercept lengths	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. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.	Not applicable. No drilling.
Diagrams	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 plane view of drill hole collar locations and appropriate sectional views.	Refer to Figures in body of text. A prospect location map and plan view are shown in the report. Other relevant maps are shown in the Company's Prospectus dated 28 July 2021.
Balanced Reporting	Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	See body of the report.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; 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.	All material or meaningful data collected has been reported. The geological results are discussed in the body of the report.





Further Work

The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large – scale step – out drilling).Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.

See body of report.

See figures in body of report.

Further exploration will be planned based on ongoing drill results, geophysical surveys and geological assessment of prospectivity.



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